

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☐ Initial ☐ Annual ☒ Special						Test Date 4-14-81			
Company ARCO Oil & Gas Company				Connection Gas Company of New Mexico					
Pool Cataclaw Draw Morrow				Formation Morrow				Unit	
Completion Date 1-22-81		Total Depth 10552'		Plug Back TD 10464'		Elevation 3297		Farm or Lease Name Pure Federal	
Csq. Size 5 1/2"	Wt. 17#	d 4.892	Set At 10552'	Perforations: 10216 10229 From 10255 To 10267		Well No. 2			
Tbg. Size 2 3/8"	Wt. 4.7#	d 1.995	Set At 10136	Perforations: From 10144 To		Unit P	Sec. 11	Twp. 21	Rge. 25
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 10141'		County Eddy	
Producing Thru Tbg.		Reservoir Temp. °F 175° 10241		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico	
L 10141	H 10141	G _g .582	% CO ₂ .36	% N ₂ .24	% H ₂ S -0-	Prover	Meter Run 4.026	Taps Flg.	

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							2282		Pkr.		24 Hrs.
1.	4 x 2.250			419	2.56	49	2087	62	Pkr.		1 Hr.
2.	4 x 2.250			418	9	44	1883	62	Pkr.		1 Hr.
3.	4 x 2.250			415	17.64	54	1665	60	Pkr.		1 Hr.
4.	4 x 2.250			418	34.81	61	1248	60	Pkr.		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	25.64	33.26	432.2	1.011	1.311	1.039	1174
2	25.64	62.30	431.2	1.016	1.311	1.040	2213
3	25.64	86.91	428.2	1.006	1.311	1.036	3045
4	25.64	122.52	431.2	.9990	1.311	1.035	4258
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1	.64	509	1.45	.927	A.P.I. Gravity of Liquid Hydrocarbons	Dry	Deq.
2	.64	504	1.44	.925	Specific Gravity Separator Gas	.582	X X X X X X X X
3	.63	514	1.47	.932	Specific Gravity Flowing Fluid	X X X X X	Dry Gas
4	.64	521	1.49	.934	Critical Pressure	675	P.S.I.A.
5					Critical Temperature	350	R

NO.	P _t 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	2673.2	7146.0	1294.2	1.681	1.632	
2	2451.2	6008.4	2431.8			
3	2244.2	5036.4	3403.8			
4	1849.2	3419.5	5020.7			
5						

Absolute Open Flow				6949	Mcf/d @ 15.025	Angle of Slope @	51° 47'	Slope, n	0.943
Remarks: BHP measured at mid point of perforations 10,241'									
Approved By Division			Conducted By: J. D. Cogburn		Calculated By: J. D. Cogburn		Checked By: T. D. McCallister		