

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:

400508297

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 PlugRefilling ☐ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐Well Name: EhmkeWell Number: 1Name of Operator: CARRIZO NIOBRARA LLCCOGCC Operator Number: 10439Address: 500 DALLAS STREET #2300City: HOUSTONState: TXZip: 77002Contact Name: Cynthia PinelPhone: (713)358-6210Fax: ()Email: cynthia.pinel@crzo.net

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20120105

WELL LOCATION INFORMATION

QtrQtr: NWNW Sec: 6 Twp: 10N Rng: 59W Meridian: 6Latitude: 40.869923Longitude: -104.027442
 Footage at Surface: 660 feet FNL/FSL FNL 660 feet FEL/FWL FWL
Field Name: WILDCATField Number: 99999Ground Elevation: 5407County: WELD

GPS Data:

Date of Measurement: 10/07/1957 PDOP Reading: 0.0 Instrument Operator's Name: N/AIf 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 ☐ IndianThe 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 ☐ IndianThe 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.)

Site Release signed by surface owner attached

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: 5280 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 5280 Feet

Above Ground Utility: 755 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: 773 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: 7527 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 773 Feet (Including plugged wells)

Will a closed-loop drilling system be used? _____

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: _____ Drilling Fluids Disposal Methods: _____

Cuttings Disposal: _____ Cuttings Disposal Method: _____

Other Disposal Description:

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	14	0	298		298	

☒ 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 305.d

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 1957 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, 6-6 1/2" DCs, and a 7 7/8" rock bit.
6. Drill up cement plugs to bottom of surface casing at approximately 298', POOH. GIH with 4 3/4" wash tool and wash down to top of Niobrara at 6561'.
7. Circulate and prepare to set cement plugs.
8. If unable to wash down past surface casing, GIH with 7 7/8" rock bit and wash down to 6561'. POOH and GIH open ended to set required cement plugs.
9. RU cements. 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: 11/11/2013

Expiration Date: 11/10/2015

API NUMBER

05 123 05797 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>Plugging procedure summary:</p> <p>Dig down to the old surface casing and cut plate off. Install flange. Drill up cement plugs to bottom of surface casing at approximately 298', POOH. GIH with 4 3/4" wash tool and wash down to top of Niobrara at 6561'. If unable to wash down past surface casing, GIH with 7 7/8" rock bit and wash down to 6561'. POOH and GIH open ended to set required cement plugs. Plug #1 (Nio) 6,561' - 6,261' Plug #2 Fresh Water Zone 1075 - 0</p>
	<p>NOTE CHANGE IN PLUGGING PROCEDURE - uphole plug to be set deeper than 1075' (Cheyenne Basin map - ~1025 +50)</p> <p>1) Provide 24 hour notice of re-entry MIRU to Kym Schure at 970-520-3832 or e-mailto: Kym.Schure@state.co.us.</p> <p>2) For 1075' plug: pump plug and displace, if cement is not circulated to surface, shut-in, WOC 4 hours and tag plug – must be 248' or shallower. Leave at least 100' cement in the wellbore for each plug.</p> <p>3) Set 10 sx plug at surface.</p>
	<p>Submit Form 6 – Subsequent Report of Abandonment within 30 days of plugging in accordance with Rule 311.</p> <p>Provide well location GPS coordinates on Subsequent Report of Abandonment in accordance with COGCC As-Built Location Policy and Rule 215.</p>

Best Management Practices

No BMP/COA Type

Description

1	Planning	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)

Data retrieval failed for the subreport 'PrintPolicy_MTO' located at: \\DorDonSterling\oFarmReports\policy_mto.rdl. Please

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2157314	WAIVERS
2157315	WAIVERS
2157316	VARIANCE REQUEST
400508297	FORM 2 SUBMITTED
400508329	WELLBORE DIAGRAM
400508330	WELLBORE DIAGRAM
400508331	PROPOSED PLUGGING PROCEDURE
400508332	SURFACE OWNER CONSENT
400508334	OFFSET WELL EVALUATION

Total Attach: 9 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Operator has submitted 502.b variance request to waive 20 day comment period in order to frac offset horizontal well the first week in Dec. Submitted LGD and surface owner waivers. Director approved 502.b variance. Waived LGD and public tasks. Final Review--passed.	11/11/2013 7:15:08 AM
Permit	This form has passed completeness.	11/7/2013 10:32:15 AM

Total: 2 comment(s)