

FORM
2

Rev
08/13

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:

400804474

APPLICATION FOR PERMIT TO:

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

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER PILOT HOLE

Refiling ☐

Date Received:

05/06/2015

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Well Name: Flanders 7-88

Well Number: 1-34

Name of Operator: SWN PRODUCTION COMPANY LLC

COGCC Operator Number: 10396

Address: PO BOX 12359

City: SPRING State: TX Zip: 77391

Contact Name: Cheryl Rowell

Phone: (832)796-7439

Fax: (832)796-8817

Email: cheryl_rowell@swn.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20110201

WELL LOCATION INFORMATION

QtrQtr: NWSW Sec: 34 Twp: 7N Rng: 88W Meridian: 6

Latitude: 40.518292

Longitude: -107.254092

Footage at Surface: 1566 feet FNL/FSL FSL 953 feet FEL/FWL FWL

Field Name: WILDCAT

Field Number: 99999

Ground Elevation: 6567

County: ROUTT

GPS Data:

Date of Measurement: 10/29/2014 PDOP Reading: 1.6 Instrument Operator's Name: NATHAN FISHER

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 ☐ Indian

The 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: Yes

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.)

Section 34, T7N, R88W: S2SW, SWSE, N2S2, N2
See attached Lease Map.

Total Acres in Described Lease: 1000 Described Mineral Lease is: ☐ Fee ☒ State ☐ Federal ☐ Indian
Federal or State Lease # 8620.5
Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 1021 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1677 Feet
Building Unit: 1677 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 732 Feet
Above Ground Utility: 5280 Feet
Railroad: 5280 Feet
Property Line: 953 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 Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 5280 Feet
Distance from Completed Portion of Wellbore to Nearest Unit Boundary 1580 Feet (Enter 5280 for distance greater than 1 mile.)
Federal or State Unit Name (if appl): Otheos State Unit Number: 8620

SPACING & FORMATIONS COMMENTS

THIS WELL IS WITHIN THE 1ST EXPANSION OF THE OTHEOS STATE WHICH WAS APPROVED ON OCTOBER 31, 2013.
See attached Otheos State Unit Map.
Section 34 7N 88W, N2, SW, E2SE, NESE State Lease #8620
Section 35 7N 88W, N2, N2SW – State Lease #8621

OBJECTIVE FORMATIONS

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

Proposed Total Measured Depth: 10000 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 5280 Feet (Including plugged wells)

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? Yes

Will oil based drilling fluids be used? Yes

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:

Beneficial reuse or land application plan submitted?

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	30	20	104	0	60	270	60	0
SURF	17+1/2	13+3/8	54.5	0	1200	626	1200	0
1ST	12+1/4	9+5/8	40	0	8400	1394	8400	1000
OPEN HOLE	8+3/4			8400	10000			

☐ 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 well is being drilled for informational purposes only. This pilot hole will be drilled to 10,000'. Intermediate casing (1st string) will be run to 8400', cemented, TOC 1200', 200' behind surface casing. A whipstock will be set 8365', the well sidetracked and completed as a horizontal. Refer to Doc #400803417 Form 2 Application to Drill horizontal/lateral.

Open-Hole logs with Resistivity and Gamma-ray will be run from TD into the surface casing.

This application is in a Comprehensive Drilling Plan _____ CDP #: _____

Location ID: _____

Is this application being submitted with an Oil and Gas Location Assessment application? _____ Yes

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

Signed: _____ Print Name: Cheryl Rowell

Title: Sr. Staff Reg. Analyst Date: 5/6/2015 Email: cheryl_rowell@swm.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: Matthew Lee Director of COGCC Date: 11/18/2015

Expiration Date: 11/17/2017

API NUMBER

05 107 06266 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

	<p>1) Operator shall comply with the most current revision of the Northwest Notification Policy. See attached notice.</p> <p>2) Operator shall provide cement coverage from the intermediate casing shoe (9+5/8" First String to a minimum of 200' above the surface casing shoe to provide isolation of all Mesaverde Group and Lewis Formation oil, gas, and water-bearing sandstone and coalbed formations that are not otherwise covered by surface casing. Verify intermediate casing cement coverage with a cement bond log.</p>
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Best Management Practices

No BMP/COA Type

Description

1	Planning	When feasible develop multiple well sites by using directional drilling to reduce cumulative impacts and adverse impacts on wildlife resources.
2	General Housekeeping	Fence the well site after drilling to restrict public and wildlife access. Keep well site location, the road, and the pipeline easement free of noxious weeds, litter and debris. Spray for noxious weeds, and implement dust control, as needed. Southwestern Energy Production Company (SEPCO) will not permit the release or discharge of any toxic or hazardous chemicals or chemicals or wastes on Owners' land. Construct and maintain gates where any roads used by SEPCO cross through fences on the leased premises.
3	Storm Water/Erosion Control	Use water bars and other measures to prevent erosion and non-source pollution. Implement and maintain BMP's to control storm water runoff in a manner that minimizes erosion, transport of sediment offsite, and site degradation. Co-locate gas and water gathering lines whenever feasible and mitigate any erosion problems that arise due to the construction of any pipeline.
4	Construction	Remove only the minimum amount of vegetation necessary for the construction of roads and facilities. Conserve topsoil during excavation and reuse as cover on disturbed areas to facilitate regrowth or vegetation. No construction or routine maintenance activities will be performed during periods when the soil is too wet to adequately support construction equipment.
5	Drilling/Completion Operations	Open-hole Resistivity Log with Gamma Ray Log will be run from TD into the surface casing. A Cement Bond Log with Gamma-Ray will be run on production casing, or on intermediate casing if a production liner is run. The Form 5, Completion Report, will list all logs run and have those logs attached.
6	Interim Reclamation	Utilize only such area around each producing well as is reasonably necessary. Restore the remainder of the well site location to its original condition within a reasonable time after the completion of operations. All reseeding shall be done with grasses consistent with the Rocky Mountain native mix or other grasses reasonably requested by surface owner and during planting period suggested by Owner.
7	Final Reclamation	All surface restoration shall be accomplished to the satisfaction of Owner. All reseeding shall be done with grasses consistent with the Rocky Mountain native mix or other grasses reasonably requested by surface owner and during planting period suggested by Owner. Final reclamation shall be completed to the reasonable satisfaction of the owner as soon as practical after installation (weather permitting) and in accordance with regulatory agency standards.

Total: 7 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>
2168042	SURFACE AGRMT/SURETY
2168043	WELL LOCATION PLAT
2168044	CORRESPONDENCE
400804474	FORM 2 SUBMITTED
400831950	MINERAL LEASE MAP
400832312	UNIT CONFIGURATION MAP

Total Attach: 6 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Added state unit number to box for unit number on spacing & formations tab with operator approval. Final review complete.	11/17/2015 3:17:03 PM
Permit	Attached new well location plat; SUA; and correspondance from operator requesting changes to Lat/Long; footage at surf; ground elevation; right to construct; and cultural distances. See Correspondance attachment.	11/5/2015 7:40:43 AM
Permit	Requested status of progress from operator.	11/4/2015 7:39:14 AM
Permit	On hold as per operator.	9/3/2015 11:20:52 AM
Engineer	Changed open hole top depth from zero to 8400' (bottom of intermediate casing).	5/18/2015 11:33:07 AM
Engineer	Offset Well Evaluation: There are no existing offset oil and gas wells within 1,500 feet of this wellbore.	5/18/2015 11:18:18 AM
Engineer	Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. All permitted water wells within the search radius show zero for reported depths. Depths to formation tops in offset oil and gas wells, locally-available geophysical logs, and hydrogeologic information to evaluate the adequacy of the operator's proposed surface casing setting depth.	5/18/2015 11:13:59 AM
Engineer	The Lewis Formation outcrops at surface at this location. The underlying Mesaverde Group is considered a potential freshwater resource in the Sand Wash Basin (CGS Ground Water Atlas of Colorado, 2003). The proposed surface casing setting depth of 1200' will not cover the entire Mesaverde Group, based on log tops in offset wells. COGCC concurs with operator's plan to lap the intermediate casing cement into the surface casing. Condition of Approval #2 specifies minimum cement coverage requirements for the intermediate casing.	5/18/2015 11:08:51 AM
Permit	Added mineral lease description and adjusted total acres in lease from 600 to 1000 as per opr. Corrected well location from NWSW to SWNW as per plats and notified opr. Surface Restoration Bond on file with SLB; per Tim Kelly they are okay with this location. Ready to pass pending 2A approval and LGD comment period.	5/14/2015 1:48:28 PM
Permit	Extended the public and LGD comment period to 6/10/2015 at the request of the LGD.	5/13/2015 3:29:58 PM
Permit	Passed Completeness	5/8/2015 10:07:45 AM

Total: 11 comment(s)