

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:

400811109

Date Received:

03/31/2015

#### 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: Wiley 22-3-97

Well Number: J-2H

Name of Operator: ENDEAVOUR OPERATING CORPORATION

COGCC Operator Number: 10411

Address: 1125 17TH STREET #1525

City: DENVER

State: CO

Zip: 80202

Contact Name: Mark Degenhart

Phone: (720)9790733

Fax: ( )

Email: mark.degenhart@endeavourcorp.com

#### RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20120033

#### WELL LOCATION INFORMATION

QtrQtr: nwse Sec: 22 Twp: 3N Rng: 97W Meridian: 6

Latitude: 40.212075

Longitude: -108.259826

Footage at Surface: 1778 feet FNL/FSL FSL 1352 feet FEL/FWL FEL

Field Name: WILDCAT

Field Number: 99999

Ground Elevation: 5889

County: RIO BLANCO

GPS Data:

Date of Measurement: 10/02/2014 PDOP Reading: 1.4 Instrument Operator's Name: K. Stewart

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

Footage at Top of Prod Zone: FNL/FSL FSL 1138 FEL 2294 FNL 1106 FEL  
1543  
Sec: 22 Twp: 3N Rng: 97W Sec: 15 Twp: 3N Rng: 97W

#### 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.)

The lease contains a mix of fee and federal minerals  
Skeeters, Buffalo Horn Properties, LLC, et al. Tract 16 Lease: 800 Acres  
Sec. 22, T3N, R97W: E/2SW/4, SE/4  
Sec. 23, T3N, R97W: NW/4SW/4, S/2S/2  
Sec. 24, T3N, R97W: SW/4  
Sec. 26, T3N, R97W: NE/4NE/4, SW/4

Skeeters, Buffalo Horn Properties, LLC, et al. Tract 15 Lease: 760 Acres  
Sec. 1, T3N, R97W: N/2SW/4  
Sec. 13, T3N, R97W: E/2NE/4, SW/4NW/4, S/2SE/4, SW/4  
Sec. 14, T3N, R97W: SE/4NE/4  
Sec. 15, T3N, R97W: N/2NW/4, SW/4NW/4, NE/4

Federal Lands Tract 4 Lease: 1,000 Acres  
Sec. 22, T3N, R97W: N/2, W/2SW/4  
Sec. 23, T3N, R97W: N/2, NE/4SW/4, N/2SE/4  
Sec. 24, T3N, R97W: SE/4

Federal Lands Tract 9 Lease: 1,000 Acres  
Sec. 10, T3N, R97W: NE/4NE/4, W/2NE/4, E/2NW/4  
Sec. 14, T3N, R97W: W/2NW/4, SW/4  
Sec. 15, T3N, R97W: E/2SE/4  
Sec. 34, T3N, R97W: W/2, SE/4

Total Acres in Described Lease: 3560 Described Mineral Lease is: ☐ Fee ☐ State ☒ Federal ☐ Indian

Federal or State Lease # COC66386

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 210 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building:	<u>4625</u> Feet
Building Unit:	<u>5280</u> Feet
High Occupancy Building Unit:	<u>5280</u> Feet
Designated Outside Activity Area:	<u>5280</u> Feet
Public Road:	<u>5280</u> Feet
Above Ground Utility:	<u>5280</u> Feet
Railroad:	<u>5280</u> Feet
Property Line:	<u>862</u> 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: 3167 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 4179 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): WileyUnit Number: COC75390X**SPACING & FORMATIONS COMMENTS**Nearest wellbore is measured to the permitted vertical well Wiley 22-3-97-1 (API 05-103-11952) at 3167'.**OBJECTIVE FORMATIONS**

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
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NIOBRARA	NBRR			
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**DRILLING PROGRAM**Proposed Total Measured Depth: 16813 FeetDistance to nearest permitted or existing wellbore penetrating objective formation: 3167 Feet (Including plugged wells)Will a closed-loop drilling system be used? YesIs 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 H<sub>2</sub>S Drilling Operations Plan)Will salt sections be encountered during drilling? NoWill salt based (>15,000 ppm Cl) drilling fluids be used? NoWill oil based drilling fluids be used? YesBOP 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: ONSITE Drilling Fluids Disposal Methods: Land applicationCuttings 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
CONDUCTOR	24+0/0	20+0/0	104.13	0	80			
SURF	14+3/4	9+5/8	36	0	3300	1000	3300	0
1ST	8+3/4	7+0/0	29	0	10401	1221	10401	
1ST LINER	6+1/8	4+1/2	11.6	9174	16813	474	16813	9174

☐ 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 application is in a Comprehensive Drilling Plan \_\_\_\_\_ CDP #: \_\_\_\_\_

Location ID: 430927

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: Brad Baum

Title: Project Manager Date: 3/31/2015 Email: bbaum@kleinfelder.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: 5/8/2015

Expiration Date: 05/07/2017

### API NUMBER

05 103 11953 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**

	<p>(1) Operator shall comply with the most current revision of the Northwest Notification Policy. See attached notice.</p> <p>(2) Operator shall provide cement coverage from the intermediate casing shoe (7" first string) to a minimum of 200' above the surface casing shoe to provide isolation of all Mesa Verde group oil, gas, and water-bearing sandstone and coalbed formations that are not otherwise covered by surface casing. Verify intermediate casing cement coverage with a cement bond log.</p>
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## **Best Management Practices**

### **No BMP/COA Type**

### **Description**

1	Storm Water/Erosion Control	<p>Endeavour Operating Corporation Wiley #22-3-97 J-2H NWSE Section 22-T3N-R97W Rio Blanco Co., Colorado</p> <p>Best Management Practices Summary</p> <p>Stormwater Management Plans (SWMP) will be in place to address construction, drilling and operations associated with Oil &amp; Gas development throughout the state of Colorado in accordance with Colorado Department of Public Health and Environment (CDPHE). BMP's will be constructed around the perimeter of the site prior to, or at the beginning of construction. The BMP's used will vary according to the location, and will remain in place until the pad reaches final reclamation.</p> <p>Spill Prevention, Control, and Countermeasures (SPCC) plans will be in place to address any possible spills associated with Oil &amp; Gas operations throughout the state of Colorado in accordance with 40 CFR 112.</p> <p>Housekeeping will consist of neat and orderly storage of materials and fluids. Wastes will be temporarily stored in sealed containers and regularly collected and disposed of at offsite, suitable facilities. If spills occur prompt cleanup will be required to minimize any commingling of waste materials with stormwater runoff. Routine maintenance will be limited to fueling and lubrication of equipment. Drip pans will be used during routine fueling and maintenance to contain spills or leaks. Any waste product from maintenance will be containerized and transported offsite for disposal or recycling. There will be no major equipment overhauls conducted onsite. Equipment will be transported offsite for major overhauls. Cleanup will consist of patrolling the roadways, access areas, and other work areas to pick up trash, scrap debris, other discarded materials, and any contaminated soil. These materials will be disposed of properly.</p> <p>The above BMP's will be provided to all Endeavour Operating Corporation, contractors and will be posted in the company trailer located on location during drilling, completion and production operations.</p>
2	Drilling/Completion Operations	<p>One of the first wells drilled on the J Pad will be logged with an open-hole resistivity log with gamma-ray from TD to into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on the production casing (or intermediate casing if production liner is run). All wells on the pad will have the horizontal portion of the wellbore logged with a measured-while-drilling log with gamma-ray. 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." The Form 5 for a well without open-hole logs shall clearly identify the well by API#, well name, and well number in which open-hole logs were run.</p>

Total: 2 comment(s)

## Applicable Policies and Notices to Operators

NW Colorado Notification Policy.

### Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2167988	MINERAL LEASE MAP
400811109	FORM 2 SUBMITTED
400817416	DEVIATED DRILLING PLAN
400817418	WELL LOCATION PLAT
400822544	DIRECTIONAL DATA

Total Attach: 5 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	APD originally permitted as a vertical well named Wiley 22-3-97-2. Removed blanket bond from surface and minerals tab as per opr. Corrected distance to lease line lfrom 346' to 210' as per opr. Added comment regarding the wellbore measured to as per opr. Corrected distance to unit boundary from 3948' to 4179' as per opr. Final review complete.	4/10/2015 8:38:31 AM
Permit	Attached new DS Data sheet & mineral lease map from Opr.	4/9/2015 11:15:18 AM
Engineer	There are no offset wells within 1500 feet of the proposed wellbore. Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. This information was used in addition to locally-available geophysical logs and hydrogeologic information to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within 1 mile of the surface location is 300 feet deep. Changes per operator:The conductor casing will be driven. The cement bottom and setting depth for the surface string is 3,300 ft and it will be cemented from setting depth to ground surface (i.e., 0 ft.) The setting depth for the first string is 10,401 ft and it will be cemented from 10,401 ft. to ground surface. The liner will be cased from 9,174 ft. to 16,813 ft. and it will be cemented from 9,174 ft. to 16,813 ft. Liner size is 4 1/2".	4/9/2015 9:26:26 AM
Permit	Passed completeness.	4/8/2015 10:32:09 AM
Permit	On the Surface & Minerals tab, if the Surface Owner (SO) is committed to an oil and gas lease, then they must also be the Mineral Owner (MO). On the Surface & Minerals tab, information regarding MO differs from original Form 2 (APD). On Spacing & Formations tab, objective formations differs from original APD. Missing 317.p BMP "Plat" attachment should be "Well Loc Plat" Return to draft.	4/2/2015 1:48:09 PM

Total: 5 comment(s)