

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name: 3D Seismic on State land	Proposed Implementation Date: January 26 th , 2011
Proponent: Global Geophysical Services, Inc., P.O. Box 350, Watford City, ND 58753	
Type and Purpose of Action: Global Geophysical Services has made application to conduct a 3D Seismic survey on State land in Roosevelt and Sheridan County. The project is described as the Round Prairie 3D Study under permit #1557. The purpose of the project is to map out deep geologic formations within in the project area.	
Location: Lots 1-4 of S36-T28N-R59E; SW4SW4 of S3-T28N-R59E; NW4NW4 of S10-T28N-R59E; Lot 4 of S24-T28N-R59E; Lot 2 of S9-T29N-R59E; Lots 1-4, W2E2, W2 of S16-T29N-R59E; Lots 1-4 of S21-T29N-R59E; Lots 2,3,4 of S33-T29N-R59E; All of S36-T29N-R58E; All of S36-T30N-R58E; Lots 1-4, W2 of S16-T30N-R59E; Lots 1-4, W2 of S16-T31N-R59E; All of S36-T31N-R58E; All of S16-T30N-R58E; and All of S16-T31N-R58E. (The State owns only the subsurface minerals and does not own the surface on Lots 1-4 of S36-T28N-R59E and Lots 2, 3, 4 of S33-T29N-R59E.)	County: Roosevelt and Sheridan County

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>Kirsten Andersen, permit agent for Global Geophysical Services contacted the Department of Natural Resources and Conservation, Minerals Management Bureau, Helena Office. Global Geophysical Services applied for a permit from the Department of Natural Resources and Conservation to conduct a 3D seismograph survey operation on State land. The Department of Natural Resources and Conservation, Glasgow Unit Office is responsible to complete the Environmental Assessment process for the seismograph survey. Global Geophysical Services sent maps and surface damage settlement forms to the Glasgow Unit Office.</p> <p>Montana Fish Wildlife and Parks was solicited for comments. MT FWP called back to discuss the project with DNRC staff, but they did not submit any written comments.</p>
<p>2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:</p>	<p>The other agencies that may have jurisdiction for this type of project would be the Montana Board of Oil and Gas, Montana Secretary of State Office, Sheridan and Roosevelt County Commissioners, and Sheridan and Roosevelt FSA offices.</p> <p>Permission has been granted for Global Geophysical to trespass on State trust lands enrolled in CRP, for the purpose of completing this project, from both Sheridan and Roosevelt FSA boards.</p>

3. ALTERNATIVES CONSIDERED:	<p>Action Alternative: Grant a permit to Global Geophysical Services to conduct a 3D seismic survey on State land.</p> <p>No Action Alternative: Deny a permit to Global Geophysical Services to conduct a 3D seismic survey on State land.</p>
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II. IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	[Y/N] POTENTIAL IMPACTS
<p>4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</p> <p>Are fragile, compactable or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?</p>	<p>N = Not Present or No Impact will occur. Y = Impacts may occur (explain below)</p> <p>No unusual geologic features are located within the proposed study area. The seismograph project will alter the surface soils on the state land via compaction. The project would be required through stipulation to occur only during frozen ground conditions. The surface soils would return to their current production capabilities shortly after the project was completed.</p> <p>Action: The project would disturb and compact the soil near the surface of the land located along the proposed routes to be studied. These impacts would be temporary and the soil's structure and capability would return to normal in the future.</p> <p>No Action: No impacts to the area's geology, soil quality, soil stability, and soil moisture will occur.</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>This project would not create potential violations of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. The project would only be allowed to take place during the winter months when surface water is normally frozen. Furthermore, stipulations would be added to protect the project area from being contaminated and would ensure the surface and groundwater resources are not impacted from contaminated runoff.</p> <p>Action: Groundwater resources and quality would remain unchanged. Water quality, quantity, and distribution would also remain unchanged.</p> <p>No Action: No impacts will occur to the areas current water quality, quantity, and distribution.</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>No Class I Airsheds are located near this area. This area is considered to have high air quality.</p> <p>Action: Air quality would be slightly reduced due to</p>

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	<p>an increase of pollutants and particulates during the proposed action from the burning of fossil fuels to power the necessary equipment. Air quality in the project area would quickly return to normal upon completion of the proposed project.</p> <p>No Action: No impacts will occur to the areas air quality.</p>
<p>7. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p>A search of Montana State Library's "Natural Resource Information System" resulted in a list of 5 "species of concern". The only State land thought to contain these plant species are tracts located either within or near Township 31 North - Range 58 East. These plants would be dormant during the proposed study and no impacts are anticipated.</p> <p>Action: Impacts to the areas vegetation cover, vegetative communities, and/or rare plants are not anticipated to occur.</p> <p>No Action: No impacts to the areas vegetation cover, vegetative communities, and/or rare plants will occur.</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>A search of Montana State Library's "Natural Resource Information System" resulted in a list of 12 "species of concern" and 4 "potential species of concern" for animals. The proposed action is being restricted to the winter months when the ground is frozen solid to minimize disturbances. None of the listed species are known to utilize the project area when the ground is frozen.</p> <p>Action: Wildlife, birds, and/or fish species are not anticipated to be affected by the proposed action.</p> <p>No Action: No impacts will occur to important wildlife, birds, and/or fish species.</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>Various types of perennial and seasonal wetlands are present within the proposed action area. The wetlands are currently frozen and should remain frozen until after the project would be completed. A search of Montana State Library's "Natural Resource Information System" resulted in a list of 12 "species of concern" and 4 "potential species of concern" for animals and 5 "species of concern" for plants. The lists of "species of concern" and "potential species of concern" within the project area have been attached. After reviewing the lists, it is believed that none of these species will be impacted by the proposed study.</p> <p>There is only a single reptile species "Western Hog</p>

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	<p>Nosed Snake". The 12 bird species likely migrate out of the project area during the winter, so the project would likely result in no impacts to the listed birds.</p> <p>The 3 fish species listed would also be unaffected because the wetlands are frozen and would not be disturbed by the proposed action.</p> <p>Action: No impacts to unique, endangered, fragile, and/or limited environmental resources are anticipated.</p> <p>No Action: No impacts will occur to any unique, endangered, fragile, and/or limited environmental resources.</p>
<p>10. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>No major historical, archaeological, and/or paleontological sites or resources are known to exist within the proposed action area. Numerous stone features are scattered throughout the tracts. DNRC Archaeologist, Patrick Rennie believes no impacts to these features would occur from the proposed action if the project is completed on frozen and/or dry ground.</p> <p>Per Mr. Rennie's recommendation, the study will be required through stipulation to be conducted only when suitable ground conditions are present.</p> <p>Action: The proposed action would not substantially affect the historical, archaeological, and/or paleontological sites and/or resources within the action area.</p> <p>No Action: No impacts will occur to any historical, archaeological, and/or paleontological sites or resources.</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>The study is planned to be wide spread and not limited to just the State land. Seismic studies are typically completed within a few weeks time and the equipment would then leave the area. The area may have a few minor surface scars and compacted wheel tracks, but it should return to its normal state within 1-2 growing seasons.</p> <p>Action: Aesthetics would be temporarily impacted during the study, but this project would not have lasting impacts to the aesthetics of the State land.</p> <p>No Action: No impacts will occur to the State land's aesthetics.</p>
<p>12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources</p>	<p>The surrounding area is rapidly being developed to produce oil.</p>

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<p>that are limited in the area? Are there other activities nearby that will affect the project?</p>	<p>Action: Proposed action would not result in the use of any of the areas limited resources. Nearby activities would not impact this project.</p> <p>No Action: No impacts to the areas limited resources will occur.</p>
<p>13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: Are there other studies, plans or projects on this tract?</p>	<p>Similar studies are currently being conducted nearby and they will likely continue these types of studies in the future. The proposed project's findings would likely be used together with previous and future studies to better map out subsurface resources in the area.</p> <p>Action: No known documents, studies, plans, or projects would be negatively impacted.</p> <p>No Action: No documents, studies, plans, or projects will be impacted.</p>

III. IMPACTS ON THE HUMAN POPULATION

RESOURCE	[Y/N] 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>The proposed study would result in temporary human health and safety risks. The movement of trucks across roads and ROW's would increase the chance of accidents in these areas. Global Geophysical realizes their employees would be subject to risks associated with operating and working around the heavy machinery needed to complete the project.</p> <p>Action: An increase to temporary human health and safety risks related to operating, working around, and moving heavy machinery across the landscape would be a result of the proposed action.</p> <p>No Action: No impacts to human health and safety will occur.</p>
<p>15. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?</p>	<p>The proposed action site is located in an area that has a large amount of agricultural and grazing production taking place. The commercial/industrial activity in this area is increasing in the form of oil developments.</p> <p>Action: No impacts to the areas industrial, commercial, and agricultural activities and/or production are anticipated to occur from the proposed action.</p> <p>No Action: No impacts to the areas industrial,</p>

	commercial, and agricultural activities and/or production will occur.
16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	<p>The project itself would not change the quantity or distribution of employment. Global Geophysical employees or a second party would be conducting the study.</p> <p>Action: The quantity of employment opportunities and distribution of employment would remain unchanged.</p> <p>No Action: No impacts to the quantity and/or distribution of employment will occur.</p>
17. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	<p>The proposed action would not create or eliminate tax revenue. The school trust associated with each tract permitted would receive a single payment through the surface damage settlement agreements agreed upon by Global Geophysical Services. The payment would range from \$4.00-5.00/acre depending on current land use.</p> <p>Action: No impacts to the State of Montana's taxes and/or local taxes are anticipated. The State trust would receive \$20,422.19 for allowing the project to take place.</p> <p>No Action: No impacts to State of Montana taxes, local taxes, and/or Trust revenues will occur.</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>Additional traffic would occur during the proposed action.</p> <p>Action: The proposed action would not create a new demand on government services. Traffic levels would temporarily increase and then return to normal upon completion of the project.</p> <p>No Action: No impacts to the demand of government services will occur.</p>
19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	<p>No impacts to environmental plans and/or goals pertinent to this area are anticipated. Zoning and management plans for this area would not be impacted by the project.</p> <p>Action: No impacts to locally adopted environmental plans and goals and/or zoning and management plans for this area would occur.</p> <p>No Action: No impacts to locally adopted environmental plans and goals and/or zoning and management plans for this area will occur.</p>
20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through	<p>The project would be limited to the winter months when limited recreation is taking place on these tracts. Short term displacement of game and non-game animals</p>

<p>this tract? Is there recreational potential within the tract?</p>	<p>would likely occur during the project. The area would quickly return to normal after the completion of the project.</p> <p>Action: Quality of recreational opportunities may be slightly impacted; however, the area would return to normal shortly after the completion of the project.</p> <p>No Action: No impacts to quality or access of recreational or wilderness areas will occur.</p>
<p>21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?</p>	<p>Impacts from a possible increase in human population to this area may result indirectly from the project if the study's results indicate oil development is feasible in this area. The project itself would not directly result in an increased demand for housing.</p> <p>Action: Proposed action would not increase population or require additional housing.</p> <p>No Action: No impacts to population or housing will occur.</p>
<p>22. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?</p>	<p>Action: No disruptions to native or traditional lifestyles and/or communities are anticipated to occur.</p> <p>No Action: No impacts concerning the disruption of native or traditional lifestyles will occur.</p>
<p>23. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?</p>	<p>Action: Cultural uniqueness and diversity qualities are not anticipated to be impacted.</p> <p>No Action: No impacts to cultural uniqueness and diversity will occur.</p>
<p>24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:</p>	<p>Action: None</p> <p>No Action: None</p>

EA Checklist Prepared By: _____

Matthew Poole
Land Use Specialist

Date: January 31, 2011

