

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

RECEIVED

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

NOV 22 1982

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 11/15/82		NOV 22 1982	
Company Harvey E. Yates Company ✓		Connection None		O. C. D. ARTESIA, OFFICE	
Pool Undesignated		Formation Morrow		Unit	
Completion Date 6/19/82		Total Depth 12574'		Plug Back TD 11912'	
Elevation 3762' GR		Farm or Lease Name Mesquite 34 Federal		Well No. 1	
Coq. Size 4.500	Wt. 13.5	d 3.920	Set At 12574'	Perforations: From 11821 To 11893'	
Trq. Size 2.375	Wt. 4.7	d 1.995	Set At 11779'	Perforations: From Open To Ended	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At 11779'	
Producing Thru Tubing		Reservoir Temp. °F 192 @ 11857'		Mean Annual Temp. °F 60	
Baro. Press. - P _a 13.2		State New Mexico		County Eddy	
L 11857	H 11857	G _g .7234	% CO ₂ 3.652	% N ₂ 1.330	% H ₂ S -
Prover -		Meter Run 2.900		Taps F	

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							3270		PACKER		
1.	2.900	5/64	.750	500	10.5	80	2830	55			1.0 hr
2.	2.900	6/64	.750	455	21.0	84	2620	56			1.0 hr
3.	2.900	7/64	.750	430	38.0	84	2295	58			1.0 hr
4.	2.900	8/64	.750	440	67.0	84	1890	58			1.0 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, Mscf/d
1	2.675	73.41	513.2	.9813	1.176	1.053	239
2	2.675	99.16	468.2	.9777	1.176	1.047	319
3	2.675	129.77	443.2	.9777	1.176	1.044	417
4	2.675	174.25	453.2	.9777	1.176	1.045	560
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	.75	540	1.39	.902	42.6	
2	.68	544	1.40	.913	56 @ 60°	
3	.65	544	1.40	.917	A.P.I. Gravity of Liquid Hydrocarbons	Deq.
4	.66	544	1.40	.916	Specific Gravity Separator Gas	XXXXXX
5					Specific Gravity Flowing Fluid	XXXXXX
					Critical Pressure	684 P.S.I.A.
					Critical Temperature	388 °R

NO.	P _r 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	2844.7	8092.3	2691.0		1.5092	1.4212
2	2635.8	6947.4	3835.9			
3	2310.3	5337.5	5445.8			
4	1907.4	3638.2	7145.1			
5						

Absolute Open Flow				Angle of Slope		Slope, n	
796 Mcfd @ 15.025				49.5		.854	

Remarks:			
Approved By Division _____ Conducted By: JARREL WELL TESTING INC Calculated By: D. Townley Checked By: PE #2208 Joe A. Coleman			