

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 1/14/88		FEB 17 '88	
Company Phillips Petroleum Company ✓						Connection waiting on gas sales contract			
Pool <i>St. Louis Hills Morrow</i> Anderson Penn. <i>Anderson Penn.</i>						Formation Morrow		Unit O. C. D. ARTESIA, OFFICE	
Completion Date 12/31/87		Total Depth 11,240		Plug Back TD 11,160		Elevation 3634 GR		Farm or Lease Name Grayburg Deep Unit	
Csg. Size 5-1/2"	Wt. 17#	d 4.892	Set At 11240'	Perforations: From 10891 To 10960			Well No. 10		
Tbg. Size 2-7/8"	Wt. 6.5#	d 2.441	Set At 10778'	Perforations: Open ended From To			Unit C	Sec. 19	Twp. Rge. 17-S 30-E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 10748'		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 184° 10926'		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico	
L *10926	H 10926	G _g .735	% CO ₂ .44	% N ₂ .54	% H ₂ S 0	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							1307			Choke	48 hrs.
1.	4"	x	.500	300	15.00	54°	1192			2/64	1 hr.
2.	4"	x	.500	330	52.00	64	1060			5/64	1 hr.
3.	4"	x	.750	330	18.00	71	878			7/64	1 hr.
4.	4"	x	.750	340	23.00	74	592			10/64	1 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	1.182	68.54	313.2	1.006	1.166	1.042	99
2	1.182	133.59	343.2	.9962	1.166	1.045	192
3	2.661	78.60	343.2	.9896	1.166	1.043	252
4	2.661	90.13	353.2	.9868	1.166	1.043	288
5.							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio <u>No fluid produced</u> Mcf/bbl.			
					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.			
					Specific Gravity Separator Gas <u>.734</u>		XXXXXXXXXX	
					Specific Gravity Flowing Fluid <u>XXXXX</u>			
					Critical Pressure <u>669</u> P.S.I.A.		P.S.I.A.	
					Critical Temperature <u>401</u> °R		°R	
5.								

P _c 1320.2 P _c ² ±731.9					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.020$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.786$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 450$			
1	1452.5	1207.5	1458.1	284.8				
2	1151.8	1095.3	1199.8	543.1				
3	794.2	938.2	880.1	862.8				
4	366.3	713.8	509.5	1233.4				
5								

Absolute Open Flow <u>450</u> Mcfd @ 15.025			Angle of Slope @ <u>50.5</u>		Slope, n <u>.825</u>	
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Remarks: P_w from measured BHP during test, converted to static surface pressure by Phillips in-house gas Flow Calculation, output attached.

Approved By Commission:	Conducted By: John West Eng.	Calculated By: J.C. Currie	Checked By: <i>[Signature]</i>
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