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FileSTATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

DEC 14 '87

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

O. C. D.

AORIS/OFFICE

Type Test 4 Point ☒ Initial ☐ Annual ☐ Special		Test Date 11-20-87	
Company Santa Fe Operating Partners		Connection To Air	
Pool W. SAND ONE MORROW		Formation Morrow	
Completion Date 11-18-87		Total Depth 15220	
Plug Back TD 14655		Elevation	
Farm or Lease Name Sterling Silver 34 Fed		Well No. 1	
Coq. Size 4,500	Wt. 13.5	d 3.920	Set At 15220
Perforations: From 14484 To 14490		Well No. 1	
Thq. Size 2.375	Wt. 4.7	d 1.995	Set At 14413
Perforations: From Open To Ended		Unit E	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single		Packer Set At	
Producing Thru Tubing		County Eddy	
Reservoir Temp. °F 212 @ 14487		State New Mexico	
Mean Annual Temp. °F 60		Bare. Press. - P _a 13.2	
L 14487	H 14487	G _g 0.568	% CO ₂ 0.74
% N ₂ 0.39	% H ₂ S 0	Prover 0	Meter Run 4.026
Taps Fling.			

FLOW DATA						TUBING DATA		BHP DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI							5895	74	7449	212
1.	4.026	2.250	510	3.0	101	5581	74	7154	212	60 Min.
2.	4.026	2.250	450	7.0	96	5252	71	6829	212	60 Min.
3.	4.026	2.250	390	12.5	84	4789	63	6319	212	60 Min.
4.	4.026	2.250	775	17.5	81	4255	58	5909	212	60 Min.
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, F _{pv}	Rate of Flow Q, Mcfd
1	25.64	39.62	523.2	0.9628	1.3272	1.0297	1337
2	25.64	59.94	463.2	0.9671	1.3272	1.0273	1925
3	25.64	70.99	403.2	0.9777	1.3272	1.0263	2424
4	25.64	117.45	788.2	0.9804	1.3272	1.0521	4123
5.							

NO.	P ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio	A.P.L. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.77	561	1.62	0.943	0	0	0.568	XXXXXX	677	346
2	0.68	556	1.61	0.947						
3	0.60	544	1.57	0.949						
4	1.16	541	1.56	0.903						
5										

NO.	P ₁	P _w	P _w ²	P ₁ ² - P _w ²
1		5656	31993	3040
2		5369	28830	6204
3		4924	24243	10790
4		4569	20879	14154
5				

(1) $\frac{P_1^2}{P_1^2 - P_w^2} = 2.4751$		(2) $\left[\frac{P_1^2}{P_1^2 - P_w^2} \right]^n = 2.2607$	
AOR = Q $\left[\frac{P_1^2}{P_1^2 - P_w^2} \right]^n = 9320.8$		Post ID-2 1-27-88 comp & BK	

Absolute Open Flow	9321	Mcf @ 15.025	Angle of Slope θ	48	Slope, n	0.900
Remarks: Bottom Hole Pressures by Flopetrol Johnston						
Approved By Division						
Conducted By:						
Calculated By:						
Checked By:						