

**BEFORE THE OIL CONSERVATION DIVISION
EXAMINER HEARING DECEMBER 12, 2019**

**APPLICATION OF DEVON ENERGY PRODUCTION COMPANY, L.P.,
FOR A HORIZONTAL SPACING UNIT AND COMPULSORY POOLING,
LEA COUNTY, NEW MEXICO**

Case No. 20962

Danger Noodle 29-20 Fed Com 1H Well
Danger Noodle 29-20 Fed Com 2H Well
Danger Noodle 29-20 Fed Com 3H Well

Case No. 20963

Danger Noodle 29-20 Fed Com 4H Well
Danger Noodle 29-20 Fed Com 5H Well
Danger Noodle 29-20 Fed Com 6H Well
Danger Noodle 29-20 Fed Com 7H Well

Devon Energy Production Company, L.P.

HEARING EXHIBITS

Case No. 20962

- Reference: Application – Case No. 20962
- Exhibit 1: Affidavit of Andy D. Bennett, Landman, and Supporting Documents
- Exhibit 2: Affidavit of John Green, Geologist, and Supporting Documents
- Exhibit 3: Notice Affidavit

Case No. 20963

- Reference: Application – Case No. 20963
- Exhibit 4: Affidavit of Andy D. Bennett, Landman, and Supporting Documents
- Exhibit 5: Affidavit of Thomas Peryam, Geologist, and Supporting Documents
- Exhibit 6: Notice Affidavit

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

**APPLICATION OF DEVON ENERGY PRODUCTION
COMPANY LP FOR A HORIZONTAL SPACING UNIT
AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO**

Case No. 20963

AFFIDAVIT OF THOMAS PERYAM

STATE OF OKLAHOMA)
) ss.
COUNTY OF OKLAHOMA)

I, being duly sworn on oath, state the following:

1. I am over the age of 18, and I have personal knowledge of the matters stated herein.
2. I am employed as a petroleum geologist for Devon Energy Production Company, L.P. (“Devon”), and I am familiar with the subject application and the geology involved.
3. This affidavit is submitted in connection with the filing by Devon of the above-referenced compulsory pooling application pursuant to 19.15.4.12.A(1), (6) NMAC.
4. I have testified previously by affidavit before the Oil Conservation Division (“Division”) as an expert petroleum geologist; my credentials have been made a matter of record, and I have been qualified as an expert by the Division.
 - a. I hold a Bachelor’s degree in Geology obtained from the University of Oregon, a Master’s degree in Geology from New Mexico State University, and a Doctorate in Geology from the University of Oregon. I completed my education in 2012.



b. I have been employed as a petroleum geologist with Devon since August, 2012.

5. **Exhibit A** is a Wolfcamp structure map. The unit being pooled is outlined by green rectangle. Strata dip approximately 25' south-eastward across the proposed pooling area. The apparent structural dip along the proposed Danger Noodle wellbores is around 0.25°. No major structural hazards exist at this location.

6. **Exhibit A** identifies wells in the vicinity of the proposed well, with a cross-section line running from A to A'.

7. **Exhibit A** shows that the structure dips down to the east.

8. **Exhibit B** is a Wolfcamp stratigraphic cross-section hung on the top of the Wolfcamp Formation. The well logs on the cross-section give a representative sample of the Wolfcamp formation in the area and demonstrate reasonable well control. The target zone is the WFMP X subunit. The target zones are continuous across the well unit.

9. **Exhibit C** is a gross isochore of the Wolfcamp target formation. The map shows thickness for the total Wolfcamp intervals shown in **Exhibit B**. The Wolfcamp target interval is uniform across the proposed well unit.

10. I conclude from the attached exhibits that:

- a. The horizontal spacing and proration unit is justified from a geologic standpoint.
- b. There are no structural impediments or faulting that will interfere with horizontal development.
- c. Each quarter-quarter section in the unit will contribute more or less equally to production.

11. The preferred well orientation in this area is south-north. This is because the inferred orientation of the maximum horizontal stress is roughly E-W.

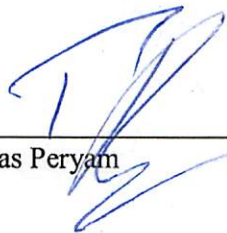
12. The Exhibits to this Affidavit were prepared by me, or compiled from Devon's company business records under my direct supervision.

13. The granting of this Application is in the interests of conservation, the prevention of waste, and the protection of correlative rights.

14. The foregoing is correct and complete to the best of my knowledge and belief.

[Signature page follows]

FURTHER AFFIANT SAYETH NAUGHT



Thomas Peryam

Subscribed to and sworn before me this 10th day of December, 2019.





Notary Public

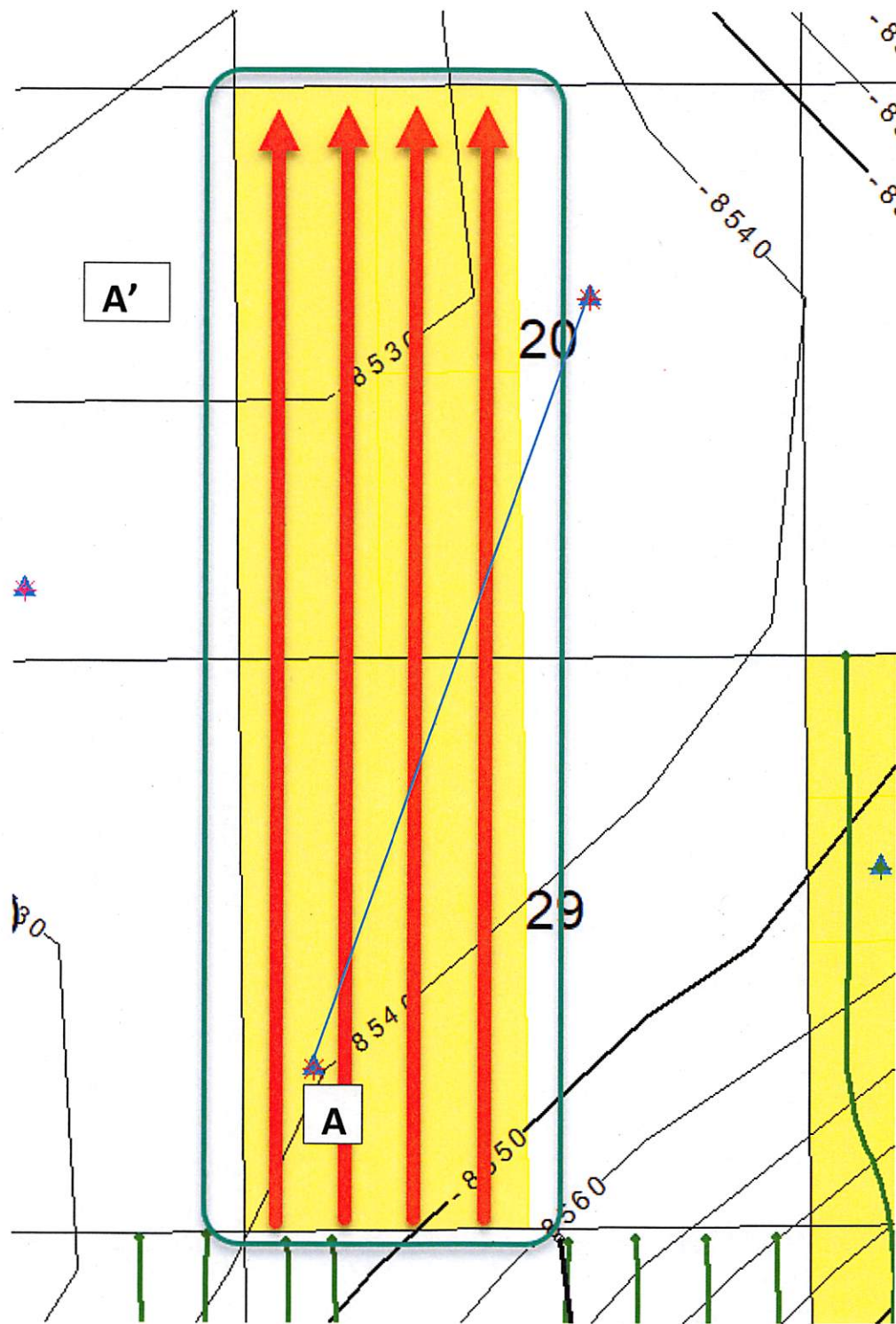


Exhibit A: Map showing structural depth of top of WFMP unit (SSTVD) and approximate location of four Wolfcamp wells. Nearby well symbols show location of local Wolfcamp penetrations.

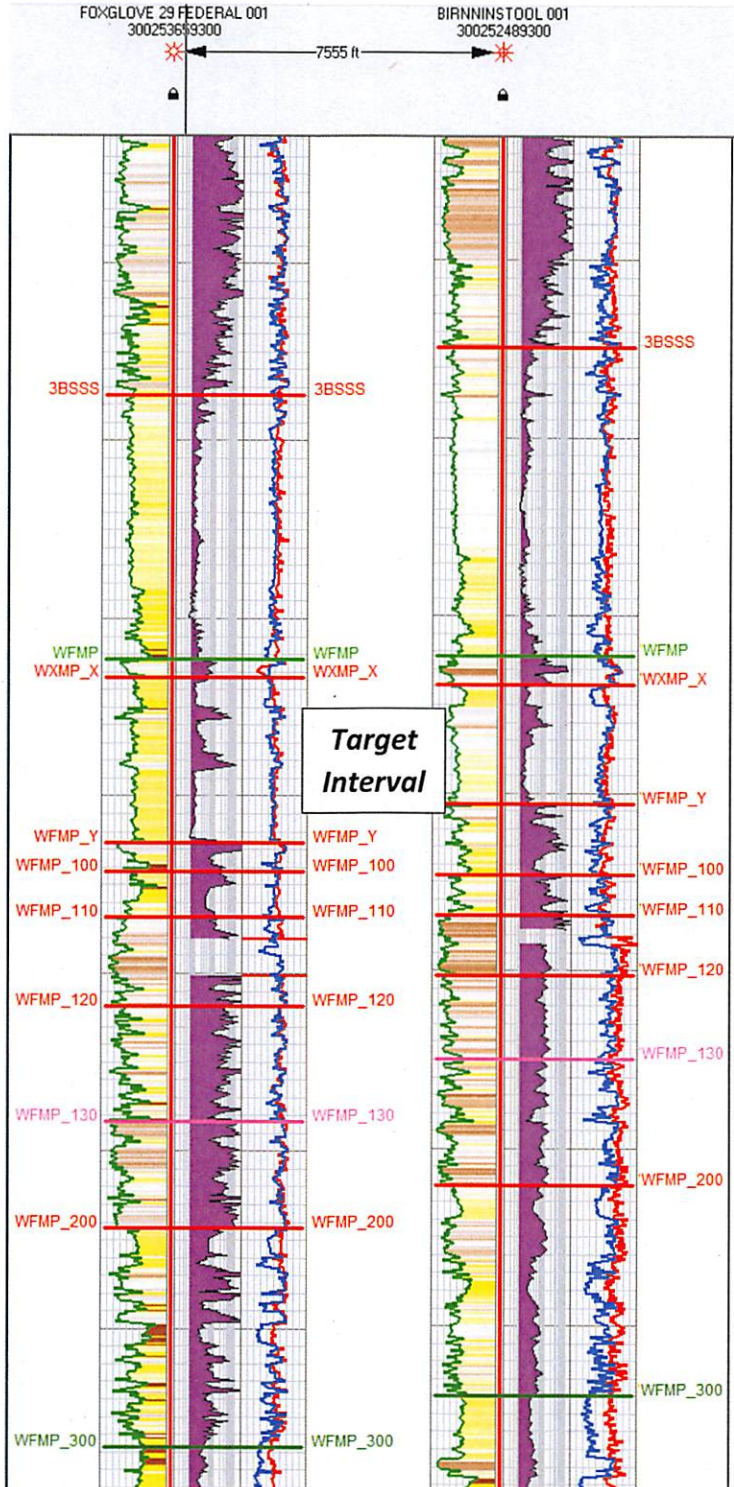


Exhibit B: Stratigraphic cross-section A to A', flattened on the top of the Wolfcamp Formation. Target intervals shown.

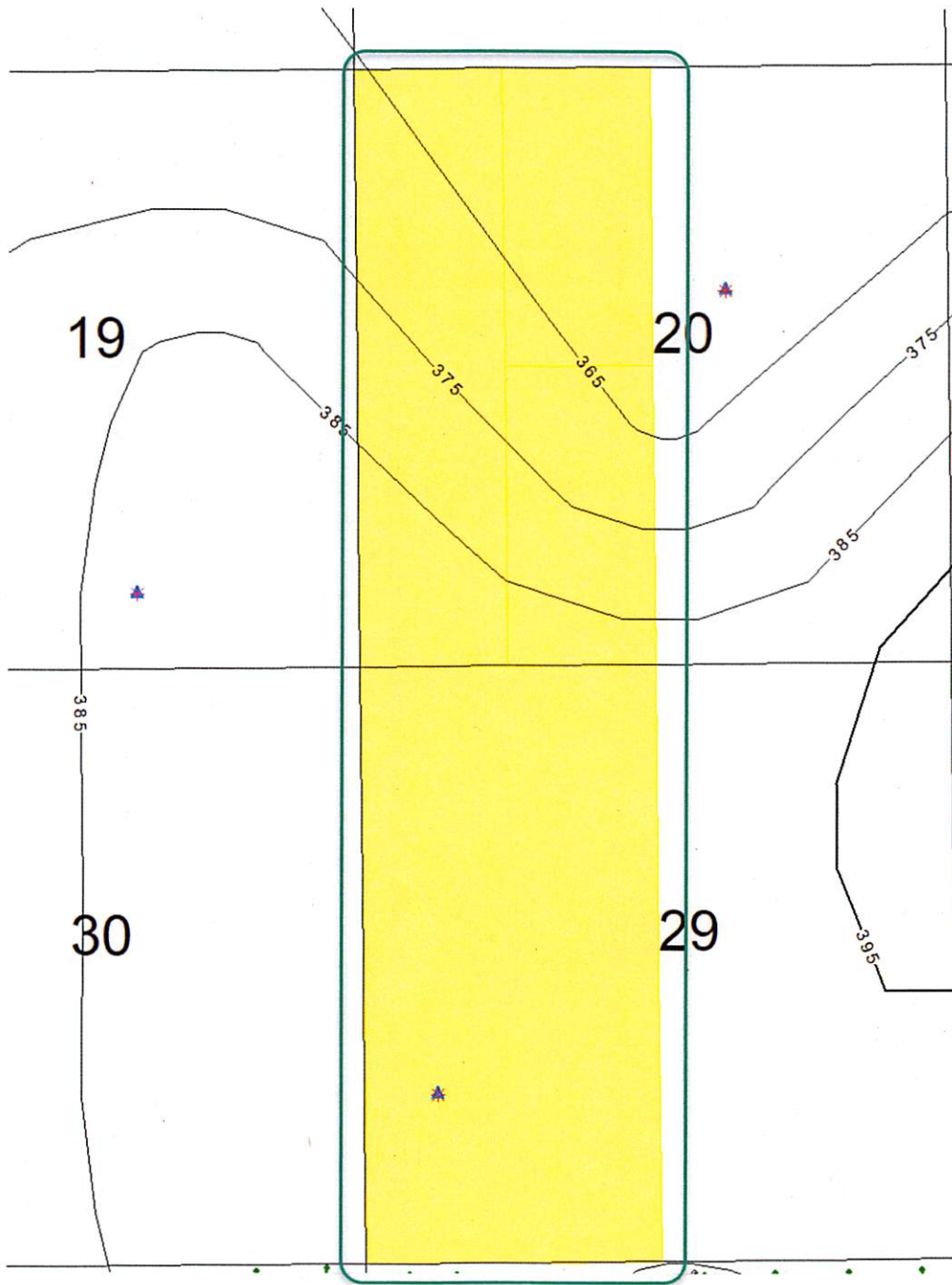


Exhibit C: Map showing isochore thickness of the target interval over the proposed pooling area.