

r No.: S1108583



Thursday, October 13, 2011

Phil Cavendor AUC, LLC 1536 Cole Blvd Suite 330 Lakewood, CO 80401

RE: Reno Creek Project

Orde

Dear Phil Cavendor:

Inter-Mountain Laboratories received samples PZM15-003-110830 on August 30, 2011.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Lacey Ketron Project Manager

xc: File Encl.

Date: 10/13/2011

CLIENT: AUC LLC

Project:

Reno Creek Project

Lab Order: S1108583

CASE NARRATIVE

Report ID: S1108583001

Sample PZM15-003-110830 was received on August 30, 2011.

All samples were received and analyzed within the EPA recommended holding times, except those noted in this case narrative. Samples were analyzed using the methods outlined in the following references:

U.S.E.P.A. 600 "Methods for Chemical Analysis of Water and Wastes", 1993 "Standard Methods For The Examination of Water and Wastewater", 20th ed., 1998 Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition Methods indicated with the Monday, March 12, 2007 Federal Register, 40 CFR Part 122, 136 et al.

All Quality Control parameters met the acceptance criteria defined by EPA and Inter-Mountain Laboratories except as indicated in this case narrative.

For the purposes of this report, the Reporting Limit (RL) is the Practical Quantitation Limit (PQL).

Radon 222 was analyzed through ALS Laboratory Group Certification #: CO00078.

Qualifiers by sample

S1109009-002 - Anions/Fluoride - Spike Recovery outside accepted recovery limits (2)
MB-R74724 - General Parameters/Radon-222 - Analyzed by a contract laboratory
LCS-R74724 - General Parameters/Radon-222 - Analyzed by a contract laboratory
S1108583-001 - General Parameters/Radon-222 - Analyzed by a contract laboratory
S1108583-001 - General Parameters/Total Dissolved Solids (180) - Holding times for preparation or analysis exceeded (1)

- (1) The sample were received and initally analyzed for Total Dissolved Solids within holding. The QC associated with the inital batch failed. Samples were re-analyzed out of holding.
- (2) Spike failed due to possible matrix interference from the sample.

Reviewed by:

Lacey Ketron, Water Lab Supervisor

Page 1 of 1



Sample Analysis Report

Company: AUC LLC

1536 Cole Blvd

Lakewood, CO 80401

ProjectName: Reno Creek Project

Lab ID: S1108583-001 **ClientSample ID:** PZM15-003-110830

COC: RC 08367

Date Reported 10/13/2011 **Report ID** S1108583001

WorkOrder: S1108583

CollectionDate: 8/30/2011 1:15:00 PM **DateReceived:** 8/30/2011 4:30:00 PM

FieldSampler: TN
Matrix: Water

				Mati	TIX: VV	ater
Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
Field						
pH Reading 1	9.57	s.u.			Field	8/30/2011 1:15:00 PM
pH Reading 2	9.55	s.u.			Field	8/30/2011 1:15:00 PM
pH Reading 3	9.75	s.u.			Field	8/30/2011 1:15:00 PM
Conductivity Reading 1	872	µmhos/cm			Field	8/30/2011 1:15:00 PM
Conductivity Reading 2	874	µmhos/cm			Field	8/30/2011 1:15:00 PM
Conductivity Reading 3	850	µmhos/cm			Field	8/30/2011 1:15:00 PM
Turbidity Reading 1	3.4	NTU			Field	8/30/2011 1:15:00 PM
Turbidity Reading 2	3.1	NTU			Field	8/30/2011 1:15:00 PM
Turbidity Reading 3	4.6	NTU			Field	8/30/2011 1:15:00 PM
Dissolved Oxygen Reading 1	0.23	mg/L			Field	8/30/2011 1:15:00 PM
Dissolved Oxygen Reading 2	0.17	mg/L			Field	8/30/2011 1:15:00 PM
Dissolved Oxygen Reading 3	0.04	mg/L			Field	8/30/2011 1:15:00 PM
Temperature Reading 1	12.16	°C			Field	8/30/2011 1:15:00 PM
Temperature Reading 2	12.20	°C			Field	8/30/2011 1:15:00 PM
Temperature Reading 3	11.99	°C			Field	8/30/2011 1:15:00 PM
Oxygen Reduction Potential Reading	-221.7	mV			Field	8/30/2011 1:15:00 PM
Oxygen Reduction Potential Reading	-209.6	mV			Field	8/30/2011 1:15:00 PM
Oxygen Reduction Potential Reading	-183.6	mV			Field	8/30/2011 1:15:00 PM
Purge Rate Reading 1	600	ml/min			Field	8/30/2011 1:15:00 PM
Purge Rate Reading 2	600	ml/min			Field	8/30/2011 1:15:00 PM
Purge Rate Reading 3	600	ml/min			Field	8/30/2011 1:15:00 PM
Water Level Reading 1	227.79	Ft			Field	8/30/2011 1:15:00 PM
Water Level Reading 2	227.79	Ft			Field	8/30/2011 1:15:00 PM
Water Level Reading 3	227.79	Ft			Field	8/30/2011 1:15:00 PM

These results apply only to the samples tested.

Qualifiers:

Value exceeds Maximum Contaminant Level

C Calculated Value

H Holding times for preparation or analysis exceeded

L Analyzed by a contract laboratory

ND Not Detected at the Reporting Limit

S Spike Recovery outside accepted recovery limits

RL - Reporting Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- M Value exceeds Monthly Ave or MCL
- O Outside the Range of Dilutions

Reviewed by:



Sample Analysis Report

Company: AUC LLC

1536 Cole Blvd

Lakewood, CO 80401

ProjectName: Reno Creek Project

Lab ID: S1108583-001 **ClientSample ID:** PZM15-003-110830

COC: RC 08367

Date Reported 10/13/2011 **Report ID** S1108583001

WorkOrder: S1108583

CollectionDate: 8/30/2011 1:15:00 PM

DateReceived: 8/30/2011 4:30:00 PM

FieldSampler: TN Matrix: Water

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Ir	it
Anions/Cations							
Alkalinity, Total (As CaCO3)	110	mg/L		5	SM 2320B	9/1/2011 6:09:18 PM	AMB
Alkalinity, Bicarbonate as HCO3	134	mg/L		5	SM 2320B	9/1/2011 6:09:18 PM	AMB
Alkalinity, Carbonate as CO3	ND	mg/L		5	SM 2320B	9/1/2011 6:09:18 PM	AMB
Chloride	2	mg/L		1	EPA 300.0	9/12/2011 10:15:00 PM	ARF
Fluoride	ND	mg/L		0.1	SM 4500FC	9/1/2011 6:09:18 PM	AMB
Nitrogen, Nitrate-Nitrite (as N)	ND	mg/L		0.1	EPA 353.2	9/16/2011 12:31:00 PM	MEL
Sulfate	268	mg/L		1	EPA 300.0	9/12/2011 10:15:00 PM	ARF
Calcium	46	mg/L		1	EPA 200.7	9/14/2011 11:45:24 AM	DG
Magnesium	10	mg/L		1	EPA 200.7	9/14/2011 11:45:24 AM	DG
Potassium	7	mg/L		1	EPA 200.7	9/14/2011 11:45:24 AM	DG
Sodium	121	mg/L		1	EPA 200.7	9/14/2011 11:45:24 AM	DG
Nitrogen, Ammonia (As N)	ND	mg/L		0.1	EPA 350.1	9/16/2011 3:08:00 PM	MEL
Silica as SiO2	9	mg/L		1	EPA 200.7	9/1/2011 4:06:23 PM	DG
General Parameters							
рН	8.3	s.u.		0.1	SM 4500 H B	9/1/2011 6:09:18 PM	AMB
Electrical Conductivity	887	µmhos/cm		5	SM 2510B	9/1/2011 6:09:18 PM	AMB
Total Dissolved Solids (180)	550	mg/L	Н	10	SM 2540	9/8/2011 10:30:00 AM	TH
Data Quality							
Cation Sum	8.57	meq/L		0.01	SM 1030E	9/20/2011 10:27:49 AM	LJK
Anion Sum	7.83	meq/L		0.01	SM 1030E	9/20/2011 10:27:49 AM	LJK
Cation-Anion Balance (± 5%)	4.49	%		0.01	SM 1030E	9/20/2011 10:27:49 AM	LJK
Solids, Total Dissolved (Calc)	530	mg/L		10	SM 1030E	9/20/2011 10:27:49 AM	LJK
Calculated TDS/TDS Ratio (0.80-1.20)	1.04	dec. %		0.01	Calculation	9/20/2011 10:57:22 AM	LJK

These results apply only to the samples tested.

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Sample Analysis Report

Company: AUC LLC

1536 Cole Blvd

Lakewood, CO 80401

ProjectName: Reno Creek Project

Lab ID: S1108583-001 **ClientSample ID:** PZM15-003-110830

COC: RC 08367

Date Reported 10/13/2011 **Report ID** S1108583001

WorkOrder: S1108583

CollectionDate: 8/30/2011 1:15:00 PM

DateReceived: 8/30/2011 4:30:00 PM

FieldSampler: TN Matrix: Water

				matrix.						
Analyses	Result	Units	Qual	RL	Method	Date Analyzed/In	it			
Metals - Dissolved										
Aluminum	ND	mg/L		0.1	EPA 200.7	9/1/2011 4:06:23 PM	DG			
Arsenic	ND	mg/L		0.001	EPA 200.8	8/31/2011 5:03:21 PM	MS			
Barium	ND	mg/L		0.1	EPA 200.8	8/31/2011 5:03:21 PM	MS			
Boron	ND	mg/L		0.1	EPA 200.7	9/1/2011 4:06:23 PM	DG			
Cadmium	ND	mg/L		0.001	EPA 200.8	8/31/2011 5:03:21 PM	MS			
Chromium	ND	mg/L		0.01	EPA 200.7	9/1/2011 4:06:23 PM	DG			
Copper	ND	mg/L		0.01	EPA 200.8	8/31/2011 5:03:21 PM	MS			
ron	ND	mg/L		0.05	EPA 200.7	9/1/2011 4:06:23 PM	DG			
Lead	ND	mg/L		0.01	EPA 200.8	8/31/2011 5:03:21 PM	MS			
Manganese	0.05	mg/L		0.01	EPA 200.7	9/1/2011 4:06:23 PM	DG			
Mercury	ND	mg/L		0.001	EPA 245.1	9/7/2011 8:49:09 AM	BK			
Molybdenum	ND	mg/L		0.01	EPA 200.8	8/31/2011 5:03:21 PM	MS			
Nickel	ND	mg/L		0.05	EPA 200.7	9/1/2011 4:06:23 PM	DG			
Selenium	ND	mg/L		0.005	EPA 200.8	8/31/2011 5:03:21 PM	MS			
Uranium	0.0517	mg/L		0.0003	EPA 200.8	8/31/2011 5:03:21 PM	MS			
Vanadium	ND	mg/L		0.1	EPA 200.8	8/31/2011 5:03:21 PM	MS			
Zinc	ND	mg/L		0.01	EPA 200.7	9/1/2011 4:06:23 PM	DG			
Metals - Suspended										
Uranium	ND	mg/L		0.0003	EPA 200.8	9/9/2011 1:32:27 PM	MS			
Metals - Total										
ron	0.23	mg/L		0.05	EPA 200.7	9/6/2011 7:16:01 PM	DG			
Manganese	0.05	mg/L		0.01	EPA 200.7	9/6/2011 7:16:01 PM	DG			

These results apply only to the samples tested.

Qualifiers:

Value exceeds Maximum Contaminant Level

C Calculated Value

H Holding times for preparation or analysis exceeded

L Analyzed by a contract laboratory ND Not Detected at the Reporting Limit

S Spike Recovery outside accepted recovery limits

RL - Reporting Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- M Value exceeds Monthly Ave or MCL
- O Outside the Range of Dilutions

Reviewed by:



Sample Analysis Report

Company: AUC LLC

1536 Cole Blvd

Lakewood, CO 80401

ProjectName: Reno Creek Project

Lab ID: S1108583-001 **ClientSample ID:** PZM15-003-110830

COC: RC 08367

Date Reported 10/13/2011 **Report ID** S1108583001

WorkOrder: S1108583

CollectionDate: 8/30/2011 1:15:00 PM

DateReceived: 8/30/2011 4:30:00 PM

FieldSampler: TN Matrix: Water

				IVIG	WIAI W	<u> </u>	
Analyses	Result	Units	Qual	RL	Method	Date Analyzed/In	it
Radionuclides - Dissolved							
Gross Alpha	68.4	pCi/L		2	SM 7110B	10/3/2011 3:14:00 PM	SH
Gross Alpha Precision (±)	6.1	pCi/L			SM 7110B	10/3/2011 3:14:00 PM	SH
Gross Beta	22.5	pCi/L		4	SM 7110B	10/3/2011 3:14:00 PM	SH
Gross Beta Precision (±)	3.2	pCi/L			SM 7110B	10/3/2011 3:14:00 PM	SH
Lead 210	4.1	pCi/L		1	OTW01	10/10/2011 3:29:00 PM	SH
Lead 210 Precision (±)	0.8	pCi/L			OTW01	10/10/2011 3:29:00 PM	SH
Polonium 210	ND	pCi/L		1	OTW01	10/10/2011 12:50:00 PM	SH
Polonium 210 Precision (±)	NA	pCi/L			OTW01	10/10/2011 12:50:00 PM	SH
Radium 226	6.4	pCi/L		0.2	SM 7500-Ra B	9/15/2011 12:04:00 PM	SH
Radium 226 Precision (±)	0.4	pCi/L			SM 7500-Ra B	9/15/2011 12:04:00 PM	SH
Radium 228	ND	pCi/L		1	Ra-05	10/5/2011 4:46:00 PM	SH
Radium 228 Precision (±)	NA	pCi/L			Ra-05	10/5/2011 4:46:00 PM	SH
Thorium 230	ND	pCi/L		0.2	ACW10	10/4/2011 2:04:00 PM	SH
Thorium 230 Precision (±)	NA	pCi/L			ACW10	10/4/2011 2:04:00 PM	SH
Radionuclides - Suspended							
Lead 210	ND	pCi/L		1	OTW01	10/4/2011 5:55:00 PM	SH
Lead 210 Precision (±)	NA	pCi/L			OTW01	10/4/2011 5:55:00 PM	SH
Polonium 210	ND	pCi/L		1	OTW01	10/4/2011 1:24:00 PM	SH
Polonium 210 Precision (±)	NA	pCi/L			OTW01	10/4/2011 1:24:00 PM	SH
Radium 226	ND	pCi/L		0.2	SM 7500-Ra B	9/27/2011 5:12:00 PM	SH
Radium 226 Precision (±)	NA	pCi/L			SM 7500-Ra B	9/27/2011 5:12:00 PM	SH
Thorium 230	ND	pCi/L		0.2	ACW10	10/6/2011 2:02:00 PM	SH
Thorium 230 Precision (±)	NA	pCi/L			ACW10	10/6/2011 2:02:00 PM	SH
Radionuclides - Total							
Radon 222	2700	pCi/L	L	50	SM7500-RN	8/31/2011	LJK
Radon 222 Precision (±)	310	pCi/L	L		SM7500-RN	8/31/2011	LJK

These results apply only to the samples tested.

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- C Calculated Value
- H Holding times for preparation or analysis exceeded
- L Analyzed by a contract laboratory
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

RL - Reporting Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- M Value exceeds Monthly Ave or MCL
- O Outside the Range of Dilutions

Reviewed by:



ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Work Order: \$1108583 Report ID: \$1108583001

Project: Reno Creek Project

Alkalinity

One and a Trans. MDL I/	Halfa	п							
Sample Type MBLK	Units: mg								
Sample ID	RunNo: 74055	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
BLANK	09/01/11 16:25	Alkalinity, Total (As CaCO3)	ND	5					
Sample Type LCS	Units: mg	/L							
Sample ID	RunNo: 74055	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
ATQC	09/01/11 16:16	Alkalinity, Total (As CaCO3)	593	5	601		98.7	90 - 110	
Sample Type DUP	Units: mg	/L							
Sample ID	RunNo: 74055	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1108582-001AI	09/01/11 17:59	Alkalinity, Bicarbonate as HCO3	295	5	299	1.16		20	
		Alkalinity, Carbonate as CO3	ND	5	ND			20	
		Alkalinity, Total (As CaCO3)	248	5	248	0.0408		20	
Conductivity									
Sample Type MBLK	Units: μm	hos/cm							
Sample ID	RunNo: 74055	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
BLANK	09/01/11 16:25	Electrical Conductivity	ND	5					
Sample Type LCS	Units: µm	hos/cm							
Sample ID	RunNo: 74055	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
ATQC	09/01/11 16:16	Electrical Conductivity	1130	5	1120		100	90 - 110	
Sample Type DUP	Units: µm	hos/cm							
Sample ID	RunNo: 74055	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1108582-001AI	09/01/11 17:59	Electrical Conductivity	2010	5	2010	0		20	

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

L Analyzed by a contract laboratory

O Outside the Range of Dilutions

S Spike Recovery outside accepted recovery limits

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Work Order: \$1108583 Report ID: \$1108583001

Project: Reno Creek Project

S1108566-001C

Dissolved Mercury by EPA 245.1 - Water

Sample	Type MBLK	Units: mg/	L							
	Sample ID	RunNo: 74230	Analyte	Res	ult RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
•	LRB	09/07/11 8:09	Mercury	N	0.001					
Sample	Type LCS	Units: mg/	L							
	Sample ID	RunNo: 74230	Analyte	Res	ult RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
•	LCS	09/07/11 8:07	Mercury	0.0	0.001	0.002		99.9	85 - 115	
Sample	Type MS	Units: mg/	L							
	Sample ID	RunNo: 74230	Analyte	Res	ult RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
•	S1108566-001C	09/07/11 8:36	Mercury	0.0	0.001	0.00244	ND	87.2	70 - 130	<u> </u>
Sample	Type MSD	Units: mg/	L							
	Sample ID	RunNo: 74230	Analyte	Res	ult RL	Conc	%RPD	%REC	% RPD Limits	Qual
•	S1108566-001C	09/07/11 8:38	Mercury	0.0	0.001	0.002	2.86	89.7	20	<u>, </u>
Sample	Type DUP	Units: mg/	L							
	Sample ID	RunNo: 74230	Analyte	Res	ult RL	Ref Sam	p %RPD	%REC	% RPD Limits	Qual

ND

0.001

ND

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

09/07/11 8:35

Mercury

L Analyzed by a contract laboratory

O Outside the Range of Dilutions

S Spike Recovery outside accepted recovery limits

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

20



ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Work Order: \$1108583 Report ID: \$1108583001

Project: Reno Creek Project

Dissolved Metals by ICP - EPA 200.7 - Water

ample Type MBLK	Units: mg	/L							
Sample ID	RunNo: 74056	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MBLK DISS/CAT	09/01/11 13:01	Aluminum	ND	0.1					
		Boron	ND	0.1					
		Chromium	ND	0.01					
		Iron	ND	0.05					
		Manganese	ND	0.02					
		Nickel	ND	0.01					
		Zinc	ND	0.01					
ample Type LCS	Units: mg	/L							
Sample ID	RunNo: 74056	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
DISS LCS Q	09/01/11 13:04	Aluminum	1.0	0.1	1		104	85 - 115	
		Boron	1.0	0.1	1		98.2	85 - 115	
		Chromium	1.02	0.01	1		102	85 - 115	
		Iron	1.03	0.05	1		103	85 - 115	
		Manganese	1.03	0.02	1		103	85 - 115	
		Nickel	1.05	0.01	1		105	85 - 115	
		Zinc	1.03	0.01	1		103	85 - 115	
ample Type MS	Units: mg	/L							
Sample ID	RunNo: 74056	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1108583-001DS	09/01/11 16:08	Aluminum	0.6	0.1	0.5	ND	127	70 - 130	
		Boron	0.6	0.1	0.5	ND	118	70 - 130	
		Chromium	0.61	0.01	0.5	ND	121	70 - 130	
		Iron	0.59	0.05	0.5	ND	118	70 - 130	
		Manganese	0.64	0.02	0.5	0.05	118	70 - 130	
		Nickel	0.60	0.01	0.5	ND	120	70 - 130	
		Zinc	0.61	0.01	0.5	ND	121	70 - 130	
ample Type MSD	Units: mg	/L							
Sample ID	RunNo: 74056	Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
S1108583-001DSD	09/01/11 16:11	Aluminum	0.6	0.1	0.6	9.83	115	20	
		Boron	0.6	0.1	0.6	8.97	107	20	

Qualifiers:	В	Analyte detected in the associated Method Blank	

H Holding times for preparation or analysis exceeded

Chromium

Manganese

Iron

Nickel

Zinc

0.54

0.54

0.58

0.54

0.54

0.01

0.05

0.02

0.01

0.01

0.61

0.59

0.64

0.60

0.61

10.9

9.33

8.97

9.64

10.9

108

107

106

108

108

20

20

20

20

20

L Analyzed by a contract laboratory

O Outside the Range of Dilutions

S Spike Recovery outside accepted recovery limits

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits



ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Work Order: \$1108583 Report ID: \$1108583001

Project: Reno Creek Project

Dissolved Metals by ICP - EPA 200.7 - WaterSample Type **DUP** Units: mg/L

,,	•								
Sample ID	RunNo: 74056	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1108582-001DD	09/01/11 16:04	Aluminum	ND	0.1	ND			20	
		Boron	ND	0.1	ND			20	
		Chromium	ND	0.01	ND			20	
		Iron	0.27	0.05	0.27	0.256		20	
		Manganese	0.59	0.02	0.59	0.948		20	
		Nickel	0.02	0.01	0.03	3.13		20	
		Zinc	0.04	0.01	0.04	1.06		20	

Dissolved Metals by ICPMS EPA 200.8 - Water

Sample Type MBLK Units: mg/L

Sample ID	RunNo: 74002	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
BLK	08/31/11 13:21	Arsenic	ND	0.005					
		Barium	ND	0.5					
		Cadmium	ND	0.002					
		Copper	ND	0.01					
		Lead	ND	0.02					
		Molybdenum	ND	0.02					
		Selenium	ND	0.005					
		Uranium	ND	0.001					
		Vanadium	ND	0.02					

Sample Type LCS Units: mg/L

Sample ID	RunNo: 74002	Analyte	Result	RL	Spike	Ref Samp %REC	% Rec Limits	Qual
LCS	08/31/11 13:17	Arsenic	0.102	0.005	0.1	102	85 - 115	
		Barium	ND	0.5	0.1	96.7	85 - 115	
		Cadmium	0.099	0.002	0.1	99.2	85 - 115	
		Copper	0.09	0.01	0.1	94.6	85 - 115	
		Lead	0.10	0.02	0.1	102	85 - 115	
		Molybdenum	0.10	0.02	0.1	100	85 - 115	
		Selenium	0.099	0.005	0.1	98.6	85 - 115	
		Uranium	0.095	0.001	0.1	95.4	85 - 115	
		Vanadium	0.09	0.02	0.1	90.7	85 - 115	

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

L Analyzed by a contract laboratory

O Outside the Range of Dilutions

S Spike Recovery outside accepted recovery limits

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

99.0

103

101

96.7

90.8

20

20

20

20

20



1673 Terra Avenue, Sheridan, Wyoming 82801 ph: (307) 672-8945

ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Lead

Molybdenum

Selenium

Uranium

Vanadium

Work Order: \$1108583 Report ID: \$1108583001

Project: Reno Creek Project

Dissolved Metals by ICPMS EPA 200.8 - Water

Sample Type MS	3	Units: mg/	/L							
Sample II)	RunNo: 74002	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S110858	1-001DS	08/31/11 16:51	Arsenic	1.15	0.005	1.1	ND	104	70 - 130	
			Barium	1.1	0.5	1.1	ND	95.8	70 - 130	
			Cadmium	1.08	0.002	1.1	ND	98.5	70 - 130	
			Copper	1.06	0.01	1.1	ND	96.0	70 - 130	
			Lead	1.08	0.02	1.1	ND	98.2	70 - 130	
			Molybdenum	1.13	0.02	1.1	ND	102	70 - 130	
			Selenium	1.12	0.005	1.1	ND	102	70 - 130	
			Uranium	1.07	0.001	1.1	0.001	96.9	70 - 130	
			Vanadium	1.00	0.02	1.1	ND	90.8	70 - 130	
Sample Type MS	SD	Units: mg/	/L							
Sample II)	RunNo: 74002	Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
S110858	1-001DMSD	08/31/11 16:55	Arsenic	1.14	0.005	1.15	0.443	104	20	
			Barium	1.1	0.5	1.1	0.569	95.2	20	
			Cadmium	1.07	0.002	1.08	0.882	97.6	20	
			Copper	1.06	0.01	1.06	0.150	96.1	20	

Sample Type DUP Units: mg/L

,,	•								
Sample ID	RunNo: 74002	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1108581-001DD	08/31/11 16:47	Arsenic	ND	0.005	ND			20	
		Barium	ND	0.5	ND			20	
		Cadmium	ND	0.002	ND			20	
		Copper	ND	0.01	ND			20	
		Lead	ND	0.02	ND			20	
		Molybdenum	ND	0.02	ND			20	
		Selenium	ND	0.005	ND			20	
		Uranium	0.001	0.001	0.001	8.32		20	
		Vanadium	ND	0.02	ND			20	

0.02

0.02

0.005

0.001

0.02

1.08

1.13

1.12

1.07

1.00

0.771

0.514

0.850

0.249

0.0130

1.09

1.13

1.11

1.06

1.00

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

L Analyzed by a contract laboratory

O Outside the Range of Dilutions

S Spike Recovery outside accepted recovery limits

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Work Order: \$1108583 Report ID: \$1108583001

Project: Reno Creek Project

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Sample	Type MBLK	Units: mg/l								
- Cap.	Sample ID	RunNo: 74055	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
	BLANK	09/01/11 16:25	Fluoride	ND	0.1		· ·			
Cample				ND	0.1					
Sample	Type LCS Sample ID	Units: mg/l	Analyte	Result	RL	Sniko	Ref Samp	% DEC	% Rec Limits	Qual
,	·		-				Kei Sailip			Quai
	ATQC	09/01/11 16:16	Fluoride	3.0	0.1	2.96		103	90 - 110	
Sample	Type MS	Units: mg/l								
	Sample ID	RunNo: 74055	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
	S1109009-002ASPK	09/01/11 21:37	Fluoride	2.1	0.1	2.5	0.9	44.6	80 - 120	S
Sample	Type DUP	Units: mg/l	L							
	Sample ID	RunNo: 74055	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
•	S1108582-001AD	09/01/11 17:59	Fluoride	0.3	0.1	0.3	0.559		20	
Gross	Alpha, Beta by SM 71	110B								
Sample	Type MBLK	Units: pCi/	L							
	Sample ID	RunNo: 75326	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
•	MB11-273	10/03/11 15:14	Gross Alpha (Dissolved)	ND	2					
			Gross Beta (Dissolved)	ND	3					
Sample	Type LCS	Units: pCi/	L							
	Sample ID	RunNo: 75326	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
4	LCS11-273	10/03/11 15:14	Gross Alpha (Dissolved)	83	2	73.6		112	83 - 133	
			Gross Beta (Dissolved)	135	3	126		107	88 - 115	
Sample	Type MS	Units: pCi/	L							
	Sample ID	RunNo: 75326	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
	S1108612-001FMS	10/03/11 15:14	Gross Alpha (Dissolved)	210	2	147	83	86.6	48 - 153	
			Gross Beta (Dissolved)	302	4	252	38	105	60 - 140	
Sample	Type DUP	Units: pCi/	L							
	Sample ID	RunNo: 75326	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
•	S1109004-002GDUP	10/03/11 15:14	Gross Alpha (Dissolved)	9	2	10	14.4		20	
			Gross Beta (Dissolved)	11	3	9	19.5		20	

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

L Analyzed by a contract laboratory

O Outside the Range of Dilutions

S Spike Recovery outside accepted recovery limits

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits



ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Work Order: S1108583 Report ID: S1108583001

Project: Reno Creek Project

Anions by ION Chromatography

Sample Type MBLK	Units: mg/L
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Sample	Type MBLK	Units: mg	/L							
	Sample ID	RunNo: 74469	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
'	BLANK	09/12/11 10:36	Chloride	ND	1					
			Sulfate	ND	1					
Sample	Type LCS	Units: mg	/L							
	Sample ID	RunNo: 74469	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
'	DIONEX	09/12/11 10:49	Chloride	31	1	30		102	90 - 110	
			Sulfate	146	1	150		97.7	90 - 110	
Sample	Type MS	Units: mg	/L							
	Sample ID	RunNo: 74469	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
'	S1108615-001ASPK	09/13/11 2:51	Chloride	6	1	5	ND	118	80 - 120	
			Sulfate	61	1	40	24	92.6	80 - 120	
Sample	e Type DUP	Units: mg	/L							
	Sample ID	RunNo: 74469	Analyte	Result	RI	Ref Samr	%RPD	%RFC	% RPD Limits	Qual

Sample Type	DUP	Units:	mg/L
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ple	e Type DUP	Units: mg	/L								
	Sample ID	RunNo: 74469	Analyte	F	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
	S1108615-001AD	09/13/11 2:38	Chloride		ND	1	ND			20	
			Sulfate		24	1	24	0.381		20	

Qualifiers: Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded Н

Analyzed by a contract laboratory

0 Outside the Range of Dilutions

Spike Recovery outside accepted recovery limits

Ε Value above quantitation range

Analyte detected below quantitation limits

Not Detected at the Reporting Limit ND



ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Work Order: S1108583 Report ID: S1108583001

Project: Reno Creek Project

Sample ID	RunNo: 74567	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MBLK DISS/CAT	09/14/11 10:10	Calcium	ND	1					
		Magnesium	ND	1					
		Potassium	ND	1					
		Sodium	ND	1					
ample Type LCS	Units: mg	/L							
Sample ID	RunNo: 74567	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
CAT LCS IML3	09/14/11 10:15	Calcium	39	1	40		97.0	85 - 115	
		Magnesium	41	1	40		102	85 - 115	
		Potassium	39	1	40		96.5	85 - 115	
		Sodium	37	1	40		93.4	85 - 115	
ample Type MS	Units: mg	/L							
Sample ID	RunNo: 74567	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1109229-006AS	09/14/11 14:14	Calcium	55	1	50	3	104	70 - 130	
		Magnesium	57	1	50	ND	112	70 - 130	
		Potassium	53	1	50	2	102	70 - 130	
		Sodium	53	1	50	1	103	70 - 130	
ample Type MSD	Units: mg	/L							
Sample ID	RunNo: 74567	Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
S1109229-006ASD	09/14/11 14:16	Calcium	55	1	55	1.42	105	20	
		Magnesium	57	1	57	1.23	113	20	
		Potassium	53	1	53	1.16	103	20	
		Sodium	53	1	53	1.22	104	20	
ample Type DUP	Units: mg	/L							
Sample ID	RunNo: 74567	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1109229-005AD	09/14/11 14:09	Calcium	1	1	1	0.520		20	
		Magnesium	ND	1	ND			20	
		Potassium	1	1	1	0.650		20	
		Sodium	ND	1	ND			20	

Qualifiers: Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded Н

Analyzed by a contract laboratory

0 Outside the Range of Dilutions

Spike Recovery outside accepted recovery limits

Ε Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Work Order: \$1108583 Report ID: \$1108583001

Project: Reno Creek Project

Nitrogen,	Ammonia	(as N)
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_	ype MBLK	Units: mg/	L							
S	Sample ID	RunNo: 74708	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qua
В	BLANK	09/16/11 13:41	Nitrogen, Ammonia (As N)	ND	0.1					
Sample T	ype LCS	Units: mg/	L							
S	Sample ID	RunNo: 74708	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qua
C	QC	09/16/11 13:43	Nitrogen, Ammonia (As N)	10.1	0.1	10		101	90 - 110	
Sample T	ype MS	Units: mg/	L							
S	Sample ID	RunNo: 74708	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qua
S	S1109241-001B	09/16/11 15:13	Nitrogen, Ammonia (As N)	12.4	0.1	10	1.9	106	80 - 120	
Sample T	ype DUP	Units: mg/	L							
S	Sample ID	RunNo: 74708	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qua
S	S1109241-001B	09/16/11 15:12	Nitrogen, Ammonia (As N)	1.9	0.1	1.9	0.938		20	
S	Type MBLK Sample ID BLK	Units: mg/ RunNo: 74698 09/16/11 10:16	Analyte Nitrogen, Nitrate-Nitrite (as N)	Result ND	RL 0.1	Spike	Ref Samp	%REC	% Rec Limits	Qua
Sample T	ype LCS	Units: mg/	,							
·	Sample ID	RunNo: 74698	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qua
C	ЭС	09/16/11 10:18	Nitrogen, Nitrate-Nitrite (as N)	2.4	0.1	2.31		105	90 - 110	
Sample T	ype MS	Units: mg/	L							
S	Sample ID	RunNo: 74698	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qua
S	S1109229-004B	09/16/11 12:39	Nitrogen, Nitrate-Nitrite (as N)	9.9	0.1	10	ND	98.9	80 - 120	
Sample T	ype DUP	Units: mg/	L							
s	Sample ID	RunNo: 74698	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qua
S	S1109229-004B	09/16/11 12:38	Nitrogen, Nitrate-Nitrite (as N)	ND	0.1	ND		_	20	

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

L Analyzed by a contract laboratory

O Outside the Range of Dilutions

S Spike Recovery outside accepted recovery limits

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits



ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Work Order: \$1108583 Report ID: \$1108583001

Project: Reno Creek Project

Lead 210 and Polonium 210

Sample	Type MBLK	Units: pC	i/L							
	Sample ID	RunNo: 75405	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qua
	MB11-269	10/04/11 15:52	Lead 210 (Suspended)	ND	1					
	Sample ID	RunNo: 75406	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qua
	MB11-269	10/04/11 12:15	Polonium 210 (Suspended)	ND	1					
•	Sample ID	RunNo: 75583	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qua
•	MB11-272	10/10/11 15:29	Lead 210 (Dissolved)	ND	1					
•	Sample ID	RunNo: 75584	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qua
•	MB11-272	10/10/11 12:50	Polonium 210 (Dissolved)	ND	1					
ample	Type LCS	Units: pCi	/L							
•	Sample ID	RunNo: 75405	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qua
•	LCS11-269	10/04/11 15:52	Lead 210 (Suspended)	14	1	12.9		108	60.3 - 141	
•	Sample ID	RunNo: 75406	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qu
•	LCS11-269 PO	10/04/11 12:15	Polonium 210 (Suspended)	3	1	2.49		138	48.6 - 156	
•	Sample ID	RunNo: 75583	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qua
•	LCS11-272	10/10/11 15:29	Lead 210 (Dissolved)	15	1	12.9		113	67.6 - 131	
•	Sample ID	RunNo: 75584	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qua
	LCS11-272 PO	10/10/11 12:50	Polonium 210 (Dissolved)	3	1	2.42		119	35.1 - 175	
ample	Type MS	Units: pCi	/L							
	Sample ID	RunNo: 75405	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qua
	S1108364-004EMS	10/04/11 15:52	Lead 210 (Suspended)	14	1	12.9	1	94.0	62.4 - 132	
•	Sample ID	RunNo: 75406	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qua
•	S1108364-004EMS	10/04/11 12:15	Polonium 210 (Suspended)	11	1	12.9	ND	81.3	28 - 173	
•	Sample ID	RunNo: 75583	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qua
•	S1108611-001FMS	10/10/11 15:29	Lead 210 (Dissolved)	20	1	12.9	6	103	66 - 133	
•	Sample ID	RunNo: 75584	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qu
,	S1108611-001FMS	10/10/11 12:50	Polonium 210 (Dissolved)	9	1	12.9	ND	71.4	20.9 - 160	
			,							

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

L Analyzed by a contract laboratory

O Outside the Range of Dilutions

S Spike Recovery outside accepted recovery limits

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Work Order: \$1108583 Report ID: \$1108583001

Project: Reno Creek Project

Lead 210 and Polonium 210

Sample Type DUP Units: pCi/L

	· ·								
Sample ID	RunNo: 75405	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1108581-001FDUP	10/04/11 17:55	Lead 210 (Suspended)	1	1	1	20.5		20	
Sample ID	RunNo: 75406	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1108581-001FDUP	10/04/11 13:24	Polonium 210 (Suspended)	ND	1	ND			20	
Sample ID	RunNo: 75583	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1108582-001FDUP	10/10/11 15:29	Lead 210 (Dissolved)	ND	1	ND			20	
Sample ID	RunNo: 75584	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1108582-001FDUP	10/10/11 12:50	Polonium 210 (Dissolved)	ND	1	ND			20	

Radium 228

Sample Type	MBLK	Units: pCi/L
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•	71									
	Sample ID	RunNo: 75417	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
·	MB11-272	10/05/11 16:46	Radium 228 (Dissolved)	ND	1					
Sample	Type LCS	Units: pCi/	L L							
	Sample ID	RunNo: 75417	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
·	LCS11-272	10/05/11 16:46	Radium 228 (Dissolved)	10	1	9.94		104	74.9 - 122	
Sample	Type MS	Units: pCi/	L L							
	Sample ID	RunNo: 75417	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
•	S1108581-001FMS	10/05/11 16:46	Radium 228 (Dissolved)	10	1	9.94	ND	103	48.4 - 167	

Sample Type DUP Units: pCi/L

	Sample ID	RunNo: 75417	Analyte	Result	RL	Ref Samp %RPD	%REC % RPD Limits	Qual
•	S1108583-001FDUP	10/05/11 16:46	Radium 228 (Dissolved)	ND	1	ND	20	

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

L Analyzed by a contract laboratory

O Outside the Range of Dilutions

S Spike Recovery outside accepted recovery limits

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Work Order: \$1108583 Report ID: \$1108583001

Project: Reno Creek Project

Radium 226 by SM 7500

Sample	Type MBLK	Units: pCi	/L							
	Sample ID	RunNo: 74900	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
	MB11-255	09/15/11 9:32	Radium 226 (Dissolved)	ND	0.2					
	Sample ID	RunNo: 75190	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
-	MB11-262	09/27/11 17:12	Radium 226 (Suspended)	ND	0.2					
Sample	Type LCS	Units: pCi	/L							
	Sample ID	RunNo: 74900	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
•	LCS11-255	09/15/11 9:32	Radium 226 (Dissolved)	4.9	0.2	5.06		96.7	62.5 - 125	
	Sample ID	RunNo: 75190	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
•	LCS11-262	09/27/11 17:12	Radium 226 (Suspended)	4.8	0.2	5.06		94.5	56.4 - 132	
Sample	Type MS	Units: pCi	/L							
	Sample ID	RunNo: 74900	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
•	S1108554-001FMS	09/15/11 9:32	Radium 226 (Dissolved)	4.7	0.2	5.06	ND	93.1	41.6 - 146	
	Sample ID	RunNo: 75190	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
-	S1108612-001FMS	09/27/11 17:12	Radium 226 (Suspended)	5.1	0.2	5.06	0.2	95.8	51.4 - 135	
Sample	Type DUP	Units: pCi	/L							
	Sample ID	RunNo: 74900	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
	S1108554-002FDUP	09/15/11 9:32	Radium 226 (Dissolved)	ND	0.2	ND			20	
	Sample ID	RunNo: 75190	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
•	S1109004-004GDUP	09/27/11 17:12	Radium 226 (Suspended)	ND	0.2	ND			20	

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

L Analyzed by a contract laboratory

O Outside the Range of Dilutions

S Spike Recovery outside accepted recovery limits

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Work Order: \$1108583 Report ID: \$1108583001

Project: Reno Creek Project

Thorium 230 in Water

Sample Type MBLK	Units: pC	ci/L							
Sample ID	RunNo: 75556	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MB11-263	10/03/11 9:12	Thorium 230 (Dissolved)	ND	0.2					
Sample ID	RunNo: 75561	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MB11-270	10/06/11 9:05	Thorium 230 (Suspended)	ND	0.2					
Sample Type LCS	Units: pC	i/L							
Sample ID	RunNo: 75556	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS11-263	10/03/11 9:12	Thorium 230 (Dissolved)	12	0.2	12		95.6	67.1 - 134	
Sample ID	RunNo: 75561	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS11-270	10/06/11 9:05	Thorium 230 (Suspended)	14	0.2	12		111	69.2 - 127	
Sample Type DUP	Units: pC	i/L							
Sample ID	RunNo: 75556	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1109004-001GDU	P 10/03/11 9:12	Thorium 230 (Dissolved)	0.2	0.2	0.2	9.87		20	
Sample ID	RunNo: 75561	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1109172-001EDU	P 10/07/11 8:37	Thorium 230 (Suspended)	ND	0.2	ND			20	
Radon 222 by SM7500-RN Sample Type MBLK	Units: pC	i/I							
Sample ID	RunNo: 74724	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MB-R74724	08/31/11 0:00	Radon-222	ND	50					L
Sample Type LCS	Units: pC	si/L							
Sample ID	RunNo: 74724	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS-R74724	08/31/11 0:00	Radon-222	22900	100	22500		102	75 - 125	L
Sample Type DUP	Units: pC	i/L							
Sample ID	RunNo: 74724	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1108583-001A	08/31/11 0:00	Radon-222	2670	50	2700	1.11		20	L

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

L Analyzed by a contract laboratory

O Outside the Range of Dilutions

S Spike Recovery outside accepted recovery limits

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits



ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Work Order: \$1108583 Report ID: \$1108583001

Project: Reno Creek Project

Silica as SiO2

Sample	Type MBLK	Units: mg/L	-							
	Sample ID	RunNo: 74058	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
•	MBLK DISS/CAT	09/01/11 13:01	Silica as SiO2	ND	0.1					
Sample	Type LCS	Units: mg/L	-							
	Sample ID	RunNo: 74058	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
·	DISS LCS Q	09/01/11 13:04	Silica as SiO2	2.1	0.1	2.14		97.9	85 - 115	
Sample	Type DUP	Units: mg/L	-							
	Sample ID	RunNo: 74058	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
,	S1108582-001DD	09/01/11 16:04	Silica as SiO2	17.6	0.1	17.6	0.168		20	
Solids	By SM 2540									
Sample	Type MBLK	Units: mg/L	-							
	Sample ID	RunNo: 74368	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
•	DI	09/08/11 10:10	Total Dissolved Solids (180)	ND	10					
Sample	Type LCS	Units: mg/L	-							
,	Sample ID	RunNo: 74368	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
,	CONTROL	09/08/11 10:15	Total Dissolved Solids (180)	220	10	226		99.1	90 - 110	
Sample	Type DUP	Units: mg/L								
	Sample ID	RunNo: 74368	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
•	S1108582-001A	09/08/11 10:25	Total Dissolved Solids (180)	1640	10	1620	0.985		20	Н

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

Analyzed by a contract laboratory

O Outside the Range of Dilutions

S Spike Recovery outside accepted recovery limits

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Work Order: \$1108583 Report ID: \$1108583001

Project: Reno Creek Project

Total (200.2) Metals by	EPA 200.7 ICP - Water
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Sample ID	RunNo: 74174	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MB-5428	09/06/11 18:52	Iron	ND	0.05					
WID 0420	00/00/11 10:02	Manganese	ND	0.02					
Sample Type LCS	Units: mg	'L							
Sample ID	RunNo: 74174	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS-5428	09/06/11 20:27	Iron	0.51	0.05	0.5		102	85 - 115	
200 0 120	00/00/11/20:21	Manganese	0.20	0.02	0.2		101	85 - 115	
Sample Type MS	Units: mg	/L							
Sample ID	RunNo: 74174	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1108582-001ES	09/06/11 19:11	Iron	0.56	0.05	0.5	0.09	94.7	70 - 130	
		Manganese	0.84	0.02	0.2	0.66	92.7	70 - 130	
Sample Type DUP	Units: mg/	/L							
Sample ID	RunNo: 74174	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1109020-001ED	09/06/11 21:17	Iron	1.37	0.05	1.39	2.01		20	
		Manganese	ND	0.02	ND			20	
Suspended Natural Urani	ium								
ample Type MBLK	Units: mg	/L							
Sample ID	RunNo: 74361	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
BLK	09/09/11 12:24	Uranium Suspended	ND	0.0003					
Sample Type LCS	Units: mg	/L							
Sample ID	RunNo: 74361	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS	09/09/11 12:20	Uranium Suspended	0.103	0.0003	0.1		103	85 - 115	
Sample Type MS	Units: mg/	/L							
Sample ID	RunNo: 74361	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1108581-001FS	09/09/11 13:20	Uranium Suspended	1.15	0.0003	1.1	0.0003	105	70 - 130	
Sample Type MSD	Units: mg/	/L							
Sample ID	RunNo: 74361	Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
S1108581-001FMS	D 09/09/11 13:24	Uranium Suspended	1.17	0.0003	1.15	1.33	106	20	
Sample Type DUP	Units: mg/	/L							
Sample ID	RunNo: 74361	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
Gap.G 12		-							

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- L Analyzed by a contract laboratory
- O Outside the Range of Dilutions
- S Spike Recovery outside accepted recovery limits
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits



ANALYTICAL QC SUMMARY REPORT

CLIENT: AUC LLC Date: 10/13/2011

Work Order: \$1108583 Report ID: \$1108583001

Project: Reno Creek Project

pH Water

Sample Type LCS Units: s.u.

Sample ID	RunNo: 74055	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
ATQC	09/01/11 16:16	рН	8.6	0.1	8.48		102	90 - 110	

Sample Type **DUP** Units: s.u.

- 71									
Sample ID	RunNo: 74055	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1108582-001AD	09/01/11 17:59	На	8.4	0.1	8.4	0.424		20	

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

L Analyzed by a contract laboratory

O Outside the Range of Dilutions

S Spike Recovery outside accepted recovery limits

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



Sheridan, WY and Gillette, WY 1673 Tern Ave. Sheridan, WY 82801 (307) 882-8945 Inter-Mountain Labs

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