

No. MEXICO OIL CONSERVATION COMMS /N
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-5-69		RECEIVED BIOLOGICAL SURVEY LATEST, NEW MEXICO	
Company PENNZOIL UNITED, INC.				Connection NONE			
Pool UNDESIGNATED				Formation MORROW GAS		Unit 320	
Completion Date 2-22-69		Total Depth 11528'		Plug Back TD 11479'		Elevation 3339' GL	
Csg. Size 4 1/2"		Wt. 10.6		Set At 11528'		Perforations: From 11085' To 11447'	
Tbg. Size 2 3/8"		Wt. 4.7		Set At 11040'		Perforations: From OPEN To ENDED	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 11040'		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 187 @ 11000'		Mean Annual Temp. °F -		Baro. Press. - P _a 13.2	
L 11266'		H -		Gg 0.581		% CO ₂ 1.27	
						% N ₂ 0.16	
						% H ₂ S 0.00	
						Prover -	
						Meter Run X	
						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. DWT	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							3613		PKR		20.0
1.	4x1 1/4"		10/64	630	91	76	2068	62	-	-	3.0
2.	4x1 1/4"		9/64	630	63	90	2241	63	-	-	1.0
3.	4x1 1/4"		8/64	630	47	90	2435	64	-	-	1.0
4.	4x1 1/4"		6/64	600	21	82	2880	64	-	-	2.0
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	6.031	241.92	643.2	0.9850	1.312	1.044	1968.5
2	6.031	201.29	643.2	0.9723	1.312	1.039	1609.1
3	6.031	173.88	643.2	0.9723	1.312	1.039	1390.0
4	6.031	113.49	613.2	0.9795	1.312	1.038	913.0
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	0.95	536	1.56	0.918	DRY GAS	-
2.	0.95	550	1.60	0.927	A.P.I. Gravity of Liquid Hydrocarbons	-
3.	0.95	550	1.60	0.927	Specific Gravity Separator Gas	0.581
4.	0.90	542	1.59	0.929	Specific Gravity Flowing Fluid	XXXXXX
5.					Critical Pressure	679
					Critical Temperature	344

$P_c = 4598.2$ $P_c^2 = 21143.4$				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.109$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.940$	
NO.	P _t ²	P _w ²	P _w ² *	P _c ² - P _w ²		
1	-	2762.2	7629.7	3513.7		
2	-	2939.2	8638.9	2504.5		
3	-	3327.2	11070.3	10073.1		
4	-	3787.2	14342.9	6800.5		
5						

Absolute Open Flow <u>2700</u> Mcfd @ 15.025			Angle of Slope θ <u>46° 27'</u>	Slope, n <u>0.951</u>
Remarks: * BHP @ (-7927') 11266' USED FOR PRESSURE CALCULATIONS				
<i>Joe A. Coleman</i>				
Approved By Commission:	Conducted By:	Calculated By:	Checked By:	
COLEMAN PET.ENG.	JOE A. COLEMAN	JOE A. COLEMAN	JOE A. COLEMAN	