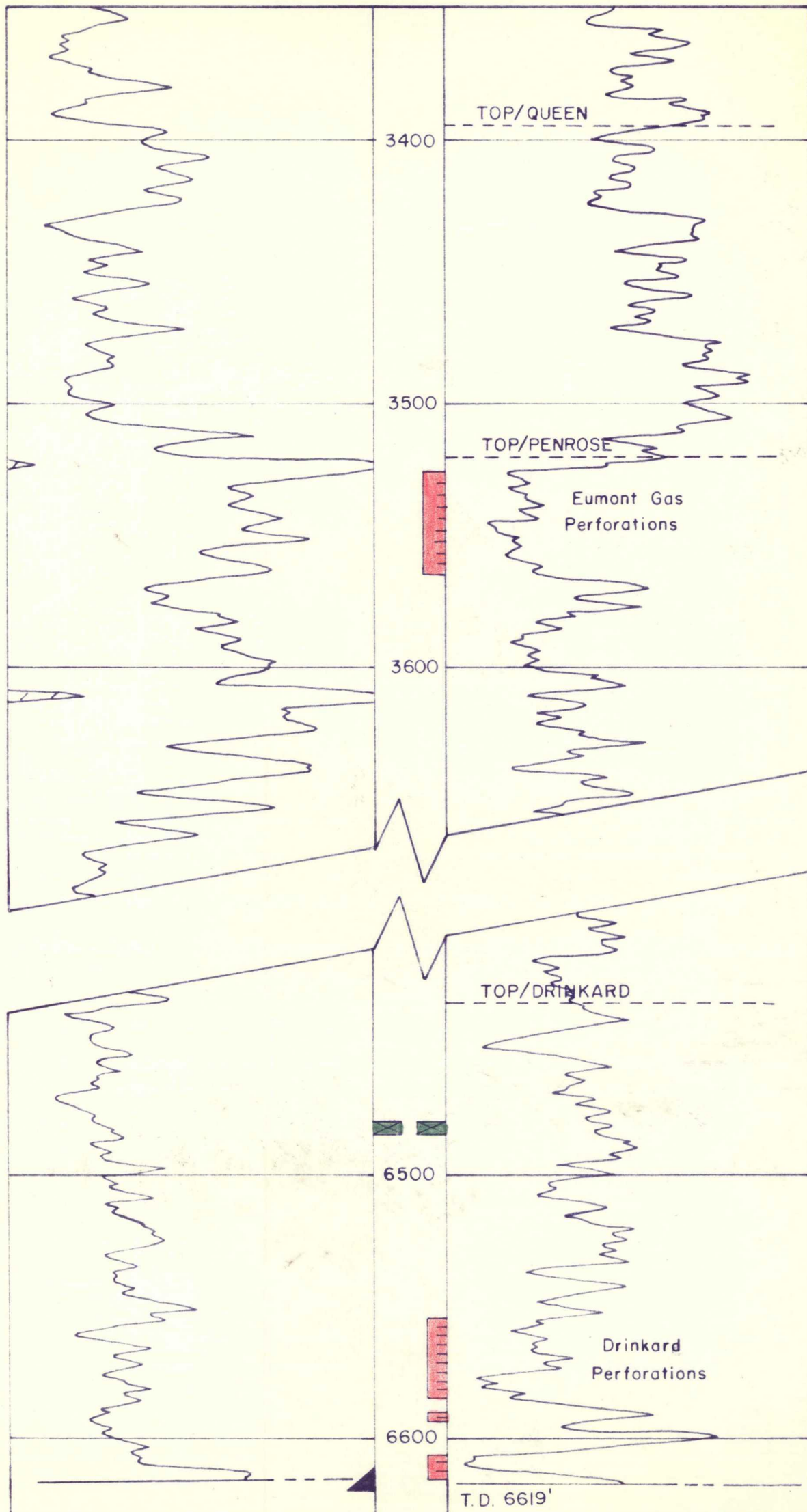


CONTINENTAL OIL COMPANY

Lockhart A-17 No. 2



2280
#3

El Paso Natural Gas Company **MINIMUM CONTRACT TEST**

Form 15-30R (Rev. 3-59)

WELL #11-11-60
 EOS

Date of Test

9-30/10-7-60

RECEIVED
 OCT 1 1960

Company Continental Oil Company					Lease Lockhart A-17 No. 2		
Unit I	Sec. 17	Twp. 21	Rge. 37	County Lee	Pool Bumont		
Type Well G. O. Dual		Producing Thru		Tubing X	Casing X	Top of Pay 3525	Bar. Pressure 13.2
Date of Previous Minimum Contract Test 3-11/18-60				n ₁ of Previous Back Pressure Test .499		Meter Sta. No. 61-078-	Compressor ON
						Meter Sta. No. 61-078-	Acres Factor .75

FLOW DATA					TUBING	CASING	DURATION OF FLOW HOURS
Line Size	Orifice Size	Static Pressure Psig.	Diff. hw	Temp. °F	Pressure Psig	Pressure Psig	
4	X 1.250	239	44.89	82		271	24

VOLUME CALCULATIONS							Gravity .8678
Coefficient (24 - Hour) Flg.	Meter Extension $\sqrt{\text{ft}/\text{hr}}$	Pressure Psia.	Flow Temp. Factor F _t	Gravity Factor F _g	Compressor Factor F _{pv}	Rate of Flow Q-MCFD @ 15.025 Psia.	
9.643	106.40		.9795	.9407	1.022	966.2	

$$D_t = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_t^2} \right]^{n_t}$$

	Pd @ 113.2 Psia.	Pd @ 613.2 Psia.	Pd @ 863.2 Psia.
P _c ² =	192.9		
P _d ² =	12.8		
P _t ² =	80.8		

$$\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_t^2} \right] = \boxed{1.607} = B$$

$$\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_t^2} \right] = \boxed{} = B$$

SHUT-IN DATA		
DURATION	TUBING	CASING
24 Hour		414
48 Hour		422
72 Hour		426

- n_t = Slope of Wellhead Deliverability Curve (P_c² - P_t² vs Q)
- Q = Actual flow @ end of Flow Period at Wellhead Press., P_t
- P_c = Maximum Shut-in Pressure Observed in a 72 Hour Period
- P_t = Flowing Wellhead Pressure (tubing if flowing thru tubing and vice versa), Psia
- P_d = Deliverability Pressure
- D_t = Wellhead Deliverability @ Deliverability Pressure (Pd), MCF Day

113.2 Psia	Log B .206016	X	n _t .499	=	.102802	Antilog = B ^{n_t} 1.267
Q	966.2	X	B ^{n_t} 1.267	=	D _t 1,224	

613.2 Psia	Log B	X	n _t	=		Antilog = B ^{n_t}
863.2 Psia	Q	X	B ^{n_t}	=	D _t	

Witnessed By (Name)	Tested By Jack T. Littlefield
Company	Calculated By Jack T. Littlefield