

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

TYPE OF WELL OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> COALBED <input type="checkbox"/> OTHER <u>Pilot</u>	Refiling <input type="checkbox"/>
ZONE TYPE SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Sidetrack <input type="checkbox"/>

Date Received:
05/19/2014

Well Name: Bulldog Well Number: 13-31H-893

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: NWNE Sec: 13 Twp: 8N Rng: 93W Meridian: 6

Latitude: 40.650089 Longitude: -107.780819

Footage at Surface: <u>640</u> feet	FNL/FSL FNL <u>2464</u> feet	FEL/FWL FEL
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Field Name: WILDCAT Field Number: 99999

Ground Elevation: 6645 County: MOFFAT

GPS Data:
Date of Measurement: 08/13/2013 PDOP Reading: 1.4 Instrument Operator's Name: Glen McElroy

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

Footage at Top of Prod Zone: FNL/FSL <u>760</u> FNL <u>1980</u> FEL	Bottom Hole: FNL/FSL <u>760</u> FNL <u>1980</u> FEL	FEL/FWL FEL
Sec: <u>13</u> Twp: <u>8N</u> Rng: <u>93W</u>	Sec: <u>13</u> Twp: <u>8N</u> Rng: <u>93W</u>	

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.)

Total Acres in Described Lease: _____ 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: _____ 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: 239 Feet
Above Ground Utility: 5280 Feet
Railroad: 5280 Feet
Property Line: 1505 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: 1332 Feet

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

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

SPACING & FORMATIONS COMMENTS

Spacing Docket No. 1309-SP-1183, Pooling Docket No. 1309-UP-196.

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	540-34	2360	Sec. 13,14,23,24

DRILLING PROGRAM

Proposed Total Measured Depth: 12829 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 1332 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? 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: ONSITE 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 hauled to 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	2000	550	2000	0
1ST	9+7/8	7+5/8	26.4	0	9873	965	9873	
OPEN HOLE	6+3/4			9873	12829			

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 proposed as a pilot hole and no portion of this wellbore will be completed.
COGCC: Operator's details moved here from eForm Casing Tab - open hole will be plugged back from 12,829' MD to 10,300' MD with 330 sacks cement prior to drilling the lateral sidetrack.

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: Lisa Smith

Title: Agent for Axia Energy LLC Date: 5/19/2014 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: Matthew Lee Director of COGCC Date: 8/9/2014

Expiration Date: 08/08/2016

API NUMBER
05 081 07807 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.

<u>COA Type</u>	<u>Description</u>
	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) 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 MESAVERDE 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

<u>No BMP/COA Type</u>	<u>Description</u>

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>
400497296	FORM 2 SUBMITTED
400605447	DEVIATED DRILLING PLAN
400605448	MINERAL LEASE MAP
400605449	SURFACE AGRMT/SURETY
400608398	WELL LOCATION PLAT
400608399	MULTI-WELL PLAN
400608401	UNIT CONFIGURATION MAP
400608410	DIRECTIONAL DATA
400608411	OffsetWellEvaluations Data

Total Attach: 9 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	No LGD or public comments. Final Review--passed.	3/5/2014 8:43:25 PM
Permit	Deleted lease info since well will not be produced. Deleted dist. to unit.	7/23/2014 6:45:33 AM
Engineer	PROPOSED SURFACE CASING OF 2,000 FEET WILL LIKELY PROVIDE FULL COVERAGE OF THE WASATCH AND FORT UNION FORMATIONS, BASED ON LANCE FORMATION REPORTED LOG TOPS IN OFFSET WELLS.	5/20/2014 7:53:44 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 390 FEET DEEP.	5/20/2014 7:53:18 AM
Engineer	Offset Well Evaluation: There are no existing wellbores within 1500' of this pilot hole wellbore. Deleted both wells listed on operator's offset well list (both of those wells are within 1500' of the proposed horizontal lateral, but not this proposed directional pilot hole).	5/20/2014 7:53:00 AM
Permit	Passed completeness.	5/19/2014 4:20:30 PM

Total: 6 comment(s)