

# FINAL ENVIRONMENTAL ASSESSMENT

## September 19, 2000

**Project Name:** Dairy Site

**Proposed Implementation Date:** September 15, 2000

**Proponent:** Ron & Esther Thornberry

**Type and Purpose of Action:** The applicant proposes to mine, crush, stockpile, and transport 2,000,000 cubic yards of sand and gravel over a 60 year period from a 142-acre site located 4 miles southwest of Columbia Falls. Only 5 to 10 acres at a time will be opened for mining. The site would be mined into a bench to a depth of 12 feet leaving the floor of the site level with the lower existing pasture to the east. There will be four phases of mining in approximately 40-acre tracts beginning with the existing small pit south of the old dairy. The haul road will intersect Conn Road to the north of the site and pit run gravel will be hauled around to the T-Bend crusher and hot plant facility on Hodgson Road. Most of the gravel will be mined and hauled out as pit run, but a portable crusher may be used to crush small amounts of gravel on a very infrequent basis. Normal hours of operation at the pit will be 7:00 A.M. to 7:00 P.M., Monday through Friday, but may be extended for no more than 15 working days to the hours of 6 am to 10 pm. These short episodes that extend operating hours can not recur without leaving 60 days of normal hours between episodes. As mining progresses through the four phases, depleted mine areas will be reclaimed as new area is opened such that the operation will never be very large. Traditional land use (pasture) will continue throughout the life of the mine on the pre-mine and post-mine areas of the 142-acre site. The mature conifer trees in the southeast corner of Phase 1 will remain untouched to improve aesthetics. A wetland will be constructed to provide wildlife habitat and also to enhance aesthetics. The reclaimed use would be pasture and wetland. The site would be reclaimed by re-contouring and re-topsoiling the mine, facility and stockpile area and reseeding the site with grasses. The slopes of the pit would be reduced to at least 3:1 except for the wetland which will be constructed according to DEQ guidelines. Reclamation would be completed in approximately 2060.

**Location:** NW¼ NE¼, Section 23, T30N, R21W

**County:** Flathead

**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 their unusual geologic features? Are there special reclamation considerations?</p>	<p>[N] The proposed operation is located in a glacial alluvial valley in sands and gravels of the Quaternary to Recent geologic age. The Flathead Valley is an intermountain valley mainly reworked by the Flathead River and was submerged underwater during the last 10,000 years, covered by glacial Lake Missoula. The proponent would mine to a depth of 12 feet which is eight to ten feet above the water table. The mine area would have all available soil stripped and salvaged. The topsoil is a dark silty loam underlain by a layer of silty clay. Soil microbes should re-colonize the soils. There are no fragile, compactible, or unstable soils present, unusual geologic features, or special reclamation considerations. The reclaimed slopes will be reduced to a 3:1 or flatter angle.</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] Trumble Creek is located several hundred feet east of the site but mining will not impact the creek. No water will enter or leave the site. The site would be mined with dozers, loaders and scrapers. There would be no discharge from the pit area. There are 28 water wells in Section 23. The wells were drilled an average of 142 feet deep, have static water levels of 25 feet and yield 151 gallons per minute. These numbers are high because three wells in the section are irrigation wells rated over 1,000 GPM. The average of the domestic wells is 109 feet in depth, static water levels of 23 feet and yields of 27 GPM. The mine will intercept potable water in its wetland but will not affect these wells. No bulk fuel storage will be located on site. The proponent will not need to obtain a Stormwater Discharge Permit from the Montana Department of Environmental Quality, but will implement best management practices to</p>

	prevent any off site erosion or sedimentation. A small surface water pit will be dug for stockwater and to supply water for dust control.
<b>3. AIR QUALITY:</b> Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[Y] Air quality will be degraded, but the proponent must comply with air quality standards and an Air Quality Permit obtained from the Montana Department of Environmental Quality for the crusher.
<b>4. VEGETATION COVER, QUANTITY AND QUALITY:</b> Will vegetative communities be permanently altered? Are any rare plants or cover types present?	[N] Vegetation on the site of the proposed operation consists of pasture grasses such as various wheatgrasses, quackgrass and roses with some mature Ponderosa pines, and covers 95% of the ground. A literature search was done by the Montana Natural Heritage Program and no threatened or endangered plants or animals or rare plants or cover types were identified and none were identified during a ground search.
<b>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:</b> Is there substantial use of the area by important wildlife, birds or fish?	[N] The site is utilized by deer, small mammals, and various species of game and non-game birds. Populations for these species is not known. These animals will be displaced on a small scale as mining progresses, but they will re-inhabit the area as reclamation follows behind mining. Permanent impacts on wildlife are considered to be minimal.
<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?	[N] A ground search was conducted and no threatened or endangered species or identified habitats were found on the site. The literature search conducted by the Montana Natural Heritage Program identified some species of concern. The area is considered to be occupied habitat for the Grizzly bear but the high level of human activity in this area essentially precludes mining related impacts on the bears. Other species of concern identified in the general area include the Slender Cottongrass, Red-foot Flatsedge, Maidenhair Spleenwort, Small Yellow Lady's Slipper, Deer Indian Paintbrush, Latah Tule Pea, Short-styled Thistle and the Last Best Place Damsel. None of these species were identified on the site and impacts on them are considered to be negligible.
<b>7. HISTORICAL AND ARCHAEOLOGICAL SITES:</b> Are any historical, archaeological or paleontological resources present?	[N] A cultural resource ground survey and field inspection was conducted and no resources were found.
<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?	[Y] The proposed operation is located on a flat river bench west of Highway 2 in a rural area. There are commercial businesses along Highway 2 between highway traffic and the pit site, but parts of the site will be visible. Residences and businesses are widely scattered around the area, and there is another gravel pit directly south of this site. The project is long termed with reclamation being planned for the year 2060. Aesthetic impacts in Phase 1 will be mitigated by placement of a topsoil berm along the southeast side of the operation and by leaving an un-mined berm of native gravel and vegetation along the southeast corner and the south side of Phase 1.
<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?	[N]
<b>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES:</b> Are there other studies, plans or projects on this tract?	[N]

### IMPACTS ON THE HUMAN POPULATION

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
<b>11. HUMAN HEALTH AND SAFETY:</b> Will this project add to health and safety risks in the area?	[Y] There will be increased hazards because of the equipment activity and hauling of the sand and gravel. The applicant must comply with OSHA and MSHA regulations however, proper precautions will be taken to avoid accidents.

<b>12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION:</b> Will the project add to or alter these activities?	[Y] The land will be taken out of agricultural (pasture) production and placed into industrial (mining) for a few years at a time. The site will only have 5 to 10 acres at a time actually disturbed by mining. As some land is reclaimed after mining, other land will be stripped and added to the mine area such that the mine will gradually move across the entire 142 acres over the 60-year life of the operation.
<b>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:</b> Will the project create, move or eliminate jobs? If so, estimated number.	[N]
<b>14. LOCAL AND STATE TAX BASE AND TAX REVENUES:</b> Will the project create or eliminate tax revenue?	[N]
<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?	[N] The permit will require periodic site evaluations, but these will be done in conjunction with other operations in the area. Traffic will increase on existing county roads in the area. The intended route will be for trucks to haul pit-run gravel from the pit to the existing plant facility on Hodgson Road. Trucks will enter Conn Road from the haul road and go east to Highway 2 East, turn south to Hodgson Road and proceed west to the existing facility.
<b>16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:</b> Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] County zoning clearance has been obtained.
<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]
<b>20. CULTURAL UNIQUENESS AND DIVERSITY:</b> Will the action cause a shift in some unique quality of the area?	[N]
<b>21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:</b>	[N]

**22. Alternative # 1: Denial.** The owner of the gravel resource would be denied full utilization of his property at this time. The existing gravel pit that was in place prior to ownership by Thornberry would remain unreclaimed and unregulated by DEQ.

**Alternative # 2: Approval.** The site would be approved with the conditions placed on it by the Plan of Operations to protect water, replace topsoil and control the hours of operation.

**23. Public Involvement, Agencies, Groups or Individuals contacted:** State Historic Preservation Office, Montana Heritage Program, Flathead Regional Development Office and Flathead County Weed Management Board. A press release, which appeared in both the Whitefish Pilot and the Kalispell Daily Interlake, was made on August 28 soliciting comments from the public. Several requests for documents were made by individuals. The comment period closed on September 15 and no comments were received.

**24. Other Governmental Agencies with Jurisdiction, List of Permits Needed:** Montana Department of Environmental Quality for Air Quality Permit; Mine Safety and Health Administration for safety permit.

**25. Magnitude and Significance of Potential Impacts:** Impacts are unlikely to be significant because of the proposed operation's location, method of mining small areas at a time, and the lack of critical wildlife or plant species or habitats.

**Recommendation for Further Environmental Analysis:**

EIS

More Detailed EA

No Further Analysis

EA Checklist Prepared By: Rod Samdahl

Title: Opencut Mining Program Reclamation Specialist, IEMB

Approved By: Jerry Burke

Title: Opencut Mining Program Supervisor, IEMB

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Signature

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Date