NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County Rio Arriba

Initial Yes Annual Special Date of Test 11-5-63

Company Caulkins Oil Company Lease Breech "C" Well No. D-248

Unit A Sec. 13 Twp. 26N Rge. 6W Purchaser Southern Union Gas Company

Casing 4 1/2" Wt. 11.6 10.5 I.D. 4.000 Set at 7482 Perf. 7220 To 7452

Tubing 2 3/8" Wt. 4.7 I.D. 1.995 Set at 7207 Perf. 7207 To

Gas Pay: From 7220 To 7452 L 7207 (G) .660 GL 4757 Bar.Press. 12

Producing Thru: Casing No Tubing Yes Type Well Gas Oil Dual
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 9-24-63 Packer See remarks Reservoir Temp. 180°

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						2261		2261		45 hours SI
1.		3/4"				389	70	964	70	3 hours
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	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-MCFPD @ 15.025 psia
1.	~~14.1605~~		~~401~~	~~1.0048~~	~~.9535~~	~~1.041~~	~~5663~~
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl. Specific Gravity Separator Gas _____

Gravity of Liquid Hydrocarbons _____ deg. Specific Gravity Flowing Fluid _____

F_c _____ $(1-e^{-s})$ _____ P_c 2273 P_c^2 5,166,529

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.						~~952,576~~	~~4,213,953~~		~~.429~~
2.									
3.									
4.									
5.									

Absolute Potential: ~~6614~~ MCFPD; n ~~(1.23)n 1.1679~~

COMPANY

ADDRESS ~~Caulkins Oil Company~~ ~~P. O. Box 780, Farmington, New Mexico~~

AGENT and TITLE Frank Irwin Production Superintendent

WITNESSED

COMPANY

RECEIVED
APR 8 1964
OIL CON. COM.

REMARKS

~~4-2-64~~ ~~This well has a bridge plug set at 7170' and is being produced from the Tocito Oil zone as a single completion at this time. It will be recompleted as a Tocito-Dakota dual as soon as a market for the Dakota gas is obtained~~

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.