

Categorical Exclusion 3 (CX3), WY-070-390CX3-16-1
Section 390, Energy Policy Act of 2005
Cosner In-Fill POD
Cosner Fed 09-044372-4XPH
Devon Energy Production Co., LLP
Applications for Permit to Drill (APDs)
Bureau of Land Management, Buffalo Field Office, Wyoming

Description of the Proposed Action.

Devon Energy Production Co., LLP (Devon) requests BLM’s approval for one application for permit to drill (APD). Devon proposes to drill the horizontal oil and gas well and construct associated infrastructure at the location in Table 1.1.

Table 1.1. Proposed Well

Well Name	QTR	Sec	TWP	RNG	Surface	SH Lease	Bottom Hole
Cosner Fed 09-044372-4XPH	SESE	9	43N	72W	Fee	Federal	Federal/Fee

The proposal is to explore for, and possibly develop, oil and gas reserves in the Parkman formation at a depth of 7,180 feet of total vertical depth. The project area is 40 miles south of Gillette and 4 miles south of Wright in Campbell County, Wyoming.

The jurisdiction for Cosner Fed 09-044372-4XPH is fee surface with underlying Federal minerals; the lateral producing from Federal and fee minerals; the bottom-hole location is fee minerals. Appendix A contains required Conditions of Approval (COAs). The fluid mineral leasing program falls under the authority of the Mineral Leasing Act, the Federal Land Policy Management Act (FLPMA) and other laws and regulations.

The BLM’s need for this project is to determine whether, and if so, and under what conditions to support the Buffalo Resource Management Plan’s (RMP) goals, objectives and management actions with permitting the operator’s exercising of conditional lease rights to develop federal fluid minerals. APD information, which BLM incorporates hereby reference, is an integral part of this CX. Conditional fluid mineral development supports the RMP, the Mineral Leasing Act of 1920, the Federal Land Policy Management Act (FLPMA) and other laws and regulations.

Project area elevation is 5,098 feet above sea level. The area consists of flat to gentle rolling topography with small ephemeral drainages. The climate is semi-arid, averaging 10-14 inches of precipitation annually, about 60% of which occurs between April and September. The Cosner Fed 09-044372-4XPH well and infrastructure are all located on private surface. Livestock grazing is the primary historic land use. There is existing conventional oil and coalbed natural gas (CBNG) development in and adjacent to the project area. Oil and gas development became the predominant land use in recent years. A network of existing roads within the project area will be used to access the Cosner Fed 09-044372-4XPH. These roads were constructed or improved to accommodate the existing oil and gas development.

Devon submitted an NOS on June 4, 2015, to the BFO. Devon and BFO completed onsite evaluations on July 29, 2015. The onsite evaluated the proposal and modified it to mitigate environmental impacts. An APD was received on September 15, 2015. The BLM sent a Post-onsite deficiency letter to Devon on October 26, 2015. Revisions were received from Devon on December 11, 2015. The APD was considered complete on December 16, 2015.

Drilling, Construction & Production design features include:

- Devon anticipates completing drilling and construction within 2 years. Drilling and construction is year-round in the region. Weather may cause delays, but delays rarely last multiple weeks. Timing limitations in the form of COAs and/or agreements with surface owners may impose longer temporal restrictions. The operator anticipates that estimated drilling duration will be 3-6 weeks. Construction duration for pad and 156 feet of new access is anticipated as 2-3 weeks.
- A road network that will consist of existing improved all-weather roads that need no upgrading. Devon will construct approximately 156 feet of new access road. The operator will use existing Cosner Wright 2 POD and Cosner-Wright Fuller 3 POD roads.
- Devon estimates that the drilling phase will be 3 to 6 weeks, during which the average daily traffic (ADT) is estimated to be two (2) large trucks (water haulers, cement trucks, etc.), and six (6) personal pickup trucks. The completion phase will be 2- 3 weeks, during which the average daily traffic (ADT) is estimated to be (6) large trucks and six (6) personal pickup trucks. During production, one (1) large truck (oil tanker) and one (1) personal pickup truck will travel to and from the location.
- The operator proposes to drill the well with a semi-closed loop system. A lined cutting containment pit will be constructed to hold drill cuttings generated as a result of the semi-closed loop drilling. There will be no production pits at the well location.
- Devon plans to obtain fresh water for cement from the City of Wright, WY, municipal water source.
- Water for drilling will be obtained from the House Creek Unit South Plan WSW #3 (SEO Permit #82755W) drilled to the Fox Hills and located in the SWNW Section 10, T43N, R72W.
- Devon plans an estimated 30,000 bbls of water will be required for drilling the extended reach lateral Cosner Fed 09-044372-4XPH well. Devon estimates 70,000 bbls of water will be required to hydraulic fracture (HF) the well.
- To supply water for well completion, Devon will utilize approximately 1,525 feet of 12” temporary surface poly line to supply water or earthen fresh water storage pits. The two earthen fresh water storage pits are in Section 9, T43N, R72W (Cosner frac pits) were evaluated in the Cosner-Wright 2 POD. All pits have been permitted and bonded with the WOGCC.
- The operator will require 11 to 20 frac masters (500 bbl) on location during well completion operations. The frac masters lay lengthwise on location and are used for the storage and mixing of chemicals, storage of flow back water, and they are used as a storage vessel to heat the water prior to pumping it downhole.
- Completion flowback water will be held in tanks on location and trucked offsite to a disposal facility permitted by Wyoming Department of Environmental Quality (WDEQ). Devon employs a third party contractor to manage and dispose of all flowback water and fluids produced as a result of well completion activities. All fluids are disposed in one of the WDEQ permitted and authorized facilities listed on pages six and seven of the Master Surface Use Plan (MSUP).
- If the well becomes a producer, production facilities will be located at the well site and will include an electric pumping unit; treater; five (5) 400 bbl oil tanks and three (3) water tanks; a combustor/flare; and a gas sales meter. There will be no pits at this producing oil well location.
- The produced oil and water will be stored in tanks on location then periodically trucked off the location.
- If the well is deemed a producer, Devon will install one (1) power drop at the well location, accounting for approximately 0.13 acres of disturbance. Approximately 0.44 acres of Overhead power (OHP) will be installed by a third party if the well is deemed a producer. It is anticipated that new construction of power will begin at the existing 3-phase overhead lines in the SESE of Section 9, T43N R72W, and continue adjacent to the well pad (1,289 feet).
- Well pad disturbance during construction and drilling will be 7.15 acres. Once the well is complete, Devon will reclaim any area of the well pad not needed for production as interim reclamation, resulting in 2.60 acres of disturbance during the production phase.

Cosner Fed 09-044372-4XPH well will also use existing infrastructure for the Cosner POD and Cosner Wright 2 POD wells. For details on project area access, design features, construction practices of the

proposal and details regarding reclamation refer to the (MSUP pp. 1-20) in the APD; see AR. The plan was written and reviewed to minimize environmental impacts to both surface and subsurface resources. See the individual APD for a map showing the proposed access road, existing roads, and pad location. Total surface disturbance for the proposal is 7.94 acres reduced to 3.42 acres of disturbance during production.

The surface owner is Hay Creek Surface, LLC.

Table 1.2. Disturbance Summary Cosner Fed 09-044372-4XPH:

Facility	Construction Disturbance (Short Term)	Interim Disturbance (Long Term)
Number of Well Pads	1	1
Engineered Pads with fill slopes, topsoil, spoils	7.15 acres	2.60 acres
Proposed Template Roads with utility corridor	0.25 acres	0.25 acres
Overhead Power 3 rd Party	0.44 acres	0.44 acres
Power Drop	0.13 acres	0.13 acres
Total Acre Disturbance	7.97 Acres	3.42 Acres

Off Well Pad

If long-term economic production is determined possible for the Cosner Fed 09-044372-4XPH well, the operator will propose buried flow lines to transport the produced oil off location. If flow lines are necessary, the operator will submit a Sundry Notice for approval by the BLM. Produced gas will tie into a proposed line installed by a third party company. The location and direction of the gas line is not yet known.

Devon requires minimal overhead power installation from existing utility lines for the Cosner Fed 09-044372-4XPH well. The electric provider will run overhead lines to the edge of the pad and underground power run to the pumping unit electric motor and other electrically powered devices on site to power the well.

Plan Conformance, Compliance, and Justification with the Energy Policy Act of 2005.

The Energy Policy Act of 2005, Section 390(a) subjects oil or gas exploration or development to a rebuttable presumption that the use of a categorical exclusion under the National Environmental Policy Act (NEPA) applies. Thus BLM must use an Energy Policy Act, Section 390(b), CX unless BLM rebuts the presumption. This CX analysis is NEPA compliance that is categorically excluded from an EA or EIS or their analysis; it is not an exclusion from all analysis. (40 CFR 1508.4 and BLM H-1790, p. 17.) The proposal conforms with the terms and conditions of the approved Resource Management Plan (RMP) for the public lands administered by the BLM, BFO, 2015, as required by 43 CFR 1610.5, 40 CFR 1508.4, and 43 CFR 46.215. BLM finds that the conditions and environmental effects found in the senior EAs and PRB FEIS remain valid. The applicable categorical exclusion from the Energy Policy Act of 2005, Section 390, is exclusion number (b)(3) which is *drilling an oil or gas well within a developed field for which an approved land use plan or any environmental document prepared pursuant to NEPA analyzed such drilling as a reasonably foreseeable activity, so long as such plan or document was approved within 5 years prior to the date of spudding the well.*

BLM has three requirements to use a Section 390 CX3, (BLM H-1790, Appendix 2, #3, p. 143):

- 1) The proposed APD is in a developed oil or gas field (any field with a completed confirmation well). The proposed Cosner Fed 09-044372-4XPH is inside, immediately adjacent to or in the 4-mile analysis area of the recent NEPA analysis in Table 1.3, which include an area of approximately 19,840 acres. This information shows the reader that BLM conducted analysis.

Table 1.3.* Overlapping NEPA Analyses Tiered & Incorporated by Reference

POD / Well Name	Operator	NEPA Analyses #	#/Type Well	# Drilled	Decision Date
Cosner Wright 2 POD	Devon	WY-070-EA14-191	18 Oil	15 Oil	2/27/2014
Cosner Wright Fuller 3 POD	Devon	WY-070-EA14-225	9 Oil	6 Oil	6/4/2014
Sahara POD EA	Lance Oil& Gas	WY-070-EA13-72	21Oil		3/2013

See also: SDR WY-2013-005, particularly noting pp. 2-3, incorporating the entirety here by reference.

*Approved within 5 years and in the 4 miles analysis area (as of 10/13/2015).

- 2) There are existing NEPA documents (and the RMP) containing reasonably foreseeable development scenario for this action. BLM reviewed these documents and determined that they considered the potential environmental effects associated with the proposed activity at a site-specific level. In addition, the approved EAs tier into the PRB FEIS. The PRB EIS analyzed foreseeable development in the PRB. The PRB foreseeable development included 3,200 oil wells and 51,000 CBNG wells. The proposed well is in the foreseeable development scenario with similar geographic and resource conditions analyzed in the EAs in Table 1.3 and in the PRB FEIS's Appendix A.
- 3) The tiered NEPA documents were finalized or supplemented within 5 years of spudding (drilling) the proposed well. See Table 1.3 for tiered documents.

In summary, the analyses in Tables 1.3., analyzed in detail the anticipated direct, indirect, residual, and cumulative effects that would result from the approval of this APD and associated support structure. Cosner Fed 09-044372-4XPH effects are similar to both the qualitative and quantitative analyses in the above tiered-to and incorporated NEPA analyses. The BLM reviewed the analyses and found that the analyses considered potential environmental effects associated with the Cosner Fed 09-044372-4XPH proposal at a site-specific level. The Cosner Fed 09-044372-4XPH surface use and drilling plans are incorporated here by reference and show adequate protection of surface lands and ground water, including the Fox Hills Formation. The proposal's acres of surface disturbances are within the analysis parameters of the PRB FEIS.

The reasonably foreseeable activity (RFA) is found in the PRB FEIS and BFO's RMP for this and adjacent areas which includes oil/gas exploration on 320 to 640 acre spacing or more for horizontal wells and 40 to 80 acre spacing for vertical wells. The RFA in the projects analysis area is well within the RFA of the PRB FEIS total of 54,200 fluid mineral wells. Potential APD submittals or reasonably foreseeable activity included in this analysis could consist of more, single and/or multiple wells on existing or proposed pads and would, as much as possible, tie into existing supporting infrastructure; tank batteries, pipelines, power lines, and transportation networks.

Plan of Operations

The proposal conforms to all Bureau standards and incorporates appropriate best management practices, required and designed mitigation measures determined to reduce the effects on the environment. Pits for drilling and completion will not provide suitable habitat for mosquitoes that carry West Nile virus since they have steep sides, are lined, and temporary. BLM reviewed and approved a surface use plan of operations describing all proposed surface-disturbing activities pursuant to Section 17 of the Mineral Leasing Act, as amended. This CX3 analysis also incorporates and analyzes the implementation of committed mitigation measures contained in the MSUP, drilling plan, in addition to the Standard COAs found in the PRB FEIS ROD, Appendices A, B and C.

Soils/Vegetation

BLM obtained detailed soils identification and data for the project area from the Campbell County South Survey Area, Wyoming Soil Survey Geographic (SSURGO) Database (WY605). NRCS performed the soil survey according to National Cooperative Soil Survey standards. The BLM uses county soil survey

information to predict soil behavior, limitations, or suitability for a given activity or action. The agency's long term goal for soil resource management is to maintain, improve, or restore soil health and productivity, and to prevent or minimize soil erosion and compaction. Soil management objectives are to ensure that adequate soil protection is consistent with the resource capabilities. Many of the soils and landforms of this area present distinct challenges for development, and /or eventual site reclamation.

Ecological site descriptions provide site and vegetation information needed for resource identification, management and reclamation recommendations. BLM specialists used NRCS published soil survey information, verified through onsite field reconnaissance, to determine the appropriate ecological sites for this POD area.

Dominant Soil Map Units and ecological site identified in the project area: 100% Theedle-Shingle loams, 3-30%; loamy (10-14NP). The present plant community is a mixed sagebrush/grass. The onsite revealed Wyoming big sagebrush is a moderate component of this mixed sagebrush/grass plant community. Cool-season mid-grasses make up the majority of the understory with the balance made up of short warm-season grasses, annual cool-season grass, and miscellaneous forbs. Dominate grasses include bluebunch wheatgrass, rhizomatous wheatgrass, blue grama, and little bluestem. Other grasses occurring include Cusick's and Sandberg bluegrass, and prairie junegrass. Cheatgrass is present in the project area. .

Water Resources

The historical use for groundwater in this area was for stock or domestic water. A search of the WSEO Ground Water Rights Database showed 10 registered stock and domestic water wells within 1 mile of the proposed well with depths ranging from 111 to 470 feet. For additional information on groundwater, refer to the PRB FEIS, pp. 3-1 to 3-36. Adherence to the drilling COAs, the setting of casing at appropriate depths, following safe remedial procedures in the event of casing failure, and using proper cementing procedures should protect any fresh water aquifers above the target coal zone. This will ensure that ground water will not be adversely impacted by well drilling and completion operations. (The depth to the Fox Hills Formation is 5,945 TVD. The Fox Hills, the deepest penetrated fresh water zone in the PRB lies well above the target formation. Table 1.4 shows the depths where casing will be set and cemented in place. The operator will verify that there is competent cement across the aquifer, from 100 feet above to 100 feet below the Fox Hills Formation. This will ensure that ground water will not be adversely impacted by well drilling and completion operations.

Adherence to the drilling COAs, the setting of casing at appropriate depths, following safe remedial procedures in the event of casing failure, and using proper cementing procedures should protect any fresh water aquifers above the target coal zone. This will ensure that ground water will not be adversely impacted by well drilling and completion. The operator will run surface casing to 2,250 feet, total vertical depth to protect shallow aquifers.

Table 1.4. Casing Set and Cementing Depths in relation to the Fox Hills

Well Name/ #	Total Depth of Surface Casing (ft.)	Total Depth of Intermediate Casing (ft.)	Depth to Fox Hills (ft.)
Cosner Fed 09-044372-4XPH	2,250	7,181	5,945

At the time of permitting, the volume of water that will be produced in association with these federal minerals is unknown. The operator will have to produce a well for a time to be able to estimate the water production. In order to comply with the requirements of Onshore Oil and Gas Order #7, Disposal of Produced Water, the operator will submit a Sundry to the BLM within 90 days of first production which includes a representative water analysis as well as the proposal for water management.

Historically, the quality of water produced in association with conventional oil and gas has been such that surface discharge would not be possible without treatment. Initial water production is quite low in most cases. The produced water will be stored in tanks and periodically trucked off the location. Produced water will be trucked to eleven (11) approved Class II disposal wells or evaporation facilities as referenced on page 6 of the MSUP. These alternatives would be protective of groundwater resources when performed in compliance with state and federal regulations.

Wetlands/ Riparian.

No wetlands/ riparian areas are in the project area.

Invasive Species.

Impacts anticipated occurring and mitigation considered with the implementation of the proposals will be similar to those analyzed in these EAs which are adjacent or overlapping to these proposals, have substantially similar characteristics, and are incorporated here by reference: Cosner Wright 2 POD, WY-070-EA14-191, Section 3.4 and 4.4, pages 6 & 8, and Cosner Wright Fuller 3 POD, WY-070-EA14-225, Section 3.3 and 3.4, pages 6 & 9.

Wildlife

BLM reviewed the APD and determined that the proposal, combined with the COAs (and design features), is: (1) consistent with the 2015 RMP, (2) the above tiered EAs; and (3) the programmatic biological opinion (ES-6-WY-02-F006), PRB FEIS, Appendix K. BLM wildlife biologists conducted a habitat assessment during the onsite and consulted databases compiled and managed by BLM BFO wildlife staff, the PRB FEIS, WY Game and Fish Department (WGFD) datasets, and the Wyoming Natural Diversity Database (WYNDD) to evaluate the affected environment for wildlife species that may occur in the area. The proposed well and infrastructure are a result of attempts by the operator and the BLM to reduce impacts to identified wildlife resources. The affected environment and environmental effects for wildlife are discussed in, and anticipated to be similar to the approved projects in Table 1.3., specifically # 3 (Sahara POD) and is incorporated here by reference. Rationale for species not discussed in detail below can be referenced in the administrative record ((Table W.1. (Summary of Sensitive Species Habitat and Project Effects) and Table W.2. ((Summary of Threatened and Endangered Species Habitat and Project Effects)).

Land uses and other disturbances occurring within the proposed project area include, livestock grazing, ranching operations, overhead power lines, conventional oil and gas, and improved and unimproved roads. Habitats within the proposal are comprised of sagebrush grassland and mixed-grass prairie. The dominant vegetation is Wyoming big sagebrush and the understory is a mix of pasture grasses (needleandthread, prairie junegrass, blue gramma, Sandberg bluegrass, threadleaf sedge, and cheatgrass).

Greater Sage-Grouse

The project is within Greater Sage-Grouse general habitat and is not within a core population area or core population connectivity corridor (priority habitat). No leks are within 2 miles. No conditions of approval will be applied. Greater Sage-Grouse required design features (RDF) included in the 2015 Buffalo RMP (Appendix C) were analyzed, even though, RDFs are not required within general habitat. Pits for drilling and completion will not provide suitable habitat for mosquitoes that carry West Nile virus since they have steep sides, are lined, and are temporary.

Migratory Birds

Impacts to migratory birds will be similar to those described in the Sahara POD EA, WY-070-EA13-72, 2013, Section 4.6.2.2.1, pp. 31-32, incorporated here by reference. Suitable habitat for migratory birds is present throughout the proposal area. Removal of occupied habitat is prohibited from May 1 – August 1. This restriction will apply to habitat removal, unless a pre-construction nest search (within approximately 10 days of construction planned May 1-July 31) is completed using the “2012 Sage-brush

BLM Sensitive Migratory Bird Nest Protocol” found at the following web address:
http://www.blm.gov/wy/st/en/field_offices/Bufalo/wildlife.html

Cultural

In accordance with section 106 of the National Historic Preservation Act, BLM must consider impacts to historic properties (sites that are eligible for or listed on the National Register of Historic Places (NRHP)). For an overview of cultural resources that are generally found within BFO the reader is referred to the Draft Cultural Class I Regional Overview, Buffalo Field Office (BLM, 2010). A Class III (intensive) cultural resource inventory (BFO project no. 70150090) was performed in order to locate specific historic properties which may be impacted by the proposed project. No cultural resources are located in the proposed project area.

BLM policy states that a decision maker’s first choice should be avoidance of historic properties (BLM Manual 8140.06(C)). If historic properties cannot be avoided, mitigation measures must be applied to resolve the adverse effect. No historic properties will be impacted by the proposed project. Following the State Protocol Between the Wyoming Bureau of Land Management State Director and The Wyoming State Historic Preservation Officer, Section V(E)(iv), the Bureau of Land Management electronically notified the Wyoming State Historic Preservation Officer (SHPO) on August 24, 2015, that no historic properties exist within the area of potential effect (APE). If any cultural values (sites, features or artifacts) are observed during operation, they will be left intact and the Buffalo Field Manager notified. If human remains are noted, the procedures described in Appendix L of the PRB FEIS must be followed. Further discovery procedures are explained in Standard COA (General)(A)(1) and in Appendix K of the Wyoming Protocol.

List of Preparers: Persons and Agencies Consulted (BFO unless otherwise noted)

Position/Organization	Name	Position/Organization	Name
NRS/Team Lead	Debby Green	Archaeologist	Ardeth Hahn
Acting Supervisory NRS	Jim Verplancke	Wildlife Biologist	Scott Jawors
Supr. Petroleum Engineer	Matt Warren	Geologist	Kerry Aggen
LIE	Leora Archie	NEPA Coordinator	Tom Bills
Wyoming SHPO	Mary Hopkins	Petroleum Engineer	BarneyWhiteman

Decision and Rationale on the Proposal.

The COAs provide mitigation and further the justification for this decision and may not be segregated from project implementation without further NEPA review. I reviewed the plan conformance statement and determined that the proposed Cosner Fed 09-044372-4XPH CX3 APD and infrastructure conform to the applicable land use plan, 43 CFR 1610.5, 40 CFR 1508.4, and 43 CFR 46.215. I reviewed the proposal to ensure the appropriate exclusion category as described in Section 390 of the Energy Policy Act of 2005 is correct. I determined that there is no requirement for further environmental analysis.

Field Manager: _____ /s/ Duane W Spencer

Date: 12/29/15

Contact Person, Debby Green, Natural Resource Specialist, Buffalo Field Office, 1425 Fort Street, Buffalo WY 82834, 307-684-1100.

Reference

Taylor, R. L., D. E. Naugle, L. S. Mills. 2012. Viability analyses for conservation of sage-grouse populations: Buffalo Field Office, Wyoming. Final Report. February 27, 2012. University of Montana, Missoula, MT.