

DNRC - Trust Land Management Division

DS-252

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name: Seismic Permit No. 1428	Proposed Implementation Date: June 1, 2004
Proponent: Polaris Exploration Ltd., 4550 35 th St. SE, Calgary, Alberta T2B-35 c/o Stephen Boyle, P.O. Box 801, Chinook, MT 59523 - Phone Number (406) 357-2221	
Type and Purpose of Action: Polaris Exploration Ltd. is proposing to conduct a 2-D seismic project for the exploration of natural gas formations across the below referenced tracts of state land. The project is expected to cross approximately ¼ of a mile of state owned lands. Polaris Exploration Ltd. is conducting this project on behalf of Montana Land & Exploration, Inc.	
Location: <u>Township 33.0 North, Range 19.0 East, M.P.M.</u> Section 8: W½ Section 14: N½SW¼, NW¼	County: Blaine County

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I. PROJECT DEVELOPMENT	LEGISLATIVE ENVIRONMENTAL POLICY OFFICE
1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED: Provide a brief chronology of the scoping and ongoing involvement for this project.	The Department of Natural Resources and Conservation (DNRC) has been petitioned by Polaris Exploration Ltd. to conduct a 2-D seismic project across the above referenced tracts of state land. The Montana DNRC sent out scoping letters to the following state surface lessees; Maddox Ranch Company and Briese Brothers. The scoping letters identify the proposed seismic project across the above referenced tracts of state land.
2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:	The Montana DNRC's, Havre Unit Office, Minerals and Management Bureau, and the Montana Board of Oil & Gas are the only governmental agencies with jurisdiction for this type of project. Polaris Exploration Ltd. will need to obtain a seismic permit from the Montana DNRC, prior to conducting any seismic activity on state owned lands. The seismic company that has been contracted to do the seismic work under this permit must have a valid permit with the county and have registered their bond with the Secretary of State's Office.
3. ALTERNATIVES CONSIDERED:	Action Alternative: Grant Polaris Exploration Ltd. permission to conduct a 2-D seismic project for the exploration of natural gas formations across the above referenced tracts of state land. The Montana DNRC will issue Polaris Exploration Ltd. a seismic permit to conduct this activity on these two tracts of state land. No Action Alternative: Deny Polaris Exploration Ltd. a seismic permit to conduct a 2-D seismic project for the exploration of natural gas formations across state land.

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	POTENTIAL IMPACTS
<p>4. 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>Action Alternative: The soils will receive a minimal disturbance with this type of activity. The proposed seismic project will only take place while the ground is frozen or dry. No unusual geological features are present on these tracts of state land. The soils are suitable for this type of activity, but may experience some compaction due to the heavy equipment that is used. There are no special reclamation considerations for this project.</p> <p>No Action Alternative: The soils that are located on these tracts of state land will not be disturbed. The seismic company will not be issued a seismic permit to conduct a 2-D seismic project across these tracts of state land.</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>Action Alternative: The location of the seismic project does contain important surface and/or groundwater resources during different times of the year. The seismic company is prohibited from any seismic activity within 300 feet of any springs, water wells, streams, lakes or water storage reservoir facilities to maintain the integrity of these water resources. The seismic company is also prohibited from any seismic activity within 150 feet of any center pivot used for irrigation purposes. This type of activity does not have the potential to contaminate drinking water or degrade the present water quality found in this area.</p> <p>No Action Alternative: The water quality, quantity, and distribution will not be impacted. The seismic company will not be allowed to conduct a 2-D seismic project across these tracts of state land. Water quality standards will not be violated. Drinking water will not be degraded in this area.</p>

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

6. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?

Action Alternative: The project is expected to have a minimal impact on the air quality in the surrounding area of the proposed activity. An increase in traffic across this area by the seismic company will produce some particulates, during the initial stages of the project. However, after the seismic company completes the project, traffic will return to normal in these areas. The seismic company will be required to use existing roads and trails for moving equipment from place to place.

No Action Alternative: The present air quality will not be impacted on these tracts of state land. No pollutants or particulates will be produced in this area. The seismic company will not be issued a seismic permit to conduct a 2-D seismic project across these tracts of state land.

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

7. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?

The vegetative communities found on the native rangeland include the following plants: western wheatgrass (*Agropyron smithii*), needle-and-thread (*Stipa comata*), blue grama (*Bouteloua gracilis*), prairie junegrass (*Koeleria pyramidata*), green needlegrass (*Stipa viridula*), sedges (*Carex spp.*), sandberg bluegrass (*Poa secunda*), cudweed sagewort (*Artemisia ludoviciana*), fringed sagewort (*Artemisia frigida*), dense clubmoss (*Selaginella densa*), silver sagebrush (*Artemisia cana*), and woods rose (*Rosa woodsii*).

The agricultural commodities found on the irrigated and dryland agricultural fields include the following crops: winter wheat, spring wheat, barley, and hay lands consisting of Russian wildrye (*Elymus jubatus*).

Action Alternative: The proposed project is expected to have a minimal impact on the vegetative cover, quantity, and quality of these agricultural commodities found on the state land. The vegetative communities in the immediate area of disturbance will receive minimal impact. No rare plants or cover types are found within the project area. There will be no vehicular activity, other than specified on the plat map on both the agricultural and grazing land. The seismic company will not be allowed to traverse up, down, or across the steep slopes that are found within the proposed project area. The agricultural commodities will be minimally impacted with this type of activity. The permittee will settle all surface damages with the state's surface lessees within a reasonable time period following the completion of the seismic project. The overall disturbance to the agricultural and grazing land will be minimal, since the seismic activity will only be allowed to take place during frozen or dry surface conditions.

No Action Alternative: The vegetative communities found throughout the proposed project area will not be altered. No rare plants and cover types exist in this area. Polaris Exploration Ltd. will not be issued a seismic permit to conduct a 2-D seismic project across these tracts of state land.

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:
Is there substantial use of the area by important
wildlife, birds or fish?

Action Alternative: The area of the proposed activity is used by many different types of wildlife and bird species. Wildlife may be temporarily dispersed in this area, during the seismic project. Wildlife and bird species found in this area will not be permanently relocated as a result of this activity. Once the project is completed, wildlife and bird species will return to normal activities in this area. Wildlife habitat will not be impacted by the seismic activity. Wildlife species will not be permanently relocated with this type of activity.

No Action Alternative: The terrestrial and avian life and their habitats will not be impacted. The seismic company will not be issued a seismic permit to conduct a 2-D seismic project across these tracts of state land.

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?

Action Alternative: The timing of this project will take place while the ground is frozen or dry. This will minimize the overall disturbance to existing habitat types, agricultural commodities, and the overall ecosystem. Federally listed, threatened, and endangered species will be able to migrate through this area with minimal disturbance. There are sensitive species and species of special concern known to use this area as habitat. These species may be temporarily displaced with this type of activity on these tracts of state land. However, these species will not be permanently relocated with this type of activity. The seismic company will complete their work in one to two days and they will leave the area completely. All wildlife species found in this area will return to normal everyday activities, once the seismic company finishes the project and leaves this area. There are no wetlands located within the immediate area of the proposed disturbance on these tracts of state land.

No Action Alternative: The unique, endangered, fragile or limited environmental resources found within the immediate area of the proposed project will not be impacted. Polaris Exploration Ltd. will not be issued a seismic permit to conduct a 2-D seismic project across these tracts of state land.

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

<p>10. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>Action Alternative: The Montana DNRC has surveyed the proposed project area for existing cultural resources. The Montana DNRC Archaeologist, Patrick Rennie, was contacted for his input on cultural resources in this area. He has seen no evidence that 2-D seismic activities, on frozen or dry ground, have any ability to impact any kind of cultural resource.</p> <p>No Action Alternative: Unknown historical and archaeological resources present on these tracts of state land will not be disturbed. Polaris Exploration Ltd. will not be issued a seismic permit to conduct this seismic project. There will be no alterations to the existing or unknown historical or archaeological 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>Action Alternative: The proposed project is located in a semi-rural area north of Chinook, Montana. The disturbed areas contained within this project will be visible to the public. The project will create some excessive noise during the initial stages of the project. However, the noise levels will return to normal once the project is completed and the seismic company pulls out of the area.</p> <p>No Action Alternative: The project will not impact the aesthetic character of the land. The seismic company will not be issued a seismic permit to conduct 2-D seismic activities across these tracts of state land.</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 activities nearby that will affect the project?</p>	<p>Action Alternative: The grazing and agricultural lands will receive minimal, short-term impacts with this type of proposed activity. The project will take place while the ground is frozen or dry, in order to limit the impact to the native rangeland resources and newly planted crops. The project will not use resources that are limited in the area.</p> <p>No Action Alternative: There will be no demands on the environmental resources of land, water, air or energy, The Montana DNRC will not issue Polaris Exploration Ltd. a seismic permit to conduct seismic activities across these tracts of state land.</p>

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

<p>13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: Are there other studies, plans or projects on this tract?</p>	<p>Action Alternative: The DNRC will continue to monitor mineral and surface management activities on state lands to assess the impacts of these types of projects on the surrounding ecosystem. The Montana DNRC will continue to administer the licensed activities that are currently authorized to take place on these tracts of state land.</p> <p>No Action Alternative: No further studies, plans, or projects will be needed. The Montana DNRC will not issue Polaris Exploration Ltd. a seismic permit to conduct 2-D seismic activities across these tracts of state land. The Montana DNRC, Trust Land Management Division, Havre Unit Office will continue to perform field appraisals on these tracts of state land every ten years in accordance with Montana State Statute.</p>
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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>Action Alternative: The seismic company, subcontractors, and/or their employees understand the risks involved with this type of project. They assume the risks involved in seismic project as an occupational hazard. The project will not have any long-term impacts on the human health and safety of the people found in this area.</p> <p>No Action Alternative: The human health and safety risks found in this area will continue to remain minimal. There will be no human health or safety risks to the seismic company, subcontractors, and/or its employees, if the Montana DNRC does not issue Polaris Exploration Ltd a seismic permit to conduct a 2-D seismic project across these tracts of state land.</p>

<p>15. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?</p>	<p>Action Alternative: The Montana DNRC has set up stipulations for the seismic company to ensure that the industrial, commercial, and agricultural activities will not be altered with this type of project. The native rangeland and agricultural land will be impacted with this type of activity. The proposed project will matt the native grasses and forbs down, but will not impact the long-term, future forage productivity of the grazing land. The project will have a minimal impact to the agricultural land, since the project can only be completed during frozen or dry surface conditions. Damages will be settled with the state's surface lessees within a reasonable time period following the completion of the proposed seismic project.</p> <p>No Action Alternative: The industrial, commercial, and agricultural activities will not be altered. Polaris Exploration Ltd. will not be issued a seismic permit. Native rangeland forage production will remain the same. Agricultural crops will not be damaged on these tracts of state land.</p>
<p>16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.</p>	<p>Action Alternative: The project will not alter the quantity and distribution of employment in this area. The project will create short-term jobs for the seismic company's employees, but will have no impact on the local quantity and distribution of employment.</p> <p>No Action Alternative: The quantity and distribution of employment will not be impacted in the surrounding area. The seismic company's employees travel all around the United States doing seismic projects and they will simply move on to the next job.</p>
<p>17. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?</p>	<p>Action Alternative: The project will not create or eliminate tax revenue in Blaine County. The local and state tax bases will remain the same.</p> <p>No Action Alternative: The local and state tax bases will not be impacted. Tax revenue in Blaine County will remain the same.</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>Action Alternative: The project will increase traffic on the existing roads, during the initial stages of the project. Traffic will return to normal, once the seismic company has completed the project. The project will not require other services such as police, fire departments, or schools. No additional government services will be needed on these tracts of state land.</p> <p>No Action Alternative: There will be no additional demands for government services. The Montana DNRC will not issue Polaris Exploration a seismic permit to conduct 2-D seismic activities across these tracts of state land.</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>Action Alternative: The goal of the Montana DNRC/TLMD is to manage the State of Montana's trust land resources to produce revenue for the trust beneficiaries, while considering environmental factors and protecting the future income-generating capacity of the land. Exploring for natural gas and oil formations on state land has to potential to increase the income-generating capacity of the land. If natural gas or oil formations are found on the state land, additional revenue may get be generated for the trust beneficiaries, through royalties from the sale of natural gas and/or oil, if a well is drilled and it is capable of commercial production. Natural gas and/or oil development proposals will be reviewed through the same MEPA process as seismic projects.</p> <p>No Action Alternative: There are no known locally adopted environmental plans or goals for these tracts of state land. The Montana DNRC/TLMD does not have any other plans or goals for these tracts of state land at this point in time. There are no zoning or management plans in effect for these tracts of state land.</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>Action Alternative: The state lands identified in the proposed project do have recreational potential. Section 14 does have legal access for recreational activities. Upland game bird hunting, big game hunting, bird watching, and hiking are just some of the types of recreational activities that take place in this area. The proposed project will not alter these activities. Recreational activities will not be impacted with this type of project. The state land contained within section 8 does not have legal access for the public to conduct recreational activities. The public can only recreate on this tract of land with the landowners permission, since his deeded land surrounds the state land.</p> <p>No Action Alternative: The access to and quality of the wilderness and recreational activities found in this area will continue to remain the same. These tracts of state land that have legal access will continue to be used for recreational purposes by people who possess a Montana State Lands Recreational Use License.</p>
<p>21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?</p>	<p>Action Alternative: The density and distribution of population and housing will not be impacted with this type of project. The proposed activity will increase traffic on the designated roads into the areas of the project. The increase in traffic will only occur during the initial stages of the seismic project. The location of the proposed project is in a semi-rural area approximately 2½ miles north of Chinook, Montana. This area is primarily used for livestock grazing purposes and the production of dryland and irrigated agricultural commodities.</p> <p>No Action Alternative: The density and distribution of population and housing will not change in this area. There will be no impact on the density and distribution of population and housing in this area. The Montana DNRC will not issue Polaris Exploration Ltd. a seismic permit to conduct 2-D seismic activities across these tracts of state land.</p>

IV. FINDING	
25. ALTERNATIVE SELECTED:	Action
26. SIGNIFICANCE OF POTENTIAL IMPACTS:	N.S.I
27. Need for Further Environmental Analysis: <input type="checkbox"/> EIS <input type="checkbox"/> More Detailed EA <input checked="" type="checkbox"/> No Further Analysis	

EA Checklist Approved By: Clive Rooney
Name

Area Manager, Northeastern Land Office
Title


Signature

5-5-4
Date