



Department of Environmental Quality

*To protect, conserve, and enhance the quality of
Wyoming's environment for the benefit of current and
future generations*



Matthew H. Mead, Governor

Todd Parfitt, Director

November 12, 2015

Mr. Randall Atkins
c/o WWC Engineering
1849 Terra Ave.
Sheridan, WY 82801

RE: Round 3 Technical Review, Brook Mine Coal Mine Permit Application, TFN 6 2/025

Dear : Mr. Atkins

The Land Quality Division received your Round 2 comment responses from your application for a Permit to Mine Coal on October 16, 2015. The statutory requirement for LQD to respond to the second round responses is 30 days from date of receipt, which is November 15, 2015. The responses from your consultants have been reviewed in their entirety and comments, questions, noteworthy deficiencies, and requests for additional information were generated for Round 3. These have been gathered by the permit coordinator and are presented as attachments to this letter. At this time, LQD, District 3 requests a meeting with Brook Mine personnel to work on the issues holding up the furtherance of the mine permit application. Several comments and responses appear to have generated difficulties in understanding the scope of the proposed mine and a gathering of all concerned individuals is warranted.

Please review the Third Round evaluation comments and prepare your replies accordingly. We will then schedule the informational meeting to best fit the needs of LQD and Brook Mine. Hopefully, there will be little left to modify in the permit application to facilitate its continued evaluation. Contact Bj Kristiansen or Mark Rogaczewski with questions or requests for clarification of the Round 3 materials. We will be happy to assist you in this process.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bjarne Kristiansen".

Bjarne Kristiansen, PG
Natural Resources Program Principal
WDEQ-LQD District III

Cc: Cheyenne LQD files w/attachments

Brook 43

2100 West 5th Street · Sheridan, WY 82801
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Bj
12-12-15

MEMORANDUM

TO: File, Brook Mine Coal Mine Permit Application, TFN 6 2/025

FROM: Bj Kristiansen, PG, Natural Resources Program Principal

DATE: November 12, 2015

RE: Brook Mine application review of Round 2 Comments and Responses covering Adjudication, Land Use, History, Climatology, Topography, Geology, Overburden Assessment, Hydrology, Alluvial Valley Floors, Mine Plan, and Reclamation Plan

My review of the Brook Mine Coal Mine Permit Application, Round 2 Responses is complete. All previous responses to my two rounds of comments have been adequately addressed. My comments, critique, and perceived deficiencies for Round 3 are as follows:

Adjudication, Volume 1

1) The Certificate of Liability Insurance appears to have expired on October 14, 2015. Please generate a new Certificate of Liability Insurance to cover the present period.

Mine Plan, Exhibit MP3-1

2) The new haulroad design appears to be missing a haulroad for the first pit to be mined, in sec. 22 T.57N., R.84W. Is this an oversight or has a haulroad not yet been designed?

Volume 10, Appendix D-11

3) An AVF determination for Slater Creek has yet to be finalized. The site was visited by LQD staff on September 24, 2015 for the purpose of gathering field data for the future AVF determination. This determination is in the process of analysis of data and a decision will be issued by the beginning of 2016.

I have no further comments for Round 3.

End of Round 3 comments from Bj Kristiansen.

MEMORANDUM

TO: File: TFN 6 2/025
FROM: David J. Myers – LQD DIII Natural Resources Analyst
DATE: November 9, 2015
SUBJECT: Third Round Review of Brook Mine New Permit Application

All responses to Round 2 were adequate. There are no further comments.

MEMORANDUM

To: File, RAMACO Brook Mine Permit Application, TFN 6 2/025

Thru: BJ Kristiansen

From: Dave Schellinger, Soils Specialist, LQD District 3

Date: October 26, 2015

Subject: Revised Round 3 Review Comment

As per your request for review dated October 19, 2015, I have completed a review of Round 2 responses to my comments and offer the following.

Appendix D5

- 1) The Coal Rules and Regulations, Chapter 7, Section 1(a)(i)(A) states that information required for the geological description pursuant to Chapter 2 shall be as follows: for areas where surface operations and facilities will cause removal of overburden down to a level of the coal seam, all information outlined in Chapter 2. Overburden sampling has not been performed in many of the locations where overburden will be removed during the mining operations. Additional sampling will be required to assess overburden chemistry in all areas where overburden removal will occur. The intensity of sampling should be 1 core per 160 acres (per quarter section). The LQD requests sampling every 1,900 linear feet on longer proposed disturbance areas or, at minimum, two cores within shorter disturbances separated sufficiently to provide a representative characterization of the proposed disturbance.
 - a. Not all overburden has been characterized during analysis. Several lenses of shallow coal mixed with partings or narrow coal seams that will not be mined were not characterized. Because all overburden must be handled so as not to negatively affect surface water, groundwater or vegetation, all overburden must be adequately characterized. Therefore, the LQD requests additional characterization of all overburden that will be backfilled into disturbed areas. It must also be stated that special handling and/or identification and use of topsoil/subsoil replacement may be required if unsuitable backfill or soil is placed within 4 feet of the surface on upland areas or within 10 feet of the surface in stream channels.

Response is not adequate. The LQD requires additional overburden suitability analysis to be included for all areas to be disturbed during mining. No additional baseline overburden suitability assessment raw data was provided for areas to be disturbed as previously requested.

- 4) The permit application provided to LQD staff for review has duplicated data provided after the map identified as Exhibit 1 which should be deleted. The exhibit should also be better identified as Exhibit D5-1 or something similar to clarify placement in the permit application should it become separated from the document in the future.

Response is not adequate. Two of the first proposed disturbance areas in Sections 22 and 15 have no overburden baseline sample analyses provided. The LQD understands that these areas are not accessible by drilling equipment at this time, but baseline sampling is required prior to initial disturbance. Therefore, the LQD may be amicable to approval of the application if a condition exists to provide an Appendix D5 revision with overburden.

Appendix D7

- 31) New Round 2 Comment: Section D7-2, Page D7-3 – A quotation and reference related to Schellinger, 2014, must be removed from the permit document as must all other quotations not supported by LQD documentation.

Response is not adequate. The LQD Administrator has determined that LQD staff quotations not directly attributed to peer reviewed documents or documents signed by LQD staff should not be used in the text of permit documents; the quotes have no standing. The quotation of Mr. Schellinger, 2014, related to the survey required on affected areas where surface excavation would not occur must be removed.

Mine Plan

- 12) Does RAMACO provide a better detailed description of the topsoil salvage and handling process than that discussed in section MP.4.2.1? The description provided is not detailed so as to provide a description of the equipment used, the methods for assuring adequate soil salvage, or whether topsoil and subsoil salvage will follow the recommendations in Appendix D7 for stockpiling topsoil separate from subsoil. Please understand that topsoil and subsoil may only be mixed if both meet Guideline 1 suitability criteria. Please include more detail for topsoil salvage and handling or let the LQD know where the information may be accessed.

Response is not adequate. The LQD will allow mixing of suitable and unsuitable soil/subsoil if the resulting mix is suitable or only slightly marginal. Chapter 4, Section 2(c)(iii) provides the Administrator with the ability to require segregation of topsoil and subsoil if the Administrator determines that the practice is necessary for vegetation establishment. However, the subject of this comment was to provide more detail about the methods that will be employed by the company and equipment operators to ensure adequate salvage will occur (color change in soils, staking with

depths ahead of salvage, etc.). The LQD recommends that RAMACO review other approved permits for adequate topsoil/subsoil handling language in order to assure adequate detail is provided in the RAMACO permit application for topsoil handling.

Reclamation Plan

27) Section RP.5.6. Sediment control measures will be required to prevent untreated runoff from exiting reclaimed lands onto adjacent native lands. Please provide a discussion of the sediment control measures to be used.

Response is not adequate. The text in Section 5.6 is not adequate. ASCMs or sediment reservoirs/sumps must be used to control sedimentation from disturbed/reclaimed lands onto adjacent native lands until Phase 2 Bond Release Verification has been approved. The text must be changed to clearly show they types of sediment control that will be used. until Phase 2 Bond Release Verification has been approved.

DS/

xc: Cheyenne file

MEMORANDUM

TO: Bj Kristiansen, LQD-DIII Assistant Supervisor
FROM: Doug Emme, Blasting Program Principal
DATE: November 12, 2015
SUBJECT: RAMACO Brook Mining Co., LLC; Brook Mine Coal Permit Application;
TFN 6 2/025

I have completed my review of RAMACO responses to the 2nd round comments on the Mine and Reclamation Plans for this permit application and there is only one item that remains to be addressed. There still has been no Reclamation Bond Estimate submitted at this time so there is nothing to review. Western Water has notified me that they will be in our office on Thursday November 5, 2015 to discuss the bond with me. The following items from my 2nd round review were all adequately responded to:

Mine Plan

Comment #3 – response adequate

Comment #5 – response adequate

Comment #8 – response adequate

Comment #13 – response adequate

Reclamation Plan

The applicant still has not submitted any reclamation bond but Western Water has scheduled a meeting to discuss the bond for November 5, 2015.

I cannot recommend approval of this permit application until an adequate reclamation bond has been submitted.

/de

xc: Cheyenne File

MEMO

To: File, Brook Mining Co., LLC, Brook Mine, TFN 6 2/025
From: Jaime J. Jakes
Date: November 4, 2015
Subject: Round 3 Technical Review of Permit Application for RAMACO Brook Mine,
TFN 6 2/025

Appendix D8

1. Why does the study area not include all lands within the proposed permit boundary?

Round 2: The DEQ rules and regulations require vegetative characterization and baseline data for the entire permit area. Therefore, the lands located in Section 21, 22, and 15 that had not been previously included in the 2013 vegetation study area will require further attention. Please contact the DEQ to discuss the required baseline vegetation surveys. Due to the nature of the missing baseline vegetation data more comments may occur once all the data is submitted and applicable tables are updated.

Round 3: Comment remains open until the data is provided and reviewed.

MEMORANDUM

TO: Bj Kristiansen, Permit Coordinator
FROM: Kim Medina, Project Geologist
DATE: October 27, 2015
SUBJECT: Technical Review, Responses to Round 2 Technical Review
Brook Mine, TFN 6 4/125

I have reviewed the subject report and my Round 1 review comments. Rameco has adequately addressed my Round 1 comments. I have one comment regarding the Round 1 responses:

- 1) On page D5-12, Section D5.3.3.4, please specify what the underburden produces at 0.5 gpm.

/km

xc: Cheyenne

MEMORANDUM

TO: Bjarne Kristiansen, LQD District III

CC: TFN 6 2/025

FROM: Matt Kunze, LQD Division Services

DATE: November 4, 2015 (**REVISED**)

SUBJECT: Third Round Comments on Brook Mine Permit Application (TFN 6 2/025)

Responses to second round comments on the Brook Mine permit application (TFN 6 2/025) were received by the Cheyenne LQD on October 23, 2015. The following is a review of the responses to my second round comments on the application.

Appendix D6-Hydrology

Section D6.1.2 Drainage Basin Description

Comment MK 29. Response not accepted. The additional discussion on the hydrology of Slater Creek was included as requested. However, based on observations from the AVF reconnaissance site visit to Slater Creek on September 24, 2015, Slater Creek should not be characterized as an ephemeral stream. At the time of the site visit, standing water and a small amount of flow was observed in the channel, particularly in Section 12. This flow was observed during a dry period when no precipitation had occurred previously. Therefore the flow was due to some other source besides direct response to precipitation. The permit application indicates that some discharge to Slater Creek occurs from infiltration of precipitation into high perched scoria burn above the stream channel; this water is stored and slowly released to Slater Creek. It appears that this flow may form a shallow water table that provides baseflow to the channel.

In my opinion Slater Creek is better described as an intermittent stream with a few isolated reaches that may be perennial. Please revise any text in the permit application that describes Slater Creek as an ephemeral stream (Page D6-2-Section D6.1.2, Page D6-11-Section D6.1.5.2, Page D6-11-Section D6.1.5.3, Page RP-45-Section RP.8.5.2). (MDK)

Section D6.1.3.2 Flood Studies

Comment MK 31. Response accepted. (MDK)

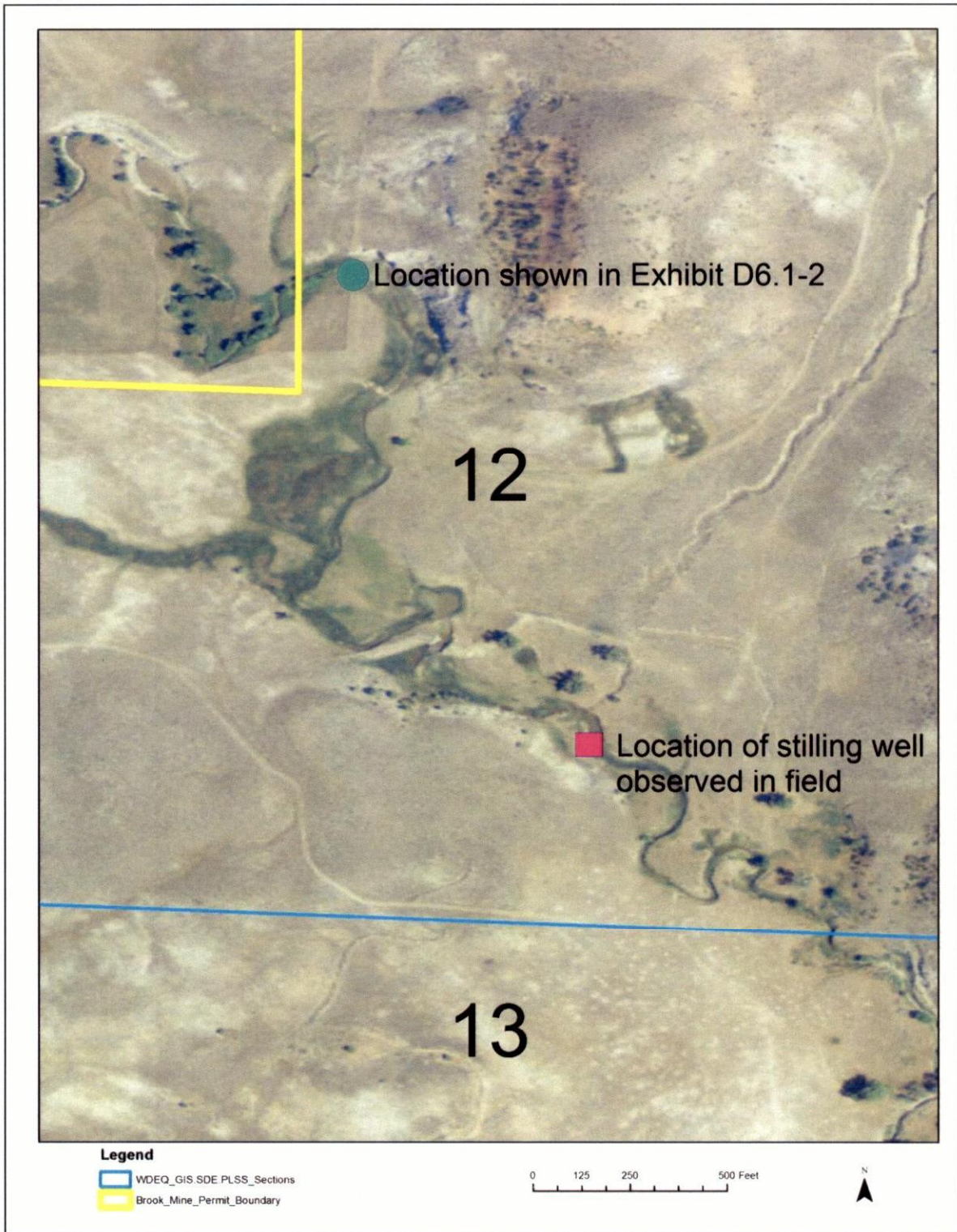
Section D6.1.5.1 Monitoring Stations

Comment MK 35. Response not accepted. Although the coordinates were included in Table D6.1-11 as requested, the location appears incorrect for the upstream monitoring station on Slater Creek (SM578512-SW-1). During the AVF reconnaissance site visit to Slater Creek on September 24, 2015, station SM578512-SW-1 was observed approximately 1,800 feet downstream from where it is currently shown in Exhibit D6.1-2. Please see the attached map and photo below. Please also note that the location observed in the field matches what is shown in Addendum D6-5 Figure D6-2. Please provide the correct coordinates and location for station SM578512-SW-1 in Table D6.1-11 and Exhibit D6.1-2. Please also update the coordinates in

Table MP.7-1 and the appropriate permit application Exhibits (Exhibit D6.1-2, Exhibit MP.7-1, Exhibit RP.8-5) to show the correct location of the station. (MDK)



Stilling well on right bank of Slater Creek, observed during September 23, 2015 site visit. Site was believed to be station SM578512-SW-1. Approximate location of this site is shown in the map below.



Map showing possible discrepancy in location of station SM578512-SW-1 on Slater Creek.

Section D6.1.5.2 Surface Water Quantity

Comment MK 39. Response accepted. (MDK)

Section D6.1.5.3 Surface Water Quality

Comment MK 41. Response accepted. (MDK)

Addendum D6-5 – Rating Curves

Comment MK 43. Response not accepted. The text was updated but it is unclear what is going to be directly measured. For example, the text states: *In addition, direct measurements of surveyed cross sections will be obtained when possible.* It is not clear if the measurement will be of the water discharge or the cross section dimensions. Please revise the sentence so it is clear that direct discharge measurements will be taken when possible to evaluate the rating curves. (MDK)

Appendix D11-AVF

Section D11.1 Introduction

Comment MK 1. Response accepted. (MDK)

Section D11.4.2 Extent of Subirrigation

Comment MK 9. Response accepted. (MDK)

Section D11.4.5 Agricultural Practices

Comment MK 12. Response accepted. (MDK)

Section D11.6 Extent of Alluvial Valley Floor

Comment MK 17. Response accepted. (MDK)

Section D11.7 Mining of Alluvial Valley Floor

Comment MK 21. Response not accepted. With respect to the three proposed alluvial monitoring wells, please state in the text in Section MP.25 that these wells will be installed prior to commencing any mining-related disturbance.

Comment MK 22. Response accepted. (MDK)

Comment MK 104. Response conditionally accepted. The permit application has not provided the information discussed in LQD Guideline No. 9, Part IV, Section C for determining the importance of farming to the AVFs that presumably will be declared by the LQD on the Tongue River and Goose Creek. However as per Guideline No. 9, this information is only required for “affected AVFs”. The permit application implies that the AVFs on the Tongue River and Goose Creek should not be considered “affected AVFs” since farming would not be interrupted, discontinued, or precluded, and the essential hydrological functions of the AVFs would be preserved during mining. No mining is scheduled for these areas and the disturbance that is proposed appears to be minor enough such that essential hydrologic functions would not be affected. Therefore a significance to farming determination for these AVFs does not appear to be required. This may be subject to change pending other LQD staff input when the AVF determinations are made. (MDK)

Comment MK 105. Response accepted. (MDK)

Mine Plan

Section MP.6.1 Surface Water

Comment MK 57. Response accepted. (MDK)

Comment MK 61. Response accepted. (MDK)

Comment MK 63. Response accepted. (MDK)

Section MP.7.1 Surface Water Monitoring

Comment MK 66. Response accepted. (MDK)

Comment MK 68. Response accepted. (MDK)

Comment MK 71. Response accepted. (MDK)

Comment MK 106. Response not accepted. The location of the wastewater impoundment is not shown in Exhibit MP.5-1, as the map contains labels for only sedimentation ponds and flood control reservoirs. Exhibit 12 in Addendum MP-2 shows the design for a “typical facilities reservoir”. The text in Section MP 5.2 should acknowledge that the location for the wastewater impoundment is not shown on Exhibit MP.5-1 and has not been determined yet, but the typical design is shown in Exhibit 12 in Addendum MP-2. Please make this correction or explain if my understanding of this issue is not accurate. (MDK)

Comment MK 107. Response accepted. (MDK)

Comment MK 108. Response accepted. (MDK)

Comment MK 109. Response accepted. (MDK)

Comment MK 110. Response accepted. (MDK)

Comment MK 111. Response accepted. (MDK)

Comment MK 112. Response accepted. (MDK)

Comment MK 113. Response accepted. (MDK)

Comment MK 114. Response accepted. (MDK)

Comment MK 115. Response accepted. (MDK)

Comment MK 116. Response not accepted. Thank you for providing the Class 1 and Class 2 Stream ½ mile buffer on Exhibit MP 5-1 and for showing other forms of sediment control

besides ASCMs in the buffer. However, the text should in this section should also state that the mine trenches will also serve as sediment control. This is important to demonstrate since there are some areas, for example in Section 18 near TR-6 and in Section 14 near TR-9A and TR-12 that are within the buffer to the Tongue River but sedimentation ponds will not be used. (MDK)

Comment MK 117. Response accepted. (MDK)

Reclamation Plan

Section RP.10 Reestablishment of Essential Hydrologic Functions and Agricultural Utility on Alluvial Valley Floors

Comment MK 24. Response not accepted. Please see review of the response to Comment MK 21 and state in the text in Section RP.10 that the three proposed wells will be installed prior to commencing any mining-related disturbance. (MDK)

Comment MK 25. Response accepted. (MDK)

Section RP.8.2 Permanent Impoundments

Comment MK 92. Response accepted. (MDK)

RP.3.4 Erosion and Sedimentation Control Practices

Comment MK 118. Response accepted. (MDK)

RP.8.5.2 Surface Water

Comment MK 119. Response accepted. (MDK)

Other Comments

Items Requested in Electronic Format for Preparation of CHIA

Comment MK 27. Response accepted. (MDK)

Comment MK 28. Response accepted. (MDK)

New Comments

Adjudication-Form 1

1. The index change sheet states that the affected area boundary was updated on several Exhibits. Has the affected area acreage changed? If so a new Form 1 will need submitted to show the correct affected area acreage. (MDK)

Appendix D-11 (AVF)

D11.5 Agricultural Practices

2. The CHIA site inspection report (Dated October 21, 2015 and mailed to Randall Atkins c/o WWC Engineering) discussed the abandoned Conable Reservoir and Ditch and Lateral system in Sections 12 and 13 within the proposed Brook Mine permit area. According to the SEO water rights database, a water right for Conable Reservoir was granted in 1901 (P223.0R). The purpose of the reservoir was to store water for irrigation of lands under the Conable Ditch and Lateral, which also held a water right to divert 1.46

cfs (P3088.0D). The water right allowed for using the water for irrigation of 100 acres of land adjacent to Slater Creek in T57N, R85W, Section 13. Both water rights were cancelled in 1906, and it is unknown the extent that the irrigation was ever developed. The dam for the reservoir has long since failed, allowing Slater Creek to flow freely through.

In Section D11.5, please incorporate the history of the Conable Reservoir and Ditch and Lateral System, as this demonstrates there was a historical attempt to irrigate lands in the Slater Creek valley within Section 13 of the proposed permit boundary. The attempt apparently failed and was abandoned and the water rights were cancelled. (MDK)

D11.7 Mining of the Alluvial Valley Floor

3. Although no mining is planned on the AVFs on the Tongue River and Goose Creek, the disturbance boundary is within a small part of the Big Horn Mine AVF extent (Exhibit D11.6-1). It appears that this area includes the SP-1, OB-1, and OB-2 features in Section 21 on Exhibit MP.5-1, which was updated for this round. Please include a statement in the text of Section D11.7 that there is some minor disturbance proposed within the AVF extent. Please also see Comments 7 and 8 below that request this be addressed in the relevant sections of the Mine Plan and Reclamation Plan. (MDK)

Mine Plan

MP.1.3 Acreage to Be Affected Annually

4. There is a sentence in the second paragraph of this section that is confusing and needs rewritten to improve clarity. The difference between disturbance boundary and affected area boundary would likely be confusing to the public and therefore a clear distinction should be made. The sentence states: *The disturbance boundary includes all lands that will be physically disturbed during mining lands that are exclusive of the disturbance boundary but inclusive of the affected area boundary have the potential to be disturbed by mining.*

It is suggested that this be broken into two sentences: *The disturbance boundary includes all lands that will be physically and directly disturbed during mining. The affected area boundary includes all lands within the disturbance boundary plus additional lands that have the potential to be disturbed by mining.*

MP.8 Water Use

5. This section has been revised in this round to remove groundwater wells as a source of water for the mine. As shown in the new Table MP.8-1, surface water rights are now expected to provide 227,000 gpd, or 69 percent of the mine's water use. In the text, please provide further discussion on how and where these surface water rights will be obtained. For example, are these existing surface water rights that the mine already has rights to, and if so where are the rights located? The Mine Plan PHC (Section MP.6.1) also needs revised as this new plan for water use has not been analyzed for any effect on decreasing surface water quantity. (MDK)

MP.12.4 Buffer Zones

6. Assuming Slater Creek is an intermittent stream (Comment MK 29), LQD Coal Rules and Regulations, Chapter 4, Section 2 (r)(ii)(B) states that a buffer zone shall be designated, marked in the field, and on a mine plan map. From Chapter 4, Section 2 (r)(ii)(A), this buffer zone is to be 100 feet. Please designate the buffer zone on Exhibit MP-5.1 and provide a commitment to marking the buffer zone at select locations in the field prior to commencing mining-related disturbance. (MDK)

MP.25 Alluvial Valley Floors

7. Although no mining is planned on the AVFs on the Tongue River and Goose Creek, the disturbance boundary is within a small part of the Big Horn Mine AVF extent (Exhibit D11.6-1). It appears that this area includes the SP-1, OB-1, and OB-2 features in Section 21 on Exhibit MP.5-1, which was updated for this round. Please include a statement in the text of Section MP.25 that there is some minor disturbance proposed within the AVF extent. Please also discuss in the text of MP.25 whether this disturbance would affect the essential hydrological functions of the AVF. (MDK)

Reclamation Plan

RP.10 Reestablishment of Essential Hydrologic Functions and Agricultural Utility on Alluvial Valley Floors

8. Although no mining is planned on the AVFs on the Tongue River and Goose Creek, the disturbance boundary is within a small part of the Big Horn Mine AVF extent (Exhibit D11.6-1). It appears that this area includes the SP-1, OB-1, and OB-2 features in Section 21 on Exhibit MP.5-1, which was updated for this round. Please include a statement in the text of Section RP.10 that there is some minor disturbance proposed within the AVF extent. Please also discuss in the text of Section RP.10 whether this disturbance would affect the essential hydrological functions of the AVF. (MDK)

MEMORANDUM

TO: Bjarne Kristiansen, LQD District III
CC: TFN 6 2/025
FROM: Muthu Kuchanur, LQD Division Services
DATE: November 6, 2015
SUBJECT: Third Round Comments on Brook Mine New Permit Application (TFN 6 2/025)

As requested by your October 9, 2015 memorandum, I have performed a review of the responses to my second round comments.

Appendix D5

Section D5.3.3.2 Overburden and Interburden

1. Response accepted. (MK, Round 3)

Section D5.3.3.3 Coal

2. Response accepted. (MK, Round 3)

Section D5.3.3.3 Coal

3. Response accepted. (MK, Round 3)
4. Response accepted. (MK, Round 2)

Section D5.3 Geology of Mine Area

5. Response accepted. (MK, Round 3)

Addendum D5-3 Geologic Cross Sections

6. Response accepted. (MK, Round 3)

Addendum D5-4 Isopachs

7. Response not accepted. The Table of Contents for Addendum D5-4 indicates that there is an "Exhibit 1: Overburden Isopach Overlying the Carney Coal Seam". This Exhibit is not present in the Cheyenne Office copy of the Round 2 response submittal. (MK)

Addendum D5-5 Overburden, Roof and Floor Sample Analysis Table

8. Response accepted. (MK, Round 2)

Appendix D6

Section D6.2.1 Regional Hydrogeology

9. Response accepted. (MK, Round 2)
10. Response accepted. (MK, Round 2)
11. Response accepted. (MK, Round 2)
12. Response accepted. (MK, Round 2)

Section D6.2.2.1 Monitor Well Construction, Completion and Development

13. Response accepted. (MK, Round 2)
14. Response accepted. (MK, Round 2)

Section D6.2.2.2 Aquifer Tests

15. Response not accepted. It is acknowledged that there is a potentiometric head difference between alluvium and Carney coal seam. Please clarify if this potentiometric head difference is an artifact caused by CBM dewatering. (MK)
16. Response accepted. (MK, Round 3)
17. Response accepted. (MK, Round 2)
18. Response accepted. (MK, Round 3)
19. Response accepted. (MK, Round 3)
20. Response accepted. (MK, Round 3)

Section D6.2.2.4 Premining Potentiometric Surface

21. Response accepted. (MK, Round 3)
22. Response accepted. (MK, Round 2)

Section D6.2.2.5 Recharge and Discharge Areas

23. Response accepted. (MK, Round 2)
24. Response accepted. (MK, Round 2)
25. Response accepted. (MK, Round 3)
26. Response accepted. (MK, Round 2)

Section D6.2.3 Baseline Water Quality

27. Response accepted. (MK, Round 2)

28. Response accepted. (MK, Round 2)

Section D6.2.4 Groundwater Rights

29. Response accepted. (MK, Round 3)

30. Response accepted. (MK, Round 3)

31. Response accepted. (MK, Round 3)

Mine Plan

32. Response not accepted. The LQD was able to obtain a newer version of Groundwater Vistas from the OSM. The model files provided in the initial submittal were attempted to run following the written instructions that came along with the model files. The steady state model ran and the results for mass balance were similar to the results provided in the application. However, the transient model results do not align with the results presented in the application. Please provide additional assistance and clarification to help the LQD replicate the model results. Depending on the results from this verification run, additional comments may be generated. In addition, please review comment# 74 on the revised model files. (MK, Round 3)

MP.1.1 Type of Mine

33. Response accepted. (MK, Round 2)

34. Response accepted. (MK, Round 2)

MP.5.8 Mine Pit Dewatering Plan

35. Response accepted. (MK, Round 3)

36. Response accepted. (MK, Round 3)

MP.5.9 Dewatering Wells

37. Response accepted. (MK, Round 3)

38. Response accepted. (MK, Round 2)

MP.5.8 Groundwater Rights

39. Response accepted. (MK, Round 2)

MP.6.2.Groundwater

40. Response accepted. (MK, Round 3)

41. Response accepted. (MK, Round 2)

42. Response accepted. (MK, Round 2)

MP.6.3.2 Plan to Mitigate the Impacts on Groundwater

43. Response accepted (MK)

MP.7.2 Groundwater Monitoring

44. Response accepted. (MK, Round 3)

45. Response accepted. (MK, Round 2)

MP.8 Water use

46. Response accepted. (MK, Round 3)

47. Response accepted. (MK, Round 3)

48. Response accepted. (MK, Round 3)

49. Response accepted. (MK, Round 3)

Addendum MP-3 Groundwater Model

50. Response accepted. (MK, Round 3)

51. Response accepted. (MK, Round 3)

52. Response accepted. (MK, Round 3)

53. Response accepted. (MK, Round 2)

54. Response accepted. (MK, Round 2)

55. R Response accepted. (MK, Round 3)

56. Response accepted. (MK, Round 3)

57. Response accepted. (MK, Round 2)

58. Response accepted. (MK, Round 3)

59. Response accepted. (MK, Round 2)

60. Response accepted. (MK, Round 2)

61. Response accepted. (MK, Round 3)

62. Response accepted. (MK, Round 3)
63. Response accepted. (MK, Round 2)
64. Response accepted. (MK, Round 3)
65. Response accepted. (MK, Round 3)

66. Response accepted. (MK, Round 3)
67. Response accepted. (MK, Round 2)
68. Response accepted. (MK, Round 3)
69. Response accepted. (MK, Round 3)
70. Response accepted. (MK, Round 3)
71. Response accepted. (MK, Round 2)
72. Response accepted. (MK, Round 2)
73. Response accepted. (MK, Round 3)
74. Response not accepted. Please provide the revised model files for the LQD review and records. (MK, Round 3)
75. Response accepted. (MK, Round 2)
76. Response accepted. (MK, Round 2)
77. Response accepted. (MK, Round 3)
78. Response accepted. (MK, Round 2)
79. Response accepted. (MK, Round 3)
80. Response accepted. (MK, Round 3)
81. Response accepted. (MK, Round 3)
82. Response accepted. (MK, Round 2)
83. Response accepted. (MK, Round 3)
84. Response accepted. (MK, Round 3)

85. Response accepted. (MK, Round 3)

86. Response accepted. (MK, Round 3)

87. Response accepted. (MK, Round 2)

88. Response accepted. (MK, Round 3)

89. Response accepted. (MK, Round 3)

Addendum MP-6 Subsidence Control Plan

90. Response accepted. (MK, Round 2)

Reclamation Plan

RP 8.5.3 Groundwater

91. Response accepted. (MK, Round 2)

92. Response accepted. (MK, Round 2)

93. Response accepted. (MK, Round 2)

94. Response accepted. (MK, Round 2)

95. Response accepted. (MK, Round 2)

96. Response accepted. (MK, Round 2)

97. Response accepted. (MK, Round 3)

MEMORANDUM

TO: File, Brook Mining, LLC, Brook Mine, TFN 6 2/025

Through: Bj Kristiansen

FROM: Stacy Page

DATE: July 29, and November 4, 2015

SUBJECT: Second and Third Round Technical Review of Brook Mine Permit Application, TFN 6 2/025

1. The response is satisfactory. Exhibit D1.1-1 has been revised to match the landuse definitions.
2. The response is satisfactory. The text has been revised to identify the reclaimed land as Grazingland.
3. The response is satisfactory. The references to Guideline 2 have been removed.
4. The response is satisfactory. The term EXREFA has been incorporated.
5. The response is satisfactory. The permit boundary has been corrected so that no Agricultural transects fell within the permit boundary.
6. The response is satisfactory. A sentence on sample adequacy for species diversity and composition has been revised.
7. The response is satisfactory. A commitment to notify the DWEQ for seed mix substitutions has been added.
8. Table RP6-6. This table should use the acreage within the permit boundary since the mine has control over management of the land in the permit. Please revise the first column of this table from Brook Mine Study Area to Brook Mine Permit Area and use the acreages from Table D8.2-1. For the second column please title it Disturbed Acreage. When the subtraction for the final column occurs there will be very little acreage for the Agricultural Land but historic or county production numbers can be used.
9. The response is satisfactory. A reference to the Handbook of Approved Sampling and Statistical Methods for Evaluation of Revegetation Success on Wyoming Coal Mines has been added.
10. The response is satisfactory. The conflicting citation has been removed.
11. The response is satisfactory. Pastureland with greater than 1 shrub/m² has been corrected to be eligible.

12. The response is satisfactory. The sentence has been revised.
13. This is confusing. Please use the following language for the section. Sampling will begin in year 3 or 4 after seeding. The second sampling will occur in year 6 or 7 after seeding and the third sampling which may be used for final revegetation success will occur by year 13 or 14 after seeding. In the event the bond period for specific monitoring areas exceeds ten years, additional sampling will occur every five years after the third sample until final bond release.
14. The response is satisfactory. The reference has been corrected.
15. The response is satisfactory. The types of disturbance have been listed.
16. The response is satisfactory. Exhibit RP.2-1 has been revised to Grazingland for the reclamation of the Taylor Quarry.

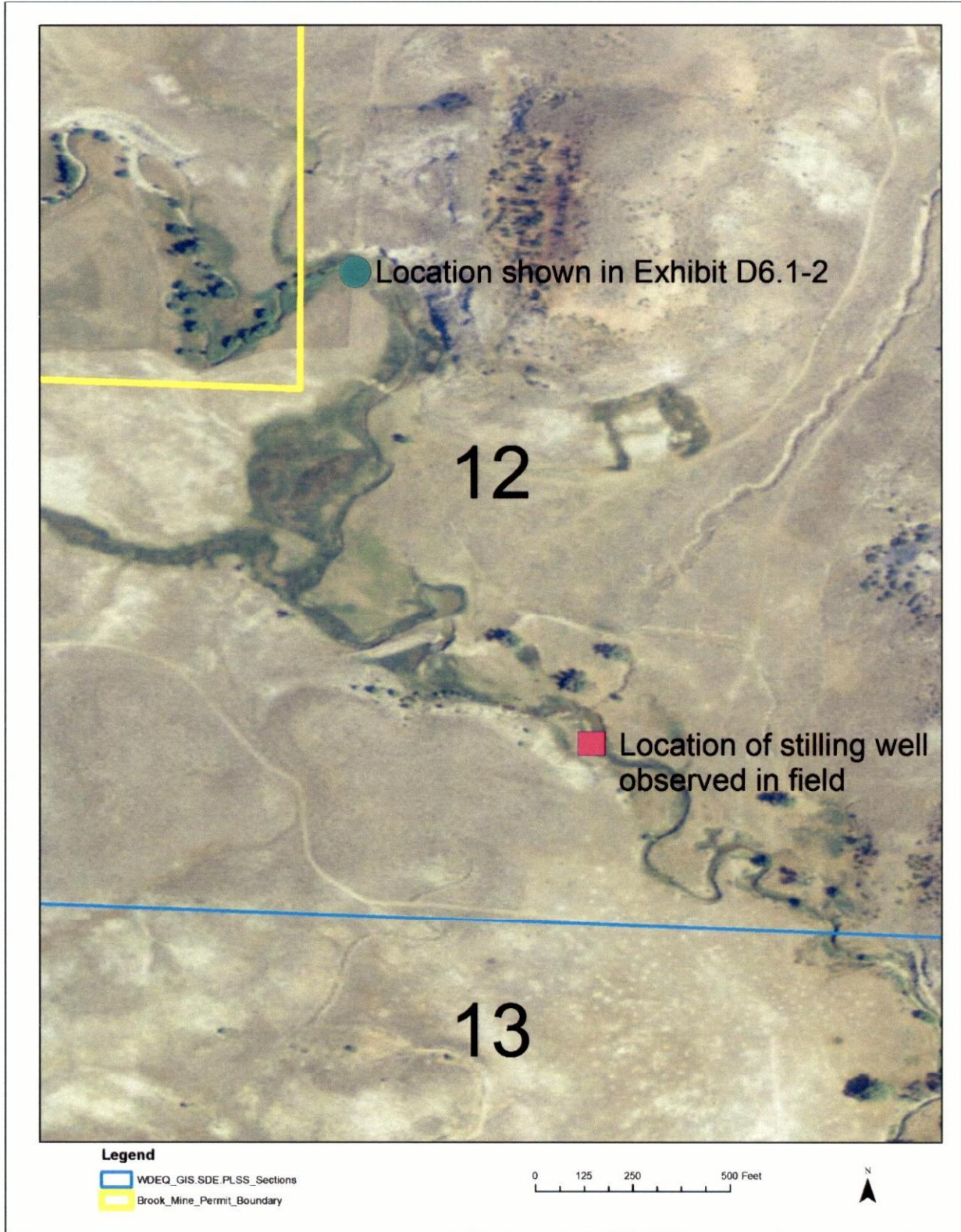
New Comments

- 1N Please correct tables or text that list the new affected area. This acreage should match the acreage listed on your Form 1.
- 2N. The shrub density standard is based on the affected acreage which is listed on your Form 1. Please make any needed changes to your shrub density tables and maps.

Table MP.7-1 and the appropriate permit application Exhibits (Exhibit D6.1-2, Exhibit MP.7-1, Exhibit RP.8-5) to show the correct location of the station. (MDK)



Stilling well on right bank of Slater Creek, observed during September 23, 2015 site visit. Site was believed to be station SM578512-SW-1. Approximate location of this site is shown in the map below.



Map showing possible discrepancy in location of station SM578512-SW-1 on Slater Creek.