

ENVIRONMENTAL ASSESSMENT
December 16, 1998

Project Name: Owens & Hurst Site

Proposed Implementation Date: October 12, 1998

Proponent: Owens & Hurst Lumber Co.

Type and Purpose of Action: The applicant proposes to mine, crush, stockpile and haul a total of 20,000 cubic yards of sand and gravel from a pit which is located ½ mile north of the town of Eureka. The estimated start-up date is October 12, 1998 and will result in a smooth graded log yard for log storage, with 3:1 or flatter slopes. The pit will be graded, the slopes will be topsoiled and seeded to pasture grass.

Location: NW¼ SE¼ Sec. 3, T36N, R27W

County: Lincoln

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 topsoil is approximately six inches of rocky gravelly loam. All soil material will be salvaged and stockpiled away from the affected land. Following mining, grading and ripping, the soils will be replaced on the pit and seeded. Microbes will re-colonize the soil. There are no fragile, compactible or unstable soils present, no unusual geologic features and there are no 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] Indian Creek is located 600 feet to the north which will not be impacted by mining. The site will be mined to a depth of 20 feet which is well above groundwater.</p> <p>There are 15 water wells in section 3, most of which are several hundred feet deep. The water table tends to have a generous yield, but the wells are deep and expensive to drill and pump (see attached water well report).</p> <p>Special precautions will be taken to minimize possible contamination of the groundwater. All fuel and bulk lubricants will be kept out of the pit area or kept in earthen bermed containment vessels. A portable crusher and other equipment with fuel tanks will be used in various places within the site. Any accidental spills or leaks from equipment will be excavated and disposed. With these precautions, the quality and quantity of the groundwater should not be adversely 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] Crushers, loaders and trucking equipment typically cause dusty conditions in disturbed soil sites. 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 OOO (Nonmetallic Mineral Processing Plants). Subpart OOO sets an opacity limitation on fugitive dust emissions from the gravel crushing and handling operations. The site is not within a Class I Airshed.</p>
<p>4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p>[Y] Vegetation consists of pasture. All vegetation will be removed and the area will be replanted with grass species suitable for grazing. There is a moderate infestation of spotted knapweed, a legally defined noxious weed. No rare or endangered plants have been identified in the area. No mining will be done within 100 feet of any live stream, riparian or isolated wetland habitat areas.</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>[N] Although the area is used primarily for timber processing, grazing and rural residential occupation, it also supports populations of deer, bears, elk, rodents, song birds, coyotes, foxes, insects and various other animal species.</p> <p>The proposed mine will displace these species during mining activity, but some use will resume upon reclamation. Mining activities are not expected to significantly degrade wildlife populations. Seed head gall flies have been introduced to the tract to provide biological control of noxious weeds.</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] Human use of the area has intensified in the past two decades with the increase in residential and commercial activity. The Natural Heritage Program literature search and site visits have not revealed any endangered or threatened plant or animal species that would be directly affected.</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, a surface reconnaissance did not discover any cultural, historical or archeological resources. The operator will give appropriate protection to any values or artifacts discovered in the affected area. If significant resources are found, the operation will 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>[N] There is a temporary deterioration of aesthetics while the operation is under way. The site is visible by the landowner and to remote local traffic. Floodlights from dark period operations increase visibility and awareness of the operation. However, the gravel pit is located inside the perimeter of a log processing and lumber company's facility and development of a gravel pit is not anomalous as a commercial use in the area.</p> <p>There is noise from the crusher and other noise generating equipment such as truck traffic hauling to various areas of the project. 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. These impacts are intermittent and of relatively short duration.</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>
<p>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other studies, plans or projects on this tract?</p>	<p>[N]</p>

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] This activity should not significantly affect human health. The operator will employ proper precautions to avoid accidents.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] The site will be taken out of light grazing during mining. The area will be reclaimed to grassland and timber storage upon completion of mining.
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?	[Y] The operation will require periodic site evaluations by DEQ staff until such time as the site is successfully reclaimed to the required post-mining use. However, these evaluations are usually performed in conjunction with other area operations.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[Y] Zoning has been approved by the county.
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:

1. No Action: The site would not be permitted and impacts would not occur at this location. The landowner would be denied use of his mineral deposit at this time.

2. Approval of the Amendment as submitted: The permit will be granted with the existing Plan of Operation.

23. Public Involvement, Agencies, Groups or Individuals contacted: State Historic Preservation Office, Montana Heritage Program, Lincoln County Commissioners, and local homeowners have been notified by the applicant.

Location: 36N 27W 03 ABA
Site Name: PARKS JESSE T
Depth: 364.0
Yield: 30.0
Static Water Level: 0.00
Pumping Water Level: 340.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
0.00 0.00 0.00
-1.60 364.00 6.60
Year drilled: 1997
Driller: CERTIFIED

Location: 36N 27W 03 ABA
Site Name: MCKEY S A AND DORTHEY **Depth:** 200.0
Yield: 30.0
Static Water Level: 100.00
Pumping Water Level: 160.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
0.00 200.00 6.00
Year drilled: 1993
Driller: CERTIFIED WELL

Location: 36N 27W 03 ABB
Site Name: AEMISEGGER HOWARD **Depth:** 180.0
Yield: 18.0
Static Water Level: 120.00
Pumping Water Level: 165.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
-1.50 180.00 6.00
Year drilled: 1996
Driller: CERTIFIED

Location: 36N 27W 03 BAA
Site Name: FOSS JOHN & ALMA **Depth:** 135.0
Yield: 25.0
Static Water Level: 80.00
Pumping Water Level: 80.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
0.00 135.00 6.00
Year drilled: 1994
Driller: CERTIFIED WELL

Location: 36N 27W 03 CCC
Site Name: ADAUTO VANESSA/ESPINOZA DANNY & ROSALIE
Depth: 115.0

Yield: 10.0
Static Water Level: 19.00
Pumping Water Level: 0.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
-2.00 115.00 6.00
Year drilled: 1993
Driller: UNIVERSAL DRILLING

Location: 36N 27W 03 CCD
Site Name: WILKINSON FRANK **Depth:** 321.0
Yield: 5.0
Static Water Level: 48.00
Pumping Water Level: 314.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
-2.00 295.00 6.00
Year drilled: 1996
Driller: CLEAR WATER

Location: 36N 27W 03 DBA
Site Name: JOHNSON BROS. **Depth:** 532.0
Yield: 30.0
Static Water Level: 160.00
Pumping Water Level: 0.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
-2.00 532.00 6.00
Year drilled: 1989 **Driller:** JEROME'S

Location: 36N 27W 03 DC
Site Name: SHAY JAMES
Depth: 363.0
Yield: 300.0
Static Water Level: 105.00
Pumping Water Level: 360.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
0.00 363.00 6.00
Year drilled: 1978
Driller: WORKMAN

Location: 36N 27W 03 DD
Site Name: STAMPER JACK **Depth:** 238.0
Yield: 150.0
Static Water Level: 90.00
Pumping Water Level: 238.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
0.00 238.00 6.00

Year drilled: 1981
Driller: STINGER

Location: 36N 27W 03 DD
Site Name: WHITE JAMES **Depth: 200.0**
Yield: 20.0
Static Water Level: 95.00
Pumping Water Level: 190.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
0.00 200.00 6.00
Year drilled: 1985
Driller: STINGER

Location: 36N 27W 03 DD
Site Name: ERICKSON LEIGH & FAITH **Depth: 210.0**
Yield: 20.0
Static Water Level: 100.00
Pumping Water Level: 120.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
0.00 210.00 6.00
Year drilled: 1993
Driller: KEITH DAVIS

Location: 36N 27W 03 DDAC
Site Name: BUTTS DAVID
Depth: 140.0
Yield: 10.0
Static Water Level: 0.00
Pumping Water Level: 0.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
0.00 140.00 6.00
Year drilled: 1950
Driller:

Location: 36N 27W 03 DDB
Site Name: BELL A.S.
Depth: 378.0
Yield: 10.0
Static Water Level: 120.00
Pumping Water Level: 160.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.) Type
0.00 277.00 5.00
277.00 373.00 4.00
Year drilled: 1970
Driller: THATCHER