NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

DEC 17 1974

O. C. C.
ARTESIA, OFFICE

Type Test: ☒ Initial ☐ Annual ☐ Special				Test Date: 12-9-74	
Company: CITIES SERVICE OIL COMPANY		Connection: TO AIR			
Pool: Burton Flat Morrow		Formation: MORROW		Unit:	
Completion Date: 12-4-74	Total Depth: 11,486'	Plug Back TD: 11,424'	Elevation: 3250'	Farm or Lease Name: GOVERNMENT "T"	
Csg. Size: 5 1/2"	Wt.: 17# & 20#	d: 4.778 / 4.892	Set At: 11486'	Perforations: From 11041' To 11399'	Well No.: 2
Tbg. Size: 2 7/8"	Wt.: 6.5#	d: 2.469	Set At: 10,860'	Perforations: From OPEN To ENDED	Unit: G; Sec.: 15; Twp.: 20S; Rge.: 28E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE			Packer Set At: 10,860'		County: EDDY
Producing Thru: TUBING	Reservoir Temp. °F: 181° @ 11,220'	Mean Annual Temp. °F: 60°	Baro. Press. – P_a: 13.2		State: NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
11,220	11,220	0.6416	1.135	.427	-0-	---	4"	FLANGE

	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						3383.0		PACKER	CHOKE	
1.	4"	x 2.00"	680.0	9.0	78	3106.0	46		10/64"	60 MIN.
2.	4"	x 2.00"	685.0	19.5	75	2910.0	47		13/64"	60 MIN.
3.	4"	x 2.00"	685.0	33.0	66	2640.0	48		16/64"	60 MIN.
4.	4"	x 2.00"	690.0	53.0	69	2300.0	62		19/64"	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	19.81	78.99	693.2	.9831	1.248	1.062	2039
2.	19.81	116.68	698.2	.9859	1.248	1.064	3026
3.	19.81	151.79	698.2	.9943	1.248	1.068	3985
4.	19.81	193.05	703.2	.9915	1.248	1.066	5045
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	1.03	538	1.45	.887
2.	1.04	535	1.44	.883
3.	1.04	526	1.42	.876
4.	1.04	529	1.43	.880
5.				

Gas Liquid Hydrocarbon Ratio 30398 Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons 50.6 Deg.

Specific Gravity Separator Gas 0.6416 XXXXXXXXX

Specific Gravity Flowing Fluid XXXXX

Critical Pressure 674 P.S.I.A. ____ P.S.I.A.

Critical Temperature 371 R ____ R

P_F 4438.2 P_F^2 19698

NO	P_t^2	P_w	P_S^2	$P_F^2 - P_S^2$
1	9729	4113.2	16918	2780
2	8545	3892.2	15149	4549
3	7039	3589.2	12882	6816
4	5351	3182.2	10126	9572
5				

(1) $\frac{P_F^2}{P_F^2 - P_S^2} = 2.0579$ (2) $\left[\frac{P_F^2}{P_F^2 - P_S^2}\right]^n = 1.6960$

AOF = Q $\left[\frac{P_F^2}{P_F^2 - P_S^2}\right]^n = 8556$

Absolute Open Flow 8556 Mcfd @ 15.025 Angle of Slope θ 53.8° Slope, n 0.732

Remarks: BOTTOM HOLE PRESSURES MEASURED AMERADA GAUGE @ 11,220'

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	D. TYSON	R. WEST	