

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 1-5-82		JAN 21 1982					
Company Mesa Petroleum Co.		Connection UNCONNECTED		O. C. D.					
Pool UNDESIGNATED ABO		Formation ABO		Unit ARTESIA, OFFICE					
Completion Date 1-5-82		Total Depth 4164'	Plug Back TD 4095'	Elevation 4031'	Farm or Lease Name STANCEL FEDERAL				
Csg. Size 4 1/2	Wt. 10.5#	Set At 4163'	Perforations: From 3713' To 3818'		Well No. 6				
Tng. Size 2 3/8	Wt. 4.7#	Set At 3659'	Perforations: From OPEN ENDED To		Unit Sec. Twp. Rye. I 22 5 24				
Type Well - Single - Frictionhead - G.C. or G.O. Multiple SINGLE			Packer Set At NONE	County CHAVES					
Producing Thru TUBING		Reservoir Temp. °F 101 @ 4164	Mean Annual Temp. °F 60	Baro. Press. - P _a 13.2	State NEW MEXICO				
L	H	Gg .65	% CO ₂ 1	% N ₂ 1	% H ₂ S CHOKE				
FLOW DATA			TUBING DATA		CASING DATA				
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							950	825	48 hr. S
1.	CHOKE		17/64	900		50	900	800	1 hr.
2.	COEFF		20/64	850		63	850	777	1 hr.
3.			24/64	765		65	765	735	1 hr.
4.			27/64	650		67	650	720	1 hr.
5.									
RATE OF FLOW CALCULATIONS									
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor FL	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd		
1	1.187	CHOKE	913	1.010	1.240		1357		
2	1.645	CHOKE	863	.9971	1.240		1755		
3	2.388	CHOKE	773	.9952	1.240		2293		
4	3.009	CHOKE	663	.9933	1.240		2457		
5									
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.				
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.				
2					Specific Gravity Separator Gas _____ X X X X X X X X				
3					Specific Gravity Flowing Fluid _____ X X X X X				
4					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.				
5					Critical Temperature _____ R _____ R				
P _r 838 P _c ² 702					(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 4.2545$ (2) $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 2.0627$				
NO.	P _w	P _w ²	P _c ² - P _w ²						
1	813	661	41						
2	790	624	78						
3	748	560	142						
4	733	537	165						
5									
Absolute Oper. Flow 5000 Mcfd @ 15.025					Angle of Slope @ 63.5		Slope, n .5		
Remarks: Plot of P _c ² - P _w ² vs. Q yielded a straight line with a θ greater than 63.5°. Drew 63.5° line through highest point.									
Approved By Commission:			Conducted By: JAMES CRAIG			Calculated By: EAB 1-8-82		Checked By:	

MESA PETROLEUM CO.
 STANCEL FEDERAL #6
 JANUARY 5, 1982

