3 NMOCC
1 El Paso
1 Austral
1 File

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 Formation Dakota County San Juan

Purchasing Pipeline El Paso Natural Gas Co. Date Test Filed 10/22/65

Operator Austral Oil Co. Lease Charles Well No. 1

Unit J Sec. 12 Twp. 27N Rge. 9W Pay Zone: From 6354 To 6580

Casing: OD 4½" WT. 10.5# Set At 6658 Tubing: OD 1 1/4" WT. 2.1# T. Perf. 6331

Produced Through: Casing ^ Tubing X Gas Gravity: Measured .653 Estimated

Date of Flow Test: From 9-19-65 To 9-27-65 * Date S.I.P. Measured 4-1-65

Meter Run Size 4" Orifice Size 1.500 Type Chart Type Taps

OBSERVED DATA

Flowing casing pressure (Dwt)	580 psig + 12 =	592	psia	(a)
Flowing tubing pressure (Dwt)	499 psig + 12 =	511	psia	(b)
Flowing meter pressure (Dwt)	489 psig + 12 =	501	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)	± =	+11	psi	(e)
Friction loss, Flowing column to meter:				
(b) - (c) Flow through tubing: (a) - (c) Flow through casing	=	+10	psi	(f)
Seven day average static meter pressure (from meter chart):				
Normal chart average reading	psig + 12 =		psia	(g)
Square root chart average reading ( ) ^{2} x sp. const.	=	490	psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	=	501	psia	(h)
P_t = (h) + (f)	=	521	psia	(i)
Wellhead casing shut-in pressure (Dwt)	2200 psig + 12 =	2212	psia	(j)
Wellhead tubing shut-in pressure (Dwt)	2200 psig + 12 =	2212	psia	(k)
P_c = (j) or (k) whichever well flowed through	=	2212	psia	(l)
Flowing Temp. (Meter Run)	°F + 460 =		°Abs	(m)
P_d = ½ P_c = ½ (l)	=	1106	psia	(n)

FLOW RATE CALCULATION

$$Q = 606 \text{ (integrated)} \times \left(\frac{\sqrt{h_w}}{\sqrt{(d)}} = \frac{\sqrt{1.0224}}{} = 1.0112 \right)^{*} = 613 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{3,669,708}{4,562,283} \right]^{n} = 613 \left[\frac{3,669,708}{4,562,283} \right]^{.75} = 613 \left[\frac{.8493}{(.8044)^{.75}} \right] = 521 \text{ MCF/da.}$$

SUMMARY

P_c =	2212	psia
Q =	613	Mcf/day
P_w =	575	psia
P_d =	1106	psia
D =	521	Mcf/day

Company Austral Oil Co.
By Original signed by [illegible]
Title Consulting [illegible]
Witnessed by
Company

RECEIVED
OCT 26 1965
OIL CON. COM.
DIST. 3

* This is date of completion test.
* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-S})$	$(F_cQ)^2$	$\frac{(FcQ)^2}{R^2}$ $(1-e^{-S})$	Pt^2 (Column i)	$P_t^2 + R^2$	P_w
4135	.260	227.770	59.220	271.441	330.661	575