

FORM  
2  
Rev  
08/13

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:  
400508058

APPLICATION FOR PERMIT TO:

Drill  Deepen  Re-enter  Recomplete and Operate

Date Received:  
11/06/2013

TYPE OF WELL OIL  GAS  COALBED  OTHER Re-enter and Plug  
ZONE TYPE SINGLE ZONE  MULTIPLE ZONES  COMMINGLE ZONES

Refiling   
Sidetrack

Well Name: Sohio State Well Number: 2  
Name of Operator: CARRIZO NIOBRARA LLC COGCC Operator Number: 10439  
Address: 500 DALLAS STREET #2300  
City: HOUSTON State: TX Zip: 77002  
Contact Name: Cynthia Pinel Phone: (713)358-6210 Fax: ( )  
Email: cynthia.pinel@crzo.net

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20120105

WELL LOCATION INFORMATION

QtrQtr: SWNE Sec: 36 Twp: 9N Rng: 61W Meridian: 6  
Latitude: 40.707054 Longitude: -104.152165

Footage at Surface: 1950 feet  FNL/FSL 1920 feet  FEL/FWL  
FNL FEL

Field Name: SHIVAREE Field Number: 77452

Ground Elevation: 4941 County: WELD

GPS Data:  
Date of Measurement: 08/21/1970 PDOP Reading: 0.0 Instrument Operator's Name: N/A

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: No

The right to construct the Oil and Gas Location is granted by:           

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.)

Per instructions from COGCC, a surface use agreement is not required when the surface and mineral owner are both State.

Total Acres in Described Lease: \_\_\_\_\_ 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: \_\_\_\_\_ Feet

**CULTURAL DISTANCE INFORMATION**

Distance to nearest:

Building: 1744 Feet  
 Building Unit: 4031 Feet  
 High Occupancy Building Unit: 5280 Feet  
 Designated Outside Activity Area: 5280 Feet  
 Public Road: 1960 Feet  
 Above Ground Utility: 1832 Feet  
 Railroad: 5280 Feet  
 Property Line: 1920 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: 415 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.)

**DRILLING PROGRAM**

Proposed Total Measured Depth: 8500 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 415 Feet (Including plugged wells)

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 N/A

### DRILLING WASTE MANAGEMENT PROGRAM

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

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

No pit will be constructed and location will not be expanded beyond original disturbance.

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	171	100	171	0
1ST	7+7/8	5+1/2	17	4665	7250	350	7250	

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

Operator would like to re-enter this well to adequately re-plug. Procedures for plugging are included below and also attached in PDF format. Proposed wellbore diagram attached as well. No pits to be used and the surface disturbance will not be enlarged beyond original disturbance. PDOP reading not available due to survey conducted in 1970 by previous operator.

1. Locate old surface casing using magnetometer. Record the GPS coordinates and the datum used for the GPS coordinates. Set a stake and try to locate the boundaries of the old pad site.
2. Dig down to the old surface casing and cut plate off, install a slip collar to fit over the 8 5/8".
3. Install flange. If rig is not on location then install a dry hole tree to secure the well until the rig arrives.
4. MIRU workover rig and related equipment including power swivel, mud tank and pump. Bleed off any pressure on the dry hole tree. ND the dry hole tree and NU the rig BOP's.
5. Test the BOP's to 250 psi for a low test and 4,500 psi for a high test. RU the work floor and PU 2 7/8" 8 rd work string, 3-6 1/2" DCs, and a 7 7/8" rock bit. Pressure test surface casing to 1000 psi.
6. Drill up cement plugs at surface and from 130' to casing stub at 390'. Circulate and condition mud, POOH.
7. GIH with casing cutter and cut 5 1/2" casing at ±600' and retrieve casing stub.
8. GIH with open ended tubing inside 5 1/2" casing, and prepare to set cement plugs.
9. RU cementers. Test lines to 4,500 psi.
10. Set plugs coming up hole according to the following Cement Plug Table.
11. Once the top plug has been set cut casing to 5' below surface and weld on a plate to seal the well. Cover up the well and remediate the disturbed area with the appropriate seed mix.

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

Location ID: \_\_\_\_\_

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: Cynthia Pinel \_\_\_\_\_

Title: Regulatory Comp. Analyst \_\_\_\_\_ Date: 11/6/2013 \_\_\_\_\_ Email: cynthia.pinel@crzo.net \_\_\_\_\_

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: Matthew Lee \_\_\_\_\_ Director of COGCC Date: 12/5/2013 \_\_\_\_\_

Expiration Date: 12/04/2015 \_\_\_\_\_

API NUMBER

05 123 07185 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

	<p>1) Provide 24 hour notice of MIRU to John Montoya by e-mail at John.Montoya@state.co.us.</p> <p>2) Set plugs as proposed.  Proposed Plug #1: 7,140' to 5,980' in casing (128 sks). Tag plug.  Proposed Plug #2: Cut 5 1/2" casing at ±600' and retrieve casing stub. Cement 600' to surface (173 sks).  Cut casing off 4' below ground level, weld on plate. Regrade and reseed.  In case of difficulties contact COGCC engineer for modified orders depending on the circumstances.</p> <p>3) Submit Form 6 – Subsequent Report of Abandonment within 30 days of plugging in accordance with Rule 311.</p> <p>4) Provide well location GPS coordinates on Subsequent Report of Abandonment in accordance with COGCC As-Built Location Policy and Rule 215.</p>
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## Best Management Practices

### No BMP/COA Type

### Description

1	Planning	Operator will obtain and submit data for as-built well location GPS on the Form 6. On September 17, 1973, the well was re-plugged according to instructions from the COGCC, cleaning out the well to 390', pumping a 100 sack cement plug back to 130', and spotting a 10 sack plug at the surface. The Niobrara is isolated from the well bore by cemented casing, and is over 800' above the open J Sand perforations. The calculated TOC in the 5 1/2" x 7 7/8" annulus is 4665', over 1600' above the Niobrara. The following procedure is for additional cement plugs, if required.
2	General Housekeeping	Perform safety meeting prior to rigging up ANY equipment on location. Discuss the job procedure and objectives with all personnel on location. Document the safety meeting on the report sent to Carrizo. Make note of all potential risks/hazards, and clearly identify an emergency route and emergency vehicle. Also make note of any new or inexperienced personnel on location. Ensure proper Personal Protective Equipment (PPE) is used during the job. Minimums are hard hats, steel toes, and safety glasses.
3	Dust control	All personnel should keep their speed down to 30 mph once they are near a residence or in a high traffic area to minimize dust.

Total: 3 comment(s)

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## Attachment Check List

### Att Doc Num

### Name

400508058	FORM 2 SUBMITTED
400508093	WELLBORE DIAGRAM
400508094	WELLBORE DIAGRAM
400508100	PROPOSED PLUGGING PROCEDURE
400508101	OFFSET WELL EVALUATION

Total Attach: 5 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Per oper. added info to Drilling Tab. Checked State is mineral owner and committed to lease. No LGD or public comments. Final Review--passed.	12/3/2013 10:07:43 AM
Permit	This form has passed completeness.	11/7/2013 10:20:51 AM

Total: 2 comment(s)