NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool EUNICE Formation YATES-SEVEN RIVERS County LEA

Initial ____ Annual ____ Special X Date of Test 9-21-56

Company The Atlantic Refining Company Lease State K Well No. 2

Unit S Sec. 6 Twp. 21-S Rge. 36-E Purchaser Permian Basin Pipeline Company

Casing 5½" Wt. 17# I.D. 4.892" Set at 3768' Perf. 2970' To 3120'

Tubing 2-7/8" Wt. 6.5# I.D. 2.441" Set at 2966' Perf. ____ To ____

Gas Pay: From 2970 To 3120 L 2966 xG 0.665 -GL 1972 Bar.Press. 13.2

Producing Thru: Casing ____ Tubing X Type Well Single

Date of Completion: 10-5-51 Packer ____ Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. ____

OBSERVED DATA

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

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						951.9				71 3/4
1.	"	1.00	475	3.5	85	752.4				24
2.	"	1.00	472	10.5	79	661.5				24
3.	"	1.00	476	18.2	78	597.2				24
4.	"	1.00	481	34.1	80	466.5				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.	6.375	41.34		.9768	.9698	1.040	254
2.	6.375	71.35		.9822	.9698	1.043	443
3.	6.375	94.32		.9831	.9698	1.043	586
4.	6.375	127.1		.9813	.9698	1.041	786
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl.
Gravity of Liquid Hydrocarbons ____ deg.
F_c 5.866 $(1-e^{-s})$ 0.127

Specific Gravity Separator Gas ____
Specific Gravity Flowing Fluid ____
P_c 965.1 P_c^2 931.4

No.	P_w / P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	P_w / P_c
1.	765.6	586.1	1.490	2.220	.2819	586.4	345.0	765.8	.79
2.	674.7	455.2	2.599	6.755	.8579	456.1	475.3	675.4	.70
3.	610.4	372.6	3.697	13.67	1.500	372.1	557.3	611.6	.63
4.	479.7	230.1	4.611	21.26	2.700	232.8	698.6	482.5	.50
5.									

Absolute Potential: 1060 MCFPD; n 1.00

COMPANY The Atlantic Refining Company
ADDRESS P.O. Box 1610 Denver City, Texas
AGENT and TITLE [signature] District Superintendent
WITNESSED ____
COMPANY ____

REMARKS

Retest

[signature] A. UTZ 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.

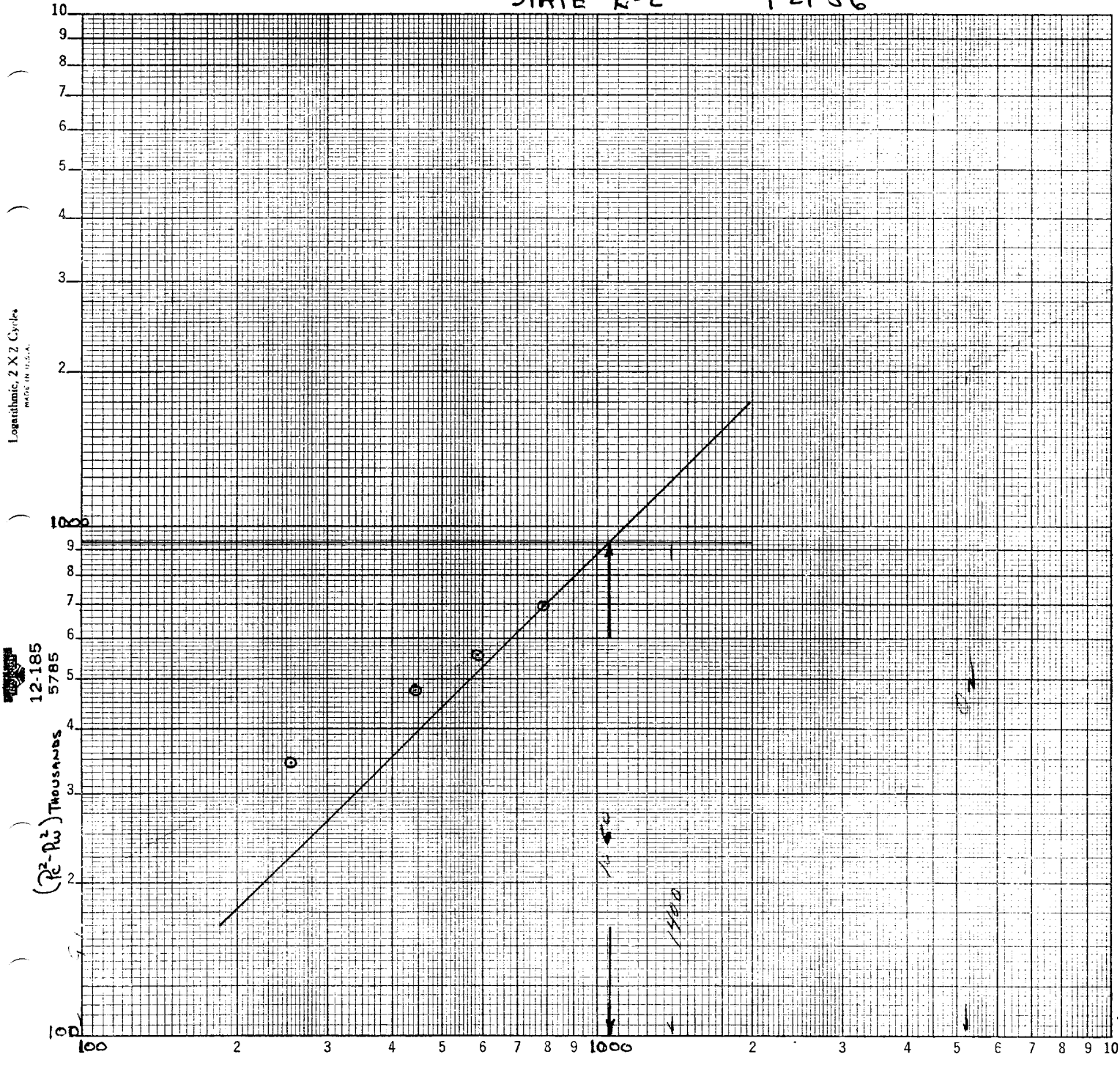
NOMENCLATURE

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

STATE K-2 9-21-56



Q MCFD - 15.025 psia