

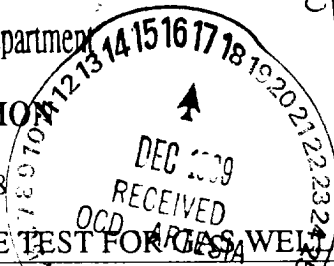
Submit in duplicate to
appropriate district office
See Rule 401 & Rule 1122

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 TEST FOR GAS WELL

Operator Nearburg Producing Company				Lease or Unit Name Osage Boy 15			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12-8-99			
Completion Date 10-22-99		Total Depth 9580		Plug Back TD 9465		Elevation 3457' GR	
Unit Ltr. - Sec. - TWP - Rge. K 15-19s-25e		County Eddy					
Csg. Size 4 1/2	Wt. 13.5#	d 3.920	Set At 9580	Perforations: From: 9088 To: 9251		Pool Boyd Morrow	
Tbg. Size 2 3/8	Wt. 4.7#	d 1.995	Set At 8985	Perforations: From: Open To: Ended		Formation Morrow	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 8985		Connection Agave	
Producing Thru Tbg 8985		Reservoir Temp. °F 149.5		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2	
L 8985	H 8985	Gg 0.587	% CO ₂ 0.946	% N ₂ 0.236	% H ₂ S	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.	
SI						1446		PACKER	48 hrs.
1.	3.068 x 0.750		281	6.30	68	1339		"	1 hr.
2.	3.068 x 0.750		292	25.00	71	1224		"	1 hr.
3.	3.068 x 0.750		292	53.30	71	1119		"	1 hr.
4.	3.068 x 0.750		303	94.10	72	1011		"	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.	2.675	43.05	294.2	.9924	1.306	1.023	153
2.	2.675	87.35	305.2	.9896	1.306	1.024	309
3.	2.675	127.54	305.2	.9896	1.306	1.024	452
4.	2.675	172.50	316.2	.9887	1.306	1.024	610
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1.	.43	528	1.50	.956	A.P. I. Gravity of Liquid Hydrocarbons	Dry	Deg.
2.	.45	531	1.51	.954	Specific Gravity Separator Gas	.587	XXXXXXXXXX
3.	.45	531	1.50	.954	Specific Gravity Flowing Fluid	XXXXXX	
4.	.47	532	1.52	.954	Critical Pressure	672	P.S.I.A. P.S.I.A.
5.					Critical Temperature	350	R R

P _c	1459.2	P _c ²	2129.3	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1.		1352.4	1829.0	300.2
2.		1238.2	1533.2	596.1
3.		1134.6	1287.5	842.0
4.		1029.0	1058.9	1070.3
5.				

$$1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.989 \quad (2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.989$$

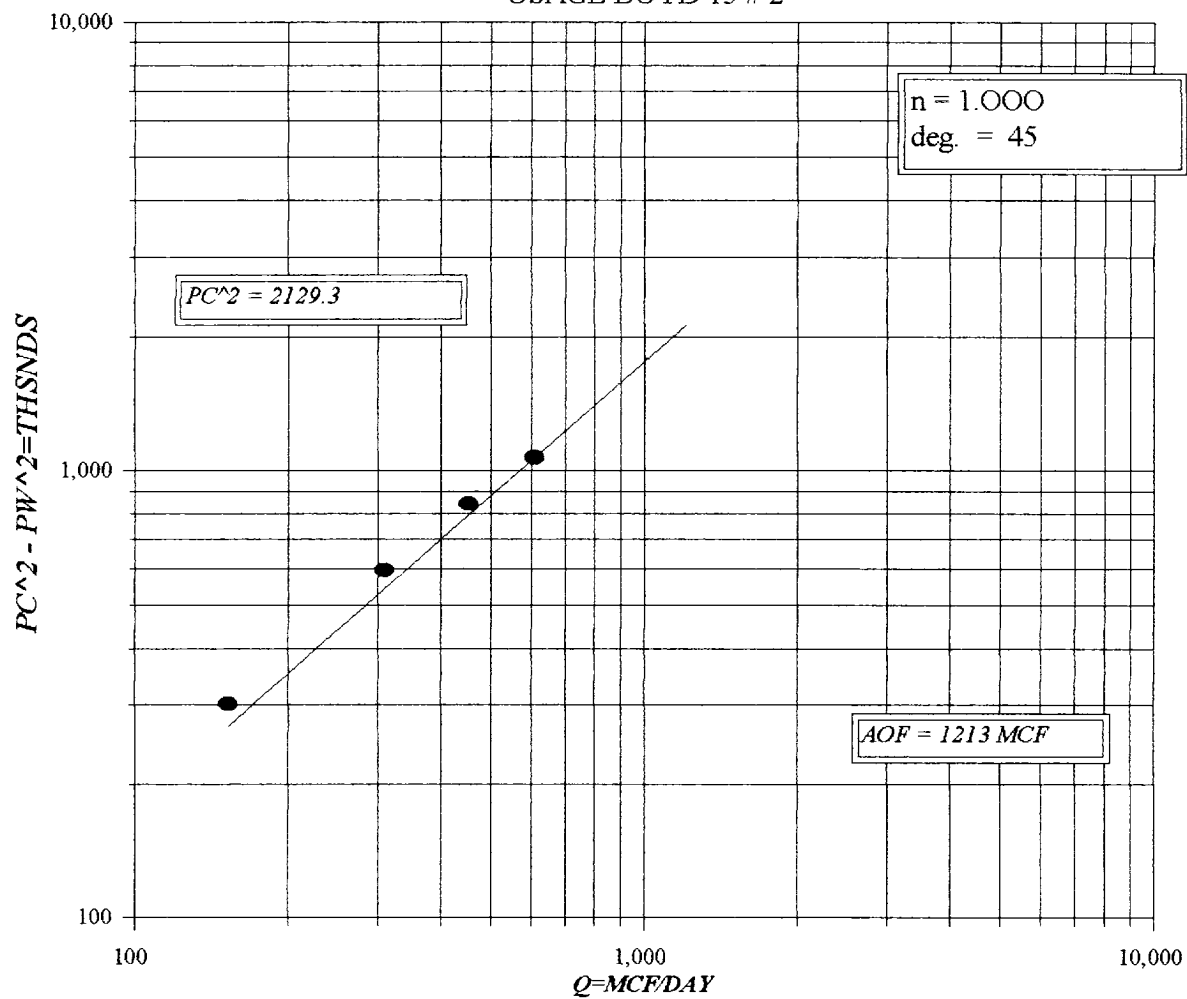
$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.213$$

Absolute Open Flow	1,213	Mcf @ 15.025	Angle of Slope θ	45	Slope, n	1.000
Remarks: Well produced no fluid						

Approved By Division	Conducted By: Jarrel Services, Inc.	Calculated By: Bob Murray	Checked By: Bob Murray
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NEARBURG PRODUCING COMPANY

OSAGE BOYD 15 # 2



LINE	RATE 1		RATE 2		RATE 3		RATE 4			
	1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND		
1	QM	0.153	0.153	0.309	0.309	0.452	0.452	0.610	0.610	3.572
2	TW	534	534	534	534	534	534	534	534	2.529
3	Ts	607.5	607.5	607.5	607.5	607.5	607.5	607.5	607.5	1.989✓
4	T	570.8	570.8	570.8	570.8	570.8	570.8	570.8	570.8	
	PR (est)	2.01		1.84		1.68		1.52		
5	Z(est)	0.849	0.840	0.857	0.848	0.865	0.856	0.874	0.864	
6	TZ	484.7	479.4	489.2	483.8	493.7	488.3	498.6	493.4	
7	GH/TZ	10.882	11.003	10.781	10.902	10.683	10.801	10.578	10.690	
8	eS	1.504	1.511	1.498	1.505	1.493	1.499	1.487	1.493	
9	l-e-S	0.335	0.338	0.333	0.336	0.330	0.333	0.327	0.330	
10	Pt	1352.2	1352.2	1237.2	1237.2	1132.2	1132.2	1024.2	1024.2	
11	Pt2 /1000	1828.4	1828.4	1530.7	1530.7	1281.9	1281.9	1049.0	1049.0	
12	Fr	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	
13	Fc=FrTZ	8.836	8.739	8.919	8.820	9.000	8.902	9.090	8.994	
14	FcQm	1.35	1.34	2.76	2.73	4.07	4.02	5.55	5.49	
15	L/H(FcQm)	1.8	1.8	7.6	7.4	16.5	16.2	30.7	30.1	
16	Fw	0.612427	0.604411	2.525686	2.492481	5.463136	5.392514	10.06814	9.9423090	
17	Pw2	1829.1	1829.0	1533.2	1533.2	1287.3	1287.3	1059.1	1058.9	
18	Ps2	2750.7	2763.2	2297.1	2307.5	1921.7	1930.1	1574.7	1581.1	
19	Ps	1658.5	1662.3	1515.6	1519.0	1386.3	1389.3	1254.9	1257.4	
20	P	1505.4	1507.2	1376.4	1378.1	1259.2	1260.7	1139.5	1140.8	
21	Pr	2.24	2.24	2.05	2.05	1.87	1.88	1.70	1.70	
22	Tr	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	
23	Z	0.840	0.840	0.848	0.848	0.856	0.855	0.864	0.864	

3.572

2.529

1.989✓

[Pc2/Pc2-Pw2]n = 7.092

3.572

2.529

1.989✓

AOF= Q 1.085

1.104

1.143

1.213 ✓

FORM C122-D