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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 Logan Draw 30 Fed. Com			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 9/11/00		Well No. 1	
Completion Date 6/9/00		Total Depth 9380		Plug Back TD 9299		Elevation 3383' GL	
Unit Ltr. - Sec. - TWP - Rge. H 30 17s 27e		County Eddy		Pool Logan Draw			
Csg. Size 5 1/2	Wt. 17#	d 4.892	Set At 9380	Perforations: From: 9020 To: 9108		Formation Morrow	
Tbg. Size 2 3/8	Wt. 4.7#	d 1.995	Set At 8939	Perforations: From: Open To: Ended		Connection El Paso	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 8939		Meter Run 3.068	
Producing Thru Tbg		Reservoir Temp. °F 60		Baro. Press - P _a 13.2		Taps FLG	
L 8939	H 8939	G _g 0.642	% CO ₂ 3.471	% N ₂ 0.958	% H ₂ S	Prover	

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							1707		PACKER		72 Hrs
1.	3.068	x	1.000	518	4.00	78	1639		"		1 Hr
2.	3.068	x	1.000	518	8.00	78	1554		"		1 Hr
3.	3.068	x	1.000	518	16.00	77	1449		"		1 Hr
4.	3.068	x	1.000	518	27.00	76	1321		"		1 Hr
5.											

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor FL	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	4.789	46.10	531.2	.9831	1.248	1.045	283
2.	4.789	69.14	531.2	.9831	1.248	1.045	425
3.	4.789	92.19	531.2	.9840	1.248	1.045	567
4.	4.789	119.76	531.2	.9850	1.248	1.045	737
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1.	.77	538	1.46	.916	A.P. I. Gravity of Liquid Hydrocarbons	Dry	Deg
2.	.77	538	1.46	.916	Specific Gravity Separator Gas	.642	XXXXXXXXXX
3.	.77	537	1.46	.916	Specific Gravity Flowing Fluid	XXXXXX	
4.	.77	536	1.46	.916	Critical Pressure	* 682	P.S.I.A. P.S.I.A.
5.					Critical Temperature	* 367	R R

P _c	1720.2	P _c ²	2959.1				
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.542$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.735$	
1.	1652.8	2731.9	227.2				
2.	1568.7	2460.9	498.1				
3.	1465.2	2146.7	812.4				
4.	1339.8	1795.0	1164.1				
5.							

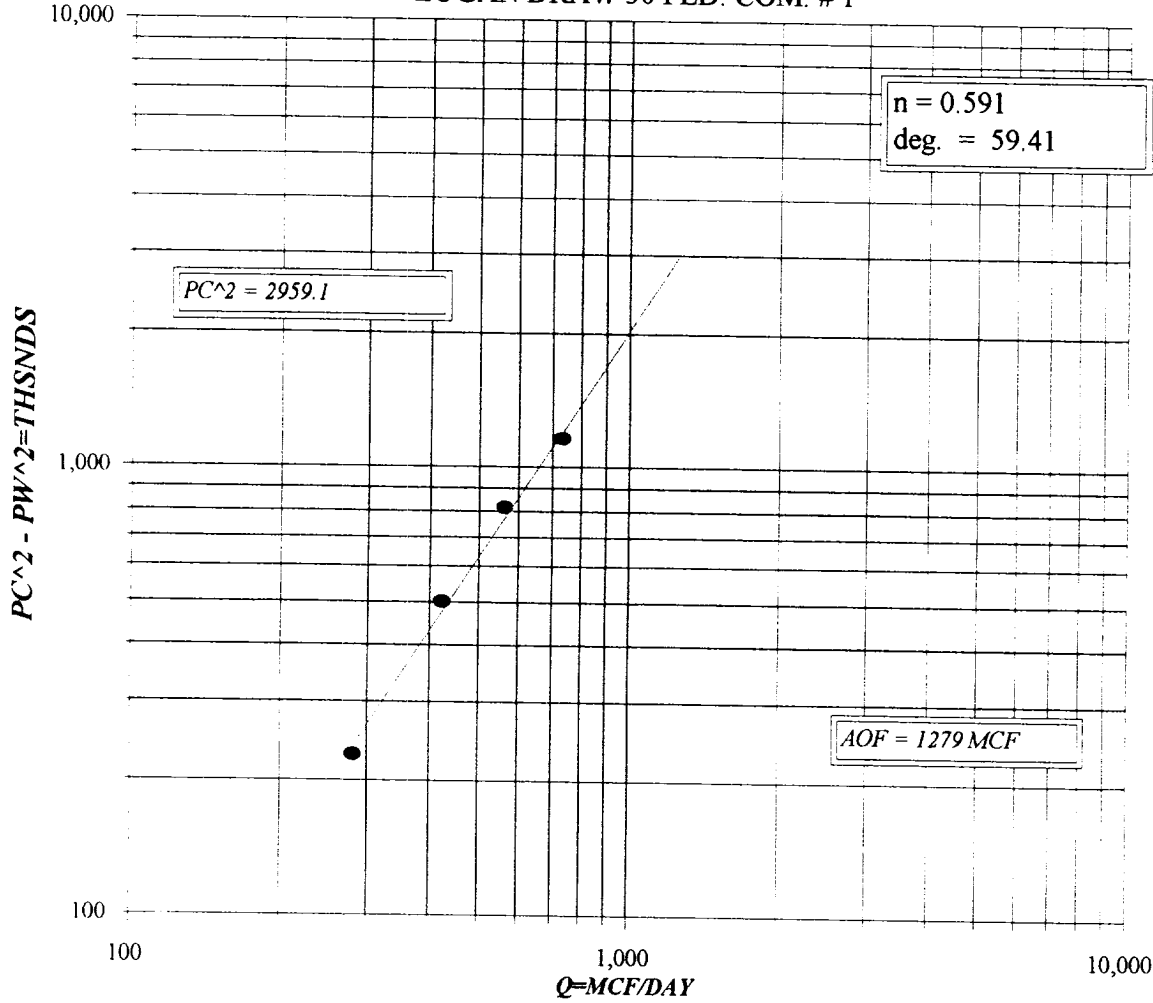
$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.279$$

Absolute Open Flow	1,279	Mcf @ 15.025	Angle of Slope θ	59.41	Slope, n	.591
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Remarks: **Well produced no fluid**
* = corrected to 3.471% CO₂

Approved By Division	Conducted By: Jarrel Services, Inc.	Calculated By: Bob Murray	Checked By: Bob Murray
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NEARBURG PRODUCING COMPANY
LOGAN DRAW 30 FED. COM. # 1



COMPANY : NEARBURG PROD. CO. LEASE : LD DRAW 30 FED CM WELL NO. : 1
 UNIT : H SECTION 17 TOWNSHIP : 17
 L : 8939 H : 8939 L/H : 1 G/GMIX : 0.642
 %CO2 : 3.471 %N2 : 0.958 H2S : DATE : 9-11-00
 d : 1.995 Fr : 0.018231 GH : 5738.8 RANGE : 27

VOL 1 : 283 PSIA 1 : 1652.2
 VOL 2 : 425 PSIA 2 : 1567.2
 VOL 3 : 567 PSIA 3 : 1462.2
 VOL 4 : 737 PSIA 4 : 1334.2

RESV. TEMP 163.4

SHUT-IN PR= 1720.2

PCR : 682

TCR : 367

Pc = 1720.2 Pc2 = 2959.1 *

Pt2 = 2729.8 Pw = 1652.8 *

2456.1 1568.7 *

2138.0 1465.2 *

1780.1 1339.8 *

Pc2-Pw2= 227.2 Pw2 = 2731.9 *

498.1 2460.9 *

812.4 2146.7 *

1164.1 1795.0 *

n = 0.591 ✓

Pc2/(Pc2-Pw2) = 13.025

5.940

3.643

2.542 ✓

[Pc2/Pc2-Pw2]n = 4.557

2.866

2.147

1.735 ✓

AOF= Q 1.290

1.218

1.217

1.279 ✓

LINE		RATE 1		RATE 2		RATE 3		RATE 4	
		1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND
1	QM	0.283	0.283	0.425	0.425	0.567	0.567	0.737	0.737
2	TW	534	534	534	534	534	534	534	534
3	Ts	623.4	623.4	623.4	623.4	623.4	623.4	623.4	623.4
4	T	578.7	578.7	578.7	578.7	578.7	578.7	578.7	578.7
	PR (est)	2.42		2.30		2.14		1.96	
5	Z(est)	0.813	0.803	0.818	0.807	0.825	0.813	0.834	0.822
6	TZ	470.3	464.4	473.2	466.9	477.2	470.4	482.7	475.6
7	GH/TZ	12.202	12.356	12.127	12.292	12.025	12.199	11.889	12.067
8	eS	1.580	1.589	1.576	1.586	1.570	1.580	1.562	1.572
9	l-e-S	0.367	0.371	0.365	0.369	0.363	0.367	0.360	0.364
10	Pt	1652.2	1652.2	1567.2	1567.2	1462.2	1462.2	1334.2	1334.2
11	Pt2 /1000	2729.8	2729.8	2456.1	2456.1	2138.0	2138.0	1780.1	1780.1
12	Fr	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231
13	Pc=FrTZ	8.575	8.467	8.627	8.511	8.700	8.576	8.800	8.670
14	PcQm	2.43	2.40	3.67	3.62	4.93	4.86	6.49	6.39
15	L/H(PcQm)	5.9	5.7	13.4	13.1	24.3	23.6	42.1	40.8
16	Pw	2.162090	2.129341	4.912642	4.832749	8.833401	8.681267	15.13119	14.861657
17	Pw2	2731.9	2731.9	2461.0	2460.9	2146.9	2146.7	1795.2	1795.0
18	Ps2	4317.1	4342.1	3878.1	3902.1	3370.2	3392.0	2803.8	2822.2
19	Ps	2077.8	2083.8	1969.3	1975.4	1835.8	1841.7	1674.4	1679.9
20	P	1865.0	1868.0	1768.2	1771.3	1649.0	1652.0	1504.3	1507.1
21	Pr	2.73	2.74	2.59	2.60	2.42	2.42	2.21	2.21
22	Tr	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58
23	Z	0.803	0.802	0.807	0.807	0.813	0.813	0.822	0.822

FORM C122-D



Laboratory Services, Inc.

4016 Fiesta Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Jarrel Services, Inc.
Attention: Mr. Donnie Dickerson
P. O. Box 1230
Hobbs, New Mexico 88240

SAMPLE: Logan Draw
IDENTIFICATION: 30 Fed. Com #1
COMPANY: Nearburg Producing Co.
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED: 9/11/00
ANALYSIS DATE: 9/12/00
PRESSURE - PSIG
SAMPLE TEMP. °F
ATMOS. TEMP. °F

REMARKS:

GAS (XX) LIQUID ()
SAMPLED BY: Jarrel Services
ANALYSIS BY: Rolland Perry

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	0.958	
Carbon Dioxide (CO2)	3.471	
Methane (C1)	89.116	
Ethane (C2)	4.255	1.135
Propane (C3)	1.261	0.347
I-Butane (IC4)	0.184	0.060
N-Butane (NC4)	0.281	0.088
I-Pentane (IC5)	0.103	0.038
N-Pentane (NC5)	0.075	0.027
Hexane Plus (C6+)	0.296	0.128
	100.000	1.823
BTU/CU.FT. - DRY	1043	MOLECULAR WT. 18.5982
AT 14.650 DRY	1040	
AT 14.650 WET	1022	
AT 14.73 DRY	1046	
AT 14.73 WET	1028	
SPECIFIC GRAVITY -		
CALCULATED	0.642	
MEASURED		