

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122
Revised 12-1-55

Pool Jalnet 1958 OCT 15 AM 9:41 Formation Yates 7- Rivers County Lea
Initial _____ Annual _____ Special X Date of Test 4-25-1958
Company El Paso Natural Gas Company Lease Moberly "C" Well No. 3
Unit _____ Sec. 21 Twp. 26 Rge. 37 Purchaser El Paso Natural Gas Company
Casing 5" Wt. 17.0 I.D. _____ Set at 3097 Perf. _____ To _____
Tubing 2" Wt. 4.7 I.D. _____ Set at 3130 Perf. _____ To _____
Gas Pay: From 3104 To 3126 L. 3097 xG .695 -GL 1252 Bar.Press. 13.2
Producing Thru: Casing I Tubing _____ Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 4-11-1958 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps Flg.

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	1"	1.500	530	2.25	72	506		571		24
2.	1"	1.500	505	4.00	65	498		506		24
3.	1"	1.500	518	4.20	66	502		522		24
4.	1"	1.500	514	7.29	69	507		537		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.	13.99	34.95	543.2	.9887	.9292	1.061	176
2.	13.99	15.59	518.2	.9852	.9292	1.058	623
3.	13.99	17.24	531.2	.9913	.9292	1.062	618
4.	13.99	61.98	527.2	.9915	.9292	1.062	849
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 1.812 (1-e^{-s}) .138

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 620.2 P_c² 384.6

No.	P _w 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.	584.2	341.2	.863	.745	.183	341.4	43.8	584.3	94.1
2.	519.2	269.6	1.129	1.275	.176	269.8	114.8	519.4	83.4
3.	535.2	286.4	1.174	1.378	.190	286.6	98.0	535.4	86.0
4.	550.2	302.7	1.538	2.365	.326	303.0	81.6	550.5	88.5
5.									

Absolute Potential: 2,850 MCFPD; n .771*
COMPANY El Paso Natural Gas Company
ADDRESS P. O. Box 1384, Jal, New Mexico
AGENT and TITLE R. T. Wright - Petroleum Engineer
WITNESSED J. B. Murray & J. G. Whitting
COMPANY El Paso Natural Gas Company

REMARKS

* No Point alignment. Average Jalnet slope of .771 drawn through the highest rate of flow.

~~This is a corrected copy of test previously sent out.~~

Resubmitted to show latest slope
9/8/58

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 .