

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

<p>IN THE MATTER OF THE PETITION OF LUFF EXPLORATION COMPANY, DENVER, CO, TO AMEND BOARD ORDER NOS. 18-1995, 6-2009 AND ANY OTHER APPLICABLE ORDERS FOR THE PETE'S CREEK FIELD TO ESTABLISH A 420-ACRE SPACING UNIT CONSISTING OF ALL OF SECTION 21, 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.</p>	<p>OIL AND GAS CASE NO. 2-2017</p> <p>ORDER</p>
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SECRETARY'S ORDER UNDER SDCL 45-9-74

A Petition ("Petition") of Luff Exploration Company ("Luff") was submitted to the South Dakota Board of Minerals and Environment ("Board") on August 29, 2017. The Board prepared and published a Notice of Opportunity for Hearing ("Notice") and Luff caused a copy of the Petition and the Notice to be served by mail or personally on each party affected by the petition. No petitions to intervene were filed in accordance with the Notice. Therefore, pursuant to South Dakota Codified Laws (SDCL) 45-9-74, SDCL 45-9-20 through 29, and Administrative Rules of South Dakota (ARSD) 74:12:02:06, and based upon Luff's Petition and the supporting documents filed by Luff, the Secretary makes and enters the following order:

Luff represents the owners of interests in the oil and gas leasehold estate underlying all or portions of Section 21, Township 23 North, Range 6 East of the Black Hills Meridian, Harding

County, South Dakota. Said Section 21 is adjacent to the border between the States of South Dakota and North Dakota and consists of approximately 420 acres.

Pursuant to Order Nos. 3-1975a and 4-2003, Section 21 was included in the Corey Butte Field and was spaced for horizontal drilling for the Red River "B" zone on the basis of 840 acres. In Order No. 6-2009, the boundaries of the Pete's Creek Field were expanded to include Section 21, and the spacing unit described above was incorporated into the Pete's Creek Red River Unit.

Luff desires to drill a vertical well in the southwest quarter of the proposed spacing unit in the Red River "C" and "D" zones, which are not part of the Unitized Formation for the Pete's Creek Red River Unit. The proposed spacing unit accommodates the wellbore planned by Luff and is also consistent with other spacing orders in the area. Establishing the proposed spacing unit with the proposed boundary setbacks of 500 feet will enable Luff to drill the well at the optimal location and thereby maximize the recovery of hydrocarbons.

Such a spacing unit is not smaller than the maximum area that can be efficiently and economically drained by the proposed well and the size, shape and location of the spacing unit will result in the efficient and economic development of the pool as a whole.

IT IS THEREFORE ORDERED

A. A spacing unit consisting of all of Section 21, Township 23 North, Range 6 East is hereby established in the Pete's Creek Field.

B. One vertical well is authorized to be drilled on this spacing unit in the Red River "C" and "D" zones, with the wellbore located not closer than 500 feet to the spacing unit boundary.

C. This order amends prior orders concerning the above-described land, including without limitation Order Nos. 18-1995 and 6-2009. Because only the Red River "C" and "D"

zones are included in this order, this order does not affect the Pete's Creek Red River Unit or any other Red River "B" zone spacing in the area.

D. That all portions of previous orders of the Board, if any, which are not amended by this Order shall remain in full force and effect until further order of the Board or Secretary.

E. That upon filing all required further information and forms with the Department of Environment and Natural Resources, a drilling permit may be issued for the vertical well on the spacing unit established above.

Dated and signed this 6th day of October 2017.

A handwritten signature in black ink, appearing to read 'S. Pirner', with a horizontal line extending to the right.

Steven M. Pirner
Secretary
Department of Environment and Natural Resources