DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
Minerals & Mining Program - Oil & Gas Section
2050 West Main, Suite #1, Rapid City, SD 57702-2493
Telephone: 605-394-2229, FAX: 605-394-5317

FORM 2

RECEIVED
JUN 01 2011
DEPT OF ENVIRONMENT & NATURAL RESOURCES - RAPID CITY

State of South Dakota Department of Environment and Natural Resources

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
LUFF EXPLORATION COMPANY, 1580 LINCOLN STREET, SUITE 850, DENVER, CO 80203

Telephone
(303) 861-2468

Name and Address of Surface Owner
Todd Stearns, PO Box 890, Bowman, ND 58623

Name and Address of Drilling Contractor and Rig Number:
Vertical: Ensign Drilling Inc., 1700 Broadway, Suite 777, Denver, CO 80290, Rig # 24
Horizontal: C&H Well Service, Inc., 6480 Swanson Rd, Gillette, WY 82718, Rig # 104

Surface Location of Well: Qtr-Qtr, Sec, Twp, Rge, County, Feet from Nearest Lines of section, and latitude and longitude (if available):
NWNW Sec 32-T23N-R4E, Harding Co., 800' FNL x 900'FWL, N45° 55' 09", W103° 39' 44"

If Directional, top of pay and bottom hole location from nearest lines of section:
Northeast Lateral: Top of pay est @ 9,053' MD = 8.994' TVD; BHL @ 2,110' FSL & 2,110' FWL Sec 29-T23N-R4E
Southwest Lateral: Top of pay est @ 9,060' MD = 8,994' TVD; BHL @ 2,110' FNL & 2,110' FEL Sec 31-T23N-R4E

Acres in Spacing (Drilling) Unit
Approximately 480 Acres

Description of Spacing Unit
SW/4 Sec. 29, NE/4 Sec. 31 & NW/4 Sec. 32, T23N, R4E

Well Name and Number	Elevation	Field and Pool, or Wildcat	Proposed Depth and Formation
Buckley D-32H	3116' Graded 3137' KB	Medicine Pole Hills, South	NE = 12,100'MD, 8,994'TVD, RR "B" SW = 12,226'MD, 8,994'TVD, RR "B"

Size of Hole	Size of Casing	Weight per Foot	Depth	Cementing Program (amount, type, additives)	Depth
1) 13-1/2"	9-5/8"	36#	2,000'	565 sks Lite tailed w/ 200 sks Premium	Surface
2) 8-3/4"	5-1/2"	17# & 23#	9,140'	165 sks Lite tailed w/ 725 sks Premium	4,200'
3) 4-1/2"	None		12,226'MD	None	
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 a vertical well and case, then drill two short radius horizontal laterals in the Red River "B" formation: Drill 13-1/2" surface hole to approximately 2,000' with fresh water. Run 9-5/8" casing and cement to surface. Drill 8-3/4" vertical hole to TD at approximately 9,140'. Vertical section to be drilled with invert oil mud. Run logs. Run 5-1/2"casing and cement to 4,200'. Run CBL. Set whipstock at approximately 22 degree azimuth and mill Northeast lateral window approximately 8,882'-8,888'. Drill 4-1/2" Northeast lateral build section approximately 8,888'-9,055'MD = 8,994'TVD with a BHL approximately 98' north and 41' east of surface location. Drill 4-1/2" Northeast horizontal lateral in the Red River "B" zone to approximately 12,100' MD = 8,994' TVD at BHL approximately 2,110' FSL and 2,110' FWL Sec 29-T23N-R4E. Set whipstock at approximately 246 degree azimuth and mill Southwest lateral window approximately 8,870'-8,876'. Drill 4-1/2" Southwest lateral build section approximately 8,876'-9,061'MD = 8,994'TVD with a BHL approximately 47' south and 108' west of surface location. Drill 4-1/2" Southwest horizontal lateral in Red River "B" zone to approximately 12,226'MD = 8,994'TVD at BHL approximately 2,110' FNL and 2,110' FEL Sec 31-T23N-R4E. Horizontal laterals to be drilled with fresh water/polymer. All drilling fluids and cuttings will be contained in a pit lined with a 12 mil plastic. All liquids will be disposed of in an approved method, the liner and cuttings will be buried in place. The estimated start date for location construction is 7/1/11. Estimated start date for drilling is 8/15/11.

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)	Title	Date
Bill Organ	Bill F. Organ	Drilling Consultant	5/31/11

FOR OFFICE USE ONLY

Approved by: Robert Townsend Title: Administrator, Minerals & Mining

Permit No. 1996 API No. 40 063 20725 Date Issued: 6/10/11

Conditions, if any, on attached page.