TEST NO. 1

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122

Revised 12-1-55

Pool __Tubb Gas__ Formation __Tubb__ County __Lea__

Initial __X__ Annual _____ Special _____ Date of Test __5-15-57__

Company __The Ohio Oil Company__ Lease __Edith Butler "B"__ Well No. __1__

Unit __1__ Sec. __13__ Twp. __22-S__ Rge. __37-E__ Purchaser __Permian Basin Pipeline Co.__

Casing __5½"__ Wt. __17#__ I.D. __4.892__ Set at __6823'__ Perf. __6040'__ To __6140'__

Tubing __2-3/8"__ Wt. __4.7#__ I.D. __1.995__ Set at __6825'__ Perf. __--__ To __--__

Gas Pay: From __6040'__ To __6140'__ L __6040__ xG __0.685__ -GL __4137__ Bar.Press. __13.2__

Producing Thru: Casing __X__ Tubing _____ Type Well __G.O. Dual__

Date of Re-completion: __5-9-57__ Packer __6775'__ Single-Bradenhead-G. G. or G.O. Dual

Reservoir Temp. __--__

OBSERVED DATA

Tested Through (Bean) (Choke) (Nozzle)   Type Taps __--__

No.	(Prover) (Line) Size	(Orifice) (Choke) Size	Flow Data Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						Packer	--	1827	--	72 hr S.I.
1.	2"	3/8"	1627	--	75	"	--	1627	75	1-1/2 hrs
2.	2"	1/2"	1475	--	78	"	--	1475	78	1 hrs
3.	2"	5/8"	1225	--	78	"	--	1225	78	1 hrs
4.	2"	3/4"	1030	--	72	"	--	1030	72	1 hrs
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.	1.0300	--	1640.2	0.9859	0.9359	1.177	5247.3
2.	5.4315	--	1488.2	0.9831	0.9359	1.162	8061.0
3.	8.9517	--	1238.2	0.9831	0.9359	1.138	11074.0
4.	12.3690	--	1043.2	0.9807	0.9359	1.122	13379.3
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio __Flared__ cf/bbl.   Specific Gravity Separator Gas __--__

Gravity of Liquid Hydrocarbons __--__ deg.   Specific Gravity Flowing Fluid __--__

F_c __1.812__ $(1-e^{-s})$ __0.345__ P_c __1850.2__ P_c^2 __3423.2__

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	$\frac{P_w}{P_c}$
1.	1640.2	2690.3	5.700	35.65	23.72	2714.0	709.2	1647.4	89.0
2.	1488.2	2214.7	11.650	45.28	40.01	2375.5	1157.7	1540.5	81.5
3.	1238.2	1533.1	30.660	64.05	59.03	1833.0	1720.2	1437.3	69.1
4.	1043.2	1088.3	35.343	547.72	145.75	1232.0	2191.2	1110.0	60.0
5.									

Absolute Potential: __19,500__ MCFPD; n __0.811151__

COMPANY __The Ohio Oil Company__

ADDRESS __P.O. Box 2107, Hobbs, New Mexico__

AGENT and TITLE __H. B. Chiles - Petroleum Engineer__

WITNESSED __J. R. Barber - Petroleum Engineer__

COMPANY __The Ohio Oil Company__

REMARKS

NOTE: Above test conducted through standard 6" Thornhill-Craver positive flow beans. Gas produced on above test vented to atmosphere & flared.

Well re-tested due to improper point alignment on back pressure curve.

ELVIS A. UTZ

GAS ENGINEER

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.