

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 South-Blanco Mesa Verde Formation Mesa Verde County Rio Arriba  
Purchasing Pipeline Southern Union Gas Company Date Test Filed December 31, 1958

Operator Honolulu Oil Corporation Lease Jicarilla Apache Well No. 6 N  
Unit K Sec. 3 Twp. 26 N Rge. 4 W Pay Zone: From 3340 To 3950  
Casing: OD 3 1/2 WT. 9.2 Set At 6075 Tubing: OD 2 WT. \_\_\_\_\_ T. Perf. OK 5076  
Produced Through: Casing \_\_\_\_\_ Tubing X Gas Gravity: Measured .655 Estimated \_\_\_\_\_  
Date of Flow Test: From 12-1-58 To 12-8-58 \* Date S.I.P. Measured 12-15-58  
Meter Run Size 4.000 Orifice Size .875 Type Chart Sq.Rt. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) \_\_\_\_\_ psig + 12 = 562 \_\_\_\_\_ psia (a)  
Flowing tubing pressure (Dwt) \_\_\_\_\_ psig + 12 = -- \_\_\_\_\_ psia (b)  
Flowing meter pressure (Dwt) \_\_\_\_\_ psig + 12 = 562 \_\_\_\_\_ psia (c)  
Flowing meter pressure (meter reading when Dwt. measurement taken):  
Normal chart reading \_\_\_\_\_ psig + 12 = \_\_\_\_\_ psia (d)  
Square root chart reading (7.6)<sup>2</sup> x spring constant \_\_\_\_\_ = 577 \_\_\_\_\_ psia (d)  
Meter error (c) - (d) or (d) - (c) \_\_\_\_\_ ± \_\_\_\_\_ = + 3 \_\_\_\_\_ psi (e)  
Friction loss, Flowing column to meter:  
(b) - (c) Flow through tubing: (a) - (c) Flow through casing \_\_\_\_\_ = -0- \_\_\_\_\_ psi (f)  
Seven day average static meter pressure (from meter chart):  
Normal chart average reading \_\_\_\_\_ psig + 12 = 558 \_\_\_\_\_ psia (g)  
Square root chart average reading (\_\_\_\_\_)<sup>2</sup> x sp. const. \_\_\_\_\_ = \_\_\_\_\_ psia (g)  
Corrected seven day avge. meter press. (P<sub>f</sub>) (g) + (e) \_\_\_\_\_ = \_\_\_\_\_ psia (h)  
P<sub>t</sub> = (h) + (f) \_\_\_\_\_ = \_\_\_\_\_ psia (i)  
Wellhead casing shut-in pressure (Dwt) \_\_\_\_\_ psig + 12 = 987 \_\_\_\_\_ psia (j)  
Wellhead tubing shut-in pressure (Dwt) \_\_\_\_\_ psig + 12 = -- \_\_\_\_\_ psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through \_\_\_\_\_ = 999 \_\_\_\_\_ psia (l)  
Flowing Temp. (Meter Run) 60 °F + 460 \_\_\_\_\_ = 520 \_\_\_\_\_ ° Abs (m)  
P<sub>d</sub> = 1/2 P<sub>c</sub> = 1/2 (l) \_\_\_\_\_ = 499 \_\_\_\_\_ psia (n)

Q = 360 (integrated) X  $\left( \frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)} = \sqrt{574} = .9973} \right)^* = \underline{359} MCF/day$

DELIVERABILITY CALCULATION

D = Q 359  $\left[ \frac{(P_c^2 - P_d^2) = 749,000}{(P_c^2 - P_w^2) = 685,518} \right]^n = .75$  1.0687 = 383 MCF/day

SUMMARY

P<sub>c</sub> = 999 psia  
Q = 359 Mcf/day  
P<sub>w</sub> = 559 psia  
P<sub>d</sub> = 499 psia  
D = 383 Mcf/day

Company Honolulu Oil Corporation  
By J. B. Evans  
Title Division Gas Engineer  
Witnessed by Paul Ferrau  
Company Southern Union Gas 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> ) R <sup>2</sup>	P <sub>t</sub> <sup>2</sup> (Column i)	P <sub>t</sub> <sup>2</sup> + R <sup>2</sup>	P <sub>w</sub>
<u>3848</u>	<u>.244</u>	<u>11.390</u>	<u>2.779</u>	<u>312.481</u>	<u>312.483</u>	<u>559</u>

F<sub>c</sub> = 9.402  
F<sub>c</sub> x Q = 9.402 x .359 = 3.375



*OK*

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