Form C-122-A
Revised April 20, 1955

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 **El Paso Natural Gas Company** Date Test Filed **January 8, 1962**

Operator **Western Natural Gas Company** Lease **Schlosser-Federal** Well No. **2**

Unit **M** Sec. **3** Twp. **27-N** Rge. **11-W** Pay Zone: From **6596** To **6626**

Casing: OD **5 1/2"** WT. **15.5** Set At **6769** Tubing: OD **2 1/16** WT. **3.4** T. Perf. **6549**

Produced Through: Casing ____ Tubing **X** Gas Gravity: Measured **.681** Estimated ____

Date of Flow Test: From **11-26-61** To **12-4-61** * Date S.I.P. Measured **12-11-61**

Meter Run Size **4.026** Orifice Size **2.250** Type Chart **L-10** Type Taps **Flange**

OBSERVED DATA

Flowing casing pressure (Dwt)	Packer	psig + 12 =	____	psia (c)
Flowing tubing pressure (Dwt)	507	psig + 12 =	519	psia (b)
Flowing meter pressure (Dwt)	459	psig + 12 =	471	psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):				
Normal chart reading	____	psig + 12 =	____	psia (c)
Square root chart reading (6.85)^2 x spring constant 10		=	469	psia (c)
Meter error (c) - (d) or (d) - (c)	±	=	+ 2	psi (e)
Friction loss, Flowing column to meter:				
(b) - (c) Flow through tubing: (a) - (c) Flow through casing		=	48	psi (f)
Seven day average static meter pressure (from meter chart):				
Normal chart average reading	____	psig + 12 =	____	psia (g)
Square root chart average reading (6.95)^2 x sp. const. 10		=	483	psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e)		=	485	psia (h)
P_t = (h) + (f)		=	533	psia (i)
Wellhead casing shut-in pressure (Dwt)	Packer	psig + 12 =	____	psia (j)
Wellhead tubing shut-in pressure (Dwt)	1475	psig + 12 =	1487	psia (k)
P_c = (j) or (k) whichever well flowed through		=	1487	psia (l)
Flowing Temp. (Meter Run)	89 °F + 460	=	549	°Abs (m)
P_d = ½ P_c = ½ (l)		=	744	psia (r)

FLOW RATE CALCULATION

$$Q = 1494 \text{ (integrated)} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{21.70}{21.66} = 1.002 \right)^{*} = 1497 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q\,1497 \left[\frac{P_c^2 - P_d^2 = 1,457,633}{P_c^2 - P_w^2 = 1,813,008} \right]^{n} (.9143)^{.75} = .9351 = 1400 \text{ MCF/da.}$$

SUMMARY

P_c =	1487 psia	Company	Western Natural Gas Company
Q =	1497 Mcf/day	By	[signature]
P_w =	631 psia	Title	Division Petroleum Engineer
P_d =	744 psia	Witnessed by	Paul Varner
D =	1400 Mcf/day	Company	Western Natural Gas Company

* This is date of completion test.

* Meter error correction factor

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REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-s})$	$(F_cQ)2$	$\frac{(FcQ)^2 (1-e^{-s})}{R^2}$	P_t^2 (Column i)	$P_t^2 + R^2$	P_w
4460	0.264	433.847	114.536	284.089	398.625	631

Fe = 13.914; tbg ID = 1.75"