Form C-122
Revised 9-1-65

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT BACK PRESSURE TEST FOR GAS WELL

HOBBS OFFICE O. C. C.

JUN 9 9 48 AM '69

Type Test: [X] Initial [ ] Annual [ ] Special				Date: 6-2-69	
Company: Humble Oil and Refining Co.			Connection: None		Unit:
Pool: Blinebry			Formation: Blinebry		
Completion Date: 3-4-64	Total Depth: 7785		Plug Back TD: 7600	Elevation: 3452 Gr.	Farm or Lease Name: New Mexico St. V
Csg. Size: 5 1/2" / Wt.: 14-17-15.5# / d:	Set At: 7785		Perforations: From 5594 To 5753		Well No.: 11
Tbg. Size: 2 1/16" / Wt.: 3.40 / d: 1.751	Set At: 5685		Perforations: From To		Unit: K / Sec.: 10 / Twp.: 21 / Rge.: 37
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: G. G. Dual			Packer Set At: 5685		County: Lea
Producing Thru: Tubing	Reservoir Temp. °F: 125 @ 5685	Mean Annual Temp. °F: 60°	Baro. Press. – P_a: 13.2		State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
5685	5685	Assumed .671	Nil	Nil	Nil		X	Flg.

	FLOW DATA					TUBING DATA		CASING DATA		
NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI										
1.	4"	x 2.000	53.2	34.80	68	578	68			
2.	4"	x 2.000	59.2	41.00	70	450	68			
3.	4"	x 2.000	61.2	46.20	71	366	68			
4.	4"	x 2.000	59.2	47.60	70	287	68			
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	19.81	43.02		.9924	1.221	Nil	1,033
2	19.81	49.27		.9905	1.221	Nil	1,180
3	19.81	53.71		.9896	1.221	Nil	1,272
4	19.81	53.08		.9905	1.221	Nil	1,272
5							

NO.	P_t	Temp. °R	T_t	Z
1	.08	528	1.38	Nil
2	.09	530	1.38	Nil
3	.09	531	1.39	Nil
4	.09	530	1.38	Nil
5				

Gas Liquid Hydrocarbon Ratio: Dry Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: None Deg.
Specific Gravity Separator Gas: .671 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 669 P.S.I.A. ____ P.S.I.A.
Critical Temperature: 382 R ____ R

P_c 837.2 P_c^2 787.1

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	349.5		392.4	394.7
2	214.6		271.9	515.2
3	143.8		211.2	575.9
4	90.1		158.4	628.7
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.367$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.199$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1,525$

Absolute Open Flow: 1,525 Mcfd @ 15.025 | Angle of Slope θ: 59.5 | Slope, n: .984

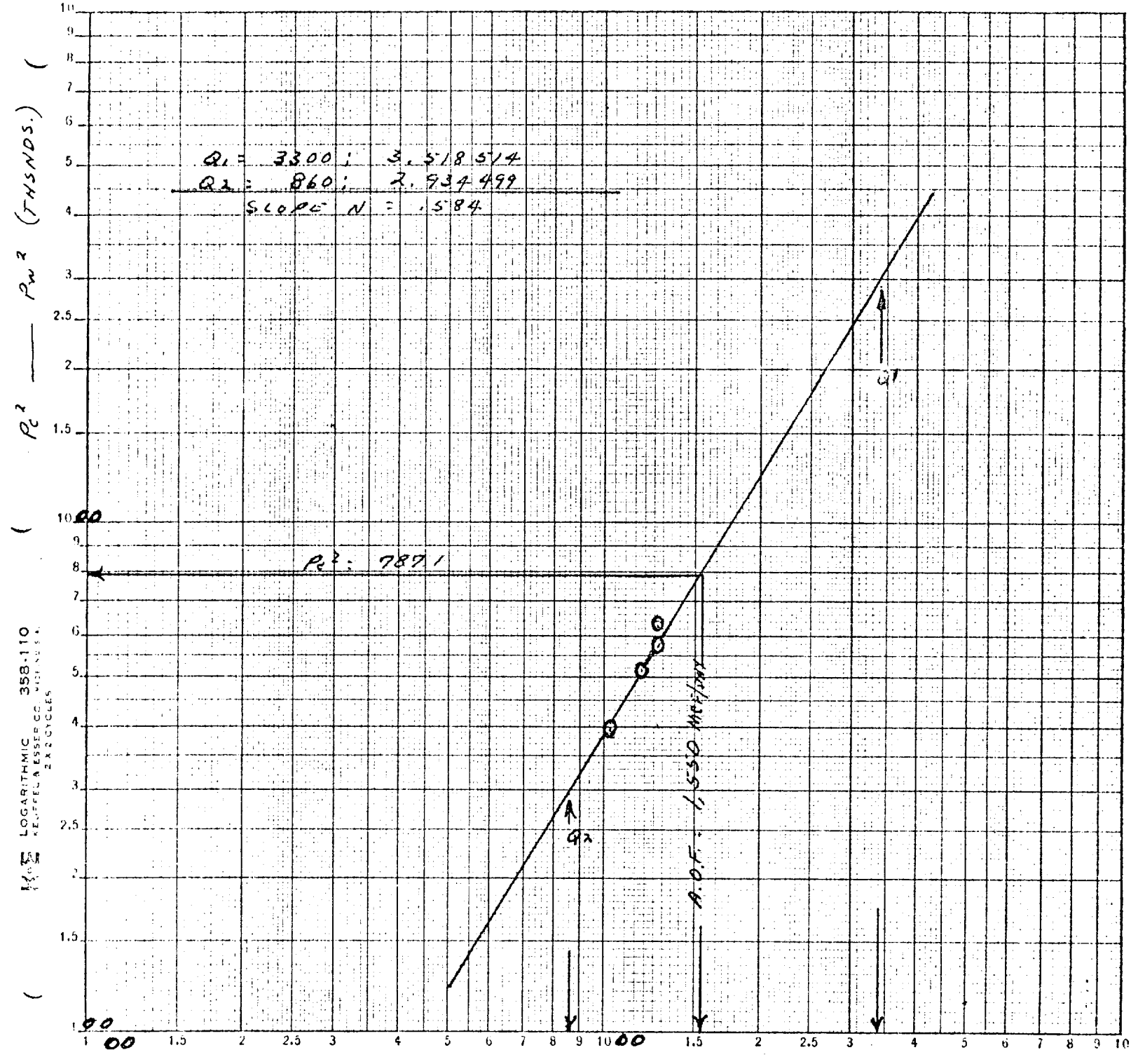
Remarks: No fluid of any kind throughout test.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	J. B. Murray	J. B. Murray	

C. J. Scott
Agent

TABLE OIL & REF. CO.
N.M. STATE V #11
K-10-21-37
LEA CO. NEW MEXICO
6-2-69

HOBBS OFFICE O. C. C.
JUN 9 9 48 AM '69



WORKSHEET FOR CALCULATION OF ST. C COLUMN WELLHEAD PRESSURE (P_w)

C-122D
Adopted 9-1-65

COMPANY Humble Oil & Ref. LEASE N.M. ST. V WELL NO. 11 DATE 6-2-69

LOCATION: Unit K Section 10 Township 21 Range 37

L 5688 H 5685 L/H 1.000 G .671 % CO_2 NIL % N_2 NIL % H_2S NIL

d 1.751 (1ST RATE) F_r .025671 GH 3815

P_{cr} 669 (TABLE IX & X) T_{cr} 382 (TABLE IX & X)

LINE	1ST TRIAL	2ND TRIAL	1ST TRIAL	2ND TRIAL	1ST TRIAL	2ND TRIAL	1ST TRIAL	2ND TRIAL		
1 Q_m	1.033	1.033	1.185	1.180	1.272	1.272	1.272	1.272		
2 T_w (W.H. °R)	532	532	532	532	532	532	532	532		
3 T_s (B.H. °R)	585	585	585	585	585	585	585	585		
4 $T = (\frac{T_w + T_s}{2})$	551	551	551	551	551	551	551	551		
5 Z (Est.)	.933	.891	.930	.909	.920	.922	.940	.934		
6 TZ	514.1	490.9	512.4	500.9	506.9	508.0	517.9	514.6		
7 GH/TZ	7.422	7.770	7.451	7.615	7.525	7.510	7.365	7.408		
8 e^s (Table XIV)	1.321	1.328	1.320	1.321	1.326	1.325	1.318	1.320		
9 $1-e^{-s}$ (Table XIV)	.243	.253	.294	.299	.246	.245	.241	.242		
10 P_t	591.2	591.2	463.2	463.2	379.2	379.2	300.2	300.2		
11 $P_t^2/1000$	349.5	349.5	214.6	214.6	143.8	143.8	90.1	90.1		
12 F_r (Table XV)	.025671	.025671	.025671	.025671	.025671	.025671	.025671	.025671		
13 $F_c = F_r$ TZ	13.197	12.602	13.152	12.859	13.013	13.041	13.295	15.210		
14 $F_c Q_m$	13.633	13.018	15.582	15.174	16.553	16.588	16.911	16.803		
15 $L/H (F_c Q_m)^2$	185.9	169.5	242.9	230.3	274.0	275.2	286.0	282.3		
16 $F_w = L/H(F_c Q_m)^2(1-e^{-s})$	45.2	42.9	57.78	57.30	67.4	67.8	68.92	68.22		
17 $P_w^2 = P_t^2 + F_w$	394.7	392.4	272.4	271.9	211.2	211.2	159.0	158.4		
18 $P_s^2 = e^s P_w^2$	521.4	525.0	360.9	361.9	280.1	279.8	209.6	209.1		
19 P_s	722.1	724.6	600.7	601.6	529.3	529.1	457.9	457.3		
20 $P = (\frac{P_t + P_s}{2})$	656.7	657.9	532.0	532.8	454.3	454.4	379.1	378.8		
21 $P_r = (P/P_{cr})$	.98	.98	.80	.80	.68	.68	.57	.57		
22 $T_r = (T/T_{cr})$	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44		
23 Z (Table XI)	.891	.891	.909	.909	.922	.922	.934	.934		

One copy to be filed in District Office (Work copy acceptable)