

FORM

2

Rev
08/16

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109

Document Number:

401102100

APPLICATION FOR PERMIT TO:

☒ Drill
 ☐ Deepen
 ☐ Re-enter
 ☐ Recomplete and Operate

Date Received:

09/08/2016

TYPE OF WELL OIL ☐ GAS ☐ COALBED ☐ OTHER PILOTRefilling ☐ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐

Well Name: Rabbit Ears 0681

Well Number: 1-23H

Name of Operator: SANDRIDGE EXPLORATION & PRODUCTION LLC

COGCC Operator Number: 10598

Address: 123 ROBERT S KERR AVE

City: OKLAHOMA CITY

State: OK

Zip: 73102

Contact Name: Spence Laird

Phone: (405)4296518

Fax: ()

Email: slaird@sandridgeenergy.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20160010

WELL LOCATION INFORMATION

QtrQtr: SWNE Sec: 23 Twp: 6N Rng: 81W Meridian: 6

Latitude: 40.476982

Longitude: -106.454006

Footage at Surface: 1720 Feet FNL/FSL FNL 2246 Feet FEL/FWL FEL

Field Name: WILDCAT

Field Number: 99999

Ground Elevation: 8308

County: JACKSON

GPS Data:

Date of Measurement: 03/20/2016 PDOP Reading: 1.3 Instrument Operator's Name: ADL

If well is ☐ Directional ☐ Horizontal (highly deviated) submit deviated drilling plan.

Footage at Top of Prod Zone: FNL/FSL FEL/FWL Bottom Hole: FNL/FSL FEL/FWL

Sec: Twp: Rng: Sec: Twp: Rng:

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ IndianThe Surface Owner is: ☐ is the mineral owner beneath the location.
(check all that apply) ☐ is committed to an Oil and Gas Lease.☐ has signed the Oil and Gas Lease.☐ is the applicant.The Mineral Owner beneath this Oil and Gas Location is: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: No

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

Surface damage assurance if no agreement is in place: Surface Surety ID:

LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

Sec 22, 23, 26, 27, 34 & 35 (All) 3840 acres

This area includes both fee and Federal minerals (COC070049 & 50) and has a BLM APD submitted too.

Total Acres in Described Lease: 3840 Described Mineral Lease is: ☐ Fee ☐ State ☒ Federal ☐ Indian

Federal or State Lease # COC070050

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 1720 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1738 Feet

Building Unit: 1738 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 965 Feet

Above Ground Utility: 1136 Feet

Railroad: 5280 Feet

Property Line: 996 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- Enter 5280 for distance greater than 1 mile.
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
- Building Unit, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: ☐ Buffer Zone
☐ Exception Zone
☐ Urban Mitigation Area

- Buffer Zone - as described in Rule 604.a.(2), within 1,000' of a Building Unit
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: _____

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: _____

SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 5280 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 5280 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): Rabbit Ears

Unit Number: COC78026X

SPACING & FORMATIONS COMMENTS

A BLM fed unit has been submitted for this area; therefore, a state spacing order has not been submitted for this area. Spacing Order 531-40 reduced the setbacks of the Federal Order. This permit is for a vertical pilot hole that will not be completed.

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR			

DRILLING PROGRAM

Proposed Total Measured Depth: 8500 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: _____ Feet ☒ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H₂S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H₂S Drilling Operations Plan)

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? No

BOP Equipment Type: ☒ Annular Preventor ☒ Double Ram ☒ Rotating Head ☐ None

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Surface hole will use wbm and if those cuttings pass 910 levels may be reused beneficially. All other wellbores will be drilled with OBM and cuttings will be hauled to commercial disposal.

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	20	16	65	0	90	63	90	0
SURF	12+1/4	9+5/8	36	0	2400	577	2400	0
OPEN HOLE	8+3/4			2400	8500			

☐ Conductor Casing is NOT planned

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- ☐ Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- ☐ Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- ☐ Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- ☐ Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 318A.a. Exception Location (GWA Windows).
- ☐ Rule 318A.c. Exception Location (GWA Twinning).

RULE 502.b VARIANCE REQUEST

☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

OTHER LOCATION EXCEPTIONS

Check all that apply:

☐ Rule 318.c. Exception Location from Rule or Spacing Order Number _____

☐ Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

OPERATOR COMMENTS AND SUBMITTAL

Comments: This wellbore will be a pilot hole simply to collect data by logging above and below target production formation of the Niobrara, plugging back then drilling a horizontal with doc #401101956.

This application is in a Comprehensive Drilling Plan _____ No _____ CDP #: _____

Location ID: _____

Is this application being submitted with an Oil and Gas Location Assessment application? _____ No _____

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: _____ Print Name: Spence Laird

Title: Regulatory Supervisor Date: 9/8/2016 Email: slaird@sandridgeenergy.com

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved:  Director of COGCC Date: 2/16/2017

Expiration Date: 02/15/2019

API NUMBER

05 057 06598 00

Conditions Of Approval

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

COA Type

Description

- 1) Operator shall comply with the most current revision of the Northwest Notification Policy.
- 2) Operator shall provide plug back cement as shown on the attached wellbore diagram and drilling plan.
- 3) Minimum surface casing setting depth requirements: 50' below the base of the Coalmont Formation with the shoe in the Lance Formation. Full cement to surface is required for the surface casing; increase cement volume as necessary to accomplish that objective. Refer to COGCC's comment on this form regarding the operator's prognosed depth to the Lance Formation.

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	The pilot hole on this pad will be logged with an open-hole resistivity log and gamma ray log from TD into the surface casing. All wells on the pad will have a cement bond log with gamma ray on production casing or on intermediate casing if production liner is ran. The form 5, Completion report, for this well will list all logs run and will have logs attached.

Total: 1 comment(s)

Applicable Policies and Notices to Operators

Policy
NW Colorado Notification Policy. http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf
Notice Concerning Operating Requirements for Wildlife Protection. http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401102100	FORM 2 SUBMITTED
401102902	WELL LOCATION PLAT
401108318	SURFACE AGRMT/SURETY
401129763	DRILLING PLAN
401129764	WELLBORE DIAGRAM

Total Attach: 5 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Passes final review.	02/16/2017
Permit	Permit passes initial review. Corrected the well name to include the "H" from the related Form 2 for the "01" wellbore. The tops for all encountered formations must be included on the Form 5-Drilling Completion Report.	10/13/2016
Engineer	Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. This information was used in addition to locally-available geophysical logs and hydrogeologic information to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is 450 feet. The Coalmont Formation is considered a potential freshwater resource in the North Park Basin (CGS Ground Water Atlas of Colorado, 2003). Operator's geologic prognosis shows that the proposed surface casing setting depth of 2400' will cover the entire Coalmont Formation. Surface casing coverage of the Coalmont Formation is required, as specified in Condition of Approval #3. No existing offset wells within 1500 ft of this wellbore.	10/04/2016
Permit	Passes completeness. Type of well should be "N/A" The minerals beneath this location will be developed by this well should be marked as "No" as the pilot will be plugged back. Values were corrected.	09/23/2016
Permit	This permit must be approved prior to approval of the horizontal section to secure the "-00" designation on the API#.	09/23/2016
Permit	Returned to draft. 1.) Surface Use Agreement is not attached. 2.) Is there a plan to run casing past surface? 3.) In the Well Name & Contact Info tab please enter "Pilot" into the Other data field. **-Pilot hole should be denoted.	09/13/2016

Total: 6 comment(s)