

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 Basin Dakota Formation Dakota County San Juan
Purchasing Pipeline Southern Union Gas Company Date Test Filed April 17, 1963

Operator TEXACO Inc. Lease H. J. Lee Fed. "B" Well No. 3
Unit M Sec. 23 Twp. 29-N Rge. 12-W Pay Zone: From 5970 To 6068
Casing: OD 4 1/2 WT. 9.5 Set At 6219 Tubing: OD 2-3/8 WT. 4.7 T. Perf. 6077
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .700 Estimated _____
Date of Flow Test: From 3-24-63 To 3-29-63 * Date S.I.P. Measured 4-5-63
Meter Run Size 4.0 Orifice Size 2.00 Type Chart Sq Rt Type Taps Flg

OBSERVED DATA

Flowing casing pressure (Dwt) 1805 psig + 12 = 1817 psia (a)
Flowing tubing pressure (Dwt) 1778 psig + 12 = 1790 psia (b)
Flowing meter pressure (Dwt) 762 psig + 12 = 774 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (8.8)² x spring constant 1.000 = 774 psia (d)
Meter error (c) - (d) or (d) - (c) _____ ± _____ = 0 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing _____ = 1016 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (9.1)² x sp. const. 1.000 = 828 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 828 psia (h)
P_i = (h) + (f) _____ = 1790 psia (i)
Wellhead casing shut-in pressure (Dwt) 2046 psig + 12 = 2058 psia (j)
Wellhead tubing shut-in pressure (Dwt) 2044 psig + 12 = 2056 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 2058 psia (l)
Flowing Temp. (Meter Run) 69 °F + 460 _____ = 529 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 1029 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{2700}{(\text{integrated})} \times \left(\frac{\sqrt{c}}{\sqrt{d}} \right) = \frac{2700}{1.000} = 2700 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{2700}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{.75}} = \frac{2700}{\left[\frac{3,176,523}{856854} \right]^{.75}} = \frac{2700}{2.6698} = 7.208 \text{ MCF/da.}$$

SUMMARY

P_c = 2058 psia
Q = 2700 Mcf/day
P_w = 1837 psia
P_d = 1029 psia
D = 7.208 Mcf/day

Company TEXACO Inc.
By P. P. [Signature]
Title District Superintendent
Witnessed by _____
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
<u>4254</u>	<u>.266</u>	<u>644,398</u>	<u>171,410</u>	<u>3,204,100</u>	<u>3,375,510</u>	<u>1837</u>

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Number of hauls	<i>P. setiferus</i> (%)	<i>P. setiferus</i> + <i>P. setiferus</i> + <i>P. setiferus</i> (%)	<i>P. setiferus</i> + <i>P. setiferus</i> + <i>P. setiferus</i> (%)
1	10	5	2
2	25	10	3
3	45	15	4
4	65	20	5
5	80	25	6
6	90	30	7
7	95	35	8
8	98	40	9
9	99	45	10
10	100	50	10

100

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1987).

[illegible]

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F

2. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971).

The diagram illustrates a two-dimensional lattice structure. It consists of a grid of points. Arrows indicate the types of interactions between these points: solid arrows represent nearest-neighbor interactions, and dashed arrows represent next-nearest-neighbor interactions. The distance between nearest neighbors is labeled as 'a', and the distance between next-nearest neighbors is labeled as 'b'.

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