

NEW MEXICO OIL CONSERVATION COMMISSION

SEEKING SVS
100-1-51473

Form C-122

Revised 12-1-55

MULTI-POINT BACK-PRESSURE TEST FOR GAS WELLS

Pool Eumont Gas Formation Queen County Lea
Initial _____ Annual _____ Special x Date of Test 8-24-56
Company Schermerhorn Oil Corp. Lease Gulf State Well No. 1
Unit P Sec. 31 Twp. 18 S Rge. 37 E Purchaser Permian Basin Pipeline Co.
Casing 5 1/2" Wt. 14.0# I.D. 5.012" Set at 3740' Perf. _____ To _____
Tubing 2 3/8" Wt. 4.7# I.D. 1.995" Set at 3850' Perf. 3845' To 3849'
Gas Pay: From 3745' To 3890' L 3845' xG 0.680 -GL 2615' Bar.Press. 13.2
Producing Thru: Casing _____ Tubing x Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: _____ Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (~~Flow~~) (~~Block~~) (Meter) Type Taps Pipe

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Block) (Line) Size	(Block) (Orifice) Size	Press. psig	Diff. . h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						991.1				72 Hrs. S.I.
1.	4"	1.00"	440.5	6.8	73	821.4				24
2.	4"	1.00"	440.7	14.8	60	725.5				24
3.	4"	1.00"	441.8	28.7	65	622.7				28 3/4
4.	4"	1.00	440.9	40.8	70	498.0				24
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{k_w D_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	6.375	55.54		0.9877	0.9393	1.044	348
2.	6.375	81.96		1.0000	0.9398	1.048	514
3.	6.375	114.2		0.9952	0.9393	1.046	712
4.	6.375	136.1		0.9905	0.9393	1.044	848
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry Gas cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 9.936 (1-e^{-s}) 0.165

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 944.3 P_c 891.7

No.	P_c P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.	834.6	696.6	3.408	11.61	1.916	698.5	198.2	835.8	88.5
2.	738.7	545.7	5.107	26.08	4.303	550.0	341.7	741.6	73.5
3.	635.9	404.4	7.074	50.04	3.267	412.7	479.0	642.4	63.0
4.	511.2	261.3	8.376	70.16	11.58	272.9	618.8	522.4	55.8
5.									

Absolute Potential: 1.088 MCFPD; n .74
COMPANY SCHERMERHORN OIL CORPORATION
ADDRESS P. O. BOX 1537, HOBBS, NEW MEXICO
AGENT and TITLE J. H. MOORE, GEOLOGIST
WITNESSED R. L. West
COMPANY Permian Basin Pipeline Company

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} = Supercompressibility 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 .