

MEXICO OIL CONSERVATION COMM. ON
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-3-78			
Company Southland Royalty				Connection Southern Union			
Pool Antelope Ridge				Formation Morrow		Unit	
Completion Date 9-30-77		Total Depth 13608'		Plug Back TD 13240'		Elevation 3446' GL	
Form or Lease Name State AR							
Csg. Size 7 5/8"	Wt. 33.7	d 6.765	Set At 12200	Perforations: From 12806 To 13094		Well No. 1	
5 1/2"	17.0	4.892	1859-13648	Open Ended			
Tbg. Size 2 3/8"	Wt. 4.7	d 1.995	Set At 12615	From To		Unit Sec. Twp. Rge. C 35 23 34	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 12553'		County Lea	
Producing Thru Tubing		Reservoir Temp. °F -		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State New Mexico							
L	H	Gg	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run Taps X
-	-	0.649	0.19	1.01	0.00		

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. DWT	Temp. °F	Press. p.s.i.g.		Temp. °F
1.	2"	16/64	0.875	384	10.2	44	6700		Packer		70.0
2.							645				1.0
3.											
4.											
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	3.729	63.62	397.2	1.016	1.241	1.043	311.99
2							
3							
4							
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1	0.59	504	1.38	.920	A.P.I. Gravity of Liquid Hydrocarbons	-	Deq.
2					Specific Gravity Separator Gas	0.649	X X X X X X X X
3					Specific Gravity Flowing Fluid	X X X X X	-
4					Critical Pressure	671	P.S.I.A. - P.S.I.A.
5					Critical Temperature	365	R - R

NO.	P _c ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1						
2						
3						
4						
5						

Absolute Open Flow 311.99 Mcfd @ 15.025		Angle of Slope θ -	Slope, n -
Remarks: Due to Mechanical Problems & Low Volume One Rate was Used for AOF			
Approved By Commission:	Conducted By: JARREL SERVICES, INC.	Calculated By: Joe A. Coleman	Checked By: Don R. Craig



OF NEW MEXICO

P. O. BOX 1499

PHONE (505) 393-7751

HOBBS, NEW MEXICO 88240

No. 7200

Run No.

Date of Run 3-07-78

Date Secured

CERTIFICATE OF ANALYSIS

A Sample of Southland Royalty St. AR #1
Secured from Jarrel Services
At Box 1654
Hobbs, New Mexico 88240
Secured by
Time Date
Sampling conditions Press
Temp.

FRACTIONAL ANALYSIS

Percentage Composition

	MOL %	LIQ. %	G.P.M.
Carbon Dioxide	.19		
Air			
Nitrogen	1.01		
Oxygen			
Hydrogen sulfide			
Hydrogen			
Methane	88.82		
Propane	5.62		1.499
Isobutane	2.19		.601
Normal butane			.331
Pentane	.39		
Isopentane	.65		
Hexane			.182
Heptane	.26		
Octane	.24		
Nonane	.63		.268
Decane			
Undecane			
Dodecane			
Tridecane			
Sum	100.00		2.881

Calc. Sp. Gr. .649
Calc. A.P.I.
Calc. Vapor Press. PSIA
Sp. Gr.
Mol. Wt.

LIQUID CONTENT (GAL./MCF)

Propane Calc. G.P.M.
Butanes Calc. G.P.M.
Pentanes Plus. G.P.M.
Ethane Calc. G.P.M.
RVP Gasoline G.P.M.
B.T.U./Cu. Ft. @ XXXXX P.S.I.A.
Dry Basis 1133
Wet Basis 1113
Sulfur Analysis by Titration
Gr./100 Cu. Ft.
Hydrogen Sulfide
Mercaptans
Sulfides
Residual Sulfur
Total Sulfur

Run by Deane Simpson Checked by Approved by Debbie McIntyre

Additional Data and Remarks

RECEIVED

MAR 22 1978

GIL CONSERVATION COMM.
HOBBS, N. M.