

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

**APPLICATION OF DEVON ENERGY PRODUCTION
COMPANY, L.P TO EXPAND THE COTTON DRAW
UNIT, EDDY AND LEA COUNTIES, NEW MEXICO.**

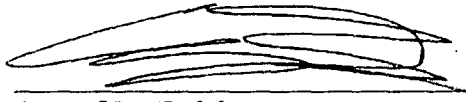
Case No. 14748

AFFIDAVIT OF AARON VAN DOLAH

COUNTY OF OKLAHOMA)
) ss.
STATE OF OKLAHOMA)

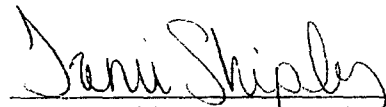
Aaron Van Dolah, being duly sworn upon his oath, deposes and states:

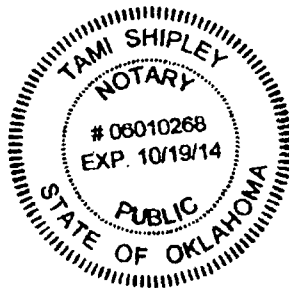
1. I am over the age of 18, and have personal knowledge of the matters stated herein.
2. I am a geologist for Devon Energy Production Company, L.P. ("Devon").
3. Attached hereto as Exhibit 1 is the write-up I prepared for submittal to the Bureau of Land Management and the Commissioner of Public Lands to support the proposed expansion of the Cotton Draw Unit (the "Unit"). It includes well and geological data which show that the lands in the proposed expansion area are productive from the same zones as adjoining Unit lands.
4. The granting of this application is in the interests of conservation and the prevention of waste.


Aaron Van Dolah

SUBSCRIBED AND SWORN TO before me this 26th day of October, 2011 by Aaron Van Dolah.

My Commission Expires: 10-19-14


Notary Public



Oil Conservation Division
Case No. C
Exhibit No. C

**Devon Energy Production Company, LP
Cotton Draw Unit
Proposed Unit Expansion**

LOCATION:

The proposed unit expansion consists of approximately 320 gross acres in T25S – R31E of Eddy County, New Mexico. Recommended acreage for inclusion in the expansion is the south half of Section 11. The surrounding area consists of semi-arid rangeland with no organized drainage systems in the immediate area. The primary surface use is for grazing, though vegetation is sparse. The relevant acreage is within a Shinnery Oak habitat.

PETROLEUM GEOLOGY:

Summary

Recent drilling in and around the Cotton Draw Unit has proven horizontal drilling to be an economic way to develop oil and gas reserves in the Lower Brushy Canyon Formation. Therefore, it is prudent to expand the Cotton Draw Unit in order to properly develop Devon's acreage position in the immediate area.

Figure 1 displays the current unit boundaries and existing wells in and around the unit. The two eastern unit areas produce from the Upper Delaware, while the western area was formed as a Devonian unit with subsequent PA's in the Morrow and Wolfcamp Formations. Original porosity mapping suggested the play may be limited to the northwestern-most portion of the unit; however, recent drilling within the unit has proven that the economic extent of this horizontal play extends further to the east and south.

Lower Brushy Canyon Horizontal Drilling

In 2009, Yates Petroleum drilled the Haracz AMO Federal #8H and #9H in the E2 of Section 23, T24S – R31E, just north of the Cotton Draw Unit (See Figure 2). These wells had 30-Day IP's of 855 bopd and 613 bopd respectively. Over the course of 2010 and 2011 Devon has drilled, completed, and brought online 7 wells with enough production data to establish well economics. Of these wells, six have been determined to be economic successes including the Cotton Draw Unit #156H. The Cotton Draw Unit #156H is the furthest south and east Delaware horizontal to be drilled to date and had a 30-day IP of 656 bopd, suggesting economic limits could be pushed further east than originally anticipated. Vertical well control indicates that similar reservoir characteristics extend to the south, into the proposed Cotton Draw Unit expansion area.

Lower Brushy Canyon Geology

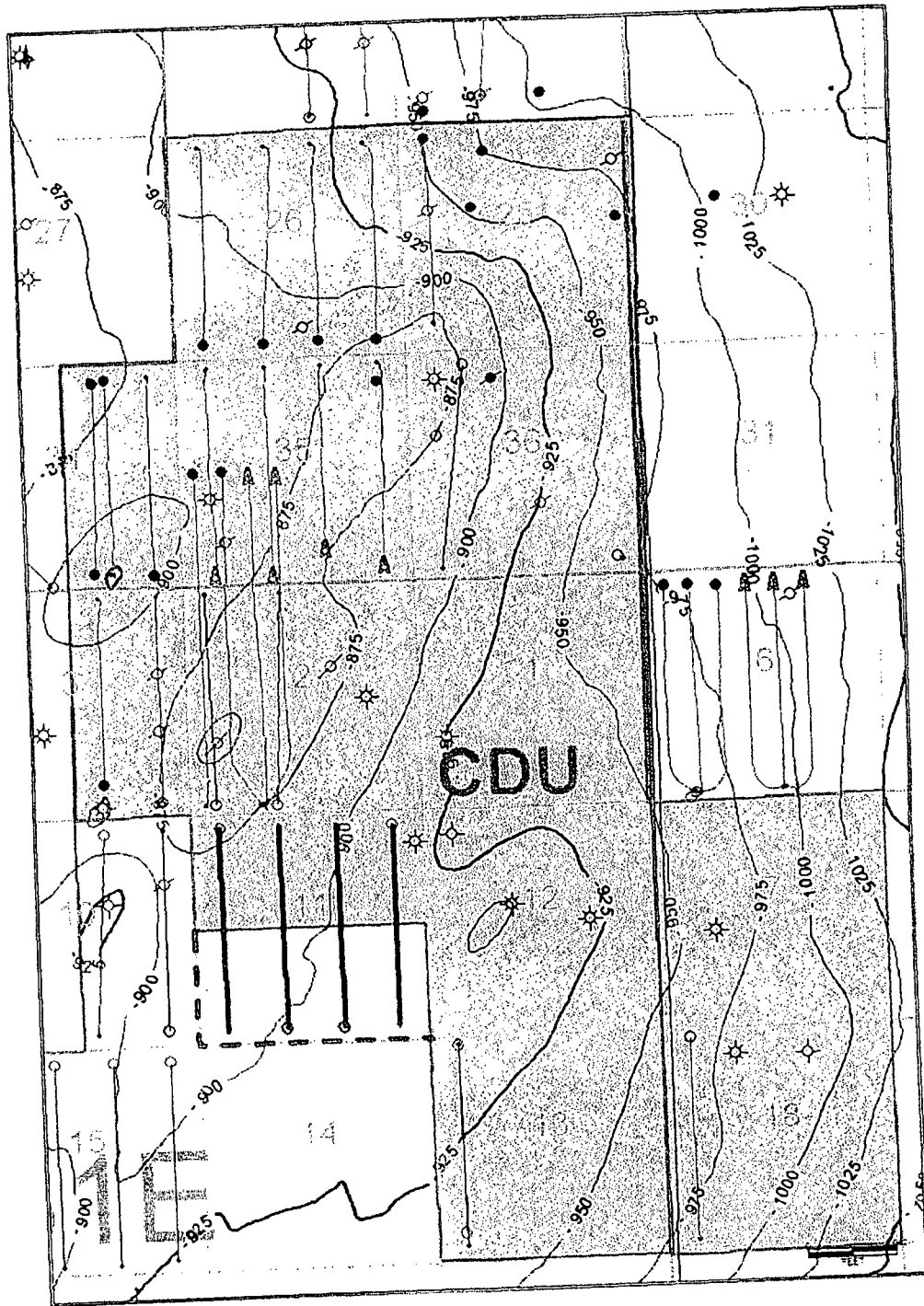
A type log for the Lower Brushy Canyon from the Cotton Draw Ut 87 is displayed in Figure 3. The Lower Brushy Canyon is approximately 300' thick in the area and is comprised of interbedded sandstones, siltstones, and mudstones.

Devon Energy subdivides the Lower Brushy Canyon into six zones (A through F). In the Cotton Draw area, porous sands have been encountered in zones B through F. Figure 4 shows average sandstone porosity in the Lower Brushy Canyon over the Cotton Draw area. The proposed unit expansion in Section 11 of T25S – R31E shows similar sandstone porosity as Section 35 of T25S – R31E which was proven, with recent Cotton Draw 156H Lower Brushy well, to contain hydrocarbons in commercial quantities. All wells have been landed in the B-sand (lowermost porous sand) shown in green on Figure 5. Multi-stage completions have been used along the lateral section of the well and access reserves in the overlying porous sands within the Lower Brushy Canyon.

RECOMMENDATION:

It is recommended to expand the Cotton Draw Unit as proposed herein. There are currently four Lower Brushy Horizontal wells in Sections 2 and 3 directly north of the expansion area that are currently drilling or have approved permits, as well as two wells in Section 10 to the west that have approved permits. The approval of this unit expansion will also help fulfill conditions of approval for four additional Lower Brushy horizontal wells either drilled into or from the proposed unit expansion area.

Top of Delaware SSTVD Structure



Red Line = Proposed Expansion Area
Green Line = Wells within Expansion

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