

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT ANALYSIS - NE POINT BACK PRESSURE TEST - R GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 11-9-73	
Company El Paso Natural Gas Company				Connection None		
Pool Rhodes Storage				Formation Yates		Unit H
Completion Date 11-9-73		Total Depth 3110		Plug Back TD 3074		Elevation 2953 Gr.
Farm or Lease Name Rhodes GSU		Well No. 15				
Csg. Size 4 1/2	Wt. 10.5	d	Set At 3110	Perforations: From 2713 To 2993		Unit H
Tbg. Size 2 3/8	Wt. 4.7	d	Set At 2639	Perforations: From To		Sec. 9
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At		Twp. 26
Producing Thru Tbg.		Reservoir Temp. °F 8		Mean Annual Temp. °F		County Lea
Baro. Press. - P _a		State New Mexico		Taps		
L	H	G _a Assumed .650	% CO ₂	% N ₂	% H ₂ S	Flow Positive Chokes

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							360		359		18 hrs.
1.	2 x 1/8			358			358	54	358	54	30 min.
2.	2 x 3/16			355			355	60	355	60	30 min.
3.	2 x 7/32			349			349	60	351	60	45 min.
4.	2 x 1/4			347			347	62	350	62	30 min.
5.	2 x 3/8			320			320	68	336	68	1 hr.

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	.2618		371.2	1.006	1.240	1.041	126
2	.6101		368.2	1.000	1.240	1.038	289
3	.8419		362.2	1.000	1.240	1.038	392
4	1.112		360.2	.9981	1.240	1.038	515
5	2.591		333.2	.9924	1.240	1.033	1,097

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1	.55	514	1.37	.923	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2	.55	520	1.39	.928	Specific Gravity Separator Gas .650 XXXXXXXXXX
3	.54	520	1.39	.929	Specific Gravity Flowing Fluid XXXXXX
4	.54	522	1.39	.929	Critical Pressure 670 P.S.I.A. _____ P.S.I.A.
5	.50	528	1.41	.938	Critical Temperature 375 °R _____ °R

P _c 373.2 P _c ² 139.3	
NO	P _t ² P _w ² P _w ² - P _t ² P _c ² - P _w ²
1	371.2 137.8 1.5
2	368.2 135.6 3.7
3	364.2 132.6 6.7
4	363.2 131.9 7.4
5	349.2 121.9 17.4

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = \frac{8.010}{17.4 - 1.5} = 0.46$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{6.008}{17.4 - 1.5} = 0.34$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 6.591$$

Absolute Open Flow 6,591 Mcfd @ 15.025	Angle of Slope 49.25	Slope, n .862
Remarks: _____		
Approved By/Commission: _____ Conducted By: _____ Calculated By: _____ Checked By: _____		
Kiker, Pagan, Reston Pagan and Reston		