

Wildlife Protection Plan

Red Rocks Oil and Gas Development Plan Amendment 2

This Wildlife Protection Plan has been prepared by Desert Eagle Operating, LLC (DEO) for its Red Rocks Oil and Gas Development Plan (OGDP) – Amendment 2 in Las Animas County, Colorado. Amendment 2 consists of five proposed conventional vertical helium gas wells. The Plan addresses the Colorado Energy & Carbon Management Commission (ECMC) requirement at Rule 304.c.(17) to prepare a Wildlife Protection Plan consistent with Rule 1201.a and with ECMC Wildlife Protection Plan Guidance (June 25, 2021). In accordance with Rule 1201.a, Wildlife Protection Plans may address multiple Oil and Gas Locations if supplemental site-specific information is provided, as needed, to meet Rule 1202.a operating requirements at each Oil and Gas Location. The five proposed locations are listed in Table 1.

Table 1. Locations

Location	Qtr Qtr	Section/Township/Range	Lat/Lon
Red Rocks 1-09	SE¼NE¼	Section 1, T30S R55W	37.460372, -103.517227
Red Rocks 1-15	NW¼NE¼	Section 1, T30S R55W	37.465009, -103.522500
Red Rocks 35-01	SE¼SE¼	Section 35, T29S R55W	37.467959, -103.537764
Red Rocks 35-08A	NE¼SE¼	Section 35, T29S R55W	37.473477, -103.536136
Red Rocks 35-10	SW¼NE¼	Section 35, T29S R55W	37.475925, -103.541431

1.0 Overview and Environmental Setting

DEO proposes to develop helium gas using one conventional vertical helium gas well at each location. The wells will be drilled with air using a water well-sized drill rig. There will be no drilling mud, hydraulic fracturing, stimulation, or flowback. The wells are not expected to produce hydrocarbons or water, based on results from DEO wells already drilled in the area. Each well will be approximately 1,900 feet deep.

Each well will be on fee surface for production of fee minerals. The surface is arid ranchland leased from a private landowner. The area has existing disturbances from producing helium gas wells, dirt roads, and historical ranching operations.

Each Oil and Gas Location will be approximately 1.10 acres during well development with a Working Pad Surface of 1.00 acres. After Interim Reclamation, each production pad will be downsized to an estimated 0.20 acres. An estimated 0.90 acres will be reclaimed.

The locations will be accessed using dirt access roads. Disturbance for access roads is listed in Table 2.

Table 2. Access Roads

Location	Existing Access (feet)	New Access (feet)	Total (feet)
Red Rocks 1-09	7,160	910	8,070
Red Rocks 1-15	5,240	70	5,310
Red Rocks 35-01	330	140	470
Red Rocks 35-08A	1,440	130	1,570
Red Rocks 35-10	0	210	210

Each well will be developed using air drilling and a compressor. Freshwater will be used for cementing and dust suppression. An estimated 2 days will be needed to prepare the Working Pad Surface for well drilling, with minimal disturbance because the drill rig is self-leveling. An estimated 5 days will be needed for well drilling and 5 days for

completion. An estimated 10 days will be needed for interim reclamation. Revegetation will occur during the first growing season after well development is complete. Well production is an estimated 10 years.

If the exploratory wells are developed for production, each location will have a single wellhead inside of livestock fencing. There will be no tank storage or other equipment on the location during production.

There will be an estimated two round trip vehicle trips on and off the location per week for inspection and maintenance using a light-duty pick-up truck.

Helium gas will be piped underground from the wellhead to an existing offsite helium processing unit. The off-location flowline will be 8-inch polyethylene. The helium processing unit is located on private property leased from the same lessor as the helium wells. It is located south of DEO's permitted Red Rocks 1-13 location. At the helium processing unit, helium gas from the well will be separated, compressed, and loaded into a tube trailer for transport. The flowline corridor will be reclaimed after flowline installation and integrity testing.

2.0 Wildlife Habitat Mapping

The locations are not within High Priority Habitat (HPH), as shown on the Wildlife Habitat Drawings submitted with the Form 2A applications. Sources consulted for wildlife mapping are listed in Section 6.0, References. In addition, an environmental field review was conducted by a professional biologist November 16-19, 2023. The Wildlife Habitat Drawings demonstrate that there are no HPH or other critical habitats within 1 mile of either Working Pad Surface. The locations are in mapped black bear habitat, as indicated on the Wildlife Habitat Drawings.

3.0 Alternative Location Analysis

The locations do not meet any requirements for analysis of alternative locations under rule 304.b.(2).B.

4.0 Rule 1202.a Requirements

Table 3 describes how the operator will implement Rules 1202.a.(1-10) and 1202.b for the Oil and Gas Locations.

Table 3. Rule 1202 Requirements

Provision	Implementation
1202.a.(1)	The locations are in black bear habitat. The operator will install and utilize bear-proof dumpsters and trash receptacles for food-related trash at all facilities that generate trash.
1202.a.(2)	The operator will not withdraw from or discharge into surface waters.
1202.a.(3)	The operator will not situate new staging, refueling, or chemical storage areas within 500 feet upgradient of the ordinary high water mark of any river, perennial or intermittent stream, lake, pond, or wetland.
1202.a.(4)	The Oil and Gas Location will have no drilling, production, or other fluid pits.
1202.a.(5)	Trenches left open for more than 5 consecutive days during construction of flowlines regulated under the 1100 Series Rules will have wildlife escape ramps at a minimum of one ramp per ¼ mile of trench.
1202.a.(6)	When conducting interim and final reclamation pursuant to Rules 1003 and 1004, the operator will use CPW-recommended seed mixes for reclamation when consistent with any local soil conservation district requirements.
1202.a.(7)	The operator will use CPW-recommended fence designs when consistent with any relevant local government requirements.
1202.a.(8)	The operator will conduct all vegetation removal necessary for oil and gas operations outside of the nesting season for migratory birds (April 1 to August 31). For any vegetation removal that must be scheduled between April 1 to August 31, the operator will implement appropriate hazing or other exclusion measures prior to April 1 to avoid take of migratory birds. If hazing or other exclusion measures are not implemented, the operator will conduct pre-construction nesting migratory bird surveys within the approved disturbance areas prior to any vegetation

Provision	Implementation
	removal during the nesting season. If active nests are located, the operator will provide work zone buffers around active nests.
1202.a.(9)	The Oil and Gas Location will have no drilling, production, or other fluid pits.
1202.a.(10)	The Oil and Gas Location is not located between 500 feet and 1000 feet hydraulically upgradient from an HPH identified in Rule 1202.c.(1).Q-S.
1202.b	The operator will have no flowline crossings of perennial streams identified as aquatic HPH that require bores under Rule 1202.b.

5.0 General Operating Requirements

Table 4 lists general statewide standard operating requirements to protect wildlife habitat and resources.

Table 4. General Operating Requirements

BMP	The Operator Will
1	Inform and educate employees and contractors on wildlife conservation practices, including no harassment or feeding of wildlife.
2	Where applicable, consolidate and centralize fluid collection and distribution facilities to minimize impact to wildlife.
3	Adequately size infrastructure and facilities to accommodate both current and future gas production.
4	Implement fugitive dust control measures.
5	Minimize rig mobilization and demobilization by completing or re-completing all wells from a given well pad before moving rigs to a new location.
6	To the extent practicable, share and consolidate new corridors for pipeline rights-of-way to minimize surface disturbance.
7	Engineer new pipelines to reduce field fitting and reduce excessive right-of-way widths and reclamation.
8	Mow or brush hog vegetation where appropriate, leaving root structure intact, instead of scraping the surface, where allowed by the surface owner.
9	Limit access to oil and gas access roads where approved by surface owners, surface managing agencies, or local government.
10	Post speed limits and caution signs to the extent allowed by surface owners, federal and state regulations, local government, and land use policies.
11	Use wildlife-appropriate fencing where acceptable to the surface owner.
12	Use topographic features and vegetative screening to create seclusion areas, where acceptable to the surface owner.
13	Use remote monitoring of well production to the extent practicable.
14	Reduce traffic associated with transporting water through the use of large tanks or other measures.
15	Store and stage emergency spill response equipment at strategic locations so that it is available to expedite effective spill response.
16	Install emergency shutdown systems.
17	Avoid dust suppression activities within 300 feet of the ordinary high water mark of any reservoir, lake, wetland, or natural perennial or seasonally flowing stream or river.

6.0 References

1. ECMC GIS: <https://ecmc.state.co.us/maps.html#/gisonline>.
2. Critical Habitat IPaC Report: <https://ecos.fws.gov/ipac>.
3. Migratory Birds: <https://www.fws.gov/birds/index.php>.
4. State Protected Species: <https://cpw.state.co.us/learn/Pages/SpeciesProfiles.aspx>.
5. Buffer Zones and Seasonal Restrictions for Colorado Raptors:
<https://cpw.state.co.us/Documents/WildlifeSpecies/LivingWithWildlife/Raptor-Buffer-Guidelines.pdf>.