

EX-102

- 3 - HMOCC
1 - EPHG (Bill Parrish)
2 - Compass (Denver)
1 - File

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 X Annual _____ Special _____ Date of Test 11/2/62

Company Compass Exploration, Inc. Lease Federal Lindrith Well No. 1-4

Unit H Sec. 4 Twp. 26N Rge. 7W Purchaser _____

Casing 5-1/2 Wt. 15.5 I.D. _____ Set at 7431 Perf. 7146 To 7376

Tubing 1-1/2 Wt. 2.76 I.D. _____ Set at 7107 Perf. Open End To _____

Gas Pay: From _____ To _____ L _____ xG .650 -GL 4620 Bar.Press. _____

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

Date of Completion: 6/11/62 Packer 7100 Reservoir Temp. _____

Workover: 10/8/62 OBSERVED DATA

Tested Through (Flowline) (Choke) (Meter) Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Choke) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						2210				
1.										
2.										
3.	2"	3/4"	126		55					3 Hours
4.										
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.							
2.	12.365		138	1.0048	.9608	1.013	1669
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.

Gravity of Liquid Hydrocarbons _____ deg.

F_c 16.46 (1-e^{-s}) .285

Specific Gravity Separator Gas _____

Specific Gravity Flowing Fluid _____

P_c 2222 P_c² 4937.284

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.									
2.	138	19.044	27.472	754.694	215.008	234.132	4703.152		1.0498
3.									
4.									
5.									

Absolute Potential: 1731 MCFPD; n = .75 1.0371

COMPANY COMPASS EXPLORATION, INC.

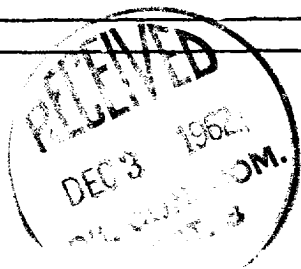
ADDRESS P. O. Box 1138, Farmington, N. Mex.

AGENT and TITLE E. C. Ellis, Production Supt.

WITNESSED _____

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} = 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 .