

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:

400723325

## APPLICATION FOR PERMIT TO:

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

Date Received:

11/26/2014

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER \_\_\_\_\_Refilling ☐ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐

Well Name: DT-Forbes

Well Number: C8-5-6

Name of Operator: EXTRACTION OIL &amp; 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: 40.434920

Longitude: -104.683740

Footage at Surface: 574 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: 1.7 Instrument Operator's Name: C Holmes

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 FEL/FWL

 534 FSL 2168 FWL 497 FSL 460 FWL  
 Sec: 5 Twp: 5N Rng: 65W Sec: 6 Twp: 5N Rng: 65W

## LOCATION SURFACE &amp; MINERALS &amp; RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ IndianThe 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: 6 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: 541 Feet  
Building Unit: 703 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 915 Feet  
Above Ground Utility: 906 Feet  
Railroad: 1515 Feet  
Property Line: 315 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: 682 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: SW4  
Sec. 6: S2  
T5N-54W  
480 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.)
CODELL	CODL		480	GWA

## DRILLING PROGRAM

Proposed Total Measured Depth: 16064 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 682 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 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	9016	942	9016	3000
1ST LINER	6+1/8	4+1/2	11.6	8816	16064			

☒ 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:  
682' to the Forbes C7-5-6

2.) Distance to nearest permitted or existing wellbore penetrating objective formation:  
682' to the Forbes C7-5-6

-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 41036 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"> <li>• 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.</li> <li>• 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.</li> </ul>
2	Traffic control	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
3	General Housekeeping	<ul style="list-style-type: none"> <li>• The site will be cleaned of all trash and waste as soon as practical.</li> <li>• All Waste will be stored in sealed containers until it can be disposed of appropriately.</li> <li>• Solid waste will be removed from the site and disposed of per state regulations for solid waste.</li> </ul>
4	General Housekeeping	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Fencing: A meeting with the surface owner will determine a fencing plan.</li> </ul>
5	Storm Water/Erosion Control	<ul style="list-style-type: none"> <li>• Fugitive Dust and Vehicle Tracking.</li> <li>• Tracking speeds will be limited to control fugitive dust.</li> <li>• Watering will be completed to control fugitive dust as needed.</li> <li>• Graveled entries will be provided for vehicle tracking control. Refer to the Storm water Management Plan for Location.</li> <li>• Furrowing of disturbed soil will be provided at right angles to prevailing winds as needed.</li> </ul>
6	Storm Water/Erosion Control	<ul style="list-style-type: none"> <li>• Stormwater best management practices will be completed per the site specific stormwater management plan.</li> </ul>
7	Construction	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
8	Noise mitigation	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
9	Emissions mitigation	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
10	Odor mitigation	<ul style="list-style-type: none"> <li>• Per Rule 805: Oil &amp; 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.</li> </ul>
11	Final Reclamation	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Identification of plugged and abandoned wells will be identified pursuant to 319.a(5)</li> </ul>

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**

<b><u>Att Doc Num</u></b>	<b><u>Name</u></b>
400723325	FORM 2 SUBMITTED
400723733	OffsetWellEvaluations Data
400724809	PROPOSED SPACING UNIT
400725020	LEASE MAP
400726562	SURFACE AGRMT/SURETY
400735234	DEVIATED DRILLING PLAN
400739761	WELL LOCATION PLAT
400740810	EXCEPTION LOC REQUEST
400740812	DIRECTIONAL DATA

Total Attach: 9 Files

### **General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
#Error	Final Review Completed. No LGD or public comment received.	1/15/2015 9:22:48 AM
#Error	Waivers for Exception Location and Twinning in SUA. (paragraph 11). Permitting Review Completed.	1/9/2015 11:41:56 AM
#Error	Offset Wells Evaluated	12/2/2014 11:40:52 AM
#Error	Passed Completeness	11/28/2014 9:28:42 AM

Total: 4 comment(s)