

DECISION RECORD
Devon Energy Production Company, L.P., Cosner-Wright 2 Plan of Development (POD)
Environmental Assessment (EA), WY-070-EA14-191
Bureau of Land Management, Buffalo Field Office, Wyoming

DECISION. The BLM approves Devon Energy Production Company, L.P (Devon) Cosner-Wright 2 POD gas and oil well applications for permit to drill (APDs) described in the EA, WY-070-EA14-191, incorporated here by reference. This approval includes the wells' infrastructure.

Compliance. This decision complies with or supports:

- Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC 1701); DOI Order 3310.
- Mineral Leasing Act of 1920 (MLA) (30 U.S.C. 181); including the Onshore Oil and Gas Orders.
- National Environmental Policy Act of 1969 (NEPA) (42 USC 4321).
- National Historic Preservation Act of 1966 (NHPA) (16 USC 470).
- Buffalo and Powder River Basin Final Environmental Impact Statements (FEISs), 1985, 2003, 2011.
- Buffalo Resource Management Plan (RMP) 1985 and Amendments.

Consultation. This decision considered:

- BLM Washington Office Instruction Memorandum No. 2009-078, Processing Oil and Gas Application for Permit to Drill for Directional Drilling into Federal Mineral Estate from Multiple-Well Pads on Non-Federal Surface and Mineral Locations, 2009.
- Wyoming BLM State Director Review, SDR No. WY-2011-010, EOG Resources, Inc. v. Pinedale Field Office, 2011.

BLM approves the following 18 APDs: Surface, Lateral, & Bottom Hole Leases (SHL, LL, BHL)

#	Name & Well #	Pad	Twp	Rng	Sec	Qtr	SHL	LL	BHL
1	Wright Fed 07-184372-3XPH	A	43N	72W	7	NWNE	Fee	WYW107251	Fee
2	Wright Fed 07-184372-4XTH					NWNE		WYW107251 WYW0325474	
3	Wright Fed 07-184372-4XPH					NENE		WYW107251 WYW0325474	
4	T Cosner Fed 174372-1PH	B	43N	72W	17	SWSW	Fee	NA	WYW107235
5	T Cosner Fed 174372-2PH					SESW			WYW107235
6	T Cosner Fed 174372-2TH					SWSW			WYW107235
7	T Cosner Fed 174372-3PH	C	43N	72W	17	SESE	Fee	NA	WYW0103411
8	T Cosner Fed 174372-4PH					SESE			WYW0103411
9	T Cosner Fed 174372-4TH					SESE			WYW0103411
10	T Cosner Fed 18-074372-1XPH	D	43N	72W	18	SESW	Fee	WYW107251	Fee
11	T Cosner Fed 18-074372-2XPH					SESW		WYW107251	
12	T Cosner Fed 18-074372-2XTH					SESW		WYW107251	
13	Cosner Fed 21-284372-1XPH	E	43N	72W	21	NWNW	WYW80321	Fee WY130049	WYW107246
14	Cosner Fed 21-284372-2XPH					NENW		Fee	WYW107246
15	Cosner Fed 21-284372-2XTH					NWNW		Fee	WYW107246
16	Cosner Fed 21-284372-3XPH	F	43N	72W	21	NWNE	WYW13946	Fee	WYW107246
17	Cosner Fed 21-284372-4XPH					NENE		NA	WYW107246
18	Cosner Fed 21-284372-4XTH					NENE		Fee	

Limitations. See the conditions of approval (COAs) and recommended mitigation measures (RMMs).

FINDING OF NO SIGNIFICANT IMPACT (FONSI). BLM found this project has no significant effect on the human environment beyond those in the PRB FEIS. There is no requirement for an EIS.

COMMENT OR NEW INFORMATION SUMMARY. BLM publically posted the APDs for 30 days and received no comments. Since BLM's receipt of these APDs, BLM received no new clarifying policies or instructions.

DECISION RATIONALE. The approval of this project is because:

1. The approved project conditioned by its design features and COAs, will not result in any undue or unnecessary environmental degradation. The PRB FEIS analyzed and predicted that the PRB oil and gas development would have significant impacts to the region's Greater Sage-Grouse (GSG) population. The impact of this development cumulatively contributes to the potential for local GSG extirpation yet its effect, for those wells on federal surface or mineral estate, is acceptable because it is outside priority habitats and is within the parameters of the PRB FEIS/ROD and current BLM and Wyoming GSG conservation strategies. There are no conflicts anticipated or demonstrated with current uses in the area.
2. To reduce the likelihood of a "take" under the Migratory Bird Treaty Act, BLM sensitive species nesting habitat removal for those locations and infrastructure on federal surface or mineral estate will occur outside of the breeding season or be cleared by survey.
3. Approval of this project conforms to the terms and the conditions of the 1985 Buffalo RMP (BLM 1985) and subsequent update (BLM 2001) and amendments (BLM 2003, 2011).
4. The operator provided the BLM a true and complete copy of a document in which the owner of the surface authorizes the operator to drill a federal wells from non-federal lands, and in which the surface owner or representative guarantees the Department of the Interior, including BLM, access to the non-federal lands to perform all necessary surveys and inspections. (See BLM Instruction Memorandum No. 2009-078, p. 2, para 6).
5. The selected alternative will help meet the nation's energy needs, revenues, and stimulate local economies by maintaining workforces.
6. The operator, in their POD and APDs, shall:
 - Comply with all applicable federal, state, and local laws and regulations.
 - Offer water well agreements to the owners of record for permitted water wells within 0.5 mile of a federal producing well in the POD (PRB FEIS ROD, p. 7).
7. The project is clearly lacking in wilderness characteristics because it lacks federal surface.
8. This decision does not foreclose the lessee or operator to propose a new or supplementary plan for developing the federal oil and gas lease(s) in this project area, including submission of additional APDs to drain minerals in accord with lease rights and law.

ADMINISTRATIVE APPEAL. This decision is subject to administrative appeal in accord with 43 CFR 3165. Request for administrative appeal 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: 

Date: 2/27/14

FINDING OF NO SIGNIFICANT IMPACT
Environmental Analysis (EA), WY-070-EA14-191
Devon Energy Production Company, L.P., Cosner-Wright 2 Plan of Development (POD)
Bureau of Land Management, Buffalo Field Office, Wyoming

FINDING OF NO SIGNIFICANT IMPACT (FONSI). Based on the information in the EA, WY-070-EA14-191, which BLM incorporates here by reference; I find that: (1) the implementation of Alternative B will not have significant environmental impacts beyond those addressed in the Buffalo Final Environmental Impact Statement (FEIS) 1985, and the Powder River Basin (PRB) FEIS, 2003, 2011; (2) Alternative B conforms to the Buffalo Field Office (BFO) Resource Management Plan (RMP) (1985, 2001, 2003, 2011); and (3) Alternative B does not constitute a major federal action having a significant effect on the human environment. Thus an EIS is not required. I base this finding on consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 CFR 1508.27), with regard to the context and to the intensity of the impacts described in the EA, and Interior Department Order 3310.

CONTEXT. Mineral development is a common PRB land use, sourcing over 42% of the nation's coal. The PRB FEIS foreseeable development analyzed the development of 54,200 wells. The additional development analyzed in Alternative B is insignificant in the national, regional, and local context.

INTENSITY. The implementation of Alternative B will result in beneficial effects in the forms of energy and revenue production however; there will also be adverse effects to the environment. Design features and mitigation measures included in Alternative B will minimize adverse environmental effects. The preferred alternative does not pose a significant risk to public health and safety. The geographic area of project does not contain unique characteristics identified in the 1985 RMP, PRB FEIS, or other legislative or regulatory processes. BLM used relevant scientific literature and professional expertise in preparing the EA. The scientific community is reasonably consistent with their conclusions on environmental effects relative to oil and gas development. Research findings on the nature of the environmental effects are not highly controversial, highly uncertain, or involve unique or unknown risks. The PRB FEIS predicted and analyzed oil development of the nature proposed with this project and similar projects. The selected alternative does not establish a precedent for future actions with significant effects. The proposal may relate to the PRB Greater Sage-Grouse and its habitat decline having cumulative significant impacts; yet the small size of this project is within the parameters of the impacts in the PRB FEIS. There are no cultural or historical resources present that will be adversely affected by the selected alternative. The project area is clearly lacking in wilderness characteristics as there is no federal surface and is amidst mineral development. No species listed under the Endangered Species Act or their designated critical habitat will be adversely affected. The selected alternative will not have any anticipated effects that would threaten a violation of federal, state, or local law or requirements imposed for the protection of the environment.

ADMINISTRATIVE REVIEW AND APPEAL. This finding is subject to administrative review according to 43 CFR 3165. Request for administrative review of this finding 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 FONSI is received or considered to have been received. Parties adversely affected by the State Director's finding may appeal that finding to the Interior Board of Land Appeals, as provided in 43 CFR 3165.4.

Field Manager: _____



Date: _____

2/27/14

ENVIRONMENTAL ASSESSMENT (EA), WY-070-EA14-191
Devon Energy Production Company, L.P., Cosner-Wright 2 Plan of Development (POD)
Bureau of Land Management, Buffalo Field Office, Wyoming

1. INTRODUCTION

Devon Energy Production Company, L.P. (Devon) filed applications for permit to drill (APDs) to explore for and possibly develop oil and gas reserves in geologic formations Devon leased. The lease parcels are in Table 1.1. The proposals consist of drilling 18 horizontal oil and gas wells to the Parkman and Turner formations from 6 well pads; see the APDs and administrative record (AR) – all incorporated here by reference. BLM has reduced jurisdiction over the 12 APDs on 4 pads overlying fee minerals; see administrative numbers 1-12, and Pads A-D, below. BLM has split jurisdiction via federal lands over APD administrative numbers 13-18, and Pads E and F, below. Devon proposes to drill, complete, produce, and eventually reclaim the locations. Associated infrastructure will include tank batteries and access roads. Devon proposed no gathering pipelines. Any future gathering pipelines or other infrastructure will have a sundry submitted and be subject to separate NEPA analysis.

Table 1.1. Proposed Wells with Surface, Lateral, & Bottom Hole Leases (SHL, LL, BHL)

#	Name & Well #	Pad	Twp	Rng	Sec	Qtr	SHL	LL	BHL
1	Wright Fed 07-184372-3XPH	A	43N	72W	7	NWNE	Fee	WYW107251	Fee
2	Wright Fed 07-184372-4XTH					NWNE		WYW107251 WYW0325474	
3	Wright Fed 07-184372-4XPH					NENE		WYW107251 WYW0325474	
4	T Cosner Fed 174372-1PH	B	43N	72W	17	SWSW	Fee	NA	WYW107235
5	T Cosner Fed 174372-2PH					SESW			WYW107235
6	T Cosner Fed 174372-2TH					SWSW			WYW107235
7	T Cosner Fed 174372-3PH	C	43N	72W	17	SESE	Fee	NA	WYW0103411
8	T Cosner Fed 174372-4PH					SESE			WYW0103411
9	T Cosner Fed 174372-4TH					SESE			WYW0103411
10	T Cosner Fed 18-074372-1XPH	D	43N	72W	18	SESW	Fee	WYW107251	Fee
11	T Cosner Fed 18-074372-2XPH					SESW		WYW107251	
12	T Cosner Fed 18-074372-2XTH					SESW		WYW107251	
13	Cosner Fed 21-284372-1XPH	E	43N	72W	21	NWNW	WYW80321	Fee WY130049	WYW107246
14	Cosner Fed 21-284372-2XPH					NENW		Fee	WYW107246
15	Cosner Fed 21-284372-2XTH					NWNW		Fee	WYW107246
16	Cosner Fed 21-284372-3XPH	F	43N	72W	21	NWNE	WYW13946	Fee	WYW107246
17	Cosner Fed 21-284372-4XPH					NENE		NA	WYW107246
18	Cosner Fed 21-284372-4XTH					NENE		Fee	

1.1. Background

Devon submitted the Cosner-Wright 2 POD notices of staking (NOSs) POD - originally from the Cosner 2, 3, 4, 5, and the Wright 1 and 2 PODs - on August 28 and 29, September 30, and October 21, 2013 to the BLM. Onsites were held October 22 and 23, and December 13, 2013 to evaluate the proposals and modified them to mitigate environmental impacts. BLM received the APDs on November 27, 2013. The BLM sent Devon a post-onsite deficiency letter on December 20, 2013. Devon submitted deficiency responses by February 12, 2014. The POD was complete on February 12, 2014. Access to the POD is on fee surface above federal and fee minerals. See, BLM Instruction Memorandum (IM), 2009-078.

1.2. Need for the Proposed Project

The BLM's need for this project is to meet the management objectives of the Buffalo Resource Management Plan (RMP), 1985, 2001, 2003, and 2011 (to which this EA tiers). BLM must determine how and under what conditions to balance natural resource conservation with allowing Devon to exercise lease rights to develop fluid minerals, as described in their APDs associated plans. 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.

1.3. Decision to be Made

The BLM will decide whether or not to approve the proposed development, and if so, under what terms and conditions agreeing with the Bureau's multiple use mandate, environmental protection, and RMP.

1.4. Scoping and Issues

BLM posted the proposed APDs for 30 days and will timely publish the EA, any finding, and decision on the BFO website. This project is similar in scope to other fluid mineral development the BFO analyzed. External scoping is unlikely to identify new issues, as verified with recent fluid mineral EAs that BLM externally scoped. External scoping of the horizontal drilling in Crazy Cat East EA, WY-070-EA13-028, 2013, in the PRB area received 3 comments, revealing no new issues. The BFO interdisciplinary team (ID team) conducted internal scoping by reviewing the proposal, its location, and a resource (issue) list (see, AR), to identify potentially significantly affected resources, land uses, resource issues, regulations, and site-specific circumstances not addressed in the analyses incorporated by reference. This EA will not discuss resources and land uses that are not present, unlikely to receive significant or material affects, or that the PRB FEIS or other analyses adequately addressed. The extensive development in the area was material to this scoping; see Section 3, below.

2. PROPOSED PROJECT AND ALTERNATIVES

2.1. Alternative A – No Action

The no action alternative would deny these APDs requiring the operator to resubmit APDs that comply with statutes and the reasonable measures in the PRB RMP Record of Decision (ROD) in order to lawfully exercise conditional lease rights. The PRB FEIS considered a no action alternative, pp. 2-54 to 2-62. The BLM keeps the no action alternative current using the aggregated effects analysis approach – incorporating by reference the analyses and developments approved by the subsequent NEPA analyses for overlapping and intermingled developments to the proposal area. See, Table 3.1.

2.2. Alternative B Proposed Action (Proposal)

Overview. Devon requests BLM's approval for 18 APDs from 6 pads and supporting infrastructure; see Table 1.1. The wells will be drilled from a non-federal surface into underlying fee or federal minerals on lease numbers listed in Table 1.1.

Drilling, Construction, and Production design features include:

- Construction of 6 drilling pads with variable dimensions, accounting for 45.33 acres of initial disturbance. Pad disturbance will be reduced to approximately 17.84 acres after interim reclamation.
- After drilling and completion, the well pad areas will be reduced for the production phase by reclamation of disturbed areas created during construction not needed during the production phase.
- Once drilling has begun, the operator anticipates drilling times of 3 to 6 weeks for each of the 18 horizontal wells. The completion process for the horizontal wells will take an additional 2 to 3 weeks.
- A road network consisting of proposed improved roads 60.70 acres/7.15 miles of crown and ditch template road as access of the well pads. Road disturbance will be reduced to approximately 20.81 acres after interim reclamation. Approximately 21.20 acres/7.29 miles of existing improved access used for CBNG and oil field traffic will be used in addition to the proposed crown and ditch template road as access to the well pads.

- During construction and drilling phases, truck traffic will include rig and ancillary equipment mobilization and delivery of large production facility equipment such as 400 bbl. tanks, etc.
- Estimated average daily traffic (ADT) on existing and improved roads during production activities is 1 large truck (oil tanker) and 1 personal pickup truck per day.
- ADT during the drilling phase (3 to 6 weeks) of each individual well is estimated to be 2 large trucks and 6 pickups trucks per day.
- ADT during the completion phase of each individual well (2 to 3 weeks) is estimated to be 6 large trucks and 6 pickups trucks per day.
- There is existing 3-phase overhead power in the project area. Devon proposed 6 power drops as shown on Devon's maps A and C. Each power drop will disturb approximately 0.13 acres for a total of 0.78 acres.
- If determined to be economically viable, the well would be put into production. Production facilities that would be placed on the site include one electric pumping unit per well, combustor/flare, gas sales meter, and one treater per well, a total of 20 x 400 bbl. tanks per 3 wells pad, (14 x 400 bbl. oil tanks and 6 x 400 bbl. water tanks). Each pad in the Cosner-Wright 2 POD will have 3 wells per pad.
- All production facilities and buildings on these sites will be painted Covert Green within 6 months of completion.
- The Cosner-Wright 2 POD will be drilled using a semi-closed loop system. Devon will construct a pit approximately 200 ft. by 200 ft., with a depth of 2-3 feet. This shallower pit would be lined and used to hold drill cuttings generated as a result of semi-closed loop drilling. There will be no production pits at these producing well locations.
- Drill cuttings will be properly screened, treated to break down hydrocarbons, and stored on location in a lined and bermed area.
- There will be 6 single lateral horizontal wells drilled from the well head extending to an approximate distance of 5000 feet. These require 15,000 bbls of water for drilling and 30,000 bbls for completion.
- There will be 12 extended reach lateral wells drilled to about 10,000 feet (see SUPD p. 11 for a list what wells will be extended reach lateral wells and what wells will be single lateral wells). These require 30,000 bbls of water for drilling and 70,000 bbls for completion.
- DEP will procure drilling water from the House Creek Plant Industrial Well (SEO Permit P82755W).
- Twelve to 20 x 500-bbls frac masters on location will be needed during well completion operations.
- All produced water will be disposed of at one of the Class II WDEQ permitted disposal wells or evaporation facilities listed on pp. 9 and 10 of the Cosner-Wright 2 POD SUPO.
- Devon will use 3 proposed and 1 existing fresh water supply pits to store the fresh water used in the hydraulic stimulation and completion operations. A temporary 12 inch polyline will be laid across the surface from these lined earthen pits to the location during hydraulic fracturing and completion operations in order to transfer the water. The location and distances of the lines and pits are found in the surface use plan of operations and Devon's maps A, C, and D. Devon has permitted and bonded all pits with the Wyoming Oil and Gas Conservation Commission (WOGCC).
- All 6 well pad locations will be fenced during drilling and completion operations so as to effectively keep out wildlife, livestock, unauthorized personnel, and unauthorized vehicle access.
- If a well is not found to be economically viable, all areas disturbed during construction would be reclaimed to approximate pre-disturbance condition, and the well bore would be plugged per State of Wyoming and BLM policy and regulations.

For details on project area access, design features, construction practices of the proposal and details regarding reclamation refer to the (MSUP pp. 1-19) in the POD; see AR. The plan was written and reviewed to minimize environmental impacts to both surface and subsurface resources. See the individual APDs for a map showing the proposed access road, existing roads, and pad location. The surface owners are Wyoming Davis Family Limited Partnership (Hay Creek Surfaces- LLC. John Cosner, Ted R. Cosner Revocable Trust and, Nolene Wright.

The estimated time to construct the well pad, roads, and other infrastructure is 14 to 21 days; see Table 2-5, Crazy Cat East EA, WY-070-EA13-028. Devon estimates that during the drilling phase of each Cosner-Wright 2 POD well will be 2 to 4 weeks per well and the average daily traffic (ADT) to and from the location is approximately 2 large trucks (water haulers, cement trucks, etc.) and 6 personal trucks per day. Devon estimated that the completion phase of each well will last 1 to 3 weeks per well and the ADT to and from the location is approximately 4 to 6 large trucks and 6 personal trucks per day. During the production phase the ADT will decrease to 1 to 2 pickup trucks per day.

Table 1.2. Summary of Surface Disturbance (Length and Width in Feet; Disturbance in Acres)

Activity	Length	Width	Disturbed	Interim Disturbance
Pad A	Varies	Varies	7.62	3.28
Pad B	Varies	Varies	6.74	2.87
Pad C	Varies	Varies	6.94	2.77
Pad D	Varies	Varies	8.52	2.70
Pad E	Varies	Varies	6.97	3.48
Pad F	Varies	Varies	8.54	2.77
Cosner Frac Pit Section 9	200	200	2.11	2.11
Wright Frac Pit Section 7	300	300	3.73	3.73
Unimproved Access Road (new construction)	556	16	0.20	0.15
Improved Access Road (new construction)	37,733	70	60.70	20.81
Pipelines not within in a corridor (Surface water line)	41,916	10	9.62	0
Proposed power Drops (6)	75	75	0.77	0.77
Total Disturbance			122.46	45.44

NOTE: surface line disturbance is Devon's estimate for placement; actual movement of surface line once in place is anticipated to be less. Interim reclamation, for access, numbers calculated w/ 24' width road running surface.

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. 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 analysis also incorporates and analyzes the implementation of committed mitigation measures in the SUP, drilling plan, and the standard conditions of approval (COAs) found in the PRB FEIS ROD, Appendix A.

Reasonably Foreseeable Activity.

The reasonably foreseeable activity (RFA) for this analysis area includes 31 sections (see Figure 1.1), oil/gas exploration on 640 acre spacing and possible 320 acre spacing for horizontal wells and 80 acre spacing for vertical wells. (This does not preclude the RFA spacing analysis in the PRB FEIS or applying to drill multiple wells from this pad further reducing the surface disturbance per well.) The RFA in the project analysis area is 113 proposed notices of staking (NOSs) and APDs. The project analysis area is the area within 5 miles of these proposed wells. The reasonably foreseeable activity included in this analysis could consist of multiple wells on an existing pads or tying into existing supporting infrastructure; tank batteries, pipelines, power lines, and transportation networks.

2.3. Conformance to the Land Use Plan and Other Environmental Assessments

This proposal does not diverge from the goals and objectives in the Buffalo Resource Management Plan (RMP), 1985, 2001, 2003, 2011, and generally conforms to the terms and conditions of that land use plan, its amendments, supporting FEISs, 1985, 2003 (2011), and laws including the Clean Air Act, 42 USC 7401-7671q (2006), the Clean Water Act, 33 USC 1251 et seq. (1972), etc.

3. AFFECTED ENVIRONMENT

This section briefly describes the physical and regulatory environment that may be significantly affected by the alternatives in Section 2, or where changes in circumstances or regulations occurred since the approval of analyses to which this EA incorporates by reference; see Table 3.1. The PRB FEIS considered a no action alternative (pp. 2-54 to 2-62) in evaluating a development of up to 54,200 fluid mineral wells. Nearly all of the PRB's coalbed natural gas (CBNG) wells and over 60% of the deep oil and gas wells are hydraulically fractured; BLM and Goolsby 2012. The BLM uses the aggregated effects analysis approach - incorporating by reference the circumstances and developments approved via the subsequent NEPA analyses for overlapping and intermingled developments coincident to this proposal area to retain currency in the no action alternative. 615 F. 3d 1122 (9th Cir. 2010). The project area is adjacent to or inside the boundaries of 4 CBNG plans of development (PODs) that include 62 wells and there are 27 CBNG wells within a 1 mile radius for a total of 89 CBNG wells. There are 76 producing oil wells within a 4 mile radius and 31 producing oil wells within a 1 mile of an analysis area for this proposal (WOGCC as of January 17, 2014). BLM currently has 14 NOSs associated with the Cosner 2 POD and the Cosner 4 POD and 11 APDs associated with the Cosner-Wright-Fuller 3 POD. These APDs and NOSs are adjacent and overlapping the Cosner-Wright 2 POD area. The number of conventional wells in the Buffalo planning area is 1313, which includes 783 horizontal wells (federal, fee, and state) (as of April 2013). This represents 41% of the projected 3,200 in the 2003 PRB ROD. This agrees with the PRB FEIS which analyzed the reasonably foreseeable development rolling across the PRB of 51,000 CBNG and 3,200 natural gas and oil wells. BLM determined a minimum of 115 townships from the northern borders of Sheridan and Campbell Counties to the southern border of Campbell County are a developed field for fluid minerals because of the existing federal developments. These APD proposals are in the developed field. Development occurring on non-federal surface and non-federal mineral estate would continue.

Table 3.1. Overlapping NEPA Analyses Which BLM Incorporates by Reference either as similar drilling analyses or as substantially similar analyses in the semi-arid sage-brush, short grass prairie

#	POD / Well Name	NEPA Analysis #	# / Type Wells	Approved Mo/Yr/Update
1	East Litton	WY-070-EA04-237	24 CBNG	8/2004 3/2011
2	Antelope Federal	WY-070-EA04-028	31 CBNG	2/2004 2/2010
3	Rochelle Hills	WY-070-EA04-235	37 CBNG	9/2004 7/2012
4	Tuit Federal POD	WY-070-EA04-098	36 CBNG	2/17/2004 11/26/2010
5	Porsche 3H and 4H	WY-070-EA14-85	2 / Oil	2/4/2014
6	Cosner	WY-070-390CX3-13-229	8 / Oil	8/16/2013
7	Tuit Draw & Porcupine Fed	WY-070-390CX3-14-94 to -97	4 Oil	1/29/2014
	Tuit Draw Federal	WY-070-390CX3-13-158 & -161	2 / Oil	5/29/2013
8 ^a	Mufasa Fed 11-31H Well	WY-070-EA12-062	1 Oil	3/2012
9 ^b	APC Crazy Cat East	WY-070-EA13-028	24+/- Oil Pads	3/2013

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

- While not overlapping, incorporate those sections describing and analyzing hydraulic fracturing, its supporting analysis, and the Greater Sage-Grouse Section 3.7.12 and 4.8.2.
- While not overlapping, incorporate those sections describing and analyzing hydraulic fracturing and its supporting analysis to include but not limited to traffic, water, and air quality.

3.1. Air Quality

BLM incorporates by reference the updated air quality affected environment section from the nearby Porsche Wells EA, WY-070-EA14-85, Section 3.1.

3.2. Soils, Ecological Sites, and Vegetation

BLM incorporates by reference the soils and vegetation sections in the Porsche Wells EA, WY-070-EA14-85, Section 3.2. Soils, ecological sites, and vegetation found in the areas of the Cosner –Wright 2 POD are similar to those occurring in Tuit Federal POD EA, WY-070-EA04-98, Section 3.2.

3.3. Water Resources

The Wyoming State Engineer's Office (WSEO) has authority for regulating water rights issues and permitting impoundments for the containment of the State's surface waters. The WOGCC has authority for permitting and bonding off channel pits located over state and fee minerals. BLM incorporates by reference the regulatory scheme, topography, and waters description from the Porsche 3H and 4H EA, WY-070-EA14-85, Waters Sections 3.3, 3.3.1, and 3.3.2; and Sections 3.2.1, 3.5, 3.5.1, and 3.5.2 from the Tuit Federal POD EA, WY-070-EA04-098. The area's historical use for groundwater was for stock or domestic water. A search of the WSEO Ground Water Rights Database showed 21 registered stock and domestic water wells within 1 mile of the proposed wells with depths ranging from 30 to 620 feet. 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. The Fox Hills Formation (water-bearing formation) is expected between 5911 feet and 6269 feet. The Fox Hills, the deepest penetrated fresh water zone in the PRB lies well above the target mineral formation.

3.4. Invasive or Noxious Species

BLM incorporates by reference the invasive species subsections from the Porsche EA, WY-070-EA14-85, Section 3.4, and Tuit Federal POD EA, WY-070-EA04-098, Section 3.2.1. Field conditions remain materially similar to these analyses.

3.5. Wildlife

The affected environment are discussed in, and anticipated to be similar to the Sahara POD EA, WY-070-EA13-72, incorporated here by reference. A wildlife survey report was submitted by the operator which was performed by Big Horn Environmental Consultants during 2013 (see AR). Site specific information is described below for known species suspected to occur in the project area as depicted in 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) (See AR).

3.5.1.Threatened, Endangered, Candidate, Special Status (Sensitive) Species

The Buffalo BLM receives a species list periodically from the FWS concerning threatened, endangered, proposed, and candidate species. Species included on that list that would be impacted by the proposed project will be discussed below.

3.5.1.1. Greater Sage-Grouse (GSG)

One known lek (Porcupine Creek) is within 2 miles of the proposed project's Pad D. BLM analyzed and considered mitigation for two leks in the Sahara POD EA, WY-070-EA13-72 and this analysis is incorporated here by reference: Affected Environment (Section 3.7.4.1, p.18-19). BLM also incorporates by reference Section 3.6.1 from the Porsche EA, WY-070-EA14-85 and pp. 6-10 from the Cosner CX3, WY-070-390CX3-13-229. In March, 2012, WY Additional information on the population viability analysis and its influence on cumulative effects from energy development is found in the affected environment section, Section 3.7.12 of the Mufasa Fed 11-31H Well EA, WY-070-EA12-062, incorporated here by reference.

3.5.1.2. Migratory Birds

The proposed well pads, A to E, are in productive migratory bird habitat for sage-brush obligate species; see AR. BLM incorporates by reference here, Sections 3.6.2.1, 3.6.2.4, and 3.7.2 from the Porsche EA.

3.5.1.3. Raptors.

The affected environment for raptors will be similar to those analyzed in Section 3.7.2.1, from the Sahara POD EA, WY-070-EA13-72, Section 3.6.2.2 from the Porsche EA, WY-070-EA14-85, and Section 3.3.4 from the Tuit Federal EA, WY-070-EA04-098 - all incorporated here by reference. One ferruginous hawk nest (BLM# 1766) is within 0.2 mile from the proposed well Pad B location and outside the biological buffer (a biologic buffer is a combination of distance and visual screening that provides nesting raptors with security such that they will not be flushed by routine activities). Currently, four oil and gas wells and an overhead powerlines are located within 0.25 miles of the nest. One unknown ground nest (BLM # 12549) is located 0.4 mile from the proposed well Pad F location and outside the biological buffer. Currently, four oil and gas wells and an overhead powerlines are located within 0.25 miles of the nest.

3.6. Cultural.

In accordance with Section 106 of the National Historic Preservation Act (NHPA), 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 found in Buffalo planning area refer to the Draft Cultural Class I Regional Overview, Buffalo Field Office (BLM, 2010). A previously reviewed and accepted Class III cultural resource inventory (BFO # 70140017) adequately covered the proposal area. No cultural resources are located in the proposed project area.

4. ENVIRONMENTAL EFFECTS

No Action Alternative. BLM analyzed the no action alternative as Alternative 3 in the PRB FEIS and it subsequently received augmentation of the effects analysis in this EA through the analysis of mineral projects, their approval, and construction; and through the analysis and approval of other projects. BLM incorporates by reference these analyses in this EA; see Table 3.1. This updated the no action alternative and cumulative effects. The project area has surface disturbance from existing roads, well pads, and oil and gas facilities. Under the no action alternative, on-going well field operations would continue as would the development of approved single and multi-well pads, consisting of horizontal wells with approved APDs and other approved APDs. The production and the drilling and completion of these new wells would result in noise and human presence that could affect resources in the project area; these effects could include the disruption of wildlife, the dispersal of noxious and invasive weed species, and dust effects from traffic on unpaved roads. Present fluid mineral development in the PRB is under half of that envisioned and analyzed in the PRB FEIS. There is only a remote potential for significant effects above those identified in the PRB FEIS to resource issues as a result of implementing the no action alternative.

Alternative B, Proposed Action (Proposal)

4.1. Air Quality

BLM incorporates by reference the air quality direct, indirect, cumulative, and residual effects from the analyses in Table 3.1, above as they are materially similar to those for these proposals. BLM incorporates by reference the analysis found in the August 2012 Lease Sale EA, WY-070-EA12-44, pp. 45-51 (air quality, greenhouse gas emissions, and visibility). Air quality impacts modeled in the PRB FEIS and Cumulative Air Quality Effects, 2009 concluded that PRB projected fluid and solid development would not violate state, or federal air quality standards and this project is within the development parameters.

4.2. Soils, Ecological Sites, and Vegetation

Impacts anticipated occurring and mitigation considered with this proposal will be similar to those analyzed in the following EAs which have similar characteristics to this proposal area: Tuit Federal POD EA WY-070-EA04-98, Section 4.1, and Section 4.2 (all) from the Porsche EA, WY-070-EA14-85, incorporated here by reference. These incorporated EA sections analyze the historical values and settings

for soils, ecological sites, and vegetation. This proposal clearly lacks wilderness characteristics as it has no federal surface.

4.3. Water Resources

The Cosner-Wright 2 POD will be drilled to the Turner and Parkman Formations at depths of 7304 and 10471 feet, respectively. Casing for the Parkman formation: Devon will run surface casing to 2250 feet and production casing to the bottom hole measured depth (MD) between 11,942 feet and 17,406 feet at a total vertical depth (TVD) between 7371 feet and 7439 feet. Casing for the Turner formation: Devon will run surface casing to 2250 feet and production casing to the bottom hole measured depth (MD) between 14,535 feet and 20,003 feet at a total vertical depth (TVD) of 10,103 feet and 10,220 feet.

Devon will verify that there is competent cement across the zone, 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. At the time of permitting, the volume of water that will be produced in association with these federal minerals is unknown. Devon will have to produce a well for a time to be able to estimate the water production. To comply with the Onshore Oil and Gas Order #7, Disposal of Produced Water, Devon 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 low in most cases. There are 3 common alternatives for water management: re-injection, deep disposal or disposal into pits. All alternatives would be protective of groundwater resources when performed in compliance with state and federal regulations.

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 fresh water aquifers above the drilling target zone. Compliance with the drilling and completion plans and Onshore Oil and Gas Orders Nos. 2 and 7 minimize an adverse impact on ground water. The volume of water produced by this federal mineral development is unknowable at the time of permitting. BLM incorporates by reference the surface water resources direct, indirect, cumulative, and residual effects from the Tuit Federal POD EA, WY-070-EA04-098, Section 4.4.1 (all), and the surface and ground water from the Porsche EA, WY-070-EA14-85, Section 4.3 (all) and Tuit Draw & Porcupine Federal, WY-070-390CX3-14-94, pp. 7-8.

4.4. Invasive Species

BLM anticipates the proposal's direct, indirect, residual, and cumulative effects to invasive species proliferation will be materially similar to those found in the Porsche EA, WY-070-EA14-85, Section 4.4 (all), incorporated here by reference. Devon's committed measures negate a need for mitigation.

4.5. Wildlife

Alternative B – the Proposal: The impacts associated with alternative B are discussed below. A BLM wildlife biologist reviewed the proposed APDs and determined that the proposals, combined with the COAs (and design features), are consistent with the programmatic biological opinion (ES-6-WY-02-F006), which is an update from the PRB FEIS, Appendix K. The affected environment for wildlife are discussed in, and anticipated to be similar to that analyzed in the EAs in Table 3.1. The environmental effects for wildlife are discussed in, and anticipated to be similar to the Sahara POD EA, WY-070-EA13-72, incorporated here by reference. Due to the minimal federal jurisdiction over the wells: Wright Fed 07-184372-3XPH, Wright Fed 07-184372-4XTH, Wright Fed 07-184372-4XPH, T Cosner Fed 174372-1PH, T Cosner Fed 174372-2PH, T Cosner Fed 174372-2TH, T Cosner Fed 174372-3PH, T Cosner Fed 174372-4PH, T Cosner Fed 174372-4TH, T Cosner Fed 18-074372-1XPH, T Cosner Fed 18-074372-2XPH, T Cosner Fed 18-074372-2XTH, BLM is unable to condition mitigation measures for wildlife.

BLM does recommend mitigation measures (RMMs) to reduce impacts; however, direct and indirect impacts to wildlife may occur if the operator does not adopt the BLM RMMs.

4.5.1. Wildlife Threatened, Endangered, Proposed and Candidate Species

4.5.1.1. Greater Sage-Grouse (GSG)

BLM analyzed and considered mitigation for two leks in the Sahara POD EA, WY-070-EA13-72 and this analysis is incorporated here by reference: Direct and Indirect Effects (Section 4.6.4.1.1, p. 34-39); Cumulative Effects (Section 4.6.4.1.2, pp.49-50); Mitigation (Section 4.6.4.1.3, p. 37); Residual Effects (Section 4.6.4.1.4, p. 37). In order to reduce the likelihood that noise, construction, and human disturbance impact nesting GSG, BLM will implement a timing limitation on all surface-disturbing activities (March 15-June 30) within 2 miles of an occupied lek. This affects Pad D. The intent of this timing restriction is to decrease the likelihood that GSG will avoid these areas and increase habitat quality by reducing noise and human activities during the breeding season. The proposed wells will cumulatively contribute to the potential for local GSG extirpation, yet this impact is acceptable because it occurs outside preliminary priority habitats (core, focus and connectivity), is within the parameters of the PRB FEIS/ROD, and is consistent with the coordinated BLM and State of Wyoming GSG conservation strategies (BLM WY-2012-19 and WY Executive Order 2011-5, respectively).

4.5.2. Special Status (Sensitive) Species (SSS)

BLM anticipates no direct, indirect, residual, or cumulative effects to SSS (aside from some passerines discussed below). BLM requires no mitigation for SSS.

4.5.3. Migratory Birds

Effects to migratory birds from surface disturbing and disruptive activities associated with development of the proposed wells are similar to the wells analyzed in the CX3 for Bonita Federal Com. 11H-WY-070-390CX3-13-41, Lone Moose Federal Com. 13H-WY-070-390CX3-13-73, Cousins Federal Com. 22H-WY-070-390CX3-13-74 and Rocky Butte Federal Com. 29H-WY-070-390CX3-13-75 on pp. 6-9 (a consolidated CX3 NEPA analysis) incorporated here by reference. The BLM determined that the proposal is in compliance with Instruction Memorandum No. WY-2013-005 Interim Management Guidance for Migratory Bird Conservation Policy on Wyoming Bureau of Land Management (BLM) Administered Public Lands Including the Federal Mineral Estate. BLM will apply a survey and timing limitation that pad construction (vegetation removal) occur outside of the breeding season for the greatest quantity of BLM sensitive passerines (May 1- July 31) where suitable nesting habitat for sagebrush obligates is present. This restriction would apply to habitat removal, unless a pre-construction nest search (within approximately 10 days of construction planned May 1-July 31) is completed. If surveys will be conducted, the operator will coordinate with BLM biologists to determine protocol. The nest search will be performed in areas where vegetation will be removed or destroyed.

BLM recommends taking measures to ensure excluding migratory birds from facilities posing a mortality risk, including, but not limited to, heater treaters, flare stacks, secondary containment, and standing water or chemicals where escape may be difficult or hydrocarbons or toxic substances are present.

4.5.4. Raptors

Impacts anticipated to occur toward the nesting pairs of raptors and mitigation will be similar to those analyzed in the Sahara POD EA, WY-070-EA13-72, incorporated here by reference: Direct and Indirect Effects (Section 4.6.2.1.1, p. 2830); Cumulative Effects (Section 4.6.2.1.2, pp.30); Mitigation (Section 4.6.2.1.3, p. 30); Residual Effects (Section 4.6.2.1.4, p. 30). To reduce the risk of decreased productivity or nest failure, the BLM BFO recommends a 0.5-mile radius timing limitation during the breeding season (February 1 – July 31) around active raptor nests for surface disturbing activities associated with construction of the proposed well Pads B and F and their access roads.

4.6. Cultural Resources

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 VI(A)(1), the BLM notified the Wyoming State Historic Preservation Officer (SHPO) on February 19, 2014, 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 and ROD must be followed. Further discovery procedures are explained in Standard COA (General)(A)(1).

BLM used the aggregate effects method to update the cumulative effects for this EA; see Table 3.1.

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

Position/Organization	Name	Position/Organization	Name
NRS/Team Lead	Meleah Corey	Archaeologist	Ardeth Hahn
Supr NRS	Casey Freise	Wildlife Biologist	Scott Jawors
Petroleum Engineer	Will Robbie	Geologist	Kerry Aggen
LIE	Christine Tellock	Supr NRS	Kathy Brus
Assistant Field Manager	Clark Bennett	Assistant Field Manager	Chris Durham
NEPA Coordinator	John Kelley	WY SHPO	Mary Hopkins

5. References and Authorities (BLM incorporates by reference here the references and authorities from the Porsche Wells EA, WY-070-EA14-84, pp. 29-33.)

Figure 1.1. Cosner-Wright 2 POD (blue line), 6 Pads, and 18 Laterals Locations

