



# WESTERN ENERGY COMPANY

A Westmoreland Mining LLC Company  
138 ROSEBUD LANE • P.O. BOX 99 • COLSTRIP, MT 59323  
(406) 748-5100

February 2, 2015

Chris Yde  
Department of Environmental Quality  
Water Protection Bureau  
PO Box 200901  
Helena, MT 59620-0901

Permit ID: C1984003B  
Revision Type: Amendment  
Permitting Action: Deficiency Response - #7  
Subject: AM 4 (Amendment App 00184); Seventh Round Technical Deficiencies

Dear Chris:

Enclosed are Western Energy's responses to the deficiency letter dated June 3, 2014.

*17.24.314(4) and (5): A more complete explanation of the hydrologic response of East Fork Armells Creek to mining is needed. This information is needed to better determine the impacts to the hydrologic balance caused by current mining as well as to confirm that the proposed operation has been designed to minimize impacts to the hydrologic balance and prevent material damage to the hydrologic balance outside the permit area.*

*More information is needed to anticipate and predict the long-term effects of mining on stream flow and water quality of the stream and alluvium. Please provide a water budget that includes inputs to the stream from:*

- *the release of pond and pit water*
- *infiltration from sediment ponds adjacent to the stream*
- *disposal of water from operations and domestic use at the Area A facilities*

*Please indicate how the additional sources of water associated with mine activity have affected stream flow.*

*Review of the available data indicates the stream and alluvial wells adjacent to the facilities area are showing steadily increasing concentrations of ionic water quality components. These components have narrative standards based on uses. Please address the following:*

- *What is the source of the increase and at what point is the concentration expected to reach equilibrium or begin to decrease in concentration?*

- *How is the increased saturation of spoil adjacent to the stream likely to affect long term water quality in the stream and alluvium? What is the TDS concentration expected to be at full saturation of the spoil?*
- *What are the long term implications for stream and alluvial water quality associated with inputs from the facilities area, including the fate and breakdown products of lignin sulfonate?*
- *How have increases in specific water quality parameters affected the uses identified below and how are those uses likely to be affected with future predicted water quality changes?*

*EFAC existing and anticipated uses include water for livestock, wildlife, and aquatic life. Please confirm, based on current and future anticipated concentrations in the stream, that uses have not or will not be impaired. Three aquatic life surveys were completed in the 1970's but there have been none since that time. Please conduct a current aquatic survey along stretches of EFAC adjacent to the Rosebud Mine permit areas (Areas A, B, and C) to identify assemblages of aquatic life using the stream habitat. This information also will be useful for future permit revisions in Area A and Area C.*

**Response:** Please see the ABC PHC Addendum that has been included to Exhibit M Comprehensive Evaluation of Probable Hydrologic Consequences for Areas A, B and C. An overview of the information provided is on page 1 of the addendum. Please note – the Calcium Lignin Sulfate report and the Aquatic Survey Assessment are also included in the addendum.

If you have any questions please contact me at (406) 748-5124.

Sincerely,



Dicki Peterson  
Permit Coordinator  
Western Energy Company  
Rosebud Mine – Area B  
Phone: (406) 748-5124  
Fax: (406) 748-5202  
[dpeterson@westmoreland.com](mailto:dpeterson@westmoreland.com)

Enclosures Appendix M – Rosebud Mine A, B, C Comprehensive PHC

cc: Daniel Munoz  
Rusty Batie  
Wade Steere

**Gilbert, Sharona**

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**From:** File Transfer Service <no-reply@mt.gov>  
**Sent:** Monday, February 02, 2015 12:02 PM  
**Subject:** State of Montana File Transfer Service

## State of Montana File Transfer Service

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The following file has been sent to you through the State of Montana File Transfer Service:

**File Name:** C1984003B AM 4 7th Rnd Response 2015-01.pdf

**Sent From:** Dicki Peterson

**Message:** Attached are the Area B AM 4 deficiency responses for round #7. Please let me know if you have any questions. Thank you, Dicki Peterson Permit Coordinator Western Energy Company / Westmoreland Savage Corporation [dpeterson@westmoreland.com](mailto:dpeterson@westmoreland.com) 406/748-5124

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