

## **Objective Criteria Review Memo - Bison Oil & Gas II LLC**

**Hunt 8-60 17B-8-4 -- Form 2 Application for Permit to Drill (APD) Doc# 402393851**

**Hunt 8-60 17B -- Form 4 Sundry to update Location BMPs Doc# 402430544**

**Approved Form 2A Oil & Gas Location Assessment (Doc# 401370711, approved 9/20/2018)**

**Location ID# 457475**

This memo summarizes COGCC's technical review of the subject well within the context of SB 19-181 and the required Objective Criteria. The Form 2A and 13 APDs were approved on 9/20/2018. Bison O&G II has since submitted this subject refile APD (one of nine total refile APDs) on this approved, unbuilt Oil & Gas Location.

For Oil & Gas Locations approved prior to SB 19-181, the Objective Criteria apply to any wells proposed on those approved or existing Oil & Gas Locations. This APD meets the following Objective Criteria:

1. (Criteria 5c) Oil and Gas Locations within: a Sensitive Area for water resources. The location is in an area of potential shallow groundwater and has a mapped National Wetlands Inventory (NWI) area nearby (Other; "Palustrine" area).
2. (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. CPW made a comment specifically related to burrowing owl and swift fox species that may be in the area.
3. (Criteria 8) Oil and Gas Locations with storage of hydrocarbon or produced liquid in more than 18 tanks or in excess of 5,200 barrels. The Form 2A for this location lists the planned equipment as 26 oil tanks and 13 water tanks.

The following sections provide details regarding the evaluation of each criterion:

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

**Site Specific Description of Applicability of Criteria 5c:** The location is in an area of potential shallow groundwater and has a mapped National Wetlands Inventory (NWI) area nearby (Other; "Palustrine" area).

**Site Specific Measures to Address Criteria 5c:** The Operator provided the following BMPs to mitigate possible impacts to nearby surface water and groundwater features via previously approved Form 4 Sundry (doc# 402393867):

- Stormwater Management: constructed around the perimeter of the site prior to construction. Typically a ditch and berm system. Storm water controls will remain in place until the pad is stabilized or reaches final reclamation.

- Remote Monitoring: Operator shall use a Supervisory Control and Data Acquisition (SCADA) system in conjunction with tank level indicators which have the ability to automatically shut in wells during an upset condition.
- Lined Containment: Tank berms shall be constructed of steel walls with an engineered synthetic liner and designed to contain 100% of the capacity of the largest tank (or manifolded tanks) with the addition of rain water and additional freeboard to account for any small piping or equipment that may be in containment. Operator will place separators within secondary containment composed of steel berms with a minimum containment capacity of 100% of the single largest storage vessel inside the containment.
- Rig Liner: Operator shall install a 30mil reinforced polyethylene liner, or liner of comparable material, under the drilling rig and associated equipment for use during drilling operations.
- Site Inspections: AVO inspections will occur weekly, and LDAR inspections are performed quarterly, or at the required frequency of County or State regulations. All records will be kept readily available.

**Summary:** Bison Oil & Gas II provided BMPs that address possible impacts to water resources. The BMPs include stormwater management controls, lined containment for tanks and separators, remote monitoring/shut-in capabilities, rig liners, and weekly site inspections.

**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.

**Site Specific Description of Applicability of Criteria 6:** CPW made a comment specifically related to burrowing owl and swift fox species that may be in the area.

**Site Specific Measures to Address Criteria 6:** The Operator provided the following information regarding possible wildlife near the planned location:

- An expansive wildlife survey was conducted in November 2019 per the Bureau of Land Management (BLM) RGFO Wildlife Survey Requirements. The following species were surveyed: Raptors, Prairie dogs, Burrowing owls, Mountain plovers, Ute ladies’-tresses orchids, Colorado butterfly plant, Preble’s meadow jumping mouse, and Swift fox. None of the above were observed in the area.

COGCC also reached out to CPW regarding any wildlife concerns with this location and they stated that since there were no HB1298 species being affected, they had no further comments or concerns regarding this location.

**Summary:** Bison O&G II recently conducted a wildlife survey of the location area and found no species of concern, nor did CPW have any follow up concerns regarding this location..

**Criteria 8:** Oil and Gas Locations with storage of hydrocarbon or produced liquid in more than 18 tanks or in excess of 5,200 barrels.

**Site Specific Description of Applicability of Criteria 8:** The Form 2A for this location lists the planned equipment as 26 oil tanks and 13 water tanks.

**Site Specific Measures to Address Criteria 8:** In addition to the BMPs discussed in the review of Criteria 5c, the Operator also provided the following information regarding the site's emergency response plan:

- An Emergency Response Plan was submitted to and approved by both the local emergency responders and Weld County Director of Emergency Management prior to receiving the approved WOGLA18-0159 on 3/6/2019. The Emergency Response Plan includes general field wide, site specific safety protocol, and a tactical response plan.

**Summary:** Bison Oil & Gas II provided BMPs that address possible impacts to having more than 18 tanks on location. The BMPs include stormwater management controls, lined containment for tanks and separators, remote monitoring/shut-in capabilities, rig liners, weekly site inspections, and an Emergency Response Plan.

**Director Determination:** Based on the Objective Criteria review, the Director has determined that this permit application meets the standard for protection of public health, safety, welfare, the environment and wildlife resources set by SB 19-181.