

**ENVIRONMENTAL ASSESSMENT**

On an Application for an  
**OPENCUT 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 provide 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 thereunder.

**APPLICANT:** JC O’Brien & Sons, Inc

**SITE NAME:** O’Brien Pit

**LOCATION:** Section 18, 19 & 20, T27N, R2W

**COUNTY:** Pondera

**DATE:** January 2010

**PROPOSAL:** The site is located approximately 3.2 miles northwest of Brady, Montana (approximately 1 mile west of I-15). The proponent proposes an amendment that will take two existing permits and combine them into one permit as well as adding an additional 402.1 acres for a total proposed permit area of 452.1 acres. The proponent proposes to mine, crush, screen, wash, stockpile and transport 200,000 cubic yards of sand and gravel from a proposed 452.1 acre site for use within the local area. Once mining is complete the site would be reclaimed to pastureland with a recreation/wildlife pond. An acceptable Plan of Operation would be followed and a reclamation bond held to ensure that reclamation is completed to meet state standards by December 2025.

A reclamation bond of \$129,813 would be held on approximately 50 acres by DEQ to ensure the final reclamation use of pastureland and recreation/wildlife pond by December 2025, would be accomplished. The remaining approximately 400 acres would be “Undisturbed until Bonded.”

This application contains all items required by the Opencut Act and Rules. The proponent commits to properly conducting opencut operations and would be legally bound by this permit.

<b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>	
<b>RESOURCE</b>	<b>POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<b>1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</b>	<p>Site Specific descriptions: Located in the Kevin Member of the Marias River Formation, consisting of dark gray shales with calcareous concretions.</p> <p>The two existing permits at this site have been heavily mined and disturbed. The soil has been salvaged from previous mining activities and will be available for reclamation.</p> <p>The site is located on a bench approximately 1,000 feet north of South Pondera Coulee. The soils are approximately 8 inches thick and consist of clay loams.</p> <p><i>Impacts:</i> An irreversible and irretrievable removal of gravel from the</p>

<b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>	
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	<p>site would occur. A small impact to the quantity and quality of soils from salvaging, stockpiling, and resoiling activities also would occur, but this would not impair the capacity of the soils to support full reclamation.</p>
<p><b>2. WATER QUALITY, QUANTITY AND DISTRIBUTION</b></p>	<p>Site specific descriptions. There is a small 1.1 acre groundwater pond onsite that was created by opencut mining. There are a few scattered small ponds and ephemeral drainages nearby.</p> <p>The site is proposed to be mined to a maximum depth of 20 feet. Depth to water table is approximately 23 feet according to surrounding well logs and landowner observations. Mining into groundwater is proposed to occur on the west portion of the pit, near and in the existing groundwater pond, where groundwater is apparently somewhat shallower.</p> <p>Fuel storage tanks would have secondary containment. The design of the proposed operation is such that any runoff would drain inward on the site thus avoiding any off site sedimentation or erosion.</p> <p><i>Impacts:</i> The proposed activities would have a minimal effect on the quantity and quality of the surface and groundwater resources.</p>
<p><b>3. AIR QUALITY</b></p>	<p>Air quality standards are based upon the Clean Air Act of Montana and pursuant rules and are administered by the DEQ Air Resources Management Bureau (ARMB). Its program is approved by the Environmental Protection Agency (EPA). These rules and standards are designed to be protective of human health and the environment.</p> <p>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.</p> <p>Fugitive dust is that which blows off the pit floor, stockpiles, gravel roads, farm fields, etc. It is considered to be a nuisance but not harmful to health.</p> <p><i>Impacts:</i> Air quality standards as set by the federal government and enforced by the ARMB would allow minimal detrimental air impacts.</p>
<p><b>4. VEGETATION COVER, QUANTITY AND QUALITY</b></p>	<p>The proposed expansion is in an area of introduced vegetation consisting mainly of crested and western wheatgrass. A “naturalized” seed mixture would be seeded on the site after regrading and topsoiling have been completed. No rare plants or cover types were identified during a ground search.</p> <p><i>Impacts:</i> No long term detrimental impacts to the vegetation would occur.</p>
<p><b>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:</b></p>	<p>Although the area is used primarily for pasture and farmland, it also supports populations of deer, rodents, song birds, coyotes, foxes, raptors, insects and various other animal species. Population numbers for these species are not known.</p>

<b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>	
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	<i>Impacts:</i> 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.
<b>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:</b>	The Montana Natural Heritage Program (MNHP) does not list any species of concern in the vicinity of the site.  <i>Impacts:</i> No species of concern have been found on this site.
<b>7. HISTORICAL AND ARCHAEOLOGICAL SITES</b>	The Montana State Historic Preservation Office (SHPO) was notified of the application. It reported that no archeological sites have been discovered previously on this property. A pedestrian survey 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.
<b>8. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY</b>	<i>Impacts:</i> Negligible impacts to land, water, air, or energy would occur.  Water would be used for the wash plant, crushing operation and for dust control. Detention ponds will be used to recycle the water. Fuel would be used throughout the life of the operation.

<b>IMPACTS ON THE HUMAN POPULATION</b>	
<b>RESOURCE</b>	<b>POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<b>9. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS</b>	This area is not zoned and/or part of any long range growth plan. It is generally utilized for natural resource and other life form production and existence.
<b>10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING</b>	As seen on the aerial photo of the surrounding area, this is a relatively rural area.  <i>Impact:</i> This pit is being sited in this area because of the location of the resource, and to service the surrounding area.
<b>11. AESTHETICS</b>	Other than the landowner/operator's residence, the site is located away from residences and commercial businesses.
<b>12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT</b>	<i>Impacts:</i> New employment opportunities would be limited as this would be a relatively small operation.
<b>13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION</b>	<i>Impacts:</i> Agricultural production would be reduced on the site for the life of the permit. However, it is the operator's intent to reclaim portions of the site that have been mined while mining continues elsewhere on the site. The site would then be returned to pastureland with a small pond for recreation/wildlife habitat.
<b>14. LOCAL, STATE TAX BASE AND TAX REVENUES, PERSONAL AND COMMUNITY INCOME</b>	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. Following reclamation, it is assumed the tax base would revert to pre-mine levels.
<b>15. DEMAND FOR GOVERNMENT SERVICES</b>	Limited oversight by DEQ officials that are generally conducted in concert with other area activity would occur.
<b>16. HUMAN HEALTH AND</b>	Any industrial activity will increase the opportunities for accidental



## **PRIVATE PROPERTY ASSESSMENT ACT (PPAA) CHECKLIST**

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PPAA?

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deprive the owner of all economically viable uses of the property?
	X	4. Does the action deny a fundamental attribute of ownership?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? (If answer is NO, skip questions 5a and 5b and continue with question 6.)
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property?
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? (If the answer is NO, skip questions 7a-7c)
		7a. Is the impact of government action direct, peculiar, and significant?
		7b. Has the government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?
		7c. Has the government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?

Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b.

If taking or damaging implications exist, the agency must comply with § 5 of the Private Property Assessment Act, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.

Z7N 3W  
SEL 18, 19, 20



UNDISTURBED  
UNTILL BONDED

BONDED

PERMIT BOUNDARY

10-29-09

GWIC 173991 & 173993

Otness Well GWIC 80105

RECEIVED  
DEC 11 2009  
DEQ/IEMB

