

OCT 05 2009

Type Test		☐ Initial ☐ Annual ☒ Special		Test Date		12-14-84	
Company				Connection			
SANTA FE ENERGY				AIR NEW WELL			
Pool				Formation			
SOUTH CARLSBAD				MORROW			
Completion Date		Total Depth		Plug Back		Elevation	
12-11-84		11985.		11985.		0.	
Frm. Size		Wt.	d	Set At	Perforations:		Frm or Lease Name
5.500		17.2	4.892	12120.	From 11795. To 11802.		LOVELACE
Frm. Size		Wt.	d	Set At	Perforations:		Well No.
2.375		4.7	1.995	11712.	From 0. To 0.		#1
Type Well - Single - Hinderhead - G.G. or G.O. Multiple				Packer Set At		County	
SINGLE				11712.		EDDY	
Producing Thru		Reservoir Temp. °F		Mean Annual Temp. °F		State	
TUBING		192.0 11798.		60.0		NEW MEXICO	
L	H	Cg	% CO ₂	% N ₂	% H ₂ S	Prover	Motor Run
11798.	11798.	0.580	0.	0.	0.	0.	4.0
							Tap
							FLANGE

FLOW DATA						TUBING DATA		B.H.P. DATA		Duration of Flow	
NO	Prover Line Size	X	Orifice Size	Pres. p.s.i.g.	Diff. h _w	Temp. °F	Pres. p.s.i.g.	Temp. °F	Pres. p.s.i.g.		CHOKE
1	4.03 X 2.250			390.	2.0	80.	4849.	64.	3695.	7/64	2.0
2	4.03 X 2.250			390.	3.5	75.	4625.	192.	3300.	9/64	1.0
3	4.03 X 2.250			400.	7.0	71.	4579.	192.	3250.	13/64	1.0
4	4.03 X 2.250			420.	12.0	71.	4251.	192.	2985.	18/64	1.0
5							3912.	192.	2630.		

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, Fpv	Rate of Flow Q, Mhd
1	25.64	28.40	403.2	0.9813	1.3131	1.0292	966.
2	25.64	37.57	403.2	0.9859	1.3131	1.0302	1285.
3	25.64	53.78	413.2	0.9896	1.3131	1.0318	1849.
4	25.64	72.10	433.2	0.9896	1.3131	1.0333	2482.
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NO	P _h	Temp. °F	T _g	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbon	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.60	540.	1.53	0.944	0.	0.	0.580	X X X X X X X X	674.	352.
2	0.60	535.	1.52	0.942						
3	0.61	531.	1.51	0.939						
4	0.64	531.	1.51	0.937						
5										

NO	P _c	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.6040$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.4799$
1	21512.	4496.	20211.	3408.		
2	21087.	4453.	19831.	3787.		
3	18180.	4135.	17101.	6517.		
4	15405.	3814.	14549.	9070.		
5						

Absolute Open Flow				Mhd @ 14.7 PSIA		Angle of Slope °		Slope, n	
6155.						46.5		.949	

Report BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE ELEMENTS.

Approved By Commission	Conducted By	Calculated By	Checked By
	RICKY HATCHETT	BENNETT & CATHEY INC.	