FORM 2 Rev 08/16

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: 401292053

Date Received: 06/02/2017

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: Dalton 5-64 Well Number: 2-1

Name of Operator: AXIS EXPLORATION LLC COGCC Operator Number: 10646

Address: 370 17TH ST SUITE 5300

City: DENVER State: CO Zip: 80202

Contact Name: Kelsi Welch Phone: (720)354-4607 Fax: ( )

Email: kwelch@extractionog.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20160140

WELL LOCATION INFORMATION

QtrQtr: SWNW Sec: 2 Twp: 5S Rng: 64W Meridian: 6

Latitude: 39.645572 Longitude: -104.527028

Footage at Surface: 2202 Feet FNL/FSL FNL 475 Feet FEL/FWL FWL

Field Name: WILDCAT Field Number: 99999

Ground Elevation: 5901 County: ARAPAHOE

GPS Data:

Date of Measurement: 04/05/2017 PDOP Reading: 1.5 Instrument Operator's Name: Jared Christopher

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

Footage at Top of Prod Zone: 460 FNL/FSL FNL 460 FEL/FWL FWL

Sec: 2 Twp: 5S Rng: 64W

Bottom Hole: 460 FNL/FSL FNL 460 FEL/FWL FEL

Sec: 2 Twp: 5S Rng: 64W

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Surface Owner is: (check all that apply)

- ☒ is the mineral owner beneath the location.
- ☒ 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.)

See attached lease map

Total Acres in Described Lease: 39 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:	1643	Feet
Building Unit:	1800	Feet
High Occupancy Building Unit:	5280	Feet
Designated Outside Activity Area:	5280	Feet
Public Road:	495	Feet
Above Ground Utility:	526	Feet
Railroad:	5280	Feet
Property Line:	244	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 proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 290 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 460 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	535-867	640	2:ALL

DRILLING PROGRAM

Proposed Total Measured Depth: 12457 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: 415 Feet ☐ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H_2S 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: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted?

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	24	16	42	0	80	100	80	0
SURF	12+1/4	9+5/8	36	0	2200	590	2200	0
1ST	8+1/2	5+1/2	20	0	12457	1597	12457	1500

☐ 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: Nearest wellbore permitted or completed in the same formation is the Dalton 5-64 2-2 (Axis Exploration, LLC), as measured using 3D manual calculations.

Nearest existing or permitted wellbore belonging to another operator is the Tebo 3-1H API 05-005-07197 (Conoco Phillips Company), measured using 3D manual calculations.

The wellbore does not cross lease described but the lease is within DSU.

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: Kelsi Welch

Title: Regulatory Analyst Date: 6/2/2017 Email: kwelch@extractionog.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: 11/6/2018

Expiration Date: 11/05/2020

API NUMBER

05 005 07405 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) Submit Form 42 electronically to COGCC 48 hours prior to MIRU for the first well activity with a rig on the pad and provide 48 hour spud notice via Form 42 for all subsequent wells drilled on the pad. 2) Comply with Rule 317.j. and provide cement coverage from TD to a minimum of 200' above Niobrara. Verify coverage with cement bond log. 3) Oil-based drilling fluid is to be used only after setting surface casing. Bradenhead tests shall be performed and reported according to the following schedule and Form 17 submitted within 10 days of each test: 1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation. 2) 6 months after rig release, prior to stimulation (delayed completions). 3) Within 30 days of first production, as reported on Form 5A.

Best Management Practices

No	BMP/COA Type	Description
1	Drilling/Completion Operations	Anti-collision: Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.
2	Drilling/Completion Operations	One of the first wells drilled on the pad will be logged with open-hole Resistivity Log and Gamma Ray Log from the kick-off point into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measured-while-drilling gamma-ray log. The Form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without open-hole logs shall clearly state “No open-hole logs were run” and shall clearly identify (by API#, well name & number) the well in which open-hole logs were run.

Total: 2 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.
http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Attachment Check List

Att Doc Num	Name
401292053	FORM 2 SUBMITTED
401292594	DIRECTIONAL DATA
401292595	DEVIATED DRILLING PLAN
401292596	WELL LOCATION PLAT
401296474	LEASE MAP
401829519	OFFSET WELL EVALUATION

Total Attach: 6 Files

General Comments

User Group	Comment	Comment Date
Permit	Final permitting review Complete. Send to Final Approval. The following changes were made with Operator concurrence: - corrected distance to lease line to "0"	11/05/2018
Permit	The following changes were made with Operator concurrence: - corrected Contact and Submitter information - corrected wellbore integrity contact email - added "The wellbore does not cross lease described but the lease is within DSU." comment	10/24/2018
Permit	Contacted Operator for the following corrections: - correct contact and submitter? - add "The wellbore does not cross lease described but the lease is within DSU."? - correct wellbore integrity contact email?	10/04/2018
Engineer	Offset wells evaluated	09/26/2018
Permit	Deleted comment for pending docket; added spacing order number.	11/21/2017
Permit	With Operator agreement, deleted "metes & bounds" lease description. Initial Permitting review complete.	08/14/2017
Permit	Passed Completeness.	06/09/2017

Total: 7 comment(s)