

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78457
File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 07-07-90			
Company SANTA FE ENERGY RESOURCES, INC.				Connection Air					
Pool San Juan Poker Lake				Formation Morrow				Unit	
Completion Date 7-4-90		Total Depth 14,821		Plug Back TD 14,702		Elevation 3333.7		Farm or Lease Name N. Pure Gold "8" Fed.	
Csg. Size 7	Wt. 29 x 26	d	Set At 11,718	Perforations: From 13,966 To 13,972		Well No. 1			
Thq. Size 2 3/8	Wt.	d	Set At 13,862	Perforations: From OPEN To END		Unit I		Sec. 8	Twp. 2
Type Well - Single - Brdenhead - G.C. or G.O. Multiple Single				Packer Set At		County Eddy			
Producing Thru Tubing		Reservoir Temp. °F 195 @ 13,986		Mean Annual Temp. °F 60		Baro. Press. - P _g 13.2		State New Mexico	
L	H	G _g .666	% CO ₂ .52	% N ₂ .46	% H ₂ S	Prover	Meter Run 3	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.	
SI							7310		PKR	
1.	3	X	2.25	900	2	110	6709		PKR	1 hr.
2.	3	X	2.25	900	5	110	6550		PKR	1 hr.
3.	3	X	2.25	900	10	96	5732		PKR	1 hr.
4.	3	X	2.25	900	22	70	4560		PKR	1 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, Mcfd
1	28.78	42.736	913.2	.9551	1.225	1.071	1541
2	28.78	67.572	913.2	.9551	1.225	1.071	2437
3	28.78	95.561	913.2	.9670	1.225	1.078	3514
4	28.78	141.740	913.2	.9905	1.225	1.096	5427
5.							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

P _c 9155.2 P _c ² 83817.7			
NO.	P _t ²	P _w	P _w ² P _c ² - P _w ²
1		8659.2	74981.7 8835.9
2		8336.2	69492.2 14325.5
3		7504.2	56313.2 27504.7
4		6410.2	41090.7 42727.0
5			

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.96$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 9187$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.69$$

Post ID-2
8-24-90
comp & BK

Absolute Open Flow	9187	Mcfd @ 15.025	Angle of Slope @ 52	Slope, n .78
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Remarks: Bottom hole pressures recorded with Amerada type gauge

Approved By Division	Conducted By:	Calculated By: M. Kelly	Checked By:
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