

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:

400527226

Date Received:

12/16/2013

APPLICATION FOR PERMIT TO:

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

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER _____

Refiling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Well Name: Homer Deep Unit

Well Number: 7-23AH

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: 39.371980

Longitude: -108.369820

Footage at Surface: 1835 feet FNL/FSL FSL 2399 feet FEL/FWL FWL

Field Name: SOUTH SHALE RIDGE

Field Number: 77760

Ground Elevation: 5675.6

County: GARFIELD

GPS Data:

Date of Measurement: 10/13/2012 PDOP Reading: 2.6 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

659 FNL 1284 FWL 1736 FSL 1538 FWL
Sec: 18 Twp: 8S Rng: 98W Sec: 20 Twp: 8S Rng: 98W

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: 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, S2N2N2N2, S2N2N2; Sect. 18: SENW, S2NE, Lots 1-2, S2N2N2NE, S2N2NE, 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: 2744 Feet
Building Unit: 5280 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 703 Feet
Above Ground Utility: 2744 Feet
Railroad: 5280 Feet
Property Line: 1965 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: 7567 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 1564 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: 18375 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 3194 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	line pipe	0	120	320	120	0
SURF	14+3/4	10+3/4	40.5	0	1000	469	1000	0
1ST	9+7/8	7+5/8	29.7	0	7100	987	7100	800
2ND	6+3/4	5+1/2	17	0	6900			
TAPER	6+3/4	4+1/2	11.6	6900	18360	1385	18360	6900

☐ 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: _____

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: Jessica Donahue

Title: Regulatory Technician Date: 12/16/2013 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: 5/30/2014

Expiration Date: 05/29/2016

API NUMBER

05 045 22423 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) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE NORTHWEST COLORADO NOTIFICATION POLICY IS REQUIRED. SEE ATTACHED NOTICE. (2) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE GARFIELD COUNTY RULISON FIELD NOTICE TO OPERATORS IS REQUIRED, WITH THE FOLLOWING EXCEPTION: ALL FIELD NOTICE REQUIREMENTS SPECIFIED IN THIS NOTICE TO OPERATORS ARE SUPERSEDED BY THE REQUIREMENTS OF THE MOST CURRENT REVISION OF THE NORTHWEST COLORADO NOTIFICATION POLICY (SEE CONDITION OF APPROVAL #1). (3) PROVIDE CEMENT COVERAGE FROM THE INTERMEDIATE CASING (7-5/8" FIRST STRING) SHOE TO A MINIMUM OF 200 FEET ABOVE ALL MESAVERDE GROUP (AND OHIO CREEK, IF PRESENT) 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. (4) VERIFY PRODUCTION CASING (TAPERED SECOND STRING) CEMENT TOP WITH A CEMENT BOND LOG.
	Open hole resistivity and gamma logs shall be run to describe the stratigraphy of the entire well bore and to adequately verify the setting depth of surface casing and aquifer coverage. On a multi-well pad, these open hole logs are only required on one of the first wells drilled on the pad and the Drilling Completion Report - Form 5 for every well on the pad shall identify which well was logged.

Best Management Practices

No BMP/COA Type

Description

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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

400527226	FORM 2 SUBMITTED
400527704	DIRECTIONAL DATA
400527706	PLAT
400527707	DEVIATED DRILLING PLAN
400527710	DEVIATED DRILLING PLAN
400527712	DRILLING PLAN
400527719	FED. DRILLING PERMIT
400527759	OTHER

Total Attach: 8 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	Offset well evaluation: South Shale Ridge 10-7 (05-045-06743) TD's in the Iles Formation (does not penetrate the Mancos Formation ojective proposed in this horizontal well). South Shale Ridge 10-7 is also located more than 1500' from the planned productive portion of the proposed horizontal well. No offset well mitigation required.	5/29/2014 11:12:35 AM
Engineer	Form 2 pushed to ON HOLD for offset well review. Concern with proximity and available cement coverage data for South Shale Ridge 10-7 (05-045-06743).	4/20/2014 5:14:32 PM
Engineer	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.	4/20/2014 5:01:36 PM
Permit	Final review completed. No LGD comments.	4/14/2014 6:35:17 AM
Permit	Changes to TOP submitted by operator.	3/24/2014 6:25:49 AM
Permit	The TOP doesn't make sense or match anything with the Deviated drilling plan.	3/20/2014 2:49:40 PM
LGD	pass, gdb	12/30/2013 8:51:00 AM
Engineer	THE PROPOSED SURFACE CASING IS MORE THAN 50' BELOW THE DEPTH OF THE DEEPEST WATER WELL WITHIN 1-MILE OF THE SURFACE LOCATION WHEN CORRECTED FOR ELEVATION DIFFERENCES. THE DEEPEST WATER WELL WITHIN 1-MILE IS 20 FEET DEEP.	12/26/2013 11:53:52 AM
Permit	Passed completeness.	12/17/2013 12:45:34 PM
Permit	Returned to draft: HORIZONTAL should be selected in Well Location tab.	12/17/2013 9:11:35 AM

Total: 10 comment(s)