DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
Minerals & Mining Program - Oil & Gas Section
2050 West Main, Suite #1, Rapid City, SD 57702-2493
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FORM 2

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APR 30 2007
DEPT OF ENVIRONMENT & NATURAL RESOURCES - RCRO

SOUTH DAKOTA STATE GEOLOGICAL SURVEY WESTERN FIELD OFFICE

APPLICATION FOR PERMIT TO DRILL

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

Type of Well:
[X] Oil Well [ ] Gas Well [ ] Injection
[ ] Other

Name and Address of Operator:
LUFF EXPLORATION COMPANY, 1580 LINCOLN STREET, SUITE 850, DENVER, CO 80203

Telephone
(303) 861-2468

Name and Address of Surface Owner
Greg & Heidi Miller, RR 1 Box 119, Bowman, North Dakota, 58623

Name and Address of Drilling Contractor and Rig Number:
Patterson Drilling Company, 1512 Larimer Street, Suite 730, Denver, CO 80202, Rig #463 (Vertical Section)
C&H Well Service, Inc., PO Box 2556, Gillette, Wyoming 82717-2556, Rig #104 (Horizontal Laterals)

Surface Location of Well: Qtr-Qtr, Sec, Twp, Rge, County, Feet from Nearest Lines of section, and latitude and longitude (if available):
SENW Sec. 4-T22N-R6E, Harding County, 1700' FNL x 2500' FWL; Lat = 45° 54' 07.59", Long = 103° 23' 14.34"

If Directional, top of pay and bottom hole location from nearest lines of section:
West Lateral: Top est @ 8970' MD = 8918' TVD; BHL 1700' FNL x 550' FWL, Sec. 4-T22N-R6E
East Lateral: Top est @ 8979' MD = 8918' TVD; BHL 1700' FNL x 550' FEL, Sec. 4-T22N-R6E

Acres in Spacing (Drilling) Unit
320

Description of Spacing Unit
N/2 Sec. 4-T22N-R6E

4-2007

Well Name and Number	Elevation	Field and Pool, or Wildcat	Proposed Depth and Formation
Miller Ranch F-4H	2886.5 GL	Pete's Creek, Red River B	8918' TVD; 11,104' MD; RR

Size of Hole	Size of Casing	Weight per Foot	Depth	Cementing Program (amount, type, additives)	Depth
1) 12-1/4"	8-5/8"	24#	2000'	635 sx Premium Lite & Class G, 3% salt + misc.	surf
2) 7-7/8"	5-1/2"	15.5# & 17#	9150'	750 sx Premium Lite & Class G + various additives	3500'
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.

Drill vertical portion of well to 9150'. Drill 7-7/8" hole, run 5-1/2" casing. A directional survey will be run @ 100' intervals to determine the BHL of the vertical well. Move out rotary tools and move in smaller rig, mill casing windows and drill dual horizontal laterals in the Red River "B". East lateral KOP approx. 8806' TVD, west lateral KOP approx. 8821' TVD. Drill 4-1/2" horizontal laterals in the "B" zone. West lateral to approx. 10,828' MD = 8918' TVD and the east lateral to approx. 11,104' MD = 8918' TVD. An oil base mud will be used in the vertical portion of the well and a fresh water/polymer in the horizontal sections. All drilling fluids and cuttings will be contained in a pit lined with 12 mill plastic. All liquids will be disposed of in an approved site, the liner and the cuttings will be buried in place. See attached Preliminary Drilling Prognosis for additional details. Completion will be open hole in the horizontal sections. The estimated start date for location construction is May 15, 2007. Estimated start date for drilling is June 1, 2007.

Blanket South Dakota bond #4127010

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	David A. Norby Name (Print)	Operations Manager Title	4/27/2006 Date

FOR OFFICE USE ONLY

Approved by: Fred Ustecke Title: Oil and Gas Supervisor

Permit No. 1830 API No. 40 063 20625 Date Issued: May 18, 2007

Conditions, if any, on attached page.