

STATE OF SOUTH DAKOTA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
BOARD OF MINERALS AND ENVIRONMENT

IN THE MATTER OF THE PETITION OF LUFF)
EXPLORATION COMPANY, DENVER, CO.,)
TO AMEND BOARD ORDER NOS. 1-77 AND)
3-77A, AND ANY OTHER APPLICABLE)
ORDERS FOR THE EAST HARDING SPRINGS)
FIELD TO ESTABLISH A 320-ACRE SPACING)
UNIT CONSISTING OF THE E/2 OF SECTION)
30, TOWNSHIP 23 NORTH, RANGE 6 EAST,)
HARDING COUNTY, SOUTH DAKOTA, AND)
AUTHORIZE THE DRILLING OF ONE)
VERTICAL WELL TO BE COMPLETED IN)
THE RED RIVER "C" AND "D" ZONES AT)
ANY LOCATION NOT CLOSER THAN 500)
FEET TO THE BOUNDARY OF SAID)
SPACING UNIT; TO AUTHORIZE THE)
ISSUANCE OF A PERMIT FOR SUCH)
VERTICAL WELL; AND FOR OTHER RELIEF)
AS THE BOARD DEEMS APPROPRIATE.)

PETITION

Case No. 4-2017

COMES NOW the petitioner, Luff Exploration Company ("Luff"), and respectfully alleges as follows:

1. Luff represents the owners of interests in the oil and gas leasehold estate underlying all or portions of the East Half of Section 30, Township 23 North, Range 6 East of the Black Hills Meridian, Harding County, South Dakota.

2. Pursuant to Order No. 1-77 and 3-77a, Section 30 was included in the East Harding Springs Field, and the East Half of said section was established as a 320-acre spacing unit. Pursuant to Order No. 2-2002, the Southeast Quarter of Section 30 was included in a 320-acre spacing unit for the Red River "B" zone. Pursuant to Order No. 8-2007, the Northeast Quarter of Section 30 was included in a 480-acre spacing unit for the Red River "B" zone. Finally, in Order Nos. 2-2003 and 6-2010, said lands in Section 30 were incorporated into the East Harding Springs Red River Unit.

3. Three producing wells, operated by Luff, have been drilled in Section 30. The Dworshak 1-30 well was drilled as a vertical well that produced from what are now labeled the "B," "C," and "D" zones within the Red River formation, and Luff later drilled a lateral from the

well into the Red River "B" zone. The Dworshak 1-30 well was plugged in 2015. The State F-29H well was drilled as a horizontal Red River "B" well with two laterals, and the EHSRRU J-30 well was drilled as a horizontal Red River "B" well. In addition, the EHSRRU J-30H injection well was drilled in said lands for secondary recovery operations in the East Harding Springs Red River Unit. There is currently no production from the Red River "C" or "D" zones underlying said lands.

4. While the Red River "D" zone is the primary target, Luff believes that hydrocarbon reserves in both the Red River "C" and "D" zones underlying said lands may be recoverable by drilling a vertical well. In Luff's opinion, such a plan of development would maximize the recovery of hydrocarbons and thereby prevent waste and would also result in the efficient and economical development of the zones as a whole.

5. Luff respectfully requests that the Board amend its prior orders, including Nos. 1-77 and 3-77a, so as to establish a 320-acre spacing unit for the East Harding Springs Field consisting of the East Half of Section 30 and allow a vertical well to be drilled in the Red River "C" and "D" zones at any location thereon not closer than 500 feet to the boundary of such spacing unit.

6. In Luff's opinion, forming the requested spacing unit and authorizing the drilling of the well described above will optimize primary recovery, prevent waste, avoid the drilling of unnecessary wells, and protect correlative rights.

7. The spacing unit requested to be created is not smaller than the maximum area that can be efficiently and economically drained by the proposed well and the size, shape, and location thereof will result in the efficient and economic development of the zones as a whole.

8. Because the operations for the East Harding Springs Red River Unit involve the Red River "B" zone and because the requested spacing for vertical drilling only involves the "C" and "D" zones, the requested spacing for vertical drilling will have no adverse impact on the East Harding Springs Red River Unit.

9. The Board is authorized to grant the requested spacing unit by South Dakota Codified Laws 45-9-20 through 45-9-29 and Administrative Rules of South Dakota 74:12:02:06. Luff further requests that the order authorize the issuance of a permit for the drilling of the well in accordance with this application.

WHEREFORE, applicant respectfully requests that the Board issue its notice of opportunity for hearing and, if any interested party intervenes in accordance with said notice, set this matter for hearing at the regularly scheduled hearings in October 2017, or such other date as may be established by the Board, and that the Board enter its order granting the relief requested.

Dated this 24th day of August, 2017.

LUFF EXPLORATION COMPANY

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By:  _____
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