

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>Lateral</u>	Refiling <input checked="" type="checkbox"/>
ZONE TYPE SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Sidetrack <input checked="" type="checkbox"/>

Date Received:
05/20/2014

Well Name: Bulldog Well Number: 6-31H-790

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 9 Sec: 6 Twp: 7N Rng: 90W Meridian: 6

Latitude: 40.599406 Longitude: -107.533264

Footage at Surface: <u>533</u> feet	FNL/FSL	FEL/FWL
<u>FNL</u> <u>2441</u> feet	<u>FNL</u>	<u>FEL</u>

Field Name: WILDCAT Field Number: 99999

Ground Elevation: 6464 County: MOFFAT

GPS Data:
Date of Measurement: 01/25/2012 PDOP Reading: 1.2 Instrument Operator's Name: Bart Hunting

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

Footage at Top of Prod Zone: <u>1048</u> feet	FNL/FSL	FEL/FWL	Bottom Hole: <u>1920</u> feet	FNL/FSL	FEL/FWL
<u>FNL</u> <u>2500</u> feet	<u>FNL</u>	<u>FEL</u>	<u>FSL</u> <u>1855</u> feet	<u>FSL</u>	<u>FWL</u>

Sec: 6 Twp: 7N Rng: 90W Sec: 7 Twp: 7N Rng: 90W

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.)

T7N-R90W
 Section 2: Lot 16
 Section 3: Lots 12, 15, 16
 Section 6: Lots 8, 9, 14, 15, 16, 17, 22, 23

Total Acres in Described Lease: 483 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: 1919 Feet
 Building Unit: 1919 Feet
 High Occupancy Building Unit: 5280 Feet
 Designated Outside Activity Area: 5280 Feet
 Public Road: 1804 Feet
 Above Ground Utility: 2302 Feet
 Railroad: 5280 Feet
 Property Line: 225 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: 5297 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	540-4	1028	Sec. 6 & 7 See Map

DRILLING PROGRAM

Proposed Total Measured Depth: 19626 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 5297 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 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	9405	940	9405	
2ND	6+3/4	5+1/2	20	0	9300	125	9300	7400
TAPER	6+3/4	4+1/2	13.5	9300	19626	1160	19626	9300

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

Casing is tapered 5-1/2" to 4-1/2"

- 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 not within a wildlife Restricted Surface Occupancy Area.

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

Location ID: 429210

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: Lisa Smith

Title: Authorized agent Date: 5/20/2014 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: 7/31/2014

Expiration Date: 07/30/2016

API NUMBER

05 081 07730 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 vertical section of the well bore and to adequately verify the setting depth of surface casing and aquifer coverage.
	(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) AND TERTIARY (FORT UNION) 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

400584396	FORM 2 SUBMITTED
400611102	WELL LOCATION PLAT
400611112	UNIT CONFIGURATION MAP
400611113	OIL & GAS LEASE
400611115	DEVIATED DRILLING PLAN
400611116	DIRECTIONAL DATA
400611636	SURFACE AGRMT/SURETY

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Corrected cuttings disposal to onsite; oil based mud COA on 2A. Oper. advised that if location is not built prior to 2A expiration, an amended 2A must be submitted and approved prior to building location. Corrected dist. to unit to agree with original APD. No LGD or public comments. Final Review--passed.	7/31/2014 3:25:12 PM
Engineer	Offset Well Evaluation: No oil or gas wells within 1,500 feet of this proposed wellbore.	3/2/2014 1:42:43 PM
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 430 FEET DEEP.	3/2/2014 1:42:27 PM
Engineer	PROPOSED SURFACE CASING OF 1,500 FEET MAY NOT PROVIDE FULL COVERAGE OF FORT UNION FORMATION, BASED ON LANCE FORMATION REPORTED LOG TOPS IN OFFSET WELLS.	3/2/2014 1:41:56 PM
Engineer	Changed "First Liner" casing designation to "Second String."	3/2/2014 1:39:14 PM
Permit	Passed completeness	5/22/2014 12:45:32 PM
Permit	Return to draft: 1. Distance to building is greater than distance to building unit. 2. Missing statement stating whether or not there have been any changes. There are multiple attachments when there appear to be no changes.	5/20/2014 11:50:46 AM

Total: 7 comment(s)