

**STATE OF NEW MEXICO  
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES  
OIL CONSERVATION DIVISION**

**APPLICATION OF CHEVRON U.S.A. INC.  
FOR APPROVAL OF NON-STANDARD OIL  
SPACING UNITS AND COMMINGLING,  
OR ALTERNATIVELY FOR THE CONTRACTION  
OF THE WC-025 G-06 S263319P, BONE SPRING  
POOL AND THE SANDERS TANK; UPPER  
WOLFCAMP POOL, AND FOR THE CREATION  
OF NEW BONE SPRING AND UPPER WOLFCAMP  
POOLS, SPECIAL POOL RULES, AND  
COMMINGLING IN SECTION 29 AND  
IRREGULAR SECTION 32, TOWNSHIP 26 SOUTH,  
RANGE 33 EAST, N.M.P.M., LEA COUNTY,  
NEW MEXICO.**

**CASE NO. 16380**

**AFFIDAVIT OF CHRISTINE DEFRIEND**

STATE OF NEW MEXICO        )  
  ) ss.  
COUNTY OF BERNALILLO     )

I, Christine DeFriend, being first duly sworn, upon oath, states the following based upon my own personal knowledge:

1.       I am over eighteen (18) years of age and am otherwise competent to make this sworn statement.
2.       I am employed as a Reservoir Engineer in the Permian Basin in Southeastern New Mexico for Chevron U.S.A. Inc. ("Chevron"), and I testified in the above-captioned cases on September 6, 2018.

3. In my position as a Reservoir Engineer, I review production data from wells and related well information that Chevron keeps as a matter of course in its company business records.

4. Chevron has determined by numerical simulation that six horizontal wells per section (three per half section) may be optimum in any of the potential target zones. The accuracy of the simulation has been improved through history-matching.

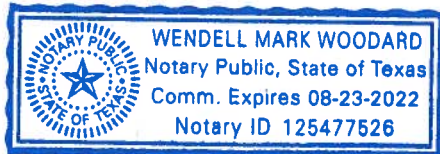
5. The simulation being used to optimize drilling indicates that four horizontal wells per section (per quarter quarter section equivalent) are not sufficient to effectively contact and recover potential reserves. The horizontal wells will be drilled at least one mile in length, will have rectangular drainage, and will be most logically and optimally configured as 320-acre (half-section) horizontal oil spacing units, each of which would be developed by drilling a maximum of three wells into any individual sand within the Bone Spring and Wolfcamp formations.

6. Fracture models show that fractures that the center wells of each half section) would otherwise drain portions of each adjacent quarter sections in each of the targets in the Bone Spring and Wolfcamp formations. As a result, the building blocks for the spacing units created within the proposed area need to be larger than 40 acres.



Christine DeFriend

SUBSCRIBED AND SWORN to before me this 30th day of November, 2018 by Christine DeFriend.

  
Notary Public

My commission expires: \_\_\_\_\_