

Dave Kubeczko - DNR

From: Dave Kubeczko - DNR
Sent: Wednesday, December 21, 2016 9:49 AM
To: Dave Kubeczko - DNR
Subject: FW: <EXTERNAL> SandRidge Exploration & Production LLC, Grizzly Hebron 12 0881 Pad, NENE Sec 12 T7N R81W, Jackson County, Form 2A#401130313 Review

Categories: Operator Correspondence

Scan No. 2108027 CORRESPONDENCE 2A #401130313

From: Spence Laird [mailto:slaird@sandridgeenergy.com]
Sent: Wednesday, December 21, 2016 7:30 AM
To: Dave Kubeczko - DNR
Subject: Re: <EXTERNAL> SandRidge Exploration & Production LLC, Grizzly Hebron 12 0881 Pad, NENE Sec 12 T7N R81W, Jackson County, Form 2A#401130313 Review

I'll get with the surveyor and get you an updated one page multi-well plan ASAP and get it emailed to you. The COA's look standard and good to me. Thank you sir!

Spence Laird
Sandridge Energy
405-420-8415

On Dec 21, 2016, at 8:00 AM, Dave Kubeczko - DNR <dave.kubeczko@state.co.us> wrote:

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Laci and Spence,

I have been reviewing the SandRidge Exploration & Production LLC (SandRidge), Grizzly Hebron 12 0881 Pad **Form 2A# 401130313**. Per **Rule 303.b.(3).L.: Multi-Well Plan**. Where the proposed Oil and Gas Location is for multiple wells on a single pad, a drawing showing proposed wellbore trajectory with bottom-hole locations shall be attached. Current Multi-Well Plan does not show bottom-holes, only bearing/direction and approximate distances to the Top of Niobrara. **SandRidge needs to provide a revised Multi-Well Plan that shows surface locations and proposed bottom-hole locations (with township, range, and sections) on one drawing.** Based on COGCC's review, the following updates, revisions, and corrections have been made to the Form 2A:

COGCC has revised: Date planned to commence construction: from 11/21/2016 to 12/26/2016;
COGCC corrected Size of disturbed area during construction in acres from 4.75 to 4.95 based on COGCC's review of the Construction Layout Drawings;
COGCC corrected distances from Wellhead to Railroad from 5280' to 3289'; from Production Facility to Building Unit from 4601' to 4651'; ' from Production Facility to Public Road from 2749' to 2939'; and from Production Facility to Railroad from 5280' to 3209'; based on COGCC's review of the COGCC Online GIS Map;
COGCC corrected distance to nearest water well from 140' to 2562'; based on COGCC's review of the COGCC Online GIS Map and the Hydrology Map attachment;
COGCC has added the following statement to the OPERATOR COMMENTS AND SUBMITTAL Section of the Form 2A: "Reference Area is located adjacent to the existing well pad to the south, as shown

on the 'LOCATION PICTURES' attachment (view from corner no. 5 to the location [well] stakes, looking southerly; and view of location [well] stakes looking southerly).”.

COGCC would also like to attach to the Form 2A the following COAs based on the information and data SandRidge has submitted on or attached to the Form 2A prior to passing the Oil and Gas Location Assessment (OGLA) review.

Planning: The following condition of approval (COA) will apply:

COA 91 - In addition to the notifications required by COGCC listed in the **Northwest Notification Policy (Notice of Intent to construct a new location)** and **Rule 316C. COGCC Form 42. FIELD OPERATIONS NOTICE (c. Notice of Construction or Major Change)**; operator shall notify the COGCC 48 hours prior to pipeline testing (flowlines from wellheads to separators to tanks; and/or any lines associated with truck loading operations) using the Form 42 (as described in **Rule 316C.m. Notice of Completion of Form 2/2A Permit Conditions**). The appropriate COGCC individuals will automatically be email notified.

Construction: The following conditions of approval (COAs) will apply:

COA 23 - Operator must ensure secondary containment for any volume of fluids contained at the well site during drilling and completion operations; including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices [BMPs] associated with fluid containment/control as well as stormwater management for the control of run-on and run-off) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals as required by CDPHE (at least every 14 days and after precipitation events), and maintained in good condition. The design/build of any perimeter berm shall be sized, constructed, and compacted sufficiently to contain fluids during drilling operations, as well as all fluids contained in temporary frac tanks during completion operations.

COA 44 - The access road will be maintained as to not allow sediment to migrate from the access road to nearby surface water or any drainages leading to surface water.

COA 76 - Strategically apply fugitive dust control measures, including encouraging established speed limits on private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.

COA 58 - Berms or other containment devices shall be constructed to be sufficiently impervious (corrugated steel with poly liner) to contain any spilled or released material around permanent oil and/or produced water storage tanks.

COA 48 - If oil and produced water storage tanks are not constructed on location, operator shall submit a scaled as-built drawing (plan view with distances) of the Grizzly Hebron 12 0881 well pad location (showing wellheads, pumping jacks, onsite flowlines, offsite pipelines, and production facilities [separators, etc.]) and the nearby Production Facility to which the oil and produced water will be sent to via underground pipelines (showing wellheads, onsite flowlines, offsite pipelines, pumping jacks, oil and produced water storage tanks, and other production facilities) within 30 calendar days of construction of the production equipment on each location.

Drilling/Completions: The following condition of approval (COA) will apply:

COA 11 - A closed loop system must be implemented during drilling (as indicated on the Form 2 and Form 2A). All cuttings generated during drilling with oil based mud (OBM) must be segregated from water/bentonite based mud-(WBM-) generated drill cuttings and placed separately on the well pad. All OBM-generated drill cuttings must be kept in tanks/containers, or placed on a lined/bermed portion of the well pad; prior to disposition. The moisture content of any OBM-generated drill cuttings in a tank, cuttings containment area, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. The operator has indicated that 'Cuttings Disposal' will be "OFFSITE" and that the 'Cuttings Disposal Method' will be "COMMERCIAL DISPOSAL" (as shown in the 'DRILLING WASTE MANAGEMENT PROGRAM SECTION' of the Form 2A). All liners associated with oil-based drilling mud and OBM-

generated drill cuttings must be disposed of offsite per CDPHE rules and regulations. Any changes to drill cuttings management and disposal at this location will require submittal (via a Form 4 Sundry Notice) and approval of a Waste Management Plan detailing the changes (specifying cuttings characterization methods, cuttings management, amendment, and onsite disposal location[s]).

COA 12 - The moisture content of water/bentonite-based mud (WBM) generated cuttings during drilling of the surface casing intervals, that will be managed onsite, shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts. After drilling and completion operations have been completed, any of the WBM drill cuttings that will remain on the well pad location (cuttings management area, the cut portion of the pad, cuttings trench, dry cuttings drilling pit), must meet the applicable standards of Table 910-1. No offsite disposal of cuttings to another oil and gas location shall occur without prior approval of a Waste Management Plan (submitted via a Form 4 Sundry Notice) specifying disposal location and waste characterization method. Operator has indicated that commercial disposal of cuttings will be the method of disposal for all drill cuttings.

COA 25 - Flowback and stimulation fluids must be sent to enclosed tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline storage vessel, or other open top containment located on the well pad; or into tanker trucks for offsite disposal. No open top tanks can be used for initial flowback fluids containment. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment must be placed on the well pad in an area constructed to be sufficiently impervious to contain any spilled or released material. No additional downgradient berming is required if operator constructs a sufficiently sized perimeter berm.

COA 26 - Potential odors associated with the completions process and/or with long term production operations must be controlled/mitigated.

COA 33 - Operator shall follow all requirements of COGCC's current policy - **NOTICE TO OPERATORS, Rule 912. VENTING OR FLARING PRODUCED NATURAL GAS – STATEWIDE, dated January 12, 2016**; and to **Rule 912. VENTING OR FLARING NATURAL GAS. a. thru e.** in regards to venting and flaring.

Material Handling and Spill Prevention: The following condition of approval (COA) will apply:

COA 45 - Operator shall pressure test pipelines (flowlines from wellheads to separators to tanks; pipelines from onsite separators to offsite storage tanks, and any temporary surface lines used for hydraulic stimulation and/or flowback operations) in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface or permanent buried pipelines and following any reconfiguration of the pipeline network, and tested annually, unless agreed to by both parties that the flowlines can be managed under an approved COGCC variance.

In addition, COGCC requests that SandRidge review the attached policy (**NOTICE TO OPERATORS, Rule 912. VENTING OR FLARING PRODUCED NATURAL GAS - STATEWIDE, January 12, 2016**) and the following rule about venting and flaring:

912. VENTING OR FLARING NATURAL GAS

- a. The unnecessary or excessive venting or flaring of natural gas produced from a well is prohibited.
- b. Except for gas flared or vented during an upset condition, well maintenance, well stimulation flowback, purging operations, or a productivity test, gas from a well shall be flared or vented only after notice has been given and approval obtained from the Director on a Sundry Notice, Form 4, stating the estimated volume and content of the gas. The notice shall indicate whether the gas contains more than one (1) ppm of hydrogen sulfide. If necessary to protect the public health, safety or welfare, the Director may require the flaring of gas.
- c. Gas flared, vented or used on the lease shall be estimated based on a gas-oil ratio test or other equivalent test approved by the Director, and reported on Operator's Monthly Report of Operations, Form 7.

- d.** Flared gas that is subject to Sundry Notice, Form 4, shall be directed to a controlled flare in accordance with Rule 903.b.(2) or other combustion device operated as efficiently as possible to provide maximum reduction of air contaminants where practicable and without endangering the safety of the well site personnel and the public.
- e.** Operators shall notify the local emergency dispatch or the local governmental designee of any natural gas flaring. Notice shall be given prior to flaring when flaring can be reasonably anticipated, or as soon as possible, but in no event more than two (2) hours after the flaring occurs.

Please respond to this email indicating that you have read the policy and rules concerning venting and flaring and will adhere to both. COGCC would also appreciate your concurrence with attaching the COAs to the Form 2A prior to passing the OGLA review. If you have any questions, please do not hesitate to call me at (970) 309-2514 (cell), or email. Thanks.

Dave

David A. Kubeczko, PG
Oil and Gas Location Assessment Specialist
Western Colorado

<image001.jpg>

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<01_Scan No 2107086_COGCC NOTICE TO OPERATORS - Rule 912 Flaring and Venting
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