

ENVIRONMENTAL ASSESSMENT
March 3, 1999

Project Name: Jim Adams Site
Proponent: Schellinger Construction Co.

Proposed Implementation Date: 8/10/1998

Type and Purpose of Action: The proponent has applied for a Mined Land Reclamation Contract that if approved would result in the mining, crushing, stockpiling, and transporting of 20,000 cubic yards of sand and gravel or related products from a 4-acre site located 2 miles east of the town of St. Regis. The proponent would operate a crusher. Final reclamation would be approximately April 1999. The mine would operate generally Monday through Friday from 7 a.m. to 7 p.m. There may be times when hours would be extended to 7 days per week. The estimated start-up date is August 10, 1998. The reclaimed use will be grazing with side slopes graded to angles of at least 3:1 or flatter, topsoiled and seeded to grass.

Location: SE¹/₄NW¹/₄, SW¹/₄NE¹/₄, NE¹/₄SW¹/₄ & NW¹/₄SE¹/₄, Sec. 30, T18N, R27W

County: Mineral

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, compactable or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?</p>	<p>[N] The proposed mine is located on a flat-lying river bench located above the Clarks Fork River. The deposit consists of stratified layers of water-worked outwash sand and gravel that covers the deeper bedrock. The site is currently a dry pasture and an old mining area used for gravel extraction for many years.</p> <p>Topsoil consists of up to 12 inches of a dark, silty sandy loam which would be stripped and stockpiled. Following mining and re-grading topsoil would be placed, disced and seeded to grass.</p> <p>There are no fragile, compactable or unstable soils or unusual geologic features. The reclamation of the site poses 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>[Y] The nearest surface water is the Clark Fork River located 1,000 feet west of the site. The river would not be affected by mining.</p> <p>The site would be mined to a depth of 15 feet but will stay at least 5 feet above groundwater. Groundwater is likely to be the same as the river elevation some 85 feet below the surface in the proposed pit area, and the sands and gravels display high permeability. There are 26 domestic and deeper commercial/agricultural water wells in the area. Wells close by are drilled from 30 feet deep down on the river valley to 200 feet deep up on the bench.</p> <p>Sample wells located in the north half of section 6:</p> <table border="1" data-bbox="662 548 1252 982"> <thead> <tr> <th>WELL</th> <th>DEPTH</th> <th>YEAR DRILLED</th> </tr> </thead> <tbody> <tr> <td>Kay Teeters</td> <td>200'</td> <td>1994</td> </tr> <tr> <td>Mark Blaylock</td> <td>120'</td> <td>1994</td> </tr> <tr> <td>Trestle Creek Golf</td> <td>120'</td> <td>1994</td> </tr> <tr> <td>Joe Lewis Sr.</td> <td>107'</td> <td>1972</td> </tr> <tr> <td>CF MacDonald</td> <td>38'</td> <td>1957</td> </tr> <tr> <td>Skyline Timber</td> <td>110'</td> <td>1977</td> </tr> <tr> <td>Newton McCallum</td> <td>31'</td> <td>1957</td> </tr> <tr> <td>Bob Pickering</td> <td>192'</td> <td>1980</td> </tr> <tr> <td>John Coultas</td> <td>121'</td> <td>1992</td> </tr> <tr> <td>MDOT</td> <td>98'</td> <td>1997</td> </tr> <tr> <td>NPRC</td> <td>216'</td> <td>1957</td> </tr> <tr> <td>John Cochran</td> <td>199'</td> <td>1971</td> </tr> </tbody> </table> <p>Special precautions would be taken to minimize possible contamination of the groundwater. All bulk fuel and lubricants would be brought in daily to the site. If plans for fuel storage in the pit change in the future, a proper fuel containment structure would be engineered and plans submitted to the DEQ for approval, in advance of installation. Portable equipment with fuel tanks such as loaders, trucks, crusher and asphalt or concrete plants would be operating in various places within the facility. Any accidental spills or leaks from equipment would be excavated and disposed of. No waste or trash would be disposed of at the site. With these precautions, the quality and quantity of the groundwater should not be adversely impacted.</p>	WELL	DEPTH	YEAR DRILLED	Kay Teeters	200'	1994	Mark Blaylock	120'	1994	Trestle Creek Golf	120'	1994	Joe Lewis Sr.	107'	1972	CF MacDonald	38'	1957	Skyline Timber	110'	1977	Newton McCallum	31'	1957	Bob Pickering	192'	1980	John Coultas	121'	1992	MDOT	98'	1997	NPRC	216'	1957	John Cochran	199'	1971
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<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] The site is not located within a Class I Airshed. Air quality would be degraded and there would be an increase in particulate matter. Dozers, loaders, crushers and trucking equipment typically cause dusty conditions in disturbed soil sites. However, crushers are regulated for dust and other emissions, and the equipment used must be tested and approved by DEQ. Spray bars will be used on the crusher and transfer points, and water would be applied within the site as needed to reduce dust.</p>																																							
<p>4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p>[N] There are no known rare or sensitive plants in the site area. The vegetation consists mainly of brome, bluegrass, quack grass and knapweed. Vegetation covers 100% of the ground.</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 pasture and a mine site, there are, small, medium and large size mammals, song birds, raptors, insects and various other animal species in the area. There are rookeries of blue herons and nesting sites of ospreys and bald eagles along the Clarks Fork River valley, but none were identified at or near the site.</p> <p>Human use of the area has intensified in the past three decades with residential and commercial activity. The proposed mine is not expected to 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.</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] The Natural Heritage Program and site evaluations have not revealed any endangered or threatened plant or animal species that would be directly affected. There are no wetlands or species of special concern identified on the site or by the Natural Heritage Program.</p>
<p>7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>[N] Although there are 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. The operator would give appropriate protection to any values or artifacts discovered in the affected area. If significant resources are found, the operation would 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>[Y] There would be a change in aesthetics while the operation is under way. However, reclamation will return the area to a visually acceptable landscape.</p> <p>The site is visible by homes and businesses in the local area and to traffic along the roads. Hours of operation for the crusher would be 7 a.m. to 7 p.m., 5 days per week. There maybe times when operations are extended to 7 days per week. The proponent's crusher can produce up to 10,000 tons of product during an 11-hour shift. The amount of product made during the shift depends on the type of product. Hauling from stockpiles or pit-run gravel from the pit may occur at any time. Mining and other aspects of the operation could occur at any time.</p> <p>Lights and generators running for 24 hours per day could increase local impacts. On-site noise levels generated by operating equipment at the pit are generally within the range of 60 to 90 decibels, but decrease with distance. As a comparison, sound levels for ordinary activities such as close conversation and music from a radio are 60 decibels and 70 decibels and are considered to be moderate. Levels above 90 decibels are severe, and prolonged exposure can lead to hearing loss. There is also noise from loaders and truck traffic hauling to various projects. 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
<p>11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?</p>	<p>[Y] Heavy equipment and operating facilities including scrapers, trucks, loaders and crushers would create hazards, but the operator must comply with all MSHA and OSHA regulations. The operator must employ proper precautions to avoid accidents.</p> <p>Excessive and prolonged noise and light could increase stress for nearby residents and induce difficulty sleeping. Both of these effects may be considered harmful to human health if the activities are continuous. This proposed operation should not significantly affect human health due to the temporary nature of the project</p>
<p>12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?</p>	<p>[Y] The area listed in the Type and purpose of Action would be taken out of agricultural/grazing, and put into industrial development. The area would be returned to its pre-mine condition following mining.</p>
<p>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.</p>	<p>[N]</p>
<p>14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?</p>	<p>[N] To this date it has not been shown that this type of operation has resulted in a reduction in taxable value of property, and it is not anticipated that this project would alter past assessments. The presence of an industrial site adjacent to a residential area has the potential to reduce the desirability of surrounding land as a location to live until reclamation is completed, and therefore the marketability of improved and unimproved real estate may be temporarily diminished for home sites as some prospective buyers would not purchase these properties for that use.</p>
<p>15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?</p>	<p>[Y] The operation would 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.</p>
<p>16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?</p>	<p>[Y] County zoning clearance has been obtained.</p>
<p>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?</p>	<p>[N]</p>
<p>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?</p>	<p>[N]</p>
<p>19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?</p>	<p>[N] The area has generally been used as a gravel pit and maintenance facility for the Highway Department for many years.</p>
<p>20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?</p>	<p>[N]</p>

Montana Bureau of Mines and Geology
08/06/1998
Water Well Log Data

Location: 18N 27W 30
Site Name: TEETERS KAY
Depth: 200.0
Yield: 35.0
Static Water Level: 160.00
Pumping Water Level: 180.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type 2.00 200.00 6.00
Year drilled: 1994
Driller: KANE

Location: 18N 27W 30
Site Name: BLAYLOCK MARK
Depth: 120.0
Yield: 30.0
Static Water Level: 59.00
Pumping Water Level: 80.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type -2.00 120.00 6.00
Year drilled: 1994
Driller: KANE

Location: 18N 27W 30
Site Name: TRESTLE CREEK GOLF COURSE
Depth: 120.0
Yield: 190.0
Static Water Level: 60.60
Pumping Water Level: 60.6
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type -2.00 120.00 8.00
Year drilled: 1994
Driller: KANE

Location: 18N 27W 30
Site Name: LEWIS JOE SR.
Depth: 107.0
Yield: 27.0
Static Water Level: 65.00
Pumping Water Level: 65.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type 0.00 107.00 6.00
Year drilled: 1972
Driller: KANE

Location: 18N 27W 30
Site Name: MACDONALD CF SR
Depth: 38.0
Yield: 8.3
Static Water Level: 6.50
Pumping Water Level: 8.5
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type 0.00 38.00 4.00
Year drilled: 1957
Driller: KANE

Location: 18N 27W 30
Site Name: MAGERA JOSEPH SR
Depth: 0.0
Yield: 1000.0
Static Water Level: 0.00
Pumping Water Level: 0.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type 0.00 0.00 0.00
Year drilled: 1960
Driller:

Location: 18N 27W 30
Site Name: SKY LINE TIMBER CO
Depth: 110.0
Yield: 55.0
Static Water Level: 70.00
Pumping Water Level: 0.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type -2.00 110.00 6.00
Year drilled: 1977
Driller: JEROME/OKEEFE

Location: 18N 27W 30
Site Name: TRESTLE CREEK GOLF COURSE
Depth: 120.0
Yield: 190.0
Static Water Level: 59.30
Pumping Water Level: 59.7
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type -2.00 120.00 8.00
Year drilled: 1994
Driller: KANE

Location: 18N 27W 30
Site Name: MCCALLUM NEWTON D
Depth: 31.0
Yield: 8.3
Static Water Level: 8.00
Pumping Water Level: 0.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type 0.00 31.00 4.00
Year drilled: 1957
Driller: KANE

Location: 18N 27W 30 A
Site Name: PICKERING BOB
Depth: 192.0
Yield: 40.0
Static Water Level: 162.00
Pumping Water Level: 170.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type -1.00 192.00 6.00
Year drilled: 1980
Driller: KANE

Location: 18N 27W 30 B
Site Name: COULTAS JOHN & JEAN
Depth: 121.0
Yield: 30.0
Static Water Level: 60.00
Pumping Water Level: 70.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type 2.00 121.00 6.00
Year drilled: 1992
Driller: KANE

Location: 18N 27W 30 BB
Site Name: DEPARTMENT OF TRANSPORTATION
Depth: 98.0
Yield: 30.0
Static Water Level: 64.00
Pumping Water Level: 70.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type -2.00 98.00 6.00
Year drilled: 1997
Driller: JEROMES

Location: 18N 27W 30 BC
Site Name: NORTHERN PACIFIC RAILWAY
Depth: 216.0
Yield: 8.0
Static Water Level: 27.50
Pumping Water Level: 96.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type 0.00 120.00 6.00
Year drilled: 1957
Driller: BODIN

Location: 18N 27W 30 BD
Site Name: NELSON JOHN & AMY
Depth: 93.0
Yield: 30.0
Static Water Level: 65.00
Pumping Water Level: 65.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type 0.00 93.00 6.00
Year drilled: 1972
Driller: KANE

Location: 18N 27W 30 BD
Site Name: COCHRAN JOHN
Depth: 199.0
Yield: 71.0
Static Water Level: 60.00
Pumping Water Level: 80.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type 0.00 199.00 6.00
Year drilled: 1971
Driller: INGBRETSON

Location: 18N 27W 30 BDB
Site Name: ELLIS CAROLINE
Depth: 134.0
Yield: 15.0
Static Water Level: 87.00
Pumping Water Level: 105.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type -1.00 134.00 6.00
Year drilled: 1982
Driller: SPANGLERS

Location: 18N 27W 30 CA
Site Name: PELARSKE W. DEE
Depth: 96.0
Yield: 0.0
Static Water Level: 0.00
Pumping Water Level: 0.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type 0.00 96.00 6.00
Year drilled: 1933
Driller: W DEE PELARSKE

Location: 18N 27W 30 CA
Site Name: CARLSON MARVIN G.
Depth: 86.0
Yield: 36.0
Static Water Level: 53.00
Pumping Water Level: 70.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type 0.00 83.00 6.00
Year drilled: 1967
Driller: MARVIN CARLSON

Location: 18N 27W 30 CADA
Site Name: COCHRAN JOHN
Depth: 91.5
Yield: 35.0
Static Water Level: 62.00
Pumping Water Level: 28.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type -1.50 91.50 6.00
Year drilled: 1989
Driller: CAMP

Location: 18N 27W 30 CADB
Site Name: COCHRAN JOHN
Depth: 199.0
Yield: 75.0
Static Water Level: 131.00
Pumping Water Level: 185.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type -1.50 195.20 6.00
Year drilled: 1993
Driller: CAMP

Location: 18N 27W 30 D
Site Name: SANDERS MARY E.
Depth: 205.5
Yield: 30.0
Static Water Level: 167.00
Pumping Water Level: 200.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type -1.50 205.50 6.00
Year drilled: 1993
Driller: CAMP

Location: 18N 27W 30 D
Site Name: PATTERSON G BERNARD
Depth: 195.0
Yield: 10.0
Static Water Level: 173.00
Pumping Water Level: 175.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type -1.00 195.00 6.00
Year drilled: 1978
Driller: SPANGLERS

Location: 18N 27W 30 D
Site Name: DOCKTER JERRY L.
Depth: 201.0
Yield: 30.0
Static Water Level: 173.00
Pumping Water Level: 180.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type -1.00 201.00 6.00
Year drilled: 1984
Driller: KANE

Location: 18N 27W 30 D
Site Name: LAVIGNE BUD
Depth: 181.0
Yield: 15.0
Static Water Level: 165.00
Pumping Water Level: 167.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type 0.00 181.00 6.00
Year drilled: 1976
Driller: SPANGLER

Location: 18N 27W 30 DC
Site Name: COCHRAN JOHN
Depth: 225.0
Yield: 50.0
Static Water Level: 169.00
Pumping Water Level: 210.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type -1.50 225.50 6.00
Year drilled: 1993
Driller: CAMP

Location: 18N 27W 30 DC
Site Name: COCHRAN JOHN
Depth: 220.0
Yield: 50.0
Static Water Level: 167.00
Pumping Water Level: 210.0
Casing: Top (ft.) Bottom (ft.) Diameter (in.)
Type -1.50 220.00 6.00
Year drilled: 1993
Driller: CAMP