ENVIRONMENTAL ASSESSMENT

Project Name: V-Bar-K **Proposed Implementation Date:** June 97
Proponent: Empire Sand & Gravel Company, Inc.
Type and Purpose of Action: The proponent proposes to mine, crush, stockpile and transport 170,000 cu. yds. of gravel and borrow from a 23.2 acre site for a Montana Dept. of Transportation highway construction project. The site would be reclaimed by recontouring, respreading the topsoil and reseeding the site with grasses. There will be an asphalt plant connected with the project
Location: SE¼, Sec. 4, T11S, R2E **County:** Madison

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**
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?	**[N]** The proposed operation is located in sands and gravels of a glacial/alluvial nature deposited approximately 15,000 years ago in the upper end of the Madison Valley. The topsoil is of a silty loam texture with gravel and averages 6 inches deep. The overburden averages approximately 1.5 feet deep and is of a sandy silty texture. The topsoil and overburden would be stripped and stockpiled separately and after regrading the overburden and then the topsoil would be evenly replaced. Microorganisms should reinvade the site.
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?	**[N]** The nearest surface water is Mile Creek which is located approximately 400 to 500 feet south of the proposed operation. The site will be mined to a maximum depth of 20 feet. The depth to the ground water is estimated to be 100 feet plus. Fuel storage tanks would be lined and bermed and be of sufficient size to contain any leaks or spills. 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.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	**[Y]** Air quality would be degraded, but the proponent must comply with air quality standards, and an Air Quality Permit obtained from the Montana Dept. of Environmental Quality.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?	**[Y]** The site is located in native range with the plant species consisting mainly of fescue, bluebunch wheatgrass, various forbs, big sage and prairie junegrass. Native grass species will be seeded onto the site upon recontouring and retopsoiling. 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.

5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	**[N]** The site gets occasional use by various rodents, bird species, antelope, deer, and elk.
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?	**[N]** A ground and literature search were conducted and no threatened or endangered species or identified habitats were found on the site. No wetlands were present.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	**[N]** A cultural survey was conducted on the site by Gar Wood and no cultural resources were found. If the operator of the proposed operation discovers any additional cultural resources the operation must be routed around the site of discovery for a reasonable amount of time until salvage can be made. The State Historical Preservation Office must be promptly notified.
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?	**[Y]** The site is located within site distance of several permanent and summer home sites. From the site the Quake Lake slide can be seen. The area also receives a considerable amount of tourist traffic from parties travelling US 287 going and coming from Yellowstone Park. The impacts due to the road construction activities will last considerable more time then the crushing and asphalt plant activities. The proponent proposes to crush 16 hours a day for a period of two weeks. Light and noise could have an effect on local residences. The topsoil and overburden berms would be strategically placed to cut down on the noise and lights.
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?	**[N]**
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other studies, plans or projects on this tract?	**[N]**

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	**POTENTIAL IMPACTS AND MITIGATION MEASURES**

11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	**[Y]** There will be increased hazards because of 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.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	**[Y]** Until the 23.2 acres of disturbed land are entirely reclaimed and vegetation successfully established there will be a loss of rangeland on those acres.
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?	**[N]** The site will require periodic site evaluations, but these will be done in conjunction with other operations in the area.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	**[N]** County Zoning clearance has been obtained.
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:

Alternative # 1: Denial. The owner of the gravel resource would be denied full utilization of his property at this time.

23. Public Involvement, Agencies, Groups or Individuals contacted: Montana Natural Heritage Program; Madison County Weed Control District and Commissioners.

24. Other Governmental Agencies with Jurisdiction, List of Permits Needed: Mine Safety & Health Administration for safety permit; Montana Department of Labor & Industry, Bureau of Safety for safety permit: Permitting & Compliance Division for crusher permit.

25. Magnitude and Significance of Potential Impacts: Impacts are unlikely to be significant on the general environment because of the short duration of the project.

26. Regulatory Impact on Private Property: The analysis conducted in response to the Private Property Assessment Act indicates no impact.

Recommendation for Further Environmental Analysis:

[ ] EIS [ ] More Detailed EA [X] No Further Analysis

EA Checklist Prepared By: Jerry Burke Title: Mine Reclamation Specialist

Approved By: Steve Welch Title: Industrial & Energy Minerals Bureau Chief

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Signature Date