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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Justis Formation Glorietta County Lea

Initial ____ Annual ____ Special X Date of Test 8-22/8-30-63

Company Tidewater Oil Company Lease A. B. Coates "C" Well No. 13

Unit K Sec. 24 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Company

Casing 7" Wt. 23.0 I.D. ____ Set at 8160 - PB Perf. 4691 To 4708

Tubing 2" Wt. 4.7 I.D. ____ Set at 8175 Perf. ____ To ____

Gas Pay: From 4691 To 4708 L 4691 xG .689 =GL 3232 Bar.Press. 13.2

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

Date of Completion: ____ Packer ____ Reservoir Temp. ____

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI								920		72
1.	4	1.500	540	2.25	84			677		24
2.	4	1.500	535	5.76	76			590		24
3.	4	1.500	565	20.25	74			588		24
4.	4	1.500	540	14.44	74			550		24
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	13.99	35.28		.9777	.9332	1.055	475.2
2.	13.99	56.20		.9850	.9332	1.057	763.9
3.	13.99	108.20		.9868	.9332	1.064	1,483
4.	13.99	89.38		.9868	.9332	1.061	1,221
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas ____
Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____
F_c .740 $(1-e^{-s})$ .205 P_c 933.2 P_c^2 870.9

No.	P_w / P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	690.2	476.4	.352	----------	Negligible	476.4	394.5		
2.	603.2	363.8	.565			363.8	507.1		
3.	601.2	361.4	.799			361.4	509.5		
4.	563.2	317.2	.783			317.2	553.7		
5.									

Absolute Potential: 2,450 MCFPD; n .936

COMPANY Tidewater Oil Company
ADDRESS Box 249, Hobbs, New Mexico Original Signed By
AGENT and TITLE C. L. Wade, Area Supt. C. L. WADE
WITNESSED Bobby G. Boaz
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.