

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPLE AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 10-21-72	
Company ADOBE OIL COMPANY		Connection To AIR	
Pool ROCK TANK Lower Morrow		Formation LOWER MORROW	
Completion Date 10-17-72	Total Depth 10,315	Plug Back TD 10,231	Elevation 3902 KB
Farm or Lease Name SMITH FEDERAL Com		Well No. 1	
Csq. Size 5 1/2	Wt. 17#	d 4.892	Set At 10,315
Thq. Size 2 7/8	Wt. 8.7#	d 2.259	Set At 10,045
Perforations: From 10,182 To 10,210		Perforations: From OPEN To ENDED	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple G.G. MULTIPLE		Packer Set At 10,045	
Producing Thru TUBING	Reservoir Temp. °F 175 @ 10,196	Mean Annual Temp. °F 60	Baro. Press. - P _a 13.2
State NEW MEXICO		County EDDY	
L 10045	H 10045	G _g 0.585	% CO ₂ .0073
		% N ₂ .0040	% H ₂ S .10G/100
Prover 3"		Meter Run 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.	
SI										
1.	3" x 1,375			300.0	7.5	86	1975.0	60	PKR.	CHOKE
2.	3" x 1,375			660.0	17.0	68	1881.0	60	"	8/64
3.	3" x 1,375			690.0	39.0	96	1634.0	60	"	12/64
4.	3" x 1,375			700.0	60.5	70	1371.0	60	"	16/64
5.							1073.0	60	"	20/64

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	9.249	48.47	313.2	.9759	1.307	1.022	584
2.	"	106.98	673.2	.9924	"	1.052	1350
3.	"	165.60	703.2	.9671	"	1.044	2021
4.	"	207.72	713.2	.9905	"	1.055	2624
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	TRACE TSTM	Mcf/bbl.
1.	.47	546	1.56	.958	A.P.I. Gravity of Liquid Hydrocarbons	51.1	
2.	1.00	528	1.51	.903	Specific Gravity Separator Gas	0.585	XXXXXXX
3.	1.05	556	1.59	.918	Specific Gravity Flowing Fluid	XXXXX	
4.	1.06	530	1.51	.898	Critical Pressure	672	P.S.I.A.
5.					Critical Temperature	350	R

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		2422.2	5867	611.0
2		2114.2	4470	2008.0
3		1803.2	3252	3226.0
4		1507.2	2272	4206.0
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.5402$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.4847$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.896$

posted 12-11-72

Absolute Open Flow	3,896	Mcf/d @ 15.025	Angle of Slope @	47.5°	Slope, n	0.915
Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA GAUGE @ 10,196 FEET						
Approved By Commission:	Conducted By:	Calculated By:	Checked By:			
	M.C.T.	R.L.W.	J.W.W.			