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FEB 12 1985
O. C. D.
ARTESIA, OFFICE

NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOI... AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: 4 POINT ☒ Initial ☐ Annual ☐ Special		Test Date: 7-31-84	
Company: READ & STEVENS	Connection: TO AIR		
Pool: SOUTH CARLSBAD Morrow	Formation: MORROW		Unit:
Completion Date: 7-29-84	Total Depth: 12070	Plug Back T.D.: 11870	Elevation: 3136
Farm or Lease Name: OTIS "33"			
Csg. Size: 5.500 / Wt.: 17.0 / d: 4.892 / Set At: 12052	Perforations: From 11664 To 11766		Well No.: #2
Tbg. Size: 2.875 / Wt.: 6.5 / d: 2.441 / Set At: 11626 ~~11566~~	Perforations: From 0 To 0		Unit: C / Sec.: 33 / Twp.: 22S / Rge.: 27E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE	Packer Set At: 11566		County: EDDY
Producing Thru: TUBING	Reservoir Temp. °F: 235.° 11715	Mean Annual Temp. °F: 60.0	Baro. Press. – P_a: 13.2
			State: NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
11715	11715	0.606	1.36	3.96	0	Ø	4.0	FLANGE

	FLOW DATA				TUBING DATA		B.H.P. 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.	CHOKE	Duration of Flow
SI					3917.	80	4984.		78.5
1.	4.03 X 2.000	400.	1.5	92.	3645.	79	4665.	5/64	1.0
2.	4.30 X 2.000	400.	3.0	85.	3470.	78	4487.	6.5/64	1.0
3.	4.03 X 2.000	405.	6.0	73.	3197.	78	4218.	8/64	1.0
4.	4.03 X 2.000	412.	13.0	82.	2740.	76	3740.	10/64	1.0
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	24.90	413.2	0.9706	1.2846	1.0258	631.
2	19.81	35.21	413.2	0.9768	1.2846	1.0273	899.
3	19.81	50.09	418.2	0.9877	1.2846	1.0302	1297.
4	19.81	74.35	425.2	0.9795	1.2846	1.0287	1907.
5							

NO.	P_t	Temp. °R	T_f	Z
1	0.62	552.	1.59	0.950
2	0.62	545.	1.57	0.948
3	0.62	533.	1.53	0.942
4	0.63	542.	1.56	0.945
5				

Gas Liquid Hydrocarbon Ratio 0. Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 0. Deg.
Specific Gravity Separator Gas 0.606 XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX 0.606
Critical Pressure 671. P.S.I.A. 671. P.S.I.A.
Critical Temperature 347. R 347. R

P_c 3964.8 P_c^2 15720.

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	21886.	3693.	13639.	2081.
2	20252.	3543.	12553.	3167.
3	17903.	3318.	11009.	4711.
4	14087.	2925.	8554.	7165.
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.1938$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.0295$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3870.$

Absolute Open Flow 3870. Mcfd @ 15.025 Angle of Slope θ 48.0 Slope, n 0.901

Remarks: BOTTOM HOLE PRESSURE MEASURED WITH AMERADA PRESSURE ELEMENTS.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	RICHARD TOWNLEY	BENNETT & CATHEY INC.	