

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

dst
file

Type Test		☒ Initial		☐ Annual		☐ Special		Test Date		10-05-90	
Company						Connection					
Santa Fe Energy Resources, Inc.											
Pool						Formation					
E. Garbados Wolfcamp						Wolfcamp					
Completion Date				Total Depth		Plug Back TD		Elevation		Farm or Lease Name	
9-29-90				11960		10476		3135.8 KB		Walker	
Csg. Size		Wt.		Set At		Perforations		From		To	
5 1/2		17		11960		From 9583		To 9873		Well No. 1	
Thq. Size		Wt.		Set At		Perforations		From		To	
2 3/8		4.7		1.995		9402		From OPEN		To END	
Type Well - Single - Broadhead - G.C. or G.O. Multiple						Packer Set At		County			
Single						9402		Eddy			
Producing Thru		Reservoir Temp. °F		Mean Annual Temp. °F		Baro. Press. - P _g		State			
TBG		170 9583		60		13.2		New Mexico			
L		H		C _g		% CO ₂		% N ₂		% H ₂ S	
9402		9402		.701		.57		.76		---	
Prover		Meter Run		Taps							
		3.068		FLG							
FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. in. H ₂ O	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							2550		PKR		72 hrs.
1.	3	X	.750	685	5.00	71	2379		PKR		1 hr.
2.	3	X	.750	680	9.50	78	2255		PKR		1 hr.
3.	3	X	.750	670	19.50	75	2118		PKR		1 hr.
4.	3	X	.750	665	43.00	74	1905		PKR		1 hr.
5.											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor F _{sp}	Rate of Flow Q, Mcd				
1	2.672	59.09	698.2	.9896	1.194	1.085	202				
2	2.672	81.15	693.2	.9831	1.194	1.083	276				
3	2.672	115.42	683.2	.9859	1.194	1.083	393				
4	2.672	170.77	678.2	.9868	1.194	1.081	581				
5											
NO.	P _r	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio 14.1 Mcd/bbl.						
1	1.04	531	1.35	.850	A.P.I. Gravity of Liquid Hydrocarbons 59.5 Deg.						
2	1.03	538	1.37	.852	Specific Gravity Separator Gas XXXXXXXXXX						
3	1.02	535	1.36	.853	Specific Gravity Flowing Fluid XXXXX GMIX .891						
4	1.01	534	1.36	.855	Critical Pressure 668 P.S.I.A. 662 P.S.I.A.						
5					Critical Temperature 392 R 454 R						
P _c 2563.2 P _c ² 6570.0					(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 2.280$ (2) $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 2.280$						
NO.	P _r ²	P _w	P _r ²	P _r ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1.325$						
1		2392.4	5723.7	846.3							
2		2268.7	5146.8	1423.2							
3		2132.2	4546.1	2023.9							
4		1920.4	3687.9	2882.1							
5											
Absolute Open Flow 1,325 Mcd @ 15.025					Angle of Slope θ 45			Slope, n 1.000			
Remarks: Well made 4.3 BBLs of 59.5 API GR. CONDENSATE during test											
Approved By Division				Conducted By: Pro Well Testers				Calculated By: BM			
								Checked By: BM			