

MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

SF
FY
Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8-29-80		SEP 4 1980	
Company WILLIAM N. BEACH				Connection NONE		O. C. D.	
Pool Und. Red Lake East, Q-G, 100				Formation PENROSE		Unit ARTESIAL, CIRCLE	
Completion Date 8-28-80		Total Depth 1690		Plug Back TD 1668		Elevation 3580 GL	
Csg. Size 4-1/2		ID 10.5		Set At 1688		Perforations: From 1609 To 1634	
Tub. Size 2-3/8		ID 4.7		Set At 1592		Perforations: From 0. E. To ---	
Type Well - Single - Protthead - G.G. or G.O. Multiple SINGLE				Packer Set At NONE		County EDDY	
Producing thru Tubing		Reservoir Temp. °F 80 @ 1622		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State NEW MEXICO							
L 1622		H 1622		G _g 0.803		% CO ₂ Nil.	
				% N ₂ 43.7		% H ₂ S N.L.	
Prover		Meter Run		Paps			

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							702	69	710	69	24 hours
1.	10/64 pos. choke			664	--	72	664	72	666	72	1 hour
2.	12/64 pos. choke			620	---	60	620	72	632	72	1 hour
3.	14/64 pos. choke			548	--	58	548	58	608	73	1 hour
4.	16/64 pos. choke			516	--	50	516	73	585	73	1 hour
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _L	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mscf/d
1	0.4173	--	677.2	0.9933	1.116	1.035	324.2
2	0.6101	--	633.2	1.0000	1.116	1.033	445.4
3	0.8419	--	561.2	1.0020	1.116	1.029	544.0
4	1.1120	--	529.2	1.0100	1.116	1.027	681.2
5.							

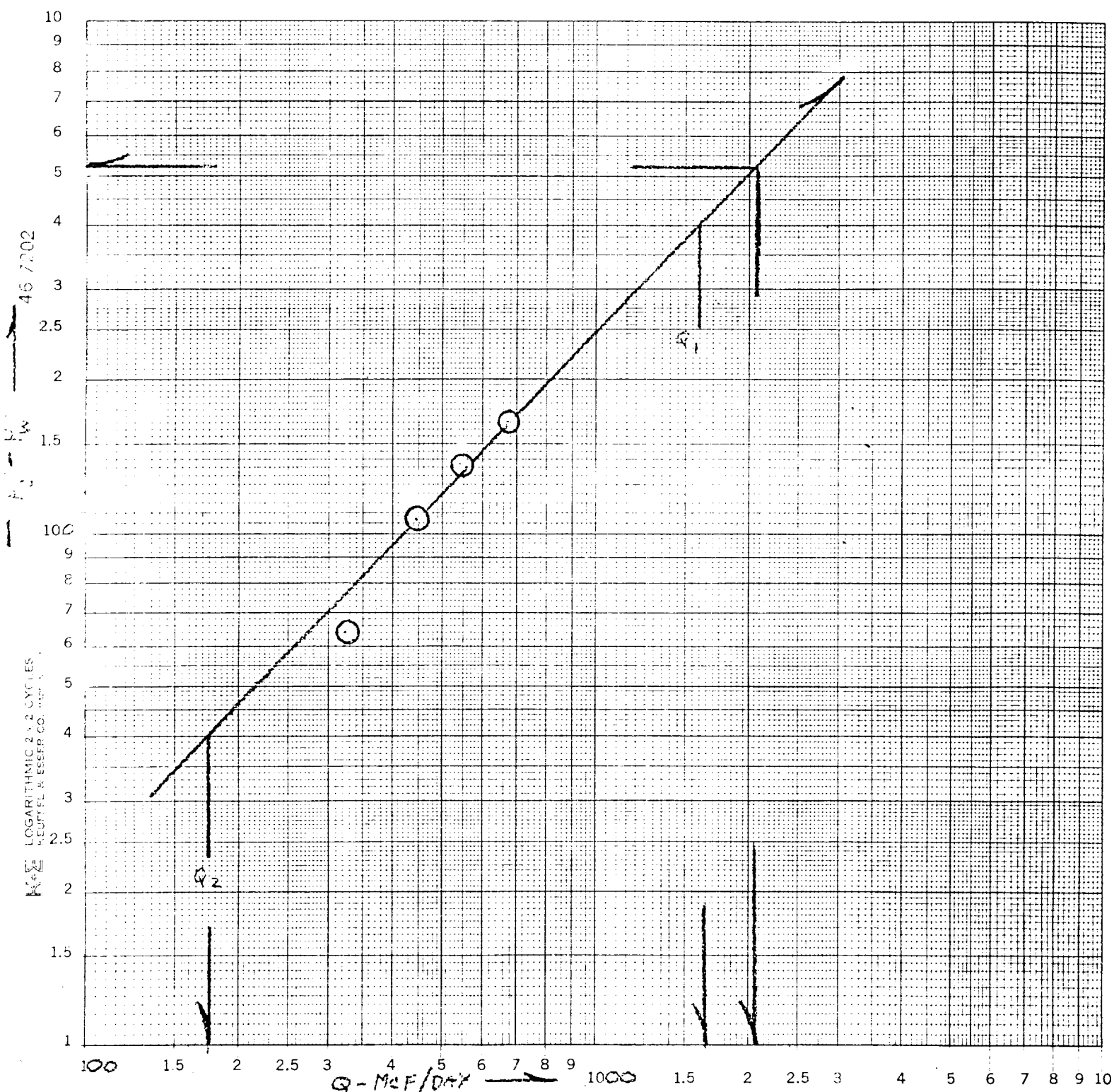
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ DRY GAS _____ Mscf/Std.	
1	1.14	532	1.74	0.934	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.	
2	1.07	520	1.71	0.938	Specific Gravity Separator Gas _____ 0.803 _____ XXXXXXXXXX	
3	0.95	518	1.70	0.944	Specific Gravity Flowing Fluid _____ XXXXX _____	
4	0.89	510	1.67	0.948	Critical Pressure _____ 993 _____ P.S.I.A. _____	
5.					Critical Temperature _____ 305 _____ R _____	

P _c 723.2 P _w 523				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.89$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.59$	
NO.	P _c	P _w	P _w ²	P _c ² - P _w ²			
1	459	679.2	461	62			
2	401	645.2	416	107			
3	315	621.2	386	137			
4	280	598.2	358	165			
5							

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2009$				Absolute Open Flow _____ 2009 _____ Mscf @ 15.025		Angle of Slope θ _____ 46 _____	
						Slope, n _____ 0.961 _____	

Remarks: _____			
Approved By: _____		Conducted By: _____	
D. F. JONES		D. F. JONES	
Calculated By: _____		Checked By: _____	

WILLIAM N. BEACH
 AMOCO-STATE #1
 UNIT K, SEC. 25, 16-S-28E
 EDDY COUNTY, NEW MEXICO
 8-29-80



Q₁ = 1600 McF/DAY

Q₂ = 175 McF/DAY

LOG 3.204120

LOG 2.243038

CAOF = 2009 McF/DAY

n = 0.961

NEW-TEX LAB

P. O. BOX 1161
HOBBS, N.M. 88240

No. 3882
Run No. _____
Date of Run 8-29-80
Date Secured 8-29-80

CERTIFICATE OF ANALYSIS

A Sample of Amoco State #1
Secured from WM Beach
At P.O. Box 3669 Secured by _____
Midland, TX 79702 Time 10:00 am #1 Date _____
Sampling conditions Press 620# Sample Point wellhead
Temp. 60°

FRACTIONAL ANALYSIS

Percentage Composition

	MOL %	LIQ. %	G.P.M.
Carbon Dioxide	NIL		
Air			
Nitrogen	43.684		
Oxygen			
Hydrogen sulfide			
Hydrogen			
Methane	47.623		
Ethane	5.272		1.406
Propane	2.085		.572
Butanes			
Iso-Butane	.224		.073
N-Butane	.658		.207
Pentanes			
Iso-Pentane	.109		.040
N-Pentane	.120		.043
Hexanes	.050		.021
Heptanes Plus	.175		.081
Octanes			
TOTAL	100.000		2.443

Calc. Sp. Gr. 0.8031
Calc. A.P.I. _____
Calc. Vapor Press. _____ PSIA
Sp. Gr. _____
Mol. Wt. 23.29

LIQUID CONTENT (GAL./MCF)

Propane Calc. G.P.M. .572
Butanes Calc. G.P.M. .280
Pentanes Plus. G.P.M. .185
Ethane Calc. G.P.M. 1.406
RVP Gasoline G.P.M. _____
B.T.U./Cu. Ft. @ 14.696 P.S.I.A.
Dry Basis 676
Wet Basis 664
Sulfur Analysis by Titration
Gr./100 Cu. Ft. _____
Hydrogen Sulfide _____
Mercaptans _____
Sulfides _____
Residual Sulfur _____
Total Sulfur _____

Run by Teresa McKee Checked by Deane Simpson Approved by [Signature]

Additional Data and Remarks