February 10, 2011

Mr. Edgar Ethington
Radiation Control Program
Hazardous Materials & Waste Management Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South HMWMD-B2
Denver, CO 80246-1530

Re: 2010 Surface Water Monitoring Summary Report
Piñon Ridge Mill, Montrose County, Colorado

Dear Edgar:

Please see the attached 2 copies of the report titled 2010 Surface Water Monitoring Summary Report. This report is a summary of the surface water monitoring data collected to date at the Piñon Ridge Mill Site. This report is included on the attached data CD in pdf format in full and broken up versions for ease of posting to your website.

Please feel free to contact me at (303) 974-2151 if you need any additional information.

Sincerely,

Zach Rogers, P.E.
Environmental Engineer

Attachment

Cc: Frank Filas (Energy Fuels)

Energy Fuels, Inc.
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2010 SURFACE WATER MONITORING SUMMARY REPORT
ENERGY FUELS RESOURCES CORPORATION
URANIUM MILL LICENSING SUPPORT
PIÑON RIDGE MILL
MONTROSE COUNTY, COLORADO

February 10, 2011
Rev. 0

Prepared By:

Energy Fuels Resources Corporation
44 Union Boulevard, Suite 600
Lakewood, Colorado 80228

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1.0 INTRODUCTION

Sampling of surface water on the Piñon Ridge Mill site (Site) has been conducted to establish baseline conditions. Surface water has been sampled on a run-off event basis, rather than a fixed calendar schedule, due to the intermittent nature of run-off events in the area. Surface Water monitoring has been conducted from February 12, 2008 through December 31, 2010. Surface water monitoring and the sample collection program was suspended following the end of 2010 per the proposed changes to the monitoring program outlined in a letter to CDPHE dated March 12, 2010 and subsequently approved by CDPHE. Surface water sample collection will resume on a quarterly basis prior to the start of mill construction.

Previously submitted reports included surface water sampling events through September 2010. Those reports include the following:

- 2008 Surface Water Quality Summary, dated May 28, 2009
- 2008-2009 Surface Water Monitoring Summary Report, dated October 2009
- Surface Water Monitoring Addendum No. 1, dated November 10, 2010

Four surface water samplers are installed in selected drainages on the Site. Figure 1 shows the surface water sampler locations and associated watershed boundaries. Each sampler consists of a polyethylene catchment box, nested inside a Quazite polymer concrete vault. A standard rain gauge is located adjacent to each sampling location to record storm intensity in the immediate area of each sampler.

Twenty-two surface water run-off events resulted in collection of samples on the Site from February 2008 through December 2010. A total of 48 corresponding surface water samples (not including 11 duplicate samples) were collected. Surface water was not present at all four sampling locations for each surface run-off event. For snowmelt events that were continuous and occurred over an extended period of time, only one sample was collected within a two-week period. Table 1 documents the date, type of run-off event, rain gauge recording, and presence or lack of run-off at each sampling location for each sampling event.

2.0 FIELD ACTIVITIES

The presence of run-off at each sampler location is dependent on the intensity of the storm or snowmelt event and the specific conditions at each sampler location.

2.1 Precipitation Gauging

The standard rain gauges at each sampler location were checked during daily site checks whenever a precipitation event was occurring or one had occurred in the past 24 hours. In addition, the sampler locations were observed during daily site checks when snowmelt conditions existed. The rain gauges were not operational during the winter season due to freezing conditions. During these months, the drainages were checked for evidence of run-off at each sampler location during and after rain and snowmelt events. The rain gauges and/or flow to the samplers were checked on 161 occasions between February 2008 and December 2010. Recordable amounts of precipitation (i.e. greater than "trace") were observed in the rain gauges on 56 of those occasions.

2.2 Surface Water Sampling

Surface water sampling was conducted in accordance with the *Surface Water Sampling Work Plan* (Kleinfelder 2008), as revised on December 18, 2008. Refer to the Golder Associates 2008-2009 Surface Water Monitoring Summary Report for the sampling protocol (Golder 2009). Forty-eight surface water samples (not including 11 duplicate samples) were collected during 22 sampling events from February 2008 through December 2010. Six of the sampling events occurred following snowmelt events and 16 following storm events. A description of each sampling event and sample collection data sheets for samplings events that occurred from October through December 2010 are included in Appendix A. Refer to the 2008-2009 Surface Water Monitoring Summary Report (Golder 2009) and the Surface Water Monitoring Addendum No. 1 (Energy Fuels 2010) for sample events descriptions and field sheets for sampling events that occurred prior to October 2010.

3.0 DATA SUMMARY

Surface water samples were analyzed for field parameters, general water chemistry parameters, dissolved metals, total chromium, and total and dissolved radionuclides. The field data and analytical results are summarized in Table 2 for surface water samples collected from February 2008 through December 31, 2010. Laboratory data sheets for samples collected from October through December 2010 are included in Appendix B. Refer to the 2008-2009 Surface Water Monitoring Summary Report (Golder 2009) and the Surface Water Monitoring Addendum No. 1 (Energy Fuels 2010) for laboratory data sheets for samples collected prior to October 2010.

3.1 Surface Water Quality Field Parameters

Field parameters were measured from a grab sample at the time of sample collection. Surface water field parameters include temperature, pH, specific conductance, dissolved oxygen (DO), and oxidation-reduction potential (ORP). Because the field parameters were measured on grab samples, the DO and ORP measurements are considered to be qualified data. The water quality samples were collected in general accordance with the field operating procedures described in *Suggested Sampling Protocol for Groundwater Monitoring Wells* (CDPHE).

3.2 Surface Water Analytical Results

Surface water samples were analyzed for:

- Metals (dissolved, unless otherwise noted) – aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium (total), copper, iron, lead, manganese, mercury, molybdenum, nickel, potassium, selenium, silver, thallium, uranium, vanadium, and zinc.
- General Water Quality – nitrate plus nitrite, total dissolved solids (TDS), total suspended solids (TSS), and fluoride.
- Dissolved Radionuclides – gross alpha, radium-226, radium-228, lead-210, thorium-228, thorium-230 and thorium-232.
- Total Radionuclides – radium-226, radium-228, lead-210, thorium-228, thorium-230 and thorium-232.

Duplicate samples were analyzed for the above dissolved metals only. A summary of the laboratory analytical results relative to CDPHE and U.S. EPA surface water standards applicable to the receiving portion of the Dolores River (Lower Dolores River Stream Segment 3a) for the analytes listed above is presented in Table 2.

3.3 Quality Assurance/Quality Control Review

3.3.1 Analytical Data Quality Control

A review of the Level 3 quality control data from ACZ Laboratories indicates that laboratory instruments appear to be functioning properly because method blanks, spike, and duplicate concentrations were generally within the acceptable ranges per the specified methods. Where quality control samples were outside of acceptable ranges, the laboratory provided case narratives that indicated or resolved the discrepancies.

3.3.2 Data Completeness

Data completeness is measured as a percentage of the targeted parameters for which qualified data are obtained. Targeted parameters include those field and analytical parameters indicated in Section 3.2. The targeted parameters evolved throughout the surface water monitoring period. For example, the original targeted parameters did not include dissolved lead-210 or any of the total radionuclides listed in Section 3.2. As pH must be measured immediately, pH measurements performed in the analytical laboratory are outside the accepted holding time. For data completeness purposes, pH is considered a field parameter and pH measured at the analytical laboratory is not included in the data completeness analysis. The data completeness target is 90 percent.

Data completeness for the October 7, 2010 sampling event was 100 percent for each sample. Data completeness for the October 25, 2010 sampling event was 98 percent for the S-1, S-2 and S-3 samples and 100 percent for the S-4 sample. The reduced data completeness for the S-1, S-2 and S-3 samples was due to exceedance of the hold time for total suspended solids (TSS). The initial analyses for TSS were performed within in the hold time; however, those samples were qualified due to a quality control sample failure and the rerun of the samples was not able to be performed within the hold time.

The data completeness for the surface water samples collected from February 2008 through December 2010 is summarized in Table 3. Although the data completeness for the first two sampling events was below the 90 percent target, the overall data completeness ranges from 93 to 96 percent for the four sample locations.

3.3.3 Duplicate Samples

During the October 25, 2010 sampling event, one duplicate sample was collected for quality assurance purposes and analyzed for dissolved metals. The relative percent difference (RPD) between the original sample and the duplicate sample was calculated for each metal. No comparison was made for analytes below the detection limit. The results of the sample and duplicate sample analyses and calculated RPD are given in Table 4 for each of the metals.

The analyses of the duplicate samples as compared to the original samples showed a relatively consistent level for most of the metals analyzed. Where discrepancies occurred, it is noted that the sample values were often near or at the analytical method detection limit or well below the appropriate water quality standards. At these detection levels, small variations in analytical results can give rise to large RPD's. This is a common occurrence for trace metals analysis at low values and does not necessarily indicate a highly variable water sample.

Another contributing factor to the variation on some of the metal samples can occur due to sample preparation. Since each of the original and duplicate samples contained a high sediment load, it is possible that variations in the sample collection (i.e., amount of sediment in the sample) and filtration procedures for the duplicate samples could give rise to variability in metals analysis. High sediment loading in a surface water sample can result in colloidal particles which, if not adequately filtered, can alter the analytical value of certain metal parameters due to the presence of minute particulates in the analyzed sample. The procedures for analyzing the duplicate samples were the same as for the original samples and the QA/QC results for both the duplicate and original samples were within acceptable tolerances for the analysis.

4.0 DATA EVALUATION

Surface run-off water samples often show a high degree of variability due to the nature of the sediments over which the water passes and the amount of time that the precipitation event (i.e., rain or snowmelt) remains in contact with the soils or sediments. The data for metals and general water quality parameters for the 22 sampling events conducted at the Site show relatively consistent results for trace metal parameters and for dissolved radionuclides. This indicates that the water flow to the sampling collection system typically flowed over the same drainage path to the collection point. This consistency in water quality parameters for the surface water run-off samples is an indication of relatively uniform soils in the area with similar metal and radionuclide levels.

Field parameters for each of the samples taken were relatively uniform for the sampling events. The pH was generally consistent in the range of 7.24 to 8.65, indicative of a slightly alkaline soil in the area. Two exceptions occurred at the upgradient sampler, S-4, on 3/9/10 and 7/30/10 when pH levels of 6.67 and 5.58 were recorded, respectively. Because rainwater has a pH of approximately 5.5 in this region, the samples are likely reflective of a short soil-contact time. There were six samples collected, and associated pH measurements recorded, at S-4. The two samples with lower pH resulted from a snowmelt event and an intense storm event (3.1 inches of rainfall), either of which could cause a reduced contact time. The remaining three samples resulted from storm events with moderate rainfall of 0.3 to 0.7 inches.

Specific conductance was relatively uniform throughout the area indicating no unusual areas of soluble salts in the soils around the sample collection points. The total dissolved solids (TDS) did show variability and, as is to be expected, the TSS was highly variable due to the sediment carryover in the samples.

The metals analysis showed consistently low levels of dissolved metals in the samples. No noticeable trends were observed in the data as the measured parameters remained consistent within a relatively small range.

The dissolved radionuclide levels were uniformly low for gross alpha with the exception of five samples which showed values well in excess of the average. No particular rationale can be given for these higher values other than to note that gross alpha can vary significantly if the sample has high sediment loading. The dissolved radioisotopic radium, lead and thorium levels were low in the samples. Total radioisotopic radium, lead and thorium were consistently higher indicating the presence of radionuclides in the soils and sediments within the sampling areas. This is to be expected given that uranium mineralization is located immediately above the Site in the Salt Wash Member of the Morrison Formation.

5.0 SUMMARY

The following summarizes the field observations and analytical results from the surface water monitoring program:

- Twenty-two surface water run-off events produced samples that were recorded on the Site from February 2008 through December 2010. Corresponding surface water samples were collected and analyzed for each run-off event.
- Thirteen storm events of 0.2 inch of precipitation or more and four extended snowmelt events produced enough volume of water to cause run-off at sample station S-1 from February 2008 through December 2010.
- Four storm events of 0.2 inch of precipitation or more and three extended snowmelt events produced enough volume of water to cause run-off at sample station S-2 from February 2008 through December 2010.
- Fourteen storm events of 0.2 inch of precipitation or more and four extended snowmelt events produced enough volume of water to cause run-off at sample station S-3 from February 2008 through December 2010.
- Five storm events of 0.3 inch of precipitation or more and one extended snowmelt event produced enough volume of water to cause run-off at sample station S-4 from February 2008 through December 2010.
- Concentrations of TSS in the surface water samples showed high variability, ranging between 24 mg/L (S-3, 2/9/10) to 36,000 mg/L (S-1, 9/29/08).
- Levels of dissolved metals were below CDPHE and U.S. EPA surface water standards applicable to the receiving portion of the Dolores River (Lower Dolores River Stream Segment 3a) with the exception of selenium in two samples (S-1 and S-3, 7/28/09) and mercury in one duplicate sample (DUP-9 collected at S-4, 7/30/10).
- Slightly elevated levels (above CDPHE and/or U.S. EPA surface water standards) of total chromium were observed in 17 of the 48 samples collected.
- Slightly elevated levels (above CDPHE and/or U.S. EPA surface water standards) of dissolved radium-226 were observed in four of the 43 samples for which dissolved radium-226 activity was measured. Other dissolved radionuclides were not above CDPHE and U.S. EPA surface water standards applicable to the receiving portion of the Dolores River (Lower Dolores River Stream Segment 3a).

- Total radium-226, radium-228, lead-210, thorium-228, thorium-230 and thorium-232 were consistently higher than their dissolved counterparts indicating the presence of radionuclides in the soils and sediments within the sampling areas.
- The QA/QC for the laboratory was generally good and within the protocol of acceptable analytical procedures for duplicates and spikes.

6.0 REFERENCES

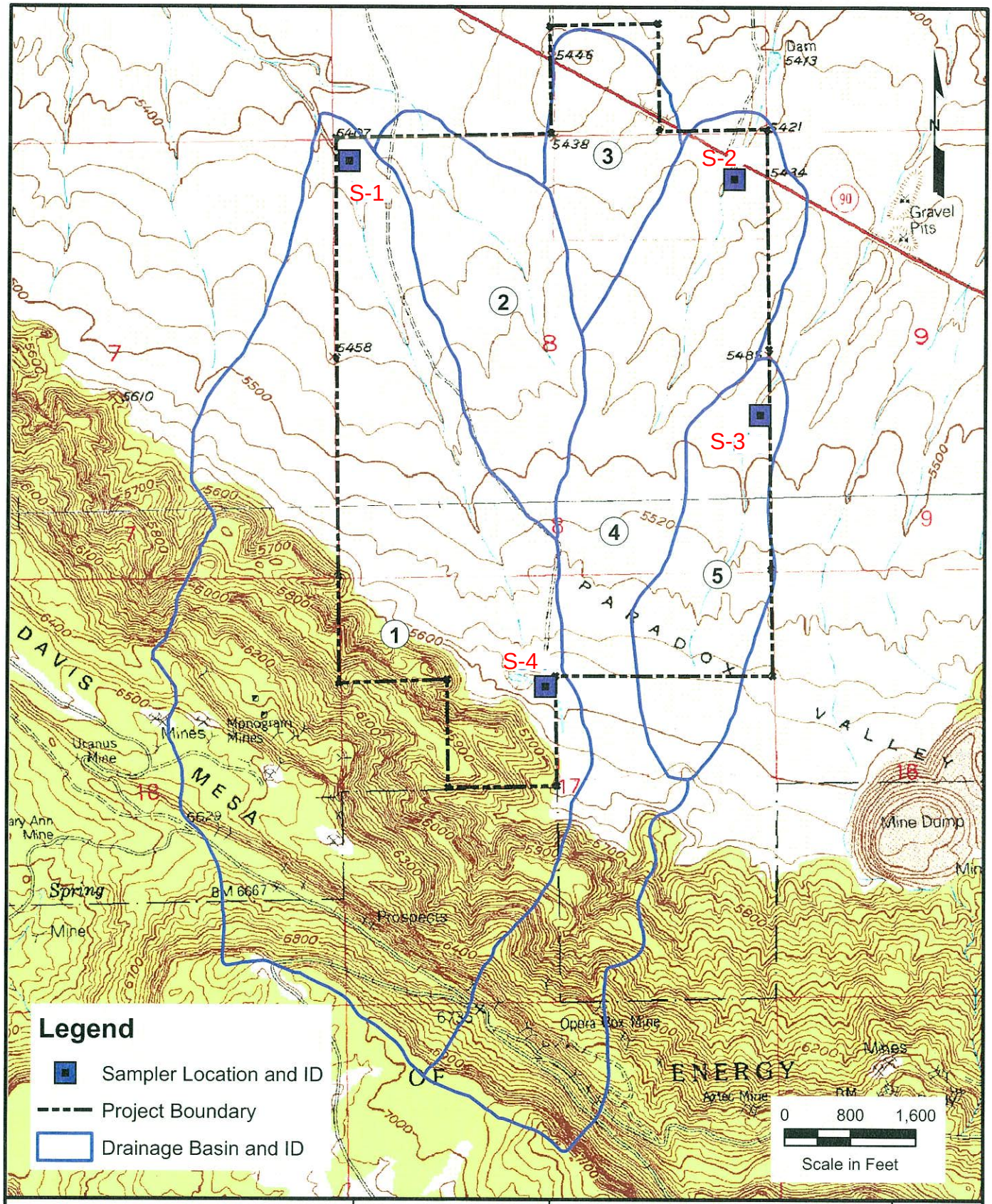
Energy Fuels Resources Corporation (Energy Fuels), 2009. 2008 Surface Water Quality Summary, Piñon Ridge Mill, Montrose County, Colorado. May 28, 2009.

Golder Associates Inc., 2009. 2008 - 2009 Surface Water Monitoring Summary Report, Piñon Ridge Project, Montrose County, Colorado. October 2009.

Energy Fuels, 2010. Surface Water Monitoring Addendum No. 1, Piñon Ridge Mill, Montrose County, Colorado. November 10, 2010.

FIGURES

Figure 1 Surface Water Sampler Locations



Energy Fuels Resources Corporation

PROJECT	Pinon Ridge
DRAWN:	5/26/09
DRAWN BY:	Z Rogers
CHECKED BY:	F Filas
FILE NAME:	Figure1_SamplerLocationMap_052609.mxd

Surface Water Sampler Locations

ENERGY FUELS RESOURCES
PIÑON RIDGE MILL SITE
MONTROSE COUNTY, COLORADO

ORIGINATOR: Z Rogers
APPROVED BY: F Filas

FIGURE **1**

TABLES

Table 1 **Surface Water Sampling Record**

Table 2 **Surface Water Field and Analytical Results**

Table 3 **Summary of Data Completeness**

Table 4 **Relative Percent Difference of Duplicate Samples**

Table 1
Pinon Ridge Mill Site
Surface Water Sampling Record

2008

Date	2/12/2008		9/29/2008		10/7/2008	
Sampler	Sample	Event	Sample	Event	Sample	Event
S-1	Yes	Snow Melt	Yes	Rain 0.6"	Yes	Rain 0.7"
S-2	Yes	Snow Melt	No	Rain 0.5"	No	Rain 0.8"
S-3	Yes	Snow Melt	Yes	Rain 0.5"	Yes	Rain 0.8"
S-4	No	Snow Melt	No	Rain 0.3"	No	Rain 0.8"

2009

Date	1/27/2009		5/3/2009		5/27/2009		6/22/2009		6/30/2009		7/13/2009		7/28/2009		9/15/2009		9/21/2009	
Sampler	Sample	Event	Sample	Event	Sample	Event	Sample	Event	Sample	Event	Sample	Event	Sample	Event	Sample	Event	Sample	Event
S-1	Yes	Snow Melt	Yes	Rain 0.4"	Yes	Rain 1.4"	Yes	Rain 0.3"	Yes	Rain 1.0"	Yes	Rain 0.4"	Yes	Rain 0.2"	No	Dry	No	Rain 0.2"
S-2	Yes	Snow Melt	No	Rain 0.4"	No	Rain 1.2"	No	Rain 0.3"	No	Rain 0.8"	No	Rain 0.4"	No	Rain 0.2"	No	Dry	No	Rain 0.2"
S-3	Yes	Snow Melt	No	Rain 0.4"	Yes	Rain 1.2"	Yes	Rain 0.4"	Yes	Rain 0.8"	Yes	Rain 0.4"	Yes	Rain 0.25"	Yes	Rain 0.4"	Yes	Rain 0.2"
S-4	No	Snow Melt	No	Rain 0.4"	No	Rain 1.3"	No	Rain 0.4"	No	Rain 1.0"	No	Rain 0.5"	Yes	Rain 0.7"	No	Dry	No	Rain 0.3"

2010

Date	2/9/2010		2/12/2010		3/1/2010		3/9/2010		7/30/2010		8/16/2010		8/17/2010		9/23/2010		10/7/2010		10/25/2010	
Sampler	Sample	Event	Sample	Event	Sample	Event	Sample	Event	Sample	Event	Sample	Event	Sample	Event	Sample	Event	Sample	Event	Sample	Event
S-1	No	Snow Melt	Yes	Snow Melt	Yes	Snow Melt	No	Snow Melt	Yes	Rain 1.7"	No	Rain 0.2"	Yes	Rain 0.2"	Yes	Rain 0.4"	Yes	Rain 0.2"	Yes	Rain 0.3"
S-2	No	Snow Melt	No	Snow Melt	Yes	Snow Melt	No	Snow Melt	Yes	Rain 3.1"	No	Rain 0.2"	Yes	Rain 0.2"	Yes	Rain 0.5"	No	Rain 0.2"	Yes	Rain 0.4"
S-3	Yes	Snow Melt	No	Snow Melt	Yes	Snow Melt	No	Snow Melt	Yes	Rain 3.0"	Yes	Rain 0.3"	No	Rain 0.5"	Yes	Rain 0.6"	Yes	Rain 0.2"	Yes	Rain 0.4"
S-4	No	Snow Melt	No	Snow Melt	No	Snow Melt	Yes	Snow Melt	Yes	Rain 3.1"	No	Rain 0.1"	Yes	Rain 0.3"	Yes	Rain 0.5"	No	Rain 0.2"	Yes	Rain 0.5"

Notes:
1) For some storm and snow melt events no or insufficient run-off was observed in some of the sample locations and no samples were collected.
2) Five intense precipitation events ocurred in August 2010 that filled at least one of the samplers with sediment, prohibiting sample collection.
3) Snowmelt samples were not collected more frequently than once per 2 week period for continuous snowmelt events in accordance with the Work Plan.

Table 2
Pinon Ridge Mill Site
Surface Water Analytical Results

	Sampler ID	S-1																	
	Date	2/12/08	9/29/08	10/6/08	1/27/09	5/3/09	5/27/09	6/22/09	6/30/09	7/13/09	7/28/09	2/12/10	3/1/10	7/30/10	8/17/10	9/23/10	10/7/10	10/25/10	
	Type of Event	SM	P - 0.6"	P - 0.7"	SM	SM	P - 1.4" (5)	P - 0.3"	P - 1.0"	P - 0.4'	P - 0.20"	SM	SM	P - 1.7"	P - 0.2"	P - 0.4"	P - 0.2"	P - 0.3"	Range
Parameter	**Unit**																		
Field Parameters																			
Temperature	deg C	NM	16.1	4.7	2.1	21.2	23.1	24.1	19.6	23.8	15.8	1.9	6.8	20.4	20.9	12.4	16.6	10.1	1.9 - 24.1
pH	s.u.	NM	7.83	8.51	8.59	7.97	NM	7.52	7.24	7.75	8.18	7.82	7.62	7.93	8.12	7.78	8.08	8.23	7.24 - 8.59
Specific Conductivity	µS/cm	NM	188	198	161	253	193	217	167	228	253	119	277	177	192	269	269	164	119 - 277
Dissolved Oxygen	mg/L	NM	6.24	7.62	13.02	NM	NM	NM	NM	3.07	0.14	8.31	3.56	2.48	3.28	1.02	2.29	8.79	0.14 - 13.02
Oxidation-reduction Potential	mV	NM	148	191	143	148	149	NM	NM	116	79	169	101	126	144	146	162	172	79 - 191
General Water Quality																			
Nitrate+Nitrite as N	mg/L	0.7	9.16	1.91	<2	1.14	0.4	2.00	0.12	0.66	<0.1	1.72	0.11	0.94	0.56	118	0.07	0.81	<0.1 - 118
Total Dissolved Solids (TDS)	mg/L	1240	4720	1170	910	270	1200	790	460	720	550	830	1580	400	240	740	240	1050	240 - 4720
Total Suspended Solids (TSS)	mg/L	920	36000	3500	2700	3430	6400	2980	2960	2760	1270	2280	5320	19400	18600	12100	4610	3000	920 - 36000
Fluoride	mg/L	0.1	<1	<1	<0.5	0.1	<4	0.2	0.2	0.2	<0.1	0.1	<0.5	<1	0.2	<1	0.1	<1	<0.1 - <4
Dissolved Metals																			
Aluminum	mg/L	0.08	<0.2	0.14	0.12	0.08	0.83	0.14	0.06	0.47	0.22	0.50	0.37	0.29	0.06	2.87	0.13	0.22	0.06 - 2.87
Antimony	mg/L	0.0005	<0.002	0.0012	0.0004	0.0008	0.0008	0.001	0.0015	0.0011	0.0011	0.0017	0.0011	0.0007	0.0005	<0.0004	0.0006	0.0009	<0.0004 - <0.002
Arsenic	mg/L	0.0062	0.0067	0.0120	0.0034	0.0075	0.0156	0.0104	0.0078	0.0068	0.0098	0.0236	0.0144	0.0106	0.0105	0.0083	0.0061	0.003	0.003 - 0.0236
Barium	mg/L	0.119	0.29	0.133	0.132	0.132	0.520	0.126	0.125	0.156	0.265	0.236	0.188	0.145	0.257	0.322	0.244	0.456	0.119 - 0.520
Beryllium	mg/L	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002 - <0.01
Cadmium	mg/L	<0.0001	<0.0005	0.0002	<0.0001	0.0001	0.0005	0.0002	<0.0001	0.0002	0.0002	0.0002	0.0002	<0.0001	<0.0001	0.0005	<0.0001	<0.0002	<0.0001 - 0.0005
Copper	mg/L	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	0.01	0.09	0.01	0.02	<0.01	0.01	0.07	0.01	<0.01	<0.01 - 0.09
Iron	mg/L	NA	0.14	0.09	0.07	1.20	0.22	0.07	0.18	0.20	0.28	0.12	0.27	0.13	0.07	1.77	0.15	1.96	0.07 - 1.96
Lead	mg/L	<0.0003	0.0009	0.0007	0.0002	0.0003	0.0017	0.0015	0.0001	0.0009	0.0085	0.001	0.0008	0.0003	0.0001	0.0080	0.0005	0.0006	0.0001 - 0.0085
Manganese	mg/L	NA	0.641	0.228	<0.005	0.226	0.553	0.206	0.074	0.426	0.601	0.154	0.431	0.156	0.010	0.768	0.388	0.027	<0.005 - 0.768
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01 - <0.05
Nickel	mg/L	NA	0.0041	0.0017	0.0017	0.0028	0.0145	0.0054	0.0022	0.0066	0.0082	0.0016	0.0050	0.0025	0.0019	0.0084	0.0047	0.004	0.0016 - 0.0145
Potassium	mg/L	17.5	17.0	15.0	17.1	16.5	19.5	20.3	17.1	24.1	29.4	8.9	28.6	20.6	18.6	33.6	31.7	22.7	8.9 - 33.6
Selenium	mg/L	<0.001	<0.0005	0.0003	0.0003	0.0004	0.0005	0.0008	0.0004	0.0007	0.0056	0.0003	0.0006	0.0006	0.0005	0.0004	0.0007	0.0002	0.0002 - 0.0056
Silver	mg/L	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01 - <0.05
Thallium	mg/L	<0.0001	<0.0005	<0.0001	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0003	<0.0001 - <0.0005
Uranium	mg/L	0.0032	0.0005	0.0001	0.0005	0.0010	0.0005	0.0004	0.0009	0.0005	0.0006	0.0002	0.0007	0.0072	0.0090	0.0162	0.0017	0.0030	0.0001 - 0.0162
Vanadium	mg/L	0.023	<0.03	0.018	0.013	0.011	0.011	0.025	0.024	0.034	0.032	0.017	0.011	0.036	0.045	0.071	0.032	0.030	0.011 - 0.071
Zinc	mg/L	NA	0.003	0.010	0.007	0.011	0.020	0.028	0.003	0.026	0.494	0.011	0.009	0.004	0.009	0.098	0.062	0.090	0.003 - 0.494
Total Metals																			
Antimony	mg/L	<0.004	NA	<0.002	NA	<0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.002 - <0.004
Arsenic	mg/L	0.033	NA	0.050	NA	0.039	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.033 - 0.050
Cadmium	mg/L	0.003	NA	0.0045	NA	0.0045	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.003 - 0.0045
Chromium	mg/L	0.12	0.6	0.08	0.07	0.14	0.15	0.09	0.08	<0.1	0.07	0.06	0.30	0.34	0.10	0.23	0.13	0.17	0.06 - 0.6
Lead	mg/L	0.041	NA	0.0891	NA	0.0689	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.041 - 0.0891
Mercury	mg/L	<0.0002	NA	<0.0002	NA	<0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0002
Selenium	mg/L	0.0010	NA	0.0024	0.0020	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0010 - 0.0024
Thallium	mg/L	0.003	NA	0.0033	NA	0.0026	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0026 - 0.0033
Radionuclides - Dissolved																			
Gross Alpha	pCi/L	NA	2.3	<1.6	<1.7	<1.9	2.6	2.7	2.8	3.3	3.6	<1.6	<1.8	5.1	3.6	11	2.7	14	<1.6 - 14
Radium 226	pCi/L	NA	NA	<0.52	<0.46	<0.71	<0.42	<0.8	<0.81	0.58	1.2	<0.42	<0.37	1.6	1.2	3.1	2	1.5	<0.37 - 3.1
Radium 228	pCi/L	NA	NA	<1.4	<1.4	<1.4	2.1	<1.5	<1.4	<2	<1.4	<1.1	2	0.92	<1.3	<0.84	<0.99	1.5	<0.84 - 2.1
Lead 210	pCi/L	NA	NA	NA	NA	NA	<6.6	<7.9	<7.4	<7.4	<9.6	<7.4	<4.3	5.6	<4.6	<6.2	<4.7	<5.5	<4.3 - <9.6
Thorium 228	pCi/L	NA	NA	<0.36	<0.23	<0.24	<0.21	<0.23	<0.22	<0.22	<0.21	<0.33	<0.23	<0.27	<0.24	<0.22	<0.22	<0.16	<0.16 - <0.36
Thorium 230	pCi/L	NA	NA	<0.93	<0.6	<0.63	<0.56	<0.61	<0.57	<0.59	0.57	<0.87	<0.6	1.3	<0.64	<0.58	<0.56	0.43	0.43 - 1.3
Thorium 232	pCi/L	NA	NA	<0.36	<0.23	<0.24	<0.21	<0.23	<0.22	<0.22	<0.21	<0.33	<0.23	<0.27	<0.24	<0.22	<0.22	<0.16	<0.16 - <0.36
Radionuclides - Total																			
Radium 226	pCi/L	20	21	NA	17	62	46	20	30	35	21	20	35	180	59	100	27	63	17 - 180
Radium 228	pCi/L	7.8	2.5	NA	3.7	5.5	16	<10	<6.9	<9.7	<7	<3.7	7	5.5	<5	12	4.7	<3.8	2.5 - 16
Lead 210	pCi/L	NA	NA	NA	NA	NA	<15	<14	14	<14	<15	<17	29	220	49	120	47	39	<14 - 220
Thorium 228	pCi/L	1.8	4.9	NA	<0.18	5.8	16	3.4	2	5.6	5.4	3.6	2	15	17	11	5.1	2.9	<0.18 - 17
Thorium 230	pCi/L	11	21	NA	<0.48	28	83	17	23	34	30	11	18	280	230	230	46	65	<0.48 - 280
Thorium 232	pCi/L	1.98	3.83	NA	<0.18	5.67	12.6	2.47	1.86	4.74	4.62	2.58	2.25	12.7	16.9	12	5.48	3.5	<0.18 - 16.9

Table 2
Pinon Ridge Mill Site
Surface Water Analytical Results

	Sampler ID	S-2							
	Date	2/12/08	1/27/09	3/1/10	7/30/10	8/17/10	9/23/10	10/25/10	
	Type of Event	SM	SM	SM	P - 3.1"	P - 0.2"	P - 0.5"	P - 0.4"	Range
Parameter	**Unit**								
Field Parameters									
Temperature	deg C	NM	2.3	5.1	21.2	20.8	13.6	9.9	2.3 - 21.2
pH	s.u.	NM	8.53	7.89	7.72	8.38	8.59	8.37	7.72 - 8.59
Specific Conductivity	µS/cm	NM	120	185	318	119	102	105	102 - 318
Dissolved Oxygen	mg/L	NM	12.41	9.23	4.17	2.87	3.48	6.41	2.87 - 12.41
Oxidation-reduction Potential	mV	NM	133	79	138	123	134	175	79 - 175
General Water Quality									
Nitrate+Nitrite as N	mg/L	0.4	<2	0.04	1.04	0.58	0.47	0.28	0.04 - 1.04
Total Dissolved Solids (TDS)	mg/L	930	870	2040	240	400	260	190	190 - 2040
Total Suspended Solids (TSS)	mg/L	1600	610	6510	640	6200	2900	1220	610 - 6510
Fluoride	mg/L	<0.1	<0.5	<0.5	0.2	<0.1	<1	0.1	<0.1 - <0.5
Dissolved Metals									
Aluminum	mg/L	0.08	0.16	0.85	0.05	0.09	0.40	3.57	0.05 - 3.57
Antimony	mg/L	<0.0004	0.0009	0.0010	0.0005	0.0004	<0.0004	<0.0008	<0.0004 - 0.0010
Arsenic	mg/L	0.0047	0.0058	0.015	0.0056	0.0111	0.0042	0.004	0.004 - 0.015
Barium	mg/L	0.102	0.106	0.177	0.212	0.110	0.113	0.631	0.102 - 0.631
Beryllium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	mg/L	<0.0001	<0.0001	0.0003	<0.0001	<0.0001	<0.0001	0.0006	<0.0001 - 0.0006
Copper	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01 - 0.01
Iron	mg/L	NA	0.03	0.19	0.02	0.05	0.26	0.77	0.02 - 0.77
Lead	mg/L	0.0002	0.0002	0.0010	0.0001	0.0001	0.0010	0.0118	0.0001 - 0.0118
Manganese	mg/L	NA	0.033	0.160	<0.005	0.083	0.184	0.894	<0.005 - 0.894
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	mg/L	NA	0.0017	0.003	0.0013	0.0017	0.0018	0.006	0.0013 - 0.006
Potassium	mg/L	9.1	6.5	25.0	13.8	6.1	5.4	8.5	5.4 - 25.0
Selenium	mg/L	<0.001	0.0002	0.0006	0.0011	0.0004	0.0005	<0.0002	<0.0002 - 0.0011
Silver	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	mg/L	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001	0.0003	<0.0001 - 0.0003
Uranium	mg/L	0.0020	0.0003	0.0004	0.0031	0.0012	0.0006	0.0040	0.0003 - 0.0040
Vanadium	mg/L	0.010	0.006	<0.005	0.035	0.020	0.013	0.037	<0.005 - 0.037
Zinc	mg/L	NA	0.003	0.008	0.004	<0.002	0.012	0.018	<0.002 - 0.018
Total Metals									
Antimony	mg/L	<0.004	NA	NA	NA	NA	NA	NA	<0.004
Arsenic	mg/L	0.020	NA	NA	NA	NA	NA	NA	0.020
Cadmium	mg/L	0.003	NA	NA	NA	NA	NA	NA	0.003
Chromium	mg/L	0.10	0.06	0.18	<0.01	0.10	0.07	0.05	<0.01 - 0.18
Lead	mg/L	0.043	NA	NA	NA	NA	NA	NA	0.043
Mercury	mg/L	<0.0002	NA	NA	NA	NA	NA	NA	<0.0002
Selenium	mg/L	<0.001	0.0019	NA	NA	NA	NA	NA	<0.001 - 0.0019
Thallium	mg/L	<0.001	NA	NA	NA	NA	NA	NA	<0.001
Radionuclides - Dissolved									
Gross Alpha	pCi/L	NA	<1.8	<1.7	4	3.1	2.1	7.8	<1.7 - 7.8
Radium 226	pCi/L	NA	<0.48	0.42	0.95	<0.87	<0.38	<0.69	<0.38 - 0.95
Radium 228	pCi/L	NA	<1.4	<1.4	<1.4	<0.86	<1.2	2.2	<0.86 - 2.2
Lead 210	pCi/L	NA	NA	<5.3	<3.9	3.8	<6.6	<6.2	3.8 - <6.6
Thorium 228	pCi/L	NA	<0.21	<0.23	<0.24	<0.23	<0.25	<0.73	<0.21 - <0.73
Thorium 230	pCi/L	NA	<0.56	<0.6	<0.63	<0.6	<0.65	<1.9	<0.56 - <1.9
Thorium 232	pCi/L	NA	<0.21	<0.23	<0.24	<0.23	<0.25	<0.73	<0.21 - <0.73
Radionuclides - Total									
Radium 226	pCi/L	9.4	10	25	5.8	39	8.2	10	5.8 - 39
Radium 228	pCi/L	11	2.7	5.7	3.6	8.8	7.3	4.1	2.7 - 11
Lead 210	pCi/L	NA	NA	25	7.3	38	<17	11	7.3 - 38
Thorium 228	pCi/L	2.7	0.37	5.5	<0.59	8.1	3.6	2.5	0.37 - 8.1
Thorium 230	pCi/L	5.2	<0.59	21	6.8	52	13	6.8	<0.59 - 52
Thorium 232	pCi/L	2.71	<0.22	4.57	1.07	8.71	2.46	0.95	<0.22 - 8.71

Table 2
Pinon Ridge Mill Site
Surface Water Analytical Results

	Sampler ID	S-3																		
	Date	2/12/08	9/29/08	10/6/08	1/27/09	5/27/09	6/22/09	6/30/09	7/13/09	7/28/09	9/15/09	9/21/09	2/9/10	3/1/10	7/30/10	8/16/10	9/23/10	10/7/10	10/25/10	
	Type of Event	SM	P - 0.5"	P - 0.8"	SM	P - 1.2"	P - 0.4"	P - 1.0"	P - 0.4"	P - 0.25"	P - 0.4"	P - 0.2"	SM	SM	P - 3.0"	P - 0.3"	P - 0.6"	P - 0.2"	P - 0.4"	Range
Parameter	**Unit**																			
Field Parameters																				
Temperature	deg C	NM	15.2	2.3	1.1	21.5	26.2	21.5	26.1	20.2	21.3	21.1	2.4	4.6	20.1	20.5	13.5	16.4	10.3	1.1 - 26.2
pH	s.u.	NM	7.72	8.48	8.37	NM	7.42	7.41	7.24	8.19	7.68	7.77	7.91	7.96	7.74	8.65	7.98	8.49	8.46	7.24 - 8.65
Specific Conductivity	µS/cm	NM	193	135	173	118	112	115	143	158	166	147	201	182	294	NM	145	159	153	112 - 294
Dissolved Oxygen	mg/L	NM	6.09	4.41	11.76	NM	NM	NM	2.63	2.81	1.94	1.34	3.92	8.28	4.23	5.03	1.63	1.93	3.32	1.34 - 11.76
Oxidation-reduction Potential	mV	NM	188	165	168	153	NM	NM	103	94	94	104	96	72	131	109	124	147	184	72 - 188
General Water Quality																				
Nitrate+Nitrite as N	mg/L	0.4	60.2	0.79	<2	0.5	0.65	0.10	0.20	<0.1	0.59	0.12	0.23	0.02	0.36	0.56	0.51	0.22	4.34	0.02 - 60.2
Total Dissolved Solids (TDS)	mg/L	1580	1280	1320	630	2510	1050	1260	930	520	260	420	160	3120	260	1080	190	180	260	160 - 3120
Total Suspended Solids (TSS)	mg/L	700	1940	1800	7600	3400	3810	3950	4690	2740	1780	3570	24	11200	17600	3520	18500	8470	9300	24 - 18500
Fluoride	mg/L	<0.1	0.1	<1	<0.5	<4	0.2	0.1	0.2	0.1	0.2	0.2	0.1	<0.05	0.2	0.2	0.4	0.2	0.2	<0.05 - <4
Dissolved Metals																				
Aluminum	mg/L	0.14	0.12	1.16	0.07	0.73	0.18	0.06	0.59	0.37	0.07	0.64	0.28	0.54	0.05	0.38	0.38	0.09	13.10	0.05 - 13.10
Antimony	mg/L	0.0005	0.0008	0.0016	0.0008	0.0008	0.0011	0.0014	<0.004	0.0013	0.0006	0.0007	<0.004	<0.0008	0.0006	0.0007	0.0007	0.0010	0.0011	0.0005 - <0.004
Arsenic	mg/L	0.0031	0.026	0.0231	0.0074	0.008	0.0056	0.0040	0.0062	0.0075	0.0080	0.0060	0.0029	0.006	0.0098	0.0071	0.0114	0.0084	0.019	0.0029 - 0.026
Barium	mg/L	0.061	0.101	0.486	0.151	0.254	0.107	0.088	0.190	0.263	0.126	0.103	0.121	0.135	0.255	0.117	0.156	0.528	3.690	0.061 - 3.690
Beryllium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.005	<0.002 - 0.005
Cadmium	mg/L	0.0002	<0.0001	0.0004	<0.0001	0.0003	<0.0001	<0.0001	0.0002	0.0002	<0.0001	<0.0001	0.0006	<0.0002	<0.0001	<0.0001	<0.0001	0.0001	0.0034	<0.0001 - 0.0034
Copper	mg/L	0.02	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	0.03	0.08	<0.01	<0.01	0.01	0.02	<0.01	<0.01	<0.01	0.02	<0.01	<0.01 - 0.08
Iron	mg/L	NA	1.69	0.10	0.05	2.04	0.09	0.04	0.24	0.30	0.15	0.21	0.1600	0.36	0.03	0.15	0.17	0.47	0.42	0.03 - 2.04
Lead	mg/L	0.0003	0.0002	0.0026	0.0002	0.0023	0.0003	<0.0001	0.002	0.0070	0.0014	0.0003	0.0004	0.0004	0.0002	0.0008	0.0005	0.0059	0.0183	<0.0001 - 0.0183
Manganese	mg/L	NA	0.025	0.645	0.046	0.21	0.015	0.024	0.427	0.417	0.344	0.158	0.087	0.056	0.165	0.067	0.167	0.231	5.980	0.015 - 5.980
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01 - 0.02
Nickel	mg/L	NA	0.004	0.0034	0.0021	0.036	0.0034	0.0013	0.0028	0.0046	0.0032	0.0027	0.0022	0.008	0.0018	0.0010	0.0021	0.0030	0.029	0.0010 - 0.036
Potassium	mg/L	8.4	13.0	9.8	13.4	10.3	8.1	8.6	9.7	10.7	12.0	9.8	17.1	25.2	13.6	7.5	8.9	9.6	28.5	7.5 - 28.5
Selenium	mg/L	<0.001	0.0007	0.0002	0.0002	0.0004	0.0005	0.0003	0.001	0.0062	0.0004	0.0005	0.0010	0.0006	0.0010	0.0003	0.0005	0.0005	0.0005	0.0002 - 0.0062
Silver	mg/L	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01 - <0.02
Thallium	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	0.0001	<0.0001	<0.0001	0.0003	<0.0001 - 0.0003
Uranium	mg/L	0.0004	0.0003	0.0002	0.0018	<0.0002	<0.0001	0.0001	0.0003	0.0003	0.0005	0.0004	0.0009	0.0003	0.0030	0.0015	0.0018	0.0008	0.0049	<0.0001 - 0.0049
Vanadium	mg/L	0.010	0.015	0.019	0.014	<0.01	0.016	0.007	0.030	0.026	0.019	0.028	0.016	0.006	0.027	0.045	0.025	0.025	0.086	0.006 - 0.086
Zinc	mg/L	NA	0.02	0.026	0.005	0.042	0.021	0.003	0.015	0.085	0.023	0.021	0.105	0.028	0.002	0.009	0.004	0.322	0.054	0.002 - 0.322
Total Metals																				
Antimony	mg/L	<0.004	NA	<0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.002 - <0.004
Arsenic	mg/L	0.029	NA	0.048	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.029 - 0.048
Cadmium	mg/L	0.003	NA	0.0034	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.003 - 0.0034
Chromium	mg/L	0.11	0.12	0.10	0.09	0.09	0.09	0.10	<0.1	0.07	0.04	0.06	<0.01	0.28	0.14	0.07	0.25	0.13	0.33	<0.01 - 0.33
Lead	mg/L	0.052	NA	0.0925	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.052 - 0.0925
Mercury	mg/L	<0.0002	NA	<0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0002
Selenium	mg/L	<0.001	NA	0.0022	0.0033	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.001 - 0.0033
Thallium	mg/L	<0.001	NA	0.0024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.001 - 0.0024
Radionuclides - Dissolved																				
Gross Alpha	pCi/L	NA	NA	<1.8	4.9	<1.7	<1.7	2.1	2.7	<1.7	2.8	<1.7	<1.7	1.9	2	<1.6	3.9	2.3	1.8	<1.6 - 4.9
Radium 226	pCi/L	NA	NA	0.52	<0.49	<0.41	<0.87	<0.77	<0.4	<0.71	0.85	<0.72	<0.37	<0.38	0.63	<0.75	<0.39	<0.38	<0.67	<0.37 - <0.87
Radium 228	pCi/L	NA	NA	2.3	<1.4	<1.6	1.6	<1.4	<1.5	<1.4	<1.4	<1.3	<1.1	<1.5	<1.2	<0.74	<1.2	0.85	<0.97	<0.74 - 2.3
Lead 210	pCi/L	NA	NA	NA	NA	<5.9	<8.3	<6.5	<6	<6.5	<5.3	<4.5	<8	<4.8	<4.2	<3	<6.6	<4.7	<6	<3 - <8.3
Thorium 228	pCi/L	NA	NA	<0.64	<0.23	<0.21	<0.26	<0.24	<0.22	<0.22	<0.33	<0.23	0.9	<0.24	<0.24	<0.23	<0.2	<0.21	<0.24	<0.2 - 0.9
Thorium 230	pCi/L	NA	NA	<1.7	<0.6	<0.55	<0.67	<0.64	<0.58	<0.58	<0.85	<0.61	<1.1	<0.62	<0.63	<0.6	<0.52	<0.55	<0.62	<0.52 - <1.7
Thorium 232	pCi/L	NA	NA	<0.64	<0.23	<0.21	<0.26	<0.24	<0.22	<0.22	<0.33	<0.23	<0.42	<0.24	<0.24	<0.23	<0.2	<0.21	<0.24	<0.2 - <0.64
Radionuclides - Total																				
Radium 226	pCi/L	12	19	NA	3.7	15	22	28	27	29	23	22	<2.7	42	43	28	38	19	62	<2.7 - 62
Radium 228	pCi/L	11	6	NA	3.9	12	18	<7.3	10	<6.9	8.8	7.3	<1.1	10	<5.7	<5.4	5.6	5	6.3	<1.1 - 18
Lead 210	pCi/L	NA	NA	NA	NA	<14	<12	<13	<12	<15	74	19	<9.4	37	56	17	56	38	43	<9.4 - 74
Thorium 228	pCi/L	2.3	4.9	NA	0.24	7.4	4.7	3.1	3.2	5.2	8.1	3.7	<0.36	6.3	9.4	4.4	22	12	14	0.24 - 22
Thorium 230	pCi/L	11	13	NA	<0.63	24	13	12	18	17	27	10	<0.95	24	61	18	68	34	47	<0.63 - 68
Thorium 232	pCi/L	2.99	4.93	NA	<0.24	6.63	4.86	3.11	3.09	5.03	7.96	2.9	<0.36	3.99	9.88	4.8	19.2	9.6	10.7	<0.24 - 19.2

Table 2
Pinon Ridge Mill Site
Surface Water Analytical Results

	Sampler ID	S-4						
	Date	7/28/09	3/9/10	7/30/10	8/17/10	9/23/10	10/25/10	
	Type of Event	P - 0.7"	SM	P - 3.1"	P - 0.3"	P - 0.5"	P - 0.5"	Range
Parameter	**Unit**							
Field Parameters								
Temperature	deg C	21.1	1.2	24.7	20.6	13.8	10.1	1.2 - 24.7
pH	s.u.	7.69	6.67	5.58	8.31	7.87	8.31	5.58 - 8.31
Specific Conductivity	µS/cm	194	10	333	184	284	217	10 - 333
Dissolved Oxygen	mg/L	1.3	7.96	5.42	1.65	0.05	5.8	0.05 - 7.96
Oxidation-reduction Potential	mV	123	146	80	120	140	180	80 - 180
General Water Quality								
Nitrate+Nitrite as N	mg/L	<0.1	0.20	0.31	0.47	0.02	0.80	0.02 - 0.80
Total Dissolved Solids (TDS)	mg/L	240	20	250	250	290	380	20 - 380
Total Suspended Solids (TSS)	mg/L	570	106	18800	2300	480	110	106 - 18800
Fluoride	mg/L	<0.1	<0.1	0.2	0.1	<1	0.1	<0.1 - <1
Dissolved Metals								
Aluminum	mg/L	0.18	0.08	0.48	0.05	0.24	0.13	0.05 - 0.48
Antimony	mg/L	0.0012	<0.0004	0.0005	<0.0004	<0.0004	<0.0008	<0.0004 0.0012
Arsenic	mg/L	0.0051	<0.0005	0.0139	0.0104	0.0033	0.005	<0.0005 - 0.0139
Barium	mg/L	0.338	0.006	0.248	0.123	0.109	0.224	0.006 - 0.338
Beryllium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001 - <0.0002
Copper	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	mg/L	0.26	0.04	0.17	0.04	0.49	0.32	0.04 - 0.49
Lead	mg/L	0.0015	0.0004	0.0008	0.0003	0.0017	0.0002	0.0002 - 0.0017
Manganese	mg/L	0.216	0.018	0.150	0.063	0.171	0.010	0.010 - 0.216
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	mg/L	0.0019	<0.0006	0.0017	0.0014	0.0025	<0.001	<0.0006 - 0.0025
Potassium	mg/L	14.4	0.5	10.2	9.4	56.4	18.6	0.5 - 56.4
Selenium	mg/L	0.0004	<0.0001	0.0019	0.0008	0.0004	0.0005	<0.0001 - 0.0019
Silver	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0003	<0.0001 - 0.0003
Uranium	mg/L	0.0005	0.0002	0.0106	0.0045	0.0017	0.0124	0.0002 - 0.0124
Vanadium	mg/L	0.021	<0.005	0.088	0.050	0.037	0.053	<0.005 - 0.088
Zinc	mg/L	0.055	0.046	0.002	0.003	0.028	0.038	0.002 - 0.055
Total Metals								
Antimony	mg/L	<0.0008	NA	NA	NA	NA	NA	<0.0008
Arsenic	mg/L	0.008	NA	NA	NA	NA	NA	0.008
Cadmium	mg/L	0.0005	NA	NA	NA	NA	NA	0.0005
Chromium	mg/L	<0.02	<0.01	0.37	0.06	<0.01	0.04	<0.01 - 0.37
Lead	mg/L	0.0081	NA	NA	NA	NA	NA	0.0081
Mercury	mg/L	<0.0002	NA	NA	NA	NA	NA	<0.0002
Selenium	mg/L	0.0009	NA	NA	NA	NA	NA	0.0009
Thallium	mg/L	<0.0002	NA	NA	NA	NA	NA	<0.0002
Radionuclides - Dissolved								
Gross Alpha	pCi/L	3.8	7.2	10	7.8	69	15	3.8 - 69
Radium 226	pCi/L	1.9	<0.35	3.3	2.8	3.7	3.4	<0.35 - 3.7
Radium 228	pCi/L	<1.4	<1.3	<1.3	<0.76	2	2.2	<0.76 - 2.2
Lead 210	pCi/L	<8	<5.7	4.9	<3.8	<8.5	<7	<3.8 - <8.5
Thorium 228	pCi/L	<0.22	<0.22	<0.29	0.43	<0.25	<0.24	<0.22 - 0.43
Thorium 230	pCi/L	0.6	<0.57	<0.76	<0.65	0.82	<0.63	<0.57 - 0.82
Thorium 232	pCi/L	<0.22	<0.22	<0.29	<0.25	<0.25	<0.24	<0.22 - <0.29
Radionuclides - Total								
Radium 226	pCi/L	13	0.87	240	110	14	29	0.87 - 240
Radium 228	pCi/L	3.8	<1.2	6.7	7	<2.6	<4.9	<1.2 - 7
Lead 210	pCi/L	<12	5.5	180	71	<18	<16	5.5 - 180
Thorium 228	pCi/L	0.61	<0.2	19	6.2	<0.55	1.6	<0.2 - 19
Thorium 230	pCi/L	4.2	0.66	400	160	15	15	0.66 - 400
Thorium 232	pCi/L	<0.36	<0.2	16.9	6.49	<0.55	<0.58	<0.2 - 16.9

Table 2
Pinon Ridge Mill Site
Surface Water Analytical Results

	Sampler ID	Equipment Rinsate	DUP-1 (S-3)	DUP-2 (S-1)	DUP-3 (S-3)	DUP-4 (S-1)	DUP-5 (S-3)	DUP-6 (S-4)	DUP-7 (S-2)	DUP-8 (S-1)	DUP-9 (S-4)	DUP-10 (S-3)	DUP-11 (S-4)	CDPHE Agriculture	CDPHE Dolores Segment 3a	CDPHE Aquatic Class 2	CDPHE Recreational Class E	EPA 40 CFR Part 440
	Date	2/12/08	9/29/08	9/26/08	5/27/09	6/22/09	7/13/09	7/28/09	3/1/10	7/30/10	8/17/10	9/23/10	10/25/10					
	Type of Event	SM	P - 0.5"	P - 0.6"	P - 1.2"	P - 0.3"	P - 0.4"	P - 0.7"	SM	P - 1.7"	P - 0.3"	P - 0.6"	P - 0.5"					
Parameter	**Unit**																	
Field Parameters																		
Temperature	deg C	NM	15.2	16.1	21.5	24.1	26.1	21.1	5.1	20.4	20.6	13.5	10.1					
pH	s.u.	NM	7.72	7.83	NA	7.52	7.24	7.69	7.89	7.93	8.31	7.98	8.31		6.5-9.0	6.5-9.0	6.5-9.0	6.0-9.0
Specific Conductivity	µS/cm	NM	193	188	118	217	143	194	185	177	184	145	217					
Dissolved Oxygen	mg/L	NM	6.09	6.24	NA	NA	2.63	1.3	9.23	2.48	1.65	1.63	5.8	3.0	5.0	6.0	3.0	
Oxidation-reduction Potential	mV	NM	188	148	153	NA	103	1.23	79	126	120	124	180					
General Water Quality																		
Nitrate+Nitrite as N	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	100			
Total Dissolved Solids (TDS)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Total Suspended Solids (TSS)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					30(1);20(2)
Fluoride	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Dissolved Metals																		
Aluminum	mg/L	NA	0.21	0.58	1.80	0.09	0.16	0.27	0.55	0.10	0.09	0.37	0.21					
Antimony	mg/L	NA	0.0006	0.0006	0.0008	0.0015	0.0013	<0.0004	0.0006	0.0004	0.0005	0.0009	<0.0008					
Arsenic	mg/L	NA	0.0117	0.0290	0.0099	0.0081	0.0078	0.0036	0.0078	0.0106	0.0110	0.0130	0.006			0.34(3);0.15(4)		1.0(max);0.5(1)
Barium	mg/L	NA	0.295	0.251	0.783	0.115	0.115	0.780	0.113	0.132	0.099	0.188	0.198					
Beryllium	mg/L	NA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002					
Cadmium	mg/L	NA	0.0001	0.0004	0.0006	0.0001	<0.0001	0.0002	0.0001	<0.0001	<0.0001	<0.0001	<0.0001					
Copper	mg/L	NA	0.02	<0.01	<0.01	0.02	0.01	0.01	0.02	<0.01	<0.01	<0.01	<0.01					
Iron	mg/L	NA	0.12	0.45	0.75	0.08	0.09	0.43	0.38	0.05	0.03	0.16	0.09					
Lead	mg/L	NA	0.0002	0.0024	0.0030	0.0004	0.0006	0.0029	0.0003	0.0002	0.0002	0.0007	<0.0002					
Manganese	mg/L	NA	0.080	0.848	0.297	0.042	0.209	0.228	0.069	0.071	0.081	0.262	<0.005					
Mercury	mg/L	NA	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002			0.0014(3); 0.00001(4)		
Molybdenum	mg/L	NA	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					
Nickel	mg/L	NA	0.0031	0.0050	0.0279	0.0055	0.0023	0.0032	0.0045	0.0023	0.0017	0.0035	<0.001					
Potassium	mg/L	NA	17.0	17.6	11.7	21.5	13.3	14.3	23.6	20.8	6.0	10.4	17.8					
Selenium	mg/L	NA	0.0006	0.0005	0.0004	0.0009	0.0007	0.0023	0.0006	0.0005	0.0004	0.0006	0.0005			0.0184(3); 0.0046(4)		
Silver	mg/L	NA	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					
Thallium	mg/L	NA	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0003					
Uranium	mg/L	NA	0.0003	0.0004	0.0002	0.0007	0.0006	0.0011	0.0003	0.0068	0.0012	0.0020	0.0152					
Vanadium	mg/L	NA	0.021	0.014	0.005	0.029	0.020	0.023	0.011	0.035	0.019	0.031	0.052					
Zinc	mg/L	NA	0.007	0.024	0.149	0.006	0.004	0.120	0.016	0.003	0.003	0.004	0.075					1.0(1);0.5(2)
Total Metals																		
Antimony	mg/L	<0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Arsenic	mg/L	<0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1(2)	0.1			
Cadmium	mg/L	<0.0001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01(2)	0.01			
Chromium	mg/L	<0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1(2)	0.1			
Lead	mg/L	<0.0001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1(2)	0.1			
Mercury	mg/L	<0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Selenium	mg/L	<0.0001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.02(2)	0.02			
Thallium	mg/L	<0.0001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Radionuclides - Dissolved																		
Gross Alpha	pCi/L	0.76	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Radium 226	pCi/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					10(1);3.0(2)
Radium 228	pCi/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Lead 210	pCi/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Thorium 228	pCi/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Thorium 230	pCi/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Thorium 232	pCi/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Radionuclides - Total																		
Radium 226	pCi/L	0.08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	5	5	5	30(1);10(2)
Radium 228	pCi/L	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Lead 210	pCi/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Thorium 228	pCi/L	-0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Thorium 230	pCi/L	-0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	60	60	60	60	
Thorium 232	pCi/L	-0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					

Table 2 Notes:
(1) - Maximum value
(2) - 30-day average value
(3) - Acute
(4) - Chronic
(5) - Measured at #1 Met station - cows damaged gauge at S-1
NA - Not Analyzed
NM - Not Measured
P - 0.5" - Precipitation and Intensity (in total inches)
SM - Snowmelt
Shading indicates a concentration or activity level above of a surface water standard applicable to the Dolores River at segment 3a.

Table 2 Regulatory References:
CDPHE WQCD Regulation No. 31 - The Basic Standards and Methodologies for Surface Water (amended 1/14/08)

CDPHE WQCD Regulation No. 35 - Classifications and Numeric Standards for Gunnison and Lower Dolores River Basins (amended 2/12/07)

EPA CFR40 Part 440 Subpart C - Uranium, Radium and Vanadium Ores Subcategory

Table 3
Pinon Ridge Mill Site
Summary of Data Completeness

Sampling Event	Percent Completeness				Comments
	S-1	S-2	S-3	S-4	
2/12/2008	72%	72%	72%	NA	No pH meter available; Nitrate/Nitrite outside hold time; Dissolved iron, manganese, nickel, zinc, radium and thorium not analyzed
9/29/2008	83%	NA	81%	NA	Nitrate/nitrite outside hold time; Improper handling of dissolved radionuclide samples
10/7/2008	98%	NA	100%	NA	Nitrate/nitrite outside hold time
1/27/2009	100%	100%	100%	NA	
5/3/2009	97%	NA	NA	NA	Dissolved oxygen probe malfunction
5/27/2009	93%	NA	93%	NA	pH and dissolved oxygen probe malfunctions; TSS outside hold time
6/22/2009	95%	NA	95%	NA	Dissolved oxygen and oxidation-reduction probe malfunctions
6/30/2009	95%	NA	95%	NA	Dissolved oxygen and oxidation-reduction probe malfunctions
7/13/2009	100%	NA	100%	NA	
7/28/2009	100%	NA	100%	100%	
9/15/2009	NA	NA	100%	NA	
9/21/2009	NA	NA	100%	NA	
2/9/2010	NA	NA	100%	NA	
2/12/2010	100%	NA	NA	NA	
3/1/2010	100%	100%	100%	NA	
3/9/2010	NA	NA	NA	100%	
7/30/2010	100%	100%	100%	91%	Temperature outside acceptable criteria - Nitrate/Nitrite, TDS, TSS and Potassium results qualified
8/16/2010	NA	NA	98%	NA	Specific conductance probe malfunction
8/17/2010	91%	91%	NA	91%	Temperature outside acceptable criteria - Nitrate/Nitrite, TDS, TSS and Potassium results qualified
9/23/2010	91%	91%	91%	91%	Temperature outside acceptable criteria - Nitrate/Nitrite, TDS, TSS and Potassium results qualified
10/7/2010	100%	NA	100%	NA	
10/25/2010	98%	98%	98%	100%	TSS outside hold time
Overall	**95%**	**93%**	**96%**	**95%**	

Table 4
Pinon Ridge Mill Site
Relative Percent Difference of Duplicate Samples

	Sampler ID	S-4	DUP-11 (S-4)	Relative Percent Difference
	Date	10/25/10	10/25/10	
	Type of Event	P - 0.5"	P - 0.5"	
Parameter	**Unit**			
Aluminum	mg/L	0.13	0.21	47%
Antimony	mg/L	<0.0008	<0.0008	NA
Arsenic	mg/L	0.005	0.006	18%
Barium	mg/L	0.224	0.198	12%
Beryllium	mg/L	<0.002	<0.002	NA
Cadmium	mg/L	<0.0002	<0.0001	NA
Copper	mg/L	<0.01	<0.01	NA
Iron	mg/L	0.32	0.09	112%
Lead	mg/L	0.0002	<0.0002	NA
Manganese	mg/L	0.010	<0.005	NA
Mercury	mg/L	<0.0002	<0.0002	NA
Molybdenum	mg/L	<0.01	<0.01	NA
Nickel	mg/L	<0.001	<0.001	NA
Potassium	mg/L	18.6	17.8	4%
Selenium	mg/L	0.0005	0.0005	0%
Silver	mg/L	<0.01	<0.01	NA
Thallium	mg/L	0.0003	0.0003	0%
Uranium	mg/L	0.0124	0.0152	20%
Vanadium	mg/L	0.053	0.052	2%
Zinc	mg/L	0.038	0.075	65%

Notes:
P - 0.5" - Precipitation and Intensity (in total inches)
SM - Snowmelt

APPENDIX A

Sample Event Summary and Surface Water Sampling Field Sheets

October 7, 2010 Sampling Event

Surface water samples were collected on October 7, 2010, as soon as practical following the storm event that occurred the same day. Surface water was present at samplers S-1 and S-3 in sufficient quantities to sample. The storm event measured 0.2 inches at each of the two sampler locations. Although rainfall 0.2 inches was also recorded at samplers S-2 and S-4, these samplers did not contain surface water and the associated drainages did not show signs of recent run-off. The samples were collected using a dedicated disposable polyethylene bailer. The samples contained high amounts of sediment and were determined to be unfilterable using available field equipment. Therefore, filtering of the dissolved constituent samples was performed in the laboratory. Field parameters were measured from a grab sample during the sampling event. The samples were sent to ACZ Laboratories under standard Chain-of-Custody procedures on October 8 and were received by the lab on October 9, 2010.

Following sample collection, a pre-cleaned liner and pre-filtration apparatus were installed in samplers S-1 and S-3. The used apparatus' from the samplers were decontaminated, placed in clean plastic bags, and stored for use following the next sampling event.

Appendix A-1 contains the Surface Water Field Data Sheet for this sampling event.

October 25, 2010 Sampling Event

Surface water samples were collected on October 25, 2010, as soon as practical following the storm event that occurred on October 23. Surface water was present at each of the four samplers in sufficient quantities to sample. The storm event measured 0.3, 0.4, 0.4 and 0.5 inches at samplers S-1, S-2, S-3 and S-4, respectively. The samples were collected using a dedicated disposable polyethylene bailer. A duplicate sample was collected at sampler S-4. The samples contained high amounts of sediment and were determined to be unfilterable using available field equipment. Therefore, filtering of the dissolved constituent samples was performed in the laboratory. Field parameters were measured from a grab sample during the sampling event. The samples were sent to ACZ Laboratories under standard Chain-of-Custody procedures on October 26 and were received by the lab on October 27, 2010.

Following sample collection, a pre-cleaned liner and pre-filtration apparatus were installed in each of the four samplers. The used apparatus' from the samplers were decontaminated, placed in clean plastic bags, and stored for use following the next sampling event.

Appendix A-2 contains the Surface Water Field Data Sheet for this sampling event.

APPENDIX A-1

October 7, 2010 Sampling Event

Surface Water Sampling Field Data Sheets

ENERGY FUELS RESOURCES CORPORATION

Project: Piñon Ridge

SURFACE WATER SAMPLING FIELD DATA SHEET

Sampler No.	Sampling Equipment	Analytical Equipment	Sampler's Initials	Time	Date
SW-1	X Disposable Bailer Peristaltic Pump Other: (Describe Below)	pH and Temp X WTW 3400i Other: (Describe Below)	JWF	1045MST	10/7/10

Rainfall at site: (read on rain gauge on post) *0.2"*

Water Level in Sample Box (in.)	24
Amount of Water Removed For Sampling from sample Box (in.)	12
Amount of Water Discarded in Drainage from sample Box (in.)	12
Water Level in The Containment Box (in.)	8
Amount of Water Discarded in the Drainage from containment Box (in.)	8
Amount of Water Remaining in Containment Box (in.)	0

Specific Conductivity
X WTW 3400i
Other: (Describe Below)

Dissolved Oxygen
X WTW 3400i
Other: (Describe Below)

Oxygen-Reduction Potential
X WTW 3400i
Other: (Describe Below)

Meter Calibration

Time: 0844 mst Date: 10/7/2010 Automatic Calibrations? Yes

pH X Cond. X D.O. X ORP

pH

pH std. # 1 = 7.00 at 17.4 °C Calibration Evaluation

pH std. # 2 = 10.00 at 17.4 °C 1 Bars

Slope = -55.9 mV/pH Assymetry = -13 mV

Specific Conductance

Cell Constant = 0.464 1/cm Calibration Evaluation 3 Bars

Dissolved Oxygen

RelativeSlope = 0.83 at 18.7 °C Calibration Evaluation 3 Bars

Oxygen-Reduction Potential

Conductance Standard: RH28 @ 17.9 °C Reads: 220 mV

Time (MST)	Temperature (°C)	pH (s.u.)	Specific Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Visual Description
1045MST	16.6	8.08	269	2.29	162	Muddy

Condition of Sampler:
Sampled very nicely, very little mud and very little water in containment. Used only water from sampler for samples.

Full Suite: / No			
#		Duplicate No	#
Partial Suite: Yes		Rinsate \ No	#
		Trip Blank \ No	#

Additional Comments:
Post calibration @ 1608 MST on 10/07/10.

PPE Utilized	
Gloves	X
Safety Glasses	X

Signature: Jon W. Tolbert

ENERGY FUELS RESOURCES CORPORATION

Project: Piñon Ridge

SURFACE WATER SAMPLING FIELD DATA SHEET

Sampler No.	Sampling Equipment	Analytical Equipment	Sampler's Initials	Time	Date
SW-3	X Disposable Bailer Peristaltic Pump Other: (Describe Below)	pH and Temp X WTW 3400i Other: (Describe Below)	JWF	0823MST	10/7/10

Rainfall at site: (read on rain gauge on post) *0.2"*

Water Level in Sample Box (in.)	24
Amount of Water Removed For Sampling from sample Box (in.)	12
Amount of Water Discarded in Drainage from sample Box (in.)	12
Water Level in The Containment Box (in.)	6
Amount of Water Discarded in the Drainage from containment Box (in.)	6
Amount of Water Remaining in Containment Box (in.)	0

Specific Conductivity
X WTW 3400i
Other: (Describe Below)

Dissolved Oxygen
X WTW 3400i
Other: (Describe Below)

Oxygen-Reduction Potential
X WTW 3400i
Other: (Describe Below)

Meter Calibration

Time: 0644 mst Date: 10/7/2010 Automatic Calibrations? Yes

pH X Cond. X D.O. X ORP

pH

pH std. # 1 = 7.00 at 17.4 °C Calibration Evaluation

pH std. # 2 = 10.00 at 17.4 °C 1 Bars

Slope = -55.9 mV/pH Assymetry = -13 mV

Specific Conductance

Cell Constant = 0.464 1/cm Calibration Evaluation 3 Bars

Dissolved Oxygen

RelativeSlope = 0.83 at 18.7 °C Calibration Evaluation 3 Bars

Oxygen-Reduction Potential

Conductance Standard: RH28 @ 17.9 °C Reads: 220 mV

Time (MST)	Temperature (°C)	pH (s.u.)	Specific Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Visual Description
0823MST	16.4	8.49	159	1.93	147	Muddy

Condition of Sampler:
Sampled very nicely, very little mud and very little water in containment. Used only water from sampler for samples.

Full Suite: / No
#
Partial Suite: Yes

Duplicate	No	#
Rinsate	\ No	#
Trip Blank	\ No	#

Additional Comments:
Post calibration @ 1608 MST on 10/07/10.

PPE Utilized	
Gloves	X
Safety Glasses	X

Signature: Jim W Fullington

APPENDIX A-2

October 25, 2010 Sampling Event

Surface Water Sampling Field Data Sheets

ENERGY FUELS RESOURCES CORPORATION

Project: Piñon Ridge

SURFACE WATER SAMPLING FIELD DATA SHEET

Sampler No.	Sampling Equipment	Analytical Equipment	Sampler's Initials	Time	Date
SW-1	X Disposable Bailer Peristaltic Pump Other: (Describe Below)	pH and Temp X WTW 3400i Other: (Describe Below)	JWF	0808 MST	10/25/10

Rainfall at site: (read on rain gauge on post) *0.3"*

Water Level In Sample Box (in.)	24
Amount of Water Removed For Sampling from sample Box (in.)	12
Amount of Water Discarded in Drainage from sample Box (in.)	1
Water Level In The Containment Box (in.)	24
Amount of Water Discarded in the Drainage from containment Box (in.)	12
Amount of Water Remaining in Containment Box (in.)	0

Specific Conductivity: X WTW 3400i; Other: (Describe Below)

Dissolved Oxygen: X WTW 3400i; Other: (Describe Below)

Oxygen-Reduction Potential: X WTW 3400i; Other: (Describe Below)

Meter Calibration

Time: 0808 mst Date: 10/25/2010 Automatic Calibrations? Yes

pH X Cond. X D.O. X ORP

pH

pH std. # 1 = 7.00 at 18.4 °C Calibration Evaluation

pH std. # 2 = 10.00 at 18.4 °C 2 Bars

Slope = -57 mV/pH Assymetry = -17 mV

Specific Conductance

Cell Constant = 0.452 1/cm Calibration Evaluation 3 Bars

Dissolved Oxygen

RelativeSlope = 0.70 at 19.5 °C Calibration Evaluation 2 Bars

Oxygen-Reduction Potential

Conductance Standard: RH28 @ 19.0 °C Reads: 220 mV

Time (MST)	Temperature (°C)	pH (s.u.)	Specific Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Visual Description
0808MST	10.1	8.23	164	8.79	172	Muddy

Condition of Sampler:
About half sand/mud in both sampler and containment. Used only water from sampler for samples.

Full Suite: / No
#
Partial Suite: Yes

Duplicate	No	#
Rinsate	\ No	#
Trip Blank	\ No	#

Additional Comments:
Post calibration @ 1640 MST on 10/25/10.

PPE Utilized	
Gloves	X
Safety Glasses	X

Signature: Jess W Fallgatter

ENERGY FUELS RESOURCES CORPORATION

Project: Piñon Ridge

SURFACE WATER SAMPLING FIELD DATA SHEET

Sampler No.	Sampling Equipment	Analytical Equipment	Sampler's Initials	Time	Date
SW-2	X Disposable Bailer Peristaltic Pump Other: (Describe Below)	pH and Temp X WTW 3400i Other: (Describe Below)	JWF	0718 MST	10/25/10

Rainfall at site: (read on rain gauge on post) *0.4"*

Water Level in Sample Box (in.)	24
Amount of Water Removed For Sampling from sample Box (in.)	12
Amount of Water Discarded in Drainage from sample Box (in.)	8
Water Level in The Containment Box (in.)	24
Amount of Water Discarded in the Drainage from containment Box (in.)	16
Amount of Water Remaining in Containment Box (in.)	0

Specific Conductivity: X WTW 3400i; Other: (Describe Below)

Dissolved Oxygen: X WTW 3400i; Other: (Describe Below)

Oxygen-Reduction Potential: X WTW 3400i; Other: (Describe Below)

Meter Calibration

Time: 0808 mst Date: 10/25/2010 Automatic Calibrations? Yes

pH X Cond. X D.O. X ORP

pH

pH std. # 1 = 7.00 at 18.4 °C — Calibration Evaluation 2 Bars

pH std. # 2 = 10.00 at 18.4 °C

Slope = -57.0 mV/pH — Assymetry = -17 mV

Specific Conductance

Cell Constant = 0.452 1/cm — Calibration Evaluation 3 Bars

Dissolved Oxygen

RelativeSlope = 0.70 at 19.5 °C — Calibration Evaluation 2 Bars

Oxygen-Reduction Potential

Conductance Standard: RH28 @ 19.0 °C Reads: 220 mV

Time (MST)	Temperature (°C)	pH (s.u.)	Specific Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Visual Description
0718MST	9.9	8.37	105	6.41	175	Muddy

Condition of Sampler:
About one quarter sand/mud in both sampler and containment. Used only water from sampler for samples.

Full Suite: / No		
#	Duplicate No	#
Partial Suite: Yes	Rinsate \ No	#
	Trip Blank \ No	#

Additional Comments:
Post calibration @ 1640 MST on 10/25/10.

PPE Utilized		
	Gloves	X
	Safety Glasses	X

Signature: Jess W Tadlock

ENERGY FUELS RESOURCES CORPORATION

Project: Piñon Ridge

SURFACE WATER SAMPLING FIELD DATA SHEET

Sampler No.	Sampling Equipment	Analytical Equipment	Sampler's Initials	Time	Date
SW-3	X Disposable Bailer Peristaltic Pump Other: (Describe Below)	pH and Temp X WTW 3400i Other: (Describe Below)	JWF	1002 MST	10/25/10
Rainfall at site: (read on rain gauge on post) *0.4"*		Specific Conductivity X WTW 3400i Other: (Describe Below)			
Water Level in Sample Box (in.)	24				
Amount of Water Removed For Sampling from sample Box (in.)	10				
Amount of Water Discarded in Drainage from sample Box (in.)	0	Dissolved Oxygen X WTW 3400i Other: (Describe Below)			
Water Level in The Containment Box (in.)	24				
Amount of Water Discarded in the Drainage from containment Box (in.)	11	Oxygen-Reduction Potential X WTW 3400i Other: (Describe Below)			
Amount of Water Remaining in Containment Box (in.)	0				

Meter Calibration

Time: 0808 mst Date: 10/25/2010 Automatic Calibrations? Yes

pH X Cond. X D.O. X ORP

pH

pH std. # 1 = 7.00 at 18.4 °C Calibration Evaluation

pH std. # 2 = 10.00 at 18.4 °C 2 Bars

Slope = -57 mV/pH Assymetry = -17 mV

Specific Conductance

Cell Constant = 0.452 1/cm Calibration Evaluation 3 Bars

Dissolved Oxygen

RelativeSlope = 0.70 at 19.5 °C Calibration Evaluation 2 Bars

Oxygen-Reduction Potential

Conductance Standard: RH28 @ 19.0 °C Reads: 220 mV

Time (MST)	Temperature (°C)	pH (s.u.)	Specific Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Visual Description
1002MST	10.3	8.46	153	3.32	184	Muddy

Condition of Sampler:
Over half sand/mud in both sampler and containment. Used water from sampler and some from containment for samples.

Full Suite: / No
#
Partial Suite: Yes

Duplicate No #
Rinsate \ No #
Trip Blank \ No #

Additional Comments:
Post calibration @ 1640 MST on 10/25/10.

PPE Utilized: Gloves X; Safety Glasses X

Signature: Jon W Talbert

ENERGY FUELS RESOURCES CORPORATION

Project: Piñon Ridge

SURFACE WATER SAMPLING FIELD DATA SHEET

Sampler No.	Sampling Equipment	Analytical Equipment	Sampler's Initials	Time	Date
SW-4	X Disposable Bailer Peristallic Pump Other: (Describe Below)	pH and Temp X WTW 3400i Other: (Describe Below)	JWF	0912 MST	10/25/10

Rainfall at site: (read on rain gauge on post) *0.5"*

Water Level in Sample Box (in.)	24
Amount of Water Removed For Sampling from sample Box (in.)	12
Amount of Water Discarded in Drainage from sample Box (in.)	12
Water Level in The Containment Box (in.)	10
Amount of Water Discarded in the Drainage from containment Box (in.)	10
Amount of Water Remaining in Containment Box (in.)	0

Specific Conductivity
X WTW 3400i
Other: (Describe Below)

Dissolved Oxygen
X WTW 3400i
Other: (Describe Below)

Oxygen-Reduction Potential
X WTW 3400i
Other: (Describe Below)

Meter Calibration

Time: 0808 mst Date: 10/25/2010 Automatic Calibrations? Yes

pH X Cond. X D.O. X ORP

pH
pH std. # 1 = 7.00 at 18.4 °C
pH std. # 2 = 10.00 at 18.4 °C
Slope = -57.0 mV/pH
Calibration Evaluation 2 Bars
Assymetry = -17 mV

Specific Conductance
Cell Constant = 0.452 1/cm
Calibration Evaluation 3 Bars

Dissolved Oxygen
RelativeSlope = 0.70 at 19.5 °C
Calibration Evaluation 2 Bars

Oxygen-Reduction Potential
Conductance Standard: RH28 @ 19.0 °C Reads: 220 mV

Time (MST)	Temperature (°C)	pH (s.u.)	Specific Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Visual Description
0912MST	10.1	8.31	217	5.77	180	Muddy

Condition of Sampler:
Used only water from sampler for samples, sampler worked perfectly, very little mud and not much water in containment.

Full Suite: / No
#
Partial Suite: Yes

Duplicate Yes #
Rinsate \ No #
Trip Blank \ No #

Additional Comments:
Post calibration @ 1640 MST on 10/25/10.

PPE Utilized	
Gloves	X
Safety Glasses	X

Signature: Jess W. Fulbright