

WORK ORDER Summary**Evergreen Analytical, Inc.****09-9973****Rpt To:** Greg Knell**Email To:** gknell@krwconsulting.com

KRW Consulting, Inc.

8000 W 14th Ave Suite 200

Lakewood, CO 80214

(303) 239-9011

12/23/2009 12:38:06 PM

Client Project ID: 091106A**QC Level:** LEVEL I**Comments**

Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Test Code	Test Name	Hold	MS	Date Due	Hold Time
09-9973-01A	297-13A RT	Soil	12/22/09 1350	12/23/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	1/08/10	6/20/10
09-9973-01A	297-13A RT	Soil	12/22/09 1350	12/23/09	COND_S	Specific Conductance @ 25°C	<input type="checkbox"/>	<input type="checkbox"/>	1/08/10	1/19/10
09-9973-01A	297-13A RT	Soil	12/22/09 1350	12/23/09	PH_S	9045C: pH	<input type="checkbox"/>	<input type="checkbox"/>	1/08/10	12/23/09
09-9973-01A	297-13A RT	Soil	12/22/09 1350	12/23/09	SAR_S	Sodium Adsorption Ratio, Soil Leachate	<input type="checkbox"/>	<input type="checkbox"/>	1/08/10	6/20/10
09-9973-01B	297-13A RT	Soil	12/22/09 1350	12/23/09	8270_S *	8270C: PAH	<input type="checkbox"/>	<input type="checkbox"/>	1/08/10	1/05/10
09-9973-01C	297-13A RT	Soil	12/22/09 1350	12/23/09	8021_S *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	1/08/10	1/05/10
09-9973-01C	297-13A RT	Soil	12/22/09 1350	12/23/09	TVH_S *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	1/08/10	1/05/10
09-9973-01D	297-13A RT	Soil	12/22/09 1350	12/23/09	6010_CR6S	6010: Hexavalent Chromium, Soil	<input type="checkbox"/>	<input type="checkbox"/>	1/08/10	1/21/10
09-9973-01D	297-13A RT	Soil	12/22/09 1350	12/23/09	6010_S *	6010: Soil/Solids	<input type="checkbox"/>	<input type="checkbox"/>	1/08/10	6/20/10
09-9973-01D	297-13A RT	Soil	12/22/09 1350	12/23/09	6020_S *	6020 Metals, Soil/Solid	<input type="checkbox"/>	<input type="checkbox"/>	1/08/10	6/20/10
09-9973-01D	297-13A RT	Soil	12/22/09 1350	12/23/09	7471_S	7471: Mercury Solid	<input type="checkbox"/>	<input type="checkbox"/>	1/08/10	1/19/10
09-9973-01D	297-13A RT	Soil	12/22/09 1350	12/23/09	TRI_CRS	Trivalent Chromium Calculation, Soil Basis	<input type="checkbox"/>	<input type="checkbox"/>	1/08/10	6/20/10
09-9973-01E	297-13A RT	Soil	12/22/09 1350	12/23/09	TEH_S *	8015: TEH-Diesel	<input type="checkbox"/>	<input type="checkbox"/>	1/08/10	1/05/10

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES AGREEMENT **

Page__ of__

CLIENT INFORMATION

Mail **Original** Report to: ARL

Attn G. Knell
Address 8000 W. 14th Ave Unit 200
City Lakewood State CO Zip 80228

Tel # _____ Fax # _____ E-mail ku

REPORT ALSO BY ☐ FAX ☐ PDF ☐ EDDREPORT CHROMATOGRAMS ☐ NO

Mail Invoice to: _____

Attn _____

Address

City State Zip

Tel # _____ Fax # _____

Project ID# 001106A

P.O.	Quote
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Sampler

NOTE: *Identify Known Hazards Below*

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME
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Evergreen Analytical, An Accutest Company



4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(877) 737-4521
info@evergreenanalytical.com

Report Results by: _____ (Date)*

Standard 2 working weeks ☐UST Analyses per Fee Schedule ☐

* Rush: ☐ less than 24 hrs. 150% ☐ 1 - 2 work days. 100%

☐ 3 - 5 work days, 50% ☐ 6 - 9 work days, 25%

*Subject to surcharge & exceptions noted in fee schedule.



CONFIRMATION OF SAMPLE RECEIPT REQUIRED? ☐ YES

[illegible]

Instructions: 297-13ART - ~~297-13ART~~ Table 910.1 Parameters

**** Important Note:** See reverse side for Terms and Conditions.

Anions: Bromide, Chloride, Nitrate, Nitrite, O-Phosphate, Sulfate (Circle)

Relinquished by: (Signature) 	Date/Time 12/23/09 9:20	Received by: (Signature) 	Date/Time 12/23/09 9:20	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
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Evergreen Analytical, Inc.

Date: 11-Jan-10

Lab Order: 09-9973

Client Project ID 091106A

CASE NARRATIVE

SAMPLE RECEIVING

Sample(s) were hand delivered to the laboratory by the client.

Custody seals were not present.

The temperature of the sample(s) upon arrival was 4.0°C.

Sample(s) were received in good condition, in the proper container, and within holding times. JD

QUALITY ASSURANCE (QA)

Analyses performed on samples in this work order by EAL meet the requirements of the EAL Quality Assurance Program unless otherwise explained. Analyses of RCRA samples meet the requirements of NELAC and Utah Rule R444-14 unless otherwise explained. TP

CLIENT SERVICES

OK to run metals by 6010/6020 per COGCC updates per client. There are no other anomalies to report. PM

GENERAL CHEMISTRY

There are no anomalies to report. MM

METALS ANALYSIS

SW6010B: Copper was detected in the method blank (MB) for the 6010 metals at 0.715 mg/Kg. This amount was not subtracted from the sample result. The sample result for Copper was greater than the MB concentration, so no further action is required. The matrix spike, matrix spike duplicate, and post digestion spike (MS/MSD/PDS; on the client on a different work order samle) recoveries for Barium are above the QC limits. The laboratory control spike (LCS) recovery for Barium is within QC limits, proving the analysis is in control. There are no other anomalies to report. SS/TP

SW6010B Cr: The matrix spike and matrix spike duplicate (MS/MSD; on another client's sample) recoveries for the Hexavalant Chromium are above the QC limits. The laboratory control spike (LCS) recovery for Hexavalent Chromium is within QC limits, proving the analysis is in control. This is a common occurrence for this method since interferences in the sample can cause the Hexavalent Chromium to be reduced to other forms of Chromium. There are no other anomalies to report. SS/TP

Evergreen Analytical, Inc.

Date: 11-Jan-10

Lab Order: 09-9973

Client Project ID 091106A

CASE NARRATIVE

GAS CHROMATOGRAPHY

Method TEH_S: There are no anomalies to report. AS

Method 8021_S: The surrogate recovery for the sample (09-9973-01C), matrix spike and duplicate (MS/MSD; on another client's sample) are above the QC limit due to coeluting interference. This does not affect the analysis of the target analytes, which elute before the interference. The matrix spike and duplicate (MS/MSD; on another client's sample) recoveries for all analytes are outside the QC limit. The laboratory control spike (LCS) recoveries for all analytes are within the QC limits, proving the analysis is in control. There are no other anomalies to report. SD/TP

Method TVH_S: The surrogate recovery for the sample (09-9973-01C), matrix spike and duplicate (MS/MSD; on another client's sample) are above the QC limit due to coeluting interference. This does not affect the analysis of the target analytes, which elute before the interference. The matrix spike and duplicate (MS/MSD; on another client's sample) recoveries for TVH is below the QC limit. The laboratory control spike (LCS) recoveries for TVH is within the QC limits, proving the analysis is in control. There are no other anomalies to report. SD/TP

Method 8270_S: The sample was analyzed at a 2X dilution due to possible matrix interference. There are no other anomalies to report. TMB/JM

Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862

(303) 425-6021

Client Sample ID: 297-13A RT
 Client Project ID: 091106A
 Date Collected: 12/22/09
 Date Received: 12/23/09

Lab Work Order: 09-9973
 Lab Sample ID: 09-9973-01
 Sample Matrix: Soil

6010 HEXAVALENT CHROMIUM, SOIL (3060AMOD DIGEST)**Method: SW6010B Cr6****Prep Method: 3060A_MOD**

Date Prepared: 1/4/10	Lab File ID: 10610	Dilution Factor: 1
Date Analyzed: 1/6/10	Method Blank: MB-22071	Lab Fraction ID: 09-9973-01D

Analytes	CAS Number	Result	LQL	Units
Chromium, Hexavalent	18540-29-9	U	0.76	mg/Kg

DISSOLVED METALS**Method: SW6010B****Prep Method: E200.7/SW3010A**

Date Prepared: 1/6/10	Lab File ID: 10710	Dilution Factor: 1
Date Analyzed: 1/7/10	Method Blank: MB-22101	Lab Fraction ID: 09-9973-01A

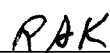
Analytes	CAS Number	Result	LQL	Units
Calcium	7440-70-2	39	1.9	mg/L
Magnesium	7439-95-4	28	0.75	mg/L
Sodium	7440-23-5	5500	2.0	mg/L

METALS**Method: SW6010B****Prep Method: SW3050B**

Date Prepared: 12/29/09	Lab File ID: 123109PM	Dilution Factor: 10
Date Analyzed: 12/31/09	Method Blank: MB-22035	Lab Fraction ID: 09-9973-01D

Analytes	CAS Number	Result	LQL	Units
Barium	7440-39-3	9200	4.1	mg/Kg


 Analyst


 Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
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 S - Spike Recovery outside accepted limits
 U - Compound analyzed for but not detected
 X - See case narrative
 * - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
 LQL - Lower Quantitation Limit
 Surr - Surrogate

Print Date: 1/11/2010

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Evergreen Analytical, Inc.
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Client Sample ID: 297-13A RT
Client Project ID: 091106A
Date Collected: 12/22/09
Date Received: 12/23/09

Lab Work Order: 09-9973
Lab Sample ID: 09-9973-01
Sample Matrix: Soil

METALS

Method: SW6010B

Prep Method: SW3050B

Date Prepared: 12/29/09
Date Analyzed: 12/31/09

Lab File ID: 123109PM
Method Blank: MB-22035

Dilution Factor: 1
Lab Fraction ID: 09-9973-01D

Analytes	CAS Number	Result	LQL	Units
Boron	7440-42-8	9.8	1.6	mg/Kg
Cadmium	7440-43-9	U	0.82	mg/Kg
Chromium	7440-47-3	3.3	0.82	mg/Kg
Copper	7440-50-8	10 B	0.41	mg/Kg
Lead	7439-92-1	U	5.7	mg/Kg
Nickel	7440-02-0	3.4	1.6	mg/Kg
Selenium	7782-49-2	U	1.6	mg/Kg
Silver	7440-22-4	U	0.41	mg/Kg
Zinc	7440-66-6	48	2.5	mg/Kg

TOTAL METALS

Method: SW6020

Prep Method: SW3050B

Date Prepared: 12/29/09
Date Analyzed: 12/30/09

Lab File ID: 123009S\09-9973-01D.043
Method Blank: MB-22036

Dilution Factor: 1
Lab Fraction ID: 09-9973-01D

Analytes	CAS Number	Result	LQL	Units
Arsenic	7440-38-2	1.3	0.16	mg/Kg

MERCURY

Method: SW7471A

Prep Method: SW7471A

Date Prepared: 12/31/09
Date Analyzed: 12/31/09


Method Blank: MB-22057

Dilution Factor: 1
Lab Fraction ID: 09-9973-01D

Analytes	CAS Number	Result	LQL	Units
Mercury	7439-97-6	0.013	0.0078	mg/Kg



Analyst



Approved

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S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 1/11/2010

Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862

(303) 425-6021

Client Sample ID: 297-13A RT

Client Project ID: 091106A

Date Collected: 12/22/09

Date Received: 12/23/09

Lab Work Order: 09-9973

Lab Sample ID: 09-9973-01

Sample Matrix: Soil

SODIUM ADSORPTION RATIO, SOIL**Method: USDA****Prep Method:**

Date Prepared: 1/6/10

Date Analyzed: 1/7/10

Dilution Factor: 1

Lab Fraction ID: 09-9973-01A

Analytes	CAS Number	Result	LQL	Units
Sodium-Adsorption-Ratio		160	0.10	ratio

TRIVALENT CHROMIUM, CALCULATED, SOIL BASIS**Method: CalcCr+3****Prep Method:**

Date Prepared: 12/29/10


Date Analyzed: 1/6/10

Dilution Factor: 1

Lab Fraction ID: 09-9973-01D

Analytes	CAS Number	Result	LQL	Units
Chromium+3 Calculated	16065-83-1	3.3	0.30	mg/Kg


 Analyst


 Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
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 S - Spike Recovery outside accepted limits
 U - Compound analyzed for but not detected
 X - See case narrative
 * - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
 LQL - Lower Quantitation Limit
 Surr - Surrogate

Print Date: 1/11/2010

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Evergreen Analytical, Inc.
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Client Sample ID: 297-13A RT
Client Project ID: 091106A
Date Collected: 12/22/09 1350
Date Received: 12/23/09

Lab Work Order 09-9973
Lab Sample ID: 09-9973-01
Sample Matrix: Soil

SPECIFIC CONDUCTANCE @ 25°C

Method: Dept of Ag.

Prep Method:

Comments: Method: US Dept. of Ag, Handbook #60, p89

Date Prepared: 1/4/10

Lab File ID: 54

Dilution Factor: 1

Date Analyzed: 1/5/10

Lab Fraction ID: 09-9973-01A

Analytes	CAS Number	Result	LQL	Units
Specific Conductance		23900	1.00	µmhos/cm

PH

Method: SW9045C

Prep Method:

Date Prepared: 12/23/09

Dilution Factor: 1


Date Analyzed: 12/23/09 1230

Lab Fraction ID: 09-9973-01A

Analytes	CAS Number	Result	LQL	Units
pH		9.58	1.00	pH Units



Analyst



Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
E - Extrapolated value. Value exceeds calibration range
H - Sample analysis exceeded analytical holding time
J - Indicates an estimated value when the compound is detected, but is below the LQL
S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 1/5/2010

Evergreen Analytical, Inc.
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

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Client Sample ID: 297-13A RT Client Project ID: 091106A Date Collected: 12/22/09 Date Received: 12/23/09 Date Prepared: 12/28/09 Date Analyzed: 1/6/10 Percent Moisture: 11.7	Lab Work Order: 09-9973 Lab Sample ID: 09-9973-01B Sample Matrix: Soil Lab File ID: 010510\1G05023.D Method Blank: MB-22021 Prep Factor: 33.201 Dilution Factor: 2.00
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Method: SW8270C


SEMIVOLATILE ORGANICS

Prep Method: SW3540C

				Units: µg/Kg-dry
Analytes	CAS Number	Result	MDL	LQL
Acenaphthene	83-32-9	U	65	74
Acenaphthylene	208-96-8	U	74	74
Anthracene	120-12-7	U	56	79
Benzo(a)anthracene	56-55-3	U	63	74
Benzo(b)fluoranthene	205-99-2	U	83	83
Benzo(k)fluoranthene	207-08-9	U	88	88
Benzo(g,h,i)perylene	191-24-2	U	54	74
Benzo(a)pyrene	50-32-8	U	56	74
Chrysene	218-01-9	U	88	88
Dibenz(a,h)anthracene	53-70-3	U	68	74
Fluoranthene	206-44-0	U	72	74
Fluorene	86-73-7	U	77	77
Indeno(1,2,3-cd)pyrene	193-39-5	U	61	74
1-Methylnaphthalene	90-12-0	U	83	83
2-Methylnaphthalene	91-57-6	U	63	74
Naphthalene	91-20-3	U	74	79
Phenanthrene	85-01-8	U	79	160
Pyrene	129-00-0	U	79	79
Surr: 2-Fluorobiphenyl	321-60-8	80	QC Limits:	37-130 %REC
Surr: Nitrobenzene-d5	4165-60-0	83	QC Limits:	33-130 %REC
Surr: Terphenyl-d14	1718-51-0	95	QC Limits:	48-130 %REC



Analyst



Approved

Qualifiers: See case narrative for a discussion

B - Analyte detected in the Method Blank, value not subtracted from result
 E - Extrapolated value. Value exceeds calibration range
 H - Prep or Analytical holding time exceeded
 S - Spike Recovery outside acceptance limits
 X - See case narrative
 * - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Qualifiers: U - Analyte not detected at or above the reporting limit

J - Estimated value below the LQL

Definitions: NA - Not Applicable

LQL - Lower Quantitation Limit

MDL - Method Detection Limit

Surr - Surrogate Standard

Print Date: 1/6/10

Data File : D:\MSDCHEM\1\DATA\010510\1G05023.D

Vial: 24

Acq On : 6 Jan 2010 12:12 am

Operator: TAMIB

Sample : 09-9973-01B

Inst : GCMS1

Misc : ,SAMP,8270_S,2,|OP1253,E1G151,30,,,1,2

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Jan 6 10:27 2010

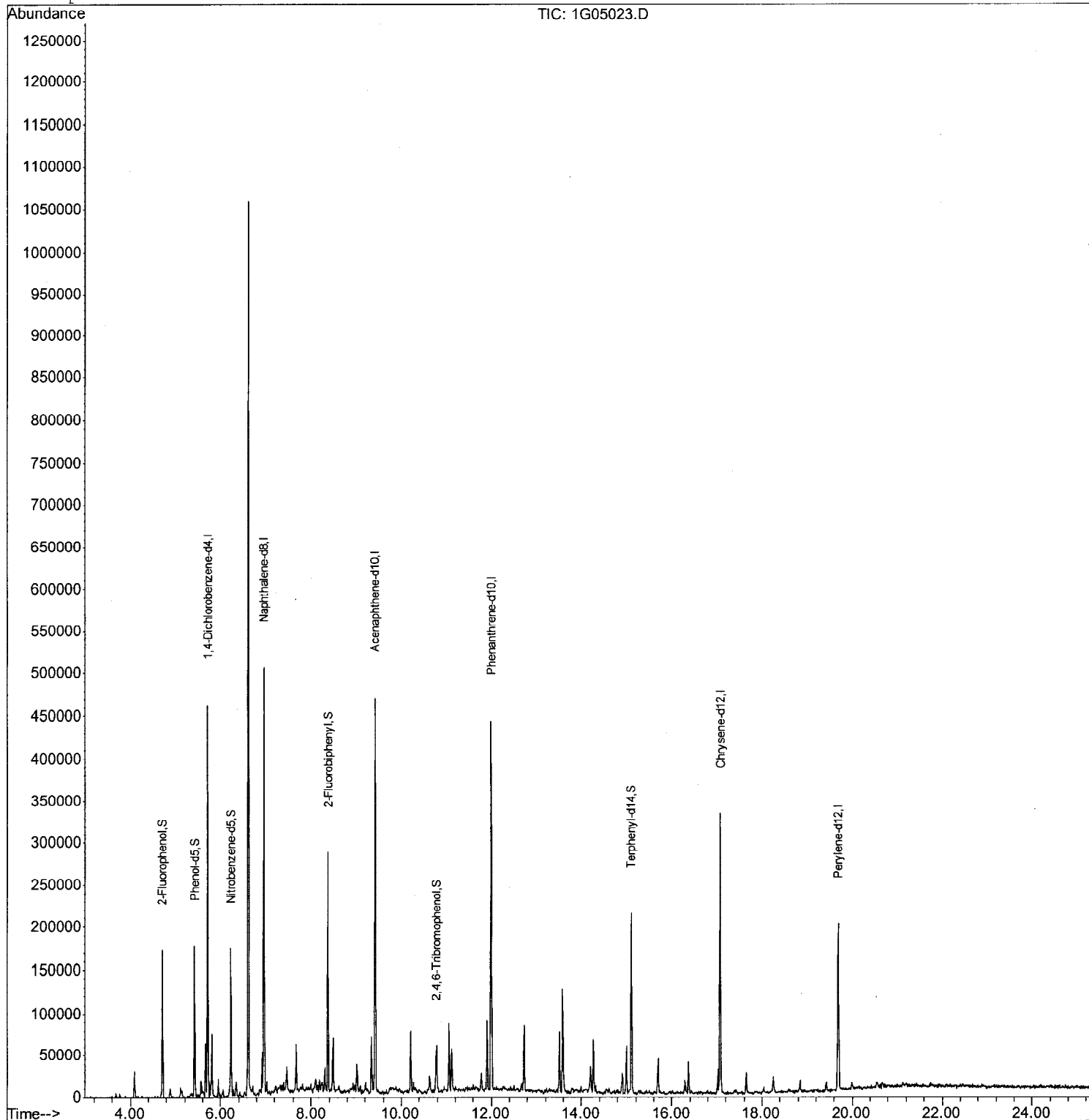
Quant Results File: BNAE1G150.RES

Method : D:\MSDCHEM\1\METHODS\BNAE1G150.M (RTE Integrator)

Title : 8270C Calibration

Last Update : Tue Jan 05 09:46:16 2010

Response via : Initial Calibration



Evergreen Analytical, Inc.

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(303) 425-6021

Client Sample ID: 297-13A RT
Client Project ID: 091106A
Date Collected: 12/22/2009
Date Received: 12/23/2009

Lab Work Order: 09-9973
Lab Sample ID: 09-9973-01C
Sample Matrix: Soil

AROMATIC VOLATILE ORGANICS

Method: SW8021B

Prep Method: SW5035

Date Prepared: 12/28/2009

Lab File ID: TA4140.D\FID1A.CH

Dilution Factor: 5

Date Analyzed: 12/28/2009

Method Blank: MB2122809

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	5.0	µg/Kg
Toluene	108-88-3	U	10	µg/Kg
Ethylbenzene	100-41-4	U	10	µg/Kg
m,p-Xylene	1330-20-7	12	10	µg/Kg
o-Xylene	95-47-6	U	10	µg/Kg
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	150 S	QC Limits: 60-140	%REC

TOTAL VOLATILE HYDROCARBONS

Method: SW8015B MOD

Prep Method: SW5035

Date Prepared: 12/28/2009

Lab File ID: TA4140.D\FID1A.CH

Dilution Factor: 5

Date Analyzed: 12/28/2009

Method Blank: MB2122809

Analytes	CAS Number	Result	LQL	Units
TVH-Gasoline	86290-81-5	1.1	1.0	mg/Kg
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	183 S	QC Limits: 60-140	%REC



Analyst



Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

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U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

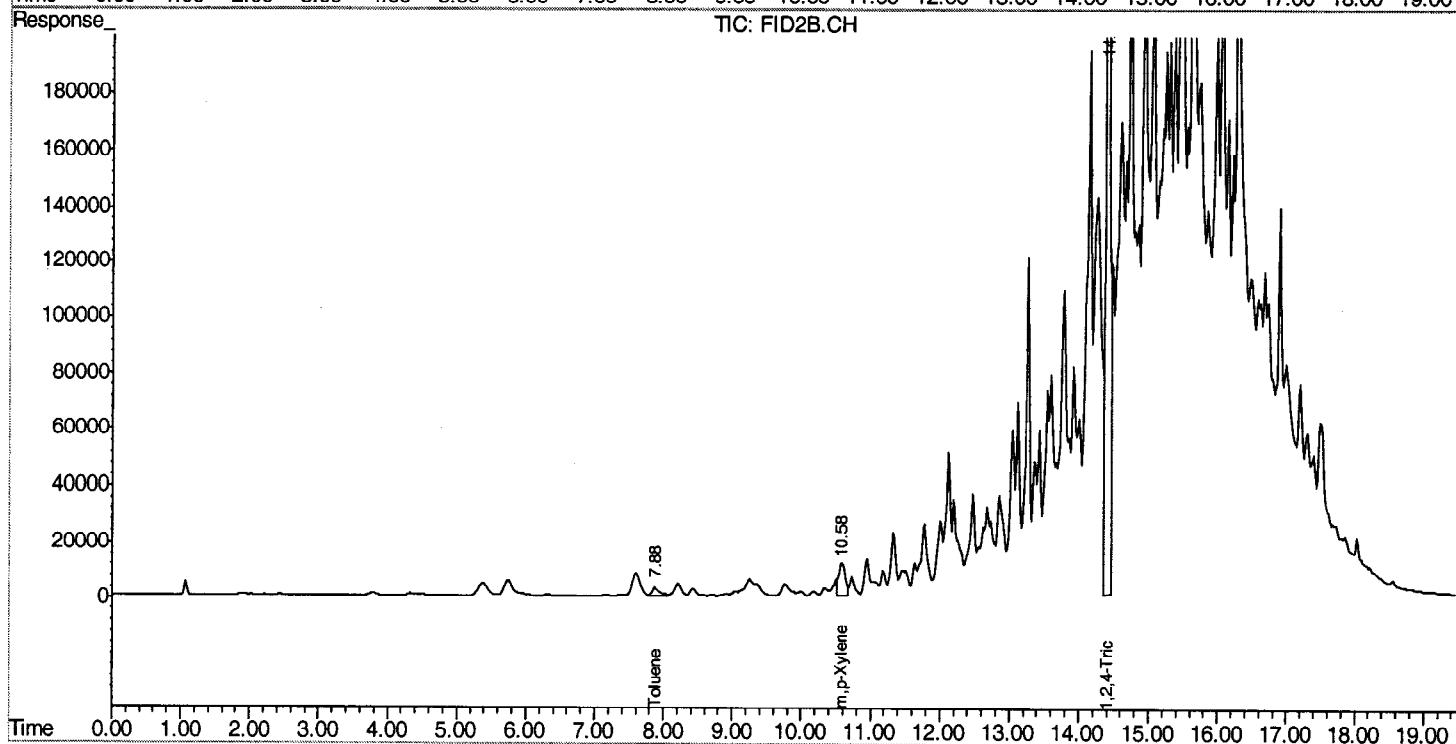
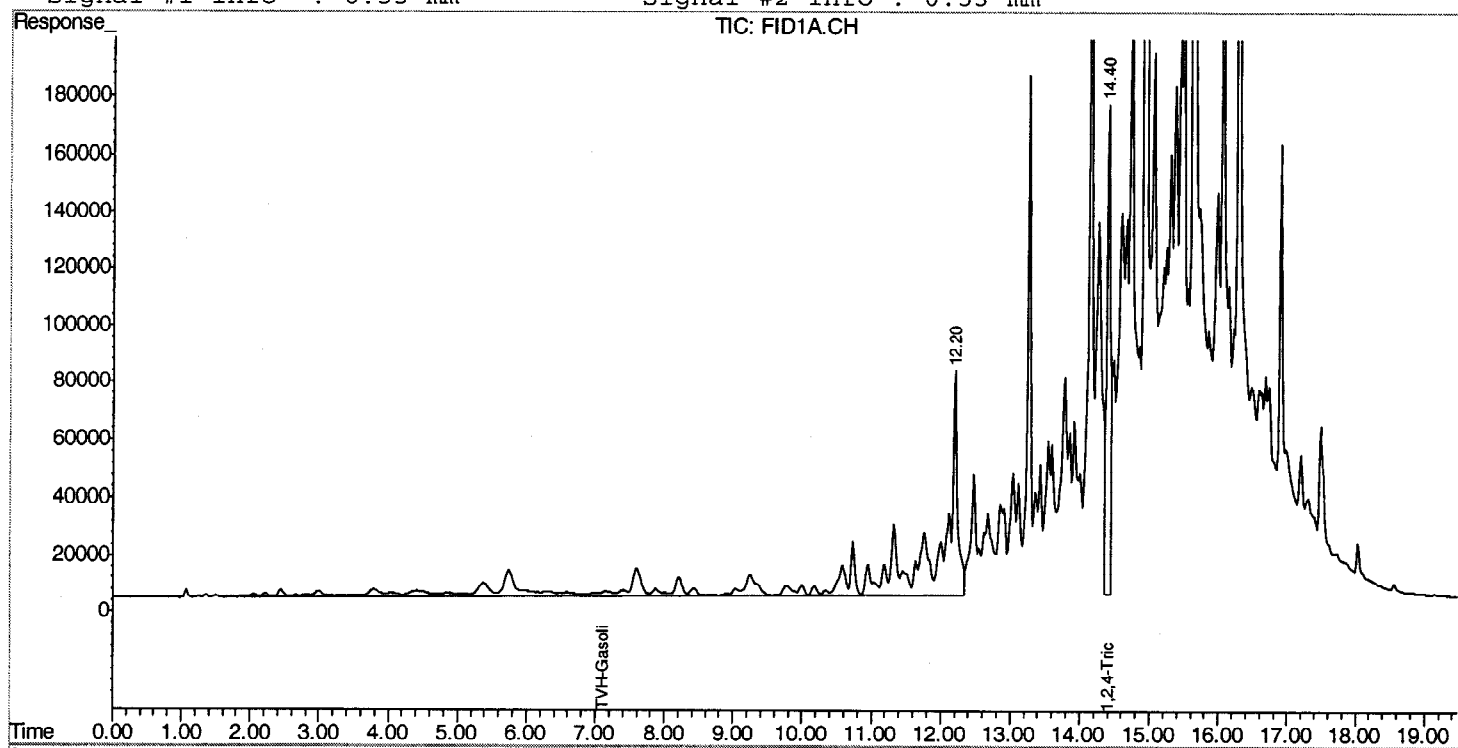
Definitions: LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 12/29/2009

Signal #1 : Z:\122809\TA4140.D\FID1A.CH Vial: 15
Signal #2 : Z:\122809\TA4140.D\FID2B.CH
Acq On : 28 Dec 2009 8:02 pm Operator: sarahd
Sample : 09-9973-01C Inst : TVHBTEX2
Misc : ,SAMP,8021_S,TVH_S,5,|GC456,GTA219,1,,,, Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Dec 29 10:59 2009 Quant Results File: TA146GA212.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA146GA212.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Sun Dec 20 15:47:02 2009
Response via : Multiple Level Calibration
DataAcq Meth : TVB2.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm



Evergreen Analytical, Inc.
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Lab Order: 09-9973
Client Project ID: 091106A
Matrix: Soil

Date Received: 12/23/09
Date Prepared: 12/23/09
Prep Batch ID: 21994
Units: mg/Kg

**Total Extractable Hydrocarbons
Diesel Fuel (No. 2)**

Method: SW8015B Mod

Prep Method: SW3550B

Lab ID	Client Sample ID	File ID	Date Collected	Date Analyzed	DF	Surr REC	Sample Results	LQL
09-9973-01E	297-13A RT	FE1180.	12/22/09	12/23/09	1	63%	270	14

Surrogate QC Limits: 39-130 %REC Surr: TBB



Analyst



Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
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J - Indicates an estimated value when the compound is detected, but is below the LQL
S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: DF - Dilution Factor
LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 12/28/09

Data File : E:\DATA\GFE95\FE1180.D

Vial: 14

Acq On : 23 Dec 2009 8:52 pm

Operator: adams1

Sample : 09-9973-01E

Inst : FID6

Misc : ,SAMP,TEH_S,1,21994|OP1240,GFE95,30.09,, Multiplr: 1.00

IntFile : DF-GFE82.E

Quant Time: Dec 28 7:37 2009 Quant Results File: DF-GFE82.RES

Quant Method : C:\MSDCHEM\1\METHODS\DF-GFE82.M (Chemstation Integrator)

Title : 8015B TEH

Last Update : Wed Dec 09 09:33:58 2009

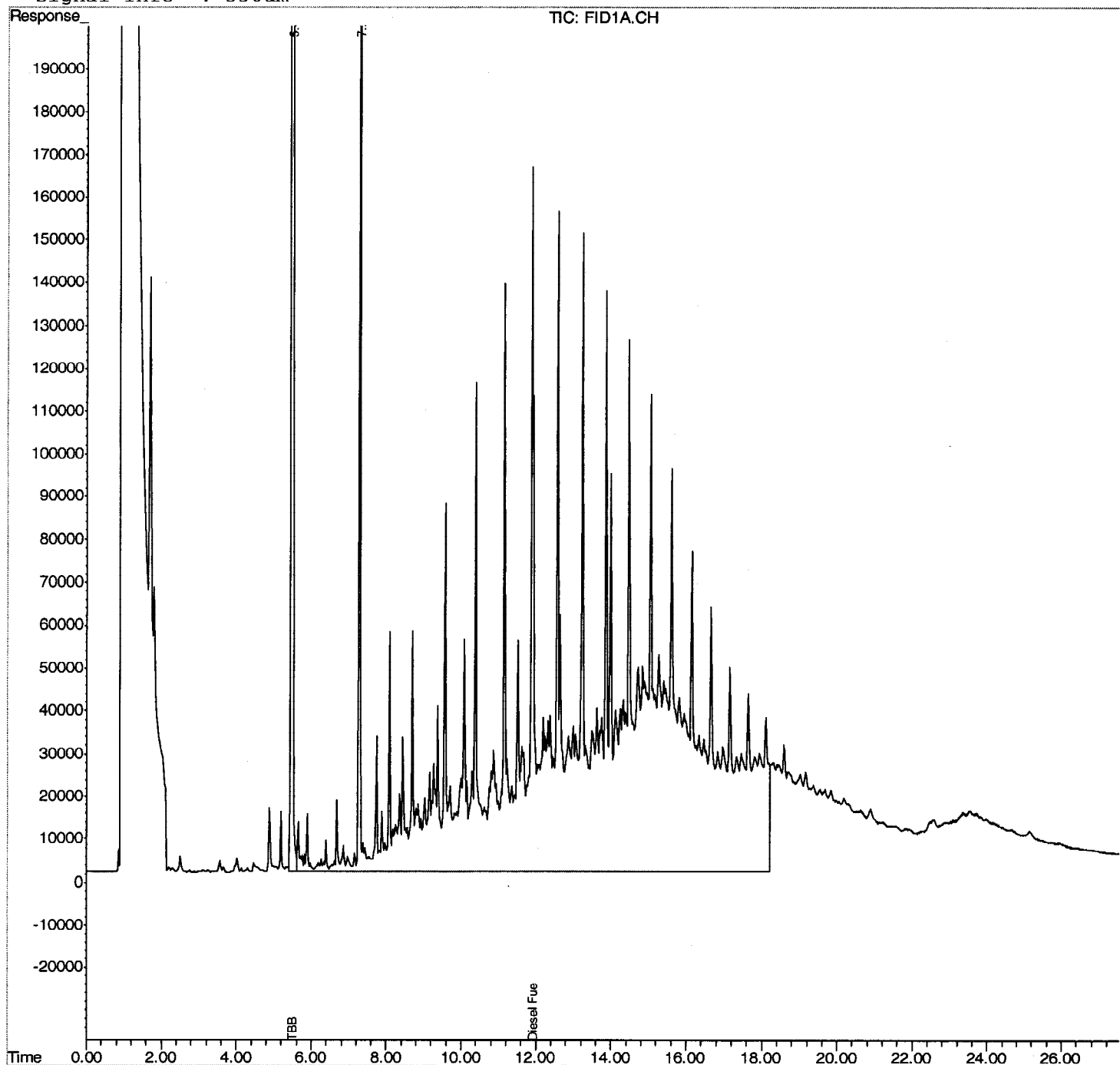
Response via : Multiple Level Calibration

DataAcq Meth : FR_BASE.M

Volume Inj. : 1ul

Signal Phase : RTX-5

Signal Info : 530um



QUALITY ASSURANCE REPORTS

METHOD BLANKS (MB)

LABORATORY CONTROL SPIKES (LCS)

MATRIX SPIKES (MS/MSD)*

DUPLICATES (DUP)*

* For Metals or Wet Chemistry analyses: only included if requested or if performed on this client's samples.

Work Order: 09-9973
Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

BatchID: 22071

Sample ID: MB-22071	SampType: MBLK	TestCode: 6010_CR6S	Run ID: ICP-OPTIMA 5300 DV_100106A	Prep Date: 1/4/2010	Units: mg/Kg							
	Batch ID: 22071	TestNo: SW6010B Cr	FileID: 10610	Analysis Date: 1/6/2010	SeqNo: 953319							
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Chromium, Hexavalent	U	1.8										

Sample ID: LCS-22071	SampType: LCS	TestCode: 6010_CR6S	Run ID: ICP-OPTIMA 5300 DV_100106A	Prep Date: 1/4/2010	Units: mg/Kg							
	Batch ID: 22071	TestNo: SW6010B Cr	FileID: 10610	Analysis Date: 1/6/2010	SeqNo: 953320							
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Chromium, Hexavalent	49.5	1.9	56.64	0	87.4	12	200	0	0			

Sample ID: 09-9979-01AMS	SampType: MS	TestCode: 6010_CR6S	Run ID: ICP-OPTIMA 5300 DV_100106A	Prep Date: 1/4/2010	Units: mg/Kg							
	Batch ID: 22071	TestNo: SW6010B Cr	FileID: 10610	Analysis Date: 1/6/2010	SeqNo: 953322							
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Chromium, Hexavalent	39.65	1.9	78.74	0	50.4	75	125	0	0		S	

Sample ID: 09-9979-01AMSD	SampType: MSD	TestCode: 6010_CR6S	Run ID: ICP-OPTIMA 5300 DV_100106A	Prep Date: 1/4/2010	Units: mg/Kg							
	Batch ID: 22071	TestNo: SW6010B Cr	FileID: 10610	Analysis Date: 1/6/2010	SeqNo: 953323							
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Chromium, Hexavalent	51.88	1.9	79.05	0	65.6	75	125	39.65	26.7	30	S	

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Work Order: 09-9973
Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

BatchID: 22101

Sample ID: MB-22101	SampType: MBLK	TestCode: 6010_D	Run ID: ICP-OPTIMA 5300 DV_100107A	Prep Date: 1/6/2010	Units: mg/L						
	Batch ID: 22101	TestNo: SW6010B	FileID: 10710	Analysis Date: 1/7/2010	SeqNo: 953687						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Calcium	U	1.9									
Magnesium	U	0.75									
Sodium	U	2.0									

Sample ID: LCS-22101	SampType: LCS	TestCode: 6010_D	Run ID: ICP-OPTIMA 5300 DV_100107A	Prep Date: 1/6/2010	Units: mg/L						
	Batch ID: 22101	TestNo: SW6010B	FileID: 10710	Analysis Date: 1/7/2010	SeqNo: 953688						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Calcium	52.07	1.9	50	0	104	74	113	0	0		
Magnesium	51.24	0.75	50	0	102	76.7	114	0	0		
Sodium	52.72	2.0	50	0	105	80	120	0	0		

Sample ID: LCS-22101-2	SampType: LCS	TestCode: 6010_D	Run ID: ICP-OPTIMA 5300 DV_100107A	Prep Date: 1/6/2010	Units: mg/L						
	Batch ID: 22101	TestNo: SW6010B	FileID: 10710	Analysis Date: 1/7/2010	SeqNo: 953689						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Calcium	52.16	1.9	50	0	104	74	113	0	0		
Magnesium	51.78	0.75	50	0	104	76.7	114	0	0		
Sodium	53.55	2.0	50	0	107	80	120	0	0		

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Evergreen Analytical, Inc.

Date: 11-Jan-10

Work Order: 09-9973

Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

BatchID: 22035

Sample ID: MB-22035	SampType: MBLK	TestCode: 6010_S	Run ID: ICP-OPTIMA 5300 DV_101231A	Prep Date: 12/29/2009	Units: mg/Kg						
	Batch ID: 22035	TestNo: SW6010B	FileID: 123109PM	Analysis Date: 12/31/2009	SeqNo: 952296						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Barium	U	0.50									
Boron	U	2.0									
Cadmium	U	1.0									
Chromium	U	1.0									
Copper	0.715	0.50									
Lead	U	7.0									
Nickel	U	2.0									
Selenium	U	2.0									
Silver	U	0.50									
Zinc	U	3.0									

Sample ID: LCS-22035	SampType: LCS	TestCode: 6010_S	Run ID: ICP-OPTIMA 5300 DV_101231A	Prep Date: 12/29/2009	Units: mg/Kg						
	Batch ID: 22035	TestNo: SW6010B	FileID: 123109PM	Analysis Date: 12/31/2009	SeqNo: 952297						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Barium	290.7	2.5	348	0.1855	83.5	74.1	126	0	0		
Boron	116.1	10	136	0	85.4	63.2	137	0	0		
Cadmium	156.5	5.0	187	0	83.7	73.3	127	0	0		
Chromium	75.51	5.0	89.5	0	84.4	69.2	131	0	0		
Copper	105.8	2.5	129	0.715	82	75.1	126	0	0		B
Lead	142.2	35	172	0	82.6	73.8	126	0	0		
Nickel	85.46	10	99	0	86.3	72.2	127	0	0		
Selenium	113.4	10	148	0	76.6	67.1	132	0	0		
Silver	58.97	2.5	66	0	89.4	67	133	0	0		
Zinc	323	15	394	0	82	72.6	127	0	0		

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Work Order: 09-9973
Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

BatchID: 22035

Sample ID: 09-9971-01DMS		SampType: MS		TestCode: 6010_S		Run ID: ICP-OPTIMA 5300 DV_101231A		Prep Date: 12/29/2009		Units: mg/Kg	
Batch ID: 22035		TestNo: SW6010B		FileID: 123109PM		Analysis Date: 12/31/2009		SeqNo: 952300			
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	8973	4.1	413.2	7034	469	75	125	0	0		S
Boron	178.8	17	165.3	18.81	96.8	75	125	0	0		
Cadmium	14.56	8.3	16.53	0	88.1	75	125	0	0		
Chromium	170	8.3	165.3	16.51	92.8	75	125	0	0		
Copper	165.9	4.1	165.3	16.28	90.5	75	125	0	0		B
Lead	186.5	58	165.3	15.71	113	75	125	0	0		
Nickel	163.3	17	165.3	9.547	98.8	75	125	0	0		
Selenium	176.6	17	165.3	0	107	75	125	0	0		
Silver	14.42	4.1	16.53	0	87.2	75	125	0	0		
Zinc	224.3	25	165.3	68.09	94.5	75	125	0	0		

Sample ID: 09-9971-01DMSD		SampType: MSD		TestCode: 6010_S		Run ID: ICP-OPTIMA 5300 DV_101231A		Prep Date: 12/29/2009		Units: mg/Kg	
Batch ID: 22035		TestNo: SW6010B		FileID: 123109PM		Analysis Date: 12/31/2009		SeqNo: 952301			
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	8410	3.9	393.7	7034	350	75	125	8973	6.47	20	S
Boron	169	16	157.5	18.81	95.4	75	125	178.8	5.67	20	
Cadmium	13.49	7.9	15.75	0	85.6	75	125	14.56	7.67	20	
Chromium	160.5	7.9	157.5	16.51	91.4	75	125	170	5.73	20	
Copper	156.7	3.9	157.5	16.28	89.2	75	125	165.9	5.70	20	B
Lead	161.6	55	157.5	15.71	103	75	125	186.5	14.3	20	
Nickel	152.7	16	157.5	9.547	97	75	125	163.3	6.70	20	
Selenium	164.9	16	157.5	0	105	75	125	176.6	6.85	20	
Silver	13.16	3.9	15.75	0	83.5	75	125	14.42	9.14	20	
Zinc	225.6	24	157.5	68.09	100	75	125	224.3	0.561	20	

Sample ID: 09-9971-01DPDS		SampType: PDS		TestCode: 6010_S		Run ID: ICP-OPTIMA 5300 DV_101231A		Prep Date: 12/29/2009		Units: mg/Kg	
Batch ID: 22035		TestNo: SW6010B		FileID: 123109PM		Analysis Date: 12/31/2009		SeqNo: 952302			
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

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Work Order: 09-9973
Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

BatchID: 22035

Sample ID: 09-9971-01DPDS		SampType: PDS		TestCode: 6010_S		Run ID: ICP-OPTIMA 5300 DV_101231A		Prep Date: 12/29/2009		Units: mg/Kg	
Batch ID: 22035		TestNo: SW6010B		FileID: 123109PM		Analysis Date: 12/31/2009		SeqNo: 952302			
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	7763	4.8	476.2	7034	153	75	125	0	0		S
Boron	199.3	19	190.5	18.81	105	75	125	0	0		
Cadmium	15.81	9.5	19.05	0	83	75	125	0	0		
Chromium	181.6	9.5	190.5	16.51	86.7	75	125	0	0		
Copper	177.3	4.8	190.5	16.28	84.5	75	125	0	0		B
Lead	182.5	67	190.5	15.71	95.8	75	125	0	0		
Nickel	176.8	19	190.5	9.547	92.8	75	125	0	0		
Selenium	201.2	19	190.5	0	106	75	125	0	0		
Silver	81.63	4.8	95.24	0	85.7	75	125	0	0		
Zinc	239.8	29	190.5	68.09	90.2	75	125	0	0		

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Work Order: 09-9973
Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

BatchID: 22036

Sample ID: MB-22036	SampType: MBLK	TestCode: 6020_S	Run ID: ICPMS-ELAN_091230B	Prep Date: 12/29/2009	Units: mg/Kg						
	Batch ID: 22036	TestNo: SW6020	FileID: 123009S\MB-22036.031	Analysis Date: 12/30/2009	SeqNo: 952082						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	U	0.20									

Sample ID: LCS-22036	SampType: LCS	TestCode: 6020_S	Run ID: ICPMS-ELAN_091230B	Prep Date: 12/29/2009	Units: mg/Kg						
	Batch ID: 22036	TestNo: SW6020	FileID: 123009S\LCS-22036.032	Analysis Date: 12/30/2009	SeqNo: 952083						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	161	0.20	158	0	102	70.3	129	0	0		

Sample ID: 09-9971-01DMS	SampType: MS	TestCode: 6020_S	Run ID: ICPMS-ELAN_091230B	Prep Date: 12/29/2009	Units: mg/Kg						
	Batch ID: 22036	TestNo: SW6020	FileID: 123009S\09-9971-01DMS.03	Analysis Date: 12/30/2009	SeqNo: 952087						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	157.7	0.17	165.3	3.134	93.5	75	125	0	0		

Sample ID: 09-9971-01DMSD	SampType: MSD	TestCode: 6020_S	Run ID: ICPMS-ELAN_091230B	Prep Date: 12/29/2009	Units: mg/Kg						
	Batch ID: 22036	TestNo: SW6020	FileID: 123009S\09-9971-01DMSD.0	Analysis Date: 12/30/2009	SeqNo: 952088						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	151.5	0.16	157.5	3.134	94.2	75	125	157.7	4.02	20	

Sample ID: 09-9971-01DPDS	SampType: PDS	TestCode: 6020_S	Run ID: ICPMS-ELAN_091230B	Prep Date: 12/29/2009	Units: mg/Kg						
	Batch ID: 22036	TestNo: SW6020	FileID: 123009S\09-9971-01DPDS.0	Analysis Date: 12/30/2009	SeqNo: 952089						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	172.1	0.16	158.7	3.134	106	75	125	0	0		

Sample ID: 09-9971-01DDUP	SampType: DUP	TestCode: 6020_S	Run ID: ICPMS-ELAN_091230B	Prep Date: 12/29/2009	Units: mg/Kg						
	Batch ID: 22036	TestNo: SW6020	FileID: 123009S\09-9971-01DDUP.0	Analysis Date: 12/30/2009	SeqNo: 952086						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

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Work Order: 09-9973
Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT**BatchID: 22036**

Sample ID: 09-9971-01DDUP		SampType: DUP		TestCode: 6020_S		Run ID: ICPMS-ELAN_091230B		Prep Date: 12/29/2009		Units: mg/Kg	
		Batch ID: 22036		TestNo: SW6020		FileID: 123009S\09-9971-01DDUP.0		Analysis Date: 12/30/2009		SeqNo: 952086	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	2.956	0.16	0	0	0	0	0	3.134	5.86	20	

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Work Order: 09-9973
Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

BatchID: 22057

Sample ID: MB-22057	SampType: MBLK	TestCode: 7471_S	Run ID: HG-LEEMAN_091231A	Prep Date: 12/31/2009	Units: mg/Kg						
	Batch ID: 22057	TestNo: SW7471A	FileID:	Analysis Date: 12/31/2009	SeqNo: 952236						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury U 0.019

Sample ID: LCS-22057	SampType: LCS	TestCode: 7471_S	Run ID: HG-LEEMAN_091231A	Prep Date: 12/31/2009	Units: mg/Kg						
	Batch ID: 22057	TestNo: SW7471A	FileID:	Analysis Date: 12/31/2009	SeqNo: 952237						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 7.997 0.20 8.353 0 95.7 37.6 109 0 0

Sample ID: 09-9979-01AMS	SampType: MS	TestCode: 7471_S	Run ID: HG-LEEMAN_091231A	Prep Date: 12/31/2009	Units: mg/Kg						
	Batch ID: 22057	TestNo: SW7471A	FileID:	Analysis Date: 12/31/2009	SeqNo: 952244						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.3722 0.019 0.3774 0 98.6 70 130 0 0

Sample ID: 09-9979-01AMSD	SampType: MSD	TestCode: 7471_S	Run ID: HG-LEEMAN_091231A	Prep Date: 12/31/2009	Units: mg/Kg						
	Batch ID: 22057	TestNo: SW7471A	FileID:	Analysis Date: 12/31/2009	SeqNo: 952245						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.3263 0.017 0.339 0 96.3 70 130 0.3722 13.1 20

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Evergreen Analytical, Inc.

Date: 05-Jan-10

Work Order: 09-9973

Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

TestCode: COND_S

Sample ID	LCS	SampType: LCS	TestCode: COND_S	Run ID: COND_100105A	Prep Date: 1/5/2010	Units: µmhos/cm					
		Batch ID: R52203	TestNo: Dept of Ag.	FileID: 48	Analysis Date: 1/5/2010	SeqNo: 952895					
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Conductance	10180	1.00	10000	0	102	90	110	0	0		

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X - See case narrative

Work Order: 09-9973
Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT**TestCode: PH_S**

Sample ID	LCS-R52045	SampType:	LCS	TestCode:	PH_S	Run ID:	PH_091223C	Prep Date:	12/23/2009	Units:	pH Units		
		Batch ID:	R52045	TestNo:	SW9045C	FileID:		Analysis Date:	12/23/2009	SeqNo:	949872		
Analyte		Result		LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		7.97		1.00	8	0	99.6	99.3	100.7	0	0		

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Evergreen Analytical, Inc.

Date: 06-Jan-10

Work Order: 09-9973

Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S

Sample ID: MB-22021		SampType: MBLK		TestCode: 8270_S		Run ID: GCMS1_100105A		Prep Date: 12/28/09		Units: µg/Kg	
		Batch ID: 22021		TestNo: SW8270C		FileID: 010510\1G05014.D		Analysis Date: 1/5/10		SeqNo: 953199	
Analyte	Result	LQL	SPK value	SPK Ref Val	% REC	LowLimit	HighLimit	RPD Ref Val	% RPD	RPDLimit	Qual
Acenaphthene	U	33									
Acenaphthylene	U	33									
Anthracene	U	35									
Benzo(a)anthracene	U	33									
Benzo(b)fluoranthene	U	37									
Benzo(k)fluoranthene	U	39									
Benzo(g,h,i)perylene	U	33									
Benzo(a)pyrene	U	33									
Chrysene	U	39									
Dibenz(a,h)anthracene	U	33									
Fluoranthene	U	33									
Fluorene	U	34									
Indeno(1,2,3-cd)pyrene	U	33									
1-Methylnaphthalene	U	37									
2-Methylnaphthalene	U	33									
Naphthalene	U	35									
Phenanthrene	U	70									
Pyrene	U	35									
Surr: 2-Fluorobiphenyl	1367	0	1667	0	82	37	130	0	0		
Surr: Nitrobenzene-d5	1439	0	1667	0	86.3	33	130	0	0		
Surr: Terphenyl-d14	1460	0	1667	0	87.6	48	130	0	0		

Sample ID: LCS-22021		SampType: LCS		TestCode: 8270_S		Run ID: GCMS1_100105A		Prep Date: 12/28/09		Units: µg/Kg	
		Batch ID: 22021		TestNo: SW8270C		FileID: 010510\1G05015.D		Analysis Date: 1/5/10		SeqNo: 953196	
Analyte	Result	LQL	SPK value	SPK Ref Val	% REC	LowLimit	HighLimit	RPD Ref Val	% RPD	RPDLimit	Qual
Acenaphthene	3425	33	3333	0	103	54	130	0	0		
Acenaphthylene	3551	33	3333	0	107	53	130	0	0		
Anthracene	3518	35	3333	0	106	54	130	0	0		

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Work Order: 09-9973
Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S

Sample ID: LCS-22021	SampType: LCS	TestCode: 8270_S		Run ID: GCMS1_100105A		Prep Date: 12/28/09			Units: µg/Kg		
	Batch ID: 22021	TestNo: SW8270C		FileID: 010510\1G05015.D		Analysis Date: 1/5/10			SeqNo: 953196		
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(a)anthracene	3612	33	3333	0	108	52	130	0	0		
Benzo(b)fluoranthene	3634	37	3333	0	109	58	130	0	0		
Benzo(k)fluoranthene	3674	39	3333	0	110	53	130	0	0		
Benzo(g,h,i)perylene	3614	33	3333	0	108	46	130	0	0		
Benzo(a)pyrene	3614	33	3333	0	108	56	130	0	0		
Chrysene	3346	39	3333	0	100	51	130	0	0		
Dibenz(a,h)anthracene	3606	33	3333	0	108	48	130	0	0		
Fluoranthene	3495	33	3333	0	105	50	130	0	0		
Fluorene	3499	34	3333	0	105	59	130	0	0		
Indeno(1,2,3-cd)pyrene	3663	33	3333	0	110	48	134	0	0		
1-Methylnaphthalene	2820	37	3333	0	84.6	43	130	0	0		
2-Methylnaphthalene	3121	33	3333	0	93.6	40	130	0	0		
Naphthalene	3009	35	3333	0	90.3	37	130	0	0		
Phenanthrene	3369	70	3333	0	101	57	130	0	0		
Pyrene	3933	35	3333	0	118	54	130	0	0		
Surr: 2-Fluorobiphenyl	1421	0	1667	0	85.2	37	130	0	0		
Surr: Nitrobenzene-d5	1395	0	1667	0	83.7	33	130	0	0		
Surr: Terphenyl-d14	1720	0	1667	0	103	48	130	0	0		

Sample ID: 09-9979-01AMS	SampType: MS	TestCode: 8270_S	Run ID: GCMS1_100105A	Prep Date: 12/28/09	Units: µg/Kg-dry						
Batch ID: 22021	TestNo: SW8270C	FileID: 010510\1G05025.D	Analysis Date: 1/6/10	SeqNo: 953191							
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	3499	72	3660	0	95.6	54	130	0	0		
Acenaphthylene	3661	72	3660	0	100	53	130	0	0		
Anthracene	3527	77	3660	0	96.4	54	130	0	0		
Benzo(a)anthracene	3815	72	3660	0	104	52	130	0	0		
Benzo(b)fluoranthene	3658	81	3660	0	99.9	58	130	0	0		
Benzo(k)fluoranthene	3610	86	3660	0	98.6	53	130	0	0		
Benzo(g,h,i)perylene	3830	72	3660	0	105	46	130	0	0		
Benzo(a)pyrene	3601	72	3660	0	98.4	56	130	0	0		

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S - Spike Recovery outside acceptance limits
E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits
B - Analyte detected in the associated Method Blank
H - Prep or analytical holding time exceeded
X - See case narrative

Work Order: 09-9973
Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S

Sample ID: 09-9979-01AMS	SampType: MS	TestCode: 8270_S	Run ID: GCMS1_100105A	Prep Date: 12/28/09	Units: µg/Kg-dry						
Batch ID: 22021	TestNo: SW8270C	FileID: 010510\1G05025.D	Analysis Date: 1/6/10	SeqNo: 953191							
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chrysene	3593	86	3660	0	98.2	51	130	0	0		
Dibenz(a,h)anthracene	3841	72	3660	0	105	48	130	0	0		
Fluoranthene	3376	72	3660	0	92.2	50	130	0	0		
Fluorene	3593	75	3660	93.04	95.6	59	130	0	0		
Indeno(1,2,3-cd)pyrene	3987	72	3660	0	109	48	134	0	0		
1-Methylnaphthalene	3033	81	3660	120.9	79.6	43	140	0	0		
2-Methylnaphthalene	3554	72	3660	271.8	89.7	40	140	0	0		
Naphthalene	3168	77	3660	0	86.5	37	140	0	0		
Phenanthrene	3535	150	3660	88.64	96.6	57	130	0	0		
Pyrene	4606	77	3660	0	126	54	130	0	0		
Surr: 2-Fluorobiphenyl	1476	0	1831	0	80.6	37	130	0	0		
Surr: Nitrobenzene-d5	1449	0	1831	0	79.1	33	130	0	0		
Surr: Terphenyl-d14	1942	0	1831	0	106	48	130	0	0		

Sample ID: 09-9979-01AMSD	SampType: MSD	TestCode: 8270_S	Run ID: GCMS1_100105A	Prep Date: 12/28/09	Units: µg/Kg-dry						
Batch ID: 22021	TestNo: SW8270C	FileID: 010510\1G05026.D	Analysis Date: 1/6/10	SeqNo: 953192							
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	3571	73	3663	0	97.5	54	130	3499	2.01	30	
Acenaphthylene	3807	73	3663	0	104	53	130	3661	3.91	30	
Anthracene	3626	77	3663	0	99	54	130	3527	2.77	30	
Benzo(a)anthracene	3827	73	3663	0	104	52	130	3815	0.316	30	
Benzo(b)fluoranthene	3754	81	3663	0	102	58	130	3658	2.60	30	
Benzo(k)fluoranthene	3622	86	3663	0	98.9	53	130	3610	0.330	30	
Benzo(g,h,i)perylene	3831	73	3663	0	105	46	130	3830	0.00929	30	
Benzo(a)pyrene	3652	73	3663	0	99.7	56	130	3601	1.40	30	
Chrysene	3587	86	3663	0	97.9	51	130	3593	0.178	30	
Dibenz(a,h)anthracene	3884	73	3663	0	106	48	130	3841	1.13	30	
Fluoranthene	3442	73	3663	0	94	50	130	3376	1.94	30	
Fluorene	3719	75	3663	93.04	99	59	130	3593	3.43	30	
Indeno(1,2,3-cd)pyrene	3846	73	3663	0	105	48	134	3987	3.60	30	

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X - See case narrative

Work Order: 09-9973
 Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S

Sample ID: 09-9979-01AMSD		SampType: MSD		TestCode: 8270_S		Run ID: GCMS1_100105A		Prep Date: 12/28/09		Units: µg/Kg-dry	
		Batch ID: 22021		TestNo: SW8270C		FileID: 010510\1G05026.D		Analysis Date: 1/6/10		SeqNo: 953192	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3351	81	3663	120.9	88.2	43	140	3033	9.96	30	
2-Methylnaphthalene	3985	73	3663	271.8	101	40	140	3554	11.4	30	
Naphthalene	3469	77	3663	0	94.7	37	140	3168	9.07	30	
Phenanthrene	3572	150	3663	88.64	97.5	57	130	3535	1.06	30	
Pyrene	4623	77	3663	0	126	54	130	4606	0.352	30	
Surr: 2-Fluorobiphenyl	1539	0	1832	0	84	37	130	0	0	0	
Surr: Nitrobenzene-d5	1574	0	1832	0	85.9	33	130	0	0	0	
Surr: Terphenyl-d14	1937	0	1832	0	106	48	130	0	0	0	

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Evergreen Analytical, Inc.

Date: 29-Dec-09

Work Order: 09-9973

Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021_S

Sample ID: MB2122809	SampType: MBLK	TestCode: 8021_S	Run ID: TVHBTEX2_091228B	Prep Date: 12/28/2009	Units: µg/Kg						
	Batch ID: R52096	TestNo: SW8021B	FileID: GGA\GA4129.D\FID1A.CH	Analysis Date: 12/28/2009	SeqNo: 950729						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	U	5.0									
Toluene	U	10									
Ethylbenzene	U	10									
m,p-Xylene	U	10									
o-Xylene	U	10									
Surr: 1,2,4-Trichlorobenzene (S)	552.4	0	500	0	110	60	140	0	0		

Sample ID: LCS2122809	SampType: LCS	TestCode: 8021_S	Run ID: TVHBTEX2_091228B	Prep Date: 12/28/2009	Units: µg/Kg						
	Batch ID: R52096	TestNo: SW8021B	FileID: GGA\GA4130.D\FID1A.CH	Analysis Date: 12/28/2009	SeqNo: 950730						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	137.2	5.0	136	0	101	70	130	0	0		
Toluene	980.3	10	1058	0	92.7	70	130	0	0		
Ethylbenzene	231	10	228	0	101	70	130	0	0		
m,p-Xylene	760	10	750	0	101	70	130	0	0		
o-Xylene	341.9	10	329.5	0	104	70	130	0	0		
Surr: 1,2,4-Trichlorobenzene (S)	639.1	0	500	0	128	60	140	0	0		

Sample ID: 09-9977-01AMS	SampType: MS	TestCode: 8021_S	Run ID: TVHBTEX2_091228B	Prep Date: 12/28/2009	Units: µg/Kg						
	Batch ID: R52096	TestNo: SW8021B	FileID: GGA\GA4132.D\FID1A.CH	Analysis Date: 12/28/2009	SeqNo: 950804						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	67.02	5.0	136	0	49.3	70	130	0	0		S
Toluene	489.3	10	1058	0	46.2	70	130	0	0		S
Ethylbenzene	112.2	10	228	0	49.2	60	130	0	0		S
m,p-Xylene	378.8	10	750	11.34	49	60	140	0	0		S
o-Xylene	164.4	10	329.5	0	49.9	65	135	0	0		S
Surr: 1,2,4-Trichlorobenzene (S)	977.7	0	500	0	196	60	140	0	0		S

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 B - Analyte detected in the associated Method Blank
 H - Prep or analytical holding time exceeded
 X - See case narrative

Work Order: 09-9973
 Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021_S

Sample ID: 09-9977-01AMSD	SampType: MSD	TestCode: 8021_S	Run ID: TVHBTEX2_091228B					Prep Date: 12/28/2009	Units: µg/Kg		
	Batch ID: R52096	TestNo: SW8021B	FileID: GGA\GA4133.D\FID1A.CH					Analysis Date: 12/28/2009	SeqNo: 950805		
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	61.5	5.0	136	0	45.2	70	130	61.5	0	30	S
Toluene	462.8	10	1058	0	43.7	70	130	462.8	0	30	S
Ethylbenzene	104.2	10	228	0	45.7	60	130	104.2	0	30	S
m,p-Xylene	353.6	10	750	11.34	45.6	60	140	353.6	0	30	S
o-Xylene	154.8	10	329.5	0	47	65	135	154.8	0	30	S
Surr: 1,2,4-Trichlorobenzene (S)	856.2	0	500	0	171	60	140	0	0	30	S

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 H - Prep or analytical holding time exceeded
 X - See case narrative

Work Order: 09-9973
Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

TestCode: TVH_S

Sample ID: MB2122809		SampType: MBLK	TestCode: TVH_S		Run ID: TVHBTEX2_091228A		Prep Date: 12/28/2009		Units: mg/Kg		
		Batch ID: R52093	TestNo: SW8015B Mo		FileID: GGA\GA4129.D\FID1A.CH		Analysis Date: 12/28/2009		SeqNo: 950794		
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TVH-Gasoline	U	1.0									
Surr: 1,2,4-Trichlorobenzene (S)	542.8	0	500	0	109	60	140	0	0		

Sample ID: LCS2122809		SampType: LCS	TestCode: TVH_S		Run ID: TVHBTEX2_091228A		Prep Date: 12/28/2009		Units: mg/Kg		
		Batch ID: R52093	TestNo: SW8015B Mo		FileID: GGA\GA4130.D\FID1A.CH		Analysis Date: 12/28/2009		SeqNo: 950795		
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TVH-Gasoline	9.105	1.0	11	0	82.8	70	130	0	0		
Surr: 1,2,4-Trichlorobenzene (S)	614.1	0	500	0	123	60	140	0	0		

Sample ID: 09-9977-01AMS		SampType: MS	TestCode: TVH_S		Run ID: TVHBTEX2_091228A		Prep Date: 12/28/2009		Units: mg/Kg		
		Batch ID: R52093	TestNo: SW8015B Mo		FileID: GGA\GA4132.D\FID1A.CH		Analysis Date: 12/28/2009		SeqNo: 950797		
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TVH-Gasoline	4.395	1.0	11	0	40	62	130	0	0		S
Surr: 1,2,4-Trichlorobenzene (S)	1222	0	500	0	244	60	140	0	0		S

Sample ID: 09-9977-01AMSD		SampType: MSD	TestCode: TVH_S		Run ID: TVHBTEX2_091228A		Prep Date: 12/28/2009		Units: mg/Kg		
		Batch ID: R52093	TestNo: SW8015B Mo		FileID: GGA\GA4133.D\FID1A.CH		Analysis Date: 12/28/2009		SeqNo: 950798		
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TVH-Gasoline	4.32	1.0	11	0	39.3	62	130	4.395	1.72	30	S
Surr: 1,2,4-Trichlorobenzene (S)	1052	0	500	0	210	60	140	0	0	0	S

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Evergreen Analytical, Inc.

Date: 28-Dec-09

Work Order: 09-9973

Client Project ID: 091106A

ANALYTICAL QC SUMMARY REPORT

TestCode: TEH_S

Sample ID: MB-21994		SampType: MBLK	TestCode: TEH_S		Run ID: FID6_091223A		Prep Date: 12/23/09		Units: mg/Kg		
		Batch ID: 21994	TestNo: SW8015B Mo		FileID: FE1173.		Analysis Date: 12/23/09		SeqNo: 950535		
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Fuel (No. 2)	U	14									
Surr: TBB	40.22	0	66.67	0	60.3	39	130	0	0		

Sample ID: LCS-21994		SampType: LCS	TestCode: TEH_S		Run ID: FID6_091223A		Prep Date: 12/23/09		Units: mg/Kg		
		Batch ID: 21994	TestNo: SW8015B Mo		FileID: FE1174.		Analysis Date: 12/23/09		SeqNo: 950536		
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Fuel (No. 2)	656.3	14	666.7	0	98.4	70	130	0	0		
Surr: TBB	49.69	0	66.67	0	74.5	39	130	0	0		

Sample ID: 09-9941-05BMS		SampType: MS	TestCode: TEH_S		Run ID: FID6_091223A		Prep Date: 12/23/09		Units: mg/Kg		
		Batch ID: 21994	TestNo: SW8015B Mo		FileID: FE1178.		Analysis Date: 12/23/09		SeqNo: 950539		
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Fuel (No. 2)	668	14	665.1	0	100	70	130	0	0		
Surr: TBB	51.22	0	66.51	0	77	39	130	0	0		

Sample ID: 09-9941-05BMDS		SampType: MSD	TestCode: TEH_S		Run ID: FID6_091223A		Prep Date: 12/23/09		Units: mg/Kg		
		Batch ID: 21994	TestNo: SW8015B Mo		FileID: FE1179.		Analysis Date: 12/23/09		SeqNo: 950540		
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Fuel (No. 2)	672.3	14	664.7	0	101	70	130	668	0.647	30	
Surr: TBB	51.8	0	66.47	0	77.9	39	130	0	0	0	

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H - Prep or analytical holding time exceeded
X - See case narrative

January 11, 2010

Greg Knell
KRW Consulting, Inc.
8000 W 14th Ave Suite 200
Lakewood, CO 80214

Lab Work Order: 09-9973
Client Project ID: 091106A

Dear Greg Knell:

Enclosed are the analytical results for the samples shown in the Laboratory Work Order Summary.

THE INVOICE WILL BE MAILED FROM OUR NEW JERSEY OFFICE UNDER SEPARATE COVER.

The enclosed data for testing performed at Accutest Laboratory (formerly Evergreen Analytical) have been reviewed for quality assurance. A case narrative is included to describe any anomalies associated with the samples or data.

Accutest will dispose of all samples 44 days from the sample receipt date. If you want samples returned, please advise us by mail or fax as soon as possible.

A copy of this project report and supporting data will be retained for a period of five years unless we are otherwise advised by you. A document retrieval charge will apply.

Thank you for using the services of Accutest Laboratories. If you have any questions concerning the analytical data, please contact me. Please direct other questions to Client Services.

Sincerely,



Joseph J. Egry IV/ Tiffany Pham
Quality Assurance

WORK ORDER Summary**Evergreen Analytical, Inc.****09-A070****Rpt To:** Greg Knell**Email To:** gknell@krwconsulting.com

KRW Consulting, Inc.

8000 W 14th Ave Suite 200

Lakewood, CO 80214

(303) 239-9011

12/30/2009 2:10:46 PM

Client Project ID: 0911-06A**QC Level:** LEVEL I**Comments**

Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Test Code	Test Name	Hold	MS	Date Due	Hold Time
09-A070-01A	297-13A-B	Soil	12/29/09 1517	12/30/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	1/14/10	6/27/10
09-A070-01A	297-13A-B	Soil	12/29/09 1517	12/30/09	COND_S	Specific Conductance @ 25°C	<input type="checkbox"/>	<input type="checkbox"/>	1/14/10	1/26/10
09-A070-01A	297-13A-B	Soil	12/29/09 1517	12/30/09	PH_S	9045C: pH	<input type="checkbox"/>	<input type="checkbox"/>	1/14/10	12/30/09
09-A070-01A	297-13A-B	Soil	12/29/09 1517	12/30/09	SAR_S	Sodium Adsorption Ratio, Soil Leachate	<input type="checkbox"/>	<input type="checkbox"/>	1/14/10	6/27/10
09-A070-01B	297-13A-B	Soil	12/29/09 1517	12/30/09	6020_S *	6020 Metals, Soil/Solid	<input type="checkbox"/>	<input type="checkbox"/>	1/14/10	6/27/10

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES AGREEMENT **

Page 1 of 1

CLIENT INFORMATION

Mail Original Report to: KRW Consulting
 Attn: Greg Knell
 Address: 8000 W. 14th Ave., ste 200
 City: Lakewood State: CO Zip: 80214
 Tel #: _____ Fax #: _____
 E-mail: gknell@kruconsulting.com

Evergreen Analytical, An Accutest Company



4036 Youngfield St.
 Wheat Ridge, Colorado 80033
 (303) 425-6021
 FAX (303) 425-6854
 (877) 737-4521
 info@evergreenanalytical.com

Report Results by: _____ (Date)*

Standard 2 working weeks ☒UST Analyses per Fee Schedule ☐* Rush: ☐ less than 24 hrs, 150%☐ 1 - 2 work days, 100%☐ 3 - 5 work days, 50%☐ 6 - 9 work days, 25%

*Subject to surcharge & exceptions noted in fee schedule.

REPORT ALSO BY ☐ FAX ☐ PDF ☐ EDDREPORT CHROMATOGRAMS ☐ NOMail Invoice to: same

Attn: _____

Address: _____

City: _____ State: _____ Zip: _____

Tel #: _____ Fax #: _____

Project ID#: 0911-06 A

P.O.: _____ Quote: _____

Sampler: J. Hess

NOTE: Identify Known Hazards Below

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME
297-13A-B	12/29/09	1517

CONFIRMATION OF SAMPLE RECEIPT REQUIRED? ☐ YES

MATRIX

ANALYSES (check analysis)

For Laboratory Use Only

W.O. # D10070B.O.F. # 33311C/S (O) 2-12 / 12C/S (I) 2033 / 120Temp. °C 5.8 / Ice ☒

Seals Present Y / N / NA

Samples Pres. Y / N / NA

Headspace Y / N / NA

By: 21

No. of Containers

1) Drinking Water or 2) Discharge Water or 3) Ground Water (circle one)

☒ Solid / Air / Gas

Oil / Sludge / Wipe

TC/TP VOA/BNA/Pest/Herb/Metals (circle)

Volatile Organics 8260/624 (circle)

Semi-volatile Organics BNA, PAH, PNA 8270/625 (circle)

Chlorinated Pesticides 8081/608 (circle)

Organophosphorous Pesticides 8270

PCBs/8082/608/screen (circle)

Herbicides 8151

BTX 8021/602/8260/MTBE (circle)

TVPH 8015mod. / 8260 (circle)

TEPH 8015mod. (Diesel)

Total Metals-DW / NPDES / SW846 (circle & list metals below)

Dissolved Metals - DW / SW846 (circle & list metals below)

Oil & Grease 1664 / 9071 (circle)

TRPH 418.1

Anions 300.0 (circle below)

EC, PAH, BNA, PNATotal Arsenic

Sample Fraction

Instructions:

** Important Note: See reverse side for Terms and Conditions.

Anions: Bromide, Chloride, Nitrate, Nitrite, O-Phosphate, Sulfate (Circle)

Relinquished by: (Signature)

Date/Time

12/30/09

Received by: (Signature)

Date/Time

12/30/09
1400

Relinquished by: (Signature)

Date/Time

Received by: (Signature)

Date/Time

Evergreen Analytical, Inc.

Date: 14-Jan-10

Lab Order: 09-A070

Client Project ID 0911-06A

CASE NARRATIVE

SAMPLE RECEIVING

Sample(s) were hand delivered to the laboratory by the client.

Custody seals were not present.

The temperature of the sample(s) upon arrival was 5.8°C.

Sample(s) were received in good condition, in the proper container, and within holding times. JD

QUALITY ASSURANCE (QA)

Analyses performed on samples in this work order by EAL meet the requirements of the EAL Quality Assurance Program unless otherwise explained. Analyses of RCRA samples meet the requirements of NELAC and Utah Rule R444-14 unless otherwise explained. TP

CLIENT SERVICES

There are no anomalies to report. PM

GENERAL CHEMISTRY

There are no anomalies to report. MM

METALS ANALYSIS

There are no anomalies to report. SS

004

Evergreen Analytical, Inc.
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Client Sample ID: 297-13A-B
Client Project ID: 0911-06A
Date Collected: 12/29/09
Date Received: 12/30/09

Lab Work Order: 09-A070
Lab Sample ID: 09-A070-01
Sample Matrix: Soil

DISSOLVED METALS

Method: SW6010B

Prep Method: E200.7/SW3010A

Date Prepared: 1/6/10
Date Analyzed: 1/7/10

Lab File ID: 10710
Method Blank: MB-22101

Dilution Factor: 1
Lab Fraction ID: 09-A070-01A

Analytes	CAS Number	Result	LQL	Units
Calcium	7440-70-2	54	1.9	mg/L
Magnesium	7439-95-4	9.6	0.75	mg/L
Sodium	7440-23-5	9.9	2.0	mg/L

TOTAL METALS

Method: SW6020

Prep Method: SW3050B

Date Prepared: 1/8/10
Date Analyzed: 1/13/10

Lab File ID: 011210S/09-A070-01B.061
Method Blank: MB-22111

Dilution Factor: 1
Lab Fraction ID: 09-A070-01B

Analytes	CAS Number	Result	LQL	Units
Arsenic	7440-38-2	3.7	0.15	mg/Kg

SODIUM ADSORPTION RATIO, SOIL

Method: USDA


Prep Method:

Date Prepared: 1/6/10
Date Analyzed: 1/7/10

Dilution Factor: 1
Lab Fraction ID: 09-A070-01A

Analytes	CAS Number	Result	LQL	Units
Sodium-Adsorption-Ratio		0.33	0.10	ratio


Analyst


Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
E - Extrapolated value. Value exceeds calibration range
H - Sample analysis exceeded analytical holding time
J - Indicates an estimated value when the compound is detected, but is below the LQL
S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 1/13/2010

005

Evergreen Analytical, Inc.
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Client Sample ID: 297-13A-B
Client Project ID: 0911-06A
Date Collected: 12/29/09 1517
Date Received: 12/30/09

Lab Work Order 09-A070
Lab Sample ID: 09-A070-01
Sample Matrix: Soil

SPECIFIC CONDUCTANCE @ 25°C

Method: Dept of Ag.

Prep Method:

Comments: Method: US Dept. of Ag, Handbook #60, p89

Date Prepared: 1/5/10

Lab File ID: 49

Dilution Factor: 1

Date Analyzed: 1/7/10

Lab Fraction ID: 09-A070-01A

Analytes	CAS Number	Result	LQL	Units
Specific Conductance		328	1.00	µmhos/cm

PH

Method: SW9045C

Prep Method:

Date Prepared: 12/30/09

Dilution Factor: 1

Date Analyzed: 12/30/09 1435

Lab Fraction ID: 09-A070-01A

Analytes	CAS Number	Result	LQL	Units
pH		7.63	1.00	pH Units



Analyst



Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
E - Extrapolated value. Value exceeds calibration range
H - Sample analysis exceeded analytical holding time
J - Indicates an estimated value when the compound is detected, but is below the LQL
S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 1/7/2010

QUALITY ASSURANCE REPORTS

METHOD BLANKS (MB)

LABORATORY CONTROL SPIKES (LCS)

MATRIX SPIKES (MS/MSD)*

DUPLICATES (DUP)*

* For Metals or Wet Chemistry analyses: only included if requested or if performed on this client's samples.

Evergreen Analytical, Inc.

Date: 13-Jan-10

Work Order: 09-A070

Client Project ID: 0911-06A

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_D

Sample ID: MB-22101	SampType: MBLK	TestCode: 6010_D	Run ID: ICP-OPTIMA 5300 DV_100107A	Prep Date: 1/6/2010	Units: mg/L						
	Batch ID: 22101	TestNo: SW6010B	FileID: 10710	Analysis Date: 1/7/2010	SeqNo: 953687						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Calcium	U	1.9									
Magnesium	U	0.75									
Sodium	U	2.0									

Sample ID: LCS-22101	SampType: LCS	TestCode: 6010_D	Run ID: ICP-OPTIMA 5300 DV_100107A	Prep Date: 1/6/2010	Units: mg/L						
	Batch ID: 22101	TestNo: SW6010B	FileID: 10710	Analysis Date: 1/7/2010	SeqNo: 953688						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Calcium	52.07	1.9	50	0	104	74	113	0	0		
Magnesium	51.24	0.75	50	0	102	76.7	114	0	0		
Sodium	52.72	2.0	50	0	105	80	120	0	0		

Sample ID: LCS-22101-2	SampType: LCS	TestCode: 6010_D	Run ID: ICP-OPTIMA 5300 DV_100107A	Prep Date: 1/6/2010	Units: mg/L						
	Batch ID: 22101	TestNo: SW6010B	FileID: 10710	Analysis Date: 1/7/2010	SeqNo: 953689						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Calcium	52.16	1.9	50	0	104	74	113	0	0		
Magnesium	51.78	0.75	50	0	104	76.7	114	0	0		
Sodium	53.55	2.0	50	0	107	80	120	0	0		

Qualifiers:

U - Not detected at or above the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside acceptance limits
 E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits
 B - Analyte detected in the associated Method Blank
 H - Prep or analytical holding time exceeded
 X - See case narrative

Work Order: 09-A070
Client Project ID: 0911-06A

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_S

Sample ID: MB-22111	SampType: MBLK	TestCode: 6020_S	Run ID: ICPMS-ELAN_100112A	Prep Date: 1/8/2010	Units: mg/Kg						
	Batch ID: 22111	TestNo: SW6020	FileID: 011210S\MB-22111.051	Analysis Date: 1/13/2010	SeqNo: 954231						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	U	0.20									

Sample ID: LCS-22111	SampType: LCS	TestCode: 6020_S	Run ID: ICPMS-ELAN_100112A	Prep Date: 1/8/2010	Units: mg/Kg						
	Batch ID: 22111	TestNo: SW6020	FileID: 011210S\LCS-22111.052	Analysis Date: 1/13/2010	SeqNo: 954232						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	147.4	0.20	158	0	93.3	70.3	129	0	0		

Sample ID: 09-A087-01DMS	SampType: MS	TestCode: 6020_S	Run ID: ICPMS-ELAN_100112A	Prep Date: 1/8/2010	Units: mg/Kg						
	Batch ID: 22111	TestNo: SW6020	FileID: 011210S\09-A087-01DMS.05	Analysis Date: 1/13/2010	SeqNo: 954236						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	134.5	0.14	143.9	5.698	89.5	75	125	0	0		

Sample ID: 09-A087-01DMSD	SampType: MSD	TestCode: 6020_S	Run ID: ICPMS-ELAN_100112A	Prep Date: 1/8/2010	Units: mg/Kg						
	Batch ID: 22111	TestNo: SW6020	FileID: 011210S\09-A087-01DMSD.0	Analysis Date: 1/13/2010	SeqNo: 954237						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	143.2	0.15	149.3	5.698	92.1	75	125	134.5	6.27	20	

Sample ID: 09-A087-01DDUP	SampType: DUP	TestCode: 6020_S	Run ID: ICPMS-ELAN_100112A	Prep Date: 1/8/2010	Units: mg/Kg						
	Batch ID: 22111	TestNo: SW6020	FileID: 011210S\09-A087-01DDUP.0	Analysis Date: 1/13/2010	SeqNo: 954235						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	5.576	0.16	0	0	0	0	0	5.698	2.17	20	

Qualifiers:

U - Not detected at or above the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside acceptance limits
E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits
B - Analyte detected in the associated Method Blank
H - Prep or analytical holding time exceeded
X - See case narrative

009

Evergreen Analytical, Inc.

Date: 07-Jan-10

Work Order: 09-A070

Client Project ID: 0911-06A

ANALYTICAL QC SUMMARY REPORT

TestCode: COND_S

Sample ID	LCS	SampType: LCS	TestCode: COND_S	Run ID: COND_100107A	Prep Date: 1/7/2010	Units: µmhos/cm					
		Batch ID: R52238	TestNo: Dept of Ag.	FileID: 48	Analysis Date: 1/7/2010	SeqNo: 953424					
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Conductance	10050	1.00	10000	0	100	90	110	0	0		

Qualifiers:

U - Not detected at or above the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside acceptance limits
E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits
B - Analyte detected in the associated Method Blank
H - Prep or analytical holding time exceeded
X - See case narrative

Work Order: 09-A070
Client Project ID: 0911-06A

ANALYTICAL QC SUMMARY REPORT

TestCode: PH_S

Sample ID	LCS-R52136	SampType:	LCS	TestCode:	PH_S	Run ID:	PH_091230C	Prep Date:	12/30/2009	Units:	pH Units	
		Batch ID:	R52136	TestNo:	SW9045C	FileID:		Analysis Date:	12/30/2009	SeqNo:	951667	
Analyte		Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		8	1.00	8	0	100	99.3	100.7	0	0		

Qualifiers:

U - Not detected at or above the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside acceptance limits
E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits
B - Analyte detected in the associated Method Blank
H - Prep or analytical holding time exceeded
X - See case narrative

January 14, 2010

Greg Knell
KRW Consulting, Inc.
8000 W 14th Ave Suite 200
Lakewood, CO 80214

Lab Work Order: 09-A070
Client Project ID: 0911-06A

Dear Greg Knell:

Enclosed are the analytical results for the samples shown in the Laboratory Work Order Summary.

THE INVOICE WILL BE MAILED FROM OUR NEW JERSEY OFFICE UNDER SEPARATE COVER.


The enclosed data for testing performed at Accutest Laboratory (formerly Evergreen Analytical) have been reviewed for quality assurance. A case narrative is included to describe any anomalies associated with the samples or data.

Accutest will dispose of all samples 44 days from the sample receipt date. If you want samples returned, please advise us by mail or fax as soon as possible.

A copy of this project report and supporting data will be retained for a period of five years unless we are otherwise advised by you. A document retrieval charge will apply.

Thank you for using the services of Accutest Laboratories. If you have any questions concerning the analytical data, please contact me. Please direct other questions to Client Services.

Sincerely,



Joseph E. IV/ Tiffany Pham
Quality Assurance



02/11/10

Technical Report for

KRW Consulting, Inc.

PCU 297.13A

Accutest Job Number: D10656

Sampling Date: 01/27/10

Report to:

**KRW Consulting, Inc.
8000 West 14th Avenue Suite 200
Lakewood, CO 80214
jhess@krwconsulting.com**

ATTN: Joe Hess

Total number of pages in report: 32



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.

Client Service contact: 303-425-6021

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

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

**Gary K. Ward
Laboratory Director**

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Sample Summary

KRW Consulting, Inc.
PCU 297.13A

Job No: D10656

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D10656-1	01/27/10	10:50 DK	01/28/10	SO	Soil	297.13 B1A
D10656-2	01/27/10	11:30 DK	01/28/10	SO	Soil	297.13 B1B
D10656-3	01/27/10	12:45 DK	01/28/10	SO	Soil	297.13 B2A
D10656-4	01/27/10	13:35 DK	01/28/10	SO	Soil	297.13 B2B
D10656-5	01/27/10	14:25 DK	01/28/10	SO	Soil	297.13 B3A
D10656-6	01/27/10	15:06 DK	01/28/10	SO	Soil	297.13 B3B

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D10656

Site: PCU 297.13A

Report Dat 2/11/2010 11:24:21 AM

On 01/28/2010, six (6) samples were received at Accutest Mountain States Laboratories at a temperature of 4.3°C. The samples were intact and properly preserved, unless noted below. An Accutest Job Number of D10656 was assigned to the project. The laboratory sample IDs, client sample IDs, and dates of sample collection are detailed in the report's Results Summary Section.

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.

Metals By Method SW846 6010B

Matrix AQ

Batch ID: MP1197

- All samples were digested 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.

Metals By Method SW846 6020

Matrix SO

Batch ID: MP1195

- All samples were digested 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.
- Samples D10554-7MS, D10554-7MSD, D10554-7DUP, and D10554-7SDL were used as the QC samples for the metals analysis.

Wet Chemistry By Method DEPT.OF AG, BOOK N9

Matrix SO

Batch ID: GP1409

- All samples were prepared 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.

Wet Chemistry By Method LADNR29B

Matrix SO

Batch ID: R1094

- The data for LADNR29B meets quality control requirements.
- Sodium Adsorption Ratio: Calculated as: $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L}) + (\text{Mg meq/L})/2]}$

Wet Chemistry By Method SM19 2540B M

Matrix SO

Batch ID: GN3058

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

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest'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.

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



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	297.13 B1A	Date Sampled:	01/27/10
Lab Sample ID:	D10656-1	Date Received:	01/28/10
Matrix:	SO - Soil	Percent Solids:	88.0
Project:	PCU 297.13A		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.7	0.36	mg/kg	1	02/02/10	02/04/10 SES	SW846 6020 ²	SW846 3050B ³
Calcium	30.2	2.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴
Magnesium	4.78	1.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴
Sodium	21.2	2.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴

- (1) Instrument QC Batch: MA373
- (2) Instrument QC Batch: MA378
- (3) Prep QC Batch: MP1195
- (4) Prep QC Batch: MP1197

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 B1A	Date Sampled:	01/27/10
Lab Sample ID:	D10656-1	Date Received:	01/28/10
Matrix:	SO - Soil	Percent Solids:	88.0
Project:	PCU 297.13A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	0.945		ratio	1	02/03/10 15:53	JM	LADNR29B
Solids, Percent	88		%	1	02/01/10	SWT	SM19 2540B M
Specific Conductivity	273	1.00	umhos/cm	1	02/03/10	CJ	DEPT.OF AG, BOOK N9
pH	8.99		su	1	01/29/10 07:35	CJ	SW846 9045C

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

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 B1B	Date Sampled:	01/27/10
Lab Sample ID:	D10656-2	Date Received:	01/28/10
Matrix:	SO - Soil	Percent Solids:	84.8
Project:	PCU 297.13A		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	8.5	0.37	mg/kg	1	02/02/10	02/04/10 SES	SW846 6020 ²	SW846 3050B ³
Calcium	13.7	2.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴
Magnesium	3.16	1.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴
Sodium	65.9	2.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴

- (1) Instrument QC Batch: MA373
- (2) Instrument QC Batch: MA378
- (3) Prep QC Batch: MP1195
- (4) Prep QC Batch: MP1197

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 B1B	Date Sampled:	01/27/10
Lab Sample ID:	D10656-2	Date Received:	01/28/10
Matrix:	SO - Soil	Percent Solids:	84.8
Project:	PCU 297.13A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	4.17		ratio	1	02/03/10 16:00	JM	LADNR29B
Solids, Percent	84.8		%	1	02/01/10	SWT	SM19 2540B M
Specific Conductivity	379	1.00	umhos/cm	1	02/03/10	CJ	DEPT.OF AG, BOOK N9
pH	9.39		su	1	01/29/10 07:35	CJ	SW846 9045C

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

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 B2A	Date Sampled:	01/27/10
Lab Sample ID:	D10656-3	Date Received:	01/28/10
Matrix:	SO - Soil	Percent Solids:	78.3
Project:	PCU 297.13A		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	3.8	0.37	mg/kg	1	02/02/10	02/04/10 SES	SW846 6020 ²	SW846 3050B ³
Calcium	53.2	2.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴
Magnesium	4.58	1.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴
Sodium	18.8	2.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴

- (1) Instrument QC Batch: MA373
- (2) Instrument QC Batch: MA378
- (3) Prep QC Batch: MP1195
- (4) Prep QC Batch: MP1197

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 B2A	Date Sampled:	01/27/10
Lab Sample ID:	D10656-3	Date Received:	01/28/10
Matrix:	SO - Soil	Percent Solids:	78.3
Project:	PCU 297.13A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	0.663		ratio	1	02/03/10 16:23	JM	LADNR29B
Solids, Percent	78.3		%	1	02/01/10	SWT	SM19 2540B M
Specific Conductivity	368	1.00	umhos/cm	1	02/03/10	CJ	DEPT.OF AG, BOOK N9
pH	8.80		su	1	01/29/10 07:35	CJ	SW846 9045C

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

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 B2B	Date Sampled:	01/27/10
Lab Sample ID:	D10656-4	Date Received:	01/28/10
Matrix:	SO - Soil	Percent Solids:	84.6
Project:	PCU 297.13A		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	3.1	0.35	mg/kg	1	02/02/10	02/04/10 SES	SW846 6020 ²	SW846 3050B ³
Calcium	32.8	2.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴
Magnesium	7.15	1.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴
Sodium	25.6	2.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴

- (1) Instrument QC Batch: MA373
- (2) Instrument QC Batch: MA378
- (3) Prep QC Batch: MP1195
- (4) Prep QC Batch: MP1197

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 B2B	Date Sampled:	01/27/10
Lab Sample ID:	D10656-4	Date Received:	01/28/10
Matrix:	SO - Soil	Percent Solids:	84.6
Project:	PCU 297.13A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	1.06		ratio	1	02/03/10 16:30	JM	LADNR29B
Solids, Percent	84.6		%	1	02/01/10	SWT	SM19 2540B M
Specific Conductivity	343	1.00	umhos/cm	1	02/03/10	CJ	DEPT.OF AG, BOOK N9
pH	9.19		su	1	01/29/10 07:35	CJ	SW846 9045C

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

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 B3A	Date Sampled:	01/27/10
Lab Sample ID:	D10656-5	Date Received:	01/28/10
Matrix:	SO - Soil	Percent Solids:	80.8
Project:	PCU 297.13A		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	6.6	0.37	mg/kg	1	02/02/10	02/09/10 SES	SW846 6020 ²	SW846 3050B ³
Calcium	54.9	2.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴
Magnesium	3.50	1.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴
Sodium	22.2	2.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴

- (1) Instrument QC Batch: MA373
- (2) Instrument QC Batch: MA386
- (3) Prep QC Batch: MP1195
- (4) Prep QC Batch: MP1197

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 B3A	Date Sampled:	01/27/10
Lab Sample ID:	D10656-5	Date Received:	01/28/10
Matrix:	SO - Soil	Percent Solids:	80.8
Project:	PCU 297.13A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	0.784		ratio	1	02/03/10 16:37	JM	LADNR29B
Solids, Percent	80.8		%	1	02/01/10	SWT	SM19 2540B M
Specific Conductivity	365	1.00	umhos/cm	1	02/03/10	CJ	DEPT.OF AG, BOOK N9
pH	8.91		su	1	01/29/10 07:35	CJ	SW846 9045C

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

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 B3B	Date Sampled:	01/27/10
Lab Sample ID:	D10656-6	Date Received:	01/28/10
Matrix:	SO - Soil	Percent Solids:	84.2
Project:	PCU 297.13A		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.6	0.37	mg/kg	1	02/02/10	02/04/10 SES	SW846 6020 ²	SW846 3050B ³
Calcium	7.86	2.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴
Magnesium	2.08	1.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴
Sodium	97.0	2.0	mg/l	1	02/02/10	02/03/10 JM	SW846 6010B ¹	SW846 3010A ⁴

- (1) Instrument QC Batch: MA373
- (2) Instrument QC Batch: MA378
- (3) Prep QC Batch: MP1195
- (4) Prep QC Batch: MP1197

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 B3B	Date Sampled:	01/27/10
Lab Sample ID:	D10656-6	Date Received:	01/28/10
Matrix:	SO - Soil	Percent Solids:	84.2
Project:	PCU 297.13A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	7.95		ratio	1	02/03/10 16:44	JM	LADNR29B
Solids, Percent	84.2		%	1	02/01/10	SWT	SM19 2540B M
Specific Conductivity	478	1.00	umhos/cm	1	02/03/10	CJ	DEPT.OF AG, BOOK N9
pH	9.63		su	1	01/29/10 07:35	CJ	SW846 9045C

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

RL = Reporting Limit



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

4036 Youngfield Street, Wheat Ridge, Colorado 80033
TEL: 303-425-6021; 877-737-4521 FAX: 303-425-6854
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # D10656

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Company Name KRW Consulting Inc.	Project Name PCU 297-13 A						
Street Address 8000 W. 14th St #51220	Street						
City Lakewood Co 80124	City						
State CO	State						
Zip 80124	Zip						
Project Contact Joe Hoss	Project #						
E-mail jhoss@krcn.com	Street Address						
Phone # 303 239 9011 / 239 0745	Client Purchase Order #						
Fax #	City						
Sampler(s) Name(s) Danayuk K / Winkler	State						
Phone #	Zip						
Project Manager	Attention						

Account Sample #	Field ID / Point of Collection	MEOH/ID1 Vial #	Collection		Sampled by	Matrix	# of bottles	Number of preserved bottles								LAB USE ONLY	
			Date	Time				HCl	NaOH	HNO3	H2SO4	NONE	D1 Water	MEDH	EMCONE		
1	297-13 B1A		1-21-10	1050	DK		1										01
2	297-13 B1B		1-27-10	1130	MD		1										02
3	297-13 B2A		1-27-10	1245	DK		1										03
4	297-13 B2B		1-27-10	1335	MD		1										04
5	297-13 B3A		1-27-10	1425	DK		1										05
6	297-13 B3B		1-27-10	1506	MD		1										06

Turnaround Time (Business days)	Approved By (Accutest PM): / Date:	Data Deliverable Information	Comments / Special Instructions
<input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> UST Analysis 3-5 Days <input type="checkbox"/> 6 - 9 Day RUSH <input checked="" type="checkbox"/> 3 - 5 Day RUSH <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		<input type="checkbox"/> Level 1 <input type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 Level 1 = Results Only Level 2 = Results + QC Summary + Case Narrative Level 3 = Results + QC Summary + Partial Raw data Level 4 = Full Deliverable	<input checked="" type="checkbox"/> PDF <input type="checkbox"/> EDD Format <input checked="" type="checkbox"/> Other FAX 1- 32 oz Bottle for All Sampling (SAR, EC, PH, Arsenic) on specific background location (B1, B2, B3)

Emergency & Rush T/A data available VIA Lablink			
Sample Custody must be documented below each time samples change possession, including courier delivery.			
Relinquished by: 1 Danayuk K	Date Time: 1-28-10 1137	Received By: 1 TBL TBL	Date Time: 1-28-10 1137
Relinquished by: 3 Danayuk K	Date Time: 1-28-10 1137	Received By: 3 TBL TBL	Date Time: 1-28-10 1137
Relinquished by: 5 Danayuk K	Date Time: 1-28-10 1137	Received By: 5 TBL TBL	Date Time: 1-28-10 1137

Custody Seal #	<input type="checkbox"/> Intact <input checked="" type="checkbox"/> Not intact	Preserved where applicable	On Ice <input checked="" type="checkbox"/>	Cooler Temp. 4.3
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D10656: Chain of Custody

Page 1 of 1



Metals Analysis

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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: D10656
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 297.13A

QC Batch ID: MP1195
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date: 02/02/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	25	.24	.89		
Antimony	0.20	.001	.045		
Arsenic	0.40	.058	.26	0.028	<0.40
Barium	1.0	.0063	.17		
Beryllium	0.10	.0042	.014		
Boron	20	.61	2		
Cadmium	0.050	.012	.048		
Calcium	200	2.6	6.1		
Chromium	1.0	.063	.23		
Cobalt	0.10	.00085	.088		
Copper	1.0	.0045	.14		
Iron	20	2.1	6.1		
Lead	0.25	.0013	.18		
Magnesium	50	.096	1.3		
Manganese	0.50	.0026	.089		
Molybdenum	0.50	.0068	.2		
Nickel	1.0	.0037	.074		
Phosphorus	30	4.2	5.6		
Potassium	100	4.3	9.1		
Selenium	0.20	.072	.14		
Silver	0.050	.0013	.029		
Sodium	250	.25	1.8		
Strontium	10	.0061	.047		
Thallium	0.10	.0007	.071		
Tin	5.0	.0025	.17		
Titanium	1.0	.03	.071		
Uranium	0.25	.0005	.12		
Vanadium	2.0	.042	.99		
Zinc	5.0	.017	.53		

Associated samples MP1195: D10656-1, D10656-2, D10656-3, D10656-4, D10656-5, D10656-6

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: D10656
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 297.13A

QC Batch ID: MP1195
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date:

02/02/10

02/02/10

Metal	D10554-7 Original	DUP	RPD	QC Limits	D10554-7 Original	MS	Spikelot MPICPR1	% Rec	QC Limits
Aluminum	anr								
Antimony	anr								
Arsenic	3.9	4.3	9.8	0-20	3.9	179	192	91.2	60-119
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper									
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Uranium									
Vanadium	anr								
Zinc	anr								

Associated samples MP1195: D10656-1, D10656-2, D10656-3, D10656-4, D10656-5, D10656-6

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: D10656
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 297.13A

QC Batch ID: MP1195
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date: 02/02/10

Metal	D10554-7 Original MSD	Spikelot MPICPR1	% Rec	MSD RPD	QC Limit
Aluminum	anr				
Antimony	anr				
Arsenic	3.9	174	188	90.5	2.8
Barium	anr				20
Beryllium	anr				
Boron					
Cadmium	anr				
Calcium					
Chromium	anr				
Cobalt	anr				
Copper					
Iron	anr				
Lead	anr				
Magnesium					
Manganese	anr				
Molybdenum					
Nickel	anr				
Phosphorus					
Potassium					
Selenium	anr				
Silver	anr				
Sodium					
Strontium					
Thallium	anr				
Tin					
Titanium					
Uranium					
Vanadium	anr				
Zinc	anr				

Associated samples MP1195: D10656-1, D10656-2, D10656-3, D10656-4, D10656-5, D10656-6

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: D10656
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 297.13A

QC Batch ID: MP1195
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date: 02/02/10

Metal	LCS Result	Spikelot MPLCD064	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	136	158	86.1	82-118
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Iron	anr			
Lead	anr			
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP1195: D10656-1, D10656-2, D10656-3, D10656-4, D10656-5, D10656-6

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

SERIAL DILUTION RESULTS SUMMARY

Login Number: D10656
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 297.13A

QC Batch ID: MP1195
Matrix Type: SOLID

Methods: SW846 6020
Units: ug/l

Prep Date: 02/02/10

Metal	D10554-7 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	8.05	8.43	4.8	0-10
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper				
Iron	anr			
Lead	anr			
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP1195: D10656-1, D10656-2, D10656-3, D10656-4, D10656-5, D10656-6

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: D10656
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 297.13A

QC Batch ID: MP1197
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 02/02/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	500	160	250		
Antimony	150	68	65		
Arsenic	130	35	33		
Barium	50	1	12		
Beryllium	50	17	22		
Boron	250	17	93		
Cadmium	50	3.7	6		
Calcium	2000	9	46	0.0	<2000
Chromium	50	3	8		
Cobalt	25	3	1.5		
Copper	25	9	14		
Iron	350	28	50		
Lead	250	17	16		
Lithium	10		8		
Magnesium	1000	3.1	62	-37	<1000
Manganese	25	.5	3.5		
Molybdenum	50	7.5	6		
Nickel	150	4.1	3		
Phosphorus	500	230	270		
Potassium	5000	57	2700		
Selenium	250	25	36		
Silicon	250	48	100		
Silver	150	1.5	1.5		
Sodium	2000	17	110	1450	<2000
Strontium	25		17		
Thallium	50	7	11		
Tin	250	13	22		
Titanium	50	.65	3.5		
Uranium	250	22	20		
Vanadium	50	3.4	1.5		
Zinc	150	2.6	8.5		

Associated samples MP1197: D10656-1, D10656-2, D10656-3, D10656-4, D10656-5, D10656-6

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

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D10656
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 297.13A

QC Batch ID: MP1197
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

5.2.1

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SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D10656
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 297.13A

QC Batch ID: MP1197
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 02/02/10

02/02/10

Metal	BSP Result	Spikelot MPICPR1	% Rec	QC Limits	BSD Result	Spikelot MPICPR1	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Boron									
Cadmium									
Calcium	47500	50000	95.0	80-120	46900	50000	93.8	1.3	
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Lithium									
Magnesium	50100	50000	100.2	80-120	49500	50000	99.0	1.2	
Manganese									
Molybdenum									
Nickel									
Phosphorus									
Potassium									
Selenium									
Silicon									
Silver									
Sodium	52700	50000	105.4	80-120	51500	50000	103.0	2.3	
Strontium									
Thallium									
Tin									
Titanium									
Uranium									
Vanadium									
Zinc									

Associated samples MP1197: D10656-1, D10656-2, D10656-3, D10656-4, D10656-5, D10656-6

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

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D10656
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 297.13A

QC Batch ID: MP1197
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested



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: D10656
Account: KRWCCOL - KRW Consulting, Inc.
Project: PCU 297.13A

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Specific Conductivity	GP1409/GN3105	1.0	<1.0	umhos/cm	9985	10000	100.2	90-110%
pH	GN3047			su	8.00	7.98	99.8	99.3-100.7%

Associated Samples:
Batch GN3047: D10656-1, D10656-2, D10656-3, D10656-4, D10656-5, D10656-6
Batch GP1409: D10656-1, D10656-2, D10656-3, D10656-4, D10656-5, D10656-6
(*) Outside of QC limits

6.1
6



02/12/10

Technical Report for

KRW Consulting, Inc.

0911-06A

Accutest Job Number: D10801

Sampling Date: 02/03/10

Report to:

KRW Consulting, Inc.
8000 West 14th Avenue Suite 200
Lakewood, CO 80214
gknell@krwconsulting.com

ATTN: Greg Knell

Total number of pages in report: **65**



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.

Client Service contact: 303-425-6021

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

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Gary K. Ward
Laboratory Director

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Sample Summary

KRW Consulting, Inc.
0911-06A

Job No: D10801

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D10801-1	02/03/10	14:20 GK	02/04/10	SO	Soil	297-13 CT
D10801-1A	02/03/10	14:20 GK	02/04/10	SO	Soil	297-13 CT
D10801-1B	02/03/10	14:20 GK	02/04/10	SO	Soil	297-13 CT

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D10801

Site: 0911-06A

Report Dat 2/12/2010 9:57:09 AM

On 02/04/2010, one (1) sample was received at Accutest Laboratories at a temperature of 2.5°C. The sample was intact and properly preserved, unless noted below. The Accutest Job Number of D10801 was assigned to the project. The laboratory sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary Section.

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.

Extractables by GCMS By Method SW846 8270C

Matrix SO	Batch ID: OP1379
------------------	-------------------------

- The sample was extracted within the recommended method holding time.
- The sample was analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D10753-2MS and D10753-2MSD were used as the QC samples indicated.
- Sample D10801-1 has surrogates outside control limits. Probable cause due to matrix interference.
- D10801-1 for Terphenyl-d14: Outside control limits due to dilution.

Volatiles by GC By Method SW846 8015B

Matrix SO	Batch ID: GGB169
------------------	-------------------------

- The sample was analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D10786-3MS and D10786-3MSD were used as the QC samples indicated.
- D10801-1A and D10786-3MSD for 1,2,4 Trichlorobenzene: Outside control limits due to matrix interference.

Volatiles by GC By Method SW846 8021B

Matrix SO	Batch ID: GTA262
------------------	-------------------------

- The sample was analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D10686-1MS and D10686-1MSD were used as the QC samples indicated.
- D10801-1A, D10686-1MS and D10686-1MSD for 1,2,4-Trichlorobenzene: Outside control limits due to matrix interference.

Extractables by GC By Method SW846-8015

Matrix SO	Batch ID: OP1374
------------------	-------------------------

- The sample was extracted within the recommended method holding time.
- The sample was analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- OP1374-MB for Diesel Fuel (No. 2): Reporting limit raised from 13mg/kg to 39mg/kg due to blank contamination.

Extractables by GC By Method SW846-8015B

Matrix SO

Batch ID: OP1374

- D10801-1A for TPH-DRO (C10-C28): Reporting limit raised from 870mg/kg to 2600mg/kg due to blank contamination.

Metals By Method SW846 6010B

Matrix AQ

Batch ID: MP1254

- The sample was digested within the recommended method holding time.
- The sample was analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.

Matrix SO

Batch ID: MP1240

- The sample was digested within the recommended method holding time.
- The sample was analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D10801-1MS, D10801-1MSD, and D10801-1SDL were used as the QC samples for metals.
- The blank spike recovery for Silver is outside control limits.
- The matrix spike and duplicate (MS/MSD) recoveries for Cadmium, Lead, Nickel, Selenium, Silver, and Zinc are outside control limits. The spike recovery indicates possible matrix interference.
- The matrix spike duplicate (MSD) recovery for Chromium is outside control limits. Probable cause due to matrix interference.
- The matrix spike duplicate RPDs for Nickel and Selenium are outside control limits for sample MP1240-S2. Probable cause due to sample homogeneity.
- The serial dilution RPDs for Boron, Selenium, Copper, Nickel, and Zinc are outside control limits for sample MP1240-SD1. The percent difference is acceptable due to low initial sample concentration (< 50 times IDL).
- MP1240-SD1 for Copper, Nickel, Zinc: Serial dilution indicates possible matrix interference.
- MP1240-B1 for Silver: Samples are ND.

Metals By Method SW846 6020

Matrix SO

Batch ID: MP1239

- The sample was digested within the recommended method holding time.
- The sample was analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D10801-1DUP, D10801-1MS, D10801-1MSD, and D10801-1SDL were used as the QC samples for metals.

Metals By Method SW846 7471A

Matrix SO

Batch ID: MP1252

- The sample was digested within the recommended method holding time.
- The sample was analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D10826-1MS and D10826-1MSD were used as the QC samples for metals.

Wet Chemistry By Method ASTM E1498-76M

Matrix SO

Batch ID: M:GN31046

- The data for ASTM E1498-76M meets quality control requirements.
- The following sample was run outside of holding time for method ASTM E1498-76M: D10801-1
- D10801-1 for Redox Potential Vs H2: Analysis performed at Accutest Laboratories, Marlborough, MA.

Wet Chemistry By Method LADNR29B

Matrix SO	Batch ID: R1205
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- The data for LADNR29B meets quality control requirements.
- D10801-1B for Sodium Adsorption Ratio: Calculated as: $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L}) + (\text{Mg meq/L})/2]}$

Wet Chemistry By Method SM19 2540B M

Matrix SO	Batch ID: GN3115
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- The data for SM19 2540B M meets quality control requirements.

Wet Chemistry By Method SW846 3060/7196A M

Matrix SO	Batch ID: R1201
------------------	------------------------

- The data for SW846 3060/7196A M meets quality control requirements.
- D10801-1 for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

Wet Chemistry By Method SW846 3060A/7196A

Matrix SO	Batch ID: M:GP11261
------------------	----------------------------

- The data for SW846 3060A/7196A meets quality control requirements.
- D10801-1 for Chromium, Hexavalent: Analysis performed at Accutest Laboratories, Marlborough, MA.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest'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.

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

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Accutest Mountain States**Job No** D10801**Site:** KRWCCOL: 0911-06A**Report Date** 2/10/2010 9:53:33 AM

1 Sample was collected on 02/03/2010 and were received at Accutest on 02/04/2010 properly preserved, at 1.9 Deg. C and intact. These Samples received an Accutest job number of D10801. 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.

Wet Chemistry By Method ASTM E1498-76M

Matrix SO**Batch ID:** GN31046

- Sample(s) D10826-1DUP were used as the QC samples for Redox Potential Vs H2.

Wet Chemistry By Method SW846 3060A/7196A

Matrix SO**Batch ID:** GP11261

- 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) D10826-1DUP, D10826-1MS 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(D10801).



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	297-13 CT	Date Sampled:	02/03/10
Lab Sample ID:	D10801-1	Date Received:	02/04/10
Matrix:	SO - Soil	Percent Solids:	76.8
Method:	SW846 8270C SW846 3540C		
Project:	0911-06A		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G05705.D	5	02/10/10	TMB	02/04/10	OP1379	E1G170
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	480	380	ug/kg	
208-96-8	Acenaphthylene	ND	480	430	ug/kg	
120-12-7	Anthracene	ND	480	330	ug/kg	
56-55-3	Benzo(a)anthracene	ND	480	380	ug/kg	
50-32-8	Benzo(a)pyrene	ND	480	330	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	520	480	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	480	330	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	610	520	ug/kg	
218-01-9	Chrysene	ND	610	520	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	520	390	ug/kg	
206-44-0	Fluoranthene	ND	910	480	ug/kg	
86-73-7	Fluorene	ND	520	430	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	480	350	ug/kg	
90-12-0	1-Methylnaphthalene	ND	610	480	ug/kg	
91-57-6	2-Methylnaphthalene	ND	480	360	ug/kg	
91-20-3	Naphthalene	ND	910	430	ug/kg	
85-01-8	Phenanthrene	ND	910	480	ug/kg	
129-00-0	Pyrene	ND	520	480	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	41%		33-130%
321-60-8	2-Fluorobiphenyl	39%		37-130%
1718-51-0	Terphenyl-d14	46% ^a		48-130%

(a) Outside control limits due to dilution.

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: 297-13 CT

Lab Sample ID: D10801-1

Matrix: SO - Soil

Project: 0911-06A

Date Sampled: 02/03/10

Date Received: 02/04/10

Percent Solids: 76.8

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Arsenic	3.7	0.39	mg/kg	1	02/09/10	02/09/10	SES SW846 6020 ¹	SW846 3050B ⁴
Barium	5580	19	mg/kg	20	02/08/10	02/10/10	AMA SW846 6010B ²	SW846 3050B ⁵
Boron	13.4	4.8	mg/kg	1	02/08/10	02/10/10	AMA SW846 6010B ²	SW846 3050B ⁵
Cadmium	< 0.96	0.96	mg/kg	1	02/08/10	02/10/10	AMA SW846 6010B ²	SW846 3050B ⁵
Chromium	20.5	0.96	mg/kg	1	02/08/10	02/10/10	AMA SW846 6010B ²	SW846 3050B ⁵
Copper	14.8	1.9	mg/kg	1	02/08/10	02/10/10	AMA SW846 6010B ²	SW846 3050B ⁵
Lead	13.2	4.8	mg/kg	1	02/08/10	02/10/10	AMA SW846 6010B ²	SW846 3050B ⁵
Mercury	< 0.13	0.13	mg/kg	1	02/09/10	02/10/10	CM SW846 7471A ³	SW846 7471A ⁶
Nickel	12.3	2.9	mg/kg	1	02/08/10	02/10/10	AMA SW846 6010B ²	SW846 3050B ⁵
Selenium	< 4.8	4.8	mg/kg	1	02/08/10	02/10/10	AMA SW846 6010B ²	SW846 3050B ⁵
Silver	< 2.9	2.9	mg/kg	1	02/08/10	02/10/10	AMA SW846 6010B ²	SW846 3050B ⁵
Zinc	59.0	2.9	mg/kg	1	02/08/10	02/10/10	AMA SW846 6010B ²	SW846 3050B ⁵

(1) Instrument QC Batch: MA386

(2) Instrument QC Batch: MA391

(3) Instrument QC Batch: MA392

(4) Prep QC Batch: MP1239

(5) Prep QC Batch: MP1240

(6) Prep QC Batch: MP1252

RL = Reporting Limit

Report of Analysis

Client Sample ID: 297-13 CT**Lab Sample ID:** D10801-1**Matrix:** SO - Soil**Project:** 0911-06A**Date Sampled:** 02/03/10**Date Received:** 02/04/10**Percent Solids:** 76.8**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 2.5	2.5	mg/kg	1	02/09/10 15:20	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	20.5	3.5	mg/kg	1	02/10/10 11:28	AMA	SW846 3060/7196A M
Redox Potential Vs H2 ^a	305		mv	1	02/05/10	AMA	ASTM E1498-76M
Solids, Percent	76.8		%	1	02/04/10	SWT	SM19 2540B M
Specific Conductivity	3110	1.0	umhos/cm	1	02/09/10	JD	DEPT.OF AG, BOOK N9
pH	9.37		su	1	02/04/10 13:00	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:	297-13 CT	Date Sampled:	02/03/10
Lab Sample ID:	D10801-1A	Date Received:	02/04/10
Matrix:	SO - Soil	Percent Solids:	76.8
Method:	SW846 8015B		
Project:	0911-06A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB3266.D	1	02/08/10	SD	n/a	n/a	GGB169
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	77.2	29	29	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	170% ^a		60-140%		

(a) Outside control limits due to matrix interference.

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:	297-13 CT	Date Sampled:	02/03/10
Lab Sample ID:	D10801-1A	Date Received:	02/04/10
Matrix:	SO - Soil	Percent Solids:	76.8
Method:	SW846 8021B		
Project:	0911-06A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA4814.D	1	02/07/10	SD	n/a	n/a	GTA262
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	10.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	150	ug/kg	
108-88-3	Toluene	368	290	ug/kg	
100-41-4	Ethylbenzene	ND	290	ug/kg	
	m,p-Xylene	ND	290	ug/kg	
95-47-6	o-Xylene	ND	290	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	161% ^a		60-140%

(a) Outside control limits due to matrix interference.

ND = Not detected

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:	297-13 CT	Date Sampled:	02/03/10
Lab Sample ID:	D10801-1A	Date Received:	02/04/10
Matrix:	SO - Soil	Percent Solids:	76.8
Method:	SW846-8015B SW846 3550B		
Project:	0911-06A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI1057.D	50	02/06/10	LAC	02/04/10	OP1374	GFI84
Run #2							

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

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28) ^a	19000	2600	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
98-06-6	t-Butylbenzene	61%		39-130%	

(a) Reporting limit raised from 870mg/kg to 2600mg/kg due to blank contamination.

ND = Not detected
 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:	297-13 CT	Date Sampled:	02/03/10
Lab Sample ID:	D10801-1B	Date Received:	02/04/10
Matrix:	SO - Soil	Percent Solids:	76.8
Project:	0911-06A		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	15.7	2.0	mg/l	1	02/09/10	02/10/10	AMA SW846 6010B ¹	EPA 200.7 ²
Magnesium	1.55	1.0	mg/l	1	02/09/10	02/10/10	AMA SW846 6010B ¹	EPA 200.7 ²
Sodium	561	2.0	mg/l	1	02/09/10	02/10/10	AMA SW846 6010B ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA391
(2) Prep QC Batch: MP1254

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297-13 CT	Date Sampled:	02/03/10
Lab Sample ID:	D10801-1B	Date Received:	02/04/10
Matrix:	SO - Soil	Percent Solids:	76.8
Project:	0911-06A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	36.1		ratio	1	02/10/10 15:09	AMA	LADNR29B

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

RL = Reporting Limit



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

D 10801

Accutest Mountain States

Attn Joe Hess
Address 8000 W. 14th St.
City Lakewood State CO Zip 80214
Tel # 303 239 9011 Fax # 303 239 0745 E-mail JHess



4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(877) 737-4521
e-mail info@accutest.com

Report Results by: 1508/20 (Date)*

Standard 2 working weeks

UST Analyses per Fee Schedule

* Rush: ☐ less than 24 hrs, 150% ☐ 1-2 work days, 100%
☒ 3-5 work days, 50% ☐ 6-9 work days, 25%

*Subject to surcharge & exceptions noted in fee schedule.

REPORT ALSO BY ☒ FAX ☒ PDF ☐ EDD FAXED CONFIRMATION OF SAMPLE RECEIPT REQUIRED? ☐ YES

REPORT CHROMATOGRAMS ☐ YES

Mail Invoice to: SAME AS ABOVE

Attn Joe Hess

Address 297-13

City _____ State _____ Zip _____

Tel # _____ Fax # _____

Project ID# 0911-06A

P.O. _____ Quote _____

Sampler Greg Krall

NOTE: *Identify Known Hazards Below*

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME
--------------------------	-----------------	------

MATRIX

ANALYSES (check analysis)

For Laboratory
Use Only

WD # D10341

B.O.F.# 335-

C/S (O) 841 / P

C/S (1) 846 / 71

Temp. °C 2.5 / Ice Seals Present Y / ~~N~~ / N

Samples Pres. Y / N / M



Headspace Y / N / NA

By [illegible]

Does this analysis involve property transfer? ☐ Yes or ☒ No

Instructions: Table 9/10.1 parameters

**** Important Note:** See reverse side hereof for terms and conditions.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	2/4/10 8:45		2-4-10 8:45				

D10801: Chain of Custody

Page 1 of 1



GC/MS Semi-volatiles

5

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Page 1 of 1

Job Number: D10801
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1379-MB	1G05703.D	1	02/10/10	TMB	02/04/10	OP1379	E1G170

The QC reported here applies to the following samples:

Method: SW846 8270C

D10801-1

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	37	29	ug/kg	
208-96-8	Acenaphthylene	ND	37	33	ug/kg	
120-12-7	Anthracene	ND	37	25	ug/kg	
56-55-3	Benzo(a)anthracene	ND	37	29	ug/kg	
50-32-8	Benzo(a)pyrene	ND	37	25	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	40	37	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	37	25	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	47	40	ug/kg	
218-01-9	Chrysene	ND	47	40	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	40	30	ug/kg	
206-44-0	Fluoranthene	ND	70	37	ug/kg	
86-73-7	Fluorene	ND	40	33	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	37	27	ug/kg	
90-12-0	1-Methylnaphthalene	ND	47	37	ug/kg	
91-57-6	2-Methylnaphthalene	ND	37	28	ug/kg	
91-20-3	Naphthalene	ND	70	33	ug/kg	
85-01-8	Phenanthrene	ND	70	37	ug/kg	
129-00-0	Pyrene	ND	40	37	ug/kg	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	92% 26-130%
4165-62-2	Phenol-d5	93% 47-130%
118-79-6	2,4,6-Tribromophenol	82% 50-130%
4165-60-0	Nitrobenzene-d5	76% 33-130%
321-60-8	2-Fluorobiphenyl	74% 37-130%
1718-51-0	Terphenyl-d14	86% 48-130%

Blank Spike Summary

Page 1 of 1

Job Number: D10801
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1379-BS	1G05704.D	1	02/10/10	TMB	02/04/10	OP1379	E1G170

The QC reported here applies to the following samples:

Method: SW846 8270C

D10801-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	3330	2980	89	54-130
208-96-8	Acenaphthylene	3330	3210	96	53-130
120-12-7	Anthracene	3330	3140	94	54-130
56-55-3	Benzo(a)anthracene	3330	3160	95	52-130
50-32-8	Benzo(a)pyrene	3330	3250	98	56-130
205-99-2	Benzo(b)fluoranthene	3330	3270	98	58-130
191-24-2	Benzo(g,h,i)perylene	3330	3170	95	46-130
207-08-9	Benzo(k)fluoranthene	3330	3280	98	53-130
218-01-9	Chrysene	3330	3060	92	51-130
53-70-3	Dibenzo(a,h)anthracene	3330	3220	97	48-130
206-44-0	Fluoranthene	3330	2870	86	50-130
86-73-7	Fluorene	3330	3310	99	59-130
193-39-5	Indeno(1,2,3-cd)pyrene	3330	3350	101	48-134
90-12-0	1-Methylnaphthalene	3330	2650	80	43-130
91-57-6	2-Methylnaphthalene	3330	2900	87	40-130
91-20-3	Naphthalene	3330	2900	87	37-130
85-01-8	Phenanthrene	3330	3020	91	57-130
129-00-0	Pyrene	3330	3160	95	54-130

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	80%	26-130%
4165-62-2	Phenol-d5	76%	47-130%
118-79-6	2,4,6-Tribromophenol	106%	50-130%
4165-60-0	Nitrobenzene-d5	79%	33-130%
321-60-8	2-Fluorobiphenyl	73%	37-130%
1718-51-0	Terphenyl-d14	89%	48-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D10801
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1379-MS	1G05707.D	5	02/10/10	TMB	02/04/10	OP1379	E1G170
OP1379-MSD	1G05708.D	5	02/10/10	TMB	02/04/10	OP1379	E1G170
D10753-2	1G05706.D	5	02/10/10	TMB	02/04/10	OP1379	E1G170

The QC reported here applies to the following samples:

Method: SW846 8270C

D10801-1

CAS No.	Compound	D10753-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		3480	3140	90	2710	78	15	54-130/30
208-96-8	Acenaphthylene	ND		3480	3210	92	2920	84	9	53-130/30
120-12-7	Anthracene	ND		3480	3160	91	2980	86	6	54-130/30
56-55-3	Benzo(a)anthracene	ND		3480	3510	101	3160	91	10	52-130/30
50-32-8	Benzo(a)pyrene	ND		3480	3390	97	3020	87	12	56-130/30
205-99-2	Benzo(b)fluoranthene	ND		3480	3360	96	3090	89	8	58-130/30
191-24-2	Benzo(g,h,i)perylene	ND		3480	3420	98	3140	90	9	46-130/30
207-08-9	Benzo(k)fluoranthene	ND		3480	3310	95	2990	86	10	53-130/30
218-01-9	Chrysene	ND		3480	3480	100	3090	89	12	51-130/30
53-70-3	Dibenzo(a,h)anthracene	ND		3480	3240	93	3070	88	5	48-130/30
206-44-0	Fluoranthene	257	J	3480	3960	106	3090	81	25	50-130/30
86-73-7	Fluorene	ND		3480	3420	98	2980	86	14	59-130/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND		3480	3430	98	3240	93	6	48-134/30
90-12-0	1-Methylnaphthalene	ND		3480	2580	74	2340	67	10	43-140/30
91-57-6	2-Methylnaphthalene	ND		3480	2860	82	2570	74	11	40-140/30
91-20-3	Naphthalene	ND		3480	2850	82	2560	73	11	37-140/30
85-01-8	Phenanthrene	ND		3480	3770	108	2980	86	23	57-130/30
129-00-0	Pyrene	269		3480	4040	108	3150	83	25	54-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D10753-2	Limits
367-12-4	2-Fluorophenol	74%	70%		26-130%
4165-62-2	Phenol-d5	83%	76%		47-130%
118-79-6	2,4,6-Tribromophenol	98%	80%		50-130%
4165-60-0	Nitrobenzene-d5	74%	66%	54%	33-130%
321-60-8	2-Fluorobiphenyl	72%	65%	56%	37-130%
1718-51-0	Terphenyl-d14	80%	76%	71%	48-130%



GC Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Page 1 of 1

Job Number: D10801
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB169-MB	GB3254.D	1	02/08/10	SD	n/a	n/a	GGB169

The QC reported here applies to the following samples:

Method: SW846 8015B

D10801-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	20	20	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	105% 60-140%

Method Blank Summary

Page 1 of 1

Job Number: D10801
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA262-MB	TA4797.D	1	02/06/10	SD	n/a	n/a	GTA262

The QC reported here applies to the following samples:

Method: SW846 8021B

D10801-1A

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	100	ug/kg	
100-41-4	Ethylbenzene	ND	200	ug/kg	
108-88-3	Toluene	ND	200	ug/kg	
95-47-6	o-Xylene	ND	200	ug/kg	
	m,p-Xylene	ND	200	ug/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	100% 60-140%

Blank Spike Summary

Job Number: D10801
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB169-BS	GB3255.D	1	02/08/10	SD	n/a	n/a	GGB169

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

D10801-1A

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	220	231	105	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	113%	60-140%

Blank Spike Summary

Page 1 of 1

Job Number: D10801
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA262-BS	TA4798.D	1	02/06/10	SD	n/a	n/a	GTA262

The QC reported here applies to the following samples:

Method: SW846 8021B

D10801-1A

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	2720	2820	104	70-130
100-41-4	Ethylbenzene	4560	4640	102	70-130
108-88-3	Toluene	21200	20000	95	70-130
95-47-6	o-Xylene	6590	6780	103	70-130
	m,p-Xylene	15000	15100	101	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	118%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D10801
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D10786-3MS	GB3257.D	1	02/08/10	SD	n/a	n/a	GGB169
D10786-3MSD	GB3258.D	1	02/08/10	SD	n/a	n/a	GGB169
D10786-3	GB3256.D	1	02/08/10	SD	n/a	n/a	GGB169

The QC reported here applies to the following samples:

Method: SW846 8015B

D10801-1A

CAS No.	Compound	D10786-3 mg/kg	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	114	262	386	104	390	105	1	62-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D10786-3	Limits
120-82-1	1,2,4-Trichlorobenzene	137%	142% * a	137%	60-140%

(a) Outside control limits due to matrix interference.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D10801
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D10686-1MS	TA4800.D	1	02/06/10	SD	n/a	n/a	GTA262
D10686-1MSD	TA4801.D	1	02/06/10	SD	n/a	n/a	GTA262
D10686-1	TA4799.D	1	02/06/10	SD	n/a	n/a	GTA262

The QC reported here applies to the following samples:

Method: SW846 8021B

D10801-1A

CAS No.	Compound	D10686-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		4130	4040	98	4060	98	0	70-130/30
100-41-4	Ethylbenzene	ND		6930	6860	99	6720	97	2	62-130/30
108-88-3	Toluene	401		32100	28900	89	28800	88	0	70-130/30
95-47-6	o-Xylene	394		10000	9710	93	9550	91	2	65-135/30
	m,p-Xylene	1410		22800	22900	94	22600	93	1	60-140/30

CAS No.	Surrogate Recoveries	MS	MSD	D10686-1	Limits
120-82-1	1,2,4-Trichlorobenzene	173% * a	169% * a	160% * a	60-140%

(a) Outside control limits due to matrix interference.



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: D10801
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1374-MB	FI990.D	1	02/04/10	LAC	02/04/10	OP1374	GFI82

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

D10801-1A

CAS No.	Compound	Result	RL	Units	Q
	Diesel Fuel (No. 2) ^a	ND	39	mg/kg	

CAS No.	Surrogate Recoveries	Limits
98-06-6	t-Butylbenzene	62% 39-130%

(a) Reporting limit raised from 13mg/kg to 39mg/kg due to blank contamination.

Blank Spike Summary

Job Number: D10801
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1374-BS	FI991.D	1	02/04/10	LAC	02/04/10	OP1374	GFI82

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

D10801-1A

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	Diesel Fuel (No. 2)	667	607	91	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
98-06-6	t-Butylbenzene	74%	39-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D10801
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1374-MS	FI993.D	1	02/04/10	LAC	02/04/10	OP1374	GFI82
OP1374-MSD	FI994.D	1	02/04/10	LAC	02/04/10	OP1374	GFI82
D10786-1	FI992.D	1	02/04/10	LAC	02/04/10	OP1374	GFI82

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

D10801-1A

CAS No.	Compound	D10786-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	Diesel Fuel (No. 2)	ND		831	792	95	814	98	3	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D10786-1	Limits
98-06-6	t-Butylbenzene	77%	79%	59%	39-130%



Metals Analysis

QC Data Summaries

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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: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1239
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date: 02/08/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	25	.24	.89		
Arsenic	0.40	.058	.26	0.13	<0.40
Calcium	200	2.6	6.1		
Copper	1.0	.0045	.14		
Iron	20	2.1	6.1		
Lead	0.25	.0013	.18		
Magnesium	50	.096	1.3		
Potassium	100	4.3	9.1		
Sodium	250	.25	1.8		
Uranium	0.25	.0005	.12		

Associated samples MP1239: D10801-1

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: D10801
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: 0911-06A

QC Batch ID: MP1239
 Matrix Type: SOLID

Methods: SW846 6020
 Units: mg/kg

Prep Date: 02/08/10

02/08/10

Metal	D10801-1 Original DUP		RPD	QC Limits	D10801-1 Original MS		Spikelot MPICPR1	% Rec	QC Limits
Aluminum									
Arsenic	3.7	3.8	2.7	0-20	3.7	176	200	86.0	60-119
Calcium									
Copper									
Iron									
Lead									
Magnesium									
Potassium									
Sodium									
Uranium									

Associated samples MP1239: D10801-1

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: D10801
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: 0911-06A

QC Batch ID: MP1239
 Matrix Type: SOLID

Methods: SW846 6020
 Units: mg/kg

Prep Date: 02/08/10

Metal	D10801-1 Original	MSD	SpikeLot MPICPR1	% Rec	MSD RPD	QC Limit
Aluminum						
Arsenic	3.7	159	189	82.3	10.1	20
Calcium						
Copper						
Iron						
Lead						
Magnesium						
Potassium						
Sodium						
Uranium						

Associated samples MP1239: D10801-1

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

Login Number: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

Methods: SW846 6020
Units: mg/kg

Metal	BSP Result	Spikelot MPICPR1	% Rec	QC Limits
Aluminum				
Arsenic	183	198	92.4	80-120
Calcium				
Copper				
Iron				
Lead				
Magnesium				
Potassium				
Sodium				
Uranium				

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

SERIAL DILUTION RESULTS SUMMARY

Login Number: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1239
Matrix Type: SOLID

Methods: SW846 6020
Units: ug/l

Prep Date: 02/08/10

Metal	D10801-1		QC	
	Original	SDL 1:5	%DIF	Limits
Aluminum				
Arsenic	7.62	7.26	4.7	0-10
Calcium				
Copper				
Iron				
Lead				
Magnesium				
Potassium				
Sodium				
Uranium				

Associated samples MP1239: D10801-1

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: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1240
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 02/08/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	3.3	2		
Antimony	3.0	1.4	.5		
Arsenic	2.5	.7	.72		
Barium	1.0	.02	.05	0.32	<1.0
Beryllium	1.0	.33	.21		
Boron	5.0	.33	.91	0.27	<5.0
Cadmium	1.0	.073	.12	0.050	<1.0
Calcium	40	.18	2.7		
Chromium	1.0	.06	.18	0.20	<1.0
Cobalt	0.50	.059	.058		
Copper	2.0	.18	.38	1.7	<2.0
Iron	7.0	.55	.91		
Lead	5.0	.33	.24	0.21	<5.0
Lithium	0.20		.09		
Magnesium	20	.061	.93		
Manganese	0.50	.01	.028		
Molybdenum	1.0	.15	.16		
Nickel	3.0	.081	.075	0.030	<3.0
Phosphorus	10	4.7	3.5		
Potassium	200	1.1	130		
Selenium	5.0	.5	.54	0.13	<5.0
Silicon	5.0	.96	.68		
Silver	3.0	.03	.068	-0.070	<3.0
Sodium	40	.34	6.3		
Strontium	5.0		.02		
Thallium	1.0	.14	.21		
Tin	5.0	.26	.56		
Titanium	1.0	.013	.041		
Uranium	5.0	.43	.53		
Vanadium	1.0	.067	.034		
Zinc	3.0	.051	.49	2.2	<3.0

Associated samples MP1240: D10801-1

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

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1240
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

(anr) Analyte not requested

8.2.1

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1240
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 02/08/10

Metal	D10801-1 Original MS		SpikeLot MPICPR1	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium	5580	6150	501	113.8	75-125
Beryllium					
Boron	13.4	170	200	78.2	75-125
Cadmium	0.0	14.9	20	74.4N(a)	75-125
Calcium					
Chromium	20.5	172	200	75.6	75-125
Cobalt					
Copper	14.8	181	200	83.0	75-125
Iron					
Lead	13.2	155	200	70.8N(a)	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	12.3	153	200	70.2N(a)	75-125
Phosphorus					
Potassium					
Selenium	2.7	150	200	73.5N(a)	75-125
Silicon					
Silver	0.0	12.4	20	61.9N(a)	75-125
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc	59.0	187	200	63.9N(a)	75-125

Associated samples MP1240: D10801-1

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1240
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
- (a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1240
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 02/08/10

Metal	D10801-1 Original	MSD	Spikelot MPICPR1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium	5580	5540	472	-8.5 (a)	2.0	20
Beryllium						
Boron	13.4	156	189	75.6	15.9	20
Cadmium	0.0	13.8	18.9	73.1N(b)	9.7	20
Calcium						
Chromium	20.5	157	189	72.3N(b)	9.1	20
Cobalt						
Copper	14.8	165	189	79.6	9.2	20
Iron						
Lead	13.2	142	189	68.3N(b)	19.7	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	12.3	140	189	67.7N(b)	8.9	20
Phosphorus						
Potassium						
Selenium	2.7	136	189	70.6N(b)	9.8	20
Silicon						
Silver	0.0	11.0	18.9	58.3N(b)	12.0	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc	59.0	191	189	69.9N(b)	2.1	20

Associated samples MP1240: D10801-1

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1240
Matrix Type: SOLID

Methods: SW846 6010B
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: D10801

Account: KRWCCOL - KRW Consulting, Inc.

Project: 0911-06A

QC Batch ID: MP1240

Methods: SW846 6010B

Matrix Type: SOLID

Units: mg/kg

Prep Date: 02/08/10

Metal	BSP Result	Spikelot MPICPR1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium	455	495	91.9	80-120
Beryllium				
Boron	185	198	93.4	80-120
Cadmium	18.0	19.8	90.9	80-120
Calcium				
Chromium	187	198	94.4	80-120
Cobalt				
Copper	189	198	95.4	80-120
Iron				
Lead	183	198	92.4	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	181	198	91.4	80-120
Phosphorus				
Potassium				
Selenium	172	198	86.9	80-120
Silicon				
Silver	15.5	19.8	78.3*(a)	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	174	198	87.9	80-120

Associated samples MP1240: D10801-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

Login Number: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

Methods: SW846 6010B
Units: mg/kg

Metal

(anr) Analyte not requested
(a) Samples are ND.

SERIAL DILUTION RESULTS SUMMARY

Login Number: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1240
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date: 02/08/10

Metal	D10801-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium	57900	53500	7.5	0-10
Beryllium				
Boron	139	159	14.3 (a)	0-10
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	213	227	6.3	0-10
Cobalt				
Copper	153	138	10.1*(b)	0-10
Iron				
Lead	137	147	6.7	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	127	142	11.7*(b)	0-10
Phosphorus				
Potassium				
Selenium	27.8	0.00	100.0(a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	612	695	13.6*(b)	0-10

Associated samples MP1240: D10801-1

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

SERIAL DILUTION RESULTS SUMMARY

Login Number: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1240
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

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

8.2.4

8

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1252
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 02/09/10

Metal	RL	IDL	MDL	MB	
				raw	final
Mercury	0.085	.00089	.001	-0.0017	<0.085

Associated samples MP1252: D10801-1

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

8.3.1

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D10801
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: 0911-06A

QC Batch ID: MP1252
 Matrix Type: SOLID

Methods: SW846 7471A
 Units: mg/kg

Prep Date: 02/09/10

Metal	D10826-1		Spikelot		QC	
	Original	MS	HGWSR1	% Rec	Limits	
Mercury	0.0040	0.37	0.38	96.3	85-115	

Associated samples MP1252: D10801-1

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

8.3.2

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D10801
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: 0911-06A

QC Batch ID: MP1252
 Matrix Type: SOLID

Methods: SW846 7471A
 Units: mg/kg

Prep Date: 02/09/10

Metal	D10826-1 Original MSD	Spikelot HGWSR1	% Rec	MSD RPD	QC Limit	
Mercury	0.0040	0.35	0.367	94.4	5.6	20

Associated samples MP1252: D10801-1

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

8.3.2

8

Login Number: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

Methods: SW846 7471A
Units: mg/kg

Metal	LCS Result	Spikelot HGLCD064 % Rec	QC Limits
Mercury	7.0	7.34	95.4
			72-128

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: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1254
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 02/09/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	500	160	250		
Antimony	150	68	65		
Arsenic	130	35	33		
Barium	50	1	12		
Beryllium	50	17	22		
Boron	250	17	93		
Cadmium	50	3.7	6		
Calcium	2000	9	46	1320	<2000
Chromium	50	3	8		
Cobalt	25	3	1.5		
Copper	25	9	14		
Iron	350	28	50		
Lead	250	17	16		
Lithium	10		8		
Magnesium	1000	3.1	62	68.5	<1000
Manganese	25	.5	3.5		
Molybdenum	50	7.5	6		
Nickel	150	4.1	3		
Phosphorus	500	230	270		
Potassium	5000	57	2700		
Selenium	250	25	36		
Silicon	250	48	100		
Silver	150	1.5	1.5		
Sodium	2000	17	110	-330	<2000
Strontium	25		17		
Thallium	50	7	11		
Tin	250	13	22		
Titanium	50	.65	3.5		
Uranium	250	22	20		
Vanadium	50	3.4	1.5		
Zinc	150	2.6	8.5		

Associated samples MP1254: D10801-1B

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

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1254
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D10801

Account: KRWCCOL - KRW Consulting, Inc.

Project: 0911-06A

QC Batch ID: MP1254

Methods: SW846 6010B

Matrix Type: AQUEOUS

Units: ug/l

Prep Date:

02/09/10

02/09/10

Metal	BSP Result	Spikelot MPICPR1	% Rec	QC Limits	BSD Result	Spikelot MPICPR1	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Boron									
Cadmium									
Calcium	46200	50000	92.4	80-120	50000	50000	100.0	7.9	
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Lithium									
Magnesium	44800	50000	89.6	80-120	47700	50000	95.4	6.3	
Manganese									
Molybdenum									
Nickel									
Phosphorus									
Potassium									
Selenium									
Silicon									
Silver									
Sodium	45800	50000	91.6	80-120	49100	50000	98.2	7.0	
Strontium									
Thallium									
Tin									
Titanium									
Uranium									
Vanadium									
Zinc									

Associated samples MP1254: D10801-1B

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1254
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested



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: D10801
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Specific Conductivity	GP1437/GN3172			umhos/cm	9985	10200	101.9	90-110%
pH	GN3119			su	8.00	8.00	100.0	99.3-100.7%
pH	GN3119			su	8.00	8.00	100.0	99.3-100.7%
pH	GN3119			su	8.00	8.00	100.0	99.3-100.7%

Associated Samples:
Batch GN3119: D10801-1
Batch GP1437: D10801-1
(*) Outside of QC limits



Misc. Forms

Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody



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

Client Information						Subcontract Laboratory Information							Analytical Information												
Name Accutest Mountain States (AMS)									Name Accutest - New England									XCRA/EH							
Address 4036 Youngfield St.									Address 495 Technology Center West, BLDG O																
City Wheat Ridge,			State CO			Zip 80033			City Marlborough			State MA			Zip 01752										
Send Report to: Carl Smits									Contact:																
Any questions contact: Shea Greiner									Sample Management																
Phone/Fax #: (303) 425-6021; (303) 425-6854									Phone: (508) 481-6200																
Field ID / Point of Collection									Collection			Matrix		# of bottles	Preservation				Comments						
Date									Time					HCL	NaOH	HNO ₃	H ₂ O ₂ /HClO ₄	None							
D10801 -1									2/3/10			2:20 PM			Soil		1	X							
-																									
-																									
-																									
-																									
-																									
-																									
-																									
Turnaround Information									Data Deliverable Information										Comments / Remarks						
<input checked="" type="checkbox"/> 3 - 5 Business Day Rush <input type="checkbox"/> Other _____ (Days) Approved By: _____ 10 Day Turnaround Hardcopy, RUSH is FAX Data unless previously approved. Sample Custody must be documented below each time samples change possession, including courier delivery.									<input type="checkbox"/> Commercial "A" <input checked="" type="checkbox"/> Commercial "B" <input type="checkbox"/> Reduced Tier 1 <input type="checkbox"/> Full Tier 1 <input type="checkbox"/> Other (Specify) _____ <input type="checkbox"/> PDF <input type="checkbox"/> Compact Disk Deliverable <input type="checkbox"/> Electronic Delivery: _____ <input type="checkbox"/> State Forms _____									Please use Colorado regulations and RLs.							
Relinquished by: JOL									Received By: UPS									Seal #:							
Date & Time: 2/4/10									Date & Time: 2/5/10 10:30									Headspace: Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>							
Relinquished by: UPS									Received By: [Signature]									Preserved where applicable: <input type="checkbox"/>							
Date & Time: 2/5/10									Date & Time:									Temperature °C 1.9°C On Ice [Initials]							

10.1

D10801: Chain of Custody
Page 1 of 1
Accutest Labs of New England, Inc.



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: D10801
Account: ALMS - Accutest Mountain States
Project: KRWCCOL: 0911-06A

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chromium, Hexavalent	GP11261/GN31070	2.0	0.0	mg/kg	40	41.3	103.3	80-120%
Chromium, Hexavalent	GP11261/GN31070			mg/kg	1170	1170	100.0	80-120%
Chromium, Hexavalent	GP11261/GN31070			mg/kg	120	98.0	81.7	80-120%

Associated Samples:
Batch GP11261: D10801-1
(*) Outside of QC limits

11.1
11

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D10801
Account: ALMS - Accutest Mountain States
Project: KRWCCOL: 0911-06A

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chromium, Hexavalent	GP11261/GN31070	D10826-1	mg/kg	0.0	0.0	0.0	0-20%
Redox Potential Vs H2	GN31046	D10826-1	mv	333	350	5.0	0-20%

Associated Samples:
Batch GN31046: D10801-1
Batch GP11261: D10801-1
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D10801
Account: ALMS - Accutest Mountain States
Project: KRWCCOL: 0911-06A

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chromium, Hexavalent	GP11261/GN31070	D10826-1	mg/kg	0.0	40.5	40.4	99.9	75-125%
Chromium, Hexavalent	GP11261/GN31070	D10826-1	mg/kg	0.0	927	928	100.1	75-125%

Associated Samples:
Batch GP11261: D10801-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits



03/10/10

Technical Report for

KRW Consulting, Inc.

0911-06A

Accutest Job Number: D11204

Sampling Dates: 02/18/10 - 02/19/10

Report to:

KRW Consulting, Inc.

jhess@krwconsulting.com
gknell@krwconsulting.com
ATTN: Joe Hess

Total number of pages in report: 99



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.

Client Service contact: 303-425-6021

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

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Gary K. Ward
Laboratory Director

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Sample Summary

KRW Consulting, Inc.
0911-06A

Job No: D11204

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D11204-1	02/18/10	14:45	02/22/10	SO	Soil	297.13 CS-1
D11204-1A	02/18/10	14:45	02/22/10	SO	Soil	297.13 CS-1
D11204-2	02/18/10	14:00	02/22/10	SO	Soil	297.13 CS-2
D11204-2A	02/18/10	14:00	02/22/10	SO	Soil	297.13 CS-2
D11204-3	02/18/10	14:30	02/22/10	SO	Soil	297.13 CS-3
D11204-3A	02/18/10	14:30	02/22/10	SO	Soil	297.13 CS-3
D11204-4	02/19/10	11:00	02/22/10	SO	Soil	297.13 F.W.
D11204-4A	02/19/10	11:00	02/22/10	SO	Soil	297.13 F.W.

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: KRW Consulting, Inc.

Job No D11204

Site: 0911-06A

Report Dat 3/8/2010 3:03:11 PM

On 02/22/2010, four (4) samples were received at Accutest Mountain States Laboratories at a temperature of 3.3°C. The samples were intact and properly preserved, unless noted below. An Accutest Job Number of D11204 was assigned to the project. The laboratory sample IDs, client sample IDs, and dates of sample collection are detailed in the report's Results Summary Section.

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.

Extractables by GCMS By Method SW846 8270C

Matrix SO

Batch ID: OP1468

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Samples D11203-1MS and D11203-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Sample D11204-4 has surrogates outside control limits due to dilution.

Volatiles by GC By Method SW846 8015B

Matrix SO

Batch ID: GGA296

- All samples were analyzed within the recommended method holding time.
- Samples D11203-1MS and D11203-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- The matrix spike duplicate (MSD) recovery of TPH-GRO (C6-C10) is outside control limits. The laboratory control spike (LCS) recovery of TPH-GRO (C6-C10) is within QC limits, proving the analysis is in control.
- Samples D11204-4, D11357-3BMS, and D11357-3BMSD have surrogates outside control limits. Probable cause due to matrix interference.

Matrix SO

Batch ID: GGA297

- All samples were analyzed within the recommended method holding time.
- Samples D11357-3BMS and D11357-3BMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Samples D11204-4, D11357-3BMS, and D11357-3BMSD have surrogates outside control limits. Probable cause due to matrix interference.

Volatiles by GC By Method SW846 8021B

Matrix SO

Batch ID: GTA296

- All samples were analyzed within the recommended method holding time.
- Samples D11203-1MS and D11203-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Samples D11204-4 has surrogates outside control limits. Probable cause due to matrix interference.

Matrix SO

Batch ID: GTA297

- All samples were analyzed within the recommended method holding time.
- Samples D11357-3BMS and D11357-3BMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Sample D11204-4 has surrogates outside control limits. Probable cause due to matrix interference.

Extractables by GC By Method SW846-8015

Matrix SO

Batch ID: OP1459

- 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.

Extractables by GC By Method SW846-8015B

Matrix SO

Batch ID: OP1459

- Samples D11204-4 has surrogates outside control limits. Probable cause due to matrix interference.

Metals By Method SW846 6010B

Matrix AQ

Batch ID: MP1378

- All samples were digested 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.
- Samples D11204-1ADUP and D11204-1AMS were used as the QC samples for the metals analysis.
- The matrix spike (MS) recoveries of Calcium and Sodium are outside control limits. The spike amounts are low relative to the sample amounts. Refer to lab control or spike blank for recovery information.

Matrix SO

Batch ID: MP1394

- All samples were digested 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.
- Samples D11203-2MS, D11203-2MSD, and D11203-2SDL were used as the QC samples for the metals analysis.
- The matrix spike and matrix spike duplicate (MS/MSD) recoveries of Nickel and Zinc and the MSD recovery of Chromium are outside control limits. The laboratory control spike (LCS) recoveries of Chromium, Nickel and Zinc are within QC limits, proving the analysis is in control.
- The matrix spike (MS) recovery of Barium is outside control limits. The spike amount is low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- The RPD for the MS and MSD recoveries of Barium are outside control limits for sample MP1394-S2 due to the MS recovery.
- The serial dilution RPDs of Lead, Selenium, Boron, Nickel, and Zinc are outside control limits for sample MP1394-SD1. The percent differences are acceptable due to low initial sample concentration (< 50 times IDL).

Metals By Method SW846 6020

Matrix SO

Batch ID: MP1393

- All samples were digested 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.
- Samples D11203-2MS, D11203-2MSD, and D11203-2SDL were used as the QC samples for the metals analysis.

Metals By Method SW846 7471A

Matrix SO

Batch ID: MP1389

- All samples were digested 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.
- Samples D11195-1MS and D11195-1MSD were used as the QC samples for the metals analysis.

Wet Chemistry By Method ASTM E1498-76M

Matrix SO

Batch ID: M:GN31188

- The data for ASTM E1498-76M meets quality control requirements.
- The following samples were run outside of holding time for method ASTM E1498-76M: D11204-1, D11204-2, D11204-3, D11204-4
- Redox Potential Vs H2: Analysis performed at Accutest Laboratories, Marlborough, MA.

Wet Chemistry By Method LADNR29B

Matrix SO

Batch ID: MP1378

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

Wet Chemistry By Method SM19 2540B M

Matrix SO

Batch ID: GN3330

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

Wet Chemistry By Method SW846 3060/7196A M

Matrix SO

Batch ID: R1434

- The data for SW846 3060/7196A M meets quality control requirements.
- Trivalent Chromium: Calculated as: $(\text{Chromium}) - (\text{Hexavalent Chromium})$

Wet Chemistry By Method SW846 3060A/7196A

Matrix SO

Batch ID: M:GP11347

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

Wet Chemistry By Method SW846 9045C

Matrix SO

Batch ID: GN3335

- The following samples were run outside of holding time for method SW846 9045C: D11204-1, D11204-2, D11204-3, D11204-4

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest'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.

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

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Accutest Mountain States**Job No** D11204**Site:** KRWCCOL: 0911-06A**Report Date** 3/8/2010 9:59:21 AM

4 Sample(s) were collected on between 02/18/2010 and 02/19/2010 and were received at Accutest on 02/22/2010 properly preserved, at 1.3 Deg. C and intact. These Samples received an Accutest job number of D11204. 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.

Wet Chemistry By Method ASTM E1498-76M

Matrix SO**Batch ID:** GN31188

- Sample(s) D11203-2DUP were used as the QC samples for Redox Potential Vs H2.

Wet Chemistry By Method SW846 3060A/7196A

Matrix SO**Batch ID:** GP11347

- 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) D11393-1DUP, D11393-1MS 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(D11204).



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	297.13 CS-1		
Lab Sample ID:	D11204-1	Date Sampled:	02/18/10
Matrix:	SO - Soil	Date Received:	02/22/10
Method:	SW846 8270C SW846 3540C	Percent Solids:	80.6
Project:	0911-06A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G05929.D	2	03/02/10	TMB	02/25/10	OP1468	E1G180
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	91	72	ug/kg	
208-96-8	Acenaphthylene	ND	91	83	ug/kg	
120-12-7	Anthracene	ND	91	62	ug/kg	
56-55-3	Benzo(a)anthracene	ND	91	72	ug/kg	
50-32-8	Benzo(a)pyrene	ND	91	62	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	99	91	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	91	62	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	99	ug/kg	
218-01-9	Chrysene	ND	120	99	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	99	74	ug/kg	
206-44-0	Fluoranthene	ND	170	91	ug/kg	
86-73-7	Fluorene	ND	99	83	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	91	67	ug/kg	
90-12-0	1-Methylnaphthalene	136	120	91	ug/kg	
91-57-6	2-Methylnaphthalene	347	91	69	ug/kg	
91-20-3	Naphthalene	160	170	83	ug/kg	J
85-01-8	Phenanthrene	143	170	91	ug/kg	J
129-00-0	Pyrene	ND	99	91	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	65%		33-130%
321-60-8	2-Fluorobiphenyl	73%		37-130%
1718-51-0	Terphenyl-d14	86%		48-130%

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: 297.13 CS-1
Lab Sample ID: D11204-1
Matrix: SO - Soil
Method: SW846 8015B
Project: 0911-06A

Date Sampled: 02/18/10
Date Received: 02/22/10
Percent Solids: 80.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA5353.D	1	03/03/10	SD	n/a	n/a	GGA296
Run #2							

	Initial Weight
Run #1	1.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	1.2	1.2	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	67%		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:	297.13 CS-1	Date Sampled:	02/18/10
Lab Sample ID:	D11204-1	Date Received:	02/22/10
Matrix:	SO - Soil	Percent Solids:	80.6
Method:	SW846 8021B		
Project:	0911-06A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA5353.D	1	03/03/10	SD	n/a	n/a	GTA296
Run #2							

	Initial Weight
Run #1	1.0 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	6.2	ug/kg	
108-88-3	Toluene	ND	12	ug/kg	
100-41-4	Ethylbenzene	ND	12	ug/kg	
	m,p-Xylene	ND	12	ug/kg	
95-47-6	o-Xylene	ND	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	75%		60-140%

ND = Not detected
 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:	297.13 CS-1		
Lab Sample ID:	D11204-1	Date Sampled:	02/18/10
Matrix:	SO - Soil	Date Received:	02/22/10
Method:	SW846-8015B SW846 3550B	Percent Solids:	80.6
Project:	0911-06A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI1234.D	1	02/23/10	CP	02/23/10	OP1459	GF192
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	64.0	17	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
98-06-6	t-Butylbenzene	50%		39-130%	

ND = Not detected
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: 297.13 CS-1

Lab Sample ID: D11204-1

Matrix: SO - Soil

Project: 0911-06A

Date Sampled: 02/18/10

Date Received: 02/22/10

Percent Solids: 80.6

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.6	0.40	mg/kg	5	03/04/10	03/05/10 SES	SW846 6020 ³	SW846 3050B ⁵
Barium	5110	5.0	mg/kg	5	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Boron	10.3	5.0	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Cadmium	< 0.99	0.99	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Chromium	29.8	0.99	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Copper	12.6	2.0	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Lead	18.9	5.0	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Mercury	< 0.11	0.11	mg/kg	1	03/03/10	03/04/10 NC	SW846 7471A ¹	SW846 7471A ⁴
Nickel	13.7	3.0	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Selenium	< 5.0	5.0	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Silver	< 3.0	3.0	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Zinc	47.9	3.0	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶

(1) Instrument QC Batch: MA457

(2) Instrument QC Batch: MA459

(3) Instrument QC Batch: MA460

(4) Prep QC Batch: MP1389

(5) Prep QC Batch: MP1393

(6) Prep QC Batch: MP1394

RL = Reporting Limit

Report of Analysis

Client Sample ID: 297.13 CS-1**Lab Sample ID:** D11204-1**Matrix:** SO - Soil**Project:** 0911-06A**Date Sampled:** 02/18/10**Date Received:** 02/22/10**Percent Solids:** 80.6**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 2.4	2.4	mg/kg	1	03/05/10 17:15	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	29.5	3.4	mg/kg	1	03/05/10 17:15	AMA	SW846 3060/7196A M
Redox Potential Vs H2 ^a	277		mv	1	02/25/10	AMA	ASTM E1498-76M
Solids, Percent	80.6		%	1	02/22/10	SWT	SM19 2540B M
Specific Conductivity	4690	1.0	umhos/cm	1	03/02/10	CJ	DEPT.OF AG, BOOK N9
pH	9.18		su	1	02/22/10 13:00	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:	297.13 CS-1	Date Sampled:	02/18/10
Lab Sample ID:	D11204-1A	Date Received:	02/22/10
Matrix:	SO - Soil	Percent Solids:	80.6
Project:	0911-06A		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	632	2.0	mg/l	1	03/01/10	03/01/10 JM	SW846 6010B ¹	EPA 200.7 ²
Magnesium	54.0	1.0	mg/l	1	03/01/10	03/01/10 JM	SW846 6010B ¹	EPA 200.7 ²
Sodium	854	2.0	mg/l	1	03/01/10	03/01/10 JM	SW846 6010B ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA442
(2) Prep QC Batch: MP1378

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 CS-1	Date Sampled:	02/18/10
Lab Sample ID:	D11204-1A	Date Received:	02/22/10
Matrix:	SO - Soil	Percent Solids:	80.6
Project:	0911-06A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	8.75		ratio	1	03/01/10 13:36	JM	LADNR29B

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

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 CS-2		
Lab Sample ID:	D11204-2	Date Sampled:	02/18/10
Matrix:	SO - Soil	Date Received:	02/22/10
Method:	SW846 8270C SW846 3540C	Percent Solids:	81.7
Project:	0911-06A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G05930.D	2	03/02/10	TMB	02/25/10	OP1468	E1G180
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	90	71	ug/kg	
208-96-8	Acenaphthylene	ND	90	82	ug/kg	
120-12-7	Anthracene	ND	90	61	ug/kg	
56-55-3	Benzo(a)anthracene	ND	90	71	ug/kg	
50-32-8	Benzo(a)pyrene	ND	90	61	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	98	90	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	90	61	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	98	ug/kg	
218-01-9	Chrysene	ND	110	98	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	98	73	ug/kg	
206-44-0	Fluoranthene	ND	170	90	ug/kg	
86-73-7	Fluorene	ND	98	82	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	90	66	ug/kg	
90-12-0	1-Methylnaphthalene	197	110	90	ug/kg	
91-57-6	2-Methylnaphthalene	380	90	69	ug/kg	
91-20-3	Naphthalene	185	170	82	ug/kg	
85-01-8	Phenanthrene	95.0	170	90	ug/kg	J
129-00-0	Pyrene	ND	98	90	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	76%		33-130%
321-60-8	2-Fluorobiphenyl	80%		37-130%
1718-51-0	Terphenyl-d14	114%		48-130%

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: 297.13 CS-2
Lab Sample ID: D11204-2
Matrix: SO - Soil
Method: SW846 8015B
Project: 0911-06A

Date Sampled: 02/18/10
Date Received: 02/22/10
Percent Solids: 81.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA5354.D	1	03/03/10	SD	n/a	n/a	GGA296
Run #2							

	Initial Weight
Run #1	1.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	1.2	1.2	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	72%		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:	297.13 CS-2		
Lab Sample ID:	D11204-2	Date Sampled:	02/18/10
Matrix:	SO - Soil	Date Received:	02/22/10
Method:	SW846 8021B	Percent Solids:	81.7
Project:	0911-06A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA5354.D	1	03/03/10	SD	n/a	n/a	GTA296
Run #2							

	Initial Weight
Run #1	1.0 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	6.1	ug/kg	
108-88-3	Toluene	ND	12	ug/kg	
100-41-4	Ethylbenzene	ND	12	ug/kg	
	m,p-Xylene	ND	12	ug/kg	
95-47-6	o-Xylene	ND	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	74%		60-140%

ND = Not detected
 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:	297.13 CS-2	Date Sampled:	02/18/10
Lab Sample ID:	D11204-2	Date Received:	02/22/10
Matrix:	SO - Soil	Percent Solids:	81.7
Method:	SW846-8015B SW846 3550B		
Project:	0911-06A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI1235.D	1	02/23/10	CP	02/23/10	OP1459	GF192
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	123	16	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-06-6	t-Butylbenzene	53%		39-130%

ND = Not detected
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: 297.13 CS-2

Lab Sample ID: D11204-2

Matrix: SO - Soil

Project: 0911-06A

Date Sampled: 02/18/10

Date Received: 02/22/10

Percent Solids: 81.7

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	6.5	0.37	mg/kg	5	03/04/10	03/05/10 SES	SW846 6020 ³	SW846 3050B ⁵
Barium	5630	4.6	mg/kg	5	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Boron	12.0	4.6	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Cadmium	< 0.92	0.92	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Chromium	29.6	0.92	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Copper	16.7	1.8	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Lead	22.9	4.6	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Mercury	< 0.12	0.12	mg/kg	1	03/03/10	03/04/10 NC	SW846 7471A ¹	SW846 7471A ⁴
Nickel	14.7	2.8	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Selenium	< 4.6	4.6	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Silver	< 2.8	2.8	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Zinc	54.6	2.8	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶

(1) Instrument QC Batch: MA457

(2) Instrument QC Batch: MA459

(3) Instrument QC Batch: MA460

(4) Prep QC Batch: MP1389

(5) Prep QC Batch: MP1393

(6) Prep QC Batch: MP1394

RL = Reporting Limit

Report of Analysis

Client Sample ID: 297.13 CS-2**Lab Sample ID:** D11204-2**Matrix:** SO - Soil**Project:** 0911-06A**Date Sampled:** 02/18/10**Date Received:** 02/22/10**Percent Solids:** 81.7**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 2.4	2.4	mg/kg	1	03/05/10 17:15	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	28.8	3.3	mg/kg	1	03/05/10 17:15	AMA	SW846 3060/7196A M
Redox Potential Vs H2 ^a	270		mv	1	02/25/10	AMA	ASTM E1498-76M
Solids, Percent	81.7		%	1	02/22/10	SWT	SM19 2540B M
Specific Conductivity	9410	1.0	umhos/cm	1	03/02/10	CJ	DEPT.OF AG, BOOK N9
pH	8.77		su	1	02/22/10 13:00	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:	297.13 CS-2		
Lab Sample ID:	D11204-2A	Date Sampled:	02/18/10
Matrix:	SO - Soil	Date Received:	02/22/10
		Percent Solids:	81.7
Project:	0911-06A		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	746	2.0	mg/l	1	03/01/10	03/01/10 JM	SW846 6010B ¹	EPA 200.7 ²
Magnesium	60.2	1.0	mg/l	1	03/01/10	03/01/10 JM	SW846 6010B ¹	EPA 200.7 ²
Sodium	1280	2.0	mg/l	1	03/01/10	03/01/10 JM	SW846 6010B ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA442
(2) Prep QC Batch: MP1378

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 CS-2	Date Sampled:	02/18/10
Lab Sample ID:	D11204-2A	Date Received:	02/22/10
Matrix:	SO - Soil	Percent Solids:	81.7
Project:	0911-06A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	12.1		ratio	1	03/01/10 13:56	JM	LADNR29B

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

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 CS-3	
Lab Sample ID:	D11204-3	Date Sampled: 02/18/10
Matrix:	SO - Soil	Date Received: 02/22/10
Method:	SW846 8270C SW846 3540C	Percent Solids: 89.0
Project:	0911-06A	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G05931.D	2	03/03/10	TMB	02/25/10	OP1468	E1G180
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	82	65	ug/kg	
208-96-8	Acenaphthylene	ND	82	75	ug/kg	
120-12-7	Anthracene	ND	82	56	ug/kg	
56-55-3	Benzo(a)anthracene	ND	82	65	ug/kg	
50-32-8	Benzo(a)pyrene	ND	82	56	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	90	82	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	82	56	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	90	ug/kg	
218-01-9	Chrysene	ND	100	90	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	90	67	ug/kg	
206-44-0	Fluoranthene	ND	160	82	ug/kg	
86-73-7	Fluorene	ND	90	75	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	82	61	ug/kg	
90-12-0	1-Methylnaphthalene	ND	100	82	ug/kg	
91-57-6	2-Methylnaphthalene	88.6	82	63	ug/kg	
91-20-3	Naphthalene	ND	160	75	ug/kg	
85-01-8	Phenanthrene	ND	160	82	ug/kg	
129-00-0	Pyrene	ND	90	82	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	62%		33-130%
321-60-8	2-Fluorobiphenyl	64%		37-130%
1718-51-0	Terphenyl-d14	63%		48-130%

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: 297.13 CS-3
Lab Sample ID: D11204-3
Matrix: SO - Soil
Method: SW846 8015B
Project: 0911-06A

Date Sampled: 02/18/10
Date Received: 02/22/10
Percent Solids: 89.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA5355.D	1	03/03/10	SD	n/a	n/a	GGA296
Run #2							

	Initial Weight
Run #1	1.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	1.1	1.1	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	60%		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:	297.13 CS-3		
Lab Sample ID:	D11204-3	Date Sampled:	02/18/10
Matrix:	SO - Soil	Date Received:	02/22/10
Method:	SW846 8021B	Percent Solids:	89.0
Project:	0911-06A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA5355.D	1	03/03/10	SD	n/a	n/a	GTA296
Run #2							

	Initial Weight
Run #1	1.0 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.6	ug/kg	
108-88-3	Toluene	ND	11	ug/kg	
100-41-4	Ethylbenzene	ND	11	ug/kg	
	m,p-Xylene	ND	11	ug/kg	
95-47-6	o-Xylene	ND	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	66%		60-140%

ND = Not detected

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:	297.13 CS-3	Date Sampled:	02/18/10
Lab Sample ID:	D11204-3	Date Received:	02/22/10
Matrix:	SO - Soil	Percent Solids:	89.0
Method:	SW846-8015B SW846 3550B		
Project:	0911-06A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI1236.D	1	02/23/10	CP	02/23/10	OP1459	GF192
Run #2							

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

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	85.5	15	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
98-06-6	t-Butylbenzene	54%		39-130%	

ND = Not detected
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: 297.13 CS-3

Lab Sample ID: D11204-3

Matrix: SO - Soil

Project: 0911-06A

Date Sampled: 02/18/10

Date Received: 02/22/10

Percent Solids: 89.0

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	6.0	0.37	mg/kg	5	03/04/10	03/05/10 SES	SW846 6020 ³	SW846 3050B ⁵
Barium	3820	4.6	mg/kg	5	03/04/10	03/06/10 JM	SW846 6010B ²	SW846 3050B ⁶
Boron	6.3	4.6	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Cadmium	< 0.91	0.91	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Chromium	34.1	0.91	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Copper	14.0	1.8	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Lead	18.5	4.6	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Mercury	< 0.11	0.11	mg/kg	1	03/03/10	03/04/10 NC	SW846 7471A ¹	SW846 7471A ⁴
Nickel	15.6	2.7	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Selenium	< 4.6	4.6	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Silver	< 2.7	2.7	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Zinc	48.7	2.7	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶

(1) Instrument QC Batch: MA457

(2) Instrument QC Batch: MA459

(3) Instrument QC Batch: MA460

(4) Prep QC Batch: MP1389

(5) Prep QC Batch: MP1393

(6) Prep QC Batch: MP1394

RL = Reporting Limit

Report of Analysis

Client Sample ID: 297.13 CS-3**Lab Sample ID:** D11204-3**Matrix:** SO - Soil**Project:** 0911-06A**Date Sampled:** 02/18/10**Date Received:** 02/22/10**Percent Solids:** 89.0**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 2.2	2.2	mg/kg	1	03/05/10 17:15	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	33.7	3.1	mg/kg	1	03/05/10 17:15	AMA	SW846 3060/7196A M
Redox Potential Vs H2 ^a	292		mv	1	02/25/10	AMA	ASTM E1498-76M
Solids, Percent	89		%	1	02/22/10	SWT	SM19 2540B M
Specific Conductivity	5650	1.0	umhos/cm	1	03/02/10	CJ	DEPT.OF AG, BOOK N9
pH	9.29		su	1	02/22/10 13:00	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:	297.13 CS-3		
Lab Sample ID:	D11204-3A	Date Sampled:	02/18/10
Matrix:	SO - Soil	Date Received:	02/22/10
		Percent Solids:	89.0
Project:	0911-06A		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	484	2.0	mg/l	1	03/01/10	03/01/10 JM	SW846 6010B ¹	EPA 200.7 ²
Magnesium	89.1	1.0	mg/l	1	03/01/10	03/01/10 JM	SW846 6010B ¹	EPA 200.7 ²
Sodium	913	2.0	mg/l	1	03/01/10	03/01/10 JM	SW846 6010B ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA442
(2) Prep QC Batch: MP1378

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 CS-3	Date Sampled:	02/18/10
Lab Sample ID:	D11204-3A	Date Received:	02/22/10
Matrix:	SO - Soil	Percent Solids:	89.0
Project:	0911-06A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	10.0		ratio	1	03/01/10 14:06	JM	LADNR29B

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

RL = Reporting Limit

Report of Analysis

Client Sample ID: 297.13 F.W.

Lab Sample ID: D11204-4

Date Sampled: 02/19/10

Matrix: SO - Soil

Date Received: 02/22/10

Method: SW846 8270C SW846 3540C

Percent Solids: 69.5

Project: 0911-06A

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G05934.D	10	03/03/10	TMB	02/25/10	OP1468	E1G180
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	530	420	ug/kg	
208-96-8	Acenaphthylene	ND	530	480	ug/kg	
120-12-7	Anthracene	ND	530	360	ug/kg	
56-55-3	Benzo(a)anthracene	ND	530	420	ug/kg	
50-32-8	Benzo(a)pyrene	ND	530	360	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	580	530	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	530	360	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	670	580	ug/kg	
218-01-9	Chrysene	ND	670	580	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	580	430	ug/kg	
206-44-0	Fluoranthene	ND	1000	530	ug/kg	
86-73-7	Fluorene	ND	580	480	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	530	390	ug/kg	
90-12-0	1-Methylnaphthalene	6250	670	530	ug/kg	
91-57-6	2-Methylnaphthalene	22300	530	400	ug/kg	
91-20-3	Naphthalene	ND	1000	480	ug/kg	
85-01-8	Phenanthrene	2840	1000	530	ug/kg	
129-00-0	Pyrene	ND	580	530	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	147% ^a		33-130%
321-60-8	2-Fluorobiphenyl	10% ^a		37-130%
1718-51-0	Terphenyl-d14	11% ^a		48-130%

(a) Outside control limits due to dilution.

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:	297.13 F.W.						
Lab Sample ID:	D11204-4				Date Sampled:	02/19/10	
Matrix:	SO - Soil				Date Received:	02/22/10	
Method:	SW846 8015B				Percent Solids:	69.5	
Project:	0911-06A						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA5395.D	1	03/04/10	SD	n/a	n/a	GGA297
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	871	33	33	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	1614% ^a		60-140%		

(a) Outside control limits due to matrix interference.

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:	297.13 F.W.		
Lab Sample ID:	D11204-4	Date Sampled:	02/19/10
Matrix:	SO - Soil	Date Received:	02/22/10
Method:	SW846 8021B	Percent Solids:	69.5
Project:	0911-06A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA5395.D	1	03/04/10	SD	n/a	n/a	GTA297
Run #2	TA5396.D	1	03/04/10	SD	n/a	n/a	GTA297

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	10.0 ml	100 ul
Run #2	5.0 g	10.0 ml	40.0 ul

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	1260	170	ug/kg	
108-88-3	Toluene	4580	330	ug/kg	
100-41-4	Ethylbenzene	3880	330	ug/kg	
	m,p-Xylene	70600 ^a	830	ug/kg	
95-47-6	o-Xylene	13300	330	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	861% ^b	569%	60-140%

(a) Result is from Run# 2

(b) Outside control limits due to matrix interference.

ND = Not detected
 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:	297.13 F.W.		
Lab Sample ID:	D11204-4	Date Sampled:	02/19/10
Matrix:	SO - Soil	Date Received:	02/22/10
Method:	SW846-8015B SW846 3550B	Percent Solids:	69.5
Project:	0911-06A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI1257.D	20	02/24/10	CP	02/23/10	OP1459	GF193
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	222000	1900	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
98-06-6	t-Butylbenzene	690% ^a		39-130%	

(a) Outside control limits due to dilution.

ND = Not detected
 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: 297.13 F.W.

Lab Sample ID: D11204-4

Matrix: SO - Soil

Project: 0911-06A

Date Sampled: 02/19/10

Date Received: 02/22/10

Percent Solids: 69.5

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	8.6	0.46	mg/kg	5	03/04/10	03/05/10 SES	SW846 6020 ³	SW846 3050B ⁵
Barium	9050	5.8	mg/kg	5	03/04/10	03/06/10 JM	SW846 6010B ²	SW846 3050B ⁶
Boron	46.8	5.8	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Cadmium	< 1.2	1.2	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Chromium	75.2	1.2	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Copper	85.6	2.3	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Lead	35.6	5.8	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Mercury	9.4	1.4	mg/kg	10	03/03/10	03/04/10 NC	SW846 7471A ¹	SW846 7471A ⁴
Nickel	23.8	3.5	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Selenium	< 5.8	5.8	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Silver	< 3.5	3.5	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶
Zinc	167	3.5	mg/kg	1	03/04/10	03/05/10 JM	SW846 6010B ²	SW846 3050B ⁶

(1) Instrument QC Batch: MA457

(2) Instrument QC Batch: MA459

(3) Instrument QC Batch: MA460

(4) Prep QC Batch: MP1389

(5) Prep QC Batch: MP1393

(6) Prep QC Batch: MP1394

RL = Reporting Limit

Report of Analysis

Client Sample ID: 297.13 F.W.**Lab Sample ID:** D11204-4**Matrix:** SO - Soil**Project:** 0911-06A**Date Sampled:** 02/19/10**Date Received:** 02/22/10**Percent Solids:** 69.5**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 2.7	2.7	mg/kg	1	03/05/10 17:15	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	74.5	3.9	mg/kg	1	03/05/10 17:15	AMA	SW846 3060/7196A M
Redox Potential Vs H2 ^a	115		mv	1	02/25/10	AMA	ASTM E1498-76M
Solids, Percent	69.5		%	1	02/22/10	SWT	SM19 2540B M
Specific Conductivity	3360	1.0	umhos/cm	1	03/02/10	CJ	DEPT.OF AG, BOOK N9
pH	8.81		su	1	02/22/10 13:00	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:	297.13 F.W.		
Lab Sample ID:	D11204-4A	Date Sampled:	02/19/10
Matrix:	SO - Soil	Date Received:	02/22/10
		Percent Solids:	69.5
Project:	0911-06A		

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	205	2.0	mg/l	1	03/01/10	03/01/10 JM	SW846 6010B ¹	EPA 200.7 ²
Magnesium	18.8	1.0	mg/l	1	03/01/10	03/01/10 JM	SW846 6010B ¹	EPA 200.7 ²
Sodium	491	2.0	mg/l	1	03/01/10	03/01/10 JM	SW846 6010B ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA442
(2) Prep QC Batch: MP1378

RL = Reporting Limit

Report of Analysis

Client Sample ID:	297.13 F.W.	Date Sampled:	02/19/10
Lab Sample ID:	D11204-4A	Date Received:	02/22/10
Matrix:	SO - Soil	Percent Solids:	69.5
Project:	0911-06A		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	8.79		ratio	1	03/01/10 14:12	JM	LADNR29B

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

RL = Reporting Limit



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



GC/MS Semi-volatiles

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QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

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Job Number: D11204

Account: KRWCCOL KRW Consulting, Inc.

Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1468-MB	1G05914.D	1	03/02/10	TMB	02/25/10	OP1468	E1G180

The QC reported here applies to the following samples:

Method: SW846 8270C

D11204-1, D11204-2, D11204-3, D11204-4

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	37	29	ug/kg	
208-96-8	Acenaphthylene	ND	37	33	ug/kg	
120-12-7	Anthracene	ND	37	25	ug/kg	
56-55-3	Benzo(a)anthracene	ND	37	29	ug/kg	
50-32-8	Benzo(a)pyrene	ND	37	25	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	40	37	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	37	25	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	47	40	ug/kg	
218-01-9	Chrysene	ND	47	40	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	40	30	ug/kg	
206-44-0	Fluoranthene	ND	70	37	ug/kg	
86-73-7	Fluorene	ND	40	33	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	37	27	ug/kg	
90-12-0	1-Methylnaphthalene	ND	47	37	ug/kg	
91-57-6	2-Methylnaphthalene	ND	37	28	ug/kg	
91-20-3	Naphthalene	ND	70	33	ug/kg	
85-01-8	Phenanthrene	ND	70	37	ug/kg	
129-00-0	Pyrene	ND	40	37	ug/kg	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	57% 33-130%
321-60-8	2-Fluorobiphenyl	55% 37-130%
1718-51-0	Terphenyl-d14	67% 48-130%

Blank Spike Summary

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Job Number: D11204
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1468-BS	1G05915.D	1	03/02/10	TMB	02/25/10	OP1468	E1G180

The QC reported here applies to the following samples:

Method: SW846 8270C

D11204-1, D11204-2, D11204-3, D11204-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	1670	1190	71	54-130
208-96-8	Acenaphthylene	1670	1240	74	53-130
120-12-7	Anthracene	1670	1290	77	54-130
56-55-3	Benzo(a)anthracene	1670	1310	79	52-130
50-32-8	Benzo(a)pyrene	1670	1320	79	56-130
205-99-2	Benzo(b)fluoranthene	1670	1350	81	58-130
191-24-2	Benzo(g,h,i)perylene	1670	1000	60	46-130
207-08-9	Benzo(k)fluoranthene	1670	1250	75	53-130
218-01-9	Chrysene	1670	1280	77	51-130
53-70-3	Dibenzo(a,h)anthracene	1670	1090	65	48-130
206-44-0	Fluoranthene	1670	1150	69	50-130
86-73-7	Fluorene	1670	1240	74	59-130
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1070	64	48-134
90-12-0	1-Methylnaphthalene	1670	1100	66	43-130
91-57-6	2-Methylnaphthalene	1670	1250	75	40-130
91-20-3	Naphthalene	1670	1080	65	37-130
85-01-8	Phenanthrene	1670	1250	75	57-130
129-00-0	Pyrene	1670	1360	82	54-130

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	66%	33-130%
321-60-8	2-Fluorobiphenyl	65%	37-130%
1718-51-0	Terphenyl-d14	81%	48-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D11204
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1468-MS	1G05917.D	1	03/02/10	TMB	02/25/10	OP1468	E1G180
OP1468-MSD	1G05918.D	1	03/02/10	TMB	02/25/10	OP1468	E1G180
D11203-1	1G05916.D	1	03/02/10	TMB	02/25/10	OP1468	E1G180

The QC reported here applies to the following samples:

Method: SW846 8270C

D11204-1, D11204-2, D11204-3, D11204-4

CAS No.	Compound	D11203-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		1860	1430	77	1290	69	10	54-130/30
208-96-8	Acenaphthylene	ND		1860	1450	78	1350	72	7	53-130/30
120-12-7	Anthracene	ND		1860	1470	79	1360	73	8	54-130/30
56-55-3	Benzo(a)anthracene	ND		1860	1510	81	1340	72	12	52-130/30
50-32-8	Benzo(a)pyrene	ND		1860	1480	79	1400	75	6	56-130/30
205-99-2	Benzo(b)fluoranthene	ND		1860	1540	83	1450	78	6	58-130/30
191-24-2	Benzo(g,h,i)perylene	ND		1860	1480	79	1240	67	18	46-130/30
207-08-9	Benzo(k)fluoranthene	ND		1860	1470	79	1350	72	9	53-130/30
218-01-9	Chrysene	ND		1860	1460	78	1310	70	11	51-130/30
53-70-3	Dibenzo(a,h)anthracene	ND		1860	1480	79	1290	69	14	48-130/30
206-44-0	Fluoranthene	ND		1860	1240	67	1110	60	11	50-130/30
86-73-7	Fluorene	ND		1860	1410	76	1250	67	12	59-130/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND		1860	1500	81	1280	69	16	48-134/30
90-12-0	1-Methylnaphthalene	ND		1860	1310	70	1160	62	12	43-140/30
91-57-6	2-Methylnaphthalene	57.2		1860	1510	78	1350	69	11	40-140/30
91-20-3	Naphthalene	ND		1860	1290	69	1160	62	11	37-140/30
85-01-8	Phenanthrene	ND		1860	1450	78	1330	71	9	57-130/30
129-00-0	Pyrene	ND		1860	1760	95	1680	90	5	54-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D11203-1	Limits
4165-60-0	Nitrobenzene-d5	65%	60%	65%	33-130%
321-60-8	2-Fluorobiphenyl	72%	66%	67%	37-130%
1718-51-0	Terphenyl-d14	94%	88%	80%	48-130%



GC Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Page 1 of 1

Job Number: D11204
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA296-MB	GA5346.D	1	03/02/10	SD	n/a	n/a	GGA296

The QC reported here applies to the following samples:

Method: SW846 8015B

D11204-1, D11204-2, D11204-3

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	1.0	1.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	81% 60-140%

Method Blank Summary

Page 1 of 1

Job Number: D11204
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA297-MB	GA5390.D	1	03/04/10	SD	n/a	n/a	GGA297

The QC reported here applies to the following samples:

Method: SW846 8015B

D11204-4

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	20	20	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	89% 60-140%

Method Blank Summary

Page 1 of 1

Job Number: D11204
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA296-MB	TA5346.D	1	03/02/10	SD	n/a	n/a	GTA296

The QC reported here applies to the following samples:

Method: SW846 8021B

D11204-1, D11204-2, D11204-3

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.0	ug/kg	
100-41-4	Ethylbenzene	ND	10	ug/kg	
108-88-3	Toluene	ND	10	ug/kg	
95-47-6	o-Xylene	ND	10	ug/kg	
	m,p-Xylene	ND	10	ug/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	93% 60-140%

Method Blank Summary

Page 1 of 1

Job Number: D11204

Account: KRWCCOL KRW Consulting, Inc.

Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA297-MB	TA5390.D	1	03/04/10	SD	n/a	n/a	GTA297

The QC reported here applies to the following samples:

Method: SW846 8021B

D11204-4

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	100	ug/kg	
100-41-4	Ethylbenzene	ND	200	ug/kg	
108-88-3	Toluene	ND	200	ug/kg	
95-47-6	o-Xylene	ND	200	ug/kg	
	m,p-Xylene	ND	200	ug/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	96% 60-140%

Blank Spike Summary

Job Number: D11204
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA296-BS	GA5347.D	1	03/02/10	SD	n/a	n/a	GGA296

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

D11204-1, D11204-2, D11204-3

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	11	9.34	85	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	111%	60-140%

Blank Spike Summary

Job Number: D11204
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA297-BS	GA5391.D	1	03/04/10	SD	n/a	n/a	GGA297

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

D11204-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	220	214	97	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	98%	60-140%

Blank Spike Summary

Page 1 of 1

Job Number: D11204

Account: KRWCCOL KRW Consulting, Inc.

Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA296-BS	TA5347.D	1	03/02/10	SD	n/a	n/a	GTA296

The QC reported here applies to the following samples:

Method: SW846 8021B

D11204-1, D11204-2, D11204-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	136	134	99	70-130
100-41-4	Ethylbenzene	228	216	95	70-130
108-88-3	Toluene	1060	940	89	70-130
95-47-6	o-Xylene	330	321	97	70-130
	m,p-Xylene	750	690	92	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	107%	60-140%

Blank Spike Summary

Page 1 of 1

Job Number: D11204

Account: KRWCCOL KRW Consulting, Inc.

Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA297-BS	TA5391.D	1	03/04/10	SD	n/a	n/a	GTA297

The QC reported here applies to the following samples:

Method: SW846 8021B

D11204-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	2720	2620	96	70-130
100-41-4	Ethylbenzene	4560	4320	95	70-130
108-88-3	Toluene	21200	18500	87	70-130
95-47-6	o-Xylene	6590	6380	97	70-130
	m,p-Xylene	15000	13900	93	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	105%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D11204
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D11203-1MS	GA5349.D	1	03/03/10	SD	n/a	n/a	GGA296
D11203-1MSD	GA5350.D	1	03/03/10	SD	n/a	n/a	GGA296
D11203-1 ^a	GA5348.D	1	03/03/10	SD	n/a	n/a	GGA296

The QC reported here applies to the following samples:

Method: SW846 8015B

D11204-1, D11204-2, D11204-3

CAS No.	Compound	D11203-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		12.3	7.99	65	7.51	61* ^b	6	62-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D11203-1	Limits
120-82-1	1,2,4-Trichlorobenzene	69%	95%	50%* ^c	60-140%

(a) Confirmation run.

(b) Outside control limits due to matrix interference.

(c) Outside control limits due to matrix interference. Sample for QC purposes only.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D11204

Account: KRWCCOL KRW Consulting, Inc.

Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D11357-3BMS	GA5393.D	1	03/04/10	SD	n/a	n/a	GGA297
D11357-3BMSD	GA5394.D	1	03/04/10	SD	n/a	n/a	GGA297
D11357-3B	GA5392.D	1	03/04/10	SD	n/a	n/a	GGA297

The QC reported here applies to the following samples:

Method: SW846 8015B

D11204-4

CAS No.	Compound	D11357-3B mg/kg	Spike Q	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	105	294	368	89	373	91	1	62-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D11357-3B	Limits
120-82-1	1,2,4-Trichlorobenzene	148% * a	144% * a	129%	60-140%

(a) Outside control limits due to matrix interference.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D11204
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D11203-1MS	TA5349.D	1	03/03/10	SD	n/a	n/a	GTA296
D11203-1MSD	TA5350.D	1	03/03/10	SD	n/a	n/a	GTA296
D11203-1 ^a	TA5348.D	1	03/03/10	SD	n/a	n/a	GTA296

The QC reported here applies to the following samples:

Method: SW846 8021B

D11204-1, D11204-2, D11204-3

CAS No.	Compound	D11203-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		152	135	89	137	90	1	70-130/30
100-41-4	Ethylbenzene	ND		255	192	75	188	74	2	62-130/30
108-88-3	Toluene	ND		1180	898	76	902	76	0	70-130/30
95-47-6	o-Xylene	ND		368	284	77	280	76	1	65-135/30
	m,p-Xylene	ND		838	618	74	605	72	2	60-140/30

CAS No.	Surrogate Recoveries	MS	MSD	D11203-1	Limits
120-82-1	1,2,4-Trichlorobenzene	67%	99%	53% * b	60-140%

(a) Confirmation run.

(b) Outside control limits due to matrix interference. Sample used for QC purposes only.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D11204

Account: KRWCCOL KRW Consulting, Inc.

Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D11357-3BMS	TA5393.D	1	03/04/10	SD	n/a	n/a	GTA297
D11357-3BMSD	TA5394.D	1	03/04/10	SD	n/a	n/a	GTA297
D11357-3B	TA5392.D	1	03/04/10	SD	n/a	n/a	GTA297

The QC reported here applies to the following samples:

Method: SW846 8021B

D11204-4

CAS No.	Compound	D11357-3B ug/kg	Spike Q	ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		3640	3520	97	3490	96	1	70-130/30
100-41-4	Ethylbenzene	ND		6100	6050	99	6170	101	2	62-130/30
108-88-3	Toluene	ND		28300	24900	88	25100	89	1	70-130/30
95-47-6	o-Xylene	686		8820	8890	93	9140	96	3	65-135/30
	m,p-Xylene	2030		20100	20100	90	20600	93	2	60-140/30

CAS No.	Surrogate Recoveries	MS	MSD	D11357-3B	Limits
120-82-1	1,2,4-Trichlorobenzene	133%	140%	119%	60-140%



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

Page 1 of 1

Job Number: D11204
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1459-MB	FI1218.D	1	02/23/10	CP	02/23/10	OP1459	GFI92

The QC reported here applies to the following samples:

Method: SW846-8015

D11204-1, D11204-2, D11204-3, D11204-4

CAS No.	Compound	Result	RL	Units	Q
	Diesel Fuel (No. 2)	ND	13	mg/kg	

CAS No.	Surrogate Recoveries	Limits
98-06-6	t-Butylbenzene	56% 39-130%

Blank Spike Summary

Job Number: D11204
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1459-BS	FI1219.D	1	02/23/10	CP	02/23/10	OP1459	GFI92

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

D11204-1, D11204-2, D11204-3, D11204-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	Diesel Fuel (No. 2)	667	616	92	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
98-06-6	t-Butylbenzene	72%	39-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D11204
Account: KRWCCOL KRW Consulting, Inc.
Project: 0911-06A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1459-MS	FI1221.D	1	02/23/10	CP	02/23/10	OP1459	GFI92
OP1459-MSD	FI1222.D	1	02/23/10	CP	02/23/10	OP1459	GFI92
D11210-1	FI1220.D	1	02/23/10	CP	02/23/10	OP1459	GFI92

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

D11204-1, D11204-2, D11204-3, D11204-4

CAS No.	Compound	D11210-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	Diesel Fuel (No. 2)	ND		730	797	92	693	78	14	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D11210-1	Limits
98-06-6	t-Butylbenzene	64%	65%	85%	39-130%



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: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1378
Matrix Type: AQUEOUS

Methods: LADNR29B, SW846 6010B
Units: ug/l

Prep Date: 03/01/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	500	160	250		
Antimony	150	68	65		
Arsenic	130	35	33		
Barium	50	1	12		
Beryllium	50	17	22		
Boron	250	17	93		
Cadmium	50	3.7	6		
Calcium	2000	9	46	13.5	<2000
Chromium	50	3	8		
Cobalt	25	3	1.5		
Copper	25	9	14		
Iron	350	28	50		
Lead	250	17	16		
Lithium	10		8		
Magnesium	1000	3.1	62	56.5	<1000
Manganese	25	.5	3.5		
Molybdenum	50	7.5	6		
Nickel	150	4.1	3		
Phosphorus	500	230	270		
Potassium	5000	57	2700		
Selenium	250	25	36		
Silicon	250	48	100		
Silver	150	1.5	1.5		
Sodium	2000	17	110	-400	<2000
Strontium	25		17		
Thallium	50	7	11		
Tin	250	13	22		
Titanium	50	.65	3.5		
Uranium	250	22	20		
Vanadium	50	3.4	1.5		
Zinc	150	2.6	8.5		

Associated samples MP1378: D11204-1A, D11204-2A, D11204-3A, D11204-4A

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

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1378
Matrix Type: AQUEOUS

Methods: LADNR29B, SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1378
Matrix Type: AQUEOUS

Methods: LADNR29B, SW846 6010B
Units: ug/l

Prep Date: 03/01/10 03/01/10

Metal	D11204-1A Original	DUP	RPD	QC Limits	D11204-1A Original	MS	Spikelot MPICPR1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Boron									
Cadmium									
Calcium	632000	587000	7.4	0-20	632000	660000	50000	56.0 (a)	75-125
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Lithium									
Magnesium	54000	49000	9.7	0-20	54000	99400	50000	90.8	75-125
Manganese									
Molybdenum									
Nickel									
Phosphorus									
Potassium									
Selenium									
Silicon									
Silver									
Sodium	854000	771000	10.2	0-20	854000	843000	50000	-22.0(a)	75-125
Strontium									
Thallium									
Tin									
Titanium									
Uranium									
Vanadium									
Zinc									

Associated samples MP1378: D11204-1A, D11204-2A, D11204-3A, D11204-4A

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1378
Matrix Type: AQUEOUS

Methods: LADNR29B, SW846 6010B
Units: ug/l

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.

8.1.2

8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D11204

Account: KRWCCOL - KRW Consulting, Inc.

Project: 0911-06A

QC Batch ID: MP1378

Methods: LADNR29B, SW846 6010B

Matrix Type: AQUEOUS

Units: ug/l

Prep Date:

03/01/10

Metal	BSP Result	Spikelot MPICPR1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	51000	50000	102.0	80-120
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium	48500	50000	97.0	80-120
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	49500	50000	99.0	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP1378: D11204-1A, D11204-2A, D11204-3A, D11204-4A

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1378
Matrix Type: AQUEOUS

Methods: LADNR29B, SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1389
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 03/03/10

Metal	RL	IDL	MDL	MB raw	final
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Mercury	0.10	.0011	.0012	-0.0023	<0.10
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Associated samples MP1389: D11204-1, D11204-2, D11204-3, D11204-4

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: D11204
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: 0911-06A

QC Batch ID: MP1389
 Matrix Type: SOLID

Methods: SW846 7471A
 Units: mg/kg

Prep Date: 03/03/10

Metal	D11195-1 Original MS	Spikelot HGWSR1	% Rec	QC Limits
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Mercury 0.015 0.48 0.449 103.5 85-115

Associated samples MP1389: D11204-1, D11204-2, D11204-3, D11204-4

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

8.2.2

8

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

Methods: SW846 7471A
Units: mg/kg

03/03/10

Associated samples MP1389: D11204-1, D11204-2, D11204-3, D11204-4

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

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

Methods: SW846 7471A
Units: mg/kg

Metal	LCS Result	Spikelot HGLCD064 % Rec	QC Limits
Mercury	6.6	7.34	89.9 72-128

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: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1393
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date: 03/04/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	25	.24	.89		
Arsenic	0.40	.058	.26	-0.12	<0.40
Calcium	200	2.6	6.1		
Copper	1.0	.0045	.14		
Iron	20	2.1	6.1		
Lead	0.25	.0013	.18		
Magnesium	50	.096	1.3		
Potassium	100	4.3	9.1		
Sodium	250	.25	1.8		
Uranium	0.25	.0005	.12		

Associated samples MP1393: D11204-1, D11204-2, D11204-3, D11204-4

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

83.1

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D11204
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: 0911-06A

QC Batch ID: MP1393
 Matrix Type: SOLID

Methods: SW846 6020
 Units: mg/kg

Prep Date: 03/04/10

Metal	D11203-2 Original MS		Spikelot MPICPR1	% Rec	QC Limits
Aluminum					
Arsenic	7.7	150	162	87.8	60-119
Calcium					
Copper					
Iron					
Lead					
Magnesium					
Potassium					
Sodium					
Uranium					

Associated samples MP1393: D11204-1, D11204-2, D11204-3, D11204-4

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

8.3.2
8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D11204
 Account: KRWCCOL - KRW Consulting, Inc.
 Project: 0911-06A

QC Batch ID: MP1393
 Matrix Type: SOLID

Methods: SW846 6020
 Units: mg/kg

Prep Date: 03/04/10

Metal	D11203-2 Original	MSD	Spikelot MPICPR1	% Rec	MSD RPD	QC Limit
Aluminum						
Arsenic	7.7	156	168	88.0	3.9	20
Calcium						
Copper						
Iron						
Lead						
Magnesium						
Potassium						
Sodium						
Uranium						

Associated samples MP1393: D11204-1, D11204-2, D11204-3, D11204-4

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

8.3.2
8

SERIAL DILUTION RESULTS SUMMARY

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1393
Matrix Type: SOLID

Methods: SW846 6020
Units: ug/l

Prep Date: 03/04/10

Metal	D11203-2 Original	SDL 5:25	%DIF	QC Limits
Aluminum				
Arsenic	92.3	91.9	0.5	0-10
Calcium				
Copper				
Iron				
Lead				
Magnesium				
Potassium				
Sodium				
Uranium				

Associated samples MP1393: D11204-1, D11204-2, D11204-3, D11204-4

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

8.3.4

8

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1394
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 03/04/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	3.3	2		
Antimony	3.0	1.4	.5		
Arsenic	2.5	.7	.72		
Barium	1.0	.02	.05	0.30	<1.0
Beryllium	1.0	.33	.21		
Boron	5.0	.33	.91	0.68	<5.0
Cadmium	1.0	.073	.12	0.050	<1.0
Calcium	40	.18	2.7		
Chromium	1.0	.06	.18	0.080	<1.0
Cobalt	0.50	.059	.058		
Copper	2.0	.18	.38	1.3	<2.0
Iron	7.0	.55	.91		
Lead	5.0	.33	.24	0.090	<5.0
Lithium	0.20		.09		
Magnesium	20	.061	.93		
Manganese	0.50	.01	.028		
Molybdenum	1.0	.15	.16		
Nickel	3.0	.081	.075	0.060	<3.0
Phosphorus	10	4.7	3.5		
Potassium	200	1.1	130		
Selenium	5.0	.5	.54	-0.37	<5.0
Silicon	5.0	.96	.68		
Silver	3.0	.03	.068	-0.020	<3.0
Sodium	40	.34	6.3		
Strontium	5.0		.02		
Thallium	1.0	.14	.21		
Tin	5.0	.26	.56		
Titanium	1.0	.013	.041		
Uranium	5.0	.43	.53		
Vanadium	1.0	.067	.034		
Zinc	3.0	.051	.49	0.20	<3.0

Associated samples MP1394: D11204-1, D11204-2, D11204-3, D11204-4

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

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1394
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1394
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 03/04/10

Metal	D11203-2 Original MS		Spikelot MPICPR1	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	anr				
Barium	6180	8580	405	592.4(a)	75-125
Beryllium					
Boron	15.5	160	162	89.2	75-125
Cadmium	0.0	13.2	16.2	81.5	75-125
Calcium					
Chromium	11.3	136	162	77.0	75-125
Cobalt					
Copper	11.2	162	162	93.1	75-125
Iron					
Lead	20.3	174	162	94.8	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum	anr				
Nickel	8.4	120	162	68.9N(b)	75-125
Phosphorus	anr				
Potassium	anr				
Selenium	3.0	133	162	80.2	75-125
Silicon					
Silver	0.0	13.2	16.2	81.5	75-125
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc	25.7	131	162	65.0N(b)	75-125

Associated samples MP1394: D11204-1, D11204-2, D11204-3, D11204-4

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1394
Matrix Type: SOLID

Methods: SW846 6010B
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 and/or sample nonhomogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1394
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 03/04/10

Metal	D11203-2 Original	MSD	Spikelot MPICPR1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium	6180	6970	421	187.6(a)	20.7 (b)	20
Beryllium						
Boron	15.5	156	168	83.4	2.5	20
Cadmium	0.0	13.5	16.8	80.2	2.2	20
Calcium						
Chromium	11.3	135	168	73.4N(c)	0.7	20
Cobalt						
Copper	11.2	158	168	87.2	2.5	20
Iron						
Lead	20.3	163	168	84.7	6.5	20
Lithium						
Magnesium						
Manganese						
Molybdenum	anr					
Nickel	8.4	119	168	65.7N(c)	0.8	20
Phosphorus	anr					
Potassium	anr					
Selenium	3.0	131	168	76.0	1.5	20
Silicon						
Silver	0.0	13.1	16.8	77.8	0.8	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc	25.7	134	168	64.3N(c)	2.3	20

Associated samples MP1394: D11204-1, D11204-2, D11204-3, D11204-4

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1394
Matrix Type: SOLID

Methods: SW846 6010B
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) High RPD due to possible sample nonhomogeneity.
- (c) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

8.4.2

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SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1394
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 03/04/10

Metal	BSP Result	Spikelot MPICPR1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	453	500	90.6	80-120
Beryllium				
Boron	186	200	93.0	80-120
Cadmium	17.8	20	89.0	80-120
Calcium				
Chromium	188	200	94.0	80-120
Cobalt				
Copper	190	200	95.0	80-120
Iron				
Lead	185	200	92.5	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum	anr			
Nickel	182	200	91.0	80-120
Phosphorus	anr			
Potassium	anr			
Selenium	168	200	84.0	80-120
Silicon				
Silver	17.0	20	85.0	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	173	200	86.5	80-120

Associated samples MP1394: D11204-1, D11204-2, D11204-3, D11204-4

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

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1394
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date: 03/04/10

Metal	D11203-2 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	74000	70400	4.9	0-10
Beryllium				
Boron	186	219	17.8*(a)	0-10
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	135	146	8.1	0-10
Cobalt				
Copper	135	123	8.6	0-10
Iron				
Lead	243	183	24.9 (b)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum	anr			
Nickel	101	116	14.2*(a)	0-10
Phosphorus	anr			
Potassium	anr			
Selenium	36.1	44.5	23.3 (b)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	308	355	15.3*(a)	0-10

Associated samples MP1394: D11204-1, D11204-2, D11204-3, D11204-4

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

SERIAL DILUTION RESULTS SUMMARY

Login Number: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

QC Batch ID: MP1394
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).

8.4.4

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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: D11204
Account: KRWCCOL - KRW Consulting, Inc.
Project: 0911-06A

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Specific Conductivity	GP1549/GN3436			umhos/cm	9985	10000	100.3	90-110%
pH	GN3335			su	8.00	7.98	99.8	99.3-100.7%

Associated Samples:

Batch GN3335: D11204-1, D11204-2, D11204-3, D11204-4

Batch GP1549: D11204-1, D11204-2, D11204-3, D11204-4

(*) Outside of QC limits



Misc. Forms

Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody



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

Project No.:

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ACCUTEST.
D11204 Laboratories



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D11204

Client: AMS

Immediate Client Services Action Required: No

Date / Time Received: 2/25/2010 8:00:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: N/A

Airbill #'s: N/A

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: | Infrared gun | |
| 3. Cooler media: | Ice (bag) | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input 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"/> |

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: | Intact | |

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 rec'd 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"/> |

Comments

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www.accutest.com

D11204: Chain of Custody

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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: D11204
Account: ALMS - Accutest Mountain States
Project: KRWCCOL: 0911-06A

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chromium, Hexavalent	GP11347/GN31255	2.0	0.0	mg/kg	40	42.7	106.8	80-120%
Chromium, Hexavalent	GP11347/GN31255			mg/kg	805	793	98.5	80-120%
Chromium, Hexavalent	GP11347/GN31255			mg/kg	164	136	82.9	80-120%

Associated Samples:
Batch GP11347: D11204-1, D11204-2, D11204-3, D11204-4
(*) Outside of QC limits

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DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D11204
Account: ALMS - Accutest Mountain States
Project: KRWCCOL: 0911-06A

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chromium, Hexavalent	GP11347/GN31255	D11393-1	mg/kg	0.0	0.0	0.0	0-20%
Redox Potential Vs H2	GN31188	D11203-2	mv	294	293	0.3	0-20%

Associated Samples:

Batch GN31188: D11204-1, D11204-2, D11204-3, D11204-4

Batch GP11347: D11204-1, D11204-2, D11204-3, D11204-4

(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D11204
Account: ALMS - Accutest Mountain States
Project: KRWCCOL: 0911-06A

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chromium, Hexavalent	GP11347/GN31255	D11393-1	mg/kg	0.0	52.4	50.1	95.6	75-125%
Chromium, Hexavalent	GP11347/GN31255	D11393-1	mg/kg	0.0	1210	1300	107.0	75-125%

Associated Samples:

Batch GP11347: D11204-1, D11204-2, D11204-3, D11204-4

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits