

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:

400589285

Date Received:

07/29/2014

#### APPLICATION FOR PERMIT TO:

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

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER Lateral

Refiling ☒

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☒

Well Name: Bulldog

Well Number: 7-14H-789

Name of Operator: AXIA ENERGY LLC

COGCC Operator Number: 10335

Address: 1430 LARIMER STREET #400

City: DENVER State: CO Zip: 80202

Contact Name: Lisa Smith Phone: (303)857-9999 Fax: (303)450-9200

Email: lisa@permitco-usa.com

#### RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20100083

#### WELL LOCATION INFORMATION

QtrQtr: Lot 17 Sec: 7 Twp: 7N Rng: 89W Meridian: 6

Latitude: 40.572106

Longitude: -107.426561

Footage at Surface: 368 feet FNL/FSL FSL 623 feet FEL/FWL FWL

Field Name: WILDCAT

Field Number: 99999

Ground Elevation: 6854

County: MOFFAT

GPS Data:

Date of Measurement: 03/22/2012 PDOP Reading: 1.4 Instrument Operator's Name: Greg Olsen

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

Footage at Top of Prod Zone: FNL/FSL 912 FSL 853 FWL 600 FNL 600 FEL 600  
Sec: 7 Twp: 7N Rng: 89W Sec: 6 Twp: 7N Rng: 89W

#### 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.)

Please see attached lease description

Total Acres in Described Lease: 996 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # \_\_\_\_\_

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

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 3319 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 5280 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

Property Line: 746 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: 2220 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 600 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

## 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.)
NIOBRARA	NBRR	540-5	1273	S6:L8-23,S7:L5-20

## DRILLING PROGRAM

Proposed Total Measured Depth: 21267 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 2220 Feet (Including plugged wells)

Will a closed-loop drilling system be used? Yes

Is H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H<sub>2</sub>S 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:                      Cuttings Disposal Method: Other

Other Disposal Description:

Water based cuttings to be tested to Table 910 standards, mixed/treated as necessary, and buried or spread at location. Oil based cuttings to be hauled to a commercial disposal facility.

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	55	0	60	60	60	0
SURF	13+1/2	10+3/4	40.5	0	1500	545	1500	0
1ST	9+7/8	7+5/8	29.7	0	8500	850	8500	
2ND	6+3/4	5+1/2	20	0	8400	125	8400	6500
TAPER	6+3/4	4+1/2	13.5	8400	21267	1440	21267	8400

☐ 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

- There have been no changes to the location.
- I certify that there have been no changes on land use, lease description.
- The pad has not been built.
- No pits have been constructed.
- There will be no additional surface disturbance.
- The location does not require a variance from any of the rules listed in Rule 306.d.(1).(A).(ii).
- The location is within a wildlife Restricted Surface Occupancy Area.

This application is in a Comprehensive Drilling Plan \_\_\_\_\_ CDP #: \_\_\_\_\_

Location ID: 429571

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: Lisa Smith

Title: Authorized Agent Date: 7/29/2014 Email: lisa@permitco-usa.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: 8/29/2014

Expiration Date: 08/28/2016

### API NUMBER

05 081 07732 01

### **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**

	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.
	(1) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE NORTHWEST COLORADO NOTIFICATION POLICY IS REQUIRED. SEE ATTACHED NOTICE.  (2) SURFACE CASING SHALL BE SET AT A SUFFICIENT DEPTH TO COVER THE UPPER 50 FEET OR MORE OF THE LANCE FORMATION AND THE ENTIRE FORT UNION FORMATION.  (3) CEMENT ON INTERMEDIATE CASING (7+5/8" FIRST STRING) MUST EXTEND INTO THE SURFACE CASING (MINIMUM 200' LAP ABOVE SURFACE CASING SHOE) TO PROVIDE ISOLATION OF ALL CRETACEOUS (INCLUDING MESA VERDE GROUP, LEWIS, FOX HILLS AND LANCE) OIL, GAS, AND WATER-BEARING SANDSTONE AND COALBED FORMATIONS THAT ARE NOT OTHERWISE COVERED BY SURFACE CASING. VERIFY INTERMEDIATE CASING (7+5/8" FIRST STRING) CEMENT COVERAGE WITH A CBL.

### **Best Management Practices**

#### **No BMP/COA Type**

#### **Description**

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### **Applicable Policies and Notices to Operators**

NW Colorado Notification Policy.
Notice Concerning Operating Requirements for Wildlife Protection.

### **Attachment Check List**

#### **Att Doc Num**

#### **Name**

400589285	FORM 2 SUBMITTED
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Total Attach: 1 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed on this refile. No LGD comments.	8/27/2014 7:12:31 AM
Permit	The Form 2A expires 7/9/2015	8/27/2014 7:11:42 AM
Engineer	<p>EVALUATED EXISTING OFFSET WELLS WITHIN 1500 FEET OF THIS PROPOSED WELLBORE:</p> <p>EVALUATED OFFSET PR WELL BULLDOG #5-14H-789 (05-081-07737), TD AT 15883' IN THE NBRR. THE WELL PRODUCES FROM A NBRR HORIZONTAL. THE PRODUCTION CASING (5+1/2" BY 4+1/2" TAPERED SECOND STRING) IS CEMENTED BELOW THE INTERMEDIATE CASING SHOE (7+5/8" FIRST STRING) AT 9986'. INTERMEDIATE CASING CEMENT IS APPARENT ON A CBL FROM THE SHOE UP TO APPROXIMATELY 8120', THEN APPARENT COVERAGE IS POOR UP TO THE TOP OF THE LOG AT 4950'. POTENTIAL OIL, GAS, COALBED, AND/OR WATER-BEARING ZONES ARE PRESENT IN THE UNCEMENTED INTERMEDIATE CASING INTERVAL, INCLUDING MRPS, MVRD, LWIS, FXHLS, LNCE, AND FTUN. HOWEVER, THE MULTIPLE CASING STRING DESIGN ALLOWS FOR ADDED PROTECTION FROM COMMUNICATION WITH OFFSET STIMULATION, AND PLANNED DOWNHOLE SEPARATION BETWEEN THE TWO WELLS APPEARS TO EXCEED 1250'. NO MITIGATION REQUIRED.</p>	8/20/2014 11:27:07 AM
Engineer	<p>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 000 FEET DEEP (ONE PERMITTED WATER WELL WITH NO REPORTED DEPTH).</p> <p>PROPOSED SURFACE CASING OF 1,500 FEET MAY PROVIDE FULL COVERAGE OF THE FORT UNION FORMATION, BASED ON LANCE FORMATION REPORTED LOG TOPS IN OFFSET WELLS. MINIMUM SURFACE CASING REQUIREMENTS ARE SPECIFIED IN CONDITION OF APPROVAL #2.</p>	8/20/2014 11:26:12 AM
Permit	Passed completeness.	7/30/2014 9:39:55 AM

Total: 5 comment(s)