

Initial Deliverability
Test
After W0

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 Blanco Formation Mesaverde County SJ
Purchasing Pipeline El Paso Natural Gas Date Test Filed July 29, 1959

Operator Beaver Lodge Oil Co. Lease Wayne Moore State Well No. 1
Unit N Sec. 16 Twp. 31N Rge. 9W Pay Zone: From 5130 To 5736
Casing: OD 4 1/2 WT. 9.5 Set At 5777 Tubing: OD 2 WT. T. Perf. 5615
Produced Through: Casing Tubing X Gas Gravity: Measured .650 Estimated
Date of Flow Test: From 7-7-59 To 7-15-59 * Date S.I.P. Measured 7-22-59
Meter Run Size 4.026 Orifice Size 2.000 Type Chart 50RT Type Taps Flg

OBSERVED DATA

Flowing casing pressure (Dwt) psig + 12 = psia (a)
Flowing tubing pressure (Dwt) 541 psig + 12 = 553 psia (b)
Flowing meter pressure (Dwt) 531 psig + 12 = 543 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading psig + 12 = psia (d)
Square root chart reading (7.31)² x spring constant 10 = 534 psia (d)
Meter error (c) - (d) or (d) - (c) ± = -9 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing; (a) - (c) Flow through casing = 10 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading psig + 12 = psia (g)
Square root chart average reading (7.15)² x sp. const. 10 = 511 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 520 psia (h)
P_t = (h) + (f) = 530 psia (i)
Wellhead casing shut-in pressure (Dwt) 853 psig + 12 = 865 psia (j)
Wellhead tubing shut-in pressure (Dwt) 849 psig + 12 = 861 psia (k)
P_c = (j) or (k) whichever well flowed through = 861 psia (l)
Flowing Temp. (Meter Run) 79 °F + 460 = 539 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 430 psia (n)

Q = 1253 X $\left(\frac{\frac{543}{\sqrt{(c)}}}{\frac{534}{\sqrt{(d)}}} = \frac{1.01685}{1.0084} \right)^* = \underline{1264} \text{ MCF/day}$
(Integrated)

DELIVERABILITY CALCULATION

D = Q 1264 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{741.321 - 184.900}{741.321 - 313.806} = \frac{1.3015}{1.2185} = \underline{1540} \text{ MCF/day}$

SUMMARY

P_c = 861 psia
Q = 1264 Mcf/day
P_w = 560 psia
P_d = 430 psia
D = 1540 Mcf/day

Company Beaver Lodge Oil Corp.
By C. W. Wagner
Title Well Testing Engineer
Witnessed by C. W. Wagner
Company Pacific Northwest Pipeline

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

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ⁻⁸)	(F _c Q) ²	(F _c Q) ² (1-e ⁻⁸) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
3650	0.233	141.229	32.906	280.900	313.806	560

