

NEW XICO OIL CONSERVATION COMMS N
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-5-78		SPUD DATE NOT AVAIL.	
Company Houston Domestic Oil Company				Connection None			
Pool Undesignated				Formation Morrow		Unit	
Completion Date		Total Depth 9326		Plug Back TD None		Elevation	
Form or Lease Name Hannifin							
Csg. Size 5 1/2	Wt. 17#	d	Set At 9326	Perforations: From 9262 To 9292		Well No. 2	
Tbg. Size 2 3/8	Wt. 4.7	d	Set At 9070	Perforations: From open To end		Unit Sec. Twp. Rge. 31 9 30	
Type Well - Single - Prodenhead - G.G. or G.O. Multiple Single				Packer Set At 9040		County Chaves	
Producing Thru Tbg.		Reservoir Temp. *F 166 @ 9148		Mean Annual Temp. *F		Baro. Press. - P _a 13.2	
State New Mexico							
L *9148	H 9148	G _g .642	% CO ₂	% N ₂	% H ₂ S	Provor	Meter Run Taps
6" Positive Choke							

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prever 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	6" Positive Ck.						2267				72 hrs.
1.	1/8			1973		69	1973				1 hr.
2.	3/16			1196		73	1196				1 hr.
3.	7/32			732		74	732				1 hr.
4.	1/4			447		71	447				1 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	.2618		1986.2	.9915	1.248	1.161	747
2	.6101		1209.2	.9877	1.248	1.116	1015
3	.8419		745.2	.9868	1.248	1.069	826
4	1.112		460.2	.9896	1.248	1.044	660
5							

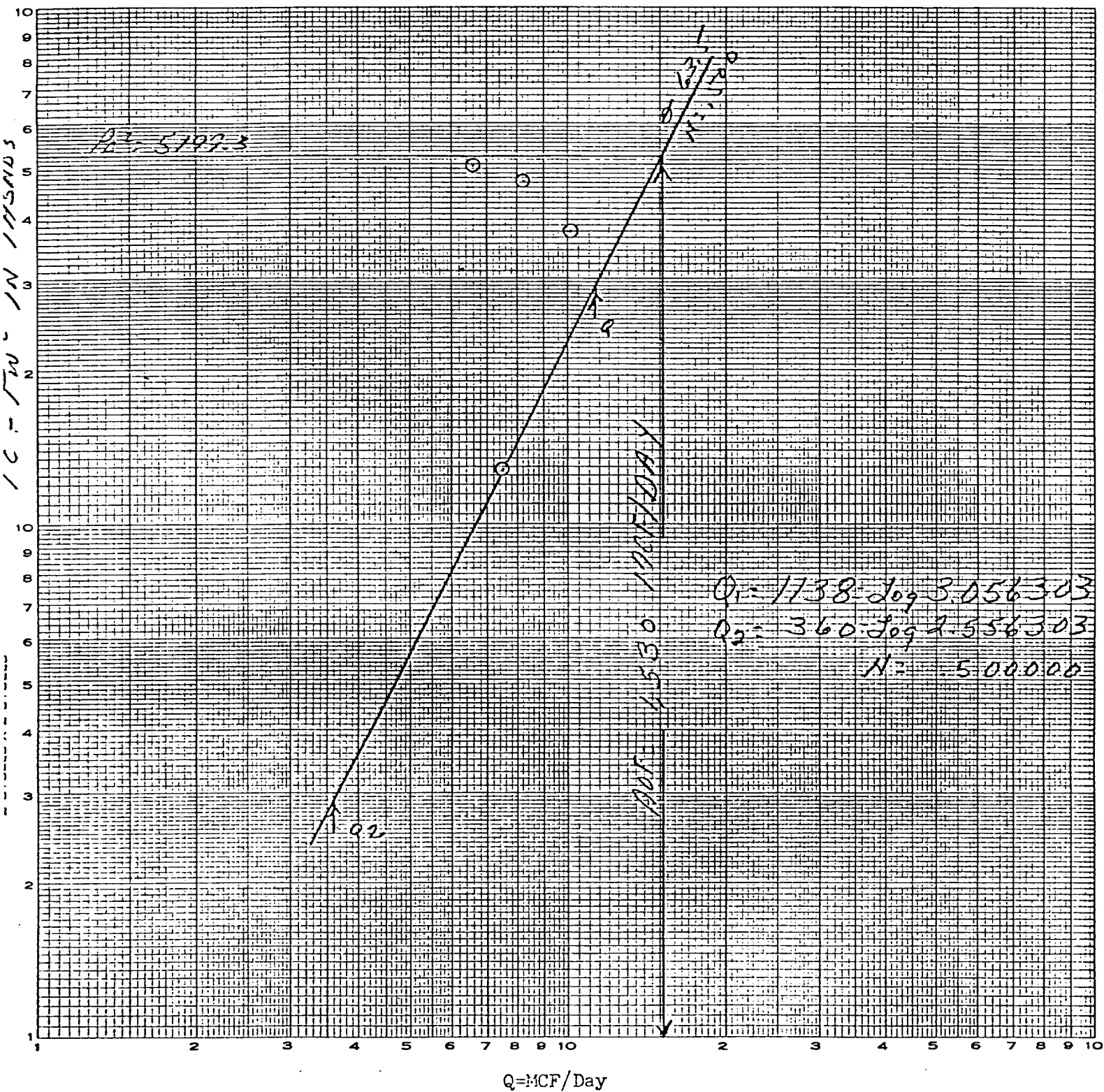
NO.	P _r	Temp. *R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/cbl.
1.	2.96	529	1.42	.724	A.P.I. Gravity of Liquid Hydrocarbons	Deg.
2.	1.80	533	1.43	.803	Specific Gravity Separator Gas	X X X X X X X X
3.	1.11	534	1.44	.875	Specific Gravity Flowing Fluid	X X X X X
4.	.69	531	1.43	.918	Critical Pressure 670	P.S.I.A.
5.					Critical Temperature 372	R

P _r 2280.2 P _c 5199.3				(1) $\frac{P_r^2}{P_c^2 - P_w^2} = 4.197$		(2) $\left[\frac{P_r^2}{P_c^2 - P_w^2} \right]^n = 2.049$	
NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²			
1		1990.1	3960.5	1238.8			
2		1221.7	1492.5	3706.8			
3		759.4	576.7	4622.6			
4		475.5	226.1	4973.2			
5							

Absolute Q _g on Flow 1.530				Mcf @ 15.025		Angle of Slope θ 63.5		Slope, n 500			
Remarks: * Equivalent length, no way to measure fluid. Point alignment too steep a slope of 63.5 was drawn through low rate of flow.											
Approved By Commission:			Conducted By: Malsbain and Boston			Calculated By: Reggie Boston			Checked By:		

HOUSTON DOMESTIC OIL COMPANY

Hannifin No. 2
Chaves County, New Mexico
June 5, 1978



TYPE ANALYSIS	Pod	Mass Spec.	Chromatograph	Other	Analysis No. 41732
Sample From Hanifin Lease					
Owner Houston Domestic Oil Co.				State NM	County Chaves
Location or Field Undesignated		Formation Morrow		Depth	From To

Date Secured 6-5-78	Secured by Schooley	Department	
Date Run 6-6-78	Run by Bond	Checked by	
Source Press.	Bomb Press.	Source Temp.	Atmos. Temp.

BTU @ 14.696	Actual	Calculated, Dry 1085.38	SP. GR. @ 14.696 & 60° F	Actual	Calculated .642
Hydrogen Sulphide as grs. H ₂ S/100 SCF		Mercaptan as grs. Sulfur/100 SCF		Total	Sweet
VAPOR PRESS. @ 100° F	Actual, Reid	Calculated			

COMPONENT	MOLE %	GPM	LIQ. VOL. %
Helium HE ₂			
Hydrogen Sulphide H ₂ S			
Carbon Dioxide CO ₂	1.74		
Nitrogen N ₂	1.40		
Methane C ₁	88.18		
Ethane C ₂	5.41		
Propane C ₃	1.92	.528	
Iso Butane IC ₄	.40	.131	
Normal Butane C ₄	.50	.158	
Iso Pentane IC ₅	.22	.080	
Normal Pentane C ₅	.13	.047	
Hexane C ₆	.06	.025	
Heptane C ₇	.04	.019	
	100.00	.988	

DISTRIBUTION

HH	TD	ES
REJ	AJD	RTW
SS	CLW	Res Eng - Test Section
JWC	HOW	File

ENGLER
IBP % @ 96
5 % @ 140
10 % @ 275
20 End Point
30 Recovery
40 Residue
50 Loss
60
70
80
90

REMARKS

Sec. 31, Twp 9, Rge 30