CD only was hand delivered on 7/10/15

WESTERN ENERGY COMPANY

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

July 9, 2015

Mr. Chris Yde
Reclamation Program Supervisor
Department of Environmental Quality
Permitting and Compliance Division
P.O. Box 200901
Helena, MT 59620-0901

Permit ID: C2011003F
Revision Type: NA
Permitting Action: Acceptability Deficiency Response #2
Subject: Surface Mine Permit Application

Dear Chris:

Included in this submittal are WECo's responses to the Department's deficiency letter date June 9, 2014.

82-4-222(1), MCA: The applicant added adequate labeling on ramps, stockpiles, roads, and mine passes and met the intent of DEQ's deficiency. In order to adequately review the postmine topography, Western must now add polygons, depicting the extent of the proposed mine areas (individual mine passes are not needed), to the post- and premine topography maps. In addition, the haul road and ramp locations could be added to the post-mine map. A fine line type should be used.

Response: Please see updated Exhibit B Approximate Postmine Topography. Western has revised the post-mine topography and has included the requested polygons as well as the haul road and ramp locations on the PMT map. Proposed mine passes, haul roads and ramp locations are also depicted with the premine topography on Exhibit A Approximate Mine Plan.

ARM 17.24.303(1)(a) and (w): Since the last review of this permit application, Jesse Noel is no longer working for Western Energy, please update the resident agent (17.24.303(1)(w)) information as well as where the inquiries should be addressed (17.24.303(l)(a)).

Response: In the deficiency response #1 the information requested above in ARM 17.24.303(1)(a) and (w) is clearly seen in track changes. Daniel Munoz was inserted

FC: 620.170

replacing Jesse Noel as the contact on this permit application. On pages 303-1 (17.24.303(1)(a)) and 303-20 (17.24.303(1)(w)) of the ARM 17.24.303 (dated 12/2013).

An updated ARM 17.24.303 (dated 05/2015) is included in this submittal addressing deficiencies from Deficiency Letter #2 the requested information is also found in this version.

ARM 17.24.303(1)(g): Western has made changes to their ownership and control. It has been updated in the AVS database. Please provide the current revised tables to update the permit.

Response: The AVS is a living document and has been updated as of the April, 2015 update to OSM. Please see ARM 17.24.313(1)(g)(i-iv) dated 05/2014.

ARM 17.24.303(1)(r) and 304: The disturbed acres noted on Table 303-1, page 303-17 do not add up. Table 303-1 must be corrected.

Response: Table 303-1. Approximate Permitted and Disturbance Acres has been revised. The highwall reduction acres have been removed since they were also included in the "Other Disturbance" also.

ARM 17.24.304(1)(e): DEQ awaits the aquifer test data from Area F wells that Western committed to collecting.

Response: The aquifer test data has been incorporated into Appendix B.

Appendix B:

> **p. 6**: "...USGS gauging stations near Colstrip having similar drainage basin characteristics". List the stations used and compare the basin characteristics.

Response: This paragraph has been deleted. In response to the comment re page 11 below, the estimation of water contributions to streamflows has been included in Section 4.2.4.

> **p. 7**: Groundwater Recharge: This section is somewhat repeated in Section 5.2.5. Please identify (including a map) specific areas in and around Area F that have a high potential to be contributing to enhanced recharge of the aquifer. Refer_ to the Groundwater Model (Appendix I) so that the assumptions used in the groundwater model agree with baseline hydrology descriptions.

Response: The discussion on page 7 is a general discussion about the role of groundwater recharge in the pre-mine water balance. Section 5.2.5 provides more detailed information about recharge in the hydrogeologic setting at Area F. The text has been edited to be consistent with the groundwater model. A figure that shows the locations of enhanced recharge has been added to the report.

p. 9: Section 3.1: The second paragraph under this section is repeated from a previous section on page 3. Please remove redundant information and statements.

Response: The redundant paragraph has been deleted from Section 2.0 (page 3) 3.

p. 11: Section 4.0: Local surface water hydrology is not discussed in sufficient detail. The following baseline surface water questions need to be addressed:

- The baseline contribution of tributaries that will be blocked with sediment ponds and mined through needs to be quantified. This should be done for all major drainage basins whose main channels will not be disturbed by mining.

Response: The text in Section 4.0 has been edited to include the estimated baseline contributions to surface water flows. See Section 4.2.4. Please note that the tributaries affected by the required sediment control plan flow only in response to highly variable precipitation and snowmelt events.

- Aquatic and vegetative assemblages in the spring-fed wetlands must be cataloged so that potential impacts to wildlife uses can be tracked with changes in postmine water quantity and quality. Appendix F notes that no aquatic species surveys were conducted, but the presence or absence of aquatic communities needs to be established. Please refer to DEQ's Water Quality Protection Bureau SOP WQPBWQM-009 (http://www.deq.mt.gov/wqinfo/qaprogram/sops.mcpx) for acceptable procedures for conducting an aquatic life survey.

Response: The Area F aquatic life survey will be performed during the summer of 2015 and inserted into this report as Attachment B-O when available.

- In the last round of deficiencies, there were multiple deficiency comments for Western to address regarding how baseflow and wetlands affect vegetative and aquatic communities. DEQ comments in the round I deficiency stated that "more elaboration is needed as to the length of base flow in streams, which drainages these reaches are in, and how these reaches affect vegetative communities and aquatic life." In another comment, DEQ asked for Western to "explain how much water [the ponds] typically hold, how long they stay full, if they contribute to wildlife habitat, if they peak or provide prolonged base flow downstream, and quality". These were not addressed sufficiently in the deficiency response and must be reconsidered and adequately addressed.

Response: Since springs, seeps, ponds and wetlands at Area F are typically closely linked, these features are combined into a new section (6.0) for clarity. Previously, ponds

were included in the surface water section and springs, which are an expression of groundwater, were grouped in the groundwater section.

Each of these categories has been revised and expanded in response to the above comments. This includes tabulated data and information, revised/additional figures, and attachments.

The *Rosebud Mine Wetland Delineation, Area F* report (Cedar Creek Associates, 2013) and the Approved Jurisdictional Determination – Area F (Army Corps of Engineers, 2014) are provided as attachments to Appendix B.

Text Revisions – Section 6.0 Springs, Ponds, and Wetlands, 6.1 Springs and Seeps, 6.2 Ponds, 6.3 Wetlands

> **Section 4.0**: Please list surface water (stream) users per ARM l 7.24.304(l)(f)(ii)(A). DEQ identified numerous owners with surface water rights for livestock to use water downstream of Area F.

Response: The list of surface water users (e.g., water rights points of diversion) within the study area is provided on a new table. The text was edited to reference this table.

> **p. 17**: "in many cases baseline averages are lower". It is unclear which stream this statement refers to; is it EFAC or a stream in Area F?

Response: The statement has been edited for additional clarity.

> **p. 17**: "major ion concentrations ... are higher in Area F samples compared to other drainages". Reference the data used to make this conclusion.

Response: The text was edited to reference the data (e.g., tables) supporting the statement.

> **p. 17**: "... discharges meet the standards set forth in the MPDES permit". Discuss how these discharges compare with the range of 'natural' water quality. Most discharges are pit water which has different variability in water quality compared to the natural range of water quality that can be found in the creek water.

Response: The text was edited to include a new subsection (MPDES Discharge Water Quality) for the expanded discussion. The subsection includes additional narrative and a new table comparing MPDES discharge water quality with surface water quality data.
Please note that the quality of the pit water varies with the quantity of precipitation and runoff collected in the pits in addition to the groundwater component. In addition to pit water, runoff is also discharged from sediment ponds to maintain required storage volumes.

p. 21: In Section 5.2.3.1, it is stated that "major changes in groundwater storage in the alluvial aquifers are not anticipated". Water level measurements and water quality samples from alluvium in East Fork Armells Creek seem to indicate that sediment ponds can have a large impact on the quantity and quality of water in the alluvium, and leakage from sediment ponds can increase saturation in alluvium. This statement should be reassessed or clarified based on the experiences from other parts of the mine and on the Area F mine plan.

Response: The paragraph has been deleted from the text as it is actually a topic that belongs in the PHC (Appendix O).

Please note that recent evaluations (2015 Addendum to the PHC for Areas A, B and C by NE&W) have shown that sediment pond leakage is generally not a significant impact to the quantity and quality of water in the EFAC alluvium.

p. 33: The text states: "Review of the data shows that the groundwater quality varies significantly depending on geologic stratum". Based on the tables and discussion in the section on water quality, it would be more accurate to state that water quality varies in the geologic stratum "depending on" permit area or location, since water quality in different geologic stratum shows considerable overlap rather than distinction.

Response: The text was edited per the comment.

Table B-8, Table B-10A, Table B-28: Flow is listed at some sites (e.g. CG-100 and many of the spring sites) as greater than 1 gpm. This is not a sufficient description of flow and requires further qualification or quantification. Flows greater than 1 gpm must be quantitatively measured unless circumstances (such as flow over a flume) prevent a measurement. Please provide quantitative data for all sites that have a flow greater than 1 gpm to meet the requirements of quantifying baseline flow.

Response: The designation indicating flow at < or > 1 gpm is simply a qualitative observation made by the personnel at the time of the site visits. The tables have been edited to reflect that the estimated flows are qualitative observations.

It is not practically feasible to reliably quantify these very low flows at crest gauge and some spring/seep sites. The minimal depth of flow is not sufficient for the utilization of flow measuring equipment (e.g., pygmy meter). Similarly, the use of a flow equation would not result in reliable results at these low flow depths. Data and quantifications should be repeatable and reliable to be of use. The measured depth of flow or water level if collected regularly from the same location is useful data for future comparisons.

The purpose of crest gauge sites and data is to identify and quantify peak flows that occurred during the monitoring period. The monitoring plan (Appendix P) has been edited to identify the springs/seeps that have sufficient flow that can be reliably

measured. For example, there is typically only wet ground at seeps with no observable flow. Often these seeps issue from multiple points.

Due to problems with the sediment sample bottles collecting rain water as well as flows, all data collected with the bottles while the lids had open holes (i.e. in the condition sold) must be rejected by DEQ and cannot be included in the baseline data.

Response: Sediment sample bottles were sealed with silicone in April 2014. Samples collected prior to this date were excluded from surface water quality evaluations. Table B-13 was revised accordingly.

Table B-20A, Baseline Groundwater Statistics - Major Parameters, Area F and Area 49: Two reported values need to be verified. The maximum Rosebud coal TDS is 106,000 mg/L. Conductivity, generally linearly correlated to TDS, of the Rosebud coal does not reflect the same extreme value for water quality. The extremely high TDS for the Rosebud coal is likely an error. The unusually high sulfate concentration of 14,890 mg/Lis reported as a maximum concentration for the sub-McKay is also questionable in its accuracy. These extremely high concentrations are most likely reporting errors made by the lab. Please check the lab sheets to confirm the reported concentration. If the lab reported these concentrations, please check with the lab and get a confirmation from the lab of their accuracy. If either or both are in error, please consider flagging them as an error with confirmation from the lab; if possible correct the database and please eliminate these erroneous concentrations from the statistics in Table B-20A. It is misleading to report these concentrations as representative of baseline if they are not accurate. Depending on the outcome of this investigation, please make appropriate changes to the discussion on pages 31 and 33 regarding Area F groundwater quality and comparison with areas A, B, and C.

Response: Both reported values were verified with the laboratory data sheets and found to be erroneous:

- 106,000 mg/L TDS was corrected to 10,600 mg/L (WR-238, 9/13/2010)
- 14,890 mg/L sulfate was corrected to 1,480 mg/L (WD-189, 5/1/2006)

The database was revised to include the values found in the lab data sheets. Further comparison of the 2005 and 2006 laboratory data sheets with database entries showed that total dissolved solids were entered as calculated TDS values in the database, not as the analyzed TDS the lab sheets reported. The database was revised accordingly and the groundwater quality statistics table was revised with this updated information. Section 5.3.2. was updated to reflect these changes.

Table B-10B: This table lists a maximum fluoride concentration of less than 20 mg/L. This is a typo. Please correct.

Response: Table B-10B was corrected and updated with data obtained through December 2014.

Table B-20A, Table B-20B, Table B-29A, Table B-29B: Although water level statistics are a way of summarizing data and are useful for a general comparison between units, all original water level, flow, and quality data from Area F must be included with the application. Tables of water levels and flows based on field records are acceptable. Please include the lab sheets for all water quality baseline data.

Response: A copy of the database is included in this submittal. Field data sheets and laboratory data sheets are provided as attachments. Tables with all Area F surface water, groundwater, spring and pond field data in standard Annual Hydrology Report format are provided as attachments.

The Rosebud Mine Water database includes:

- Groundwater level data (January 2005 through current)
- Groundwater sampling field data (September 2005 through current – database data were updated and corrected as needed using field data sheets)
- Groundwater quality data (May 2005 through current)
- Surface water (spring, pond and stream) field data (March 2011 through current – database data were updated and corrected using field data sheets)
- Surface water quality data (May 2011 through current)
- Rainlogger data

Table B-25: Please project the aquifer of completion where depth and/or other data are sufficient to do so. Also, the text should discuss which aquifers the majority of the private wells are completed in.

Response: The Area F groundwater user inventory table was revised to include the projected aquifer of completion whenever possible. The following additional information was added to the table if available in the GWIC database: completion date and static water level. Additional discussion was added to the text.

Also in Table B-25, please change "Source Name" to "Owner". If the owner is unknown, please indicate "unknown" rather than "groundwater".

Response: The table was revised per the comment.

Appendix C:

Tables C-2 and C-4: These tables should be updated so that the Colstrip, MT station has a record of data inclusive of the same time frame as the Rosebud mine rain gauges.

Response: Tables C-2 and C-4 have been updated.

Appendix E:

p. 6: Site assessment forms and pictures for all of the sites visited should be included for baseline documentation. Currently only sites deemed to be a wetland by the consultant are included.

Response: After reviewing the full report no additional site forms were found in the baseline vegetation report. This report was submitted to the Department as part of the annual vegetation report in 2009. No reports of deficiencies were report at that time and the report remains as is.

ARM 17.24.304(1)(e) and ARM 17.24.305(2)(c): Exhibit H, Surface and Groundwater Monitoring sites - The site locations and identification numbers are frequently obscured and difficult to identify due to the dark color and thickness of the topographic lines. Please change the font color of the monitoring sites or lighten the topographic lines to make the sites more visible.

Response: Please see Exhibit H. Exhibit H Surface and Groundwater Monitoring Sites has been updated and included.

ARM 17.24.304(1)(f)(ii)(A) and (B): The application states: "A narrative and graphic account of surface water hydrology within the mine plan area and adjacent areas including is presented in Appendix B and premining drainages are shown in Exhibit U." Please alter the sentence to include additional text or remove the word "including".

Response: The word "including" has been deleted from the paragraph in ARM 17.24.304(1)(f)(ii)(A) and (B).

ARM 17.24.304(1)(i): Table 16 of Appendix B of the Baseline Vegetation Survey has a Total per Acre value listed as"#####." This value is not clear; please amend this table to provide clarity.

Response: Please see the revised Table 16 in Appendix E. The "####" have been expanded.

Table 24 of Appendix B of the Baseline Vegetation Survey has a Variance value listed as "#######" and an Annual Grasses value listed as "####." These values are not clear; please amend this table to provide clarity.

Response: Please see the revised Table 24 in Appendix E. The "####" have been expanded.

There are now two wetland delineation reports included in Appendix E, one from 2009 and one from 2013. These have differing conclusions as to the potential jurisdictional nature of some of the wetland features and varied data presented; please clarify the differences.

Response: The wetland delineation report that conducted in 2006 was superseded by the wetland delineation report in 2013. The Corp of Army Engineers has made an approved jurisdictional determination was received in September, 2014 and is located in Appendix B – attachment B-C.

ARM 17.24.304(1)(i)(i): Map 1 is said to include a reference area for the Woody Draw community types according to the results section of the Baseline Vegetation Survey. This reference area is not included on the map. Please update Map 1 to include this reference area if it has been established as stated.

Response: Please see Map 1 – Northeast Quadrant. The Woody Draw community is included on the map.

ARM 17.24.305(1)(h) Maps: Please provide one map, separate from the attached reports, including associated CAD data. The map must include the boundaries of any public parks and locations of any cultural or historical resources listed or eligible for listing in the national register of historic places and known archeological sites within the mine plan or adjacent areas. The map must be certified as required in ARM 17.24.305(2)(a). This map must be submitted as confidential.

Response: Please see Exhibit F Cultural Resource Sites that is included in this submittal. Please note that in the first deficiency response, Exhibit F was included in AutoCAD format.

ARM 17.24.305(1)(w): Exhibits B & B1: RCT-4 no longer has drainage lines on the postmine map. Exhibits U & U1: DCT-5 no longer have drainage lines on the premine map. Please include the drainage lines in the noted exhibits.

Response: Please see Exhibit B and Exhibit B1 Approximate Post Mine Topography Maps and Exhibit U and Exhibit U1 Premine Topography with Drainage Basins Maps – the drainage lines have been added and are visible.

ARM 17.24.305(2)(c): Exhibit A is not legible: different shading must be applied. In addition, the contour elevation annotation on the first round of pre-mine maps (Exhibit U and U I) was more legible than Western's February 2014 deficiency response.

Response: Please see Exhibit A Approximate Mine Plan. Also please see Exhibit U and Exhibit U1 Premine Topography with Drainage Basins Maps.

ARM 17.24.305(2)(c) Exhibit N: The general slope percentages have been removed from these exhibits. Please add these back onto the exhibit. Also, labels for the dams, as requested, were not included. The new disturbance boundary and permit boundary labels are very difficult to see.

Response: Exhibit N Premine and Postmine Drainage Profiles will be redrawn and recalculated once the Exhibit B Approximate Postmine Topography has been agreed upon.

ARM 17.24.306: The legend/tables attached in the Prime Farmland Determination are still illegible and cannot be matched to the supplied legend.

Response: Please see ARM 17.24.306. The map and legend have been revised and are now clearly legible.

ARM 17.24.308(1)(a) and 313(1)(d)(i) and 313(1)(d)(v): It appears as though two individual mine areas will be opened in the first five years of mining. A mining method must be committed to through completion of mining these two areas. Range diagrams, through completion of mining in both areas, must be submitted. The range diagrams must identify the placement of spoil in each area where mine passes are extending so the placement of box cut material can be determined. If truck/shovel is anticipated, the volume of associated overburden must be calculated and the "final location" of truck/shovel spoil identified. If temporary stockpiles are used, the amount of spoil going to each pile must be specified. The proceeding information is necessary for determination of compliance with performance standards in the placement of stockpiles, PMT plans, disturbance area, drainage control, reclamation sequence, and other matters where permit commitments are required.

Response: Please see 17.24.308. Additional language has been added explaining the mining method that will be used in the first five years. WECO does intend to open two mine areas in the first five years of mining. A description of the initial box-cuts and their sequences and mining methods has been added. Table 308-2 has also been added describing volumes available in all overburden stockpiles as well as the expected origin and destination of material to be stored. Please see updated Exhibit I1 for cross sections.

ARM 17.24.308(1)(b)(v) and 609(2): Operations affect numerous power lines. DEQ and owners of these facilities must approve destruction or disruption of services. Western reported its' effort to obtain proper documentation. Please provide this documentation.

Response: The consent agreement between Mid Yellowstone Electric and WECo was signed on April 29, 2014 and is included in 17.24.308.

ARM 17.24.312(1)(d): DEQ must have more specific commitments for reclamation of wetlands that may be directly or indirectly adversely affected by mining.

Response: Please see ARM 17.24.312. At this time, the US Army Corps of Engineers made the determination that the wetlands in Area F are isolated and are not jurisdictional waters of the US. If it becomes necessary to incorporate alternate reclamation plans for the benefit of wildlife, WECo will work with the Department and incorporate those into the permit as necessary.

ARM 17.24.313(1)(b): Narrative was added referring to different sections in the permit for detailed reclamation timetables. The sections referred to in the permit application do not appear to contain any detailed time commitments. This rule has not been addressed. Furthermore, it appears that the "Approximate Reclamation Map", Exhibit J, is being removed from the application. In the absence of Exhibit J, the cross sections in Exhibit I and II depict a scenario where very little reclamation can be completed until the coal in the final pass of each mining block is removed. This is a divergence from ARM 17.24.501(6): see new comment below.

Response: During the permit renewal and AM 5 for the Savage Permit, in a cooperative effort, WECo and IEMB personnel work together on the timeline commitments for ARM 17.24.313(1)(b). The approved format in ARM 17.24.313(b) for the C1984002 permit was adopted for this permit application.

Furthermore, please see folder 02 Exhibits for EXHIBIT_J_RECLAMATION – Exhibit J is not being removed from the permit, since there were no changes in the first round of deficiencies it was not provided as an updated exhibit, as with many other exhibits. Please note – Exhibit J has been updated to reflect the new timing sequence of the mine plan and is included.

ARM 17.24.313(1)(c): As proposed, please submit the bond calculation after the PMT is acceptable.

Response: WECo commits to submitting the bond calculation when the PMT is found acceptable.

ARM 17.24.313(1)(d)(iv): Exhibit J: An updated Exhibit J, Reclamation Plan, was not provided.

Response: Please see folder 02 Exhibits for EXHIBIT_J_RECLAMATION – Exhibit J is not being removed from the permit, since there were no changes in the first round of deficiencies it was not provided as an updated exhibit, as with many other exhibits. Please note – Exhibit J has been updated to reflect the new timing sequence of the mine plan and is included.

The response states that aerial surveys were used, but there is no mention of aerial surveys in Appendix J. The permit application should include an explanation as to how the premine and postmine channels were determined/drawn to allow for them to be compared.

Response: Drainage cross-section ground surveys were performed during 2014 and have been used in the stead of the aerial surveys. These cross-sections are included in Appendix J as Exhibit J-1.

ARM 17.24.313(1)(d)(v): Westem's response to information in support of a spoil balance was not adequate. The cross sections on Exhibit I1 depict a deficiency of fill for backfilling the final mine passes: some cross sections depict a gross deficiency of fill. Thus, it appears

that the PMT cannot be achieved. A new PMT plan must be submitted or justification for the proposed PMT in the form of electronic data files for the following three surfaces: premine, postmine, and the mine void surrounded by the premine surface.

Response: Please see updated Exhibit B1. Western has revised the post-mine topography. Also included are an updated Exhibit I and I1, including several cross sections showing pre-mine, disturbed, and post-mine profiles. Fill material for final pits which require backfill from outside locations is identified in 17.24.308, Table 308-2 Overburden Stockpile Volumes.

ARM 17.24.313(1)(e): The drainage areas represented in Tables J-2 through J-6 must be depicted on Exhibit B1 or some explanation must be added to the permit. An example of discrepancies is Blank Hank drainage: Tables have information for sub-drainage BHCT 1 through 9 where Exhibit B1 depicts only sub-drainages 5 through 9.

Response: The viewport in Exhibit B1 has been expanded to show and include sub-drainages BHCT 1 through 9.

ARM 17.24.313(1)(e-f)(i-ii): Exhibit V: The deficiency response stated that this exhibit was revised, but an updated exhibit was not included with the submission. Please include the updated material for review.

Response: Please see folder 02 Exhibits. Please note Exhibit V was included in deficiency response #1 in folder 02 Exhibits EXHIBIT_V_CHANNEL_XSECS_200111026.pdf is found on the disc sent to the Department. The exhibit was not highlighted on the table of contents but was included.

ARM 17.24.313(1)(e)(i): Western incorrectly states the premine and postmine hydrology and geomorphology comparisons are in Appendix B. The data now appears to be in Appendix J.

Response: The reference to Appendix B has been corrected to Appendix J, please see 17.24.313(1)(e)(i).

ARM 17.24.313(1)(e)(ii)(A): A more detailed plan for drainage reclamation must be provided. The permit states that "the postmine drainage basin plan will be based on premine drainage characteristics ... ", but there is no detail on which characteristics will be used and how they will be used. Also see the comment for 17.24.313(1)(f).

Response: Ground survey of premine cross-sections has been completed and are included in Appendix J as Exhibit J-1. These cross-section surveys will be used in the reclamation decision making process to aid in reclaiming drainages with similar geomorphic characteristics. Considerations such as number of tributaries, sinuosity, channel shape, flow, and slope will be considered during post-mine reclamation planning.

ARM 17.24.313(1)(f): This section incorrectly refers to Appendix B. The modeled surface water flows are in Appendix J.

Response: The reference to Appendix B has been corrected to Appendix J, please see 17.24.313(1)(f).

DEQ must see that the permit incorporates a plan for reclaiming the minor tributaries following the DEQ channel reclamation guidelines or other similarly appropriate method. For instance the plan must outline how drainage bottoms will be created (e.g. will only the floodplain, the channel, or both be created and how will the appropriate dimensions be calculated). Examples of approved plans from other mines can be provided by DEQ upon request.

Response: Please see 17.24.313(1)(f); language has bee added with plans developed in accordance with the DEQ channel reclamation guidelines reclamation of minor tributaries.

ARM 17.24.313(1)(f)(i): This section incorrectly refers to Appendix B. The geomorphic characteristics are in Appendix J.

Response: The reference to Appendix B has been corrected to Appendix J, please see 17.24.313(1)(f)(i).

ARM 17.24.313 (1)(g)(ii): Using the soil survey information (see ARM 17.24.304 (1)(k)), the applicant shall propose estimated salvage depths for each lift of each soil component (series or phase) of each soil mapping unit.

The permit application language states:

"(l)(g)(ii) Soil materials will be salvaged with mobile equipment in advance of overburden blasting and pit excavation. The extent and depth of salvaged soils will be based on the premine soil surveys **(appendix G)** and the past intensive Western pre-salvage soil sampling program. Soil materials will be salvaged in the disturbance areas as specified in 17.24.701(2). To the maximum extent possible salvaged soil materials will be immediately redistributed. Soil redistribution will be on the contour except as noted in 17.24.702(6} Salvaged soil materials will be stockpiled in segregated storage areas. All stockpiles will be seeded with either the pasture mix (Table 313:5A) or other surplus reclamation seed mix(es) during the first appropriate period favorable for planting to minimize erosion losses. Appropriate soil identification signs will be placed at all stockpiles."

Soil is replaced on disturbed ground as presented in permit 17.24.702(6). Except as noted in 17.24.313(5)(h)(a)(i), no special handling of overburden is anticipated to achieve reclamation goals due to favorable quality of overburden. Any areas of suspect overburden or coal evident at the surface of 17.24.313 (C2011003F 313-9 12/2013) regraded spoils will be sampled as per 17.24.723. No other characteristics of coal are utilized in developing reclamation plans.

Please add the bold and italicized text. Additionally, the underlined text is out of place for this rule. Evaluate the necessity of the soil laydown language for this rule.

Response: The text was revised to include the italicized text, as requested. The underlined text was moved up as it directly pertains to the language of ARM 17.24.313(1)(g).

ARM 17.24.313(1)(g)(iii)(A&B):

The permit application language of ARM 17.24.313(1)(g)(iii) states:

(1) (g) (iii) (A) total acreages and volumes of salvageable soil of each lift from each soil component of each soil mapping unit are outlined in Appendix G, Section 3.0, 3.6 Soil Suitability Evaluation and Recommended Salvage Depths; and

(1) (g) (iii) (B) the anticipated thickness(es) of soil redistribution for each lift, and in total, on the area of land affected after regrading are outlined in Appendix G, Section 3.0, 3.6 Soil Suitability Evaluation and Recommended Salvage Depths, the land affected is presented in Appendix G Table 1 Soils Map Unit Legend, Description & Sample Sites, and Acreage;

This permit section indicates that Appendix G contains all the information required by these rule sections. This is true; however, by using the Appendix G language and depths indicate in 701(2) you are committing to multiple soil lift strategies. This will force you to add the step to soil salvage of marking polygons for the 12 and 12 inch lift, the 7 and 10 inch lift, as well as the tree soil lifts. This in tum creates a change in laydown depths. The thicknesses targeted in the revegetation plan 17.24.313(1)(h)(i) (postmine Reclamation types) discussion will all need evaluation and adjustment. Additionally, the salvage depths will not fulfill all soil balance requirements.

The soil survey in Appendix G explains the 12 inch lift 1 and 12 inch lift 2 methods and suggests a second method that would improve soil quality by salvaging a 7 inch lift 1 and 10 inch lift 2. This strategy would reduce the amount of CaC03 in the subsoil materials for better reclamation subsoil. This is acceptable and a valid point, but the rest of the permit application needs to be adjusted accordingly. This requires the following adjustments throughout the permit:

Soil salvage considerations:

- All salvage depths noted in 17.24.313(1)(g)(ii) and 701(2) need to have the same salvage strategy. It would be best stated in section 313 only with 701 referenced so that all salvage and redistribution is in the same permit section with the mine reclamation plan.
- Appendix G table PRE-MINE ACREAGES, SALVAGE DEPTHS, AND VOLUMES FOR AREA F needs updating to reflect the salvage depth of choice for each soil type.

- The soils map APP G Figure 1 SOILS 20111030.pdf contains soil types that need clarification. Paragraph 3, page 13 starting with "Therefore ..." discusses the soil types that would use the alternate salvage depths. Map units 490 and 590 are not represented on any table or map. Were these supposed to be 49D and 59D?
- If you want to use the multiple soil salvage depth strategies you should mark the soil polygons into their respective salvage depths, overlay the mine plan and see how your salvage strategy will work out. One method might be to designate the salvage strategies in blocks based on how the pits impact the soil polygons.
- The salvage depth reference in 313(1)(h)(i) pg. 313-9 will need updating with any of the above changes.

Soil laydown considerations:

- Soil laydown depths will need reevaluation and adjustment for section 17.24.313(1)(h)(i) postmining and use types. This must be done to adjust for the difference in soil balance.
- Rule 702(6) references the Appendix G laydown and will need to reference the laydown depths that will actually be used (i.e. postmine land use types or appendix G)

Response: The discussion pertaining to an alternative soil salvage plan (7 and 10 in lifts) was removed in favor of the handling plan employed elsewhere at Rosebud Mine (2 foot salvage). Responses to ARM 17.24.313 and 701 are now consistent with Appendix G.

Selection of the typical 2 foot salvage objective in most areas does not require further modification of Appendix G table Pre-Mine Acreages, Salvage Depths, and Volumes for Area F.

Map units 490 and 590 are indeed 49D and 59D. However, the revisions made to Appendix G negate the need for further correction.

Considering the selection of a simplified soil handling plan, it is not necessary to further mark soil polygons or evaluate of salvage by “blocks”. Appendix G now demonstrates that 1.5 feet of material is available for salvage on average, which will be adequate to achieve the replacement depths specified in response to ARM 17.24.313.

Discussions pertaining to soil replacement were removed from Appendix G and are now found only in response to ARM 17.24.313(1)(h)(i), eliminating potential for inconsistency.

The response to ARM 17.24.702(6) was revised to remove reference to Appendix G and instead refer the reader to ARM 17.24.313(1)(h)(i) for a discussion of soil laydown depths.

Appendix G

The Selenium discussion is inadequate. The entire set of sample results for all 32 survey pits at all depths exceeds the Montana standard of .1 ppm.

- Western must demonstrate that the sample results are not the result of a lab error and that there is a general elevated level of Selenium in the Area F permit application area. Also, that the elevated Selenium level is not affecting the native Flora and Fauna of the area. Thus, the levels of elevated Selenium are acceptable.
- Look into the labs results and determine if the instrumentation was working correctly. The lab results in Appendix G did not include the recovery percentages for the standards sample runs.
- Can you show that other areas of the mine had the same Selenium content?
- DEQ will not accept Wyoming's guidelines standard as the only reason we can accept this level of Selenium.

Response: The discussion pertaining to selenium was updated to address the prevalence of concentrations exceeding 0.1ppm, potential for laboratory error, and lack of known issues related to selenium in Area F or the vicinity.

WECo contacted the laboratory that conducted the analysis in 2007. The original samples and data have been destroyed so recovery percentages cannot be evaluated. The lab manager was not aware of any historical issues with laboratory instrumentation, but noted that it is possible that an inappropriate 10x adjustment was made during reporting. However, without the original records, this cannot be determined through review of existing data.

Selenium content occasionally exceeds the 0.1ppm suitability threshold elsewhere at the Rosebud Mine, but levels as high as those in Area F are not common. This supports the hypothesis that the 2007 laboratory results for selenium analysis are in error. WECo commits to investigating soil conditions to evaluate the accuracy of reported values. If accurate, WECo will discuss an approach to addressing elevated selenium concentrations, as appropriate.

The reference to Wyoming's guidelines has been substantially modified and now includes reference to the supporting study. These two documents now cited (WDEQ-LQD 1996; Spackman et al. 1995) are relevant as they provide documentation supporting alternative suitability evaluations that could be accepted by DEQ for implementation at Rosebud Mine in the event that the accuracy of the 2007 results is confirmed.

ARM 17.24.313(1)(h)(i): There are three revegetation types (Lowland Grassland, Lowland Shrub Grassland, and Lowland Shrub Complex) included in this portion which are not included in the reclamation. ARM 17 .24.313(1)(h) requires a narrative for revegetation including the types and acreage for each. Exhibit C (Revegetation Map) has no account of these revegetation types. Table 313-1 (Pre-Mine and Post-Mine Vegetation Type Acres) has no account of these revegetation types.

As these revegetation types are not included in the final revegetation, they can be removed from the application. Since these would need to be approved by DEQ prior to implementation, please remove them until they become part of the reclamation plan. Also, please remove any seed mixes specific to these revegetation types.

Response: After reviewing ARM 17.24.313(1)(h)(i) – I was unable to find reference in the text, tables, or seed mixes, to lowland grassland, lowland shrub grassland, and lowland shrub complex.

ARM 17.24.313(1)(h)(ii): Table 313-1 has more Premine Disturbed Acres listed than there are Premine Permit Acres for the Lowland Deciduous tree/shrub vegetation type. Please check the acreages listed as these values are either inaccurate, or it is unclear how there can be more acres of this vegetation type disturbed than there are acres within the proposed permit area.

In Table 313-1 the values for totals of acreage of Premine Disturbed Acres and Postmine Revegetation Target Acres are not consistent with the sum of the parts those totals are meant to include. It is unclear if there are acreages missing or inaccurately included in the table. These values are also referenced elsewhere in this application; therefore, please ensure all appropriate corrections are made.

Please amend Table 313-1 to include correct values. Please also ensure that where these values are cited elsewhere in the permit that the corrected numbers are used in those locations.

Response: Please see Table 313-1 has been revised with the corrected values. Please see Table 313-1.

ARM 17.24.314(1): While there is now a section on springs in Appendixes B and O, the analysis is insufficient. Although Springs 3 and 9 will not be mined through, there is a reasonable likelihood that these springs may experience drawdown as their source aquifers are mined through and then diminished water quality as spoils replace the source aquifer. No statements or analysis was done to determine the potential impacts to the springs and the wetlands associated with them. Spring 2 is identified as potentially being impacted, but the type of impact is not stated. Spring 8 may be inferred from the statements in the PHC to be similarly impacted, but no statements are made concerning this spring.

Response: Expanded discussions about springs are provided in Appendix B and in this PHC (Appendix O) as well.

p. 314-12, Permit application language addresses cuts adjacent to alluvium and the potential consequence of reduction to groundwater flow from bedrock units to alluvium. More detail is needed in the discussion of impacts to alluvium.

Response: An expanded discussion about the potential reduction of groundwater lateral flow to alluvium during mining is provided.

p. 314-1, the permit application text incorrectly refers to 17.24.304. This should be 17.24.314.

Response: The reference to 17.24.304 has been correct to 17.24.314.

ARM 17.24.314(1): The narrative in the 4th paragraph on page 6 of Appendix J describes traps on each side of ephemeral drainages to "collect runoff from road embankment". Pursuant to this regulation, the narrative must be "supported by appropriate maps". Please show all trap locations on the appropriate exhibits.

Response: Exhibit D will be completed once the PMT has been approved.

ARM 17.24.314(2)(b) and (c): The permit application does not adequately commit to the requirement of 17.24.314(2)(b) and (2)(c). Please address these rules in the permit application.

Response: Sedimentation ponds and traps will be constructed per Hydrological Control Plan which will be completed once the PMT has been approved and pursuant ARM 17.24.639-642. Discharges from the mine will be subject to effluent limitations set forth in an MPDES permit. As this permitting process is ongoing, limitations have not been set. The permit text has been updated per this deficiency.

ARM 17.24.314(2)(a)and 639(28)(a): Water entering Pond 9 may be concentrated into a smaller area and at a greater velocity due to culvert HR-5. The application must indicate how the side slope of the pond will be protected against erosion.

Response: All pond designs will be revised once the PMT has been approved.

ARM 17.24.314(3):

Appendix I-A- Rosebud Mine Model Report

As this is a submittal for the Area F permit application, the proposed Area F permit boundary is an important point of reference. Please include the proposed Area F permit boundary on all Appendix I-A figures.

Response: The proposed Area F permit boundary has been added to Figures and Attachments in the Rosebud Mine Model Report.

The locations of drain boundary conditions in the model is not adequately described or illustrated. In Section 2.5 under Boundary Conditions, Appendix I-A refers to a "cross-reference to drain assignments" at the end of Attachment GM-C and each figure in Attachment GM-C showing drain reach sensitivity analyses also refers to a cross-reference

at the end of the attachment, but there is no cross-reference included. Additionally, the locations of the drain cells used in the model are not shown on any figure. Please include a figure showing the locations of each drain boundary condition used in the model, or include this information on an existing figure.

Response: The prominent physical boundary conditions in the models are no-flow boundaries and drain cells. A set of figures showing the no-flow boundaries and drain cells reaches is included at the end of Attachment GM-C. Note that no drain cells were established for model layer 4 due to the very limited horizontal extent of the McKay coal outcrop compared to the size of the simulation cells.

Section 3.2: The discussion of model parameter zonation in Section 3.2 of Appendix I-A does not include sufficient detail on the justification for the selected transmissivity and leakance zones. Zones representing alluvium (C, D, F, H, I, N, 0, P, and Q), the Lebo Shale (M), thick overburden (B), and reduced McKay transmissivity (K) should be explained. Please provide a discussion of the justification for transmissivity and leakance zonation in Section 3.2 which contains similar detail as the discussion of recharge zonation.

Response: The report was revised to incorporate details justifying the transmissivity and leakance zonation employed in the Rosebud Mine model.

Mine pits at the Rosebud mine are frequently open for longer than the one year period simulated by the model. The hydro logic properties of an open pit containing standing water (100% storage and infinite permeability) are different than the simulated condition of spoil replacement after one year, and mine water management may produce artificially high or low water levels in inactive pits. Please provide additional discussion of the impact of open pits, both active and inactive, in Appendix I-A.

Response: It is acknowledged that standing water is present in some areas in the mine. However, as in all modeling efforts, simplifications of conditions must be made during the modeling process. It is not practical to represent such features without more information on mine water management practices. Given that the mine water management (including pit water management) is highly variable, it is impractical to incorporate such aspects into the regional model that is presented. Discussion has been enhanced on pages 35 and 45 of the model report. This included addition of narrative indicating that it is possible that an existing pit could lead to a reduced rate of recovery in water levels at some time in the future.

Appendix I-B: Area F Model Report

The information provided in Appendix I-B does not allow DEQ to adequately analyze the modeled changes in drawdown, both spatially and temporally over the life of mine and during the postmining recovery period. The drawdown presented in Figures I-5 and I-6 only represents the maximum drawdown for the final mine cut (labeled 2034 in Figure I-3). The drawdown shown in other areas of Figures 1-5 and 1-6 represent an intermediate stage of recovery depending on the time since mining of each final pit. For example in the

case of the area between Robbie and Donley Creeks, recovery has been occurring for seven years by 2034, which could result in a significantly smaller area and magnitude of drawdown presented in these figures than occurred during the maximum drawdown impacts in this area in 2027. Please provide DEQ the drawdown resulting from the model for each year during the mining phase and every five years during the recovery phase. This information can be provided either as additional figures showing modeled drawdown and/or by submitting digital files for head and drawdown.

Response: GIS shape files were created showing simulated head and drawdown in the Rosebud coal and McKay coal for each year during mining and every five years during the recovery phase. These results will be submitted in digital format.

Note that the predicted maximum extent of the 5-foot drawdown contour and the maximum predicted drawdown in both the Rosebud coal and McKay coal during the mine phase occur at the end of mining and are shown in the existing figures in Area F model report. The report narrative was altered to clarify this. Additional discussion was added explaining the predicted drawdown changes during the recovery phase. Two figures were added to show the maximum predicted extent of the 5-foot drawdown contour outside Area F during the recovery phase.

Section 2.0 of Appendix I-B does not discuss the impacts of mining on the overall model mass balance or on specific boundary conditions which represent potential receptors of mining related water quantity reductions, such as the drains which represent ephemeral streams. Please include transient model mass balance data and a discussion of the changes in water fluxes to relevant boundary conditions during the transient mining and the postmining simulations.

Response: The Area F mass balance was computed every five years during mining and every ten years after mining up to 2084. The results are presented in an additional table and discussed in the report.

Appendix J:

p. 1: The first bullet is a repeat of the third bullet.

Response: The first bullet refers to surface water and the third to groundwater.

p. 6: The second sentence refers to the Area F PHC as Appendix J, but the Area F PHC is Appendix O. Please correct this sentence.

Response: The text has been edited.

p. 8: "... premining channel morphology and gradient will be documented by longitudinal and cross sectional channel profiles in advance of mining". These surveys must be done before the permit is approved and included in the baseline information.

Response: Ground survey channel cross-sections have been included in Appendix J as Exhibit J-1.

p. 14: The permit application states that "When computing the runoff volume to a sediment pond, the storage volume contained in traps within the same drainage cannot be accounted for in sizing the pond." Looking at the Drainage Control Plan (Exhibit D) and the Pond Designs, it appears that the area drained into traps is not included in the calculations for downstream pond area. Please reconcile this discrepancy.

Response: This will be addressed once the PMT has been approved and will be pursuant to ARM 17.24.639 through 642.

p. 21: The text states "As discussed in Appendix B, replacement water is available in the coal aquifers." Please include the availability of the sub-McKay aquifer as a "reliable resource", as stated in Appendix B, for replacement water.

Response: Text has been edited.

No standard trap designs were submitted with the permit. These must be included.

Response: Table has been updated and Standard Trap Design has been included in Appendix J as Attachment J-A.

Table J-2: Please include, on a map or in a table, the curve numbers and any other relevant model parameters (e.g. travel time, soil group, etc.) that were used in the calculations of the runoff for each basin.

Response: Tables in Appendix J were developed with a curve number of 69 unless expressly stated otherwise. Appendix J includes a description of curve number derivation and soil group description. The drainage basins and channels used for the calculation performed for premine are shown in Exhibit U while post mine are shown in Exhibit B. Peak flow calculations including time of concentration utilize a flow path from the furthest most point, hydrologically, to the bottom of basin. These calculations were performed using the Hydrology Module of Carlson Software which uses the NRCS Tabular Peak Discharge Method."

Table J-7: Please note how the cross-sectional area was obtained (from topo map, surveyed, etc.).

Response: Table J-7 has been removed. The information in this table was deemed irrelevant.

Table J-8: The permit application must contain the baseline survey information. This information is needed for writing the CHIA by DEQ and for evaluation of

geomorphic and hydrologic features in the proposed Area F. DEQ will not accept commitments to collect the data at a future date.

Response: This data has been collected and is included in Appendix J as Exhibit J-1. This table has been removed from the permit text.

Exhibit D:

The small area that drains to Sarpy Creek drainage does not have any sediment control structures. Please include an appropriate structure for this drainage area.

Response: Exhibit D will be completed once the PMT has been approved.

Appendix O:

The PHC is qualitative and general in the discussion of impacts. There is a lack of discussion regarding quantification of the impacts from reduced surface water flows and changes to surface water hydrology from impacts to springs. For instance, spring impacts were identified very briefly. There is no analysis as to how mining will impact them and if these impacts can be mitigated. There is no analysis as to what impacts, if any, the blocking of small ephemeral flows will have on downstream users of the major creeks. There should also be more discussion on the impact to wetlands.

Response: Both the Hydrology and PHC appendices have documented the nature of surface flows at Area F. The PHC does definitively acknowledge that tributary flows will be detained during mining. As surface flows are dependent on highly variable precipitation and snowmelt events as well as constantly changing mining activities, it is not practically feasible to reliably quantify impacts during mining. In the most simple case, in wet years, downstream users will have similar quantity of water available. In dry years, there will not be much if any water available. As stated in the PHC, the function of the surface hydrology will be reestablished as required during reclamation. Thus, it is reasonable to anticipate that post mine surface flows for a given flow event will be similar to that of premine.

Additional narrative has been included to clarify the consequences to surface hydrology during and following mining.

As noted previously, additional information about springs has been added to Appendix B and additional discussion of potential hydrologic consequences was included in this PHC.

Finally, Western Energy commits to mitigating adverse impacts to downstream surface water users affected by mining as needed. This can be accomplished most likely by the installation of wells or in some cases potentially by the release of water from sediment ponds or pits.

Similarly, impacts to springs and wetlands can be mitigated during reclamation by the incorporation of features that trap ephemeral flows into the reclamation plan.

p.13: The text states that "Some stock ponds will be lost due to mining." A previous section states that no stock ponds are within the Area F mine disturbance boundary. Please correct this statement.

Response: Review of the pond inventory in Appendix B shows that none of the existing ponds will be lost during mining. The text has been revised accordingly.

p. 17: The text states that "the impacts of mining may result in the deterioration of groundwater quality at some specific wells ... ". Please identify the wells likely to experience this impact.

Response: The text has been edited and expanded to clarify that groundwater quality at some locations and hydrogeologic units may or likely will be impacted by mining. Additional narrative was added to narrow down areas where water quality changes are more likely.

p. 14: "... spoils probably have a higher vertical percolation rate ... " This should be vertical permeability, not vertical percolation rate.

Response: The text has been edited per this comment.

p. 16: If bench scale tests have been done to determine overburden quality, the results should be used instead of or in conjunction with the Van Voast study to estimate spoil water quality. Measured spoil water quality from other areas of the mine compared with baseline should be discussed as well as the Van Voast study as a way of estimating postmining spoil water quality.

Response: The text refers to bench scale tests at other locations. No site specific tests have been performed. The text has been revised and expanded to discuss the spoils water quality at other areas of the mine.

p. 19: 4.0 Alluvial Valley Floor Probable Hydrologic Consequences: Please review the comment and remove the highlight on the text. Please consider the comments regarding Appendix Q, Alluvial Valley Floors when revising the text.

Response: Pending AVF Response

Appendix P:

Due to the potential impact to some of the springs as identified in the PHC, the springs warrant extra water quantity monitoring when mining commences upgradient of their location. Please work with DEQ to develop a plan for additional monitoring.

A full MQAP is needed for the monitoring plan, including a narrative on sampling methodologies. Please follow DEQ's MQAP guidelines

http://deq.mt.gov/CoalUranium/guidelines.mcpx). The analytical suite for surface and groundwater does not meet the requirements of analytes listed in the MQAP guidelines.

Response: A full MQAP was developed according to DEQ guidelines. This MQAP contains revised analytical suites which meet the requirements in MQAP guidelines.

ARM 17.24.315: Appendix J, page 14 limits the use of traps, for final sediment control, to 10 acres of disturbance. Exhibit D and Table J-10 depict drainage areas greater than 10 acres of disturbance with only traps being used as final sediment control (Traps 4, 5, 12, 15, 18, and 20). One or the other must be changed. It seems this would be a good place to add standardized trap designs to the application which appears to .allow up to 40 acres of disturbance: If Western decides to update the application and use a standardize trap design approach, it should also considered changing Pond 7 to a trap.

Response: Exhibit D will be completed once the PMT has been approved. Standard Trap Design has been added in are included in Appendix J as Attachment J-A.

ARM 17.24.321(1)(a) and 605(2): The hydrologic control plan remains under review until the deficiencies in the spoil balance and PMT plan are resolved.

Response: Exhibit D will be completed once the PMT has been approved.

ARM 17.24.321(1)(c): As depicted on Exhibit O, the placement of culverts F-HR-2, F-HR-4, FHR-8, and F-HR-14 indicate an alteration or relocation of the natural drainage way is needed. Any alteration or relocation of the natural drainage way must be approved prior to construction through the submittal of detailed plans. Detailed plans must, at a minimum, include a plan view of alterations, cross sections, complete hydraulic calculations for the altered channel, and erosion control if needed.

Response: This will be completed once the PMT has been approved.

ARM 17.24.325: Alluvial Valley Floors: The material submitted is not adequate to make an AVF determination. Please refer to and address all parts of 17.24.325.

Appendix Q: One water level from December is not sufficient for an AVF determination. Please include all water levels taken from the alluvial wells.

Response: Please see the Rosebud Mine hydrology database for all current and historical water level information for the alluvial wells.

ARM 17.24.322(2)(b): Western must reference Exhibit M somewhere in the coal conservation plan section of the permit.

Response: A reference to Exhibit M has been added to 17.24.322(2)(b) in the coal conservation plan section.

ARM 17.24.501(4): Western must provide a steep slope inventory to allow DEQ to evaluate that the approximate original contour is achieved. Please include the steep slope inventory within the baseline studies located in ARM 17.24.304.

Response: A premine steep slope inventory has been included and can be found in Appendix S. Also reference to Appendix S was added to 17.24.304(1)(e).

ARM 17.24.501(4)(c): This section needs to be revised to commit Western to add more diversity to the postmine topography. This should also be illustrated on the PMT map.

Response: Please see updated Exhibit B1. Western has revised the post-mine topography and included numerous locations on Exhibit B1 marked for addition of diversity to the final construction of the post mine topography. Western Energy remains committed to ensuring diversity in the final constructed landscape.

ARM 17.24.501(6): Exhibit I1 depicts a scenario where very little reclamation can be completed until the coal in the final pass of each mining block is removed. This is a divergence from ARM 17.24.501(6). Adequate written justification and documentation for a divergence from this rule must be submitted to DEQ with a revised Exhibit J.

Response: Please see updated Exhibit B1. Western has revised the post mine topography. The topography is designed to allow for reclamation to continue concurrently with ongoing mining operations with the exception of stockpiles that will be used for final pit and final ramp backfill. Also see the updated 17.24.308 Operations Plan for explanation on stockpiles and their intended use and final destination of stockpiled overburden. Also included is a revised Exhibit J.

ARM 17.24.633(1) and 82-4-231(1), MCA: Surface drainage "must be treated by BTCA". In addition, land affected by mining must be reclaimed "As rapidly, completely, and effectively as the most modem technology" allows. DEQ has determined these requirements are best accomplished through the Final Effluent Limitations Guidelines and Standards for the Western Alkaline Coal Mining Subcategory. A description of the transition from ponds and large traps to BTCA must be added to the permit incorporating the Western Alkaline Coal Mining Subcategory from the MPDES permit. Additional narrative should be added to Appendix J.

Response: The transition to Western Alkaline Coal Mining Subcategory will be applied for and final reclamation of ponds will be completed as soon as practical once the application is approved. This is under the jurisdiction of the Water Protection Bureau and will be coordinated through their staff.

ARM 17.24.645: Appendix P: Surface Water and Groundwater Monitoring Plan, Table P-4: Well W A-219 does not monitor only alluvium as it is drilled into coal, a likely source of water. Please indicate that this well measures alluvium/coal. Well WA-224 measures water level in the overburden as well as the alluvium. Please indicate this in the table. Please also change the strata designations in Table B-17 for WA-219 and WA-224.

Response:

- WA-219 is screened in 14 feet of alluvium, two feet of McKay coal, and four feet of shale. Water levels in this well indicate that this well is dominated by alluvial water and the contribution of the McKay coal is relatively minor given the limited thickness. The shale, which is likely an underclay or mudstone, would not produce any substantive amount of water. Thus the WA-219 designation was kept. The aquifer designation was changed to alluvium (McKay coal).
- WA-220 is screened in two feet of interburden sandstone, 10 feet of interburden shale and eight feet of McKay coal. Most of the water from this well likely originates in the McKay coal. Thus this well was re-labeled WM-208.
- WA-221 is screened in the subMcKay, thus this well was re-labeled WD-210
- WA-224 is screened in alluvium, colluvium and overburden. Water level measurements indicate that the water in this well originates in the overburden. Thus the well was relabeled WO-192. The aquifer designation was changed to overburden (alluvium/colluvium)

Tables, figures throughout the permit application as well as database water quality and sampling data were updated with new well designations.

General Comment: Please confirm the accuracy of all entries that have yellow highlighted text and remove the highlights in the final draft of all hydrologic appendices.

Response: Please see the hydrology appendices.

If you have any questions or you find something amiss, please contact me at (406) 748-5124.

Sincerely,

Dicki Peterson

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

Enclosures:

cc: Daniel Munoz
Rusty Batie