

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:

400587235

APPLICATION FOR PERMIT TO:

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

Date Received:

01/16/2015

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

Well Name: Homer Deep Unit

Well Number: 7-23CH

Name of Operator: BLACK HILLS PLATEAU PRODUCTION LLC

COGCC Operator Number: 10150

Address: 1515 WYNKOOP ST STE 500

City: DENVER State: CO Zip: 80202

Contact Name: Jessica Donahue

Phone: (720)210-1333

Fax: (303)566-3344

Email: jessica.donahue@blackhillscorp.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: _____

WELL LOCATION INFORMATION

QtrQtr: NESW Sec: 7 Twp: 8S Rng: 98W Meridian: 6

Latitude: 39.372060

Longitude: -108.369680

Footage at Surface: 1867 feet FNL/FSL FSL 2441 feet FEL/FWL FWL

Field Name: SOUTH SHALE RIDGE

Field Number: 77760

Ground Elevation: 5674

County: GARFIELD

GPS Data:

Date of Measurement: 01/22/2014 PDOP Reading: 1.8 Instrument Operator's Name: Paul Reid

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

 1317 FSL 2050 FEL 765 FNL 2097 FEL
 Sec: 7 Twp: 8S Rng: 98W Sec: 20 Twp: 8S Rng: 98W

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: 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.)

T8S R98W - Sect. 7:E2W2, Lots 1-4; Sect. 17: S2N2, N2N2N2N2, S2N2N2; Sect. 18: SENW, S2NE, Lots 1-2, S2N2N2NE, S2N2N#, N2N2NENW, N2N2N2NE, S2N2NENW, S2NENW, S2N2N2NE, S2N2NE

Total Acres in Described Lease: 953 Described Mineral Lease is: ☐ Fee ☐ State ☒ Federal ☐ Indian

Federal or State Lease # COC067159

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 0 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 2726 Feet
Building Unit: 5280 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 800 Feet
Above Ground Utility: 2744 Feet
Railroad: 5280 Feet
Property Line: 2139 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: 1453 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 4483 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): Homer Deep Unit Unit Number: COC72921X

SPACING & FORMATIONS COMMENTS

OBJECTIVE FORMATIONS

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

DRILLING PROGRAM

Proposed Total Measured Depth: 16711 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 1453 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? 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:

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	30	20		0	120	320	120	0
SURF	14+3/4	10+3/4	40.5	0	1000	420	1000	0
1ST	9+7/8	7+5/8	29.7	0	6350	950	6350	800
2ND	6+3/4	5+1/2	17	0	6000			
TAPER	6+3/4	4+1/2	11.6	6000	16711	1525	16711	6150

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

Location ID: 436835

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: Jessica Donahue

Title: Regulatory Technician Date: 1/16/2015 Email: jessica.donahue@blackhillscor

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: 2/17/2015

Expiration Date: 02/16/2017

API NUMBER

05 045 22811 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. See attached notice.
- 2) Operator shall comply with the most current revision of the Garfield County Rulison Field Notice to Operators, with the following exception: All field notice requirements specified in that Notice to Operators are superseded by the requirements of the most current revision of the Northwest Colorado Notification Policy (see Condition of Approval #1). See attached notice.
- 3) Operator shall provide cement coverage from the intermediate casing shoe (7+5/8" first string) to a minimum of 200' above all Mesa Verde Group (and Ohio Creek Formation, if present) oil, gas, and water-bearing sandstone and coalbed formations. Verify intermediate casing cement coverage with a cement bond log.

Best Management Practices

No	BMP/COA Type	Description

Applicable Policies and Notices to Operators

Piceance Rulison Field - Notice to Operators.

NW Colorado Notification Policy.

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

Att Doc Num	Name
2167960	MINERAL LEASE MAP
400587235	FORM 2 SUBMITTED
400590762	DIRECTIONAL DATA
400772768	OffsetWellEvaluations Data
400773438	DRILLING PLAN
400776963	DEVIATED DRILLING PLAN
400776966	WELL LOCATION PLAT

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Attached Mineral Lease Map as per opr. Corrected distance to mineral lease line to "0" from 1317' as per opr. Final review complete.	2/6/2015 12:22:49 PM
Permit	Corrected as per opr: Cultural Distance to Above Ground Utility from 5280' to 2744'. Distance to Unit Boundary from 3171' to 4483'. Removed related form 2A that has been approved from related forms tab and notified opr.	2/6/2015 8:23:09 AM
Permit	Lease information is for wrong lease. Corrected as per opr from COC012736 to COC067159 along with lease description. Distance to lease line corrected from 1317' to 2441' as per opr. Requested clarification from opr on cultural distances for public road and property line which are much different from form 2A. Distances to completed wellbore and unit boundary are incorrect. Opr notified. Distance to well penetrating is incorrect	2/5/2015 11:04:28 AM
Engineer	Offset well evaluation: Offset wells South Shale Ridge #10-7 (API#045-06743) and South Shale Ridge #3-20 (API#077-08612) are completed in a shallower formation (Iles) than the Niobrara target. Removed offset well Homer Deep Unit 7-23AH that has not been drilled yet and South Shale Ridge 9-17 which is more than 1500 feet from the wellbore. No mitigation required. Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. The deepest water well within one mile is 20 feet. The proposed surface casing setting depth is more than 50 feet below the base of the aquifer in which water wells are screened within one mile. Operator-proposed surface casing setting depth of 1,000 feet is expected to provide full coverage of the Wasatch Formation, based on the operator's drilling prognosis and the reported Mesaverde Group log top in offset well South Shale Ridge 10-7, API No. 05-045-06743.	1/26/2015 4:32:34 PM
Engineer	Emailed operator regarding cement information. Changed 1st taper to 2nd string. Changed distance to 1344' and moved cement information from 2nd string to taper row on casing tab per operator.	1/26/2015 4:23:54 PM
Permit	Changed TMD from "17,585'" to "16,711'" per deviated drilling plan and imported data. Passed completeness.	1/22/2015 2:11:45 PM
Permit	Proposed total measured depth doesn't match casing information. Deviated drilling plans are unacceptable. Well location plat may be blank template - inadequate information. Return to draft.	1/20/2015 12:17:08 PM

Total: 7 comment(s)