

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:

400828924

APPLICATION FOR PERMIT TO:

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

Date Received:

06/09/2015

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

Well Name: NORTH HAYDEN 7-88

Well Number: 2-26H

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: SENE Sec: 26 Twp: 7N Rng: 88W Meridian: 6

Latitude: 40.537789

Longitude: -107.220450

Footage at Surface: 1900 feet FNL/FSL FNL 259 feet FEL/FWL FEL

Field Name: WILDCAT

Field Number: 99999

Ground Elevation: 6698

County: ROUTT

GPS Data:

Date of Measurement: 05/06/2015 PDOP Reading: 1.7 Instrument Operator's Name: GLENN MCELROY

If well is ☐ Directional ☒ Horizontal (highly deviated) submit deviated drilling plan.
 Footage at Top of Prod Zone: FNL/FSL FNL 2205 FNL 759 FEL 660 FSL 660 FWL
 Sec: 26 Twp: 7N Rng: 88W Sec: 26 Twp: 7N Rng: 88W

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: Yes

The right to construct the Oil and Gas Location is granted by: oil and gas lease

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.)

All: Section 26, T7N, R88W 6th PM, State Lease 8959.

SWN has a lease with the State of Colorado for the adjacent minerals in All Sec 25, T7N, 88W. See attached lease map.

Total Acres in Described Lease: 640 Described Mineral Lease is: ☐ Fee ☒ State ☐ Federal ☐ Indian

Federal or State Lease # 8959

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 259 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 5280 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 315 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

Property Line: 259 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: 964 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 4684 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): Otheos State Unit Number: _____

SPACING & FORMATIONS COMMENTS

This well is within the 1st expansion of the Otheos State Unit, approved 10/31/13.

Distance from completed portion of wellbore to nearest Unit Boundary was measured from the BHL to the south, approx 4684'.

See attached Unit Map.

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: 14210 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 28 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		0	80	360	80	0
SURF	17+1/2	13+3/8	54.5	0	1250	676	1250	0
1ST	12+1/4	9+5/8	40	0	8200	1633	8200	1050
2ND	8+3/4	5+1/2	20	0	14210	1373	14210	8000

☐ 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

Logging requirements per Rule 317p have been fulfilled by Noth Hayden 1-26, API #107-06263 (the first well on the pad). Attached 317p Exception Request Letter.

This will be the 2nd well on the North Hayden 1-26 pad, LOC ID#437712. An amended Form 2A (Doc #400828970, as noted on Related Forms tab) has been filed to increase pad size, well count and facility count to include the addition of this well.

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

Location ID: 437712

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: 6/9/2015 Email: cheryl_rowell@swn.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: 9/8/2015

Expiration Date: 09/07/2017

API NUMBER

05 107 06265 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	<p>Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.</p> <p>One the first wells drilled on the pad will be logged with Cased-hole Pulsed Neutron Log with Gamma Ray Log from TD into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measured-while-drilling gamma-ray log. The Form 5, Completion Report, for each well on the pad will list all logs run and have those attached. The Form 5 for a well without open-hole logs shall clearly state "No open-hole logs were run" and shall reference the Rule 317.p Exception granted for the well.</p>
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

NW Colorado Notification Policy.

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400828924	FORM 2 SUBMITTED
400846288	OPEN HOLE LOGGING EXCEPTION
400846291	LEASE MAP
400846301	UNIT CONFIGURATION MAP
400850480	DIRECTIONAL DATA
400850868	WELL LOCATION PLAT
400851125	DEVIATED DRILLING PLAN

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	State Land Board per T. Kelly has verified surface restoration bond is in order.	3/8/2015 7:43:04 AM
Permit	Per operator, deleted surface blanket bond. Req'd SLB verification of surface restoration bond.	3/2/2015 9:10:06 AM
Permit	Final review complete.	8/13/2015 11:21:39 AM
Permit	Ready to pass.	6/24/2015 2:08:23 PM
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 1,000 feet, likely completed in the Mesaverde Group. 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 1250' will cover offset water well screened intervals, but it 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 to protect water-bearing zones that are not otherwise covered by surface casing.	6/23/2015 12:56:06 PM
Engineer	Offset Well Evaluation: The single existing offset oil and gas well within 1,500 feet of this wellbore (North Hayden 1-26) meets standards. No mitigation required.	6/23/2015 12:54:03 PM
Permit	Passed completeness.	6/11/2015 12:36:48 PM

Total: 7 comment(s)