Moffat County Mining, LLC

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Ms. Robin Reilley
Environmental Protection Specialist
Division of Reclamation, Mining, and Safety
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February 12, 2020

RE: Moffat County Mining, LLC. – Williams Fork Mines (Permit C-81-044), 2019 Annual Reclamation Report (ARR)

Dear Ms. Reilley:

Enclosed is the 2019 Annual Reclamation Report for the Williams Fork Mines (formerly Eagle 5 & 9 Mines). In May 2013, Moffat County Mining, LLC (MCM) submitted a request and supporting documentation to place the property in "Temporary Cessation" status (TR13-35). The CDRMS approved this request in July 2013. Under the Temporary Cessation status, no new disturbance or reclamation occurred during the period 2013 through 2016, and site activities were limited to ongoing site maintenance, monitoring under a reduced schedule, and required quarterly inspections. In November 2016, MCM notified the CDRMS of plans to initiate site reclamation activities, and the change in property status from Temporary Cessation to Active Reclamation.

Permitting Activity

During 2014 and 2015, the only permitting actions that occurred were finalization and approval of the Permit Renewal (RN13-06, approved 10/15) and an associated Technical Revision (TR14-36) addressing the PAP revisions associated with both the renewal and outstanding items from the Permit Mid-Term Review, and several Minor Revisions (MR15-51/52/53/54) providing updated ownership and control information, and documentation on a non-mining clean-up of a historic dump area within the mine Permit Boundary. These revisions did not result in any change to the Permit, affected, or disturbed area figures, however, recalculation and updates to the bond reclamation estimate resulted in increases in the total calculated reclamation liability. MCM provided a bond rider addressing this change in early 2015. During 2016, MCM submitted and obtained approval (01/04/17) of Technical Revision TR16-37, modifying the revegetation success sampling methods and success standards. During 2017 a Surety Reduction Request was submitted on March 14, 2017, with final approval on May 15, 2017. As part of ongoing site reclamation and clean-up efforts, MR18-56 (approved 01/29/18) facilitated loading and transport of remaining coal from the coal storage stockpile area to the Foidel Creek Mine. In addition, the renewal application (RN18-07) for the CDRMS Mining and Reclamation Permit was submitted on February 9, 2018 and approved on November 8, 2018. Recalculation of the reclamation liability, as part of the renewal process, resulted in an increase in the calculated liability amount of approximately $92,447, which was addressed by a bond rider submitted and approved by the CDRMS in December 2018. A phase I, II, & III bond release was submitted for the Utah Tract and WF Strip Pit areas in the fall of 2018 and is still pending approval. On April 29, 2019 the Minor Revision MR19-57 was approved for updating Table 66 with Pastureland/Hayland Seed Mix, a mix thought to be a much better fit for the designated areas. This activity did not result in any change in the calculated reclamation liability.

Site Activities

During 2007, there was an oil pipeline rupture, which resulted in a localized oil spill on the southern portion of the Mine property (outside of Mine Permit Area). Peabody Environmental Staff coordinated with the pipeline operator

(Rocky Mountain Pipeline) on containment, clean-up, and remediation. Inspection of the affected area during 2008 indicated effective removal of oil contamination, restoration of effective drainage (several intermediate catch basins were removed, but final catch basin remains in-place), placement of imported soil materials, and initial vegetative reestablishment. Visual inspection of this area indicates effective vegetative establishment. During 2013-2014, the current owner of the oil pipeline, Plains All American Pipeline, completed maintenance and repair to several sections of the existing pipeline, with all activities occurring within their dedicated easement. Maintenance and repair activities included trenching and replacement of a section of the pipeline in the vicinity of the previous pipeline rupture, and inspection and repair/replacement of a section of the pipeline paralleling the Old Highway.
MCM's predecessor, BTU Empire Company, LLC (BTUEC), completed final reclamation grading, drainage reestablishment, soil material replacement, and revegetation seeding of approximately 17.1 acres, encompassing the No. 9 Portal Area and adjacent Refuse Disposal Area, in May 2009. Reclaimed areas were reseeded with the approved seed mixture that fall, and areas are inspected several times each year for any erosion or sediment transport concerns, invasive noxious weeds, and vegetative reestablishment. An old drill-pad near the 9-P2 Pond which had been reseeded was also inspected and released in 2014.

MCM contracted and completed field repair and stabilization of the eroded stream bank in the abutment areas of the railroad bridge over the Williams Fork River during 2011. Minor repair of erosion and rodent holes was also completed for the Pond 5D embankments and the on the Access Road to the Mine No. 5A/6 Portals and water-bars were installed on the old highway between the 7-North Angle Well and the Mine 5/6 Portals. It was noted that the siphon-tube under the Williams Fork River for the Worthington Ditch was exposed and damaged during the previous year's high spring flows. MCM reviewed options for transmission of flows in this Ditch, however, related repair and maintenance work has been deferred. During 2011-2012, MCM also completed testing and removal of petroleum products, emulsion fluids, and other chemicals and chemicals wastes from the Shop/Warehouse, Multi-Services Building, and exterior storage tanks, and completed EPA compliant closure of the tanks, all using a licensed waste contractor. In 2014, residual sludge was removed from the gasoline storage tank near the Warehouse and transported off-site for disposal by a licensed contractor.

During 2013 MCM cooperated with the CDRMS-AML Group on a drilling program to delineate and characterize the existing pre-law Wise Hill Mine Fire. MCM provided maps and historical background information on the geology, previous mining activity, and previous fire mitigation efforts, and coordinated training, access, and provision of water for the drilling activities with Tara Taffy of the AML Group. In order to provide relevant background information, and clearly establish the historic pre-law context for the ongoing Wise Hill AML activities, MCM completed and submitted a Minor Revision (MR13-50) to the approved permit which incorporates this relevant information in the current PAP. During June 2014, the CDRMS-AML Group coordinated some additional exploratory drilling and then made a joint site visit in the fall with personnel from the OSMRE. During 2015, a contractor for the AML program completed an extensive drilling program which involved upgrades to the existing access road, construction of drill-pad and staging areas, drilling of injection and monitoring holes, and injection of foam and grout materials to isolate and extinguish the burn area(s). In late 2016, and continuing through 2017, the AML contractor initiated the second phase of the work to isolate and contain the burn zone in an upper coal seam to allow it to burn-out and stop any further advance of the burn-front. This work involves excavation ahead of the burn front into the upper coal seam, mixing of the coal material with non-combustible overburden materials, and replacement of this mixed material into the excavation to act as a non-combustible barrier. On completion of this work the AML Group will be responsible for regrading and reseeding the excavated areas.

In March 2014, damage to the Multi-Services Building was observed during routine snow-plowing operations. It appeared that someone had accessed the site and stolen copper wiring from the building. The trespass and theft were reported to local law enforcement, who opened an initial investigation. Subsequently, in May 2014, trespassers were encountered on-site during water monitoring activities, local law enforcement authorities were contacted immediately, and the trespassers were apprehended and arrested. The subsequent investigation discovered recent and extensive damage and theft to the Shop/Warehouse Building, the Multi-Services Building, and the upper substation. The trespassers had stripped copper piping and wiring from the buildings and had opened two transformers, allowed the oil to drain-out, and had stripped the transformer windings. The related damage and spills required repairs to the Shop/Warehouse doors in order to secure the building, and removal of the transformer cases and debris and clean-up, testing/profiling, and disposal of the petroleum contaminated soil. MCM has subsequently taken a number of actions to better secure the site, including; placing cement barricades on the west

entrance road; removal of several locks from the main gate, and implementation of a limited access program (essentially access only with permission); a call-in/call-out requirement for individuals accessing the site; daily security patrols; and security cameras.

As a result of a due diligence effort associated with a potential asset transfer, the decision was made to evaluate and clean-up a historic dump site that is within the Permit Area but is not associated with the current permitted mining and related activities. The MCM staff, in cooperation with NorWest Corporation consultants, completed site reconnaissance surveys and materials sampling and analyses for the dump area in late summer 2015, and then developed and implemented plans to clean-up and dispose of trash, debris, and other materials in the dump area, and to stabilize effected access and clean-up areas. A contractor established access into the dump area and removed old vehicles, metal, rubber, and other debris, and removed several partially full barrels or drums to a lined pit in a staging area. The materials and debris were transported off-site to salvage or licensed landfill facilities, and liquids were collected and disposed of by licensed disposal contractor. Once the clean-up was completed, disturbed areas were regraded and stabilized, erosion control materials (wattles) were placed to minimize runoff and control sediment, and the disturbed areas were reseeded. A Minor Revision (MR15-54), providing documentation of the clean-up activities in the PAP was submitted and approved by the CDRMS.

Late in 2016, MCM's contractor initiated limited site demolition activities, dismantling the conveyor and related structures in the 5A/6 Portal Area. The conveyor equipment and structures were staged on-site and subsequently loaded and transported to Peabody's Sage Creek property for long-term storage and potential future re-use. The site demolition activities continued during 2017 with demolition and removal of the 5A/6 portal structures, the conveyor and related structures from the 5A/6 Portal Area to the Stacking Tube and from the Stacking Tube to the Coal Silo, the Stacking Tube, the coal handling structures, and the de-icing system. The rails, ties and ballast have been removed from the rail spur, and demolition and removal of the bridge deck for the railroad bridge over the Williams Fork River has been completed.

An experienced explosive demolition contractor was hired to demolish the Stacking Tube and Coal Silo. Both were shot at the same time, with successful demolition of the Stacking Tube, however the Coal Silo did not completely collapse, and remains standing (although deflected at an angle in the planned direction of fall). The contractor developed a plan to safely complete demolition of the Silo, and the plan was reviewed by an independent third-party engineering firm. The contractor completed demolition of the Silo during early-second quarter 2018, reinforcing steel was removed from the concrete demolition debris for salvage, and the remaining concrete debris was hauled to the 5A/6 Portal area for permanent disposal.

Other reclamation activities completed during 2018 include removal of the remaining bridge structure over the Williams Fork River; removal of the railroad scale-house and most of the rail-bed; removal, regrading, and topsoiling of the 3-cell water treatment pond system; removal of the steel framework and siding from the Shop/Warehouse Building; partial demolition and burial of the coal reclaim tunnel and burial of a portion of the remaining coal fines from the coal stockpile area, with the remainder going to the coal refuse pile; capping of the eastern-most coal refuse pile; partial backfill and regrading of the wastewater treatment ponds; and removal of the powerlines from the pole structures on the east side of State Highway 13.

In 2019 contractors continued to reclaim the site. The ballast from the railroad bed was pile onsite and washed for reuse off site by the contractor. The warehouse/ shop buildings and associated foundations were removed in 2019. Both buildings were disassembled for use at a later date. The concrete foundations were crushed, and the rebar was separated out. The rebar was hauled off as scrap metal and the concrete was placed in the 5A portal. The entire west side of Highway 13 was graded out to final grade and topsoil was place throughout at and average of 8 inches. MCM was only able to get half of the top soiled areas seeded prior to winter hitting. The rest will be seeded in the spring of 2020. The area was seed with the recently approved hayland mix with the anticipation of the land being irrigated to produce a hay crop. The coal refuse pile was capped with two feet of cover material in the fall of 2019. MCM plans to have the contractor finish placing the topsoil over the pile in the spring of 2020 and seed the area. Remaining reclamation should be completed by the end of 2020, leaving the multi-use building as the only remaining structure.

Monitoring and Maintenance

During 2006, the frequency of surface and ground water monitoring was increased to provide updated hydrologic information, in the event that Peabody Energy (MCM's parent company) decided to pursue further exploration and feasibility evaluations for the Williams Fork property, and the more intensive hydrologic monitoring continued during 2007 through 2012. The monitoring program was scaled-back during the period of limited activity from 2013 through 2016, and then returned to the full monitoring schedule once active reclamation activities were initiated in late 2016.

Ongoing maintenance activities include inspection and clean-out of drainage structures (as needed), and focused weed control activities under our Noxious Weed Management Program. Limited rodent-control activities occurred during 2015. The 2005-2007 control efforts were effective in significantly reducing the ground squirrel population, and while rodents are still observed on the property, population numbers seem to have stabilized. A joint CDRMS/OSMRE inspection in November 2013 identified several site maintenance items requiring attention. Given snow-cover, and that none of the identified items represented any immediate health, safety, or environmental danger, action on these items was deferred until spring when ground conditions were suitable for required access and equipment operations and were completed during the 2014 field season. A joint CDRMS/OSMRE inspection on 05/17/17 resulted in no additional maintenance items. In addition, several maintenance items were identified during subsequent CDRMS site inspections. The following specific items were addressed by the 2017 site maintenance activities:

- Installed additional buffer-zone signs along the Williams Fork River in areas where there is potential for disturbance associated with site demolition/reclamation activities
- Potable water well (artesian) was leaking, so contractor was hired to place a temporary plug and to replace well cap and valve

In early 2018, MCM reviewed the existing CDPHE-APCD air emissions permits and noted that the existing permits for the most part address emission sources that have not been active for many years or which no long exist. MCM subsequently contacted the APCD to determine what would be appropriate relative to an air emission permit(s) for the current and anticipated future activities. As a result of APCD review and follow-up discussions, MCM applied for and received approval of a general development permit for current and ongoing demolition and reclamation activities, and subsequently cancelled the existing non-applicable permits. As part of the APCD review and approval process, the APCD conducted an air emissions site inspection.

Spot and area spraying efforts were expanded for noxious weeds in 2011-2012 to address an increase in weed occurrences due to climatic factors, and several areas where weed infestations had been identified and treated before, as well as any new infestations were sprayed during 2013-2017. In 2019, limited spraying was completed by the site agricultural leasee. Primary targeted weed species included Russian knapweed, hoary cress (white-top), Canadian thistle, and hound's-tongue. Selective herbicide applications utilized Roundup, Ammonium Sulfate, Intense, Liberate, Escort, and Activator 90. Spot or aerial spraying was conducted in May and October, and covered a total of approximately 20 acres. The agricultural leasee also treated, plowed, and planted previously farmed areas to the east of the 5A/6 Portal Area as part of an ongoing program to improve the condition and productivity of rangelands within the Permit Area. The agricultural leasee did not provide spray logs for his on-site work.

Areas treated included, but were not limited to:

- Roadsides (main entry road, roads on the plateau area north and west of the road leading to the 7-North Angle Well, and portions of the main entry roads in both the east and west mine facilities areas)
- The open meadow to the north of the reclaimed Mine No. 4 portals
- The farm fields to the east of the 5A/6 portals
- Mine substations (Glystar)

During third-quarter 2016, in preparation for a planned bond-release submittal, site conditions for the Utah Tract were assessed through an on-the-ground site reconnaissance. No excessive rills or gullies were observed, and vegetative reestablishment looked to be very good. Previously, during a CDRMS site inspection in 2014, it was noted that permit area boundaries for the Utah Tract were not clearly marked and there were some areas where the delineation between the Utah Tract and the adjacent Trapper Mine reclamation was not clear. Former Peabody Employee and Registered Land Surveyor, Joe Shoemaker, was hired during the summer of 2014 to check and

verify the locations of permit boundary markers, correct any errors, and add additional markers, as appropriate. A subsequent CDRMS inspection of the area confirmed that the appropriate markers were in-place and accurate.

Land Management and Bond Release

In order to address practical funding limitations relative to ongoing site maintenance, and with the objective of enhancing the condition of selected rangelands within the Permit Area (undisturbed - Williams Fork bottom, the plateau area south of the 7-North Angle Well, and the hillside to the east and south of the old highway, and in the future, bond release areas), MCM contracted with a local rancher (Jake Timmer). The Agricultural Use Agreement addresses ongoing weed and rodent control, tillage, and selective seeding and harvest of beneficial nitrogen-fixing and grain crops, in return for the revenues from the resulting grain and hay crops and the ability to use the selected areas for limited late-season grazing. These activities were initiated in 2015, continued through 2017, and will carry-forward for several years under the existing agreement. During 2016-2018, weed control, range improvement, and related agricultural activities were completed on approximately 430 acres under this agreement.

A bond release application was prepared for submittal in September 2016 for several areas that had been reclaimed, including the Williams Fork Strip Pit, Utah Tract, and several smaller areas. After initial review, the bond release was put on hold since some of the revegetation success sampling was considered outdated. Subsequently, MCM contracted with ESCO Associates and their successor, Cedar Creek Associates, to complete supplemental revegetation success sampling, consistent with applicable permit requirements, and in support of a pending bond release application. The sampling effort included; Utah Tract (pre- and post-law), Williams Fork Strip Pit (pre- and post-law), No. 5 Mine Portal Area, No. 9 Mine Portal, Shop and Refuse Pile Areas, other miscellaneous reclaimed areas (Bathhouse and Office Area, Brasell-Simms Building, and Reclamation Storage Building). Revegetation success sampling was conducted in 2014 and 2015, and the final sampling report was received in third-quarter 2016. Based on favorable sampling results, MCM submitted a bond release for the areas. The bond release inspection took place in June of 2019. Minor issues resulted from the inspection. MCM is currently working to submit a TR to resolve the minor issues and move forward with the release of the bond parcels.

As part of a "Rails-to-Trails" plan to convert the Hayden Gulch Loadout property to a recreational trail for public benefit, MCM and Peabody's Lands and Resources Group are working with the Colorado State Land Board to trade a tract of land in T5N, R91W, Section 6 to the State for similar lands owned by the State at Hayden Gulch. As part of this land trade, which will probably be finalized in 2020, MCM will submit a revision addressing the change in ownership and appropriate right-of-entry documentation.

Attached are copies of the standard form (CDRMS) Annual Reclamation Report for 2019. Please note that this report incorporates a number of minor changes and updates resulting from the Division's review of recent ARR's. If you have any questions or require further information, please feel free to contact me at your convenience.

Sincerely,
For Moffat County Mining, LLC

Miranda Kawcak
Manager Environmental Affairs

Colorado Division of Reclamation, Mining and Safety

Annual Reclamation Report for Calendar Year – 2019

Williams Fork Mines	C 81-044	Moffat County Mining, LLC
Mine Name	Permit Number	Permittee

29515 RCR #27 Oak Creek, Colorado 80467
Address

This report, required by Rule 2.04.13, is due by February 15 of each year, or other date, as agreed upon by the Division. It should include text, discussion, and maps, at a minimum, in addition to any other reclamation monitoring data as required by the approved permit. The location of the acreage reported under each land status category and year of seeding (if applicable) should be clearly identified on a map included with the report.

Land Category	Last Year's Cumulative Total (from last year's ARR)	This Calendar Year			Cumulative Total
		Acres Added (+)	Acres Subtracted (-)		
Acreage in Active Mining Areas[1]	0	0	0	=	0

Land Category	Last Year's Cumulative Total (from last year's ARR)	This Calendar Year			Cumulative Total
		Acres Added (+)	Acres Subtracted (-)		
Acres Disturbed[2]	422.0	0	0	=	422
Acres Backfilled and Graded	305.7	101.9	0	=	407
Acres Topsoiled	290.4	84.6	0	=	375

Acreage in Long-term Facilities[3]	Last Year's Cumulative Total (from last year's ARR)	This Calendar Year			Cumulative Total
		Acres Added (+)	Acres Subtracted (-)		
Non-Permanent Facilities	133.5	0	105.9	=	27.6
Permanent Facilities (permitted)	2.25	0	0	=	2.25
Totals	29.85			=	29.85

Acres Seeded (permanent)	Last Year's Cumulative Total (from last year's ARR)	This Calendar Year			Cumulative Total
		Acres Added (+)	Acres Subtracted (-)		
9 Years and Less	29.7	26	29.7	=	26
10 Years and Greater	258.8	29.7	0	=	288.5
Totals	288.5			=	314.5

Bond Release	Last Year's Cumulative Total (from last year's ARR)	This Calendar Year			Cumulative Total
		Acres Added (+)	Acres Subtracted (-)		
Phase I Released	20	0	0	=	20
Phase II Released	20	0	0	=	20
Phase III Released	20	0	0	=	20

[1]Includes pits, topsoil stripped areas in advance of pits, and spoil not backfilled and graded

[2]Surface Mine Acres Disturbed = B&G + Long-Term Facilities + Active Mining Areas; Underground Mine Acres Disturbed = B&G + Long-Term Facilities; Separately-permitted Loadouts = B&G + Long-Term Facilities

[3]Includes haul, access and light-use roads, temporary dams and impoundments; permanent dams and impoundments; diversion and collector ditches, water and air monitoring sites; topsoil stockpiles; overburden stockpiles; repair, storage and construction areas; office area, repair shops, and parking; coal stockpiles, loading, and processing areas; railroads; coal conveyors; refuse piles and coal mine waste impoundments; head-of-hollow fills; valley fills; ventilation shafts and entryways; and non-coal waste disposal area (garbage dumps and coal combustion by-products disposal areas).