

ENVIRONMENTAL ASSESSMENT

Project Name: Amendment 7 Proposed Implementation Date: 12/96
 Proponent: American Colloid Company, Permitting and Reclamation Department, Box 2010,
Belle Fourche SD 57717

Type and Purpose of Action: ACC has applied for a 552.8-acre, mostly conterminous, bentonite mining amendment area consisting of 73.6 acres of pit area, 63.8 acres of facility area, and 415.4 acres that will not be disturbed. The proposed area is mostly adjacent to the approved Amendment 6 area. It is located approximately 11 miles west-northwest of Alzada Montana. Site elevations range from 3,560 to 3,700 feet. The average annual precipitation is 10 to 12 inches. ACC plans to salvage soil and overburden separately, remove the mineral, and backfill, grade, replace overburden and soil in approximate original positions, and revegetate all disturbed areas to a rangeland postmining land use. The estimated date for final reclamation is 2007.

Location and County: Sections 5, 6, 7, 8, & 9, T9S, R58E, Carter County Montana

N = Not present or insignificant impact.
 Y = An impact may occur (explain).

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. TOPOGRAPHY, AND GEOLOGIC AND EDAPHIC CHARACTERISTICS, SUITABILITY, AND STABILITY: Are there unusual geologic features? Are fragile, compactible, or unstable soils present? Is the proposed soil material handling adequate? Are there exceptional mining and reclamation considerations?	<p>N - The proposed area consists of gently rolling prairie with ephemeral drainages. It is located in the sedimentary plains portion of the state. The mineral to be mined is a bentonite bed in the lower member of the Belle Fourche shale. The proposed depth of mining is estimated to vary from 9 to 50 feet. This mining will only affect the Belle Fourche Shale formation which is not considered geologically unique. No unusual geologic features were observed during the Department's 9/96 site visit.</p> <p>In 1996 ACC surveyed and mapped the proposed area's soils to Order 1 intensity. The soils consist of clays with 12 to 24 inches of salvageable material. There are also numerous rock, bentonite, and shale outcrops which will not be salvaged for soil.</p> <p>ACC is committed to properly salvaging and replacing soil material from all disturbance areas. There are no exceptional mining and reclamation considerations.</p>
2. WATER RESOURCE LOCATION, QUANTITY, QUALITY, AND PROTECTION: Are surface or ground water resources present? Is there the potential for degradation of water quality or quantity? Could water wells be affected? Are there exceptional mining and reclamation considerations?	<p>N - There does not appear to be surface water or groundwater resources or wells in or adjacent to the proposed area that could be affected by the proposed operation. Several small dams/ponds are located in the general vicinity, but none will be disturbed.</p> <p>ACC will divert any surface water around active mine areas to help protect watersheds. No diversions or retention structures are planned.</p> <p>ACC is committed to protecting surface and groundwater resources. There are no exceptional mining and reclamation considerations.</p>
3. AIR QUALITY: Will pollutants or particulate be produced? Do air quality regulations apply?	<p>N - Pollutants and particulates will be produced on a temporary basis by mining and reclamation operations. Operators are required to comply with state air quality regulations.</p>

<p>4. PRESENT LAND USE, VEGETATIVE COMPOSITION AND COVER, AND PROPOSED POSTMINING LAND USE: Will vegetative communities be permanently altered? Are any rare plants or vegetative communities present? Are there exceptional mining and reclamation considerations?</p>	<p>N - The present land use of the proposed area is livestock grazing and wildlife habitat. The proposed postmining land use is livestock grazing and wildlife habitat.</p> <p>The proposed area was included in a four-season vegetation survey conducted by Ecological Consulting Service (ECS) in 1975. The ECS survey results were submitted with ACC's original Reclamation Contract 00297 application.</p> <p>In 1993 through 1996, ACC performed vegetation surveys of the proposed area, incorporated this information with that from ESC, and mapped the vegetation community types.</p> <p>The vegetation in and around the proposed area is rangeland. The vegetation in the proposed area consists primarily of Big Sagebrush Shrubland and Big Sagebrush/Prairie Sandreed/Little Bluestem community types. The overall vegetative cover is 25 to 30 percent.</p> <p>The Department will notify the county weed control board about the operation. The operator has committed to controlling any on-site noxious weeds.</p> <p>There are no exceptional mining and reclamation considerations.</p>
<p>5. TERRESTRIAL, AVIAN, AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by common or rare mammals, birds, fish, or other animal species?</p>	<p>N - The proposed area was included in a four-season wildlife survey conducted by ECS in 1975. The ECS survey results were submitted with ACC's original Reclamation Contract 00297 application.</p> <p>Pronghorn are common in the area, and mule deer are occasionally observed. Sage grouse, sharp-tailed grouse, and morning doves inhabit the area, as do several non-game birds and other mammals such as badger, fox, and rabbits. Wetland areas occur at several small dam/pond sites in the vicinity, but none will be disturbed.</p> <p>Several raptors utilize the proposed area for hunting. The Ferruginous hawk is of special interest because, although it is not listed as threatened or endangered, it is being monitored. There is one Ferruginous hawk nest in the proposed area which has not been occupied since 1992. This nest will not be disturbed.</p> <p>At the request of the Bureau of Land Management, ACC constructed three artificial raptor nesting structures in the general vicinity in 1993. To date, raptors have not used these structures for their intended purpose.</p> <p>No rare species or evidence of their use of the area were observed during the Department's 9/96 site visit.</p>
<p>6. UNIQUE, ENDANGERED, FRAGILE, OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Species of special concern? Wetlands?</p>	<p>N - The author is not aware of any unique, endangered, fragile, or limited environmental resources in or around the site.</p>

<p>7. HISTORICAL AND ARCHAEOLOGICAL SITES: Has the site been surveyed by a cultural resource professional or paraprofessional? Are any historical or archaeological resources present?</p>	<p>N - Llano Consultants performed a Class III inventory of the Amendment #7 area in June 1996. No cultural resources were found and no previously recorded cultural resources will be affected by the proposed project. Llano suggested no further cultural resources work for the proposed area, and no formal mitigation plan was recommended.</p> <p>If cultural resources are found during the course of the operation, the operator has committed to routing the operation around the site of discovery for a reasonable time until salvage can be made, and to promptly notifying the State Historic Preservation Office.</p>
<p>8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? What facilities will be on site? Will there be excessive noise or light?</p>	<p>N - The site is over 2 miles from the nearest public road. There are no residences or public areas in the vicinity. The aesthetic impact will be minimal.</p>
<p>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 or be affected by the project?</p>	<p>N - There will not be a significant demand or impact on environmental resources or other projects as a result of this operation.</p>
<p>10. OTHER ENVIRONMENTAL ASPECTS OR IMPACTS: Are there other studies, plans, or projects on this tract? Will waste disposal be properly handled? Is reclamation guaranteed by a bond?</p>	<p>N - The author is not aware of any other environmental aspects or impacts. The operator has committed to proper waste disposal or recycling. The operator has posted a bond of \$293,860 to guarantee reclamation.</p>

IMPACTS ON THE HUMAN POPULATION

RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?</p>	<p>N - The site is fairly isolated. The project should not add to the health and safety risks in the area if the operator and landowner manage the site in a responsible manner. The operator is required to comply with OSHA and MSHA regulations.</p>
<p>12. INDUSTRIAL, COMMERCIAL, AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?</p>	<p>N - Industrial, commercial, or agricultural activities in the area will not be significantly affected by the project.</p>
<p>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move, or eliminate jobs?</p>	<p>N - The quantity or distribution of employment in the project area will not be significantly affected by the project.</p>
<p>14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?</p>	<p>N - Local and state tax revenues have not been significantly affected by similar operations in the state.</p>
<p>15. DEMAND FOR GOVERNMENT SERVICES: Will substantial changes in road use occur? Will other facilities and services (e.g., fire protection, police, schools) be affected or needed?</p>	<p>N - Traffic will temporarily increase on county and state roads while bentonite is hauled to the processing facility at Colony Wyoming about 30 miles southeast. No other government services should be affected or needed.</p>
<p>16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there federal, state, county, city, tribal, and/or private zoning or management plans in effect?</p>	<p>N - The author is not aware of any other environmental plans or goals. The local zoning authority has been contacted and clearance obtained.</p>
<p>17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are recreational or wilderness areas nearby or accessed through this tract? Is there recreational potential within the tract?</p>	<p>N - Access to or the quality of recreational lands and activities on site and in the area will not be affected by the project.</p>
<p>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the area's population and require additional housing?</p>	<p>N - Population or housing density and distribution will not be significantly affected by the project.</p>

19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	N - The local social structure or mores will not be significantly affected by the project.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	N - The local cultural uniqueness or diversity will not be significantly affected by the project.
21. OTHER SOCIAL AND ECONOMIC CIRCUMSTANCES:	N - Other significant social or economic circumstances are not apparent.

22. Alternatives Considered: Denial. The owner of the mineral resource would be denied full utilization of his property at this time.

23. Public Involvement, Agencies, Groups or Individuals contacted: Montana Natural Heritage Program, county weed control board, State Historic Preservation Office, and local zoning authority.

24. Other Governmental Agencies with Jurisdiction, List of Permits (that may be) Needed: Montana Department of Environmental Quality, Air Quality for Air Quality Permit and Water Quality for Stormwater Discharge Permit; United States Department of Labor, Mine Safety and Health Administration for safety permit; Montana Department of Labor & Industry, Safety Bureau for safety permit.

25. Magnitude and Significance of Potential Impacts: Negative impacts during mining should be insignificant and implementation of the mining and reclamation plan should return this area to an aesthetically pleasing and useful condition.

26. Regulatory Impact on Private Property: The analysis conducted in response to the Private Property Assessment Act indicates no impact. The Department does not plan to deny the application or impose conditions that would restrict the use of private property.

Recommendation for Further Environmental Analysis:

EIS More Detailed EA No Further Analysis

EA Checklist Prepared By: Mark Carlstrom _____ Mine Reclamation Specialist _____
Name Title

Approved By: Steve Welch _____ Opencut Mining Bureau Chief _____
Name Title

Signature

Date