NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Jalmat — Yates-Seven Rivers — Lea

Pool X Formation County 5-20/5-24-57

Initial Continental Oil Company Special Stevens B-7 Unit Date of Test 1

Company D 7 23 Lease 37 El Paso Nat. Gas Company

Unit 5 1/2 Sec. 14 Twp. 5.012 Rge. 2799 Purchaser 2799 Open Hole 3465

Casing None Wt. I.D. Set at Perf. To

Tubing 2887 Wt. 3465 I.D. 2799 Set at 1833 Perf. .655 To 13.2

Gas Pay: From To X L xG -GL Single Bar.Press.

Producing Thru: Casing 1-27-49 Tubing None Type Well 90°
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: Packer Reservoir Temp.

XXXXXX XXXXX OBSERVED DATA Flange

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

XXXXXX XXXXX

No.	Flow Data (Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
	4"	.750	635	3.62	79			779 635		72 24
SI	4"	.750	630	3.92	78			632		24
1.	4"	.750	558	7.22	79			561		24
2.										
3.										
4.										
5.										

Flange FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_m}$	Pressure psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
	3.435	91.50		.9822	.9571	1.062	314
	3.435	98.89		.9831	.9571	1.062	339
1.	3.435	172.05		.9822	.9571	1.056	587
2.							
3.							
4.							
5.							

Dry PRESSURE CALCULATIONS .655

Gas Liquid Hydrocarbon Ratio 0.119 cf/bbl. Specific Gravity Separator Gas

Gravity of Liquid Hydrocarbons deg. Specific Gravity Flowing Fluid

P_c (1-e^{-s}) P_c P_c^2

9002 792.2 627.6

XXX

No.	P_w	P_w^2	R^2	$(FQ)^2$	$(R^2Q)^2$	P_w^2	$P_c^2 - P_w^2$	P_c^2	P_w
	648.2	420.2	.283	.09	.01	420.2	207.4	648.2	81.82
	645.2 (psia)	416.3	.305	.09	.01 ($1-e^{-s}$)	416.3	211.3	645.2	81.44
1.	574.2	329.7	.528	.28	.03	329.7	297.9	574.2	72.48
2.									
3.									
4.			1,225			1,000			
5.									

Absolute Potential: Continental Oil Company Box 68 Eunice, New Mexico MCFPD; n

COMPANY

ADDRESS

AGENT and TITLE

WITNESSED

COMPANY

REMARKS

2nd attempt to test. Slope greater than 1.000. Slope of 1.000 drawn thru highest rate of flow.

NMOCC-3 EWW HLJ RLA File-2

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 4
CASE NO. 1437

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.