



DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
 Minerals & Mining Program
 2050 West Main, Suite #1, Rapid City, SD 57702-2493
 Telephone: 605-773-4201, FAX: 605-394-5317

FORM 2
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MAY 4 2018

DEPT OF ENVIRONMENT & NATURAL
 RESOURCES - RAPID CITY



APPLICATION FOR PERMIT TO DRILL

Type of work:
 Drill New Well Reenter Well Drill Directional Well
 Other: _____

Type of well:
 Oil Well Gas Well Injection
 Other: _____

Name and Address of Operator: _____ Telephone: _____
 Continental Resources, Inc., P.O. Box 268870, Oklahoma City, OK 73126 405-234-9000

Name and Address of Surface Owner:
 David Niemi, P.O. Box 227, Buffalo, SD 57720

Name and Address of Drilling Contractor and Rig Number:
 Cyclone Drilling, Inc., 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):
 SESE Sec 32 T21N R4E, Harding Co., 400' FSL & 400' FEL; Lat: 45 44 03.52; Long: -103 38 48.43

If Directional, top of pay and bottom hole location from nearest lines of section:
 Top of Pay: 8490' TVD, 4' FSL & 666' FEL Sec 32 T21N R4E; BHL: NESW Sec 5 T20N R4E, 1800' FSL & 1800' FWL

Acres in Spacing (Drilling) Unit: 20,648 Description of Spacing Unit: S. Buffalo Red River Unit; Order #5-97

Well Name and Number:	Elevation:	Field and Pool, or Wildcat:	Proposed Depth and Formation:
SBRRU Federal 44-32H	3114' FRGE	South Buffalo	13,845' MD, Red River "B"

Size of Hole:	Size of Casing:	Weight per Foot:	Depth:	Cementing Program (amount, type, yield, additives)	Top of Cement:
1) 13.5	9 5/8	36#	1500	678 sks Type III	Surface
2) 8.75	7	26, 29, 32#	8763	640 sks Type III, Class G	3531
3)					
4)					

Describe Proposed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). Use additional page(s) if appropriate.

The SBRRU 44-32H is a horizontal Red River "B" test located in Sec 32 T21N R4E in Harding Co., S. Dakota. The well will be drilled vertically, approximately to the top of the Silurian Interlake formation, before drilling an 8 3/4" hole at 12 deg/100 ft. BUR to the southwest and setting 7" casing approximately 1 ft. above the Red River "B" porosity zone. The lateral will then be drilled to a waypoint at 1400' FNL & 750' FEL of Sec 5 T20N R4E and from there continue to a BHL at 1800' FSL and 1800' FWL of Sec 5 T20N R4E. Dirt work was begun approximately 3/1/2014.

Pit Liner Specifications: 1 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.

Terry L. Olson Terry L. Olson Reg. Compliance Specialist 4/30/2018
 Signature Name (Print) Title Date

FOR OFFICE USE ONLY

Approved By: [Signature] Title: **ADMINISTRATOR, MINERALS & MINING PROGRAM**

Permit No.: **2078** API No.: **40 063 20785** Date Issued: **5-21-18**

Conditions, if any, on attached page.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

PERMIT CONDITIONS

CLR: SBRRU Federal 44-32H
21N-4E-32 SESE, Harding County

Permit: #2078
API: 40 063 20785

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. If drilling does not commence within one year from the issuance date, this permit will expire.
3. A 12-mil woven, reinforced high-density polyethylene liner must be used on all pits.
4. Surface runoff must be diverted around the drill site.
5. The surface hole must be drilled with fresh water.
6. Cement must be circulated to the ground surface on the surface casing.
7. 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.
8. 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.
9. 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 (MIT) 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.
10. Surface reclamation of the site must be completed within one year of plugging and abandoning the well. Since the well pad is already constructed, the site must be reclaimed within one year if the well is not drilled, unless the permit is extended.
11. 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.

12. A washed set of sample cuttings (or cores, if cut) must be shipped, free of charge, to:

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

13. Please notify this office at least 72 hours 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.