NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

1956 OCT 8 PM 2:22

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122
Revised 12-1-55

L Eumont Formation Queens County Lea

tial X Annual Special Date of Test 6-28-56 7-5-56

pany The Texas Company Lease State of N.M. "G" NCT-2 Well No. 9

t B Sec. 19 Twp. 20-S Rge. 37-E Purchaser Permian Basin Pipe Line Co.

Casing 5½ Wt. 14# I.D. 5.012 Set at 3405 Perf. To

Tubing 2 3/8 Wt. 4.70 I.D. 1.995 Set at 3511 Perf. To

Gas Pay: From 3405 To 3550 L 3511 xG 0.660 -GL 2317 Bar.Press.

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

Date of Completion: 1-12-54 Packer 3356 Reservoir Temp.

OBSERVED DATA

CO_2= 2.08% N_2= 1.35%

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

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						898.0				71 1/2
1.	4	1.75	457.9	2.7	61	788.0				23 3/4
2.	4	1.75	460.2	6.5	65	641.1				24 1/4
3.	4	1.75	462.9	10.0	70	538.7				24
4.	4	1.75	466.0	11.8	72	477.5				23 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.	21.69	35.67	471.1	.9990	.9535	1.048	772
2.	21.69	55.47	473.4	.9952	.9535	1.045	1,193
3.	21.69	68.93	475.2	.9905	.9535	1.043	1,473
4.	21.69	75.35	481.2	.9867	.9535	1.043	1,607
5.							

PRESSURE CALCULATIONS

Liquid Hydrocarbon Ratio cf/bbl.
vity of Liquid Hydrocarbons deg.
9.936 $(1-e^{-s})$ 0.147

Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
P_c 911.2 P_c^2 830.3

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	$\frac{P_w}{P_c}$
801.2	641.9	7.67	58.83	8.648	650.5	179.8	806.5	.88
654.3	428.1	11.85	140.4	20.64	448.7	381.6	669.9	.72
551.9	304.6	14.64	214.3	31.50	336.1	494.2	579.7	.61
490.7	240.8	15.97	255.0	37.49	278.2	552.1	527.4	.54

solute Potential: 2,270 MCFPD; n .84

MPANY The Texas Company
DRESS Box 1270, Midland, Texas
ENT and TITLE L. I. Baker, District Gas Man
TNESSED H. E. Barrett
MPANY Permian Basin Pipe Line Company

REMARKS

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.