

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 Undesignated Formation Dakota County San Juan
Purchasing Pipeline El Paso Natural Gas Co. Date Test Filed 6-13-60
Operator Delhi-Taylor Oil Corp. Lease Drolet Well No. 1
Unit I Sec. 28 Twp. 26-N Rge. 11-W Pay Zone: From 5926 To 5947
Casing: OD 5-1/2" WT. 17# Set At 6140 Tubing: OD 2-7/8" WT. 6.5# T. Perf. 5926
Produced Through: Casing _____ Tubing X Gas Gravity: Measured 0.717 Estimated _____
Date of Flow Test: From 5-7-60 To 5-14-60 * Date S.I.P. Measured 5-21-60
Meter Run Size 4" Orifice Size 1.5" Type Chart Sq. Rt. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 587 psig + 12 = 599 psia (a)
Flowing tubing pressure (Dwt) 493 psig + 12 = 505 psia (b)
Flowing meter pressure (Dwt) 479 psig + 12 = 491 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (7.0)² x spring constant 10 = 490 psia (d)
Meter error (c) - (d) or (d) - (c) ± _____ = + 1 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing; (a) - (c) Flow through casing = 14 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.0)² x sp. const. 10 = 490 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 491 psia (h)
P_t = (h) + (f) = 505 psia (i)
Wellhead casing shut-in pressure (Dwt) 1584 psig + 12 = 1596 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1575 psig + 12 = 1588 psia (k)
P_c = (j) or (k) whichever well flowed through = 1588 psia (l)
Flowing Temp. (Meter Run) 80 °F + 460 = 540 °Abs (m)
P_d = ½ P_c = ½ (l) = 794 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{1293}{(\text{integrated})} \times \left(\frac{\sqrt{P_c} - \sqrt{P_d}}{\sqrt{P_c} - \sqrt{P_w}} \right) = \frac{22.15852 - 1.00102}{22.13594} = 1.00102 = 1294 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{1294}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{0.877032}} = 1135 \text{ MCF/day}$$

SUMMARY

P_c = 1588 psia Company Delhi-Taylor Oil Corp.
Q = 1294 Mcf/day By Jack F. Berry
P_w = 518.41 psia Title District Engineer
P_d = 794 psia Witnessed by _____
D = 1135 Mcf/day Company _____

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

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ^{-S})	(F _c Q) ²	(F _c Q) ² (1-e ^{-S}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
4248.942	0.266	51.5954028	13.72437	255.025	268.7494	518.41

