# Application for Permit to Drill

## Type of Work
- [X] Drill New Well
- [ ] Reenter Well
- [ ] Drill Directional Well
- [ ] Other: ________________

## Type of Well
- [X] Oil Well
- [ ] Gas Well
- [ ] Injection
- [ ] Other: ________________

## Name and Address of Operator:
Continental Resources, Inc., P.O. Box 268870, Oklahoma City, OK 73126

## Telephone:
405-234-9000

## Name and Address of Surface Owner:
The Alfred Gunderson Family Trust, Roger Gunderson, Trustee, 11332 Ladner Rd., Buffalo, SD 57720

## Name and Address of Drilling Contractor and Rig Number:
Cyclone Drilling, Inc., #1, P.O. Box 908, Gillette, WY 82717-0908

## Surface Location of Well:
**Qtr-Qtr, Sec, Twp, Rge, County, feet from nearest lines of section, and latitude and longitude (if available):**

<table>
<thead>
<tr>
<th>Section</th>
<th>Township</th>
<th>Range</th>
<th>County</th>
<th>North</th>
<th>East</th>
<th>Lat.</th>
<th>Long.</th>
</tr>
</thead>
</table>
| 16       | T22N     | R3E   | Harding Co. | 255' FNL & 1650' FEL | \[45° 52' 38.23" | \[-103° 45' 19.01"

## If Directional, top of pay and bottom hole location from nearest lines of section:

- **Top of pay:** 8707' TVD, 513' FSL & 1340' FEL
- **SWSE Sec 9 T22N R3E:** BHL: NENE Sec 4 T22N R3E 530' FNL & 1200' FEL

## Acres in Spacing (Drilling) Unit:
1280

## Description of Spacing Unit:
Order #4-13

## Well Name and Number:
Collins Federal 31-16H

## Elevation:
3144' FRGE

## Field and Pool, or Wildcat:
Table Mountain

## Proposed Depth and Formation:
18,799' MD; Red River "B"

## Size of Hole:

<table>
<thead>
<tr>
<th>Size of Casing (inches)</th>
<th>Weight per Foot</th>
<th>Depth 1</th>
<th>Depth 2</th>
<th>Cementing Program (Amount, Type, Yield, Additives)</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 1/2</td>
<td>9 5/8</td>
<td>7</td>
<td>36</td>
<td>1500 542 sks Type III</td>
<td>1500</td>
</tr>
<tr>
<td>8 3/4</td>
<td></td>
<td>23, 26, 29</td>
<td>9288</td>
<td>720 sks 60/40 Type III, Class G</td>
<td>9288</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

## Description of Proposed Operations:
The Collins Federal 31-16H is a horizontal Red River "B" well with a SHL located at 255' FNL and 1650' FEL of Sec 16 T22N R3E, Harding Co., S. Dakota. The well will be drilled vertically, approximately to the top of the Silurian Interlake formation. From this point, an 8 3/4" hole at 10 deg/100 ft BUR will be drilled to the North at an azimuth of 22 degrees, through which the 7" casing will be set approximately at the top of the Red River "B" porosity zone. The lateral will then be drilled to a BHL of 530' FNL & 1200' FEL of Sec 4 T22N R3E. Estimated date to begin dirt work is 10/15/2013.

## Pit Liner Specifications:
A 12 mil plastic liner will be used to line the cuttings pit during drilling operations.

I hereby certify that the foregoing as to any work or operation performed is a true and correct report of such work or operation.

**Signature:**

**Name (Print):** Terry L. Olson

**Reg. Compliance Specialist:**

**Date:** 10/3/2013

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## FOR OFFICE USE ONLY

**Approved By:**

**Title:** Administrator, Minerals & Mining

**Permit No.:** 2045

**API No.:** 40 063 20759

**Date Issued:** 1/15/2013

**Conditions, if any, on attached page.**
PERMIT CONDITIONS

CRI: Collins Federal 31-16H
22N-3E-16 NWNE, Harding County

Approval has been granted to drill this location as detailed on the attached Application for Permit to Drill (Form #2) with the following additional conditions:

1. This permit is conditioned on compliance with all applicable requirements of South Dakota Codified Laws 45-9 and Administrative Rules of South Dakota 74-12.
2. A 12-mil woven, reinforced high-density polyethylene liner must be used on all pits.
3. Surface runoff must be diverted around the drill site.
4. The surface hole must be drilled with fresh water.
5. Cement must be circulated to the ground surface on the surface casing.
6. If horizontally drilled:
   A. The coordinates of the production casing shoe and the well terminus must be filed with the department.
   B. The azimuth of the horizontal segment of the well must be filed with the department along with the results of periodic down hole surveys.
7. If production casing (long string) is set:
   A. The cement program as submitted with the application shall be followed.
   B. A cement bond log must be run and filed with the department within 60 days after completion of the well as required by Administrative Rules of South Dakota 74:12:02:12.
8. If abandoned, a plugging plan must be submitted to the department for review and approval. The plugging plan should address all requirements found in Administrative Rules of South Dakota 74:12:03.
   A. If production casing is left in the wellbore, a mechanical integrity test must be conducted to verify the integrity of the casing as required by rule 74:12:03:02(4)(b)(ii).
   B. The casing string must be cut off at least three feet below the final ground surface contour. A plate with the name of the operator, well name and number, and legal location by quarter-quarter section, township and range must be welded to the casing stub. The location of the abandoned well must be surveyed with high resolution global positioning system equipment or other appropriate survey methods sufficient to accurately locate the well. Survey coordinates must be included in the final abandonment report.
9. Surface reclamation of the site must be completed within one year of plugging and abandoning the well.
10. Interim reclamation must be conducted on all areas disturbed by a well drilling operation and not needed for production operations within 12 months after the well is completed in accordance with Administrative Rules of South Dakota 74:12:03:07.
11. A washed set of sample cuttings (or cores, if cut) must be shipped, free of charge, to:

   Derrie Iles  
   Geological Survey Program  
   Akeley-Lawrence Science Center  
   University of South Dakota  
   414 E. Clark Street  
   Vermillion, SD 57069-2390

12. Please notify this office prior to plugging or MIT so a witness can be on location. If plugging or MIT will occur after regular business hours, call Jeff Klenner at (605) 929-1414.