

United States Department of the Interior Bureau of Land Management

Environmental Assessment WY-020-EA07-058
Case File Number: WYW-165810

Finding of No Significant Impact & Decision Record

Bill Barrett Corporation, Red Point 3-D Seismic Exploration

***Location: 6th Principal Meridian, Townships 52-53 North, Ranges 98-99 West,
Various Sections, Park County, Wyoming.***

Applicant/Address: Bill Barrett Corporation, 1099 18th Street, Denver, CO 80202

U.S. Department of the Interior
Bureau of Land Management
Cody Field Office
P.O. Box 518
Cody, WY 82901
Phone: 307-578-5900
FAX: 307-578-5939

August 27, 2007



Finding of No Significant Impact Cody Field Office

INTRODUCTION:

The Bureau of Land Management (BLM) has conducted an environmental analysis, (EA No. WY-020-EA07-58/WYW-165810), for a proposed action to address seismic exploration in the McCullough Peaks area, in Park County. The project would authorize seismic/geophysical exploration in a 44 square mile area, approximately 22 miles east of Cody, Wyoming. The seismic exploration would be a combination of buggy drill, vibroseis, and heli-portable shot holes.

Alternatives analyzed in detail:

1. The No Action Alternative
2. The Proposed Action

Two other alternatives were considered but not analyzed in detail.

The first alternative proposed a mitigation activity that could address impacts to wild horses.

The additional water source would have taken the form of cleaning out existing stock watering reservoirs and filling them with water. This additional activity was determined to be unfeasible because of the need to bring in heavy equipment, resulting in additional surface disturbance, and because it is generally not known which reservoirs in the project area effectively hold water when filled.

The second alternative entailed all seismic activities being conducted using helicopters. Helicopters would have collected data, set the charges, moved cables, and functioned as the sole vehicle for all aspects of the operation. This alternative was analyzed to the extent that it became apparent it would increase project cost and increase stress to the wild horses.

The EA is available at the Cody Field Office, and is incorporated by reference for this Finding of No Significant Impact (FONSI).

PLAN CONFORMANCE AND CONSISTENCY:

The proposed action and alternatives have been reviewed and found to be in conformance with one or more of the following BLM Land Use Plans and the associated decision(s):

The proposed action is in conformance with the Cody Resource Area, Record of Decision (ROD) and Resource Management Plan, dated November 8, 1990. Page 21 of the ROD states, "All parts of the planning area that are open to oil and gas exploration are open to geophysical exploration."

All aspects of this project will follow timing restrictions set forth in the Cody RMP. Sage grouse and wild horse foal season are between the dates of Feb. 1 and July 31. Winter restrictions for pronghorn are November 15 to January 31.

FINDING OF NO SIGNIFICANT IMPACT DETERMINATION:

Based upon a review of the EA and the supporting documents, I have determined that the project is not a major federal action and will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. Environmental effects do not meet the definition of significance in context or intensity as defined in 40 CFR 1508.27 and do not exceed those effects described in the Cody RMP/FEIS. *Therefore, an environmental impact statement is not needed.* This finding is based on the context and intensity of the project as described:

Intensity: The following discussion is organized around the Ten Significance Criteria described in 40 CFR 1508.27 and incorporated into BLM's Critical Elements of the Human Environment list (H-1790-1), and supplemental Instruction Memoranda, Acts, regulations and Executive Orders. The following have been considered in evaluating intensity for this proposal:

1. **Impacts may be both beneficial and adverse.** The proposed action would impact resources as described in the EA. Those resources analyzed are: air quality, public health and safety, visual resource management, water resources, wetland/riparian, wilderness study area, cultural resources, paleontological resources, geology/minerals, rangeland management, invasive non-native species, recreation, soils, vegetation, wild horses, and wildlife (T&E, sensitive, and migratory). Mitigating measures to reduce impacts have been incorporated into the proposed action in the form of Project Design Features (PDFs). These PDFs are listed in Appendix B of the EA. In addition to the PDFs, the proponent is required to provide a temporary water trough as an alternate water source for wild horses.
2. **The degree to which the selected alternative will affect public health or safety.** The proposed action is designed to have minimum impact on public health. Transportation of equipment to the project location will be in conformance with state and federal laws. Safety signs will be placed in the project area to alert public land users of project activities. Explosives (for shot holes) will be stored and handled according to federal regulations and a shot-point coordinator will ensure the detonation area is clear of public and wildlife. Vehicles in the project area will travel no faster than 25 mph. An on-site project coordinator will ensure the public maintains a safe distance from helicopter and operational equipment.

3. **Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farm lands, wetlands, wilderness, wild and scenic rivers, or ecologically critical areas.** Historic, cultural, and vertebrate and scientifically important paleontological resources in the project area have been inventoried and avoided. Potential impacts have been mitigated in the design of the proposed action. The following Critical Elements of the Human Environment and Other Resource Issues are not present in the project area and are not affected: areas of critical environmental concern, environmental justice, farmlands (prime or unique), Native American religious concerns, Wastes solid/hazardous, and wild/scenic rivers.
4. **The degree to which the effects on the quality of the human environment are likely to be highly controversial.** There is no scientific controversy over the nature of the impacts.
5. **The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.** The project is not unique or unusual. The BLM has experience implementing similar actions in similar areas. The environmental effects to the human environment are fully analyzed in the EA. There are no predicted effects on the human environment that are considered to be highly uncertain or involve unique or unknown risks
6. **The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.** The actions considered in the selected alternative were considered by the interdisciplinary team within the context of past, present, and reasonably foreseeable future actions. Significant cumulative effects are not predicted. A complete analysis of the direct, indirect, and cumulative effects of the selected alternative and all other alternatives are described in Chapter 4 of the EA.
7. **Whether the action is related to other actions with individually insignificant but cumulatively significant impacts – which include connected actions regardless of land ownership.** The interdisciplinary team evaluated the possible actions in context of past, present and reasonably foreseeable actions. Significant cumulative effects are not predicted. A complete disclosure of the effects of the project is contained in Chapter 4 of the EA.
8. **The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.** The project will not affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places, nor will it cause loss or destruction of significant scientific, cultural, or historical resources. A cultural inventory has been completed for the proposed action, and resources are being avoided.

Consultation with SHPO has been completed in accordance with Section 106 of the NHPA and the Programmatic Agreement between the Wyoming BLM and SHPO.

9. **The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973, or the degree to which the action may adversely affect: 1) a proposed to be listed endangered or threatened species or its habitat, or 2) a species on BLM's sensitive species list.** Mitigating measures to reduce impacts to wildlife have been incorporated into the design of the proposed action. Although sage-grouse, golden eagles, burrowing owls, grey wolf, long billed curlew, mountain plover, and white-tailed prairie dog species may occupy habitat within the project boundary, it has been determined that they will not be affected because of measures outlined in the PDFs which have been incorporated in the project design. No other threatened or endangered plants or animals are known to occur in the area.
10. **Whether the action threatens a violation of a federal, state, local, or tribal law, regulation or policy imposed for the protection of the environment, where non-federal requirements are consistent with federal requirements.** The project does not violate any known federal, state, local or tribal law or requirement imposed for the protection of the environment. State, local, and tribal interests were given the opportunity to participate in the environmental analysis process. Letters were sent to eleven (11) Native American tribes concerning consulting party status. There were no responses from any of the tribes. More than eighty (80) follow up phone calls were initiated with nearly 30 tribal representatives. Several asked to review the environmental assessment, and one tribe visited the project area.

Michael P. Stewart
Cody Field Manager

Date

DECISION:

Based upon the analysis of the potential environmental impacts described in environmental assessment WY-020-EA07-058 (EA) and supporting documents in the case file, consideration of comments received during scoping and on the EA, it is my decision to issue a permit to conduct geophysical operations on BLM-administered public lands, as described in the proposed action alternative with integration of PDFs.

Authorities: The authority for this decision is contained in the Mineral Leasing Act of 1920, the Mining and Minerals Policy Act of 1970, and Federal Onshore Oil and Gas Leasing Reform Act of 1987.

Compliance and Monitoring: A BLM representative will be conducting compliance monitoring during all facets of the seismic operation. Appendix B, of the EA outlines the roles and responsibilities of the proponent during project operation.

Project Design Features / Terms / Conditions / Stipulations: Standard stipulations will apply. In addition, specific project design features (PDFs) are incorporated as part of the proposed action and can be viewed in Appendix B.

Rationale for Decision: This decision is based on the FONSI and that it is in accordance with policy and Onshore Oil and Gas Geophysical Exploration Surface Management Requirements.

In addition, it conforms with the Cody Resource Management Plan (1990), which allows geophysical exploration in the entire administrative unit, with the exception of the McCullough Peaks Wilderness Study Area (WSA); approximately 2.5 +/- miles north of the proposed project.

All aspects of this project will follow timing restrictions set forth in the Cody RMP. Sage grouse and wild horse foal season are between the dates of Feb. 1 and July 31st. Winter restrictions for pronghorn are November 15 to January 31.

Modifications to the proposed action, from the proponent, either meet or exceed the resource protection requirements that were analyzed.

A written scoping notice was mailed to interested parties and the public on March 1, 2007. The BLM held a scoping meeting on March 19, 2007. A public comment period for scoping began March 1 and ended March 31

Press releases were sent to the Billings Gazette, the Cody Enterprise, and the Powell Tribune newspapers during the project scoping period, in March.

Friends of a Legacy (FOAL) requested a meeting with BLM. On March 15, 2007, FOAL gave the BLM a list of concerns regarding the Herd Management Area, foaling season, and how the project would impact wild horses.

We received one-hundred and seven (107) responses during scoping. A synthesized matrix of those comments is attached to the EA in Appendix C.

The BLM released the EA to the public for a 30-day review on July 17, 2007. A total of 16 comments responses were received.

Some of the responses included references to outfitter and guide operations that are permitted through a Special Recreation Use permit. Because the proposed action was a seismic project, not whether the BLM should renew or terminate recreation permits, those comments were considered out of the scope for this analysis.

The comments matrix attached is made part of this decision.

Changes Made as a Result of Public Comment: Six total changes to the EA are being made as a result of public comments. Five of those changes are made to Appendix B, Project Design Features; and one change to Appendix F, Monitoring Plan. Changes are listed in the comment matrix and below.

Appendix B	
Public Comment	BLM Response
<ul style="list-style-type: none"> No extension (of permit) is stated or implied. Resources, such as geophysical crews may be in short supply. 	<p>This permit is good for one year from signature date. If extensions are needed they would be considered on a case-by-case basis for up to one additional year. However, if resource issues change, between permit and operations, additional NEPA may be required.</p> <p>PLEASE NOTE: Winter operation stipulations may be used. The Cody RMP (1990) lists November 15 through February 1, as winter timing restrictions for sage grouse and pronghorn.</p>

Appendix B	
Public Comment	BLM Response
<ul style="list-style-type: none"> Request a change of mitigation measure, PDF, Appendix B, Page 8, # 8. 	<p>The BLM has changed this PDF to read as follows:</p> <p>Wildlife and wild horse disturbance. Helicopters shall not harass or disturb wildlife and/or wild horses to the maximum extent possible. This means helicopter pilots shall not go out of their way to observe or photography wildlife/wild horses; helicopter pilots shall maintain a ½ mile buffer between the helicopters and wildlife/wild horses.</p>

Appendix B	
Public Comment	BLM Response
<ul style="list-style-type: none"> • Page 16, condition 2a. • We have the same concerns as stated above. In addition, what is the meaning of “wildlife species”? 	<p>The BLM has changed the PDF to read as follows:</p> <p>2.a. Wildlife disturbance. Helicopters shall not harass or disturb wildlife species to the maximum extent possible. This means helicopter pilots shall maintain a ½ mile buffer between wildlife and the helicopters.</p> <p>Wildlife, in this case, is defined as mobile species that might react to the helicopter by potentially leaving the area. The purpose of this PDF is to not cause mobile species to leave habitat to lower quality habitat.</p>

Appendix B	
Public Comment	BLM Response
<ul style="list-style-type: none"> • PDF, Appendix B, Page 17, number 2., low level flights and the running of wild horses 	<p>This PDF has been changed to read as follows:</p> <p>Low-level flights over horses are prohibited unless absolutely necessary (e.g., safety, accidents, etc.); the AO or his/her designated representative will be notified immediately of this type of incident. The pilot should allow for a minimum ½ mile buffer from helicopter to horse. If the helicopter(s) cause the horses to run in a way that may become harmful to the horses, the ½ mile buffer of from helicopter to horse may be increased. Helicopter flights are allowed only in the project area and outside the HMA (also see the Helicopter Operation Requirements).</p>

Appendix B	
Public Comment	BLM Response
<ul style="list-style-type: none"> • Wildlife Protection Requirements, #7. Establish ¼ mile buffer around leks 	<p>The proponent has volunteered to avoid sage grouse leks from a previously proposed 1000 feet to ¼ mile from the center of lek locations. This exceeds the BLM requirements and impacts are equal or less than what was analyzed and/or required.</p>

Appendix F – Monitoring Plan - Change

In addition, a change is made through this Decision Record in Appendix F, Monitoring Plan. Numbers 1 and 2 will be combined to state, “At least one BLM designated representative will perform monitoring duties during work hours each day, seven days a week, during operations until project completion and rehabilitation. At the discretion of the Authorized Officer, monitoring duties may be modified based on the project status and resources risk.”

Appeals Language: This decision is in full force and effect upon the date it is signed by the authorized officer and will remain in effect while any appeal is pending unless the Interior Board of Land Appeals issues a stay pursuant to 43 CFR 3150.2. Any appeal of this decision must follow the procedures set forth in 43 CFR Part 4. Within 30 days of the decision, a notice of appeal must be filed in the office of the authorized officer at the Cody Field Office, 1002 Blackburn Avenue, P.O. Box 518, Cody, WY 82414. If a statement of reasons for the appeal is not included with the notice, it must be filed with the Interior Board of Land Appeals, Office of Hearings and Appeals, U.S. Department of the Interior, 801 North Quincy St., Suite 300, Arlington, VA 22203 within 30 days after the notice of appeal is filed with the authorized officer.

To file a petition for stay pursuant to 43 CFR Part 4.21(b), it must accompany your notice of appeal and must show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied,
- (2) The likelihood of the appellant’s success on the merits,
- (3) The likelihood of irreparable harm to the appellant or resources if the stay is not granted, and
- (4) Whether the public interest favors granting the stay.

If a petition for stay is submitted with the notice of appeal, a copy of the notice of appeal and petition for stay must be served on each party named in the decision from which the appeal is taken, and with the IBLA at the same time it is filed with the authorized officer.

A copy of the notice of appeal, any statement of reasons and all pertinent documents must be served on each adverse party named in the decision from which the appeal is taken and on the Office of the Regional Solicitor, Rocky Mountain Region, 755 Parfet Street, Suite 151, Lakewood, CO 80215, not later than 15 days after filing the document with the authorized officer and/or IBLA.

Michael P. Stewart
Cody Field Manager

Date

Attachments (3):

- 1 – Appendix A, Comment matrix to the EA
- 2 – Revised Appendix B, PDFs
- 3 – Revised Appendix F, Monitoring Plan

APPENDIX A – PUBLIC COMMENTS ON EA

COMMENT HEADING	COMMENT FROM PUBLIC	RESPONSE
<p>Down played the possibility of oil and gas drilling as a result of the geophysical exploration.</p> <p>The long term adverse effects to recreation will be significant as oil/gas development results.</p>	<ul style="list-style-type: none"> Cumulative impacts did not consider future oil and gas development in the area. 	<p>Geophysical exploration activities are data collection activities used to gather information that may be used to inform future decision-making regarding oil and gas, or geothermal development proposals. BLM policy and guidance states that geophysical exploration activities are independent actions and are not connected actions as defined in NEPA 40 CFR 1508.25(a)(1).</p>
<p>Significance.</p> <p>Resulting oil and gas development will be significant.</p> <p>Wild horses and recreation will be significantly impacted.</p>	<ul style="list-style-type: none"> Suggested the preparation of an Environmental Impact Statement 	<p>Impacts will be mitigated by the application and enforcement of the Project Design Features (PDFs).</p> <p>Geophysical is considered a data collection activity, only. If oil and gas development occurs in the project area, site specific NEPA will be completed.</p>
<p>Monitoring and Compliance.</p> <p>The BLM does not conduct monitoring and compliance procedures, when they say they will.</p> <p>Will field personnel be able to “shut down” the project should monitoring/compliance result in not following PDFs.</p>	<ul style="list-style-type: none"> Statement that the BLM should pay strict attention to monitoring and compliance during project activities. 	<p>Appendix D of the EA, lists a Monitoring Plan.</p> <p>In addition, several BLM employees will be actively monitoring.</p> <p>Field personnel, in contact with the Field Manager or Authorized Officer, will be able to “shut down” the project should the need arise.</p>

COMMENT HEADING	COMMENT FROM PUBLIC	RESPONSE
WESCO Well	<ul style="list-style-type: none"> If this is the same company who has built the well to the north, they have left a mess. 	The proponent of this project is Bill Barrett Corporation. They are not affiliated with WESCO in any way.
Possible but not probable that exploration will result in later oil and gas drilling.	<ul style="list-style-type: none"> Reasonably foreseeable future actions stated that oil and gas exploration is possible but not probable. 	This statement is an error. While oil and gas development subsequent to seismic exploration is possible, it is also possible that there may be no oil and gas development as a result of the seismic findings.
Survey Activities and Sage Grouse	<ul style="list-style-type: none"> This is known sage grouse country and surveyors on ATVs seemed little concerned. 	The BLM wildlife biologist worked closely with the survey crew to keep them away from sage grouse leks during strutting, nesting, and brooding season, per BLM policy and regulation.
Casual Use for Geophysical and Survey Activities prior to authorization	<ul style="list-style-type: none"> Many comments referred to the casual use definition and pre-authorized staking by the survey crew. 	<p>Casual use activities are activities that involve practices that do not lead to appreciable damage. ATVs off road for seismic survey and staking can be an example of this activity.</p> <p>In order for the proponent to perfect their application, the exact route of shot holes, receiver, and transmit lines has to be determined. The BLM does not consider the Notice of Intent complete until that staking has occurred.</p> <p>The BLM Cody Field Office staff monitored staking procedures during the months of March through July, when staking was completed.</p>
GPS	<ul style="list-style-type: none"> All companies that work with the BLM should be required to use GPS. 	The survey company did use survey grade GPS mapping units to procure the final project map.

COMMENT HEADING	COMMENT FROM PUBLIC	RESPONSE
Wild horses	<ul style="list-style-type: none"> The buffer zone is not large enough 	<p>We have a ½ mile buffer zone between the helicopter and horses. This buffer is subject to change by increasing the distance based on monitoring observations of horse behavior during compliance.</p>
Wild horses	<ul style="list-style-type: none"> More water will be needed. Too many horses for one water tank 	<p>Some of the existing reservoirs during rain events will hold water for an undetermined amount of time. There is also water available in Dry Creek. Gates in the Herd Management Area (HMA) will be open during activities to allow access to other parts of the HMA with water.</p>
Wild horses	<ul style="list-style-type: none"> Horses will be stressed during this operation. 	<p>BLM will monitor geophysical activities throughout the project. If horses become inordinately stressed, actions will be taken to reduce or remove the stressor.</p>
Wild horses	<ul style="list-style-type: none"> Monitor for wild horses several times throughout the project 	<p>A BLM representative will be conducting compliance monitoring during all facets of the seismic operation.</p>
Open Space	<ul style="list-style-type: none"> BLM has an opportunity and obligation to keep rigs, traffic, pollution, unsightly tanks, and other oil field garbage out of the area. Preserve what we have and keep it as virgin as possible 	<p>The BLM agrees with the importance of open space. This area is exemplary for open space and unobstructed views. For this seismic project we have mitigated impacts and will carry forward best management practices for other authorizations in the area.</p> <p>Again, seismic exploration does not guarantee subsequent oil and gas development.</p> <p>Seismic exploration is considered temporary as no permanent structures will be built.</p>

COMMENT HEADING	COMMENT FROM PUBLIC	RESPONSE
Supports geophysical in the area	<ul style="list-style-type: none"> The responsible inventory of mineral resources on federal lands is imperative to the National Security of the U.S. as well as the national economy. 	Thank you for your comment.
Sage Grouse	<ul style="list-style-type: none"> Timing stipulation applied in PDF # 7 (Feb. 1 to July 31) is designed to protect sage grouse brood rearing areas. 	The dates cover nearly all of the use period when sage grouse are active in the project area.
Treat land gently	<ul style="list-style-type: none"> We want you to know that there are others that care about the land for reasons other than commercial. 	Thank you for your comment.
Wild horses	<ul style="list-style-type: none"> Wild horses cannot survive by sharing their area with drill rigs. Please, do all you can to stop the activity. 	<p>The Cody Field Office land use plan (1990) states that the entire administrative unit is open to geophysical exploration. With the exception of the McCullough Peaks Wilderness Study Area</p> <p>The BLM is a multiple use agency, with a mandate for balanced uses and protection.</p> <p>Geophysical is considered a temporary activity, since it is data collection, with no permanent structures being built.</p>

COMMENT HEADING	COMMENT FROM PUBLIC	RESPONSE
Conflict of Interest	<ul style="list-style-type: none"> • Third party contractor firm hired by the company, who wants to do the project, is seen as a severe conflict of interest. 	<p>The BLM often uses 3rd party contractors to help meet our agency responsibilities.</p> <p>For this project, the BLM entered into a Memorandum of Understanding (MOU) with Bill Barrett Corporation (BBC). This MOU outlined roles and responsibilities for both the BLM and the proponent.</p> <p>The BLM also required and received a Statement of No Conflict of Interest from the third party contractor.</p> <p>We believe there has been no conflict of interest.</p>
Sage Grouse	<ul style="list-style-type: none"> • Perhaps you should have a wildlife biologist from U of W tell you what some of the wildlife impacts are going to be instead of a consulting firm hired by BBC • Also you are allowing the project within the boundaries of sage grouse habitat 	<p>The BLM interdisciplinary team was very heavily involved in the data gathering and analysis on every aspect of this project. Nearly all the data analyzed originated from the BLM or Wyoming Game and Fish. In particular, the Cody BLM Wildlife Biologist, worked closely with the proponent and the 3rd party contractor to incorporate project design features that would minimize or mitigate impact to wildlife, particularly sage grouse. The Wyoming Game and Fish has indicated all of their concerns have been addressed.</p>
Enforcement	<ul style="list-style-type: none"> • The BLM needs to live up to and enforce its environmental responsibilities to this land. I implore you to deny this permit. 	<p>Compliance and monitoring will be done daily throughout the project activities.</p> <p>You may appeal this decision. Please see the Appeals section of this Decision Record.</p>

COMMENT HEADING	COMMENT FROM PUBLIC	RESPONSE
McCullough Peaks Wild horses	<ul style="list-style-type: none"> Protect wild horses from oil and gas Leave the McCullough Peaks alone. Not every inch of Wyoming needs to provide oil and gas at this time. 	Per our existing land use plan (RMP), all areas in the Cody Field Office jurisdiction, are open for geophysical exploration. With the exception of the McCullough Peaks Wilderness Study Area
Water tank	<ul style="list-style-type: none"> We suggest the water tank be left in place after the project has ended to provide for an added water source. 	The BLM is considering drilling water wells in the vicinity of the tank, for year-round water. The tank may be moved to a more appropriate area depending on the availability of water resulting from water well drilling.
Monitoring reports available to the public	<ul style="list-style-type: none"> We are asking that monitoring reports be available by email or by internet so concerned citizens can keep track of this project. 	Monitoring reports will be available for public viewing at the BLM Cody Field Office after project initiation.
Paleontological and Cultural Resources	<ul style="list-style-type: none"> For paleontology only 134 acres were inventoried. Why wasn't all 505 acres? 	<p>The Cody BLM Geologist along with the Wyoming BLM State Geologist agreed that a particular formation in the project area should be the focus of the paleontological survey.</p> <p>The cultural resource inventory covered all areas of the seismic project.</p>
FONSI	<ul style="list-style-type: none"> Context explanation does not make sense. 	You are correct. We have deleted that section of the FONSI.

COMMENT HEADING	COMMENT FROM PUBLIC	RESPONSE
Native American Tribes	<ul style="list-style-type: none"> We request a list of all Native American Nations and any other organizations notified of this project and any other project in the McCullough Peaks area. 	<p>The Native American tribes contacted were as follows: Cheyenne River Sioux, Crow, Nez Perce, Northern Arapaho, Northern Cheyenne, Ogalala Sioux, Rosebud Sioux, Rosebud Sioux Tribe-Sinte Gleska, Salish-Kootenai, Shoshone, and the Shoshone-Bannock.</p> <p>One-hundred and seventy (170) individuals were sent scoping a scoping notice on March 1, 2007. These individuals also received notification via mail, that the EA was available for comment on the web-site or for viewing at the BLM office.</p> <p>We also provided press releases and news articles throughout the project milestones (e.g. scoping and EA review).</p> <p>The mailing list is available for viewing at the Cody Field Office, BLM.</p>
Obscure vibroseis and buggy tracks & Use native seed	<ul style="list-style-type: none"> Obscure vibroseis and shot hole buggy tracks at points of departure from existing roads and trails by raking, erecting crushed brush, and placing locally available dead vegetation over tracks. Use native seed for rehabilitation 	<p>These techniques will be used when rehabilitation of the project area is carried out.</p> <p>The BLM has 30-60 days to inventory the area for rehabilitation to be conducted.</p> <p>The BLM requires rehabbed areas to be of native seed and shrub.</p>
Sage Grouse leks	<ul style="list-style-type: none"> Establish ¼ mile buffer around leks 	<p>The proponent has volunteered to avoid sage grouse leks from a previously proposed 1000 feet to ¼ mile from the center of lek locations. This exceeds the BLM requirements and impacts are equal or less than what was analyzed and/or required.</p>

COMMENT HEADING	COMMENT FROM PUBLIC	RESPONSE
Preserve Wild horses	<ul style="list-style-type: none"> Refrain from helicopter round-ups – leave the horse herds be. 	There are not helicopter round-ups associated with this authorization.
Extension of the operating period	<ul style="list-style-type: none"> No extension is stated or implied. Resources, such as geophysical crews may be in short supply. 	<p>This permit is good for one year from signature date. If extensions are needed they would be considered on a case-by-case basis.</p> <p>PLEASE NOTE: Winter operation stipulations may be used. The Cody RMP (1990) lists November 15 through February 1, as winter timing restrictions for sage grouse and pronghorn.</p>
Wild life and wild horse disturbance	<ul style="list-style-type: none"> Request a change of mitigation measure, PDF, Appendix A, Page 8, # 8. 	<p>The BLM has changed this PDF to read as follows:</p> <p>Wildlife and wild horse disturbance. Helicopters shall not harass or disturb wildlife and/or wild horses to the maximum extent possible. This means helicopter pilots shall not go out of their way to observe or photography wildlife/wild horses; helicopter pilots shall maintain a ½ mile buffer between the helicopters and wildlife/wild horses.</p>
Helicopters and Wildlife	<ul style="list-style-type: none"> Page 16, condition 2a. We have the same concerns as stated above. In addition, what is the meaning of “wildlife species”? 	<p>The BLM has changed the PDF to read as follows:</p> <p>2.a. Wildlife disturbance. Helicopters shall not harass or disturb wildlife species to the maximum extent possible. This means helicopter pilots shall maintain a ½ mile buffer between wildlife and the helicopters.</p> <p>Wildlife species are mobile species that might react to the helicopter by potentially leaving the area. The purpose of this PDF is to not cause mobile species to leave habitat to lower quality habitat.</p>

COMMENT HEADING	COMMENT FROM PUBLIC	RESPONSE
Wild horse protection requirements, Avoidance	<ul style="list-style-type: none"> • PDF, Appendix B, Page 17, number 2., low level flights and the running of wild horses 	<p>This PDF has been changed to read as follows:</p> <p>If the helicopter(s) cause the horses to run in a way that may become harmful to the horses, the ½ mile buffer of from helicopter to horse may be increased.</p>
McCullough Peaks Wilderness Study Area	<ul style="list-style-type: none"> • I am against use of our Wilderness Study area for mineral extraction. 	<p>The proposed seismic project is approximately 2.5 miles south of the McCullough Peaks Wilderness Study Area boundaries.</p>

APPENDIX B

REVISED - Project Design Features

PROJECT DESIGN FEATURES

Introduction

Project Design Features (PDFs) are appropriate actions or measures to avoid, minimize, rectify, reduce, eliminate or compensate for adverse environmental impacts (40 CFR 1508.20). These PDFs were an integral part of the proposed action design (and alternatives) prior to completing the effects analysis. These PDFs reflect requirements of federal, State of Wyoming and local laws; regulatory requirements; management plan requirements; as well as best management practices, surface use requirements, protective measures, and standard operating procedures based on scientific research data and past experience with similar actions. The literature cited in Section 6.0 of the EA and BLM monitoring and evaluation reports, as well as past experience relating to resource protection and other similar geophysical projects where these PDFs have been implemented, monitored and evaluated, support the contention that they are highly effective. All PDFs are an integral part of the selected alternative, will become conditions of approval contained in the authorization allowing the geophysical activity, and will be implemented as part of this action.

The BLM will have an agency representative (permit administrator, compliance specialist/inspector) during field operations on BLM-administered public lands to inspect, monitor and administer the permit/field operation. The agency representative will work with the applicant to ensure total implementation and compliance with all PDFs, to monitor their effectiveness in eliminating or reducing environmental impacts based on direct observation and assessment of their implementation, and to alter implementation and direct immediate changes to PDFs as necessary and appropriate to insure their maximum effectiveness in the protection of resources and users. The designated agency representative, will not be able to shut down the project unless/until they have notified and received concurrence from the Authorized Officer (AO). The AO is the Field Manager, Michael P. Stewart, or his acting when he is not available.

While geophysical seismic survey operations are underway, the agency representative will prepare a daily monitoring report. A final monitoring and compliance report will be prepared at the conclusion of the project. In addition to ensuring implementation/compliance, monitoring will allow gathering of additional information on the actual impacts resulting from such a project, and will provide additional information as to the relevance, applicability, and effectiveness of the PDFs as applied to future projects.

The BLM will also conduct a post-project assessment/final inspection of the seismic lines (both source and receiver lines) to determine if any mitigation/rehabilitation is necessary on public lands. Should the BLM identify areas requiring mitigation/rehabilitation (i.e., trails created as a result of operations, etc.) during or post-operation, the authorized operator shall work with the BLM to develop an acceptable mitigation plan.

General Conditions

1. Compliance. The applicant is responsible for complying with all federal, state and local laws and regulations.
2. Violations. For willful, flagrant, or major violations of the terms of the NOI, the offending individual (pilot, crew members, drill operators, etc.) as well as the applicant will be issued a warning notice, a violation notice, or cited into court, depending on the severity of the infraction.
3. Indemnification. The applicant shall indemnify the United States against any liability for damage to lives or property arising from the occupancy or use of federal lands under this authorization.

4. Operator representative. The applicant or their designated representative(s) shall be present on the premises at all times when the operations are being conducted on federal lands. The applicant will notify the AO or his/her designated representative in writing advising who their representative(s) will be.

5. Final NOI and project maps. When the project has been finalized in design and routes have been selected based on resource concerns or avoidance, the proponent shall furnish the BLM with a revised NOI and final project maps.

6. Pre-work coordination. The applicant and their selected geophysical contractor will be present at a pre-field work meeting with BLM to read all stipulations of the permit.

7. GPS mapping in helicopter. A GPS unit will accompany the helicopter and a weekly map depicting flight paths will be sent to the BLM GIS coordinator during activities. The file format should be a projected shapefile or Arc Info coverage, which is consistent with Bureau policy.

8. Notification to proceed. The applicant shall inform the AO or his/her designated representative 3 days in advance of when work will begin on the project.

9. Daily progress reports. Daily progress reports shall be submitted to the AO or his/her designated representative providing information on the following:

- Progress of the day - shot hole, vibroseis, and buggy.
- Projection of the next day's schedule and area to conduct exploration.
- Charges that have been shot and the area cleared of all explosives, litter, and other materials used during the operation.
- Blowouts that have been (or need to be) plugged.
- Misfires.
- What worked/what did not work.

10. Project completion statement. When the statement of project completion is submitted, it shall state, "All explosives stored or not used in the blasting operation have been destroyed or removed from federal lands".

11. Land survey markers. The applicant shall protect all land survey markers.

12. Cutting of trees/shrubs. No cutting of trees/shrubs will be authorized for this action.

13. Crew camping. Crews shall not camp or reside on federal lands during the course of the project.

14. Extension of operating period. This permit is good for one year from signature date. If extensions are needed they would be considered on a case-by-case basis for up to one additional year. However, if resource issues change, between permit and operations, additional NEPA may be required.

PLEASE NOTE: Winter operation stipulations may be used. The Cody RMP (1990) lists November 15 through February 1, as winter timing restrictions for sage grouse and pronghorn.

Right to Suspend Operations

1. Flagrant or willful violations. Operations will be suspended for flagrant or willful violations of terms of the NOI that are rated as "hazardous" or "major" until such time as the problem is cured to the satisfaction of the AO or his/her designated representative.

2. Public health and safety. Operations will be suspended when in the opinion of the AO or his/her designated representative such action is necessary to insure public health and safety.

3. Fire danger. The AO may suspend operations during periods of extreme fire danger, when warranted by conditions, (i.e., large fire activity on unit, severe shortage of resources, high potential for fire starts, fuel moistures are extremely low, etc.).

4. Game and fish violations. Operations may be suspended for game and fish statute violations (i.e., harassment with aircraft), as the applicant is responsible to insure employees on duty adhere to all state and federal wildlife laws.

5. Soil resource protection. Operations will be suspended if when in the opinion of the AO or his/her designated onsite representative determines that weather conditions or soil/slope conditions may result in unacceptable soil damage in excess of that analyzed in the EA document.

6. Wild Horse and Burro Act violations. Operations will be suspended under the “Wild Horse and Burro Act”, as defined in 43 CFR § 4700.0-5(f), which states, “...any intentional or negligent action or failure to act that causes stress, injury, or undue suffering to a wild horse...and is not compatible with animal husbandry practices accepted in the veterinary community”.

Cultural/Historical Resource Protection

1. Site avoidance. Standard site avoidance (by all vehicles including ORVs) entails a 32.8-meter (100 foot) or more buffer zone around all eligible and unevaluated sites. Vehicle/equipment traffic on federal lands will be confined to a corridor 100 feet wide (50 feet either side of the flagged centerline) along off-road routes and roads and trails which have been inventoried for cultural resources and which are free of significant or unevaluated cultural resources. Avoidance of cultural sites not located near or accessed by existing roads will be achieved by means of flagged cross-country site avoidance routes.

2. Employee notification. All of the applicant’s employees and their contractors shall be informed before commencement of project operations of critical elements of compliance with the Archeological Resources Protection Act (ARPA) and the National Historic Preservation Act (NHPA); and that any effects on, defacement of, or removal and/or disturbance of archaeological, historical, or sacred material shall not be permitted. Violation of the laws that protect these resources will be treated as a law enforcement/administrative disciplinary action.

3. Discovery of cultural resources. If subsurface cultural resources are found during project operations, all work in the vicinity of the resource shall cease and the applicant shall notify the AO immediately. The applicant shall implement appropriate measures requested by that agency to protect the resource until it can be adequately evaluated.

4. Discovery of human remains. If human remains are encountered during project operations, all work in the vicinity of the remains shall cease and the remains shall be protected from further exposure or damage. The applicant shall notify the AO immediately of such a discovery.

5. Native American Religious Concerns. Sites of potential Native American concern are subject to special measures, as specified below:

- Avoidance offset distance - cairns and/or stone circles. Regardless of surface ownership, all known sites containing prehistoric cairns and/or stone circles shall be avoided by all vehicles by a minimum distance of 100 feet. If features are located near an existing road-way, a temporary fence/barrier will be erected, and the existing road will continue to be used.

- Avoidance offset distance - rock art. Regardless of surface ownership, all known sites containing rock art shall be avoided by all vehicles by a minimum distance of ¼ mile (1,320 feet). If rock art is located near an existing roadway, a temporary fence/barrier will be erected, and the existing road will continue to be used.
- Discovery of new sites. If any additional sites of potential Native American religious concern (e.g., rock art, vision quest structures, human burial sites, prehistoric cairns, stone circles) are identified by the applicant's personnel within 500 feet of any proposed off-road travel route regardless of surface ownership, the AO shall be promptly notified. The need for special mitigative measures and/or additional Native American consultation shall be determined by the AO.

Explosives Handling and Blasting Operation Requirements

1. Standard operating procedure. The applicant shall perform all work with explosives in such a manner as not to endanger life or property.
2. Transportation/storage/marketing. The method of storing and handling explosives and flammable materials shall be in accordance with Occupational Safety and Health Administration (OSHA), U.S. Bureau of Alcohol, Tobacco, and Firearms (BATF), and U.S. Department of Transportation (DOT) regulations. Explosives and detonator caps shall be stored in a designated area in secure magazines. Signage for the magazines shall not be placed on the magazines, but on adjacent posts or other permanent structures. All storage places for explosives and flammable material shall be marked in accordance with applicable regulations.
3. Loss/theft of explosives. In case of the loss or theft of explosives, the BLM and the Park County Sheriff shall be notified immediately.
4. Blasting in/near ROWs. Flagmen or warning devices shall be used while operations are being conducted within or adjacent to road right-of-ways.
5. Safety personnel requirement. Observers, guards, or flagmen shall be posted at safe distances during blasting operations. There shall be a minimum of two crew members observing each detonated shot hole. The shot point coordinator shall wear PPE as prescribed by regulation or Company policy. The shot point coordinator shall ascertain that no personnel, public, wildlife or livestock are within 200 feet or the visual horizon of the hole to be detonated prior to detonation.
6. Posting of operating area. Roads/trails leading into the area shall be posted by the permittee stating, "Seismic Crew Ahead" or some similar verbiage.
7. Disposal of litter. No explosives boxes or prima cord reels shall be left in the field nor may they be burned on federal lands.

Fire Prevention and Reporting Measures

1. Emergency fire response plan. The applicant shall coordinate project activities with appropriate fire-response agencies. The applicant shall prepare a brief but specific instruction plan (crew contingency plan) for emergency fire response and shall submit it to the AO or his/her designated representative for concurrence. The crew contingency plan will include a fire communications protocol for contacting the BLM and/or other appropriate agencies (i.e., Park County) in the event of a fire.
2. Fire reporting. The applicant shall report all fires to the Fire Dispatcher in Cody, Wyoming at 307-578-1250 or 1-800-295-9954.

3. Fire extinguishers. All vehicles shall be equipped with fire extinguishers and shovels.

4. Staging areas and water buckets. Helicopter landing zones at each staging area shall be equipped with fire extinguishers. In addition, each helicopter shall have a 100-gallon water bucket should the helicopters be needed to fight a fire in the area, regardless of the fire's source.

5. Buggy requirements. Off-road buggies shall be diesel powered (no catalytic converters).

6. Vehicles with catalytic converters. Vehicles with catalytic converters will be restricted to existing roads and motorized trails; parking or idling will not be permitted in portions of roads or trails with taller vegetation as determined by the AO or his/her designated representative.

7. Portable generators. Portable generators used in the project area will be required to have spark arresters.

8. Personnel fire briefing. The following direction shall be provided to all field personnel:

- Vehicle fire prevention inspections. All brush build-up around mufflers, radiators, headers, and other engine parts will be avoided; periodic checks shall be conducted to prevent this build-up.
- Smoking. Smoking will only be allowed in company vehicles and/or designated smoking areas; all cigarette butts shall be placed in appropriate containers and not thrown on ground or out windows of vehicles.
- Fires. Cooking, campfires, or fires of any kind will not be allowed.

9. Spark arresters. All ATVs will be equipped with spark arresters.

Floodplains, Wetlands, and Riparian Zone Protection

1. Shot hole restrictions. Drilling of shot holes for geophysical exploration is prohibited where:

- Artesian wells are suspected.
- In wetland or riparian areas where perennially high water tables exist.
- In areas where and when soils are saturated.
- Immediately upslope from springs or bogs.

2. Surface disturbance. Drilling, off-road vehicular use (including ATVs), or any other surface-disturbing activity will be prohibited within 150 feet of the high water mark of any perennial body of water or riparian/wetlands areas on federal lands. Helicopters shall be used to drop equipment to support placement of recording lines to reduce surface disturbance. Intermittent and ephemeral channels shall be avoided.

3. Stream crossings. All vehicle stream crossings will be designated and approved by the AO or his/her designated representative prior to use. All stream crossings will be selected to minimize streambed and bank damage.

4. Vegetation removal. No wetland/riparian vegetation shall be removed during any phase of the project.

5. Drill hole log. A log of all holes drilled shall be kept; noting the presence of water, the depth if possible, and if an artesian aquifer has been tapped.

Geology/Mineral Facilities Protection

1. Offset from oil/gas facilities. Shot holes shall be located a minimum of 300 feet from oil/gas wells and pipelines, unless written permission to encroach closer has been given by the owner.
2. Offset from mining operations. No shot holes shall be placed in any active mining operation, including gravel pits.

Helicopter Operation Requirements

1. Discretionary authority to require helicopter support. The AO or his/her designated representative will have the discretionary authority to require helicopter drilling or helicopter support at any time as conditions dictate, in order to protect resources or provide for human health and safety.
2. Helicopter use. Helicopter landing, loading, and staging areas, and aerial flight line avoidance, shall be coordinated with the AO or his/her designated representative to insure public safety and minimize wildlife/wild horse disturbance prior to use.
3. Staging area locations. Landing/staging areas for support of operations will be located as to allow a reasonable distance for gaining the required altitude for over flights.
4. Over-flights of developments. Direct over-flights of buildings, dwellings, developed areas, recreation areas, and other areas of human concentration shall be avoided.
5. Avoidance of occupied raptor nests. No helicopter activities will be permitted within three quarter (3/4) mile or the visual horizon (whichever is closer) of active raptor nests during the July 1 to July 31 time period, in accordance with CRA RMP ROD (Raptor Decisions). Flights will be re-routed around nest sites if they are occupied.
6. Over-flights of private lands. Helicopters shall maintain FAA required distances for over-flights of residences, buildings, and other private land facilities.
7. Over flights of unoccupied raptor nests. Direct helicopter over-flights of unoccupied raptor nests will not be permitted.
8. Wildlife and wild horse disturbance. Helicopters shall not harass or disturb wildlife and/or wild horses to the maximum extent possible. This means helicopter pilots shall not go out of their way to observe or photography wildlife/wild horses; helicopter pilots shall maintain a ½ mile buffer between the helicopters and wildlife/wild horses.
9. Daily work hours. Helicopter use in support of operations on federal lands, excluding travel to/from overnight parking areas and operational staging areas, shall be limited to the time period beginning one hour after sunrise and ending one hour before sunset in order to minimize disturbance to public land users and wildlife/wild horses. The excluded crepuscular hours represent important wildlife activity periods.
10. Dropped loads. Any sling loads or other materials intentionally jettisoned for safety purposes or accidentally dropped from helicopters shall be immediately retrieved.

Livestock /Range Facility Protection

1. Notification of grazing permittees. The applicant is charged with the responsibility of notifying grazing permittees prior to entering their allotments. Affected grazing permittees are listed in the EA; addresses are available from the AO upon request.

2. Fence crossings. The applicant shall make every effort to avoid disturbing or altering fences. Gates shall be used when possible. All gates within the project area shall be left as they are found, with the exception of those gates along U.S Highway 14, 16, 20 and Wyoming Highway 32, which will require gates to be closed at all times. If a fence must be crossed, it shall be let down or cut (as determined by the AO or his/her designated representative), crossed, and immediately put back to original functionality.

3. Gates to be shut at all times along highway. All gates along U.S. Highway 14, 16, 20 and Wyoming Highway 32 must be in a closed position at all times.

4. Livestock water facility offset. Shot holes shall be located a minimum of one-quarter (1/4) mile from any water well, flowing spring, reservoir or stock water pipeline, regardless of ownership, in accordance with WOGCC Guidelines [Chapter 4, Sect. 6 (r)(i)], unless written consent to encroach closer is obtained from the surface owner.

5. Repair of range/livestock facilities. Any and all facilities damaged, destroyed or removed in connection with this geophysical exploration operation shall be immediately restored to original condition or replaced with a similar facility.

6. Personnel instruction. Personnel associated with the project shall be instructed to minimize contact with and avoid harassment of livestock.

Night Time Activities

1. Twenty-four (24) hour notice. The BLM will require 24 hours advance notification for areas where night time work is expected to occur.

2. Areas where night-time activities are not allowed. In specified areas, as mapped on the Cody Field Office GIS database, night time activities will not be allowed unless permission is granted by the BLM otherwise.

3. BLM approved biologist. A BLM approved wildlife biologist or trained personnel may be required to survey prior to night time operations, to identify potential concerns and avoidance measures or verify species are not present.

Paleontological Resource Protection

1. Collecting. The project proponent/Operator is responsible for informing all persons associated with this project including employees, contractors and subcontractors under their direction that they shall be subject to prosecution for damaging, altering, excavating or removing any vertebrate fossil objects on site. Collection of vertebrate fossils (bones, teeth, turtle shells) is prohibited without a permit. Unlawful removal, damage, or vandalism of paleontological resources will be prosecuted by federal law enforcement personnel.

2. Discovery. If vertebrate paleontological resources (fossils) are discovered on BLM-administered lands during 3D seismic project operations, the Operator shall suspend operations that could disturb the materials, and immediately contact the AO or his/her designated representative. The AO would arrange for evaluation of the find within an agreed time frame and determine the need for any mitigation actions that may be necessary. Any mitigation would be developed in consultation with the Operator, who may be responsible for the cost of site evaluation and mitigation of project effects to the site. If the operator can avoid disturbing a discovered site, there is no need to suspend operations; however, the discovery shall be immediately brought to the attention of the AO.

3. Avoidance. All vertebrate or scientifically important paleontological resources deemed to be of scientific value found as a result of the project baseline inventory will be avoided during operations. Avoidance in this case means “No vibroseis or heli-portable drilling/shot hole source generation within a distance of at least 50 linear feet of the outer edge of the paleontological locality as marked on the ground”.

Public and Crew Safety

1. Advance notice of operations. The applicant shall notify the AO or his/her designated representative in advance of conducting operations, and provide notice of all locations and times that work is being planned.

2. Avoidance of public land users and/or recreationists. The applicant shall avoid, to the maximum extent possible, working in the immediate vicinity of hunters, hikers, and other public land users known to be utilizing the area. Survey crew/staff shall keep the public a safe distance away from all shooting and all buggy activity.

3. Vehicle limitations. With the exception of buggies and ORV support vehicles (ATVs) as approved in the decision, vehicle traffic (excluding ORVs) will be limited to existing open roads and two-track trails. Vehicles shall travel at speeds within set speed limits of main access roads, and at slower speeds appropriate for conditions on more remote roads and two-track trails.

4. Signs. Safety-warning signs shall be placed on main access roads to make the public aware of road traffic related to project activities. Signs warning the public of project activity shall be located at the closest primary road intersections on either side of the next day’s planned drilling activity. No road closures are proposed, and any short-term delays on use of roads shall be communicated to the public by signs and flagmen.

5. Wearing of safety vests. The applicant shall require all crew members to wear orange and yellow safety vests to make them easily visible to all recreationists for safety purposes.

6. Helicopter over flights. Helicopters are prohibited from flying directly over developed recreation areas, trailheads, parking areas, or recreationists in accordance with FAA regulations.

Reclamation

1. 3150 Manual. The Project Design Features of the approved NOI are considered met if there is evidence that the disturbed area is stable and that vegetation is or will become established to the same degree as the immediately adjacent area. Vegetation establishment normally takes two years or longer following reseeding. While BLM is waiting for vegetation to become established, bond liability is not released. A letter to the operator explaining the reason for the delay in bond release will be sent. If reclamation is inadequate the operators bond should not be attached until all attempts to notify them of the need to correct a deficiency is exhausted.

2. Seed mixture. The BLM will provide the operator with an approved seed mixture prior to the commencement of reseeding activities.

3. Reclamation locations. The locations for reclamation efforts will be discussed and agreed upon between the BLM and the operator during or after the completion of the project.

Rights-of-Way Protection

1. Offset from rights-of-way. Shot holes shall be offset at industry accepted distances from rights-of-way, as set forth by the International Association of Geophysical Contractors to avoid disturbance to utility, access road, canal/drainage, and other land and realty features.

Sanitation, Clean-up and Rehabilitation Requirements

1. Cleanup scheduling. The project clean-up phase shall proceed concurrently with the recording phase. Equipment, pin flags, lathe, flagging, trash and any other materials brought in by the seismic crews shall be removed as the recording crew works through the project area.

2. Proper trash disposal. Trash shall not be burned or buried. Trash shall be packed out and disposed of properly at a Wyoming DEQ approved disposal site. No explosives boxes or prima cord reels shall be left in the field nor may they be burned on federal lands.

3. Staging area trash disposal. Storage containers are required for all refuse or garbage that may contain attractants. At staging areas, litter containers (for non-attractant litter) with functional, protective lids from wind shall be in use at all times. Litter shall be placed in containers immediately and not left on the ground to be policed at a later time.

4. Sewage disposal. Self-contained portable sewage disposal units shall be provided and used at staging areas. Contents of these units shall be disposed of at appropriate facilities. Away from staging areas, individuals shall bury human waste in holes six to eight inches deep.

Soils Protection

1. Offset from bodies of water:

a. Drilling, off-road vehicular use, or any other surface disturbing activity is prohibited within 150 feet of the high water mark of any perennial body of water on federal lands to minimize impacts to soils in areas with high water erosion potential.

b. Drilling of shot holes in or within 25 feet of intermittent and ephemeral channels shall be avoided.

c. Channels having banks two feet or greater will not be crossed.

d. Washes or alluvial valleys will not be crossed when wet.

2. ORV slope restrictions. No off-road vehicle use will be permitted on slopes greater than 30 percent (RMP guideline) or where terrain or soils dictate otherwise. Equipment deployment, pickup, troubleshooting, and other operations will be accomplished on foot and/or with helicopter support on slopes greater than 30%.

3. Offsetting ATV routes. Vehicle travel along shot point and receiver lines shall be limited to the minimum number of passes necessary to accomplish project objectives. Should multiple passes become necessary in any given area, vehicle travel paths shall be offset along seismic lines and access routes to minimize compaction.

4. Suspension during wet weather. The applicant shall not conduct vehicle operations during periods of saturated ground conditions when surface rutting could occur. Operations will be suspended if the AO or his/her designated representative determines that weather conditions or soil/slope conditions may result in rutting beyond that analyzed in the EA document.

5. Vehicles. The spinning of all vehicle wheels shall be avoided where possible to minimize the potential for soil displacement and impacts to soils.

6. Dust abatement. If the need arises as a result of seismic traffic, as determined by the AO or his/her designated representative, water shall be applied to roads and staging areas to reduce fugitive dust resulting from vehicle traffic. Chemicals that may be damaging to existing plant life or subsequent efforts to rehabilitate disturbed areas, such as staging areas, will not be used.

Vegetation Protection

1. General vegetation:

a. Vehicle pass limitations. Off-road vehicle travel along shot hole source lines, receiver lines, and access routes shall be limited to the minimum necessary to accomplish project objectives.

b. Vehicle track offsets. Should more than one vehicle pass be necessary in any given area, vehicle paths shall be offset where practical to minimize impacts to vegetation.

c. Discretionary authority to require helicopter support. The AO or his/her designated representative will have the discretionary authority to require helicopter drilling or helicopter support at any time as conditions dictate, in order to protect resources or provide for human health and safety.

2. Noxious plants//Invasive, non-native species:

a. Equipment washing prior to entering project area. To prevent the introduction and spread of new weeds, all equipment, including on-road and off-road equipment, shall be thoroughly power-washed to remove weed seed and soil (that may contain weed seed) prior to transporting the equipment to the project area and commencing operations on public lands.

b. Crew training. Crew members shall be provided with information, including photographs, on noxious weeds known or with potential to occur in the project area so they can identify and avoid areas of infestation.

c. Cleaning after weed contamination. Should crew members encounter existing noxious weeds within the project area; equipment and/or vehicles exposed to the weeds shall be cleaned using compressed air prior to entry into other areas.

d. Reclamation/reseeding. The applicant shall reclaim and reseed all off-road areas disturbed by geophysical operations as directed by the AO or his/her designated representative. Reclamation efforts may include disking or ripping the ground surface, reseeded and mulching. Best management practices will be used in the re-vegetation efforts to insure a higher success rate in problematic weed areas (i.e., south facing slopes and high wind and water erosion areas).

3. Trees and Timber:

a. Tree avoidance. Shot holes and vehicle traffic shall be offset around individual trees and, where possible, entire tree stands, as these can sometimes occur in tight clusters.

b. Cutting of trees. Cutting of trees shall not be permitted.

Visual Impact Minimization Requirements

1. Offsetting off-road vehicle travel paths. Vehicle travel paths shall be offset to minimize visual as well as soil/water impacts. To the maximum extent feasible, the applicant shall offset side-by-side all off-road vehicle traffic (buggies and ATVs) over a 50-foot wide swath on either side of the staked seismic line, so that one vehicle does NOT drive the same path as another vehicle to prevent the creation of trails or two-track roads.
2. Maintaining visual quality of fences. When crossing fences, crews shall use gates whenever possible and shall notify the AO or his/her designated representative if fences need to be cut for access. All fence crossings where fences are cut shall be rebuilt and stretched back to original conditions immediately after crossing to minimize impacts to visuals and livestock containment.
3. Slope limitation for wheeled vehicles. In order to minimize visual impacts as well as to minimize impacts to soil/water, no off-road drill buggy or ORV operations will be conducted in areas containing slopes greater than thirty percent (30%).
4. Suspending operations during wet conditions Use of roads, other than those adequately protected by an all weather surface, shall be prohibited when the road prism is wet to prevent visual impacts and impacts to soil/water caused by rutting and gullyng. Use of maintained roads may be necessary to move/evacuate personnel when wet, and if rutting in excess of that analyzed occurs, such roads will be rehabilitated as soon as practical thereafter. These conditions generally occur from late March to late June, but can occur at any time of the year. The AO or his/her designated representative will temporarily suspend operations requiring ground-based vehicles when these conditions exist.
5. Rehabilitation. Roads or areas damaged by vehicle use shall be rehabilitated to minimize visual impacts in accordance with specifications established by the AO or his/her designated representative.
6. Drill hole cuttings. Hand raking of topsoil and the remaining cuttings at drill holes shall be conducted to minimize visual impacts as determined by the AO or his/her designated representative.
7. Raking of tracks. Driving of any wheeled vehicles in areas void of vegetation and having soils where tracks could be long-lasting (i.e. bentonite) shall be avoided, or the area hand-raked immediately after use to reduce the visual impact. Buggy drill operators shall approach open road and trail crossings at reduced angles to make tracks less noticeable to recreationists. When deemed necessary by the AO or his/her designated representative, all visible vehicle tracks departing from existing roads shall be raked out to the original contour to disguise the seismic lines and discourage use by off-road vehicles (ORVs).
8. Signing/barricading line entry points. In order to discourage the future use of seismic lines for unauthorized ORV/ATV travel, signs and barricades shall be placed at access points to seismic lines as deemed necessary by the AO or his/her designated representative. Natural barriers such as rocks and/or dead vegetation will also be used to the extent available in place of signs and/or artificial barriers.

Wastes (Hazardous or Solid) Requirements/Reporting

1. Storage. Storage of fuel and lubricants shall be temporarily stored in transportable containment trailers at locations within staging areas to minimize potential for accidental releases/spills.

2. Hazardous waste spills. Major hazardous waste spills shall be reported immediately to the AO or his/her designated representative, and the applicant shall clean up spills in accordance with all applicable regulatory guidelines and as outlined in the applicant's Emergency Response/Contingency Plan, which is on file with the BLM.

3. Minor spills. All spills or leaks of diesel fuel, hydraulic fluid, lubricating oil, and coolant, including contaminated soil material, shall be excavated to an appropriate container and transported to an approved disposal site.

4. Site cleanup. The applicant shall clean up all project lath, flagging, solid waste, and incidental trash as operations proceed through an area. The collected trash shall be hauled to a WDEQ approved disposal site.

Water Quality Protection - Ground Water

1. Shot hole offset distance. Shot holes shall be located a minimum of one-quarter (1/4) mile away from any water well, flowing spring, reservoir or stock water pipeline regardless of ownership, in accordance with Wyoming Oil and Gas Conservation Commission (WOGCC) guidelines [Chapter 4, Section 6(r)(i)], unless written consent to encroach closer is obtained from the affected surface owner.

BLM has given permission to reduce this setback to 500 feet for water wells and springs and 100 feet for dams on federal lands.

2. Shot hole plugging. All shot holes shall be plugged in accordance with WOGCC rules and regulations, in order to prevent the potential interchange of surface and ground water.

3. Vibroseis offset distance. Vibroseis sites will be at least 200 feet from springs and water wells.

4. Vibroseis offset distance. Vibroseis sites will be at least 50 feet from dams.

Water Quality Protection - Surface Water

1. Shot hole offset distance. Surface-disturbing activities (i.e., shot hole drilling or ground vehicle use) shall not be conducted within 150 feet of the ordinary high water mark of live waters.

2. Stream crossings. All vehicle stream crossings will be designated and approved by the AO or his/her designated representative prior to use. All stream crossings will be selected to minimize streambed and bank damage.

3. Crossing washes. Washes or alluvial valleys shall not be crossed if water is visible in the channel.

4. Water sources. Water shall be collected from the closest approved source as needed, as approved by the appropriate onsite designated agency representative.

5. Vibroseis offset distance. Vibroseis sites will be at least 200 feet from springs and water wells.

6. Shot hole offset distance. Shot holes shall be located a minimum of 100 feet from dams.

7. Vibroseis offset distance. Vibroseis sites will be at least 50 feet from dams.

Wildlife Protection Requirements

1. Compliance with wildlife laws. The applicant shall observe all applicable wildlife restrictions. The applicants crew members shall not harass, injure, or destroy wildlife within the project area. The applicant is responsible for ensuring that all crew members on duty adhere to all wildlife laws.

2. Helicopters and wildlife (also see helicopter section):

a. Wildlife disturbance. Helicopters shall not harass or disturb wildlife species to the maximum extent possible. This means helicopter pilots shall maintain a ½ mile buffer between wildlife and the helicopters.

Wildlife, in this case, is defined as mobile species that might react to the helicopter by potentially leaving the area. The purpose of this PDF is to not cause mobile species to leave habitat to lower quality habitat.

b. Helicopter coordination. Helicopter landing, loading, and staging areas, as well as flight lines, shall be coordinated with the AO or his/her designated representative to insure public safety and to minimize wildlife disturbance prior to use.

c. Flight hours. All geophysical exploration operations using helicopters shall be limited to the time period from 1 hour after sunrise to 1 hour before sunset to minimize disturbance to wildlife and humans. The excluded crepuscular hours represent important wildlife activity periods.

3. Raptor nests. No vehicle activities shall occur within 220 feet (1 receiver station) of an occupied raptor nest, and helicopters shall avoid direct over flights of unoccupied raptor nests to protect their structural integrity. No vehicle, drilling, or helicopter activities shall be conducted within three quarter (3/4) mile or the visual horizon (whichever is closer) of active nests during the July 1 to July 31 time period, in accordance with CRA RMP ROD (Raptor Decisions). Flights shall be rerouted around nest sites if they were occupied. The applicant shall have surveys conducted by qualified biologists to determine the status of nests present within the project area prior to conducting any ground or aerial activities within three quarter mile of any nest location during the restricted period.

4. Sagebrush protection. To protect wildlife cover, vehicle routes shall, to the maximum extent practicable, avoid stands of tall sagebrush. Responsibility for this avoidance falls primarily on the survey crew. Stands of tall sagebrush are defined as areas in which the majority (more than 50%) of sagebrush plants are 18 inches or taller. Where sagebrush cannot be avoided the staggered formation for vehicles is preferred.

5. Mountain plover/long-billed curlew nesting/brood rearing habitat. No geophysical exploration operations shall be conducted within one-quarter (1/4) mile of any active nests during the nesting season from April 10 through July 10. Should activities in suitable mountain plover/long-billed curlew habitat occur prior to July 10, the applicant shall have field surveys conducted by a qualified biologist, as necessary, to identify active nests for avoidance.

6. Prairie dog protection. Shot holes shall not be drilled within 50 feet of known prairie dog burrow locations or within active colonies.

7. Sage grouse. Surface use is prohibited within a 2-mile radius of sage grouse leks from February 1 through July 31; as mapped on the Cody Field Office GIS database in order to protect sage and sharp tailed grouse nesting sites.

The proponent has volunteered to avoid sage grouse leks from a previously proposed 1000 feet to ¼ mile from the center of lek locations. This exceeds the BLM requirements and impacts are equal or less than what was analyzed and/or required.

8. Burrowing owl. To protect important burrowing owl nesting habitat, activity or surface use will not be allowed from April 15 to August 15 within ¼ mile of active burrows.

9. Exception, waiver, or modification. Exception, waiver, or modification of limitations in any year may be approved in writing including documented supporting analysis, by the AO.

10. Timing restriction exceptions. If the proponent wishes to conduct surveys to verify presence or absence of wildlife species protected by timing stipulations; timing stipulations may be waived if the species is not present in the project area, as verified by the surveys.

Wild Horse Protection Requirements

1. Compliance with the Wild Horse and Burro Act. The applicant shall observe all applicable wild horse restrictions. The applicant's crew members shall not harass, injure, or destroy wild horses within the project area. The applicant is responsible for ensuring that all crewmembers on duty adhere to all wild horse laws, acts, or stipulations. Wild horses are federally protected and citations will be issued as appropriate.

2. Avoidance. Low-level flights over horses are prohibited unless absolutely necessary (e.g., safety, accidents, etc.); the AO or his/her designated representative will be notified immediately of this type of incident. The pilot should allow for a minimum ½ mile buffer from helicopter to horse. If the helicopter(s) cause the horses to run in a way that may become harmful to the horses, the ½ mile buffer from helicopter to horse may be increased. Helicopter flights are allowed only in the project area and outside the HMA (also see the Helicopter Operation Requirements).

3. Aerial operations. Aerial operations will be conducted in a manner that will minimize stress levels. Avoid unnecessary displacement and agitation of the horses and potential separation of small foals from their mares. Overall avoidance of the horse bands is the key.

4. When helicopter use is not appropriate. If helicopter activities are found incompatible with wild horses, use of foot, truck, or ATV may be substituted.

5. Helicopter flights. Helicopter flights will not begin until after July 15th, which is the nationally recognized end of the foaling season. However, this specific HMA may still have foaling mares.

APPENDIX F
REVISED - Monitoring Plan

MONITORING PLAN
Bill Barrett Corporation
Red Point 3-D Seismic Survey Project

Overview and Administration

Monitoring is conducted to ensure that mitigative/protective measures discussed and analyzed in the Environmental Assessment (EA) as part of the proposed action (e.g., project design features, stipulations and/or terms and conditions of NOI approval) are implemented in the field.

Monitoring is also helpful for the project proponent, in that it will allow for on-site communication with the BLM on a regular basis should questions arise concerning the practical application of the mitigative/protective measures.

Agency representatives (CYFO-BLM) would inspect a portion of receiver lines, source lines and access routes during all phases of the project (including geophone placement, shot hole drilling and subsequent source acquisition). They would also monitor staging areas, helicopter use, wheeled vehicle use, vibroseis use, safety procedures, and other aspects of the operation (sanitation, communications, etc.).

The following monitoring measures will be undertaken as a framework for compliance during the seismic project:

1. At least one BLM designated representative will perform monitoring duties during work hours each day, seven days a week, during operations until project completion and rehabilitation. At the discretion of the Authorized Officer, monitoring duties may be modified based on the project status and resources risk.
2. While performing monitoring duties, each BLM designated representative will retain a copy of the NOI with the mitigative/protective measures. A copy of the Project Design Features from the EA will also be required during monitoring.
3. Each employee performing monitoring will write a monitoring report for the administrative file, for each day they monitor. The report should describe daily observations, problems, solutions, and any other items of note.
4. A BLM uniform will be worn by the BLM designated representative while performing field monitoring.

Monitoring Goals

Goals of project monitoring are geared towards:

- 1) operator compliance,
- 2) protection of public land resources, and
- 3) the improvement of future decision making.

Monitoring will also serve to foster innovative approaches for the resolution of operational issues should any develop during geophysical operations.

Goals are as follows:

1. Adequate communication, coordination and immediate correction of any unacceptable performance during seismic operations.
2. The agency representative will be familiar with the seismic project manager, permit agent and/or company representative. They will also have knowledge of the project area, access roads, restricted areas, and potential problem areas by requiring a brief on-the-ground tour of the project area prior to the start of operations.
3. The agency representatives should be in attendance and participate in planning/safety meetings during project operations.
4. The agency representatives should follow the same rules (terms and conditions of the NOI) as the operator.
5. Key road/line crossings and other key resource issues will be photographed; before and after.
6. Particular attention will be paid to the interaction between project helicopters and wild horse behavior.