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See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

dsf
file

OIL CONSERVATION DIVISION

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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MEWBOURNE OIL COMPANY					Lease or Unit Name LAKE SHORE FED.				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 2-20-92		Well No. 1		
Completion Date 2-9-92		Total Depth 10260		Plug Back TD 10211		Elevation		Unit Lr. - Sec. - TWP - Rge. A 20 19 27	
Csg. Size 5 1/2	Wt. 20#	d	Set At 10260	Perforations: From: 10118 To: 10190			County Eddy		
Tbg. Size 2 7/8	Wt. 6.5	d 2,441	Set At 10014	Perforations: From: To:			Pool E. Lake Morrow		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10014		Formation Morrow			
Producing Thru Tbg		Reservoir Temp. °F		Mean Annual Temp. °F 60		Baro. Press - P 13.2		Connection	
L *10154	II 10154	Gg .596	% CO ₂ .77	% N ₂ .21	% H ₂ S	Prover		Meter Run 3.068	Taps Flg

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	Orifice X 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						2780		PKR		72 hrs.
1.	3 X 1.000		420	2.00	86	2588		"		1 hr.
2.	3 X 1.000		440	3.50	80	2503		"		1 hr.
3.	3 X 1.000		480	18.00	82	2170		"		1 hr.
4.	3 X 1.000		480	25.00	80	1840		"		1 hr.
5.										

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)		Pressure p _m	Flow Temp. Factor Ft.	Gravity Factor Fig.	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	4.789	29.43	433.2	.9759	1.295	1.034	184
2.	4.789	39.83	453.2	.9813	1.295	1.035	251
3.	4.789	94.22	493.2	.9795	1.295	1.039	595
4.	4.789	111.04	493.2	.9813	1.295	1.039	702
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1.	.64	546	1.54	.936			
2.	.67	540	1.52	.933			
3.	.73	542	1.53	.927			
4.	.73	540	1.52	.927			
5.							

P_c ** 2963.1 P_c² 8780.0

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.	**	2777.9	7716.7	1063.3
2.	**	2755.4	7592.2	1187.8
3.	**	2459.1	6047.2	2732.8
4.	**	2134.9	4557.8	4222.2
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.079$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.277$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.819$

Absolute Open Flow 1.277 Mcfd @ 15.025	Angle of Slope θ 50.8	Slope, n .818
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Remarks: ***=BHP INSTRUMENT SET @ THIS DEPTH**

NO FLUID PRODUCED DURING TEST

Approved By Division	Conducted By: PRO WELL TESTERS	Calculated By: BM	Checked By: BM
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**=FROM KNOWN BHPS.