ENERGY FUELS RESOURCES CORPORATION

August 31, 2010

Ms. Nancy Chick
Air Pollution Control Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

Re: Response to August 20, 2010 letter

Dear Ms. Chick,

Please see the attached responses to your comments on the Second, Third, and Fourth Quarter 2009 and First and Second Quarter 2010 Data Reports for Ambient Air and Meteorological Monitoring for the Piñon Ridge Mill site per your August 20, 2010 letter. We have included your comments (in italics) with our responses below. Attached are several replacement pages and supporting data in regards to the comments below and a data CD containing the revised sections and full reports in pdf format.

1. *Quarter 2, 2009 Report, Site 1 Hourly Meteorological Data File*

   In the Site 1 hourly data file, values start appearing in Column AA after June 1, 2009. This column is not labeled. What are these values?

These values are hourly changes in evaporation levels used to calculate total evaporation for the period. They were not intended to be left on this copy of the meteorological data and can be ignored or deleted.

2. *Quarter 2, 2009 Report, Appendix D, Radionuclide Values*

   For Appendix D9, Page 1, Site 1 filter calculations, the 18,000 minute sampling time for the 6/16/09 filter date does not agree with the 21,600 minute sampling time shown on Page 1 of Appendix D8.

   For Appendix D9, Page 2, Site 2 filter calculations, the 21,030 minute sampling time for the 6/16/09 filter date does not agree with the 21,390 minute sampling time shown on Page 2 of Appendix D8.

For both sites, these are typographical errors in Appendix D9. To verify this, I compared the values to the field forms (in Appendix B of the report) recorded for Site 1 and the correct elapsed time is 360.0 hours, equivalent to 21,600 minutes, and I compared the values to the field forms recorded for Site 2 and the correct elapsed time is 356.5 hours, equivalent to 21,390 minutes. I also reviewed the Tisch Daily Checklists and Field

Logbooks for these samplers over this period and did not find any issues that would lead to a reduction in sampling time.

The appropriate changes were made to Appendix D9 for both of these issues. There were resulting calculation changes in Appendices D9 and D10. One replacement cover page (with revision number and date) and six replacement pages are attached for Appendices D9 and D10 of the Second Quarter 2009 Data Report. Note that for Appendix D9, corrections were made on pages 1 and 2 only; however, all five pages were included for ease of replacement.

3. *Quarter 3, 2009 Report*

   This report was very thorough. I have no questions or comments concerning it.

No response required.

4. *Quarter 4, 2009 Report, Table 6.*

   The values in Table 6, PM_{10} Concentrations, appear to be reversed, with the Site 1 column listing results from Site 2, and the Site 2 column listing results from Site 1. (Compare this table to Table 3, Data Recovery, and the Tables in Appendix C). If you concur with this comment, please issue a new page 12 for the report.

I agree that the Site 1 and Site 2 values are reversed in this report. Two replacement pages, the cover page (with the revision number and date) and page 12 (with corrections), are attached for the Fourth Quarter 2009 Data Report.

5. *Quarter 4, 2009 Report, Appendix D8_Tisch Hi Vol Flow Calculations 4Q09 Data Sheet*

   There appear to be a few inconsistencies in this spreadsheet, when compared to the rest of the report.

   Site 1

   The run time for the November 27 - December 15, 2009 sample filter is given as 146.0 hours here. The Field Form in Appendix B gives the run time as 67.8 hours. According to my calculations, the run time should have been about 431 hours. Which of the figures, 67.8 or 146, is correct? In any case, there appears to be too much sample run time lost for this filter.

These issues stem from a motor failure at Site 1. The Tisch sampler was found not to be running during routine site checks on 12/4/09. The instrument was noted to be running properly during the previous site check, conducted on 11/30/09. Field technicians determined that there was still power to the instrument and the problem was failure of the sampler motor. Based on the transducer charts it was determined that the instrument failed at approximately 19:00 MST on 11/30/09 (see attached). Because there was still power to the instrument, the elapsed time indicator continued to run and could not be used to determine the time of failure. A new motor was ordered and installed at Site 1 on 12/12/09. The elapsed time indicator was reset to zero at this time. The elapsed time from the filter installation (11/27/09 at 12:55) until the instrument failed (estimated to be

11/30/09 at 19:00 MST) was calculated to be 78.2 hours. The recorded elapsed time of 67.8 hours was from the time the new motor was installed until the subsequent filter collection on 12/15/09. Both periods used the same filter and the cumulative elapsed time was 146.0 hours. See the attached Site 1 instrument run time calculation sheet for a summary of the estimated run and down times. The information above was recorded in Site 1 daily logs (relevant pages attached) but was not recorded on the field form. This information has been added to the field form and is attached as a replacement page to Appendix B of the Fourth Quarter 2009 Data Report.

The amount of run time lost was 285.1 hours (431.1 hours less 146.0 hours). Whereas 285.1 hours is too much run time lost for this filter to meet the data recovery of 80 percent for this filter collection period (11/27/09 to 12/15/09) alone, the filters are composited quarterly for analysis and the data completeness considers the run time lost over the course of the entire quarter, accordingly. As shown in Table 3 of the report, the data recovery at Site 1 for the entire quarter was 87.0 percent, meeting the data recovery requirement for the quarter. The U.S. EPA Guidelines for Prevention of Significant Deterioration indicate that the data recovery requirement applies to the duration of the "information effort," which, in the case of the Piñon Ridge Mill baseline monitoring effort, is 24 months.

Site 1 (continued)

For the December 15, 2009 through January 1, 2010 sample, the sampler m (slope) and sampler b (intercept) factors appear to be taken from the January 16, 2010 calibration. I believe this sample should use the same slope and intercept as used in the columns above it.

As described above, a new motor was installed on the instrument on 12/12/09. The next subsequent calibration and audit of the instrument with the new motor installed occurred on 1/16/10. Because this calibration and audit were performed on the instrument with the new motor installed, it was determined that the 1/16/10 sampler slope and intercept values were the best available values representative of the instrument performance during the period of 12/15/09 through 1/1/10. Accordingly, these values were used to calculate the flow through the filter during this period.

Site 4

In Appendix D8, the run time for the October 1 - October 16, 2009 sample is given as 290.4 hours. This does not agree with the field data sheet in Appendix B. The field data sheet lists a run time of 362.0 hours.

This issue stems from a motor failure at Site 4. The instrument was found not to be running during a routine site check on 10/9/09 at 06:40 MST. The instrument was noted to be running properly during the previous site check on 10/6/09 at 15:42 MST. As noted above, the elapsed time indicator continues to run as long as there is power to the unit, even if the motor is not running. The transducer charts were inspected, but a failure time could not be determined from them so the failure time of the instrument was estimated to be at the midpoint in time between the two instrument checks. The motor was subsequently cleaned and was able to be restarted on 10/9/09 at 10:27 MST. The motor again failed between routine instrument checks conducted on 10/13/09 at 12:45 MST and

10/16/09 at 12:54 MST. Again the transducer charts were inspected but the failure time could not be determined so the midpoint between the checks was used as an estimated failure time. A new motor was installed in the instrument and calibrated on 10/16/09 following the second failure. A new filter was installed in the instrument at this time as scheduled. The estimated run time of the filter was calculated for the periods of 10/1/09 at 08:40 MST (filter installation) to 10/7/09 at 23:11 MST (estimated failure time) and from 10/9/09 at 10:27 MST (instrument restart) to 10/15/09 at 00:49 MST (estimated failure time) at 158.5 hours and 131.9 hours, respectively. The cumulative estimated run time was 290.4 hours. See that attached Site 4 instrument run time calculation sheet for a summary of the estimated run and down times. The information above was recorded in Site 4 daily logs (relevant pages attached) but was not recorded on the field form. This information has been added to the field form and is attached as a replacement page to Appendix B of the Fourth Quarter 2009 Data Report.

All Sites, October 1 - October 16, 2009 Samples

Site 4 appears to use the July 15, 2009 calibration slope and intercept to calculate results. All the other sites use the October 16, 2009 calibration slope and intercept to calculate the October 1- 16 sample flows. I believe the July 15, 2009 calibration factors should be used for all October 1 - October 16 samples.

We agree that the calibration factors from the 7/15/09 calibration should have been used for the 10/1/09 to 10/16/09 samples. Corrections to Appendix D8 were made and resulting calculation changes occurred in Appendices D9 and D10. Seven replacement pages are attached for Appendices D8, D9 and D10 of the Fourth Quarter 2009 Data Report.

6. *Quarter 1, 2010 Report, Table 5.*

   This table lists meteorological parameters from the Fourth Quarter of 2009. It needs to be updated to reflect the First Quarter 2010 period. Please send a revised copy.

This table lists the correct meteorological average and total values for the first quarter of 2010 but includes the incorrect months in the header line. Two replacement pages, the cover page (with revision number and date) and page 9 (with corrections), for the First Quarter 2010 Data Report are attached.

7. *Quarter 1, 2010 Report, Appendix C.*

   The sampler 1-2 table lists an actual volume of 24.00 m^3 for the January 2, 2010 sample. However, the field data sheet in Appendix B gives the volume sampled as 24.7 m^3.

This issue is due to a transcription error on the Field Form. The field technician (Jess Fulbright) reviewed his notes and determined that the volume recorded on the sheet should have been 24.0 m^3. I also checked with the laboratory and they indicated that the sample label indicated the volume to be 24.0 m^3 (a photocopy of sample label is attached). Further, the recorded Flow Rate Coefficient of Variation (%CV) for that sample run was 0.0%. I would expect to see a significantly higher %CV (around 1.5 to 2%) if the volume was in fact 24.7 m^3 (assuming the sampler was achieving the

programmed flow rate of 16.7 L/min but varying up to 17.5 L/min to average 17.2 L/min [24.7 m^3 in the 24-hour run period]). I have written in the correction on the field sheet and provided it as a replacement page to Appendix B of the First Quarter 2010 Data Report.

8. *Quarter 2, 2010 Report, Page 1.*

   There is an error on this page. One sentence reads: "Meteorological and ambient air quality data were collected at five air monitoring stations (network) from the second quarter 2008 through the first quarter 2009, comprising 24 months of data ...." I believe the second year cited should be 2010.

You are correct, this is a typographical error. Two replacement pages, the cover page (with revision number and date) and page 1 (with correction), for the Second Quarter 2010 Data Report are attached.

Replacement pages are provided for several of the reports discussed above. Please see the table below for instructions on replacing pages from the original report with the revised replacement pages.

		Description of Page(s) to be Changed
Second Quarter 2009 Data Report		
☐Add	☑Replace	Cover page (1 page)
☐Add	☑Replace	Appendices D9 and D10 (6 pages)
Fourth Quarter 2009 Data Report		
☐Add	☑Replace	Cover page (1 page)
☐Add	☑Replace	Page 12 of 17 (1 page)
☐Add	☑Replace	Appendix B, Field Form for Tisch Hi-Vol Sampler for period October 1 to 16, 2009, 34th page in Appendix B (1 Page)
☐Add	☑Replace	Appendix B, Field Form for Tisch Hi-Vol Sampler for period November 27 to December 15, 2009, 38th page in Appendix B (1 Page)
☐Add	☑Replace	Appendices D8, D9 and D10 (7 pages)
First Quarter 2010 Data Report		
☐Add	☑Replace	Cover page (1 page)
☐Add	☑Replace	Page 9 of 17 (1 page)
☐Add	☑Replace	Appendix B, Partisol PM_{10} FRM Field Form for Site #1, January 2, 2010, 1st page in Appendix B (1 Page)
Second Quarter 2010 Data Report		
☐Add	☑Replace	Cover page (1 page)
☐Add	☑Replace	Page 1 of 12 (1 page)

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

Sincerely,

Zach Rogers, EIT
Environmental Engineer

Cc: Edgar Ethington (CDPHE)
Alan Kuhn, Kris Allen (Kleinfelder)
Frank Filas (Energy Fuels)

Second Quarter 2009 Data Report
Replacement Pages
(Comment 2)

SECOND QUARTER 2009 DATA REPORT FOR AMBIENT AIR MONITORING ENERGY FUELS RESOURCES CORPORATION URANIUM MILL LICENSING SUPPORT PIÑON RIDGE MILL MONTROSE COUNTY, COLORADO

August 31, 2010
Revision: 1

Prepared By:

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

SECOND QUARTER 2009 AIR FILTER RESULTS

SampleID	SampleDate	Field	Unit	Result	Qual	MDL/LLD
1-1	4/1/09	AirFlowRate	cfm	41.9538		
1-1	4/1/09	SamplingTime	min	21210		
1-1	4/1/09	SampleVolume	liter	25197000		
1-1	4/16/09	AirFlowRate	cfm	42.1062		
1-1	4/16/09	SamplingTime	min	21606		
1-1	4/16/09	SampleVolume	liter	25761000		
1-1	5/1/09	AirFlowRate	cfm	42.4054		
1-1	5/1/09	SamplingTime	min	18876		
1-1	5/1/09	SampleVolume	liter	22666000		
1-1	5/14/09	AirFlowRate	cfm	42.5762		
1-1	5/14/09	SamplingTime	min	20256		
1-1	5/14/09	SampleVolume	liter	24421000		
1-1	5/28/09	AirFlowRate	cfm	42.7391		
1-1	5/28/09	SamplingTime	min	26916		
1-1	5/28/09	SampleVolume	liter	32575000		
1-1	6/16/09	AirFlowRate	cfm	43.0801		
1-1	6/16/09	SamplingTime	min	21600		
1-1	6/16/09	SampleVolume	liter	26350000		
1-1	4/1/09	TotalSample Volume	liter	156970000		
1-1	4/1/09	UraniumLabResult	mg/filter		U	0.001
1-1	4/1/09	Lead210LabResult	pCi/filter	290		29
1-1	4/1/09	Radium226LabResult	pCi/filter	0.55		1.9
1-1	4/1/09	Thorium230LabResult	pCi/filter	-0.21		2
1-1	4/1/09	UraniumConverted	ug/liter		U	6.4E-09
1-1	4/1/09	Lead210Converted	pCi/liter	1.8E-06		1.8E-07
1-1	4/1/09	Radium226Converted	pCi/liter	3.5E-09		1.2E-08
1-1	4/1/09	Thorium230Converted	pCi/liter	-1.3E-09		1.3E-08

SampleID	SampleDate	Field	Unit	Result	Qual	MDL/LLD
2-1	4/1/09	AirFlowRate	cfm	41.0332		
2-1	4/1/09	SamplingTime	min	21174		
2-1	4/1/09	SampleVolume	liter	24603000		
2-1	4/16/09	AirFlowRate	cfm	40.9666		
2-1	4/16/09	SamplingTime	min	21606		
2-1	4/16/09	SampleVolume	liter	25064000		
2-1	5/1/09	AirFlowRate	cfm	41.3726		
2-1	5/1/09	SamplingTime	min	18858		
2-1	5/1/09	SampleVolume	liter	22093000		
2-1	5/14/09	AirFlowRate	cfm	41.6245		
2-1	5/14/09	SamplingTime	min	20214		
2-1	5/14/09	SampleVolume	liter	23826000		
2-1	5/28/09	AirFlowRate	cfm	41.5731		
2-1	5/28/09	SamplingTime	min	27066		
2-1	5/28/09	SampleVolume	liter	31863000		
2-1	6/16/09	AirFlowRate	cfm	41.9865		
2-1	6/16/09	SamplingTime	min	21390		
2-1	6/16/09	SampleVolume	liter	25431000		
2-1	4/1/09	TotalSample Volume	liter	152880000		
2-1	4/1/09	UraniumLabResult	mg/filter		U	0.001
2-1	4/1/09	Lead210LabResult	pCi/filter	400		11
2-1	4/1/09	Radium226LabResult	pCi/filter	0.26		2.3
2-1	4/1/09	Thorium230LabResult	pCi/filter	0.18		2.1
2-1	4/1/09	UraniumConverted	ug/liter		U	6.5E-09
2-1	4/1/09	Lead210Converted	pCi/liter	2.6E-06		7.2E-08
2-1	4/1/09	Radium226Converted	pCi/liter	1.7E-09		1.5E-08
2-1	4/1/09	Thorium230Converted	pCi/liter	1.2E-09		1.4E-08

SampleID	SampleDate	Field	Unit	Result	Qual	MDL/LLD
3-1	4/1/09	AirFlowRate	cfm	41.9042		
3-1	4/1/09	SamplingTime	min	22746		
3-1	4/1/09	SampleVolume	liter	26990000		
3-1	4/17/09	AirFlowRate	cfm	42.1913		
3-1	4/17/09	SamplingTime	min	20292		
3-1	4/17/09	SampleVolume	liter	24243000		
3-1	5/1/09	AirFlowRate	cfm	42.3648		
3-1	5/1/09	SamplingTime	min	19944		
3-1	5/1/09	SampleVolume	liter	23926000		
3-1	5/15/09	AirFlowRate	cfm	42.7730		
3-1	5/15/09	SamplingTime	min	20028		
3-1	5/15/09	SampleVolume	liter	24258000		
3-1	5/29/09	AirFlowRate	cfm	42.7298		
3-1	5/29/09	SamplingTime	min	26412		
3-1	5/29/09	SampleVolume	liter	31958000		
3-1	6/16/09	AirFlowRate	cfm	43.0605		
3-1	6/16/09	SamplingTime	min	19230		
3-1	6/16/09	SampleVolume	liter	23448000		
3-1	4/1/09	TotalSample Volume	liter	154823000		
3-1	4/1/09	UraniumLabResult	mg/filter		U	0.001
3-1	4/1/09	Lead210LabResult	pCi/filter	350		18
3-1	4/1/09	Radium226LabResult	pCi/filter	1		2.2
3-1	4/1/09	Thorium230LabResult	pCi/filter	-0.22		2
3-1	4/1/09	UraniumConverted	ug/liter		U	6.5E-09
3-1	4/1/09	Lead210Converted	pCi/liter	2.3E-06		1.2E-07
3-1	4/1/09	Radium226Converted	pCi/liter	6.5E-09		1.4E-08
3-1	4/1/09	Thorium230Converted	pCi/liter	-1.4E-09		1.3E-08

SampleID	SampleDate	Field	Unit	Result	Qual	MDL/LLD
4-1	4/1/09	AirFlowRate	cfm	41.0172		
4-1	4/1/09	SamplingTime	min	22950		
4-1	4/1/09	SampleVolume	liter	26656000		
4-1	4/17/09	AirFlowRate	cfm	41.0878		
4-1	4/17/09	SamplingTime	min	20118		
4-1	4/17/09	SampleVolume	liter	23407000		
4-1	5/1/09	AirFlowRate	cfm	41.9576		
4-1	5/1/09	SamplingTime	min	19872		
4-1	5/1/09	SampleVolume	liter	23610000		
4-1	5/15/09	AirFlowRate	cfm	42.3156		
4-1	5/15/09	SamplingTime	min	19920		
4-1	5/15/09	SampleVolume	liter	23869000		
4-1	5/29/09	AirFlowRate	cfm	42.2322		
4-1	5/29/09	SamplingTime	min	26514		
4-1	5/29/09	SampleVolume	liter	31708000		
4-1	6/16/09	AirFlowRate	cfm	42.7506		
4-1	6/16/09	SamplingTime	min	21876		
4-1	6/16/09	SampleVolume	liter	26482000		
4-1	4/1/09	TotalSample Volume	liter	155732000		
4-1	4/1/09	UraniumLabResult	mg/filter		U	0.001
4-1	4/1/09	Lead210LabResult	pCi/filter	350		21
4-1	4/1/09	Radium226LabResult	pCi/filter	1.1		2.1
4-1	4/1/09	Thorium230LabResult	pCi/filter	0.54		2.2
4-1	4/1/09	UraniumConverted	ug/liter		U	6.4E-09
4-1	4/1/09	Lead210Converted	pCi/liter	2.2E-06		1.3E-07
4-1	4/1/09	Radium226Converted	pCi/liter	7.1E-09		1.3E-08
4-1	4/1/09	Thorium230Converted	pCi/liter	3.5E-09		1.4E-08

SampleID	SampleDate	Field	Unit	Result	Qual	MDL/LLD
5-1	4/1/09	AirFlowRate	cfm	41.4366		
5-1	4/1/09	SamplingTime	min	22770		
5-1	4/1/09	SampleVolume	liter	26717000		
5-1	4/17/09	AirFlowRate	cfm	41.5842		
5-1	4/17/09	SamplingTime	min	20070		
5-1	4/17/09	SampleVolume	liter	23633000		
5-1	5/1/09	AirFlowRate	cfm	41.8686		
5-1	5/1/09	SamplingTime	min	19878		
5-1	5/1/09	SampleVolume	liter	23567000		
5-1	5/15/09	AirFlowRate	cfm	42.2772		
5-1	5/15/09	SamplingTime	min	19848		
5-1	5/15/09	SampleVolume	liter	23761000		
5-1	5/29/09	AirFlowRate	cfm	42.2009		
5-1	5/29/09	SamplingTime	min	26592		
5-1	5/29/09	SampleVolume	liter	31777000		
5-1	6/16/09	AirFlowRate	cfm	42.5242		
5-1	6/16/09	SamplingTime	min	21864		
5-1	6/16/09	SampleVolume	liter	26328000		
5-1	4/1/09	TotalSample Volume	liter	155783000		
5-1	4/1/09	UraniumLabResult	mg/filter		U	0.001
5-1	4/1/09	Lead210LabResult	pCi/filter	350		16
5-1	4/1/09	Radium226LabResult	pCi/filter	0.62		2.1
5-1	4/1/09	Thorium230LabResult	pCi/filter	-0.17		2.1
5-1	4/1/09	UraniumConverted	ug/liter		U	6.4E-09
5-1	4/1/09	Lead210Converted	pCi/liter	2.2E-06		1.0E-07
5-1	4/1/09	Radium226Converted	pCi/liter	4.0E-09		1.3E-08
5-1	4/1/09	Thorium230Converted	pCi/liter	-1.1E-09		1.3E-08
TRIP BLANK	4/1/09	UraniumLabResult	mg/filter		U	0.007
TRIP BLANK	4/1/09	Lead210LabResult	pCi/filter	0.0		170
TRIP BLANK	4/1/09	Radium226LabResult	pCi/filter	1.5		9.8
TRIP BLANK	4/1/09	Thorium230LabResult	pCi/filter	10		16

FIRST QUARTER 2009 AIR FILTER RESULTS

Field	Unit						
SampleID		1-1	2-1	3-1	4-1	5-1	Trip Blank
SampleDate	Date	4/1/09	4/1/09	4/1/09	4/1/09	4/1/09	4/1/2009
SampleVolume	liter	156970000	152880000	154823000	155732000	155783000	N/A
UraniumConverted	ug/liter	6.4E-09 U	6.5E-09 U	6.5E-09 U	6.4E-09 U	6.4E-09 U	7.0E-03 U
Lead210Converted	pCi/liter	1.8E-06	2.6E-06	2.3E-06	2.2E-06	2.2E-06	0.0E+00
Radium226Converted	pCi/liter	3.5E-09	1.7E-09	6.5E-09	7.1E-09	4.0E-09	1.5E+00
Thorium230Converted	pCi/liter	-1.3E-09	1.2E-09	-1.4E-09	3.5E-09	-1.1E-09	1.0E+01

Fourth Quarter 2009 Data Report
Replacement Pages
(Comments 4 and 5)

FOURTH QUARTER 2009 DATA REPORT
FOR AMBIENT AIR MONITORING
ENERGY FUELS RESOURCES CORPORATION
URANIUM MILL LICENSING SUPPORT
PIÑON RIDGE MILL
MONTROSE COUNTY, COLORADO

August 30, 2010
Revision: 1

Prepared By:

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

5.0 AIR QUALITY ANALYSIS

The EFR Monitoring Program collected data to examine both PM_{10} and radionuclide trends at the Mill Site. Mill Site area concentrations were calculated from the data at the monitoring sites and the results were less than federal and state standards and recognized national averages.

5.1 PM_{10} Data Summary

The PM_{10} concentrations are summarized in Table 6. The results summarized in Table 6 are provided in both standard temperature and pressure (STP) and local (or actual) temperature and pressure (LTP). Reporting of PM_{10} data is required to be in LTP. The monthly and annual averages are presented in Table 6.

Table 6
PM_{10} Concentrations

	STP Concentration ($\mu g/m^3$)		LTP Concentration ($\mu g/m^3$)	
Sample Date	**Site #1**	**Site #2**	**Site #1**	**Site #2**
October 4, 2009	47	45	39	37
October 10, 2009	NC	6	NC	5
October 16, 2009	NC	5	NC	4
October 22, 2009	5	4	4	3
October 28, 2009	2	2	2	2
November 3, 2009	5	5	4	4
November 9, 2009	NC	7	NC	6
November 15, 2009	5	6	5	5
November 21, 2009	7	7	6	6
November 27, 2009	6	7	6	6
December 3, 2009	3	3	3	3
December 9, 2009	5	5	5	5
December 15, 2009	3	3	3	2
December 21, 2009	5	5	5	4
December 27, 2009	3	3	3	3
October Average	18	12	15	10
November Average	6	6	5	5
December Average	4	4	4	3

NC – Not Collected

Field Form for Tisch Hi-Vol Sampler

Filter Setup Technician: Doug

Filter Retrieval Technician: Jess

Site Name & Number & Sampler ID #	Filter Number	Filter Holder Frame Number	Start Date & Time	End Date & Time	Elapsed Time Indicator at Stop	Set-up P_{stag}	Retrieval P_{stag}	Flow Rate*
Site # 1: (North): 10 m Tower Sampler ID: 1-1	8229671	1-1-A	10-1-09 @ 1039 MST	10-16-09 @ 0807 MST	357.4 hrs	-18.31" wc	-20.58" wc	
Site #2 (East): 30 m Tower Sampler ID: 2-1	8229672	2-1-B	10-1-09 @ 1011 MST	10-16-09 @ 1620 MST	360.2 hrs	-17.50" wc	-20.63" wc	
Site #3: West: Sampler ID: 3-1	8229673	3-1-A	10-1-09 @ 915 MST	10-16-09 @ 1155 MST	362.7 hrs	-18.13" wc	-20.84" wc	
Site #4 (Northwest): Cooper Sampler ID: 4-1	8229674	4-1-A	10-1-09 @ 840 MST	10-16-09 @ 1628 MST	158.5 + * 131.9 hrs ~~362.0 hrs~~	-18.19" wc	-20.84" wc	
Site #5 (Southeast): Carver Sampler ID: 5-1	8229675	5-1-A	10-1-09 @ 726 MST	10-16-09 @ 1322 MST	365.9 hrs	-17.50" wc	-20.98" wc	
Trip Blank		N/A			N/A	N/A	N/A	N/A

* Flow Rate will be calculated using an Excel spreadsheet provided by Inter-Mountain Laboratories. Please contact the appropriate Kleinfelder personnel at the end of each sampling cycle (14-days per cycle) to obtain the Average Temperature and Pressure required to calculate the Flow Rate for each sample collected during the sample cycle.

Calculation Performed By: _____ Date: _____

Site # 3 (West): Generator Maintenance

Date	Sampler Shut Off Time	Generator Shut Off Time	Generator Restart Time	Sampler Restart Time	Is Sampler Motor Mount Ring Tight?	Reason for Generator Shut down

Notes: * 362.0 hrs was indicated of elapsed time indicator but was not accurate due to two motor failures. Based on estimated failure times the run times were calculated to be 158.5 hrs (10/6/09 @ 15:42 to 10/7/09 @ 23:11 MST) and 131.9 hr (10/13/09 @ 12:45 to 10/15/09 @ 00:49) for a cumulative run time of 290.4 hrs.

Zach Thompson 8/30/10

Field Form for Tisch Hi-Vol Sampler

Filter Setup Technician: Doug Roberts

Filter Retrieval Technician:

Site Name & Number & Sampler ID #	Filter Number	Filter Holder Frame Number	Start Date & Time	End Date & Time	Elapsed Time Indicator at Stop	Set-up P_{stag}	Retrieval P_{stag}	Flow Rate*
Site # 1: (North): 10 m Tower Sampler ID: 1-1	8034678	1-1-A	11-27-09 @ 1255 MST	12-15-09 @ 1201 MST	78.2+* 67.8	-21.12" wc	-20.75" wc	
Site #2 (East): 30 m Tower Sampler ID: 2-1	8034679	2-1-A	11-27-09 @ 1222 MST	12-15-09 @ 1125 MST	429.5	-20.48" wc	-20.58" wc	
Site #3: West: Sampler ID: 3-1	8034680	3-1-A	11-27-09 @ 1155 MST	12-15-09 @ 1054 MST	431.0	-20.65" wc	-20.88" wc	
Site #4 (Northwest): Cooper Sampler ID: 4-1	8034681	4-1-A	11-27-09 @ 1123 MST	12-15-09 @ 1303 MST	431.6	-20.64" wc	-21.05" wc	
Site #5 (Southeast): Carver Sampler ID: 5-1	8034682	5-1-A	11-27-09 @ 1050 MST	12-15-09 @ 1236 MST	433.7	-20.42" wc	-21.05" wc	
Trip Blank		N/A			N/A	N/A	N/A	N/A

* Flow Rate will be calculated using an Excel spreadsheet provided by Inter-Mountain Laboratories. Please contact the appropriate Kleinfelder personnel at the end of ach sampling cycle (14-days per cycle) to obtain the Average Temperature and Pressure required to calculate the Flow Rate for each sample collected during the sample cycle.

Calculation Performed By: Date:

Site # 3 (West): Generator Maintenance

Date	Sampler Shut Off Time	Generator Shut Off Time	Generator Restart Time	Sampler Restart Time	Is Sampler Motor Mount Ring Tight?	Reason for Generator Shut down

Notes: * Sampler motor failed @ approximately 1900 MST on 11/30/09. Based on transducer charts, calculated run time from filter install to failure is 78.2 hrs. 67.8 hrs was from restart to filter collection. Zach [illegible] - 8/30/10

Appendix D8_Tisch Hi Vol Flow Calculations 4Q09

Site 1

Sample Start Date & Time	Sample End Date & Time	Sampler ID	Sampler m	Sampler b	Filter #	Run Time (hr)	Run Time (min)	Avg Pstag ("H_2O)	Avg Pstag ("Hg)	P1	P1/Pa	Flow Rate (m^3/min)	Flow Rate (ft^3/min)	Avg. Temp (°C)	Avg. Press ("Hg)	Volume (m^3)	Volume (ft^3)	Temp & Press Averaging Start Date & Time	Temp & Press Averaging End Date & Time
10/1/09 10:39	10/16/09 8:07	1-1	11.0731	0.1550	8229671	357.4	21444	19.45	1.4298	23.1004	0.941713	1.1980	42.3080	11.19	24.53	25690.5	907252.0	10/1/09 11:00	10/16/09 9:00
10/16/09 9:06	10/30/09 11:35	1-1	10.7537	0.1767	8229670	336.5	20190	19.14	1.4070	23.1312	0.942661	1.1946	42.1879	8.15	24.54	24119.5	851772.8	10/16/09 10:00	10/30/09 12:00
10/30/09 11:40	11/13/09 7:18	1-1	10.7537	0.1767	8034697	331.6	19896	22.98	1.6897	23.0249	0.931631	1.1767	41.5561	7.82	24.71	23412.4	826800.3	10/30/09 12:00	11/13/09 8:00
11/13/09 7:22	11/27/09 12:48	1-1	10.7537	0.1767	8034690	341.1	20466	21.93	1.6121	23.0730	0.934692	1.1665	41.1940	0.72	24.69	23873.3	843076.1	11/13/09 8:00	11/27/09 13:00
11/27/09 12:55	12/15/09 12:01	1-1	10.7537	0.1767	8034678	146.0	8760	20.94	1.5393	22.9647	0.937180	1.1606	40.9875	-3.79	24.50	10167.2	359050.6	11/27/09 13:00	12/15/09 13:00
12/15/09 12:07	1/1/10 17:09	1-1	11.5485	0.1288	8034683	413.4	24804	20.55	1.5107	23.1808	0.938818	1.1458	40.4630	-6.30	24.69	28420.1	1003644.8	12/15/09 13:00	1/1/10 18:00

Site 2

Sample Start Date & Time	Sample End Date & Time	Sampler ID	Sampler m	Sampler b	Filter #	Run Time (hr)	Run Time (min)	Avg Pstag ("H_2O)	Avg Pstag ("Hg)	P1	P1/Pa	Flow Rate (m^3/min)	Flow Rate (ft^3/min)	Avg. Temp (°C)	Avg. Press ("Hg)	Volume (m^3)	Volume (ft^3)	Temp & Press Averaging Start Date & Time	Temp & Press Averaging End Date & Time
10/1/09 10:11	10/16/09 10:20	2-1	10.6371	0.2029	8229672	360.2	21612	19.07	1.4018	23.0612	0.942696	1.1738	41.4518	11.69	24.46	25367.8	895855.6	10/1/09 11:00	10/16/09 11:00
10/16/09 11:29	10/30/09 12:48	2-1	12.1744	0.0978	8229669	337.2	20232	18.65	1.3710	23.0956	0.943966	1.1662	41.1846	8.39	24.47	23594.9	833246.9	10/16/09 12:00	10/30/09 13:00
10/30/09 12:53	11/13/09 8:08	2-1	12.1744	0.0978	8034696	331.2	19872	22.46	1.6511	22.9896	0.932993	1.1517	40.6706	8.67	24.64	22885.9	808206.7	10/30/09 13:00	11/13/09 9:00
11/13/09 8:14	11/27/09 12:17	2-1	12.1744	0.0978	8034691	339.3	20358	22.12	1.6261	22.9846	0.933927	1.1375	40.1704	1.17	24.61	23157.2	817789.4	11/13/09 9:00	11/27/09 13:00
11/27/09 12:22	12/15/09 11:25	2-1	12.1744	0.0978	8034679	429.5	25770	20.53	1.5096	22.9152	0.938196	1.1341	40.0518	-3.21	24.42	29226.8	1032136.0	11/27/09 13:00	12/15/09 12:00
12/15/09 11:34	1/1/10 16:51	2-1	12.1744	0.0978	8034684	413.2	24792	20.12	1.4790	23.1160	0.939864	1.1321	39.9781	-5.27	24.60	28065.8	991135.8	12/15/09 12:00	1/1/10 17:00

Site 3

Sample Start Date & Time	Sample End Date & Time	Sampler ID	Sampler m	Sampler b	Filter #	Run Time (hr)	Run Time (min)	Avg Pstag ("H_2O)	Avg Pstag ("Hg)	P1	P1/Pa	Flow Rate (m^3/min)	Flow Rate (ft^3/min)	Avg. Temp (°C)	Avg. Press ("Hg)	Volume (m^3)	Volume (ft^3)	Temp & Press Averaging Start Date & Time	Temp & Press Averaging End Date & Time
10/1/09 9:15	10/16/09 11:55	3-1	9.8476	0.2471	8229673	362.7	21762	19.49	1.4327	23.0318	0.941437	1.1900	42.0238	11.69	24.46	25896.4	914522.2	10/1/09 10:00	10/16/09 12:00
10/16/09 12:32	10/30/09 13:43	3-1	9.4252	0.2859	8229668	337.1	20226	19.11	1.4048	23.0614	0.942583	1.1690	41.2813	8.34	24.47	23643.3	834955.2	10/16/09 13:00	10/30/09 14:00
10/30/09 13:47	11/13/09 8:34	3-1	9.4252	0.2859	8034695	330.7	19842	22.55	1.6581	22.9827	0.932710	1.1521	40.6863	8.70	24.64	22860.1	807296.7	10/30/09 14:00	11/13/09 9:00
11/13/09 8:41	11/27/09 11:49	3-1	9.4252	0.2859	8034675	338.9	20334	21.19	1.5577	23.0532	0.936706	1.1436	40.3858	1.15	24.61	23253.9	821204.1	11/13/09 9:00	11/27/09 12:00
11/27/09 11:55	12/15/09 10:54	3-1	9.4252	0.2859	8034680	431.0	25860	20.77	1.5268	22.8974	0.937487	1.1359	40.1122	-3.20	24.42	29373.1	1037302.7	11/27/09 12:00	12/15/09 11:00
12/15/09 10:59	1/1/10 16:08	3-1	9.4252	0.2859	8034685	413.1	24786	21.04	1.5471	23.0486	0.937100	1.1308	39.9351	-5.26	24.60	28028.9	989832.2	12/15/09 11:00	1/1/10 17:00

Site 4

Sample Start Date & Time	Sample End Date & Time	Sampler ID	Sampler m	Sampler b	Filter #	Run Time (hr)	Run Time (min)	Avg Pstag ("H_2O)	Avg Pstag ("Hg)	P1	P1/Pa	Flow Rate (m^3/min)	Flow Rate (ft^3/min)	Avg. Temp (°C)	Avg. Press ("Hg)	Volume (m^3)	Volume (ft^3)	Temp & Press Averaging Start Date & Time	Temp & Press Averaging End Date & Time
10/1/09 8:40	10/16/09 16:28	4-1	12.0757	0.0956	8229674	290.4	17424	19.52	1.4349	23.1022	0.941520	1.1816	41.7262	11.34	24.54	20587.4	727037.6	10/1/09 9:00	10/16/09 17:00
10/16/09 17:20	10/30/09 14:24	4-1	12.1735	0.0744	8229667	332.4	19944	20.07	1.4757	23.0580	0.939849	1.1916	42.0827	7.81	24.53	23766.2	839296.9	10/16/09 18:00	10/30/09 15:00
10/30/09 14:29	11/13/09 9:06	4-1	12.1735	0.0744	8034694	330.6	19836	22.82	1.6776	23.0349	0.932116	1.1812	41.7140	7.91	24.71	23430.5	827439.9	10/30/09 15:00	11/13/09 10:00
11/13/09 9:12	11/27/09 11:18	4-1	12.1735	0.0744	8034676	337.8	20268	21.93	1.6125	23.0751	0.934684	1.1693	41.2944	0.64	24.69	23700.0	836955.9	11/13/09 10:00	11/27/09 12:00
11/27/09 11:23	12/15/09 13:03	4-1	12.1735	0.0744	8034681	431.6	25896	20.85	1.5327	22.9726	0.937454	1.1636	41.0930	-3.76	24.51	30133.2	1064143.1	11/27/09 12:00	12/15/09 14:00
12/15/09 13:09	1/1/10 14:08	4-1	12.1735	0.0744	8034686	409.0	24540	21.29	1.5651	23.1248	0.936611	1.1569	40.8571	-6.32	24.69	28391.4	1002633.7	12/15/09 14:00	1/1/10 15:00

Site 5

Sample Start Date & Time	Sample End Date & Time	Sampler ID	Sampler m	Sampler b	Filter #	Run Time (hr)	Run Time (min)	Avg Pstag ("H_2O)	Avg Pstag ("Hg)	P1	P1/Pa	Flow Rate (m^3/min)	Flow Rate (ft^3/min)	Avg. Temp (°C)	Avg. Press ("Hg)	Volume (m^3)	Volume (ft^3)	Temp & Press Averaging Start Date & Time	Temp & Press Averaging End Date & Time
10/1/09 7:26	10/16/09 13:22	5-1	11.1194	0.1509	8229675	365.9	21954	19.24	1.4147	23.1215	0.942342	1.2003	42.3881	11.23	24.54	26351.3	930588.2	10/1/09 8:00	10/16/09 14:00
10/16/09 13:46	10/30/09 14:56	5-1	10.7234	0.1839	8229663	337.1	20226	19.59	1.4401	23.0962	0.941308	1.1843	41.8223	7.98	24.54	23953.2	845898.8	10/16/09 14:00	10/30/09 15:00
10/30/09 15:02	11/13/09 9:36	5-1	10.7234	0.1839	8034689	330.5	19830	22.36	1.6441	23.0685	0.933470	1.1719	41.3855	7.93	24.71	23238.9	820674.2	10/30/09 16:00	11/13/09 10:00
11/13/09 9:41	11/27/09 10:45	5-1	10.7234	0.1839	8034677	336.8	20208	21.53	1.5831	23.1046	0.935875	1.1603	40.9757	0.63	24.69	23447.4	828037.0	11/13/09 10:00	11/27/09 11:00
11/27/09 10:50	12/15/09 12:36	5-1	10.7234	0.1839	8034682	433.7	26022	20.74	1.5246	22.9803	0.937783	1.1539	40.7494	-3.75	24.50	30026.6	1060380.7	11/27/09 11:00	12/15/09 13:00
12/15/09 12:40	1/1/10 13:07	5-1	10.7234	0.1839	8034687	408.4	24504	20.70	1.5221	23.1679	0.938353	1.1493	40.5859	-6.32	24.69	28161.6	994516.1	12/15/09 13:00	1/1/10 14:00

FOURTH QUARTER 2009 AIR FILTER RESULTS

SampleID	SampleDate	Field	Unit	Result	Qual	MDL/LLD
1-1	10/1/09	AirFlowRate	cfm	42.31		
1-1	10/1/09	SamplingTime	min	21444		
1-1	10/1/09	SampleVolume	liter	25691000		
1-1	10/16/09	AirFlowRate	cfm	42.19		
1-1	10/16/09	SamplingTime	min	20190		
1-1	10/16/09	SampleVolume	liter	24120000		
1-1	10/30/09	AirFlowRate	cfm	41.56		
1-1	10/30/09	SamplingTime	min	19896		
1-1	10/30/09	SampleVolume	liter	23412000		
1-1	11/13/09	AirFlowRate	cfm	41.19		
1-1	11/13/09	SamplingTime	min	20466		
1-1	11/13/09	SampleVolume	liter	23873000		
1-1	11/27/09	AirFlowRate	cfm	40.99		
1-1	11/27/09	SamplingTime	min	8760		
1-1	11/27/09	SampleVolume	liter	10167000		
1-1	12/15/09	AirFlowRate	cfm	40.46		
1-1	12/15/09	SamplingTime	min	24804		
1-1	12/15/09	SampleVolume	liter	28420000		
1-1	10/1/09	TotalSample Volume	liter	135683000		
1-1	10/1/09	UraniumLabResult	mg/filter		U	0.001
1-1	10/1/09	Lead210LabResult	pCi/filter	490		26
1-1	10/1/09	Radium226LabResult	pCi/filter	0.6		1.5
1-1	10/1/09	Thorium230LabResult	pCi/filter	-0.37		2.5
1-1	10/1/09	UraniumConverted	ug/liter		U	7.4E-09
1-1	10/1/09	Lead210Converted	pCi/liter	3.6E-06		1.9E-07
1-1	10/1/09	Radium226Converted	pCi/liter	4.4E-09		1.1E-08
1-1	10/1/09	Thorium230Converted	pCi/liter	-2.7E-09		1.8E-08

FOURTH QUARTER 2009 AIR FILTER RESULTS

SampleID	SampleDate	Field	Unit	Result	Qual	MDL/LLD
2-1	10/1/09	AirFlowRate	cfm	41.45		
2-1	10/1/09	SamplingTime	min	21612		
2-1	10/1/09	SampleVolume	liter	25368000		
2-1	10/16/09	AirFlowRate	cfm	41.18		
2-1	10/16/09	SamplingTime	min	20232		
2-1	10/16/09	SampleVolume	liter	23595000		
2-1	10/30/09	AirFlowRate	cfm	40.67		
2-1	10/30/09	SamplingTime	min	19872		
2-1	10/30/09	SampleVolume	liter	22886000		
2-1	11/13/09	AirFlowRate	cfm	40.17		
2-1	11/13/09	SamplingTime	min	20358		
2-1	11/13/09	SampleVolume	liter	23157000		
2-1	11/27/09	AirFlowRate	cfm	40.05		
2-1	11/27/09	SamplingTime	min	25770		
2-1	11/27/09	SampleVolume	liter	29227000		
2-1	12/15/09	AirFlowRate	cfm	39.98		
2-1	12/15/09	SamplingTime	min	24792		
2-1	12/15/09	SampleVolume	liter	28066000		
2-1	10/1/09	TotalSample Volume	liter	152299000		
2-1	10/1/09	UraniumLabResult	mg/filter		U	0.001
2-1	10/1/09	Lead210LabResult	pCi/filter	590		33
2-1	10/1/09	Radium226LabResult	pCi/filter	0.9		1.8
2-1	10/1/09	Thorium230LabResult	pCi/filter	-0.97		2.9
2-1	10/1/09	UraniumConverted	ug/liter		U	6.6E-09
2-1	10/1/09	Lead210Converted	pCi/liter	3.9E-06		2.2E-07
2-1	10/1/09	Radium226Converted	pCi/liter	5.9E-09		1.2E-08
2-1	10/1/09	Thorium230Converted	pCi/liter	-6.4E-09		1.9E-08

FOURTH QUARTER 2009 AIR FILTER RESULTS

SampleID	SampleDate	Field	Unit	Result	Qual	MDL/LLD
3-1	10/1/09	AirFlowRate	cfm	42.02		
3-1	10/1/09	SamplingTime	min	21762		
3-1	10/1/09	SampleVolume	liter	25896000		
3-1	10/16/09	AirFlowRate	cfm	41.28		
3-1	10/16/09	SamplingTime	min	20226		
3-1	10/16/09	SampleVolume	liter	23643000		
3-1	10/30/09	AirFlowRate	cfm	40.69		
3-1	10/30/09	SamplingTime	min	19842		
3-1	10/30/09	SampleVolume	liter	22860000		
3-1	11/13/09	AirFlowRate	cfm	40.39		
3-1	11/13/09	SamplingTime	min	20334		
3-1	11/13/09	SampleVolume	liter	23254000		
3-1	11/27/09	AirFlowRate	cfm	40.11		
3-1	11/27/09	SamplingTime	min	25860		
3-1	11/27/09	SampleVolume	liter	29373000		
3-1	12/15/09	AirFlowRate	cfm	39.94		
3-1	12/15/09	SamplingTime	min	24786		
3-1	12/15/09	SampleVolume	liter	28029000		
3-1	10/1/09	TotalSample Volume	liter	153055000		
3-1	10/1/09	UraniumLabResult	mg/filter		U	0.001
3-1	10/1/09	Lead210LabResult	pCi/filter	590		27
3-1	10/1/09	Radium226LabResult	pCi/filter	0.67		1.6
3-1	10/1/09	Thorium230LabResult	pCi/filter	5.3		2.5
3-1	10/1/09	UraniumConverted	ug/liter		U	6.5E-09
3-1	10/1/09	Lead210Converted	pCi/liter	3.9E-06		1.8E-07
3-1	10/1/09	Radium226Converted	pCi/liter	4.4E-09		1.0E-08
3-1	10/1/09	Thorium230Converted	pCi/liter	3.5E-08		1.6E-08

FOURTH QUARTER 2009 AIR FILTER RESULTS

SampleID	SampleDate	Field	Unit	Result	Qual	MDL/LLD
4-1	10/1/09	AirFlowRate	cfm	41.73		
4-1	10/1/09	SamplingTime	min	17424		
4-1	10/1/09	SampleVolume	liter	20587000		
4-1	10/16/09	AirFlowRate	cfm	42.08		
4-1	10/16/09	SamplingTime	min	19944		
4-1	10/16/09	SampleVolume	liter	23766000		
4-1	10/30/09	AirFlowRate	cfm	41.71		
4-1	10/30/09	SamplingTime	min	19836		
4-1	10/30/09	SampleVolume	liter	23430000		
4-1	11/13/09	AirFlowRate	cfm	41.29		
4-1	11/13/09	SamplingTime	min	20268		
4-1	11/13/09	SampleVolume	liter	23700000		
4-1	11/27/09	AirFlowRate	cfm	41.09		
4-1	11/27/09	SamplingTime	min	25896		
4-1	11/27/09	SampleVolume	liter	30133000		
4-1	12/15/09	AirFlowRate	cfm	40.86		
4-1	12/15/09	SamplingTime	min	24540		
4-1	12/15/09	SampleVolume	liter	28391000		
4-1	10/1/09	TotalSample Volume	liter	150007000		
4-1	10/1/09	UraniumLabResult	mg/filter		U	0.001
4-1	10/1/09	Lead210LabResult	pCi/filter	700		17
4-1	10/1/09	Radium226LabResult	pCi/filter	0.86		2.5
4-1	10/1/09	Thorium230LabResult	pCi/filter	0.19		2.8
4-1	10/1/09	UraniumConverted	ug/liter		U	6.7E-09
4-1	10/1/09	Lead210Converted	pCi/liter	4.7E-06		1.1E-07
4-1	10/1/09	Radium226Converted	pCi/liter	5.7E-09		1.7E-08
4-1	10/1/09	Thorium230Converted	pCi/liter	1.3E-09		1.9E-08

FOURTH QUARTER 2009 AIR FILTER RESULTS

SampleID	SampleDate	Field	Unit	Result	Qual	MDL/LLD
5-1	10/1/09	AirFlowRate	cfm	42.39		
5-1	10/1/09	SamplingTime	min	21954		
5-1	10/1/09	SampleVolume	liter	26351000		
5-1	10/16/09	AirFlowRate	cfm	41.82		
5-1	10/16/09	SamplingTime	min	20226		
5-1	10/16/09	SampleVolume	liter	23953000		
5-1	10/30/09	AirFlowRate	cfm	41.39		
5-1	10/30/09	SamplingTime	min	19830		
5-1	10/30/09	SampleVolume	liter	23239000		
5-1	11/13/09	AirFlowRate	cfm	40.98		
5-1	11/13/09	SamplingTime	min	20208		
5-1	11/13/09	SampleVolume	liter	23447000		
5-1	11/27/09	AirFlowRate	cfm	40.75		
5-1	11/27/09	SamplingTime	min	26022		
5-1	11/27/09	SampleVolume	liter	30027000		
5-1	12/15/09	AirFlowRate	cfm	40.59		
5-1	12/15/09	SamplingTime	min	24504		
5-1	12/15/09	SampleVolume	liter	28162000		
5-1	10/1/09	TotalSample Volume	liter	155179000		
5-1	10/1/09	UraniumLabResult	mg/filter		U	0.001
5-1	10/1/09	Lead210LabResult	pCi/filter	480		36
5-1	10/1/09	Radium226LabResult	pCi/filter	0.35		1.7
5-1	10/1/09	Thorium230LabResult	pCi/filter	-0.32		3.2
5-1	10/1/09	UraniumConverted	ug/liter		U	6.4E-09
5-1	10/1/09	Lead210Converted	pCi/liter	3.1E-06		2.3E-07
5-1	10/1/09	Radium226Converted	pCi/liter	2.3E-09		1.1E-08
5-1	10/1/09	Thorium230Converted	pCi/liter	-2.1E-09		2.1E-08
TRIP BLANK	10/1/09	UraniumLabResult	mg/filter		U	0.001
TRIP BLANK	10/1/09	Lead210LabResult	pCi/filter	48.0		81
TRIP BLANK	10/1/09	Radium226LabResult	pCi/filter	2.3		7.1
TRIP BLANK	10/1/09	Thorium230LabResult	pCi/filter	0.88		8.4

FOURTH QUARTER 2009 AIR FILTER RESULTS

Field	Unit												
SampleID		1-1		2-1		3-1		4-1		5-1		Trip Blank	
SampleDate	Date	10/1/09		10/1/09		10/1/09		10/1/09		10/1/09		10/1/09	
SampleVolume	liter	135683000		152299000		153055000		150007000		155179000		N/A	
UraniumConverted	ug/liter	7.4E-09	U	6.6E-09	U	6.5E-09	U	6.7E-09	U	6.4E-09	U	1.0E-03	U
Lead210Converted	pCi/liter	3.6E-06		3.9E-06		3.9E-06		4.7E-06		3.1E-06		4.8E+01	
Radium226Converted	pCi/liter	4.4E-09		5.9E-09		4.4E-09		5.7E-09		2.3E-09		2.3E+00	
Thorium230Converted	pCi/liter	-2.7E-09		-6.4E-09		3.5E-08		1.3E-09		-2.1E-09		8.8E-01	

First Quarter 2010 Data Report
Replacement Pages
(Comments 6 and 7)

FIRST QUARTER 2010 DATA REPORT
FOR AMBIENT AIR MONITORING
ENERGY FUELS RESOURCES CORPORATION
URANIUM MILL LICENSING SUPPORT
PIÑON RIDGE MILL
MONTROSE COUNTY, COLORADO

August 31, 2010
Revision: 1

Prepared By:

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

4.0 METEOROLOGICAL DATA ANALYSIS

The monthly averages of meteorological parameters are summarized in Table 5.

Table 5
Monthly Average Meteorological Parameters

	January		February		March	
Meteorological Parameter	**Site #1**	**Site #2**	**Site #1**	**Site #2**	**Site #1**	**Site #2**
Wind Speed (m/s)	1.57	1.27	1.62	1.33	2.88	2.67
Wind Direction (deg)	204.70	250.90	235.38	262.49	223.81	249.86
Sigma Theta Wind	29.10	26.53	25.91	24.72	26.91	27.70
Vertical Wind Speed EPS (cm/s)	0.72	1.52	0.92	2.77	2.31	7.65
Vertical Wind Speed EPS Std	9.07	10.85	9.79	9.49	19.18	30.84
Vertical Wind Speed CFT (cm/s)	3.44	5.32	2.10	4.61	6.40	13.66
Vertical Wind Speed CFT Std	9.75	12.43	10.69	10.35	21.49	35.23
2m Temperature (ºC)	-4.88	-4.25	-1.81	-2.04	4.13	4.07
10m Temperature (ºC)	-3.86	N/A	-1.25	N/A	4.53	N/A
30m Temperature (ºC)	N/A	-2.99	N/A	-0.91	N/A	4.77
DeltaT (ºC)	1.02	1.26	0.56	1.14	0.40	0.70
Relative Humidity (%)	75.56	72.83	75.57	72.65	58.65	56.77
RH Temperature (°F)	24.37	25.57	29.70	29.71	40.01	40.16
Barometric Pressure (in. Hg)	24.63	24.55	24.56	24.47	24.56	24.48
Solar Radiation (W/m^2)	109.86	106.69	140.18	137.54	202.18	200.66
Gust Speed (m/s)	3.30	3.01	3.28	2.94	5.93	5.84
Gust Direction (deg)	205.84	265.83	251.78	278.05	237.68	254.38
Total Precipitation (in.)	1.13	N/A	1.19	N/A	1.89	N/A
Total Evaporation (in.)	N/A	N/A	N/A	N/A	N/A	N/A
Average Daily Evaporation (in.)	N/A	N/A	N/A	N/A	N/A	N/A

Partisol PM_{10} FRM Field Form

Site Name: #1

Filter ID: 391, 313

Sampler ID #: 1-2

Sample Run Date: 1-2-10

Sample Setup

Technician Name: Jess

Sample Setup Date: 12-29-09

Current Instrument Date: 12-29-09

Sample Setup Time: 1033 MST

Current Instrument Time: 1033 MST

Current Weather Conditions: Light Intermitant Snow, cold, calm

Notes:

Sample Retrieval

Technician Name: Jess

Sample Retrieval Date: 1-5-10

Current Instrument Date: 1-5-10

Sample Retrieval Time: 0933 MST

Current Instrument Time: 0933 MST

Status Code (Stat): OK

Average Temperature (AmbT Ave): -5.4 °c

Total Sampling Time (Tot): 24.00

Average Pressure (Pres Ave): 629 mmHg

Volume Sampled (Vol): ~~24.7~~ 24.0*

Flow Rate Coefficient of Variation (%CV): 0.0

Current Weather Conditions: High light clouds, cold, calm

Notes: * transcription error [signature] 8/30/10

Field Blank

Note: Field Blank information should be recorded on Field Form for Retrieved Filter.

Field Blank procedure should be performed once a month at one site.

Filter ID:

Current Instrument Date:

Current Instrument Time:

Notes:

Second Quarter 2010 Data Report
Replacement Pages
(Comment 8)

SECOND QUARTER 2010 DATA REPORT FOR METEOROLOGICAL MONITORING ENERGY FUELS RESOURCES CORPORATION URANIUM MILL LICENSING SUPPORT PIÑON RIDGE MILL MONTROSE COUNTY, COLORADO

August 30, 2010
Revision: 1

Prepared By:

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

1.0 INTRODUCTION

This quarterly report provides meteorological data required for the assessment of air quality. These data collected during the second quarter 2010 will be used to augment the environmental baseline study at Energy Fuels Resources Corporation (EFR) proposed Piñon Ridge Mill (the "Site") located in Montrose County, Colorado. Twelve months of meteorological and air quality data were collected from the second quarter 2008 to the second quarter 2009 and was subsequently summarized in the Meteorology, Air Quality and Climatology Report, revision 1, dated October 9, 2009 and prepared by Kleinfelder. Meteorological and ambient air data were collected at five air monitoring stations (network) from the second quarter 2008 through the first quarter 2010, comprising 24 months of data which is twice the minimum required for permitting purposes. Ambient air monitoring was suspended at the end of the first quarter 2010 per the proposed changes to the monitoring program outlined in a letter to CDPHE dated March 12, 2010 and subsequently approved by CDPHE. In accordance with the approved monitoring program changes, meteorological monitoring will continue through the first quarter 2011. Ambient air and meteorological monitoring will resume prior to the start of mill construction.

The project is under the regulation of the Colorado Department of Public Health and Environment (CDPHE) and the mill license (radioactive source materials license) will be issued and administered by CDPHE. Monitoring sites were chosen according to guidance outlined in Nuclear Regulatory Commission (NRC) Regulatory Guide (Reg. Guide) 3.63, Onsite Meteorological Measurement Program for Uranium Recovery Facilities – Data Acquisition and Reporting (NRC Reg. Guide 3.63); and Environmental Protection Agency (EPA) Meteorological Monitoring Guidance for Regulatory Modeling Applications (MMGRMA) (EPA-454/R-99-005).

The Site is located 14 miles northwest of Naturita at 16910 Highway 90, Montrose County, Colorado. The property consists of approximately 880 acres that include the Southwest ¼ of the Southeast ¼ of Section 5, all of Section 8, the North ¼ of Section 17, and the Southeast ¼ of the Northwest ¼ of Section 17, Township 46 North, Range 17 West, of the New Mexico Principal Meridian. See Figure 1 for the site layout.

Fourth Quarter 2009 Data Report
Supporting Documents
(Comment 5)

Filter # 8034678

Site # 1

Sampler # 1-1

Start Date 11-27-09 End Date 12-15-09

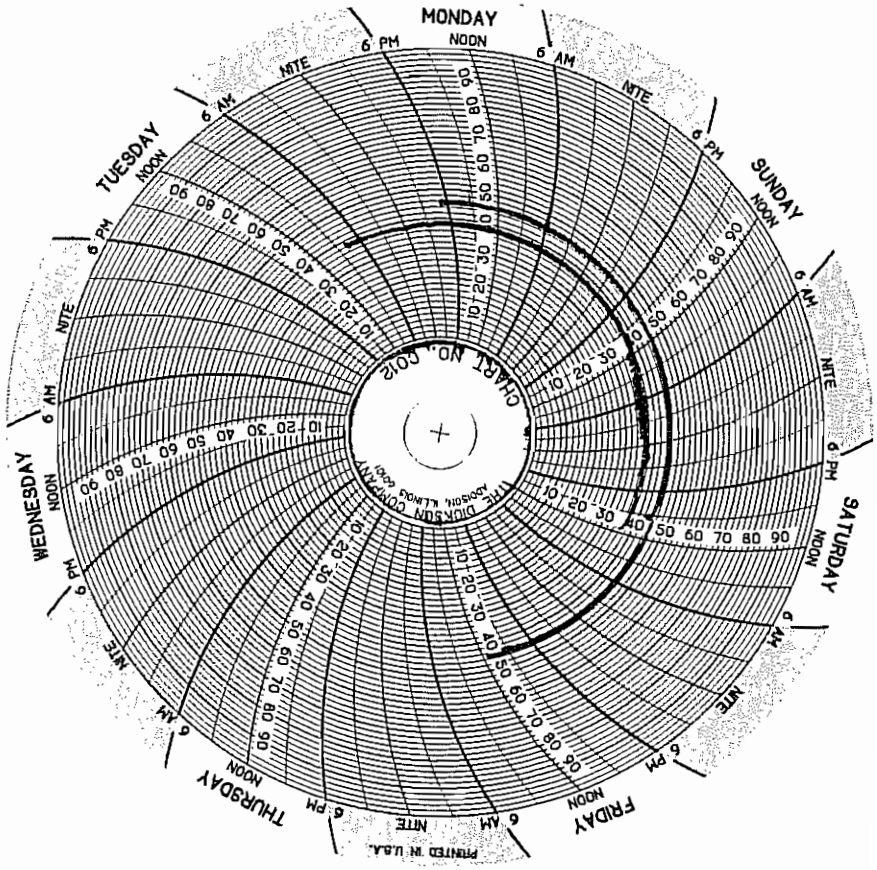
Start Time 1255 MST End Time 1201 MST

Set-up P_{stag} -21.12" wc Ret. P_{stag} -20.75" wc

Elapsed Time 678 hrs

SITE : 1
SAMPLER # 1-1
FILTER # 8034678
START DATE: 11-27-09
START TIME: 1255 MST
START PSTAG: -21.12" WC

STOP DATE : 12-15-09
STOP TIME : 1201 MST
STOP PSTAG : -20.75" WC
ELAPSED TIME: 67.8 hrs
12-15-09



Site #1 - Instrument Run Time Calculation

11/27/2009 12:55	0.0	started		
11/30/2009 17:07	76.3	running		
11/30/2009 19:00	78.2	failure time from chart	ran	78.2
12/12/2009 16:15	0.0	restart new motor and reset	down	285.3
12/15/2009 12:01	67.8	end time	ran	67.8
			total ran	**146.0**
			total down	285.3
			total time	431.2

11-24-09 JWulbright (EFR) Clear Cold Calm

#1 Met @ 09.28 MST OK TP = 14.94" BV = 13.62V RG - OK

Tisch 1-1 = 265.8 @ 0929 MST OK

PM10 1-2 @ 0930 MST OK Done #391,169 out #391,171 in STR 11-27-09

11-29-09 Doug Roberts EFR cold, clear, calm

#1 MET @ 1243 MST All OK P: 0 Dp: 0 TP: 14.94

BV: 13.25 Rg: OK

PM10 1-2 @ 1247 MST Mode: SAMPLE All OK

Tisch 1-1 341.1 hrs @ 1248 MST FILTER #8034690

RET. PSTAG: -22.34 "

FILTER # 8034678 SET-UP PSTAG: -21.12 " @ 1255 MST

11/30/09 JWulbright (EFR) light clouds, cold, calm

#1 Met @ 1707 MST All OK TP = 14.98" RG OK FR

Tisch 1-1 = 76.3 hrs @ 1707 MST OK

PM10 1-2 @ 1709 MST OK Done #391,171 out #391,303 In @ 1711 MST

12-4-09 JWulbright (EFR) Partly Cloudy, cold, calm

#1 Met @ 1249 MST All OK TP = 14.98" BV = 13.52V RG - OK FR Weekly & DL

Tisch 1-1 Not Running - No Restart, Chart Shows Down @ ≈ 1900 MST on 11-30-09

Phone to Mike Rutter - left message inquiring on availability of rebuilt motor

Phone to Zach Rogers - "Leave it down until Monday Dec 7, decide then"

PM10 1-2 @ 1336 MST OK Done #391,303 out #391,305 In STR 12-9-09

End of Month

12-4-09 JWulbright (EFR) Partly cloudy, cold, calm
#1 Met OK See Pg 96
Tisch Down PM10 #391,305 In See Page 96

12-8-09 JWulbright (EFR) Partly Cloudy, SW Wind, Cold ≈ 2" new snow
#1 Met @ 1130 MST, All OK, TP=0.0", all precips now 0.0", red Rain Gauge,
≈ ½ cup of ice sitting on bottom, bucket tipped as I observed, gauge
did register 0.01", got VOM checked power to rain gauge heaters, OK
120V to both, bottom (75w) heater warm, Top (240W) heater cold.
Communicated with Zach, Tisch Down, PM10 1-2 OK Wait @ 1156 MST

12-11-09 JWulbright (EFR) Partly Cloudy, cold, calm
#1 Met @ 1048 MST OK FR TP=0.06 BV=13.84V Weekly Checks
Tisch 1-1 @ 1100 MST Down | PM10 1-2 @ 1101 MST OK Done #391,305 out
Performed monthly & semi-annual checks, all good, #391,307 In @ 1135 MST

12-12-09 JWulbright (EFR) Snowing, cold, SW Wind
Installed new Tisch Motor
Back On @ 1615 MST, All OK
Reset hour meter to 0.00

12-15-09 Doug Roberts EFR
#1 Met @ 1156 MST All OK P:0 Dp:0 Tp:0.24 Rg:OK BV:13.50
PM10 1-2 @ 1200 MST Made Sample All OK
Tisch 1-1 67.3 hrs @ 1201 MST Filter #8034678 Ref Pstng: -20.75"
Filter #8034683 @ 1207 MST Set-up Pstng: -20.37"

12-18-09 JWulbright (EFR) Partly Cloudy, cold, calm
#1 Met @ 1047 MST OK, TP=0.24", Funnel Clear All OK Download
Tisch 1-1 = 71.2 hrs @ 1116 MST OK
PM10 1-2 @ 1116 MST OK Done #391,307 out #391,309 In STR 12/21/09

12-21-09 JWulbright (EFR) Snowing cold calm PM10 1-2 OK Samp @ 1611
12-22-09
#1 Met @ 1140 MST OK DP=0.17 TP=0.41, little slush in funnel weekly/monthly
Tisch 1-1 = 167.6 hrs @ 1140 MST OK
PM10 1-2 @ 1141 MST OK Done #391,311 In @ 1143 STR 12/27

Site #4 - Instrument Run Time Calculation

10/1/2009 8:40	0.0	started			
10/6/2009 15:42	127.0	running			
10/7/09 23:11	158.5	estimated failure		ran	158.5
10/9/2009 6:40	190.0	off	reading 190.2		
10/9/2009 10:27	193.8	started		down	35.3
10/13/2009 12:45	289.6	running			
10/15/09 0:49	325.7	estimated failure		ran	131.9
10/16/2009 12:54	361.7	off	reading 362.0		
10/16/2009 16:28	365.3	new motor installed		down	39.6
				total ran	**290.4**
				total down	74.9
				total time	365.3

10-6-09 JuFulbright (EFR) Clear, light W breeze, warm
Tisch 4-1 = 127.0 hrs @ 1542 MST All OK

10-9-09 JuFulbright (EFR) Clear calm cool
Tisch 4-1 = 190.2 hrs @ 0640 MST Not Running Checked all power, etc.
motor 1720 MST Seems to be burnt out called Zach (Switch off)
-19.62 wc

10-9-09 MR
checked motor found locked up free up motor Started ok
Time 10:27 Am all ok

came Back at 12:50pm check all ok

10-10-09 Doug Roberts EFR
Tisch 4-1 211.3 hrs @ 629 MST All ok

10-11-09 Doug Roberts EFR
Tisch 4-1 244.5 @ 1539 MST ALL OK

10-13-09 Doug Roberts EFR
Tisch 4-1 289.6 hrs @ 1245 MST All ok

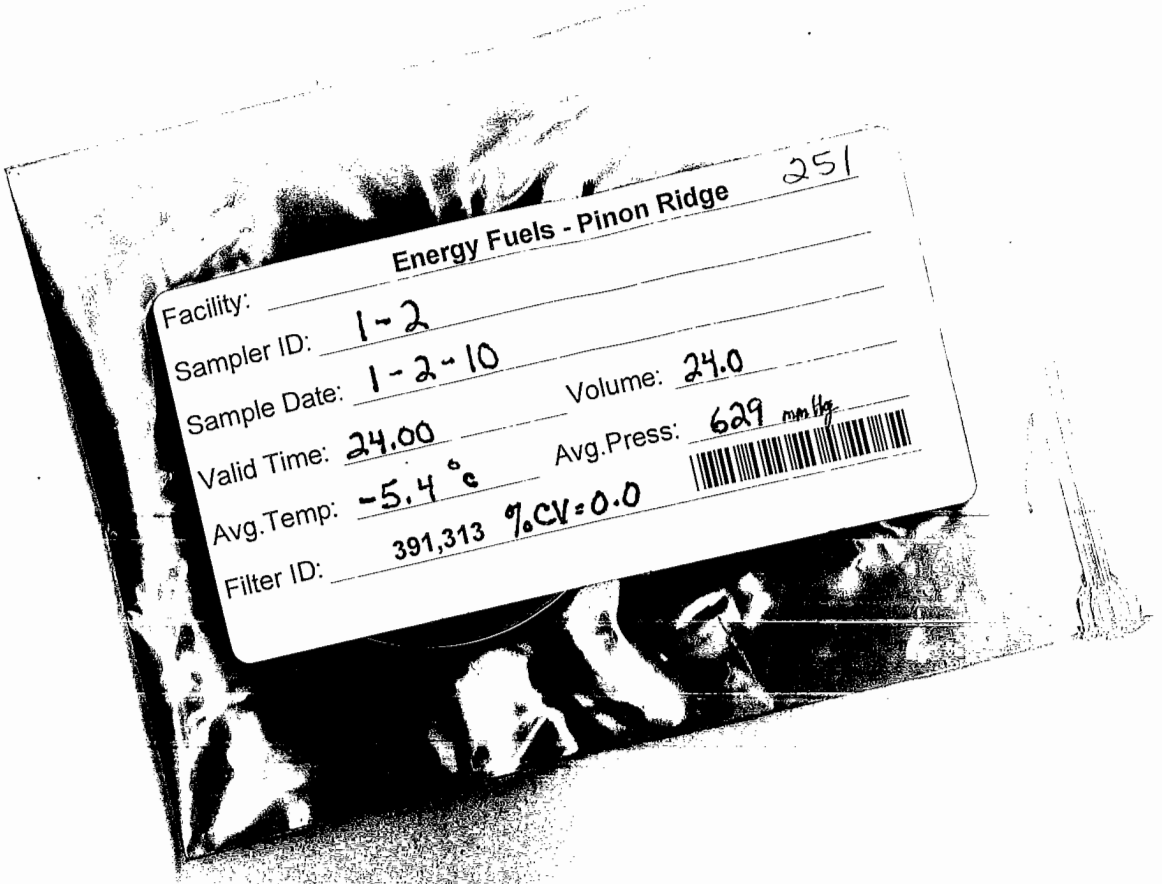
10-16-09 JuFulbright (EFR) Breeze, warm, clear
Tisch 4-1 down @ 1254 MST, No Re-start, will finish other sites and come back with cleaner, new motor etc, Called Zach/Mike

10-16-09 JuFulbright (EFR) Same
Tisch 4-1 = 362.0 hrs @ 1628 MST, cleaned motor until it Kept running, Pstag = -20.84" wc # 8229674 out, Replace Motor Calibrate, # 8229667 In @ 1720 MST Pstag = -19.62" wc

10/20/09 JuFulbright (EFR) Overcast, calm, warm, light sprinkle
Tisch 4-1 = 84.6 hrs @ 0559 MST OK Tightened Filter Frame

10-23-09 Doug Roberts EFR
Tisch 4-1 156.8 hrs @ 611 MST All ok

First Quarter 2010 Data Report
Supporting Documents
(Comment 7)


251
Energy Fuels - Pinon Ridge
Facility:
Sampler ID: 1-2
Sample Date: 1-2-10
Volume: 24.0
Valid Time: 24.00
Avg.Press: 629 mmHg
Avg.Temp: -5.4 °c
Filter ID: 391,313 %CV=0.0