



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
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## **DECISION RECORD FOR THE HORSESHOE BASIN 3D SEISMIC EXPLORATION PROPOSAL WYW-040-EA08-247**

### **SUMMARY OF THE EXPLORATORY DEVELOPMENT PROPOSAL**

Devon Energy Production Company, L.P. (Devon) proposes to conduct geophysical exploration operations consisting of heli-portable 3D seismic surveys for oil and gas resources. The surveys would be conducted in Townships 12 and 13 North, Ranges 101 and 102 West in Sweetwater County, Wyoming. There is no production associated with this proposal. Only existing maintained roads and secondary access roads (two-tracks) would be used for all ground transportation activities. As a result, the total potential surface disturbance resulting from the source and receiver lines, helicopter staging area, and 1,644 shot holes is estimated to be 87.8 acres.

### **DECISION**

Based upon the analysis of the potential environmental impacts described in the Horseshoe Basin 3D Seismic Survey Environmental Assessment WYW-040-EA08-247 (EA) and supporting documents in the case file, the Project Description in Appendix B – Scoping Notice, and consideration of the comments received on the Proposed Action in Appendix E – Response to Comments, it is my decision to issue a permit to conduct geophysical operations on public lands administered by BLM, as described in the Proposed Action of the EA.

Approval allows the authorization of the necessary permits and rights-of-way on public lands administered by the BLM to implement this project. Approval is *conditioned upon and subject to the following requirements*:

- Devon will implement the BLM Conditions of Approval (Attachment 1) and Applicant-Committed Environmental Protection Measures (Attachment 2) provided in this Decision Record; and
- The Rock Springs Field Manager, or designee, is the Authorized Officer (AO) for this project. Mitigation and monitoring measures may be modified by the AO as necessary to further minimize impacts. Final mitigation and monitoring requirements will be determined by the AO after reviewing the results of on-site inspections conducted by BLM and the Operator, and recommendations from BLM resource specialists. BLM may

require additional field studies or documentation to ensure that reclamation and other resource protection goals are met.

Issuance of a *Notice to Proceed* for the project will be contingent upon submission by Devon of a project plan detailing:

- Project schedule
- Locations of helicopter flight corridors
- Transportation plan showing roads planned for use on public lands and primary access routes.

The decision to approve Devon's proposal takes into account important management considerations, Federal Agency missions, project purpose, and the public's need for oil and gas. The decision attempts to balance these considerations with the degree of adverse impact to the natural and physical environment. The development effort will help meet the public needs for oil and gas. The long-term productivity of the area would neither be lost nor substantially reduced as a result of approving this proposal.

In accordance with 43 CFR 3150.2(b), this decision is effective immediately and shall remain effective pending appeal, unless the Interior Board of Land Appeals determines otherwise.

This decision is applicable only to public lands administered by BLM within the project area boundary; except that BLM will ensure that no violations of the Endangered Species Act or the Migratory Bird Treaty Act occur on private lands. It does not create nor abridge any right on private or State of Wyoming lands.

This decision does not authorize any exploration or development activity other than the proposed 3D geophysical exploration project. It does not establish any precedent regarding future action, nor should any precedent be implied. Future development and exploration proposals, if any, would require a separate project environmental analysis and decision.

## **ALTERNATIVES CONSIDERED**

Two alternatives were considered in the EA for analysis of the anticipated impacts, including the Proposed Action and No Action Alternative.

### **Alternatives Analyzed and Evaluated In Depth**

**Proposed Action – Heli-Portable 3D Seismic Survey:** Under the proposed action, heli-portable seismic exploration activities would be conducted over an area encompassing 24.95 square miles in an area approximately 45 miles south of Rock Springs within Sweetwater County, Wyoming. The proposal includes the following actions:

- Using a helicopter to move drill rigs for drilling 1,644 shot holes to a depth of 40 feet,
- Detonating small explosive charges (10 lbs.) that will create the seismic waves used to detect subsurface layers;
- Laying out lines of geophones that will detect the seismic waves and record subsurface information; and
- Removal of the geophones and reclamation of areas disturbed by exploration activities.

**No Action:** Under the No Action Alternative, the 3D seismic exploration proposal submitted by Devon would be denied. Under this alternative the existing land uses would continue and the current management would continue to guide management of the area.

## **Alternatives Considered But Not Analyzed In Detail**

No additional alternatives beyond those described in the EA were considered.

### **PUBLIC INVOLVEMENT**

A proposal was received from Devon Energy Production Company LP: (Devon) to conduct a 3D seismic exploration project within a 24.95 square mile area in Sweetwater County, 45 miles south of Rock Springs, Wyoming. Approximately 95 percent of the proposal would occur on public lands administered by the BLM.

A scoping notice was sent out to local residents, interest groups, local, state, and federal agencies and officials, Native American tribes, and other interested parties in and around the proposed Project Area on August 14, 2008, briefly describing the Proposed Action. The notice provided information on the Proposed Action and public comment on the proposal was solicited over a 30-day comment period, August 14-September 14, 2008.

More than 160 comments and responses were received from 17 commenters. Using the comments from the public, other agencies, and internally, the interdisciplinary team in cooperation with the third-party NEPA contractor (TEC, Inc.) identified issues and concerns regarding the potential effects of the Proposed Action to be addressed in the project analysis.

The primary relevant issues raised by commenters related to the potential adverse effects of the proposed seismic surveying including: 1) conducting seismic survey activities using helicopters (i.e. noise) that could affect recreational opportunities for big game hunting; 2) water resource protection for the numerous perennial and ephemeral streams, springs, and seeps of an important aquifer recharge area (Pine Mountain Geographic Management Unit); 3) local populations of wildlife and special status species and their habitats; 4) the recreational, aesthetic, and ecological value of the Pine Mountain area; 5) location of staging areas; 6) conformance with the Green River Resource Management Plan (RMP); 7) noise associated with helicopters, shot hole drilling, and detonation of charges; 8) road use; 9) cumulative impacts; 11) compliance with existing environmental statutes; 12) potential impacts from full field development; and 13) noxious weeds and invasive nonnative plant species.

In order to be responsive to comments relating to the EA, as well as to clarify and address concerns relative to the Proposed Action, Appendix E of the EA contains Response to Comments that addresses comments received during the 30-day comment period. Agency response to comments resulted in changes in the development of the discussion and analysis of the various elements of the EA.

## **RATIONALE FOR THE DECISION**

The decision to approve Devon's proposed seismic exploration plan was based on the following factors:

### **1. Consistency with the Green River Resource Management Plan (BLM 1997) and Amendments:**

The lands where the proposed exploration activities will occur are available for oil and gas leasing under the Green River RMP, and the proposed action is in conformance with the planning direction developed for this area. The objective for oil and gas management decisions described in the Green River RMP is to "provide for leasing, exploration, and development of oil and gas while protecting other resource values."

### **2. National Policy:**

Private exploration and development of federal oil and gas resources are an integral part of the Bureau of Land Management's oil and gas leasing program, under the authority of the *Mineral Leasing Act of 1920*, *Federal Land Policy and Management Act of 1976*, and *Federal Onshore Oil and Gas Leasing Reform Act of 1987*.

The continuing policy of the Federal Government in the national interest is to foster and encourage private enterprise in the orderly and efficient development of domestic oil and gas and the principles of balanced multiple-use management. Therefore, the decision is consistent with the *Energy Policy Act of 2005* to increase domestic production of oil and natural gas, reducing the dependence upon foreign energy supplies.

### **3. Agency statutory requirements:**

The decision is consistent with all federal, state, and county authorizing actions required for implementing the Proposed Action. All pertinent statutory requirements applicable to this proposal were considered.

### **4. Relevant resource and economic considerations:**

Project environmental impacts to resources identified in the EA were determined to be minor and were deemed acceptable. The project will not cause unnecessary or undue degradation to public lands. Selection of the Proposed Action allows Devon to explore for underground oil and gas deposits as provided in 43 Code of Federal Regulations (CFR) 3101.1-2. The decision will also allow the applicant the opportunity to use the seismic data for locating site-specific well locations to minimize impacts. Although it is acknowledged that using seismic data does not guarantee the success of wells being drilled, I believe fewer exploratory wells will be drilled if operators have access to good seismic data processed with current technology. Therefore, potential future development and production that could result from the Proposed Action are anticipated to result in positive economic benefits, while minimizing the potential for significant impacts to the environment.

### **5. Application of measures to avoid and minimize environmental harm:**

Federal environmental protection laws such as the Clean Air Act, the Clean Water Act, the National Historic Preservation Act, and Endangered Species Act apply to all public lands and are included as part of the standard oil and gas lease terms. Conditions of Approval (Attachment 1 of this decision) and Applicant-Committed Environmental Protection Measures (Attachment 2 of this decision) will be attached to the Notice of Intent (NOI) that also includes Standard Terms and Conditions.

I believe these are practical measures that are consistent with the project purpose and need, and are adequate to avoid or mitigate impacts to resources, public lands users, as well as adjacent lands, landholders, and users. Impacts are expected to be temporary and short-term (less than one year) and negligible in magnitude due to the application of these measures.

#### **6. Finding of no significant impacts:**

Significance is formally defined by 40 CFR 1508.27 as having two aspects: context and intensity. Based upon the analysis of potential environmental impacts contained within the EA, the BLM AO has determined that the Proposed Action, with implementation of the Applicant-Committed Environmental Protection Measures and Conditions of Approval would not cause a significant impact to the quality of human environment. Therefore, an Environmental Impact Statement is not necessary.

#### **7. Public comments, coordination, and consultation:**

A Scoping Notice for the Horseshoe Basin 3D Seismic Survey Proposal was mailed to government agencies, government officials, public land user groups, private landowners, newspapers, radio stations, environmental organizations, and posted to the BLM website at (<http://www.blm.gov/wy/st/en/info/NEPA/rsfdocs.html>). The scoping process included a 30-day public comment period from August 14 to September 14, 2008. During the comment period 17 letters were received, which included a total of over 160 comments. Comments were received from the general public, environmental organizations, and federal, state and local governments. The summarized comments and BLM's responses are in Appendix E of the EA.

#### **8. Consistency with the purpose and need for the proposed action:**

The purpose of the proposed seismic exploration is to allow the lease holders to conduct exploration for the possible existence of structures favorable for development and minerals extraction. National mineral leasing policies, and the regulations by which they are enforced, recognize the statutory right of lease holders to develop federal mineral resources to meet continuing national needs and economic demands, so long as undue and unnecessary environmental degradation is not incurred. This decision provides an opportunity for Devon to collect high quality data at a reasonable cost. The Proposed Action provides the most effective and cost-efficient method of obtaining needed quality data deemed essential in better targeting areas for the exploration and development of potential producing formations underlying federal lands, while minimizing impacts to the environment.

### **COMPLIANCE AND MONITORING**

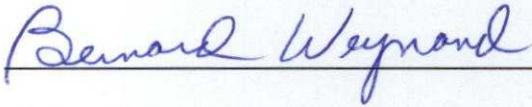
Devon and the BLM will provide qualified representatives on the ground during project implementation to validate reclamation and compliance commensurate with the provisions of the Decision Record. Devon will be required to conduct monitoring of the project in coordination with the BLM. Devon will monitor reclamation to ensure that revegetation meets acceptable standards (Gold Book 2007). Appropriate remedial action will be taken by Devon in the event unacceptable impacts are identified.

### **APPEAL**

Under BLM regulation, this decision is subject to administrative review in accordance with 43 Code of Federal Regulations (CFR) 3165. Any request for administrative review of this decision must include the information required under 43 CFR 3165.3(b), including all supporting documentation. Such a request must be filed in writing with the State Director (920), Bureau of

Land Management, P.O. Box 1828, Cheyenne, Wyoming 82003, within 20 business days of the date such notice of decision was received or considered to have been received. This decision will be considered to have been received seven (7) business days from the date it is mailed.

The decision of the State Director may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR 3150.2, 43 CFR 3165.4, and 43 CFR 4. Each adverse party to any such appeal must be provided with all documentation in accordance with 43 CFR 4.413.

A handwritten signature in blue ink that reads "Bernard Weymond". The signature is written in a cursive style and is positioned above a horizontal line.

for Lance C. Porter  
Field Manager

# **ATTACHMENT 1**

## **CONDITIONS OF APPROVAL**

1. This authorization is contingent upon receipt of and compliance with all appropriate federal, state, county and local, permits.
2. Seismic survey progress reports shall be filed directly to the Rock Springs Field Office on a weekly basis.
3. Approval of the EA does not grant any exclusive right to the described lands for geophysical exploration, or other purposes. The public lands described in the EA are subject at all times to any other lawful uses by the United States, its lessees, permittees, and licensees.
4. If geophysical operations damage or destroy existing authorized facilities or improvements, Devon will be responsible for repairing or replacing such facilities or improvements to their former condition, or better, prior to disturbance or damage.
5. Devon shall contact the Rock Springs Field Office (Russell Boulware), at least 48 hours prior to the start of the project to schedule a pre-work conference. The Crew Supervisor and additional crew chiefs (if needed) will attend the pre-work conference to discuss the Conditions of Approval for this operation.
6. The operator's representative will attend a meeting with BLM to discuss cultural artifacts and potential penalties for tampering with cultural artifacts. The meeting can be held as part of the pre-work conference.
7. No new roads, two tracks, or trails will be constructed for this project.
8. Vehicular travel shall be suspended when ground conditions are wet enough to cause rutting or other noticeable surface deformation and severe compaction. As a general rule, if vehicles or other project equipment create ruts in excess of four inches deep when traveling cross-country over wet soils, the soil shall be deemed too wet for vehicular use.
9. Staging area(s) will be situated on BLM-administered lands with good, safe access wherever possible. The fuel truck for the helicopter will also be utilized at the staging area(s). The regulations of the Bureau of Alcohol, Tobacco and Firearms regarding explosives will be followed and any permits that may be required will be obtained.
10. Vehicles of any kind, including ATVs and/or mules, will only be allowed on existing two tracks and unimproved roads that have been culturally cleared. Devon and its contractors, under the direction of the BLM, will establish a transportation map with the existing two tracks and unimproved roads that have been culturally cleared and can be travelled on. (Improved roads do not need to be archeologically cleared.)
11. Staging area(s) shall be kept clean and free of litter. Appropriate human waste facilities will be provided and properly maintained. Such waste facilities shall be removed from the site upon completion of the project.
12. Operators of vehicles and equipment shall be responsible for not damaging fences and keeping gates as found. As a last resort, should a fence be cut or damaged for access, that fence must be repaired to former or better condition, after equipment has passed through.

13. Prior to any seismic survey activities between February 1 and July 31, Devon or their contractor would survey all areas within one mile of proposed surface disturbance for the presence of raptor nests. If occupied/active raptor nests are found, construction would not occur within a ½ to 1-mile radius during the critical nesting season, depending on raptor species.
14. Any project activities that occur during the raptor nesting season (February 1-July 31) will require a fledging survey to determine chick age. If young birds are present, no shot holes will be drilled within the identified species specific buffer area. No helicopter flyovers will occur over any nests with young birds. Any dead young birds found in nests known to be occupied will be considered a "taking".
15. Timing restrictions for protection of big game crucial winter range (sunset Nov. 14 - April 30) will apply in portions of the Project Area. Refer to crucial winter range maps for closure areas (see Environmental Assessment, Figures 3-3, 3-4, and 3-5).

If Devon requests an exemption or extension for seismic survey activities in big game crucial winter range, field surveys will be required to determine animal presence and consultation with the BLM and WGFD will occur prior to the approval of the resumption of any seismic exploration activity in the crucial wintering area (see Environmental Assessment, Figures 3-3, 3-4, and 3-5 ). Should an exemption be granted, helicopter flights will commence from the east and progress westward towards Pine Mountain, unless otherwise agreed upon.

16. Devon will adhere to setbacks or “buffer zones” from sensitive resources that are set forth in the following tables.

Sensitive Resource	Setback Distance
Springs	1,320 feet (1/4 mile)
Riparian Areas	500 feet
Ephemeral Drainages	100 feet
Archeological Sites	100 feet
Slopes greater than 25%	Drilling not allowed
Pygmy Rabbit Burrows	200 feet
White-tailed Prairie Dog Towns (Active)	200 feet from edge
Sage-grouse leks	400 feet from edge
Designated Escarpments and Cliffs	No Surface Occupancy
State and County Road ROW	100 feet

17. Devon will conduct a post-project inspection and assessment of all seeps and identified springs within the Project Area and adjacent to the Project Area on private land. Inspections will, whenever possible and feasible, be conducted to test flow using an independent third party hydrologist approved by BLM and prepare a report of the results for submittal to BLM.
18. Devon will adhere to setbacks or “buffer zones” from human built features that are set forth in the following tables.

**Offset in Feet, from Certain Objects (based on pounds of explosive charge)**

<b>Object</b>	<b>½ lb</b>	<b>1 lb</b>	<b>2 lbs</b>	<b>3 lbs</b>	<b>5 lbs</b>	<b>6 to 10 lbs</b>	<b>11 to 15 lbs</b>	<b>16 to 20 lbs</b>
Pipeline less than 6" diameter	50'	100'	150'	150'	200'	250'	300'	400'
Pipeline 6" to 12" diameter	75'	150'	200'	200'	300'	400'	500'	600'
Pipeline greater than 12" diameter	100'	200'	250'	250'	300'	500'	600'	800'
Telephone line	20'	20'	30'	40'	40'	50'	50'	50'
Railroad track or main paved highway	50'	100'	150'	150'	150'	220'	280'	350'
Electric powerline (shot holes not to exceed 200' depth)	75'	100'	200'	200'	200'	200'	250'	300'
Water wells, buildings, underground cistern, and all other similar objects	225'	300'	400'	450'	700'	800'	1000'	1200'
Brick and/or concrete block buildings	275'	400'	500'	600'	800'	1000'	1200'	1500'
Producing oil and gas well	250'	450'	600'	700'	800'	900'	1000'	1000'
Irrigation wells	500'	800'	1000'	1200'	1500'	2000'	2500'	2500'

19. Any pygmy rabbit burrows located during the wildlife survey will be protected with a 200-foot buffer from the shot holes to minimize the chance of burrow collapse and mortality to individuals.
20. Any active white-tailed prairie dog towns located during the wildlife survey will be protected with a 200-foot buffer from the shot holes to minimize the chance of burrow collapse and mortality to individuals.
21. Any sage-grouse leks located during the wildlife survey will be protected with a 400-foot buffer from shot holes to minimize the chance of surface disturbance to leks.
22. The operator is responsible for informing all persons associated with this project that they shall be subject to prosecution for damaging, altering, excavating or removing any archaeological, historical, or vertebrate fossil objects or sites. If archaeological, historical, or vertebrate fossil materials are discovered, the Operator is to suspend all operations that further disturb such materials and immediately contact the Authorized Officer. Operations are not to resume until written authorization to proceed is issued by the Authorized Officer.

Within five (5) working days, the Authorized Officer will evaluate the discovery and inform the Operator of actions that will be necessary to prevent loss of significant cultural or scientific values. The Operator is responsible for the cost of any mitigation required by the Authorized Officer. The Authorized Officer will provide technical and procedural guidelines for the implementation of mitigation. Upon verification from the Authorized Officer that the required mitigation has been completed, the Operator will be allowed to resume operations.

23. The Operator shall notify the Authorized Officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony. The Operator shall immediately stop all activities in the vicinity of the discovery and protect it until notified to proceed by the Authorized Officer
24. Shot holes will be backfilled and plugged, in accordance with the Wyoming Oil and Gas Conservation Commission requirements, after they are loaded with the explosive charge. Any cuttings resulting from shot hole drilling, and not used in backfilling the shot hole, will be scattered around the immediate area to blend with the natural terrain and to reduce visual impacts.
25. All equipment will be power washed prior to entering state, private, and federal lands to help mitigate the spread of noxious plants.
26. Vehicles and drill rigs will carry fire extinguishers, shovels to extinguish any fires that are accidentally started by the seismic operations.
27. If oil, lubricants and other petroleum or man-made products are accidentally spilled onto the ground surface the BLM will be contacted and provided specific information about the spill and/or leak. Spills or leaks will be remediated and any contaminated soil or other material will be disposed of at an authorized facility.
28. Signs will be placed on nearby roads to discourage recreationists and other travelers from entering the work areas.
29. The operator shall be responsible for the prevention and suppression of fires on public lands caused by its employees, contractors or subcontractors. During conditions of extreme fire danger, surface use operations may be limited or suspended in specific areas.
30. All flagging, lath, pin flags, and similar materials used in the seismic project will be removed from public land and disposed of at an authorized landfill
31. When crossing private surface 43 CFR 3814 regulations must be complied with. When crossing public surface off-lease the operator must have an approved rights-of-way agreement.
32. If soil is disturbed to the extent that erosion is likely or visual impacts are readily apparent, the disturbed areas will be rehabilitated utilizing the following techniques:
  - a. Ruts and vehicle tracks will be filled with soil and/or obliterated by either hand raking or some other method. When completing this work, care will be taken to minimize disturbance to surrounding lands that have not been disturbed. All areas where rehabilitation work is accomplished will be reseeded with the approved seed
  - b. The seeded area should be hand raked to assure the seed is covered with approximately ¼ to ½ inch of soil. This seeding should be accomplished during the late fall, in October or November 2008, before moisture conditions become prohibitive.

33. The recommended seed mix for the proposal area is shown below. The mix used should be based on the type of soil present. These species are suitable to the area and have the best chance to successfully revegetate disturbed areas. Reseeding should be completed after October 1, 2008 and prior to ground frost, or after frost has melted and prior to May 15, 2009. Fall seeding after the completion of seismic survey activities has a higher potential for successful spring germination, and is the preferred method. Additional seeding may be necessary in order to attain successful revegetation where soils are stable, and vegetative composition and establishment are similar to other naturally occurring disturbances. After revegetation, BLM determines when the reclamation is deemed acceptable for bond release.

**BLM APPROVED SEED MIX A – Loamy Clay**

Grasses – USE ALL	lbs/acre
Thickspike wheatgrass	6
Indian ricegrass	2
Sandberg bluegrass or Bluebunch wheatgrass	6
Bottlebrush squirreltail	2

Shrubs – USE TWO, (in winter range – use big sagebrush)	lbs/acre
Basin or Wyoming big sagebrush	1
Shadscale	1
Winterfat	2
Gardner’s saltbush	2
Four wing saltbush	2

Forbs – USE TWO	lbs/acre
Scarlet globemallow	½
Lupine	½
Blue flax	¼
Rocky Mountain penstemon	½

**BLM APPROVED SEED MIX B – Sandy**

Grasses – USE ALL	lbs/acre
Needle and thread grass	6
Thickspike wheatgrass	6
Indian ricegrass	3
Bottlebrush squirreltail	2
Bluebunch wheatgrass	2

Shrubs – USE TWO, (in winter range – use big sagebrush)	lbs/acre
Shadscale	1
Spiny hopsage	1

Forbs – USE TWO	lbs/acre
Northern sweetvetch	½
Louisiana (Prairie) sagebrush	½

34. At the Proposed Project completion, a final inspection will also be completed by the BLM Authorized Officer (AO). Additional reclamation will be carried out if required by the BLM AO.
35. A Sundry Notice (subsequent report) must be submitted including the date of initial seeding and a copy of the seed tags used for seeding within the project area.
36. Devon is responsible for control of all invasive/noxious weed species on any and all disturbed sites. Devon is responsible for consultation with the BLM Authorized Officer and/or local authorities for acceptable weed control methods, and shall comply with the following:

Use of pesticides/herbicides shall comply with all applicable RMP requirements, and Federal and State laws. Pesticides/herbicides shall be used only in accordance with their registered uses, within limitations imposed by the Secretary of the Interior. Prior to the use of the pesticides/herbicides, the lease holder shall obtain from the Authorized Officer, written approval of a Pesticide/Herbicide Use Proposal Plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, locations of storage and disposal of containers, and any other information deemed necessary by the Authorized Officer.

Applicator(s) of chemicals used must have completed the pesticide/herbicide certification training and have a current up-to-date Certified Pesticide/Herbicide Applicator's License.

37. All reclamation shall be completed in accordance with Onshore Order No. 1.
38. Devon may request an exception in writing to the above Conditions of Approval. Any exceptions to the Conditions of Approval must have prior written approval from the AO. The exception requests must explain the reason(s) for the exception, and the conditions that exist that would no longer require the Conditions of Approval. All data supporting the exception must accompany the written request.

Decisions on waivers, exceptions, or modifications submitted after seismic work has commenced are final and are not subject to administrative review by the State Director or appeal pursuant to 43 CFR part 4.

## ATTACHMENT 2

### APPLICANT-COMMITTED ENVIRONMENTAL PROTECTION MEASURES

Applicant-Committed Environmental Protection Measures are mitigation measures that Devon has voluntarily agreed to avoid or minimize environmental impacts. These mitigation measures are provided below.

#### 1. General Operations

- Devon has agreed to conduct the entire seismic survey using a helicopter instead of vibroseis trucks.
- Devon has agreed that vehicular traffic will only be allowed on existing two-track or improved roads and that a Transportation Plan will be developed. Class III cultural surveys will be conducted on the two-track and roads identified through the Transportation Plan (Appendix A, Figure 2-2).
- Seismic operations will cease at sunset on November 14, 2008, prior to the beginning of the big game wintering period, to prevent disturbing wintering large game species (i.e., elk and mule deer).
- Devon will collaborate with the BLM and Wyoming Game and Fish Department to notify the public of the seismic activity while the project is being conducted.

#### 2. Water Resources

- Devon is adhering to the WOGCC regulations and the BLM Geophysical Handbook Safe Operating Distances. The State offset distance is 1,320 feet for seeps and springs. A pre-project peak particle motion study has been conducted on the proposed Project Area by independent third-party (Matheson Mining Consultants, Golden, CO) to verify that the BLM and Wyoming Safe Operating Distances are adequate.
- Devon will conduct a post-project inspection and assessment of all seeps and identified springs within the proposed Project Area and those on private land adjacent to the proposed Project Area. Inspections will, wherever possible and feasible, conduct flow tests using an independent third-party hydrologist approved by BLM and prepare a report of the results.

#### 3. Air Quality

- Members of the seismic and heli-portable drilling crews will be encouraged to carpool to and from surrounding towns to minimize vehicle-related emissions. Devon plans to have 30-person buses with professional drivers to transport crew to and from the field.

#### **4. Cultural/Paleontological Resources**

- Devon has agreed to conduct a Class III archaeological clearance for a 100-foot corridor (50 feet from the centerline of the source point location on each side) for the length of the source lines.
- Based on the results of field surveys, all cultural and/or paleontological sites will be avoided. The survey crew will move any source points associated with identified cultural or paleontological sites to avoid these resources.
- If cultural or paleontological resources are discovered during seismic activities, all activity along the seismic line will cease, and Devon will immediately notify the BLM. The BLM and Wyoming State Historic Preservation Office representatives will then determine how to avoid impacting the site or artifact.

#### **5. Hazardous and Solid Waste/Trash Disposal**

- Fuel and lubricants will be temporarily stored in transportable containment trailers at staging areas, with secondary containment, to minimize potential for accidental releases/spills.
- All spills or leaks of diesel fuel, hydraulic fluid, lubricating oil, and coolant, including contaminated soil material, will be excavated and placed in an appropriate container and transported to an approved disposal site. All incidents will be reported to the appropriate regulatory agency, allowing the agency representative to monitor the reclamation of the site.
- All solid waste or trash will be transported for disposal to an approved solid waste disposal facility.
- Portable human waste receptacles will be placed in staging areas and maintained, as necessary, for the duration of the seismic program. Human waste receptacles can also be placed along access routes and established two-track roads, as needed.
- An Emergency Response Plan (ERP) will be located in each vehicle used for seismic operations to ensure rapid response to leaks and spills.

#### **6. Erosion and Sedimentation Control**

- No cross-country travel will be allowed and all vehicles will be restricted to designated roads and two-tracks.
- Employees and contractors will be instructed to travel at appropriate speeds to limit disturbance to soils and vegetation, and to minimize the potential for vehicle-wildlife and vehicle-vehicle collisions.
- At the end of the project, all equipment, supplies, and trash will be removed
- Any staging areas, where vegetation may have been disturbed, will be re-contoured and reseeded, if necessary. If requested by the BLM, a representative of the agency can be flown over “cleared” lines to verify that these areas are free of trash and that no areas are disturbed from Devon’s operations.

- Ephemeral low water stream and channel crossings will be avoided when the streams are flowing.

## **7. Vegetation Resources**

- To reduce the introduction/spread of noxious and invasive weed species from vehicles and equipment to the well sites, employees and contractors will not be allowed to drive off-road.
- A noxious weed control management program will be implemented to prevent or control the spread of noxious weeds at the proposal site. All vehicles that enter the proposed Project Area will be washed prior to the beginning of the survey.
- All applicable equipment, including on-road and off-road equipment, will be cleaned to remove weed seed and soil (which may contain weed seeds), prior to commencing operations on public lands within the proposed Project Area.
- Weed infestations resulting from the seismic operations will be treated, as necessary, by an herbicide approved by the BLM AO to prevent additional weed spread. Shot holes will be refilled and plugged with soil, cuttings, and bentonite in accordance with the Wyoming Oil and Gas Conservation Commission regulations.
- Disturbed areas from shot hole drilling and helicopter staging areas will be reclaimed and restored with a BLM-approved native seed/shrub mix. Restoration will be to pre-project topographic contours and conditions and be implemented within one month of project completion. The success of the vegetative growth may be determined by BLM no sooner than during the third growing season after reclamation has been completed. Interim progress of reclamation will be monitored as appropriate by the agency and Devon. Where it has been determined that revegetation success has not been met, the BLM and the Devon will meet to decide on the best course of action necessary to meet the reclamation goal.

## **8. Wildlife Protection**

- A spring raptor nesting survey will be conducted if the project continues into 2009.
- Devon has agreed to alter the helicopter flight plan, as necessary, to minimize impacts to big game species.
- Devon will comply with all BLM restrictions for the protection of wildlife.
- To reduce the potential for wildlife-vehicle collisions, Devon will require their employees and contractors to always drive at safe speeds.
- No dogs (guide dogs excluded) or other pets will be allowed in the proposed Project Area.
- No firearms will be allowed in the proposed Project Area.

## **9. Public/Crew Safety**

- Devon will take all necessary precautions for the protection and safety of the public for the duration of the seismic program. At road intersections, if approved by Devon, maps of the Project will be available for public viewing.

- To further facilitate coordination with local emergency services, Devon will provide mapped locations of the proposed seismic exploration areas and times to the respective emergency services personnel, as applicable, in advance of any exploration activities. In addition, Devon will have cell phones, satellite phones or radios onsite, as appropriate, to provide immediate communication to emergency services.
- Emergency Response Plans (ERP) will be drafted and available at all staging areas, in all contractor and sub-contractor vehicles, as well in crew offices in Rocks Springs, BLM Rock Springs Field Office, and other applicable agency offices as necessary. The ERP will be updated and distributed regularly to reflect any changes. ERP Plans are a required document with Tesla Exploration, Inc.
- Vehicle traffic will be limited to existing roads and two-tracks. Vehicles will travel at speeds within set speed limits of main access roads and at slower speeds appropriate for conditions on more remote roads and two-tracks.
- At a minimum, all crew members will comply with the Occupational Safety and Health Administration (OSHA) rules and regulations.
- Signs warning the public of seismic survey activity will be located along SH 430 during the project and at the closest road/trail intersections on either side of the next day's planned drilling.
- During hunting season, field personnel should wear blaze orange for their personal protection.

#### **10. Existing Facilities/Right of Way Protection**

- Devon will be responsible for road repair and/or improvements as needed on the existing BLM access roads in accordance with BLM road standards if the damages are a result of the seismic operation.
- Devon will provide maintenance services for county roads used in the project, as requested by Sweetwater County. Services could include returning the road to original or better condition, placing erosion control features at key points along the road to prevent sediment movement into nearby streams associated with this project, and providing dust control, if needed, during the project. All services provided by Devon will be coordinated with and approved by Sweetwater County with a permit. Road maintenance services will be coordinated with Sweetwater County.
- A representative from the Sweetwater County Road Department is invited to attend the crew start-up meeting.
- Safe operating distances (based on accepted industry standards) will be maintained between shot holes and existing facilities including oil and gas wells, roads, pipelines, and electrical utility lines.
- Any facilities impacted by the proposed seismic survey will be repaired or replaced as soon as practical before the end of the project.

## **11. Fire Protection**

- Vehicles with catalytic converters will be restricted to approved roads and two-tracks. Parking or idling will not be permitted in portions of roads or two-tracks with tall vegetation.
- All brush build-up around mufflers, radiators, heater-treaters, and other engine parts will be avoided; periodic checks will be conducted to prevent this build-up.
- All personnel will be advised that smoking is only allowed in crew vehicles. All other areas are designated as non-smoking areas.
- All personnel will be advised that campfires or uncontained fires of any kind are prohibited except in an extreme emergency situation as defined in contractor safety manuals. The Emergency Response Plan (ERP) includes a fire communications protocol for contacting fire-fighting personnel. Fire boxes will be used, if required.
- Prior to start-up Devon will engage local fire prevention agencies and discuss protocols for emergency fire fighting.
- Personnel will be trained in fire fighting techniques, as needed.
- Firefighting equipment will be kept on site at all times containers painted red with “Fire Equipment” printed on the container in a highly visible manner. These containers will have the contents displayed on the exterior of the box.
- The fire containers will be constructed in such a manner that they can be simply rigged up and transported via helicopter in an expeditious manner.
- An aerial water deployment tool such as a “Bambi Bucket” will be available in a conspicuous location for rapid deployment.
- The location of emergency water supplies for fighting fires will be identified on maps. Helicopter pilots will document the locations of emergency water supplies and evaluate flight times to these water sources.
- One fire fighting tool for every person on site will be contained in the boxes.
- Fire fighting drills will be conducted at regular intervals.
- All vehicles will be equipped with fire extinguishers, shovels, and first aid kits.
- All-terrain vehicles (ATVs) will be equipped with spark arresters, fire extinguisher, and a fire fighting tool.
- Portable generators used in the proposed Project Area will be required to have spark arresters.

## **12. Noise**

- All seismic operations and activities will cease at sunset on November 14, 2008, to avoid displacing large game species that congregate on crucial winter range within the proposed Project Area. BLM may consider a short extension of the seismic survey activities beyond November 14, if favorable weather conditions allow and conflicts with big game crucial winter range can be avoided.

- The helicopter will follow flight paths chosen to be efficient, while following activity-specific aviation operational safety standards for flight altitudes. Recreationists, wildlife, wild horses, and livestock will be avoided to the extent practical. The post-plot helicopter routes will be provided to the BLM, if requested.