

# ENVIRONMENTAL ASSESSMENT

6/4/99

Project Name: Leonard Pierce Site

Proposed Implementation Date: 4/15/99

Proponent: Leonard Pierce

**Type and Purpose of Action:** The applicant proposes to mine, crush and haul 40,000 cubic yards of sand and gravel over a ten year period of time from a pit located 1.7 miles southeast of the town of St. Ignatius. There will be 1.5 acres mined and 3.0 acres disturbed for facilities and roads. There will be a crusher and a hot plant set up temporarily during the latter part of April and the first part of May, 1999. The estimated start-up date is April 15, 1999 and will result in a pit that is level with the grade of the county road on the south side of the property. The pit will be reclaimed to a pasture after grading the backslopes to at least a 3:1, replacing all topsoil, and re-seeding the slopes to grasses.

Location: SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  Section 13, T18N, R20W

County: Lake

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><b>1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</b> Are fragile, compactible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?</p>	<p>[N] Up to 12 inches of fairly well drained, silty loam 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 material will be salvaged and stockpiled away from the affected land. Following mining, grading and ripping, the soils will be replaced, disked and seeded to stabilize the soil and prevent erosion. The overburden has exhibited the ability to support vegetative growth. Microbes are expected to re-colonize the soil.</p>
<p><b>2. WATER QUALITY, QUANTITY AND DISTRIBUTION:</b> 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>[Y] There are at least 24 water wells in section 13 and 24 that average 97 feet in depth and yield an average of 21 gallons per minute. Groundwater is anticipated to be at least three feet deeper than the floor of the finished mine area. The nearest major surface water is Mission Creek located <math>\frac{1}{4}</math> mile south of the site and the irrigation canal located several hundred feet to the west. No surface or groundwater is expected to be adversely impacted.</p> <p>Special precautions will be taken to minimize possible contamination of the groundwater. All fuel and bulk lubricants will be kept within a lined, earthen-bermed fueling location. The asphalt plant has a 10,000 gallon diesel fuel tank and a 55,000 gallon asphalt tank attached to it, which will be located up out of the pit. Other portable equipment such as crushers with fuel tanks are located in various places within the facility. Any accidental spills or leaks from equipment will be excavated and disposed of. No waste or trash will be disposed of at the site. With these precautions, the quality and quantity of the groundwater should not be adversely impacted.</p> <p>The proponent may be required to obtain a Stormwater Discharge Permit from the Montana Department of Environmental Quality, to assure the protection of surface waters.</p>
<p><b>3. AIR QUALITY:</b> Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>	<p>[Y] Crushers, asphalt plants, dozers, loaders and trucking equipment typically cause odors and dusty conditions in disturbed soil sites. Water bars, road watering and other dust controls will be used as necessary. The site is located within a Class 1 airshed. Air quality may be degraded and there may be an increase in particulate matter. Asphalt production</p>

	<p>also degrades the air quality but the operator must obtain air quality permits and abide by federal air quality regulations as they are applied on reservations.</p> <p>The operator must comply with applicable federal regulations for air quality contained in the Standards of Performance for New Stationary Sources, 40 CFR Part 60, Subpart I (Asphalt &amp; 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><b>4. VEGETATION COVERS, QUANTITY AND QUALITY:</b> Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p>[Y] Vegetation is currently grain crop which will be removed during mining, and the ground will be re-planted with species compatible with the proposed reclaimed use. There is an existing infestation of knapweed in the mine area, but not greater than the surrounding area. All topsoil will be stripped off and kept on-site. No knapweed seed will be transported off-site.</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. A literature search was done by the Montana National Heritage Program and no rare plants or cover types were identified and none were identified during a ground search.</p>
<p><b>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:</b> Is there substantial use of the area by important wildlife, birds or fish?</p>	<p>[N] Although the area is used primarily for agriculture, grazing, and rural/residential 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. Human use of the area has intensified in the past two decades with the increase in residential and commercial activity. The proposed mine is not expected to significantly degrade wildlife populations. 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. Seed head gall flies have been introduced to the tract to provide biological control of noxious weeds.</p>
<p><b>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:</b> 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 species 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. This area is considered to be used by grizzly bears and they have been seen in the St. Ignatius area in the past. This population of bears is apparently separated from that in the Northern Continental Divide Area to the east and contains less than 25 bears. Mining and related activities are not expected to have any impact on grizzly bears.</p>
<p><b>7. HISTORICAL AND ARCHAEOLOGICAL SITES:</b> 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 Salish/Kootenai Tribe and the State Historical Preservation Office will be promptly notified.</p>
<p><b>8. AESTHETICS:</b> 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 this existing sand and</p>

	<p>gravel mine and by other man made modifiers such as roads, ditches, homesites, power lines, etc.. The site is visible by homes in the local area and to traffic along the county road. Floodlights from dark period operations would increase visibility and awareness of the operation. Negative influences of night lights and odors to those living nearby could be substantial even though they are temporary.</p> <p>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 various projects.</p>
<p><b>9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:</b> Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?</p>	[N]
<p><b>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES:</b> Are there other studies, plans or projects on this tract?</p>	[N]

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
<p><b>11. HUMAN HEALTH AND SAFETY:</b> Will this project add to health and safety risks in the area?</p>	<p>[Y] Heavy equipment and facilities including crushers, hot plants, trucks, loaders, and screens may create hazards, but the operator must comply with all MSHA and OSHA regulations. The operator must employ proper precautions to avoid accidents, especially during typical operating hours for school busses. Excessive and prolonged noise and light could increase stress and induce difficulty sleeping. Both of these effects may be considered harmful to human health if the activities are continuous. This proposed operation is expected to create these impacts sporadically and for short periods; it therefore should not significantly affect human health.</p>
<p><b>12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION:</b> Will the project add to or alter these activities?</p>	<p>[Y] The acreage listed in the Type and purpose of Action will be taken out of farming and put into industrial/commercial use. Upon completion of mining, the land will be reclaimed to pasture.</p>
<p><b>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:</b> Will the project create, move or eliminate jobs? If so, estimated number.</p>	[N]
<p><b>14. LOCAL AND STATE TAX BASE AND TAX REVENUES:</b> Will the project create or eliminate tax revenue?</p>	<p>[N] The presence of an industrial site in the midst of an agricultural/rural residential area has the potential to reduce the desirability as a location to live a rural lifestyle, and therefore the marketability of improved and unimproved real estate may be diminished as some prospective buyers would not purchase these properties. The area proposed to be mined has been used as a gravel source prior to this application however, so it could be assumed that because residential building has encroached around this site, those purchasers did not find the use objectionable.</p>

	To successfully argue that taxable value has been affected, (decreased), the appeals process must be followed through the local and state level. To this date, there has not been a reduction in taxable value of property affected by opencut mineral mining.
<b>15. DEMAND FOR GOVERNMENT SERVICES:</b> Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?	[Y] The operation will require periodic site evaluations by DEQ staff. However, these evaluations are usually performed in conjunction with other area operations. Activities at the site will add further traffic to the county road during times of operation and may cause need for additional county road department and sheriff services.
<b>16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:</b> Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[Y] This site lies within the Salish/Kootenai reservation boundary. The tribal counsel was contacted through Fred Matt and was provided copies of all documents for review. No comments were received from the tribe.
<b>17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:</b> Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N]
<b>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:</b> Will the project add to the population and require additional housing?	[N]
<b>19. SOCIAL STRUCTURES AND MORES:</b> Is some disruption of native or traditional lifestyles or communities possible?	[N] While the surrounding area has built up as rural/residential, the gravel pit has been in existence without complaint for some time.
<b>20. CULTURAL UNIQUENESS AND DIVERSITY:</b> Will the action cause a shift in some unique quality of the area?	[N] This operation lies in an area probably best characterized as rural residential/agricultural because each of those uses exist to some degree. Because this sand and gravel mine has been in existence for some time, operation of a gravel pit does not represent a significant change in land use. The installation of a hot asphalt plant, however, does. Although it may be a substantial change for some, the hot plant will only be operating for a few weeks. Therefore, it is not a significant change in permanent land use.
<b>21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:</b>	[N]

**22. Alternatives Considered:**

**No Action:** The pit expansion would not be permitted and impacts already existing would continue without the benefit of regulation and monitoring.

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

**Approval with mitigation:** The pit would be expanded with restrictions.

**23. Public Involvement, Agencies, Groups or Individuals contacted:**

State Historic Preservation Office, Montana Heritage Program, Lake County Road Department, Salish/Kootenai Tribe, Environmental Protection Agency. The public was given until May 10, 1999 to contact the department with comments. No comments were received.

**24. Other Governmental Agencies with Jurisdiction, List of Permits Needed:**

Montana Department of Environmental Quality, Water Quality Division for Stormwater Discharge 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 size and location of the project, lack of threatened or endangered species or habitat and lack of human population near the site.

**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