

**NEW MEXICO OIL CONSERVATION COMMISSION
MULTI-POINT BACK PRESSURE TEST FOR GAS WELL**

Form C-122
Revised 12-1-55

dsr file

RECEIVED

DEC 17 1982

Pool Bunker Hill		Formation Penrose		County Eddy	
Initial X		Annual -		Special -	
Company Read & Stevens, Inc.		Lease O. C. D.		Date of Test 12-6-82	
Unit M		Sec. 14		Twp. 16S	
Range 31E		Purchaser Unknown		Well No. 6	
Casing 4 1/2"	Wt. 10.5#	I.D. 4.052	Set at 4000'	Perf. 3386'	To 3403'
Tubing 2 3/8"	Wt. 4.7#	I.D. 1.995	Set at 3425'	Perf. -	To -
From 3386'		To 3403'		GL 4226.6	
Bar. Press. -		L -		G .856	
Producing Through: -		Casing -		Tubing X	
Type Well - Single - Braden head - G.G. or G.O. Dual Single		Reservoir Temp. 94 degrees @ 4000'		Date of Completion 12-6-82	

OBSERVED DATA

Date of Test Through: Prover ☒ Choke ☐ Meter ☐								Type of Taps -		
FLOW DATA						TUBING DATA		CASING DATA		DURATION OF FLOW HR.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig.	Diff. h _w	Temp. °F.	Press. psig.	Temp. °F.	Press. psig.	Temp. °F.	
1						728		-	-	74
2	2"	.875	42	19	44	700	44	-	-	1
3	2"	.875	42	46	46	680	46	-	-	1
4	2"	.875	42	79	48	646	48	-	-	1
5	2"	.875	42	94	48	611	48	-	-	1
6										

FLOW CALCULATIONS

Coefficient (24 Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCF PD * @ 15,025 psia
1		55.2	1.0157	1.0814		160
2		55.2	1.0137	1.0814		242
3		55.2	1.0117	1.0814		317
4		55.2	1.0117	1.0814		345

PRESSURE CALCULATIONS

* Sonny Orifice Computer

Liquid Hydrocarbon Ratio **-** cf/bbl. Specific Gravity Separator Gas **.856**
 Density of Liquid Hydrocarbons **-** deg. Specific Gravity Flowing Fluid **-**
 (1 - e⁻²) **-** P_c **728** P_c² **530**

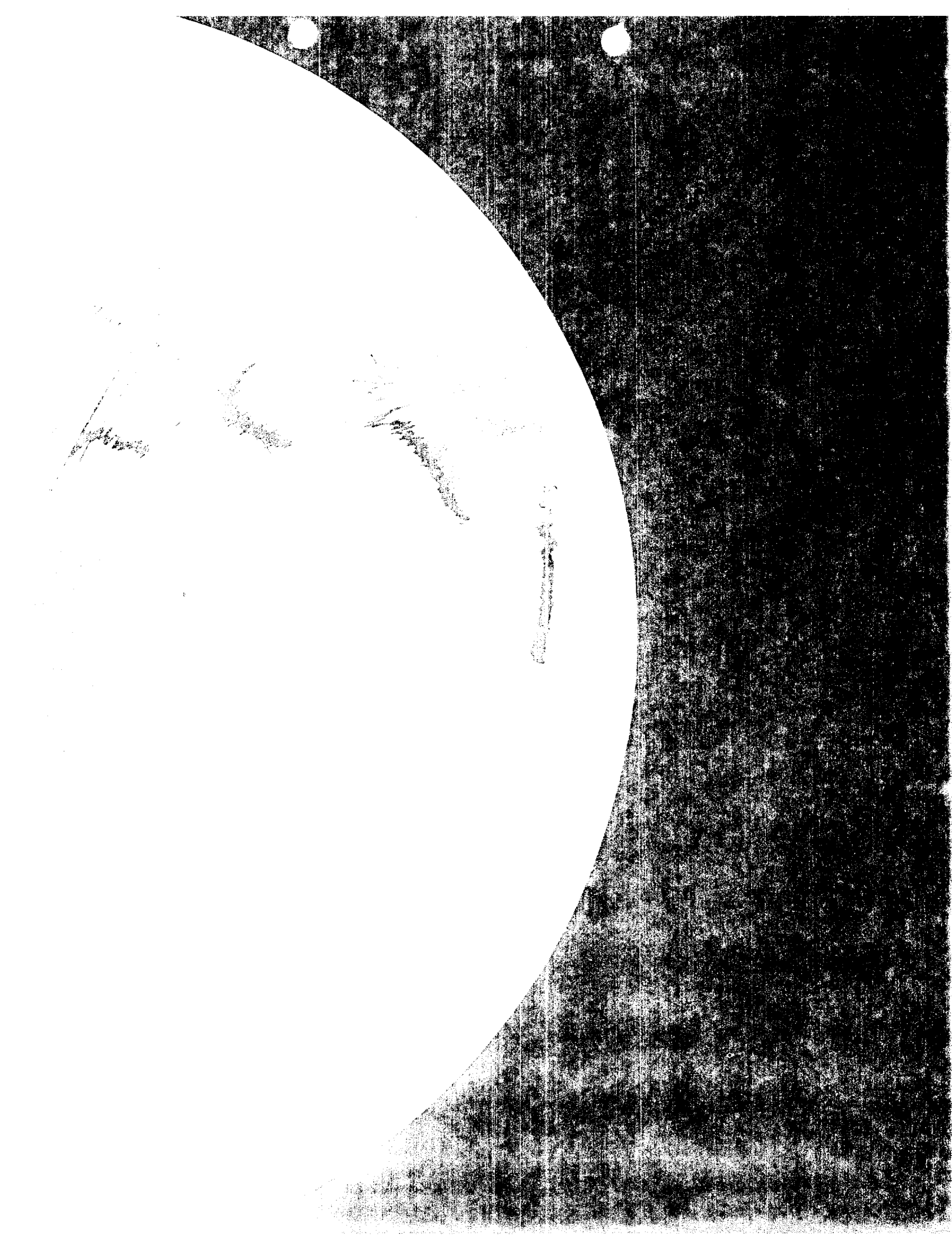
P _w psia	P _t ²	P _c ²	(P _c Q) ²	(P _c Q) ² (1 - e ⁻²)	P _w	P _c ² - P _w ²	Cal P _w	P _w P _c
1					490.0	40	700	
2					462.4	67.6	680	
3					417.3	112.7	646	
4					373.3	156.7	611	

ABSOLUTE POTENTIAL: **685.3** MCFPD; n **.5632**

COMPANY **Read & Stevens, Inc.** WITNESSED **Dan Lough**

ADDRESS **P.O. Box 1518, Roswell, NM 88201** COMPANY **Read & Stevens, Inc.**

AGENT AND TITLE **B. Stahls**
Drilling & Production Manager



12-6-82

Dartmouth "6

2" Meter Run 100X100 - .875 outside

Tester

Tubing

Shut in 66 3/4 hrs.

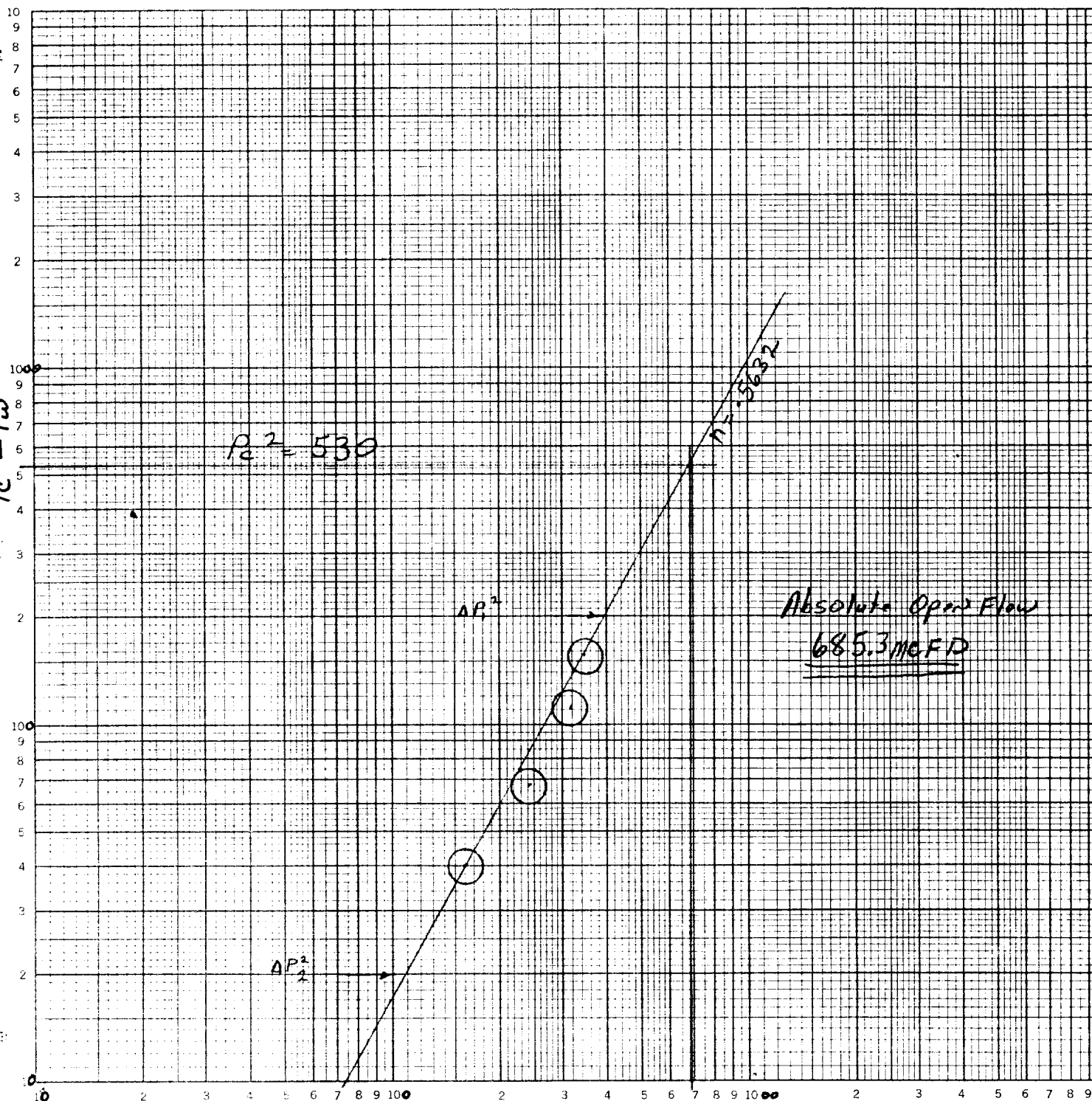
Sonney Office Comp
Calc. Rate of Flow

Time	Chd	PSIG	D.P.	Temp	PSIG	Temp		
open e								
10:30 AM	6/64	42 [#]	14"	53°	722 [#]	53°		
10:45	6/64	42	15"	43°	711 [#]	43°		
10:00	6/64	42	16"	43°	705 [#]	43°		
11:15	6/64	42	18"	43°	701 [#]	43°		
11:30	6/64	42	19"	44°	700 [#]	44°	1 hr.	160 MCF
11:45	7/64	42	42"	46°	689 [#]	46°		
12:00	7/64	42	39"	46°	685 [#]	46°		
12:15	7/64	42	42"	46°	680 [#]	46°		
12:30	7/64	42	46"	46°	680 [#]	46°	1 hr.	242 MCF
12:45	7 1/2/64	42	72"	47°	665 [#]	47°		
1:00	7 1/2/64	42	75"	47°	659 [#]	47°		
1:15	7 1/2/64	42	76"	48°	650 [#]	48°		
1:30	7 1/2/64	42	79"	48°	646 [#]	48°	1 hr.	317 MCF
1:45	8/64	42	97"	48°	632 [#]	48°		
2:00	8/64	42	96"	48°	625 [#]	48°		
2:15	8/64	42	95"	48°	619 [#]	48°		
2:30	8/64	42	94"	48°	611 [#]	48°	1 hr.	345 MCF

46 7400

$P_c^2 - P_w^2$

LOGARITHMIC 3 X 3 CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A.



$Q = \text{mcFD}$

$$\Delta P_1^2 = 200$$

$$\Delta P_2^2 = 20$$

$$Q_1 = 395 \text{ mcFD}$$

$$Q_2 = 108 \text{ mcFD}$$

$$\begin{aligned} \text{Log } Q_1 &= 2.5966 \\ \text{Log } Q_2 &= 2.0334 \\ \hline n &= .5632 \end{aligned}$$

