



Energy Fuels Resources (USA) Inc.  
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Lakewood, CO, US, 80228  
303 974 2140  
[www.energyfuels.com](http://www.energyfuels.com)

January 10, 2014

Marcia Colquitt  
Division of Water Quality  
Arizona Department of Environmental Quality  
Water Quality Compliance Section  
1110 West Washington Street  
Phoenix, AZ 85007

**Re: Pinenut Mine Non-Stormwater Impoundment 3.04 General Aquifer Protection Permit No. P-100300 2013 Annual Water Quality Report**

Dear Mr. Colquitt:

Energy Fuels Resources (USA) Inc. ("EFRI") began discharging to the Pinenut Mine Non-Stormwater Impoundment on January 3, 2011 in accordance with Pinenut Mine Non-Stormwater Impoundment 3.04 General Aquifer Protection Permit (the "APP") No. P-100300. In addition to the requirements of the 3.04 General Permit in Arizona Administrative Code (A.A.C.) R18-9-D304, EFRI agreed to the following voluntary condition:

**"2. Mine Shaft Sump Monitoring**

i. EFRI agrees to measure the daily volume of water pumped from the underground mining areas, and conduct periodic sampling for the water pumped from the underground mining areas as follows:

EFRI will sample water pumped from the underground mining areas at the point the water discharges to the non-stormwater impoundment on a quarterly basis for the parameters set forth in Table 1 of the permit. If there is no water pumped during a particular quarter, then no sample will be required. EFRI will report to ADEQ the results of the daily volume of water pumped and quarterly sampling within 30 days of the end of each of the first two quarters of operation, and on an annual basis thereafter.

ii. If the sampling results suggest that aquifer water quality standards could be exceeded in groundwater beneath the mine given the depth to groundwater at the mine, EFRI will increase the frequency of pumping to mitigate any risk to groundwater."

In accordance with this permit condition, EFRI is providing this annual report for 2013. The attached Table 1 includes the daily volume of water pumped from underground mining areas for 2013. All water pumped from underground mining areas in to the non-stormwater impoundment was discharged in accordance with the approved Stormwater Pollution Prevention Plan ("SWPPP"). Monthly SWPPP inspections are conducted to ensure all discharge procedures and best management practices ("BMPs") are in compliance. A summary of the monthly inspections and BMPs will be described in the annual SWPPP report due July 15, 2014.

As shown on Table 1, EFRI field personnel noted in the first quarter, on January 8, 2013, that the flow meter recorded water being pumped. Upon further investigation, it was found that the flow meter malfunctioned and this reading was not representative of pumping activities at the Mine. There was no water discharged into the non-stormwater impoundment on January 8, 2013, and therefore, no water sample was collected during the first quarter. EFRI did not discharge water from underground into the non-stormwater impoundment during the second quarter 2013, and therefore did not collect a water sample. On September 30, 2013, the flow meter was turned on to get a baseline reading for the upcoming pumping activities which began on October 1, 2013. Although the flow meter was turned on, there was no water discharged into the non-stormwater impoundment, and therefore, no water sample was taken in the third quarter. EFRI did pump water during the fourth quarter 2013 and collected a water sample as required. The results of this sampling event are provided in Table 2.

The attached Table 2 includes a summary of the analytical results for the quarterly water samples, collected when the mine is pumping water into the non-stormwater impoundment, as required by Section 2.i of the APP. The samples are taken from the outfall point where mine water discharges from underground into the non-stormwater impoundment. The complete data package is provided as Attachment 1. As noted on Table 2, the initial analysis for total dissolved solids ("TDS") was analyzed without required holding time; however, the sample required dilution, and the reanalysis was analyzed outside of the required holding time. EFRI was not notified by the laboratory of this issue and the data were not received in time to resample. Corrective actions have already been implemented as EFRI has contracted with TestAmerica Laboratories to analyze water samples from the Mine going forward.

Please feel free to contact Jaime Massey (303-389-4167) or me (303-389-4160) if you have any questions or concerns.

Sincerely,



**ENERGY FUELS RESOURCES (USA) INC**  
Harold R. Roberts  
Executive Vice President and Chief Operating Officer

cc: Donn Pillmore, Frank Filas, David Turk (EFRI)  
Vimal Chauhan (ADEQ)

## Tables

**Table 1**

**Pinenut Mine Daily Volume of Water Pumped from Underground Mining Areas**

<b>Date</b>	<b>Flow Meter Reading</b>	<b>Gallons Pumped (GA/D)</b>
<b>1st Quarter 2013</b>		
1/1/2013-1/7/2013	no water pumped	0
1/8/2013	45,327	0
1/9/2013-1/31/2013	no water pumped	
2/1/2013-2/28/2013	no water pumped	0
3/1/2013-3/31/2013	no water pumped	0
<b>2nd Quarter 2013</b>		
4/1/2013-4/30/2013	no water pumped	0
5/1/2013-5/31/2013	no water pumped	0
6/1/2013-6/30/2013	no water pumped	0
<b>3rd Quarter 2013</b>		
7/1/2013-7/31/2013	no water pumped	0
8/1/2013-8/31/2013	no water pumped	0
9/1/2013-9/29/2013	no water pumped	0
9/30/2013	263,914	0
<b>4th Quarter 2013</b>		
10/1/2013	264,262	348
10/2/2013	264,936	674
10/3/2013	265,642	706
10/4/2013	no water pumped	0
10/5/2013	no water pumped	0
10/6/2013	no water pumped	0
10/7/2013	266,220	578
10/8/2013	266,866	646
10/9/2013	267,480	614
10/10/2013	268,020	540
10/11/2013	no water pumped	0
10/12/2013	no water pumped	0
10/13/2013	no water pumped	0
10/14/2013	268,447	427
10/15/2013	268,879	432
10/16/2013	268,890	11
10/17/2013	269,235	345
10/18/2013	no water pumped	0
10/19/2013	no water pumped	0
10/20/2013	no water pumped	0
10/21/2013	no water pumped	0
10/22/2013	269,725	490
10/23/2013	269,952	227
10/24/2013	269,975	23
10/25/2013	no water pumped	0

**Table 1****Pinenut Mine Daily Volume of Water Pumped from Underground Mining Areas**

<b>Date</b>	<b>Flow Meter Reading</b>	<b>Gallons Pumped (GA/D)</b>
10/26/2013	no water pumped	0
10/27/2013	no water pumped	0
10/28/2013	270,052	77
10/29/2013	270,077	25
10/30/2013	270,195	118
10/31/2013	270,412	217
11/1/2013	no water pumped	0
11/2/2013	no water pumped	0
11/3/2013	no water pumped	0
11/4/2013	270,652	240
11/5/2013	270,872	220
11/6/2013	271,060	188
11/7/2013	no water pumped	0
11/8/2013	no water pumped	0
11/9/2013	no water pumped	0
11/10/2013	no water pumped	0
11/11/2013	271,304	244
11/12/2013	271,321	17
11/13/2013	no water pumped	0
11/14/2013	271,360	39
11/15/2013	no water pumped	0
11/16/2013	no water pumped	0
11/17/2013	no water pumped	0
11/18/2013	271,367	7
11/19/2013	271,370	3
11/20/2013	271,375	5
11/21/2013	no water pumped	0
11/22/2013	no water pumped	0
11/23/2013	no water pumped	0
11/24/2013	no water pumped	0
11/25/2013	271,375	0
11/26/2013	271,375	0
11/27/2013	271,375	0
11/28/2013	271,375	0
11/29/2013	no water pumped	0
11/30/2013	no water pumped	0
12/1/2013	no water pumped	0
12/2/2013	271,375	0
12/3/2013 - 12/31/2013	no water pumped	0
<b>Total Gallons Pumped for 2013</b>		<b>7461</b>

**Table 2  
Pinenut Mine Non-Stormwater Impoundment Sample Summary**

<b>Analytes</b>	<b>Units</b>	<b>1st Quarter</b>	<b>2nd Quarter</b>	<b>3rd Quarter</b>	<b>4th Quarter (11/19/2013)</b>
<b>Metals</b>					
Antimony	mg/L	No water was pumped to the non-stormwater impoundment during the 1st quarter 2013, and therefore no sample was collected or required per Section 2.i of the APP.	No water was pumped to the non-stormwater impoundment during the 2nd quarter 2013, and therefore no sample was collected or required per Section 2.i of the APP.	No water was pumped to the non-stormwater impoundment during the 3rd quarter 2013, and therefore no sample was collected or required per Section 2.i of the APP.	<0.01
Arsenic	mg/L				0.019
Barium	mg/L				0.016 (B)
Beryllium	mg/L				0.0004 (B)
Cadmium	mg/L				0.0232
Chromium	mg/L				<0.05
Copper	mg/L				0.30
Iron	mg/L				16.90
Lead	mg/L				0.002 (B)
Manganese	mg/L				2.01
Mercury	mg/L				<0.001
Nickel	mg/L				2.75
Selenium	mg/L				0.0234
Thallium	mg/L				0.01
Uranium (Dissolved)	mg/L				2.41
Vanadium	mg/L	<0.03			
Zinc	mg/L	8.68			
<b>Radionuclides - Total</b>					
Gross Alpha	pCi/L				2400 (+/-120)*
Radium 226	pCi/L				280 (+/-2)
Radium 228	pCi/L				4 (+/-0.76)
Uranium 234	pCi/L				950 (+/-44)*
Uranium 235	pCi/L				30 (+/-8.2)*
Uranium 238	pCi/L				737 (+/-39)*
<b>Major Ions</b>					
Alkalinity (Total)	mg/L				13 (B)
Calcium	mg/L				507
Fluoride	mg/L				0.6
Magnesium	mg/L				418
Potassium	mg/L				58.9
Sodium	mg/L				65.9
Sulfate	mg/L				2590
<b>Physical Properties</b>					
Conductivity	umhos/cm				4280
pH (field)	S.U.				5.59
TDS	mg/L				4360 (H)

< - Indicates that the analyte was not detected above the reporting limit.

() - Indicates the error term for the radiological result.

B - Analyte concentration detected at a value between the MDL and PQL. The associated value is an estimated quantity.

\* - The isotopic uranium results are qualified on the extended qualifier report. The chemist noted that the associated prep blank had reported concentrations of isotopic uranium. No significant impact to the sample result is expected because the sample results are greater than 10 times the activity of the blank. Additionally, the isotopic uranium results are re-qualified because the sample concentrations were high, causing low tracer yield. No significant impacted is expected and these data are considered acceptable.

Attachment 1

**Energy Fuels Resources (USA) Inc.**

Project ID:

Sample ID: PINENUT

ACZ Sample ID: **L15644-01**

Date Sampled: 11/19/13 08:10

Date Received: 11/20/13

Sample Matrix: Ground Water

**Inorganic Prep**

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Recoverable Digestion	M200.2 ICP								11/25/13 17:32	aeb
Total Recoverable Digestion	M200.2 ICP-MS								12/05/13 12:54	las

**Metals Analysis**

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total recoverable	M200.8 ICP-MS	5		U		mg/L	0.002	0.01	12/10/13 5:42	pmc
Arsenic, total recoverable	M200.8 ICP-MS	5	0.019			mg/L	0.001	0.005	12/10/13 5:42	pmc
Barium, total recoverable	M200.7 ICP	1	0.016	B		mg/L	0.003	0.02	11/26/13 20:12	aeb
Beryllium, total recoverable	M200.8 ICP-MS	5	0.0004	B		mg/L	0.0003	0.001	12/10/13 5:42	pmc
Cadmium, total recoverable	M200.8 ICP-MS	5	0.0232			mg/L	0.0005	0.003	12/10/13 5:42	pmc
Calcium, total recoverable	M200.7 ICP	1	507			mg/L	0.2	1	11/26/13 20:12	aeb
Chromium, total recoverable	M200.7 ICP	1		U		mg/L	0.01	0.05	11/26/13 20:12	aeb
Copper, total recoverable	M200.7 ICP	1	0.30			mg/L	0.01	0.05	11/26/13 20:12	aeb
Iron, total recoverable	M200.7 ICP	1	16.90			mg/L	0.02	0.05	11/26/13 20:12	aeb
Lead, total recoverable	M200.8 ICP-MS	5	0.0020	B		mg/L	0.0005	0.003	12/10/13 5:42	pmc
Magnesium, total recoverable	M200.7 ICP	1	418			mg/L	0.2	1	11/26/13 20:12	aeb
Manganese, total recoverable	M200.7 ICP	1	2.010			mg/L	0.005	0.03	11/26/13 20:12	aeb
Mercury, total	M245.1 CVAA	1		U		mg/L	0.0002	0.001	11/26/13 14:44	mfm
Nickel, total recoverable	M200.7 ICP	1	2.75			mg/L	0.01	0.05	11/26/13 20:12	aeb
Potassium, total recoverable	M200.7 ICP	1	58.9			mg/L	0.3	2	11/26/13 20:12	aeb
Selenium, total recoverable	M200.8 ICP-MS	5	0.0234			mg/L	0.0005	0.001	12/10/13 5:42	pmc
Sodium, total recoverable	M200.7 ICP	1	65.9			mg/L	0.3	2	11/26/13 20:12	aeb
Thallium, total recoverable	M200.8 ICP-MS	5	0.0100			mg/L	0.0005	0.003	12/10/13 5:42	pmc
Uranium, dissolved	M200.8 ICP-MS	100	2.41			mg/L	0.01	0.05	12/10/13 17:19	msh
Vanadium, total recoverable	M200.7 ICP	1		U		mg/L	0.005	0.03	11/26/13 20:12	aeb
Zinc, total recoverable	M200.7 ICP	1	8.68		*	mg/L	0.01	0.05	11/26/13 20:12	aeb



Energy Fuels Resources (USA) Inc.

Project ID:

Sample ID: PINENUT

ACZ Sample ID: **L15644-01**

Date Sampled: 11/19/13 08:10

Date Received: 11/20/13

Sample Matrix: Ground Water

### Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	13	B		mg/L	2	20	12/02/13 0:00	abm
Carbonate as CaCO3		1		U		mg/L	2	20	12/02/13 0:00	abm
Hydroxide as CaCO3		1		U		mg/L	2	20	12/02/13 0:00	abm
Total Alkalinity		1	13	B	*	mg/L	2	20	12/02/13 0:00	abm
Conductivity @25C	SM2510B	1	4280		*	umhos/cm	1	10	12/02/13 17:28	abm
Fluoride	SM4500F-C	1	0.6		*	mg/L	0.1	0.5	12/03/13 12:30	abm
Lab Filtration (0.45um filter)	SOPWC050	1							12/03/13 11:11	abm
Lab Filtration (0.45um) & Acidification	M200.7/200.8 (0.45um filtration)	1							11/21/13 15:00	mss3
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							11/25/13 14:53	las
Residue, Filterable (TDS) @180C	SM2540C	2	4360	H	*	mg/L	20	40	11/27/13 11:33	mss3
Sulfate	D516-02 - Turbidimetric	200	2590		*	mg/L	200	1000	12/05/13 18:43	mpb

Arizona license number: AZ0102

**Energy Fuels Resources (USA) Inc.**

Project ID:  
 Sample ID: PINENUT  
 Locator:

ACZ Sample ID: **L15644-01**  
 Date Sampled: 11/19/13 8:10  
 Date Received: 11/20/13  
 Sample Matrix: Ground Water

Gross Alpha, dissolved Prep Method:  
 M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha, dissolved	11/27/13 10:56		2400	120	12	pCi/L	*	mss3

Radium 226, dissolved Prep Method:  
 M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	12/05/13 21:21		280	2	0.14	pCi/L		jrd

Radium 228, dissolved Prep Method:  
 M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, dissolved	12/17/13 10:39		4	0.76	1.1	pCi/L		nco

Uranium, Isotopic dissolved Prep Method:  
 Eichrom ACW03

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Uranium 234	12/05/13 0:04		950	44	4	pCi/L	*	thf
Uranium 235	12/05/13 0:04		30	8.2	4	pCi/L	*	thf
Uranium 238	12/05/13 0:04		737	39	4	pCi/L	*	thf

Arizona license number: AZ0102

December 18, 2013

Report to:  
David Turk  
Energy Fuels Resources (USA) Inc.  
6425 S. Hwy 191  
Blanding, UT 84511  
cc: Ty Fisher

Bill to:  
Accounts Payable  
Energy Fuels Resources (USA) Inc.  
225 Union Blvd. , Suite 600  
Lakewood, CO 80228

Project ID:  
ACZ Project ID: L15644

David Turk:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 20, 2013. This project has been assigned to ACZ's project number, L15644. Please reference this number in all future inquiries.

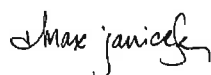
All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L15644. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after January 17, 2014. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.



Max Janicek has reviewed and approved this report.



Energy Fuels Resources (USA) Inc.

December 18, 2013

Project ID:

ACZ Project ID: L15644

**Sample Receipt**

ACZ Laboratories, Inc. (ACZ) received 2 ground water samples from Energy Fuels Resources (USA) Inc. on November 20, 2013. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L15644. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

**Holding Times**

Any analyses not performed within EPA recommended holding times have been qualified with an "H" flag.

**Sample Analysis**

These samples were analyzed for inorganic, radiochemistry parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures. In addition the following has been noted with this specific project:

The Nitrate/Nitrite results for L15644-02 have been qualified with the Q1 flag on the extended qualifier report. The chemist noted that the sample storage cooler went 'out of range' on 11/23/2013 - client sample integrity was not maintained. The cooler was repaired and back within required temperature range on 11/25/2013. Maximum sample temperature was 14.1 C.

The isotopic Uranium results for L15644-01 and L15644-02 have been qualified with the N1 flag on the extended qualifier report. The chemist noted that low tracer recovery was observed in the client sample and/or the sample duplicate due to high Uranium content. Peaks look distinct and all other QC acceptable.

**Report Header Explanations**

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit, typically 5 times the MDL.
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the True value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

**QC Sample Types**

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

**QC Sample Type Explanations**

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

**ACZ Qualifiers (Qual)**

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

**Method References**

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

**Comments**

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<http://www.acz.com/public/extquallist.pdf>

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L15644**

**Alkalinity as CaCO3** SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355657</b>													
WG355657PBW1	PBW	12/02/13 14:36				U	mg/L		-20	20			
WG355657LCSW2	LCSW	12/02/13 14:49	WC131126-	820.0001		752.5	mg/L	91.8	90	110			
L15644-02DUP	DUP	12/02/13 17:44			53	54	mg/L				1.9	20	
WG355657LCSW5	LCSW	12/02/13 19:27	WC131126-	820.0001		785.9	mg/L	95.8	90	110			
WG355657PBW2	PBW	12/02/13 19:35				2.1	mg/L		-20	20			
WG355657LCSW8	LCSW	12/03/13 0:03	WC131126-	820.0001		782.7	mg/L	95.5	90	110			
WG355657PBW3	PBW	12/03/13 0:11				U	mg/L		-20	20			
WG355657LCSW11	LCSW	12/03/13 3:12	WC131126-	820.0001		783.6	mg/L	95.6	90	110			
WG355657PBW4	PBW	12/03/13 3:21				2.9	mg/L		-20	20			
WG355657LCSW14	LCSW	12/03/13 6:32	WC131126-	820.0001		779.9	mg/L	95.1	90	110			

**Antimony, total recoverable** M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG356147</b>													
WG356147ICV	ICV	12/10/13 5:29	MS131202-2	.02		.02042	mg/L	102.1	90	110			
WG356147ICB	ICB	12/10/13 5:32				.00049	mg/L		-0.0012	0.0012			
WG355921LRB	LRB	12/10/13 5:36				U	mg/L		-0.00088	0.00088			
WG355921LFB	LFB	12/10/13 5:39	MS131118-2	.01		.01099	mg/L	109.9	85	115			
L15644-01LFM	LFM	12/10/13 5:45	MS131118-2	.01	U	.0116	mg/L	116	70	130			
L15644-01LFMD	LFMD	12/10/13 5:48	MS131118-2	.01	U	.0114	mg/L	114	70	130	1.74	20	

**Arsenic, total** M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355990</b>													
WG355990ICV	ICV	12/06/13 4:33	MS131202-2	.05		.05337	mg/L	106.7	90	110			
WG355990ICB	ICB	12/06/13 4:36				U	mg/L		-0.0006	0.0006			
WG355846LRB	LRB	12/06/13 4:40				U	mg/L		-0.00044	0.00044			
WG355846LFB	LFB	12/06/13 4:43	MS131118-2	.05005		.05182	mg/L	103.5	85	115			
L15639-01LFM	LFM	12/06/13 4:59	MS131118-2	.05005	.0074	.06216	mg/L	109.4	70	130			
L15639-01LFMD	LFMD	12/06/13 5:02	MS131118-2	.05005	.0074	.06212	mg/L	109.3	70	130	0.06	20	

**Arsenic, total recoverable** M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG356147</b>													
WG356147ICV	ICV	12/10/13 5:29	MS131202-2	.05		.05292	mg/L	105.8	90	110			
WG356147ICB	ICB	12/10/13 5:32				U	mg/L		-0.0006	0.0006			
WG355921LRB	LRB	12/10/13 5:36				.00027	mg/L		-0.00044	0.00044			
WG355921LFB	LFB	12/10/13 5:39	MS131118-2	.05005		.04995	mg/L	99.8	85	115			
L15644-01LFM	LFM	12/10/13 5:45	MS131118-2	.05005	.019	.0692	mg/L	100.3	70	130			
L15644-01LFMD	LFMD	12/10/13 5:48	MS131118-2	.05005	.019	.0695	mg/L	100.9	70	130	0.43	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L15644**

**Barium, total recoverable** M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355510</b>													
WG355510ICV	ICV	11/26/13 18:51	II131113-1	2		1.9692	mg/L	98.5	95	105			
WG355510ICB	ICB	11/26/13 18:57				U	mg/L		-0.009	0.009			
WG355429LRB	LRB	11/26/13 19:10				U	mg/L		-0.0066	0.0066			
WG355429LFB	LFB	11/26/13 19:13	II131029-2	.5		.4816	mg/L	96.3	85	115			
L15667-01LFM	LFM	11/26/13 20:38	II131029-2	.5	.286	.7659	mg/L	96	70	130			
L15667-01LFMD	LFMD	11/26/13 20:41	II131029-2	.5	.286	.762	mg/L	95.2	70	130	0.51	20	

**Beryllium, total recoverable** M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG356147</b>													
WG356147ICV	ICV	12/10/13 5:29	MS131202-2	.05		.04636	mg/L	92.7	90	110			
WG356147ICB	ICB	12/10/13 5:32				U	mg/L		-0.00015	0.00015			
WG355921LRB	LRB	12/10/13 5:36				U	mg/L		-0.00011	0.00011			
WG355921LFB	LFB	12/10/13 5:39	MS131118-2	.0501		.04478	mg/L	89.4	85	115			
L15644-01LFM	LFM	12/10/13 5:45	MS131118-2	.0501	.0004	.04495	mg/L	88.9	70	130			
L15644-01LFMD	LFMD	12/10/13 5:48	MS131118-2	.0501	.0004	.04411	mg/L	87.2	70	130	1.89	20	

**Cadmium, total recoverable** M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG356147</b>													
WG356147ICV	ICV	12/10/13 5:29	MS131202-2	.05		.05052	mg/L	101	90	110			
WG356147ICB	ICB	12/10/13 5:32				U	mg/L		-0.0003	0.0003			
WG355921LRB	LRB	12/10/13 5:36				U	mg/L		-0.00022	0.00022			
WG355921LFB	LFB	12/10/13 5:39	MS131118-2	.0501		.04885	mg/L	97.5	85	115			
L15644-01LFM	LFM	12/10/13 5:45	MS131118-2	.0501	.0232	.0711	mg/L	95.6	70	130			
L15644-01LFMD	LFMD	12/10/13 5:48	MS131118-2	.0501	.0232	.07125	mg/L	95.9	70	130	0.21	20	

**Calcium, total recoverable** M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355510</b>													
WG355510ICV	ICV	11/26/13 18:51	II131113-1	100		98.61	mg/L	98.6	95	105			
WG355510ICB	ICB	11/26/13 18:57				U	mg/L		-0.6	0.6			
WG355429LRB	LRB	11/26/13 19:10				U	mg/L		-0.44	0.44			
WG355429LFB	LFB	11/26/13 19:13	II131029-2	68.00225		70.04	mg/L	103	85	115			
L15667-01LFM	LFM	11/26/13 20:38	II131029-2	68.00225	275	346.8	mg/L	105.6	70	130			
L15667-01LFMD	LFMD	11/26/13 20:41	II131029-2	68.00225	275	343.9	mg/L	101.3	70	130	0.84	20	

**Chromium, total recoverable** M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355510</b>													
WG355510ICV	ICV	11/26/13 18:51	II131113-1	2		1.933	mg/L	96.7	95	105			
WG355510ICB	ICB	11/26/13 18:57				U	mg/L		-0.03	0.03			
WG355429LRB	LRB	11/26/13 19:10				U	mg/L		-0.022	0.022			
WG355429LFB	LFB	11/26/13 19:13	II131029-2	.5015		.484	mg/L	96.5	85	115			
L15667-01LFM	LFM	11/26/13 20:38	II131029-2	.5015	U	.484	mg/L	96.5	70	130			
L15667-01LFMD	LFMD	11/26/13 20:41	II131029-2	.5015	U	.483	mg/L	96.3	70	130	0.21	20	



Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L15644**

**Conductivity @25C** SM2510B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355657</b>													
WG355657LCSW1	LCSW	12/02/13 14:37	PCN42442	1408.8		1450.5	µmhos/crr	103	90	110			
L15644-02DUP	DUP	12/02/13 17:44			705	704	µmhos/crr				0.1	20	
WG355657LCSW4	LCSW	12/02/13 19:14	PCN42442	1408.8		1420.1	µmhos/crr	100.8	90	110			
WG355657LCSW7	LCSW	12/02/13 23:51	PCN42442	1408.8		1412	µmhos/crr	100.2	90	110			
WG355657LCSW10	LCSW	12/03/13 3:00	PCN42442	1408.8		1397.8	µmhos/crr	99.2	90	110			
WG355657LCSW13	LCSW	12/03/13 6:20	PCN42442	1408.8		1383.6	µmhos/crr	98.2	90	110			

**Copper, total recoverable** M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355510</b>													
WG355510ICV	ICV	11/26/13 18:51	II131113-1	2		1.913	mg/L	95.7	95	105			
WG355510ICB	ICB	11/26/13 18:57				U	mg/L		-0.03	0.03			
WG355429LRB	LRB	11/26/13 19:10				U	mg/L		-0.022	0.022			
WG355429LFB	LFB	11/26/13 19:13	II131029-2	.5		.49	mg/L	98	85	115			
L15667-01LFM	LFM	11/26/13 20:38	II131029-2	.5	.03	.537	mg/L	101.4	70	130			
L15667-01LFMD	LFMD	11/26/13 20:41	II131029-2	.5	.03	.529	mg/L	99.8	70	130	1.5	20	

**Fluoride** SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355738</b>													
WG355738ICV	ICV	12/03/13 11:39	WC131202-	2.002		1.94	mg/L	96.9	95	105			
WG355738ICB	ICB	12/03/13 11:45				U	mg/L		-0.3	0.3			
WG355738LFB1	LFB	12/03/13 11:54	WC130807-	5.025		5.21	mg/L	103.7	90	110			
L15639-01AS	AS	12/03/13 12:02	WC130807-	5.025	.2	4.89	mg/L	93.3	90	110			
L15639-01DUP	DUP	12/03/13 12:10			.2	.15	mg/L				28.6	20	RA
WG355738LFB2	LFB	12/03/13 15:02	WC130807-	5.025		5.21	mg/L	103.7	90	110			

**Iron, total recoverable** M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355510</b>													
WG355510ICV	ICV	11/26/13 18:51	II131113-1	2		1.98	mg/L	99	95	105			
WG355510ICB	ICB	11/26/13 18:57				U	mg/L		-0.06	0.06			
WG355429LRB	LRB	11/26/13 19:10				U	mg/L		-0.044	0.044			
WG355429LFB	LFB	11/26/13 19:13	II131029-2	1.0014		1.007	mg/L	100.6	85	115			
L15667-01LFM	LFM	11/26/13 20:38	II131029-2	1.0014	1.39	2.392	mg/L	100.1	70	130			
L15667-01LFMD	LFMD	11/26/13 20:41	II131029-2	1.0014	1.39	2.388	mg/L	99.7	70	130	0.17	20	

**Lead, total recoverable** M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG356147</b>													
WG356147ICV	ICV	12/10/13 5:29	MS131202-2	.05		.05209	mg/L	104.2	90	110			
WG356147ICB	ICB	12/10/13 5:32				U	mg/L		-0.0003	0.0003			
WG355921LRB	LRB	12/10/13 5:36				U	mg/L		-0.00022	0.00022			
WG355921LFB	LFB	12/10/13 5:39	MS131118-2	.05005		.04901	mg/L	97.9	85	115			
L15644-01LFM	LFM	12/10/13 5:45	MS131118-2	.05005	.002	.05165	mg/L	99.2	70	130			
L15644-01LFMD	LFMD	12/10/13 5:48	MS131118-2	.05005	.002	.0513	mg/L	98.5	70	130	0.68	20	



Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L15644**

**Magnesium, total recoverable** M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355510</b>													
WG355510ICV	ICV	11/26/13 18:51	II131113-1	100		97.06	mg/L	97.1	95	105			
WG355510ICB	ICB	11/26/13 18:57				U	mg/L		-0.6	0.6			
WG355429LRB	LRB	11/26/13 19:10				U	mg/L		-0.44	0.44			
WG355429LFB	LFB	11/26/13 19:13	II131029-2	49.99695		48.97	mg/L	97.9	85	115			
L15667-01LFM	LFM	11/26/13 20:38	II131029-2	49.99695	121	173.8	mg/L	105.6	70	130			
L15667-01LFMD	LFMD	11/26/13 20:41	II131029-2	49.99695	121	172.5	mg/L	103	70	130	0.75	20	

**Manganese, total recoverable** M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355510</b>													
WG355510ICV	ICV	11/26/13 18:51	II131113-1	2		1.9578	mg/L	97.9	95	105			
WG355510ICB	ICB	11/26/13 18:57				U	mg/L		-0.015	0.015			
WG355429LRB	LRB	11/26/13 19:10				U	mg/L		-0.011	0.011			
WG355429LFB	LFB	11/26/13 19:13	II131029-2	.5		.487	mg/L	97.4	85	115			
L15667-01LFM	LFM	11/26/13 20:38	II131029-2	.5	13.2	13.74	mg/L	108	70	130			
L15667-01LFMD	LFMD	11/26/13 20:41	II131029-2	.5	13.2	13.62	mg/L	84	70	130	0.88	20	

**Mercury, total** M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355443</b>													
WG355443ICV2	ICV	11/26/13 9:55	II131118-6	.005025		.00509	mg/L	101.3	95	105			
WG355443ICB	ICB	11/26/13 9:57				U	mg/L		-0.0002	0.0002			
<b>WG355469</b>													
WG355469LRB	LRB	11/26/13 14:05				U	mg/L		-0.00044	0.00044			
WG355469LFB	LFB	11/26/13 14:08	II131118-4	.002002		.00192	mg/L	95.9	85	115			
L15689-01LFM	LFM	11/26/13 14:48	II131118-4	.002002	U	.00186	mg/L	92.9	85	115			
L15689-01LFMD	LFMD	11/26/13 14:50	II131118-4	.002002	U	.00183	mg/L	91.4	85	115	1.63	20	

**Nickel, total recoverable** M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355510</b>													
WG355510ICV	ICV	11/26/13 18:51	II131113-1	2		2.025	mg/L	101.3	95	105			
WG355510ICB	ICB	11/26/13 18:57				U	mg/L		-0.03	0.03			
WG355429LRB	LRB	11/26/13 19:10				U	mg/L		-0.022	0.022			
WG355429LFB	LFB	11/26/13 19:13	II131029-2	.5		.491	mg/L	98.2	85	115			
L15667-01LFM	LFM	11/26/13 20:38	II131029-2	.5	.54	1.026	mg/L	97.2	70	130			
L15667-01LFMD	LFMD	11/26/13 20:41	II131029-2	.5	.54	1.022	mg/L	96.4	70	130	0.39	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L15644**

**Nitrate/Nitrite as N** M353.2 - H2SO4 preserved

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355989</b>													
WG355989ICV	ICV	12/05/13 18:42	WI131015-1	2.416		2.425	mg/L	100.4	90	110			
WG355989ICB	ICB	12/05/13 18:43				U	mg/L		-0.06	0.06			
<b>WG356002</b>													
WG356002LFB1	LFB	12/06/13 0:32	WI130816-3	2		2.042	mg/L	102.1	90	110			
L15644-02DUP	DUP	12/06/13 0:37			.32	.313	mg/L				2.2	20	
WG356002LFB2	LFB	12/06/13 1:06	WI130816-3	2		2.008	mg/L	100.4	90	110			
L15639-01AS	AS	12/06/13 1:19	WI130816-3	10	7	16.89	mg/L	98.9	90	110			

**Potassium, total recoverable** M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355510</b>													
WG355510ICV	ICV	11/26/13 18:51	II131113-1	20		19.65	mg/L	98.3	95	105			
WG355510ICB	ICB	11/26/13 18:57				U	mg/L		-0.9	0.9			
WG355429LRB	LRB	11/26/13 19:10				U	mg/L		-0.66	0.66			
WG355429LFB	LFB	11/26/13 19:13	II131029-2	99.94539		99.65	mg/L	99.7	85	115			
L15667-01LFM	LFM	11/26/13 20:38	II131029-2	99.94539	3.9	107.5	mg/L	103.7	70	130			
L15667-01LFMD	LFMD	11/26/13 20:41	II131029-2	99.94539	3.9	107.4	mg/L	103.6	70	130	0.09	20	

**Residue, Filterable (TDS) @180C** SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355599</b>													
WG355599PBW	PBW	11/27/13 11:20				U	mg/L		-20	20			
WG355599LCSW	LCSW	11/27/13 11:21	PCN44256	260		254	mg/L	97.7	80	120			
L15728-01DUP	DUP	11/27/13 11:56			350	342	mg/L				2.3	10	

**Selenium, total recoverable** M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG356147</b>													
WG356147ICV	ICV	12/10/13 5:29	MS131202-2	.05		.05152	mg/L	103	90	110			
WG356147ICB	ICB	12/10/13 5:32				U	mg/L		-0.0003	0.0003			
WG355921LRB	LRB	12/10/13 5:36				U	mg/L		-0.00022	0.00022			
WG355921LFB	LFB	12/10/13 5:39	MS131118-2	.05005		.04921	mg/L	98.3	85	115			
L15644-01LFM	LFM	12/10/13 5:45	MS131118-2	.05005	.0234	.0744	mg/L	101.9	70	130			
L15644-01LFMD	LFMD	12/10/13 5:48	MS131118-2	.05005	.0234	.07415	mg/L	101.4	70	130	0.34	20	

**Sodium, total recoverable** M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355510</b>													
WG355510ICV	ICV	11/26/13 18:51	II131113-1	100		98.67	mg/L	98.7	95	105			
WG355510ICB	ICB	11/26/13 18:57				U	mg/L		-0.9	0.9			
WG355429LRB	LRB	11/26/13 19:10				U	mg/L		-0.66	0.66			
WG355429LFB	LFB	11/26/13 19:13	II131029-2	100.0204		99.64	mg/L	99.6	85	115			
L15667-01LFM	LFM	11/26/13 20:38	II131029-2	100.0204	25.5	129.2	mg/L	103.7	70	130			
L15667-01LFMD	LFMD	11/26/13 20:41	II131029-2	100.0204	25.5	128.5	mg/L	103	70	130	0.54	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L15644**

**Sulfate** D516-02 - Turbidimetric

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355987</b>													
WG355987ICB	ICB	12/05/13 16:57				U	mg/L		-3	3			
WG355987ICV	ICV	12/05/13 16:57	WI131127-2	20		19.5	mg/L	97.5	90	110			
WG355987LFB	LFB	12/05/13 18:10	WI131010-2	9.99		9	mg/L	90.1	90	110			
L15634-02DUP	DUP	12/05/13 18:10			2.7	1.6	mg/L				51.2	20	RA
L15634-03AS	AS	12/05/13 18:41	SO4TURB20	10	271	283	mg/L	120	90	110			M3

**Sulfide as S** SM4500S2-D

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355434</b>													
WG355434ICV	ICV	11/25/13 12:15	WC131125-	.36266		.394	mg/L	108.6	90	110			
WG355434ICB	ICB	11/25/13 12:18				U	mg/L		-0.06	0.06			
<b>WG355470</b>													
WG355470ICV	ICV	11/25/13 16:00	WC131125-	.36266		.347	mg/L	95.7	90	110			
WG355470ICB	ICB	11/25/13 16:03				U	mg/L		-0.06	0.06			
WG355470LFB	LFB	11/25/13 16:06	WC131125-	.224		.261	mg/L	116.5	80	120			
L15681-02AS	AS	11/25/13 16:45	WC131125-	.224	U	.216	mg/L	96.4	75	125			
L15681-02DUP	DUP	11/25/13 16:48			U	U	mg/L				0	20	RA

**Thallium, total recoverable** M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG356147</b>													
WG356147ICV	ICV	12/10/13 5:29	MS131202-2	.05		.05249	mg/L	105	90	110			
WG356147ICB	ICB	12/10/13 5:32				U	mg/L		-0.0003	0.0003			
WG355921LRB	LRB	12/10/13 5:36				U	mg/L		-0.00022	0.00022			
WG355921LFB	LFB	12/10/13 5:39	MS131118-2	.05005		.04959	mg/L	99.1	85	115			
L15644-01LFM	LFM	12/10/13 5:45	MS131118-2	.05005	.01	.05805	mg/L	96	70	130			
L15644-01LFMD	LFMD	12/10/13 5:48	MS131118-2	.05005	.01	.05745	mg/L	94.8	70	130	1.04	20	

**Uranium, dissolved** M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355931</b>													
WG355931ICV	ICV	12/10/13 16:52	MS131202-2	.05		.05096	mg/L	101.9	90	110			
WG355931ICB	ICB	12/10/13 16:55				U	mg/L		-0.0003	0.0003			
WG355931LFB	LFB	12/10/13 16:58	MS131118-2	.05		.04969	mg/L	99.4	85	115			
L15643-02AS	AS	12/10/13 17:09	MS131118-2	2.5	5.94	8.49	mg/L	102	70	130			
L15643-02ASD	ASD	12/10/13 17:12	MS131118-2	2.5	5.94	8.455	mg/L	100.6	70	130	0.41	20	

**Vanadium, total recoverable** M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355510</b>													
WG355510ICV	ICV	11/26/13 18:51	II131113-1	2		1.9652	mg/L	98.3	95	105			
WG355510ICB	ICB	11/26/13 18:57				U	mg/L		-0.015	0.015			
WG355429LRB	LRB	11/26/13 19:10				U	mg/L		-0.011	0.011			
WG355429LFB	LFB	11/26/13 19:13	II131029-2	.5		.5032	mg/L	100.6	85	115			
L15667-01LFM	LFM	11/26/13 20:38	II131029-2	.5	U	.5028	mg/L	100.6	70	130			
L15667-01LFMD	LFMD	11/26/13 20:41	II131029-2	.5	U	.4973	mg/L	99.5	70	130	1.1	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L15644**

**Zinc, total recoverable**

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG355510</b>													
WG355510ICV	ICV	11/26/13 18:51	II131113-1	2		1.921	mg/L	96.1	95	105			
WG355510ICB	ICB	11/26/13 18:57				U	mg/L		-0.03	0.03			
WG355429LRB	LRB	11/26/13 19:10				U	mg/L		-0.022	0.022			
WG355429LFB	LFB	11/26/13 19:13	II131029-2	.5		.494	mg/L	98.8	85	115			
L15667-01LFM	LFM	11/26/13 20:38	II131029-2	.5	64.2	61.97	mg/L	-86	70	130			M3
L15667-01LFMD	LFMD	11/26/13 20:41	II131029-2	.5	64.2	61.44	mg/L	-192	70	130	0.86	20	M3

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L15644**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
<b>L15644-01</b>	WG355510	Zinc, total recoverable	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG355657	Conductivity @25C	SM2510B	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.
	WG355738	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355599	Residue, Filterable (TDS) @180C	SM2540C	H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
	WG355987	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
				RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
WG355657	Total Alkalinity	SM2320B - Titration	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.	
<b>L15644-02</b>	WG356002	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	Q1	Sample integrity was not maintained. See Case Narrative.
	WG355470	Sulfide as S	SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

**Report Header Explanations**

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Error(+/-)</i>	Calculated sample specific uncertainty
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>LCL</i>	Lower Control Limit, in % (except for LCSS, mg/Kg)
<i>LLD</i>	Calculated sample specific Lower Limit of Detection
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>RER</i>	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>UCL</i>	Upper Control Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

**QC Sample Types**

<i>DUP</i>	Sample Duplicate	<i>MS/MSD</i>	Matrix Spike/Matrix Spike Duplicate
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBS</i>	Prep Blank - Soil
<i>LCSW</i>	Laboratory Control Sample - Water	<i>PBW</i>	Prep Blank - Water

**QC Sample Type Explanations**

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Matrix Spikes	Determines sample matrix interferences, if any.

**ACZ Qualifiers (Qual)**

H	Analysis exceeded method hold time.
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**Method Prefix Reference**

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
D	ASTM
RP	DOE
ESM	DOE/ESM

**Comments**

- (1) Solid matrices are reported on a dry weight basis.
- (2) Preparation method: "Method" indicates preparation defined in analytical method.
- (3) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

<http://www.acz.com/public/extquallist.pdf>

Energy Fuels Resources (USA) Inc.

ACZ Project ID: L15644

Units: pCi/L

M900.0

Gross Alpha, dissolved

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG355758</b>																
WG355403PBW	PBW	11/27/13				1.6	1.6	.47	1.6	1.6			3.2			
WG355403LCSW	LCSW	11/27/13	RC130807-3	81.06		8.9	1.5	98	8.9	1.5	120.9	83	133			
L15634-01DUP	DUP-RER	11/27/13			1.4	3.4	2.7	4.7	3.5	2.7				0.88	2	
L15665-08DUP	DUP-RER	11/27/13			2.4	2.5	2	3	2.6	2				0.17	2	
L15634-02MS	MS	11/27/13	RC130807-3	81.06	0.63	2.1	2	59	7.9	2	72	83	133			M2

Units: pCi/L

M903.1

Radium 226, dissolved

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG3556110</b>																
WG355431PBW	PBW	12/05/13				0.09	0.13	.04	0.09	0.13			0.26			
WG355431LCSW	LCSW	12/05/13	PCN43746	20		0.6	0.12	22	0.6	0.12	110	43	148			
L15634-04DUP	DUP-RER	12/05/13			-0.06	0.09	0.18	.16	0.1	0.11				1.63	2	
L15708-03DUP	DUP-RER	12/05/13			-0.06	0.09	0.12	.2	0.11	0.18				1.82	2	
L15708-04MS	MS	12/05/13	PCN43746	20	0.09	0.09	0.15	21	0.56	0.17	104.6	43	148			

Units: pCi/L

M904.0

Radium 228, dissolved

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG3556584</b>																
WG356167PBW	PBW	12/16/13				0.4	0.74	.8	0.4	0.74			1.48			
WG356167LCSW	LCSW	12/16/13	PCN44291	19.72		1.3	1.2	17	1.3	1.2	86.2	47	123			
L15644-01DUP	DUP-RER	12/17/13			4	0.76	1.1	1.8	0.88	1				1.89	2	
L15634-03MS	MS	12/17/13	PCN44291	19.71	5.3	0.77	1.1	18	1.5	1.9	64.4	47	123			

ACZ Project ID: **L15644**

Energy Fuels Resources (USA) Inc.

Units: pCi/L

Eichrom ACW03

Uranium 234

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG356014</b>																
WG355729PBW	PBW	12/05/13				1.6	1	1.8					2			
WG355729LCSW	LCSW	12/05/13	PCN42042	196		14	1.7	210			107.1	77	122			
L15644-01DUP	DUP-RER	12/05/13			950	44	4.4	860						1.45	2	
L15721-01MS	MS	12/05/13	PCN42042	196	2.4	5.7	1.2	210	19	3.3	105.9	77	122			

Units: pCi/L

Eichrom ACW03

Uranium 235

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG356014</b>																
WG355729PBW	PBW	12/05/13				0.83	1	.36					2			
WG355729LCSW	LCSW	12/05/13	PCN42042	8.96		2.6	1.7	6.9			77	42	136			
L15644-01DUP	DUP-RER	12/05/13			30	8.2	4	33						0.25	2	
L15721-01MS	MS	12/05/13	PCN42042	8.96	-2.4	2.9	1.2	11	4.6	3.3	149.6	42	136			M1

Units: pCi/L

Eichrom ACW03

Uranium 238

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG356014</b>																
WG355729PBW	PBW	12/05/13				1.7	1	.72					2			
WG355729LCSW	LCSW	12/05/13	PCN42042	195		14	1.7	211			108.2	87	124			
L15644-01DUP	DUP-RER	12/05/13			737	39	4.4	670						1.21	2	
L15721-01MS	MS	12/05/13	PCN42042	195	1.19	7.5	1.2	201	19	3.3	102.5	87	124			



Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L15644**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
<b>L15644-01</b>	WG355758	Gross Alpha, dissolved	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG356014	Uranium 234	Eichrom ACW03	N1	See Case Narrative.
		Uranium 235	Eichrom ACW03	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			Eichrom ACW03	N1	See Case Narrative.
		Uranium 238	Eichrom ACW03	N1	See Case Narrative.
<b>L15644-02</b>	WG356014	Uranium 234	Eichrom ACW03	N1	See Case Narrative.
		Uranium 235	Eichrom ACW03	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			Eichrom ACW03	N1	See Case Narrative.
		Uranium 238	Eichrom ACW03	N1	See Case Narrative.

**Energy Fuels Resources (USA) Inc.**

ACZ Project ID: **L15644**

**Radiochemistry**

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.

Uranium 234	Eichrom ACW03
Uranium 235	Eichrom ACW03
Uranium 238	Eichrom ACW03

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Uranium 234	Eichrom ACW03
Uranium 235	Eichrom ACW03
Uranium 238	Eichrom ACW03

**Wet Chemistry**

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.

Sulfide as S	SM4500S2-D
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The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Sulfide as S	SM4500S2-D
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Energy Fuels Resources (USA) Inc.

ACZ Project ID: L15644  
 Date Received: 11/20/2013 10:25  
 Received By: mtb  
 Date Printed: 11/21/2013

**Receipt Verification**

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?			X
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody complete and accurate?	X		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the samples?		X	

**Samples/Containers**

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits?	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

**Chain of Custody Related Remarks**

The 'Relinquished By' field on the COC was not completed. Left a message for David Turk on 11/20/13.

**Client Contact Remarks**

**Shipping Containers**

Cooler Id	Temp (°C)	Rad (µR/Hr)	Custody Seal Intact?
2798	5.5	13	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.



Laboratories, Inc.

15644

CHAIN of CUSTODY

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-6493

Report to:

Name: DAVID TURK
Company: ENERGY FUELS
E-mail: DTURK@energyfuels.com

Address: 850 E. Hwy 89A
Fredonia AZ 86022
Telephone: (435) 689-0308

Copy of Report to:

Name: Ty Fisher
Company:

E-mail: Fisher@energyfuels.com
Telephone:

Invoice to:

Name: Energy Fuels
Company: SANDI LEWIS
E-mail: SLewis@energyfuels.com

Address: 850 E. Hwy 89A
Fredonia AZ 86022
Telephone: 928 643-6185

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES NO

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes No

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: Ty Fisher Sampler's site information State: AZ Zip code 86022 Time Zone Mountain

Check box if observe Daylight Savings Time

PROJECT INFORMATION

ANALYSES REQUESTED (attach list or use quote number)

Table with columns: Quote #, PO#, Reporting state for compliance testing, Check box if samples include NRC licensed material?, SAMPLE IDENTIFICATION, DATE:TIME, Matrix, # of Containers, and 10 empty columns for analyses.

Matrix SW (Surface Water) - GW (Ground Water) - WW (Waste Water) - DW (Drinking Water) - SL (Sludge) - SO (Soil) - OL (Oil) - Other (Specify)

MARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY: DATE:TIME RECEIVED BY: DATE:TIME

Signature and date fields for Relinquished and Received by.

Vertical barcode and Chain of Custody label

# ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

## Bottle Order Packing List

Account: EFRC/Energy Fuels Resources (USA)

Bottle Order: BO30471

Bill to Account: Bill to ACZ

Ship Date Requested: 10/03/2013

Request Placed at: 10/03/2013 13:15

Service Requested: UPS NextDay

### Sampling supplies

PACK	QU	ACZ ID	Type	Description
<input type="text"/>	1	COC	Chain of Custody	Chain of Custody, 1 for 10 samples.
<input type="text"/>	2	SEAL	Custody Seal	Custody seals for cooler, two for each cooler.
<input type="text"/>	1	RETURN	Return Address	Return Address label, one for each cooler.
<input type="text"/>	12	LABELS	Sample Labels	ACZ supplied labels for sample containers

### ACZ Coolers

PACK	QU	ACZ ID	Size	Weight	UPS Tracking Number
<input type="text"/>	1	2798	Large	28	1Z8101300100373281

Quote number: ARIZONA1-2013-GW

Arizona 1 Mine Shaft Sump Monitoring

Sample Quantity: 1

ACZ is responsible for necessary sample filtering

PACK	QU	Type	Size	Filter/Raw/Preserve	Instructions
<input type="text"/>	1	RAW	500 ML	Raw	Wet Chemistry (analyses that do not require preservative or filtration) - Completely fill container.
<input type="text"/>	1	RED PC	250 ML	Red pre-cleaned Raw/Nitric	Metals (total including ICPMS) - Do not overfill as there is Nitric Acid in the bottle.
<input type="text"/>	1	RED RAD	1000 ML	Raw/Nitric	Radiochemistry (total) - Do not overfill as there is Nitric Acid in the bottle.
<input type="text"/>	1	TAN	125 ML	Raw/NaOH & Zinc Acetate	Sulfide - Do not overfill as there is Sodium Hydroxide and Zinc Acetate in the bottle.
<input type="text"/>	1	YELLOW	250 ML	Raw/Sulfuric	For total wet chemistry analyses. Do not overfill as there is Sulfuric Acid in the bottle.

Prepared By/Date: \_\_\_\_\_

mjj

# ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

## Bottle Order Packing List

Account: EFRC/Energy Fuels Resources (USA)

Bottle Order: BO30471

Bill to Account: Bill to ACZ

Ship Date Requested: 10/03/2013

Request Placed at: 10/03/2013 13:15

Service Requested: UPS NextDay

Quote number: PINENUT-2013-GW

PineNut Mine Shaft Sump Monitoring

Sample Quantity: 1

ACZ is responsible for necessary sample filtering

PACI	QTY	TYPE	SIZE	Filter/Raw/Preserve	Instructions
<input checked="" type="checkbox"/>	1	GREEN CUBE	4 L	Filtered/Nitric	Radiochemistry (dissolved) -This is a filtered sample. Completely fill container.
<input checked="" type="checkbox"/>	1	GREEN PC	250 ML	Green pre-cleaned Filtered/Nitric	Metals (dissolved including ICPMS) - This is a filtered sample. Completely fill container.
<input checked="" type="checkbox"/>	1	GREEN RAD	1000 ML	Filtered/Nitric	Radiochemistry (dissolved) -This is a filtered sample. Completely fill container.
<input checked="" type="checkbox"/>	1	RAW	500 ML	Raw	Wet Chemistry (analyses that do not require preservative or filtration) - Completely fill container.
<input checked="" type="checkbox"/>	1	RED PC	250 ML	Red pre-cleaned Raw/Nitric	Metals (total including ICPMS) - Do not overfill as there is Nitric Acid in the bottle.
<input checked="" type="checkbox"/>	1	WHITE	250 ML	Filtered	Wet chemistry (dissolved) - This is a filtered sample. Completely fill container.

Prepared By/Date: \_\_\_\_\_

mjj