

## CHECKLIST ENVIRONMENTAL ASSESSMENT

<b>Project Name:</b>	<b>Devon 3-D Seismic, Permit #1545</b>
<b>Proposed Implementation Date:</b>	March, 2010
<b>Proponent:</b>	Devon Energy Production Company LP, Dawson Geophysical
<b>Location:</b>	See attached list of tracts
<b>County:</b>	Blaine County
<b>Trust:</b>	Common Schools

### I. TYPE AND PURPOSE OF ACTION

The proponent has requested a permit to explore for natural gas deposits on tracts (below) of State Land in Hill County Montana using the vibroseis 3-D seismic exploration technique.

**T/31N, R/18E**

Sec 16 – All  
Sec 36 - All

**T/31N, R/19E**

Sec 16 – All

### II. PROJECT DEVELOPMENT

**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) Trust Land Division (TLMD), DNRC Minerals Management Bureau (MMB), the Oil & Gas Lessees, and the State surface lessees (see attached lists below) have all been informed of the proposed seismic project.

**State Oil & Gas Lessee**

Devon Energy Production Company LP

**State Surface Lessees**

Harry W Olsen Lease #5952  
PO Box 952  
Chinook, MT 59523  
Phone (406) 357-4135

S Bar B Ranch Corp Lease #5997, #7074  
Jack W Davies  
PO Box 699  
Chinook, MT 59523  
Phone (406) 357-3572

**2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:**

The DNRC Trust Land Management Division and Minerals Management Bureau have jurisdiction over this proposed project. The proponent will need a Montana Board of Oil and Gas Conservation permit, State seismic exploration permit, County permit, and proof of qualification to conduct business in the State of Montana.

DNRC is not aware of any other agencies with jurisdiction or other permits needed to complete this project

### 3. ALTERNATIVES CONSIDERED:

**Alternative A (No Action)** – Under this alternative, the Department does not issue a permit to conduct the 3-D seismic survey.

**Alternative B (the Proposed Action)** – Under this alternative, the Department does issue a permit to conduct the 3-D seismic survey.

### III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" if no impacts are identified or the resource is not present.*

### 4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

*Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.*

The soils within the proposed project area are dense clays, clays, clay loams, and silty loams with slopes varying from 0-60%. The terrain is mostly gently rolling plains with some steep areas along Grasshopper Coulee in Sec 36, T31N, R19E. Some minor soil compaction may occur during the seismic exploration activity. Any impacts to the soil are expected to be minor, and temporary.

Mitigation measures including no vehicle operation during wet or muddy conditions, no seismic testing on slopes greater than 25%, and no seismic testing in wet zones, will minimize any impacts.

No cumulative effects to the soils are anticipated.

### 5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

*Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.*

The proponent will be required by the Special Stipulations to stay 300-feet back from any stream, springs, pipelines, and gas and water wells in accordance with DNRC rules.

No important surface or groundwater resources will be impacted by the proposed project.

No cumulative effects to the water resources are anticipated.

### 6. AIR QUALITY:

*What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.*

The air quality in the area will not be affected.

No cumulative effects to air quality are anticipated.

**7. VEGETATION COVER, QUANTITY AND QUALITY:**

*What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.*

The vegetation within the proposed project area consists of native rangeland grasses, forbs, and shrubs. Overflow sites and brushy draws are present along Grasshopper Coulee in Sec 36, T31N, R18E.

Woody draws, and riparian areas will be avoided. The vegetation along the proposed seismic routes will be minimally impacted. Restricting the vibroseis and vehicle activity to only frozen and/or dry conditions will minimize any impacts to the vegetation. Vehicle traffic will flatten some standing, native vegetation. This is an expected, acceptable, minimal impact. Compacted (trampled) vegetation is expected to recover quickly and naturally.

No rare plants or cover types are present.

No long term cumulative effects to vegetation are anticipated.

**8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:**

*Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.*

Vibroseis activities and road travel may temporarily displace wildlife species found in this area. These wildlife species may include mule deer, pronghorn antelope, predators, upland game birds, waterfowl, non-game animals and songbirds. The proposed action will not impact wildlife forage, cover, or traveling corridors. Nor will this action change the juxtaposition of wildlife forage, water, or hiding and thermal cover. Wildlife usage is expected to quickly return to "normal" (preaction usage) following the conclusion of seismic operations.

The proposed action will not have long-term negative effect on existing wildlife species and/or wildlife habitat.

The area is not considered critical wildlife habitat.

No cumulative effects are anticipated.

**9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:**

*Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.*

At this time, no known unique, endangered, fragile or limited environmental resources have been identified within the proposed project area.

A search of the Montana Natural Heritage Program (attached) identified two species of birds on the Species of Special Concern. Burrowing Owls (*Athene cunicularia*) and Great Blue Herons (*Ardea herodias*) may be found on the State tracts in the proposed project area. These migrants are seasonal occupants of the proposed exploration area and are not likely to be present during the seismic project. Therefore, any negative disturbance will be minimal.

No cumulative effects to habitat are anticipated.

**10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

*Identify and determine effects to historical, archaeological or paleontological resources.*

There are tipi rings and rock cairns located in some areas on these tracts. These will be avoided during the seismic exploration.

The proponent will be required by Special Stipulations to avoid and report any archeological and paleontological resources encountered in the project area.

This type of seismic activity has very low impacts to archaeological and paleontological resources. The DNRC archaeologist has been informed of seismic surveys occurring throughout this region and does not have any cultural resource concerns with this type of seismic exploration.

**11. AESTHETICS:**

*Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.*

During seismic operations, a variety of vehicles, including quads, pickups, buggies, and large vibroseis trucks will be seen and possibly heard by people in the vicinity of the operations. The survey vehicles and equipment will only be visible during the seismic operation and therefore no long term affects to the aesthetics of this area will occur.

The state land does not provide any unique scenic qualities not also provided on adjacent private lands. The proposed activity will be conducted in a remote area, so there would be no change to the aesthetics in either alternative.

No direct or cumulative effects to aesthetics are anticipated.

**12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:**

*Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.*

No demands on limited resources are required for this project.

No direct or cumulative effects to environmental resources are anticipated.

**13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:**

*List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.*

There are DNRC grazing and agricultural leases associated with the surface of the State land where this project is proposed. The seismic activities will not have any long term affects to these lease operations.

There are no other projects or plans being considered on the tracts listed in this EA Checklist.

#### IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES* potentially impacted are listed on the form, followed by common issues that would be considered.
- Explain *POTENTIAL IMPACTS AND MITIGATIONS* following each resource heading.
- Enter "NONE" if no impacts are identified or the resource is not present.

#### 14. HUMAN HEALTH AND SAFETY:

*Identify any health and safety risks posed by the project.*

There will be some health and safety concerns associated with the operation of heavy seismic equipment in remote areas during winter/late spring. The proponent and their employees are aware of any health and safety hazards and accept them as occupational hazards.

Once the survey has been completed, there will be no health and safety concerns associated with this project.

#### 15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

*Identify how the project would add to or alter these activities.*

This project will not add to or deter from other industrial, agricultural, or commercial activities in this area.

This proposed oil and gas exploration project could lead to increased oil and gas activity in the area. There is a potential for increased industrial activity associated with oil and gas production in this area.

#### 16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

*Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.*

The proposed activity will create a limited number of jobs. These positions are already held by employees of the proponent. No new jobs will be created.

No cumulative effects to the employment market are anticipated.

#### 17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

*Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.*

This seismic project will not affect the tax base or tax revenues.

State and local tax revenue may be increased from the sale of any natural gas or oil if deposits are discovered as a result of this proposed exploration project. In addition, employment security for employees that work for companies associated with this project and the gas industry will help the state and local tax base.

There are no direct or cumulative effects to taxes or revenue for the proposed project.

#### 18. DEMAND FOR GOVERNMENT SERVICES:

*Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services*

There will be a temporary increase in local traffic if this project is approved. The increase in traffic may require some additional emergency services to be provided by local government for a short time.

There will be no direct or cumulative effects on government services.

**19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:**

*List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.*

There are no zoning or other agency management plans affecting these lands.

**20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:**

*Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.*

The main recreational activity in this area is hunting. Approval of this proposed project would not affect hunting opportunities in this area.

There will be no direct or cumulative effects on recreation or wilderness activities.

**21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:**

*Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing*

The proposal does not include any changes to housing or developments. Population and housing will not be affected.

No direct or cumulative effects to population or housing are anticipated.

**22. SOCIAL STRUCTURES AND MORES:**

*Identify potential disruption of native or traditional lifestyles or communities.*

There are no native, unique or traditional lifestyles or communities in the vicinity that would be impacted by the proposal.

**23. CULTURAL UNIQUENESS AND DIVERSITY:**

*How would the action affect any unique quality of the area?*

The proposed project will have no effect on any unique quality of the area.

**24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:**

*Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.*

The Settlement of Damages returns approximately \$9,600 to the Common Schools Trust for surface damage on these tracts. There is a potential for the proposed project to locate extractable gas and/or oil resources on state land. The development of gas and oil resources would generate additional revenue to the trusts.

<b>EA Checklist Prepared By:</b>	<b>Name:</b> Bill Creamer
	<b>Title:</b> Land Use Specialist
<b>Signature:</b>	<b>Date:</b>

**V. FINDING**

**25. ALTERNATIVE SELECTED:**

I have selected the Proposed Alternative B, and recommend the proponent be issued the permit for the Vibroseis 3-D seismic exploration.

**26. SIGNIFICANCE OF POTENTIAL IMPACTS:**

I have evaluated the potential environment effects and have determined that no negative long-term environmental impacts will result from the proposed activity.

**27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:**

EIS     
 More Detailed EA     
 No Further Analysis

<b>EA Checklist Approved By:</b>	<b>Name:</b> Barny D. Smith
	<b>Title:</b> Unit Manager, Northeastern Land Office
<b>Signature:</b>	<b>Date:</b>