

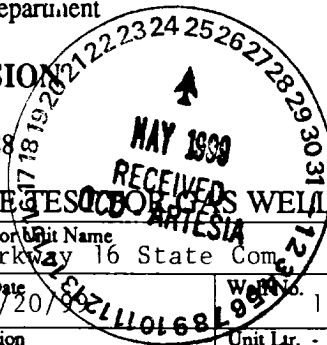
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See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

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



MULTIPOINT AND ONE POINT BACK PRESSURE TESTS

Operator Mewbourne Oil Company				Lease or Unit Name Parkway 16 State Com			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 05/20/99		Well No. 1	
Completion Date 04/09/99		Total Depth 11550		Plug Back TD 11508		Elevation 3341 GL	
Csg. Size 5 1/2		Wt. 17#		d 4.892		Set At 11550	
Tbg. Size 2 7/8		Wt. 6.5#		d 2.441		Set At 10995	
Perforations: From: 11180 To: 11201				County Eddy			
Perforations: From: OPEN To: ENDED				Pool Turkey Track Morrow			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At None		Formation Morrow	
Producing Thru Tbg		Reservoir Temp. °F 172 @ 11190		Mean Annual Temp. °F 60		Baro, Press - P _a 13.2	
L		H		Gg 0.649		% CO ₂ 0.847	
				% N ₂ 0.427		% H ₂ S	
				Prover		Meter Run 3"	
						Taps FLG	

FLOW DATA

NO.	Prover Line Size	Orifice X Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	TUBING DATA		CASING DATA		Duration of Flow
						Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI						1203		1145		24 Hrs
1.	3.068 x 2.000		260	7"	58	864		755		1 Hr
2.	3.068 x 2.000		260	12"	55	825		755		1 Hr
3.	3.068 x 2.000		260	20"	59	787		755		1 Hr
4.	3.068 x 2.000		280	28"	61	667		755		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.	21.32	43.73	273.2	1.002	1.241	1.027	1,191
2.	21.32	57.26	273.2	1.005	1.241	1.035	1,576
3.	21.32	73.92	273.2	1.001	1.241	1.027	2,011
4.	21.32	90.61	293.2	.9990	1.241	1.027	2,460
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	180.589	Mcf/bbl.
1.	.40	518	1.39	.948	A.P. I. Gravity of Liquid Hydrocarbons	62 @ 60	Deg.
2.	.40	515	1.30	.934	Specific Gravity Separator Gas	.649	XXXXXXXXXX
3.	.40	519	1.39	.948	Specific Gravity Flowing Fluid	XXXXXX	GMIX=.665
4.	.43	521	1.40	.949	Critical Pressure	670	P.S.I.A. 670
5.					Critical Temperature	372	R 378

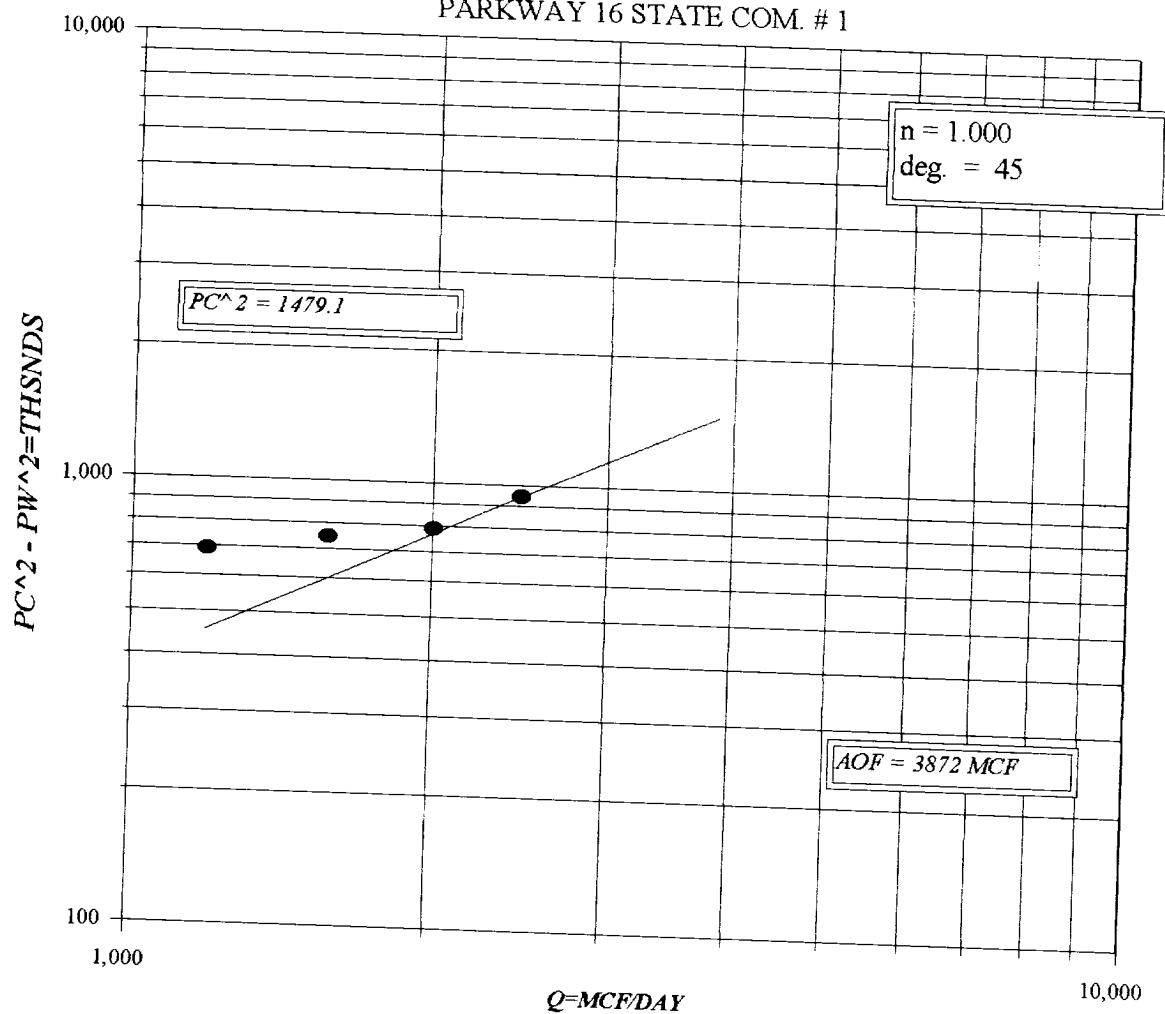
P _c 1216.2 P _c ² 1479.1				1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.574$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.574$	
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.872$		
1.		887.0	786.8	692.3			
2.		856.2	733.1	746.0			
3.		830.9	690.4	788.8			
4.		734.2	539.1	940.0			
5.							

Absolute Open Flow	3,872	Mcf @ 15.025	Angle of Slope θ	45	Slope, n	1.000
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Remarks: Well produced 1.67 BBLS condensate

Approved By Division	Conducted By: Jarrel Services, Inc.	Calculated By: Bob Murray	Checked By: Bob Murray
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MEWBOURNE OIL COMPANY
PARKWAY 16 STATE COM. # 1



O COMPANY : MEWBOURNE OIL CO. LEASE : P. 16 ST. COM. WELL NO. : 1
 UNIT : M SECTIC 16 TOWNSHIP : 19
 L : 11180 H : 1118 L/H : 1 G/GMIX : 0.665
 %CO2 : 0.847 %N2 : 0.427 H2S : DATE : 5 20 99
 d : 2.441 Fr : 0.010763 GH : 7434.7 RANGE : 29

VOL 1 : 1191 PSIA 1 : 877.2 RESV.TEMP 172.0
 VOL 2 : 1576 PSIA 2 : 838.2
 VOL 3 : 2011 PSIA 3 : 800.2 SHUT-IN PR= 1216.2
 VOL 4 : 2460 PSIA 4 : 680.2

PCR : 670
 TCR : 378

Pc = 1216.2 Pc2 = 1479.1 *
 Pt2 = 769.5 Pw = 887.0 *
 702.6 856.2 *
 640.3 830.9 *
 462.7 734.2 *
 Pc2-Pw2= 692.3 Pw2 = 786.8 *
 746.0 733.1 *
 788.8 690.4 *
 940.0 539.1 *
 n = 1.000
 Pc2/(Pc2-Pw2) = 2.137
 1.983
 1.875
 1.574 ✓
 [Pc2/Pc2-Pw2]n = 2.137
 1.983
 1.875
 1.574 ✓
 AOF= Q 2.545
 3.125
 3.771
 3.871 ✓
 FORM C122-D

LINE	RATE 1		RATE 2		RATE 3		RATE 4	
	1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND
1 QM	1.191	1.191	1.576	1.576	2.011	2.011	2.460	2.460
2 TW	534	534	534	534	534	534	534	534
3 Ts	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
4 T	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
PR (est)	1.31		1.25		1.19		1.02	
5 Z(est)	0.865	0.849	0.870	0.854	0.874	0.858	0.888	0.872
6 TZ	504.4	495.1	507.0	497.6	509.6	499.9	517.9	508.2
7 GH/TZ	14.738	15.017	14.663	14.940	14.589	14.872	14.356	14.631
8 eS	1.738	1.756	1.733	1.751	1.728	1.747	1.713	1.731
9 l-e-S	0.425	0.431	0.423	0.429	0.421	0.427	0.416	0.422
10 Pt	877.2	877.2	838.2	838.2	800.2	800.2	680.2	680.2
11 Pt2 /1000	769.5	769.5	702.6	702.6	640.3	640.3	462.7	462.7
12 Fr	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763
13 Fc=FrTZ	5.429	5.329	5.457	5.356	5.485	5.381	5.574	5.469
14 FcQm	6.47	6.35	8.60	8.44	11.03	10.82	13.71	13.45
15 L/H(FcQm)	41.8	40.3	74.0	71.3	121.7	117.1	188.0	181.0
16 Fw	17.75446	17.34310	31.28804	30.56244	51.26518	50.05107	78.27264	76.443290
17 Pw2	787.2	786.8	733.9	733.1	691.6	690.4	540.9	539.1
18 Ps2	1368.1	1381.8	1271.8	1283.8	1195.2	1205.8	926.7	933.2
19 Ps	1169.7	1175.5	1127.7	1133.1	1093.3	1098.1	962.7	966.0
20 P	1023.4	1026.3	983.0	985.6	946.7	949.1	821.4	823.1
21 Pr	1.53	1.53	1.47	1.47	1.41	1.42	1.23	1.23
22 Tr	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
23 Z	0.849	0.849	0.854	0.853	0.858	0.857	0.872	0.871

NEW MEXICO G.O.R./G. MIX

NO. OF BBLs PRODUCED = 1.7
API GRAVITY @ 60 DEG. = 62.0

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SPECIFIC GRAVITY OF GAS = 0.6490

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TOTAL GAS PRODUCED = 302

G.O.R. = 180.589

G.MIX = 0.665