

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Submit in duplicate to
appropriate district office
See Rule 401 & Rule 1122

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MEWBOURNE OIL COMPANY						Lease or Unit Name CHALK BLUFF '6' St.					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-24-92		Well No. 1			
Completion Date 4-16-92		Total Depth 10151		Plug Back TD 10151		Elevation		Unit Lr. - Sec. - TWP - Rge. m 6 18 28			
Csg. Size 7" & 4 1/2"		Wt 26#		Set At 10198		Perforations: From: 10084 To: 10092		County Eddy			
Tbg. Size 2 7/8 & 2 3/8		Wt 6.5		Set At 9976		Perforations: From: To:		Pool N. Illinois Camp			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple						Packer Set At 9976		Formation Morrow			
Producing Thru TbG		Reservoir Temp. °F 175 @ 10088		Mean Annual Temp. °F 60		Baro. Press - P. 13.2		Connection			
*L 10088 H 10088		Gg .643		% CO ₂ .44		% N ₂ .38		Prover		Meter Run 3.068	
										Taps FLG	

FLOW DATA					TUBING DATA			CASING DATA		Duration of Flow
NO.	Prover Line Size	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						2960		PKR		72 hrs.
1.	3 X .750		430	34.00	111	2815		"		1 hr.
2.	3 X 1.000		440	40.00	102	2730		"		1 hr.
3.	3 X 1.500		435	32.00	78	2590		"		1 hr.
4.	3 X 1.750		480	49.00	54	2575		"		1 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, F _{pv}	Rate of Flow Q, Mcfd
1.	2.672	122.76	443.2	.9543	1.247	1.035	404
2.	4.789	134.64	453.2	.9619	1.247	1.035	801
3.	11.13	119.76	448.2	.9831	1.247	1.045	1708
4.	15.61	155.46	493.2	1.006	1.247	1.058	3221
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P. I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	.66	571	1.53	.934	40.1	51.6 @ 60°	.643	XXXXXXX	670	372
2.	.67	562	1.51	.933				XXXXXX		
3.	.66	538	1.44	.916						
4.	.73	514	1.38	.893						
5.										

P_c **3129.4 P_c² 9793.1

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1.	**	3073.7	9447.6	345.5
2.	**	3037.7	9227.6	565.5
3.	**	2933.4	8604.8	1188.3
4.	**	2795.9	7817.1	1976.0
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.956$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.956$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 15.963$

Absolute Open Flow 15,963 Mcfd @ 15.025		Angle of Slope θ 45	Slope, n 1,000
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Remarks: * BHP Instrument Set @ this Depth
** From Known B.H.P. Calculated back to Surface
*** Well Made 6.375 BBLS 51.6 @ 60 Condensate & 3.0 BBLS H₂O

Approved By Division	Conducted By: Pro Well Testers	Calculated By: BM	Checked By: BM
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