

ENVIRONMENTAL ASSESSMENT

1/5/99

Project Name: Minnie Thomas Site
 Proponent: Blahnik Construction, Inc.

Proposed Implementation Date: 12/28/98

Type and Purpose of Action: The applicant proposes to mine, crush and haul 169,000 cubic yards of sand and gravel and batch hot asphalt from a 27-acre site located 2.5 miles north of the town of Dupuyer. There will be 20 acres mined and 7 acres disturbed for facilities and roads. Mining will result in a pit that is no deeper than 12 feet. The pit will be reclaimed to grazing after grading the back slopes to at least a 3:1, replacing all topsoil and re-seeding to grass.

Location: N¹/₂ N¹/₂ Section 4, T28N, R7W

County: Pondera

N = Not present or No Impact will occur.

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

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are fragile, compactible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?</p>	<p>[N] The proposed mine is located in the glacial debris transported eastward from the mountains during Tertiary time. The deposit consists of stratified layers of alluvium sand, gravel and cobbles that cover the deeper 60 million year old Cretaceous marine sediments. The high plains of the stable craton extend from the overthrust Rocky Mountains eastward across Montana and were carved by eastward flowing streams over the past few million years. On a clear day the majestic alpine glaciated landscape of the Paleozoic sedimentary front range rocks that make up the Sawtooth Mountains can be seen to the west. The igneous intrusive rocks of the Sweetgrass Hills and the far off Bears Paw Mountains can be seen thrusting up through flat-lying sedimentary rocks to the north and east.</p> <p>Up to 6 inches of fairly well drained, rocky, clayey silt loam and as much as 18 inches of clayey, silty gravel subsoil overburden overlies the glacial sands and gravels. Local terrace slopes demonstrate reasonably good stability, and ripping after activities are complete should alleviate soil compaction. All soil and sub-soil material will be salvaged and stockpiled away from the affected land. Following mining, grading and ripping, the overburden and soils will be replaced, disced and seeded to stabilize the soil and prevent erosion. Microbes are expected to re-colonize the soil due to the relatively short time that soils will be in stockpiles. There are no fragile, compactible or unstable soils, no unusual geologic features, or special reclamation considerations.</p>
<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>	<p>[N] Groundwater information is unknown but the floor of the pit will stay at least 3 feet above the top of the high water level. There is no surface water near the permit area. No potable water is expected to be adversely impacted.</p> <p>Any accidental spills or major leaks from equipment operating in the pit will immediately be excavated and removed from the site. Therefore, the quality and quantity of the groundwater should not be impacted.</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>[Y] Air quality may be degraded and there may be an increase in particulate matter. Crushers, screens, asphalt plants and trucking equipment typically cause dusty conditions and odors in disturbed soil sites. The site is not located within a Class 1 airshed.</p> <p>Applicable federal regulations for air quality which are implemented by the state are the Standards of Performance for New Stationary Sources, 40 CFR Part 60, Subpart I(Asphalt & Concrete Plants) and Subpart OOO (Nonmetallic Mineral Processing Plants). Subpart I sets particulate and opacity limitations on emissions from the asphalt plant. The particulate limitation must be verified by performance (stack) testing. Subpart OOO sets an opacity limitation on fugitive dust emissions from the gravel crushing and handling operations.</p>
<p>4. VEGETATION COVERS, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p>[Y] Vegetation will be removed during mining, and the ground will be re-planted with grass species compatible with the proposed reclaimed use.</p> <p>There are no known rare or sensitive plants in the area. No mining will be done within 100 feet of any live stream, riparian or isolated wetland habitat areas. Current vegetation consists of planted pasture grasses which lie on a flat slope. Vegetation covers 80% of the ground. Because of the short time frames, plant seeds and roots may remain viable in the soils.</p>
<p>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?</p>	<p>[Y] Although the area is used primarily for farming and ranching, it also supports populations of deer, rodents, birds, insects and various other animal species. The mine site is frequented by those animals and they may be displaced as the mine expands. The proposed mine is not expected to significantly degrade wild-life populations.</p>
<p>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>	<p>[N] There are not expected to be any impacts on those animal types from the proposed mining operation. The Natural Heritage Program literature search and site evaluations have not revealed any other endangered or threatened plant or animal species on site that would be significantly impacted.</p>
<p>7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>[N] Although there are important cultural values in the general area, this site has been previously disturbed by modern man, thus destroying the integrity of resources that may have existed. A surface reconnaissance did not discover any cultural, historical or archeological resources. The operator must give appropriate protection to any values or artifacts discovered in the affected area. If significant resources are found, the operation may be routed around the site of discovery for a reasonable time until salvage can be conducted. The State Historical Preservation Office will be promptly notified.</p>
<p>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?</p>	<p>[Y] There may be a deterioration of aesthetics while the operation is under way. However, reclamation should leave the site in a landscape condition that is compatible with the surrounding area. There is and has been an alteration of the viewshed as a result of farming and gravel mining in the area. The site is visible by traffic along the county road and state highway.</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 the project?</p>	<p>[N]</p>

10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other studies, plans or projects on this tract?	[N]
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IMPACTS ON THE HUMAN POPULATION
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RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	<p>[Y] Heavy equipment and facilities including crushers, asphalt plants, trucks, loaders, and screens may create hazards, but the operator must comply with all MSHA and OSHA regulations.</p> <p>Noise may increase from present levels when equipment is active. Noise levels are generally within the range of 60 to 90 decibels measured on-site, decreasing with distance. As a comparison, sound levels for ordinary activities such as close conversation at 60 decibels and music from a radio at 70 decibels are considered to be moderate. Levels above 90 decibels are severe, and prolonged exposure can lead to hearing loss.</p> <p>These impacts are intermittent and of relatively short duration but are in addition to the noise created by the increased truck traffic hauling to the highway project.</p>
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	<p>[Y] The acreage listed in the Type and purpose of Action will be taken out of ranching and put into industrial/commercial use. Upon completion of mining, the land will be reclaimed to grazing.</p>
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N]
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N]
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?	<p>[Y] The operation will require periodic site evaluations by DEQ staff. However, these evaluations are usually performed in conjunction with other area operations.</p>
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[Y]
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]
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

22. Alternatives Considered:

No Action: The pit would not be permitted at this location, but a similar site in close proximity would be opened up for a source of material. The landowner would be denied the use and development of his resource at this time.

Approval of Application as submitted: The pit would be permitted and be reclaimed as requested.

23. Public Involvement, Agencies, Groups or Individuals contacted: State Historic Preservation Office, Montana Heritage Program, Pondera County Commissioners.

24. Other Governmental Agencies with Jurisdiction, List of Permits Needed: Montana Department of Environmental Quality, Air Quality for a crusher and asphalt plant Permit; Mine Safety and Health Administration for safety permit; Montana Department of Labor & Industry, Bureau of Safety for safety permit.

25. Magnitude and Significance of Potential Impacts: Impacts are unlikely to be significant on the general environment because of the location of the project, the short timeframes for the project and the lack of human population or significant wildlife species or habitat.

26. Regulatory impact on private property: The analysis conducted in response to the Private Property Assessment Act indicates no impact since this Plan of Operations would not require "Special Stipulations" in order to comply with the Opencut Mining Act.

Recommendation for Further Environmental Analysis:

EIS

More Detailed EA

No Further Analysis

EA Prepared By: Rod Samdahl

Title: Reclamation Specialist

Approved By: Jerry Burke

Title: Supervisor, Opencut Program, IEMB

Signature

Date