STATE OF COLORADO

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Deserado Mine, C-1981-018, 2016 Annual Hydrology Report Review

1 message

Musick - DNR, Jason <jason.musick@state.co.us> Thu, Feb 23, 2017 at 2:20 PM
To: Scott Wanstedt <swanstedt@deserado.com>

Good afternoon Scott,

Attached is the Division's review of the 2016 Annual Hydrology Report.

Please let me know if you have any questions or comments.

Thanks,
Jason

Jason Musick
Environmental Protection Specialist III
Coal Regulatory Program

COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

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2016AHR_Review.pdf
608K

COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

February 23, 2017

Scott Wanstedt
Blue Mountain Energy, Inc.
3607 County Road #65
Rangely, CO 81648

RE: Deserado Mine (Permit No. C-1981-018)
2016 Annual Hydrology Report Review

Dear Mr. Wanstedt,

The Division has completed its review of the above referenced report received on 30 January 2017.

Annual Hydrology Report

The Division finds the 2016 Annual Hydrology Report in compliance of the requirements identified in the attached memo. The report fulfills the 2016 requirement to file an annual hydrology report.

Please feel free to contact me with any questions.

Sincerely,

Jason Musick
Environmental Protection Specialist
Jason.musick@state.co.us

Review of Annual Hydrology Report

Mine: Deserado Mine
Permit No: C-1981-018

Date Reviewed: 2/23/2017
Reviewed By: Jason Musick

Report Year: 2016
Submitted By: Blue Mountain Energy, Inc.
Date Received: January 31, 2017

TABLE 1

Requirement	Requirement citation	Comment
1. Filing frequency of hydrology report	CDRMS regulation 4.05.13(4)(c)	The Annual hydrology Report is required to be submitted yearly.
2. Timely filing of hydrology report	CDRMS Regulation 4.05.13(4)(c)	The Annual hydrology Report is required to be submitted on or before February 15 and was received by the Division on January 31.
3. Filing frequency of NPDES Discharge Monitoring Reports	CDPS permit CO-0038024	The Division received copies of all discharge monitoring reports for the 2016 calendar year. Reports are required monthly. Based on a Memorandum of Understanding between the Division of Reclamation, Mining and Safety and the Water Quality Control Division (WQCD), the WQCD will be responsible for enforcing CDPS permit conditions.
4. Timely filing of Discharge Monitoring Reports	CDPS permits CO-0038024	The Division received copies of all discharge monitoring reports for the 2016 calendar year in the appropriate timeframe. Based on a Memorandum of Understanding between the Division of Reclamation, Mining and Safety and the Water Quality Control Division (WQCD), the WQCD will be responsible for enforcing CDPS permit conditions.
5. Sampling frequency of NPDES outfalls	CDPS permits CO-0038024	Based on a Memorandum of Understanding between the Division of Reclamation, Mining and Safety and the Water Quality Control Division (WQCD), the WQCD will be responsible for enforcing CDPS permit conditions.

6. Parameters to be sampled for NPDES reporting	CDPS permits CO-0038024	Based on a Memorandum of Understanding between the Division of Reclamation, Mining and Safety and the Water Quality Control Division (WQCD), the WQCD will be responsible for enforcing CDPS permit conditions.
7. CDPS discharge limitations	CDPS permits CO-0038024	The Deserado Mine reported the following exceedances to the CWQCD in discharge monitoring reports: WET testing for Acute Toxicity for Daphnia magna and Pimephales promelas at outfall #26 Based on a Memorandum of Understanding between the Division of Reclamation, Mining and Safety and the Water Quality Control Division (WQCD), the WQCD will be responsible for enforcing CDPS permit conditions.
8. Sampling frequency at surface water sites	NA	With the exception of NPDES discharges associated with CO-0038024, surface water monitoring was terminated with the approval of TR-47.
9. Parameters to be sampled at surface water sites	NA	With the exception of NPDES discharges associated with CO-0038024, surface water monitoring was terminated with the approval of TR-47.
10. Sampling frequency of ground water monitoring wells	Page A-1 of 2016 AHR	All frequencies were met for the 2016 Water Year.
11. Basic Standards (Interim Narrative Standard) for Ground Water	CWQCC regulation 41.5.C.6	Monitoring hole 22-3M was completed in November 2006 and represents the point of compliance well. No interim narrative standards were exceeded during the 2016 water year.
12. Parameters to be analyzed in ground water samples	Attachment A of 2016 AHR	All parameters were met for the 2016 Water Year.
13. Prevention of material damage to the hydrologic balance outside the permit area	CDRMS regulation 4.05.1(1)	Based on the information presented in the 2016 AHR the disturbance to the hydrologic balance within and adjacent to the permit area caused by mining and reclamation at the Deserado Mine is the minimum that can be expected from

		an underground mining operation at this location. Use of best management practices indicates minimization of disturbance to the hydrologic balance.
14. Agreement of observed hydrologic impacts with "probable hydrologic consequences" (PHC) projected in mining	CDRMS regulation 2.05.6(3) and requirement to keep current, CDRMS regulation 2.03.3(1)	Ground water – No material damage has occurred, as discussed in item 13, above. **PHC: The impact of mining on the quality of water in the White River will be minimal.** The water withdrawal rate from the lagoon at the White River during the 2016 water year was estimated at 81,499,044 gallons or 250 acre-feet. This compares to a predicted withdrawal rate of 552 acre-feet per year. **PHC: Groundwater inflow into the mine will be very low.** Mining in the B Seam encountered only small flows of water and the mine is essentially dry. Typical inflows are in the order of 1 to 8 gpm with occasional short term increases when localized perched water tables are encountered. **PHC: The construction of surface facilities associated with the mine will result in temporary increases in the suspended solids concentration of the adjacent and receiving stream.** The temporary increase predicted in the PHC section of the Deserado Mine permit would have most likely occurred during construction of the facilities area. Although the prediction no longer applies, the effect of sedimentation ponds on the site is to reduce TSS to levels lower than they would be during a storm event. Discharge Monitoring Reports during the 2016 water year showed consistently low suspended solids. **PHC: Mine inflows are predicted not to exceed 5 to 10 gpm.**

		Incidental leakage into the mine site includes leakage from water lines, dust control, and wash-down water. The 2016 AHR lists 5.39 gpm mine inflow from the incidental water. **PHC: Very little water will be pumped to the surface from the underground mine.** No water had been pumped from the underground workings since January 10, 1996. Water encountered in the active areas of the mine was pumped to the mined out D seam area for storage. In May 2012 a dewatering system was commissioned to pump excess mine water to the surface for treatment, storage and potential discharge. An average of 27.15 gpm was pumped to the dewatering system with no discharge. Pumping from the D seam through SDH-3 resumed on July 1, 2015 and discharged through outfall #26. An annual average of 203.82 was pumped to the surface from the D-seam. **PHC: The local groundwater table may be lowered as mining proceeds.** The 2016 AHR showed a decline in piezometric level in wells in close proximity to mine workings. Five monitoring wells showed a rise in water levels from the 2015-2016 water year and four monitoring wells showed a decrease in the water table, with well 22-3M showing a slight drop. **PHC: Refuse disposal effects on surface and groundwater systems is expected to be minimal.** The 2016 AHR included no data on this prediction. There was no discharge of surface water from ponds RP-1, RP-2/3/4, and RP-5 treating run-off from the waste piles. Seeps and springs are absent in the refuse disposal area and the entire site receives low precipitation. Overall, the refuse disposal area contributes only a small amount of water to the surface and underground hydrologic system.

15. Adequacy of ground water monitoring program	CDRMS regulation 4.05.13(1)	The current ground water monitoring program continues to adequately address the protection of the hydrologic balance.
16. Adequacy of surface water monitoring program	NA	With the exception of NPDES discharges associated with CO-0038024, surface water monitoring was terminated with the approval of TR-47.