

## ANALYTICAL SUMMARY REPORT

January 31, 2013

Rare Element Resources Inc  
225 Union Blvd Ste 250  
Lakewood, CO 80228-1574

Workorder No.: G12120257

Project Name: Upton

Energy Laboratories Inc. Gillette WY received the following 7 samples for Rare Element Resources Inc on 12/11/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
G12120257-001	UAMS #1 PM10	11/12/12 8:00	12/11/12	Filter	PM-10 Filter Analysis
G12120257-002	UAMS #2 PM10	11/28/12 16:10	12/11/12	Filter	Same As Above
G12120257-003	UAMS #1 PM2.5	11/16/12 14:30	12/11/12	Filter	Same As Above
G12120257-004	UAMS #2 PM2.5	11/21/12 12:00	12/11/12	Filter	Same As Above
G12120257-005	UAMS #3 Cont.	11/28/12 16:50	12/11/12	Filter	Metals on air filter by ICP/ICPMS Digestion, Total Metals Nitric acid-extraction Radium 226 Thorium, Isotopic
G12120257-006	UAMS #2 Cont.	11/16/12 15:00	12/11/12	Filter	Same As Above
G12120257-007	UAMS #3 PM10	12/05/12 16:45	12/11/12	Filter	PM-10 Filter Analysis

The analyses presented in this report were performed by Energy Laboratories, Inc., 400 W. Boxelder Rd., Gillette, WY 82718, unless otherwise noted.

As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

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

Report Approved By:



**CLIENT:** Rare Element Resources Inc  
**Project:** Upton  
**Sample Delivery Group:** G12120257

**Revised Date:** 01/31/13

**Report Date:** 01/17/13

## CASE NARRATIVE

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

RevA:

The Sample ID's on the Gravimetric reports have been revised to UAMS to reflect the Upton project.

Tracey L. Archer

## LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Rare Element Resources Inc  
**Project:** Upton  
**Lab ID:** G12120257-005  
**Client Sample ID** UAMS #3 Cont.

**Revised Date:** 01/31/13  
**Report Date:** 01/17/13  
**Collection Date:** 11/28/12 16:50  
**DateReceived:** 12/11/12  
**Matrix:** Filter

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
<b>METALS IN AIR</b>							
Cerium	10	ug/filter		1	0.005	E200.8	12/26/12 12:41 / eli-b
Lanthanum	5	ug/filter		1	0.005	E200.8	12/26/12 12:41 / eli-b
Thorium	4	ug/filter		1	0.004	E200.8	01/10/13 16:03 / eli-b
Uranium	ND	ug/filter		1	0.00005	E200.8	12/14/12 22:39 / eli-b
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	2.4	pCi/Filter	U			E903.0	12/31/12 14:29 / eli-ca
Radium 226 precision (±)	2.1	pCi/Filter				E903.0	12/31/12 14:29 / eli-ca
Radium 226 MDC	3.0	pCi/Filter				E903.0	12/31/12 14:29 / eli-ca
<b>RADIONUCLIDES</b>							
Thorium 230	1.6	pCi/Filter				E908.0	01/04/13 13:36 / eli-ca
Thorium 230 precision (±)	0.60	pCi/Filter				E908.0	01/04/13 13:36 / eli-ca
Thorium 230 MDC	0.51	pCi/Filter				E908.0	01/04/13 13:36 / eli-ca

**Report Definitions:**  
RL - Analyte reporting limit.  
MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

MDL - Method detection limit  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

## LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Rare Element Resources Inc  
**Project:** Upton  
**Lab ID:** G12120257-006  
**Client Sample ID** UAMS #2 Cont.

**Revised Date:** 01/31/13  
**Report Date:** 01/17/13  
**Collection Date:** 11/16/12 15:00  
**DateReceived:** 12/11/12  
**Matrix:** Filter

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
<b>METALS IN AIR</b>							
Cerium	20	ug/filter		1	0.005	E200.8	12/26/12 12:46 / eli-b
Lanthanum	10	ug/filter		1	0.005	E200.8	12/26/12 12:46 / eli-b
Thorium	5	ug/filter		1	0.004	E200.8	01/10/13 16:09 / eli-b
Uranium	2	ug/filter		1	0.00005	E200.8	12/14/12 22:54 / eli-b
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	3.4	pCi/Filter				E903.0	12/31/12 14:29 / eli-ca
Radium 226 precision (±)	2.2	pCi/Filter				E903.0	12/31/12 14:29 / eli-ca
Radium 226 MDC	3.1	pCi/Filter				E903.0	12/31/12 14:29 / eli-ca
<b>RADIONUCLIDES</b>							
Thorium 230	1.2	pCi/Filter				E908.0	01/04/13 13:36 / eli-ca
Thorium 230 precision (±)	0.54	pCi/Filter				E908.0	01/04/13 13:36 / eli-ca
Thorium 230 MDC	0.57	pCi/Filter				E908.0	01/04/13 13:36 / eli-ca

**Report Definitions:**  
RL - Analyte reporting limit.  
MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

MDL - Method detection limit  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

Date: 01/29/13

2012 FILTER DATA  
UAMS#1, PM10  
Site: Rare Element Resources Upton

Lab. No.	Sample Date	Filter No.	Gross Wt. Date	Tare Wt. Date	Sampling Time,min	Gross Wt, grams	Tare Wt, grams	Net Wt, grams
B12121060-001	11/07/12	58790	12/14/12	06/19/12	1440	4.6991	4.6445	0.0546

Date: 01/29/13

2012 FILTER DATA  
UAMS#2, PM10  
Site: Rare Element Resources Upton

Lab. No.	Sample Date	Filter No.	Gross Wt. Date	Tare Wt. Date	Sampling Time,min	Gross Wt, grams	Tare Wt, grams	Net Wt, grams
B12121060-002	11/21/12	58793	12/14/12	06/19/12	1440	4.6367	4.6290	0.0077

Date: 01/29/13

2012 FILTER DATA  
UAMS#1, PM2.5  
Site: Rare Element Resources Upton

Lab. No.	Sample Date	Filter No.	Gross Wt. Date	Tare Wt. Date	Sampling Time,min	Gross Wt, grams	Tare Wt, grams	Net Wt, grams
B12121060-003	11/12/12	58791	12/14/12	06/19/12	1440	4.6029	4.5878	0.0151



Date: 01/29/13

2012 FILTER DATA  
UAMS#2, PM2.5  
Site: Rare Element Resources Upton

Lab. No.	Sample Date	Filter No.	Gross Wt. Date	Tare Wt. Date	Sampling Time,min	Gross Wt, grams	Tare Wt, grams	Net Wt, grams
B12121060-004	11/16/12	58792	12/14/12	06/19/12	1440	4.5892	4.5782	0.0110



Date: 01/29/13

2012 FILTER DATA  
UAMS#3, PM10  
Site: Rare Element Resources Upton

Lab. No.	Sample Date	Filter No.	Gross Wt. Date	Tare Wt. Date	Sampling Time,min	Gross Wt, grams	Tare Wt, grams	Net Wt, grams	Invalid Code
B12121060-007	11/28/12	58772	12/14/12	06/19/12	1265	4.5754	4.5632	0.0122	* 9973

Code #

\* 9973

\*\*\* INVALID SAMPLE \*\*\*

Sample time out of limits.

## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Rare Element Resources Inc

**Report Date:** 01/11/13

**Project:** Upton

**Work Order:** G12120257

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b>					Analytical Run: ICPMS202-B_121213A				
<b>Sample ID: QCS</b>	Initial Calibration Verification Standard								12/14/12 17:52
Uranium	0.0197	mg/L	0.0010	99	90	110			
<b>Method: E200.8</b>					Batch: 67788				
<b>Sample ID: MB-67788</b>	Method Blank								Run: ICPMS202-B_121213A 12/14/12 22:36
Thorium	0.04	ug/filter	0.0002						
Uranium	0.005	ug/filter	4E-06						
<b>Sample ID: G12120257-006ADUP</b>	Sample Duplicate								Run: ICPMS202-B_121213A 12/14/12 22:57
Thorium	12.6	ug/filter	1.0				10	20	
Uranium	2.24	ug/filter	1.0				12	20	
<b>Sample ID: LFB-67788</b>	Laboratory Fortified Blank								Run: ICPMS202-B_121213A 12/14/12 23:00
Thorium	7.51	ug/filter	1.0	75	80	120			S
Uranium	10.0	ug/filter	1.0	100	80	120			
<b>Sample ID: LFBD-67788</b>	Laboratory Fortified Blank Duplicate								Run: ICPMS202-B_121213A 12/14/12 23:03
Uranium	9.80	ug/filter	1.0	98	80	120			
<b>Sample ID: G12120257-005AMS</b>	Sample Matrix Spike								Run: ICPMS202-B_121213A 12/14/12 23:06
Thorium	24.0	ug/filter	1.0	88	70	130			
Uranium	24.3	ug/filter	1.0	94	70	130			
<b>Sample ID: G12120257-005AMSD</b>	Sample Matrix Spike Duplicate								Run: ICPMS202-B_121213A 12/14/12 23:08
Thorium	24.3	ug/filter	1.0	89	70	130	1.5	20	
Uranium	24.5	ug/filter	1.0	95	70	130	1.0	20	

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Rare Element Resources Inc

**Project:** Upton

**Report Date:** 01/11/13

**Work Order:** G12120257

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b>					Analytical Run: ICPMS203-B_121226A				
<b>Sample ID: QCS</b>	Initial Calibration Verification Standard							12/26/12 11:38	
Cerium	0.0496	mg/L	0.0010	99	90	110			
Lanthanum	0.0498	mg/L	0.0010	100	90	110			
<b>Method: E200.8</b>					Batch: 67788				
<b>Sample ID: MB-67788</b>	Method Blank							Run: ICPMS203-B_121226A 12/26/12 12:16	
Cerium	0.008	ug/filter	0.0004						
Lanthanum	0.007	ug/filter	0.0004						
Thorium	0.07	ug/filter	0.002						
Uranium	0.002	ug/filter	7E-06						
<b>Sample ID: G12120257-006ADUP</b>	Sample Duplicate							Run: ICPMS203-B_121226A 12/26/12 12:51	
Cerium	19.2	ug/filter	1.0				2.8	20	
Lanthanum	9.67	ug/filter	1.0				4.5	20	
Thorium	3.87	ug/filter	1.0				7.2	20	
Uranium	1.77	ug/filter	1.0				7.7	20	
<b>Sample ID: LFB-67788</b>	Laboratory Fortified Blank							Run: ICPMS203-B_121226A 12/26/12 12:56	
Cerium	9.94	ug/filter	1.0	99	80	120			
Lanthanum	9.87	ug/filter	1.0	99	80	120			
Thorium	7.32	ug/filter	1.0	72	80	120			S
Uranium	9.72	ug/filter	1.0	97	80	120			
<b>Sample ID: LFB-67788</b>	Laboratory Fortified Blank Duplicate							Run: ICPMS203-B_121226A 12/26/12 13:16	
Cerium	9.77	ug/filter	1.0	98	80	120		20	
Lanthanum	9.80	ug/filter	1.0	98	80	120		20	
Thorium	7.57	ug/filter	1.0	75	80	120	0.8	20	S
Uranium	9.46	ug/filter	1.0	95	80	120	5.7	20	
<b>Sample ID: G12120257-006AMS</b>	Sample Matrix Spike							Run: ICPMS203-B_121226A 12/26/12 13:31	
Cerium	0.262	ug/filter	1.0		70	130			A
Lanthanum	0.253	ug/filter	1.0		70	130			A
Thorium	0.247	ug/filter	1.0		70	130			A
Uranium	0.241	ug/filter	1.0		70	130			A
<b>Sample ID: G12120257-006AMSD</b>	Sample Matrix Spike Duplicate							Run: ICPMS203-B_121226A 12/26/12 13:36	
Cerium	0.266	ug/filter	1.0		70	130		20	A
Lanthanum	0.258	ug/filter	1.0		70	130		20	A
Thorium	0.249	ug/filter	1.0		70	130		20	A
Uranium	0.244	ug/filter	1.0		70	130		20	A

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

S - Spike recovery outside of advisory limits.

## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Rare Element Resources Inc

**Report Date:** 01/11/13

**Project:** Upton

**Work Order:** G12120257

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b>									Batch: 67788
<b>Sample ID: G12120257-005AMS</b>	Sample Matrix Spike					Run: ICPMS203-B_130107A			01/10/13 01:22
Thorium	347	ug/filter	1.0	113	70	130			
Uranium	329	ug/filter	1.0	109	70	130			
<b>Sample ID: G12120257-005AMSD</b>	Sample Matrix Spike Duplicate					Run: ICPMS203-B_130107A			01/10/13 01:28
Thorium	340	ug/filter	1.0	111	70	130	2.1	20	
Uranium	327	ug/filter	1.0	109	70	130	0.6	20	
<b>Method: E200.8</b>									Analytical Run: ICPMS203-B_130110A
<b>Sample ID: QCS</b>	Initial Calibration Verification Standard								01/10/13 14:28
Thorium	0.0209	mg/L	0.0010	105	90	110			
<b>Method: E200.8</b>									Batch: 67788
<b>Sample ID: MB-67788</b>	Method Blank					Run: ICPMS203-B_130110A			01/10/13 15:58
Thorium	0.4	ug/filter	0.0004						
Uranium	0.002	ug/filter	1E-06						
<b>Sample ID: G12120257-006ADUP</b>	Sample Duplicate					Run: ICPMS203-B_130110A			01/10/13 16:14
Thorium	5.23	ug/filter	1.0				0.9	20	
Uranium	2.18	ug/filter	1.0				9.1	20	
<b>Sample ID: LFB-67788</b>	Laboratory Fortified Blank					Run: ICPMS203-B_130110A			01/10/13 16:19
Thorium	9.34	ug/filter	1.0	89	80	120			
Uranium	9.92	ug/filter	1.0	99	80	120			
<b>Sample ID: LFBD-67788</b>	Laboratory Fortified Blank Duplicate					Run: ICPMS203-B_130110A			01/10/13 16:25
Thorium	9.59	ug/filter	1.0	92	80	120	2.7	20	
Uranium	9.89	ug/filter	1.0	99	80	120	0.3	20	
<b>Sample ID: G12120257-006AMS</b>	Sample Matrix Spike					Run: ICPMS203-B_130110A			01/10/13 16:30
Thorium	72.7	ug/filter	1.0	112	70	130			
Uranium	65.7	ug/filter	1.0	106	70	130			
<b>Sample ID: G12120257-006AMSD</b>	Sample Matrix Spike Duplicate					Run: ICPMS203-B_130110A			01/10/13 16:35
Thorium	73.1	ug/filter	1.0	113	70	130	0.5	20	
Uranium	70.2	ug/filter	1.0	114	70	130	6.7	20	

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Rare Element Resources Inc

**Project:** Upton

**Report Date:** 01/16/13

**Work Order:** G12120257

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E903.0</b>							Batch: RA226-6425		
<b>Sample ID: MB-36035</b>	Method Blank				Run: G5000W_121221D			12/31/12 14:29	
Radium 226	0.09	pCi/Filter							U
Radium 226 precision (±)	0.2	pCi/Filter							
Radium 226 MDC	0.3	pCi/Filter							
<b>Sample ID: LCS-36035</b>	Laboratory Control Sample				Run: G5000W_121221D			12/31/12 14:29	
Radium 226	12.5	pCi/Filter	109		80	120			
<b>Sample ID: G12120257-005BMS</b>	Sample Matrix Spike				Run: G5000W_121221D			12/31/12 14:29	
Radium 226	285	pCi/Filter	124		70	130			
<b>Sample ID: C12120627-001ADUP</b>	Sample Duplicate				Run: G5000W_121221D			12/31/12 14:29	
Radium 226	0.000244	pCi/Filter					26	288.9	U
Radium 226 precision (±)	0.000411	pCi/Filter							
Radium 226 MDC	0.000651	pCi/Filter							

### Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Rare Element Resources Inc

**Project:** Upton

**Report Date:** 01/16/13

**Work Order:** G12120257

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E908.0</b>									Batch: R169231
<b>Sample ID: MB-36035</b>	Method Blank						Run: ALPHANALYST_130102A		01/04/13 13:36
Thorium 230	0.3	pCi/Filter							
Thorium 230 precision ( $\pm$ )	0.1	pCi/Filter							
Thorium 230 MDC	0.2	pCi/Filter							
<b>Sample ID: C12120849-001AMS</b>	Sample Matrix Spike						Run: ALPHANALYST_130102A		01/04/13 13:36
Thorium 230	0.0255	pCi/Filter	89		70	130			
<b>Sample ID: C12120849-001AMSD</b>	Sample Matrix Spike Duplicate						Run: ALPHANALYST_130102A		01/04/13 13:36
Thorium 230	0.0272	pCi/Filter	95		70	130	6.5	30.7	
<b>Sample ID: LCS-36139</b>	Laboratory Control Sample						Run: ALPHANALYST_130102A		01/04/13 13:36
Thorium 230	14.2	pCi/Filter	87		80	120			

### Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

# Standard Reporting Procedures

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

## Workorder Receipt Checklist

Rare Element Resources Inc

G12120257

Login completed by: Amanda Alley

Date Received: 12/11/2012

Reviewed by: BL2000\kscottruff

Received by: ala

Reviewed Date: 12/11/2012

Carrier Hand Del  
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Container/Temp Blank temperature:	°C		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

Contact and Corrective Action Comments:

None



