

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 4-16-74			
Company Dorchester Exploration, Inc.				Connection El Paso Natural Gas Company				
Pool				Formation Morrow				Unit
Completion Date 2-8-74		Total Depth 12,591'		Plug Back TD 12,204'		Elevation 3651 GR		Farm or Lease Name Wilson State Comm.
Csg. Size 5-1/2"	Wt. 17-20	4.892 4.778	Set At 12,416	Perforations: From 12,100 To 12,109'			Well No. 1	
Tbg. Size 2-3/8	Wt. 4.70	1.995	Set At 11,964	Perforations: From - To -			Unit Sec. Twp. Rge. I - 13 - 21 S. - 34 E.	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single - Gas					Packer Set At 11,964'		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 142 @ 11960		Mean Annual Temp. °F 70		Baro. Press. - P _a 13.2		State New Mexico
L 11964	H 11964	Gg .629	% CO ₂ .301	% N ₂ .848	% H ₂ S 0	Prover	Meter Run 4.026"	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							1898	70	Packer		
1.	4.026 x 2.750			503	4.2	118	1747	72	"		2 hr.
2.	4.026 x 2.750			506	10.2	74	1592	74	"		1 hr.
3.	4.026 x 2.750			507	27	80	973	74	"		3/4 hr.
4.	4.026 x 2.750			511	30	66	692	74	"		1-3/4 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{Q_w F_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	41.10	46.562	516.2	.9485	1.261	1.031	2310
2	41.10	72.773	519.2	.9868	1.261	1.043	3882
3	41.10	118.513	520.2	.9813	1.261	1.042	6281
4	41.10	125.403	524.2	.9943	1.261	1.048	6772
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio <u>52549</u> Mcf/bbl.		
					A.P.I. Gravity of Liquid Hydrocarbons <u>60.8</u> Deg.		
1.	.769	578	1.60	.940	Specific Gravity Separator Gas <u>.629</u>	XXXXXXX	
2.	.774	534	1.48	.919	Specific Gravity Flowing Fluid <u>XXXXX</u>	.683	
3.	.775	540	1.49	.921	Critical Pressure <u>671</u> P.S.I.A.	669 P.S.I.A.	
4.	.781	522	1.44	.910	Critical Temperature <u>362</u> °R	382 °R	
5.							

P _c <u>1911.2</u> P _c ² <u>3652.7</u>				
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		1833.0	3359.9	292.8
2		1758.4	3092.0	560.7
3		1527.4	2333.0	1319.7
4		1460.8	2133.9	1518.8
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.40499$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.63034$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 11,041$$

Absolute Open Flow <u>11,041</u> Mcfd @ 15.025	Angle of Slope @ <u>60.893</u>	Slope, n <u>.557</u>
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Remarks: 13-3/8" - 48# Set @ 510'
9-5/8" - 36-40.5 - 43.5 set @ 5505'

Test conducted w/Arerada RPG-3 Instrument: Range 0-6000 Psi SN: 34210

Approved By Commission: <i>[Signature]</i>	Conducted By: Cone & Kerley, Inc.	Calculated By: <i>[Signature]</i> Bill Kerley	Checked By: <i>[Signature]</i> Joe Rambo
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