MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR, ENERGY AND MINING DIVISION
HARD ROCK MINING BUREAU

RECORD OF DECISION

For Barretts Minerals, Inc. Regal Mine
Amendment 006 to Operating Permit No. 00013
Madison County, Montana
April 2020

The Final Environmental Impact Statement (Final EIS) for Barretts Minerals, Inc.'s proposed amendment to Operating Permit No. 00013 can be obtained by contacting the Department of Environmental Quality's Montana Environmental Policy Act (MEPA) Coordinator Craig Jones at 406-444-0514 or by visiting the Department of Environmental Quality's web site (http://deq.mt.gov/public/eis). Additional printed or electronic copies of this Record of Decision (ROD) and the Final EIS are available upon request. The supporting project record is available for review at the Department of Environmental Quality, Hard Rock Mining Bureau, located at 1520 East Sixth Avenue, PO Box 200901, Helena, MT 59620-0901. For additional information concerning these decisions, contact Craig Jones, Director's Office, Department of Environmental Quality, 1520 E. Sixth Avenue, Helena, MT, 406-444-0514.

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Shaun McGrath, Director Date
State of Montana
Department of Environmental Quality

SECTION 1 – BACKGROUND

1.1 Introduction

Barretts Minerals, Inc. (BMI) currently holds Operating Permit No. 00013 for the Regal Mine, which was originally approved in 1972, to mine talc via an open pit. Previous amendments and minor revisions were issued in 1992, 1993, 2001, 2005, 2007, and 2015. Ore from the site is currently hauled to a transfer station located approximately 4.5 miles northwest of the mine and then transported for processing to BMI's mill southwest of Dillon, MT (under Operating Permit No. 00009).

In March 2018, BMI submitted to the Department of Environmental Quality (DEQ) an application for amendment 006 to Permit No. 00013 for the proposed Regal Mine expansion. The proposed expansion includes enlarging and deepening the mine pit, increasing the size of the waste rock disposal facility (WRDF), changes to the water management plan, and alterations to upper Hoffman Spring Creek. The amendment application underwent deficiency reviews and revisions prior to DEQ determining that the application was complete and complied with the substantive provisions of the Metal Mine Reclamation Act (MMRA). DEQ issued a draft amendment approval on March 18, 2019. Issuance of the draft amended operating permit as a final permit is a proposed state action requiring DEQ to conduct an environmental review under the Montana Environmental Policy Act (MEPA).

The Draft Environmental Impact Statement (Draft EIS) was published on December 19, 2019, and the Final Environmental Impact Statement (Final EIS) was published on March 12, 2020. Alternatives analyzed included the No Action, Proposed Action, and WRDF Grading and Mosaic Vegetation Alternative.

1.2 Project Area Description

The Regal Mine is an open pit talc mine located in western Madison County, Montana. The mine and proposed expansion area are within Sections 2 and 3 of Township 8 South, Range 7 West, and Sections 20, 34, and 35 of Township 7 South, Range 7 West, Montana. The site is located 11 miles southeast of Dillon, Montana, on private land accessed via Sweetwater Road and situated between two perennial streams: Carter Creek to the west and Hoffman Creek to the northeast. Ore is currently hauled to a transfer station located approximately 4.5 miles northwest of the mine and is then transported for processing to BMI's mill southwest of Dillon (under Operating Permit No. 00009).

The open pit mine has been in operation since 1972. BMI currently mines talc ore from the Regal Mine using conventional open pit methods of drilling, blasting, loading, and hauling. The

current mine permit encompasses 243.2 acres of privately owned land, with approximately 162 acres of disturbance.

The permit amendment (or Proposed Action) would increase the total permit area of Operating Permit No. 00013 by approximately 136.9 acres, the disturbance area by 60.2 acres, the size of the mine pit from 36.6 to 45.4 acres, and the size of the WRDF from 123.3 to 164.7 acres. A storm water management system at the WRDF, seven new dewatering wells, a settling pond, and a new infiltration gallery would also be included in the permit amendment. The Proposed Action would include several modifications to local creeks; approximately 730 feet of channel would be permanently relocated to the northeast, the new channel would be lined to prevent seepage, and an upstream catchment basin and a downstream subsurface cutoff wall would be installed. The permit amendment would allow for an additional 6 years of operation of the mine at current production levels. Ore would be hauled to the BMI Mill south of Dillon. After mine closure, the area would be reclaimed in compliance with the MMRA.

1.3 DEQ's Responsibilities and Purpose of the Record of Decision (ROD)

DEQ administers the MMRA, Title 82, chapter 4, part 3, Montana Code Annotated (MCA) and the administrative rules adopted under the MMRA. DEQ also administers the Montana Water Quality Act (WQA) and the administrative rules adopted under the WQA. MEPA (Section 75-1-101, *et seq.*, MCA) requires an environmental review of actions taken by the State of Montana that may significantly affect the quality of the human environment. The environmental review, culminating in the issuance of the Final EIS on March 12, 2020, was conducted to fulfill MEPA. DEQ identified the WRDF Grading and Mosaic Vegetation Alternative as its preferred alternative in the Final EIS.

The purpose of this Record of Decision (ROD) is to set forth DEQ's decision on BMI's application to amend its operating permit and the reason for the decision. The ROD serves as a public notice of DEQ's decision, the reasons for the decision, and any special conditions surrounding the decision or its implementation.

SECTION 2 – PUBLIC INVOLVEMENT

2.1 Public Involvement

On May 3, 2019, DEQ issued a press release stating that BMI's Amendment Application was complete and the environmental review was set to begin (DEQ 2019a). The press release disclosed the time and location of the public scoping meeting, as well as information regarding the EIS and permit application. The press release requested public comment on the project until June 3, 2019. DEQ prepared a legal notice for the public scoping meeting. In addition to providing information about the public meeting, the notice described the purpose of the scoping meeting, provided a web link to access the permit application, and identified

methods to submit EIS scoping comments. The notice was published in the *Dillon Tribune* (a weekly newspaper) on May 4, 11, 18, and 25, 2019, and June 2, 2019.

DEQ established a public comment scoping period from May 3, 2019, to June 3, 2019 (i.e., 32 calendar days). During this time, DEQ received several written and oral comments from the public that were submitted via email, mail, or public meetings. On May 16, 2019, a public meeting was held at the Beaverhead County High School in Dillon, Montana. Comments made at the meeting and received via postal mail or email were compiled by DEQ and entered into the administrative record.

2.2 Issues of Concern

Scoping comments focused on four issues to be addressed through the alternatives analysis process for the Regal Mine expansion plan - (1) the effects of the mine on cultural and archaeological resources, (2) impacts from pit dewatering on ground water levels, (3) impacts from pit dewatering on surface water and spring flow, and (4) impacts from pit dewatering and water management on water rights. These issues along with other resources were evaluated in detail to address impacts to resources and to help determine reasonable alternatives for mine expansion, including the Proposed Action. The relevant issues are set forth on page 1- 10 of the Final EIS.

2.3 Public Comment Period

The BMI Draft EIS was released and the comment period for the EIS ran from December 19, 2019 through January 21, 2020 (i.e., 34 calendar days). The Draft EIS was listed on DEQ's website (http:/www.deq.mt.gov). DEQ held a public meeting on January 6, 2020, at the Beaverhead County High School in Dillon, Montana. Approximately 17 members of the public attended the meeting. DEQ received one written comment and no oral comments on the Draft EIS. DEQ responded to the comment in Chapter 8 of the Final EIS.

SECTION 3 – ALTERNATIVES CONSIDERED

Chapter 2 of the Final EIS describes the alternatives analyzed and the alternatives considered but excluded from detailed analysis. The potential environmental impacts of the following alternatives were analyzed in detail in Chapter 3 of the Final EIS.

- No Action Alternative
- Proposed Action
- WRDF Grading and Mosaic Vegetation Alternative

DEQ considered, but dismissed without considering in detail, the following alternatives:

- Connect Pit Lake to Hoffman Creek
- Stream Diversion Construction Alterations
- Partial Pit Backfill
- Reduced Ground Water Dewatering
- Alternate and Flexible Water Injection Sites

The rationale for not considering these alternatives in detail is set forth on pages 2-24 through 2-30 of the Final EIS.

SECTION 4 – DECISIONS AND RATIONALE FOR DECISION

DEQ's review of an application for a major operating permit amendment is governed by 82-4-337, MCA. That law requires DEQ to make an initial determination as to whether the permit amendment application contains all necessary information and whether the proposed amendment satisfies the substantive requirements of the MMRA. DEQ determined that BMI's permit amendment application was complete and compliant on May 3, 2019, and issued a draft amended operating permit. Issuance of the draft amended permit as a final permit is a proposed action subject to environmental review under MEPA.

DEQ has selected, for permitting, the Proposed Action as modified by the WRDF Grading and Mosaic Vegetation Alternative. The primary difference between the Proposed Action and the Preferred Alternative is the grading of the WRDF.

While preparing the EIS, DEQ determined the proposed reclamation plan could result in slope erosion and longer-term monitoring and maintenance. As a result, DEQ developed the WRDF Mosaic Vegetation Alternative to provide certainty that reclamation and long-term stability could be achieved.

Under this alternative, WRDF reclamation would be modified to create a natural and stable geomorphic landform that recreates a natural drainage network. The top elevation and overall slope of the WRDF would also remain similar to the Proposed Action. Topographic alterations of this alternative would include a series of natural drainageways, gullies, swales, and ridges approximately every 100 to 200 feet along the edge of the WRDF. The stepped terraces of the Proposed Action would be eliminated and smoothed. This design would better tie the WRDF into the existing topography in the area and would be superior in terms of appearance and performance, with a more natural appearance that blends with the landscape.

The WRDF Grading and Mosaic Vegetation Alternative design would allow the landform to convey storm water in a nonerosive, natural manner. The alternative design surface would be a stable, natural-acting, and generally maintenance-free surface that behaves more like a native surface in flood events. Erosion of reclaimed topsoil would be reduced, and slope stability would be increased without requiring long-term maintenance and repair. The final grading and reclamation would eliminate the need for more defined channels and some of the other

erosion-control measures such as sediment-control logs, sediment fences, and rip rap that would be needed under the Proposed Action. The reclaimed WRDF runoff water quality would be more comparable to surrounding undisturbed lands.

The WRDF Grading and Mosaic Vegetation Alternative would also create mosaic vegetation patterns to develop specifically tailored micro-environments or ecological niches for targeted plant species. The micro-environments that would be created would encourage growth of specific plant species and would encourage and promote greater biodiversity even within the permitted seed mixture. Vegetation diversity could also positively impact wildlife diversity. The modified design would optimize material placement in the WRDF during mining to accelerate the WRDF reclamation. The proposed natural grading would also lead to the overall reclamation success and bond release.

Finally, given the general connectivity between ground water and surface water, the ground water model predicts that surface water flow in Carter Creek, Hoffman Creek, and the unnamed tributaries of Hoffman Creek may possibly be diminished during operation and potentially after operation, without mitigation measures. BMI would manage flow in Carter and Hoffman Creeks during the active mining/dewatering and post-closure phases of the project in accordance with requirements under ARM 17.30.715(1)(a). During the dewatering phase of operations, water from the dewatering wells is proposed to be discharged into IF-1, IF-3, and a UIC well to dispose of water without using the water for a beneficial use.

During the closure phase, BMI proposes to pump water from wells RMG-1 and RMG-3 into the infiltration basins and the UIC well with the express purpose of mitigating depletions/ augmenting flows in Hoffman Creek and Carter Creek. Well RMG-1 (Water Right No. 41B 86002 00) allows use of an annual water volume of 9.67 ac-feet. Well RMG-3 (Water Right No. 41B 30147782 and Water Right No. 41B 30047773) allows use of an annual combined water volume, between both water rights, of 10.0 ac-ft. Between RMG-1 and RMG-3, BMI has up to a total of 19.67 ac-ft/year, which is enough water to address potential flow augmentation needs, as predicted by modeling.

4.1 Permit Stipulations

Pursuant to Section 82-4-337(2)(b), MCA, DEQ is required to consult with the applicant before placing stipulations in a draft or final permit. Permit stipulations in a draft or final permit may, unless the applicant consents, address only compliance issues within the substantive requirements of the MMRA. For a stipulation imposed without the applicant's consent, DEQ is required to provide to the applicant in writing the reason for the stipulation, a citation to the statute or rule that gives DEQ the authority to impose the stipulation, and, for a stipulation imposed in the final permit that was not contained in the draft permit, the reason that the stipulation was not contained in the draft permit.

DEQ consulted with BMI about the need to include permit stipulations in the final permit. On April 10, 2020, BMI agreed to stipulations developed by DEQ for the permit amendment. BMI agreed with DEQ's request to add five stipulations, two of which are have been deemed necessary to address substantive requirements of the Metal Mine Reclamation Act for compliance with Title 75, chapter 5, MCA (Stipulation #1 and #2).

Stipulation No. 1. BMI shall obtain the necessary authorization and/or authorization update under the General Permit for Storm Water Discharges Associated with Construction Activity (under the Montana Pollutant Discharge Elimination [MPDES] program), a "310" permit and/or the necessary update, and a "318" Permit before initiating construction of the mine expansion.

Stipulation No. 2. BMI shall maintain coverage under the Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity (under the MPDES program) and update the coverage, as necessary, before initiating the active phase of mining under the Amendment 006 mine expansion.

Stipulation No. 3. Within 180 days after issuance of Amendment 006 to Operating Permit No. 00013, BMI shall install the required transducers on Hoffman Creek (3) and Carter Creek (3), flume boxes on Hoffman Creek (1) and Carter Creek (1), new groundwater monitoring wells with transducers (2), and begin collecting the corresponding data

Stipulation No. 4. The active raptor breeding season ranges from March to July. Prior to initiating construction of the Amendment 006 mine expansion, BMI shall conduct a raptor nest survey of the entire area of disturbance. Should a raptor nest be discovered, the nest may only be destroyed when the nest is not being actively used and at a time outside of the active raptor breeding season.

Stipulation No. 5. Within 36 months after issuance of Amendment 006 to Operating Permit No. 00013, BMI is required to submit to DEQ the WRDF Mosaic Vegetation designs and seed mixes, consistent with the agency modified alternative evaluated in the Final EIS for Amendment 006.

SECTION 5 – FINDINGS REQUIRED BY LAWS AND POLICIES

5.1 MEPA

MEPA requires State agencies to conduct an environmental review when taking a "state action," including making decisions or planning activities that may have a significant impact on the environment. MEPA and the administrative rules promulgated under MEPA define the process to be followed when conducting an environmental review. The Draft and Final EIS that DEQ prepared in regard to BMI's proposed amendment comply with the procedural requirements of MEPA.

5.2 MMRA

Procedural Compliance

Section 82-4-342, MCA, governs amendments to operating permits under the MMRA. Section 82-4-342(3), MCA, states that an application for a major amendment to an operating permit must be processed pursuant to Section 82-4-337, MCA. Pursuant to Section 82-4-337(1)(d), MCA, when DEQ determines that an application is complete and compliant, it is required to declare in writing that the application is complete and compliant and issue a draft permit amendment. Under Section 82-4-337(1)(f), MCA, issuance of the draft permit as a final permit is the proposed state action that is subject to review under MEPA.

Section 82-4-337(2)(b), MCA, requires DEQ to consult with the applicant before placing stipulations in a draft or final permit. Permit stipulations in a draft or final permit may address only compliance issues within the substantive requirements of the MMRA, unless the applicant consents to additional stipulations. For a stipulation imposed without the applicant's consent, DEQ is required to provide the applicant in writing the reason for the stipulation, and, for a stipulation imposed in the final permit that was not contained in the draft permit, the reason that the stipulation was not contained in the draft permit.

On March 18, 2019, DEQ issued a written declaration that determined BMI's permit amendment application was complete and issued a draft permit amendment. As indicated above, Section 82-4-337(2), MCA, gives DEQ the authority to include stipulations in a final permit that were not included in the draft permit. Pursuant to this authority, DEQ is selecting for inclusion in the final permit the WRDF Mosaic Vegetation Alternative, although provisions for the mosaic vegetation reclamation were not included in the draft permit. In addition, DEQ is including in the final permit the permit stipulations set forth in Section 4.1 of this Record of Decision, although they were not included in the draft permit.

Substantive Compliance

DEQ may not approve a reclamation plan unless it is consistent with the requirements and standards set forth in Section 82-4-336, MCA. Reclamation under the selected alternative would be similar to the existing reclamation plan for the mine, but additional acreage would be incorporated that would include reclaiming new facilities (including the new infiltration gallery IF-3, sediment pond, diversion ditches, wells, and pipelines).

Section 82-4-336(3), MCA, requires that, in the absence of an order by the department providing a longer period, the reclamation plan must provide that reclamation activities must be completed not more than 2 years after completion or abandonment of the operation on that portion of the complex. With the exception of water management components that are required to maintain adequate stream flow, reclamation would be completed within 2 years after cessation of mining. BMI would remove all shops and buildings on BMI-owned land. BMI would reclaim the mine site to support grazing and wildlife habitat.

Sections 82-4-336(2) and (8), MCA, require that the reclamation plan include erosion control and provide for vegetative cover. Furthermore, Section 82-4-336(12), MCA, requires that the reclamation plan provide for permanent landscaping and contouring to minimize the amount of

precipitation that infiltrates into disturbed areas, such as the WRDF. The WRDF Grading and Mosaic Vegetation Alternative design would allow the landform to convey storm water in a nonerosive, natural manner. The alternative design surface would be stable, natural-acting, and generally maintenance-free and behave more like a native surface in flood events. Erosion of reclaimed topsoil would be reduced, and slope stability would be increased without requiring long-term maintenance and repair. In addition, a DEQ-approved seed mix would be used to revegetate the site.

Section 82-4-336(5), MCA, requires provisions to avoid accumulation of stagnant water. Under the preferred alternative, at closure, the open pit would be 45.4 acres with a 27-acre pit lake that would gradually fill with water after dewatering activities are completed. The pit lake is predicted to receive inflow from the ground water flow system as well as direct precipitation, and hence would not become stagnant.

Section 82-4-336(6), MCA, requires that all final grading be made with non-noxious, nonflammable, noncombustible solids. All final grading would be performed using suitable soil material salvaged from the mine site.

In accordance with Section 82-4-336(7), MCA, the composition of the rock exposed in the pit is such that it would not cause the formation of acid, toxic, or pollutive solutions.

Section 82-4-226(9)(b), MCA, requires that the highwalls of the pit and the WRDF be structurally competent. Waste rock and blasting would be used to create talus slopes on the southern and western pit edges. Select pit benches and the access ramp that is projected to be above the pit lake elevation would be covered with 24 inches of soil or growth media and seeded. Finally, in accordance with Section 82-4-336(10), MCA, the entire pit area would be fenced and a 4 feet high safety berm surrounding the pit would be soiled, seeded, and remain in place as a physical and visual barrier.

As summarized here and more fully set forth in the Final EIS, the WRDF Grading and Mosaic Vegetation Alternative, with the stipulations set forth above, is consistent with the reclamation requirements and standards set forth in the MMRA.

5.3 Water Quality Act

There is very low potential for impacts from acid rock drainage and metal mobility from exposed geologic material in the Regal Mine site. Impacts to groundwater, other than the changes in water level from operational dewatering, are not expected.

Under Section 401 of the federal Clean Water Act, federal permits related to discharges to state waters must obtain certification from the state that discharges comply with state water quality standards. On January 8, 2019, BMI submitted a Joint Application 404 Permit to the U.S. Army Corps of Engineers and DEQ for impacts to Hoffman Spring Creek, Hoffman Creek, and adjacent wetlands.

On February 27, 2018, DEQ certified that the Project would not violate water quality standards under Section 401.

BMI is required to obtain authorization under the General Permit for Storm Water Discharges Associated with Construction Activity (under the Montana Pollutant Discharge Elimination [MPDES] program), a "310" permit, and a "318" permit before initiating construction activities. In addition, BMI is required to obtain authorization under the Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity (under the Montana Pollutant Discharge Elimination [MPDES] program) before initiating mining activities.

5.4 Clean Air Act of Montana

There is one Montana air quality permit that covers activities under the permit amendment being considered. Montana Air Quality Permit #3086-01 was approved December 28, 2010 and covers the Regal Mine. The permit covers emissions from equipment exhaust, drilling, blasting, crushing, and screening. No significant changes to air quality would result from Amendment 006 as there would be no new emission sources. BMI is in compliance with the Clean Air Act of Montana.

5.5 Montana Hard Rock Mining Impact Act

The BMI Regal Mine was originally permitted in 1972. BMI is not expected to employ more than 75 persons at the Regal Mine; therefore, the Hard Rock Mining Impact Act is not applicable.

5.6 MEPA Cumulative Effects Assessment

Chapter 4 of the Final EIS provides a cumulative effects analysis. Cumulative impacts related to proposed prescribed burns on BLM lands within 10 miles of the Regal Mine were evaluated. Cumulative impacts related to proposed spring development projects on BLM lands within either the Hoffman Creek or Carter Creek watersheds were also evaluated. These future actions, when considered in conjunction with past and present actions, are unlikely to result in additional significant impacts. Should future actions be proposed that have or may have cumulative effects, additional analysis pursuant to the applicable requirements of MEPA would be required to be conducted.

5.7 Private Property Assessment Act

Selection of the WRDF Grading and Mosaic Vegetation Alternative does not have taking or damaging implications. See Section 4.6 of the Final EIS.

SECTION 6 - APPEAL OF DEQ'S DECISION

This decision is subject to a court appeal by the applicant and other parties for 90 days after issuance of the ROD under Section 82-4-349(1), MCA. Any action or proceeding challenging a final agency decision alleging failure by DEQ to comply with or inadequate compliance with a

requirement of MEPA must be brought within 60 days after issuance of the ROD pursuant to Section 75-1-201(5)(a)(ii), MCA. An applicant for a permit amendment may request an administrative hearing on a denial of the application by submitting a written request for a hearing within 30 days of receipt of this Record of Decision pursuant to Section 82-4-353(2), MCA. The request must state the reason that the hearing is requested.