

**APPLICATION FOR PERMIT TO:**

**Drill**       Deepen       Re-enter       Recomplete and Operate

Date Received:  
03/19/2015

TYPE OF WELL    OIL     GAS     COALBED     OTHER \_\_\_\_\_      Refilling

ZONE TYPE      SINGLE ZONE     MULTIPLE ZONES     COMMINGLE ZONES       Sidetrack

Well Name: Wiley 23-3-97      Well Number: O-4H

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: SWSE      Sec: 23      Twp: 3N      Rng: 97W      Meridian: 6

Latitude: 40.209867      Longitude: -108.241104

Footage at Surface: 979 feet      FNL/FSL      FSL      FEL/FWL      FEL      FEL

Field Name: WILDCAT      Field Number: 99999

Ground Elevation: 6023      County: RIO BLANCO

GPS Data:

Date of Measurement: 10/30/2014      PDOP Reading: 1.6      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	FEL/FWL	Bottom Hole:	FNL/FSL	FEL/FWL
<u>1356</u>	FSL	<u>1472</u>	FEL	<u>1320</u>	FSL
				<u>1458</u>	FEL
Sec: <u>23</u>	Twp: <u>3N</u>	Rng: <u>97W</u>	Sec: <u>14</u>	Twp: <u>3N</u>	Rng: <u>97W</u>

**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: Blanket      Surface Surety ID: 20120034

## 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 mineral lease is a mix of fee and federal leases.

Skeeters, Buffalo Horn Properties, LLC, et al. 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

John R. Pierce Trust Lease: (320 acres)

Sec. 14, T3N, R97W: E/2NW/4, W/2NE4, SE/4

Federal Lands: (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

See attached mineral lease map.

Total Acres in Described Lease: 2120 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: 36 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 5280 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 5280 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

Property Line: 3103 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: 30 Feet

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

Federal or State Unit Name (if appl): Wiley Unit Number: COC75390X

## SPACING & FORMATIONS COMMENTS

The top of the producing interval for the 4H is approximately 36 feet north of a lease boundary. However, the well is located within a federal unit and is fully committed to the unit lease.

## 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			

## DRILLING PROGRAM

Proposed Total Measured Depth: 16538 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 30 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 H<sub>2</sub>S 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: ONSITE Drilling Fluids Disposal Methods: Land application

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
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	10908	1281	10908	0
1ST LINER	6+1/8	4+1/2	11.60	10138	16538	459	16538	9196

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 The top of the producing interval for the 4H is approximately 36 feet north of a lease boundary. However, the well is located within a federal unit and is fully committed to the unit lease.

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

Location ID: 430926

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: 3/19/2015 Email: bbaum@kleinfelder.com

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: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

**API NUMBER**

05

### 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.

## Best Management Practices

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Storm Water/Erosion Control	Stormwater Management Plans (SWMP) will be in place to address construction, drilling and operations associated with Oil & 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.
2	Drilling/Completion Operations	The first well drilled on the Wiley 23-3-97 O-Pad (API # 05-103-11954-00, Wiley 23-3-97-1, vertical pilot hole) was logged with an open-hole resistivity log with gamma-ray from TD into the surface casing. All subsequent 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, at minimum, 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 by API#, well name, and number gfor the well in which open-hole logs were run.
3	General Housekeeping	<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. Any waste product from maintenance will be containerized and transported offsite for disposal or recycling.</p> <p>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>
4	Material Handling and Spill Prevention	<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>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.</p>

Total: 4 comment(s)

### Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

### Attachment Check List

<b>Att Doc Num</b>	<b>Name</b>
400810221	FORM 2 SUBMITTED
400810392	OffsetWellEvaluations Data
400817160	DIRECTIONAL DATA
400817162	DEVIATED DRILLING PLAN
400817184	WELL LOCATION PLAT

Total Attach: 5 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Setting depth was not updated to reflect new MD. Return to draft.	4/9/2015 1:02:19 PM
Permit	Proposed measured depth does not match deviated drilling plan. Return to draft.	4/8/2015 10:10:46 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). Missing 317.p BMP. Location ID required on Submit tab. Submitter is not an approved agent. "Plat" attachment should be "Well Loc Plat" Return to draft.	4/2/2015 2:40:10 PM
Permit	1) H2S dropdown needs to have a value selected. 2) If surface owner has signed O&G lease, then previous two boxes should also be checked. 3) Deviated drilling plan missing. Please attach this document.	3/20/2015 1:21:54 PM

Total: 4 comment(s)

