

**APPLICATION FOR PERMIT TO:**

Drill     
  Deepen     
  Re-enter     
  Recomplete and Operate

TYPE OF WELL    OIL <input type="checkbox"/> GAS <input type="checkbox"/> COALBED <input type="checkbox"/> OTHER <u>Re-Enter and Plug</u>	Refiling <input type="checkbox"/>
ZONE TYPE    SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Sidetrack <input type="checkbox"/>

Date Received:  
11/06/2013

Well Name: <u>Sohio State</u>	Well Number: <u>1</u>
Name of Operator: <u>CARRIZO NIOBRARA LLC</u>	COGCC Operator Number: <u>10439</u>
Address: <u>500 DALLAS STREET #2300</u>	
City: <u>HOUSTON</u> State: <u>TX</u> Zip: <u>77002</u>	
Contact Name: <u>Cynthia Pinel</u>	Phone: <u>(713)358-6210</u> Fax: (    )
Email: <u>cynthia.pinel@crzo.net</u>	

**RECLAMATION FINANCIAL ASSURANCE**  
 Plugging and Abandonment Bond Surety ID: 20120105

**WELL LOCATION INFORMATION**

QtrQtr: SWSE      Sec: 36      Twp: 9N      Rng: 61W      Meridian: 6

Latitude: 40.700184      Longitude: -104.151515

Footage at Surface: 660 feet      FNL/FSL FSL 1910 feet      FEL/FWL FEL

Field Name: SHIVAREE      Field Number: 77452

Ground Elevation: 4968      County: WELD

GPS Data:  
 Date of Measurement: 04/07/1977    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 instruction from COGCC, a surface use agreement is not needed 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: 793 Feet
- Building Unit: 3234 Feet
- High Occupancy Building Unit: 5280 Feet
- Designated Outside Activity Area: 5280 Feet
- Public Road: 3102 Feet
- Above Ground Utility: 3062 Feet
- Railroad: 5280 Feet
- Property Line: 660 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: 459 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: 7215 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 459 Feet (Including plugged wells)

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 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	239	250	239	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

Operator would like to re-enter this well to adequately re-plug. Procedure 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 1977 by previous operator. The Cultural Setback measurement to the nearest building was an oil and gas location. I measured from the P&A well to the edge of disturbance outside of where the pit is located.

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 189' to 239'. Circulate and condition mud, POOH.
7. RIH with wash tool and tubing to the top of the Niobrara at 6304'. Circulate and prepare to set cement plugs.
8. If unable to wash down, POOH and GIH with 7 7/8" bit to wash down to Niobrara. POOH and GIH open ended 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 09178 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: 300' plug from 6,304' to 6,004' (Niobrara) 86 sks. Tag plug.  Proposed Plug #2: Below surface casing from 600' to surface (FW zones) 174 sks.</p> <p>In case of difficulties minimum plugs are as follows:  Plug #1: Set 100' (40 sx) cement plug above the Niobrara top, in the Pierre, below 4000' or between 3400'-1900'. Tag plug.  Plug #2: Set 100' (40 sx) cement plug from 600' to 500'. Tag plug.  Plug #3: Set 100' (50sx) cement plug from 50' below' to 50' above surface casing shoe. Tag plug.  Plug #4: Set cement plug from 50' to surface.  Cut casing off 4' below ground level, weld on plate. Regrade and reseed.</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. The scope of this work is to re-enter the old wellbore that had previously been plugged and abandoned. The well will be properly plugged and abandoned by setting cement plugs to isolate the formation, freshwater zone, and setting a cement cap near the surface. Then the surface casing will have a plate welded as final seal 5' below the surface. The old wellbore will then be buried and the surface location will be remediated.
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

400507974	FORM 2 SUBMITTED
400508050	OFFSET WELL EVALUATION
400508052	WELLBORE DIAGRAM
400508053	WELLBORE DIAGRAM
400508055	PROPOSED PLUGGING PROCEDURE

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 min. owner & committed to lease. No LGD or public comments. Final Review--passed.	12/3/2013 10:00:37 AM
Permit	This form has passed completeness.	11/7/2013 10:18:54 AM

Total: 2 comment(s)