

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

Form C-122
 Revised 9-1-65

RECEIVED

Copy 851
 C-172

Type Test ☐ Initial ☐ Annual ☒ Special		Test Date 11-1-73		NOV 13 1973	
Company DORCHESTER EXPLORTION		Connection EL PASO NATURAL GAS		O. C. C. ARTERIA, OFFICE	
Pool WINCHESTER		Formation MORROW		Unit	
Completion Date 4-30-73		Total Depth 11,253'		Plug Back TD 11,213'	
Elevation 3307 GR.		Farm or Lease Name D.W.U. FED.		Well No. 1	
Csg. Size 4 1/2"	Wt. 11.6	Set At 11,253'	Perforations: From 11030' To 11051'		Unit J
Tbg. Size 2 3/8"	Wt. 4.7	Set At 10,982'	Perforations: From OPEN To ENDED		Sec. 34
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE			Packer Set At 10982'		Twp. 195
Producing Thru TUBING		Reservoir Temp. °F 167° @ 11041'	Mean Annual Temp. °F 60.0°	Baro. Press. - P _a 13.2	State N.M.
L 11,041'	H 11,041'	G _g 0.640	% CO ₂ 0.79	% N ₂ 0.48	% H ₂ S -----
Prover -----		Meter Run 4"	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	L-10 READINGS						2353.0		PACKER	CHOKE	24 HRS.
1.	4" x 0.75"			8.90	1.90	86	2262.0	66		4 1/4"	1.0 "
2.	4" x 0.75"			8.90	2.30	84	2200.0	66		7/64"	1.0 "
3.	4" x 0.75"			8.90	3.50	78	2110.0	66		10/64"	1.0 "
4.	4" x 0.75"			8.80	5.20	70	1965.0	66		11/64"	1.0 "
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	L-10 CORRECTION FACTOR	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	2.661	3.162	792.1	0.9759	1.250	1.068	185.4
2	2.661	3.162	792.1	0.9777	1.250	1.070	225.2
3	2.661	3.162	792.1	0.9831	1.250	1.071	345.0
4	2.661	3.162	774.4	0.9905	1.250	1.077	513.4
5							

NO.	P _t	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	1.18	546	1.47	.877	3777-1	58°	0.640	X X X X X X X X	670	372
2	1.18	544	1.46	.874						
3	1.18	538	1.45	.871						
4	1.16	530	1.42	.862						
5										

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1	3215.2	10338	468	
2	3205.2	10273	533	
3	3121.2	9742	1064	
4	2951.2	8710	2096	
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 5.1555$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1396$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.7195$

Absolute Open Flow	1396	Mcfd @ 15.025	Angle of Slope @	58.6°	Slope, n	0.610
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Remarks: KUSTER GAUGE USED TO MEASURE BOTTOM HOLE PRESSURE @ 11,041'

L-10 CHART - METER RANGE = 100" - 1000"

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	D. TYSON	R. WEST	J.W.W.