

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

File -
Form C-172
Revised 1-55
file

☒ Initial ☐ Annual ☐ Special				Test Date 8-23-78		MAY 21 1979	
Company ROLLY ENERGY INC.				Connection TO AIR		O.C.C. ARTESIA, OFFICE	
Well Name AVALON				Completion STRAWN		Unit _____	
Test Date 8-23-78		Total Depth 11,990'		Plug Depth 10,856'		Elevation 3201 GR.	
Well No. 1		Form or Lease Name AVALON FED. 22 Com.		Well No. 1		Unit Sec. Twp. Range B 32 20S 27E	
Casing Size 2 7/8"		Casing Weight 4.7#		Perforations From 9,490' To 9,516'		Well No. 1	
Perforations From 9,490' To 9,516'		Perforations From 9,490' To 9,516'		Perforations From 9,490' To 9,516'		Perforations From 9,490' To 9,516'	
Engine - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 9,474'		County EDDY	
Reservoir Temp. °F 169 @ 9,530'		Mean Annual Temp. °F 60		Baro. Press. - P ₀ 13.2		State NEW MEXICO	
G _g .720		% CO ₂ .223		% N ₂ 1.911		Prover _____	
Meter Run 3"		Taps FLANGE		Meter Run 3"		Taps FLANGE	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
No.	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		
1	1.250"	585	10	97	2120					
2	1.250"	620	14	90	1783					
3	1.250"	590	18	87	1345					
4	1.250"	635	19	86	998					

Coefficient (24 hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mcfd
7.577	77.34	598.2	.9671	1.215	1.053	725
7.577	94.15	633.2	.9723	1.215	1.059	892
7.577	104.20	603.2	.9750	1.215	1.058	990
7.577	110.98	648.2	.9759	1.215	1.062	1059

No.	P _w	T _g	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	556	1.46	.902						
2	550	1.44	.892						
3	547	1.43	.894						
4	546	1.43	.887						

* $P_c = 5159.7$ $P_c^2 = 9670.2$

No.	P _w	P _w ²	P _c ² - P _w ²
1	2481.9	6159.8	3510.4
2	2080.7	4329.3	5340.9
3	1634.7	2672.2	6998.0
4	1307.7	1710.1	7960.1

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.755$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.660$

AGG = 1.203

AGG = 1.203 Mcfd @ 15.025 Angle of Slope = 63.5 Slope, n = 500

*FROM KNOWN' BOTTOM HOLE PRESSURES MEASURED WITH AMERADA GAUGE.

EST. 2 BBLs OF CONDENSATE MADE DURING THE TEST.

Approved by Commission:	Conducted By: B.R.D.	Calculated By: R.R.	Checked By: J.W.W.
-------------------------	-------------------------	------------------------	-----------------------