



Inter-Mountain Labs
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

Page of

All shaded fields must be completed.

This is a legal document: any misrepresentation may be construed as fraud.

153008

Client Name REP	Project Identification UPON	Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>	Telephone # 283-3500
Report Address	Contact Name Kris Thompson	ANALYSES / PARAMETERS	
Invoice Address	Email Kthompson@intermountainresources.com		
	Phone 283-3500		
	Purchase Order #	Quote #	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Le	La	U	Th	Pa-224	Th-230	REMARKS
1	001	3/4/14	48956.2	#8671535 UAMS#1 CONT	OT	1	X	X	X	X	X	X	
2	002	3/11/14	49059.3	#8671534 UAMS#2 CONT	OT	1							
3	003	3/19/14	48972.0	#8671533 UAMS#4 CONT									
4	004	3/26/14	39676.6	#8671532 UAMS#3 CONT									
5	005	4/7/14	51826.5	#8671531 UAMS#5 CONT									
6	006	4/22/14	43525.6	#8671529 UAMS#2 CONT.									
7	007	5/2/14	46017.5	#8671528 UAMS#4 CONT.									
8	008	5/13/14	42202.7	#8671527 UAMS#3 CONT.									
9	009	5/14/14	51715.8	#8671526 UAMS#5 CONT.									
10	010	5/22/14	51359.2	#8671525 UAMS#1 CONT.									
11	011	6/13/14	50645.2	#8671523 UAMS#4 CONT.									
12	012	4/14/14	45924.8	#8671530 UAMS#1 CONT.									
13													
14													

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> Robbie Grubbs	7/25/14	9:40AM	<i>[Signature]</i> Kris Thompson	7/25/14	11:32AM
				<i>[Signature]</i> Maggie Elliott	7-25-14	1133
					7/29/14	13142

SHIPPING INFO		MATRIX CODES		TURNAROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
☐ UPS	Water	WT	Check desired service		Compliance Monitoring?		Y / N		
☐ Fed Express	Soil	SL	☒ Standard turnaround		Program (SDWA, NPDES,...)				
☐ US Mail	Solid	SD	☐ RUSH - 5 Working Days		PWSID / Permit #				
☐ Hand Carried	Filter	FT	☐ URGENT - < 2 Working Days		Chlorinated?		Y / N		
☐ Other _____	Other	OT	Rush & Urgent Surcharges will be applied		Sample Disposal: Lab		Client		



Date: 10/2/2014

CLIENT: Rare Element Resources (RER)
Project: Upton Air Monitoring 2nd Quarter
Lab Order: S1407490

CASE NARRATIVE
Report ID: S1407490001

Samples #8671523 UAMS #4 Cont., #8671525 UAMS #1 Cont., #8671526 UAMS #5 Cont., #8671527 UAMS #3 Cont., #8671528 UAMS #4 Cont., #8671529 UAMS #2 Cont., #8671530 UAMS #1 Cont., #8671531 UAMS #5 Cont., #8671532 UAMS #3 Cont., #8671533 UAMS #4 Cont., #8671534 UAMS #2 Cont., and #8671535 UAMS #1 Cont. were received on July 29, 2014.

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

"Standard Methods For The Examination of Water and Wastewater", approved method versions
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition
40 CFR Parts 136 and 141
40 CFR Part 50, Appendices B, J, L, and O
Methods indicated in the Methods Update Rule published in the Federal Register Friday, May 18, 2012
ASTM approved and recognized standards

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

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Rare Element Resources (RER)
P.O. Box 1475
Sundance, WY 82729

Date Reported 10/2/2014
Report ID S1407490001

ProjectName: Upton Air Monitoring 2nd Quarter
Lab ID: S1407490-001
ClientSample ID: #8671535 UAMS #1 Cont.
COC: 153008

WorkOrder: S1407490
CollectionDate: 3/4/2014
DateReceived: 7/29/2014 1:42:00 PM
FieldSampler: RG
Matrix: Filter

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	48956.2	Liters			Field	03/04/2014 000
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Radionuclides - Filter

Radium 226	1.1	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226 Precision (±)	0.3	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226	8.21E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Radium 226 Precision (±)	2.26E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230	ND	pCi/Filter	0.6	ACW10	08/21/2014 1655	MB
Thorium-230 Precision (±)	ND	pCi/Filter	0.6	ACW10	08/21/2014 1655	MB
Thorium 230	1.85E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230 Precision (±)	2.26E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN

Metals - Filter

Cerium	ND	µg/Filter	16	IO-3.5	08/05/2014 1729	MS
Cerium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Lanthanum	ND	µg/Filter	16	IO-3.5	08/05/2014 1729	MS
Lanthanum	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Thorium	ND	µg/Filter	16	IO-3.5	08/05/2014 1729	MS
Thorium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Uranium	ND	µg/Filter	15	IO-3.5	08/05/2014 1729	MS
Uranium	ND	µg/m ³	15	IO-3.5	10/02/2014 1038	WN

These results apply only to the samples tested.

RL - Reporting Limit

Qualifiers:	B	Analyte detected in the associated Method Blank	C	Calculated Value
	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
	M	Value exceeds Monthly Ave or MCL or is less than LCL	ND	Not Detected at the Reporting Limit
	O	Outside the Range of Dilutions	S	Spike Recovery outside accepted recovery limits
	X	Matrix Effect		

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Rare Element Resources (RER)
P.O. Box 1475
Sundance, WY 82729

Date Reported 10/2/2014
Report ID S1407490001

ProjectName: Upton Air Monitoring 2nd Quarter
Lab ID: S1407490-002
ClientSample ID: #8671534 UAMS #2 Cont.
COC: 153008

WorkOrder: S1407490
CollectionDate: 3/11/2014
DateReceived: 7/29/2014 1:42:00 PM
FieldSampler: RG
Matrix: Filter

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	49059.3	Liters			Field	03/11/2014 000
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Radionuclides - Filter

Radium 226	ND	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226 Precision (±)	ND	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226	0.00E+0	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Radium 226 Precision (±)	0.00E+0	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230	ND	pCi/Filter	0.6	ACW10	08/21/2014 1655	MB
Thorium-230 Precision (±)	ND	pCi/Filter	0.6	ACW10	08/21/2014 1655	MB
Thorium 230	2.50E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230 Precision (±)	2.26E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN

Metals - Filter

Cerium	ND	µg/Filter	16	IO-3.5	08/05/2014 1735	MS
Cerium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Lanthanum	ND	µg/Filter	16	IO-3.5	08/05/2014 1735	MS
Lanthanum	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Thorium	ND	µg/Filter	16	IO-3.5	08/05/2014 1735	MS
Thorium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Uranium	ND	µg/Filter	15	IO-3.5	08/05/2014 1735	MS
Uranium	ND	µg/m ³	15	IO-3.5	10/02/2014 1038	WN

These results apply only to the samples tested.

RL - Reporting Limit

Qualifiers:	B	Analyte detected in the associated Method Blank	C	Calculated Value
	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
	M	Value exceeds Monthly Ave or MCL or is less than LCL	ND	Not Detected at the Reporting Limit
	O	Outside the Range of Dilutions	S	Spike Recovery outside accepted recovery limits
	X	Matrix Effect		

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Rare Element Resources (RER)
P.O. Box 1475
Sundance, WY 82729

Date Reported 10/2/2014
Report ID S1407490001

ProjectName: Upton Air Monitoring 2nd Quarter
Lab ID: S1407490-003
ClientSample ID: #8671533 UAMS #4 Cont.
COC: 153008

WorkOrder: S1407490
CollectionDate: 3/19/2014
DateReceived: 7/29/2014 1:42:00 PM
FieldSampler: RG
Matrix: Filter

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	48972.0	Liters			Field	03/19/2014 000
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Radionuclides - Filter

Radium 226	1.1	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226 Precision (±)	0.3	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226	8.44E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Radium 226 Precision (±)	2.26E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230	ND	pCi/Filter	0.6	ACW10	09/25/2014 1357	MB
Thorium-230 Precision (±)	ND	pCi/Filter	0.6	ACW10	09/25/2014 1357	MB
Thorium 230	4.12E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230 Precision (±)	3.70E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN

Metals - Filter

Cerium	ND	µg/Filter	16	IO-3.5	08/05/2014 1742	MS
Cerium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Lanthanum	ND	µg/Filter	16	IO-3.5	08/05/2014 1742	MS
Lanthanum	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Thorium	ND	µg/Filter	16	IO-3.5	08/05/2014 1742	MS
Thorium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Uranium	ND	µg/Filter	15	IO-3.5	08/05/2014 1742	MS
Uranium	ND	µg/m ³	15	IO-3.5	10/02/2014 1038	WN

These results apply only to the samples tested.

RL - Reporting Limit

Qualifiers:	B	Analyte detected in the associated Method Blank	C	Calculated Value
	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
	M	Value exceeds Monthly Ave or MCL or is less than LCL	ND	Not Detected at the Reporting Limit
	O	Outside the Range of Dilutions	S	Spike Recovery outside accepted recovery limits
	X	Matrix Effect		

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Rare Element Resources (RER)
P.O. Box 1475
Sundance, WY 82729

Date Reported 10/2/2014
Report ID S1407490001

ProjectName: Upton Air Monitoring 2nd Quarter
Lab ID: S1407490-004
ClientSample ID: #8671532 UAMS #3 Cont.
COC: 153008

WorkOrder: S1407490
CollectionDate: 3/26/2014
DateReceived: 7/29/2014 1:42:00 PM
FieldSampler: RG
Matrix: Filter

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	39676.6	Liters			Field	03/26/2014 000
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Radionuclides - Filter

Radium 226	ND	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226 Precision (±)	ND	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226	4.33E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Radium 226 Precision (±)	1.85E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230	1.0	pCi/Filter	0.6	ACW10	08/21/2014 1655	MB
Thorium-230 Precision (±)	0.7	pCi/Filter	0.6	ACW10	08/21/2014 1655	MB
Thorium 230	9.02E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230 Precision (±)	6.66E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN

Metals - Filter

Cerium	ND	µg/Filter	16	IO-3.5	08/05/2014 1748	MS
Cerium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Lanthanum	ND	µg/Filter	16	IO-3.5	08/05/2014 1748	MS
Lanthanum	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Thorium	ND	µg/Filter	16	IO-3.5	08/05/2014 1748	MS
Thorium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Uranium	ND	µg/Filter	15	IO-3.5	08/05/2014 1748	MS
Uranium	ND	µg/m ³	15	IO-3.5	10/02/2014 1038	WN

These results apply only to the samples tested.

RL - Reporting Limit

Qualifiers:	B	Analyte detected in the associated Method Blank	C	Calculated Value
	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
	M	Value exceeds Monthly Ave or MCL or is less than LCL	ND	Not Detected at the Reporting Limit
	O	Outside the Range of Dilutions	S	Spike Recovery outside accepted recovery limits
	X	Matrix Effect		

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Rare Element Resources (RER)
P.O. Box 1475
Sundance, WY 82729

Date Reported 10/2/2014
Report ID S1407490001

ProjectName: Upton Air Monitoring 2nd Quarter
Lab ID: S1407490-005
ClientSample ID: #8671531 UAMS #5 Cont.
COC: 153008

WorkOrder: S1407490
CollectionDate: 4/7/2014
DateReceived: 7/29/2014 1:42:00 PM
FieldSampler: RG
Matrix: Filter

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	51826.5	Liters			Field	04/07/2014 000
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Radionuclides - Filter

Radium 226	2.6	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226 Precision (±)	0.5	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226	1.86E-3	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Radium 226 Precision (±)	3.55E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230	0.7	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium-230 Precision (±)	0.6	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium 230	4.89E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230 Precision (±)	4.44E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN

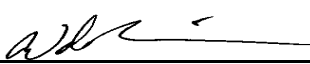
Metals - Filter

Cerium	47	µg/Filter	16	IO-3.5	08/05/2014 1751	MS
Cerium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Lanthanum	24	µg/Filter	16	IO-3.5	08/05/2014 1751	MS
Lanthanum	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Thorium	ND	µg/Filter	16	IO-3.5	08/05/2014 1751	MS
Thorium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Uranium	ND	µg/Filter	15	IO-3.5	08/05/2014 1751	MS
Uranium	ND	µg/m ³	15	IO-3.5	10/02/2014 1038	WN

These results apply only to the samples tested.

RL - Reporting Limit

Qualifiers:	B	Analyte detected in the associated Method Blank	C	Calculated Value
	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
	M	Value exceeds Monthly Ave or MCL or is less than LCL	ND	Not Detected at the Reporting Limit
	O	Outside the Range of Dilutions	S	Spike Recovery outside accepted recovery limits
	X	Matrix Effect		

Reviewed by: 
Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Rare Element Resources (RER)
P.O. Box 1475
Sundance, WY 82729

Date Reported 10/2/2014
Report ID S1407490001

ProjectName: Upton Air Monitoring 2nd Quarter
Lab ID: S1407490-006
ClientSample ID: #8671529 UAMS #2 Cont.
COC: 153008

WorkOrder: S1407490
CollectionDate: 4/22/2014
DateReceived: 7/29/2014 1:42:00 PM
FieldSampler: RG
Matrix: Filter

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	43525.6	Liters			Field	04/22/2014 000
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Radionuclides - Filter

Radium 226	ND	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226 Precision (±)	ND	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226	2.56E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Radium 226 Precision (±)	1.70E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230	ND	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium-230 Precision (±)	ND	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium 230	2.09E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230 Precision (±)	2.55E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN

Metals - Filter

Cerium	ND	µg/Filter	16	IO-3.5	08/05/2014 1754	MS
Cerium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Lanthanum	ND	µg/Filter	16	IO-3.5	08/05/2014 1754	MS
Lanthanum	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Thorium	ND	µg/Filter	16	IO-3.5	08/05/2014 1754	MS
Thorium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Uranium	ND	µg/Filter	15	IO-3.5	08/05/2014 1754	MS
Uranium	ND	µg/m ³	15	IO-3.5	10/02/2014 1038	WN

These results apply only to the samples tested.

RL - Reporting Limit

Qualifiers:	B	Analyte detected in the associated Method Blank	C	Calculated Value
	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
	M	Value exceeds Monthly Ave or MCL or is less than LCL	ND	Not Detected at the Reporting Limit
	O	Outside the Range of Dilutions	S	Spike Recovery outside accepted recovery limits
	X	Matrix Effect		

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Rare Element Resources (RER)
P.O. Box 1475
Sundance, WY 82729

Date Reported 10/2/2014
Report ID S1407490001

ProjectName: Upton Air Monitoring 2nd Quarter
Lab ID: S1407490-007
ClientSample ID: #8671528 UAMS #4 Cont.
COC: 153008

WorkOrder: S1407490
CollectionDate: 5/2/2014
DateReceived: 7/29/2014 1:42:00 PM
FieldSampler: RG
Matrix: Filter

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	46017.5	Liters			Field	05/02/2014 000
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Radionuclides - Filter

Radium 226	1.0	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226 Precision (±)	0.3	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226	8.28E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Radium 226 Precision (±)	2.41E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230	ND	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium-230 Precision (±)	ND	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium 230	2.45E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230 Precision (±)	2.41E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN

Metals - Filter

Cerium	17	µg/Filter	16	IO-3.5	08/05/2014 1804	MS
Cerium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Lanthanum	ND	µg/Filter	16	IO-3.5	08/05/2014 1804	MS
Lanthanum	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Thorium	ND	µg/Filter	16	IO-3.5	08/05/2014 1804	MS
Thorium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Uranium	ND	µg/Filter	15	IO-3.5	08/05/2014 1804	MS
Uranium	ND	µg/m ³	15	IO-3.5	10/02/2014 1038	WN

These results apply only to the samples tested.

RL - Reporting Limit

Qualifiers:	B	Analyte detected in the associated Method Blank	C	Calculated Value
	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
	M	Value exceeds Monthly Ave or MCL or is less than LCL	ND	Not Detected at the Reporting Limit
	O	Outside the Range of Dilutions	S	Spike Recovery outside accepted recovery limits
	X	Matrix Effect		

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Rare Element Resources (RER)
P.O. Box 1475
Sundance, WY 82729

Date Reported 10/2/2014
Report ID S1407490001

ProjectName: Upton Air Monitoring 2nd Quarter
Lab ID: S1407490-008
ClientSample ID: #8671527 UAMS #3 Cont.
COC: 153008

WorkOrder: S1407490
CollectionDate: 5/13/2014
DateReceived: 7/29/2014 1:42:00 PM
FieldSampler: RG
Matrix: Filter

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	42202.7	Liters			Field	05/13/2014 000
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Radionuclides - Filter

Radium 226	ND	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226 Precision (±)	ND	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1419	MB
Radium 226	3.40E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Radium 226 Precision (±)	1.74E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230	1.3	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium-230 Precision (±)	0.7	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium 230	1.19E-3	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230 Precision (±)	6.29E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN

Metals - Filter

Cerium	ND	µg/Filter	16	IO-3.5	08/05/2014 1807	MS
Cerium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Lanthanum	ND	µg/Filter	16	IO-3.5	08/05/2014 1807	MS
Lanthanum	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Thorium	ND	µg/Filter	16	IO-3.5	08/05/2014 1807	MS
Thorium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Uranium	ND	µg/Filter	15	IO-3.5	08/05/2014 1807	MS
Uranium	ND	µg/m ³	15	IO-3.5	10/02/2014 1038	WN

These results apply only to the samples tested.

RL - Reporting Limit

Qualifiers:	B	Analyte detected in the associated Method Blank	C	Calculated Value
	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
	M	Value exceeds Monthly Ave or MCL or is less than LCL	ND	Not Detected at the Reporting Limit
	O	Outside the Range of Dilutions	S	Spike Recovery outside accepted recovery limits
	X	Matrix Effect		

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Rare Element Resources (RER)
P.O. Box 1475
Sundance, WY 82729

Date Reported 10/2/2014
Report ID S1407490001

ProjectName: Upton Air Monitoring 2nd Quarter
Lab ID: S1407490-009
ClientSample ID: #8671526 UAMS #5 Cont.
COC: 153008

WorkOrder: S1407490
CollectionDate: 5/16/2014
DateReceived: 7/29/2014 1:42:00 PM
FieldSampler: RG
Matrix: Filter

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	51715.8	Liters			Field	05/16/2014 000
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Radionuclides - Filter

Radium 226	2.9	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1700	MB
Radium 226 Precision (±)	0.5	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1700	MB
Radium 226	2.08E-3	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Radium 226 Precision (±)	3.59E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230	2.9	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium-230 Precision (±)	1.1	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium 230	2.08E-3	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230 Precision (±)	7.77E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN

Metals - Filter

Cerium	30	µg/Filter	16	IO-3.5	08/05/2014 1810	MS
Cerium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Lanthanum	ND	µg/Filter	16	IO-3.5	08/05/2014 1810	MS
Lanthanum	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Thorium	ND	µg/Filter	16	IO-3.5	08/05/2014 1810	MS
Thorium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Uranium	ND	µg/Filter	15	IO-3.5	08/05/2014 1810	MS
Uranium	ND	µg/m ³	15	IO-3.5	10/02/2014 1038	WN

These results apply only to the samples tested.

RL - Reporting Limit

Qualifiers:	B	Analyte detected in the associated Method Blank	C	Calculated Value
	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
	M	Value exceeds Monthly Ave or MCL or is less than LCL	ND	Not Detected at the Reporting Limit
	O	Outside the Range of Dilutions	S	Spike Recovery outside accepted recovery limits
	X	Matrix Effect		

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager

**Sample Analysis Report**

Company: Rare Element Resources (RER)
P.O. Box 1475
Sundance, WY 82729

Date Reported 10/2/2014
Report ID S1407490001

ProjectName: Upton Air Monitoring 2nd Quarter
Lab ID: S1407490-010
ClientSample ID: #8671525 UAMS #1 Cont.
COC: 153008

WorkOrder: S1407490
CollectionDate: 5/22/2014
DateReceived: 7/29/2014 1:42:00 PM
FieldSampler: RG
Matrix: Filter

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	51359.2	Liters			Field	05/22/2014 000
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Radionuclides - Filter

Radium 226	1.2	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1700	MB
Radium 226 Precision (±)	0.3	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1700	MB
Radium 226	8.91E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Radium 226 Precision (±)	2.15E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230	0.6	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium-230 Precision (±)	0.5	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium 230	4.51E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230 Precision (±)	3.59E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN

Metals - Filter

Cerium	38	µg/Filter	16	IO-3.5	08/05/2014 1813	MS
Cerium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Lanthanum	19	µg/Filter	16	IO-3.5	08/05/2014 1813	MS
Lanthanum	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Thorium	ND	µg/Filter	16	IO-3.5	08/05/2014 1813	MS
Thorium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Uranium	ND	µg/Filter	15	IO-3.5	08/05/2014 1813	MS
Uranium	ND	µg/m ³	15	IO-3.5	10/02/2014 1038	WN

These results apply only to the samples tested.

RL - Reporting Limit

Qualifiers:	B	Analyte detected in the associated Method Blank	C	Calculated Value
	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
	M	Value exceeds Monthly Ave or MCL or is less than LCL	ND	Not Detected at the Reporting Limit
	O	Outside the Range of Dilutions	S	Spike Recovery outside accepted recovery limits
	X	Matrix Effect		

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Rare Element Resources (RER)
P.O. Box 1475
Sundance, WY 82729

Date Reported 10/2/2014
Report ID S1407490001

ProjectName: Upton Air Monitoring 2nd Quarter
Lab ID: S1407490-011
ClientSample ID: #8671523 UAMS #4 Cont.
COC: 153008

WorkOrder: S1407490
CollectionDate: 6/13/2014
DateReceived: 7/29/2014 1:42:00 PM
FieldSampler: RG
Matrix: Filter

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	50645.2	Liters			Field	06/13/2014 000
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Radionuclides - Filter

Radium 226	1.2	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1700	MB
Radium 226 Precision (±)	0.3	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1700	MB
Radium 226	8.49E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Radium 226 Precision (±)	2.18E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230	0.9	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium-230 Precision (±)	0.6	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium 230	6.46E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230 Precision (±)	4.44E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN

Metals - Filter

Cerium	25	µg/Filter	16	IO-3.5	08/05/2014 1816	MS
Cerium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Lanthanum	ND	µg/Filter	16	IO-3.5	08/05/2014 1816	MS
Lanthanum	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Thorium	ND	µg/Filter	16	IO-3.5	08/05/2014 1816	MS
Thorium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Uranium	ND	µg/Filter	15	IO-3.5	08/05/2014 1816	MS
Uranium	ND	µg/m ³	15	IO-3.5	10/02/2014 1038	WN

These results apply only to the samples tested.

RL - Reporting Limit

Qualifiers: 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 or is less than LCL
O Outside the Range of Dilutions
X Matrix Effect

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

Reviewed by:

Wade Nieuwsma, Assistant Laboratory Manager



Sample Analysis Report

Company: Rare Element Resources (RER)
P.O. Box 1475
Sundance, WY 82729

Date Reported 10/2/2014
Report ID S1407490001

ProjectName: Upton Air Monitoring 2nd Quarter
Lab ID: S1407490-012
ClientSample ID: #8671530 UAMS #1 Cont.
COC: 153008

WorkOrder: S1407490
CollectionDate: 4/14/2014
DateReceived: 7/29/2014 1:42:00 PM
FieldSampler: RG
Matrix: Filter

Comments

Analyses	Result	Units	Qual	RL	Method	Date Analyzed/Init
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Field

Actual Volume	45926.8	Liters			Field	04/14/2014 000
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Radionuclides - Filter

Radium 226	1.8	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1700	MB
Radium 226 Precision (±)	0.4	pCi/Filter	0.6	SM 7500RAB	08/18/2014 1700	MB
Radium 226	1.44E-3	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Radium 226 Precision (±)	3.22E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230	2.3	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium-230 Precision (±)	0.9	pCi/Filter	0.6	ACW10	08/22/2014 809	MB
Thorium 230	1.86E-3	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN
Thorium 230 Precision (±)	7.40E-4	Bq/m ³	3.70E-6	Calculation	10/02/2014 1038	WN

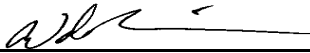
Metals - Filter

Cerium	41	µg/Filter	16	IO-3.5	08/05/2014 1819	MS
Cerium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Lanthanum	20	µg/Filter	16	IO-3.5	08/05/2014 1819	MS
Lanthanum	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Thorium	ND	µg/Filter	16	IO-3.5	08/05/2014 1819	MS
Thorium	ND	µg/m ³	16	IO-3.5	10/02/2014 1038	WN
Uranium	ND	µg/Filter	15	IO-3.5	08/05/2014 1819	MS
Uranium	ND	µg/m ³	15	IO-3.5	10/02/2014 1038	WN

These results apply only to the samples tested.

RL - Reporting Limit

Qualifiers:	B	Analyte detected in the associated Method Blank	C	Calculated Value
	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
	M	Value exceeds Monthly Ave or MCL or is less than LCL	ND	Not Detected at the Reporting Limit
	O	Outside the Range of Dilutions	S	Spike Recovery outside accepted recovery limits
	X	Matrix Effect		

Reviewed by: 
Wade Nieuwsma, Assistant Laboratory Manager