

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	CMT 3-D Seismic - Permit #1597
Proposed Implementation Date:	December 2013 – January 2014
Proponent:	Green River Energy Resources Inc.
Location:	See attached list of tracts
County:	Judith Basin and Fergus Counties
Trust:	Common Schools

I. TYPE AND PURPOSE OF ACTION

The proponent has requested a permit to explore for natural gas and/or oil deposits on tracts (below) of State Land in Judith Basin and Fergus Counties Montana using the vibroseis 3-D seismic exploration technique. Dawson Geophysical Inc. will conduct the seismic exploration. Green River Energy Resources Inc and/or Dawson Geophysical Inc. will have to obtain permission from the adjacent surface owners for access to state tracts that do not have public access.

THE STATE DOES NOT OWN THE SURFACE

Judith Basin County:

Township 14 North, Range 15 East

Section 35: All - No Surface

Section 36: All - less 12.36 AC RR R/W in E½ No Surface

Township 16 North, Range 16 East

Section 36: All - No Surface

Fergus County:

Township 14 North, Range 17 East

Section 16: All - No Surface

The proponent has been notified that the State *does not* own the surface on these tracts.

THE STATE DOES OWN THE SURFACE

Judith Basin County:

Township 14 North, Range 14 East

Section 36: ALL - 640.0 acres – Lessee - Stevenson Diamond Dot Inc. - Lease # 8267

Township 14 North, Range 15 East

Section 32: SE¼NW¼, NE¼, NW¼SE¼ - 240.0 acres - Lessee - Stevenson Diamond Dot Inc. - Lease # 5559

Township 13 North, Range 15 East

Section 8: ALL – 640.0 acres - Lessee - Stevenson Diamond Dot Inc. - Lease # 3998

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 Lessee, and the State surface lessee (see attached list below) have all been informed of the proposed seismic project.

State Oil & Gas Lessee

Petroshale Energy Inc.

Surface Lessee

Stevenson Diamond Dot Inc. - Lease # 3998, # 5559, # 8267

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

The DNRC Trust Land Management Division and Minerals Management Bureau has jurisdiction over this proposed project. The proponent will need a Montana Board of Oil and Gas Conservation permit, State seismic exploration permit, geophysical surety bond, valid county permits, and must be qualified 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 CMT 3-D seismic survey.

Alternative B (the Proposed Action) – Under this alternative, the Department does issue a permit to conduct the CMT 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 mostly mixed Silty loams and silty/clay loams. The terrain is mostly gently rolling plains with some steep thin hilly areas.

Section 32: SE¼NW¼, NE¼, NW¼SE¼ - 240.0 acres - Lessee - Stevenson Diamond Dot Inc. - Lease # 5559 is currently farmed.

"Attachment A" – Special Stipulations will address specific wet, wooded, and steep areas that will be avoided to protect the soil resource.

Some minor soil compaction may occur on other areas during the seismic exploration activity. Any impacts to the soil are expected to be minor, and temporary.

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.

There are no important surface or groundwater resources within the proposed project area.

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 in the proposed project area consists of native rangeland grasses, forbs, and shrubs, some agricultural land.

Woody draws, wooded creek bottoms and steep hillsides will be avoided to protect unique vegetation.

The grasses and forbs 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) grasses and forbs are expected to recover quickly and naturally.

No rare plants or cover types are present.

The proponent will be responsible for noxious weed control as outlined in the “Attachment A” – Special Stipulations.

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.

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 3 species of birds and 4 species of fish, on the Species of Special Concern Report.

<i>Anthus spragueii</i>	Sprague’s Pipit
<i>Ardea herodias</i>	Great Blue Heron
<i>Numenius americanus</i>	Long-billed Curlew

A review of the 2012 Sage-grouse lek and lek area data in NRIS/ArcGis showed no sage grouse leks in the proposed project area.

There are no surface water areas included in the proposed project area. No negative impacts to fish are anticipated.

No cumulative effects to habitat are anticipated.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

Lease evaluations were conducted on these tracts in May, 2013, June, 2012, and June, 2009. No archeological, historical, or paleontological resources were found.

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

Attachment A – Special Stipulations details procedures for the proponent to follow if archeological, historical, or paleontological resources were identified during the 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 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. 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 development 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 require a limited number of personnel positions. 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.

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.

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.

EA Checklist Prepared By:	Name: Bill Creamer
	Title: Land Use Specialist
Signature: /S/ Bill Creamer	
Date: 12/4/2013	

V. FINDING

25. ALTERNATIVE SELECTED:

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

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 seismic survey.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

EIS
 More Detailed EA
 No Further Analysis

EA Checklist Approved By:	Name: Barny D. Smith
	Title: Unit Manager, Northeastern Land Office
Signature: /S/ Barny D. Smith	
Date: 12/4/2013	