ENVIRONMENTAL ASSESSMENT

On an Application for an

OPENCUT MINING PERMIT or AMENDMENT

This Environmental Assessment (EA) is required under the Montana Environmental Policy Act (MEPA). An EA functions to identify, disclose, and analyze the impacts of a proposed action. This document may disclose impacts that have no legislatively required mitigation measures, or over which there is no regulatory authority.

The state law that regulates gravel mining operations in Montana is the Opencut Mining Act. This law and the rules adopted hereunder place operational guidance and limitations on a project during its lifetime, and provides for the reclamation of land affected by opencut mining operations.

Local governments and other state agencies may have authority over different resources and activities under their regulations. Approval or denial of this Opencut Application will be based on a determination of whether or not the proposed operation complies with the Opencut Mining Act and the Rules adopted hereunder.

Applicant: Lincoln County

SITE NAME: Cornwell

LOCATION: Section 34, T33N, R34W

COUNTY: Lincoln

DATE: July, 2009

PROPOSAL: The proponent has submitted an application to conduct opencut mining operations for sand and gravel on 6 acres of wooded, mountainous land about 9 miles west of Troy, just north of Highway 2. The application, if approved would allow mining of up to 150,000 cubic yards of material during the next 30 years; many years would only witness pit run mining and others may see small volumes (~ 5,000 cubic yards) of gravels crushed. Only a crusher and screen would be used in conjunction with loaders and dump trucks at this site.

As part of the permit application, the proponent has submitted a Plan of Operation that provides baseline information, operation plans, and plans for reclamation that would return the affected lands to a post-mine land use of grasslands. Reclamation is required by the Opencut Mining Act and the operator must comply with that statute and the rules and regulations promulgated under it.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	**POTENTIAL IMPACTS AND MITIGATION MEASURES**
1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:	This site is located on a flat ridge situated in very steep terrain above the Kootenai River with some glacial potholes to the northeast. The gravels were most likely deposited by glacial activity and possibly influenced by Kootenai glacial lake. Soils are generally deep, but previous mining has not benefited from first salvaging the available soil materials. *Impacts:* Mining this area will result in irreversible and irretrievable removal of gravel from the site for use on county roads and will create a small impact to the quantity and quality of soils from salvaging, stockpiling, and resoiling activities, but this would not impair the capacity of the soils to support full reclamation. There is no unusual topographic, geologic, soil or special reclamation considerations that would lead to reclamation failure.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION	The nearest surface water is an un-named, shallow pond about 1000 feet to the northeast of the site. Significant vegetation and elevation

IMPACTS ON THE PHYSICAL ENVIRONMENT	
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	differences preclude the potential for runoff into that water body. Groundwater is greater than 200 feet from the surface and will not be impacted by this activity.
3. AIR QUALITY	Air quality in this area is generally very good with very little industrial activity. Wood smoke is usually the only pollutant observed. Air quality permits would be required on the processing equipment before installment. Machinery, such as generators, crushers and asphalt plants, are individually permitted for allowable emissions. Best Available Control Technology (BACT) is the usual standard applied. Fugitive dust that blows off the pit floor, stockpiles, gravel roads, etc. could be present at times. It is considered to be a nuisance but not harmful to health and would be controlled by watering during periods of activity. Only crushers and screens are anticipated to be in use at this site, and then very infrequently. *Impacts:* Air quality standards as set by the federal government and enforced by the Air Resources Management Bureau of the DEQ would allow minimal detrimental air impacts.
4. VEGETATION COVER, QUANTITY AND QUALITY	The area that has not been mined has a relatively open overstory with some Douglas Fir and lodgepole pine. Understory species are primarily Agrostis spp. and Poa spp. During soil stripping operations, all vegetation will be removed. Some seed and vegetative propagules will remain viable in the soil and could assist in regeneration of those species when soils are replaced. The applicant will re-seed the area to species compatible with the post-mine land use of grasslands and wildlife habitat.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:	Although the site is used primarily for a natural area and woodlands, it also supports populations of deer, some wintering elk, rodents, song birds, coyotes, foxes, black bears, raptors, insects and various other animal species. Population numbers for these species are not known. *Impacts:* The proposed mine is expected to temporarily displace some individual species and it is likely that the site would be re-inhabited following reclamation to similar habitat. The potholes and pond to the northeast would very likely be host to a diverse wildlife population.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:	The Montana Natural Heritage Program has indicated that Gray Wolf, Canada Lynx, Wolverine, Grizzly bear, Fisher, Bald eagle and Goshawk are present in the region. *Impacts:* None of the listed species have been found on this site. Even if suitable habitat did exist at this specific location, the disturbance area would be small and large areas of similar or identical habitat surround the site. The possible impact to these species would be minimal.
7. HISTORICAL AND ARCHAEOLOGICAL SITES	The Montana State Historic Preservation Office (SHPO) has not identified any sites that have been previously discovered on this property. A walkover of the area by DEQ personnel did not reveal any artifacts or signs of occupation. No signs were evident at depth in the previously disturbed area. *Impacts:* If during operations, resources were to be discovered,

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	**POTENTIAL IMPACTS AND MITIGATION MEASURES**
	activities would be temporarily moved to another area or halted until SHPO was contacted and the importance of the resources was determined.
8. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY	Energy in the form of diesel fuel for loaders, generators and trucks will be consumed while this site is operated and product is hauled to different road projects. If this site is not used, the source would be located elsewhere with potentially greater energy consumption. Water in minimal amounts will be utilized as necessary for dust control.

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	**POTENTIAL IMPACTS AND MITIGATION MEASURES**
9. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS	This area is not zoned.
10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING	None of these resources will be affected.
11. AESTHETICS	This site is visible from Highway 2 and has been for over 50 years. A reclamation plan will ensure that over time the site will become visually acceptable.
12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT	*Impacts:* No impact on employment; the same crews will be utilized for all operations.
13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION	This will be an industrial site during periods of crushing and hauling, but will generally remain inactive. *Impacts:* There is no other commercial activity on this small acreage. Any logging would occur on adjacent areas.
14. LOCAL, STATE TAX BASE AND TAX REVENUES, PERSONAL AND COMMUNITY INCOME	Local, state and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, etc. from the companies, employees, or landowners benefitting from this operation.
15. DEMAND FOR GOVERNMENT SERVICES	Minimal oversight from DEQ, MSHA, and OSHA.
16. HUMAN HEALTH AND SAFETY	Industrial activities are inherently more dangerous than non-use of an area. The OSHA and MSHA regulations provide specific regulation and oversight to ensure safety is paramount.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES	There is not any public access from this private property and it is not located adjacent to either resource.

18. Alternatives Considered:

A. Denial Alternative: The Department would deny an application that does not comply with the Act and Rules. No impacts to the natural or human environment would occur.

B. Proposed Action Alternative

19. Public Involvement, Agencies, Groups or Individuals contacted: Montana State Historic

Preservation Office, Montana Natural Heritage Program, local planning department and Lincoln County Weed District.

20. Other Governmental Agencies which May Have Overlapping or Sole Jurisdiction: Required: Lincoln County Commission or County Planning Department (zoning clearance), Lincoln County Weed Control Board, MSHA and OSHA regarding mine safety and the DEQ's Air Resources Management Bureau for air quality permits on the crusher.

21. Regulatory Impact on Private Property: The analysis done 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 so as to constitute a taking.

22. Magnitude and Significance of Potential Impacts: Insignificant as proposed because of restrictions and oversight mandated by the Opencut Mining Act and the Montana Air Quality Act.

23. Recommendation for Further Environmental Analysis: [ ] EIS [X] No Further Analysis

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EA Reviewed and Approved By: Neil Harrington (Name) Chief, Industrial and Energy Minerals Bureau (Title)

Signature **Date**