

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK-PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea
Initial - Annual - Special x Date of Test 5/26-30, 1958
Company Shell Oil Company Lease Whitten Well No. 2
Unit A Sec. 33 Twp. -23-S Rge. -36-E Purchaser El Paso Natural Gas Company
Casing 5 1/2" Wt. 14 I.D. - Set at 3583' Perf. 3476' To 3494'
Tubing 2 1/2" Wt. 6.4 I.D. - Set at 3481' Perf. 3477' To 3481'
Gas Pay: From 3476' To 3494' L 3477' xG .673 -EL 2340 Bar.Press. 13.2
Producing Thru: Casing - Tubing x Type Well Single
Date of Completion: 5-30-58 Packer none Single-Gradenhead-G. G. or G.O. Dual
Reservoir Temp. -

OBSERVED DATA

Tested Through (~~Flowmeter~~) (Meter)

Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						467	-	-	-	72
1.	4	1.250	50	33.64	60	199	-	-	-	24
2.	4	1.250	59	39.69	60	128	-	-	-	24
3.	4	1.250	64	42.25	60	99	-	-	-	24
4.	4	1.250	63	53.29	60	69	-	-	-	24
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	9.643	46.03	63.2	1.0000	.9442	nil	419
2.	9.643	53.46	72.2	1.0000	.9442	nil	487
3.	9.643	57.04	77.2	1.0000	.9442	nil	519
4.	9.643	63.64	76.2	1.0000	.9442	nil	580
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 5.866 (1-e^{-s}) 0.149

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 480.2 P_c² 230.6

No.	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.	212.2	45.0	2.46	6.05	.90	45.9	134.7	214.3	.446
2.	141.2	19.9	2.86	8.18	1.22	21.1	209.5	145.3	.303
3.	112.2	12.6	3.04	9.24	1.38	14.0	216.6	118.6	.247
4.	82.2	6.8	3.40	11.56	1.72	8.5	222.1	92.2	.192
5.									

Absolute Potential: 610 MCFPD; n 1.000
COMPANY Shell Oil Company
ADDRESS Box 845, Roswell, New Mexico
AGENT and TITLE Rex C. Cabaniss, District Exploitation Engineer
WITNESSED Joe Blumer (Test conducted by J. B. Murray, El Paso Natural Gas Company)
COMPANY El Paso Natural Gas 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 .