

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE : : FOR GAS WELL

10077-111
 Form C-122
 revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-19-73			
Company ADOBE OIL COMPANY				Connection TO AIR				MAY 1973	
Pool ROCK TANK				Formation ATOKA				Unit O. I. C. ARTESIA, DEEP	
Completion Date 4-10-73		Total Depth 10,300		Plug Back TD 10,250		Elevation 3874 GR.		Farm or Lease Name SMITH FEDERAL	
Csg. Size 5"	Wt. 17.0	d 4.892	Set At 10,300	Perforations: From 9704 To 9713		Well No. 2			
Tbg. Size 2 1/2"	Wt. 6.5	d 2.441	Set At 10,091	Perforations: From To		Unit Sec. Twp. Rge. P 11 23S 24E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple G.G. MULTIPLE						Packer Set At 10,091		County EDDY	
Producing Thru CASING		Reservoir Temp. °F 175 10,200		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State NEW MEXICO	
L 9709	H 9709	G _g .5819	% CO ₂ .62	% N ₂ .71	% H ₂ S TRACE	Prover	Meter Run 6"	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							CHOKE		2885.0		96 HRS
1.	6"	X	2.00"	800.0	2.0	96	8/64		2832.0	64	60 MIN
2.	6"	X	2.00"	660.0	15.0	70	14/64		2705.0	68	80 MIN
3.	6"	X	2.00"	740.0	49.0	78	18/64		2510.0	69	60 MIN
4.	6"	X	2.00"	900.0	70.0	48	22/64		2252.0	70	60 MIN
5.											

RATE OF FLOW CALCULATIONS							
NO.	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor F _{pv}	Rate of Flow Q, Mcfd		
1	813.2	0.9671	1.311	1.051	1029		
2	673.2	0.9905	1.311	1.052	2630		
3	753.2	0.9831	1.311	1.054	5000		
4	913.2	1.012	1.311	1.082	6926		
5.							

NO.	P ₁	Temp. °R	T ₁	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	1.21	536	1.59	.906		.5819	XXXXXX	672	350
2.	1.00	530	1.51	.903			XXXXX		
3.	1.12	538	1.54	.901					
4.	1.36	508	1.45	.854					
5.									

NO.	P ₁	P ₂	P ₃	P ₄	P ₅	P ₆	P ₇	P ₈	P ₉	P ₁₀
1	8095	2846.0	8100	300						
2	7389	2719.2	7394	1006						
3	6367	2531.2	6407	1082						
4	5131	2283.2	5213	3137						
5										

(1) $\frac{P_2^2}{P_1^2 - P_2^2} = 2.6357$

(2) $\left[\frac{P_2^2}{P_1^2 - P_2^2} \right]^n = 2.1990$

AOF = Q $\left[\frac{P_2^2}{P_1^2 - P_2^2} \right]^n = 15.230$

Gas Liquid Hydrocarbon Ratio TRACE Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons Deg.

Specific Gravity Separator Gas .5819 XXXXXXXXXX

Specific Gravity Flowing Fluid XXXXX

Critical Pressure 672 P.S.I.A. P.S.I.A.

Critical Temperature 350 R R

Absolute Open Flow <u>15.230</u> Mcfd @ 15.025		Angle of Slope <u>51.0°</u>		Slope, n <u>0.813</u>	
Remarks					