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Canyon Fuel Company, LLC. Skyline Mine

A Subsidiary of Arch Western Bituminous Group, LLC.

Gregg Galecki, Environ. Coordinator  
HCR 35, Box 380  
Helper, UT 84526  
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*Incoming OK  
C/007/0005  
#2527*

May 22, 2006

Ms. Pam Grubaugh-Littig  
Permit Supervisor  
Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84114-5801

RE: Modification to Water Monitoring Tables, Canyon Fuel Company, LLC, Skyline Mine, C/007/005,

Dear Ms. Grubaugh-Littig:

Please find enclosed with this letter modifications to the Skyline Mine Water Monitoring tables. For review purposes, a Table 2.3.7-1 (Reference Table) is provided to be used as a cross reference from the currently approved Water Monitoring tables to the modified tables submitted in the current amendment. Also included with this letter are numerous demonstrations and discussions which serve as the basis for eliminating or modifying Water Monitoring that is currently being conducted. Only the modified version of Table 2.3.7-1 is proposed to be incorporated into the currently approved M&RP. Table 2.3.7-2 has been removed from the plan. Also note that Table 2.3.7-5 which outlines sampling at the Waste Rock Disposal site (Well number 92-91-03) has been removed from the M&RP. The water monitoring for the well has been incorporated into the modified Table 2.3.7-1 and 2.3.7-2, respectively.

This submittal includes completed C1 and C2 forms, one redline/strikethrough copy, and eight (8) copies of modified text.

If you have any questions, please call me at (435) 448-2636.

Sincerely,

Gregg A. Galecki  
Environmental Coordinator, Skyline Mine  
Canyon Fuel Company, LLC

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MAY 23 2006

DIV. OF OIL, GAS & MINING

file in: C/0070005 *Incoming*  
Refer to:  
 Confidential  
 Shelf  
 Expandable  
Date: 05/22/06 for additional information

### APPLICATION FOR COAL PERMIT PROCESSING

Permit Change  New Permit  Renewal  Exploration  Bond Release  Transfer

Permittee: Canyon Fuel Company, LLC

Mine: Skyline Mine

Permit Number: C/007/005

Title: Water Monitoring Table modifications

Description, include reason for application and timing required to implement:

Modification to the M&RP Water Monitoring Program; Sections 2.3 and Section 2.4

Instructions: If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

- Yes  No 1. Change in the size of the Permit Area? Acres: \_\_\_\_\_ Disturbed Area: \_\_\_\_\_  increase  decrease.
- Yes  No 2. Is the application submitted as a result of a Division Order? DO# \_\_\_\_\_
- Yes  No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
- Yes  No 4. Does the application include operations in hydrologic basins other than as currently approved?
- Yes  No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
- Yes  No 6. Does the application require or include public notice publication?
- Yes  No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
- Yes  No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
- Yes  No 9. Is the application submitted as a result of a Violation? NOV # N06-39-3-1
- Yes  No 10. Is the application submitted as a result of other laws or regulations or policies?

Explain:

- Yes  No 11. Does the application affect the surface landowner or change the post mining land use?
- Yes  No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
- Yes  No 13. Does the application require or include collection and reporting of any baseline information?
- Yes  No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
- Yes  No 15. Does the application require or include soil removal, storage or placement?
- Yes  No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
- Yes  No 17. Does the application require or include construction, modification, or removal of surface facilities?
- Yes  No 18. Does the application require or include water monitoring, sediment or drainage control measures?
- Yes  No 19. Does the application require or include certified designs, maps or calculation?
- Yes  No 20. Does the application require or include subsidence control or monitoring?
- Yes  No 21. Have reclamation costs for bonding been provided?
- Yes  No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
- Yes  No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you. (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Wesley K Sorensen  
Print Name

[Signature] 5/23/06  
Sign Name, Position, Date  
General Manager

Subscribed and sworn to before me this 23<sup>rd</sup> day of May, 2006

[Signature]  
Notary Public

My commission Expires: 12/2 2007  
Attest: State of Utah County of Carbon



For Office Use Only:	Assigned Tracking Number:	Received by Oil, Gas & Mining
		RECEIVED MAY 23 2006 DIV. OF OIL, GAS & MINING





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Company, LLC.  
Skyline Mine

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May 19, 2006

### **Discussions and Demonstrations for Water Monitoring Reductions**

The following are discussion and demonstrations to support changes, substitutions, or reductions in water monitoring analysis that are illustrated in the amended Table 2.3.7-1 and Table 2.3.7-1A included in this submittal. Each modification will be discussed separately.

#### **Discussions**

Seasonal Monitoring Frequency – The Seasonal Monitoring Frequency of Winter (December – February), High Spring (April – June), Low Summer (August – September), and Late Fall (October – November) has been modified to reflect standard yearly quarters (January – March, April – June, July – September, and October – December) for a number of reasons: 1) this is a standard frequency throughout the Coal program; 2) The current frequency already conforms within the standard quarters; and 3) It provides the option of sampling to be conducted in March, July, and December if necessary. One exception to this Quarterly monitoring frequency is that 2<sup>nd</sup> Quarter monitoring may need to be extended through the second week of July in years when Spring snow-melt conditions prohibit access to many of the sites.

Air Temperature – Air temperature has been taken off the water monitoring field parameter list for the following reasons: 1) limited bearing or influence on water quality; and 2) it is not a recommended parameter in the Coal Regulatory Program Technical Directive 004, from which most of the water monitoring programs are based.

Turbidity – Turbidity has been taken off the water monitoring field parameter list for the following reasons: 1) it is redundant since Total Suspended Solids (TSS) is being collected as a laboratory analysis, which provides a more accurate indication of suspended solids (concentration vs. amount of light passing); and 2) it is not a recommended parameter in the Coal Regulatory Program Technical Directive 004, from which most of the water monitoring programs are based.

Ammonia – Ammonia has been removed from the Laboratory Analysis list for the following reasons: 1) the attached table illustrates how infrequent the analyses is above detection limits, that there are no trends of concentration, demonstrating the analysis is not necessary; 2) there is no indication that mining related activities have or could potentially result in increased ammonia concentrations; 3) collection of ammonia is not a recommended parameter in the Coal Regulatory Program Technical Directive 004, from which most of the water monitoring programs are based.

Nitrate – Monitoring of Nitrate is being modified to analyze as Nitrate-Nitrite only in the Eccles Creek stream samples for the following reasons: 1) Eccles Creek is the only place where the Mine could have an impact related to Nitrate; 2) graphs (attached) illustrate concentrations of

Nitrate while sampling on a quarterly basis has not indicated a trend or problem with Nitrate (gaps in data from 1995-2000 were not included because of non-detect values); 3) if any problems are noted during the Nitrate-Nitrite analysis, additional sampling can be conducted to determine which parameter showed increased concentrations; 4) Sampling at the baseline frequency is consistent with Tech Directive 004; 5) Sampling Nitrate-Nitrite combined eliminates a 48-hour holding time, which significantly affects timing of collecting samples in the field; 6) Nitrate values have been graphed for sites located in Eccles Creek where a significant number of the data points are not plotted because they are below the detection limit of the analysis (the attached data tables illustrate all the below detection limit samples).

Orthophosphate – Monitoring of Orthophosphate is being modified to analyze for Total Phosphorus in the Eccles Creek only. The attached graphs illustrate the same six (6) reasons identified for the modification for Nitrate. Concentrations of Orthophosphate are all less than 0.1 mg/l. If problems are indicated on Total Phosphorous, Orthophosphate can always be sampled later. The eliminating of the orthophosphate 48-hour holding time significantly helps the collecting of samples in the field.

Dissolved Iron and Dissolved Manganese – Monitoring of these analyses is being modified from the quarterly frequency to the baseline frequency due to low concentrations. Total concentrations of both are being monitored on a quarterly basis, which is consistent with Tech Directive 004.

Sites MC-1 through MC-6 – Monitoring of these sites is being discontinued and the sites removed from the Water Monitoring program. Section 2.4, Page 2-46b of the currently approved MR&P supports the removal of these sites based on the sustained mine-water discharge being less than 5,000 gpm for more than one year. The Cumulative Discharge table that is updated and submitted monthly to the Division illustrates that the average monthly discharge to Eccles Creek has been below 5,000 gpm since December 2003. (Discharge table is attached)

Total Barium, Total Boron, Total Copper, Fluoride, Total Lead – The analyses of these parameters are available in the attached tables. Copper (total and dissolved), lead (total and dissolved), and Total barium could not adequately be graphed because there were not sufficient data above detection limits to graph. Dissolved barium, dissolved boron, fluoride, total boron, and total iron have been graphed to demonstrate how low the concentrations are, and that they can adequately be eliminated from the quarterly monitoring program. The modified Table 2.3.7-1 illustrates that Total Barium, Total Boron, Total Copper, Total Lead, and Fluoride are eliminated from sampling, and that Dissolved Barium, Dissolved Boron, Dissolved Copper, and Dissolved lead will be monitored on the Baseline sampling frequency.

Phenols – Monitoring of phenols in samples located in Eccles Creek is being eliminated for the following reasons: 1) the attached graph, although busy, illustrates the concentrations have been below detection limits approximately 82 percent of the time (since 1985); 2) no trends of concentrations are observed; 3) with the exception of a few unexplained outliers, concentrations above the detection limit are very low (note concentration is ug/l); and 4) no detectable concentrations have been noted since 2001.

Total Organic Carbon (TOC) and Cyanide – Monitoring of both these analyses has been removed from the Water Monitoring table. The attached graphs illustrate approximately 5 mg/l concentrations of TOC and approximately 0.01 mg/l concentrations of cyanide when detectable. Cyanide values that have been recorded are low enough to natural carbon such as sticks and

leaves, etc. No detectable concentrations of cyanide have been noted since 2000, and no concentrations of TOC have been noted above 5 mg/l since 1998. Removal of these parameter is also consistent with DOGM Technical Directive 004.

Sites CS-1 and CS-15 – Monitoring of these sites is being eliminated for the following reasons: 1) Section 2.4, page 2-44a indicates CS-15 was monitored to check for subsidence effects of longwall mining that has been completed; 2) mining is completed in this area and with workings are flooded; 3) CS-1 was set up to monitor the South Fork portal area that has been reclaimed; 4) these sites are redundant because stream monitoring site VC-10 provides adequate information for the South Fork of Eccles Creek area.

S24-1 Sulfur Spring – Analysis at Spring S24-1 is being reduced to field parameters and tritium only. This site mistakenly was recently put on the Water monitoring table as collecting full laboratory analysis. The site was originally set up to monitor the Starpoint Sandstone for changes in flow or age dating. The site is located almost 3 miles south of the permit boundary, and the mine workings are completely flooded for a distance of approximately 6 miles. The probability that water quality at the site would be impacted due to mining is extremely minimal.

Well 92-91-03 – Table 2.3.7-5 that outlines monitoring for this well is being eliminated. The analysis of the well is being incorporated into Table 2.3.7-1 to standardize monitoring, eliminate confusion with additional monitoring tables..

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