

**McVAY DRILLING COMPANY**

P.O. Box 2450
Hobbs, New Mexico 88241
(505) 397-3311
FAX: 39-DRILL

30-015-35194

Well Name and Number: Eddy BD State #2

Location: Sec 32, T20S, R30E Eddy County, NM

Operator: Lynx

Drilling Contractor: McVay Drilling Company

The undersigned certifies that he is an authorized representative of the drilling contractor who drilled the above described well and that he has conducted deviation tests and obtained the following results:

Degrees @ Depth		Degrees @ Depth	
1/2	233	.61	4418
.61	441	1.24	4885
.95	536	.94	5166
.84	716	1.77	5392
1.06	1003	1.81	5601
1.33	1284	.89	5690
1.79	1407	1.84	5850
.85	1536	1.88	5947
.98	1755	.86	6075
.72	1938	1.78	6254
1	2125	1.88	5947
1.82	2315	.86	6075
2.14	2500	1.78	6254
1.59	2592	.73	6939
.92	2715	1.33	7188
1.2	2907	.98	7439
.25	3155	.53	7726
.61	3461	1/2	8203
1/2	3742	1	8681
.70	4025	1.18	9159
		1.38	9633
		2.18	10129
		.87	11971
		1/2	12200

Drilling Contractor: McVay Drilling Company

By: H. C. [Signature]
Subscribed and sworn to before me this 27th day of August, 2007

[Signature]
Notary Public
Lea County, New Mexico

My Commission Expires: 8-16-09

RECEIVED

AUG 29 2007

Confidential

Submit in duplicate to
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

30-015-35194

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator LYNX PETROLEUM					Lease or Unit Name EDDY BD STATE					
Type Test ☒ Initial ☐ Annual ☐ Special							Test Date 9/13/07		Well No. 2	
Completion Date		Total Depth			Plug Back TD 12480		Elevation		Unit Ltr - Sec - TWP - Rge	
Csg. Size 5 1/2	Wt. 17#	d	Set At 12480		Perforations. From: 12441 To: 12436			County EDDY		
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 12260		Perforations: From: To:			Pool		
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE					Packer Set At 12260			Formation MORROW		
Producing Thru TBG		Reservoir Temp. °F 193.3 @ 12260		Mean Annual Temp. °F 60		Baro. Press. -P _a 13.2			Connection	
L 12260	H 12260	Gg 0.574	%CO ₂ 0.978	%N ₂ 0.214	%H ₂ S	Prover N/A	Meter Run 4.026		Taps FLG	

FLOW DATA					TUBING DATA			CASING DATA		Duration of Flow
No	Prover Line Size	Orifice x 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						3900		PKR		72 HRS
1	4 X	2.000	621	3.61	78	3690		"		1HR
2	4 X	2.000	621	9.61	78	3594		"		1HR
3	4 X	2.000	621	21.16	79	3400		"		1HR
4	4 X	2.000	601	37.21	82	3200		"		1HR
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	19.81	47.85	634.2	0.9831	1.298	1.049	1,269
2	19.81	78.07	634.2	0.99831	1.298	1.049	2,070
3	19.81	115.84	634.2	0.9822	1.298	1.048	3,066
4	19.81	151.18	614.2	0.9795	1.298	1.047	3,987
5							

No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio A.P. 1 Gravity of Liquid Hydrocarbons		DRY DRY GAS		Mcf bbl
1	0.94	538	1.51	0.909	Specific Gravity Separator Gas		0.574		XXXXXXX
2	0.94	538	1.51	0.909	Specific Gravity Flowing Fluid		XXXXXX		N/A
3	0.94	539	1.52	0.911	Critical Pressure		672	P.S.I.A.	672 P.S.I.A.
4	0.91	542	1.53	0.913	Critical Temperature		354	R.	354 R
5									

P _c * 3885.8		P _{c2} 15099.4	
No.	P _i ²	P _w	P _w ²
1		* 3702.3	13707
2		* 3605.6	13004.4
3		* 3451.2	11910.8
4		* 3291.7	10835.3
5			

(1)
$$\frac{P_c^2}{P_c^2 - P_w^2} = \frac{3.541}{\quad}$$

AOF = Q
$$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{14.118}{\quad}$$

79825

(2)
$$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{3.541}{\quad}$$

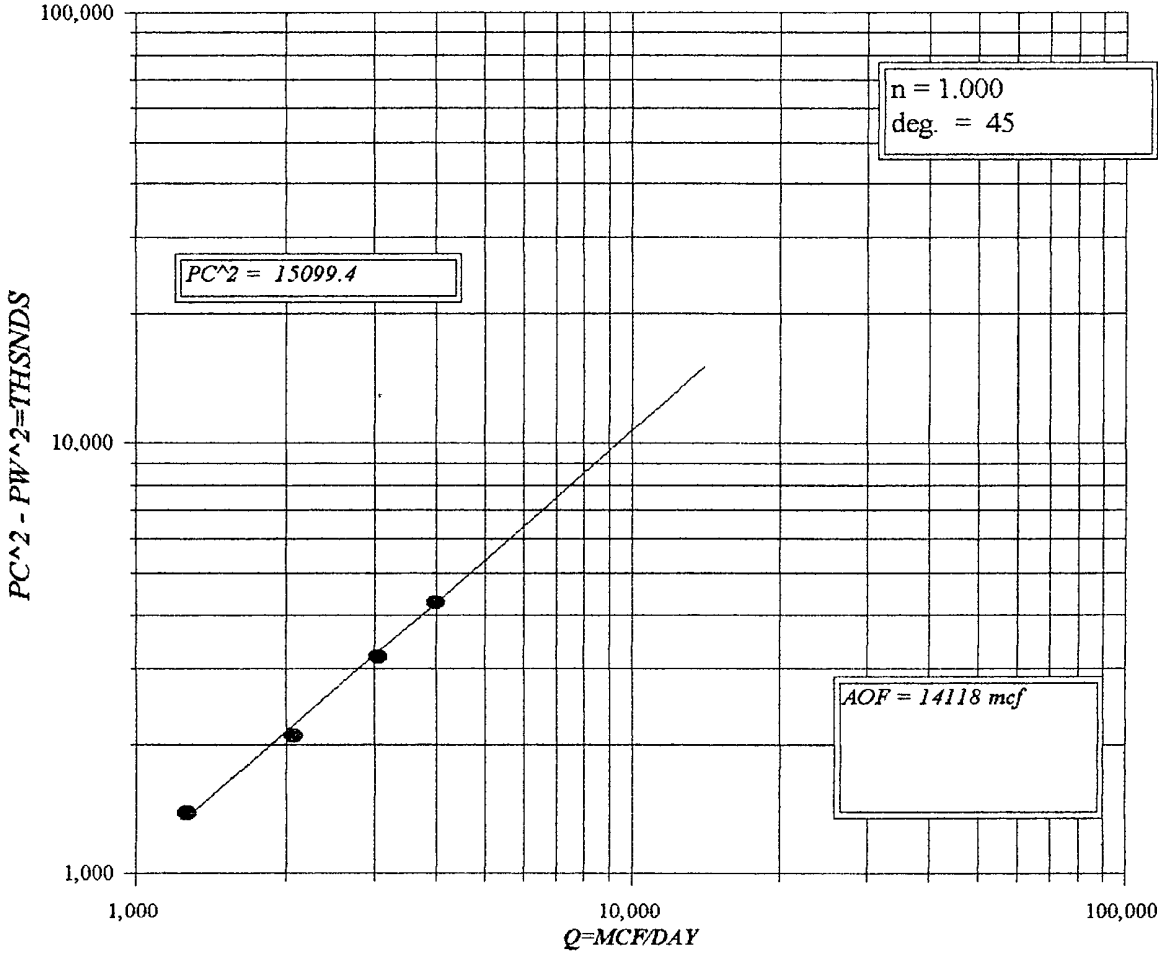
Absolute Open Flow	14,118	Mcf @ 15.025	Angle of Slope Q°	45	Slope n:	1
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Remarks: NO CONDENSATE OR OIL PROD. *= KNOWN BHP'S WERE USED TO CALCULATE.

Approved By Division:	Conducted By: Metering & Testing Services Inc	Calculated By: BM	Checked By: BM
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LYNX PETROLEUM

EDDY BD STATE # 2



WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURE (~~Ps~~ or Pw)
FROM KNOWN BOTTOM HOLE PRESSURE (~~Pf~~ or Ps)

FORM C-122F

COMPANY LYNX PETROLEUM LEASE : E. BD ST. WELL NO. : 2 DATE 9-13-07
UNIT SECTION : TOWNSHIP : RANGE :
L 12260 H : 12260 L/H : 1 G/GMIX : 0.5940
CO2 : 0.978 N2 : 0.214 H2S :
GH : 7282.4 PCR : 672 TCR : 354

LINE		1	2	3	4	5	6	7	8
1	TW(W.H. R)	534	534	534	534	534	534	534	534
2	Ts(B.H. R)	656.6	656.6	656.6	656.6	656.6	656.6	656.6	656.6
3	T=(Tw+Ts/2)	595.3	595.3	595.3	595.3	595.3	595.3	595.3	595.3
4	Z (EST.)	1.013	0.911	0.936	0.902	0.923	0.891	0.910	0.881
5	TZ	603	542	557	537	549	531	542	525
6	GH/TZ	12.073	13.433	13.070	13.564	13.254	13.724	13.443	13.884
7	eS(TABLE XIV)	1.573	1.655	1.633	1.663	1.644	1.673	1.656	1.683
8	Pf or Ps	4762.77	4762.77	4649.7	4649.7	4463.98	4463.98	4270.47	4270.47
9	Pf2 or Ps2	22684.0	22684.0	21619.7	21619.7	19927.1	19927.1	18236.9	18236.9
10	Pc2=Pf/eS or Pw2=Ps2/eS	14424.5	13707.1	13243.0	13000.3	12122.4	11910.7	11015.9	10835.2
11	Pc or Pw	3798	3702	3639	3606	3482	3451	3319	3292
12	P=(Pw+Ps/2) or (Pc+Pf/2)	4280	4233	4144	4128	3973	3958	3795	3781
13	Pr=(P/Pcr)	6.37	6.30	6.17	6.14	5.91	5.89	5.65	5.63
14	Tr(T/Tcr)	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68
15	Z (TABLE XI)	0.911	0.908	0.902	0.901	0.891	0.890	0.881	0.880

PW 1 : 3702.3 PW 2 : 3605.6 PW 3 : 3451.2 PW 4 : 3291.7

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURE (P_c ~~or~~ P_w)
FROM KNOWN BOTTOM HOLE PRESSURE (P_f ~~or~~ P_g)

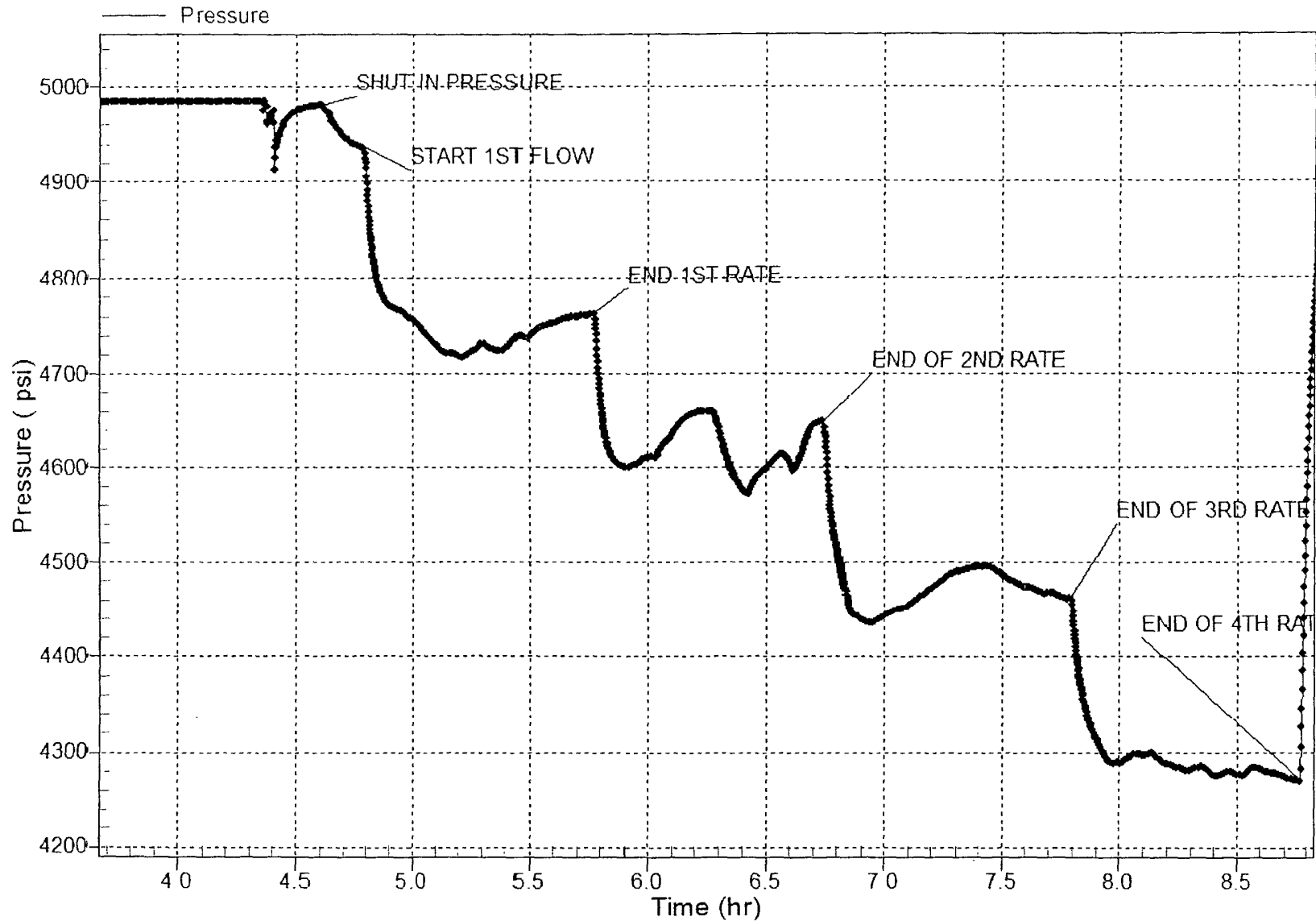
FORM C-122F

COMPANY LYNX PETROLEUM LEASE : E. BD ST. WELL NO. : 2 DATE 9-13-07
UNIT SECTION : TWSHP : RANGE :
L 12260 H : 12260 L/H : 1 G/GMIX : 0.5940
CO2 : 0.978 N2 : 0.214 H2S :
GH : 7282.4 PCR : 672 TCR : 354

LINE		1	2	3	4	5	6	7	8
1	TW(W.H. R)	534	534	534	534	534	534	534	534
2	Ts(B.H. R)	656.6	656.6	656.6	656.6	656.6	656.6	656.6	656.6
3	T=(Tw+Ts/2)	595.3	595.3	595.3	595.3	595.3	595.3	595.3	595.3
4	Z (EST.)	1.031	0.924	ERR	ERR	ERR	ERR	ERR	ERR
5	TZ	613	550	ERR	ERR	ERR	ERR	ERR	ERR
6	GH/TZ	11.871	13.235	ERR	ERR	ERR	ERR	ERR	ERR
7	eS(TABLE XIV)	1.561	1.643	ERR	ERR	ERR	ERR	ERR	ERR
8	Pf or Ps	4980.27	4980.27	0	0	0	0	0	0
9	Pf2 or Ps2	24803.1	24803.1	0.0	0.0	0.0	0.0	0.0	0.0
10	$P_c2 = P_f/eS$ or $P_w2 = P_s2/eS$	15892.0	15099.4	ERR	ERR	ERR	ERR	ERR	ERR
11	Pc or Pw	3986	3886	ERR	ERR	ERR	ERR	ERR	ERR
12	$P = (P_w + P_s/2)$ or $(P_c + P_f/2)$	4483	4433	ERR	ERR	ERR	ERR	ERR	ERR
13	$P_r = (P/P_{cr})$	6.67	6.60	ERR	ERR	ERR	ERR	ERR	ERR
14	$T_r(T/T_{cr})$	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68
15	Z (TABLE XI)	0.924	0.921	ERR	ERR	ERR	ERR	ERR	ERR

P_c ~~or~~ 1 : 3885.8 PW 2 : ERR PW 3 : ERR PW 4 : ERR

LYNX PETROLEUM
EDDY BD STATE #2



Pro Well Testing & Wireline, Inc.
P.O. Box 791 Hobbs, NM 88241
(505) 397-3590

Event

Date	Time	Event	Pressure (psi)	Temperature (d ...	Annotation
9/13/2007	8:47:43 PM	SHUT IN PRESSURE	4980.27	193.39	
9/13/2007	8:59:07 PM	START 1ST FLOW	4935.08	193.10	✓
9/13/2007	9:58:25 PM	END 1ST RATE	4762.77	194.24	✓
9/13/2007	10:56:31 PM	END OF 2ND RATE	4649.74	193.91	✓
9/13/2007	11:59:25 PM	END OF 3RD RATE	4463.98	192.84	✓
9/14/2007	12:57:55 AM	END OF 4TH RATE	4270.47	191.51	✓

Delete

Edit

Cancel

OK