

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 Undesignated Formation Dakota County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 9-8-60
Operator FUNCO PETROLEUM CORPORATION Lease Federal Well No. 9-N
Urt N Sec. 9 Twp. 23N Rge. 12W Pay Zone: From 6305 To 6365
Casing: OD 5 1/2" WT. 15 1/2 Set At 6516 Tubing: OD 2" WT. 4.7 T. Perf. 6365
Produced Through: Casing _____ Tubing X Gas Gravity: Measured 0.636 Estimated _____
Date of Flow Test: From 8-15-60 To 8-22-60 * Date S.I.P. Measured 4-18-60
Meter Run Size 4" Orifice Size 1.750 Type Chart Eq. Rt. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 602 psig + 12 = 614 psia (a)
Flowing tubing pressure (Dwt) 542 psig + 12 = 554 psia (b)
Flowing meter pressure (Dwt) 475 psig + 12 = 487 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) ± = -3 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = 67 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) = 487 psia (h)
P_t = (h) + (f) = 554 psia (i)
Wellhead casing shut-in pressure (Dwt) 2,095 psig + 12 = 2107 psia (j)
Wellhead tubing shut-in pressure (Dwt) 2,045 psig + 12 = 2057 psia (k)
P_c = (j) or (k) whichever well flowed through = 2057 psia (l)
Flowing Temp. (Meter Run) 77 °F + 460 = 537 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 1028 psia (n)

FLOW RATE CALCULATION

Q 1083 X $\left(\frac{\sqrt{(c)} \text{ } 487 = 22.06808}{\sqrt{(d)} \text{ } 490 \text{ } 22.13594} = 0.99693 \right) = \text{ } 1080 \text{ MCF/day}$
(integrated)

DELIVERABILITY CALCULATION

D : Q 1080 $\left[\frac{(P_c^2 - P_d^2) = 3,174,465}{(P_c^2 - P_w^2) = 3,896,289} \right]^n \text{ } 0.81474)^{.75} \text{ } 0.8575 = \text{ } 926 \text{ MCF/day.}$

*P at 512 - 1095

SUMMARY

P_c = 2057 psia
Q = 1080 Mcf/day
P_w = 579 psia
P_d = 1028 psia
D = 926 Mcf/day

Company FUNCO PETROLEUM CORPORATION
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Witnessed by Glen C. Rhodes
Company Dakota Petroleum Corp.

* 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 1)	P _t ² + R ²	P _w
4366	0.272	103,104	28,044	306,916	334,960	579

