

Submit 4 Copies To Appropriate District  
Office  
District II  
1625 N. French Dr., Hobbs, NM 88240  
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811 South First, Artesia, NM 88210  
District II  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
Revised March 25, 1999

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

WELL API NO. 30-045-30284
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. NMNM-03358
7. Lease Name or Unit Agreement Name: NORTHEAST BLANCO UNIT
8. Well No. 312
Pool name or Wildcat: Basin-Dakota

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH  
PROPOSALS.)  
1. Type of Well:  
Oil Well ☐ Gas Well ☒ Other:  
2. Name of Operator: Devon Energy Production Co. L.P.

Address of Operator:  
20 North Broadway, Suite 1500, Oklahoma City, OK 73102

3. Well Location  
Unit Letter J: 1940 feet from the South line and 1975 feet from the East line.  
Section: 14 Township 31N Range 7W NMPM County San Juan  
10. Elevation (Show whether DR, RKB, RT, GR, etc.)  
6516' GR

11. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPLETION <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: Down hole commingle <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

12. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Approval is requested to isolate the Basin-Dakota pool, perforate, frac, and test the Blanco-Mesaverde pool, then downhole commingle production from both zones. Please refer to attached exhibits.

DHC 764A2

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Diana Booher TITLE Operations Engineer Associate DATE 5/2/02

Type or print name Diana Booher Telephone No. (405) 552-4512

(This space for State use)

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS CONSERVATION ENGINEER DATE MAY - 6 2002

Conditions of approval, if any:

## ATTACHMENTS TO APPLICATION TO DOWNHOLE COMMINGLE

The following information is being provided as supporting data for application to downhole commingle production from the following well:

Well: NEBU #312  
Location: NWSE, Sec. 14, T31N, R7W  
San Juan County, New Mexico

1. The Division order that establishes the two subject pools as pre-approved pools for commingling is Case No. 12346, Order No. R-11363.
2. The pools to be commingled are the Blanco-Mesaverde (72319) and the Basin-Dakota (71599).
3. The subject well is presently completed in the Basin-Dakota pool, the perforated interval being 7767-7952'. Proposed perforations in the Blanco-Mesaverde are as follows: 4498-4848' (35 holes), 5188-5668' (31 holes), 5732-5938' (35 holes).
4. Commingling will not reduce the value of the total remaining production in this well. Produced waters from both the Basin-Dakota and the Blanco-Mesaverde have been found to be compatible, with no evidence of scaling problems on tubulars, or of precipitate fill in the wellbore. The increased volume of gas flowing up the tubing will facilitate the well's ability to unload itself, thus increasing production and reducing potential operational problems.
5. Notice has been sent to all interest owners in the spacing unit by certified mail (return receipt) of Devon Energy's intent to downhole commingle production. A copy of this notice and a list of all interest owners is attached.
6. A copy of this notice of intent to downhole commingle has been sent to the Bureau of Land Management.

## Method of Allocation

Devon Energy recommends the following procedure to allocate downhole-commingled production between the Basin-Dakota and the Blanco-Mesaverde pools within the Northeast Blanco Unit:

1. The Basin-Dakota formation will be completed and flow tested for 30 –90 days to establish a stabilized rate and trend.
2. The Blanco-Mesaverde formation will be completed following the Dakota flow test and flow tested for 5 – 10 days to establish the initial production rate.
3. The two pools will be downhole commingled. Total well production will flow through common surface facilities and total produced gas will be measured using a conventional orifice plate meter tube.
4. Production will be allocated between the Mesa Verde and Dakota intervals by applying the variable percentage schedule to the daily total well production.

The Variable Percentage Schedule was derived using Mesa Verde and Dakota production type curves. These type curves were generated by normalizing production data from surrounding wells. The variable percentage schedule is required due to the dissimilar nature of the decline trends exhibited by the Mesa Verde and Dakota. Figure 1 depicts a typical Mesa Verde – Dakota production allocation. The actual percentages will vary from well to well, depending on well productivity.

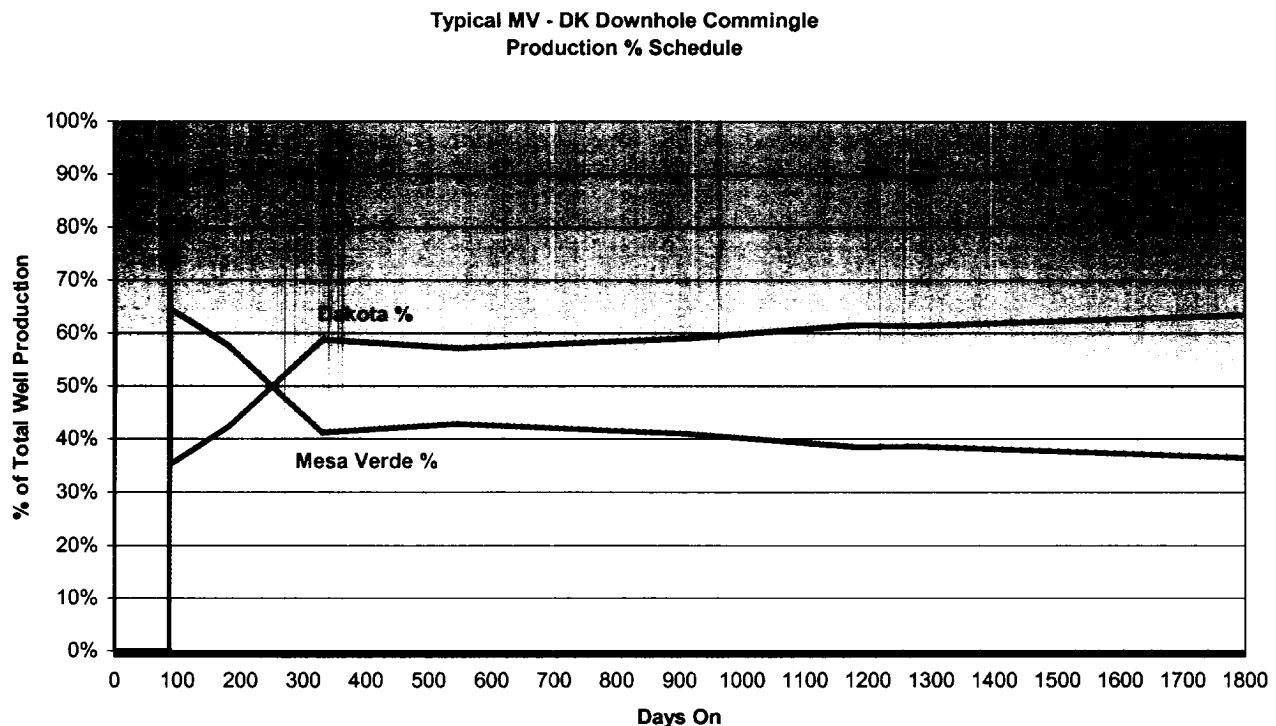


Figure 1

The Basin-Dakota type curve was generated from normalized production of 40 offsetting Basin-Dakota producers. The Basin-Dakota type curve clearly defines the decline rate for the life of a well. Comparison of this type curve with the production schedule obtained by using flow test data demonstrates the reliability of this method for projecting production. (See Figure 2) The curve covers a three and one half year period with a variance in cumulative normalized production of only 165 MCF.

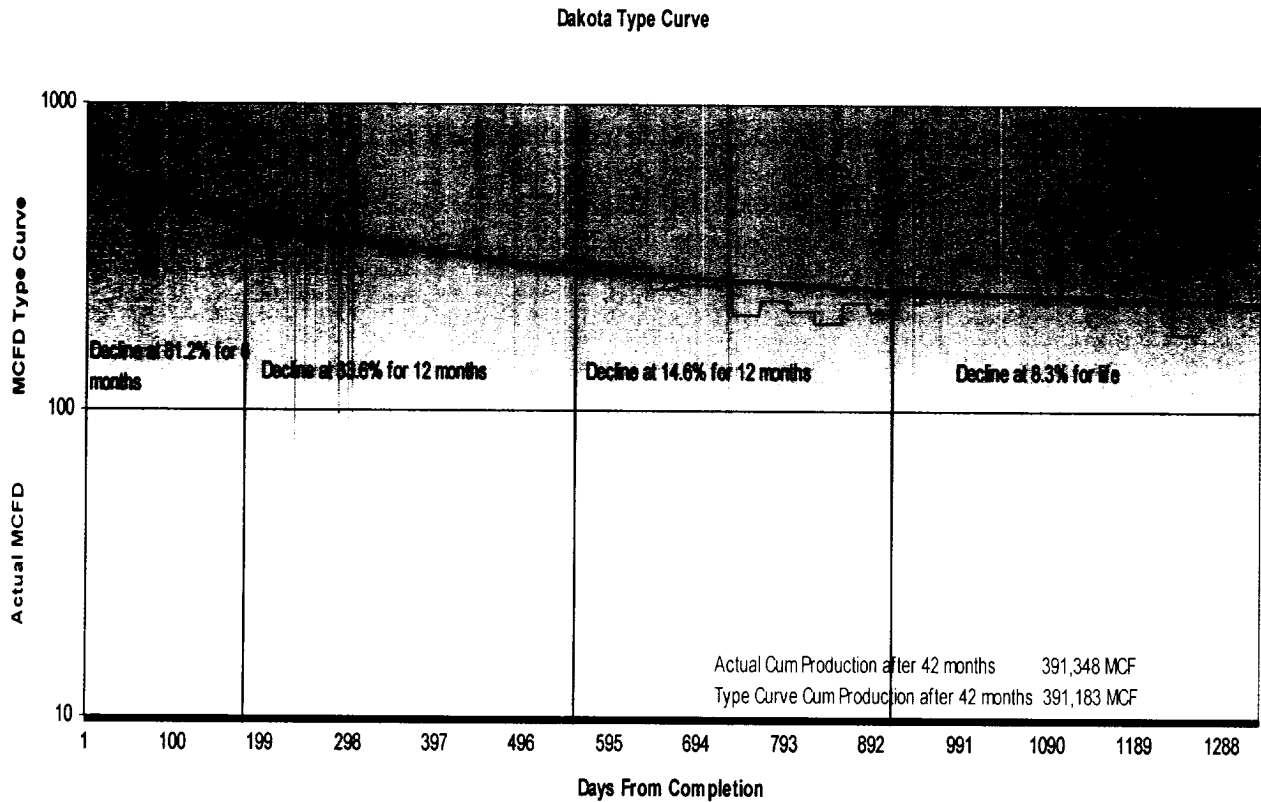


Figure 2

The Blanco – Mesa Verde type curve was generated from normalized production of 12 offsetting Blanco-Mesa Verde producers. Comparison of this type curve with the production schedule obtained by using flow test data demonstrates the reliability of this method for projecting production. (See Figure 3) The curve covers a four year period with a variance in cumulative normalized production of only 3,382 MCF.

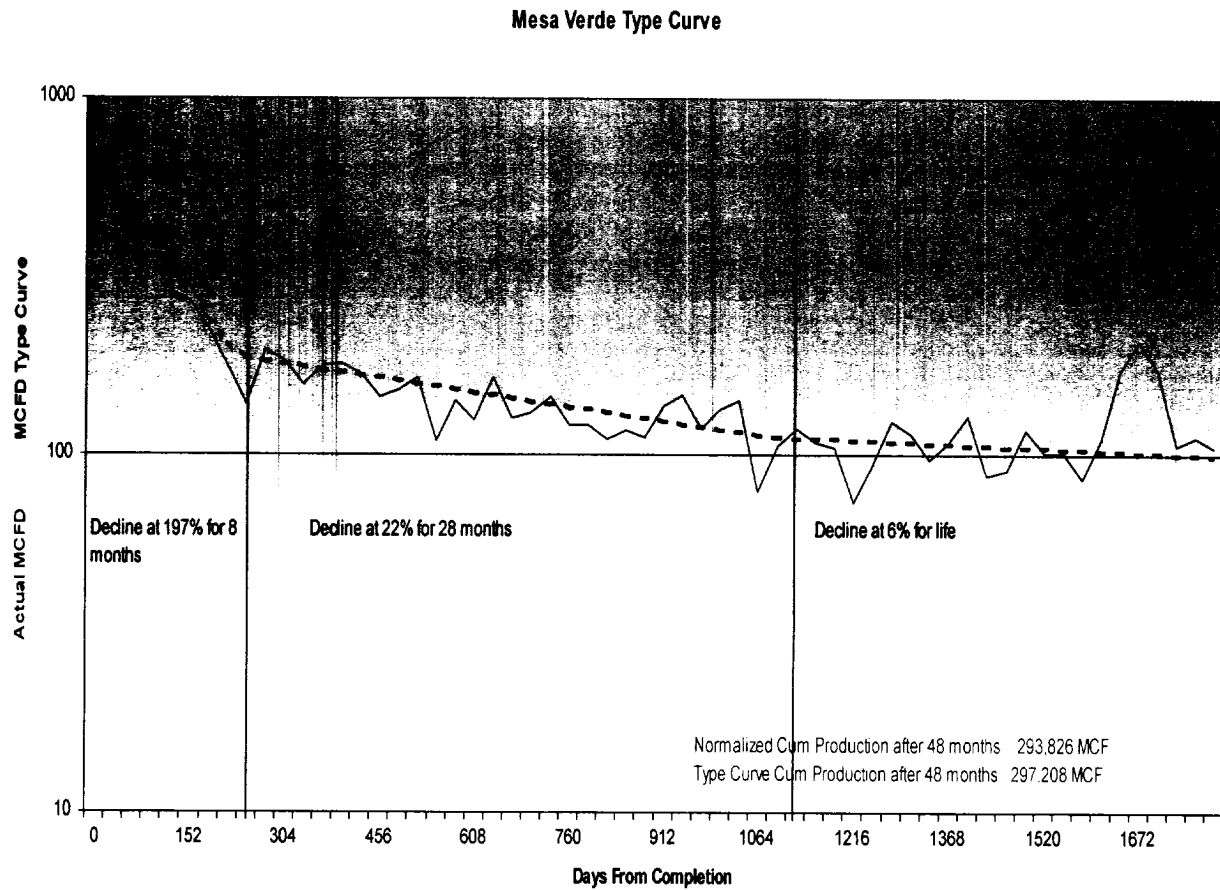
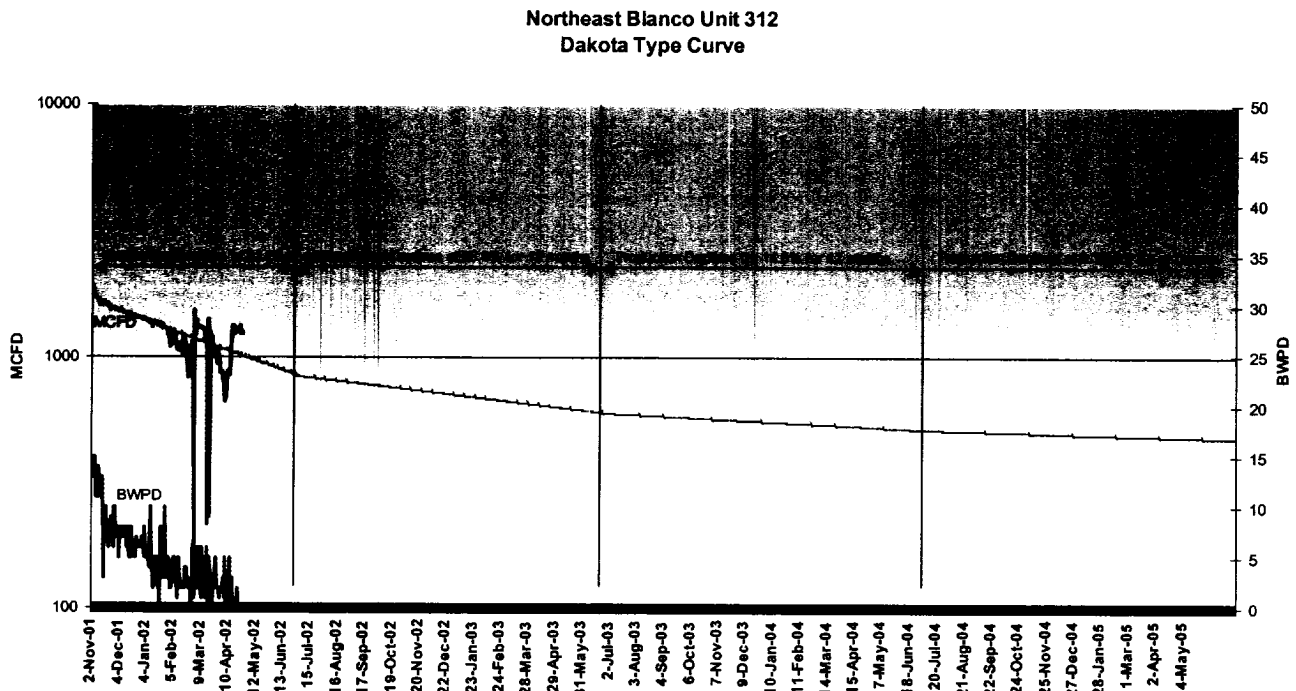


Figure 3

The Northeast Blanco Unit 312 has produced from the Dakota formation since October 2001. The first three months of production followed the Dakota type curve schedule. Variance from the type curve occurred ninety days after initial production. This variance was due to the buildup of scale at the base of the tubing string. The scale resulted from the pressure drop that occurred as the gas entered the seating nipple on the bottom of the tubing. In early April 2002 the tubing was cleaned out and the bottom hole assembly was reconfigured to distribute the pressure drop. The well is currently experiencing flush production above the type curve schedule. As demonstrated by the type curve, operational anomalies resulting in production rates below the type curve are typically offset by like production volumes above the type curve. Figure 4 is a plot of actual production and the established type curve schedule for the Dakota.



**FIGURE 4**

The 312 Mesa Verde schedule will be generated when a stabilized initial production rate has been established and input into the type curve schedule.