

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:

400723327

APPLICATION FOR PERMIT TO:

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

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER _____

Refilling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Date Received:

11/26/2014

Well Name: DT-Luther

Well Number: 1-5-6

Name of Operator: EXTRACTION OIL & GAS LLC

COGCC Operator Number: 10459

Address: 1888 SHERMAN ST #200

City: DENVER

State: CO

Zip: 80203

Contact Name: Nick Curran

Phone: (720)420-5745

Fax: (720)420-5800

Email: nick.curran@iptenergyservices.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20130028

WELL LOCATION INFORMATION

QtrQtr: NWNE Sec: 5 Twp: 5N Rng: 65W Meridian: 6

Latitude: 40.434870

Longitude: -104.683740

Footage at Surface: 590 feet FNL/FSL FNL 1683 feet FEL/FWL FEL

Field Name: WATTENBERG

Field Number: 90750

Ground Elevation: 4640

County: WELD

GPS Data:

Date of Measurement: 10/13/2014 PDOP Reading: 1.4 Instrument Operator's Name: C Homes

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

Footage at Top of Prod Zone: FNL/FSL FNL/FWL Bottom Hole: FNL/FSL FNL/FWL
350 FSL 2166 FWL 332 FSL 460 FWL
Sec: 5 Twp: 5N Rng: 65W Sec: 6 Twp: 5N Rng: 65W

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: applicant is owner

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.)

pls see lease map

Total Acres in Described Lease: 7 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: 528 Feet
Building Unit: 689 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 915 Feet
Above Ground Utility: 907 Feet
Railroad: 1514 Feet
Property Line: 314 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: 10/08/2014

SPACING and UNIT INFORMATION

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 350 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

SEC. 5-S2S2
SEC. 6-S2S2
SEC. 7-N2N2
SEC. 8-N2N2
T5N-R65W
640 ACRE SPACING

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		640	GWA

DRILLING PROGRAM

Proposed Total Measured Depth: 16031 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 184 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 318A

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
SURF	13+1/2	9+5/8	36	0	1000	550	1000	0
1ST	8+3/4	7	26	0	8984	937	8984	3000
1ST LINER	6+1/8	4+1/2	11.6	8784	16031			

☒ 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

- 1.) Distance from completed portion of wellbore to nearest wellbore permitted or completed in the same formation: 350' to the Forbes 5-5-6 (API #123-38297)
- 2.) Distance to nearest permitted or existing wellbore penetrating objective formation: 184' to the Forbes C8-5-6
- SUA waives any provisions of COGCC Rule 318.A and has been attached for your review (paragraph 11)
- This well is located on the Downtown Directional #1 Oil & Gas Location (Location ID 432599/Doc # 400329702)

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

Location ID: 432599

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: Nick Curran

Title: Regulatory Tech Date: 11/26/2014 Email: nick.curran@iptenergyservices.

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: 1/18/2015

Expiration Date: 01/17/2017

API NUMBER

05 123 41033 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

	Operator will comply with COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012. (attached)
	Operator shall comply with Buffer Zone Move-In, Rig-Up Notice Rule 305.h (effective 9/30/2014)
	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) Submit Form 42 electronically to COGCC 48 hours prior to MIRU. 2) Comply with Rule 317.i and provide cement coverage from the bottom of the production casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log. 3) Run and submit Directional Survey from TD to base of surface casing. The operator shall comply with Rule 321, and it shall be the operator's responsibility to ensure that the wellbore complies with setback requirements in commission orders or rules prior to producing the well.

Best Management Practices

No	BMP/COA Type	Description
1	Planning	<ul style="list-style-type: none"> • Light sources during all phases of operations will be directed downward and away from occupied structures where possible. Once the drilling and completion rigs leave the site, there will be no permanently installed lighting on site. Lighting shall be mounted at compressor statins on a pole or building and directed downward to illuminate key areas within the facility, while minimizing the amount of light projected outside the facility. • Maintain appearance with garbage clean-up- a trash bin will be located on site to accumulate waste by the personnel drilling the wells. Site will have unused equipment, trash and junk removed immediately.
2	Traffic control	<ul style="list-style-type: none"> • Access Roads: The access road will be constructed to accommodate local emergency vehicles. The road will be maintained for access at all times. Traffic will be routed to minimize local interruption.
3	General Housekeeping	<ul style="list-style-type: none"> • The site will be cleaned of all trash and waste as soon as practical. • All Waste will be stored in sealed containers until it can be disposed of appropriately. • Solid waste will be removed from the site and disposed of per state regulations for solid waste.
4	General Housekeeping	<ul style="list-style-type: none"> • Removal of trash: All trash, debris and materials not intrinsic to the operations of the oil and gas facility shall be removed and legally disposed of as applicable. • Fencing: A meeting with the surface owner will determine a fencing plan.
5	Storm Water/Erosion Control	<ul style="list-style-type: none"> • Fugitive Dust and Vehicle Tracking. • Tracking speeds will be limited to control fugitive dust. • Watering will be completed to control fugitive dust as needed. • Graveled entries will be provided for vehicle tracking control. Refer to the Storm water Management Plan for Location. • Furrowing of disturbed soil will be provided at right angles to prevailing winds as needed.
6	Storm Water/Erosion Control	<ul style="list-style-type: none"> • Stormwater best management practices will be completed per the site specific stormwater management plan.
7	Construction	<ul style="list-style-type: none"> • Berm Construction: Tank berms shall be constructed of steel rings with a synthetic or engineered liner and designed to contain 150% of the capacity of the largest tank. All berms will be visually checked periodically to ensure proper working condition.
8	Noise mitigation	<ul style="list-style-type: none"> • The drill site will be powered by electricity, mitigating the majority of noise from drilling operations. Sound walls and/ or hay bales will be used to surround the well site during drilling operations.
9	Emissions mitigation	<ul style="list-style-type: none"> • Green Completions - Emission Control System: Test separators and associated flow lines and sand traps shall be installed on-site to accommodate green completions techniques pursuant to COGCC Rules. In the anticipated absence of a viable gas sales line, the flowback gas shall be thermally oxidized in an emissions control device (ECD), which will be installed and kept in operable condition for least the first 90-days of production pursuant to CDPHE rules. This ECD shall have an adequate capacity for 1.5 times the largest flowback within a 10 mile radius, will be flanged to route gas to other or permanent oxidizing equipment and shall be provided with the equipment needed to maintain combustions where non-combustible gases are present
10	Odor mitigation	<ul style="list-style-type: none"> • Per Rule 805: Oil & gas facilities and equipment shall be operated in such a manner that odors and dust do not constitute a nuisance or hazard to public welfare
11	Final Reclamation	<ul style="list-style-type: none"> • Within 90 day subsequent to the time of plugging and abandonment of the entire site, superfluous debris and equipment shall be removed from the site • Identification of plugged and abandoned wells will be identified pursuant to 319.a(5)

Total: 11 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400723327	FORM 2 SUBMITTED
400723753	OffsetWellEvaluations Data
400724811	PROPOSED SPACING UNIT
400725022	LEASE MAP
400726553	SURFACE AGRMT/SURETY
400735238	DEVIATED DRILLING PLAN
400740677	WELL LOCATION PLAT
400740681	DIRECTIONAL DATA
400740860	EXCEPTION LOC REQUEST

Total Attach: 9 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
#Error	Final Review Completed. No LGD or public comment received.	1/15/2015 9:27:59 AM
#Error	Waivers for Exception Location and Twinning in SUA. (paragraph 11). Permitting Review Completed.	1/9/2015 11:52:54 AM
#Error	Offset Wells Evaluated	12/2/2014 11:43:28 AM
#Error	Passed Completeness	11/28/2014 9:39:01 AM

Total: 4 comment(s)