

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

Form C-122
 Revised 9-1-66

Type test ☒ Initial ☐ Annual ☐ Special				Test Date 6-2-88	
Company UNION OIL CO. OF CALIFORNIA				Connection WAITING ON PIPELINE	
Pool GEM				Formation MORROW	
Completion Date 6-1-88		Total Depth 13725'		Elevation 3620.6'	
Field or Lease Name North Maduro Fed. Unit					
Seq. Size 5 1/2"	Wt. 17#	Set At 13725	Perforations: From 13589 To 13618		Well No. 1
Trq. Size 2-3/8"	Wt. 4.7	Set At 13529	Perforations: From 13589 To 13618		Unit Sec. Twp. Rge. H 20 19-S 33-E
Type well - Single - Brokenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 13529'	
Producing thru tubing		Reservoir Temp. °F 170 13589'		State NM	
Mean Annual Temp. °F 60		Zero. Press. - P _g 13.20		County LEA	
L 13529	H 13529	Gg .686	% CO ₂ 0	% N ₂ 0	% H ₂ S 0
Prover 0		Meter Run 4.026		Type FLANGE	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow HRS.
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
51							3775			
1.	4.026 x 1.75			660	10	128	3560	70	0	0
2.	4.026 x 1.75			660	24	95	3385	70	0	0
3.	4.026 x 1.75			665	50	78	3160	70	0	0
4.	4.026 x 1.75			650	80	74	2940	70	0	0
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{spv}	Rate of Flow Q, Mcfd
1	14.93	82.05	673.2	.9404	1.207	1.050	1460
2	14.93	127.12	673.2	.9680	1.207	1.062	2355
3	14.93	184.15	678.2	.9831	1.207	1.070	3491
4	14.93	230.34	663.2	.9868	1.207	1.071	4387
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 15.7 Mcf/bbl.
1	1.01	588	1.53	0.907	A.P.I. Gravity of Liquid Hydrocarbons 54
2	1.01	555	1.44	0.886	Specific Gravity Separator Gas .686
3	1.01	538	1.40	0.874	Specific Gravity Flowing Fluid .867
4	0.99	534	1.39	0.872	Critical Pressure 669 P.S.I.A.
5					Critical Temperature 385 °R

NO.	P _r	P _w	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 6.843$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n =$
1	12767.8	5348	28601.1	2412.7	ADP = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 15,500$	
2	11547.8	5146	26481.3	4532.5		
3	10069.2	4927	24275.3	6738.5		
4	8721.4	4718	22259.5	8754.3		
5						

Absolute Open Flow 15,500 Mcfd @ 15.025	Angle of Slope 45	Slope, n .959
Remarks:		
Approved By: Commission	Conducted By: T. J. SIMPSON	Checked By: M. F. STANDIFER