

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 Tapieto Formation Pictured Cliffs County Rio Arriba
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed Feb. 28, 1964
Operator Consolidated Oil & Gas Lease Apache # Well No. 2-16
Unit C Sec. 16 Twp. 26 N Rge. 3W Pay Zone: From 3694 To 3788
Casing: OD 7" WT. 23# Set At 3947 Tubing: OD 1" WT. 1.30# T. Perf. 3694
Produced Through: Casing Tubing XX Gas Gravity: Measured .680 Estimated
Date of Flow Test: From 11-19-63 To 11-27-63 * Date S.I.P. Measured 7-13-63
Meter Run Size 4.026 Orifice Size .375 Type Chart L-10 Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) _____ psig + 12 = _____ psia (a)
Flowing tubing pressure (Dwt) _____ psig + 12 = _____ psia (b)
Flowing meter pressure (Dwt) _____ psig + 12 = _____ psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (_____) ² x spring constant _____ = _____ psia (d)
Meter error (c) - (d) or (d) - (c) _____ ± _____ = _____ psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing; (a) - (c) Flow through casing _____ = _____ 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) _____ = _____ psia (h)
P_t = (h) + (f) _____ = _____ psia (i)
Wellhead casing shut-in pressure (Dwt) 999 psig + 12 = 1011 psia (j)
Wellhead tubing shut-in pressure (Dwt) 999 psig + 12 = 1011 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1011 psia (l)
Flowing Temp. (Meter Run) 60 °F + 460 _____ = 520 °Abs (m)
P_d = ½ P_c = ½ (l) _____ = 506 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{\int_{P_d}^{P_c} \frac{dP}{P^2}}{\left(\frac{\sqrt{P_c}}{\sqrt{P_d}} - 1 \right)} \times \left(\frac{\sqrt{P_c}}{\sqrt{P_d}} - 1 \right) = \text{_____ MCF/day}$$

DELIVERABILITY CALCULATION

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

23 766.085 1.0059 23
(1.007)

SUMMARY

P_c = 1011 psia
Q = 23 Mcf/day
P_w = 511 psia
P_d = 506 psia
D = 23 Mcf/day

Company Consolidated Oil & Gas Inc.
By Joseph Abbott
Title Manager
Witnessed by Ralph
Company _____

* 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
<u>2512</u>	<u>.167</u>	<u>1.343</u>	<u>.224</u>	<u>261.121</u>	<u>261.345</u>	<u>511</u>

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FEB 28 1964
OIL CON. COM.
DIST. 3

