

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☐ Initial ☒ Annual ☐ Special					Test Date 3-26-73		APR 2 1973	
Company The Superior Oil Company				Connection Llano, Inc. - 1-31-73			O. C. C. ARTESIA, OFFICE	
Pool Undesignated South Carlsbad (Strawn)				Formation Strawn			Unit	
Completion Date 10-30-72		Total Depth 11,915		Plug Back TD 11,825		Elevation KB: 3196		Farm or Lease Name Ryan Com
Csg. Size 7"	Wt. 26#&23#	d 11,915'	Set At 11,915'	Perforations: 10,484 to 10,490' From 10,493' To 10,500'			Well No. 1	
Tbg. Size 2-3/8"	Wt. 4.7#	d 1,995	Set At 10,386'	Perforations: From To			Unit Sec. Twp. Rge. D 5 23-S 27-E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Dual - G. G.				Packer Set At 10,386'		County Eddy		
Producing Thru Tbg		Reservoir Temp. °F 167 @ 10,490		Mean Annual Temp. °F 60°F		Baro. Press. - P _a 13.2		State New Mexico
L 10,386	H 10,386	Gg .610	% CO ₂ ---	% N ₂ ---	% H ₂ S ---	Prover ---	Meter Run 6"	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.	Temp. °F	
SI							3542		Pkr	- -	
1.	6"	x	2.00"	605	5.4	103	3362	60°	- -	- -	1/2 hr
2.	6"	x	2.00"	610	9.9	102	3239	60°	- -	- -	3/4 hr
3.	6"	x	2.00"	615	16.0	96	3076	60°	- -	- -	3/4 hr
4.	6"	x	2.00"	630	22.0	91	2873	60°	- -	- -	1/2 hr
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	19.16	57.778	618.2	.9610	1.280	1.043	1,420
2	19.16	78.547	623.2	.9619	1.280	1.043	1,933
3	19.16	100.260	628.2	.9671	1.280	1.045	2,485
4	19.16	118.960	643.2	.9715	1.280	1.049	2,973
5.							

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio ** 1500 Mcf/bbl.
1.	.9213	563	1.555	.9200	A.P.I. Gravity of Liquid Hydrocarbons 57.2 Deg.
2.	.9288	562	1.552	.9190	Specific Gravity Separator Gas .610 X X X X X X X X X
3.	.9362	556	1.536	.9149	Specific Gravity Flowing Fluid X X X X X .611
4.	.9585	551	1.522	.9098	Critical Pressure 671 P.S.I.A. 671 P.S.I.A.
5.					Critical Temperature 362 R 362 R

P _c 3555.2 P _c ² 12639				
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1	11392	3385.8	11464	1175
2	10577	3265.5	10663	1976
3	9543	3120.2	9736	2903
4	8330	2932.0	8597	4042
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = \frac{3.1269}{1} = 3.1269$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1.990}{1} = 1.990$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5916$$

Absolute Open Flow 5916 Mcfd @ 15.025	Angle of Slope θ _____	Slope, n .6051
--	-------------------------------	-----------------------

Remarks: ** Gas liquid hydrocarbon ratio estimated as produced fluids from dual completion are commingled at the surface.

Approved By Commission:	Conducted By: James C. Willner	Calculated By: James C. Willner	Checked By:
-------------------------	--	---	-------------

J.C. Willner