DUPLICATE

NEW MEXICO OIL CONSERVATION COMMISSION

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122
Revised 12-1-55

Pool Eumont Formation ~~Queen~~ Seven Rivers County Lea

Initial ____ Annual ____ Special X Date of Test June 22, 1956

Company Continental Oil Company Lease State F-1 Well No. 1

Unit M Sec. 1 Twp. 21-S Rge. 36-E Purchaser ~~El Paso~~ N.G.

Casing 5 1/2 Wt. 17.0 I.D. 4.892 Set at 3608' Perf. 3225 To 3505'

Tubing 2" Wt. 4.7 I.D. 1.995 Set at 3484 Perf. Open End. To ____

Gas Pay: From 3225 To 3505' L 3365 xG 0.665 -GL 2237 Bar.Press. 13.2

Producing Thru: Casing ____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 4-3-38 Packer None Reservoir Temp. 90°

OBSERVED DATA

Tested Through ~~(Prover)~~ ~~(Choke)~~ (Meter) Type Taps Flange

No.	Flow Data ~~(Prover)~~ (Line) Size	~~(Choke)~~ (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI	--	--	--	--	--	670	--	670	--	72
1.	4"	1.500	173	12.3	54	617	--	623	--	24
2.	4"	1.500	205	20.3	57	578	--	589	--	24
3.	4"	1.500	209	27.0	58	546	--	560	--	24
4.	4"	1.500	203	44.2	60	490	--	518	--	24
5.										

FLOW CALCULATIONS

No.	Coefficient FLG (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-MCFPD @ 15.025 psia
1.	13.99	46.1	186.2	1.0056	0.9498	1.070	659.2
2.	13.99	64.5	218.2	1.0029	0.9498	1.064	914.4
3.	13.99	75.1	222.2	1.0019	0.9498	1.061	1060.8
4.	13.99	94.7	216.2	1.000	0.9498	1.056	1328.8
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry Gas cf/bbl.
Gravity of Liquid Hydrocarbons ____ deg.
F_c ____ $(1-e^{-s})$ ____

Specific Gravity Separator Gas .665
Specific Gravity Flowing Fluid ____
P_c 683.2 P_c^2 466.8

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	636.2	--	--	--	--	404.8	62.0	--	93.1
2.	602.2	--	--	--	--	362.6	104.2	--	88.1
3.	573.2	--	--	--	--	328.6	138.2	--	83.9
4.	531.2	--	--	--	--	282.2	184.6	--	77.8
5.									

Absolute Potential: ~~4000~~ 2390 MCFPD; n .65
COMPANY Continental Oil Company
ADDRESS Box 68, Eunice, New Mexico
AGENT and TITLE W. E. Allen - District Superintendent
WITNESSED None
COMPANY None

REMARKS

MEA-DH
Eunice, New Mexico
July 25, 1956

CC: NMOCC -3 RLA-1 HLJ-1 EWW-1 FILE-2

INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w). MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia

P_w = Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

P_f = Meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressability factor.

n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t.