

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASPER FIELD OFFICE
DECISION RECORD**

**for
Spearhead Ranch Exploratory Oil and Gas Development
WY-060-EA12-225**

In accordance with the Mineral Leasing Act of 1920 (MLA) (30 United States Code (U.S.C.) 181 *et seq.*), it is my decision to approve the Spearhead Ranch Exploratory Oil and Gas Drilling Project, for the exploration and development of oil and gas resources on Federal, mineral leases, based on the analysis conducted in Environmental Assessment WY-060-EA12-225 and the attendant Finding of No Significant Impact.

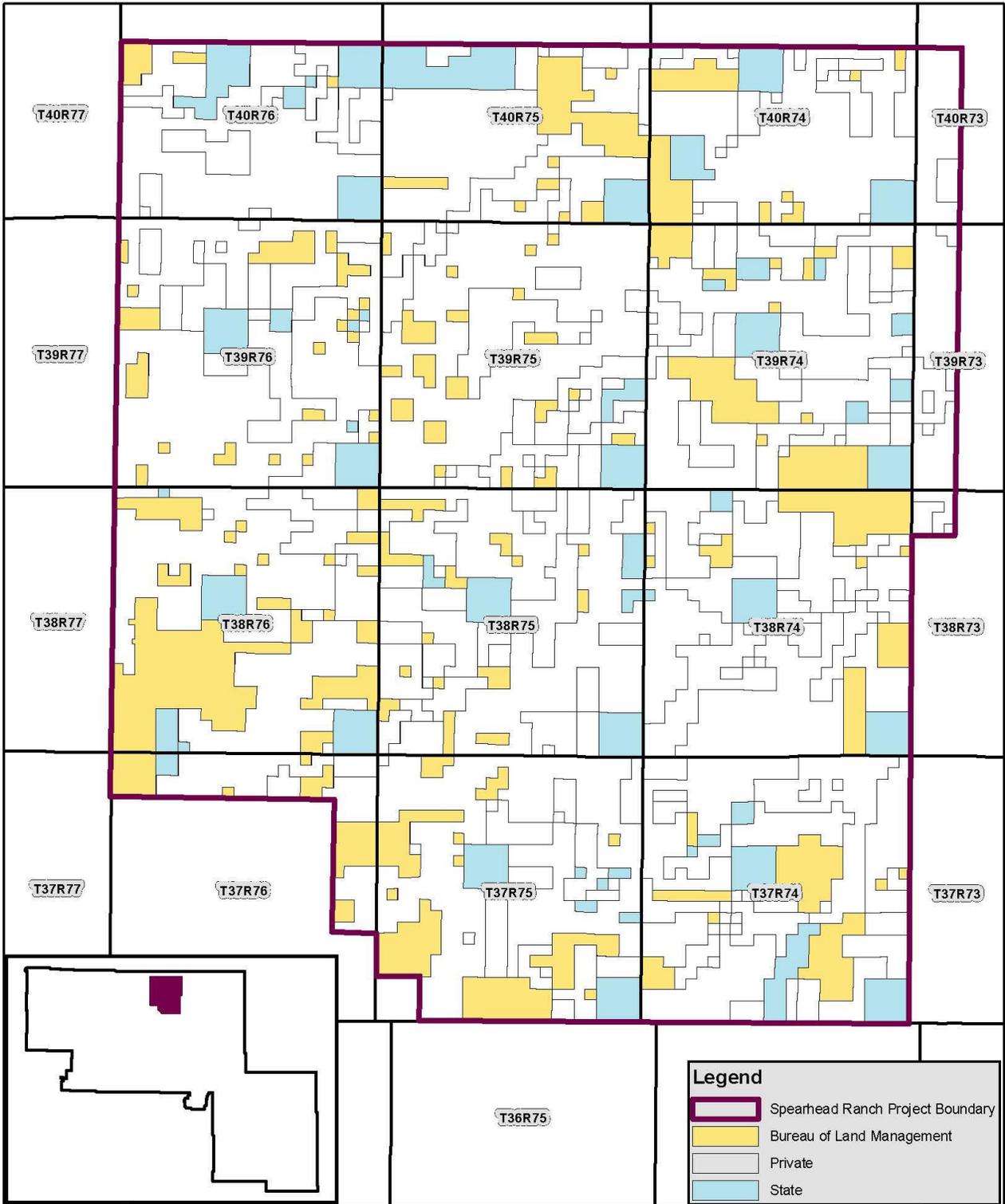
Conditioned through mitigation measures, I find that this action will not result in significant impacts on the human environment pursuant to Title 40 Code of Federal Regulations 1508.27 (a) and (b) (1) through (10) and that an Environmental Impact Statement is not required. I further find this action in conformance with the *Record of Decision and Approved Casper Resource Management Plan* (RMP) dated December 7, 2007, and that it will not cause unnecessary or undue degradation.

The Spearhead Ranch project area encompasses approximately 240,268 acres of mixed federal, state and fee (private) surface estate (map 1). Of this total, approximately 34,101 acres are public lands administered by the BLM, 20,219 acres are lands owned by the state of Wyoming, and, the remaining 185,942 acres are owned by private individuals, as shown on map 1 and table 1.1.

Table 1.1. Surface Ownership within the Project Area

Project Area Surface Ownership	Acres	Percent of Project Area
Federal - administered by BLM, Casper FO	34,101	14
Federal - administered by Forest Service	6	<1
State of Wyoming (state)	20,219	8
Private (fee)	185,942	77
Total^a	240,268	100
^a May not add due to rounding.		

Map 1 Spearhead Ranch Project Area and Surface Ownership



Map Created by:
Shane Gray, NRS
BLM Casper Field Office
Scale: 1:175,000

0 2 4 8 Miles

All the federal mineral estate within the project area (190,016 acres) is administered by the BLM, CFO. The federal mineral estate comprises approximately 79% of the mineral estate within the project area and 83% of that has valid, existing lease rights with approximately 357 federal mineral leases. Of those 357 federal leases, 203 (57%) are what is known as “Held By Production,” meaning they are currently producing oil and gas resources and will not expire until that production ceases. The remaining 154 (43%) federal leases are due to expire 10 years from date of issuance if a producing well is not located. Table 1.2 summarizes the mineral ownership.

Table 1.2 Mineral Ownership within the Project Area

Mineral Ownership	Acres	Percent Of Project Area
Federal	190,016	79
State of Wyoming (state)	18,525	8
Private (Fee)	31,727	13
TOTAL	240,268	100

The Bureau of Land Management (BLM), Casper Field Office (CFO), proposed the exploration and development of hydrocarbon resources in north Converse County, in response to notices of staking (NOSs) and applications for permit to drill (APDs) recently received from five oil and gas operators.

The project proposal was for 56 new well pads that would accommodate 79 wells using all known drilling techniques, including but not limited to vertical, directional, and horizontal. The project proposal also includes installing equipment necessary to produce the resource if it proves to be commercially productive.

Under the Agency Alternative, 56 well pads within the project area would be constructed to accommodate drilling and completion operations for one to four wells per pad utilizing multiple drilling techniques, including but not limited to vertical, directional, and horizontal, ultimately resulting in a range of 56 to 224 wells drilled within the project area.

The approval action consists of the Agency Alternative. Fifty-six well pads within the Spearhead Ranch project area will be constructed to accommodate drilling and completion operations for one to four wells per pad utilizing multiple drilling techniques, including but not limited to vertical, directional, and horizontal, ultimately resulting in a range of 56 to 224 wells drilled within the project area.

Specific project components are listed in the table below:

Spearhead Ranch Agency Alternative Project Components

Components	Agency Alternative ^b
Ratio of well pad/locations to wells	56 well pads/ locations with a range of 56 to 224 wells, assuming one to four wells per well pad/location.
Assumptions used for the well pad, well pad/location, and well pad excess disturbance calculations	Under this alternative, the per well average will be used for the per well pad/location baseline, as the average four-well pad (based on actual submitted numbers by industry) equaled the same as the average for the one-well pad (as represented in the No Action Alternative).
Well pad & well pad/location acreage (+)	<p>Average disturbance per well (assuming one to four wells per well pad/location) is a range of 4.21 - 1.05 acres.</p> <p>If 56 to 224 new wells were approved on 56 well pad/locations the Agency Alternative has the potential to yield 235.76 acres of total disturbance counting only the well pad.</p>
Well pad excess disturbance acreage (+)	<p>Average disturbance per well pad/location for the construction area to build the pad, store top soil and spoil piles, and berm dirt from cut and fill, is 2.11 acres.</p> <p>Total disturbance per well pad/location for the construction area to build the pad, top soil and stock piles, and berm dirt from cut and fill, would yield 118.16 acres for the Agency Alternative.</p>
Assumptions used for the Access roads and Pipelines and utilities calculations	Under this alternative, the per well average will be used for the per well pad/location baseline, as it is assumed a major benefit of co-locating wells and equipment on a multiple well pad is that only one access road, pipeline, and utility line, will be needed for each well pad/location regardless of the number of wells present on each pad.
Access roads acreage (+)	<p>Average disturbance for access roads per well pad/location is 5.76 acres. The per well average is a range of 5.76 - 1.44 acre, respectively (56 to 224).</p> <p>Total surface disturbance for access roads would yield 322.56 acres for the Agency Alternative.</p>
Pipelines and utilities acreage (+)	<p>Pipeline and utility disturbances are an average of 4.64 acres per well pad/location and a per well average range of 4.64 to 1.16, respectively for the Agency Alternative (56 to 224).</p> <p>Total surface disturbance for pipelines and utilities would yield 259.84 acres for the Agency Alternative.</p>
Short term combined acreage (=)	<p>Combined surface disturbance for construction, drilling, completion, and production under the Agency Alternative would yield a total of 936.32 acres of short-term disturbance.</p> <p>The average short-term combined disturbance per well (56 to 224) is a range of 16.72 - 4.18 acres, respectively.</p>

Components	Agency Alternative ^b
Reclamation Standards Assumptions (-)	Reclamation assumption is 33% of the each well pad/location; 50% of well pad excess; 0% of access roads and 100% of the pipelines and utilities. The reclaimed acreage would be a total of 396.72 acres and the per well average (56 to 224) is a range of 7.08 - 1.77 acres, respectively for the Agency Alternative.
long term combined acreage (=)	Long term combined surface disturbance (combined short-term surface disturbance minus the reclamation standards assumptions) of the Agency Alternative would yield 539.60 acres of long-term disturbance. The average long-term combined disturbance per well (56 to 224) is a range of 9.64 - 2.41 acres, respectively.
^b The values used in this table are assumptions, based on calculated averages. Actual disturbance, well pad size, and number of wells on a pad, may vary based on site-specific topography, distances, and targeted resources. However, the total authorized short and long term disturbances analyzed within this EA would not be exceeded.	

The details of the selected alternative (Agency Alternative) are a compilation of the most commonly used techniques for drilling, completion, and operation of oil and gas wells to date. The details are provided in Chapter 2 under Common to all alternatives, *Project Specifications and Design* and describe multiple ways to achieve the same outcome. This is to allow for the multiple operators' individual plans of operations and applications. It would involve exploration and development of the federal oil and gas mineral resources using one or more of the techniques listed in Chapter 2 of the Spearhead Ranch EA.

Mitigation Measures:

In order to minimize the overall impacts that could result from the oil/gas exploration activities associated with the agency alternative, the mitigation measures discussed in Chapter 4 will be required on a case by case basis as resource conditions dictate. Site-specific mitigation measures, applicant committed measures, and conditions of approval (COAs) will all be applied as part of APD processing and will be attached and incorporated into all approval documents.

Public Involvement:

Internal scoping was performed with an interdisciplinary team of specialists within the BLM. In addition, multiple operator meetings were held jointly and separately to assist with projections of development, multiple well pad configurations and hydraulic fracturing related technology (a.k.a. fracturing, fracing, fracking, frac, frack). As a result of those meetings, an issue was raised that the technology of fracturing is often misconstrued. Several operators offered to work together to provide the BLM for use in their oil and gas drilling analysis an industry prepared technology report on the process of fracturing. The project specification and designs listed in Chapter 2 of the Spearhead EA, is a compilation of the most commonly used techniques for drilling, completion and operation of oil and gas wells to date and was provided

in-part by the peer reviewed industry prepared technology report included in the EA in its entirety as Appendix A.

On Monday, September 17, 2012, a press release was published soliciting comments for the three Converse County EA's (WY-060-EA12-225 Spearhead Ranch, WY-060-EA12-226 Highland Loop Road, and WY-060-EA12-227 East Converse), which analyzed the effects of exploratory oil and gas development within Converse County and a small portion of Niobrara County, Wyoming for three distinct project areas. After the 30-day comment period, twelve comment letters were received. Of the twelve comment letters the BLM received, four written by private citizens, one federal agency, one state agency, one county agency, four from groups or associations (TGBPEA, PAW, PRBRC, AHW), and three from industry representatives.

The comments, BLM's responses, and errata for tracking edits to all three EAs are contained in the document Converse County EAs Comment Response and Errata as an attendant document and incorporated as part of this decision. In addition to the Converse County EAs Comment Response and Errata document, all edits to the EA are marked by either a strikethrough for deletions and/or gray highlight for additions. Minor page changes have also occurred as a result of formatting, but are not listed in the errata document.

Rationale for the Decision:

I have reviewed the Spearhead Ranch EA (WY-060-EA12-225) and the attendant FONSI, for the Spearhead Ranch Exploratory Oil and Gas Drilling Project. I have determined that the Agency Alternative is in conformance with the *Record of Decision and Approved Casper Resource Management Plan (RMP)* dated December 7, 2007 and it will not cause unnecessary or undue degradation.

Administrative Review and Appeal:

This decision is subject to administrative review according to 43 Code of Federal Regulation (CFR) 3165. Request for administrative review of this decision must include information required under 43 CFR 3165.3(b) (State Director Review), including all supporting documentation. Such a request must be filed in writing with the State Director, Bureau of Land Management, P.O. Box 1828, Cheyenne, Wyoming 82003, no later than 20 business days after this Decision Record is received or considered to have been received. Any party who is adversely affected by the State Director's decision may appeal that decision to the Interior Board of Land Appeals, as provided in 43 CFR 3165.4.



Field Manager
Casper Field Office

11-20-12

Date