

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

Form C-122
Revised 9-1-65

JUN 16 1970

RECEIVED
JUN 15 1970

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 6-7-70						
Company SOUTHWESTERN NAT. GAS CO.					Connection MARATHON						
Pool Legend for Paul M. Marshon Jr. INDIAN BASIN					Formation UPPER PENN						
Completion Date 8-21-69			Total Depth 7631'		Plug Back TD 7620'		Elevation 4264' DF		Farm or Lease Name MARSHON GAS COMM.		
Tub. Size 1 1/2"		Wt. 10.5		Set At 7631'		Perforations: From 7467' To 7611'				Well No. No. 1	
Tub. Size 2"		Wt. 4.7		Set At 7350'		Perforations: From OPEN To ENDED				Unit Sec. Twp. Rge. A 21 22S 23E	
Type Well - Single - Brdenhead - G.G. or G.O. Multiple SINGLE						Packer Set At 7350'			County FDDY		
Producing Thru TUBING		Reservoir Temp. °F 148 @ 7300'		Mean Annual Temp. °F 600		Baro. Press. - P _a 13.2			State NEW MEXICO		
L 7539'		H -		C _g 0.641		% CO ₂ 0.52		% N ₂ 0.56		% H ₂ S 0.00	
						Prover -		Meter Run X		Taps F	

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. @ WT	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI	4		1.5				2060				
1.	4	21/64	1.5	660	90	58	1511	80	-	-	3.0 HRS
2.	4	19/64	1.5	640	74	54	1625	78	-	-	1.0
3.	4	17/64	1.5	630	54	52	1731	77	-	-	1.0
4.	4	15/64	1.5	620	38	51	1823	75	-	-	2.0
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super. Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	10.84	246.15	673.2	1.002	1.249	1.067	3563.2
2	10.84	219.85	653.2	1.006	1.249	1.067	3196.4
3	10.84	186.35	643.2	1.008	1.249	1.068	2716.2
4	10.84	155.11	633.2	1.009	1.249	1.067	2260.9
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	1.00	518	1.41	0.878	197.2	
2	0.97	514	1.40	0.879	62.0	
3	0.96	512	1.39	0.876	0.641	XXXXXXXXXX
4	0.94	511	1.39	0.878	673	
5					368	

22629.2 P_c² 6912.7

NO.	P _t ²	P _w *	P _w ²	P _c ² - P _w ²
1	-	2124.2	4512.2	2400.5
2	-	2209.2	4880.6	2032.1
3	-	2303.2	5304.7	1608.0
4	-	2380.2	5665.4	1247.3
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.880$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.065$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 7376$

Absolute Open Flow 7400 Mcfd @ 15.025		Angle of Slope 550 33'		Slope, n 0.686	
---------------------------------------	--	------------------------	--	----------------	--

Remarks: * BHP @ (-3275') 7539' USED FOR PRESSURE CALCULATIONS

Approved By Commission:	Conducted By: COLEMAN PET. ENG.	Calculated By: JOE A. COLEMAN	Checked By: JOE A. COLEMAN
-------------------------	------------------------------------	----------------------------------	-------------------------------