

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

3F
File
122 file
RECEIVED
Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 10-10-77		OCT 21 1977	
Company CITIES SERVICE COMPANY				To AIR		O. C. C.	
Pool <i>Little Box canyon morrow</i> UNDESIGNATED				MORROW		Unit ARTESIA, OFFICE	
Completion Date 10-1-77		Total Depth 8,370'		Packer Set At 8,290'		Elevation 4478 GR.	
Csg. Size 5 1/2"		Wt. 15.5		d 4.950"		Set At 8,318'	
Perforations: From 8191' To 8200'		Well No. 2		Form or Lease Name LITTLE BOX CANYON			
Tbg. Size 2 7/8"		Wt. 6.5		d 2.441"		Set At 8,169'	
Perforations: From OPEN ENDED		Unit O		Sec. 12		Twp. 21S	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE		Packer Set At 8,162'		County EDDY		State NEW MEXICO	
Producing Thru TUBING		Reservoir Temp. °F 156 @ 8,205'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 8205		H 8205		G _g 0.596		% CO ₂ 0.46	
				% N ₂ 0.35		% H ₂ S -0-	
				Prover		Meter Run 4"	
						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
SI							2247	71	PACKER	CHOKE	91.5 HRS
1.	4"	x	1.750"	430	8.0	76	1936	72		10/64	1.0 HR
2.	4"	x	1.750"	450	12.0	63	1778	71		12/64	1.0 HR
3.	4"	x	1.750"	450	18.0	64	1620	71		14/64	1.0 HR
4.	4"	x	1.750"	450	23.0	62	1461	72		16/64	1.0 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	14.93	59.54	443.2	.9850	1.295	1.035	1174
2	14.93	74.55	463.2	.9971	1.295	1.040	1495
3	14.93	91.31	463.2	.9962	1.295	1.040	1829
4	14.93	103.22	463.2	.9981	1.295	1.040	2072
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	.66	536	1.50	.934	547.500 Mcf/bbl.	58.3 @ 60	.596	X X X X X X X X	671 P.S.I.A.	358 R
2	.69	523	1.46	.924				X X X X X X X X		
3	.69	524	1.46	.924						
4	.69	522	1.46	.924						
5										

P _c 2260.2 P _c ² 5108.5				
NO.	P _c ²	P _w	P _w ²	P _c ² - P _w ²
1		1992.0	3968.1	1140.4
2		1844.8	3403.3	1705.2
3		1702.6	2898.8	2209.7
4		1577.2	2487.6	2620.9
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.949$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.691$

A.P.I. $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.503$

Absolute Open Flow 3,503 Mcfd @ 15.025		Angle of Slope @ 51.75		Slope, n, 787	
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Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA GAUGE @ 8,205 FEET.
THE WELL PRODUCED 0.5 BBL OF DISTILLATE DURING THE TEST.

Approved By Commission:	Conducted By: M.C.T.	Calculated By: R.P.	Checked By: M.C.T.
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