

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

clsf File

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 4-4-88																																																																																															
Company ELK OIL COMPANY ✓				Connection AIR RECEIVED																																																																																															
Pool ECC. RANCH WOLF CAMP				Formation WOLFCAMP																																																																																															
Completion Date 4-5-88		Total Depth 5400		Plug Back TD 5360																																																																																															
Ceq. Size 4 1/2		Set At TD		Perforations: From 5283 To 5388																																																																																															
Yng. Size 2-3/8		Set At 5200		Perforations: From OPEN To ENDED																																																																																															
Type Well - Single - Drdendhead - G.G. or G.O. Multiple SINGLE				Packer Set At 5200																																																																																															
Producing Thru TUBING		Reservoir Temp. °F 60		Baro. Press. - P _a 13.2																																																																																															
L		H		County CHAVES																																																																																															
G _g .72		% CO ₂		% H ₂ S																																																																																															
Prover 2"		Meter Run		Taps																																																																																															
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="6">FLOW DATA</th> <th colspan="2">TUBING DATA</th> <th colspan="2">CASING DATA</th> <th rowspan="2">Duration of Flow</th> </tr> <tr> <th>NO.</th> <th>Prover Line Size</th> <th>X</th> <th>Orifice Size</th> <th>Press. p.s.i.g.</th> <th>Diff. hw</th> <th>Temp. °F</th> <th>Press. p.s.i.g.</th> <th>Temp. °F</th> <th>Press. p.s.i.g.</th> <th>Temp. °F</th> </tr> <tr> <td>SI</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1075</td> <td></td> <td>PACKER</td> <td></td> <td></td> </tr> <tr> <td>1.</td> <td>2</td> <td>x</td> <td>1/8</td> <td>1000</td> <td></td> <td>55</td> <td>1000</td> <td></td> <td>"</td> <td></td> <td>1 hr.</td> </tr> <tr> <td>2.</td> <td>2</td> <td>x</td> <td>7/32</td> <td>720</td> <td></td> <td>60</td> <td>720</td> <td></td> <td>"</td> <td></td> <td>"</td> </tr> <tr> <td>3.</td> <td>2</td> <td>x</td> <td>1/4</td> <td>580</td> <td></td> <td>60</td> <td>580</td> <td></td> <td>"</td> <td></td> <td>"</td> </tr> <tr> <td>4.</td> <td>2</td> <td>x</td> <td>5/16</td> <td>390</td> <td></td> <td>60</td> <td>390</td> <td></td> <td>"</td> <td></td> <td>"</td> </tr> <tr> <td>5.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	SI							1075		PACKER			1.	2	x	1/8	1000		55	1000		"		1 hr.	2.	2	x	7/32	720		60	720		"		"	3.	2	x	1/4	580		60	580		"		"	4.	2	x	5/16	390		60	390		"		"	5.											
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1.	2	x	1/8	1000		55	1000		"		1 hr.																																																																																								
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RATE OF FLOW CALCULATIONS																																																																																																			
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super. Compres. Factor, F _{pv}	Rate of Flow Q, Mcfd																																																																																												
1	.2648		1013.2	1.005	1.1785	1.1529	366																																																																																												
2	.8393		733.2	1.000	1.1785	1.0993	697																																																																																												
3	1.0870		593.2	1.000	1.1785	1.0776	818																																																																																												
4	1.6720		403.2	1.000	1.1785	1.0520	840																																																																																												
5																																																																																																			
NO.	F _g	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/obl. A.P.I. Gravity of Liquid Hydrocarbons _____ Deg. Specific Gravity Separator Gas _____ X X X X X X X X Specific Gravity Flowing Fluid _____ X X X X X Critical Pressure _____ P.S.I.A. _____ P.S.I.A. Critical Temperature _____ R _____ R																																																																																														
1																																																																																																			
2																																																																																																			
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P _c 1745.2 P _c ² 1550.5 (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.4325$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.3242$ AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1084$ Post ID-2 5-27-88 comp + BH																																																																																																			
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²																																																																																															
1		1164.2	1936.8	386.3																																																																																															
2		856.2	733.0	817.4																																																																																															
3		684.2	468.1	1082.0																																																																																															
4		508.2	258.3	1292.0																																																																																															
5																																																																																																			
Absolute Open Fl w _____ 1084 Mcfd @ 15.025 Angle of Slope @ _____ 52 Slope, n _____ .7813																																																																																																			
Remarks: ALL BOTTOM HOLE PRESSURES DONE WITH AMERADA TYPE GAUGE																																																																																																			
Approved By Division				Conducted By: KELTIC SERVICES				Calculated By: MIKE KELLY																																																																																											
Checked By:																																																																																																			

AIKMAN = 2

722 P³ (L. 51) 467400

P² 1550

052 m 7/2/2

Q
MSCFPD