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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 9-1-65

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

file

RECEIVED
MAY 9 1977
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special							Test Date: 3-16-77				
Company: Tom L. Ingram							Connection: None				
Pool: White Ranch							Formation: Mississippi Gas				Unit:
Completion Date: 3-16-77		Total Depth: 8777'			Plug Back TD: 8406'		Elevation: 3792'DF-13				Farm or Lease Name: White Ranch
Csg. Size: 5½	Wt.: 17.0	d: 4.892	Set At: 8777'		Perforations: From 8320'	To 8349'					Well No.: 1
Tbg. Size: 2 7/8	Wt.: 6.5	d: 2.441	Set At: 8300'		Perforations: From Open	To					Unit: E Sec.: 34 Twp.: 11s Rge.: 29e
Type Well – Single – Bradenhead – G.C. or G.O. Multiple: Single					Packer Set At: 8300'						County: Chaves
Producing Thru: Tubing		Reservoir Temp. °F: 166 @ 8250'			Mean Annual Temp. °F: 60		Baro. Press. – P_a: 13.2				State: New Mexico
L: 8335'	H: –	Gg: 0.6734	% CO_2: 0.501		% N_2: 1.292		% H_2S: 0.00	Prover:		Meter Run: X	Taps: F

FLOW DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA Press. p.s.i.g. DWT	TUBING DATA Temp. °F	CASING DATA Press. p.s.i.g.	CASING DATA Temp. °F	Duration of Flow
SI							2140	75	PACKER		72.0
1.	4	9/64	1.750	500	4	80	1950				1.0
2.	4	11/64	1.750	500	14	81	1744				1.0
3.	4	15/64	1.750	500	24	83	1545				1.0
4.	4	18/64	1.750	500	35	84	1115				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	14.93	45.31	513.2	0.9813	1.219	1.047	847.24
2	14.93	84.77	513.2	0.9804	1.219	1.047	1583.64
3	14.93	110.98	513.2	0.9786	1.219	1.046	2067.49
4	14.93	134.02	513.2	0.9777	1.219	1.046	2494.43
5							

NO.	P_r	Temp. °R	T_r	Z
1	0.77	540	1.44	0.912
2	0.77	541	1.44	0.912
3	0.77	543	1.45	0.914
4	0.77	544	1.45	0.914
5				

Gas Liquid Hydrocarbon Ratio: 84.700 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 64.7 Deg.
Specific Gravity Separator Gas: 0.6734 XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 670 P.S.I.A. – P.S.I.A.
Critical Temperature: 375 R – R

P_c 2944.2 P_c^2 8668.3

NO	P_t^2	P_w *	P_w^2	$P_c^2 - P_w^2$
1		2751.2	7569.1	1099.2
2		2404.2	5780.2	2888.1
3		2133.2	4550.5	4117.8
4		1685.2	2839.9	5828.4
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.487$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.289$

$AOF = Q\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3215$

Absolute Open Flow: 3215 Mcfd @ 15.025 Angle of Slope θ: 57°25' Slope, n: 0.639

Remarks: * BHP @ (-4543)' 8335' Used for pressure calculations

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Jarrel Services, Inc.	Joe A. Coleman	Joe A. Coleman