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appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator NEARBURG PRODUCING COMPANY					Lease or Unit Name DIAMONDBACK 24 FED. COM.				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 2/6/02		Well No. 1		
Completion Date 1/18/02		Total Depth 13830		Plug Back TD 13565		Elevation 3599 GL		Unit Ltr - Sec - TWP - Rge 0 24 19 32	
Csg. Size 5 1/2	Wt. 20#	u 4.778	Set At 13830	Perforations: From: 13350 To: 13410		County LEA			
Tbg. Size 2 3/8	Wt. 4.7#	d 1.995	Set At 13244	Perforations: From: OPEN To: ENDED		Pool GEM MORROW			
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 13244		Formation MORROW			
Producing thru This Size		Reservoir Temp. °F 102.2 @ 13244		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		Connection DUKE ENERGY	
L 13244	IH	IH 13244	IGa 0.68	%CO ₂ 0.674	%N ₂ 0.598	%H ₂ S N/A	IProver N/A	Meter Run 3.068	Tans FLG
FLOW DATA				TUBING DATA			CASING DATA		
No.	Prover Line Size	Unice Size	Press psig	Diff. in.	Temp. °F	Press psig	Temp. °F	Press psig	Temp. °F
SI						2622		PKR	
1	3 X	2.000	28.6	3.3	54	2399		"	
2	3 X	2.000	36.1	11.2	67	2232		"	
3	3 X	2.000	44.5	22.9	71	2025		"	
4	3 X	2.000	53	35.2	72	1753		"	
5									
RATE OF FLOW CALCULATIONS									
No.	COEFFICIENT (24 Hour)		$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp Factor Ft.	Gravity Factor F _g	Super Compress Factor F _{pv}	Rate of Flow Q, Mcfd	
1								312	
2								620	
3	MEASURED		BY	TOTAL		FLOW	METER	948	
4								1261	
5									
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 25.168 Mcf bbl.				
1					A.P. I. Gravity of Liquid Hydrocarbons 52.6 @ 60 Deg.				
2					Specific Gravity Separator Gas 0.68 XXXXXXXX				
3		N/A			Specific Gravity Flowing Fluid XXXXXX Gmix = 0.797				
4					Critical Pressure 669 P.S.I.A. 666 P.S.I.A.				
5					Critical Temperature 385 R. 421 R				
P _c 2635.2 P _w 6944.3									
No.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{1842}{79825}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1842}{2.323}$				
1		2413	5822.4	1121.9					
2		2248.4	5055.1	1889.2					
3		2046.1	4186.5	2757.8					
4		1781.9	3175.2	3769					
5									
Absolute Open Flow 2.323 Mcfd @ 15.025					Angle of Slope (°) 45 Slope n: 1				
Remarks WELL PRODUCED 5.2 BBLS 52.6 API CONDENSATE DURING TEST									
Approved By: Division 			Conducted By: JAKEL SERVICES, INC			Calculated By: BM		Checked By: BM	

COMPANY : NEARBURG PRODUCING LEASE 3. FED COM

UNIT : 0 SECTION : 24

WELL NO. : 1

Pc = 2635.2 Pc2 = 6944.3 *

L : 13244 H : 13244

TOWNSHIP : 19

Pt2 = 5818.7 Pw = 2413.0 *

%CO2 : 0.674 %N2 : 0.598

G/GMIX : 0.797

5040.9 2248.4 *

d : 1.995 Fr : 0.018231

H2S : GH : 10555.5

DATE : 2-6-02

4154.3 2046.1 *

RANGE : 28

3119.5 1781.9 *

VOL 1 : 312 PSIA 1 : 2412.2

RESV.TEMP 193.2

Pc2-Pw2= 1121.9 Pw2 = 5822.4 *

VOL 2 : 620 PSIA 2 : 2245.2

1889.2 5055.1 *

VOL 3 : 948 PSIA 3 : 2038.2

SHUT-IN PR= 2635.2

2757.8 4186.5 *

VOL 4 : 1261 PSIA 4 : 1766.2

3769.0 3175.2 *

PCR : 666

TCR : 421

n = 1.000 ✓

Pc2/(Pc2-Pw2) = 6.190

3.676

2.518

1.842 ✓

[Pc2/Pc2-Pw2]n = 6.190

3.676

2.518

1.842 ✓

AOF= Q 1.931

2.279

2.387

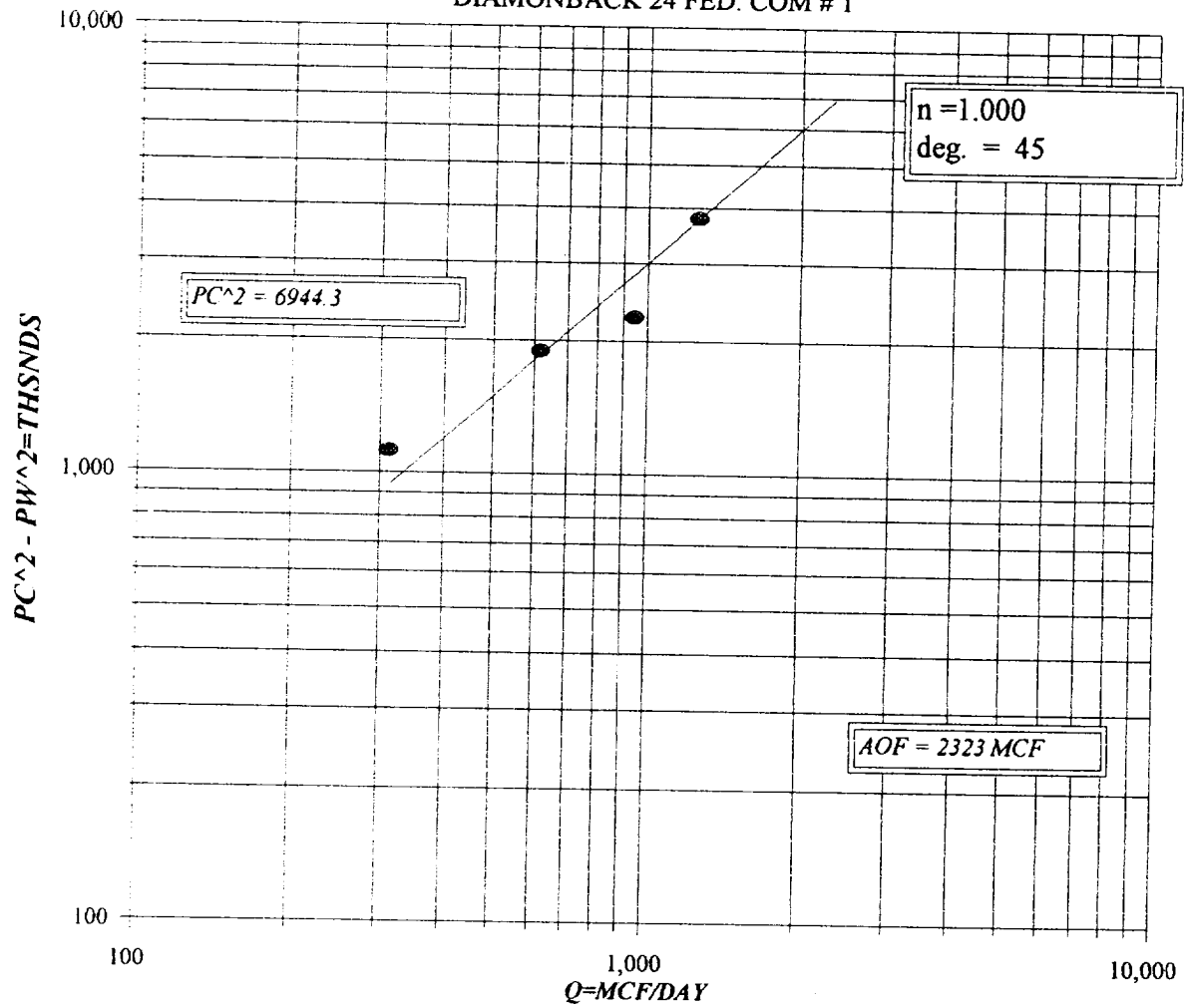
2.323 ✓

FORM C122-D

LINE	RATE 1		RATE 2		RATE 3		RATE 4	
	1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND
1 QM	0.312	0.312	0.620	0.620	0.948	0.948	1.261	1.261
2 TW	534	534	534	534	534	534	534	534
3 Ts	653.2	653.2	653.2	653.2	653.2	653.2	653.2	653.2
4 T	593.6	593.6	593.6	593.6	593.6	593.6	593.6	593.6
PR (est)	3.62		3.37		3.06		2.65	
5 Z(est)	0.699	0.738	0.697	0.723	0.698	0.708	0.710	0.697
6 TZ	415.1	438.3	413.7	429.4	414.6	420.6	421.4	414.0
7 GH/TZ	25.426	24.084	25.517	24.579	25.459	25.099	25.050	25.496
8 eS	2.595	2.467	2.604	2.514	2.598	2.563	2.558	2.602
9 l-e-S	0.615	0.595	0.616	0.602	0.615	0.610	0.609	0.616
10 Pt	2412.2	2412.2	2245.2	2245.2	2038.2	2038.2	1766.2	1766.2
11 Pt2 /1000	5818.7	5818.7	5040.9	5040.9	4154.3	4154.3	3119.5	3119.5
12 Pr	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231
13 Pc=PrTZ	7.568	7.990	7.542	7.829	7.559	7.667	7.682	7.548
14 PcQm	2.36	2.49	4.88	4.85	7.17	7.27	9.69	9.52
15 L/H(PcQm)	5.6	6.2	21.9	23.6	51.3	52.8	93.8	90.6
16 Pw	3.427067	3.696099	13.46566	14.18883	31.58304	32.21865	57.16257	55.767345
17 Pw2	5822.1	5822.4	5054.4	5055.1	4185.8	4186.5	3176.6	3175.2
18 Ps2	15106.9	14365.9	13159.5	12706.6	10874.4	10730.3	8127.0	8260.4
19 Ps	3886.8	3790.2	3627.6	3564.6	3297.6	3275.7	2850.8	2874.1
20 P	3149.5	3101.2	2936.4	2904.9	2667.9	2657.0	2308.5	2320.1
21 Pr	4.73	4.66	4.41	4.36	4.01	3.99	3.47	3.48
22 Tr	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41
23 Z	0.738	0.735	0.723	0.721	0.708	0.708	0.697	0.698

NEARBURG PRODUCING COMPANY

DIAMONBACK 24 FED. COM # 1



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

NO. OF BBLs PRODUCED = 5.2

API GRAVITY @ 60 DEG. = 52.6

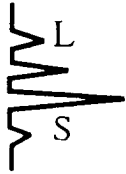
SPECIFIC GRAVITY OF GAS = 0.6800

XX

TOTAL GAS PRODUCED = 131

G.O.R. = 25.168

G.MIX = 0.797



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:
IDENTIFICATION: Diamondback 24 Fed. Com. #1
COMPANY: Nearburg Producing Co.
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED: 2/6/02
ANALYSIS DATE: 2/6/02
PRESSURE - PSIG
SAMPLE TEMP. °F
ATMOS. TEMP. °F

GAS (XX) LIQUID ()
SAMPLED BY: Donnie Dickerson
ANALYSIS BY: Vickie Biggs

REMARKS:

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	0.598	
Carbon Dioxide (CO2)	0.674	
Methane (C1)	84.719	
Ethane (C2)	7.804	2.082
Propane (C3)	3.648	1.003
I-Butane (IC4)	0.518	0.169
N-Butane (NC4)	1.073	0.338
I-Pentane (IC5)	0.288	0.105
N-Pentane (NC5)	0.288	0.104
Hexane Plus (C6+)	0.390	0.169
	100.000	3.970
BTU/CU.FT. - DRY	1179	MOLECULAR WT. 19.7095
AT 14.650 DRY	1175	
AT 14.650 WET	1155	
AT 14.73 DRY	1182	
AT 14.73 WET	1161	
SPECIFIC GRAVITY - CALCULATED	0.680	
MEASURED		