

Objective Criteria Review Memo Crestone Peak Resources Operating, LLC, Warner 10H-E165, Form 2A 401779047

This summary explains how Colorado Oil and Gas Conservation Commission (COGCC) staff conducted its technical review of the Crestone Peak Resources Operating, LLC (Crestone), Warner 10H-E165, Form 2A, Document Number 401779047 within the context of SB 19-181 and for the required Objective Criteria. This proposed Location is for thirteen wells, thirteen separators, eight condensate tanks, two produced water tanks, and meets the following Objective Criteria:

1. (Criteria #1) The proposed Location lies within 1,500 feet of a Building Unit. (the closest Building Unit is an estimated 1,111 feet from the Oil and Gas Location);
2. (Criteria #3) The proposed Location lies within 1,500 feet of a municipal boundary, platted subdivision, or county boundary; and
3. (Criteria #5.c) The proposed Location lies within a Sensitive Area for water resources (within an area of potential shallow groundwater).

COGCC staff met with the Director to discuss the Objective Criteria for the Form 2A 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 1: Oil and Gas Locations within 1,500 feet of a Building Unit or High Occupancy Building, which include Urban Mitigation Area (“UMA”) and Large UMA Facility (“LUMAF”) locations.

Site Specific Description of Applicability of Criteria 1: Based on the technical review and desktop evaluation, staff noted that there is one Building Unit within 1,500 feet of the proposed location. That Building Unit is located approximately 1,111 feet southeast of the proposed location. An additional 24 Building Units are located between 1,500 and 2,000 feet from the proposed Location. 19 of those Building Units are located on the far side of Interstate 76 (I-76). The Kingdom Hall of Jehovah’s Witnesses Church is approximately 1,881 feet from the location, on the far side of I-76. The Building Units on the east side of I-76 are greater than 2,000 feet away from the production and drilling portion of the location and are only within 2,000 feet of the MLVT portion of the location. There are 7 Building Units located within 2,000 feet of the production portion of the location.

Site Specific Measures to Address Criteria 1: There is one Building Unit within 1,500 feet of the edge of this proposed Location. Crestone has committed to temporary sound walls around all four sides of the proposed Location to minimize noise impacts and shield fugitive lights during drilling and completion operations. Crestone will minimize dust with water and the use of roadbase, rock, and recycled asphalt for pad and access construction. Crestone will not produce the wells if a gas pipeline is not available. Modular Large Volume Tanks (MLVTs) will be used for the completions operations. Crestone provided an odor mitigation BMP, which includes the use of group III drilling base fluids. Once salable gas is achieved, gas will be directed to a sales line or shut in. Oil and water are planned to be trucked off site. During production, lease operators will inspect all equipment at a frequency that is not to exceed 48

hours, and will normally inspect the location daily. This inspection will include the use of the automated monitoring system on the location as well as AVO inspections.

Summary: During the technical review process, COGCC staff requested additional information and clarification regarding Crestone's proposal and BMPs for odors, lighting, and leak detection. The information received has been added to the application materials. Crestone provided enhancements and clarifications to the proposed BMPs.

Criteria 3: Oil and Gas Locations within 1,500 feet of a municipal boundary, platted subdivision, or county boundary.

Site Specific Description of Applicability of Criteria 3: The Location is located approximately 1,098 feet away from the border of the Town of Hudson.

Site Specific Measures to Address Criteria 3: The only part of the Town of Hudson that is within 1,500 feet of the proposed location is the Interstate 76 (I-76) Frontage Road and the I-76 right of way. The closest Building Unit in Hudson to the proposed location is approximately 1,700 feet to the east, and this Building Unit is only within 2,000 feet of the MLVT portion of the Location. I-76 is between this Building Unit and the proposed Location. The Town of Hudson was notified when Crestone sent the Notice of Intent to Conduct Operations as part of Weld County's WOGLA process. No comment was received from the Town of Hudson.

Summary: The only portion of the Town of Hudson within 1,500 feet of the proposed location is I-76 and the I-76 frontage road. Crestone provided notice to Hudson and did not receive any comments.

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

Site Specific Description of Applicability of Criteria 5.c: The Location is in a sensitive area due to the potential for shallow groundwater. Estimated depth to groundwater is at 10 feet based on nearby wells.

Site Specific Measures to Address Criteria 5.c: Crestone has placed BMPs on the Form 2A for protection of the shallow groundwater at the Location. BMPs include that above-ground tanks will be in steel-walled secondary containment with a liner and the separators will be in steel-walled secondary containment. A liner will be used under the drill rig and the mud tanks. Grading, a perimeter ditch, and sediment traps at the northeast, southeast, southwest, and northwest corners of the Location will be installed to minimize impacts to nearby surface water features. During production, lease operators will inspect all equipment at a frequency that is not to exceed 48 hours, and will normally inspect the location daily.

Summary: Crestone provided BMPs that address ground water resource and environmental protections. The BMPs include engineering controls (construction and containment) and administrative controls (inspection frequency).

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.