

Objective Criteria Review Memo - XTO Energy Inc (XTO), RNPU 197-15A2H Well, Form 2 #402138103.

This summary explains how COGCC and CPW staff conducted its technical review of the XTO Energy Inc, RNPU 197-15A2H well, refile Form 2 #402138103 (Facility ID #460073) within the context of SB 19-181 and for the required Objective Criteria. This well's new borehole trajectory changed significantly from south-southeast to south-southwest, therefore requiring a refiled Form 2 instead of a Form 4 Sundry Notice. No Form 2A was submitted for RNPU 197-15A2H Pad Location (Location ID #441601) since the existing pad was constructed under two previously approved Form 2As.

This existing oil and gas location was constructed in August 2015. The initial well was drilled in September 2015 and completed in October 2015. This currently shut-in directional gas well, RNPU 197-15A1, produced from October 2015 through April 2019. There is one (1) separator, one (1) meter building, four (4) produced water storage tanks, two (2) condensate storage tanks, and one (1) VOC combustor on site. The date for the planned activities was originally August 2020, but has been pushed back to May 2021. The operator has an approved Federal APD. After completion of the second well on this location, XTO will install a second separator for this well. This Form 2 permit application met the following Objective Criteria:

1. *(Criteria 5.c) This existing oil and gas location is in a sensitive area for water resources due to its proximity to surface water features.*
2. *(Criteria 6) This existing oil and gas location falls within a CPW mapped 'sensitive wildlife habitat' (SWH) area for mule deer critical winter range.*
3. *(Criteria 12) The existing access road falls within CPW mapped 'sensitive wildlife habitat' (SWH) area for mule deer critical winter range.*

COGCC staff met with the Director to discuss whether the Objective Criteria were sufficiently addressed and whether the Form 2 could be approved with the proposed Best Management Practices (BMPs) and applied Conditions of Approval (COAs). The following sections provide details regarding the evaluation of each criterion.

Criteria 5.c: Oil and Gas Locations within: c) a Sensitive Area for water resources.

Site Specific Description of Applicability of Criteria 5.c: Based on the technical review and desktop evaluation, staff determined that this existing fee surface / fee and federal minerals location is in a sensitive area for water resources due to its proximity to one mapped unnamed USGS intermittent stream (located approximately 120 feet northeast of the well pad's edge of disturbance) and Piceance Creek (located approximately 340 feet northwest of the well pad's edge of disturbance). The intermittent stream flows southeast to northwest and is a tributary to Piceance Creek (approximately 750 feet downstream), which flows northeast to southwest.

Site Specific Measures to Address Criteria 5.c: This existing federal surface/federal minerals oil and gas location is planned for re-construction in September 2020. COGCC had placed several COAs on the two previously approved Form 2As (Form 2A #400781590 approved on 04/27/2015 and Form 2A #401743740 approved on 12/19/2018), including notification, fluid containment, spill/release BMPs, dust control, access road sediment control, flowback to enclosed tanks with additional secondary containment, salt-based mud (SBM) cuttings management, emissions control, tank berming, and pipeline (construction, maintenance, registration, and integrity testing).

On July 13, 2020, XTO submitted a Form 4 Sundry Notice #402445195 for the RNPU 197-15A2H oil and gas location, OGCC ID #441601. This Form 4 has BMPs addressing the protection of nearby surface water resources, site-specific Stormwater and Erosion Controls and Drawings, and species-specific wildlife BMPs in support of the well drilling and completion activities.

The existing location was constructed with a compacted earthen perimeter berm along the fill slope portions of the well pad (southwest, northwest, and north) and a raised pad entrance. The well pad is generally graded to the southwest away from nearby surface water features. Interior diversion ditches are located along the fill slope and cut portions of the well pad that are directed to two rock armored outfalls at the southern and western corners of the well pad. There are straw wattles along the toe of all fill slope portions of the disturbance perimeter. The existing access road has rock check dams in the borrow ditches to prevent sediment from migrating to nearby surface water. Any existing and proposed BMPs will be monitored and maintained to ensure site containment in the event of a potential release.

The operator has provided the following additional BMPs to protect nearby surface water resources; portable containment liner under drill rig; use of water/fluid dust suppression application and other measures to prevent fugitive dust from depositing in surface water sources; cuttings generated during drilling will be placed in a bermed and sufficiently impervious portion of the well pad prior to beneficial reuse or offsite disposal; all structures that hold or transfer fluids will have lined secondary containment; flowback and stimulation fluids will be sent to enclosed tanks, separators, or other containment or filtering equipment before the fluids are placed into the offsite (take away) pipeline; and the wells onsite will be equipped with remote shut-in capabilities prior to commencing production.

A produced water release occurred in November 2019 during transfer operations from this location to the operator's Love Ranch Centralized E&P Produced Water Pit Facility (Facility ID #149012) located 6 miles south along Rio Blanco County Road 5 (CR 5). Approximately 60 barrels of produced water were released between the location and the pit, with 56 barrels released on CR 5's asphalt surface and 2 barrels each at the well location and pit facility. All impacted soil from each of the locations was properly disposed of. No waters were impacted. COGCC closed the spill/release with 'no further action required' in May 2020.

Summary: During the technical review process, the operator's previously approved Form 2A Construction Layout Drawings, Proposed BMPs, Facility Layout Drawing, and Location Drawing attachments were reviewed. Staff reviewed additional information regarding the operator's planned activities, the existing and planned stormwater and erosion control measures (fill slope berms, pad grading, interior diversion ditches, straw wattles along the fill slope disturbance perimeter) and the BMPs addressing surface water resource protection. Based on this information, it is not anticipated that the closest downgradient surface water feature (located 120 feet north-northeast of the existing location) could be impacted by a potential release.

Criteria 6: Oil and Gas Locations within a Colorado Parks and Wildlife ("CPW") mapped Restricted Surface Occupancy Area ("RSO") or Sensitive Wildlife Habitat ("SWH"), or locations receiving site- or species-specific CPW comments.

Criteria 12: Oil and Gas Locations with an access road (the road constructed from the public road to the Oil and Gas Location) within a RSO, SWH, 317B buffer zone, or within 200' feet of a Building Unit on lands not subject to a Surface Use Agreement.

Site Specific Description of Applicability of Criteria 6 and 12: Based on the technical review and desktop evaluation, staff determined that this existing oil and gas location and access road (the road from Rio Blanco County Road 5 to the oil and gas location) falls within a CPW mapped 'sensitive wildlife habitat' (SWH) area for mule deer critical winter range.

Site Specific Measures to Address Criteria 6 and 12: CPW has reviewed two previous Form 2As and passed the wildlife tasks, indicating the BLM lease stipulations and COAs are adequate to address wildlife concerns associated with the proposed well drilling and completion activities. The operator is adhering to wildlife BMPs contained within the Piceance Basin Wildlife Mitigation Plan (WMP) document. There were no additional recommendations made by CPW for the previous Form 2As.

CPW conducted additional review and recommended several wildlife BMPs. After further consultation and discussions between CPW and XTO, the following species-specific (mule deer/elk and raptors) wildlife BMPs were agreed to and added to the Form 4 #404404404 Sundry notice for Location ID #441661:

Deer & Elk:

- If new oil and gas operations must occur within CPW-identified mule deer critical winter range or elk winter concentration areas), the operator agrees to conduct new oil and gas operations outside the time period from December 1 through April 15.
- The operator and its contractors agree to restrict well site visitations to portions of the day between 9:00 a.m. and 4:00 p.m. during the mule deer critical winter range time period from December 1 through April 15.
- The operator agrees to preclude the use of aggressive CPW-identified non-native grasses and shrubs in mule deer and elk habitat restoration. The seed mix will be reviewed and approved by BLM prior to implementation.
- The operator agrees to reclaim mule deer and elk habitats with CPW identified native shrubs, grasses, and forbs appropriate to the ecological site disturbed. The seed mix will be reviewed and approved by BLM prior to implementation.

Raptors:

- Prior to commencement oil and gas operations, the operator agrees to survey suitable nesting habitat (cliffs, large trees, snags, old-growth forest, etc) within ½ mile of the proposed activity for nests as specified by BLM (300 meters [0.186 mile, 982 feet] for woodlands and ¼ mile for cliff habitats). All surveys will be sent to BLM prior to start of operations.

Given the low density of existing development in this area, CPW indicated that compensatory mitigation is not necessary to offset any potential residual impacts from this location. CPW also stated that the BLM and COGCC requirements for interim reclamation and stormwater control measures will effectively minimize the direct disturbance to big game habitats.

Summary: During the technical review process, COGCC staff requested additional information and clarification regarding the applicant's proposal with respect to wildlife protection. The information received included the Piceance Basin Wildlife Mitigation Plan BMPs and species-specific wildlife BMPs, which have been added to the application materials. Based on CPW's review of these BMPs, BLM's lease stipulations and COAs, and the low density of existing development in this area, they determined that compensatory mitigation is not required for this location.

Director Determination: Staff met with the Director to discuss Objective Criteria that are met by this Oil and Gas Location.

- the Director determined Criteria 5.c. was sufficiently analyzed based on the additional information for well drilling and completion activities, implementation of previous permit conditions for fluid management and containment, the existing and planned stormwater and erosion control measures, and BMPs addressing surface water resource protection indicating it is unlikely the nearby intermittent stream or Piceance Creek would be impacted by a potential release; and
- the Director determined Criteria 6 and 12 were sufficiently analyzed based on this is a built location in close proximity to Rio Blanco County Road 5 and nearby oil and gas development, the operator's agreed to wildlife BMPs (including timing limitations, interim reclamation requirements, and raptor surveys), BLM's lease stipulations and COAs, and CPW's determination that compensatory mitigation is not required due to the low density of existing development in this area.