

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-12
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

FEB 07 1991

Type Test ☒ Initial ☐ Annual ☐ O.C.D. ☐ Special		Test Date 7-24-89	
Company <i>The Southern Oil Co.</i> FRED POOL DRILLING CO.		Connection AIR	
Pool <i>Four Ranch Pre-Permian</i>		Formation WOLF CAMP <i>Pre-Permian</i>	
Completion Date 7-22-89	Total Depth 5379	Plug Back TD 5359	Elevation 3808
Farm or Lease Name EASTLAND <i>St.</i>		Well No. 4	
Csg. Size 5 1/2	WI. d	Set At TD	Perforations: From 5280 To 5290
Tbg. Size 2-3/8	WI. d	Set At 5244	Perforations: From To
Type Well - Single - Dradhead - G.G. or G.O. Multiple MULTIPLE		Packer Set At 5244	County CHAVES
Producing Thru TUBING	Reservoir Temp. °F 8	Mean Annual Temp. °F 60	Baro. Press. - P _g 13.2
L	H	Gg .61	% CO ₂
		% N ₂	% H ₂ S
		Prover 2	Meter Run
		Taps	

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							1145		850	
1.	2		3/32	1105		60	1105		850	1 HR.
2.	2		3/16	925		60	925		860	"
3.	2		1/4	797		60	797		860	"
4.	2		3/8	450		60	450		860	"
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, Fpv	Rate of Flow Q, Mcfd
1	.141		1118.2	1.000	1.2804	1.104	223
2	.0682		938.2	1.000	1.2804	1.087	794
3	1.087		810.2	1.000	1.2804	1.074	1212
4	2.378		463.2	1.000	1.2804	1.041	1468
5							

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

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		1212	1468	100
2		1021	1042	526
3		893	797	771
4		536	288	1280
5				

$P_c = 1252.2$ $P_c^2 = 1568.6$
 (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2255$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1624$
 $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1706$

Absolute Open Flow	1706	Mcfd @ 15.025	Angle of Slope θ	53.5	Slope, n	.74
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Remarks: ALL BOTTOM HOLE PRESSURES DONE WITH AMERADA TYPE GAUGE

Approved By Division	Conducted By: KELTIC SERVICES	Calculated By: MIKE KELLY	Checked By:
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