

DECISION RECORD
Categorical Exclusion 3 (CX3), WY-070-390CX3-13-338, WY-070-390CX3-13-339
Section 390, Energy Policy Act of 2005
Yates Petroleum Corporation (Yates), Applications for Permit to Drill (APD)
Marauder Federal Com #6H and Marauder Federal Com #8H Wells
Bureau of Land Management, Buffalo Field Office, Wyoming

DECISION. The BLM approves the applications for permit to drill (APDs) from Yates Petroleum Corporation (Yates) to drill 2 horizontal oil and gas wells and construct their associated access road and infrastructure as described in the Section 390, Energy Policy Act of 2005 Categorical Exclusion 3 (CX3), WY-070-CX3-13-338 and -339 - both incorporated here by reference.

Compliance. This decision complies with:

- Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC 1701); DOI Order 3310.
- National Environmental Policy Act of 1969 (NEPA) (42 USC 4321).
- National Historic Preservation Act of 1966 (16 USC 470).
- Endangered Species Act of 1974 (16 USC 1531).
- Buffalo and Powder River Basin (PRB) Final Environmental Impact Statements (FEIS), 1985, 2003.
- Buffalo Resource Management Plan (RMP) 1985, Amendments 2001, 2003, 2011.

A summary of the details of the approval follows. The consolidated CX3 analysis for the 2 oil and gas wells, above, includes the project description, including site-specific mitigation measures which are incorporated by reference into this CX3 from earlier analysis. The proposed wells are 22 miles southwest of Wright, in Campbell County, Wyoming. This Yates’ proposal has 2 APDs along with associated access road and infrastructure, to develop and produce oil and gas from the Shannon Formation of the PRB.

Approvals: BLM approves the following APDs and associated infrastructure:

#	Well Name/ Well #	Qtr	Sec	Twp	Rng	Lease	CX Number
1	Marauder Federal Com #6H	SESE	12	42N	75W	WYW142823	WY-070-390CX3-13-338
2	Marauder Federal Com #8H	SESW					WY-070-390CX3-13-339

Limitations. See conditions of approval (COAs).

THE FINDING OF NO SIGNIFICANT IMPACT (FONSI). Congress, the Department of Interior and BLM affirmed there was no significant impact of a like-structured project when they created this CX3 analysis process and its limiting parameters. Thus a FONSI and EIS are not required.

Summary of New Information. BLM posted the APDs for 30 days and received no public comments. Since BLM received these APDs it also received a clarification of the Greater Sage-Grouse (GSG) Density and Disturbance Calculation Tool, Instruction Memorandum (IM)-WY-2013-035.

DECISION RATIONALE. The approval of this project is because:

1. Mitigation measures and COAs analyzed in the consolidated CX3 analysis, in environmental impact statements, or environmental analysis to which the CX3 analysis tiers or incorporates by reference, will reduce environmental impacts while meeting the BLM’s need.
2. 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 GSG population. The impact of this development cumulatively contributes to the potential for local extirpation of GSG; yet its effect 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. This decision approving these APDs complies with the Energy Policy Act of 2005, Section 390, 43 CFR 1610.5, 40 CFR 1508.4, and 43 CFR 46.215.

3. To reduce the likelihood of a "take" under the Migratory Bird Treaty Act, BLM sensitive species nesting habitat removal will occur outside of the breeding season or be cleared by survey.
4. 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). This project complies with the breadth and constraints of CX3, Energy Policy Act of 2005, and subsequent policy.
5. The selected alternative will help meet the nation's energy need, revenues, and stimulate local economies by maintaining workforces.
6. The operator, in their 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 APD (PRB FEIS ROD, p. 7).
 - Provide water analysis from a designated reference well in each coal zone.
7. The project is clearly lacking in wilderness characteristics as there is no 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 leases in this project area, including submission of additional APDs to drain minerals in accord with lease rights and law. This decision does not foreclose the lessee or operator to propose using external pumping units via a sundry application process.
9. Yates certified it has a surface use access agreement with the landowners or it posted a bond.
10. This approval is subject to adherence with all of the operating plans, design features, and mitigation measures contained in the surface use plan of operations and drilling plan information in the individual APDs.

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.

Acting Field Manager:  Date: 9/26/13

Categorical Exclusion 3 (CX3), WY-070-390CX3-13-338, WY-070-390CX3-13-339
Section 390, Energy Policy Act of 2005
Yates Petroleum Corporation (Yates), Marauder Federal Com #6H and Marauder Federal Com #8H Wells Applications for Permit to Drill (APD)
Bureau of Land Management, Buffalo Field Office, Wyoming

Description of the Proposed Action.

Yates Petroleum Corporation (Yates) requests BLM’s approval for 2 applications for permit to drill (APD). BLM incorporates the APDs here by reference; see the administrative record (AR). Yates proposes to drill the horizontal oil and gas wells and construct associated infrastructure at the locations in Table 1.1. The wells will be drilled from a non-federal surface into underlying federal minerals on lease numbers listed below – resulting in standard split jurisdiction. The proposal is to explore for, and possibly develop, oil and gas reserves in the Shannon Formation; depths found in the AR.

The project area is 22 miles southwest of Wright, Campbell County, Wyoming. The proposed surface holes (drill sites) are in Table 1.1. Well elevations are 5,427 feet and 5,362 feet, respectively. The topography has gently sloped draws rising to mixed sagebrush and grassland uplands. Ephemeral tributaries of Dry Fork Creek and All Night Creek drain the area. The area climate is semi-arid, averaging 10-14 inches of precipitation annually, about 60% of which occurs between April and September. Iberlin Ranch LTD Partnership is the surface owner. Yates proposed a possible water supply, staging area, and locating surface water lines where Nine Mile Land Company is the surface owner.

Table 1.1. Proposed Well

#	Well Name/ Well #	Qtr	Sec	Twp	Rng	Lease	CX Number
1	Marauder Federal Com #6H	SESE	12	42N	75W	WYW142823	WY-070-390CX3-13-338
2	Marauder Federal Com #8H	SESW					WY-070-390CX3-13-339

Yates submitted APDs to BLM on July 7, 2012 and January 1, 2013. Yates and BLM completed onsite inspections on April 30, 2013. The onsites evaluated the proposal and modified it to mitigate environmental impacts. The BLM sent a post-onsite deficiency letter to Yates on May 13, 2013. Yates responded on June 6, 2013. After subsequent correspondence, the BLM considered the deficiencies complete on August 12, 2013.

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 (2003 Amendment) with permitting the operator’s exercising of conditional lease rights to develop federal fluid minerals. APD information is an integral part of this EA, which BLM incorporates here by reference (40 CFR 1502.21). 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.

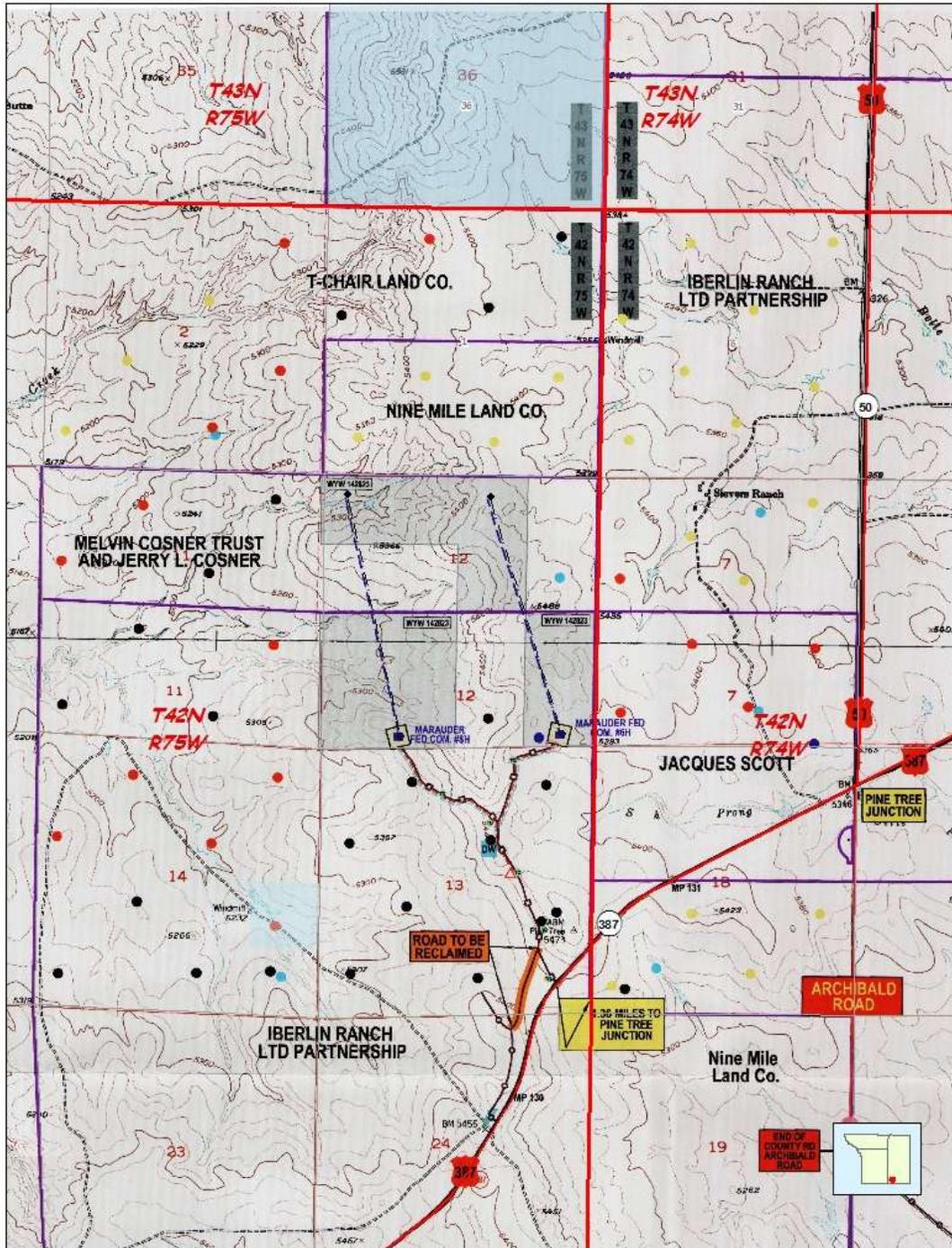
Full effects of the action and recommended mitigation measures are in the Marauder 6H and 8H surface use plan, Iberlin 1-9H and 1-9TH wells EA, WY-070-EA13-224, and BLM Conditions of Approval (COAs) for Conventional Application for Permit to Drill, Appendix A.

Drilling, Construction & Production design features include:

Access

- Primary access for the proposed well locations is provided by Wyoming Highway 387 (WY 387).
- Newly constructed access will be built from WY 387 to the wells, disturbances are in Table 1.3.

Figure 1.1. Marauder Wells Top & Bottom Hole Locations in Lease WYW142823 (grey shade).



- Two possible routes are proposed from WY 387. See Figure 1.1 for designs.
- The first option is to build a new access and reclaim a two-track road per landowner request.
- The two-track road section to be reclaimed in the first option is proposed as an option. A separate oil and gas operator was approved to build a crown and ditch template road where the two-track currently lies. If that operator improves the two-track road, prior to Yates constructing the first proposed road, then that road will be used to access the wells.

- Newly constructed access roads without utility corridors will be built with a total construction disturbance width of 50 feet with a 16 foot running surface.
- Newly constructed access roads with utility corridors will be built with a total construction disturbance width of 75 feet with a 16 foot running surface.
- Six turnouts will be built on the new access and are in the surface use plan (SUP); see AR.

Well Location

- The wells pad cuts and fills will be constructed with 1½:1 slopes initially and reduced as much as possible during interim reclamation.
- The well pads will be constructed with topsoil/spoil piles surrounding the pad surface. Topsoil/spoil piles are included in the pad disturbance acreage.
- Well pad disturbances are outlined in Table 1.3.
- There will be a reserve pit at the oil well locations during drilling and completion operations.
- The pits will be lined with an impervious synthetic liner.
- Dikes will be constructed completely around production facilities, i.e. production tanks, water tanks, and heater treater. The dikes will be constructed of corrugated steel, approximately 3 feet high, and hold capacity of the largest tank plus 10%. The load-out line will be outside of the dike area.

Drilling and Completion Operations

- Hydraulic fracturing (HF) operations are planned as a ‘plug & perf’ operation done in stages. The process is anticipated require 14 days. All water used for HF will come from municipal water supplies from Wright or Gillette, Wyoming. All fresh water will be contained in 400-500 bbl rental HF tanks and no surface pits will be used to hold this water. No additional well pad disturbance is anticipated for HF operations. 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).
- If the well becomes a producer, production facilities will be located at the well site and will include a pumping unit, storage tanks, buildings, oil-water separator (heater-treater). There will be no pits at the producing oil well locations.
- It is anticipated that 40,000 bbls of water will be needed for drilling and completion operations. The fresh water for drilling operations will be trucked from multiple permitted sources; see p. 3 of the respective SUP the for listed water sources.
- For completion (HF) phase, the operator intends use above ground tanks for onsite water storage at the pad. The above-ground tanks do not require a separate location or additional disturbance.
- Typically 170 500-bbl fracturing tanks are spotted, taking 2 weeks to fill, prior to pumping the stimulation. All fracturing water, including excess, is present before starting.
- Produced water during the production phase will be stored in a permanent storage tank. A third party will haul the flowback water, produced water, and oil from the reserve pit (if any) to permitted disposal facilities: one of 5 permitted facilities which are outlined in the SUP.
- Peak truck traffic to fill HF tanks during completion operations is estimated to be approximately 700 roundtrips per well.

Table 1.2. Anticipated Drilling and Completion Sequence and Timing (per well)

Drilling and Completion Step	Approximate Duration
Build Location (roads, pad, and other initial infrastructure)	30 days
Mob Rig	2-4 days ¹
Drilling (24/7)	30 days ²
Schedule/logistics	30 days
Completion (setup, completion, demobilization)	5-8 days

¹ Depending on distance and needed to add supplemental drilling equipment, such as skidding plates.
² By comparison, approximately 2 days are required to drill a CBM well. ICF 2012

Table 1.3. Disturbance Summary Marauder Wells:

Activity	Length (feet)	Width (feet)	Acres of Disturbance
Constructed pad with cuts/fills and topsoil/spoil disturbances. (x 2)	varies	varies	12.00
Newly constructed access roads w/out utility corridors.	2,400	50	2.75
Newly constructed access roads w/utility corridors.	5,700	75	9.81
Proposed water staging areas (x 3)	100	150	1.05
Total Disturbance for this project			25.62

Off Well Pad

Yates will submit a sundry notice to the BLM if gas or water gathering pipelines are needed.

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 worksheet is NEPA compliance 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, 1985, the PRB FEIS, 2003, and the Record of Decision (ROD) and Resource Management Amendments for the Powder River Oil and Gas Project, Amendments of 2001, 2011 as required by 43 CFR 1610.5, 40 CFR 1508.4, and 43 CFR 46.215. The proposal is clearly lacking in wilderness characteristics as there is no federal surface. BLM finds that the conditions and environmental effects found in the senior EA 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 3 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).

Table 1.4 is a list of existing/approved PODs that are within or adjacent to the Marauder 6H and 8H wells project area. This information shows the reader that BLM conducted analysis.

Table 1.4. Adjacent or Overlapping Oil & Gas Well POD NEPA Analyses by Decision Date

#	POD / Well Name	NEPA Analysis #	# / Type Wells	Decision Mo/Yr
1	Iberlin 1-9H and 1-9TH	WY-070-EA13-224	2 Oil	8/16/2013
2	Iberlin 1-2H & 1-2TH	WY-070-390CX3-13-42 & WY-070-390CX3-13-69	2 Oil	3/20/2013
3	Valarie POD	WY-070-EA12-68	9 Oil	3/1/2012
4	West Pine Tree Unit Grayling	WY-070-EA10-332	80 CBNG	3/1/2011
5	Dry Willow Phase 5	WY-070-EA10-186	27 CBNG	8/12/2010
6	All Day POD	WY-070-EA08-026	35 CBNG	8/28/2009
7	Pine Tree North and South	WY-070-EA07-165	175 CBNG	8/23/2007

- 2) There is an existing NEPA document (and the RMP) containing reasonably foreseeable development scenario for this action. There are several existing NEPA documents that reasonably foresaw development to spud additional wells to fill in 80 acre well-spacing. BLM reviewed these documents and determined they considered the potential environmental effects associated with the proposed

activity at a site specific level. In addition, all 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 drilling CBNG wells on 80 acre-spacing resulting in about 51,000 CBNG wells and 3,200 oil wells. The Marauder Wells are in the foreseeable development scenario of 80 acre well-spacing that was analyzed in EAs in Table 1.4 and in the PRB FEIS's Appendix A.

- 3) The tiered NEPA document was finalized or supplemented within 5 years of spudding (drilling) the proposed well. BLM tiers to and / or incorporates by reference, as appropriate, the analyses in Table 1.4 as representative of the short grass – sage brush prairie environment and / or oil and gas operations substantially similar to this proposal.

In summary the NEPA analyses in Table 1.4 analyzed in detail the anticipated direct, indirect, residual, and cumulative effects that would result from the approval of these APDs and associated support structure in Marauder 6H and 8H wells is similar to both the qualitative and quantitative analysis in the above mentioned EAs. The BFO reviewed the analyses and found that they considered potential environmental effects associated with the proposal at a site specific level. The APDs' SUP and drilling plans are incorporated here by reference and show adequate protection of surface lands and ground water, including the Fox Hills formation, located at 7,329 and 7,309 feet total vertical depth (TVD) respectively. The Wyoming Game and Fish Department's (WGFD's) Recommendations for Development of Oil and Gas Resources within Important Wildlife Habitats (2009), make no distinction between surface disturbance impacts per well type or drilling technology. BLM's position is there is a rare lack of distinction in surface disturbance impacts attributable to well type, subject to showing a distinction, not a mere difference, and this tracks to surface disturbance issues as with soils, vegetation, invasive species, wetlands, cultural resources, etc. See, State Director Reviews WY-2010-023, Part 2, p. 3, and fn. 7 and WY-2013-005, pp. 2-3. This supports national policy where no distinction exists in 43 CFR 3160 et. seq, leasing, APD Form 3160-3, and 2005's Energy Policy Act. (Kreckel 2007)

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 CX3 analyses also incorporates and analyzes the implementation of committed mitigation measures contained in the SUP, drilling plan, in addition to the Standard COAs found in the PRB FEIS ROD, Appendix A.

Soils, Ecological Sites, and Vegetation

Soils, ecological sites, and vegetation found at the Marauder Wells are similar to those occurring in Iberlin 1-9H and 1-9TH wells EA, WY-070-EA13-224. Impacts anticipated occurring and mitigation considered with the implementation of the proposal will be similar to those analyzed in the following EA which is adjacent, overlapping, or have similar characteristics to the Marauder 6H and 8H wells and are incorporated here by reference: Iberlin 1-9H and 1-9TH wells EA, WY-070-EA13-224, Description of Affected Environment (pp. 7-9); and Direct and Indirect, Cumulative, Residual Effects (pp. 18-21).

Table 1.5. Dominant Soils by Map Unit Symbol (MUS)

Well Location	MUS	Map Unit Name	Ecological Site
Marauder #6H	145	Forkwood-Cambria Loams, 0 to 6% slopes.	Loamy
Marauder #8H	213	Terro-Taluce Sandy Loams, 6 to 30% slopes.	Sandy
Access Roads	147	Forkwood-Cushman Loams, 6 to 15% slopes.	Loamy
	213	Terro-Taluce Sandy Loams, 6 to 30% slopes.	Sandy

NOTE: area of analysis includes access (proposed, new disturbance) to well location.

The above referenced sections of the Iberlin 1-9H and 1-9TH wells EA analyze the historical values and settings for soils, ecological sites, and vegetation. Although soil types in the Marauder 6H and 8H wells project area are not identical to the soils in the Iberlin 1-9H and 1-9TH wells project area, effects and mitigation are similar.

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 6 registered stock and domestic water wells within 1 mile of the proposed wells in the project area with depths ranging from 220 to 500 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. The operator will run surface casing to 2,000 feet, total vertical depth to protect shallow aquifers. The top of cement for the intermediate casing string will be calculated to isolate at a minimum 1000 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. The operator will have to produce the wells 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. There are three 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.

Wildlife

A BLM wildlife biologist reviewed the proposed APDs and determined that the proposed APDs, combined with the COAs (and design features), are: (1) consistent with the FEIS and its supplements, the RMP and the above tiered and incorporated analyses; and (2) consistent with the programmatic biological opinion (ES-6-WY-02-F006), which is an update from the PRB FEIS, Appendix K. The BLM performed onsite visits on August 29, 2012. The proposed well and infrastructure are a result of attempts by BLM to reduce impacts to Greater Sage-Grouse (GSG) and ferruginous hawks specifically, and incorporates recommendations provided to the BLM by the U.S. Fish and Wildlife Service in so far as to conform to the PRB FEIS. The affected environment and environmental consequences for wildlife are discussed in, and anticipated to be similar to, the Iberlin 1-9H and Iberlin 1-9TH POD EA, WY-070-EA08-026. The operator has not committed to a construction and drilling timeframe but did explain plans to complete construction and drill the well during a period that avoids wildlife timing limitations periods.

Raptors

All raptors using nests in the project vicinity will likely be impacted to some extent by the human disturbance associated with operation and maintenance. There are 5 known ferruginous hawk nests within 0.5 mile of the well pad. Human activities in close proximity to active raptor nests may interfere with nest productivity. Romin and Muck (1999) indicate that activities within 0.5 mile of a nest are prone to cause adverse impacts to nesting raptors. If mineral activities occur during nesting, they could be sufficient to cause adult birds to remain away from the nest and their chicks for the duration of the activities. This absence can lead to overheating or chilling of eggs or chicks and can result in egg or chick mortality.

Prolonged disturbance can lead to the nests abandonment by the adults. Routine human activities near these nests also can draw increased predator activity to the area and resulting in increased nest predation.

To reduce the risk of decreased productivity or nest failure, the BFO requires a 0.5-mile radius timing limitation during the breeding season around active raptor nests and recommends all infrastructures requiring human visitation be located in such a way as to provide adequate biologic buffer for nesting raptors. 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. Find a list of documented raptor nests within 0.5 mile of project components, below.

Nesting raptors, especially ferruginous hawks, may not use specific nests for a number of years but will maintain the nests in their nesting territory as alternate nest sites. The condition of the nests in Table 1.6 indicated this type of behavior. Some raptor nests in the PRB have gone 8 years between periods of nesting activity. The BLM raptor database shows that 1ferruginous hawk nest, BLM ID #3856, was inactive 2004 - 2007 and was considered gone. Then BLM found the nest and surveyed it in 2011 - it was active with a pair of ferruginous hawks incubating eggs in 2012.

BLM analyzed affects to raptors in the Iberlin 1-9H and Iberlin 1-9TH EA, WY-070-EA13-224, incorporated here by reference, which includes a requirement to survey known raptor nests following the current BLM protocol. All survey results shall be submitted in writing to a Buffalo BLM biologist. A 0.5 mile timing restriction (February 1 through July 31) will be applied if a nest is identified as active. Measures intended to avoid, minimize, and mitigate impacts to raptors are outlined in the COAs, including Operator committed measures and site-specific COAs. For example, to reduce the risk of adverse impacts to nesting raptors, no surface-disturbing activity will occur within 0.5 mile of all identified raptor nests from February 1 through July 31, annually, prior to a raptor nest occupancy survey. There are 2 known raptor nests within 0.5 mile of the Marauder Federal COM #6 and Marauder Federal COM #8 wells and 3other known raptor nests within 0.5 mile of proposed surface disturbing activities associated with access roads to be constructed. The status of these nests is in Table 1.6.

Table 1.6. Survey Results for Nests Within 0.5 Miles of the Project Area.

BLM ID	Year	Species	Status	Condition
2409	2012	Ferruginous Hawk	Inactive	Poor
2410	2012	Ferruginous Hawk	Inactive	Remnant
2412	2012	Ferruginous Hawk	Active	Good
4562	2012	Ferruginous Hawk	Inactive	Nest Gone
1465/2411	2012	Ferruginous Hawk	Inactive	Nest Gone

(BLM Raptor Nest Database, 2012)

Surveys shall be conducted by a biologist following the current BLM protocol. All survey results must be submitted in writing to the BFO and approved prior to initiation of surface-disturbing activities. A 0.5-mile timing restriction will be applied if a nest is identified as active. These conditions will alleviate raptor impacts:

- No surface-disturbing activity shall occur within 0.5 mile of all identified raptor nests from February 1 through July 31, annually, prior to a raptor nest occupancy survey for the current breeding season. This timing limitation will affect surface disturbing activities located in T42N R74W, sections 12 and 13.
- Surveys to document nest occupancy shall be conducted by a biologist following BLM protocol, between April 15 and June 30. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface-disturbing activities. Surveys outside this window may not depict nesting activity. If a survey identifies active raptor nests, a 0.5 mile timing buffer will be implemented. The

timing buffer restricts surface-disturbing activities within 0.5 mile of occupied raptor nests from February 1 to July 31.

Greater Sage-Grouse (GSG)

BLM analyzed the effects to GSG from surface disturbing and disruptive activities associated with development of horizontal oil wells in the Sahara POD EA, WY-070-EA13-72, 2013, Section 4.6.4.1, pp. 34-37, incorporated here by reference. Activities associated with development of Yates' Marauder Federal COM #6 and Marauder Federal COM #8 wells are anticipated to be similar in nature, with the following additional site-specific information.

The BLM typically applies a controlled surface use buffer of 0.25 miles for GSG leks. The proposed well is approximately 3.8 miles from the Buffalo Ranch Lek and in sagebrush/grassland habitat. The well location and access road are not within 2 miles of known occupied GSG leks but are within suitable nesting and brood rearing habitat (See Figures 1.3 to 1.5). It is likely that this habitat provides connectivity between GSG leks located east and west of the project area. Traffic, light and heavy duty trucks, will increase with approval of the wells. Mobilizing the drilling rig and associated equipment can take as many as 52 truckloads. The other anticipated impact associated with hydraulic fracturing involves the large amount of heavy truck traffic (200-700 trucks/well) to transport water storage containers, water and other hydraulic fracturing materials to the location as well as truck traffic anticipated for removing the storage tanks and flow-back fluid from the HF. Heavy trucks are expected to visit the well every 1 to 2 days to haul oil or water from the location, in addition to pumper traffic from equipment inspections.

In order to reduce the impacts to GSG associated with noise, construction, and human disturbance resulting from implementation of the proposed project, BLM will impose a timing limitation (March 15-June 30) on surface-disturbing activities in and adjacent to identified nesting habitat across the project area. Because nesting GSG are shown to avoid infrastructure by up to 0.6 miles, 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 nesting season.

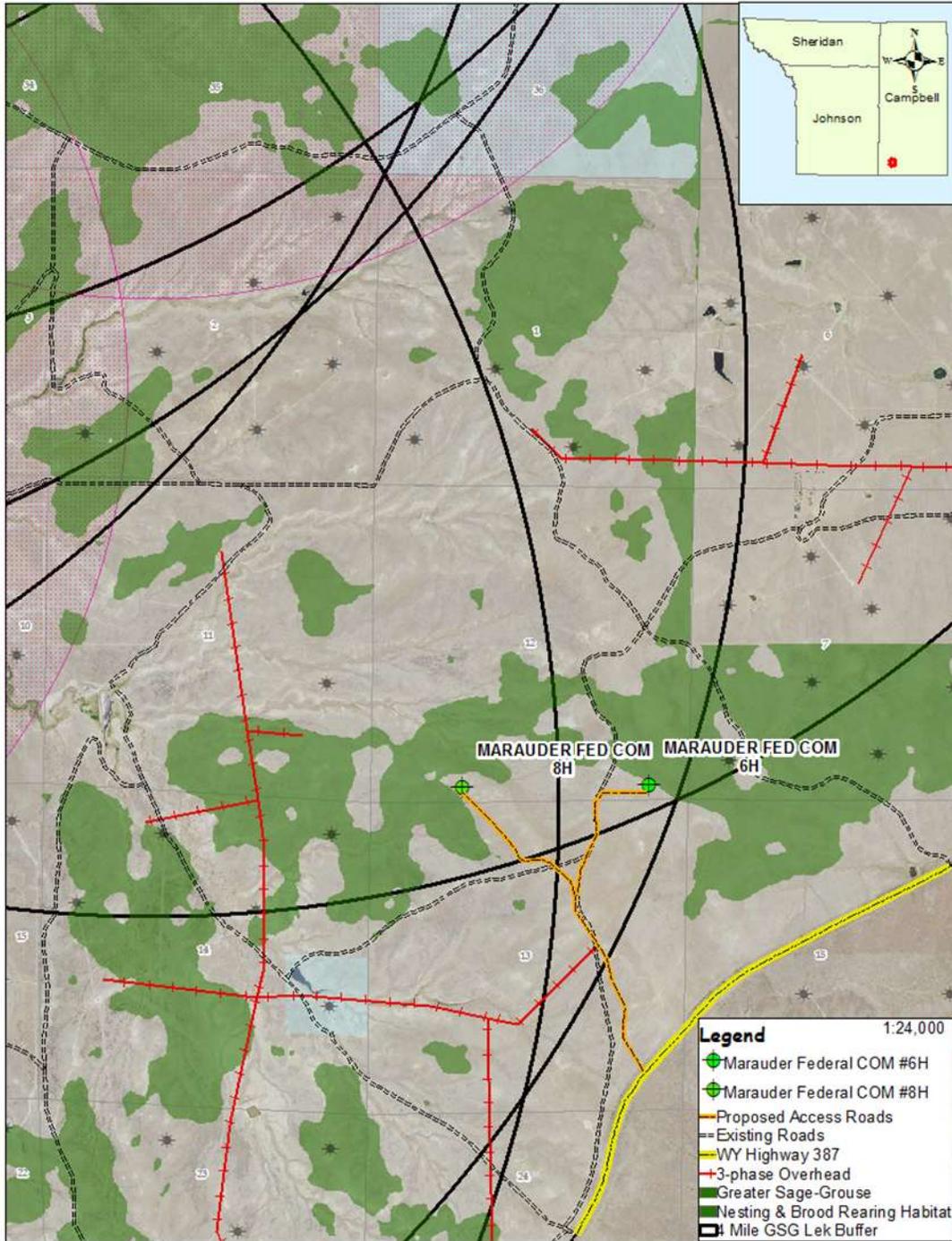
The 2012 BLM-contracted population viability analysis for the Northeast Wyoming GSG found there remains a viable population of GSG in the PRB (Taylor et al. 2012). Threats from energy development and West Nile Virus (WNV) are impacting future viability (Taylor et al. 2012). The study indicated that effects from energy development, as measured by male lek attendance, are discernible out to a distance of 12.4 miles. Figure 1.3 below illustrates the distribution of existing and proposed wells in relation to those 27 leks that occur within 12.4 miles of the Marauder Federal COM #6 and Marauder Federal COM #8 well locations. Additional information regarding the population viability analysis, and its influence on cumulative effects from energy development is found in the affected environment and environmental effects sections (Section 3.7.12 and 4.8.2 – Candidate Species – Greater Sage-grouse (Sage-grouse)) of the Mufasa Fed 11-31H Well EA, WY-070-EA12-062, incorporated here by reference. The application of the timing limitation will minimize the impacts that would reduce connectivity between Greater Sage-Grouse leks in the vicinity of the project area. Therefore, a clearance survey for GSG will be required if pad and access road construction occurs during the GSG breeding or nesting period. The survey will be conducted in sage brush shrublands within 0.5 miles of the well pad location.

Migratory Birds

The PRB FEIS discussed direct and indirect effects to migratory birds on pp. 4-231 to 4-235. The PRB FEIS states on p. 4-231, "Surface disturbance associated with construction, operation, and abandonment of facilities, including roads, has the potential to result in direct mortality of migratory birds. Most birds would be able to avoid construction equipment; however, nests in locations subject to disturbance would be lost, as would any eggs or nestlings." Direct mortality of a bird or destruction of an active nest due to

construction activities would result in a “take” as defined (and prohibited) by the MBTA, a nondiscretionary statute, and in turn a violation of the law. See also, FLPMA, Sec. 302(b) and Raptors – Direct and Indirect Effects (4.6.2.1.1).

Figure 1.3 Greater Sage-Grouse Habitat in the Project Area



Effects to nesting migratory birds were analyzed in the Iberlin 1-9H and Iberlin 1-9TH POD EA, WY-070-EA13-224, incorporated here by reference. Habitat disturbance and disruptive activities (i.e. drilling,

construction, completion, operations, and maintenance) resulting from implementation of the wells listed in Table 1.1 is likely to affect migratory birds. Native habitats will be lost directly with the construction of well pads, access roads, and power lines. Surface disturbing activities that occur in the nesting season may kill migratory birds. Prompt re-vegetation of short-term disturbance areas should reduce habitat loss impacts. Pad construction, drilling, and to a lesser degree production, will displace edge-sensitive migratory birds from otherwise suitable habitat adjacent to the well pads. Drilling and construction noise can be troublesome for songbirds by interfering with the males' ability to attract mates and defend territory, and the ability to recognize calls from conspecifics (BLM 2003). Habitat fragmentation will result in more than just a quantitative loss in the total area of habitat available; the remaining habitat area will also be qualitatively altered (Temple and Wilcox 1986). Ingelfinger and Anderson (2004) identified that the density of breeding Brewer's sparrows declined by 36% and breeding sage sparrows declined by 57% within 100 meters of dirt roads in a natural gas field. Effects occurred along roads with light traffic volume (less than 12 vehicles per day). The increasing density of roads constructed in developing natural gas fields exacerbated the problem creating substantial areas of impact where indirect habitat losses through displacement were much greater than the direct physical habitat losses. Remaining habitat may be so close to edges that no interior habitat remains (Temple and Cary 1988). Over time, this leads to a loss of interior habitat species in favor of edge habitat species. Other migratory bird species that use the disturbed areas for nesting may be disrupted by the human activity, and nests may be destroyed by equipment.

During the onsite, the BLM biologist identified suitable nesting habitat for several BLM sensitive sagebrush obligates to be sparse at the well site. The BLM biologist confirmed sagebrush habitat, with shrubs 10-20 inches at the well pads and along the proposed access routes. Brewer's sparrows and sage thrashers both nest in sagebrush shrubs and occur in the area however long-term, intense sheep grazing operations have severely reduced the habitat quality. See Figures 1.4 and 1.5, below.

Figure 1.4. Sage Brush Habitats within 0.5 Mile North of the Project Area



Migratory bird species in the PRB nest in the spring and summer and are vulnerable to the same effects as GSG and raptor species. Though no timing restrictions are typically applied specifically to protect migratory bird breeding or nesting, where GSG or raptor nesting timing limitations are applied, nesting migratory birds are also protected for a portion of the breeding season.

Yates proposes using heater treaters in the production phase of the wells. Heater treaters, and similar facilities with vertical open-topped stacks or pipes, can attract birds. Facilities without exclusionary devices pose a mortality risk. Once birds crawl into the stack, escape is difficult and the bird may become trapped. The BLM will require that measures are taken to ensure that migratory birds are excluded from all facilities that pose 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. Use of a closed loop system will minimize impacts to the migratory birds that may become trapped in an open drilling/reserved pit or exposed to hazardous vapors from drilling fluids.

Figure 1.5. Sage Brush Habitats within 0.5 Mile South of the Project Area



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 found in the planning area refer to the *Draft Cultural Class I Regional Overview, Buffalo Field Office* (BLM, 2010). Two class III (intensive) cultural resource inventories (BFO project nos. 70130031, 70130067) were performed to locate specific historic properties which may be impacted by the proposal. The following resources are in or near the proposal.

Cultural Resources in the Proposal Area & National Register of Historic Places (NRHP) Eligibility

Site #	Site Type	NRHP Eligible	Site #	Site Type	NRHP Eligible
48CA1559	Historic Sievers Ranch	Eligible	48CA4393	Prehistoric Site	Not Eligible

Site 48CA1559, (Sievers Ranch), is eligible for the National Register of Historic Places (NRHP) and setting is an important aspect of integrity. A low ridge completely obscures the well pads from the historic ranch; therefore site 48CA1559 is outside the area of potential effect (APE).

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. Non eligible site 48CA4393 will be impacted by the proposed project. 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 July 15, 2013, that no historic properties exist in the 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 in Standard COA (General)(A)(1)

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

Position/Organization	Name	Position/Organization	Name
NRS/Team Lead	Dustin Hill	Archaeologist	Ardeth Hahn
Supr NRS	Casey Freise	Wildlife Biologist	Jim Verplancke
Petroleum Engineer	Will Robbie	Geologist	Warren "Mike" Garrett
LIE	Kristine Phillips	Supr NRS	Kathy Brus
NEPA Coordinator	John Kelley	Assistant Field Manager	Chris Durham
Assistant Field Manager	Clark Bennett	WY State Historic Preservation Officer	Mary Hopkins

This consolidated CX analysis also tiers to and incorporated by reference the following – either as senior NEPA analysis or as substantially similar analysis in the semi-arid sage-brush, short grass prairie:

#	POD / Well Name	NEPA Document #	# / Type Wells	Decision Date
1	Sahara POD	WY-070-EA13-72	21 Oil	3/2013
2 ^a	Mufasa Fed 11-31H Well	WY-070-EA12-062	1 Oil	3/2012
3	Spruce 1 POD	WY-070-CX3-12-95 & -107	2 Oil	5/2012
4 ^b	Samson's Hornbuckle Field	WY-060-EA11-1181	48 Oil Well Pads	8/2011

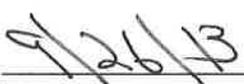
- a. Those sections describing and analyzing hydraulic fracturing, its supporting analysis, and the Greater Sage-grouse Section 3.7.12 and 4.8.2.
- b. Those sections describing and analyzing hydraulic fracturing and its supporting analysis to include but not limited to traffic, water, and air quality.

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 Marauder 6H and 8H 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



 Signature Date

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