



Thursday, July 07, 2011

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

RE: Reno Creek Project  
Orde

r No.: S1103455

Dear Phil Cavendor:

Inter-Mountain Laboratories received samples PZM14-001-110329 on March 29, 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: 7/7/2011

**CLIENT:** AUC LLC  
**Project:** Reno Creek Project  
**Lab Order:** S1103455

**CASE NARRATIVE**  
**Report ID:** S1103455002  
(Replaces S1103455001)

Sample PZM14-001-110329 was received on March 29, 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

S1103455-001 - General Parameters/Radon-222 - Analyzed by a contract laboratory

Qualifiers by sample

- MB-R69021 - General Parameters/Radon-222 - Analyzed by a contract laboratory
- S1103455-001 - General Parameters/Radon-222 - Analyzed by a contract laboratory
- S1103324-002 - Radiochemistry/Radium 226 (Dissolved) - RPD outside accepted recovery limits
- LCS-R69021 - General Parameters/Radon-222 - Analyzed by a contract laboratory
- S1103455-001 - General Parameters/Radon-222 - RPD outside accepted recovery limits
- S1103485-001 - General Parameters/Radon-222 - RPD outside accepted recovery limits

Reviewed by:

Lacey Ketron, Water Lab Supervisor



Sample Analysis Report

Company: AUC LLC
1536 Cole Blvd
Lakewood, CO 80401
ProjectName: Reno Creek Project
Lab ID: S1103455-001
ClientSample ID: PZM14-001-110329
COC: RC 08263

Date Reported 7/7/2011
Report ID S1103455002
(Replaces S1103455001)
WorkOrder: S1103455
CollectionDate: 3/29/2011 10:45:00 AM
DateReceived: 3/29/2011 5:18:00 PM
FieldSampler: JS
Matrix: Water

Table with 7 columns: Analyses, Result, Units, Qual, RL, Method, Date Analyzed/Init. Rows include pH Reading, Conductivity Reading, Turbidity Reading, Dissolved Oxygen Reading, Temperature Reading, Oxygen Reduction Potential Reading, Purge Rate Reading, and Water Level Reading.

These results apply only to the samples tested.

RL - Reporting Limit

- 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

- 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: [Signature]
Lacey Ketron, Water Lab Supervisor



Sample Analysis Report

Company: AUC LLC
1536 Cole Blvd
Lakewood, CO 80401
ProjectName: Reno Creek Project
Lab ID: S1103455-001
ClientSample ID: PZM14-001-110329
COC: RC 08263

Date Reported 7/7/2011
Report ID S1103455002
(Replaces S1103455001)
WorkOrder: S1103455
CollectionDate: 3/29/2011 10:45:00 AM
DateReceived: 3/29/2011 5:18:00 PM
FieldSampler: JS
Matrix: Water

Table with 7 columns: Analyses, Result, Units, Qual, RL, Method, Date Analyzed/Init. Rows include Anions/Cations (Alkalinity, Chloride, etc.), General Parameters (pH, Conductivity), and Data Quality (Cation Sum, Anion Sum, etc.).

These results apply only to the samples tested.

RL - Reporting Limit

- 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

- 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: [Signature]
Lacey Ketron, Water Lab Supervisor



### Sample Analysis Report

**Company:** AUC LLC  
 1536 Cole Blvd  
 Lakewood, CO 80401

**ProjectName:** Reno Creek Project  
**Lab ID:** S1103455-001  
**ClientSample ID:** PZM14-001-110329  
**COC:** RC 08263

**Date Reported:** 7/7/2011  
**Report ID:** S1103455002  
 (Replaces S1103455001)

**WorkOrder:** S1103455  
**CollectionDate:** 3/29/2011 10:45:00 AM  
**DateReceived:** 3/29/2011 5:18:00 PM  
**FieldSampler:** JS  
**Matrix:** Water

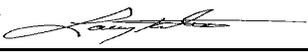
Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init	
<b>Metals - Dissolved</b>							
Aluminum	ND	mg/L		0.1	EPA 200.7	3/31/2011 3:43:51 PM	MS
Arsenic	ND	mg/L		0.001	EPA 200.8	4/1/2011 10:35:19 AM	MS
Barium	ND	mg/L		0.1	EPA 200.8	4/1/2011 10:35:19 AM	MS
Boron	ND	mg/L		0.1	EPA 200.7	3/31/2011 3:43:51 PM	MS
Cadmium	ND	mg/L		0.001	EPA 200.8	4/1/2011 10:35:19 AM	MS
Chromium	ND	mg/L		0.01	EPA 200.7	3/31/2011 3:43:51 PM	MS
Copper	ND	mg/L		0.01	EPA 200.8	4/1/2011 10:35:19 AM	MS
Iron	ND	mg/L		0.05	EPA 200.7	3/31/2011 3:43:51 PM	MS
Lead	ND	mg/L		0.01	EPA 200.8	4/1/2011 10:35:19 AM	MS
Manganese	0.07	mg/L		0.01	EPA 200.7	3/31/2011 3:43:51 PM	MS
Mercury	ND	mg/L		0.001	EPA 245.1	4/5/2011 11:13:56 AM	BK
Molybdenum	0.01	mg/L		0.01	EPA 200.8	4/1/2011 10:35:19 AM	MS
Nickel	ND	mg/L		0.05	EPA 200.7	3/31/2011 3:43:51 PM	MS
Selenium	ND	mg/L		0.005	EPA 200.8	4/1/2011 10:35:19 AM	MS
Uranium	0.0191	mg/L		0.0003	EPA 200.8	4/1/2011 10:35:19 AM	MS
Vanadium	ND	mg/L		0.1	EPA 200.8	4/1/2011 10:35:19 AM	MS
Zinc	ND	mg/L		0.01	EPA 200.7	3/31/2011 3:43:51 PM	MS
<b>Metals - Suspended</b>							
Uranium	ND	mg/L		0.0003	EPA 200.8	4/5/2011 10:37:39 AM	MS
<b>Metals - Total</b>							
Iron	0.85	mg/L		0.05	EPA 200.7	4/4/2011 5:26:59 PM	MS
Manganese	0.07	mg/L		0.01	EPA 200.7	4/4/2011 5:26:59 PM	MS

These results apply only to the samples tested.

#### RL - Reporting Limit

- 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

- 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:   
 Lacey Ketron, Water Lab Supervisor



Sample Analysis Report

Company: AUC LLC
1536 Cole Blvd
Lakewood, CO 80401
ProjectName: Reno Creek Project
Lab ID: S1103455-001
ClientSample ID: PZM14-001-110329
COC: RC 08263

Date Reported 7/7/2011
Report ID S1103455002
(Replaces S1103455001)
WorkOrder: S1103455
CollectionDate: 3/29/2011 10:45:00 AM
DateReceived: 3/29/2011 5:18:00 PM
FieldSampler: JS
Matrix: Water

Table with 7 columns: Analyses, Result, Units, Qual, RL, Method, Date Analyzed/Init. Rows include Radionuclides - Dissolved (Gross Alpha, Gross Beta, Lead 210, Polonium 210, Radium 226, Radium 228, Thorium 230) and Radionuclides - Suspended (Lead 210, Polonium 210, Radium 226, Thorium 230). Total Radon 222 is also listed.

These results apply only to the samples tested.

RL - Reporting Limit

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J Analyte detected below quantitation limits
M Value exceeds Monthly Ave or MCL
O Outside the Range of Dilutions

Reviewed by: [Signature]
Lacey Ketron, Water Lab Supervisor



### ANALYTICAL QC SUMMARY REPORT

**CLIENT:** AUC LLC  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011  
**Report ID:** S1103455002  
(Replaces S1103455001)

**Alkalinity**

Sample Type **MBLK** Units: mg/L

Sample ID	RunNo: 68778	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
BLANK	03/31/11 14:45	Alkalinity, Total (As CaCO3)	ND	5					

Sample Type **LCS** Units: mg/L

Sample ID	RunNo: 68778	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
ATQC	03/31/11 14:34	Alkalinity, Total (As CaCO3)	474	5	473		100	96.6 - 103	

Sample Type **DUP** Units: mg/L

Sample ID	RunNo: 68778	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103445-009A	03/31/11 15:01	Alkalinity, Bicarbonate as HCO3	ND	5	ND	0		20	
		Alkalinity, Carbonate as CO3	ND	5	ND	0		20	
		Alkalinity, Total (As CaCO3)	ND	5	ND	0		20	

Sample ID	RunNo: 68778	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103482-008A	03/31/11 17:58	Alkalinity, Bicarbonate as HCO3	541	5	539	0.320		20	
		Alkalinity, Carbonate as CO3	ND	5	ND	0		20	
		Alkalinity, Total (As CaCO3)	443	5	442	0.320		20	

Sample ID	RunNo: 68778	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103492-006A	03/31/11 22:03	Alkalinity, Bicarbonate as HCO3	78	5	77	2.03		20	
		Alkalinity, Carbonate as CO3	55	5	57	2.93		20	
		Alkalinity, Total (As CaCO3)	156	5	158	0.956		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  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011  
**Report ID:** S1103455002  
 (Replaces S1103455001)

**Conductivity**Sample Type **MBLK** Units: µmhos/cm

Sample ID	RunNo: 68778	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
BLANK	03/31/11 14:45	Electrical Conductivity	ND	5					

Sample Type **LCS** Units: µmhos/cm

Sample ID	RunNo: 68778	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
ATQC	03/31/11 14:34	Electrical Conductivity	985	5	1000		98.5	90 - 110	

Sample Type **DUP** Units: µmhos/cm

Sample ID	RunNo: 68778	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103445-009A	03/31/11 15:01	Electrical Conductivity	38400	5	41800	8.13		20	

Sample ID	RunNo: 68778	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103482-008A	03/31/11 17:58	Electrical Conductivity	1380	5	1390	0.288		20	

Sample ID	RunNo: 68778	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103492-006A	03/31/11 22:03	Electrical Conductivity	278	5	279	0.358		20	

**Dissolved Mercury by EPA 245.1 - Water**Sample Type **MBLK** Units: mg/L

Sample ID	RunNo: 68885	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LRB	04/05/11 9:18	Mercury	ND	0.001					

Sample Type **LCS** Units: mg/L

Sample ID	RunNo: 68885	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS	04/05/11 9:16	Mercury	0.002	0.001	0.002		93.5	85 - 115	

Sample Type **MS** Units: mg/L

Sample ID	RunNo: 68885	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103453-021C	04/05/11 11:01	Mercury	0.002	0.001	0.00244	ND	98.1	70 - 130	

Sample Type **MSD** Units: mg/L

Sample ID	RunNo: 68885	Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
S1103453-021C	04/05/11 11:03	Mercury	0.002	0.001	0.002	0.635	98.8	20	

Sample Type **DUP** Units: mg/L

Sample ID	RunNo: 68885	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103453-021C	04/05/11 11:00	Mercury	ND	0.001	ND	0		20	

**Qualifiers:**

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

**ANALYTICAL QC SUMMARY REPORT**

**CLIENT:** AUC LLC  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011

**Report ID:** S1103455002  
 (Replaces S1103455001)

**Dissolved Metals by ICP - EPA 200.7 - Water**Sample Type **MBLK** Units: mg/L

Sample ID	RunNo: 68791	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MBLK DISS/CAT	03/31/11 15:18	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					

Sample Type **LCS** Units: mg/L

Sample ID	RunNo: 68791	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
DISS LCS Q	03/31/11 15:20	Aluminum	1.0	0.1	1		96.8	85 - 115	
		Boron	1.0	0.1	1		99.6	85 - 115	
		Chromium	0.98	0.01	1		98.4	85 - 115	
		Iron	0.98	0.05	1		97.7	85 - 115	
		Manganese	0.98	0.02	1		97.8	85 - 115	
		Nickel	0.96	0.01	1		95.8	85 - 115	
		Zinc	0.97	0.01	1		97.1	85 - 115	

Sample Type **MS** Units: mg/L

Sample ID	RunNo: 68791	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103473-002Cs	03/31/11 16:12	Aluminum	3.9	0.1	0.5	3.5	82.2	70 - 130	
		Beryllium	0.50	0.01	0.5	ND	99.8	70 - 130	
		Boron	0.6	0.1	0.5	0.1	91.5	70 - 130	
		Chromium	0.48	0.01	0.5	ND	94.4	70 - 130	
		Iron	0.89	0.05	0.5	0.42	94.2	70 - 130	
		Manganese	0.48	0.02	0.5	ND	94.7	70 - 130	
		Nickel	0.46	0.01	0.5	ND	92.2	70 - 130	
		Zinc	0.47	0.01	0.5	ND	93.5	70 - 130	

Sample Type **MSD** Units: mg/L

Sample ID	RunNo: 68791	Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
S1103473-002Csd	03/31/11 16:14	Aluminum	3.9	0.1	3.9	0.675	87.5	20	
		Beryllium	0.51	0.01	0.50	2.74	103	20	
		Boron	0.6	0.1	0.6	2.77	94.7	20	
		Chromium	0.48	0.01	0.48	1.74	96.1	20	
		Iron	0.90	0.05	0.89	0.684	95.4	20	
		Manganese	0.48	0.02	0.48	1.22	95.9	20	
		Nickel	0.47	0.01	0.46	2.15	94.2	20	
		Zinc	0.48	0.01	0.47	1.48	94.9	20	

**Qualifiers:**

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

**ANALYTICAL QC SUMMARY REPORT**

**CLIENT:** AUC LLC  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011

**Report ID:** S1103455002  
 (Replaces S1103455001)

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

Sample ID	RunNo: 68791	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103473-002Cd	03/31/11 16:10	Aluminum	3.4	0.1	3.5	1.83		20	
		Boron	0.1	0.1	0.1	11.9		20	
		Chromium	ND	0.01	ND	0		20	
		Iron	0.42	0.05	0.42	0.879		20	
		Manganese	ND	0.02	ND	0		20	
		Nickel	ND	0.01	ND	0		20	
		Zinc	ND	0.01	ND	0		20	

**Dissolved Metals by ICPMS EPA 200.8 - Water**Sample Type **MBLK** Units: mg/L

Sample ID	RunNo: 68812	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
blk	04/01/11 10:27	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: 68812	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS	04/01/11 10:23	Arsenic	0.103	0.005	0.1		103	85 - 115	
		Barium	ND	0.5	0.1		89.0	85 - 115	
		Cadmium	0.102	0.002	0.1		102	85 - 115	
		Copper	0.09	0.01	0.1		94.3	85 - 115	
		Lead	0.10	0.02	0.1		96.3	85 - 115	
		Molybdenum	0.10	0.02	0.1		98.9	85 - 115	
		Selenium	0.103	0.005	0.1		103	85 - 115	
		Uranium	0.100	0.001	0.1		99.6	85 - 115	
		Vanadium	0.09	0.02	0.1		93.2	85 - 115	

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



### ANALYTICAL QC SUMMARY REPORT

**CLIENT:** AUC LLC  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011  
**Report ID:** S1103455002  
 (Replaces S1103455001)

**Dissolved Metals by ICPMS EPA 200.8 - Water**

Sample Type **MS** Units: mg/L

Sample ID	RunNo: 68812	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103455-001Es	04/01/11 10:43	Arsenic	1.15	0.005	1.1	ND	104	70 - 130	
		Barium	1.0	0.5	1.1	ND	89.2	70 - 130	
		Cadmium	1.12	0.002	1.1	ND	102	70 - 130	
		Copper	1.02	0.01	1.1	ND	92.6	70 - 130	
		Lead	1.05	0.02	1.1	ND	95.5	70 - 130	
		Molybdenum	1.13	0.02	1.1	ND	101	70 - 130	
		Selenium	1.15	0.005	1.1	ND	105	70 - 130	
		Uranium	1.11	0.001	1.1	0.019	98.8	70 - 130	
		Vanadium	1.05	0.02	1.1	ND	95.4	70 - 130	

Sample Type **MSD** Units: mg/L

Sample ID	RunNo: 68812	Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
S1103455-001Emsd	04/01/11 10:47	Arsenic	1.14	0.005	1.15	0.591	104	20	
		Barium	1.1	0.5	1.0	2.25	91.3	20	
		Cadmium	1.14	0.002	1.12	2.38	104	20	
		Copper	1.00	0.01	1.02	1.75	91.0	20	
		Lead	1.09	0.02	1.05	3.49	98.8	20	
		Molybdenum	1.15	0.02	1.13	2.24	104	20	
		Selenium	1.15	0.005	1.15	0.652	104	20	
		Uranium	1.13	0.001	1.11	1.89	101	20	
		Vanadium	1.02	0.02	1.05	3.06	92.5	20	

Sample Type **DUP** Units: mg/L

Sample ID	RunNo: 68812	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103455-001Ed	04/01/11 10:39	Arsenic	ND	0.005	ND	0		20	
		Barium	ND	0.5	ND	0		20	
		Cadmium	ND	0.002	ND	0		20	
		Copper	ND	0.01	ND	0		20	
		Lead	ND	0.02	ND	0		20	
		Molybdenum	ND	0.02	ND	0		20	
		Selenium	ND	0.005	ND	0		20	
		Uranium	0.020	0.001	0.019	2.15		20	
		Vanadium	ND	0.02	ND	0		20	

**Qualifiers:**

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S	Spike Recovery outside accepted recovery limits		



### ANALYTICAL QC SUMMARY REPORT

**CLIENT:** AUC LLC  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011  
**Report ID:** S1103455002  
(Replaces S1103455001)

**Fluoride by SM 4500**

Sample Type **MBLK** Units: mg/L

Sample ID	RunNo: 68778	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
BLANK	03/31/11 14:45	Fluoride	ND	0.1					

Sample Type **LCS** Units: mg/L

Sample ID	RunNo: 68778	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
ATQC	03/31/11 14:34	Fluoride	2.6	0.1	2.82		91.6	86.1 - 114	

Sample Type **MS** Units: mg/L

Sample ID	RunNo: 68778	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103482-008A	03/31/11 18:15	Fluoride	2.6	0.1	2.5	0.2	95.9	80 - 120	

Sample ID	RunNo: 68778	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103492-015ASPK	03/31/11 23:56	Fluoride	2.4	0.1	2.5	ND	96.1	80 - 120	

Sample Type **MSD** Units: mg/L

Sample ID	RunNo: 68778	Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
S1103482-008A	03/31/11 18:27	Fluoride	2.7	0.1	2.6	2.48	98.5	20	

Sample Type **DUP** Units: mg/L

Sample ID	RunNo: 68778	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103482-008A	03/31/11 17:58	Fluoride	0.2	0.1	0.2	8.00		20	

Sample ID	RunNo: 68778	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103492-006A	03/31/11 22:03	Fluoride	0.4	0.1	0.5	10.4		20	

Sample ID	RunNo: 68778	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103493-001A	04/01/11 0:09	Fluoride	ND	0.1	ND	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
  - R RPD outside accepted recovery limits

**ANALYTICAL QC SUMMARY REPORT**

**CLIENT:** AUC LLC  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011  
**Report ID:** S1103455002  
 (Replaces S1103455001)

**Gross Alpha, Beta by SM 7110B**Sample Type **MBLK** Units: pCi/L

Sample ID	RunNo: 69264	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MB11-104	04/17/11 21:40	Gross Alpha (Dissolved)	ND	2					
		Gross Beta (Dissolved)	ND	3					

Sample Type **LCS** Units: pCi/L

Sample ID	RunNo: 69264	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS11-104	04/17/11 21:40	Gross Alpha (Dissolved)	71	2	69		103	72.6 - 137	
		Gross Beta (Dissolved)	129	3	130		100	72.6 - 137	

Sample Type **MS** Units: pCi/L

Sample ID	RunNo: 69264	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103491-001GMS	04/17/11 21:40	Gross Alpha (Dissolved)	58	2	69	ND	84.1	44.4 - 137	
		Gross Beta (Dissolved)	138	3	130	4	104	44.4 - 137	

Sample ID	RunNo: 69264	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103495-001FMS	04/17/11 21:40	Gross Alpha (Dissolved)	86	2	69	12	108	44.4 - 137	
		Gross Beta (Dissolved)	140	3	130	5	104	44.4 - 137	

Sample Type **DUP** Units: pCi/L

Sample ID	RunNo: 69264	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103494-001FDUP	04/17/11 21:40	Gross Alpha (Dissolved)	110 ± 3.7	2	120	8.66		20	
		Gross Beta (Dissolved)	31.0 ± 1.6	3	34	7.57		20	

Sample ID	RunNo: 69264	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103495-002FDUP	04/17/11 21:40	Gross Alpha (Dissolved)	17.3 ± 1.5	2	15	12.4		20	
		Gross Beta (Dissolved)	6.3 ± 1.2	3	7	11.2		20	

**Qualifiers:**

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



### ANALYTICAL QC SUMMARY REPORT

**CLIENT:** AUC LLC  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011  
**Report ID:** S1103455002  
(Replaces S1103455001)

**Anions by ION Chromatography**

Sample Type **MBLK** Units: mg/L

Sample ID	RunNo: 68828	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
BLK	04/01/11 11:01	Chloride	ND	1					
		Sulfate	ND	1					

Sample Type **LCS** Units: mg/L

Sample ID	RunNo: 68828	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
DIONEX	04/01/11 8:50	Chloride	30	1	30		99.7	90 - 110	
		Sulfate	142	1	150		94.4	90 - 110	

Sample Type **MS** Units: mg/L

Sample ID	RunNo: 68828	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103483-001BSPK	04/01/11 19:10	Chloride	1320	1	505	770	108	80 - 120	
		Sulfate	4230	1	4040	ND	105	80 - 120	

Sample Type **DUP** Units: mg/L

Sample ID	RunNo: 68828	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103483-001B	04/01/11 18:58	Chloride	687	1	770	10.7		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  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011

**Report ID:** S1103455002  
 (Replaces S1103455001)

**Cations by ICP (Method 200.7)**Sample Type **MBLK** Units: mg/L

Sample ID	RunNo: 68790	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MBLK DISS/CAT	03/31/11 15:18	Calcium	ND	1					
		Magnesium	ND	1					
		Potassium	ND	1					
		Sodium	ND	1					

Sample Type **LCS** Units: mg/L

Sample ID	RunNo: 68790	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
CAT LCS IML3	03/31/11 15:23	Calcium	40	1	40		99.6	85 - 115	
		Magnesium	39	1	40		98.4	85 - 115	
		Potassium	39	1	40		98.6	85 - 115	
		Sodium	38	1	40		94.9	85 - 115	

Sample Type **MS** Units: mg/L

Sample ID	RunNo: 68790	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103473-002As	03/31/11 16:12	Calcium	27	1	25	ND	104	70 - 130	
		Magnesium	26	1	25	ND	102	70 - 130	
		Potassium	29	1	25	2	109	70 - 130	
		Sodium	58	1	25	35	91.8	70 - 130	

Sample Type **MSD** Units: mg/L

Sample ID	RunNo: 68790	Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
S1103473-002Asd	03/31/11 16:14	Calcium	27	1	27	1.81	106	20	
		Magnesium	26	1	26	1.99	104	20	
		Potassium	30	1	29	1.99	111	20	
		Sodium	58	1	58	1.03	94.1	20	

Sample Type **DUP** Units: mg/L

Sample ID	RunNo: 68790	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103473-002Ad	03/31/11 16:10	Calcium	ND	1	ND	0		20	
		Magnesium	ND	1	ND	0		20	
		Potassium	2	1	2	1.17		20	
		Sodium	34	1	35	0.689		20	

**Qualifiers:**

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

**ANALYTICAL QC SUMMARY REPORT**

**CLIENT:** AUC LLC  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011  
**Report ID:** S1103455002  
 (Replaces S1103455001)

**Nitrogen, Ammonia (as N)**Sample Type **MBLK** Units: mg/L

Sample ID	RunNo: 68802	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Blank	04/01/11 9:57	Nitrogen, Ammonia (As N)	ND	0.1					

Sample Type **LCS** Units: mg/L

Sample ID	RunNo: 68802	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
QC	04/01/11 9:59	Nitrogen, Ammonia (As N)	9.2	0.1	8.93		103	90 - 110	

Sample Type **MS** Units: mg/L

Sample ID	RunNo: 68802	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
s1103455-001d	04/01/11 11:34	Nitrogen, Ammonia (As N)	9.7	0.1	10	ND	96.6	80 - 120	

Sample Type **DUP** Units: mg/L

Sample ID	RunNo: 68802	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
s1103455-001d	04/01/11 11:33	Nitrogen, Ammonia (As N)	ND	0.1	ND	0		20	

**Nitrogen, Nitrate-Nitrite (as N)**Sample Type **MBLK** Units: mg/L

Sample ID	RunNo: 68996	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
blk	04/07/11 15:28	Nitrogen, Nitrate-Nitrite (as N)	ND	0.1					

Sample Type **LCS** Units: mg/L

Sample ID	RunNo: 68996	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
QC	04/07/11 15:30	Nitrogen, Nitrate-Nitrite (as N)	7.5	0.1	7.69		97.7	90 - 110	

Sample Type **MS** Units: mg/L

Sample ID	RunNo: 68996	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103457-002B	04/07/11 16:02	Nitrogen, Nitrate-Nitrite (as N)	22.6	0.1	10	10.7	119	80 - 120	

Sample Type **DUP** Units: mg/L

Sample ID	RunNo: 68996	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103457-002B	04/07/11 16:01	Nitrogen, Nitrate-Nitrite (as N)	10.8	0.1	10.7	0.481		20	

**Qualifiers:**

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

**ANALYTICAL QC SUMMARY REPORT**

**CLIENT:** AUC LLC  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011  
**Report ID:** S1103455002  
 (Replaces S1103455001)

**Lead 210 and Polonium 210**Sample Type **MBLK** Units: pCi/L

Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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MB11-094	04/19/11 19:25	Lead 210 (Dissolved)	ND	1					
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Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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MB11-104	04/25/11 10:14	Lead 210 (Suspended)	ND	1					
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Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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MB11-104B	04/25/11 12:24	Lead 210 (Suspended)	ND	1					
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Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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MB11-094	04/21/11 9:24	Polonium 210 (Dissolved)	ND	1					
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Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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MB11-104	04/28/11 8:30	Polonium 210 (Suspended)	ND	1					
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Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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MB11-104B	04/28/11 9:44	Polonium 210 (Suspended)	ND	1					
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Sample Type **LCS** Units: pCi/L

Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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LCS11-094	04/19/11 19:25	Lead 210 (Dissolved)	15	1	13.1		116	67.6 - 131	
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Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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LCS11-104	04/25/11 10:14	Lead 210 (Suspended)	14	1	13.1		107	67.6 - 131	
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Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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LCS11-094	04/21/11 9:24	Polonium 210 (Dissolved)	12	1	13.1		93.6	67.6 - 131	
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Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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LCS11-104	04/28/11 8:30	Polonium 210 (Suspended)	13	1	13.1		102	67.6 - 131	
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Sample Type **MS** Units: pCi/L

Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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S1103348-001GMS	04/19/11 19:25	Lead 210 (Dissolved)	14	1	13.1	1	92.5	66 - 133	
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Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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S1103348-002GMS	04/19/11 19:25	Lead 210 (Dissolved)	19	1	13.1	5	107	66 - 133	
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Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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S1103455-001GMS	04/25/11 10:14	Lead 210 (Suspended)	18	1	13.1	5	96.7	66 - 133	
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**Qualifiers:**

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

**ANALYTICAL QC SUMMARY REPORT**

**CLIENT:** AUC LLC  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011  
**Report ID:** S1103455002  
 (Replaces S1103455001)

**Lead 210 and Polonium 210**Sample Type **MS** Units: pCi/L

Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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S1103485-001GMS	04/25/11 10:14	Lead 210 (Suspended)	31	1	13.1	18	103	66 - 133	
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Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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S1103348-002GMS	04/21/11 9:24	Polonium 210 (Dissolved)	3	1	13.1	ND	23.7	66 - 133	
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Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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S1103455-001GMS	04/28/11 8:30	Polonium 210 (Suspended)	7	1	13.1	ND	52.4	66 - 133	
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Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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S1103485-001GMS	04/28/11 8:30	Polonium 210 (Suspended)	5	1	13.1	ND	40.4	66 - 133	
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Sample Type **DUP** Units: pCi/L

Sample ID	RunNo:	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
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S1103410-001DDUP	04/19/11 19:25	Lead 210 (Dissolved)	1.1 ± 0.5	1	1	8.36		20	
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Sample ID	RunNo:	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
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S1103410-001DDUP	04/21/11 9:24	Polonium 210 (Dissolved)	ND	1	ND	0		20	
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Sample ID	RunNo:	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
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S1103474-001GDUP	04/28/11 8:30	Polonium 210 (Suspended)	ND	1	ND	0		20	
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**Radium 228**Sample Type **MBLK** Units: pCi/L

Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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MB11-103	04/18/11 16:25	Radium 228 (Dissolved)	ND	1					
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Sample Type **LCS** Units: pCi/L

Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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LCS11-103	04/18/11 16:25	Radium 228 (Dissolved)	15	1	13.9		111	74.9 - 122	
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Sample Type **MS** Units: pCi/L

Sample ID	RunNo:	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
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S1103474-001GMS	04/18/11 16:25	Radium 228 (Dissolved)	13	1	13.9	ND	91.6	48.4 - 167	
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Sample Type **DUP** Units: pCi/L

Sample ID	RunNo:	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
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S1103491-001GDUP	04/18/11 16:25	Radium 228 (Dissolved)	ND	1	ND	0		20	
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**Qualifiers:**

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



### ANALYTICAL QC SUMMARY REPORT

**CLIENT:** AUC LLC  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011  
**Report ID:** S1103455002  
(Replaces S1103455001)

**Radium 226 by SM 7500**

Sample Type **MBLK** Units: pCi/L

Sample ID	RunNo: 69170	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MB11-096	04/13/11 17:39	Radium 226 (Dissolved)	ND	0.2					

Sample ID	RunNo: 69475	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MB11-103	04/25/11 8:23	Radium 226 (Suspended)	ND	0.2					

Sample Type **LCS** Units: pCi/L

Sample ID	RunNo: 69170	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS11-096	04/13/11 17:39	Radium 226 (Dissolved)	4.9	0.2	5		98.5	62.5 - 125	

Sample ID	RunNo: 69475	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS11-103	04/25/11 8:23	Radium 226 (Suspended)	4.8	0.2	5		95.5	62.5 - 125	

Sample Type **MS** Units: pCi/L

Sample ID	RunNo: 69170	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103324-001EMS	04/13/11 17:39	Radium 226 (Dissolved)	4.4	0.2	5	0.3	82.0	62.5 - 125	

Sample ID	RunNo: 69170	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103410-001DMS	04/14/11 10:28	Radium 226 (Dissolved)	5.1	0.2	5	ND	101	62.5 - 125	

Sample ID	RunNo: 69475	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103494-002FMS	04/26/11 11:46	Radium 226 (Suspended)	6.5	0.2	5	ND	129	62.5 - 125	

Sample ID	RunNo: 69475	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103485-001GMS	04/26/11 11:46	Radium 226 (Suspended)	5.5	0.2	5	ND	110	62.5 - 125	

Sample Type **DUP** Units: pCi/L

Sample ID	RunNo: 69170	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103324-002EDUP	04/13/11 17:39	Radium 226 (Dissolved)	0.2 ± 0.1	0.2	0.3	22.8		20	R

Sample ID	RunNo: 69170	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103410-002DDUP	04/14/11 10:28	Radium 226 (Dissolved)	0.4 ± 0.1	0.2	0.3	6.41		20	

Sample ID	RunNo: 69475	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103494-001FDUP	04/26/11 11:46	Radium 226 (Suspended)	0.3	0.2	ND				

Sample ID	RunNo: 69475	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1104083-001GDUP	04/25/11 9:28	Radium 226 (Suspended)	ND	0.2	ND				

- 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  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011  
**Report ID:** S1103455002  
 (Replaces S1103455001)

**Thorium 230 in Water**Sample Type **MBLK** Units: pCi/L

Sample ID	RunNo: 69252	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MB11-095	04/11/11 9:40	Thorium 230 (Dissolved)	ND	0.2					

Sample ID	RunNo: 69452	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MB11-102B	04/20/11 14:08	Thorium 230 (Dissolved)	ND	0.2					

Sample ID	RunNo: 69452	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
DMB11-102	04/21/11 12:32	Thorium 230 (Suspended)	ND	0.2					

Sample Type **LCS** Units: pCi/L

Sample ID	RunNo: 69252	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS11-095	04/11/11 9:40	Thorium 230 (Dissolved)	11	0.2	12		91.9	50 - 150	

Sample ID	RunNo: 69452	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS11-102B	04/20/11 14:08	Thorium 230 (Dissolved)	12	0.2	12		98.4	50 - 150	
		Thorium 230 (Suspended)	12	0.2	12		98.4	50 - 150	

Sample Type **DUP** Units: pCi/L

Sample ID	RunNo: 69252	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103485-001GDUP	04/11/11 17:53	Thorium 230 (Dissolved)	ND	0.2	ND	0		20	

Sample ID	RunNo: 69452	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103494-001FDUP	04/20/11 14:09	Thorium 230 (Dissolved)	ND	0.2	ND	0		20	

Sample ID	RunNo: 69452	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103455-001GDUP	04/18/11 17:46	Thorium 230 (Suspended)	ND	0.2	ND	0		20	

**Radon 222 by SM7500-RN**Sample Type **MBLK** Units: pCi/L

Sample ID	RunNo: 69021	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MB-R69021	03/31/11 0:00	Radon-222	ND	50					L

Sample Type **LCS** Units: pCi/L

Sample ID	RunNo: 69021	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS-R69021	03/31/11 0:00	Radon-222	22200	100	22500		98.6	75 - 125	L

Sample Type **DUP** Units: pCi/L

Sample ID	RunNo: 69021	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103455-001B	03/31/11 0:00	Radon-222	1810	40	3130	42.2		20	RL

**Qualifiers:**

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



### ANALYTICAL QC SUMMARY REPORT

**CLIENT:** AUC LLC  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011  
**Report ID:** S1103455002  
(Replaces S1103455001)

**Silica as SiO2**

Sample Type **MBLK** Units: mg/L

Sample ID	RunNo: 68792	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
MBLK DISS/CAT	03/31/11 15:18	Silica as SiO2	ND	0.1					

Sample Type **LCS** Units: mg/L

Sample ID	RunNo: 68792	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
DISS LCS Q	03/31/11 15:20	Silica as SiO2	2.2	0.1	2.14		100	85 - 115	

Sample Type **DUP** Units: mg/L

Sample ID	RunNo: 68792	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103474-001Ed	03/31/11 17:16	Silica as SiO2	9.8	0.1	9.9	1.10		20	

**Solids By SM 2540**

Sample Type **MBLK** Units: mg/L

Sample ID	RunNo: 68854	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
DI	04/01/11 10:10	Total Dissolved Solids (180)	10.0	10					

Sample Type **LCS** Units: mg/L

Sample ID	RunNo: 68854	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Control	04/01/11 10:15	Total Dissolved Solids (180)	230	10	226		103	90 - 110	

Sample Type **DUP** Units: mg/L

Sample ID	RunNo: 68854	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103472-001A	04/01/11 11:30	Total Dissolved Solids (180)	1690	10	1700	0.939		20	

Sample ID	RunNo: 68854	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103487-001A	04/01/11 14:55	Total Dissolved Solids (180)	4660	10	4590	1.53		20	

- Qualifiers:**
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  - 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  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011  
**Report ID:** S1103455002  
(Replaces S1103455001)

**Total (200.2) Metals by EPA 200.7 ICP - Water**

Sample Type **MBLK** Units: mg/L

Sample ID	RunNo: 68869	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
BLK 4/4 TOT -5008	04/04/11 17:22	Iron	ND	0.05					
		Manganese	ND	0.02					

Sample Type **LCS** Units: mg/L

Sample ID	RunNo: 68869	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
LCS 4/4 TOT -5008	04/04/11 17:24	Iron	0.47	0.05	0.5		94.8	85 - 115	
		Manganese	0.19	0.02	0.2		95.5	85 - 115	

Sample Type **MS** Units: mg/L

Sample ID	RunNo: 68869	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103474-001Fs	04/04/11 17:33	Iron	0.99	0.05	0.5	0.50	98.2	70 - 130	
		Manganese	0.69	0.02	0.2	0.47	109	70 - 130	

Sample Type **MSD** Units: mg/L

Sample ID	RunNo: 68869	Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
S1103474-001Fsd	04/04/11 17:36	Iron	0.98	0.05	0.99	0.546	97.1	20	
		Manganese	0.69	0.02	0.69	0.0728	109	20	

Sample Type **DUP** Units: mg/L

Sample ID	RunNo: 68869	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103455-001Fd	04/04/11 17:29	Iron	0.85	0.05	0.85	0.236		20	
		Manganese	0.07	0.02	0.07	1.00		20	

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  - 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  
**Work Order:** S1103455  
**Project:** Reno Creek Project

**Date:** 7/7/2011  
**Report ID:** S1103455002  
 (Replaces S1103455001)

**Suspended Natural Uranium**Sample Type **MBLK** Units: mg/L

Sample ID	RunNo: 68908	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
blk	04/05/11 9:39	Uranium Suspended	ND	0.0003					

Sample Type **LCS** Units: mg/L

Sample ID	RunNo: 68908	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
lcs	04/05/11 9:34	Uranium Suspended	0.0918	0.0003	0.1		91.8	85 - 115	

Sample Type **MS** Units: mg/L

Sample ID	RunNo: 68908	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
S1103374-001Hs	04/05/11 10:25	Uranium Suspended	1.00	0.0003	1.1	ND	91.0	70 - 130	

Sample Type **MSD** Units: mg/L

Sample ID	RunNo: 68908	Analyte	Result	RL	Conc	%RPD	%REC	% RPD Limits	Qual
S1103374-001Hmsd	04/05/11 10:28	Uranium Suspended	0.987	0.0003	1.00	1.41	89.7	20	

Sample Type **DUP** Units: mg/L

Sample ID	RunNo: 68908	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103374-001Hd	04/05/11 10:22	Uranium Suspended	ND	0.0003	ND	0		20	

**pH Water**Sample Type **LCS** Units: s.u.

Sample ID	RunNo: 68778	Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
ATQC	03/31/11 14:34	pH	10.7	0.1	10.7		100	94.8 - 105	

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

Sample ID	RunNo: 68778	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103445-009A	03/31/11 15:01	pH	ND	0.1	ND	0		20	

Sample ID	RunNo: 68778	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103482-008A	03/31/11 17:58	pH	7.7	0.1	7.8	0.186		20	

Sample ID	RunNo: 68778	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103488-001A	03/31/11 20:15	pH	8.0	0.1	7.7	3.14		20	

Sample ID	RunNo: 68778	Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
S1103492-006A	03/31/11 22:03	pH	10.0	0.1	10.0	0.0726		20	

**Qualifiers:**

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O	Outside the Range of Dilutions	R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits		

Client Name: **AUC LLC**  
 Report Address: **peavendor@auc-llc.com; trickeron@treccorp.com; jshriver@treccorp.com**  
 Invoice Address: **AUC LLC**  
 Project Identification: **Reno Creek Project**  
 Contact Name: **TRACI NICKERSON**  
 Email: **trickeron@treccorp.com**  
 Phone: **(307) 265-0696**  
 Purchase Order #: **265-0696**  
 Quote #:   
 Sampler/Signature/Printed: **Justin Scott**  
 Telephone #: **(307) 265-0696**

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS	REMARKS
1	51108455-01	3/29/11	1045	PEM14-001-110829	W	13	See Attached Table 1 (4.14, Guide 8, Radon 222) See Attached Table 2 (Air Particulate) See Attached Table 3 (Vegetation) See Attached Table 4 (Sediment) See Attached Table 5 (Soil) See Attached Table 8 WYPDES Discharge See Attached Table 9 (Blanks)	Ground Water
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								

Relinquished By (Signature/Printed): *[Signature]* DATE: 3/29/11 TIME: 10:17:18  
 Received By (Signature/Printed): *[Signature]* DATE: 3/29/11 TIME: 10:17:18

LAB COMMENTS: *[Handwritten notes]*

SHIPPING INFO:  UPS,  Fed Express,  US Mail,  Hand Carried,  Other

MATRIX CODES: Water, Soil, Solid, Trip Blank, Other

TURNAROUND TIMES:  Standard turnaround,  RUSH - 5 Working Days,  URGENT - < 2 Working Days

COMPLIANCE INFORMATION: Compliance Monitoring?  Y, Program (SDWA, NPDES...), PWSID / Permit #, Chlorinated?, Sample Disposal: Lab  Y, Client  Y

ADDITIONAL REMARKS: *[Handwritten notes]*

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