

Initial Deliverability
Test

Form C-122-A
Revised April 20, 1955

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 El Paso Natural Gas Co. Date Test Filed 6-16-61
Operator The British-American Oil Producing Company Lease North 40 Well No. 2
Unit N Sec. 24 Twp. 27N Rge. 11W Pay Zone: From 6363 v To 6402
Casing: OD 4-1/2 WT. 11.6 Set At 6366 Tubing: OD None WT. --- T. Perf. ---
Produced Through: Casing N Tubing --- Gas Gravity: Measured 0.604 Estimated ---
Date of Flow Test: From 5-13-61 To 5-21-61 * Date S.I.P. Measured 4-3-61
Meter Run Size 4" Orifice Size 2.250 Type Chart L-10 Type Taps Flanged

OBSERVED DATA

Flowing casing pressure (Dwt) 603 psig + 12 = 695 psia (a)
Flowing tubing pressure (Dwt) 478 psig + 12 = 490 psia (b)
Flowing meter pressure (Dwt) 478 psig + 12 = 490 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading 7.0 psig + 12 = 490 psia (d)
Square root chart reading (7.0)² x spring constant 10 = 490 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 = 205 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading 7.05 psig + 12 = 497 psia (g)
Square root chart average reading (7.05)² x sp. const. 10 = 497 psia (g)
Corrected seven day avg. meter press. (p_f) (g) + (e) = 702 psia (h)
P_t = (h) + (f) = 907 psia (i)
Wellhead casing shut-in pressure (Dwt) 1863 psig + 12 = 1863 psia (j)
Wellhead tubing shut-in pressure (Dwt) --- psig + 12 = --- psia (k)
P_c = (j) or (k) whichever well flowed through = 1863 psia (l)
Flowing Temp. (Meter Run) 86 °F + 460 = 546 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 931.5 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{3047}{(\text{integrated})} \times \left(\frac{\sqrt{(c)} - \sqrt{(d)}}{\sqrt{(d)}} \right) = \frac{22.14 - 22.14}{22.14} = 3,047 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{3047}{\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^{0.75} \times 0.90536} = 2758.6 \text{ MCF/day}$$

SUMMARY

P_c = 1863 psia
Q = 3047 Mcf/day
P_w = 706.2 psia
P_d = 931.5 psia
D = 2759 Mcf/day

The British-American Oil
Producing Company
Company Original Signed By: JUN 19 1961
By Frank R. ...
Title Field Engineer
Witnessed by Frank R. ... DIST. 3
Company The British-American Oil Prod. Co.

- * 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})	P _t ² (Column i)	P _t ² + R ²	P _w
			R ²			
4379	0.273	21.676	5.918	492.4	498.7	706.2

RECEIVED
JUN 16 1961
OIL CON. COM.
DIST. 3