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

Form C-122
Revised 9-1-65

2 file
SF file

RECEIVED
FEB 24 1977
O. C. C.
ARTESIA, OFFICE

Type Test: ☒ Initial ☐ Annual ☐ Special					Test Date: 2-10-77			
Company: CITIES SERVICE OIL COMPANY				Connection: TO AIR			Unit	
Pool: BURTON FLAT Morrow				Formation: MORROW				
Completion Date: 2-10-77		Total Depth: 11,360'		Plug Back TD: 11,300'		Elevation: 3293 KB	Farm or Lease Name: STATE "CV"	
Csg. Size: 5½"	Wt.: 20#	d: 4.778"	Set At: 11,360'	Perforations: From 11,014 To 11,068'			Well No.: 1	
Tbg. Size: 2 7/8"	Wt.: 6.5#	d: 2.441"	Set At: 10,928'	Perforations: From OPEN TO ENDED			Unit: E	Sec.: 16 Twp.: 20S Rge.: 28E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE				Packer Set At: 10,918'			County: EDDY	
Producing Thru: TUBING	Reservoir Temp. °F: 186 @ 11,041'		Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2			State: NEW MEXICO	
L: 10928	H: 10928	Gg: 0.6091	% CO_2: 0.83	% N_2: 1.63	% H_2S: -0-	Prover:	Meter Run: 4" x 1.50"	Taps: PIPE

	FLOW DATA					TUBING DATA		CASING DATA		
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	Duration of Flow
SI						3415.0		PACKER	CHOKE	68 HRS.
1.	4"	x 1.50"	610.0	9.0	70	2745.0	58		8/64	60 MIN.
2.	4"	x 1.50"	610.0	16.0	74	2360.0	60		10/64	60 MIN.
3.	4"	x 1.50"	620.0	28.0	80	1859.0	63		13/64	60 MIN.
4.	4"	x 1.50"	570.0	50.0	80	1392.0	64		16/64	60 MIN.
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1.	11.82	74.89	623.2	.9905	1.281	1.051	1180
2.	11.82	99.86	623.2	.9868	1.281	1.049	1565
3.	11.82	133.15	633.2	.9813	1.281	1.048	2073
4.	11.82	170.76	583.2	.9813	1.281	1.044	2649
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	0.93	530	1.49	.906
2.	0.93	534	1.50	.908
3.	0.94	540	1.52	.911
4.	0.87	540	1.52	.918
5.				

Gas Liquid Hydrocarbon Ratio: TSTM Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Deg.
Specific Gravity Separator Gas: 0.6091 XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 672 P.S.I.A. P.S.I.A.
Critical Temperature: 355 R R

P_t^2 4457.2 P_s^2 19867

NO	P_t^2	P_s	P_s^2	$P_t^2 - P_s^2$
1.	7608	3646.2	13295	6572
2.	5632	3160.2	9987	9380
3.	3505	2558.2	6544	13323
4.	1975	2033.2	4134	15733
5.				

(1) $\frac{P_t^2}{P_t^2 - P_s^2} = 1.2628$ (2) $\left[\frac{P_t^2}{P_t^2 - P_s^2}\right]^n = 1.2628$

AOF = Q $\left[\frac{P_t^2}{P_t^2 - P_s^2}\right]^n = 3345$

Absolute Open Flow: 3345 Mcfd @ 15.025 Angle of Slope θ: 45.0° Slope, n: 1.00 LIMITED

Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA GAUGE @ 11,041 FEET.
AVERAGE SLOPE IN EXCESS OF 1.000 LIMITS. DREW 1.00 SLOPE THROUGH HIGH RATE OF FLOW.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	D.A.T.	R.L.W.	J.W.W.