

DS-252

## CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name: Seismic 1469, Cottonwood Prospect	Proposed Implementation Date: Upon approval
Proponent: Grant Geophysical Corp.	
Type and Purpose of Action: Grant Geophysical has requested to conduct a seismic survey.	
Location: See Attached	County: Roosevelt/Richland

### I. PROJECT DEVELOPMENT

<p>1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED: Provide a brief chronology of the scoping and ongoing involvement for this project.</p>	<p>The Department of Natural Resources and Conservation (DNRC) Minerals Division received an application to conduct a seismic survey from Grant Geophysical. The DNRC Trust Land Management Division (TLMD) Glasgow Unit Office has been requested to complete an Environmental Assessment Checklist for the proposed project. There are two State grazing/agriculture leases associated with the surface in portions of the proposed project area. The State also has jurisdiction over the Missouri river corridor. The surface lessees of the State land and the private landowners along the Missouri river have been notified of the proposed project. There is a CRP contract associated with a portion of this proposed project and the Richland County FSA office has been notified.</p>
<p>2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:</p> <div style="text-align: center; margin-top: 20px;"> <p><b>RECEIVED</b></p> <p>MAR 08 2006</p> <p>LEGISLATIVE ENVIRONMENTAL POLICY OFFICE</p> </div>	<p>The DNRC TLMD has jurisdiction over the State land within the proposed project area. The DNRC Water Resources Division has jurisdiction over water issues in the State of Montana. The proponent will be responsible to contact the water resources division and acquire any permits that may be necessary to proceed with the proposed project. Permits that may be necessary include:</p> <ul style="list-style-type: none"> <li>• Montana Stream Protection Act (SPA 124 Permit)</li> <li>• Storm Water Discharge General Permits</li> <li>• Stream Side Management Zone Law</li> <li>• Montana Floodplain and Floodway Management Act (Flood Plain Development Permit)</li> <li>• Short Term Exemption from Montana's Surface Water Quality Standards (3A Authorization)</li> <li>• Montana Natural Streambed and Land Preservation Act (310 Permit)</li> <li>• Montana Land-Use License or Easement on Navigable Waters</li> </ul>

	<ul style="list-style-type: none"> <li>• Montana Water Use Act (Water Right Permit and Change Authorization)</li> <li>• Montana Water Use Act (Water Reservation)</li> <li>• Federal Clean Water Act (404 Permit)</li> <li>• Federal Rivers and Harbors Act</li> <li>• Other laws that may apply, depending upon your location and activity</li> </ul>
3. ALTERNATIVES CONSIDERED:	<p><b>Action Alternative:</b> Allow the proponent to conduct a 3-D seismic survey, using vibroseis techniques, on the referenced location.</p> <p><b>NO Action Alternative:</b> Deny the proponent to conduct a 3-D seismic survey on the referenced location.</p>

**II. IMPACTS ON THE PHYSICAL ENVIRONMENT**

RESOURCE	POTENTIAL IMPACTS
<p>4. 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><b>Action Alternative:</b> There are many soil types within the area proposed for the seismic survey. Some of the soil types include Tremble fine sandy loams, Havrelom Silty loam, Lohler silty clay loam and river wash soils along the Missouri river. The terrain is mostly river bottom. The survey method proposed for the seismic test is vibroseis. This method of surveying may cause soil compaction along the survey routes and within each survey location.</p> <p>Mitigation measure: No seismic activities will occur during wet or muddy conditions.</p> <p><b>NO Action Alternative:</b> The soils in this area will not be impacted.</p>
<p>5. 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><b>Action Alternative:</b> The proposed seismic project area is located near and along the Missouri river. If approved, the seismic activity may impact the water quality of the Missouri river.</p> <p>Mitigation measures: No seismic activity will occur within 100 feet of the banks of the Missouri river.</p> <p><b>NO Action Alternative:</b> Water quality, quantity and distribution will not be affected.</p>
<p>6. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>	<p><b>Action Alternative:</b> Air quality will not be affected by the proposed seismic survey.</p> <p><b>NO Action Alternative:</b> Air quality will not be affected in this area.</p>
<p>7. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered?</p>	<p><b>Action Alternative:</b> The vegetation in the proposed seismic survey area consists of irrigated agricultural</p>

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

<p>Are any rare plants or cover types present?</p>	<p>crops, native and tame grasses and woody shrubs and trees. The vegetation within the proposed project area will be impacted. Leafy spurge (<i>Euphorbia esula</i>) is abundant throughout the proposed survey area. The spurge plants will be dormant at the time of the proposed seismic survey; however, there is the potential that the survey equipment will spread remnant spurge seeds.</p> <p>Mitigation measures: No woody vegetation, alive or dead, that is still rooted to the ground will be cut down or up-rooted.</p> <p><b>NO Action Alternative:</b> Vegetation in this area will not be effected.</p>
<p>8.TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?</p>	<p><b>Action Alternative:</b> The equipment used to conduct the proposed survey may disturb ungulate, avian and aquatic wildlife species in the immediate area. Any disturbance will be localized and temporary.</p> <p>Mitigation measures: No seismic activity will occur within 100 feet of the banks of the Missouri river. No standing woody plant species may be disturbed.</p> <p><b>NO Action Alternative:</b> Ungulate and Avian wildlife species will not be affected.</p>
<p>9.UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Sensitive Species or Species of special concern?</p>	<p><b>Action Alternative:</b> Implementation of this action will not affect any unique, endangered, fragile or limited environmental resources present in this area.</p> <p><b>NO Action Alternative:</b> No resources in the area will be affected.</p>
<p>10.HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p><b>Action Alternative:</b> Department personnel conducted a cultural survey of the proposed project area and no historical or archaeological sites will be disturbed by this project. The State archeologist has been notified of this proposed survey and has no cultural concerns.</p> <p><b>NO Action Alternative:</b> No historical or archaeological sites will be affected.</p>
<p>11.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><b>Action Alternative:</b> The proposed project site will be visible from a county road in two locations. A portion of the project site will also be visible from the home of Miles Panasuk. When in operation, the vibroseising equipment does create noise.</p> <p><b>NO Action Alternative:</b> The aesthetics of in this area will not be affected.</p>
<p>12.DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other</p>	<p><b>Action Alternative:</b> No resources will be affected.</p> <p><b>NO Action Alternative:</b> No resources will be affected.</p>

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

<p>that are limited in the area? Are there other activities nearby that will affect the project?</p>	<p><b>NO Action Alternative:</b> No resources will be affected.</p>
<p>13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: Are there other studies, plans or projects on this tract?</p>	<p><b>Action Alternative:</b> There is a CRP contract associated with a portion of the land within the project area. The Richland county FSA office has been advised of the proposed project and has granted permission to conduct the proposed seismic survey on lands associated with the CRP contract without jeopardizing the CRP contract as long as the conditions they outlined are met.</p> <p>Mitigation measures: The survey must be conducted between December 2005 and May 2006. Any disturbed vegetation cover must be re-established to the grass species required by the CRP contract by the proponent of the proposed project.</p> <p><b>NO Action Alternative:</b> No studies, plans or projects will be affected.</p>

III. IMPACTS ON THE HUMAN POPULATION

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>14. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?</p>	<p><b>Action Alternative:</b> The proposed project will require the use of heavy machinery. There will be some health and safety concerns while the seismic survey is being conducted. Workers are aware of the health and safety risks and recognize them as occupational hazards. Once the seismic survey is completed, there will be no health and safety concerns associated with this project.</p> <p><b>NO Action Alternative:</b> Human health and safety risks will not be affected.</p>
<p>15. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?</p>	<p><b>Action Alternative:</b> This proposed project is designed to locate oil deposits buried deep below the earth's surface. If the results from the seismic survey indicate there is oil present within the proposed project area, industrial and commercial activities will increase in the region. There is a DNRC agricultural and grazing lease associated with the surface land in two locations within the proposed project area. One of the agricultural leases consists of irrigated farmland. The farmland is irrigated by a pivot system. There is a pipeline within the project area that services the pivot. The proposed project</p>

	<p>will have some impacts to the agriculture land and may cause the pipelines to leak.</p> <p>Mitigation measures: There will be no seismic activity allowed within 330-feet of the pipelines.</p> <p>Mitigation measures: No motorized vehicles will be allowed on the irrigated agricultural acres in the NE4 of S-36 T27N R58E if the temperature is greater than 20° (F).</p> <p><b>NO Action Alternative:</b> No industrial, commercial or agricultural activities or production will be affected.</p>
<p>16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.</p>	<p><b>Action Alternative:</b> This proposed project would help secure continued employment for workers employed by the seismic company.</p> <p><b>NO Action Alternative:</b> The quantity and distribution of employment will not be affected.</p>
<p>17. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?</p>	<p><b>Action Alternative:</b> If oil is discovered within the project area as a result of the proposed seismic survey, the local and State tax base and tax revenues will increase.</p> <p><b>NO Action Alternative:</b> The local State tax base and tax revenues will not be affected.</p>
<p>18. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?</p>	<p><b>Action Alternative:</b> No demands for government services will be required.</p> <p><b>NO Action Alternative:</b> Demand for government services will not be affected.</p>
<p>19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?</p>	<p><b>Action Alternative:</b> No zoning plans will be affected.</p> <p><b>NO Action Alternative:</b> No management plans will be affected.</p>
<p>20. 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><b>Action Alternative:</b> The recreational potential for this tract is hunting. Hunting will not be affected by this proposed project.</p> <p><b>NO Action Alternative:</b> Recreational and wilderness activities will not be effected.</p>
<p>21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?</p>	<p><b>Action Alternative:</b> Density and distribution of population and housing will not be affected.</p> <p><b>NO Action Alternative:</b> Density and distribution of population and housing will not be affected.</p>

<p>22. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?</p>	<p><b>Action Alternative:</b> Social structure and mores will not be affected.</p> <p><b>NO Action Alternative:</b> Social structure and mores will not be affected.</p>
<p>23. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?</p>	<p><b>Action Alternative:</b> The cultural uniqueness and diversity of the area will not be affected.</p> <p><b>NO Action Alternative:</b> The cultural uniqueness and diversity of the area will not be affected.</p>
<p>24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:</p>	<p><b>Action Alternative:</b> No social and economic circumstances will be affected.</p> <p><b>NO Action Alternative:</b> No social and economic circumstances will be affected.</p>

EA Checklist Prepared By:

*Craig Biggart*  
 Craig Biggart

Date: January 11, 2006

<p>IV. FINDING</p>	
<p>25. ALTERNATIVE SELECTED:</p>	<p>Action Alternative: Mitigations will minimize disturbance</p>
<p>26. SIGNIFICANCE OF POTENTIAL IMPACTS:</p>	<p>NSI</p>
<p>27. Need for Further Environmental Analysis:</p> <p><input type="checkbox"/> EIS      <input type="checkbox"/> More Detailed EA      <input checked="" type="checkbox"/> No Further Analysis</p>	

EA Checklist Approved By  
 January 11, 2006

*R. Hoyt Richards*  
 R. Hoyt Richards, Glasgow Unit Manager

*1/11/06*  
 Date: