



Energy Fuels Resources (USA) Inc.  
225 Union Blvd. Suite 600  
Lakewood, CO, US, 80228  
303 974 2140  
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January 23, 2017

Madeline Keller  
ADEQ-Environmental Program Specialist  
Water Quality Division  
Water Quality Enforcement Unit  
1110 W. Washington St.  
Phoenix, AZ 85007

**Re: Canyon Mine Non-Storm water Impoundment 3.04 General Aquifer Protection Permit No. P-100333 Annual Report for 2016**

Dear Ms. Keller:

Enclosed please find Energy Fuels Resources (USA) Inc.'s ("EFRI's") 2016 Annual Report for the Canyon Mine (the "Mine") in accordance with the Mine's Non-storm water Impoundment 3.04 General Aquifer Protection Permit (the "APP") No. P-100333.

Pursuant to the requirements found in the APP and in the 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-storm water 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 the Arizona Department of Environmental Quality ("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."

EFRI began discharging to non-storm water impoundment in July of 2013. In accordance with the APP condition 2.i, EFRI submitted quarterly reports to ADEQ on October 23, 2013 and January 13, 2014. The January 13, 2014 report documented the second quarter of pumping operations, and the second of two required quarterly reports; and therefore, reporting is now

required at an annual frequency. On November 4, 2013, EFRI placed the Mine on standby status. There was no water discharged to the non-storm water impoundment in 2014, and therefore no samples were collected as noted in the 2014 Annual Report submitted to ADEQ on January 13, 2015. EFRI recommenced shaft sinking and dewatering activities at the Mine in October of 2015. A sample was collected in 2015 and was reported in the Annual Report for 2015 and submitted to ADEQ on January 20, 2016. Shaft sinking continued in 2016 and quarterly samples were collected.

As of the end of the fourth quarter 2016, the shaft has been sunk to a depth of approximately 1400 feet. Mine development and mining will not commence until the shaft reaches a depth of approximately 1600 feet. The shaft is located to the side of the ore body and as a result, has not and will not penetrate the ore body. At the time the sump levels are reached, EFRI will be able to survey and perform Klinkenberg testing on the mine sumps required by Section 1.ii of the APP. As the pumped water has entered the shaft well above the ore body, the analytical results presented to date can be considered to represent background groundwater quality at that depth.

Per Section 2.i of the APP, the attached Table 1 includes the daily volume of water pumped from underground mining areas for 2016. All water pumped from underground mining areas in to the non-storm water impoundment was discharged in accordance with the approved storm water 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 are described in the annual SWPPP report. 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-storm water impoundment. The samples are taken from the outfall point where mine water discharges from underground into the non-storm water impoundment. The complete data packages are provided as Attachment 1.

Please feel free to contact me at 303-389-4134 if you have any questions or concerns.

Sincerely,



**ENERGY FUELS RESOURCES (USA) INC.**

Kathy Weinel

Quality Assurance Manager

cc: Scott Bakken, Ty Fisher and David Turk (EFRI)  
Vimal Chauhan (ADEQ)

## TABLES

TABLE 1

Canyon Mine Daily Volume of Water Pumped from Underground Mining Areas during 2016

Date	Flow Meter Reading	Gallons Pumped (GA/D)	First Quarter 2016			Date	Flow Meter Reading	Gallons Pumped (GA/D)	Gallons Pumped (GA/D)
			January 2016	February 2016	March 2016				
1/1/2016	322624	0	2/1/2016	373576	1,920	3/1/2016	No Water Pumped	0	
1/2/2016	324337	1,713	2/2/2016	375786	2,210	3/2/2016	426117	1,646	
1/3/2016	326476	2,139	2/3/2016	378894	3,108	3/3/2016	427314	1,197	
1/4/2016	328112	1,636	2/4/2016	380227	1,333	3/4/2016	428762	1,448	
1/5/2016	329867	1,755	2/5/2016	382283	2,056	3/5/2016	430020	1,258	
1/6/2016	331014	1,147	2/6/2016	383976	1,693	3/6/2016	431475	1,455	
1/7/2016	332091	1,077	2/7/2016	385817	1,841	3/7/2016	432216	741	
1/8/2016	334612	2,521	2/8/2016	386112	295	3/8/2016	433195	979	
1/9/2016	335274	662	2/9/2016	387720	1,608	3/9/2016	434211	1,016	
1/10/2016	337428	2,154	2/10/2016	388671	951	3/10/2016	435003	792	
1/11/2016	339081	1,653	2/11/2016	389871	1,200	3/11/2016	436155	1,152	
1/12/2016	342107	3,026	2/12/2016	392997	3,126	3/12/2016	437472	1,317	
1/13/2016	344318	2,211	2/13/2016	395100	2,103	3/13/2016	439127	1,655	
1/14/2016	No water pumped	0	2/14/2016	396799	1,699	3/14/2016	440828	1,701	
1/15/2016	344704	386	2/15/2016	398499	1,700	3/15/2016	442182	1,354	
1/16/2016	345688	984	2/16/2016	400041	1,542	3/16/2016	444773	2,591	
1/17/2016	345889	201	2/17/2016	401843	1,802	3/17/2016	446344	1,571	
1/18/2016	346093	204	2/18/2016	403109	1,266	3/18/2016	448627	2,283	
1/19/2016	347607	1,514	2/19/2016	404729	1,620	3/19/2016	450224	1,597	
1/20/2016	348995	1,388	2/20/2016	406760	2,031	3/20/2016	451989	1,765	
1/21/2016	350092	1,097	2/21/2016	408217	1,457	3/21/2016	453602	1,613	
1/22/2016	351558	1,466	2/22/2016	410460	2,243	3/22/2016	455169	1,567	
1/23/2016	353064	1,506	2/23/2016	412317	1,857	3/23/2016	456361	1,192	
1/24/2016	355227	2,163	2/24/2016	414998	2,681	3/24/2016	457509	1,148	
1/25/2016	357871	2,644	2/25/2016	417072	2,074	3/25/2016	458623	1,114	
1/26/2016	359374	1,503	2/26/2016	419116	2,044	3/26/2016	460083	1,460	
1/27/2016	361932	2,558	2/27/2016	421339	2,223	3/27/2016	462897	2,814	
1/28/2016	363414	1,482	2/28/2016	422968	1,629	3/28/2016	465145	2,248	
1/29/2016	365112	1,698	2/29/2016	424471	1,503	3/29/2016	467471	2,326	
1/30/2016	368008	2,896				3/30/2016	469937	2,466	
1/31/2016	371656	3,648				3/31/2016	471532	1,595	
<b>Total Gallons Pumped for January</b>		<b>49,032</b>	<b>Total Gallons Pumped for February</b>		<b>52,815</b>	<b>Total Gallons Pumped for March</b>		<b>47,061</b>	
								<b>Total for the Quarter</b>	<b>148,908</b>



Table 1

Canyon Mine Daily Volume of Water Pumped from Underground Mining Areas during 2016

Second Quarter 2016						
Date	Flow Meter Reading	Gallons Pumped (G/A/D)	Date	Flow Meter Reading	Gallons Pumped (G/A/D)	Date
<b>April 2016</b>						
4/1/2016	473256	1,724	5/1/2016	515614	1,049	6/1/2016
4/2/2016	475,140	1,884	5/2/2016	516689	1,075	6/2/2016
4/3/2016	476587	1,447	5/3/2016	517616	927	6/3/2016
4/4/2016	477919	1,332	5/4/2016	520086	2,470	6/4/2016
4/5/2016	479199	1,280	5/5/2016	523971	3,885	6/5/2016
4/6/2016	481024	1,825	5/6/2016	524892	921	6/6/2016
4/7/2016	482122	1,098	5/7/2016	525711	819	6/7/2016
4/8/2016	483028	906	5/8/2016	526238	527	6/8/2016
4/9/2016	484971	1,943	5/9/2016	526644	406	6/9/2016
4/10/2016	486278	1,307	5/10/2016	527162	518	6/10/2016
4/11/2016	488095	1,817	5/11/2016	527908	746	6/11/2016
4/12/2016	488622	527	5/12/2016	529654	1,746	6/12/2016
4/13/2016	490496	1,874	5/13/2016	531519	1,865	6/13/2016
4/14/2016	492087	1,591	5/14/2016	533201	1,682	6/14/2016
4/15/2016	492868	781	5/15/2016	534929	1,728	6/15/2016
4/16/2016	494287	1,419	5/16/2016	536687	1,758	6/16/2016
4/17/2016	495734	1,447	5/17/2016	538481	1,794	6/17/2016
4/18/2016	497046	1,312	5/18/2016	539775	1,294	6/18/2016
4/19/2016	497681	635	5/19/2016	544110	4,335	6/19/2016
4/20/2016	499822	2,141	5/20/2016	546397	2,287	6/20/2016
4/21/2016	501067	1,245	5/21/2016	548113	1,716	6/21/2016
4/22/2016	502853	1,786	5/22/2016	549562	1,449	6/22/2016
4/23/2016	504611	1,758	5/23/2016	550824	1,262	6/23/2016
4/24/2016	506809	2,198	5/24/2016	552166	1,342	6/24/2016
4/25/2016	508005	1,196	5/25/2016	553599	1,433	6/25/2016
4/26/2016	509899	1,894	5/26/2016	554834	1,235	6/26/2016
4/27/2016	511049	1,150	5/27/2016	556195	1,361	6/27/2016
4/28/2016	512215	1,166	5/28/2016	557404	1,209	6/28/2016
4/29/2016	513192	977	5/29/2016	558697	1,293	6/29/2016
4/30/2016	514565	1,373	5/30/2016	560091	1,394	6/30/2016
			5/31/2016	561352	1,261	
<b>Total Gallons Pumped for April</b>		<b>43,033</b>	<b>Total Gallons Pumped for May</b>		<b>46,787</b>	<b>Total Gallons Pumped for June</b>
						<b>45,089</b>
					<b>Total for the Quarter</b>	
					<b>134,909</b>	

**Table 1  
Canyon Mine Daily Volume of Water Pumped from Underground Mining Areas During 2016**

Date	July 2016			August 2016			September 2016		
	Flow Meter Reading	Gallons Pumped (GA/D)	Date	Flow Meter Reading	Gallons Pumped (GA/D)	Date	Flow Meter Reading	Gallons Pumped (GA/D)	Date
7/1/2016	610062	1,771	8/1/2016	662012	2,091	9/1/2016	No Water Pumped	0	
7/2/2016	611893	1,831	8/2/2016	663734	1,722	9/2/2016	701040	1,659	
7/3/2016	613724	1,831	8/3/2016	665262	1,528	9/3/2016	718226	17,186	
7/4/2016	615026	1,302	8/4/2016	666122	860	9/4/2016	719968	1,742	
7/5/2016	617134	2,108	8/5/2016	667501	1,379	9/5/2016	721764	1,796	
7/6/2016	618399	1,265	8/6/2016	668278	777	9/6/2016	723408	1,644	
7/7/2016	620035	1,636	8/7/2016	No Water Pumped	0	9/7/2016	724899	1,491	
7/8/2016	621505	1,470	8/8/2016	No Water Pumped	0	9/8/2016	727832	2,933	
7/9/2016	623188	1,683	8/9/2016	670370	2,092	9/9/2016	730114	2,282	
7/10/2016	624826	1,638	8/10/2016	671486	1,116	9/10/2016	732628	2,514	
7/11/2016	624916	90	8/11/2016	672591	1,105	9/11/2016	735293	2,665	
7/12/2016	625044	128	8/12/2016	673747	1,156	9/12/2016	736010	717	
7/13/2016	626228	1,184	8/13/2016	675090	1,343	9/13/2016	738187	2,177	
7/14/2016	627171	943	8/14/2016	676889	1,799	9/14/2016	740624	2,437	
7/15/2016	629819	2,648	8/15/2016	678412	1,523	9/15/2016	No Water Pumped	0	
7/16/2016	631979	2,160	8/16/2016	No Water Pumped	0	9/16/2016	No Water Pumped	0	
7/17/2016	634198	2,219	8/17/2016	679314	902	9/17/2016	743135	2,511	
7/18/2016	636001	1,803	8/18/2016	680299	985	9/18/2016	744823	1,688	
7/19/2016	637238	1,237	8/19/2016	681353	1,054	9/19/2016	746011	1,188	
7/20/2016	639700	2,462	8/20/2016	682218	865	9/20/2016	747598	1,587	
7/21/2016	641362	1,662	8/21/2016	683242	1,024	9/21/2016	748622	1,024	
7/22/2016	642026	664	8/22/2016	684525	1,283	9/22/2016	749910	1,288	
7/23/2016	643618	1,592	8/23/2016	685712	1,187	9/23/2016	No Water Pumped	0	
7/24/2016	645279	1,661	8/24/2016	687330	1,618	9/24/2016	No Water Pumped	0	
7/25/2016	646947	1,668	8/25/2016	689971	2,641	9/25/2016	750802	892	
7/26/2016	648551	1,604	8/26/2016	691120	1,149	9/26/2016	752175	1,373	
7/27/2016	651722	3,171	8/27/2016	692877	1,757	9/27/2016	754514	2,339	
7/28/2016	653485	1,763	8/28/2016	693467	590	9/28/2016	756561	2,047	
7/29/2016	655292	1,807	8/29/2016	695892	2,425	9/29/2016	758763	2,202	
7/30/2016	657008	1,716	8/30/2016	697640	1,748	9/30/2016	760904	2,141	
7/31/2016	659921	2,913	8/31/2016	699381	1,741				
<b>Total Gallons Pumped for July</b>		<b>51,630</b>	<b>Total Gallons Pumped for August</b>		<b>39,460</b>	<b>Total Gallons Pumped for September</b>		<b>61,523</b>	
			<b>Total for the Quarter</b>		<b>152,613</b>				

**Table 1  
Canyon Mine Daily Volume of Water Pumped from Underground Mining Areas During 2016**

Date	Flow Meter Reading	Gallons Pumped (GA/D)	Date	Flow Meter Reading	Gallons Pumped (GA/D)	Date	Flow Meter Reading	Gallons Pumped (GA/D)
10/1/2016	763163	2,259	11/1/2016	818943	1,819	12/1/2016	1213300	19,034
10/2/2016	765352	2,189	11/2/2016	821641	2,698	12/2/2016	1227880	14,580
10/3/2016	767114	1,762	11/3/2016	832917	11,276	12/3/2016	1236041	8,161
10/4/2016	769596	2,482	11/4/2016	848361	15,444	12/4/2016	1249720	13,679
10/5/2016	772766	3,170	11/5/2016	864225	15,864	12/5/2016	1260159	10,439
10/6/2016	774049	1,283	11/6/2016	879972	15,747	12/6/2016	1280079	19,920
10/7/2016	776992	2,943	11/7/2016	890024	10,052	12/7/2016	1303027	22,948
10/8/2016	778041	1,049	11/8/2016	904843	14,819	12/8/2016	1321006	17,979
10/9/2016	779665	1,624	11/9/2016	918991	14,148	12/9/2016	1337536	16,530
10/10/2016	781782	2,117	11/10/2016	944301	25,310	12/10/2016	1357396	19,860
10/11/2016	782844	1,062	11/11/2016	962884	18,583	12/11/2016	1375609	18,213
10/12/2016	784869	2,025	11/12/2016	987553	24,669	12/12/2016	1394823	19,214
10/13/2016	786692	1,823	11/13/2016	No Water Pumped	0	12/13/2016	1412149	17,326
10/14/2016	788605	1,913	11/14/2016	988361	808	12/14/2016	1429711	17,562
10/15/2016	790567	1,962	11/15/2016	988935	574	12/15/2016	1446629	16,918
10/16/2016	792465	1,898	11/16/2016	992332	3,397	12/16/2016	1467072	20,443
10/17/2016	794363	1,898	11/17/2016	1018500	26,168	12/17/2016	1485543	18,471
10/18/2016	796262	1,899	11/18/2016	1037420	18,920	12/18/2016	1501886	16,343
10/19/2016	797192	930	11/19/2016	1060730	23,310	12/19/2016	1517442	15,556
10/20/2016	799009	1,817	11/20/2016	1078770	18,040	12/20/2016	1539245	21,803
10/21/2016	802132	3,123	11/21/2016	1099080	20,310	12/21/2016	1548372	9,127
10/22/2016	803819	1,687	11/22/2016	1120020	20,940	12/22/2016	1564025	15,653
10/23/2016	805741	1,922	11/23/2016	1138790	18,770	12/23/2016	No Water Pumped	0
10/24/2016	806588	847	11/24/2016	No Water Pumped	0	12/24/2016	No Water Pumped	0
10/25/2016	808370	1,782	11/25/2016	1147210	8,420	12/25/2016	No Water Pumped	0
10/26/2016	809379	1,009	11/26/2016	1155360	8,150	12/26/2016	No Water Pumped	0
10/27/2016	810209	830	11/27/2016	1166660	11,300	12/27/2016	No Water Pumped	0
10/28/2016	812066	1,857	11/28/2016	1172490	5,830	12/28/2016	1721549	157,524
10/29/2016	813502	1,436	11/29/2016	1183700	11,210	12/29/2016	1746540	24,991
10/30/2016	814991	1,489	11/30/2016	1194266	10,566	12/30/2016	No Water Pumped	0
10/31/2016	817124	2,133				12/31/2016	No Water Pumped	0
<b>Total Gallons Pumped for October</b>		<b>56,220</b>	<b>Total Gallons Pumped for November</b>		<b>377,142</b>	<b>Total Gallons Pumped for December</b>		<b>552,274</b>
			<b>Total for the Quarter</b>			<b>Total for the Quarter</b>		<b>985,636</b>
			<b>Total for the Year</b>			<b>Total for the Year</b>		<b>985,636</b>

TABLE 2

## Canyon Mine Non-Stormwater Impoundment Sample Summary

Analytes	Units	Discharge 3/8/2016	Discharge 6/28/2016	Discharge 9/26/2016	Discharge 11/9/2016
<b>Metals - Total unless indicated</b>					
Antimony	mg/L	0.0045	0.0053	0.0057	0.0056
Arsenic	mg/L	0.0074	0.0063	0.0052	0.292
Barium	mg/L	0.052	0.036	0.039	0.223
Beryllium	mg/L	<0.00005	<0.00005	0.00007	0.00012
Cadmium	mg/L	0.0002	0.0001	0.0001	0.0008
Chromium	mg/L	<0.01	<0.01	<0.01	0.01
Copper	mg/L	<0.01	<0.01	<0.01	0.026
Iron	mg/L	0.4	0.04	0.07	1.13
Lead	mg/L	0.0016	0.0002	0.0006	0.017
Manganese	mg/L	0.015	0.006	<0.005	0.022
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/L	0.063	0.057	0.51	0.297
Selenium	mg/L	0.0047	0.004	0.0038	0.001
Thallium	mg/L	0.0018	0.0018	0.0017	0.0012
Uranium (dissolved)	mg/L	0.01	0.0056	0.0046	0.13
Vanadium	mg/L	<0.005	<0.005	<0.005	<0.005
Zinc	mg/L	0.31	0.17	0.17	0.33
<b>Radionuclides - Dissolved</b>					
Gross Alpha		12 ( $\pm 5.1$ )	4.9 ( $\pm 3.1$ )	5.4 ( $\pm 3.31$ )	130 ( $\pm 13$ )
Radium 226	pCi/L	2.6 ( $\pm 0.21$ )	1.8 ( $\pm 0.17$ )	1.7 ( $\pm 0.32$ )	24 ( $\pm 0.67$ )
Radium 228	pCi/L	0.14 ( $\pm 0.44$ )	0.23 ( $\pm 0.77$ )	0.48 ( $\pm 0.9$ )	0.94 ( $\pm 0.7$ )
Uranium 234	pCi/L	2.1 ( $\pm 2.1$ )	2.3 ( $\pm 1.3$ )	1.4 ( $\pm 1.4$ )	4.1 ( $\pm 1.9$ )
Uranium 235	pCi/L	0.11 ( $\pm 0.66$ )	-0.11 ( $\pm 0.49$ )	-0.95 ( $\pm 0.96$ )	0.0 ( $\pm 0.71$ )
Uranium 238	pCi/L	3.04 ( $\pm 2.2$ )	2.73 ( $\pm 1.42$ )	0.1 ( $\pm 1.3$ )	4.35 ( $\pm 2$ )
<b>Major Ions</b>					
Alkalinity (Total)	mg/L	231	193	182	207
Calcium	mg/L	67.9	63.3	61.7	69.9
Fluoride	mg/L	0.2	0.15	0.15	0.22
Magnesium	mg/L	41.3	39.3	37.9	38.7
Potassium	mg/L	1.8	1.5	1.6	3.1
Sodium	mg/L	21.8	19.3	18.4	10.1
Sulfate	mg/L	112	103	119	106
<b>Physical Properties</b>					
Conductivity	umhos/cm	699	650 (f = 651)	656 (f = 655)	683
pH (field)	S.U.		7.48	6.56	
TDS	mg/L	430	396	396	398

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

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

**ATTACHMENT 1**



Q1

March 28, 2016

Report to:

Jamie Massey  
Energy Fuels Resources (USA) Inc.  
225 Union Blvd. , Suite 600  
Lakewood, CO 80228

Bill to:

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

Project ID:

ACZ Project ID: L29308

Jamie Massey:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on March 09, 2016. This project has been assigned to ACZ's project number, L29308. 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 L29308. 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 April 27, 2016. 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.**

Project ID:  
Sample ID: CANYON 1

ACZ Sample ID: **L29308-01**  
Date Sampled: 03/08/16 00:00  
Date Received: 03/09/16  
Sample Matrix: Ground Water

**Inorganic Prep**

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Recoverable Digestion	M200.2 ICP-MS								03/11/16 12:46	scp
Total Recoverable Digestion	M200.2 ICP								03/15/16 11:04	aeb

**Metals Analysis**

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total recoverable	M200.8 ICP-MS	1	0.0045			mg/L	0.0004	0.002	03/14/16 14:54	mfm
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0074			mg/L	0.0002	0.001	03/14/16 14:54	mfm
Barium, total recoverable	M200.7 ICP	1	0.052			mg/L	0.003	0.02	03/16/16 14:31	aeb
Beryllium, total recoverable	M200.8 ICP-MS	1		U		mg/L	0.00005	0.0003	03/14/16 14:54	mfm
Cadmium, total recoverable	M200.8 ICP-MS	1	0.0002	B		mg/L	0.0001	0.0005	03/14/16 14:54	mfm
Calcium, total recoverable	M200.7 ICP	1	67.9			mg/L	0.1	0.5	03/16/16 14:31	aeb
Chromium, total recoverable	M200.7 ICP	1		U		mg/L	0.01	0.05	03/16/16 14:31	aeb
Copper, total recoverable	M200.7 ICP	1		U		mg/L	0.01	0.05	03/16/16 14:31	aeb
Iron, total recoverable	M200.7 ICP	1	0.40			mg/L	0.02	0.05	03/16/16 14:31	aeb
Lead, total recoverable	M200.8 ICP-MS	1	0.0016			mg/L	0.0001	0.0005	03/14/16 14:54	mfm
Magnesium, total recoverable	M200.7 ICP	1	41.3			mg/L	0.2	1	03/16/16 14:31	aeb
Manganese, total recoverable	M200.7 ICP	1	0.015	B		mg/L	0.005	0.03	03/16/16 14:31	aeb
Mercury, total	M245.1 CVAA	1		U		mg/L	0.0002	0.001	03/25/16 10:33	pta
Nickel, total recoverable	M200.7 ICP	1	0.063			mg/L	0.008	0.04	03/16/16 14:31	aeb
Potassium, total recoverable	M200.7 ICP	1	1.8			mg/L	0.2	1	03/16/16 14:31	aeb
Selenium, total recoverable	M200.8 ICP-MS	1	0.0047			mg/L	0.0001	0.0003	03/14/16 14:54	mfm
Sodium, total recoverable	M200.7 ICP	1	21.8			mg/L	0.2	1	03/16/16 14:31	aeb
Thallium, total recoverable	M200.8 ICP-MS	1	0.0018			mg/L	0.0001	0.0005	03/14/16 14:54	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.0100			mg/L	0.0001	0.0005	03/18/16 16:19	mfm
Vanadium, total recoverable	M200.7 ICP	1		U		mg/L	0.005	0.03	03/16/16 14:31	aeb
Zinc, total recoverable	M200.7 ICP	1	0.31			mg/L	0.01	0.05	03/16/16 14:31	aeb

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

Project ID:

Sample ID: CANYON 1

ACZ Sample ID: **L29308-01**

Date Sampled: 03/08/16 00:00

Date Received: 03/09/16

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	221			mg/L	2	20	03/10/16 0:00	emk
Carbonate as CaCO3		1	9.7	B		mg/L	2	20	03/10/16 0:00	emk
Hydroxide as CaCO3		1		U		mg/L	2	20	03/10/16 0:00	emk
Total Alkalinity		1	231			mg/L	2	20	03/10/16 0:00	emk
Conductivity @25C	SM2510B	1	699			umhos/cm	1	10	03/10/16 21:18	emk
Fluoride	SM4500F-C	1	0.20	B	*	mg/L	0.05	0.3	03/11/16 11:33	sck
Residue, Filterable (TDS) @180C	SM2540C	1	430			mg/L	10	20	03/10/16 11:32	emk
Sulfate	D516-02/-07 - Turbidimetric	5	112			mg/L	5	25	03/24/16 13:26	mss2

Arizona license number: AZ0102



**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 unless omitted or equal to the PQL (see comment #5). 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. Synonymous with the EPA term "minimum level".
<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: **L29308**

**Alkalinity as CaCO3**

**SM2320B - Titration**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG399822</b>													
WG399822PBW1	PBW	03/10/16 16:21				3.8	mg/L		-20	20			
WG399822LCSW3	LCSW	03/10/16 16:40	WC160224-7	820.0001		806	mg/L	98	90	110			
WG399822LCSW6	LCSW	03/10/16 19:47	WC160224-7	820.0001		806	mg/L	98	90	110			
WG399822PBW2	PBW	03/10/16 19:55				2.2	mg/L		-20	20			
L29314-04DUP	DUP	03/10/16 22:15			493	502	mg/L				2	20	
WG399822LCSW9	LCSW	03/10/16 23:56	WC160224-7	820.0001		801	mg/L	98	90	110			
WG399822PBW3	PBW	03/11/16 0:04				U	mg/L		-20	20			
WG399822LCSW12	LCSW	03/11/16 2:40	WC160224-7	820.0001		811	mg/L	99	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>WG399944</b>													
WG399944ICV	ICV	03/14/16 13:52	MS160302-3	.02		.02016	mg/L	101	90	110			
WG399944ICB	ICB	03/14/16 13:55				.00045	mg/L		-0.0012	0.0012			
WG399734LRB	LRB	03/14/16 13:58				U	mg/L		-0.00088	0.00088			
WG399734LFB	LFB	03/14/16 14:01	MS160303-3	.01001		.01155	mg/L	115	85	115			
WG399843LRB	LRB	03/14/16 14:18				U	mg/L		-0.00088	0.00088			
WG399843LFB	LFB	03/14/16 14:21	MS160303-3	.01001		.01124	mg/L	112	85	115			
L29303-05LFM	LFM	03/14/16 14:36	MS160303-3	.01001	U	.01158	mg/L	116	70	130			
L29303-05LFMD	LFMD	03/14/16 14:39	MS160303-3	.01001	U	.0114	mg/L	114	70	130	2	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>WG399944</b>													
WG399944ICV	ICV	03/14/16 13:52	MS160302-3	.05		.05385	mg/L	108	90	110			
WG399944ICB	ICB	03/14/16 13:55				U	mg/L		-0.0006	0.0006			
WG399734LRB	LRB	03/14/16 13:58				U	mg/L		-0.00044	0.00044			
WG399734LFB	LFB	03/14/16 14:01	MS160303-3	.0501		.05114	mg/L	102	85	115			
WG399843LRB	LRB	03/14/16 14:18				U	mg/L		-0.00044	0.00044			
WG399843LFB	LFB	03/14/16 14:21	MS160303-3	.0501		.0505	mg/L	101	85	115			
L29303-05LFM	LFM	03/14/16 14:36	MS160303-3	.0501	.0008	.05333	mg/L	105	70	130			
L29303-05LFMD	LFMD	03/14/16 14:39	MS160303-3	.0501	.0008	.05078	mg/L	100	70	130	5	20	

**Barium, total recoverable**

**M200.7 ICP**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG400058</b>													
WG400058ICV	ICV	03/16/16 14:06	II160305-1	2		1.984	mg/L	99	95	105			
WG400058ICB	ICB	03/16/16 14:12				U	mg/L		-0.009	0.009			
WG399975LRB	LRB	03/16/16 14:24				U	mg/L		-0.0066	0.0066			
WG399975LFB	LFB	03/16/16 14:28	II160302-2	.5005		.4798	mg/L	96	85	115			
L29308-01LFM	LFM	03/16/16 14:34	II160302-2	.5005	.052	.5348	mg/L	96	70	130			
L29308-01LFMD	LFMD	03/16/16 14:37	II160302-2	.5005	.052	.5475	mg/L	99	70	130	2	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L29308**

**Beryllium, total recoverable**

**M200.8 ICP-MS**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG399944</b>													
WG399944ICV	ICV	03/14/16 13:52	MS160302-3	.05		.04769	mg/L	95	90	110			
WG399944ICB	ICB	03/14/16 13:55				U	mg/L		-0.00015	0.00015			
WG399734LRB	LRB	03/14/16 13:58				U	mg/L		-0.00011	0.00011			
WG399734LFB	LFB	03/14/16 14:01	MS160303-3	.0501		.04805	mg/L	96	85	115			
WG399843LRB	LRB	03/14/16 14:18				U	mg/L		-0.00011	0.00011			
WG399843LFB	LFB	03/14/16 14:21	MS160303-3	.0501		.04884	mg/L	97	85	115			
L29303-05LFM	LFM	03/14/16 14:36	MS160303-3	.0501	.00007	.0495	mg/L	99	70	130			
L29303-05LFMD	LFMD	03/14/16 14:39	MS160303-3	.0501	.00007	.04854	mg/L	97	70	130	2	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>WG399944</b>													
WG399944ICV	ICV	03/14/16 13:52	MS160302-3	.05		.05154	mg/L	103	90	110			
WG399944ICB	ICB	03/14/16 13:55				U	mg/L		-0.0003	0.0003			
WG399734LRB	LRB	03/14/16 13:58				U	mg/L		-0.00022	0.00022			
WG399734LFB	LFB	03/14/16 14:01	MS160303-3	.05005		.05091	mg/L	102	85	115			
WG399843LRB	LRB	03/14/16 14:18				U	mg/L		-0.00022	0.00022			
WG399843LFB	LFB	03/14/16 14:21	MS160303-3	.05005		.05085	mg/L	101	85	115			
L29303-05LFM	LFM	03/14/16 14:36	MS160303-3	.05005	U	.04974	mg/L	99	70	130			
L29303-05LFMD	LFMD	03/14/16 14:39	MS160303-3	.05005	U	.04912	mg/L	98	70	130	1	20	

**Calcium, total recoverable**

**M200.7 ICP**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG400058</b>													
WG400058ICV	ICV	03/16/16 14:06	II160305-1	100		99.94	mg/L	100	95	105			
WG400058ICB	ICB	03/16/16 14:12				U	mg/L		-0.3	0.3			
WG399975LRB	LRB	03/16/16 14:24				U	mg/L		-0.22	0.22			
WG399975LFB	LFB	03/16/16 14:28	II160302-2	67.97118		68.71	mg/L	101	85	115			
L29308-01LFM	LFM	03/16/16 14:34	II160302-2	67.97118	67.9	134.5	mg/L	98	70	130			
L29308-01LFMD	LFMD	03/16/16 14:37	II160302-2	67.97118	67.9	137.7	mg/L	103	70	130	2	20	

**Chromium, total recoverable**

**M200.7 ICP**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG400058</b>													
WG400058ICV	ICV	03/16/16 14:06	II160305-1	2		1.97	mg/L	99	95	105			
WG400058ICB	ICB	03/16/16 14:12				U	mg/L		-0.03	0.03			
WG399975LRB	LRB	03/16/16 14:24				U	mg/L		-0.022	0.022			
WG399975LFB	LFB	03/16/16 14:28	II160302-2	.5005		.479	mg/L	96	85	115			
L29308-01LFM	LFM	03/16/16 14:34	II160302-2	.5005	U	.472	mg/L	94	70	130			
L29308-01LFMD	LFMD	03/16/16 14:37	II160302-2	.5005	U	.487	mg/L	97	70	130	3	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: L29308

**Conductivity @25C**

SM2510B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG399822</b>													
WG399822LCSW2	LCSW	03/10/16 16:27	PCN48848	1408		1500	umhos/cm	107	90	110			
WG399822LCSW5	LCSW	03/10/16 19:34	PCN48848	1408		1480	umhos/cm	105	90	110			
L29314-04DUP	DUP	03/10/16 22:15			7420	7450	umhos/cm				0	20	
WG399822LCSW8	LCSW	03/10/16 23:44	PCN48848	1408		1480	umhos/cm	105	90	110			
WG399822LCSW11	LCSW	03/11/16 2:26	PCN48848	1408		1470	umhos/cm	104	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>WG400058</b>													
WG400058ICV	ICV	03/16/16 14:06	II160305-1	2		1.936	mg/L	97	95	105			
WG400058ICB	ICB	03/16/16 14:12				U	mg/L		-0.03	0.03			
WG399975LRB	LRB	03/16/16 14:24				U	mg/L		-0.022	0.022			
WG399975LFB	LFB	03/16/16 14:28	II160302-2	.501		.48	mg/L	96	85	115			
L29308-01LFM	LFM	03/16/16 14:34	II160302-2	.501	U	.484	mg/L	97	70	130			
L29308-01LFMD	LFMD	03/16/16 14:37	II160302-2	.501	U	.495	mg/L	99	70	130	2	20	

**Fluoride**

SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG399852</b>													
WG399852ICV	ICV	03/11/16 10:55	WC160311-7	2		1.959	mg/L	98	95	105			
WG399852ICB	ICB	03/11/16 10:59				.098	mg/L		-0.15	0.15			
WG399852LFB1	LFB	03/11/16 11:06	WC151103-7	5		4.73	mg/L	95	90	110			
L29300-03AS	AS	03/11/16 11:12	WC151103-7	5	.32	4.885	mg/L	91	90	110			
L29300-03DUP	DUP	03/11/16 11:16			.32	.254	mg/L				23	20	RA
WG399852LFB2	LFB	03/11/16 12:59	WC151103-7	5		4.752	mg/L	95	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>WG400058</b>													
WG400058ICV	ICV	03/16/16 14:06	II160305-1	2		1.93	mg/L	97	95	105			
WG400058ICB	ICB	03/16/16 14:12				U	mg/L		-0.06	0.06			
WG399975LRB	LRB	03/16/16 14:24				U	mg/L		-0.044	0.044			
WG399975LFB	LFB	03/16/16 14:28	II160302-2	1.0001		.961	mg/L	96	85	115			
L29308-01LFM	LFM	03/16/16 14:34	II160302-2	1.0001	.4	1.405	mg/L	100	70	130			
L29308-01LFMD	LFMD	03/16/16 14:37	II160302-2	1.0001	.4	1.438	mg/L	104	70	130	2	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>WG399944</b>													
WG399944ICV	ICV	03/14/16 13:52	MS160302-3	.05		.05044	mg/L	101	90	110			
WG399944ICB	ICB	03/14/16 13:55				U	mg/L		-0.0003	0.0003			
WG399734LRB	LRB	03/14/16 13:58				U	mg/L		-0.00022	0.00022			
WG399734LFB	LFB	03/14/16 14:01	MS160303-3	.05005		.04809	mg/L	96	85	115			
WG399843LRB	LRB	03/14/16 14:18				U	mg/L		-0.00022	0.00022			
WG399843LFB	LFB	03/14/16 14:21	MS160303-3	.05005		.04831	mg/L	97	85	115			
L29303-05LFM	LFM	03/14/16 14:36	MS160303-3	.05005	.0003	.04933	mg/L	98	70	130			
L29303-05LFMD	LFMD	03/14/16 14:39	MS160303-3	.05005	.0003	.04857	mg/L	96	70	130	2	20	



Energy Fuels Resources (USA) Inc.

ACZ Project ID: L29308

**Magnesium, total recoverable**

**M200.7 ICP**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG400058</b>													
WG400058ICV	ICV	03/16/16 14:06	II160305-1	100		99.37	mg/L	99	95	105			
WG400058ICB	ICB	03/16/16 14:12				U	mg/L		-0.6	0.6			
WG399975LRB	LRB	03/16/16 14:24				U	mg/L		-0.44	0.44			
WG399975LFB	LFB	03/16/16 14:28	II160302-2	50.00605		48.89	mg/L	98	85	115			
L29308-01LFM	LFM	03/16/16 14:34	II160302-2	50.00605	41.3	88.95	mg/L	95	70	130			
L29308-01LFMD	LFMD	03/16/16 14:37	II160302-2	50.00605	41.3	91.11	mg/L	100	70	130	2	20	

**Manganese, total recoverable**

**M200.7 ICP**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG400058</b>													
WG400058ICV	ICV	03/16/16 14:06	II160305-1	2		1.9328	mg/L	97	95	105			
WG400058ICB	ICB	03/16/16 14:12				U	mg/L		-0.015	0.015			
WG399975LRB	LRB	03/16/16 14:24				U	mg/L		-0.011	0.011			
WG399975LFB	LFB	03/16/16 14:28	II160302-2	.5		.4802	mg/L	96	85	115			
L29308-01LFM	LFM	03/16/16 14:34	II160302-2	.5	.015	.4975	mg/L	97	70	130			
L29308-01LFMD	LFMD	03/16/16 14:37	II160302-2	.5	.015	.5102	mg/L	99	70	130	3	20	

**Mercury, total**

**M245.1 CVAA**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG400500</b>													
WG400500ICV	ICV	03/25/16 9:40	HG160307-3	.005		.00494	mg/L	99	90	110			
WG400500ICB	ICB	03/25/16 9:42				U	mg/L		-0.0006	0.0006			
<b>WG400514</b>													
WG400514LRB	LRB	03/25/16 10:30				U	mg/L		-0.00044	0.00044			
WG400514LFB	LFB	03/25/16 10:32	HG160321-2	.002002		.00179	mg/L	89	85	115			
L29385-01LFM	LFM	03/25/16 10:37	HG160321-2	.002002	U	.00177	mg/L	88	85	115			
L29385-01LFMD	LFMD	03/25/16 10:39	HG160321-2	.002002	U	.00179	mg/L	89	85	115	1	20	

**Nickel, total recoverable**

**M200.7 ICP**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG400058</b>													
WG400058ICV	ICV	03/16/16 14:06	II160305-1	2		1.9455	mg/L	97	95	105			
WG400058ICB	ICB	03/16/16 14:12				U	mg/L		-0.024	0.024			
WG399975LRB	LRB	03/16/16 14:24				U	mg/L		-0.0176	0.0176			
WG399975LFB	LFB	03/16/16 14:28	II160302-2	.501		.4711	mg/L	94	85	115			
L29308-01LFM	LFM	03/16/16 14:34	II160302-2	.501	.063	.5259	mg/L	92	70	130			
L29308-01LFMD	LFMD	03/16/16 14:37	II160302-2	.501	.063	.5475	mg/L	97	70	130	4	20	

**Potassium, total recoverable**

**M200.7 ICP**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG400058</b>													
WG400058ICV	ICV	03/16/16 14:06	II160305-1	20		19.91	mg/L	100	95	105			
WG400058ICB	ICB	03/16/16 14:12				U	mg/L		-0.6	0.6			
WG399975LRB	LRB	03/16/16 14:24				U	mg/L		-0.44	0.44			
WG399975LFB	LFB	03/16/16 14:28	II160302-2	100.0377		96.46	mg/L	96	85	115			
L29308-01LFM	LFM	03/16/16 14:34	II160302-2	100.0377	1.8	99.87	mg/L	98	70	130			
L29308-01LFMD	LFMD	03/16/16 14:37	II160302-2	100.0377	1.8	102.2	mg/L	100	70	130	2	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: L29308

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

SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG399803</b>													
WG399803PBW	PBW	03/10/16 11:08				U	mg/L		-20	20			
WG399803LCSW	LCSW	03/10/16 11:08	PCN50242	260		264	mg/L	102	80	120			
L29312-01DUP	DUP	03/10/16 11:37			1710	1710	mg/L				0	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>WG399944</b>													
WG399944ICV	ICV	03/14/16 13:52	MS160302-3	.05		.05088	mg/L	101	90	110			
WG399944ICB	ICB	03/14/16 13:55				U	mg/L		-0.0003	0.0003			
WG399734LRB	LRB	03/14/16 13:58				U	mg/L		-0.00022	0.00022			
WG399734LFB	LFB	03/14/16 14:01	MS160303-3	.0501		.04826	mg/L	96	85	115			
WG399843LRB	LRB	03/14/16 14:18				U	mg/L		-0.00022	0.00022			
WG399843LFB	LFB	03/14/16 14:21	MS160303-3	.0501		.0502	mg/L	100	85	115			
L29303-05LFM	LFM	03/14/16 14:36	MS160303-3	.0501	.0004	.04916	mg/L	97	70	130			
L29303-05LFMD	LFMD	03/14/16 14:39	MS160303-3	.0501	.0004	.04927	mg/L	98	70	130	0	20	

**Sodium, total recoverable**

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG400058</b>													
WG400058ICV	ICV	03/16/16 14:06	II160305-1	100		96.13	mg/L	96	95	105			
WG400058ICB	ICB	03/16/16 14:12				U	mg/L		-0.6	0.6			
WG399975LRB	LRB	03/16/16 14:24				U	mg/L		-0.44	0.44			
WG399975LFB	LFB	03/16/16 14:28	II160302-2	100.0235		93.7	mg/L	94	85	115			
L29308-01LFM	LFM	03/16/16 14:34	II160302-2	100.0235	21.8	116.1	mg/L	94	70	130			
L29308-01LFMD	LFMD	03/16/16 14:37	II160302-2	100.0235	21.8	118.7	mg/L	97	70	130	2	20	

**Sulfate**

D516-02/-07 - Turbidimetric

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG400504</b>													
WG400504ICB	ICB	03/24/16 11:19				U	mg/L		-3	3			
WG400504ICV	ICV	03/24/16 11:19	WI160310-7	20		21	mg/L	105	90	110			
WG400504LFB	LFB	03/24/16 13:18	WI160201-3	10.01		10.5	mg/L	105	90	110			
L29308-01DUP	DUP	03/24/16 13:26			112	113	mg/L				1	20	
L29385-01AS	AS	03/24/16 13:26	SO4TURB5X	10	66.1	76.1	mg/L	100	90	110			

**Thallium, total recoverable**

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG399944</b>													
WG399944ICV	ICV	03/14/16 13:52	MS160302-3	.05		.05318	mg/L	106	90	110			
WG399944ICB	ICB	03/14/16 13:55				U	mg/L		-0.0003	0.0003			
WG399734LRB	LRB	03/14/16 13:58				U	mg/L		-0.00022	0.00022			
WG399734LFB	LFB	03/14/16 14:01	MS160303-3	.0501		.05039	mg/L	101	85	115			
WG399843LRB	LRB	03/14/16 14:18				U	mg/L		-0.00022	0.00022			
WG399843LFB	LFB	03/14/16 14:21	MS160303-3	.0501		.0513	mg/L	102	85	115			
L29303-05LFM	LFM	03/14/16 14:36	MS160303-3	.0501	U	.05173	mg/L	103	70	130			
L29303-05LFMD	LFMD	03/14/16 14:39	MS160303-3	.0501	U	.05111	mg/L	102	70	130	1	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L29308**

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG400208</b>													
WG400208ICV	ICV	03/18/16 16:10	MS160302-3	.05		.05167	mg/L	103	90	110			
WG400208ICB	ICB	03/18/16 16:13				U	mg/L		-0.0003	0.0003			
WG400208LFB	LFB	03/18/16 16:16	MS160303-3	.05		.05199	mg/L	104	85	115			
L29397-01AS	AS	03/18/16 16:37	MS160303-3	.05	.0372	.09179	mg/L	109	70	130			
L29397-01ASD	ASD	03/18/16 16:40	MS160303-3	.05	.0372	.09138	mg/L	108	70	130	0	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG400058</b>													
WG400058ICV	ICV	03/16/16 14:06	II160305-1	2		1.971	mg/L	99	95	105			
WG400058ICB	ICB	03/16/16 14:12				U	mg/L		-0.015	0.015			
WG399975LRB	LRB	03/16/16 14:24				U	mg/L		-0.011	0.011			
WG399975LFB	LFB	03/16/16 14:28	II160302-2	.501		.4966	mg/L	99	85	115			
L29308-01LFM	LFM	03/16/16 14:34	II160302-2	.501	U	.4975	mg/L	99	70	130			
L29308-01LFMD	LFMD	03/16/16 14:37	II160302-2	.501	U	.5094	mg/L	102	70	130	2	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG400058</b>													
WG400058ICV	ICV	03/16/16 14:06	II160305-1	2		1.914	mg/L	96	95	105			
WG400058ICB	ICB	03/16/16 14:12				U	mg/L		-0.03	0.03			
WG399975LRB	LRB	03/16/16 14:24				U	mg/L		-0.022	0.022			
WG399975LFB	LFB	03/16/16 14:28	II160302-2	.4995		.49	mg/L	98	85	115			
L29308-01LFM	LFM	03/16/16 14:34	II160302-2	.4995	.32	.778	mg/L	94	70	130			
L29308-01LFMD	LFMD	03/16/16 14:37	II160302-2	.4995	.32	.798	mg/L	98	70	130	3	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: L29308

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L29308-01	WG399852	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).



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

Project ID:

Sample ID: CANYON 1

Locator:

ACZ Sample ID: **L29308-01**

Date Sampled: 03/08/16 0:00

Date Received: 03/09/16

Sample Matrix: Ground Water

Gross Alpha, dissolved  
M900.0

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha, dissolved	03/15/16 0:21		12	5.1	3.2	pCi/L		tjr

Radium 226, dissolved  
M903.1

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	03/21/16 0:04		2.6	0.21	0.18	pCi/L		kls

Radium 228, dissolved  
M904.0

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, dissolved	03/24/16 16:48		0.14	0.44	0.46	pCi/L		tjr

Uranium, Isotopic dissolved  
Eichrom ACW03

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Uranium 234	03/15/16 0:15		2.1	2.1	0.91	pCi/L	*	djc
Uranium 235	03/15/16 0:15		0.11	0.66	0.91	pCi/L	*	djc
Uranium 238	03/15/16 0:15		3.04	2.2	0.91	pCi/L	*	djc

Arizona license number: AZ0102



Report Header Explanations

Table with 2 columns: Term and Definition. Includes terms like Batch, Error(+/-), Found, Limit, LCL, LLD, PCN/SCN, PQL, QC, Rec, RER, RPD, UCL, and Sample.

QC Sample Types

Table with 4 columns: Code, Description, Code, Description. Includes DUP, LCSS, LCSW, MS/MSD, PBS, and PBW.

QC Sample Type Explanations

Table with 2 columns: Term and Explanation. Includes Blanks, Control Samples, Duplicates, and Matrix Spikes.

ACZ Qualifiers (Qual)

Table with 2 columns: Qualifier and Description. Includes H: Analysis exceeded method hold time.

Method Prefix Reference

Table with 2 columns: Prefix and Reference. Includes M, SM, D, RP, and 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: L29308

**Gross Alpha, dissolved** M900.0 **Units: pCi/L**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG400037</b>																
WG399747PBW	PBW	03/15/16				0.68	1.2	-2	0.68	1.2	120	83	133	2.4		
WG399747LCSW	LCSW	03/15/16	PCN50101	100		10	1.8	120	10	1.8	120	83	133			
L29285-01DUP	DUP-RER	03/15/16			-0.79	0.59	1.3	-27	0.74	1.2				0.55	2	
L29316-02DUP	DUP-RER	03/15/16			13	4.7	2.8	6.9	3.7	2.8				1.02	2	
L29316-01MS	MS	03/15/16	PCN50101	100	5.4	3.3	2.8	90	13	3.5	85	83	133			

**Radium 226, dissolved** M903.1 **Units: pCi/L**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG400333</b>																
WG400016PBW	PBW	03/21/16				0.13	0.4	.12	0.13	0.4	90	43	148	0.8		
WG400016LCSW	LCSW	03/21/16	PCN49536	20		0.49	0.07	18	0.49	0.07	90	43	148			
L29308-01DUP	DUP-RER	03/21/16			2.6	0.21	0.18	2.9	0.23	0.12				0.96	2	
L29388-01DUP	DUP-RER	03/21/16			1.4	0.23	0.43	1.7	0.18	0.25				1.03	2	
L29390-01MS	MS	03/21/16	PCN49536	20	0.13	0.1	0.1	20	0.58	0.23	99	43	148			

**Radium 228, dissolved** M904.0 **Units: pCi/L**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG400586</b>																
WG400097PBW	PBW	03/24/16				0.23	0.26	-.13	0.23	0.26	85	47	123	0.52		
WG400097LCSW	LCSW	03/24/16	PCN48442	17.72		1.1	0.47	15	1.1	0.47	85	47	123			
L29390-01MS	MS	03/25/16	PCN48442	17.71	0.33	0.44	0.45	13	1	0.46	72	47	123			
L29369-03DUP	DUP-RER	03/25/16			0.1	0.41	0.44	.24	0.4	0.41				0.24	2	
L29257-01DUP	DUP-RER	03/25/16			-0.01	0.39	0.42	.24	0.42	0.44				0.44	2	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: L29308

**Uranium 234**

Eichrom ACW03

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG400143</b>																
WG399869PBW	PBW	03/15/16				0.78	0.79	.45	0.78	0.79	97	77	158			
WG399869LCSW	LCSW	03/15/16	PCN47919	196		11	1.3	190	11	1.3	97	77	122			
L29308-01DUP	DUP-RER	03/15/16			2.1	2.1	0.91	4.5	1.5	0.88				0.93	2	
L29351-01DUP	DUP-RER	03/15/16			13	2.7	0.9	12	2.4	0.85				0.28	2	
L29351-01MS	MS	03/15/16	PCN47919	196	13	2.7	0.9	200	12	1.4	95	77	122			

**Uranium 235**

Eichrom ACW03

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG400143</b>																
WG399869PBW	PBW	03/15/16				0.46	0.79	.36	0.46	0.79						
WG399869LCSW	LCSW	03/15/16	PCN47919	8.96		2.6	1.3	9.1	2.6	1.3	102	42	136			
L29308-01DUP	DUP-RER	03/15/16			0.11	0.66	0.91	-1	0.47	0.88				0.26	2	
L29351-01DUP	DUP-RER	03/15/16			0.31	0.9	0.9	0	0.29	0.85				0.33	2	
L29351-01MS	MS	03/15/16	PCN47919	8.96	0.31	0.9	0.9	9.1	2.7	1.4	98	42	136			

**Uranium 238**

Eichrom ACW03

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG400143</b>																
WG399869PBW	PBW	03/15/16				0.66	0.79	.51	0.66	0.79						
WG399869LCSW	LCSW	03/15/16	PCN47919	195		12	1.3	202	12	1.3	104	87	124			
L29308-01DUP	DUP-RER	03/15/16			3.04	2.2	0.91	4.29	1.5	0.88				0.47	2	
L29351-01DUP	DUP-RER	03/15/16			7.42	2.5	0.9	8.61	2	0.85				0.37	2	
L29351-01MS	MS	03/15/16	PCN47919	195	7.42	2.5	0.9	198	12	1.4	98	87	124			

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

ACZ Project ID: **L29308**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
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No extended qualifiers associated with this analysis

Energy Fuels Resources (USA) Inc.

ACZ Project ID: L29308

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



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

ACZ Project ID: L29308  
 Date Received: 03/09/2016 09:30  
 Received By: kmo  
 Date Printed: 3/9/2016

**Receipt Verification**

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form 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 form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples? A change was made in the report to and invoice to section prior to ACZ custody.	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 form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? <sup>1</sup>	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**

**Client Contact Remarks**

**Shipping Containers**

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
3711	0.1	<=6.0	15	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.

Energy Fuels Resources (USA) Inc.

ACZ Project ID: L29308

Date Received: 03/09/2016 09:30

Received By: kmo

Date Printed: 3/9/2016

<sup>1</sup> The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).





# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Phoenix  
4625 East Cotton Ctr Blvd  
Suite 189  
Phoenix, AZ 85040  
Tel: (602)437-3340

TestAmerica Job ID: 550-59995-1  
Client Project/Site: Canyon Mine

For:  
Energy Fuels Resources (USA) Inc.  
225 Union Blvd  
Suite 600  
Lakewood, Colorado 80228

Attn: Kathy Weinel



Authorized for release by:  
4/15/2016 2:21:04 PM

Susan Armijo, Project Manager II  
(602)659-7664  
[susan.armijo@testamericainc.com](mailto:susan.armijo@testamericainc.com)

### LINKS

Review your project  
results through

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Expert**

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[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Definitions/Glossary

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

### Qualifiers

#### Metals

Qualifier	Qualifier Description
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
ER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

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**Job ID: 550-59995-1**

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**Laboratory: TestAmerica Phoenix**

**Narrative**

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**Job Narrative  
550-59995-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 3/9/2016 9:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5° C.

**Receipt Exceptions**

Insufficient sample volume was provided for the following sample for the Total Uranium Isotope analysis: Canyon 1 (550-59995-1). The client was notified and instructed the laboratory to use the field filtered gallon container for the Uranium Isotopes analysis.

**HPLC/IC**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**Metals**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**Field Service / Mobile Lab**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**General Chemistry**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**Lab Admin**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Sample Summary

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

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<b>.b Sample ID</b>	<b>Client Sample ID</b>	<b>Matrix</b>	<b>Collected</b>	<b>Received</b>
550-59995-1	Canyon 1	Water	03/08/16 08:00	03/09/16 09:50
550-59995-2	Canyon 1	Water	03/08/16 08:00	03/09/16 09:50

## Detection Summary

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

**Client Sample ID: Canyon 1**

**Lab Sample ID: 550-59995-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	110		2.0		mg/L	1		300.0	Total/NA
Barium	0.053		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	64		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.42		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	39		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.014		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.066		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	1.5		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	21		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.34		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0078		0.00050		mg/L	1		200.8 LL	Total/NA
Antimony	0.0038		0.0025		mg/L	1		200.8 LL	Total/NA
Selenium	0.0050		0.00050		mg/L	1		200.8 LL	Total/NA
Thallium	0.0018		0.00010		mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	430		20		mg/L	1		SM 2540C	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity as CaCO3	220		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	220		6.0		mg/L	1		SM 2320B	Total/NA

**Client Sample ID: Canyon 1**

**Lab Sample ID: 550-59995-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	0.0093		0.00010		mg/L	1		200.8 LL	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Phoenix

# Client Sample Results

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

**Client Sample ID: Canyon 1**

**Lab Sample ID: 550-59995-1**

Date Collected: 03/08/16 08:00

Matrix: Water

Date Received: 03/09/16 09:50

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			03/10/16 23:29	1
Sulfate	110		2.0		mg/L			03/10/16 23:29	1

**Method: 200.7 Rev 4.4 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.053		0.010		mg/L		03/15/16 08:22	03/16/16 15:06	1
Beryllium	ND		0.0010		mg/L		03/15/16 08:22	03/16/16 15:06	1
Cadmium	ND		0.0010		mg/L		03/15/16 08:22	03/16/16 15:06	1
Calcium	64		2.0		mg/L		03/15/16 08:22	03/16/16 15:06	1
Chromium	ND		0.010		mg/L		03/15/16 08:22	03/16/16 15:06	1
Copper	ND		0.010		mg/L		03/15/16 08:22	03/16/16 15:06	1
Iron	0.42		0.10		mg/L		03/15/16 08:22	03/16/16 15:06	1
Lead	ND		0.015		mg/L		03/15/16 08:22	03/16/16 15:06	1
Magnesium	39		2.0		mg/L		03/15/16 08:22	03/16/16 15:06	1
Manganese	0.014		0.010		mg/L		03/15/16 08:22	03/16/16 15:06	1
Nickel	0.066		0.010		mg/L		03/15/16 08:22	03/16/16 15:06	1
Potassium	1.5		0.50		mg/L		03/15/16 08:22	03/16/16 15:06	1
Sodium	21		0.50		mg/L		03/15/16 08:22	03/16/16 15:06	1
Vanadium	ND		0.010		mg/L		03/15/16 08:22	03/16/16 15:06	1
Zinc	0.34		0.050		mg/L		03/15/16 08:22	03/16/16 15:06	1

**Method: 200.8 LL - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0078		0.00050		mg/L		03/16/16 09:00	03/23/16 15:04	1
Antimony	0.0038		0.0025		mg/L		03/16/16 09:00	03/23/16 15:04	1
Selenium	0.0050		0.00050		mg/L		03/16/16 09:00	03/23/16 15:04	1
Thallium	0.0018		0.00010		mg/L		03/16/16 09:00	03/23/16 15:04	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00050		mg/L		03/14/16 15:36	03/15/16 16:03	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		20		mg/L			03/15/16 15:32	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	220		6.0		mg/L			03/22/16 12:15	1
Bicarbonate Alkalinity as CaCO3	220		6.0		mg/L			03/22/16 12:15	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			03/22/16 12:15	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			03/22/16 12:15	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			03/22/16 12:15	1

**Client Sample ID: Canyon 1**

**Lab Sample ID: 550-59995-2**

Date Collected: 03/08/16 08:00

Matrix: Water

Date Received: 03/09/16 09:50

**Method: 200.8 LL - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	0.0093		0.00010		mg/L		03/14/16 12:11	03/22/16 09:55	1

TestAmerica Phoenix



## QC Sample Results

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-85470/2

Matrix: Water

Analysis Batch: 85470

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Fluoride	ND		0.40		mg/L			03/10/16 17:33	1
Sulfate	ND		2.0		mg/L			03/10/16 17:33	1

Lab Sample ID: LCS 550-85470/5

Matrix: Water

Analysis Batch: 85470

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	20.8		mg/L		104	90 - 110

Lab Sample ID: LCSD 550-85470/6

Matrix: Water

Analysis Batch: 85470

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
Fluoride	4.00	4.06		mg/L		101	90 - 110	0	20
Sulfate	20.0	20.8		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-60047-A-1 MS

Matrix: Water

Analysis Batch: 85470

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	23		20.0	43.8		mg/L		103	80 - 120

Lab Sample ID: 550-60047-A-1 MSD

Matrix: Water

Analysis Batch: 85470

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
										RPD	Limit
Fluoride	3.1		4.00	7.23		mg/L		104	80 - 120	1	20
Sulfate	23		20.0	43.8		mg/L		103	80 - 120	0	20

### Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-85587/1-A

Matrix: Water

Analysis Batch: 85751

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 85587

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	ND		0.010		mg/L		03/15/16 08:22	03/16/16 14:43	1
Beryllium	ND		0.0010		mg/L		03/15/16 08:22	03/16/16 14:43	1
Cadmium	ND		0.0010		mg/L		03/15/16 08:22	03/16/16 14:43	1
Calcium	ND		2.0		mg/L		03/15/16 08:22	03/16/16 14:43	1
Chromium	ND		0.010		mg/L		03/15/16 08:22	03/16/16 14:43	1
Copper	ND		0.010		mg/L		03/15/16 08:22	03/16/16 14:43	1
Iron	ND		0.10		mg/L		03/15/16 08:22	03/16/16 14:43	1

TestAmerica Phoenix

## QC Sample Results

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

### Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 550-85587/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 85751

Prep Batch: 85587

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lead	ND		0.015		mg/L		03/15/16 08:22	03/16/16 14:43	1
Magnesium	ND		2.0		mg/L		03/15/16 08:22	03/16/16 14:43	1
Manganese	ND		0.010		mg/L		03/15/16 08:22	03/16/16 14:43	1
Nickel	ND		0.010		mg/L		03/15/16 08:22	03/16/16 14:43	1
Potassium	ND		0.50		mg/L		03/15/16 08:22	03/16/16 14:43	1
Sodium	ND		0.50		mg/L		03/15/16 08:22	03/16/16 14:43	1
Vanadium	ND		0.010		mg/L		03/15/16 08:22	03/16/16 14:43	1
Zinc	ND		0.050		mg/L		03/15/16 08:22	03/16/16 14:43	1

Lab Sample ID: LCS 550-85587/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 85751

Prep Batch: 85587

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Barium	1.00	0.995		mg/L		100	85 - 115
Beryllium	1.00	0.983		mg/L		98	85 - 115
Cadmium	1.00	0.992		mg/L		99	85 - 115
Calcium	21.0	21.1		mg/L		101	85 - 115
Chromium	1.00	1.00		mg/L		100	85 - 115
Copper	1.00	0.974		mg/L		97	85 - 115
Iron	1.00	1.02		mg/L		102	85 - 115
Lead	1.00	0.983		mg/L		98	85 - 115
Magnesium	21.0	20.8		mg/L		99	85 - 115
Manganese	1.00	0.991		mg/L		99	85 - 115
Nickel	1.00	1.02		mg/L		102	85 - 115
Potassium	20.0	19.9		mg/L		100	85 - 115
Sodium	20.0	18.8		mg/L		94	85 - 115
Vanadium	1.00	1.00		mg/L		100	85 - 115
Zinc	1.00	1.04		mg/L		104	85 - 115

Lab Sample ID: LCSD 550-85587/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 85751

Prep Batch: 85587

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits	RPD	Limit
		Result	Qualifier						
Barium	1.00	0.991		mg/L		99	85 - 115	0	20
Beryllium	1.00	0.993		mg/L		99	85 - 115	1	20
Cadmium	1.00	0.994		mg/L		99	85 - 115	0	20
Calcium	21.0	21.3		mg/L		101	85 - 115	1	20
Chromium	1.00	1.00		mg/L		100	85 - 115	0	20
Copper	1.00	0.970		mg/L		97	85 - 115	0	20
Iron	1.00	1.03		mg/L		103	85 - 115	0	20
Lead	1.00	0.983		mg/L		98	85 - 115	0	20
Magnesium	21.0	20.9		mg/L		100	85 - 115	1	20
Manganese	1.00	1.00		mg/L		100	85 - 115	1	20
Nickel	1.00	1.02		mg/L		102	85 - 115	1	20
Potassium	20.0	20.1		mg/L		100	85 - 115	1	20
Sodium	20.0	18.9		mg/L		95	85 - 115	0	20
Vanadium	1.00	1.00		mg/L		100	85 - 115	0	20

TestAmerica Phoenix

# QC Sample Results

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 550-85587/3-A

Matrix: Water

Analysis Batch: 85751

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 85587

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Zinc	1.00	1.04		mg/L		104	85 - 115	0	20

Lab Sample ID: 550-59928-M-1-C MS

Matrix: Water

Analysis Batch: 85751

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 85587

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.10		1.00	1.03		mg/L		93	70 - 130
Beryllium	ND		1.00	0.981		mg/L		98	70 - 130
Cadmium	ND		1.00	0.971		mg/L		97	70 - 130
Calcium	250	M3	21.0	255	M3	mg/L		23	70 - 130
Chromium	ND		1.00	0.958		mg/L		95	70 - 130
Copper	ND		1.00	0.985		mg/L		98	70 - 130
Iron	ND		1.00	1.04		mg/L		102	70 - 130
Lead	ND		1.00	0.960		mg/L		96	70 - 130
Magnesium	41		21.0	59.9		mg/L		91	70 - 130
Manganese	ND		1.00	0.951		mg/L		95	70 - 130
Nickel	ND		1.00	0.967		mg/L		96	70 - 130
Potassium	4.5		20.0	24.6		mg/L		101	70 - 130
Sodium	150	M3	20.0	162	M3	mg/L		51	70 - 130
Vanadium	ND		1.00	0.981		mg/L		97	70 - 130
Zinc	ND		1.00	0.990		mg/L		99	70 - 130

Lab Sample ID: 550-59928-M-1-D MSD

Matrix: Water

Analysis Batch: 85751

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 85587

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.10		1.00	1.09		mg/L		98	70 - 130	5	20
Beryllium	ND		1.00	0.984		mg/L		98	70 - 130	0	20
Cadmium	ND		1.00	1.02		mg/L		102	70 - 130	5	20
Calcium	250	M3	21.0	260	M3	mg/L		43	70 - 130	2	20
Chromium	ND		1.00	1.00		mg/L		100	70 - 130	5	20
Copper	ND		1.00	1.03		mg/L		103	70 - 130	5	20
Iron	ND		1.00	1.00		mg/L		98	70 - 130	3	20
Lead	ND		1.00	0.982		mg/L		98	70 - 130	2	20
Magnesium	41		21.0	59.8		mg/L		91	70 - 130	0	20
Manganese	ND		1.00	0.997		mg/L		100	70 - 130	5	20
Nickel	ND		1.00	0.991		mg/L		99	70 - 130	2	20
Potassium	4.5		20.0	25.2		mg/L		104	70 - 130	2	20
Sodium	150	M3	20.0	165	M3	mg/L		67	70 - 130	2	20
Vanadium	ND		1.00	1.03		mg/L		102	70 - 130	5	20
Zinc	ND		1.00	1.01		mg/L		101	70 - 130	2	20

TestAmerica Phoenix

# QC Sample Results

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

## Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-85549/1-A  
Matrix: Water  
Analysis Batch: 85990

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 85549

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Uranium	ND		0.00010		mg/L		03/14/16 12:11	03/22/16 09:18	1

Lab Sample ID: LCS 550-85549/2-A  
Matrix: Water  
Analysis Batch: 85990

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 85549

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

Lab Sample ID: LCSD 550-85549/3-A  
Matrix: Water  
Analysis Batch: 85990

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 85549

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit

Lab Sample ID: 550-59794-A-1-E MS  
Matrix: Water  
Analysis Batch: 85990

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 85549

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits

Lab Sample ID: 550-59794-A-1-F MSD  
Matrix: Water  
Analysis Batch: 85990

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 85549

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit

Lab Sample ID: MB 550-85674/1-A  
Matrix: Water  
Analysis Batch: 86116

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 85674

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		0.00050		mg/L		03/16/16 09:00	03/23/16 14:52	1
Antimony	ND		0.0025		mg/L		03/16/16 09:00	03/23/16 14:52	1
Selenium	ND		0.00050		mg/L		03/16/16 09:00	03/23/16 14:52	1
Thallium	ND		0.00010		mg/L		03/16/16 09:00	03/23/16 14:52	1

Lab Sample ID: LCS 550-85674/2-A  
Matrix: Water  
Analysis Batch: 86116

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 85674

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.0970		mg/L		97	85 - 115
Selenium	0.100	0.0946		mg/L		95	85 - 115
Thallium	0.100	0.102		mg/L		102	85 - 115

TestAmerica Phoenix

## QC Sample Results

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

### Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 550-85674/3-A  
Matrix: Water  
Analysis Batch: 86116

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 85674

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.100	0.0982		mg/L		98	85 - 115	4	20
Antimony	0.100	0.0962		mg/L		96	85 - 115	1	20
Selenium	0.100	0.0968		mg/L		97	85 - 115	2	20
Thallium	0.100	0.100		mg/L		100	85 - 115	2	20

Lab Sample ID: 550-60010-M-1-C MS  
Matrix: Water  
Analysis Batch: 86116

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 85674

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0014		0.100	0.0938		mg/L		92	70 - 130		
Antimony	ND		0.100	0.0951		mg/L		95	70 - 130		
Selenium	0.0012		0.100	0.0917		mg/L		91	70 - 130		
Thallium	ND		0.100	0.0910		mg/L		91	70 - 130		

Lab Sample ID: 550-60010-M-1-D MSD  
Matrix: Water  
Analysis Batch: 86116

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 85674

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0014		0.100	0.0966		mg/L		95	70 - 130	3	20
Antimony	ND		0.100	0.0961		mg/L		96	70 - 130	1	20
Selenium	0.0012		0.100	0.0931		mg/L		92	70 - 130	1	20
Thallium	ND		0.100	0.0928		mg/L		93	70 - 130	2	20

### Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 550-85569/1-A  
Matrix: Water  
Analysis Batch: 85650

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 85569

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00050		mg/L		03/14/16 15:36	03/15/16 15:31	1

Lab Sample ID: LCS 550-85569/2-A  
Matrix: Water  
Analysis Batch: 85650

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 85569

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0100	0.0107		mg/L		107	80 - 120		

Lab Sample ID: LCSD 550-85569/3-A  
Matrix: Water  
Analysis Batch: 85650

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 85569

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0100	0.0110		mg/L		110	80 - 120	3	20

TestAmerica Phoenix

## QC Sample Results

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

### Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 550-59967-C-1-B MS

Matrix: Water

Analysis Batch: 85650

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 85569

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.0100	0.0106		mg/L		106	75 - 125

Lab Sample ID: 550-59967-C-1-C MSD

Matrix: Water

Analysis Batch: 85650

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 85569

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.0100	0.00974		mg/L		97	75 - 125	8	20

### Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-86014/1

Matrix: Water

Analysis Batch: 86014

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			03/22/16 12:15	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			03/22/16 12:15	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			03/22/16 12:15	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			03/22/16 12:15	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			03/22/16 12:15	1

Lab Sample ID: LCS 550-86014/2

Matrix: Water

Analysis Batch: 86014

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity as CaCO3	250	252		mg/L		101	90 - 110

Lab Sample ID: LCSD 550-86014/14

Matrix: Water

Analysis Batch: 86014

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3	250	252		mg/L		101	90 - 110	0	20

Lab Sample ID: 550-59995-1 DU

Matrix: Water

Analysis Batch: 86014

Client Sample ID: Canyon 1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity as CaCO3	220		220		mg/L		0.9	20
Bicarbonate Alkalinity as CaCO3	220		220		mg/L		0.9	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20
Alkalinity, Phenolphthalein	ND		ND		mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND		ND		mg/L		NC	20

TestAmerica Phoenix



## QC Sample Results

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

### Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-85637/1

Matrix: Water

Analysis Batch: 85637

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20		mg/L			03/15/16 15:32	1

Lab Sample ID: LCS 550-85637/2

Matrix: Water

Analysis Batch: 85637

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	988		mg/L		99	90 - 110

Lab Sample ID: LCSD 550-85637/3

Matrix: Water

Analysis Batch: 85637

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	994		mg/L		99	90 - 110	1	10

Lab Sample ID: 550-59928-J-1 DU

Matrix: Water

Analysis Batch: 85637

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1600		1630		mg/L		0.4	10

## QC Association Summary

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

### HPLC/IC

#### Analysis Batch: 85470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-59995-1	Canyon 1	Total/NA	Water	300.0	
550-60047-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-60047-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
LCS 550-85470/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-85470/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-85470/2	Method Blank	Total/NA	Water	300.0	

### Metals

#### Prep Batch: 85549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-59794-A-1-E MS	Matrix Spike	Total/NA	Water	200.8	
550-59794-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	
550-59995-2	Canyon 1	Dissolved	Water	200.8	
LCS 550-85549/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-85549/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
MB 550-85549/1-A	Method Blank	Total/NA	Water	200.8	

#### Prep Batch: 85569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-59967-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	
550-59967-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	
550-59995-1	Canyon 1	Total/NA	Water	7470A	
LCS 550-85569/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 550-85569/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	
MB 550-85569/1-A	Method Blank	Total/NA	Water	7470A	

#### Prep Batch: 85587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-59928-M-1-C MS	Matrix Spike	Total/NA	Water	200.7	
550-59928-M-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
550-59995-1	Canyon 1	Total/NA	Water	200.7	
LCS 550-85587/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-85587/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-85587/1-A	Method Blank	Total/NA	Water	200.7	

#### Analysis Batch: 85650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-59967-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	85569
550-59967-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	85569
550-59995-1	Canyon 1	Total/NA	Water	7470A	85569
LCS 550-85569/2-A	Lab Control Sample	Total/NA	Water	7470A	85569
LCSD 550-85569/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	85569
MB 550-85569/1-A	Method Blank	Total/NA	Water	7470A	85569

#### Prep Batch: 85674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-59995-1	Canyon 1	Total/NA	Water	200.8	
550-60010-M-1-C MS	Matrix Spike	Total/NA	Water	200.8	
550-60010-M-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

TestAmerica Phoenix

## QC Association Summary

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

### Metals (Continued)

#### Prep Batch: 85674 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-85674/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-85674/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
MB 550-85674/1-A	Method Blank	Total/NA	Water	200.8	

#### Analysis Batch: 85751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-59928-M-1-C MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	85587
550-59928-M-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	85587
550-59995-1	Canyon 1	Total/NA	Water	200.7 Rev 4.4	85587
LCS 550-85587/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	85587
LCSD 550-85587/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	85587
MB 550-85587/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	85587

#### Analysis Batch: 85990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-59794-A-1-E MS	Matrix Spike	Total/NA	Water	200.8 LL	85549
550-59794-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	85549
550-59995-2	Canyon 1	Dissolved	Water	200.8 LL	85549
LCS 550-85549/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	85549
LCSD 550-85549/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	85549
MB 550-85549/1-A	Method Blank	Total/NA	Water	200.8 LL	85549

#### Analysis Batch: 86116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-59995-1	Canyon 1	Total/NA	Water	200.8 LL	85674
550-60010-M-1-C MS	Matrix Spike	Total/NA	Water	200.8 LL	85674
550-60010-M-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	85674
LCS 550-85674/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	85674
LCSD 550-85674/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	85674
MB 550-85674/1-A	Method Blank	Total/NA	Water	200.8 LL	85674

### General Chemistry

#### Analysis Batch: 85637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-59928-J-1 DU	Duplicate	Total/NA	Water	SM 2540C	
550-59995-1	Canyon 1	Total/NA	Water	SM 2540C	
LCS 550-85637/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-85637/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
MB 550-85637/1	Method Blank	Total/NA	Water	SM 2540C	

#### Analysis Batch: 86014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-59995-1	Canyon 1	Total/NA	Water	SM 2320B	
550-59995-1 DU	Canyon 1	Total/NA	Water	SM 2320B	
LCS 550-86014/2	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-86014/14	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
MB 550-86014/1	Method Blank	Total/NA	Water	SM 2320B	

TestAmerica Phoenix

## Lab Chronicle

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

**Client Sample ID: Canyon 1**

**Lab Sample ID: 550-59995-1**

Date Collected: 03/08/16 08:00

Matrix: Water

Date Received: 03/09/16 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	85470	03/10/16 23:29	KLH	TAL PHX
Total/NA	Prep	200.7			85587	03/15/16 08:22	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	85751	03/16/16 15:06	AJC	TAL PHX
Total/NA	Prep	200.8			85674	03/16/16 09:00	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	86116	03/23/16 15:04	TEK	TAL PHX
Total/NA	Prep	7470A			85569	03/14/16 15:36	JTG	TAL PHX
Total/NA	Analysis	7470A		1	85650	03/15/16 16:03	JTG	TAL PHX
Total/NA	Analysis	SM 2320B		1	86014	03/22/16 12:15	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	85637		ATH	TAL PHX
					(Start)	03/15/16 15:32		
					(End)	03/16/16 16:55		

**Client Sample ID: Canyon 1**

**Lab Sample ID: 550-59995-2**

Date Collected: 03/08/16 08:00

Matrix: Water

Date Received: 03/09/16 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	200.8			85549	03/14/16 12:11	SGO	TAL PHX
Dissolved	Analysis	200.8 LL		1	85990	03/22/16 09:55	TEK	TAL PHX

**Laboratory References:**

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

# Certification Summary

Client: Energy Fuels Resources (USA) Inc.  
 Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

## Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-16

Analysis Method	Prep Method	Matrix	Analyte

## Laboratory: TestAmerica Richland

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		187436	10-01-17
Arizona	State Program	9	AZ0709	07-02-16
California	State Program	9	2425	05-31-16
Colorado	State Program	8	N/A	09-30-16
Florida	NELAP	4	E87829	06-30-16
Hawaii	State Program	9	N/A	01-09-17
L-A-B	DoD ELAP		L2291	06-30-17
Michigan	State Program	5	N/A	08-13-16
Nevada	State Program	9	WA011162015-1	07-31-16
New Mexico	State Program	6	WA00023	01-09-17
Oregon	NELAP	10	WA100002	01-09-17
Pennsylvania	NELAP	3	68-04849	08-31-16
Tennessee	State Program	4	TN04011	01-09-17
Texas	NELAP	6	T104704493-15-6	12-31-16
USDA	Federal		P330-14-00085	03-06-17
Virginia	State Program	3	460273	03-14-17
Washington	State Program	10	C565	08-13-16
Washington (CLIA)	State Program	10	50D0661626	06-30-17

## Method Summary

Client: Energy Fuels Resources (USA) Inc.  
Project/Site: Canyon Mine

TestAmerica Job ID: 550-59995-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
7470A	Mercury (CVAA)	SW846	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
Gross Alpha - Dissolved	General Sub Contract Method	NONE	TAL RCH
Radium 226/228 - Dissolved	General Sub Contract Method	NONE	TAL RCH
Total Uranium Isotopes - Total	General Sub Contract Method	NONE	TAL RCH

### Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

NONE = NONE

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131



**Analytical Data Package Prepared For**  
**TestAmerica Phoenix**

**Radiochemical Analysis By**  
**TestAmerica Inc**

**2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.**

**Assigned Laboratory Code: TARL**

**Data Package Contains \_\_\_\_\_ Pages**

**Report No.: 68427**

**Results in this report relate only to the sample(s) analyzed.**

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
51102		Canyon 1(550-59995-2)	J6C140409-1	M8CFR1AH	9M8CFR10	6075019
		Canyon 1(550-59995-2)	J6C140409-1	M8CFR2AF	9M8CFR20	6075020
		Canyon 1(550-59995-2)	J6C140409-1	M8CFR1AE	9M8CFR10	6075022
		Canyon 1(550-59995-2)	J6C140409-1	M8CFR3AG	9M8CFR30	6092016

1



## Certificate of Analysis

April 14, 2016

**April 15, 2016**

TestAmerica Phoenix  
4645 E Cotton Center Blvd. Suite 189  
Phoenix, AZ 85040

Attention: Susan Armijo

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Date Received at Lab	:	March 11, 2016
Project Name/Number	:	Canyon Mine/55003233
Sample Type	:	One (1) Water
SDG Number	:	51102
Job Number	:	550-59995-1
Chain of Custody	:	550-12745.1
AZ Certification	:	AZ0709

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### CASE NARRATIVE

***This report has been revised to change naming of target analyte from TOTAL ALPHA RADIUM to Ra-226. All amended information in this case narrative will be bolded, underlined, and italicized.***

#### **I. Introduction**

On March 11, 2016, one water sample was received at the TestAmerica Richland laboratory for radiochemical analysis. Upon receipt, the sample was assigned the TestAmerica identification number as described on the cover page of the Analytical Data Package. The sample was assigned to Lot Number J6C140409.

#### **II. Sample Receipt**

The sample was received in good condition and no anomalies were noted during check-in.

#### **III. Analytical Results/Methodology**

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information; analytical results and the appropriate associated statistical uncertainties.

TestAmerica Phoenix  
April 14, 2016  
April 15, 2016

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The analysis requested was:

**Alpha Spectroscopy**

Uranium-234, 235, 238 by method RL-ALP-004

**Gas Proportional Counter**

Gross Alpha by method RL-GPC-001

Radium-228 by method RL-RA-001

Total Alpha Radium (Ra-226) by method RL-RA-002

**IV. Quality Control**

The analytical result for each analysis performed includes a minimum of one laboratory control sample (LCS), and one reagent blank sample analysis. Any exceptions have been noted in the "Comments" section.

**V. Comments**

**Alpha Spectroscopy**

Uranium-234, 235, 238:

The LCS, batch blank, sample, and sample duplicate results are within acceptance limits.

**Gas Proportional Counters**

Gross Alpha:

The MDA for the sample and its associated QC exceed the CRDL due to aliquot reduction based on weight screening. The activity is greater than the MDA and CRDL. Data is accepted. Except as noted, the LCS, batch blank, sample, matrix spike, and sample duplicate results are within acceptance limits.

Radium-228:

The LCS, batch blank, sample, and sample duplicate results are within acceptance limits.

Total Alpha Radium (Ra-226):

The LCS, batch blank, sample, and sample duplicate results are within acceptance limits.

I certify that this Certificate of Analysis is in compliance with the SOW and/or NELAC, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

---

Steven Campbell  
Project Manager Assistant

### Drinking Water Method Cross References

DRINKING WATER ASTM METHOD CROSS REFERENCES		
Referenced Method	Isotope(s)	TestAmerica Richland's SOP No.
EPA 901.1	Cs-134, I-131	RL-GAM-001
EPA 900.0	Alpha & Beta	RL-GPC-001
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002
EPA 903.1	Ra-226	RL-RA-001
EPA 904.0	Ra-228	RL-RA-001
EPA 905.0	Sr-89/90	RL-GPC-003
ASTM D5174	Uranium	RL-KPA-003
EPA 906.0	Tritium	RL-LSC-005

**Results in this report relate only to the sample(s) analyzed.**

### Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship,  $R = \text{constants} * f(x,y,z,...)$ . The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties ( $u_i$ ) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty ( $u_c$ ) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value ( $S/\sqrt{n}$ ), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

## Report Definitions

<b>Action Lev</b>	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
<b>Batch</b>	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
<b>Bias</b>	Defined by the equation $(\text{Result}/\text{Expected})-1$ as defined by ANSI N13.30.
<b>COC No</b>	Chain of Custody Number assigned by the Client or TestAmerica.
<b>Count Error (#s)</b>	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
<b>CSU (#s) <i>u<sub>c</sub> Combined Standard Uncert.</i></b>	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, <i>u<sub>c</sub> the combined standard uncertainty</i> . The uncertainty is absolute and in the same units as the result.
<b>(#s), Coverage Factor</b>	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
<b>CRDL (RL)</b>	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
<b>Lc</b>	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. $Lc = (1.645 * \text{Sqrt}(2 * (\text{BkgndCnt}/\text{BkgndCntMin})/\text{SCntMin})) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$ . For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
<b>Lot-Sample No</b>	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
<b>MDC MDA</b>	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. $MDC = (4.65 * \text{Sqrt}((\text{BkgndCnt}/\text{BkgndCntMin})/\text{SCntMin}) + 2.71/\text{SCntMin}) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$ . For LSC methods the batch blank is used as a measure of the background variability.
<b>Primary Detector</b>	The instrument identifier associated with the analysis of the sample aliquot.
<b>Ratio U-234/U-238</b>	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
<b>Rst/MDC</b>	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
<b>Rst/TotUcert</b>	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
<b>Report DB No</b>	Sample Identifier used by the report system. The number is based upon the first five digits of the <b>Work Order</b> Number.
<b>RER</b>	The equation Replicate Error Ratio = $(S-D)/[\text{sqrt}(\text{TPUs}^2 + \text{TPUd}^2)]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
<b>SDG</b>	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
<b>Sum Rpt Alpha Spec Rst(s)</b>	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
<b>Work Order</b>	The LIMS software assign test specific identifier.
<b>Yield</b>	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Sample Results Summary

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 68427

SDG No: 51102

Batch	Client Id Work Order	Parameter	Result +- CSU ( 2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RER2
6075019	RL-ALP-009								
	Canyon 1(550-59995-2)								
	M8CFR1AH	U-234	3.98 +- 0.66		pCi/L	79%	0.0431	0.2	
		U-235	0.0717 +- 0.051	J	pCi/L	79%	0.0431	0.2	
		U-238	3.12 +- 0.54		pCi/L	79%	0.0431	0.2	
	Canyon 1(550-59995-2) DUP								
	M8CFR1AJ	U-234	3.75 +- 0.62		pCi/L	84%	0.0521	0.2	0.5
		U-235	0.119 +- 0.062	J	pCi/L	84%	0.0386	0.2	1.2
		U-238	3.13 +- 0.53		pCi/L	84%	0.0462	0.2	0.0
6075020	RL-RA-002								
	Canyon 1(550-59995-2)								
	M8CFR2AF	RA-226	2.24 +- 0.82		pCi/L	91%	0.578		
	Canyon 1(550-59995-2) DUP								
	M8CFR2AK	RA-226	2.44 +- 0.86		pCi/L	86%	0.554		0.3
6075021	RL-RA-001								
	Canyon 1 (550-60325-2) DUP								
	M8D001AE	Ra-228	0.531 +- 0.30	U	pCi/L	72%	0.531	1.0	2.4
6075022	RL-GPC-001								
	Canyon 1(550-59995-2)								
	M8CFR1AE	Alpha	7.30 +- 3.2		pCi/L	100%	3.49	3.0	
	Canyon 1(550-59995-2) DUP								
	M8CFR1AN	Alpha	11.3 +- 4.3		pCi/L	100%	4.23	3.0	1.5
6092016	RL-RA-001								
	Canyon 1(550-59995-2)								
	M8CFR3AG	Ra-228	0.415 +- 0.23	U	pCi/L	80%	0.415	1.0	
	No. of Results: 12								

TestAmerica Inc RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUD))] as defined by ICPT BOA.  
 rptTALRchSaSummary2 V5.5.1 J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.  
 A2002 U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.



**QC Results Summary**

**TestAmerica Inc TARL**

Ordered by Method, Batch No, QC Type,.

Report No. : 68427

SDG No.: 51102

Batch	Work Order	Parameter	Result +- CSU ( 2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
<b>RL-ALP-009</b>									
6075019 BLANK QC,									
	M8CLC1AA	U-234	0.0464 +- 0.023	U	pCi/L	85%			0.0464
		U-235	0.0387 +- 0.016	U	pCi/L	85%			0.0387
		U-238	0.0387 +- 0.022	U	pCi/L	85%			0.0387
6075019 LCS,									
	M8CLC1AC	U-234	15.1 +- 2.2		pCi/L	84%	102%	0.0	0.0443
		U-238	15.5 +- 2.2		pCi/L	84%	100%	0.0	0.037
<b>RL-RA-002</b>									
6075020 BLANK QC,									
	M8CLD2AA	RA-226	0.537 +- 0.18	U	pCi/L	105%			0.537
6075020 LCS,									
	M8CLD1AC	RA-226	5.44 +- 1.5		pCi/L	92%	87%	-0.1	0.602
<b>RL-RA-001</b>									
6075021 BLANK QC,									
	M8CLE1AA	Ra-228	0.640 +- 0.40	U	pCi/L	83%			0.64
6075021 LCS,									
	M8CLE1AC	Ra-228	5.15 +- 0.82		pCi/L	88%	106%	0.1	0.553
<b>RL-GPC-001</b>									
6075022 MATRIX SPIKE, Canyon 1(550-59995-2)									
	M8CFR1AM	Alpha	95.8 +- 24.0		pCi/L	100%	93%	-0.1	3.79
6075022 BLANK QC,									
	M8CLF1AA	Alpha	0.824 +- 0.45	U	pCi/L	100%			0.824
6075022 LCS,									
	M8CLF1AC	Alpha	36.2 +- 8.3		pCi/L	100%	87%	-0.1	0.616
<b>No. of Results: 12</b>									

**FORM I**

Date: 15-Apr-16

**SAMPLE RESULTS**

Lab Name: TestAmerica Inc  
 Lot-Sample No.: J6C140409-1  
 Client Sample ID: Canyon 1(550-59995-2)

SDG: 51102  
 Report No.: 68427  
 COC No.:

Collection Date: 3/8/2016 8:00:00 AM  
 Received Date: 3/11/2016 11:15:00 AM

Matrix: WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error ( 2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL) Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6075019 RL-ALP-009 Work Order: M8CFR1AH Report DB ID: 9M8CFR10											
U-234	3.98		0.36	0.66	0.0431 pCi/L	0.018	79% (92.3) 0.2 (12.1)	4/6/16 03:43 a		0.2017 L	ALP423
U-235	0.0717	J	0.050	0.051	0.0431 pCi/L	0.018	79% (1.7) 0.2 (2.8)	4/6/16 03:43 a		0.2017 L	ALP423
U-238	3.12		0.32	0.54	0.0431 pCi/L	0.018	79% (72.3) 0.2 (11.6)	4/6/16 03:43 a		0.2017 L	ALP423
Batch: 6075020 RL-RA-002 Work Order: M8CFR2AF Report DB ID: 9M8CFR20 Ratio U-234/238 = 1.3											
RA-226	2.24		0.68	0.82	0.578 pCi/L	0.232	91% (3.9) (5.5)	3/31/16 10:28 a		0.5164 L	GPC22A
Batch: 6075022 RL-GPC-001 Work Order: M8CFR1AE Report DB ID: 9M8CFR10											
Alpha	7.30		2.7	3.2	3.49 pCi/L	1.56	100% (2.1) (4.5)	3/30/16 05:46 p		0.0814 L	GPC22A
Batch: 6092016 RL-RA-001 Work Order: M8CFR3AG Report DB ID: 9M8CFR30											
Ra-228	0.415	U	0.23	0.23	0.415 pCi/L	0.174	80% 0.26 1.0 0.95	4/4/16 07:04 p		1.0565 L	GPC2A

No. of Results: 6 Comments:

TestAmerica Inc MDC|MDA, Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.  
 U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdi, Total Uncert, RDL or not identified by gamma scan software.  
 V5.5.1 A2002

**FORM II**

Date: 15-Apr-16

**DUPLICATE RESULTS**

Lab Name: TestAmerica Inc  
 Lot-Sample No.: J6C210415-2  
 Client Sample ID: Canyon 1 (550-60325-2) DUP  
 SDG: 51133  
 Report No.: 68427  
 COC No.:  
 Collection Date: 3/14/2016 11:50:00 AM  
 Received Date: 3/16/2016 10:05:00 AM  
 Matrix: WATER

Parameter	Result, Orig Rst	Qual	Count Error ( 2 s)	CSU ( 2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6075021	RL-RA-001								Orig Sa DB ID: 9M8D0010			
Ra-228	0.531	U	0.30	0.30	0.531	pCi/L	72%	0.39	3/31/16 04:49 p	1.0301	1.0301	GPC2B
	0.758	J	RER2 2.4			1.0	(1.4)				L	

No. of Results: 1      Comments:

TestAmerica Inc RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUD))] as defined by ICPT BOA.  
 MDC(MDA,Le - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.  
 U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Ugcert, RDL or not identified by gamma scan software.

FORM II

Date: 15-Apr-16

DUPLICATE RESULTS

Lab Name: TestAmerica Inc  
 Lot-Sample No.: J6C140409-1  
 Client Sample ID: Canyon 1(550-59995-2) DUP  
 SDG: 51102  
 Report No.: 68427  
 COC No.:  
 Matrix: WATER  
 Collection Date: 3/8/2016 8:00:00 AM  
 Received Date: 3/11/2016 11:15:00 AM

Parameter	Result, Orig Rst	Qual	Count Error ( 2 s)	CSU ( 2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6075019 RL-ALP-009												
U-234	3.75		0.34	0.62	0.0521	pCi/L	84%	(71.9)	4/6/16 03:43 a	9M8CFR10	0.2045	ALP424
	3.98		RER2 0.5			0.2		(12.2)			L	
U-235	0.119	J	0.060	0.062	0.0386	pCi/L	84%	(3.1)	4/6/16 03:43 a		0.2045	ALP424
	0.0717	J	RER2 1.2			0.2		(3.8)			L	
U-238	3.13		0.31	0.53	0.0462	pCi/L	84%	(67.7)	4/6/16 03:43 a		0.2045	ALP424
	3.12		RER2 0.0			0.2		(11.8)			L	

Ratio U-234/238 = 1.2

Alpha Spec Result Sum = 7.0E+00

Batch:	6075020	RL-RA-002	Work Order:	M8CFR2AK	Report DB ID:	M8CFR2KR	Orig Sa DB ID:	9M8CFR20
RA-226	2.44		0.86	0.554	pCi/L	86%	(4.4)	3/31/16 10:28 a
	2.24		RER2 0.3			(5.7)		

Alpha Spec Result Sum = 7.0E+00

Batch:	6075022	RL-GPC-001	Work Order:	M8CFR1AN	Report DB ID:	M8CFR1NR	Orig Sa DB ID:	9M8CFR10
Alpha	11.3		4.3	4.23	pCi/L	100%	(2.7)	3/30/16 05:46 p
	7.3		RER2 1.5			(5.2)		

No. of Results: 5 Comments:

TestAmerica Inc RER2 - Replicate Error Ratio = (S-D)/sqrt((sq(TPUs)+sq(TPUd))) as defined by ICPT BOA.  
 MDC|MDA, Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.  
 5.1 A2002

FORM II

Date: 15-Apr-16

BLANK RESULTS

Lab Name: TestAmerica Inc

SDG: 51102

Matrix: WATER

Report No.: 68427

Parameter	Result	Qual	Count Error ( 2 s)	CSU ( 2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotalCt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
<b>Batch: 6075019</b> RL-ALP-009												
Work Order: M8CLC1AA Report DB ID: M8CLC1AB												
U-234	0.0464	U	0.023	0.023	0.0464	pCi/L	85%	0.19	4/6/16 03:44 a	0.2162	L	ALP425
					0.0196	0.2		0.79				
U-235	0.0387	U	0.016	0.016	0.0387	pCi/L	85%	0.19	4/6/16 03:44 a	0.2162	L	ALP425
					0.0162	0.2		0.93				
U-238	0.0387	U	0.022	0.022	0.0387	pCi/L	85%	0.31	4/6/16 03:44 a	0.2162	L	ALP425
					0.0162	0.2		(1.1)				
Ratio U-234/238 = 0.8												
<b>Batch: 6075022</b> RL-GPC-001												
Work Order: M8CLF1AA Report DB ID: M8CLF1AB												
Alpha	0.824	U	0.45	0.45	0.824	pCi/L	100%	-0.06	3/30/16 05:46 p	0.2001	L	GPC23A
					0.372	3.0		-0.21				
<b>Batch: 6075020</b> RL-RA-002												
Work Order: M8CLD2AA Report DB ID: M8CLD2AB												
RA-226	0.537	U	0.17	0.18	0.537	pCi/L	105%	-0.42	3/31/16 10:28 a	0.5021	L	GPC22C
					0.213			-(2.5)				
<b>Batch: 6075021</b> RL-RA-001												
Work Order: M8CLE1AA Report DB ID: M8CLE1AB												
Ra-228	0.640	U	0.35	0.40	0.64	pCi/L	83%	0.85	3/31/16 04:48 p	1.0006	L	GPC1C
					0.291	1.0		(2.7)				

No. of Results: 6 Comments:

TestAmerica Inc MDCIMDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 15-Apr-16

LCS RESULTS

Lab Name: TestAmerica Inc

SDG: 51102

Matrix: WATER

Report No.: 68427

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 6075019 RL-ALP-009													
U-234	15.1		0.66	2.2	0.0443	pCi/L	84%	14.9	0.079	102%	4/6/16 03:45 a	0.2175	ALP431
Rec Limits:							70	130	0.0				
U-238	15.5		0.67	2.2	0.037	pCi/L	84%	15.6	0.082	100%	4/6/16 03:45 a	0.2175	ALP431
Rec Limits:							70	130	0.0				
Batch: 6075022 RL-GPC-001													
Alpha	36.2		2.1	8.3	0.616	pCi/L	100%	41.6	0.43	87%	3/30/16 05:46 p	0.2011	GPC23C
Rec Limits:							70	130	-0.1				
Batch: 6075020 RL-RA-002													
RA-226	5.44		1.0	1.5	0.602	pCi/L	92%	6.27	0.064	87%	3/31/16 06:47 a	0.5082	GPC22A
Rec Limits:							70	130	-0.1				
Batch: 6075021 RL-RA-001													
Ra-228	5.15		0.57	0.82	0.553	pCi/L	88%	4.85	0.056	106%	3/31/16 04:48 p	1.0035	GPC1D
Rec Limits:							70	130	0.1				

No. of Results: 5      Comments:



FORM II

Date: 15-Apr-16

MATRIX SPIKE RESULTS

Lab Name: TestAmerica Inc      SDG: 51102      Matrix: WATER  
 Lot-Sample No.: J6C140409-1, Canyon 1(550-59995-2)      Report No.: 68427

Parameter	Spike Result, Orig Rst	Count Error (2 s)	CSU (2 s)	MDC/JMDA	Rpt Unit	Yield	Recovery	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 6075022	95.8	7.9	24.0	3.79	pCi/L	100%	93.05%	103.0	3/30/16 05:46 p	0.0811	RL-GPC-001
Alpha	7.3							1.1		L	GPC22

Number of Results: 1

Comments:

TestAmerica Inc      RER - Replicate Error Ratio = (S-D)/[sqrt((sq(TPUs)+sq(TPUd)))] as defined by ICPT BOA.  
 Bias - (Result/Expected)-1 as defined by ANSI N13.30.  
 CrptSTLRchMIs  
 V5.5.1 A2002

# Chain of Custody Record



THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information (Sub Contract Lab)</b> Client Contact: Bousseilaire, Jonathan Shipping/Receiving: jonathan.bousseilaire@testamericainc.com Company: TestAmerica Laboratories, Inc. Address: 2800 George Washington Way, City: Richland State, Zip: WA, 99352 Phone: 509-375-3131 (Tel) 509-375-5990 (Fax) Email:		Lab P/N: Bousseilaire, Jonathan E-Mail: jonathan.bousseilaire@testamericainc.com Carrier Tracking No(s): COC No: 550-12745-1 Page: Page 1 of 1 Job #: 550-59995-1	
Due Date Requested: 3/25/2016 TAT Requested (days): PO #: W/O #: Project #: 55003233 SSON#:	<b>Analysis Requested</b> SUB (Gross Alpha - Dissolved) / Gross Alpha - Dissolved SUB (Radium 226/228 - EPA 903.0/GPC / EPA 904.0/GPC - Dissolved) / Radium isotopes - HASL 300 Mod U-02 / Alpha Spc - Total / Total Uranium isotopes - Total Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No) Total Number of Containers:		
<b>Sample Identification - Client ID (Lab ID)</b> Canyon 1 (550-59995-2) M 8 25R 4	Sample Date: 3/8/16 Sample Time: 08:00 Arizona	Sample Type (C=Comp, G=grab) Matrix (Water, Soil, On-water, Air) Preservation Code:	Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify) Other:
<b>Special Instructions/Note:</b> <div style="text-align: right;">  J6C140409         </div>			
<b>Possible Hazard Identification</b> Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
<b>Chain of Custody</b> Empty Kit Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date/Time: 3/9/16 17:00 Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Custody Seals Intact: _____ Custody Seal No.: _____ Yes A No			

THE LEADER IN ENVIRONMENTAL TESTING

Date/Time Received: 3-11-14/1115 Container GM Screen Result: (Airlock) 0 cpm Initials [B]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials [B]

Client: TA-PH SDG #: 51102 SAF #: NA [B]

Lot Number: J6C140409

Chain of Custody # 58 3-11-14 550-12745.1

Shipping Container ID or Air Bill Number : NA [B]

Samples received inside shipping container/cooler/box Yes [B] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

- 1. Custody Seals on shipping container intact? Yes [B] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [B] No [ ] No Custody Seal [ ]
3. Cooler temperature: °C NA [B]
4. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [B]

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [B] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 1
7. Containers received: 1 x 4L cube

- 8. Sample holding times exceeded? NA [ ] Yes [ ] No [B]
9. Samples have: tape hazard labels custody seals [B] appropriate sample labels
10. Matrix: A (FLT, Wipe, Solid, Soil) [B] I (Water) S (Air, Niosh 7400) T (Biological, Ni-63)

- 11. Samples:
are in good condition are leaking are broken
have air bubbles (Only for samples requiring no head space) Other

Sample pH appropriate for analysis requested Yes [ ] No [B] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO3 added and pH after addition on table)

- 13. Were any anomalies identified in sample receipt? Yes [ ] No [B]
14. Description of anomalies (include sample numbers): NA [B]

15. Sample Location, Sample Collector Listed on COC? \* Yes [ ] No [B]
\*For documentation only. No corrective action needed.

16. Additional Information: w/A

[ ] Client/Courier denied temperature check. [ ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: [Signature] Date: 3-11-14

Client Notification needed? Yes [ ] No [ ] Date:
By:
Person contacted:

[X] No action necessary; process as is
Project Manager [Signature] Date 3-14-14

Lot Number: \_\_\_\_\_

SDG #: \_\_\_\_\_

17. RPL ID # of preservative used S-15-00228

SAMPLE ID	DATE & TIME SAMPLED	DATE & TIME PRESERVED	< 5 DAYS? Y or N	Initial pH	Acid Amt	Final pH
Canyon 1	3-8-16/0700	3-11-16/4:35p	Y	5.5	4mls	<2

Sample Custodian: J Boel

Date: 3-11-16

TestAmerica Phoenix  
 4645 E Cotton Cir Blvd Bldg 3  
 Phoenix, AZ 85040

phone 602.437.3340 fax 623.443.6192

# Chain of Custody Record

59995

TestAmerica  
 THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact: Energy Fuels Resources (USA) Inc. Project Manager: Kathy Weinel  
 225 Union Blvd., Suite 600 Lakewood, CO 80228  
 Phone: 303-389-4134 Fax: 303-389-4134  
 E-Mail Address: kweinel@energyfuels.com or jmassey@energyfuels.com

Site Contact: David Turk Lab Contact: Tina Paulauskas  
 Date: 3/8/16 Carrier: \_\_\_\_\_

Analysis Turnaround Time: \_\_\_\_\_  
 Calendar (C) or Work Days (W) \_\_\_\_\_  
 TAT if different from Below: \_\_\_ 7 days \_\_\_  
 2 weeks  
 1 week  
 2 days  
 1 day

Project Name: Canyon Mine  
 Sample Identification: Canyon 1  
 Sample Date: 3/8/16 Sample Time: 0800 Sample Type: G Matrix: Water # of Cont: 3

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont	Filtered Sample	Sample Specific Notes
-01 Canyon 1	3/8/16	0800	G	Water	3	Gross Alpha, Radium 226 & 228 Total Uranium Isotopes TDS, Alkalinity, Fluoride, Sulfate 200.8 - As, Sb, Se, Tl 7470 - Mercury 200.7 - See Comments ** 200.8 - Dis. Uranium	Quarterly Sample - total constituents (not filtered) Quarterly Sample - filtered/dissolved constituents
-02 Canyon 1	3/8/16	0800	G	Water	2		



Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other \_\_\_\_\_  
 Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  
 Special Instructions/OCC Requirements & Comments: \*\* Ba, Be, Cd, Ca, Cr, Cu, Fe, Pb, Mg, Mn, Ni, K, Na, V, Zn  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Use For \_\_\_\_\_ Months

2.1500

Relinquished by: *[Signature]* Company: EFR Canyon Date/Time: 3/8/16 0830  
 Relinquished by: *[Signature]* Company: EFR Date/Time: 3/8/16/1000  
 Relinquished by: *[Signature]* Company: EFR Date/Time: 3/8/16/0830  
 Received by: *[Signature]* Company: EFR Date/Time: 3/8/16/0830  
 Received by: *[Signature]* Company: EFR Date/Time: 3/8/16/0830

## Login Sample Receipt Checklist

Client: Energy Fuels Resources (USA) Inc.

Job Number: 550-59995-1

**Login Number: 59995**

**List Source: TestAmerica Phoenix**

**List Number: 1**

**Creator: Culshaw, Chad D**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ ( $1/4"$ ).	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

August 03, 2016

Report to:  
Kathy Weinel  
Energy Fuels Resources (USA) Inc.  
225 Union Blvd. , Suite 600  
Lakewood, CO 80228

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

cc: David Turk

Project ID:  
ACZ Project ID: L31380

Kathy Weinel:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 01, 2016. This project has been assigned to ACZ's project number, L31380. 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 L31380. 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 September 02, 2016. 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.

August 03, 2016

Project ID:

ACZ Project ID: L31380

**Sample Receipt**

ACZ Laboratories, Inc. (ACZ) received 1 ground water sample from Energy Fuels Resources (USA) Inc. on July 1, 2016. The sample was received in good condition. Upon receipt, the sample custodian removed the sample from the cooler, inspected the contents, and logged the sample into ACZ's computerized Laboratory Information Management System (LIMS). The sample was assigned ACZ LIMS project number L31380. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

**Holding Times**

All analyses were performed within EPA recommended holding times.

**Sample Analysis**

This sample was 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 Radium-228 results for L31380-01 have been qualified with the N1 flag on the extended qualifier report. The chemist noted that the preparatory blank sample (PBW) exceeded acceptance limits with results greater than 2 times the LLD, likely indicating low-level procedural contamination which should be taken into account when assessing results. Insufficient sample remains to perform reanalysis.

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

Project ID:  
Sample ID: CANYON 1

ACZ Sample ID: **L31380-01**  
Date Sampled: **06/28/16 07:00**  
Date Received: **07/01/16**  
Sample Matrix: **Ground Water**

**Inorganic Prep**

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Recoverable Digestion	M200.2 ICP-MS								07/08/16 10:31	scp
Total Recoverable Digestion	M200.2 ICP								07/08/16 8:33	aeb

**Metals Analysis**

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total recoverable	M200.8 ICP-MS	1	0.0053		*	mg/L	0.0004	0.002	07/12/16 14:23	enb
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0063			mg/L	0.0002	0.001	07/11/16 12:19	msh
Barium, total recoverable	M200.7 ICP	1	0.036			mg/L	0.003	0.02	07/11/16 10:34	aeb
Beryllium, total recoverable	M200.8 ICP-MS	1		U		mg/L	0.00005	0.0003	07/11/16 12:19	msh
Cadmium, total recoverable	M200.8 ICP-MS	1	0.0001	B	*	mg/L	0.0001	0.0005	07/11/16 12:19	msh
Calcium, total recoverable	M200.7 ICP	1	63.3			mg/L	0.1	0.5	07/11/16 10:34	aeb
Chromium, total recoverable	M200.7 ICP	1		U		mg/L	0.01	0.05	07/11/16 10:34	aeb
Copper, total recoverable	M200.7 ICP	1		U		mg/L	0.01	0.05	07/11/16 10:34	aeb
Iron, total recoverable	M200.7 ICP	1	0.04	B		mg/L	0.02	0.05	07/11/16 10:34	aeb
Lead, total recoverable	M200.8 ICP-MS	1	0.0002	B		mg/L	0.0001	0.0005	07/11/16 12:19	msh
Magnesium, total recoverable	M200.7 ICP	1	39.3			mg/L	0.2	1	07/11/16 10:34	aeb
Manganese, total recoverable	M200.7 ICP	1	0.006	B		mg/L	0.005	0.03	07/11/16 10:34	aeb
Mercury, total	M245.1 CVAA	1		U		mg/L	0.0002	0.001	07/15/16 10:35	scp
Nickel, total recoverable	M200.7 ICP	1	0.057			mg/L	0.008	0.04	07/11/16 10:34	aeb
Potassium, total recoverable	M200.7 ICP	1	1.5			mg/L	0.2	1	07/11/16 10:34	aeb
Selenium, total recoverable	M200.8 ICP-MS	1	0.0040			mg/L	0.0001	0.0003	07/11/16 12:19	msh
Sodium, total recoverable	M200.7 ICP	1	19.3			mg/L	0.2	1	07/11/16 10:34	aeb
Thallium, total recoverable	M200.8 ICP-MS	1	0.0018			mg/L	0.0001	0.0005	07/11/16 12:19	msh
Uranium, dissolved	M200.8 ICP-MS	1	0.0056			mg/L	0.0001	0.0005	07/12/16 16:08	enb
Vanadium, total recoverable	M200.7 ICP	1		U		mg/L	0.005	0.03	07/11/16 10:34	aeb
Zinc, total recoverable	M200.7 ICP	1	0.17			mg/L	0.01	0.05	07/11/16 10:34	aeb

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

Project ID:  
 Sample ID: CANYON 1

ACZ Sample ID: **L31380-01**  
 Date Sampled: **06/28/16 07:00**  
 Date Received: **07/01/16**  
 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	193		*	mg/L	2	20	07/06/16 0:00	emk
Carbonate as CaCO3		1	10.5	B	*	mg/L	2	20	07/06/16 0:00	emk
Hydroxide as CaCO3		1		U	*	mg/L	2	20	07/06/16 0:00	emk
Total Alkalinity		1	204		*	mg/L	2	20	07/06/16 0:00	emk
Conductivity @25C	SM2510B	1	650		*	umhos/cm	1	10	07/06/16 18:04	emk
Fluoride	SM4500F-C	1	0.15	B	*	mg/L	0.05	0.3	07/06/16 16:45	sck
Residue, Filterable (TDS) @180C	SM2540C	1	396		*	mg/L	10	20	07/01/16 16:13	sck
Sulfate	D516-02/-07 - Turbidimetric	5	103		*	mg/L	5	25	07/20/16 14:36	bsu

**Arizona license number: AZ0102**

**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 unless omitted or equal to the PQL (see comment #5). 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. Synonymous with the EPA term "minimum level".
<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: **L31380**

**Alkalinity as CaCO3**

**SM2320B - Titration**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405772</b>													
WG405772PBW1	PBW	07/06/16 14:15				2.5	mg/L		-20	20			
WG405772LCSW3	LCSW	07/06/16 14:34	WC160624-3	820.0001		789	mg/L	96	90	110			
WG405772LCSW6	LCSW	07/06/16 17:38	WC160624-3	820.0001		794	mg/L	97	90	110			
WG405772PBW2	PBW	07/06/16 17:46				U	mg/L		-20	20			
L31403-01DUP	DUP	07/06/16 19:19			61.9	62.1	mg/L				0	20	
WG405772LCSW9	LCSW	07/06/16 21:04	WC160624-3	820.0001		797	mg/L	97	90	110			
WG405772PBW3	PBW	07/06/16 21:13				U	mg/L		-20	20			
WG405772LCSW12	LCSW	07/07/16 0:22	WC160624-3	820.0001		801	mg/L	98	90	110			
WG405772PBW4	PBW	07/07/16 0:30				U	mg/L		-20	20			
WG405772LCSW15	LCSW	07/07/16 4:25	WC160624-3	820.0001		807	mg/L	98	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>WG406113</b>													
WG406113ICV	ICV	07/12/16 13:45	MS160601-2	.02		.01952	mg/L	98	90	110			
WG406113ICB	ICB	07/12/16 13:48				.0005	mg/L		-0.0012	0.0012			
WG405821LRB	LRB	07/12/16 13:51				U	mg/L		-0.00088	0.00088			
WG405821LFB	LFB	07/12/16 13:53	MS160531-3	.009980001		.01126	mg/L	113	85	115			
WG405923LRB	LRB	07/12/16 14:12				U	mg/L		-0.00088	0.00088			
WG405923LFB	LFB	07/12/16 14:20	MS160531-3	.009980001		.01113	mg/L	112	85	115			
L31417-02LFM	LFM	07/12/16 14:28	MS160531-3	.009980001	U	U	mg/L	0	70	130			M4
L31417-02LFMD	LFMD	07/12/16 14:31	MS160531-3	.009980001	U	U	mg/L	0	70	130		20	M4

**Arsenic, total recoverable**

**M200.8 ICP-MS**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG406010</b>													
WG406010ICV	ICV	07/11/16 12:09	MS160601-2	.05		.05396	mg/L	108	90	110			
WG406010ICB	ICB	07/11/16 12:12				U	mg/L		-0.0006	0.0006			
WG405923LRB	LRB	07/11/16 12:14				U	mg/L		-0.00044	0.00044			
WG405923LFB	LFB	07/11/16 12:16	MS160531-3	.0501		.04929	mg/L	98	85	115			
L31417-02LFM	LFM	07/11/16 12:25	MS160531-3	.0501	.0005	.05475	mg/L	108	70	130			
L31417-02LFMD	LFMD	07/11/16 12:28	MS160531-3	.0501	.0005	.05121	mg/L	101	70	130	7	20	

**Barium, total recoverable**

**M200.7 ICP**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405996</b>													
WG405996ICV	ICV	07/11/16 10:09	II160624-1	2		1.972	mg/L	99	95	105			
WG405996ICB	ICB	07/11/16 10:15				U	mg/L		-0.009	0.009			
WG405901LRB	LRB	07/11/16 10:28				U	mg/L		-0.0066	0.0066			
WG405901LFB	LFB	07/11/16 10:31	II160614-2	.5005		.4808	mg/L	96	85	115			
L31380-01LFM	LFM	07/11/16 10:37	II160614-2	.5005	.036	.5129	mg/L	95	70	130			
L31380-01LFMD	LFMD	07/11/16 10:41	II160614-2	.5005	.036	.5116	mg/L	95	70	130	0	20	



Energy Fuels Resources (USA) Inc.

ACZ Project ID: L31380

**Beryllium, total recoverable**

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG406010</b>													
WG406010ICV	ICV	07/11/16 12:09	MS160601-2	.05		.049772	mg/L	100	90	110			
WG406010ICB	ICB	07/11/16 12:12				U	mg/L		-0.00015	0.00015			
WG405923LRB	LRB	07/11/16 12:14				U	mg/L		-0.00011	0.00011			
WG405923LFB	LFB	07/11/16 12:16	MS160531-3	.0501		.047162	mg/L	94	85	115			
L31417-02LFM	LFM	07/11/16 12:25	MS160531-3	.0501	U	.0509	mg/L	102	70	130			
L31417-02LFMD	LFMD	07/11/16 12:28	MS160531-3	.0501	U	.04703	mg/L	94	70	130	8	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>WG406010</b>													
WG406010ICV	ICV	07/11/16 12:09	MS160601-2	.05		.05053	mg/L	101	90	110			
WG406010ICB	ICB	07/11/16 12:12				U	mg/L		-0.0003	0.0003			
WG405923LRB	LRB	07/11/16 12:14				U	mg/L		-0.00022	0.00022			
WG405923LFB	LFB	07/11/16 12:16	MS160531-3	.05005		.04688	mg/L	94	85	115			
L31417-02LFM	LFM	07/11/16 12:25	MS160531-3	.05005	.2925	.33046	mg/L	76	70	130			
L31417-02LFMD	LFMD	07/11/16 12:28	MS160531-3	.05005	.2925	.32216	mg/L	59	70	130	3	20	M3

**Calcium, total recoverable**

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405996</b>													
WG405996ICV	ICV	07/11/16 10:09	II160624-1	100		100.9	mg/L	101	95	105			
WG405996ICB	ICB	07/11/16 10:15				U	mg/L		-0.3	0.3			
WG405901LRB	LRB	07/11/16 10:28				U	mg/L		-0.22	0.22			
WG405901LFB	LFB	07/11/16 10:31	II160614-2	68.01588		71.25	mg/L	105	85	115			
L31380-01LFM	LFM	07/11/16 10:37	II160614-2	68.01588	63.3	132.5	mg/L	102	70	130			
L31380-01LFMD	LFMD	07/11/16 10:41	II160614-2	68.01588	63.3	132.6	mg/L	102	70	130	0	20	

**Chromium, total recoverable**

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405996</b>													
WG405996ICV	ICV	07/11/16 10:09	II160624-1	2		1.965	mg/L	98	95	105			
WG405996ICB	ICB	07/11/16 10:15				U	mg/L		-0.03	0.03			
WG405901LRB	LRB	07/11/16 10:28				U	mg/L		-0.022	0.022			
WG405901LFB	LFB	07/11/16 10:31	II160614-2	.5005		.495	mg/L	99	85	115			
L31380-01LFM	LFM	07/11/16 10:37	II160614-2	.5005	U	.496	mg/L	99	70	130			
L31380-01LFMD	LFMD	07/11/16 10:41	II160614-2	.5005	U	.49	mg/L	98	70	130	1	20	

**Conductivity @25C**

SM2510B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405772</b>													
WG405772LCSW2	LCSW	07/06/16 14:20	PCN49501	1409		1510	umhos/cm	107	90	110			
WG405772LCSW5	LCSW	07/06/16 17:25	PCN49501	1409		1480	umhos/cm	105	90	110			
L31403-01DUP	DUP	07/06/16 19:19			488	489	umhos/cm				0	20	
WG405772LCSW8	LCSW	07/06/16 20:51	PCN49501	1409		1460	umhos/cm	104	90	110			
WG405772LCSW11	LCSW	07/07/16 0:09	PCN49501	1409		1440	umhos/cm	102	90	110			
WG405772LCSW14	LCSW	07/07/16 4:13	PCN49501	1409		1400	umhos/cm	99	90	110			

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L31380**

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405996</b>													
WG405996ICV	ICV	07/11/16 10:09	II160624-1	2		1.969	mg/L	98	95	105			
WG405996ICB	ICB	07/11/16 10:15				U	mg/L		-0.03	0.03			
WG405901LRB	LRB	07/11/16 10:28				U	mg/L		-0.022	0.022			
WG405901LFB	LFB	07/11/16 10:31	II160614-2	.501		.493	mg/L	98	85	115			
L31380-01LFM	LFM	07/11/16 10:37	II160614-2	.501	U	.486	mg/L	97	70	130			
L31380-01LFMD	LFMD	07/11/16 10:41	II160614-2	.501	U	.484	mg/L	97	70	130	0	20	

**Fluoride** SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405753</b>													
WG405753ICV	ICV	07/06/16 12:03	WC160620-7	2		1.963	mg/L	98	95	105			
WG405753ICB	ICB	07/06/16 12:08				U	mg/L		-0.15	0.15			
WG405753LFB1	LFB	07/06/16 12:15	WC160419-8	4.995		4.795	mg/L	96	90	110			
WG405753LFB2	LFB	07/06/16 14:53	WC160419-8	4.995		4.708	mg/L	94	90	110			
L31354-02AS	AS	07/06/16 16:19	WC160419-8	4.995	.72	5.476	mg/L	95	90	110			
L31354-02DUP	DUP	07/06/16 16:27			.72	.735	mg/L				2	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405996</b>													
WG405996ICV	ICV	07/11/16 10:09	II160624-1	2		1.974	mg/L	99	95	105			
WG405996ICB	ICB	07/11/16 10:15				U	mg/L		-0.06	0.06			
WG405901LRB	LRB	07/11/16 10:28				U	mg/L		-0.044	0.044			
WG405901LFB	LFB	07/11/16 10:31	II160614-2	1.0017		.976	mg/L	97	85	115			
L31380-01LFM	LFM	07/11/16 10:37	II160614-2	1.0017	.05	.999	mg/L	96	70	130			
L31380-01LFMD	LFMD	07/11/16 10:41	II160614-2	1.0017	.05	.995	mg/L	95	70	130	0	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>WG406010</b>													
WG406010ICV	ICV	07/11/16 12:09	MS160601-2	.05		.05151	mg/L	103	90	110			
WG406010ICB	ICB	07/11/16 12:12				U	mg/L		-0.0003	0.0003			
WG405923LRB	LRB	07/11/16 12:14				U	mg/L		-0.00022	0.00022			
WG405923LFB	LFB	07/11/16 12:16	MS160531-3	.05005		.04648	mg/L	93	85	115			
L31417-02LFM	LFM	07/11/16 12:25	MS160531-3	.05005	.0115	.06093	mg/L	99	70	130			
L31417-02LFMD	LFMD	07/11/16 12:28	MS160531-3	.05005	.0115	.05585	mg/L	89	70	130	9	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405996</b>													
WG405996ICV	ICV	07/11/16 10:09	II160624-1	100		100.23	mg/L	100	95	105			
WG405996ICB	ICB	07/11/16 10:15				U	mg/L		-0.6	0.6			
WG405901LRB	LRB	07/11/16 10:28				U	mg/L		-0.44	0.44			
WG405901LFB	LFB	07/11/16 10:31	II160614-2	49.99998		49.24	mg/L	98	85	115			
L31380-01LFM	LFM	07/11/16 10:37	II160614-2	49.99998	39.3	88.02	mg/L	97	70	130			
L31380-01LFMD	LFMD	07/11/16 10:41	II160614-2	49.99998	39.3	87.88	mg/L	97	70	130	0	20	



Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L31380**

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405996</b>													
WG405996ICV	ICV	07/11/16 10:09	II160624-1	2		1.9003	mg/L	95	95	105			
WG405996ICB	ICB	07/11/16 10:15				U	mg/L		-0.015	0.015			
WG405901LRB	LRB	07/11/16 10:28				U	mg/L		-0.011	0.011			
WG405901LFB	LFB	07/11/16 10:31	II160614-2	.5		.488	mg/L	98	85	115			
L31380-01LFM	LFM	07/11/16 10:37	II160614-2	.5	.006	.4847	mg/L	96	70	130			
L31380-01LFMD	LFMD	07/11/16 10:41	II160614-2	.5	.006	.4854	mg/L	96	70	130	0	20	

**Mercury, total** M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG406196</b>													
WG406196ICV	ICV	07/15/16 10:27	HG160510-2	.005		.00508	mg/L	102	95	105			
WG406196ICB	ICB	07/15/16 10:29				U	mg/L		-0.0002	0.0002			
WG406196LRB	LRB	07/15/16 10:31				U	mg/L		-0.00044	0.00044			
WG406196LFB	LFB	07/15/16 10:33	HG160705-2	.002002		.00183	mg/L	91	85	115			
L31482-07LFM	LFM	07/15/16 10:40	HG160705-2	.002002	U	.0018	mg/L	90	85	115			
L31482-07LFMD	LFMD	07/15/16 10:42	HG160705-2	.002002	U	.00191	mg/L	95	85	115	6	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405996</b>													
WG405996ICV	ICV	07/11/16 10:09	II160624-1	2		1.9862	mg/L	99	95	105			
WG405996ICB	ICB	07/11/16 10:15				.0099	mg/L		-0.024	0.024			
WG405901LRB	LRB	07/11/16 10:28				U	mg/L		-0.0176	0.0176			
WG405901LFB	LFB	07/11/16 10:31	II160614-2	.501		.4887	mg/L	98	85	115			
L31380-01LFM	LFM	07/11/16 10:37	II160614-2	.501	.057	.531	mg/L	95	70	130			
L31380-01LFMD	LFMD	07/11/16 10:41	II160614-2	.501	.057	.5345	mg/L	95	70	130	1	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405996</b>													
WG405996ICV	ICV	07/11/16 10:09	II160624-1	20		20.07	mg/L	100	95	105			
WG405996ICB	ICB	07/11/16 10:15				U	mg/L		-0.6	0.6			
WG405901LRB	LRB	07/11/16 10:28				U	mg/L		-0.44	0.44			
WG405901LFB	LFB	07/11/16 10:31	II160614-2	99.96008		100.4	mg/L	100	85	115			
L31380-01LFM	LFM	07/11/16 10:37	II160614-2	99.96008	1.5	101.8	mg/L	100	70	130			
L31380-01LFMD	LFMD	07/11/16 10:41	II160614-2	99.96008	1.5	101.8	mg/L	100	70	130	0	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405631</b>													
WG405631PBW	PBW	07/01/16 16:00				U	mg/L		-20	20			
WG405631LCSW	LCSW	07/01/16 16:02	PCN51032	260		256	mg/L	98	80	120			
L31390-06DUP	DUP	07/01/16 16:31			1180	1150	mg/L				3	10	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: L31380

**Selenium, total recoverable**

**M200.8 ICP-MS**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG406010</b>													
WG406010ICV	ICV	07/11/16 12:09	MS160601-2	.05		.05047	mg/L	101	90	110			
WG406010ICB	ICB	07/11/16 12:12				U	mg/L		-0.0003	0.0003			
WG405923LRB	LRB	07/11/16 12:14				U	mg/L		-0.00022	0.00022			
WG405923LFB	LFB	07/11/16 12:16	MS160531-3	.0501		.04745	mg/L	95	85	115			
L31417-02LFM	LFM	07/11/16 12:25	MS160531-3	.0501	.0051	.0553	mg/L	100	70	130			
L31417-02LFMD	LFMD	07/11/16 12:28	MS160531-3	.0501	.0051	.05252	mg/L	95	70	130	5	20	

**Sodium, total recoverable**

**M200.7 ICP**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405996</b>													
WG405996ICV	ICV	07/11/16 10:09	II160624-1	100		98.98	mg/L	99	95	105			
WG405996ICB	ICB	07/11/16 10:15				U	mg/L		-0.6	0.6			
WG405901LRB	LRB	07/11/16 10:28				U	mg/L		-0.44	0.44			
WG405901LFB	LFB	07/11/16 10:31	II160614-2	100.0149		99.61	mg/L	100	85	115			
L31380-01LFM	LFM	07/11/16 10:37	II160614-2	100.0149	19.3	119.2	mg/L	100	70	130			
L31380-01LFMD	LFMD	07/11/16 10:41	II160614-2	100.0149	19.3	119.1	mg/L	100	70	130	0	20	

**Sulfate**

**D516-02/-07 - Turbidimetric**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG406704</b>													
WG406704ICB	ICB	07/20/16 13:54				U	mg/L		-3	3			
WG406704ICV	ICV	07/20/16 13:54	WI160711-2	20		20.1	mg/L	101	90	110			
WG406704LFB	LFB	07/20/16 14:03	WI160201-3	10.01		9.1	mg/L	91	90	110			
L31380-01DUP	DUP	07/20/16 14:37			103	101	mg/L				2	20	
L31516-01AS	AS	07/20/16 14:37	SO4TURB5X	10	68.5	76.8	mg/L	83	90	110			M3

**Thallium, total recoverable**

**M200.8 ICP-MS**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG406010</b>													
WG406010ICV	ICV	07/11/16 12:09	MS160601-2	.05		.0515	mg/L	103	90	110			
WG406010ICB	ICB	07/11/16 12:12				U	mg/L		-0.0003	0.0003			
WG405923LRB	LRB	07/11/16 12:14				U	mg/L		-0.00022	0.00022			
WG405923LFB	LFB	07/11/16 12:16	MS160531-3	.0501		.04663	mg/L	93	85	115			
L31417-02LFM	LFM	07/11/16 12:25	MS160531-3	.0501	U	.04976	mg/L	99	70	130			
L31417-02LFMD	LFMD	07/11/16 12:28	MS160531-3	.0501	U	.04525	mg/L	90	70	130	9	20	

**Uranium, dissolved**

**M200.8 ICP-MS**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG406115</b>													
WG406115ICV	ICV	07/12/16 15:59	MS160601-2	.05		.0509	mg/L	102	90	110			
WG406115ICB	ICB	07/12/16 16:02				U	mg/L		-0.0003	0.0003			
WG406115LFB	LFB	07/12/16 16:05	MS160531-3	.05		.04707	mg/L	94	85	115			
L31393-02AS	AS	07/12/16 16:17	MS160531-3	.05	.001	.05274	mg/L	103	70	130			
L31393-02ASD	ASD	07/12/16 16:20	MS160531-3	.05	.001	.05199	mg/L	102	70	130	1	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L31380**

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405996</b>													
WG405996ICV	ICV	07/11/16 10:09	II160624-1	2		1.9792	mg/L	99	95	105			
WG405996ICB	ICB	07/11/16 10:15				U	mg/L		-0.015	0.015			
WG405901LRB	LRB	07/11/16 10:28				U	mg/L		-0.011	0.011			
WG405901LFB	LFB	07/11/16 10:31	II160614-2	.501		.4959	mg/L	99	85	115			
L31380-01LFM	LFM	07/11/16 10:37	II160614-2	.501	U	.4926	mg/L	98	70	130			
L31380-01LFMD	LFMD	07/11/16 10:41	II160614-2	.501	U	.4942	mg/L	99	70	130	0	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG405996</b>													
WG405996ICV	ICV	07/11/16 10:09	II160624-1	2		1.932	mg/L	97	95	105			
WG405996ICB	ICB	07/11/16 10:15				U	mg/L		-0.03	0.03			
WG405901LRB	LRB	07/11/16 10:28				U	mg/L		-0.022	0.022			
WG405901LFB	LFB	07/11/16 10:31	II160614-2	.4995		.512	mg/L	103	85	115			
L31380-01LFM	LFM	07/11/16 10:37	II160614-2	.4995	.17	.659	mg/L	98	70	130			
L31380-01LFMD	LFMD	07/11/16 10:41	II160614-2	.4995	.17	.66	mg/L	98	70	130	0	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L31380**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L31380-01	WG406113	Antimony, total recoverable	M200.8 ICP-MS	M4	The spiked sample required a dilution such that the spike recovery calculation does not provide useful information. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG406010	Cadmium, total recoverable	M200.8 ICP-MS	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.
	WG405772	Bicarbonate as CaCO <sub>3</sub>	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO <sub>3</sub>	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Conductivity @25C	SM2510B	Q6	Sample was received above recommended temperature.
	WG405753	Fluoride	SM4500F-C	Q6	Sample was received above recommended temperature.
	WG405772	Hydroxide as CaCO <sub>3</sub>	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG405631	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG406704	Sulfate	D516-02/-07 - 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.
			D516-02/-07 - Turbidimetric	Q6	Sample was received above recommended temperature.
	WG405772	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

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

Project ID:

Sample ID: CANYON 1

Locator:

ACZ Sample ID: **L31380-01**

Date Sampled: 06/28/16 7:00

Date Received: 07/01/16

Sample Matrix: Ground Water

Gross Alpha, dissolved  
M900.0

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha, dissolved	07/11/16 0:28		4.9	3.1	9	pCi/L	*	jjo

Radium 226, dissolved  
M903.1

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/02/16 0:27		1.8	0.17	0.16	pCi/L		mns

Radium 228, dissolved  
M904.0

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, dissolved	07/29/16 15:23		0.23	0.77	0.81	pCi/L	*	jjo

Uranium, Isotopic dissolved  
Eichrom ACW03

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Uranium 234	08/01/16 0:11		2.3	1.3	0.91	pCi/L	*	djc
Uranium 235	08/01/16 0:11		-0.11	0.49	0.91	pCi/L	*	djc
Uranium 238	08/01/16 0:11		2.73	1.4	0.91	pCi/L	*	djc

Arizona license number: AZ0102



**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.
---	-------------------------------------

**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: **L31380**

**Gross Alpha, dissolved** M900.0

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG406065</b>																
WG405663PBW	PBW	07/11/16				0.45	2.4	-65	0.45	2.4	110	83	133	4.8		
WG405663LCSW	LCSW	07/11/16	100			9.2	3.7	110	9.2	3.7	110	83	133			
L31334-02DUP	DUP-RER	07/11/16			1.6	2	3.2	1.9	1.7	4.2				0.11	2	
L31381-01DUP	DUP-RER	07/11/16			0.49	1.6	5.2	2.6	2.5	4.4				0.71	2	
L31381-01MS	MS	07/11/16	100		0.49	1.6	5.2	77	9.5	4.4	77	83	133			M2

**Radium 226, dissolved** M903.1

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG407542</b>																
WG406904PBW	PBW	08/02/16				0.09	0.1	.1	0.09	0.1			0.2			
WG406904LCSW	LCSW	08/02/16	20			0.5	0.19	17	0.5	0.19	85	43	148			
L31153-09DUP	DUP-RER	08/02/16			0.19	0.08	0.24	.15	0.07	0.22				0.37	2	
L31153-10DUP	DUP-RER	08/02/16			0.2	0.11	0.2	.17	0.08	0.19				0.22	2	
L31153-11MS	MS	08/02/16	20		0.12	0.12	0.15	17	0.46	0.12	84	43	148			

**Radium 228, dissolved** M904.0

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG407346</b>																
WG407020PBW	PBW	07/29/16				0.47	0.42	1.3	0.47	0.42			0.84			N1
WG407020LCSW	LCSW	07/29/16	18.86			1.3	0.64	14	1.3	0.64	74	47	123			
L31380-01DUP	DUP-RER	07/29/16			0.23	0.77	0.81	.48	0.75	0.77				0.23	2	
L31183-02MS	MS	07/29/16	18.85		2.4	0.77	0.65	12	1.3	0.74	51	47	123			
L31183-01DUP	DUP-RER	07/29/16			1.7	0.58	0.49	.71	0.85	0.86				0.96	2	





**Laboratories, Inc.**

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

**Radiochemistry QC  
Summary**

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

ACZ Project ID: **L31380**

**Uranium 234**

Eichrom ACW03

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG407458</b>																
WG407022PBW	PBW	08/01/16						.93	0.94	0.9			1.8			
WG407022LCSW	LCSW	08/01/16	PCN50849	196				170	11	1.3	87	77	122			
L31379-01DUP	DUP-RER	08/01/16			1.9	1.6	0.92	2.6	2.7	0.9				0.22	2	
L31379-02MS	MS	08/01/16	PCN50849	196	2.4	1.7	0.88	180	12	1.6	91	77	122			

**Uranium 235**

Eichrom ACW03

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG407458</b>																
WG407022PBW	PBW	08/01/16						-1	0.48	0.9			1.8			
WG407022LCSW	LCSW	08/01/16	PCN50849	8.97				7.7	2.7	1.3	86	42	136			
L31379-01DUP	DUP-RER	08/01/16			0.95	0.91	0.92	-71	1.7	0.9				0.86	2	
L31379-02MS	MS	08/01/16	PCN50849	8.97	-0.4	0.8	0.88	7.7	3	1.6	90	42	136			

**Uranium 238**

Eichrom ACW03

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG407458</b>																
WG407022PBW	PBW	08/01/16						.41	0.81	0.9			1.8			
WG407022LCSW	LCSW	08/01/16	PCN50849	195				174	11	1.3	89	87	124			
L31379-01DUP	DUP-RER	08/01/16			2.01	1.4	0.92	-.96	3.4	0.9				0.81	2	
L31379-02MS	MS	08/01/16	PCN50849	195	1.21	1.4	0.88	194	13	1.6	99	87	124			

**Energy Fuels Resources (USA) Inc.**ACZ Project ID: **L31380**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L31380-01	WG406065	Gross Alpha, dissolved	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG407346	Radium 228, dissolved	M904.0	N1	See Case Narrative.

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

ACZ Project ID: **L31380**

**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

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

ACZ Project ID: L31380  
 Date Received: 07/01/2016 09:48  
 Received By: ddp  
 Date Printed: 7/1/2016

**Receipt Verification**

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form 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 form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples? A change was made in the Copy of Report to: section prior to ACZ custody.	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 form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? <sup>1</sup>	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**

**Client Contact Remarks**

**Shipping Containers**

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
NA24235	16.9	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s) but was thawed by receipt at ACZ.

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

Energy Fuels Resources (USA) Inc.

ACZ Project ID: L31380  
Date Received: 07/01/2016 09:48  
Received By: ddp  
Date Printed: 7/1/2016

<sup>1</sup> The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).



Laboratories, Inc.

L31380

CHAIN of CUSTODY

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

Report to:

Name: Kathy Weinel
Company: Energy Fuels
E-mail: Kweinel@energyfuels.com

Address: 225 Union Blvd, suite 600
Lakewood CO 80228
Telephone: 303 389 4134

Copy of Report to:

Name: David Turk
Company: [crossed out]

E-mail: dturke@energyfuels.com
Telephone: 435 678 4115

Invoice to:

Name: Kathy Weinel
Company: ''
E-mail: ''

Address: ''
Telephone: ''

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: Garin Palmer-Sampler's Site Information State AZ Zip code 86023 Time Zone AZ

\*Sampler's Signature: Garin Palmer
\*I attest to the authenticity and validity of this sample. I understand that intentionally mislabelling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

ANALYSES REQUESTED (attach list or use quote number)

Quote #: Bottle order #: B035564
PO#:
Reporting state for compliance testing:
Check box if samples include NRC licensed material?

Table with columns for # of Containers, Bottle Order #, and multiple analysis columns. Row 1: Canyon 1, 6/28/16 : 0700 W, 6, X

Table with columns for SAMPLE IDENTIFICATION, DATE:TIME, Matrix, # of Containers, Bottle Order #

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

REMARKS

Call Kathy Weinel with any questions.

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

Table with columns: RELINQUISHED BY, DATE:TIME, RECEIVED BY, DATE:TIME. Includes signatures and dates.

L31380 Chain of Custody





ATTACHMENT 1-2  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUNDWATER

See instruction

Description of Sampling Event: Quarterly Canyon Mine Sump Sample (2nd 2016)

Location (well name): Mine Sump discharge

Sampler Name and initials: Garrin Palmer / GP

Field Sample ID: Canyon 1

Date and Time for Purging: NA

and Sampling (if different): NA

Well Purging Equip Used:  pump or  bailer

Well Pump (if other than Bennet): NA

Purging Method Used:  2 casings  3 casings

Sampling Event: Quarterly Mine Sump

Prev. Well Sampled in Sampling Event: NA

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 1000 µMHOS/ cm

Well Depth(0.01ft): 0

Depth to Water Before Purging: 0

Casing Volume (V) 4" Well: 0 (.653h)  
3" Well: 0 (.367h)

Weather Cond.: cloudy

Ext'l Amb. Temp. °C (prior sampling event) 19°

Time	<u>0659</u>	Gal. Purged	<u>0</u>
Conductance	<u>651</u>	pH	<u>7.48</u>
Temp. °C	<u>17.50</u>		
Redox Potential Eh (mV)	<u>421</u>		
Turbidity (NTU)	<u>0</u>		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			



Volume of Water Purged  gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.  
 $S/60 =$

Time to evacuate two casing volumes (2V)  
 $T = 2V/Q =$

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Labs

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	<input type="checkbox"/>	<input type="checkbox"/>	3x40 ml	<input type="checkbox"/>	<input type="checkbox"/>	HCL	<input type="checkbox"/>	<input type="checkbox"/>
Nutrients	<input type="checkbox"/>	<input type="checkbox"/>	100 ml	<input type="checkbox"/>	<input type="checkbox"/>	H2SO4	<input type="checkbox"/>	<input type="checkbox"/>
Heavy Metals	<input type="checkbox"/>	<input type="checkbox"/>	250 ml	<input type="checkbox"/>	<input type="checkbox"/>	HNO3	<input type="checkbox"/>	<input type="checkbox"/>
All Other Non Radiologics	<input type="checkbox"/>	<input type="checkbox"/>	250 ml	<input type="checkbox"/>	<input type="checkbox"/>	No Preserv.	<input type="checkbox"/>	<input type="checkbox"/>
Gross Alpha	<input type="checkbox"/>	<input type="checkbox"/>	1,000 ml	<input type="checkbox"/>	<input type="checkbox"/>	HNO3	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	Sample volume	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

If preservative is used, specify Type and Quantity of Preservative:

Final Depth

Sample Time

Comment

See instruction

Arrived on site at 0645. Garvin and Tanner present for sampling. Samples were collected from discharge pipe from the sump. Water looked clear. Left site at 0730.

Do not touch this cell (SheetName)

November 11, 2016

Report to:  
Kathy Weinel  
Energy Fuels Resources (USA) Inc.  
225 Union Blvd. , Suite 600  
Lakewood, CO 80228  
cc: David Turk

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

Project ID:  
ACZ Project ID: L33192

Kathy Weinel:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on September 28, 2016. This project has been assigned to ACZ's project number, L33192. Please reference this number in all future inquiries.

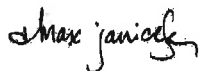
All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L33192. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

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 December 11, 2016. 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.**

Project ID:  
 Sample ID: CANYON 1

ACZ Sample ID: **L33192-01**  
 Date Sampled: 09/26/16 07:30  
 Date Received: 09/28/16  
 Sample Matrix: Ground Water

**Inorganic Prep**

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Recoverable Digestion	M200.2 ICP-MS								10/03/16 11:27	mfm
Total Recoverable Digestion	M200.2 ICP								10/05/16 11:30	aeb

**Metals Analysis**

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total recoverable	M200.8 ICP-MS	1	0.0057			mg/L	0.0004	0.002	10/04/16 13:42	mfm
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0052			mg/L	0.0002	0.001	10/04/16 13:42	mfm
Barium, total recoverable	M200.7 ICP	1	0.039			mg/L	0.003	0.02	10/06/16 13:59	aeb
Beryllium, total recoverable	M200.8 ICP-MS	1	0.00007	B		mg/L	0.00005	0.0003	10/04/16 13:42	mfm
Cadmium, total recoverable	M200.8 ICP-MS	1	0.0001	B		mg/L	0.0001	0.0005	10/04/16 13:42	mfm
Calcium, total recoverable	M200.7 ICP	1	61.7			mg/L	0.1	0.5	10/06/16 13:59	aeb
Chromium, total recoverable	M200.7 ICP	1		U		mg/L	0.01	0.05	10/06/16 13:59	aeb
Copper, total recoverable	M200.7 ICP	1		U		mg/L	0.01	0.05	10/06/16 13:59	aeb
Iron, total recoverable	M200.7 ICP	1	0.07			mg/L	0.02	0.05	10/06/16 13:59	aeb
Lead, total recoverable	M200.8 ICP-MS	1	0.0006			mg/L	0.0001	0.0005	10/04/16 13:42	mfm
Magnesium, total recoverable	M200.7 ICP	1	37.9			mg/L	0.2	1	10/06/16 13:59	aeb
Manganese, total recoverable	M200.7 ICP	1		U		mg/L	0.005	0.03	10/06/16 13:59	aeb
Mercury, total	M245.1 CVAA	1		U		mg/L	0.0002	0.001	10/14/16 13:21	scp
Nickel, total recoverable	M200.7 ICP	1	0.051			mg/L	0.008	0.04	10/06/16 13:59	aeb
Potassium, total recoverable	M200.7 ICP	1	1.6			mg/L	0.2	1	10/06/16 13:59	aeb
Selenium, total recoverable	M200.8 ICP-MS	1	0.0038			mg/L	0.0001	0.0003	10/04/16 13:42	mfm
Sodium, total recoverable	M200.7 ICP	1	18.4			mg/L	0.2	1	10/06/16 13:59	aeb
Thallium, total recoverable	M200.8 ICP-MS	1	0.0017			mg/L	0.0001	0.0005	10/04/16 13:42	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.0046			mg/L	0.0001	0.0005	10/11/16 16:42	mfm
Vanadium, total recoverable	M200.7 ICP	1		U		mg/L	0.005	0.03	10/06/16 13:59	aeb
Zinc, total recoverable	M200.7 ICP	1	0.17			mg/L	0.01	0.05	10/06/16 13:59	aeb

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

Project ID:

Sample ID: CANYON 1

ACZ Sample ID: **L33192-01**

Date Sampled: 09/26/16 07:30

Date Received: 09/28/16

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	182			mg/L	2	20	10/01/16 0:00	emk
Carbonate as CaCO3		1	8.3	B		mg/L	2	20	10/01/16 0:00	emk
Hydroxide as CaCO3		1		U		mg/L	2	20	10/01/16 0:00	emk
Total Alkalinity		1	190			mg/L	2	20	10/01/16 0:00	emk
Conductivity @25C	SM2510B	1	656			umhos/cm	1	10	10/01/16 13:42	emk
Fluoride	SM4500F-C	1	0.15	B	*	mg/L	0.05	0.3	09/29/16 15:51	sck
Residue, Filterable (TDS) @180C	SM2540C	1	396			mg/L	10	20	09/28/16 15:50	sck
Sulfate	D516-02/-07 - Turbidimetric	5	119			mg/L	5	25	10/11/16 13:05	spl

**Arizona license number: AZ0102**



**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 unless omitted or equal to the PQL (see comment #5). 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. Synonymous with the EPA term "minimum level".
<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)**

<i>B</i>	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
<i>H</i>	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
<i>L</i>	Target analyte response was below the laboratory defined negative threshold.
<i>U</i>	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: L33192

**Alkalinity as CaCO3 SM2320B - Titration**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG410763</b>													
WG410763PBW1	PBW	10/01/16 12:54				U	mg/L		-20	20			
WG410763LCSW3	LCSW	10/01/16 13:11	WC160914-3	820.0001		775	mg/L	95	90	110			
L33215-08DUP	DUP	10/01/16 14:27			68.3	80.4	mg/L				16	20	
WG410763LCSW6	LCSW	10/01/16 15:58	WC160914-3	820.0001		776	mg/L	95	90	110			
WG410763PBW2	PBW	10/01/16 16:04				U	mg/L		-20	20			
WG410763LCSW9	LCSW	10/01/16 18:45	WC160914-3	820.0001		781	mg/L	95	90	110			
WG410763PBW3	PBW	10/01/16 18:51				U	mg/L		-20	20			
WG410763LCSW12	LCSW	10/01/16 20:30	WC160914-3	820.0001		784	mg/L	96	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>WG410862</b>													
WG410862ICV	ICV	10/04/16 13:08	MS160920-1	.02		.02075	mg/L	104	90	110			
WG410862ICB	ICB	10/04/16 13:11				.00112	mg/L		-0.0012	0.0012			
WG410768LRB	LRB	10/04/16 13:14				U	mg/L		-0.00088	0.00088			
WG410768LFB	LFB	10/04/16 13:18	MS160928-2	.009980001		.01109	mg/L	111	85	115			
L33158-10LFM	LFM	10/04/16 13:36	MS160928-2	.009980001	.0032	.01488	mg/L	117	70	130			
L33158-10LFMD	LFMD	10/04/16 13:39	MS160928-2	.009980001	.0032	.01515	mg/L	120	70	130	2	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>WG410862</b>													
WG410862ICV	ICV	10/04/16 13:08	MS160920-1	.05		.05006	mg/L	100	90	110			
WG410862ICB	ICB	10/04/16 13:11				U	mg/L		-0.0006	0.0006			
WG410768LRB	LRB	10/04/16 13:14				U	mg/L		-0.00044	0.00044			
WG410768LFB	LFB	10/04/16 13:18	MS160928-2	.0501		.05082	mg/L	101	85	115			
L33158-10LFM	LFM	10/04/16 13:36	MS160928-2	.0501	.0064	.05761	mg/L	102	70	130			
L33158-10LFMD	LFMD	10/04/16 13:39	MS160928-2	.0501	.0064	.05861	mg/L	104	70	130	2	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG411026</b>													
WG411026ICV	ICV	10/06/16 13:17	II160912-1	2		1.9658	mg/L	98	95	105			
WG411026ICB	ICB	10/06/16 13:23				.0046	mg/L		-0.009	0.009			
WG410931LRB	LRB	10/06/16 13:40				.0032	mg/L		-0.0066	0.0066			
WG410931LFB	LFB	10/06/16 13:43	II160929-3	.5005		.4988	mg/L	100	85	115			
L33109-01LFM	LFM	10/06/16 13:49	II160929-3	.5005	.089	.5588	mg/L	98	70	130			
L33109-01LFMD	LFMD	10/06/16 13:52	II160929-3	.5005	.089	.5609	mg/L	98	70	130	0	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>WG410862</b>													
WG410862ICV	ICV	10/04/16 13:08	MS160920-1	.05		.05183	mg/L	104	90	110			
WG410862ICB	ICB	10/04/16 13:11				.000094	mg/L		-0.00015	0.00015			
WG410768LRB	LRB	10/04/16 13:14				U	mg/L		-0.00011	0.00011			
WG410768LFB	LFB	10/04/16 13:18	MS160928-2	.0501		.04988	mg/L	100	85	115			
L33158-10LFM	LFM	10/04/16 13:36	MS160928-2	.0501	U	.04841	mg/L	97	70	130			
L33158-10LFMD	LFMD	10/04/16 13:39	MS160928-2	.0501	U	.05154	mg/L	103	70	130	6	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L33192**

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG410862</b>													
WG410862ICV	ICV	10/04/16 13:08	MS160920-1	.05		.05134	mg/L	103	90	110			
WG410862ICB	ICB	10/04/16 13:11				U	mg/L		-0.0003	0.0003			
WG410768LRB	LRB	10/04/16 13:14				U	mg/L		-0.00022	0.00022			
WG410768LFB	LFB	10/04/16 13:18	MS160928-2	.05005		.04649	mg/L	93	85	115			
L33158-10LFM	LFM	10/04/16 13:38	MS160928-2	.05005	.0002	.04628	mg/L	92	70	130			
L33158-10LFMD	LFMD	10/04/16 13:39	MS160928-2	.05005	.0002	.04771	mg/L	95	70	130	3	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG411026</b>													
WG411026ICV	ICV	10/06/16 13:17	II160912-1	100		98.9	mg/L	99	95	105			
WG411026ICB	ICB	10/06/16 13:23				U	mg/L		-0.3	0.3			
WG410931LRB	LRB	10/06/16 13:40				U	mg/L		-0.22	0.22			
WG410931LFB	LFB	10/06/16 13:43	II160929-3	67.98044		68.72	mg/L	101	85	115			
L33109-01LFM	LFM	10/06/16 13:49	II160929-3	67.98044	138	204	mg/L	97	70	130			
L33109-01LFMD	LFMD	10/06/16 13:52	II160929-3	67.98044	138	205.5	mg/L	99	70	130	1	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG411026</b>													
WG411026ICV	ICV	10/06/16 13:17	II160912-1	2		1.942	mg/L	97	95	105			
WG411026ICB	ICB	10/06/16 13:23				U	mg/L		-0.03	0.03			
WG410931LRB	LRB	10/06/16 13:40				U	mg/L		-0.022	0.022			
WG410931LFB	LFB	10/06/16 13:43	II160929-3	.5025		.505	mg/L	100	85	115			
L33109-01LFM	LFM	10/06/16 13:49	II160929-3	.5025	U	.495	mg/L	99	70	130			
L33109-01LFMD	LFMD	10/06/16 13:52	II160929-3	.5025	U	.491	mg/L	98	70	130	1	20	

**Conductivity @25C SM2510B**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG410763</b>													
WG410763LCSW2	LCSW	10/01/16 12:59	PCN50212	1409		1540	umhos/cm	109	90	110			
L33215-06DUP	DUP	10/01/16 14:27			208	207	umhos/cm				0	20	
WG410763LCSW5	LCSW	10/01/16 15:45	PCN50212	1409		1490	umhos/cm	106	90	110			
WG410763LCSW8	LCSW	10/01/16 18:32	PCN50212	1409		1470	umhos/cm	104	90	110			
WG410763LCSW11	LCSW	10/01/16 20:17	PCN50212	1409		1450	umhos/cm	103	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>WG411026</b>													
WG411026ICV	ICV	10/06/16 13:17	II160912-1	2		1.935	mg/L	97	95	105			
WG411026ICB	ICB	10/06/16 13:23				U	mg/L		-0.03	0.03			
WG410931LRB	LRB	10/06/16 13:40				U	mg/L		-0.022	0.022			
WG410931LFB	LFB	10/06/16 13:43	II160929-3	.501		.496	mg/L	99	85	115			
L33109-01LFM	LFM	10/06/16 13:49	II160929-3	.501	U	.488	mg/L	97	70	130			
L33109-01LFMD	LFMD	10/06/16 13:52	II160929-3	.501	U	.49	mg/L	98	70	130	0	20	



Energy Fuels Resources (USA) Inc.

ACZ Project ID: L33192

**Fluoride SM4500F-C**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG410633</b>													
WG410633ICV	ICV	09/29/16 10:37	WC160921-7	2		1.912	mg/L	98	95	105			
WG410633ICB	ICB	09/29/16 10:42				.061	mg/L		-0.15	0.15			
WG410633LFB1	LFB	09/29/16 10:48	WC160923-7	4.995		4.715	mg/L	94	90	110			
WG410633LFB2	LFB	09/29/16 13:16	WC160923-7	4.995		4.651	mg/L	93	90	110			
L33166-09AS	AS	09/29/16 14:59	WC160923-7	4.995	U	4.715	mg/L	94	90	110			
L33166-09DUP	DUP	09/29/16 15:04			U	.056	mg/L				200	20	RA

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG411026</b>													
WG411026ICV	ICV	10/06/16 13:17	II160912-1	2		1.975	mg/L	99	95	105			
WG411026ICB	ICB	10/06/16 13:23				U	mg/L		-0.06	0.06			
WG410931LRB	LRB	10/06/16 13:40				U	mg/L		-0.044	0.044			
WG410931LFB	LFB	10/06/16 13:43	II160929-3	1.0017		1.017	mg/L	102	85	115			
L33109-01LFM	LFM	10/06/16 13:49	II160929-3	1.0017	U	.986	mg/L	98	70	130			
L33109-01LFMD	LFMD	10/06/16 13:52	II160929-3	1.0017	U	.981	mg/L	98	70	130	1	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>WG410862</b>													
WG410862ICV	ICV	10/04/16 13:08	MS160920-1	.05		.0487	mg/L	97	90	110			
WG410862ICB	ICB	10/04/16 13:11				U	mg/L		-0.0003	0.0003			
WG410768LRB	LRB	10/04/16 13:14				U	mg/L		-0.00022	0.00022			
WG410768LFB	LFB	10/04/16 13:18	MS160928-2	.0501		.04332	mg/L	86	85	115			
L33158-10LFM	LFM	10/04/16 13:36	MS160928-2	.0501	.0008	.04807	mg/L	90	70	130			
L33158-10LFMD	LFMD	10/04/16 13:39	MS160928-2	.0501	.0008	.04728	mg/L	93	70	130	3	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG411026</b>													
WG411026ICV	ICV	10/06/16 13:17	II160912-1	100		98.21	mg/L	98	95	105			
WG411026ICB	ICB	10/06/16 13:23				U	mg/L		-0.6	0.6			
WG410931LRB	LRB	10/06/16 13:40				U	mg/L		-0.44	0.44			
WG410931LFB	LFB	10/06/16 13:43	II160929-3	50.01136		45.65	mg/L	91	85	115			
L33109-01LFM	LFM	10/06/16 13:49	II160929-3	50.01136	25.5	70.37	mg/L	90	70	130			
L33109-01LFMD	LFMD	10/06/16 13:52	II160929-3	50.01136	25.5	70.8	mg/L	91	70	130	1	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG411026</b>													
WG411026ICV	ICV	10/06/16 13:17	II160912-1	2		1.9325	mg/L	97	95	105			
WG411026ICB	ICB	10/06/16 13:23				U	mg/L		-0.015	0.015			
WG410931LRB	LRB	10/06/16 13:40				U	mg/L		-0.011	0.011			
WG410931LFB	LFB	10/06/16 13:43	II160929-3	.5		.5076	mg/L	102	85	115			
L33109-01LFM	LFM	10/06/16 13:49	II160929-3	.5	U	.5007	mg/L	100	70	130			
L33109-01LFMD	LFMD	10/06/16 13:52	II160929-3	.5	U	.4984	mg/L	100	70	130	0	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: L33192

**Mercury, total**

**M245.1 CVAA**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG411438</b>													
WG411438ICV	ICV	10/14/16 13:16	HG160805-4	.005		.00516	mg/L	103	95	105			
WG411438ICB	ICB	10/14/16 13:17				U	mg/L		-0.0002	0.0002			
WG411438LRB	LRB	10/14/16 13:19				U	mg/L		-0.00044	0.00044			
WG411438LFB	LFB	10/14/16 13:20	HG161003-5	.002002		.002	mg/L	100	85	115			
L33302-03LFM	LFM	10/14/16 13:25	HG161003-5	.002002	U	.00198	mg/L	99	85	115			
L33302-03LFMD	LFMD	10/14/16 13:26	HG161003-5	.002002	U	.00211	mg/L	105	85	115	6	20	

**Nickel, total recoverable**

**M200.7 ICP**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG411026</b>													
WG411026ICV	ICV	10/06/16 13:17	II160912-1	2.002		1.9762	mg/L	99	95	105			
WG411026ICB	ICB	10/06/16 13:23				U	mg/L		-0.024	0.024			
WG410931LRB	LRB	10/06/16 13:40				U	mg/L		-0.0176	0.0176			
WG410931LFB	LFB	10/06/16 13:43	II160929-3	.498		.4881	mg/L	98	85	115			
L33109-01LFM	LFM	10/06/16 13:49	II160929-3	.498	U	.4701	mg/L	94	70	130			
L33109-01LFMD	LFMD	10/06/16 13:52	II160929-3	.498	U	.4789	mg/L	96	70	130	2	20	

**Potassium, total recoverable**

**M200.7 ICP**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG411026</b>													
WG411026ICV	ICV	10/06/16 13:17	II160912-1	20		19.89	mg/L	99	95	105			
WG411026ICB	ICB	10/06/16 13:23				U	mg/L		-0.6	0.6			
WG410931LRB	LRB	10/06/16 13:40				U	mg/L		-0.44	0.44			
WG410931LFB	LFB	10/06/16 13:43	II160929-3	99.96112		98.16	mg/L	98	85	115			
L33109-01LFM	LFM	10/06/16 13:49	II160929-3	99.96112	2.9	102.1	mg/L	99	70	130			
L33109-01LFMD	LFMD	10/06/16 13:52	II160929-3	99.96112	2.9	102.9	mg/L	100	70	130	1	20	

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

**SM2540C**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG410604</b>													
WG410604PBW	PBW	09/28/16 15:30				U	mg/L		-20	20			
WG410604LCSW	LCSW	09/28/16 15:32	PCN51571	260		258	mg/L	99	80	120			
L33197-03DUP	DUP	09/28/16 16:01			1030	1030	mg/L				0	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>WG410862</b>													
WG410862ICV	ICV	10/04/16 13:08	MS160920-1	.05		.05359	mg/L	107	90	110			
WG410862ICB	ICB	10/04/16 13:11				U	mg/L		-0.0003	0.0003			
WG410768LRB	LRB	10/04/16 13:14				U	mg/L		-0.00022	0.00022			
WG410768LFB	LFB	10/04/16 13:18	MS160928-2	.05005		.04838	mg/L	97	85	115			
L33158-10LFM	LFM	10/04/16 13:36	MS160928-2	.05005	.003	.05487	mg/L	104	70	130			
L33158-10LFMD	LFMD	10/04/16 13:39	MS160928-2	.05005	.003	.05437	mg/L	103	70	130	1	20	

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

**ACZ Project ID: L33192**

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG411026</b>													
WG411026ICV	ICV	10/06/16 13:17	II160912-1	100		98.25	mg/L	98	95	105			
WG411026ICB	ICB	10/06/16 13:23				U	mg/L		-0.6	0.6			
WG410931LRB	LRB	10/06/16 13:40				U	mg/L		-0.44	0.44			
WG410931LFB	LFB	10/06/16 13:43	II160929-3	100.007		97.64	mg/L	98	85	115			
L33109-01LFM	LFM	10/06/16 13:49	II160929-3	100.007	18	116.2	mg/L	98	70	130			
L33109-01LFMD	LFMD	10/06/16 13:52	II160929-3	100.007	18	117	mg/L	99	70	130	1	20	

**Sulfate D516-02/-07 - Turbidimetric**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG411237</b>													
WG411237ICB	ICB	10/11/16 8:46				U	mg/L		-3	3			
WG411237ICV	ICV	10/11/16 8:46	WI161004-1	20		20	mg/L	100	90	110			
WG411237LFB	LFB	10/11/16 12:58	WI160815-8	10		10.5	mg/L	105	90	110			
L33192-01AS	AS	10/11/16 13:05	SO4TURB5X	10	119	129	mg/L	100	90	110			
L33188-01DUP	DUP	10/11/16 13:24			313	313	mg/L				0	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG410862</b>													
WG410862ICV	ICV	10/04/16 13:08	MS160920-1	.05		.04883	mg/L	98	90	110			
WG410862ICB	ICB	10/04/16 13:11				U	mg/L		-0.0003	0.0003			
WG410768LRB	LRB	10/04/16 13:14				U	mg/L		-0.00022	0.00022			
WG410768LFB	LFB	10/04/16 13:18	MS160928-2	.0501		.04435	mg/L	89	85	115			
L33158-10LFM	LFM	10/04/16 13:36	MS160928-2	.0501	U	.04621	mg/L	92	70	130			
L33158-10LFMD	LFMD	10/04/16 13:39	MS160928-2	.0501	U	.04782	mg/L	95	70	130	3	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG411281</b>													
WG411281ICV	ICV	10/11/16 16:26	MS160920-1	.05		.05247	mg/L	105	90	110			
WG411281ICB	ICB	10/11/16 16:29				U	mg/L		-0.0003	0.0003			
WG411281LFB	LFB	10/11/16 16:32	MS160928-2	.05		.05046	mg/L	101	85	115			
L33293-01AS	AS	10/11/16 16:48	MS160928-2	.05	U	.05195	mg/L	104	70	130			
L33293-01ASD	ASD	10/11/16 16:51	MS160928-2	.05	U	.05099	mg/L	102	70	130	2	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG411026</b>													
WG411026ICV	ICV	10/06/16 13:17	II160912-1	2		1.9495	mg/L	97	95	105			
WG411026ICB	ICB	10/06/16 13:23				U	mg/L		-0.015	0.015			
WG410931LRB	LRB	10/06/16 13:40				U	mg/L		-0.011	0.011			
WG410931LFB	LFB	10/06/16 13:43	II160929-3	.502		.4976	mg/L	99	85	115			
L33109-01LFM	LFM	10/06/16 13:49	II160929-3	.502	U	.4947	mg/L	99	70	130			
L33109-01LFMD	LFMD	10/06/16 13:52	II160929-3	.502	U	.496	mg/L	99	70	130	0	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L33192**

**Zinc, total recoverable**

**M200.7 ICP**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG411026</b>													
WG411026ICV	ICV	10/06/16 13:17	II160912-1	2		1,963	mg/L	98	95	105			
WG411026ICB	ICB	10/06/16 13:23				U	mg/L		-0.03	0.03			
WG410931LRB	LRB	10/06/16 13:40				U	mg/L		-0.022	0.022			
WG410931LFB	LFB	10/06/16 13:43	II160929-3	.4995		.503	mg/L	101	85	115			
L33109-01LFM	LFM	10/06/16 13:49	II160929-3	.4995	U	.497	mg/L	99	70	130			
L33109-01LFMD	LFMD	10/06/16 13:52	II160929-3	.4995	U	.501	mg/L	100	70	130	1	20	

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

ACZ Project ID: **L33192**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L33192-01	WG410633	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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

Project ID:

Sample ID: CANYON 1

Locator:

ACZ Sample ID: **L33192-01**

Date Sampled: 09/26/16 7:30

Date Received: 09/28/16

Sample Matrix: Ground Water

Gross Alpha, dissolved  
M900.0

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha, dissolved	10/13/16 0:17		5.4	3.3	6.1	pCi/L	*	ism

Radium 226, dissolved  
M903.1

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	11/03/16 0:28		1.7	0.32	0.19	pCi/L	*	mns

Radium 228, dissolved  
M904.0

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, dissolved	11/10/16 14:06		0.48	0.9	0.93	pCi/L	*	djc

Uranium, Isotopic dissolved  
Eichrom ACW03

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Uranium 234	10/11/16 0:27		1.4	1.4	0.91	pCi/L	*	djc
Uranium 235	10/11/16 0:27		-0.95	0.96	0.91	pCi/L	*	djc
Uranium 238	10/11/16 0:27		0.1	1.3	0.91	pCi/L	*	djc



**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: L33192

**Gross Alpha, dissolved** M900.0 Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG411473</b>																
WG410964PBW	PBW	10/13/16				1.4	3.7	-35			130	83	133	7.4		
WG410964LCSW	LCSW	10/13/16	100			10	3.7	130								
L33187-01DUP	DUP-RER	10/13/16			2.6	2.7	6.2	-36						0.9	2	
L33232-01DUP	DUP-RER	10/13/16			0.95	3.5	5.2	2						0.22	2	
L33192-01MS	MS	10/13/16	100		5.4	3.3	6.1	84			79	83	133			M2

**Radium 226, dissolved** M903.1 Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG412649</b>																
WG412161PBW	PBW	11/03/16				0.11	0.12	.03			90	43	148	0.24		
WG412161LCSW	LCSW	11/03/16	20			0.55	0.22	18								
L33133-02DUP	DUP-RER	11/03/16			0.52	0.17	0.28	.44						0.36	2	
L33188-01DUP	DUP-RER	11/03/16			0.08	0.14	0.15	.12						0.23	2	
L33160-01MS	MS	11/03/16	20		0.12	0.12	0.12	19			94	43	148			

**Radium 228, dissolved** M904.0 Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG413089</b>																
WG412647PBW	PBW	11/10/16				0.77	0.73	1.3			76	47	123	1.46		
WG412647LCSW	LCSW	11/10/16	19.86			1.8	1.2	15								
L33119-09DUP	DUP-RER	11/10/16			2	0.9	0.82	.13						1.67	2	
L33411-03DUP	DUP-RER	11/10/16			-1.1	1.3	1.5	.61						1.14	2	
L33192-01MS	MS	11/10/16	19.86		0.48	0.9	0.93	4.6			21	47	123			M2



**ACZ Laboratories, Inc.**

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

**Radiochemistry QC Summary**

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

ACZ Project ID: **L33192**

**Uranium 234**

Eichrom ACW03

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG411376</b>																
WG410683PBW	PBW	10/11/16				0.93	0.82	1.1	0.93	0.82	87	77	122	1.64		
WG410683LCSW	LCSW	10/11/16	PCN50849	196		11	1.3	170	11	1.3	87	77	122	1.64		
L32995-01DUP	DUP-RER	10/11/16			1	1.3	0.88	1.5	1.1	0.87				0.29	2	
L33083-01DUP	DUP-RER	10/11/16			2.4	1.5	0.96	4.2	1.9	1.2				0.74	2	
L32996-01MS	MS	10/11/16	PCN50849	196	56	5	0.87	210	12	1.4	79	77	122			

**Uranium 235**

Eichrom ACW03

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG411376</b>																
WG410683PBW	PBW	10/11/16				0.44	0.82	.1	0.44	0.82	79	42	136	1.64		
WG410683LCSW	LCSW	10/11/16	PCN50849	8.97		2.4	1.3	7.1	2.4	1.3	79	42	136			
L32995-01DUP	DUP-RER	10/11/16			-1.1	0.88	0.88	-3	0.7	0.87				0.71	2	
L33083-01DUP	DUP-RER	10/11/16			0.44	0.65	0.96	.29	0.91	1.2				0.13	2	
L32996-01MS	MS	10/11/16	PCN50849	8.97	3.3	1.4	0.87	6.3	2.3	1.4	33	42	136			M2

**Uranium 238**

Eichrom ACW03

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG411376</b>																
WG410683PBW	PBW	10/11/16				0.69	0.82	.19	0.69	0.82	96	87	124	1.64		
WG410683LCSW	LCSW	10/11/16	PCN50849	195		11	1.3	188	11	1.3	96	87	124			
L32995-01DUP	DUP-RER	10/11/16			0.24	1.3	0.88	-11	1.1	0.87				0.21	2	
L33083-01DUP	DUP-RER	10/11/16			3.52	1.6	0.96	3.96	2	1.2				0.17	2	
L32996-01MS	MS	10/11/16	PCN50849	195	51.1	4.9	0.87	217	13	1.4	85	87	124			M2

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

**ACZ Project ID: L33192**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L33192-01	WG411473	Gross Alpha, dissolved	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG412649	Radium 226, dissolved	M903.1	DJ	Sample dilution required due to insufficient sample.
	WG413089	Radium 228, dissolved	M904.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG411376	Uranium 235	Eichrom ACW03	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
		Uranium 238	Eichrom ACW03	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.

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

ACZ Project ID: **L33192**

**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

**Sample Receipt**

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

ACZ Project ID: L33192  
 Date Received: 09/28/2016 09:58  
 Received By: ddp  
 Date Printed: 9/28/2016

**Receipt Verification**

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form 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 form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples? A change was made in the Report to: and Copy of Report to: section prior to ACZ custody.	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 form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? <sup>1</sup>	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**

**Client Contact Remarks**

**Shipping Containers**

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
NA24795	2.5	<=6.0	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.

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

ACZ Project ID: L33192  
Date Received: 09/28/2016 09:58  
Received By: ddp  
Date Printed: 9/28/2016

<sup>1</sup> The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).





Q4

December 20, 2016

Report to:  
Kathy Weinel  
Energy Fuels Resources (USA) Inc.  
225 Union Blvd. , Suite 600  
Lakewood, CO 80228

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

Project ID: Canyon Water  
ACZ Project ID: L34110

Kathy Weinel:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 11, 2016. This project has been assigned to ACZ's project number, L34110. 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 L34110. 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 19, 2017. 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.**

Project ID: Canyon Water  
Sample ID: CANYON

ACZ Sample ID: **L34110-01**  
Date Sampled: 11/09/16 08:40  
Date Received: 11/11/16  
Sample Matrix: Ground Water

**Inorganic Prep**

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Recoverable Digestion	M200.2 ICP								11/22/16 10:14	aeb
Total Recoverable Digestion	M200.2 ICP-MS								11/28/16 12:16	mfm

**Metals Analysis**

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total recoverable	M200.8 ICP-MS	1	0.0056			mg/L	0.0004	0.002	11/30/16 11:04	msh
Arsenic, total recoverable	M200.8 ICP-MS	1	0.292			mg/L	0.0002	0.001	11/29/16 12:21	mfm
Barium, total recoverable	M200.7 ICP	1	0.223			mg/L	0.003	0.02	11/28/16 17:55	aeb
Beryllium, total recoverable	M200.8 ICP-MS	1	0.00012	B		mg/L	0.00005	0.0003	11/29/16 12:21	mfm
Cadmium, total recoverable	M200.8 ICP-MS	1	0.0008			mg/L	0.0001	0.0005	11/29/16 12:21	mfm
Calcium, total recoverable	M200.7 ICP	1	69.9			mg/L	0.1	0.5	11/28/16 17:55	aeb
Chromium, total recoverable	M200.7 ICP	1	0.01	B		mg/L	0.01	0.05	11/28/16 17:55	aeb
Copper, total recoverable	M200.7 ICP	1	0.26			mg/L	0.01	0.05	11/28/16 17:55	aeb
Iron, total recoverable	M200.7 ICP	1	1.13			mg/L	0.02	0.05	11/28/16 17:55	aeb
Lead, total recoverable	M200.8 ICP-MS	1	0.017		*	mg/L	0.0001	0.0005	11/29/16 12:21	mfm
Magnesium, total recoverable	M200.7 ICP	1	38.7			mg/L	0.2	1	11/28/16 17:55	aeb
Manganese, total recoverable	M200.7 ICP	1	0.022	B		mg/L	0.005	0.03	11/28/16 17:55	aeb
Mercury, total	M245.1 CVAA	1		U		mg/L	0.0002	0.001	11/30/16 15:37	scp
Nickel, total recoverable	M200.7 ICP	1	0.297			mg/L	0.008	0.04	11/29/16 11:31	aeb
Potassium, total recoverable	M200.7 ICP	1	3.1			mg/L	0.2	1	11/28/16 17:55	aeb
Selenium, total recoverable	M200.8 ICP-MS	1	0.001		*	mg/L	0.0001	0.0003	11/29/16 12:21	mfm
Sodium, total recoverable	M200.7 ICP	1	10.1			mg/L	0.2	1	11/28/16 17:55	aeb
Thallium, total recoverable	M200.8 ICP-MS	1	0.0012			mg/L	0.0001	0.0005	11/29/16 12:21	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.130			mg/L	0.0001	0.0005	11/22/16 15:39	mfm
Vanadium, total recoverable	M200.7 ICP	1		U		mg/L	0.005	0.03	11/29/16 11:31	aeb
Zinc, total recoverable	M200.7 ICP	1	0.33			mg/L	0.01	0.05	11/28/16 17:55	aeb

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

Project ID: Canyon Water  
 Sample ID: CANYON

ACZ Sample ID: **L34110-01**  
 Date Sampled: 11/09/16 08:40  
 Date Received: 11/11/16  
 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	197			mg/L	2	20	11/16/16 0:00	abd
Carbonate as CaCO3		1	9.6	B		mg/L	2	20	11/16/16 0:00	abd
Hydroxide as CaCO3		1		U		mg/L	2	20	11/16/16 0:00	abd
Total Alkalinity		1	207		*	mg/L	2	20	11/16/16 0:00	abd
Conductivity @25C	SM2510B	1	683		*	umhos/cm	1	10	11/16/16 16:15	abd
Fluoride	SM4500F-C	1	0.22	B	*	mg/L	0.05	0.3	11/19/16 13:59	sck
Residue, Filterable (TDS) @180C	SM2540C	1	398			mg/L	10	20	11/14/16 11:57	emk
Sulfate	D516-02/-07 - Turbidimetric	5	106			mg/L	5	25	11/28/16 15:51	krh

**Arizona license number: AZ0102**



**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 unless omitted or equal to the PQL (see comment #5). 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. Synonymous with the EPA term "minimum level".
<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>B</b>	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
<b>H</b>	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
<b>L</b>	Target analyte response was below the laboratory defined negative threshold.
<b>U</b>	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: **L34110**

**Alkalinity as CaCO3** **SM2320B - Titration**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413340</b>													
WG413340PBW1	PBW	11/16/16 15:48				U	mg/L		-20	20			
WG413340LCSW3	LCSW	11/16/16 16:06	WC161109-1	820.0001		832	mg/L	101	90	110			
L34124-02DUP	DUP	11/16/16 17:40			869	853	mg/L				2	20	
WG413340LCSW6	LCSW	11/16/16 19:19	WC161109-1	820.0001		799	mg/L	97	90	110			
WG413340PBW2	PBW	11/16/16 19:25				U	mg/L		-20	20			
WG413340LCSW9	LCSW	11/16/16 22:50	WC161109-1	820.0001		799	mg/L	97	90	110			
WG413340PBW3	PBW	11/16/16 22:56				U	mg/L		-20	20			
WG413340LCSW12	LCSW	11/17/16 2:08	WC161109-1	820.0001		805	mg/L	98	90	110			
WG413340PBW4	PBW	11/17/16 2:15				U	mg/L		-20	20			
WG413340LCSW15	LCSW	11/17/16 5:51	WC161109-1	820.0001		809	mg/L	99	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>WG413920</b>													
WG413920ICV1	ICV	11/30/16 10:56	MS161128-3	.02		.02034	mg/L	102	90	110			
WG413920ICB1	ICB	11/30/16 10:58				U	mg/L		-0.0012	0.0012			
WG413758LRB	LRB	11/30/16 11:00				U	mg/L		-0.00088	0.00088			
WG413758LFB	LFB	11/30/16 11:02	MS160928-2	.009980001		.01027	mg/L	103	85	115			
L34189-01LFM	LFM	11/30/16 11:08	MS160928-2	.009980001	.0309	.04114	mg/L	103	70	130			
L34189-01LFMD	LFMD	11/30/16 11:10	MS160928-2	.009980001	.0309	.04078	mg/L	99	70	130	1	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>WG413855</b>													
WG413855ICV	ICV	11/29/16 12:09	MS161128-3	.05		.05114	mg/L	102	90	110			
WG413855ICB	ICB	11/29/16 12:12				U	mg/L		-0.0006	0.0006			
WG413758LRB	LRB	11/29/16 12:15				U	mg/L		-0.00044	0.00044			
WG413758LFB	LFB	11/29/16 12:18	MS160928-2	.0501		.04886	mg/L	98	85	115			
L34189-01LFM	LFM	11/29/16 12:33	MS160928-2	.0501	.0049	.0579	mg/L	106	70	130			
L34189-01LFMD	LFMD	11/29/16 12:36	MS160928-2	.0501	.0049	.05545	mg/L	101	70	130	4	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413808</b>													
WG413808ICV	ICV	11/28/16 17:30	II161117-1	2		1.942	mg/L	97	95	105			
WG413808ICB	ICB	11/28/16 17:36				.0042	mg/L		-0.009	0.009			
WG413629LRB	LRB	11/28/16 17:49				.0033	mg/L		-0.0066	0.0066			
WG413629LFB	LFB	11/28/16 17:52	II161111-2	.5005		.5039	mg/L	101	85	115			
L34110-01LFM	LFM	11/28/16 17:58	II161111-2	.5005	.223	.7184	mg/L	99	70	130			
L34110-01LFMD	LFMD	11/28/16 18:01	II161111-2	.5005	.223	.7045	mg/L	96	70	130	2	20	



Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L34110**

**Beryllium, total recoverable**

**M200.8 ICP-MS**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413855</b>													
WG413855ICV	ICV	11/29/16 12:09	MS161128-3	.05		.05362	mg/L	107	90	110			
WG413855ICB	ICB	11/29/16 12:12				U	mg/L		-0.00015	0.00015			
WG413758LRB	LRB	11/29/16 12:15				U	mg/L		-0.00011	0.00011			
WG413758LFB	LFB	11/29/16 12:18	MS160928-2	.0501		.05166	mg/L	103	85	115			
L34189-01LFM	LFM	11/29/16 12:33	MS160928-2	.0501	U	.0522	mg/L	104	70	130			
L34189-01LFMD	LFMD	11/29/16 12:36	MS160928-2	.0501	U	.05154	mg/L	103	70	130	1	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>WG413855</b>													
WG413855ICV	ICV	11/29/16 12:09	MS161128-3	.05		.05191	mg/L	104	90	110			
WG413855ICB	ICB	11/29/16 12:12				U	mg/L		-0.0003	0.0003			
WG413758LRB	LRB	11/29/16 12:15				U	mg/L		-0.00022	0.00022			
WG413758LFB	LFB	11/29/16 12:18	MS160928-2	.05005		.04917	mg/L	98	85	115			
L34189-01LFM	LFM	11/29/16 12:33	MS160928-2	.05005	.0033	.05495	mg/L	103	70	130			
L34189-01LFMD	LFMD	11/29/16 12:36	MS160928-2	.05005	.0033	.05532	mg/L	104	70	130	1	20	

**Calcium, total recoverable**

**M200.7 ICP**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413808</b>													
WG413808ICV	ICV	11/28/16 17:30	II161117-1	100		98.71	mg/L	99	95	105			
WG413808ICB	ICB	11/28/16 17:36				U	mg/L		-0.3	0.3			
WG413629LRB	LRB	11/28/16 17:49				U	mg/L		-0.22	0.22			
WG413629LFB	LFB	11/28/16 17:52	II161111-2	67.9908		69.5	mg/L	102	85	115			
L34110-01LFM	LFM	11/28/16 17:58	II161111-2	67.9908	69.9	138.5	mg/L	101	70	130			
L34110-01LFMD	LFMD	11/28/16 18:01	II161111-2	67.9908	69.9	135.8	mg/L	97	70	130	2	20	

**Chromium, total recoverable**

**M200.7 ICP**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413808</b>													
WG413808ICV	ICV	11/28/16 17:30	II161117-1	2		1.921	mg/L	96	95	105			
WG413808ICB	ICB	11/28/16 17:36				U	mg/L		-0.03	0.03			
WG413629LRB	LRB	11/28/16 17:49				U	mg/L		-0.022	0.022			
WG413629LFB	LFB	11/28/16 17:52	II161111-2	.5025		.509	mg/L	101	85	115			
L34110-01LFM	LFM	11/28/16 17:58	II161111-2	.5025	.01	.497	mg/L	97	70	130			
L34110-01LFMD	LFMD	11/28/16 18:01	II161111-2	.5025	.01	.49	mg/L	96	70	130	1	20	

**Conductivity @25C**

**SM2510B**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413340</b>													
WG413340LCSW2	LCSW	11/16/16 15:53	PCN50213	1409		1530	umhos/cm	109	90	110			
L34124-02DUP	DUP	11/16/16 17:40			5010	4970	umhos/cm				1	20	
WG413340LCSW5	LCSW	11/16/16 19:06	PCN50213	1409		1480	umhos/cm	105	90	110			
WG413340LCSW8	LCSW	11/16/16 22:38	PCN50213	1409		1460	umhos/cm	104	90	110			
WG413340LCSW11	LCSW	11/17/16 1:56	PCN50213	1409		1460	umhos/cm	104	90	110			
WG413340LCSW14	LCSW	11/17/16 5:39	PCN50213	1409		1390	umhos/cm	99	90	110			

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L34110**

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413808</b>													
WG413808ICV	ICV	11/28/16 17:30	II161117-1	2		1.954	mg/L	98	95	105			
WG413808ICB	ICB	11/28/16 17:36				U	mg/L		-0.03	0.03			
WG413629LRB	LRB	11/28/16 17:49				U	mg/L		-0.022	0.022			
WG413629LFB	LFB	11/28/16 17:52	II161111-2	.5005		.504	mg/L	101	85	115			
L34110-01LFM	LFM	11/28/16 17:58	II161111-2	.5005	.26	.753	mg/L	99	70	130			
L34110-01LFMD	LFMD	11/28/16 18:01	II161111-2	.5005	.26	.739	mg/L	96	70	130	2	20	

**Fluoride SM4500F-C**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413536</b>													
WG413536ICV	ICV	11/19/16 13:16	WC161110-1	2.006		1.912	mg/L	95	95	105			
WG413536ICB	ICB	11/19/16 13:21				U	mg/L		-0.15	0.15			
WG413536LFB1	LFB	11/19/16 13:28	WC160923-7	4.995		4.667	mg/L	93	90	110			
L34103-01AS	AS	11/19/16 13:47	WC160923-7	4.995	.36	4.931	mg/L	92	90	110			
L34103-01DUP	DUP	11/19/16 13:51			.36	.402	mg/L				11	20	RA
WG413536LFB2	LFB	11/19/16 15:46	WC160923-7	4.995		4.731	mg/L	95	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>WG413808</b>													
WG413808ICV	ICV	11/28/16 17:30	II161117-1	2		1.955	mg/L	98	95	105			
WG413808ICB	ICB	11/28/16 17:36				U	mg/L		-0.06	0.06			
WG413629LRB	LRB	11/28/16 17:49				U	mg/L		-0.044	0.044			
WG413629LFB	LFB	11/28/16 17:52	II161111-2	1.0017		1.033	mg/L	103	85	115			
L34110-01LFM	LFM	11/28/16 17:58	II161111-2	1.0017	1.13	2.28	mg/L	115	70	130			
L34110-01LFMD	LFMD	11/28/16 18:01	II161111-2	1.0017	1.13	2.23	mg/L	110	70	130	2	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>WG413855</b>													
WG413855ICV	ICV	11/29/16 12:09	MS161128-3	.05		.04956	mg/L	99	90	110			
WG413855ICB	ICB	11/29/16 12:12				U	mg/L		-0.0003	0.0003			
WG413758LRB	LRB	11/29/16 12:15				U	mg/L		-0.00022	0.00022			
WG413758LFB	LFB	11/29/16 12:18	MS160928-2	.0501		.04745	mg/L	95	85	115			
L34189-01LFM	LFM	11/29/16 12:33	MS160928-2	.0501	.2479	.3243	mg/L	152	70	130			M3
L34189-01LFMD	LFMD	11/29/16 12:36	MS160928-2	.0501	.2479	.3256	mg/L	155	70	130	0	20	M3

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413808</b>													
WG413808ICV	ICV	11/28/16 17:30	II161117-1	100		97.66	mg/L	98	95	105			
WG413808ICB	ICB	11/28/16 17:36				U	mg/L		-0.6	0.6			
WG413629LRB	LRB	11/28/16 17:49				U	mg/L		-0.44	0.44			
WG413629LFB	LFB	11/28/16 17:52	II161111-2	50.01003		46.46	mg/L	93	85	115			
L34110-01LFM	LFM	11/28/16 17:58	II161111-2	50.01003	38.7	85.69	mg/L	94	70	130			
L34110-01LFMD	LFMD	11/28/16 18:01	II161111-2	50.01003	38.7	84.09	mg/L	91	70	130	2	20	



Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L34110**

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413808</b>													
WG413808ICV	ICV	11/28/16 17:30	II161117-1	2		1.915	mg/L	98	95	105			
WG413808ICB	ICB	11/28/16 17:36				U	mg/L		-0.015	0.015			
WG413629LRB	LRB	11/28/16 17:49				U	mg/L		-0.011	0.011			
WG413629LFB	LFB	11/28/16 17:52	II161111-2	.5		.5221	mg/L	104	85	115			
L34110-01LFM	LFM	11/28/16 17:58	II161111-2	.5	.022	.5299	mg/L	102	70	130			
L34110-01LFMD	LFMD	11/28/16 18:01	II161111-2	.5	.022	.5183	mg/L	99	70	130	2	20	

**Mercury, total M245.1 CVAA**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413900</b>													
WG413900ICV	ICV	11/30/16 14:22	HG161031-2	.005005		.0051	mg/L	102	95	105			
WG413900ICB	ICB	11/30/16 14:23				U	mg/L		-0.0002	0.0002			
<b>WG413902</b>													
WG413902LRB	LRB	11/30/16 15:35				U	mg/L		-0.00044	0.00044			
WG413902LFB	LFB	11/30/16 15:36	HG161107-2	.002002		.00219	mg/L	109	85	115			
L34189-01LFM	LFM	11/30/16 15:40	HG161107-2	.002002	U	.00217	mg/L	108	85	115			
L34189-01LFMD	LFMD	11/30/16 15:41	HG161107-2	.002002	U	.00217	mg/L	108	85	115	0	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413844</b>													
WG413844ICV	ICV	11/29/16 11:06	II161117-1	2.002		2.049	mg/L	102	95	105			
WG413844ICB	ICB	11/29/16 11:12				U	mg/L		-0.024	0.024			
WG413629LRB	LRB	11/29/16 11:24				U	mg/L		-0.0176	0.0176			
WG413629LFB	LFB	11/29/16 11:28	II161111-2	.498		.5032	mg/L	101	85	115			
L34110-01LFM	LFM	11/29/16 11:34	II161111-2	.498	.297	.7934	mg/L	100	70	130			
L34110-01LFMD	LFMD	11/29/16 11:37	II161111-2	.498	.297	.7817	mg/L	97	70	130	1	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413808</b>													
WG413808ICV	ICV	11/28/16 17:30	II161117-1	20		19.63	mg/L	98	95	105			
WG413808ICB	ICB	11/28/16 17:36				U	mg/L		-0.6	0.6			
WG413629LRB	LRB	11/28/16 17:49				U	mg/L		-0.44	0.44			
WG413629LFB	LFB	11/28/16 17:52	II161111-2	99.95693		99.85	mg/L	100	85	115			
L34110-01LFM	LFM	11/28/16 17:58	II161111-2	99.95693	3.1	101.8	mg/L	99	70	130			
L34110-01LFMD	LFMD	11/28/16 18:01	II161111-2	99.95693	3.1	100.1	mg/L	97	70	130	2	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413153</b>													
WG413153PBW	PBW	11/14/16 11:00				U	mg/L		-20	20			
WG413153LCSW	LCSW	11/14/16 11:02	PCN51581	260		256	mg/L	98	80	120			
L34110-01DUP	DUP	11/14/16 12:00			398	402	mg/L				1	10	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L34110**

**Selenium, total recoverable**

**M200.8 ICP-MS**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413855</b>													
WG413855ICV	ICV	11/29/16 12:09	MS161128-3	.05		.05243	mg/L	105	90	110			
WG413855ICB	ICB	11/29/16 12:12				U	mg/L		-0.0003	0.0003			
WG413758LRB	LRB	11/29/16 12:15				U	mg/L		-0.00022	0.00022			
WG413758LFB	LFB	11/29/16 12:18	MS160928-2	.05005		.04817	mg/L	96	85	115			
L34189-01LFM	LFM	11/29/16 12:33	MS160928-2	.05005	.1609	.2402	mg/L	158	70	130			M1
L34189-01LFMD	LFMD	11/29/16 12:36	MS160928-2	.05005	.1609	.2277	mg/L	133	70	130	5	20	M1

**Sodium, total recoverable**

**M200.7 ICP**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413808</b>													
WG413808ICV	ICV	11/28/16 17:30	1161117-1	100		96.46	mg/L	96	95	105			
WG413808ICB	ICB	11/28/16 17:36				U	mg/L		-0.6	0.6			
WG413629LRB	LRB	11/28/16 17:49				U	mg/L		-0.44	0.44			
WG413629LFB	LFB	11/28/16 17:52	1161111-2	100.0322		97.31	mg/L	97	85	115			
L34110-01LFM	LFM	11/28/16 17:58	1161111-2	100.0322	10.1	107.3	mg/L	97	70	130			
L34110-01LFMD	LFMD	11/28/16 18:01	1161111-2	100.0322	10.1	105.3	mg/L	95	70	130	2	20	

**Sulfate**

**D516-02/-07 - Turbidimetric**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413821</b>													
WG413821ICB	ICB	11/28/16 10:54				U	mg/L		-3	3			
WG413821ICV	ICV	11/28/16 10:54	W1161116-1	20		19.6	mg/L	98	90	110			
L34110-01AS	AS	11/28/16 15:51	SO4TURB5X	10	106	115	mg/L	90	90	110			
L34103-01DUP	DUP	11/28/16 16:03			197	197	mg/L				0	20	
WG413821LFB	LFB	11/28/16 17:04	W1160815-8	10		9.4	mg/L	94	90	110			

**Thallium, total recoverable**

**M200.8 ICP-MS**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413855</b>													
WG413855ICV	ICV	11/29/16 12:09	MS161128-3	.05		.04869	mg/L	97	90	110			
WG413855ICB	ICB	11/29/16 12:12				U	mg/L		-0.0003	0.0003			
WG413758LRB	LRB	11/29/16 12:15				U	mg/L		-0.00022	0.00022			
WG413758LFB	LFB	11/29/16 12:18	MS160928-2	.0501		.04681	mg/L	93	85	115			
L34189-01LFM	LFM	11/29/16 12:33	MS160928-2	.0501	.007	.05775	mg/L	101	70	130			
L34189-01LFMD	LFMD	11/29/16 12:36	MS160928-2	.0501	.007	.05825	mg/L	102	70	130	1	20	

**Uranium, dissolved**

**M200.8 ICP-MS**

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413685</b>													
WG413685ICV	ICV	11/22/16 15:27	MS160920-1	.05		.04946	mg/L	99	90	110			
WG413685ICB	ICB	11/22/16 15:30				U	mg/L		-0.0003	0.0003			
WG413685LFB	LFB	11/22/16 15:33	MS160928-2	.05		.05713	mg/L	114	85	115			
L34191-02AS	AS	11/22/16 15:49	MS160928-2	.05	.0004	.05386	mg/L	107	70	130			
L34191-02ASD	ASD	11/22/16 15:52	MS160928-2	.05	.0004	.05328	mg/L	106	70	130	1	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L34110**

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413844</b>													
WG413844ICV	ICV	11/29/16 11:06	II161117-1	2		1.9792	mg/L	99	95	105			
WG413844ICB	ICB	11/29/16 11:12				U	mg/L		-0.015	0.015			
WG413629LRB	LRB	11/29/16 11:24				U	mg/L		-0.011	0.011			
WG413629LFB	LFB	11/29/16 11:28	II161111-2	.502		.4903	mg/L	98	85	115			
L34110-01LFM	LFM	11/29/16 11:34	II161111-2	.502	U	.4922	mg/L	98	70	130			
L34110-01LFMD	LFMD	11/29/16 11:37	II161111-2	.502	U	.4881	mg/L	97	70	130	1	20	

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

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
<b>WG413808</b>													
WG413808ICV	ICV	11/28/16 17:30	II161117-1	2		1.944	mg/L	97	95	105			
WG413808ICB	ICB	11/28/16 17:36				U	mg/L		-0.03	0.03			
WG413629LRB	LRB	11/28/16 17:49				U	mg/L		-0.022	0.022			
WG413629LFB	LFB	11/28/16 17:52	II161111-2	.4995		.505	mg/L	101	85	115			
L34110-01LFM	LFM	11/28/16 17:58	II161111-2	.4995	.33	.833	mg/L	101	70	130			
L34110-01LFMD	LFMD	11/28/16 18:01	II161111-2	.4995	.33	.819	mg/L	98	70	130	2	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L34110**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L34110-01	WG413855	Lead, total recoverable	M200.8 ICP-MS	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.
		Selenium, total recoverable	M200.8 ICP-MS	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG413340	Conductivity @25C	SM2510B	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.
	WG413536	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG413340	Total Alkalinity	SM2320B - Titration	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.

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

Project ID: Canyon Water  
 Sample ID: CANYON  
 Locator:

ACZ Sample ID: **L34110-01**  
 Date Sampled: 11/09/16 8:40  
 Date Received: 11/11/16  
 Sample Matrix: Ground Water

Gross Alpha, dissolved  
 M900.0

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha, dissolved	11/17/16 0:00		130	13	5.2	pCi/L		ism

Radium 226, dissolved  
 M903.1

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	12/19/16 0:12		24	0.67	0.27	pCi/L		mns

Radium 228, dissolved  
 M904.0

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, dissolved	12/14/16 14:36		0.94	0.7	0.69	pCi/L		jjo

Uranium, Isotopic dissolved  
 Eichrom ACW03

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Uranium 234	11/22/16 0:23		4.1	1.9	1.1	pCi/L	*	djc
Uranium 235	11/22/16 0:23		0.0	0.71	1.1	pCi/L	*	djc
Uranium 238	11/22/16 0:23		4.35	2	1.1	pCi/L	*	djc



**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>





**Laboratories, Inc.**

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

**Radiochemistry QC  
Summary**

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

ACZ Project ID: **L34110**

**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>WG413476</b>																
L34110-01MS	MS	11/17/16	PCN50094	100	130	13	5.2	220	17	5	90	83	133			
WG413289PBW	PBW	11/17/16						.78	1.5	3.7			7.4			
L34110-01DUP	DUP-RER	11/17/16			130	13	5.2	140	14	6.2				0.52	2	

**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>WG415039</b>																
WG414571PBW	PBW	12/19/16						.05	0.1	0.29			0.58			
WG414571LCSW	LCSW	12/19/16	PCN51073	20				18	0.56	0.15	90	43	148			
L34080-01DUP	DUP-RER	12/19/16			0.26	0.13	0.12	.2	0.11	0.15				0.35	2	
L34208-01DUP	DUP-RER	12/19/16			0.28	0.12	0.08	.11	0.12	0.14				1	2	
L34080-02MS	MS	12/19/16	PCN51073	20	0.21	0.14	0.15	20	0.67	0.17	99	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>WG414819</b>																
WG414540PBW	PBW	12/14/16						.61	0.37	0.35			0.7			
WG414540LCSW	LCSW	12/14/16	PCN52272	19.64				16	1.3	0.59	81	47	123			
L34110-01DUP	DUP-RER	12/14/16			0.94	0.7	0.69	.56	0.6	0.6				0.41	2	
L34164-01DUP	DUP-RER	12/14/16			0.98	0.63	0.61	1	0.69	0.66				0.02	2	
L34164-01MS	MS	12/14/16	PCN52272	19.64	0.98	0.63	0.61	13	1.3	0.66	61	47	123			



**Laboratories, Inc.**

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

**Radiochemistry QC  
Summary**

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

ACZ Project ID: **L34110**

**Uranium 234**

Eichrom ACW03

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG413712</b>																
WG413216PBW	PBW	11/22/16				0.82	0.88	.09	0.82	0.88	97	77	176			
WG413216LCSW	LCSW	11/22/16	PCN50849	196		11	1.2	190	11	1.2	97	77	122			
L33553-01DUP	DUP-RER	11/22/16			17	3.6	1.2	19	3.5	1.2				0.4	2	
L34109-01DUP	DUP-RER	11/22/16			-0.31	0.85	0.85	2.9	2.2	1.2				1.36	2	
L33554-01MS	MS	11/22/16	PCN50849	196	31	5.1	1.5	160	9.5	1.1	66	77	122			M2

**Uranium 235**

Eichrom ACW03

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG413712</b>																
WG413216PBW	PBW	11/22/16				0.56	0.88	-.1	0.56	0.88						
WG413216LCSW	LCSW	11/22/16	PCN50849	8.97		2.3	1.2	6.1	2.3	1.2	68	42	136			
L33553-01DUP	DUP-RER	11/22/16			1.5	1.4	1.2	1.5	1.1	1.2				0	2	
L34109-01DUP	DUP-RER	11/22/16			-0.29	0.62	0.85	-.14	1.2	1.2				0.11	2	
L33554-01MS	MS	11/22/16	PCN50849	8.97	0.16	1.3	1.5	6.4	2.1	1.1	70	42	136			

**Uranium 238**

Eichrom ACW03

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
<b>WG413712</b>																
WG413216PBW	PBW	11/22/16				0.76	0.88	.5	0.76	0.88						
WG413216LCSW	LCSW	11/22/16	PCN50849	195		11	1.2	190	11	1.2	97	87	124			
L33553-01DUP	DUP-RER	11/22/16			7.47	2.3	1.2	6.83	2.2	1.2				0.2	2	
L34109-01DUP	DUP-RER	11/22/16			-0.55	1	0.85	3.6	1.9	1.2				1.93	2	
L33554-01MS	MS	11/22/16	PCN50849	195	22.6	4.5	1.5	165	9.7	1.1	73	87	124			M2

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L34110**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L34110-01	WG413712	Uranium 234	Eichrom ACW03	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
		Uranium 238	Eichrom ACW03	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.

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

ACZ Project ID: **L34110**

**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

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

ACZ Project ID: L34110  
 Date Received: 11/11/2016 10:34  
 Received By:  
 Date Printed: 11/11/2016

**Receipt Verification**

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form 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 form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form 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 form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? <sup>1</sup>	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**

**Client Contact Remarks**

**Shipping Containers**

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
4267	0.4	<=6.0	14	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.

Energy Fuels Resources (USA) Inc.  
Canyon Water

ACZ Project ID: L34110  
Date Received: 11/11/2016 10:34  
Received By:  
Date Printed: 11/11/2016

<sup>1</sup> The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).



L34110



Sheet 1 of 1

# CHAIN OF CUSTODY

**Samples Shipped to** ACZ Laboratories  
2773 Downhill Drive  
Steamboat Springs, CO 80487

**Contact:** Kathy Weinel  
Ph: 303.389.4134  
kweinel@energyfuels.com

## Chain of Custody/Sampling Analysis Request

Project	Samplers Name	Samplers Signature
Canyon Water	Abel Mendoza	

Sample ID	Date Collected	Time Collected	Laboratory Analysis Requested
Canyon	11/9/2016	0840	See Attached Bottle Order #BO35564

Comments: Please send report to Kathy Weinel at kweinel@energyfuels.com

Relinquished By: (Signature) 	Date/Time 1300 hours 11-10-16	Received By: (Signature) 	Date/Time 11/11/16 1034
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time

L34110 Chain of Custody

# 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:** BO35564  
**Internal Note:** send 2 sxs in each of 3 coolers. Quarterly sampling.

**Bill to Account:** Bill to ACZ  
**Ship Date Requested:** 06/17/2016  
**Request Placed at:** 06/16/2016 10:18  
**Service Requested:** Ground

### Sampling supplies

PACK	Qty	ACZ ID	Type	Description
	3	COC	Chain of Custody	Chain of Custody, 1 for 10 samples.
	3	SEAL	Custody Seal	Custody seals for cooler, two for each cooler.
	3	RETURN	Return Address	Return Address label, one for each cooler.
	36	LABELS	Sample Labels	ACZ supplied labels for sample containers

**Quote number:** CANYON-2016

Canyon Mine Shaft Sump Monitoring

**Sample Quantity:** 6

Client is responsible for necessary field filtering

PACK	Qty	Type	Size	Filter/Raw/Preserve	Instructions
	1	GREEN CUBE	4 L	Filtered/Nitric	Radiochemistry (dissolved) - Filter sample with .45 micron filter. Do not overfill as there is Nitric Acid in the bottle.
	1	GREEN PC	125 ML	Green pre-cleaned Filtered/Nitric	Metals (dissolved including ICPMS) - Filter sample with .45 micron filter. Do not overfill as there is Nitric Acid in the bottle.
	1	GREEN RAD	1000 ML	Filtered/Nitric	Radiochemistry (dissolved) - Filter sample with .45 micron filter. Do not overfill as there is Nitric Acid in the bottle.
	1	RAW	500 ML	Raw	Wet Chemistry (analyses that do not require preservative or filtration) - Completely fill container.
	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.
	1	WHITE	250 ML	Filtered	Wet chemistry (dissolved) - Filter sample with .45 micron filter. Completely fill container.

## 2016 Monthly Paperwork Required from the Field for Canyon Mine

**Month:**

**Completed by:**

Required Permit/Plan	Documentation	Complete? (Yes, No, or N/A)	If N/A, Why?	Permit/Plan Reference	
Air Permit	Fuel Receipts with 0.0015% sulfur content stamp			Air Permit, Attachment B IV.F.2	
	Generator Run Time Logs			Air Permit, Attachment B IV.C.3	
	Opacity - Bi-weekly on generator stack, yard, stockpile, and vent fans			Air Permit, Attachment B I.C.2	
	Vehicle Maintenance Logs			Air Permit, Attachment B VI.B.2	
	Evaporation Pond Monitoring			No Permit Requirement	
	Dust Control Watering Logs			Air Permit, Attachment B V.B.1	
	NESHAPS Notes			Air Permit, Attachment B III.A.2	
	SMRF Forms			APP Section 2.0	
	Aquifer Protection Permit	Liner Repair Documentation (if any)			
		Pond Maintenance Log (if maintenance is needed)			
Spill Prevention Control and Countermeasure (SPCC)	SPCC Inspections			SPCC Section 2.8 and Appendix E	
	Spill Reports (if any)			SPCC Section 2.4 and Appendix C	
Stormwater Pollution Prevention Plan (SWPPP)	Stormwater Inspections			SWPPP Plan 9.1; Appendix F	