

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

5F
File #
122

Type Test ☒ Initial ☐ Annual		Date 2/27/80	
Company Sunmark Exploration Co.		Field Atoka	
Well Wildcat		Location Atoka	
Completion Date 2/27/80	Total Length 9690	Perforation 9645	Perforation 3575
Coq. Size 5 1/2	Val. 17#	Set At 9690	From 8884 To 8885
Trq. Size 27/8	Val. 6.5	Set At 8845	From open To end
Type Well - Single - Horizontal - G.O. or G.O. Multiple Single		Perforation 8845	
Producing Thru Tbg.	Reservoir Temp. °F 162	Mean Annual Temp. °F 60	Perforation 13.2
L 8845	H 8845	Gg .737	% CO ₂ .035
		% N ₂ 1.454	% H ₂ S
		Prover 	Meter Run 4
			F/G E/G

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	
51							2452				
1.	4	X	.500	300	20	92	2310				1 hr.
2.	4	X	.500	300	40	89	2133				1 hr.
3.	4	X	.500	300	60	84	1939				1 hr.
4.	4	X	.500	320	80	80	1735				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 Fg	Super. Comp. Factor, F _{sp}	Rate of Flow Q, Mgd
1	1.182	79.15	313.2	.9706	1.165	1.033	109
2	1.182	111.93	313.2	.9732	1.165	1.034	155
3	1.182	137.08	313.2	.9777	1.165	1.035	191
4	1.182	163.27	333.2	.9813	1.165	1.039	229
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Gravity by nom. or table A.P.L. Gravity of Gas by nom. or table Specific Gravity by nom. or table Specific Gravity by nom. or table Critical Pressure Critical Temperature
1	.47	552	1.38	.937	
2	.47	549	1.37	.935	
3	.47	544	1.36	.933	
4	.50	540	1.35	.926	
5					

NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 2.012$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.428$
1	2323.2	5397.4	679.8			
2	2146.3	4606.4	1470.8			
3	1952.3	3811.4	2265.8			
4	1748.3	3056.7	3020.5			
5						

Absolute Open Flow	327	Perforation	63	Pressure	510
Remarks:					
Approved by Contractor	Conducted by:		Checked by:		Checked by:
	B. R. Duke		Reggie Roston		