



SEP 22 2011

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: **Continental Resources, Inc.** P.O. Box 1032 Enid OK 73702 Telephone: **(580) 233-8955**

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

Name and Address of Drilling Contractor and Rig Number: Cyclone Drilling, Inc. 5800 Mohan Road Gillette, WY 82718-6937

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

NESW, Sec. 32-21N-4E, Harding County, 2450' FSL & 1850' FWL

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

TOP 2772' FSL & 1493' FWL, Sec. 32-21N-4E; BHL 400' FNL & 850' FEL, Sec. 31-21N-4E

Acres in Spacing (Drilling) Unit: 20,648 Acres Description of Spacing Unit: Unitized; South Buffalo Red River Unit; Order #4-97

Well Name and Number	Elevation	Field and Pool, or Wildcat	Proposed Depth and Formation
SBRRU 23-32H	3128 GL	Buffalo	11,964' MD; Red River

Size of Hole	Size of Casing	Weight per Foot	Depth	Cementing Program (amount, type, additives)	Depth
1) 13 1/2"	9 5/8"	36#	1440	657 Sks Premium	
2) 8 3/4"	7"	23,26,29#	8804	601 Sks Premium Lite & "G"	
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 23-32H is a horizontal well that will drilled vertically to approximately the top of the Silurian Interlake formation before drilling a medium radius build section in the NW directions and set 7" casing a foot or so above the Red River "B" porosity zone. The lateral will be drilled with an azimuth of 312.04 degrees to TD. The estimated commencement of location building is 9/21/11. The estimated spud date is 9/28/2011.

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

Nicole Caddell Signature Name (Print) Regulatory Title 09/16/2011 Date

FOR OFFICE USE ONLY

Approved By: Patsy Townsend Title: Administrator
 Minerals & Mining Program
 Permit No. 2009 API No. 40 063 20732 Date Issued: 3/19/2012
 Conditions, if any, on attached page.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

*Minerals & Mining Program
2050 West Main Street, Suite #1
Rapid City, SD 57702-2493
Telephone: 605-394-2229
Fax: 605-394-5317*

PERMIT CONDITIONS

CRI: 23-32H SBRRU
21N-4E-32 NESW, Harding County

Permit: #2009
API: 40 063 20732

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. Sufficient cement must be circulated on the long string to cover any fresh water aquifer not covered by the surface casing. Freshwater resources at this site include: Madison, Minnelusa, Minnekahta, Canyon Springs, and Inyan Kara.
 - B. A cement bond log must be run and filed with the department.
8. If abandoned:
 - A. With long string, sufficient cement must be circulated to install:
 1. A 100-foot cement plug immediately above the KOP, if horizontally drilled.
 2. A 100-foot cement plug, half in and half out of the top of the casing stub after the retrievable part of the production casing has been removed.
 3. A 100-foot cement plug, half in and half out of the top of any fresh water aquifer between the top of the casing stub and the base of the surface casing. Freshwater resources at this site include: Madison, Minnelusa, Minnekahta, Canyon Springs, and Inyan Kara.
 4. A 100-foot plug, half in and half out of the base of the surface casing.
 5. A 25-foot cement plug at the top of the surface casing.
 - B. Without long string, sufficient cement must be circulated to set:
 1. A 100-foot cement plug immediately above the KOP, if horizontally drilled.
 2. 100-foot cement plugs, half in and half out of the top of the following formations:
Red River, Interlake, Madison, Minnelusa, Minnekahta, Canyon Springs, and Inyan Kara.
 3. A 100-foot cement plug, half in and half out of the base of the surface casing.
 4. A 25-foot cement plug at the top of the surface casing.
 - C. Heavy, mud-laden fluid must be used between all plugs.
 - D. 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. A washed set of sample cuttings (or cores, if cut) must be shipped, free of charge, to:

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

11. Please notify this office prior to plugging so a witness can be on location. If plugging will occur after regular business hours, call Lucy Dahl at 605-773-6257.