

Initial Deliverability  
Test

NEW MEXICO OIL CONSERVATION COMMISSION  
GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

(TO BE USED FOR FRUITLAND, PICTURED CLIFFS, MESAVERDE, & ALL DAKOTA  
EXCEPT BARKER DOME STORAGE AREA)

Pool Otero Pictured Cliff Formation Pictured Cliffs County Rio Arriba  
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 6-18-57  
Operator Amerada Petroleum Corp. Lease Jicarilla Apache "B" Well No. 7  
Unit D Sec. 30 Twp. 24N Rge. 5W Pay Zone: From 2065' To 2124'  
Casing: OD 5-1/2" WT. 15 Set At 2150 Tubing: OD 3/4" WT.        T. Perf. 2065'  
Produced Through: Casing X Tubing        Gas Gravity: Measured 0.690 Estimated         
Date of Flow Test: From 5-24-57 To 5-31-57 \* Date S.I.P. Measured 6-7-57  
Meter Run Size 4" Orifice Size 1/2" Type Chart L-10 Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 274 psig + 12 = 286 psia (a)  
Flowing tubing pressure (Dwt)        psig + 12 =        psia (b)  
Flowing meter pressure (Dwt)        psig + 12 = 294 psia (c)  
Flowing meter pressure (meter reading when Dwt. measurement taken):  
Normal chart reading        psig + 12 =        psia (d)  
Square root chart reading (7.67)<sup>2</sup> x spring constant 500 = 294 psia (d)  
Meter error (c) - (d) or (d) - (c)        ± 0 psi (e)  
Friction loss, Flowing column to meter:        = -8 psi (f)  
(b) - (c) Flow through tubing: (a) - (c) Flow through casing  
Seven day average static meter pressure (from meter chart):  
Normal chart average reading        psig + 12 =        psia (g)  
Square root chart average reading (7.75)<sup>2</sup> x sp. const. 500 = 300 psia (g)  
Corrected seven day avge. meter press. (p<sub>f</sub>) (g) + (e)        = 292 psia (h)  
P<sub>t</sub> = (h) + (f)        = 534 psia (i)  
Wellhead casing shut-in pressure (Dwt) 522 psig + 12 = 534 psia (j)  
Wellhead tubing shut-in pressure (Dwt)        psig + 12 =        psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through        = 534 psia (l)  
Flowing Temp. (Meter Run) 63 °F + 460        = 523 °Abs (m)  
P<sub>d</sub> = 1/2 P<sub>c</sub> = 1/2 (l)        = 267 psia (n)

FLOW RATE CALCULATION

Q = 45 X  $\left( \frac{\sqrt{(c)} - \sqrt{(d)}}{\sqrt{(c)}} \right)^2 = \underline{45}$  MCF/da  
(integrated)

DELIVERABILITY CALCULATION

D = Q 45  $\left[ \frac{(P_c^2 - P_d^2) = 213,867}{(P_c^2 - P_w^2) = 203,360} \right]^n \underline{1.042} = \underline{47}$  MCF/da.

SUMMARY

P<sub>c</sub> = 534 psia Company Amerada Petroleum Corporation  
Q = 45 Mcf/day By W. G. Abbott  
P<sub>w</sub> = 286 psia Title District Engineer  
P<sub>d</sub> = 267 psia Witnessed by         
D = 47 Mcf/day Company       

- \* This is date of completion test.
- \* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

| GL   | (1-e <sup>-S</sup> ) | (F <sub>c</sub> Q) <sup>2</sup> | (F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-S</sup> )<br>R <sup>2</sup> (THDS) | P <sub>i</sub> <sup>2</sup> (THDS)<br>(Column i) | P <sub>i</sub> <sup>2</sup> + R <sup>2</sup> (THDS) | P <sub>w</sub> |
|------|----------------------|---------------------------------|-------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------|----------------|
| 1425 | .093                 | 2.162                           | .201                                                                          | 85.4                                             | 85.6                                                | 292            |

Assumed n = 0.85

Po = 1.034 Calc.

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