



**Montana Department of  
ENVIRONMENTAL QUALITY**

Brian Schweitzer, Governor

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August 27, 2008

RE: Draft Checklist EA for Barretts Minerals, Inc. Amendment 005 to Operating Permit 00009

Dear Reader:

Enclosed for your review and comment is the Draft Checklist Environmental Assessment (CEA) for an amendment to Operating Permit 00009 requested by Barretts Minerals, Inc. (BMI) located at PO Box 1147, Dillon, MT 59725. BMI filed an application for an amendment (005) on May 28, 2008 from the Montana Department of Environmental Quality (DEQ), Environmental Management Bureau in Helena to revise Operating Permit 00009 to expand its existing wet tailings disposal operations. The mill is located in the east half of Section 17, Township 8 South, Range 9 West in Beaverhead County. The site is about 8 miles south of Dillon, MT.

Amendment 005 would provide operational flexibility and additional solution balance management capabilities by disposing of wet tailings material in an existing gravel pit (Pond G) and later on to a proposed gravel pit (Pond H). The estimated remaining life of the operation is approximately thirty years. A minor revision was approved to mine gravel from the proposed waste disposal area in February 2000.

Due to updated surveying techniques the existing permit area was revised from 50.55 acres to 52.97 acres. The entire permit area of 52.97 acres is permitted for disturbance. The proposed permit area would be 71.48 acres. The 18.51 acre increase would include a new gravel pit (Pond H) that would eventually be used for tailings disposal, as well as an existing gravel pit (Pond G) and a narrow strip of land along the west side of the permit boundary. This strip of land would be included to allow for reclamation of some access and disposal areas not included in past mapping. The existing and proposed gravel pits would be located along the northern perimeter of the permit boundary. The operating plan calls for reclamation of all surface disturbances, with a post-mining land use of livestock grazing and wildlife habitat.

The Draft CEA addresses issues and concerns raised during public involvement and from agency scoping. The agencies have decided to approve the proposed action with agency modifications to the amendment application as the preliminary preferred alternative. This is not a final decision. This conclusion may change based on comments received from the public on this Draft CEA, new information, or new analysis that may be needed in preparing the Final CEA.

Copies of the Draft CEA can be obtained by writing DEQ, Environmental Management Bureau, P.O. Box 200901, Helena, MT 59620, c/o Herb Rolfes, or calling (406) 444-3841; or sending email addressed to [hrolfes@mt.gov](mailto:hrolfes@mt.gov). The Draft CEA will also be posted on the DEQ web page: [www.deq.mt.gov](http://www.deq.mt.gov). Public comments concerning the adequacy and accuracy of the Draft CEA will be accepted until September 30, 2008.

Since the Final EA may only contain public comments and responses, and a list of changes to the Draft CEA, please keep this Draft CEA for future reference.

Warren D. McCullough  
Warren D. McCullough, Chief  
Environmental Management Bureau

8/27/08  
Date

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## CHECKLIST ENVIRONMENTAL ASSESSMENT

COMPANY NAME: Barretts Minerals, Inc., P. O. Box 1147, Dillon, MT 59725

PROJECT: Expansion of the permit area by 18.51 acres to 71.48 acres and addition of two tailings impoundments, one of which is an existing gravel pit.

PERMIT OR LICENSE: Operating Permit 00009, Amendment 005.

LOCATION: East ½ of Section 17, Township 8 South, Range 9 West.

COUNTIES: Beaverhead County

PROPERTY OWNERSHIP: ☐ Federal ☐ State ☒ Private

TYPE AND PURPOSE OF ACTION: Barretts Minerals, Inc., (BMI) operates a talc wash and beneficiation plant approximately eight miles south of Dillon, MT (figure 1). The wash plant and beneficiation plant process ore from the Treasure and Regal mines. The talc processing facility is currently permitted under the Montana Metal Mine Reclamation Act (MMRA) Operating Permit 00009. Operating Permit 00009 was issued on January 26, 1972 by the Montana Department of State Lands (DSL) for 5 acres at the Treasure Mine northeast of Dillon and for 20 acres at the Barretts Mill complex. The Treasure Mine was eventually removed from Operating Permit 00009 for administrative reasons in January of 2000 and is now covered under Operating Permit 00078. The mill facility buildings and disturbance prior to 1971 were grandfathered at the time of enactment of MMRA in 1972.

The beneficiation plant, which reprocesses tailings, came online in 1990. Dry waste materials are placed in the gravel borrow pit located northeast of the mill. Present plant operations include the disposal of talc processing tailings from the wash plant and beneficiation circuits associated with the Barretts Mill. Tailings are transported via a slurry pipeline to the tailings disposal site (Pond F). The BMI mill is located on private land owned by BMI in Beaverhead County.

BMI filed an application on May 28, 2008 for an amendment to Operating Permit 00009 from the Montana Department of Environmental Quality (DEQ), Environmental Management Bureau. BMI proposes to expand its existing wet tailings disposal operations. Amendment 005 would provide operational flexibility and additional solution balance management capabilities by disposing of wet tailings material in an existing gravel pit (Pond G) and later on to a proposed gravel pit (Pond H) (figure 2). The estimated remaining life of the operation is approximately thirty years. A minor revision was approved to mine gravel from the proposed waste disposal area in February 2000. The direct disposal of wet tailings into the gravel pit would reduce energy consumption and fugitive dust as rehandling with heavy equipment of dry tailings material would not be necessary. No changes in the number of jobs, or mine or plant production rate are proposed as part of this amendment request.

Due to updated surveying techniques the existing permit area was revised from 50.55 acres to 52.97 acres. The entire permit area of 52.97 acres is permitted for disturbance. The proposed permit area would be 71.48 acres. The 18.51 acre increase would include a new gravel pit (Pond H) that would eventually be used for tailings disposal, as well as an existing gravel pit (Pond G) and a narrow strip of land along the west side of the permit boundary. This strip of land would be included to allow for reclamation of some access and disposal areas not included in past mapping. The existing and proposed gravel pits would be located along the northern perimeter of the permit boundary.



Since the mill has been actively operated since 1955, specific predisturbance information regarding the site is not available. The existing environment provides information as to the current site conditions for soils, wildlife, vegetation, air and water resources and general site characteristics.

DEQ must decide whether to approve the Proposed Action, deny the Proposed Action (the No-Action Alternative), or approve the Proposed Action with Agency Modifications. This environmental analysis is being conducted under the Montana Environmental Policy Act (MEPA).

#### OPERATING PERMIT CONDITIONS (CURRENT AND PROPOSED):

	<u>Current Conditions</u>	<u>Proposed Amendment 005</u>
Permit Area:	52.97 acres	71.48 acres
Permitted Disturbance:	52.97 acres	71.48 acres
Current Disturbance (as of June 2008):	52.97 acres	52.97 acres
Current Bond:	\$209,100	New bond being calculated

#### PERMIT HISTORY AND PREVIOUS ENVIRONMENTAL ANALYSES

<b>Permit/Amendment Minor Revision</b>	<b>Date</b>	<b>Permitted Acres</b>	<b>Bond Amount</b>
Operating Permit 00009 Twenty acres north of the grandfathered Barretts Mill was approved for talc tailings and waste rock disposal. No environmental analysis was prepared.	January 26, 1972	20.0 acres	\$2,000
Amendment 001 Amendment 001 approved modifications to tailings disposal and processing to recover and reprocess talc from the present tailings pond system. This amendment also approved the addition of a dry waste disposal area. An Environmental Assessment was issued on April 20, 1990.	October 25, 1990	7.25 acres	\$69,800
Amendment 002 Amendment 002 approved the addition of a dry tailings disposal site, the Boka Pit, located on private property near the permit area. The Boka Pit was filled, reclaimed and the reclamation bond for this 6-acre pit was released in January 2000. A Checklist Environmental Assessment was released on June 10, 1993.	December 14, 1993	6.5 acres	\$104,561
Minor revision 97-001 Boka Pit dry tailings disposal expansion. No environmental assessment was prepared due to the small amount of expansion in an already disturbed area.	November 12, 1997	0.5 acres	\$104,561
Bond Release Bond for the Boka Pit dry tailings disposal areas was released.	January 21, 2000	6.5 acres	Only acreage released.
Amendment 003 Amendment 003 expanded the dry waste disposal areas. The amendment increased the permit area and permitted disturbances by 15.8 acres for a dry talc disposal area in the old Gilman gravel pit and adjacent	January 21, 2000	15.8 acres	\$130,900

unmined areas located north of the existing mill facilities. A Checklist Environmental Assessment was prepared on September 25, 1996.

\*The new bond for Amendment 003 does not include bond for the 6.5 acres released at the Boka Pit.

Minor revision 00-001      February 2, 2000      43.5 acres      \$130,900

A minor permit revision, 00-001 was approved in February 2000 to mine gravel from the dry waste disposal area approved in Amendment 003. An internal Checklist Environmental Assessment was completed on February 2, 2000.

Amendment 004      October 3, 2001      7.5 acres      \$209,100

Amendment 004 allowed disposal of wet tailings material in the existing gravel pit following expansion to 8.5 acres. The amendment also increased the size of the dry waste disposal area by an additional 5.5 acres from the existing 11.9 acres, and the total permit area by 7.5 acres.

The following EA discusses the potential impacts from the expansion as noted above.

N = Not present or No Impact will occur.

Y = Impacts may occur (explain under Potential Impacts).

N/A = Not Applicable

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACT AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	<p>[N] The only soil issue is the lack of soil resources stockpiled to date. DEQ and BMI have addressed the issue in past amendments in the reclamation bond by bonding for organic additions to the talc waste materials to produce the growth medium needed. Test plots at the mill site have shown that the amended talc wastes provide adequate reclamation materials. No changes are proposed.</p> <p>There are no geology issues.</p>
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	<p>[Y] The Barretts Mill Complex has been in operation since 1955. BMI has been disposing of wet tailings in unlined ponds for many years. Hydrologic and water quality data were collected for the mill site and adjacent areas in 1989, 1996 and 2000 (see EA for Amendment 4, Appendix A). These data were previously submitted and reviewed by the former Montana Department of Health and Environmental Sciences, the former Water Quality Bureau and the DEQ Environmental Management Bureau (EMB). The Water Quality Bureau determined that a water discharge permit is not required for the facilities and the EMB determined that a comprehensive groundwater monitoring program is not necessary (See EA for Amendment 4, Appendix A-DEQ Letter Dated May 4, 2000).</p> <p>The flow of groundwater in the vicinity of the Barretts mill was analyzed in a Fact Sheet, dated March 21, 2007, for the mill's</p>



## IMPACTS ON THE PHYSICAL ENVIRONMENT

	<p>Montana Ground Water Pollution Control System (MGWPCS) permit. It was found that the groundwater flow direction varied in the course of the year with the range of flow directions either parallel to the river or away from it. The Fact Sheet points out that "...the Beaverhead River has been documented to be losing along this reach throughout the year."</p> <p>The water level in wells on the mill site ranges from 9 ft to 20.5 ft below ground level. The well log for MW-2, the well closest to the proposed tailings pond, shows a depth to water of 20 ft. This is below the water level in the Beaverhead River, which indicates a flow of groundwater away from the river rather than toward it.</p> <p>The complete lack of connection of groundwater discharges with the Beaverhead River was the reason a MGWPCS permit was issued rather than a Montana Pollutant Discharge Elimination System (MPDES) permit for its discharges of boiler blowdown water.</p> <p>The water quality data was reviewed for this amendment and the DEQ finds that there is no ongoing or anticipated degradation of water quality. While the groundwater is not expected to show an increase in TDS due to tailings being deposited in the gravel pits this parameter will be added to the sampling for groundwater wells.</p> <p>The environmental impacts, specifically related to ground water resources, associated with direct disposal were evaluated and calculated discharges were determined to result in "non-significant" changes in water quality. Studies were conducted in 1989 and 2000 (see Amendment 004, Appendix A).</p> <p>BMI has committed to an annual August groundwater monitoring program for the upgradient monitoring well (MW-1), the tailings pond, and the downgradient monitoring well (MW-2).</p> <p>A new downgradient monitoring well would be required to be installed within 90 days of approval of the amendment. Currently, MW-2 is downgradient of the disturbance limit. With approval of Amendment 5 disturbance would extend past the well. In addition, BMI will need to add TDS to the groundwater sampling program.</p>
<p>3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>	<p>[N] BMI has an existing Air Quality Permit from DEQ. The expansion would produce minimal air quality impacts as proposed. Direct disposal of wet tailings into the gravel pit would reduce energy consumption and fugitive dust as rehandling with heavy equipment of dry tailings material would not be necessary.</p>



IMPACTS ON THE PHYSICAL ENVIRONMENT	
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[Y] BMI would continue its noxious weed control activities annually. No rare plant species or species of concern were identified for the area. A portion of the 18.51 acres to be amended to the permit have been previously disturbed by mining for gravel. The amendment would allow for the entire 18.51 acres to be disturbed.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] The Amendment 005 area does not contain any significant wildlife, bird or fish habitats. See comment below under number 6.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	<p>[N] The Barretts Mill area is located adjacent to the Beaverhead River which provides habitat for bald eagles. Because of the long history of mill operation near the river and relatively low use habitat for eagles at the mill site, the proposed tailings and waste rock expansion should have minimal additional impact to eagle use at the site.</p> <p>A search of the NRIS database found that there are no known threatened and endangered animal species in the amendment area. A bald eagle was last viewed in the region in 2006. A gray wolf was last observed in the region in 2005 as well as a Great Basin Pocket mouse in 1961. Bald eagles are seasonal migrants through the area, but do not remain. They are usually associated with upland areas.</p>
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] A records search by the State Historic Preservation Office did not return any historical or archaeological sites in the amendment area. The quarries have the potential to impact cultural resources. BMI has committed to protect any resources found.
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[Y] The gravel pit and tailings disposal area would be visible from I-15 during operations. This is an unavoidable impact of continued milling in the area. The impacts would be reduced once reclamation commences. The area, even after reclamation is completed, would still have the look of an industrial site for many years. This will be true even after the vegetation matures on the site.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?	[N]
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N]



IMPACTS ON THE HUMAN POPULATION	
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N]
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[Y] The 18.51 acres of additional disturbance would add to the potential mill life of the facility and provide flexibility to operations.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] The amendment would add to the mill life and but not change the number of existing jobs. New talc markets could change the socio-economics of the project at any time. Increased power prices could also effect the economics of the project.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] BMI is the largest employer in Beaverhead County. The project would continue to provide tax revenue generated from the project for up to thirty years.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] No changes are anticipated.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] The proposed activity complies with local management plans for the area. The Proposed Action complies with all local, state and federal laws. Milling has been a historic use of the area since 1955.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N]
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] There would be no need for additional employees resulting from approval of the amendment.



IMPACTS ON THE HUMAN POPULATION	
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] There would be no impacts to Native Americans as a result of this amendment.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
21. PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[Y] This Proposed Action would be permitted under the authority of the Metal Mine Reclamation Act.
22. PRIVATE PROPERTY IMPACTS: Does the proposed regulatory action restrict the use of the regulated person's private property? If not, no further analysis is required.	[N]
23. PRIVATE PROPERTY IMPACTS: Does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives.	[N/A]
24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

25. Alternatives Considered:  
No Action: If the amendment is denied, BMI would continue mining and milling according to the existing approved operating permits. Once the tailings pond capacities are filled the mill would have to shut down until an alternative solution to tailings disposal could be approved.
- Proposed Action: This is the company's proposed plan to expand the operating permit area by 18.51 acres to include a proposed gravel pit and use an existing gravel pit for disposal of tailings.
- Proposed Action with Agency Modifications: Modification 1: A new downgradient monitoring well would be required to be installed within 90 days of approval of the amendment. Currently, MW-2 is downgradient of the disturbance limit. With approval of Amendment 5 disturbance would extend past the well.
- Modification 2: In addition, BMI will need to add TDS to the groundwater sampling program. There are no other proposed agency modifications to the amendment as submitted. No unresolved issues were identified which would require further modification of the proposal.
26. Public Involvement: A legal notice was published three times in the Dillon Tribune, Madisonian and Montana Standard in the months of May and June of 2008. The legal notice was also published on the DEQ-EMB webpage. No public comments were received on the legal notice.
27. Other Governmental Agencies with Jurisdiction: None.
28. Magnitude and Significance of Potential Impacts: The impacts resulting from use of the existing gravel pit for tailings disposal and the proposed gravel pit would not result in potentially significant impacts to the environment.
29. The only reasonably foreseeable activities in the immediate area would be continued use of the surrounding land for industrial purposes.
30. Recommendation for Further Environmental Analysis: No cumulative effects on area resources from the combined current and reasonably foreseeable activities envisioned in the Barretts Mill area are projected.

☐ EIS    ☐ More Detailed EA    ☒ No Further Analysis

31. EA Checklist Prepared By: Herb Rolfes, Operating Permit Section Supervisor.
32. EA Reviewed By: Patrick Plantenberg, Reclamation Specialist and Warren McCullough, EMB Bureau Chief

   
\_\_\_\_\_  
Signature Date

Herb Rolfes  
Operating Permit Section Supervisor

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