

FORM  
2  
Rev  
12/20

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:  
402983903  
**(SUBMITTED)**  
Date Received:  
05/23/2022

APPLICATION FOR PERMIT TO:

Drill     Deepen     Re-enter     Recomplete and Operate    Amend   
TYPE OF WELL    OIL     GAS     COALBED     OTHER: \_\_\_\_\_    Refile   
ZONE TYPE    SINGLE ZONE     MULTIPLE ZONES     COMMINGLE ZONES     Sidetrack

Well Name: Hebron 0780    Well Number: 8-18H  
Name of Operator: D90 ENERGY LLC    COGCC Operator Number: 10706  
Address: 952 ECHO LANE SUITE 480  
City: HOUSTON    State: TX    Zip: 77024  
Contact Name: Doug Sandridge    Phone: (303)330 4847    Fax: ( )  
Email: doug@fulcrumef.com

**RECLAMATION FINANCIAL ASSURANCE**  
Plugging and Abandonment Bond Surety ID: 20180090

WELL LOCATION INFORMATION

**Surface Location**  
QtrQtr: Lot 4    Sec: 18    Twp: 7N    Rng: 80W    Meridian: 6  
Footage at Surface: 275 Feet    FSL    275 Feet    FWL  
Latitude: 40.571183    Longitude: -106.424225  
GPS Data:    GPS Quality Value: 1.4    Type of GPS Quality Value: PDOP    Date of Measurement: 06/10/2016  
Ground Elevation: 8208  
Field Name: JACKSON    Field Number: 40550

Well Plan: is  Directional     Horizontal (highly deviated)     Vertical  
If Well plan is Directional or Horizontal attach Deviated Drilling Plan and Directional Data.

**Subsurface Locations**  
Top of Productive Zone (TPZ)  
Sec: 18    Twp: 7N    Rng: 80W    Footage at TPZ: 1049    FSL    1650    FWL  
Measured Depth of TPZ: 7407    True Vertical Depth of TPZ: 6663    FNL/FSL    FEL/FWL  
Base of Productive Zone (BPZ)  
Sec: 18    Twp: 7N    Rng: 80W    Footage at BPZ: 300    FNL    1650    FWL  
Measured Depth of BPZ: 11544    True Vertical Depth of BPZ: 6663    FNL/FSL    FEL/FWL  
Bottom Hole Location (BHL)  
Sec: 18    Twp: 7N    Rng: 80W    Footage at BHL: 300    FNL    1650    FWL  
FNL/FSL    FEL/FWL

## LOCAL GOVERNMENT PERMITTING INFORMATION

County: JACKSON

Municipality: N/A

Is the Surface Location of this Well in an area designated as one of State interest and subject to the requirements of § 24-65.1-108 C.R.S.? No

Per § 34-60-106(1)(f)(I)(A) C.R.S., the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas Location.

SB 19-181 provides that when "applying for a permit to drill," operators must include proof that they sought a local government siting permit and the disposition of that permit application, or that the local government does not have siting regulations. § 34-60-106(1)(f)(I)(A) C.R.S.

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this Location?  Yes  No

If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location.

The disposition of the application filed with the Relevant Local Government is: Waived Date of Final Disposition: \_\_\_\_\_

Comments: Jackson County does not regulate oil & gas.

## SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS LOCATION

Surface Owner of the land at this Well's Oil and Gas Location:  Fee  State  Federal  Indian

Mineral Owner beneath this Well's Oil and Gas Location:  Fee  State  Federal  Indian

Surface Owner Protection Financial Assurance (if applicable): \_\_\_\_\_ Surety ID Number (if applicable): \_\_\_\_\_

### MINERALS DEVELOPED BY WELL

The ownership of all the minerals that will be developed by this Well is (check all that apply):

- Fee  
 State  
 Federal  
 Indian  
 N/A

### LEASE INFORMATION

Using standard QtrQtr, Section, Township, Range format describe one entire mineral lease as follows:

\* If this Well is within a unit, describe a lease that will be developed by the Well.

\* If this Well is not subject to a unit, describe the lease that will be produced by the Well.

(Attach a Lease Map or Lease Description or Lease if necessary.)

All, 18, 7N, 80W

Total Acres in Described Lease: 617 Described Mineral Lease is:  Fee  State  Federal  Indian

Federal or State Lease # \_\_\_\_\_

### SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 4085 Feet  
Building Unit: 4085 Feet  
Public Road: 4751 Feet  
Above Ground Utility: 4816 Feet

#### INSTRUCTIONS:

- Specify all distances per Rule 308.b.(1).
- 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 – as defined in 100 Series Rules.

Railroad: 5280 Feet  
Property Line: 275 Feet

### 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           | 531-30                  | 617                           | Sec 18: All                          |

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

### SUBSURFACE MINERAL SETBACKS

Enter 5280 for distance greater than 1 mile.

Is this Well within a unit? Yes

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: 300 Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well within the same unit permitted or completed in the same formation: 269 Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: \_\_\_\_\_ Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well producing from the same lease and permitted or completed in the same formation: \_\_\_\_\_ Feet

### Exception Location

If this Well requires the approval of a Rule 401.c Exception Location, enter the Rule or spacing order number and attach the Exception Location Request and Waivers. \_\_\_\_\_

### SPACING & FORMATIONS COMMENTS

### DRILLING PROGRAM

Proposed Total Measured Depth: 11544 Feet TVD at Proposed Total Measured Depth 6663 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: \_\_\_\_\_ Feet  No well belonging to another operator within 1,500 feet

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 Plan unless a plan was already submitted with the Form 2A per Rule 304.c.(10).

Will there be hydraulic fracture treatment at a depth less than 2,000 feet in this well? No

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

Beneficial reuse or land application plan submitted? \_\_\_\_\_

Reuse Facility ID: \_\_\_\_\_ or Document Number: \_\_\_\_\_

## CASING PROGRAM

| Casing Type | Size of Hole | Size of Casing | Grade | Wt/Ft | Csg/Liner Top | Setting Depth | Sacks Cmt | Cmt Btm | Cmt Top |
|-------------|--------------|----------------|-------|-------|---------------|---------------|-----------|---------|---------|
| CONDUCTOR   | 26           | 16+1/4         | J55   | 42    | 0             | 90            | 190       | 90      | 0       |
| SURF        | 12+1/4       | 9+5/8          | J55   | 36    | 0             | 2500          | 629       | 2500    | 0       |
| 1ST         | 8+3/4        | 5+1/2          | P110  | 20    | 0             | 11544         | 1879      | 11544   | 0       |

Conductor Casing is NOT planned

## POTENTIAL FLOW AND CONFINING FORMATIONS

| Zone Type       | Formation /Hazard    | Top M.D. | Top T.V.D. | Bottom M.D. | Bottom T.V.D. | TDS (mg/L) | Data Source | Comment  |
|-----------------|----------------------|----------|------------|-------------|---------------|------------|-------------|--|
| Groundwater     | Coalmont Sand        | 0        | 0          | 1645        | 1645          | 501-1000   | USGS        | Site name:<br>SB00708018BCC1<br>TD@600' TDS@923  |
| Confining Layer | Coalmont Shale       | 1645     | 1645       | 3161        | 3160          |            |             |  |
| Confining Layer | Upper Pierre         | 3161     | 3160       | 4448        | 4400          |            |             |  |
| Hydrocarbon     | Sussex               | 4448     | 4400       | 4865        | 4800          |            |             |  |
| Confining Layer | Pierre Lower (Shale) | 4865     | 4800       | 5023        | 4950          |            |             |  |
| Hydrocarbon     | Shannon              | 5023     | 4950       | 5073        | 5000          |            |             |  |
| Confining Layer | Pierre Lower (Shale) | 5073     | 5000       | 6539        | 6348          |            |             |  |
| Hydrocarbon     | Niobrara             | 6539     | 6348       | 11544       | 6663          |            |             | Bottom TVD is bottom of the well and not bottom of the formation; The formation is not planned to be exited. |

## OPERATOR COMMENTS AND SUBMITTAL

Comments

This Form 2 is being submitted as a refile of API # 05-057-06577.

There have been no new buildings constructed and no changes to the surrounding land use, Surface & Minerals, cultural distance setbacks, formations, or mineral lease description. The SHL/TPZ/BHL/TMD/TVD do not change, so no revised directional data is required. All previously submitted notices, plats (Doc #401080535), Surface Use Agreements, and letters are also still valid.

The nearest well in unit per anti-collision is unchanged as the Hebron 5-18H (API: 05-057-06502) @ 269'. No well belonging to another operator within 1,500 feet.

PFZ Comment: The upper shallow section of the North Park is not well defined. We used the depth and lithology components to define two separate sections; one being sand (as North Park FM) which is most likely a possible source of groundwater and the second being a shale (as Coalmont FM) which should not be a source of groundwater. The shale should not be a source of groundwater and has not been found to be a source of groundwater in the USGS dataset.

This application is in a Comprehensive Area Plan No CAP #: \_\_\_\_\_

Oil and Gas Development Plan Name \_\_\_\_\_ OGDID#: \_\_\_\_\_

Location ID: 447512

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: \_\_\_\_\_ Print Name: Justin Garrett

Title: Sr. Regulatory Analyst Date: 5/23/2022 Email: regulatory@ascentgeomatics.c

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved: \_\_\_\_\_ Director of COGCC Date: \_\_\_\_\_  
 Expiration Date: \_\_\_\_\_

|                                      |
|--------------------------------------|
| <b>API NUMBER</b><br>05 057 06577 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.

| <u>COA Type</u> | <u>Description</u>   |
|-----------------|--|
|                 | Return to draft. Update PFZ table with Coalmont groundwater details. Submit OWE with all wells within 1500'. |

### Best Management Practices

| <u>No BMP/COA Type</u>           | <u>Description</u>  |
|----------------------------------|---|
| 1 Drilling/Completion Operations | Multi Well Open-Hole Logging - Rule 317.p: Alternative Logging Program: One of the first wells drilled on the pad – Peters 0781 9-13H12 (API 05-057-06584). The first well drilled on this pad has been logged with open-hole Resistivity Log and Gamma Ray Log from the kick-off point into the surface casing. That info is attached to form 5 Doc# 401009756. All proposed wells related to this permit 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 the well (Peters 0781 9-13H12 (API 05-057-06584) in which open-hole logs were run. |
| 2 Drilling/Completion Operations | Blowout Prevention Equipment ("BOPE"): A double ram annular preventer will be used during drilling.   |

Total: 2 comment(s)

### Attachment List

| <u>Att Doc Num</u> | <u>Name</u>                |
|--------------------|----------------------------|
| 403024456          | OffsetWellEvaluations Data |

Total Attach: 1 Files

### General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|-------------------|----------------|---------------------|
|                   |                | Stamp Upon Approval |

Total: 0 comment(s)

**Public Comments**

No public comments were received on this application during the comment period.

