

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

File
SK
172
Form C-122-3
Revised 9-1-65
DATE MM 17 '79
RECEIVED OFFICE

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 5-15-79		JUL 26 1979	
Company J. C. Barnes Oil Co.				Connection El Paso Natural Gas Company				O.C.C.
Pool Dublin Ranch Morrow				Formation Morrow				ARTESIA, OFFICE
Completion Date 4-27-79		Total Depth 12741		Plug Back TD 12682		Elevation 3066 gn		Form or Lease Name Big Chief Com
Csg. Size 5.5	Wt. 17.20	d	Set At 12740	Perforations: From 12434 To 12452		Well No. 3		
Tbg. Size 2 3/8	Wt. 4.7	d	Set At 12000	Perforations: From To		Unit J Sec. 21 Twp. 22 Rge. 28		
Type Well - Single - Pradhead - G.G. or G.O. Multiple Single					Packer Set At 12000		County Eddy	
Producing Thru Tbg.		Reservoir Temp. °F 8		Mean Annual Temp. °F		Buro. Press. - P _g		State New Mexico
L 12,104	H 12,104	Gg .572	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run 4"	Tags Flange

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							4181		Pkr		96 hrs.
1.	4.026 x 1.750			405	5.3	72	3787	73			1 hr.
2.	4.026 x 1.750			407	11.6	67	3437	75			1 hr.
3.	4.026 x 1.750			408	22.1	80	3011	76			1 hr.
4.	4.026 x 1.750			418	31.4	80	2621	78			1 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _L	Gravity Factor F _g	Super. Compres. Factor, F _{pv}	Rate of Flow Q, Mcf/d
1	14.93	47.08	418.2	.9887	1.322	1.030	946
2	14.93	69.82	420.2	.9933	1.322	1.031	1411
3	14.93	96.48	421.2	.9813	1.322	1.029	1923
4	14.93	116.36	431.2	.9813	1.322	1.029	2319
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	.62	532	1.54	.943			.572		672	346
2.	.63	527	1.52	.940						
3.	.63	540	1.56	.945						
4.	.64	540	1.56	.944						
5.										

NO.	P _r	P _w	P _w '	P _e ² - P _w ²	(1) $\frac{P_e^2}{P_e^2 - P_w^2} =$	(2) $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n =$
1		3801.1	14448.4	3142.9	1.685	1.543
2		3461.5	11982.0	5609.3		
3		3046.9	9283.6	8307.7		
4		2673.8	7149.2	10442.1		
5						

Absolute Open Flow 3.579 Mcf/d @ 15.025		Angle of Slope 51.25		Slope, n .832	
Remarks: No liquid during test.					
Analyzed By:		Conducted By:		Checked By:	