

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date				
Company EP Operating Company				Connection unconnected					
Pool West Caprock				Formation Morrow			Unit		
Completion Date 10-27-87		Total Depth 11250		Plug Back TD 11046		Elevation 4425.3 KB		Farm or Lease Name State 24	
Coq. Size 5 1/2	Wt. 17	d 4.892	Set At 11250	Perforations: From 10989 To 10999			Well No. 1		
Thg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 10970	Perforations: From To			Unit Sec. Twp. Rge. C 24 12S 31E		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10954			County Chaves		
Producing Thru Tubing		Reservoir Temp. °F 172 @ 10894		Mean Annual Temp. °F 70		Baro. Press. - P _a 13.2		State New Mexico	
L 10994	H 10994	G _g 0.6951	% CO ₂ 0.386	% N ₂ 0.950	% H ₂ S None	Proves	Meter Run 250x100	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.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI	46.5 hours						2426	70	Pkr.		
1.	4" x 1.250"			200	3	90	2371	70	"		60 min.
2.	4" x 1.250"			200	10.5	88	2326	70	"		60 min.
3.	4" x 1.250"			205	34	84	2259	70	"		60 min.
4.	4" x 1.250"			205	80	73	2148	70	"		60 min.
5.	4" x 1.250"			245	88	68	2075	70	"		60 min.

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	7.469	25.2903	213.2	0.9723	1.200	1.020	224.801
2	7.469	47.3138	213.2	0.9741	1.200	1.020	421.342
3	7.469	86.1325	218.2	0.9777	1.200	1.021	770.626
4	7.469	132.1212	218.2	0.9877	1.200	1.022	1195.342
5	7.469	150.7369	258.2	0.9924	1.200	1.027	1376.957

NO.	R _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	24.882	Mcf/bbl.
1					A.P.I. Gravity of Liquid Hydrocarbons	60.1	Deg.
2	Used Simplified				Specific Gravity Separator Gas	0.6951	X X X X X X X X
3	Supercompressibility Tables				Specific Gravity Flowing Fluid	X X X X X	
4					Critical Pressure	669	P.S.I.A.
5					Critical Temperature	384	R

P _f 3636.2	P _f ² 13222		
NO.	P _i ²	P _s ²	P _f ² - P _s ²
1	3592.2	12904	318
2	3549.2	12597	625
3	3449.2	11897	1325
4	3285.2	10793	2429
5	3175.2	10082	3140

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 4.21083$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3953.269$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.87102$$

Absolute Open Flow	3953.269	Mcf/d @ 15.025	Angle of Slope	53° 44'	Slope, n	0.7336
Remarks:						

Approved By Division PK	Conducted By: Tefteller, Inc.	Calculated By: D. Phelps	Checked By:
NOV 13 1987			