

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT A ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65
15 of 15
File

Type Test: ☒ Initial ☐ Annual ☐ Special					Test Date: 12-30-76		RECEIVED		
Company: AMOCO PRODUCTION COMPANY				Connection: EL PASO NATURAL GAS CO.				JAN 10 1977	
Pool: <u>Wildcat Maraca</u> <u>SOUTH ROCK TANK</u>				Formation: MORROW				Unit: <u>O. D. G.</u> <u>ARTESIA, NEW MEX.</u>	
Completion Date: <u>11-12-74</u> <u>OCT. 1975</u>		Total Depth: 10,479'		Plug Back TD: 10,455'		Elevation: 3966 GR.		Farm or Lease Name: <u>8, ROCK TANK UNIT Com</u>	
Csg. Size: 5 1/2"	Wt.: 17#	d: 4.892"	Set At: 10,479'	Perforations: From 10,262' To 10,447'			Well No.: 1		
Tbg. Size: 2 7/8"	Wt.: 6.5#	d: 2.441"	Set At: 10,202'	Perforations: From OPEN ENDED			Unit Soc. Twp. Rge.: <u>46 24 24S 24E</u>		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple: <u>SINGLE</u>				Packer Set At: 10,202'		County: EDDY			
Producing Thru: TUBING		Reservoir Temp. °F: 178 @ 10,355'		Mean Annual Temp. °F: 60		Baro. Press. - P _a : 13.2		State: NEW MEXICO	
L: 10355	H: 10355	Gg: 0.581	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run: 4"	Taps: FLANGE	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
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	
SI							2533		PACKER		24 Hrs
1.	4"	x	1.250	371	1.0	60	2442	60			60 MIN
2.	4"	x	1.250	375	3.6	60	2333	65			60 MIN
3.	4"	x	1.250	377	7.3	54	2172	66			60 MIN
4.	4"	x	1.250	380	14.4	49	1970	65			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	7.469	19.60	384.2	1.000	1.312	1.031	198
2	7.469	37.38	388.2	1.000	1.312	1.032	378
3	7.469	53.37	390.2	1.006	1.312	1.034	541
4	7.469	75.25	393.2	1.011	1.312	1.036	772
5							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	T S T M	Mcf/sbl.
1	.57	520	1.49	.941	A.P.I. Gravity of Liquid Hydrocarbons		Deg.
2	.58	520	1.49	.939	Specific Gravity Separator Gas	0.581 ASSUMED	XXXXXXX
3	.58	514	1.47	.936	Specific Gravity Flowing Fluid	XXXXX	
4	.59	509	1.45	.932	Critical Pressure	672 P.S.I.A.	P.S.I.A.
5					Critical Temperature	350 R	R

* P_f 2651.7 P_f² 7031.5

NO.	P _f ²	P _s	P _s ²	P _f ² - P _s ²
1	2571.2	6611.1	420.4	
2	2470.2	6101.9	929.6	
3	2340.1	5476.1	1555.4	
4	2163.4	4680.3	2351.2	
5				

(1) $\frac{P_f^2}{P_f^2 - P_s^2} = 2.991$ (2) $\left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 2.299$

ACF = Q $\left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 1,775$

Absolute Open Flow: 1,775 Mcfd @ 15.025	Angle of Slope @: 52.75°	Slope, n: .760
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Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA BOMB SET @ 10,355 FEET.
WELL MADE 0.84 BBLs WATER DURING TEST.

Approved By Commission:	Conducted By: G.J.P.	Calculated By: R.R.	Checked By: J.W.W.
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