

W MEXICO OIL CONSERVATION COM SION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

SEP 21 1978

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 9-15-78		SEP 21 1978	
Company BEARD OIL COMPANY ✓				Connection TO AIR		O.C.C. ARTERIA, OFFICE	
Pool <i>Willcat also</i> UNDESIGNATED				Formation AEO		Unit M	
Completion Date 9-15-78		Total Depth 7220		Plug Back TD 7220 7195		Elevation 3822 GL	
Form or Lease Name HANLAD							
Csg. Size 4 1/2	Wt. 10.5	d	Set At 7220	Perforations: From 4670 To 4716		Well No. #1	
Tbg. Size 2 3/8	Wt. 4.7	d	Set At 7026	Perforations: From To		Unit Sec. Twp. Rge. NE 17 17 24	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple G.G. Dual				Packer Set At 7026		County EDDY	
Producing Thru CSG		Reservoir Temp. °F 8		Mean Annual Temp. °F		Baro. Press. - P _a 13.2	
State NEW MEXICO							
L 4670	H 4670	G _g .713	% CO ₂ 7.17	% N ₂ 1.28	% H ₂ S	Prover	Meter Run 3
						Taps FLG	

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	
SI									1550		72 Hrs.
1.	3 X 1.500			505	2	57			1420		1 Hr.
2.	3 X 1.500			505	4	50			1170		1 Hr.
3.	3 X 1.500			505	8	56			700		1 Hr.
4.	3 X 1.500			445	2	65			450		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	11.13	32.19	518.2	1.003	1.131	1.057	449
2	11.13	45.53	518.2	1.010	1.131	1.061	641
3	11.13	64.39	518.2	1.004	1.131	1.057	898
4	11.13	30.27	458.2	.9952	1.131	1.048	415
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio Mcf/bbl.	A.P.I. Gravity of Liquid Hydrocarbons Deg.	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure P.S.I.A.	Critical Temperature °R
1.	.74	517	1.36	.895			.717	XXXXXX	697	380
2.	.74	510	1.34	.889						
3.	.74	516	1.36	.895						
4.	.66	525	1.38	.911						
5.										

$P_r = 1563.2$ $P_w = 2,443.6$				(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 6.277$		(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2.505$	
NO.	P _r	P _w	P _r ² - P _w ²	(1)	(2)		
1	1433.3	2054.3	389.3				
2	1183.4	1400.4	1043.2				
3	713.9	509.7	1933.9				
4	463.5	214.8	2228.8				
5							

Absolute Open Flow 1.125		Mold @ 15.025		Angle of Slope 63.5		Slope, n .500	
Remarks: POINT ALIGNED TOO STEEP A 63.5° SLOPE WAS DRAWN THROUGH LOWEST RATE OF FLOW IN THE ESTABLISHED LINE.							
Approved by Commission		Conducted by		Calculated by		Checked by	
		<i>James Davis</i>		<i>James Davis</i>			