

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12-14-81		DEC 28 1981	
Company Bass, PERRY R.				Direction Air		O. C. D.	
Field Indian Flats				Formation Morrow		Unit ARTESIA, OFFICE	
Completion Date 12-12-81		Total Length 12635		Perforation 12575		Elevation 3218.6 GL	
Casing Size 5 1/2		ID 17		Set At 12635		Perforation From 12096 To 12259	
Tub. Size 2 3/8		ID 4.7"		Set At 12055		Perforation From To	
Type Well - Single - Fractured - G.G. or C.O. Multiple Single gas				Facker Set At 12055		County Eddy	
Producing thru Tbg.		Reservoir Temp. °F 194° 12045		Mean Annual Temp. °F 60°		State NM	
L *12045		H 12045		G _g .593		Prover 4"	
				% CO ₂ 1.133		% H ₂ S .341	
						Meter Run 4"	
						Flag.	

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							3920				72 hrs.
1.	4 X 1.750			480	2.0	98	3830				45 min.
2.	4 X 1.750			480	21.0	112	3600				1 hr.
3.	4 X 2.250			480	17.0	80	3180				1 hr.
4.	4 X 2.250			490	26.0	90	2910				1 hr.
5.	4 X 2.250			485	32.0	98	2570				4 hrs.

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 _{pv}	Rate of Flow Q, Mcd
1	14.93	31.41	493.2	.9653	1.299	1.031	606
2	14.93	101.77	493.2	.9535	1.299	1.028	1935
3	25.64	91.57	493.2	.9813	1.299	1.036	3100
4	25.64	114.38	503.2	.9723	1.299	1.035	3834
5	25.64	126.26	498.2	.9653	1.299	1.031	4185

NO.	P _t	Temp. °F	T _g	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	.73	558	1.58	.940	1085.979	
2	.73	572	1.62	.946	A.P.L. Gravity of Liquid Hydrocarbons 47 @ 60	Req.
3	.73	540	1.53	.931	Specific Gravity Separator Gas .593	X X X X X X X X
4	.75	550	1.55	.934	Specific Gravity Flowing Fluid X X X X X	.596
5	.74	558	1.58	.940	Critical Pressure 672 P.S.I.A.	671 P.S.I.A.
					Critical Temperature 354 °R	358 °R

NO.	P _c	P _w	P _c ²	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.905$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.452$
1	3933.2	15470.1					
1	*BHP						
1	4960.2	3850.2	14824.0	646.1	14177.9		
2	4655.2	3646.6	13297.4	2172.7	11124.7		
3	4193.2	3258.9	10620.4	44849.7	6158.9		
4	3893.2	3012.8	9077.2	26392.9	6438.3		
5	3519.2	2710.6	7347.2	28122.9	4535.7		

5075.2 S.I.P.		6.077		Angle of Slope θ 60°		Slope, n .579	
Remarks: Produced 1 bbl. distillate during the test.							
* Pressures taken from a bottom-hole instrument set at 12045 ft.							
Approved By Commission:		Conducted By:		Calculated By:		Checked By:	
		Davis Services, Inc.		Rick Pagan			