

FORM  
2  
Rev  
02/20

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:  
402437726

APPLICATION FOR PERMIT TO:

Drill       Deepen       Re-enter       Recomplete and Operate

Date Received:  
08/06/2020

TYPE OF WELL    OIL     GAS     COALBED     OTHER: \_\_\_\_\_  
ZONE TYPE      SINGLE ZONE     MULTIPLE ZONES     COMMINGLE ZONES

Refiling   
Sidetrack

Well Name: Stugart State      Well Number: 01N  
Name of Operator: PDC ENERGY INC      COGCC Operator Number: 69175  
Address: 1775 SHERMAN STREET - STE 3000  
City: DENVER      State: CO      Zip: 80203  
Contact Name: Ally Ota      Phone: (303)860-5800      Fax: ( )  
Email: alexandria.ota@pdce.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20160047

WELL LOCATION INFORMATION

QtrQtr: SENW      Sec: 20      Twp: 5N      Rng: 66W      Meridian: 6  
Latitude: 40.386863      Longitude: -104.805753  
Footage at Surface:      1976      Feet      FNL      2055      Feet      FWL  
Field Name: WATTENBERG      Field Number: 90750  
Ground Elevation: 4941      County: WELD  
GPS Data:      GPS Quality Value: 1.6      Type of GPS Quality Value: PDOP      Date of Measurement: 11/09/2017  
Instrument Operator's Name: Aaron Rivera  
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  
120      FNL      2489      FEL      120      FNL      460      FEL  
Sec: 20      Twp: 5N      Rng: 66W      Sec: 21      Twp: 5N      Rng: 66W

LOCAL GOVERNMENT INFORMATION

County: WELD      Municipality: Greeley  
Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."  
The local government with jurisdiction is: Municipality  
Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this location? If the local government does regulate the siting, but has waived its right to precede the COGCC in siting determination, indicate by selecting "YES" here and selecting "Waived" for the disposition below.       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 local government siting permit type is: USR  
The local government siting permit was filed on: 10/31/2018

The disposition of the application filed with the local government is: Approved

Additional explanation of local process:

USR Approved on 10/8/2019

## 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: No

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.)

Lease map attached

Total Acres in Described Lease: 178 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: 0 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building:	<u>977</u> Feet
Building Unit:	<u>1144</u> Feet
High Occupancy Building Unit:	<u>5059</u> Feet
Designated Outside Activity Area:	<u>5280</u> Feet
Public Road:	<u>1565</u> Feet
Above Ground Utility:	<u>629</u> Feet
Railroad:	<u>5280</u> Feet
Property Line:	<u>607</u> Feet
School Facility:	<u>5059</u> Feet
School Property Line:	<u>5008</u> Feet
Child Care Center:	<u>5059</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, Designated Outside Activity Area, School Facility, and Child Care Center – 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: 43 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 460 Feet (Enter 5280 for distance greater than 1 mile.)

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

**SPACING & FORMATIONS COMMENTS**

Proposed Spacing Unit: T5N-R66W: Section 17: SESW, S2SE, Section 16: S2S2, Section 21: N2N2, Section 20: N2NE, NENW, PSU Attached

If this Form 2 is associated with a Drilling and Spacing Unit application, provide docket number: \_\_\_\_\_

**OBJECTIVE FORMATIONS**

<u>Objective Formation(s)</u>	<u>Formation Code</u>	<u>Spacing Order Number(s)</u>	<u>Unit Acreage Assigned to Well</u>	<u>Unit Configuration (N/2, SE/4, etc.)</u>
NIOBRARA	NBRR		560	GWA

## DRILLING PROGRAM

Proposed Total Measured Depth: 15300 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: 863 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 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 318A

## DRILLING WASTE MANAGEMENT PROGRAM

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

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

The surface hole will be drilled with water based mud and the production hole will be drilled with oil based mud. Water based drilling fluid and cuttings will be land applied at PDC spread fields with COGCC Facility ID 449950 or 461014.

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: 461014 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	9+5/8	36	0	1600	920	1600	0
1ST	8+1/2	5+1/2	20	0	15300	2035	15300	

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

### 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 PDC requests an exception to rule 317.p.: PDC will run a cased hole log.

The distance to the completed portion of the nearest well on the "Spacing and Formations" tab was measured to the Lesser J 21-28D (05-123-29616). The distance to the nearest wellbore belonging to another operator on the "Drilling & Waste Plans" tab was measured to the plugged and abandoned Lesser 1 (05-123-07326). Both distances were measured via the anti-collision report attached in the deviated drilling plan.

This application is in a Comprehensive Drilling Plan       No       CDP #: \_\_\_\_\_

Location ID:       332647      

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:       Ally Ota      

Title:       Regulatory Analyst       Date:       8/6/2020       Email:       alexandria.ota@pdce.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, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved:              Director of COGCC Date:       9/29/2020      

Expiration Date:       09/28/2022      

<b>API NUMBER</b>
05 123 51265 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
Construction	Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).
Construction	If conductors are preset, operator shall comply with Notice to Operators: Procedures for Preset Conductors (dated September 1, 2016, revised October 6, 2016).
Drilling/Completion Operations	<p>Operator acknowledges the proximity of the listed wells. Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>Noble 123-13988 COLTRANE-PM J *28-4  PDC 123-14053 LESSER PM J *21-1  PDC 123-17189 A.J. GOLD *22-13  Noble 123-22759 LUNDVALL *11-20  Noble 123-29472 WIEDEMAN J *28-18D</p> <p>Operator acknowledges the proximity of the listed non-operated wells. Operator assures that this offset list will be remediated per the DJ Basin Horizontal Offset Policy (option 3). Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>123-13681 LESSER *7-21</p> <p>Operator acknowledges the proximity of the listed wells. Operator assures that this offset list will be remediated per the DJ Basin Horizontal Offset Policy (option 4). Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation will be completed, during the hydraulic stimulation of this well. This Form 42 shall be filed 48 hours prior to stimulation. Operator will assure that the well's Bradenhead is open and monitored during the entire stimulation treatment – a person will monitor for any evidence of fluid, a Bradenhead test will be performed prior to the beginning of stimulation.</p> <p>PDC 123-29615 LESSER J *21-27D  PDC 123-29616 LESSER J *21-18D  PDC 123-45509 Sanford *30C-30-M  PDC 123-49930 Sanford *32N-30B-M</p>
Drilling/Completion Operations	<p>Per COGCC Order 1-232, Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test:</p> <ol style="list-style-type: none"> <li>1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation.</li> <li>2) If a delayed completion, 6 months after rig release and prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation.</li> <li>3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.</li> </ol>
Drilling/Completion Operations	<ol style="list-style-type: none"> <li>1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 48 hour spud notice via Form 42 for all subsequent wells drilled on the pad.</li> <li>2) Comply with Rule 317.j. and provide cement coverage from TD to a minimum of 500' above Niobrara. Verify coverage with cement bond log.</li> <li>3) Oil-based drilling fluid is to be used only after all fresh water aquifers are covered.</li> </ol>

## Best Management Practices

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Drilling/Completion Operations	Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.
2	Drilling/Completion Operations	Operator will comply with COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012. The Colorado Oil and Gas Conservation Commission (COGCC) has established this Policy Regarding Bradenhead Monitoring During Hydraulic Fracturing Treatments ("Treatment") in the Greater Wattenberg Area ("GWA") pursuant to COGCC 207.a. ("Policy"). This Policy applies to oil and gas operations in the GWA as defined by the COGCC Rules of Practice and Procedure.
3	Drilling/Completion Operations	OPEN HOLE LOGGING EXCEPTION: One of the first wells drilled on the pad will be logged with cased-hole neutron log with gamma ray log from the kick-off point into the surface casing. All wells on the pad 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 in that well and have those logs attached. The Form 5 for each well shall state "Open Hole Logging Exception - No open-hole logs were run" and shall clearly identify the type of log and the well (by API #) in which open-hole logs were run.  d

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](http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf)

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.  
<http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf>

### Attachment Check List

<b>Att Doc Num</b>	<b>Name</b>
402437726	FORM 2 SUBMITTED
402455154	OffsetWellEvaluations Data
402460983	WELL LOCATION PLAT
402460984	LEASE MAP
402460985	EXCEPTION LOC REQUEST
402460986	PROPOSED SPACING UNIT
402460988	OPEN HOLE LOGGING EXCEPTION
402460989	DEVIATED DRILLING PLAN
402460994	DIRECTIONAL DATA
402460999	SURFACE AGRMT/SURETY
402499996	OFFSET WELL EVALUATION

Total Attach: 11 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	09/24/2020
Permit	Permitting review complete.	09/03/2020
Permit	COGCC conducted the technical review for the related Oil and Gas Location Assessment permit, Form 2A document #402308980 under the statutory authority provided through SB 19-181, including the Objective Criteria. The Director approved the Form 2A on 7/30/2020, amending Location ID #332647 subject to conditions included in the permit. The well proposed by this related Form 2 was contemplated during COGCC's review of the Form 2A. The Objective Criteria Review Memo (Doc# 1347925) can be found in the document file for this Location.	09/03/2020
OGLA	COGCC staff reviewed and considered all public comments received for this Form 2. The Form 2 and the related Form 2A were reviewed under the Objective Criteria, as set out under SB 19-181, that allows for permitting to continue while new rules are being considered.	09/03/2020
LGD	<p>On October 8, 2019, the City of Greeley's Planning Commission approved a Use by Special Review (USR2018-0023) for SRC Stugart State 6-20 Oil and Gas Pad-Facility.</p> <p>The approved USR allows for up to 32 oil gas wellheads, 32 separators, 6 oil tanks, 2 water tanks, plus associated equipment. The subject site is approximately 17.61 acres of the 77-acre site and is zoned H-A (Holding Agriculture).</p> <p>A Cumulative Traffic Impact Study (TIS) of five proposed SRC well sites was performed by Transportation Consultants, Inc. to identify potential traffic impacts. The City's Traffic Department did not identify a significance increase in traffic with this project. Nonetheless, the City requested, based on the TIS, that a Roadway Maintenance Agreement (Reception No. 4585447) with SRC Energy, Inc. be memorialized to define roadway maintenance and repair responsibilities. Per the Roadway Maintenance Agreement, the established truck traffic routes will have clear visible signage of egress/ingress points on the site as shown in the approved USR plans. All deviations will require City approval. Trucks may not exceed CDOT regulations.</p> <p>The oil and gas production and its associated equipment will have a setback greater than 500 feet from the nearest residential property pursuant to Section 18.56.030 and 18.56.040 of the City of Greeley Development Code. The landscaping plan approved by the Use by Special Review complies with City code requirements. Future pipeline connections will require a land use application review and its approval prior to breaking ground/installation.</p> <p>The City of Greeley requests that the approved Use by Special Review be added as a sundry to this permit. Please contact City staff with any questions on this matter.</p> <p>City of Greeley LGD Comments</p> <p>Brad Mueller</p> <p>Brad.Mueller@greeleygov.com</p> <p>(970) 350-9786</p>	08/28/2020
Permit	SLB has no concerns with this application.	08/18/2020
Permit	Emailed the SLB to notify them of this pending application.	08/13/2020
Permit	Surface Use Agreement has waivers for Rule 318A.a & 318A.c. See page 5, Section 9.(a).	08/13/2020
Permit	Passed Completeness.	08/13/2020
Permit	2A indicates that minerals beneath the location will NOT be developed; lease is not under surface location and WSU does not cover surface location. Return to draft.	08/11/2020

Total: 10 comment(s)