well file
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NEW MEXIC CONSERVATION COMM ION

Form C-122
Revised 9-1-65

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED
MAR 3 - 1972
O. C. C.
ARTESIA, OFFICE

Type Test: ☒ Initial ☐ Annual ☐ Special			Test Date: 2/22/72	
Company: Atlantic Richfield Company	Connection: None			Unit: G
Pool: Rock Tank Lower Morrow	Formation: Lower Morrow			
Completion Date: 2/16/72	Total Depth: 10450	Plug Back TD: 10419	Elevation: 3846	Farm or Lease Name: W. G. Smith Fed. Gas Com
Csg. Size: 5½" / Wt.: 20# / d: 4.778 / Set At: 10450	Perforations: From 10350 To 10368			Well No.: 1
Tbg. Size: 2-3/8" / Wt.: 4.7# / d: 1.995 / Set At: 10240	Perforations: From To OE			Unit: G / Sec.: 13 / Twp.: 23S / Rge.: 24E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: 10240			County: Eddy
Producing Thru: TBG	Reservoir Temp. °F: 163°F	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
10350	10350	.583	.64	.22			X	F

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						2351	47	PKR		86 hr.
1.	3	1.5	460	14.5	70	2054	70	"		.5 hr.
2.	3	1.5	462	39	71	1910	70	"		1 hr.
3.	3	1.5	635	83	77	1446	68	"		1 hr.
4.	3	1.5	875	77	75	1196	68	"		1 hr.
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	11.13	82.82	473.2	.9905	1.310	1.034	1236.7
2	11.13	136.13	475.2	.9896	1.310	1.034	2031.0
3	11.13	231.95	648.2	.9840	1.310	1.045	3477.6
4	11.13	261.52	888.2	.9859	1.310	1.062	3992.4
5							

NO.	P_t	Temp. °R	T_t	Z
1	.70	530	1.53	.935
2	.70	531	1.53	.935
3	.96	537	1.55	.961
4	1.32	535	1.55	.887
5				

Gas Liquid Hydrocarbon Ratio: Dry Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Deg.
Specific Gravity Separator Gas: .583 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 675 P.S.I.A. P.S.I.A.
Critical Temperature: 346 R R

P_c 2364.2 P_c^2 5589.9

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2075.3	4306.9	1282.5
2		1953.8	3817.3	1772.1
3		1575.1	2480.9	3108.5
4		1391.2	1935.4	3654.0
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.5297$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.486$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 5,933$

Absolute Open Flow: 5,933 Mcfd @ 15.025 | Angle of Slope θ: 43.0 | Slope, n: .931

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	J. V. Cuspa	J. V. Cuspa	