3-OCC
1-EPNG Proration Dept.
1-D
1-f

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 SJ

Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 4/11/61

Operator Southwest Production Co. Lease Collier Federal Well No. 1

Unit L Sec. 18 Twp. 27N Rge. 12W Pay Zone: From 5830 To 5914

Casing: OD 5½" WT. 15.5 Set At 6002 Tubing: OD 2 3/8 WT. 4.70 T. Perf. 5906

Produced Through: Casing ____ Tubing X Gas Gravity: Measured .647 Estimated ____

Date of Flow Test: From 3/21/61 To 3/29/61 * Date S.I.P. Measured 4/6/61

Meter Run Size ____ Orifice Size ____ Type Chart ____ Type Taps ____

OBSERVED DATA

Flowing casing pressure (Dwt)	____ psig + 12 =	____	psia	(a)
Flowing tubing pressure (Dwt)	276 psig + 12 =	288	psia	(b)
Flowing meter pressure (Dwt)	269 psig + 12 =	281	psia	(c)
Flowing meter pressure (meter reading when Dwt. measurement taken:				
Normal chart reading	____ psig + 12 =	____	psia	(d)
Square root chart reading (5.3)² x spring constant 1000	=	281	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	=	~~8~~ 7	psi	(f)
Seven day average static meter pressure (from meter chart):				
Normal chart average reading	____ psig + 12 =	____	psia	(g)
Square root chart average reading (5.30)² x sp. const. 1000	=	281	psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	=	281	psia	(h)
P_t = (h) + (f)	=	~~296~~ 288	psia	(i)
Wellhead casing shut-in pressure (Dwt) 1506	psig + 12 =	1518	psia	(j)
Wellhead tubing shut-in pressure (Dwt) 1500	psig + 12 =	1512	psia	(k)
P_c = (j) or (k) whichever well flowed through	=	1512	psia	(l)
Flowing Temp. (Meter Run) 53 °F + 460	=	513	°Abs	(m)
P_d = ½ P_c = ½ (l)	=	756	psia	(n)

FLOW RATE CALCULATION

$$Q = 2 \text{ (integrated)} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{1.0}{1.0} = 1.00 \right)^{*} = 2 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 2 \left[\frac{1,714,608}{~~2,125,779~~ \; 2,203,200} \right]^{.75} \frac{(.8065)}{(.8510)} \frac{.8286}{(.7782)} = \frac{2}{~~1.70~~} \text{ MCF/da.}$$

SUMMARY

P_c =	1512	psia	
Q =	2	Mcf/day	
P_w =	~~400~~ 288	psia	
P_d =	756	psia	
D =	~~1.70~~ 2	Mcf/day	

Company Southwest Production Company
By George L. Hoffman, Jr.
Title Production Foreman
Witnessed by ____
Company ____

* This is date of completion test.

* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-S})$	$(F_cQ)^2$	$\frac{(F_cQ)^2}{R^2}(1-e^{-S})$	P_t^2 (Column i)	$P_t^2 + R^2$	P_w
3820	.243	Negligible .356	86.265	84,100	160.365	400

RECEIVED
APR 12 1961
OIL CON. COM.
DIST. 3