

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 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: 11-5

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: NESW Sec: 5 Twp: 7S Rng: 54W Meridian: 6

Latitude: 39.467010 Longitude: -103.467630

Footage at Surface: 1791 Feet FNL/FSL FSL 1542 Feet FEL/FWL FWL

Field Name: BROKEN SPEAR Field Number: 7567

Ground Elevation: 5356 County: LINCOLN

GPS Data:
Date of Measurement: 02/10/2017 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.)

All Sec 5 T7S R54W 6th PM

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: 1542 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 4150 Feet

Building Unit: 4150 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 3406 Feet

Above Ground Utility: 3425 Feet

Railroad: 5280 Feet

Property Line: 1542 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.)
MISSISSIPPIAN	MSSP			
PENNSYLVANIAN	PENN			

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: 870 Feet No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? No

Is H₂S 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 609

DRILLING WASTE MANAGEMENT PROGRAM

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

Cuttings Disposal: ONSITE Cuttings Disposal Method: Drilling pit

Other Disposal Description:

Backfill when dry

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	275	440	
1ST	7+7/8	5+1/2	17	300	8800	602	8800	

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 Mary Jane 11-5 will produce into the Mary Jane 8-5 Battery

Existing wellbore within 1,500 is 05-073-06169 which was PA'd on 1-15-1985

As mentioned, this is a refile for an already approved APD Form 2 from Nighthawk Energy, API 05-073-06724-00. 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: 451812

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: 2/12/2019

Expiration Date: 02/11/2021

API NUMBER

05 073 06724 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> <ol style="list-style-type: none"> 1) All: Within 60 days of rig release, prior to stimulation. 2) Delayed completion: 6 months after rig release, prior to stimulation. 3) All: Within 30 days of first production, as reported on Form 5A.
	<ol style="list-style-type: none"> 1) Provide 48 hour notice prior to spud via electronic Form 42. 2) Set at least 440' of surface casing (5% of proposed TVD). Cement to surface. 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. 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.

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	General Housekeeping	<p>Bradenhead tests shall be performed and reported according to the following schedule and Form 17 submitted within 10 days of each test:</p> <ol style="list-style-type: none"> 1) All Within 60 days of rig release, prior to stimulation. 2) Delayed Completion: 6 months after rig release, prior to stimulation 3) All: Within 30 days of first production, as reported on Form 5A
2	Drilling/Completion Operations	<ol style="list-style-type: none"> 1) Provide 48 hour notice prior to spud via electronic Form 42 2) Set at least 420' of surface casing 3) If production casing is set provide cement coverage to at least 200' above the shallowest completed interval or Spergen, whichever is shallower and across Cheyenne/Dakota interval (5200' to 4600" min). Rn and submit CBL to verify cemented intervals. 4) If well is a dry hole set plugs at the following depths: 40 sks cement +/- 50' avobe the Spergen, 40 sks cement across and DST w/ show, 40 sks cement 50' 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 hole.
3	Drilling/Completion Operations	<p>Open hole resistivity log with Gamma Ray Log will be run From TD into the surace casing. A Cement Bond Log will be run on produciton casing, or on intermediate casing if a production liner is run. The Form 5, completion report, will list all logs run and have logs attached.</p>

Total: 3 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

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401852443	FORM 2 SUBMITTED

401854399	WELL LOCATION PLAT
401854405	TOPO MAP
401854437	SURFACE AGRMT/SURETY

Total Attach: 4 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	02/11/2019
Permit	Corrected SHL longitude (typo) to reflect well location plat.	02/11/2019
Permit	Changed Surety ID to 20180090 from 1314. Passed completeness.	11/30/2018

Total: 3 comment(s)