SKELLY OIL COMPANY

Drawer 510
Farmington, New Mexico

July 18, 1962

File: L. L. McConnell Well No. 4
Gas Well Tests

State of New Mexico
Oil Conservation Commission
1000 Rio Brazos Road
Aztec, New Mexico

Gentlemen:

Attached in triplicate is Initial Deliverability Test, Form C-122-A, on Skelly Oil Company's L. L. McConnell Well No. 4, located in Rio Arriba County, New Mexico.

The subject well has produced in excess of 2,500 MCF per month for the past three (3) months and will naturally be removed from the exempt marginal status.

Our 1961 Deliverability Test indicated a deliverability of 57 MCF/day. Since that test we have initiated a sustained program for blowing this well which has resulted in an increase in deliverability of 113 MCF/day as indicated on the latest test.

Due to the increase in production we are forwarding the attached Initial Deliverability Test which we trust will suffice until the Annual Deliverability Test is taken in September, 1962.

Very truly yours,

SKELLY OIL COMPANY

(ORIGINAL SIGNED) H. E. Aab

H. E. Aab
District Superintendent

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OIL CON. COM.
DIST. 3

JWT/jm
Attachments: (3)
cc: Skelly Oil Company - Tulsa
Skelly Oil Company - Farmington

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 **South Blanco** Formation **Pictured Cliffs** County **Rio Arriba**

Purchasing Pipeline **El Paso Natural Gas Company** Date Test Filed **July 10, 1962**

Operator **Skelly Oil Company** Lease **L. L. McConnell** Well No. **4**

Unit **D** Sec. **31** Twp. **25N** Rge. **3W** Pay Zone: From **3,718'** To **3,789'**

Casing: OD **5-1/2"** WT. **14#** Set At **3,825'** Tubing: OD **2-3/8"** WT. **4.7#** T. Perf. **3,729'**

Produced Through: Casing **X** Tubing ____ Gas Gravity: Measured **.690** Estimated ____

Date of Flow Test: From **5-30-62** To **6-7-62** * Date S.I.P. Measured **9-13-62**

Meter Run Size **4.026" I. D.** Orifice Size **0.750** Type Chart **S. R.** Type Taps **Flange**

OBSERVED DATA

Flowing casing pressure (Dwt) ____ psig + 12 = ____	psia	(a)
Flowing tubing pressure (Dwt) ____ psig + 12 = ____	psia	(b)
Flowing meter pressure (Dwt) ____ psig + 12 = ____	psia	(c)
Flowing meter pressure (meter reading when Dwt. measurement taken:		
Normal chart reading ____ psig + 12 = ____	psia	(d)
Square root chart reading (____)^2 x spring constant ____ = ____	psia	(d)
Meter error (c) - (d) or (d) - (c) ± = ____	psi	(e)
Friction loss, Flowing column to meter:		
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = ____	psi	(f)
Seven day average static meter pressure (from meter chart):		
Normal chart average reading ____ psig + 12 = ____	psia	(g)
Square root chart average reading (**5.15**)^2 x sp. const. **10.00** = **265**	psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = ____	psia	(h)
P_t = (h) + (f) = **265**	psia	(i)
Wellhead casing shut-in pressure (Dwt) **679** psig + 12 = **691**	psia	(j)
Wellhead tubing shut-in pressure (Dwt) ____ psig + 12 = ____	psia	(k)
P_c = (j) or (k) whichever well flowed through = **691**	psia	(l)
Flowing Temp. (Meter Run) **57** °F + 460 = **517**	°Abs	(m)
P_d = ½ P_c = ½ (l) = **346**	psia	(n)

FLOW RATE CALCULATION

$$Q = \text{____ (integrated)} \times \left(\frac{\sqrt{h_w}}{\sqrt{p_m}} = \text{____} = \text{____} \right)^{*} = \text{____ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n$$

$P_c^2 - P_d^2$ = **357,765**

$P_c^2 - P_w^2$ = **407,256**

n = **.85**

$\left[\frac{357,765}{407,256}\right]^{.85} = .8785^{.85} = .8958$

$D = 126 \times .8958 =$ **113** MCF/da.

SUMMARY

P_c =	**691**	psia	Company **SKELLY OIL COMPANY**
Q =	**126**	Mcf/day	By **Orig. signed/ William Singley, Jr.**
P_w =	**265**	psia	Title **Sr. Production Engineer**
P_d =	**346**	psia	Witnessed by ____
D =	**113**	Mcf/day	Company ____

* This is date of completion test.

* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-s})$	$(F_cQ)^2$	$\frac{(F_cQ)^2 (1-e^{-s})}{R^2}$	Pt^2 (Column i)	$P_t^2 + R^2$	P_w
			Negligible			

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