

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Zurich Canadian Road Seismic
Proposed Implementation Date:	Fall/Winter 2023
Proponent:	Behm Energy
Location:	Surface and Minerals T35N-R20E-Sec 16: All T36N-R20E-Sec 36: All
County:	Blaine
Trust:	Common Schools

I. TYPE AND PURPOSE OF ACTION

Behm Energy (Henceforth referred to as the proponent) has requested to conduct a seismic survey on the State Trust Lands mentioned above. This project would utilize heavy vibration equipment and seismic detecting equipment for the purpose of oil and gas seismic. This equipment includes two-man RTV900 Kubotas, which will be used to lay out approximately 354 receiver points per square mile and one to two buggy-type vibroseis vehicles.

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 proponent has submitted the proper documentation for this project, an application and other necessary information. The Northeast Land Office staff has been informed of the application. The proponent has been in contact with the Department and the surface lessees to discuss potential impacts to grazing. Surface lessee damage settlement forms must be received by the department prior to issuing the seismic permit.

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

Montana DNRC – Montana Sage Grouse Habitat Conservation Program
Montana Board of Oil and Gas Conservation

3. ALTERNATIVES CONSIDERED:

No Action Alternative: The permit to conduct a seismic survey on Montana State Trust Lands would be denied.

Action Alternative: The permit to conduct a seismic survey on Montana State Trust Lands would be approved.

SUMMARY OF POTENTIAL IMPACTS TO THE PHYSICAL AND HUMAN ENVIRONMENT

The impacts analysis identifies and evaluates direct, secondary, and cumulative impacts.

- **Direct impacts:** impacts that occur at the same time and place as the action that causes the impact
- **Secondary impacts:** further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action.
- **Cumulative impacts:** collective impacts on the human or physical environment of the proposed action when considered in conjunction with other past and present actions related to the proposed action by location or generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impact study evaluation, or permit processing procedures.

Where impacts are expected to occur, the impacts analysis estimates the duration and severity of the impact.

The duration of an impact is quantified as follows:

- **Short-term:** impacts that would not last longer than the proposed operation of the site, including reclamation of the site.
- **Long-term:** impacts that would remain or occur following reclamation of the proposed site.

The severity of an impact is measured using the following:

- **No impact:** There would be no change from current conditions.
- **Negligible:** An adverse or beneficial effect would occur but would be at the lowest levels of detection.
- **Minor:** The effect would be noticeable but would be relatively small and would not affect the function or integrity of the resource.
- **Moderate:** The effect would be easily identifiable and would change the function or integrity of the resource.
- **Major:** The effect would alter the resource

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.

Current conditions

Geology: There are no unique or unusual geologic features present within the project site(s). Per the Montana Bureau of Mines and Geology the area is covered by quaternary alluvium which overlies the Bearpaw Formation consisting of shale and beds of bentonite.

Soil: The soil composition of section 16 is uniform, being dominantly made up of loams and clay loams. According to the USDA Web Soil Survey these soils exhibit a medium risk to soil compaction and a severe risk to soil rutting.

The soil composition of section 36 comprises of a bit more variety which includes loams, clay loams, and silty clay loams. According to the USDA Web Soil Survey these soils exhibit a medium risk to soil compaction and a severe risk to soil rutting.

Alternatives

No Action Alternative: The selection of the no action alternative would not be expected to have any impact to the geology and soil quality, stability and moisture.

Action Alternative:

- Direct Impacts: The proponent would use ATVs to lay out receiver points and lines on the surface. Vibrioses vehicles would then drive across the surface creating points of compaction. These disturbances would only impact the immediate surface and soil impacts would be expected to be temporary. Wet clay-filled soils pose serious difficulties for the use and operation of vehicles. Any work shall occur under dry or frozen conditions only. Some disturbances(s) can be mitigated through the exclusion of heavy equipment on some areas of trust land in which the soil is excessively compactable or fragile. Equipment would not be allowed into any wetland, sub-irrigated sites, or rivers, streams, springs, reservoirs, or ponds in the project area. Equipment would not be allowed in areas with steep topography. Minor, short-term impacts to geology and soil quality, stability and moisture would be expected from the selection of the action alternative.
- Secondary Impacts: No secondary impacts expected.
- Cumulative Impacts: No additional cumulative impacts would be expected to geology, soil quality, stability and moisture from the selection of the action alternative.
- Duration: Any impacts would be expected to last the duration of the permit, until final reclamation.

Mitigations

The potential selection of action alternative would include the following stipulation in the permit to test for aggregate:

- Seismic activities shall be limited to when the ground is dry or frozen.
- Seismic activities shall not be allowed on slopes greater than 15%.

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.

Current Conditions

Surface Water: Surface water on section 16 contains two ephemeral drainages in the north half of the northwest quarter.

Section 36 contains several surface water features. An ephemeral drainage flows in the northwest quarter into a small man-made pond, which then flows out to the west of section 36 to Harbolt Reservoir, located in neighboring section 35. The east half of the east half of section 36 also contains a small unnamed reservoir that is approximately 38 acres.

Ground Water: A search of the Montana GWIC shows one water well within a 3-mile radius of section 16 and 36.

Alternatives

No Action Alternative: The no action alternative is not expected to have any impacts to water quality, quantity and distribution.

Action Alternative:

- Direct Impacts: The proponent would conduct seismic activities. Ground water would not be expected to be encountered or impacted by seismic activities. The proponent would be required to maintain a minimum of a 300-foot setback from wetlands or other forms of surface water as described below in mitigations. Creek crossings in equipment may occur. Seismic lines may also be laid across creek beds in order to facilitate project success. Due to the short-term nature, and small disturbance areas, negligible short-term impacts would be expected to surface water quality or quantity from the selection of the action alternative.
- Secondary Impacts: No secondary impacts expected.
- Cumulative Impacts: The negligible impacts expected from the selection of the action alternative would not be expected to have significant additive impacts to water quality or quantity in the area. Therefore, cumulative impacts from the selection of the action alternative are also expected to be negligible.
- Duration: Any impacts would be expected to last duration of the permit, until final reclamation.

Mitigations

The potential selection of action alternative would include the following stipulation in the seismic permit:

- A 300-foot setback from all water sources, including wells, springs, reservoirs, pits, pipelines, and stock tanks. See attached map of water sources to keep a 300-foot setback.
- All equipment utilized in testing must be inspected prior to testing to ensure it is not leaking fluids, spreading noxious weeds, or creating an undue fire hazard.

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.

Current Conditions

Currently the significant emission sources in the project area are fugitive dust from agricultural activities, vehicles travelling on adjacent county roads, and oil and gas production related emissions.

Alternatives

No Action Alternative: The no action alternative would not be expected to have impacts on air quality.

Action Alternative:

- **Direct Impacts:** An increase in airborne pollutants and particulates may occur during seismic activities from vehicles, and other associated equipment exhaust. An increase in dust particulates may occur due to seismic operations and truck traffic. Short-term, minor impacts to air quality in the project area are expected. No long-term impacts to air quality are expected.
- **Secondary Impacts:** Fugitive dust and emissions may travel offsite to the surrounding area. Any particulate or pollutant would dissipate over distance. Secondary impacts are expected to be short-term and negligible.
- **Cumulative Impacts:** Small amounts of additional dust and emissions beyond what is currently created by agriculture and oil and gas activities would be expected from the project area. These additional impacts would be expected to be negligible.
- **Duration:** Any Impacts would be expected to last duration of the permit, until final reclamation.

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.

Current Conditions

Vegetation within section 16 consists of Great Plains Mixedgrass Prairie. There are no vegetative species of concern within section 16.

Vegetation within section 36 consists of Great Plains Mixedgrass Prairie. There are no vegetative species of concern within section 36.

Alternatives

No Action Alternative: The no action alternative would be expected to have no impact to vegetation cover, quantity and quality in the project area.

Action Alternative:

- **Direct Impacts:** Vegetative communities would be impacted in the seismic area. The use of equipment would compact plant communities within the area where vehicles have been driven and vibriosis is completed. Vegetation would grow back, and the impacts of the action alternative would be expect to be short-term and minor given the proposed time of year of activities. No long-term impacts to vegetation are expected.
- **Secondary Impacts:** Any form of vegetative disturbance can result in the propagation of noxious and invasive weeds. Disturbances will be monitored by Trust Lands Staff. The proponent will be responsible for reseeding the affected areas with a seed mixture established by the Northeastern Land Office, as well as eliminating any noxious or invasive weeds introduced from the action. Secondary impacts are expected to be short term and negligible.

- **Cumulative Impacts:** Noxious weed introduction and propagation is a serious concern throughout Montana. Mitigations must be considered for actions that could further exacerbate the problem. Mitigations are offered below and would be implemented within the seismic permit if the action alternative is selected.
- **Duration:** Any impacts would be expected to last the duration of the permit, until final reclamation.

Mitigations

The potential selection of action alternative would include the following stipulation in the aggregate permit:

- The permittee shall re-seed the disturbed areas with an approved seed mixture from the DNRC.
- The permittee shall eliminate any noxious or invasive weeds introduced from seismic activities.
- The permittee shall wash all equipment prior to seismic activities to mitigate the possibility of weed introduction.

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.

Current Conditions

The project area provides habitat to a variety of wildlife species that includes deer, antelope, sage grouse, and other avian species. Small rodents, and other mammals including small to medium sized predators such as foxes and coyotes could be found in the project site. Both sections of State Trust land are within Sage Grouse general habitat and a consultation with the Montana Sage Grouse program would be required before any work is done.

Alternatives

No Action Alternative: The no action alternative would not be expected to have impacts to terrestrial, avian, and aquatic life and habitats.

Action Alternative:

- **Direct Impacts:** The selection of the action alternative would create a temporary disruption to general wildlife throughout the duration of seismic activities. Similar habitat and forage are adjacent to the project area and could sustain the wildlife displaced during seismic activities. Short-term, minor impacts are expected to wildlife habitat and their habitat from the action alternative. It is anticipated that wildlife would return to the project area shortly after the conclusion of seismic activities.
- **Secondary Impacts:** Negligible impacts would be expected, animals displaced from the project area would need to utilize surrounding lands while seismic activities occur.
- **Cumulative Impacts:** Wildlife in the area have already been conditioned to the presence of heavy equipment and machinery. There are 20 oil and gas wells within a 4-mile radius of sections 16 and 36. The selection of the action alternative would not be expected to have significant additional impacts to wildlife in the area.

- Duration: Any impact would be expected to last the duration of the permit, until final reclamation.

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.

Current Conditions

A search of the Montana Natural Heritage Program noted three species of concern within the proposed project areas, Swift Foxes, Greater Sage-Grouse, and Ferruginous Hawks.

Swift foxes inhabit open prairies, arid plains, and winter wheat fields of north-central Montana. These mammals inhabit burrows within sandy soil on high ground including hill tops, open prairies, fence rows, and plowed fields. A 1995 study concluded that a total of 8,000,000 suitable acres were identified in Montana and that swift foxes were less likely to be found in cropland or near roads or other features related to habitat fragmentation.

Greater Sage-Grouse habitat is associated with sagebrush, habitat is conserved through the Montana Sage Grouse Habitat Conservation Program. The permittee must consult with the Montana Sage Grouse Habitat Conservation Program before any work commences.

Ferruginous Hawk are migratory in nature and inhabit the proposed project areas during summer months according to the Montana Natural Heritage Program.

Alternatives

No Action Alternative: The no action alternative is not expected to have impacts to unique endangered, fragile or limited environmental resources.

Action Alternative:

- Direct Impacts: Short-term, minor impacts to species of concern may occur. Minor amounts of rangeland including shrubs and grasses would be temporarily disturbed. Considerable forage and habitat similar to the composition of the project area would remain in adjacent areas. The adjacent lands have the capacity and suitability to support the listed species temporarily or fully during the term of the action alternative. Vibrations from seismic activities may disrupt denning swift fox and other burrowing animals in the area. However, those impacts are expected to be short term and minor.
- Secondary Impacts: Negligible impacts would be expected, animals displaced from the project area would need to utilize surrounding lands while testing activities occur.
- Cumulative Impacts: The acreage from the current permit area and the proposed project area is not substantive enough to create significant cumulative impacts to wildlife. Short-term, negligible impacts are expected.
- Duration: Any impacts would be expected to last the duration of the permit, until final reclamation.

Mitigations

The potential selection of action alternative would include the following stipulation in the aggregate permit:

- The permittee is required to consult with and obtain clearance from the Montana Sage Grouse Habitat Conservation Program.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

Current Conditions

A Class I (literature review) level review was conducted by the DNRC staff archaeologist for the area of potential effect (APE). This entailed inspection of project maps, DNRC's sites/site leads database, land use records, General Land Office Survey Plats, and control cards. The Class I search results revealed that no cultural or paleontological resources have been identified in the APE, but it should be noted that Class III level inventory work has not been conducted there to date.

Considering the non-disturbing nature of the proposed project, seismic work is expected to have *No Effect to Antiquities* as defined in the Montana State Antiquities Act. No additional archaeological investigative work will be conducted in response to this proposed development. However, if previously unknown cultural or paleontological materials are identified during project related activities, all work will cease until a professional assessment of such resources can be made.

Alternatives

No Action Alternative: The no action alternative is not expected to have impacts to historical and archaeological sites.

Action Alternative:

- **Direct Impacts:** Because no cultural or paleontological resources were identified, and due to the nature of seismic activities, the proposed action is not expected to have impact to historical or archeological sites. Therefore, the project will have *No effect to antiquities* as defined under the Montana State Antiquities Act. If cultural or paleontological resources are identified during testing operations, all work will cease until a professional assessment of such resources can be made.
- **Secondary Impacts:** No secondary impacts expected.
- **Cumulative impacts:** No cumulative impacts expected.
- **Duration:** Any impacts would be expected to last the duration of the permit, until final reclamation.

Mitigations

The potential selection of action alternative would include the following stipulation in the aggregate permit:

- If any cultural or paleontological resources are encountered during seismic activities, all operations must stop and the proponent shall contact DNRC.

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.

Current Conditions

The proposed testing area consists of open rangelands bordering county roads. Both sections 16 and 36 are proximate to producing oil and gas wells.

Alternatives

No Action Alternative: The no action alternative is not expected to impact aesthetics.

Action Alternative:

- **Direct Impacts:** An increase in noise from trucks and heavy equipment may be heard adjacent to the project area. From adjacent roads, and public spaces the testing may be visible. Upon reclamation, the site would be returned to a landscape consistent with the surroundings. Impacts to aesthetics are expected to be short-term and minor.
- **Secondary Impacts:** No secondary impacts expected.
- **Cumulative Impacts:** Negligible additional cumulative impacts in the form of added noise and visual disturbance would be expected. Overall the area is remote and quiet, and minimal human disturbances are present.
- **Duration:** Any impacts would be expected to last the duration of the permit, until final reclamation.

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.

Current Conditions

The composition of land, water and air is described within other sections of this document. Energy sources that would be required by the project are abundant in the area.

Alternatives

No Action Alternative: The no action alternative is not expected to have impacts to the demands of environmental resources of land, water, air or energy.

Action Alternative:

- **Direct Impacts:** The overall disturbance created within the project area would be expected to have minor and short-term impacts on the environmental resources of the land. The expected impacts to water and air were identified earlier in this document. Energy resources in the area are abundant and any impact to energy resources would be expected to be negligible.
- **Secondary Impacts:** No secondary impacts expected.
- **Cumulative Impacts:** No additional cumulative impacts expected.

- Duration: Any impacts would be expected to last the duration of the permit, until final reclamation.

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.

Current Conditions

Sections 16 and 36 have two different individual grazing lessees. Both lessees were contacted by the Department, and the proponent obtained and signed damage settlement agreements. The proponent and surface lessee’s have agreed to additional terms and conditions, that if any fences, cattleguards, fixtures, pipelines, or improvements are damaged during seismic activities that an estimate of the cost to repair such damage will be submitted to the operator.

Both sections also have an active oil and gas lease. The proponent is the oil and gas lessee on one of the sections. The other lessee has granted the proponent written permission to conduct seismic activities upon their lease. A consultation with the Montana Sage Grouse Conservation Program must be fulfilled before activities commence.

Alternatives

No Action Alternative: The no action alternative is not expected to have impacts to other environmental documents or projects pertinent to the area.

Action Alternative:

- Direct Impacts: The grazing lessee would realize a short-term negligible loss in available forage held under their lease. Damage settlements agreements compensate the surface lessee for these losses. Upon reclamation the impacted areas would return to native rangeland. The proposed project would have a temporary, negligible impact to the surface lease agreement. There are no negative impacts expected from the selection of the action alternative for the oil and gas lessees. Any impact would be expected to be positive, and seismic results should aid in identifying a potential resource that could be developed under the lease. Any future development in the area would likely be restricted to utility or mineral development.
- Secondary Impacts: No secondary impacts expected.
- Cumulative Impacts: No cumulative impacts expected.
- Duration: Any impacts would be expected to last the duration of the permit, until final reclamation.

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.

Current Conditions

The current conditions of the site pose no risk to human health or safety.

Alternatives

No Action Alternative: The no action alternative is not expected to have any impact to human health or safety.

Action Alternative:

- Direct Impacts: The proposed action is expected to have no impacts to human health or safety, other than the occupational risks typically associated with seismic activities. The site is in a rural area away from residences.
- Secondary Impacts: No secondary impacts expected.
- Cumulative Impacts: No cumulative impacts would be expected.
- Duration: Any impacts would be expected to last the duration of the permit, until final reclamation.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

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

Current Conditions

The testing area is in a rural area where agriculture and oil and gas activity are the most prominent industries. The proposed project could provide a needed resource for future petroleum products.

Alternatives

No Action Alternative: The no action alternative would not be expected to have any impact to industrial, commercial, and agriculture activities and production.

Action Alternative:

- Direct Impacts: Seismic activities would be expected to have negligible, short-term impacts upon the industrial, commercial, or agriculture activities. Impacts to the grazing lessee have been previously identified in this document. Industrial and commercial activities in the area consist mostly of oil and gas. Seismic activity is intended to have positive impacts on the oil and gas industry.
- Secondary Impacts: No secondary impacts would be expected.
- Cumulative Impacts: No cumulative impacts would be expected.
- Duration: Any impacts would be expected to last the duration of the permit, until final reclamation.

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.

Current Conditions

The closest town and employment center is Chinook, Montana.

Alternatives

No Action Alternative: The no action alternative is not expected to impact the quantity and distribution of employment.

Action Alternative:

- Direct Impacts: No direct impacts are expected to quantity and distribution of employment.
- Secondary Impacts: No secondary impacts expected.
- Cumulative Impacts: No cumulative impacts could be expected.
- Duration: No impacts identified.

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.

Current Conditions

Trust land is exempt from local property tax. Operators and lessees conducting business on Trust Lands must pay business taxes.

Alternatives

No Action Alternative: The no action alternative is not expected to have any impact on local and state tax bases or tax revenues.

Action Alternative:

- Direct Impacts: No direct impacts to local and state tax base and tax revenue are expected from the selection of the action alternative.
- Secondary Impacts: No secondary impacts expected.
- Cumulative Impacts: No cumulative impacts expected.
- Duration: No impacts identified.

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.

Current Conditions

The testing area is in a very rural portion of Blaine County where the traffic is limited to local ranchers, oil and gas workers and employees of the proponent.

Alternatives

No Action Alternative: The no action alternative is not expected to have any impact on the demand for government services.

Action Alternative:

- Direct Impacts: No direct impacts to the demand of government services are expected from the selection of the action alternative.
- Secondary Impacts: No secondary impacts expected.
- Cumulative Impacts: No cumulative impacts expected.
- Duration: No impacts identified.

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.

Current Conditions

There are no known environmental plans or goals for this tract or in the project vicinity.

Alternatives

No Action Alternative: The no action alternative is not expected to have any impact on locally adopted environmental plans or goals.

Action Alternative:

- Direct Impacts: No impacts expected, there are no known zoning or management plans for the project area.
- Secondary Impacts: No secondary impacts expected.
- Cumulative Impacts: No cumulative impacts expected.
- Duration: No impacts identified.

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.

Current Conditions

This site is not designated as wilderness, nor does it provide access to wilderness. Montana State Trust Lands are accessible for public use by purchasing the necessary conservation license through Montana Fish Wildlife and Parks.

Alternatives

No Action Alternative: The no action alternative is not expected to have any impact on the access to and quality of recreational and wilderness activities.

Action Alternative:

- Direct Impacts: The sites allow for public access. The public recreation on this tract is expected to be limited to upland bird hunting at this time of year. Recreation accessibility is not expected to be limited during testing activities. However, the quality of recreation sought by individuals visiting the tract may be impacted by the proposed activity. Impacts to recreation are expected to be minor and short-term.

- Secondary Impacts: No secondary impacts expected.
- Cumulative Impacts: No cumulative impacts expected.
- Duration: Any impacts would be expected to last the duration of the permit, until final reclamation

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.

Current conditions

The closest population center to the project is Chinook, MT.

Alternatives

No Action Alternative: The no action alternative is not expected to impact the density and distribution of population and housing.

Action Alternative:

- Direct Impacts: No direct impacts to the density and distribution of population and housing are expected from the selection of the action alternative.
- Secondary Impacts: No secondary impacts expected.
- Cumulative Impacts: No cumulative impacts expected.
- Duration: No impacts identified.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

Current conditions

The closest known native and traditional lifestyles are on the Fort Belknap and Rocky Boy Reservations, which are approximately 27 miles to the south and 50 miles to the southwest of the project areas, respectively.

Alternatives

No Action Alternative: The no action alternative is not expected to impact social structures, native or traditional lifestyles or communities.

Action Alternative:

- Direct Impacts: No direct impacts are expected to native or traditional lifestyles.
- Secondary Impacts: No secondary impacts expected.
- Cumulative Impacts: No cumulative impacts expected.
- Duration: No impacts identified.

23. CULTURAL UNIQUENESS AND DIVERSITY:

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

Current Conditions

There are no known unique qualities of the area.

Alternatives

No Action Alternative: The no action alternative is not expected to impact cultural uniqueness or diversity.

Action Alternative:

- Direct Impacts: No direct impacts are expected to the unique qualities of the area.
- Secondary Impacts: No secondary impacts expected.
- Cumulative Impacts: No cumulative impacts expected.
- Duration: No impacts identified.

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 return to the trust would be a one-time application fee of \$50.00 and \$100 per lineal mile of vibriosis on section 16 only, the mileage fee will be waived if an assignment of the lease is received prior to issuance of the permit. The testing activities should not significantly impede the existing utilization of State Lease numbers 2570 and 6730. The return to the Trust from granting a seismic permit is minimal. However, by utilizing the results of the proposed activity, oil and gas companies can gain a further understanding of the resource in the area. This could help future exploration efforts and could ultimately create significant revenue for the trust in the form of oil and gas royalties.

EA Checklist Prepared By:	Name: Thomas Palin	Date: 12/7/2023
	Title: Mineral Resource Specialist	

V. FINDING

25. ALTERNATIVE SELECTED:

I have selected the proposed Action Alternative and recommend that the DNRC grant a permit to Behm Energy to conduct a seismic survey on Montana State Trust Lands.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

I conclude all identified potential impacts will be mitigated by utilizing the stipulations listed below and no significant impacts will occur because of implementing the selected alternative.


1. Heavy equipment shall refrain from vibrating within 300 feet of all water sources, (including wells, springs, reservoirs, pits, pipelines, and stock tanks). See attached map of water sources to stay 300 feet away from. Heavy equipment shall also refrain from crossing perennial and ephemeral streams where water is on the surface to prevent damage to the stream banks.
2. No equipment shall enter hardwood bottom sites and shall make every effort not to disturb the tree and shrub communities on state land.
3. Any fences or improvements taken down or removed shall be rebuilt or replaced immediately after completion of work within that section.
4. Should unacceptable disturbance of the vegetation community take place the proponent shall be required to repair and reseed the affected area with a native seed mixture established by the Northeastern Land Office staff.
5. The proponent is responsible for all fire suppression related costs from any fires that may result from permitted activities.
6. All equipment utilized in testing must be inspected prior to project activities to ensure it is not leaking fluids, spreading noxious weeds, or creating an undue fire hazard.
7. Seismic activities shall be limited to when the ground is dry or frozen.
8. Seismic activities shall not be allowed on slopes greater than 15%.
9. The permittee shall eliminate any noxious or invasive weeds introduced from seismic activities.
10. The permittee is required to consult with and obtain clearance from the Montana Sage Grouse Habitat Conservation Program.
11. If any cultural or paleontological resources are encountered during seismic activities, all operations must stop and the proponent shall contact DNRC.

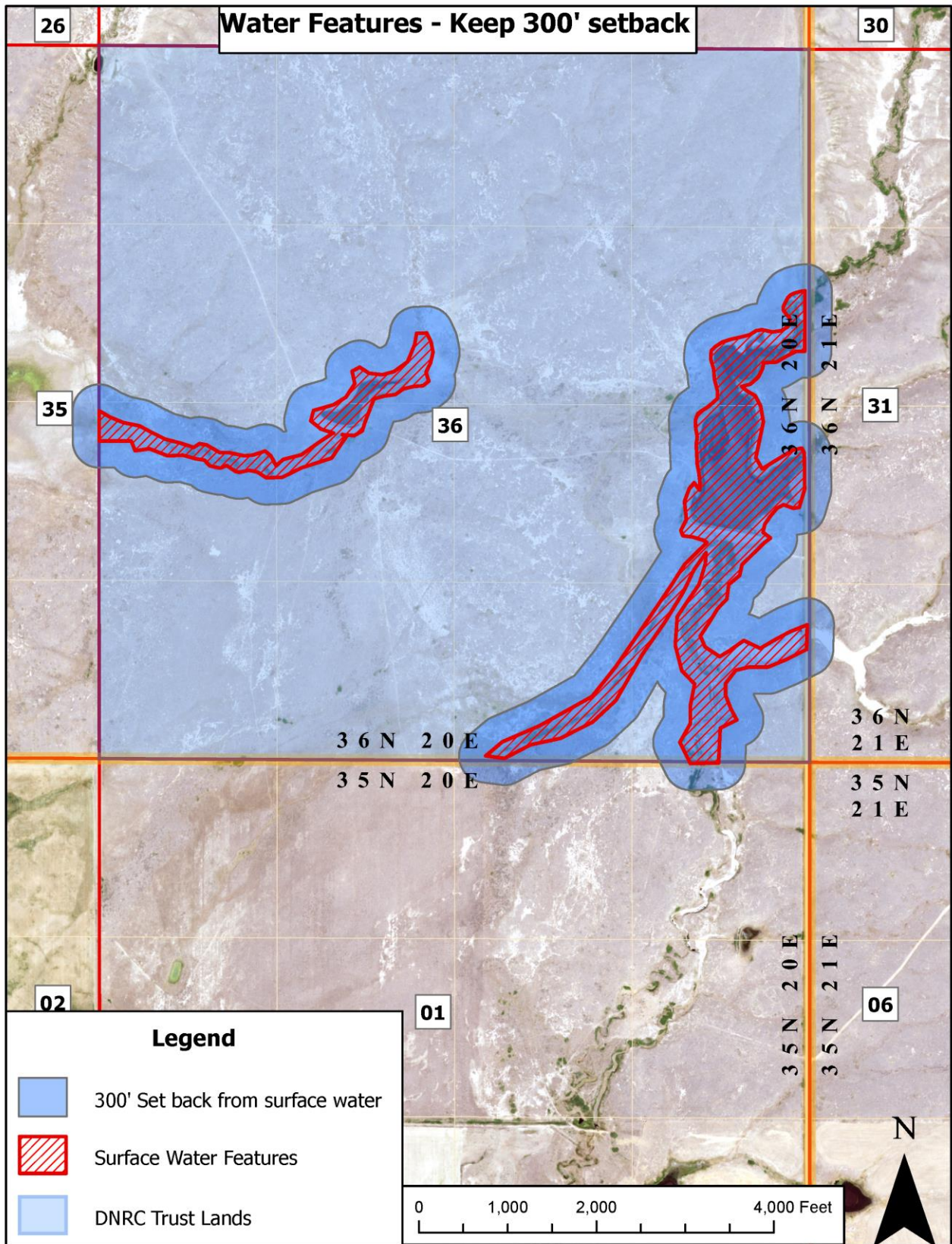
27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

EIS

More Detailed EA

No Further Analysis

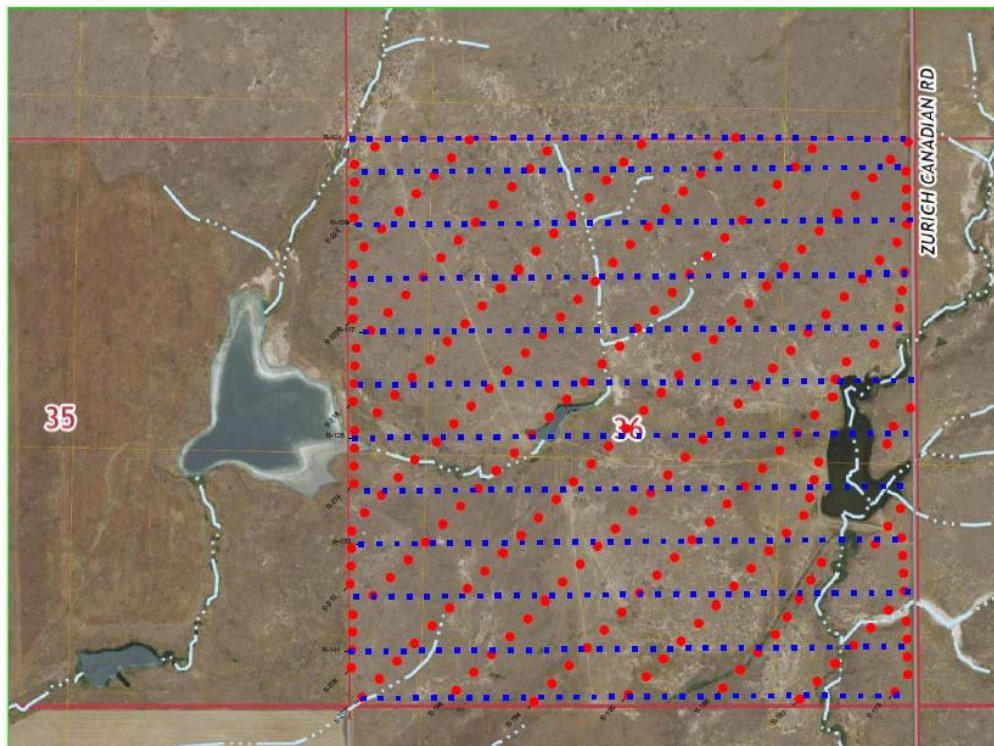
EA Checklist Approved By:	Name: Jocee Hedrick Title: Lewistown Unit Manager
Signature:	 <hr style="border: 0.5px solid blue;"/>
Date:	<u>12/8/23</u>



BEHM ENERGY 3D SEISMIC SURVEY, SECTION 36, T36N-R20E



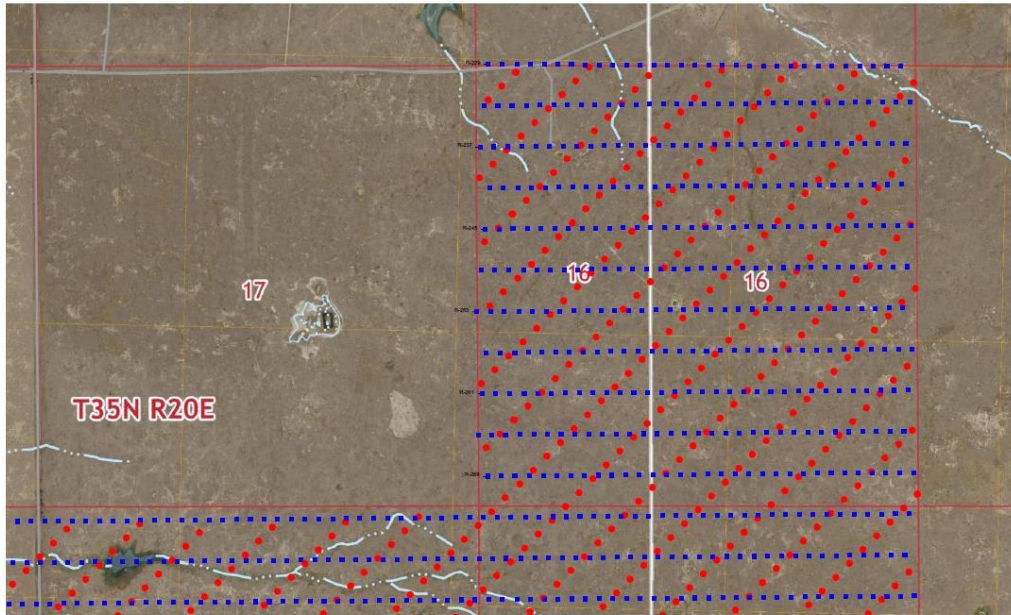
Behm 2023 3D - NORTH
Behm Energy / Echo Seismic
December 5th, 2023
Version 2.03
Grid Plot



SOURCE POINTS ARE IN RED, RECEIVER POINTS IN BLUE.

Source and receiver points will be deleted or moved in the field where water, mud, or rough terrain is encountered.

BEHM ENERGY 3D SEISMIC SURVEY, SECTION 16, T35N-R20E



SOURCE POINTS ARE IN RED, RECEIVER POINTS IN BLUE.

Source and receiver points will be deleted or moved in the field where water, mud, or rough terrain is encountered.