NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
SEP 15 1971
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 9/10/1971	
Company: Black River Corporation		Connection: None			
Pool: ~~Wildcat~~ East		Formation: Morrow			Unit: J
Completion Date: 9/8/1971	Total Depth: 7975		Plug Back TD: 7050	Elevation: 3721 KB	Farm or Lease Name: Cities-Federal
Csg. Size: 5-1/2 / Wt.: 14 & 15.5 / d: / Set At: 7120			Perforations: From 6858 To 6890		Well No.: 2
Tbg. Size: 2-7/8 / Wt.: 6.5 / d: 2.441 / Set At: 6805			Perforations: From To		Unit: J / Sec.: 34 / Twp.: 25S / Rge.: 24E
Type Well - Single - Bradenhead - G.C. or G.O. Multiple: Single			Packer Set At: 6805		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 148 @ 6874		Mean Annual Temp. °F: 60	Baro. Press. - P_a: 13.2	State: New Mexico
L: 6874 / H: 6874	Gg: 0.570	% CO_2: 0.60	% N_2: 0.26	% H_2S:	Prover: / Meter Run: 4" / Taps: Flange

NO.	FLOW DATA: Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							2579		Pkr		
1.	4	x	2.50	285	14	86	2342	98			55
2.	4	x	2.50	590	21	79	2003	98			70
3.	4	x	2.50	590	29	75	1781	98			45
4.	4	x	2.50	590	56	85	1230	98			60
5.											

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, Mcfd
1.	32.64	64.6	298.2	0.9759	1.325	1.019	2778
2.	32.64	112.6	603.2	0.9822	1.325	1.041	4979
3.	32.64	132.3	603.2	0.9859	1.325	1.043	5884
4.	32.64	183.8	603.2	0.9768	1.325	1.139	8844
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.442	546	1.57	0.964
2.	.894	539	1.55	0.922
3.	.894	535	1.54	0.920
4.	.894	545	1.57	0.926
5.				

Gas Liquid Hydrocarbon Ratio: Dry Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Deg.
Specific Gravity Separator Gas: XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 675 P.S.I.A. P.S.I.A.
Critical Temperature: 348 R R

P_c 2592.2 P_c^2 6719.5

NO	P_t	P_w	P_w^2	$P_c^2 - P_w^2$
1.	5546.9	2366.6	5600.8	1118.7
2.	4065.1	2134.9	4557.8	2161.7
3.	3219.2	1867.1	3486.1	3233.4
4.	1545.5	1467.2	2152.7	4566.8
5.				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.342$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.304$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 12{,}800$

Absolute Open Flow: 13,000 Mcfd @ 15.025 Angle of Slope θ: 47.5 Slope, n: .905

Remarks:

Approved By Commission: Conducted By: Calculated By: Checked By: