

**APPLICATION FOR PERMIT TO:**

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

TYPE OF WELL    OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> COALBED <input type="checkbox"/> OTHER _____ ZONE TYPE       SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONES <input checked="" type="checkbox"/> COMMINGLE ZONES <input checked="" type="checkbox"/>	Refiling <input checked="" type="checkbox"/> Sidetrack <input type="checkbox"/>
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Date Received: 11/30/2018

Well Name: Mary Jane      Well Number: 13-5

Name of Operator: D90 ENERGY LLC      COGCC Operator Number: 10706

Address: 202 TRAVIS STREET #402  
 City: HOUSTON      State: TX      Zip: 77002

Contact Name: Kevin Oakes      Phone: (713)227-0391      Fax: ( )  
 Email: kevin@d90energy.com

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

**WELL LOCATION INFORMATION**

QtrQtr: SWSW      Sec: 5      Twp: 7S      Rng: 54W      Meridian: 6  
 Latitude: 39.464760      Longitude: -103.470930

Footage at Surface:      982      Feet      FSL      658      Feet      FWL  
FNL/FSL      FEL/FWL

Field Name: BROKEN SPEAR      Field Number: 7567

Ground Elevation: 5353      County: LINCOLN

GPS Data:  
 Date of Measurement: 01/31/2017      PDOP Reading: 2.8      Instrument Operator's Name: Elijah Frane

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

Sec: \_\_\_\_\_ Twp: \_\_\_\_\_ Rng: \_\_\_\_\_      Sec: \_\_\_\_\_ Twp: \_\_\_\_\_ Rng: \_\_\_\_\_

**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: Surface Use Agreement

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.)

T7S R54W SEC 5

Total Acres in Described Lease: 638 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: 658 Feet

**CULTURAL DISTANCE INFORMATION**

Distance to nearest:

Building: 5125 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 4220 Feet

Above Ground Utility: 4220 Feet

Railroad: 5280 Feet

Property Line: 658 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 proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 1240 Feet

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

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

**SPACING & FORMATIONS COMMENTS**

\_\_\_\_\_

**OBJECTIVE FORMATIONS**

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
ATOKA	ATOK			
CHEROKEE	CHRK			
LANSING-KANSAS CITY	LGKC			
MARMATON	MRTN			
MISSISSIPPIAN-SPERGEN	MS-SP			
WOLFCAMP	WFCMP			

## DRILLING PROGRAM

Proposed Total Measured Depth: 8800 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: 877 Feet  No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? No

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? 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 609

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Recycle/reuse

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Drilling pit

Other Disposal Description:

BACKFILL

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

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	12+1/4	8+5/8	24	0	440	290	440	0
1ST	7+7/8	5+1/2	17	0	8800	602	8800	0

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 As mentioned, this is a refile for an already approved APD Form 2 from Nighthawk Energy, API 05-073-06722-00. Some attachments have been changed to D90 Energy, LLC's name but some still bare the name of Nighthawk. During the sale process, all surveys and Surface Use Agreements were assigned to D90 Energy.

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

Location ID: 450629

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

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

Signed: \_\_\_\_\_ Print Name: Kevin Oakes

Title: Regulatory Manager Date: 11/30/2018 Email: kevin@d90energy.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: 1/4/2019

Expiration Date: 01/03/2021

**API NUMBER**

05 073 06722 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>
	<p>Bradenhead tests shall be performed and reported according to the following schedule and Form 17 submitted within 10 days of each test.:</p> <p>1) All: Within 60 days of rig release, prior to stimulation.</p> <p>2) Delayed completion: 6 months after rig release, prior to stimulation.</p> <p>3) All: Within 30 days of first production, as reported on Form 5A.</p>
	<p>1) Provide 48 hour notice prior to spud vai electronic Form 42.</p> <p>2) Set at least 440' of surface casing (5% of proposed TVD). Cement to surface.</p> <p>3) If production casing is set provide cement coverage to at least 200' above the shallowest completed interval or Lansing, whichever is shallower and across Cheyenne/Dakota interval (5200' to 4600' min). Run and submit CBL to verify cemented intervals.</p> <p>4) If well is a dry hole, set plugs at the following depths: 40 sks cement +/- 50' above the Spergen, 40 sks cement +/- above the Lansing, 40 sks cement across any DST w/ show, 40 sks cement 100' below Cheyenne (5200'), 40 sks cement 50' above top of Dakota (4600'), 50 sks cement from 50' below surface casing show up into surface casing. 15 sks cement in top of surface casing, cut 4 ft below GL, weld on plate, 5 sks cement each in rat hole and mouse hole.</p>

## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	<p>1) Provide 48 hour notice prior to spud vai electronic Form 42.</p> <p>2) Set at least 430' of surface casing for aquifer protection. Cement to surface.</p> <p>3) If production casing is set provide cement coverage to at least 200' above the shallowest completed interval or Lansing, whichever is shallower and across Cheyenne/Dakota interval (5200' to 4600' min). Run and submit CBL to verify cemented intervals.</p> <p>4) If well is a dry hole, set plugs at the following depths: 40 sks cement +/- 50' above the Spergen, 40 sks cement +/- above the Lansing, 40 sks cement across any DST w/ show, 40 sks cement 100' below Cheyenne(5200'), 40 sks cement 50' above top of Dakota (4600'), 50 sks cement from 50' below surface casing show up into surface casing. 15 sks cement in top of surface casing, cut 4ft below GL, weld on plate, 5 sks cement each in rat hole and mouse holw</p>
2	Drilling/Completion Operations	<p>Open-hole Resistivity Log with Gamma-Ray Log will be run from TD into the surface casing. A Cement Bond Log with Gamma-Ray will be run on production casing, or on intermediate casing if a production liner is run. The Form 5, Completion Report, will list all logs run and have those logs attached.</p>

Total: 2 comment(s)

## Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.  
[http://cogcc.state.co.us/documents/reg/Policies/Wildlife\\_Notice.pdf](http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401845552	FORM 2 SUBMITTED
401845737	TOPO MAP
401845892	SURFACE AGRMT/SURETY
401854426	WELL LOCATION PLAT

Total Attach: 4 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	01/02/2019
Permit	Corrected distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation to 1240'.	01/02/2019
Permit	Changed Surety ID to 20180090 was 1314. Passed completeness.	11/30/2018

Total: 3 comment(s)