

1P1-12 N/R

SAGE ENERGY COMPANY

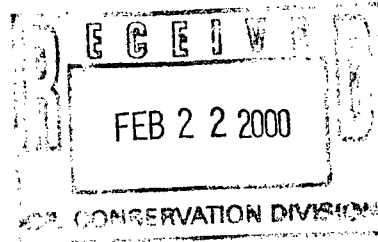
P. O. DRAWER 3068

MIDLAND, TEXAS 79702

915/683-5271

February 8, 2000

State of New Mexico
Oil Conservation Division
P.O. Box 2088
Santa Fe, NM. 87504



Attn: Mr. Mark Ashley

Re: Injection Pressure Increase
North Vacuum (Abo) North Unit Waterflood Project
Lea County, New Mexico

Dear Mr. Ashley:

Sage Energy Company respectfully requests permission from the OCD to increase the maximum allowable surface injection pressure for seven injection wells. This request is based on step rate tests performed February 3-4, 2000.

Enclosed are seven step rate tests and a table outlining the prior maximum injection pressure set by the state and the requested allowable increase.

Yours truly,

A handwritten signature in cursive script that reads "George M. Harris, Jr.".

George M. Harris, Jr.
Engineer

Cc: OCD - Hobbs

Sage Energy Company

Injection Pressure Increase
North Vacuum (Abo) North Unit Waterflood Project
Lea County, New Mexico

INJECTION WELL	CURRENT MAXIMUM INJECTION WHP	REQUESTED MAXIMUM INJECTION WHP
NVANU 1B #1 ✓	3985#	4810# 4730-50= 4680 ✓
NVANU 2A #1 ✓	4170#	4605# 4655-50= 4605 ✓
NVANU 6C #1 ✓	4145#	4185# 4235-50= 4185 ✓
NVANU 17 #1 ✓	3480#	4280# 4330-50= 4280 ✓
NVANU 19 #1 ✓	4110#	4850# ✓
NVANU 19 #2 ✓	3865#	4050# ✓
NVANU 21A #1 ✓	4130#	4500# ✓

REPORTING FIELD... 4031 VACUUM ABO
 WELL... 20012 002 NVANU "16" #2
 FIELD... 4031 VACUUM ABO
 LOCATION...
 PUMPER... EDDIE ELLIOTT JR
 STATUS... PUMPING

OPENING STOCK... .91
 CLOSING STOCK... .36

DAY	OIL	GAS	WATER	TP	CHOKE	HRS	REMARKS
01	2.02	1	.00	0/	00/00	0	
02	1.84	1	.00	0/	00/00	0	
03	1.97	1	.00	0/	00/00	0	
04	1.97	1	.00	0/	00/00	0	
05	1.98	1	.00	0/	00/00	0	
06	1.97	1	.00	0/	00/00	0	
07	2.01	1	.00	0/	00/00	0	
08	2.00	1	.00	0/	00/00	0	
09	1.96	1	.00	0/	00/00	0	
10	1.96	1	.00	0/	00/00	0	
11	1.99	1	.00	0/	00/00	0	
12	1.96	1	.00	0/	00/00	0	
13	1.98	1	.00	0/	00/00	0	
14	1.96	1	.00	0/	00/00	0	
15	1.96	1	.00	0/	00/00	0	
16	1.90	1	.00	0/	00/00	0	
17	1.96	1	.00	0/	00/00	0	
18	1.93	1	.00	0/	00/00	0	
19	1.92	1	.00	0/	00/00	0	
20	1.93	1	.00	0/	00/00	0	
21	1.93	1	.00	0/	00/00	0	
22	1.87	1	.00	0/	00/00	0	
23	1.92	1	.00	0/	00/00	0	
24	1.93	1	.00	0/	00/00	0	
25	1.95	1	.00	0/	00/00	0	
26	1.95	1	.00	0/	00/00	0	
27	1.94	1	.00	0/	00/00	0	
28	2.00	1	.00	0/	00/00	0	
29	2.09	1	.00	0/	00/00	0	
30	1.91	1	.00	0/	00/00	0	
31	2.09	1	.00	0/	00/00	0	PL 16893
	60.75	31	.00				PRODUCED 31 DAYS

TOTAL OIL SALES... 61.30

OWNERS RECEIVING REPORTS

SAGE ENERGY COMPANY
NORTH VACUUM ABO NORTH UNIT
STEP RATE TEST

NVANU 1B-1



DATE: FEB. 3, 2000
INTERCEPT: 4860 psig

REPORTING FIELD... 4031 VACUUM ABO
 WELL... 20005 002 NVANU "9" #3
 FIELD... 4031 VACUUM ABO
 LOCATION...
 PUMPER... EDDIE ELLIOTT JR
 STATUS... PUMPING

OPENING STOCK... 14.45
 CLOSING STOCK... 5.79

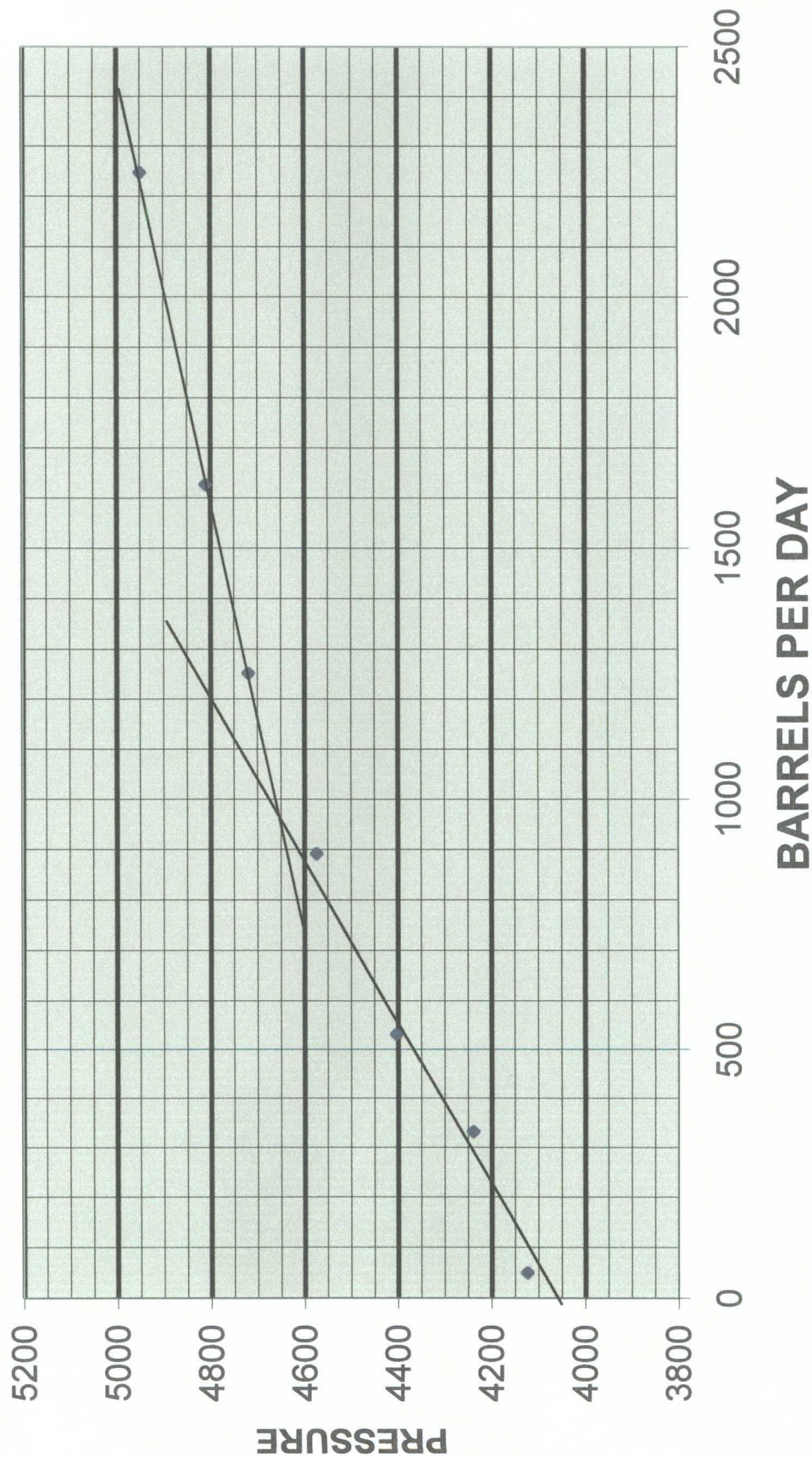
DAY	OIL	GAS	WATER	TP	CHOK	HRS	REMARKS
01	32.28	10	141.52	0/	00/00	0	
02	29.50	8	118.07	0/	00/00	0	
03	31.59	8	168.61	0/	00/00	0	
04	31.54	9	146.11	0/	00/00	0	
05	31.71	9	142.43	0/	00/00	0	
06	31.54	10	146.11	0/	00/00	0	
07	32.23	10	138.75	0/	00/00	0	
08	31.94	10	141.52	0/	00/00	0	
09	31.36	9	142.43	0/	00/00	0	
10	31.42	9	150.26	0/	00/00	0	
11	31.83	9	141.05	0/	00/00	0	
12	31.36	10	138.75	0/	00/00	0	
13	31.71	10	138.31	0/	00/00	0	
14	31.36	10	142.91	0/	00/00	0	
15	31.36	9	138.75	0/	00/00	0	
16	30.37	9	146.11	0/	00/00	0	
17	31.42	9	142.91	0/	00/00	0	
18	30.95	9	144.27	0/	00/00	0	
19	30.66	10	141.05	0/	00/00	0	
20	30.90	10	138.31	0/	00/00	0	
21	30.90	9	136.92	0/	00/00	0	
22	29.91	9	141.52	0/	00/00	0	
23	30.72	9	144.27	0/	00/00	0	
24	30.84	9	145.66	0/	00/00	0	
25	31.13	9	143.34	0/	00/00	0	
26	31.19	10	143.34	0/	00/00	0	
27	31.07	9	142.91	0/	00/00	0	
28	32.06	9	150.26	0/	00/00	0	
29	33.45	9	145.66	0/	00/00	0	
30	30.61	6	142.91	0/	00/00	0	
31	33.51	10	146.11	0/	00/00	0	PL 16893
	972.42	285	4431.13				PRODUCED 31 DAYS

TOTAL OIL SALES... 981.08

OWNERS RECEIVING REPORTS

SAGE ENERGY COMPANY
NORTH VACUUM ABO NORTH UNIT
STEP RATE TEST

NVANU 2A-1



DATE: FEB. 4, 2000
INTERCEPT: 4655 psig

REPORTING FIELD... 4031 VACUUM ABO
 WELL... 20015 008 NVANU 3 #2
 FIELD... 4031 VACUUM ABO
 LOCATION...
 PUMPER... EDDIE ELLIOTT JR
 STATUS... PUMPING

OPENING STOCK... 16.71
 CLOSING STOCK... 6.70

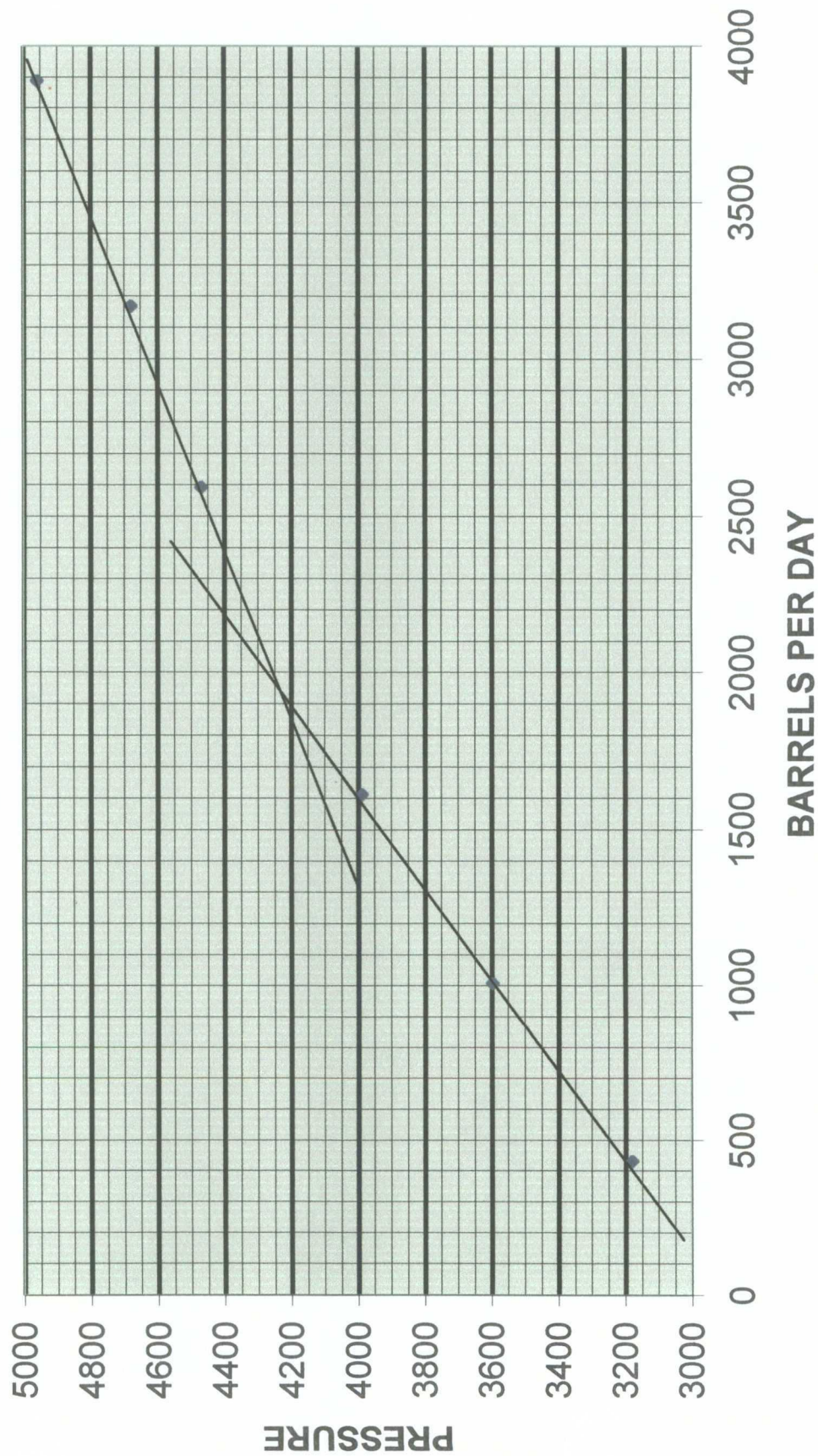
DAY	OIL	GAS	WATER	TP	CHOK	HRS	REMARKS
01	37.33	11	.00	0/	00/00	0	
02	34.11	9	.00	0/	00/00	0	
03	36.53	9	.00	0/	00/00	0	
04	36.46	10	.00	0/	00/00	0	
05	36.66	10	.00	0/	00/00	0	
06	36.46	11	.00	0/	00/00	0	
07	37.27	11	.00	0/	00/00	0	
08	36.93	11	.00	0/	00/00	0	
09	36.26	10	.00	0/	00/00	0	
10	36.33	10	.00	0/	00/00	0	
11	36.80	10	.00	0/	00/00	0	
12	36.26	11	.00	0/	00/00	0	
13	36.66	11	.00	0/	00/00	0	
14	36.26	11	.00	0/	00/00	0	
15	36.26	10	.00	0/	00/00	0	
16	35.12	10	.00	0/	00/00	0	
17	36.33	10	.00	0/	00/00	0	
18	35.79	11	.00	0/	00/00	0	
19	35.46	11	.00	0/	00/00	0	
20	35.72	11	.00	0/	00/00	0	
21	35.72	10	.00	0/	00/00	0	
22	34.58	10	.00	0/	00/00	0	
23	35.52	9	.00	0/	00/00	0	
24	35.66	10	.00	0/	00/00	0	
25	35.99	10	.00	0/	00/00	0	
26	36.06	11	.00	0/	00/00	0	
27	35.93	10	.00	0/	00/00	0	
28	37.07	10	.00	0/	00/00	0	
29	38.68	10	.00	0/	00/00	0	
30	35.39	7	.00	0/	00/00	0	
31	38.75	11	.00	0/	00/00	0	PL 16893
	1124.35	316	.00				PRODUCED 31 DAYS

TOTAL OIL SALES... 1134.36

OWNERS RECEIVING REPORTS

SAGE ENERGY COMPANY
NORTH VACUUM ABO NORTH UNIT
STEP RATE TEST

NVANU 6C-1



DATE: FEB. 4, 2000
INTERCEPT @ 4235 psig

REPORTING FIELD.....2011 BARNHART
 WELL.....67 001 UNIVERSITY 4B-C #1
 FIELD.....2011 BARNHART
 LOCATION.....
 PUMPER.....JOE JOHNSON
 STATUS.....PUMPING

OPENING STOCK... 268.20
 CLOSING STOCK... 209.56

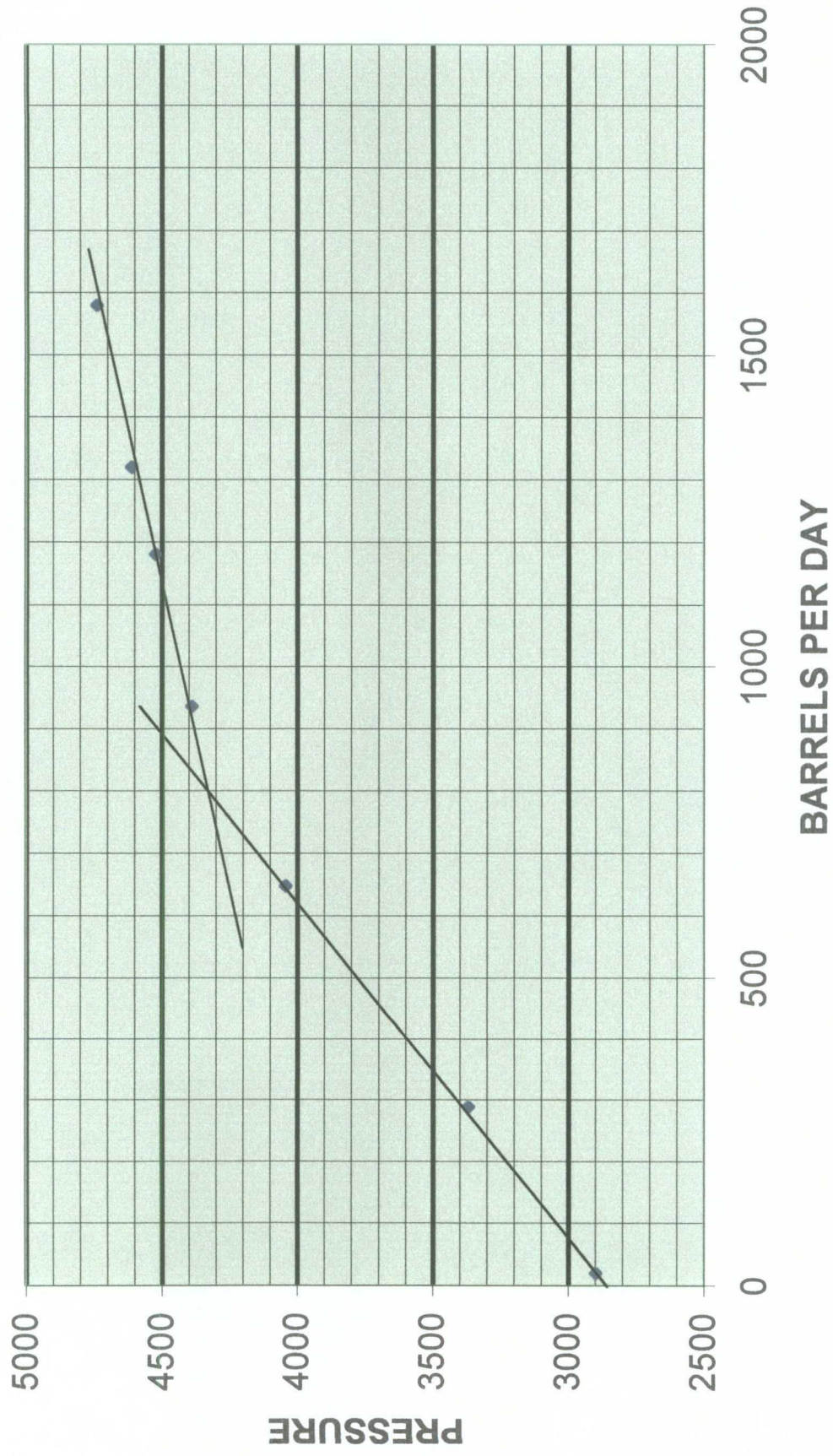
DAY	OIL	GAS	WATER	TP	CHOKE	HRS	REMARKS
01	16.75	36	21.00	0/	00/00	0	
02	16.75	36	20.00	0/	00/00	0	
03	16.76	36	21.00	0/	00/00	0	
04	16.75	36	24.00	0/	00/00	0	
05	16.75	36	21.00	0/	00/00	0	
06	16.76	36	19.00	0/	00/00	0	
07	16.75	36	20.00	0/	00/00	0	
08	16.75	36	19.00	0/	00/00	0	
09	16.76	36	18.00	0/	00/00	0	
10	16.75	36	21.00	0/	00/00	0	
11	16.75	36	22.00	0/	00/00	0	
12	17.45	36	20.00	0/	00/00	0	PL 182
13	14.69	36	20.00	0/	00/00	0	PL 182
14	16.76	36	22.00	0/	00/00	0	
15	16.76	36	22.00	0/	00/00	0	
16	16.75	36	20.00	0/	00/00	0	
17	16.76	36	19.00	0/	00/00	0	
18	16.75	36	18.00	0/	00/00	0	
19	13.97	36	20.00	0/	00/00	0	
20	13.96	36	21.00	0/	00/00	0	
21	13.96	36	23.00	0/	00/00	0	
22	13.96	36	21.00	0/	00/00	0	
23	16.75	36	19.00	0/	00/00	0	
24	16.76	36	19.00	0/	00/00	0	
25	16.75	36	23.00	0/	00/00	0	
26	11.16	36	20.00	0/	00/00	0	PL 184
27	13.96	36	19.00	0/	00/00	0	
28	16.76	36	19.00	0/	00/00	0	
29	13.97	36	18.00	0/	00/00	0	
30	13.96	36	21.00	0/	00/00	0	
31	13.96	36	22.00	0/	00/00	0	
	490.08	1116	632.00				PRODUCED 31 DAYS

TOTAL OIL SALES... 548.72

OWNERS RECEIVING REPORTS

SAGE ENERGY COMPANY
NORTH VACUUM ABO NORTH UNIT
STEP RATE TEST

NVANU 17-1



DATE: FEB. 3, 2000
INTERCEPT: 4330 psig

REPORTING FIELD... 4031 VACUUM ABO
 WELL... 20015 007 NVANU 4 #2A
 FIELD... 4031 VACUUM ABO
 LOCATION...
 PUMPER... EDDIE ELLIOTT JR
 STATUS... PUMPING
 OPENING STOCK... 19.87
 CLOSING STOCK... 7.96

DAY	OIL	GAS	WATER	TP	CHOKE	HRS	REMARKS
01	44.39	13	2.08	0/	00/00	0	
02	40.57	10	1.74	0/	00/00	0	
03	43.44	10	2.48	0/	00/00	0	
04	43.36	12	2.15	0/	00/00	0	
05	43.60	12	2.09	0/	00/00	0	
06	43.36	13	2.15	0/	00/00	0	
07	44.32	13	2.04	0/	00/00	0	
08	43.92	13	2.08	0/	00/00	0	
09	43.12	12	2.09	0/	00/00	0	
10	43.20	12	2.21	0/	00/00	0	
11	43.76	12	2.07	0/	00/00	0	
12	43.12	13	2.04	0/	00/00	0	
13	43.60	13	2.03	0/	00/00	0	
14	43.12	13	2.10	0/	00/00	0	
15	43.12	13	2.04	0/	00/00	0	
16	41.76	12	2.15	0/	00/00	0	
17	43.20	13	2.10	0/	00/00	0	
18	42.56	13	2.12	0/	00/00	0	
19	42.16	13	2.07	0/	00/00	0	
20	42.48	13	2.03	0/	00/00	0	
21	42.48	13	2.01	0/	00/00	0	
22	41.13	12	2.08	0/	00/00	0	
23	42.24	11	2.12	0/	00/00	0	
24	42.40	12	2.14	0/	00/00	0	
25	42.80	12	2.11	0/	00/00	0	
26	42.88	13	2.11	0/	00/00	0	
27	42.72	12	2.10	0/	00/00	0	
28	44.08	12	2.21	0/	00/00	0	
29	46.00	13	2.14	0/	00/00	0	
30	42.08	9	2.10	0/	00/00	0	
31	46.08	13	2.15	0/	00/00	0	PL 16893
	1337.05	379	65.13				PRODUCED 31 DAYS

TOTAL OIL SALES... 1348.96

OWNERS RECEIVING REPORTS

SAGE ENERGY COMPANY
NORTH VACUUM ABO NORTH UNIT
STEP RATE TEST

NVANU 19-1



DATE: FEB. 3, 2000
INTERCEPT: 4900 psig

REPORTING FIELD... 4031 VACUUM ABO
 WELL... 20006 002 NVANU "11" #2
 FIELD... 4031 VACUUM ABO
 LOCATION...
 PUMPER... EDDIE ELLIOTT JR
 STATUS... PUMPING

OPENING STOCK... 16.25
 CLOSING STOCK... 6.52

DAY	OIL	GAS	WATER	TP	CHOKE	HRS	REMARKS
01	36.32	11	.00	0/	00/00	0	
02	33.19	9	.00	0/	00/00	0	
03	35.54	9	.00	0/	00/00	0	
04	35.48	10	.00	0/	00/00	0	
05	35.67	10	.00	0/	00/00	0	
06	35.48	11	.00	0/	00/00	0	
07	36.26	11	.00	0/	00/00	0	
08	35.93	11	.00	0/	00/00	0	
09	35.28	10	.00	0/	00/00	0	
10	35.35	10	.00	0/	00/00	0	
11	35.80	10	.00	0/	00/00	0	
12	35.28	11	.00	0/	00/00	0	
13	35.67	11	.00	0/	00/00	0	
14	35.28	11	.00	0/	00/00	0	
15	35.28	10	.00	0/	00/00	0	
16	34.17	10	.00	0/	00/00	0	
17	35.35	10	.00	0/	00/00	0	
18	34.82	11	.00	0/	00/00	0	
19	34.50	11	.00	0/	00/00	0	
20	34.76	11	.00	0/	00/00	0	
21	34.76	10	.00	0/	00/00	0	
22	33.65	10	.00	0/	00/00	0	
23	34.56	9	.00	0/	00/00	0	
24	34.69	10	.00	0/	00/00	0	
25	35.02	10	.00	0/	00/00	0	
26	35.09	11	.00	0/	00/00	0	
27	34.95	10	.00	0/	00/00	0	
28	36.07	10	.00	0/	00/00	0	
29	37.63	10	.00	0/	00/00	0	
30	34.43	7	.00	0/	00/00	0	
31	37.70	11	.00	0/	00/00	0	PL 16893
	1093.96	316	.00				PRODUCED 31 DAYS

TOTAL OIL SALES... 1103.69

OWNERS RECEIVING REPORTS

SAGE ENERGY COMPANY
NORTH VACUUM ABO NORTH UNIT
STEP RATE TEST

NVANU 19-2



DATE: FEB. 4, 2000
INTERCEPT: 4100 psig

REPORTING FIELD... 4031 VACUUM ABO
 WELL... 20035 500 NVANU "5" B #2
 FIELD... 4031 VACUUM ABO
 LOCATION...
 PUMPER... EDDIE ELLIOTT JR
 STATUS... PUMPING

OPENING STOCK... 18.97
 CLOSING STOCK... 7.60

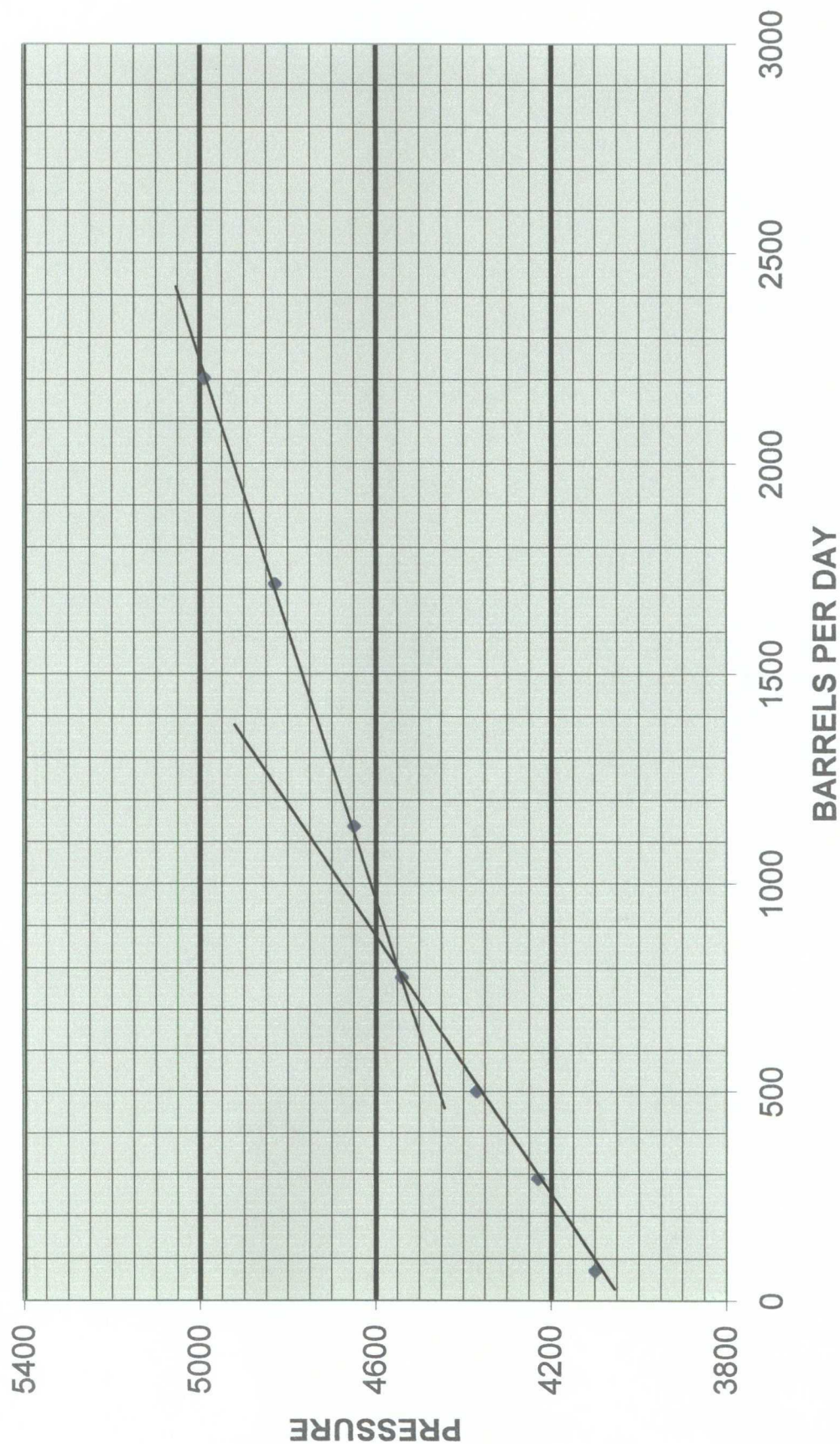
DAY	OIL	GAS	WATER	TP	CHOKE	HRS	REMARKS
01	42.37	13	32.26	0/	00/00	0	
02	38.72	10	26.92	0/	00/00	0	
03	41.47	10	38.44	0/	00/00	0	
04	41.39	12	33.30	0/	00/00	0	
05	41.62	12	32.47	0/	00/00	0	
06	41.39	13	33.30	0/	00/00	0	
07	42.30	13	31.63	0/	00/00	0	
08	41.92	13	32.26	0/	00/00	0	
09	41.16	12	32.47	0/	00/00	0	
10	41.24	12	34.25	0/	00/00	0	
11	41.77	12	32.15	0/	00/00	0	
12	41.16	13	31.63	0/	00/00	0	
13	41.62	13	31.52	0/	00/00	0	
14	41.16	13	32.57	0/	00/00	0	
15	41.16	12	31.63	0/	00/00	0	
16	39.87	12	33.30	0/	00/00	0	
17	41.24	13	32.57	0/	00/00	0	
18	40.63	13	32.89	0/	00/00	0	
19	40.25	13	32.15	0/	00/00	0	
20	40.55	13	31.52	0/	00/00	0	
21	40.55	13	31.21	0/	00/00	0	
22	39.26	12	32.26	0/	00/00	0	
23	40.32	11	32.89	0/	00/00	0	
24	40.48	12	33.20	0/	00/00	0	
25	40.86	12	32.68	0/	00/00	0	
26	40.93	13	32.68	0/	00/00	0	
27	40.78	12	32.57	0/	00/00	0	
28	42.08	12	34.25	0/	00/00	0	
29	43.91	13	33.20	0/	00/00	0	
30	40.17	9	32.57	0/	00/00	0	
31	43.98	13	33.30	0/	00/00	0	PL 16893
	1276.31	379	1010.04				PRODUCED 31 DAYS

TOTAL OIL SALES... 1287.68

OWNERS RECEIVING REPORTS

SAGE ENERGY COMPANY
NORTH VACUUM ABO NORTH UNIT
STEP RATE TEST

NVANU 21-A1



DATE: FEB. 3, 2000
INTERCEPT: 4550 psig

REPORTING FIELD...4031 VACUUM ABO
 WELL...20006 004 NVANU "12" A#2
 FIELD...4031 VACUUM ABO
 LOCATION...
 PUMPER...EDDIE ELLIOTT JR
 STATUS...PUMPING
 OPENING STOCK...91
 CLOSING STOCK...36

DAY	OIL	GAS	WATER	TP	CHOKE	HRS	REMARKS
01	2.02	1	.00	0/	00/00	0	
02	1.84	1	.00	0/	00/00	0	
03	1.97	1	.00	0/	00/00	0	
04	1.97	1	.00	0/	00/00	0	
05	1.98	1	.00	0/	00/00	0	
06	1.97	1	.00	0/	00/00	0	
07	2.01	1	.00	0/	00/00	0	
08	2.00	1	.00	0/	00/00	0	
09	1.96	1	.00	0/	00/00	0	
10	1.96	1	.00	0/	00/00	0	
11	1.99	1	.00	0/	00/00	0	
12	1.96	1	.00	0/	00/00	0	
13	1.98	1	.00	0/	00/00	0	
14	1.96	1	.00	0/	00/00	0	
15	1.96	1	.00	0/	00/00	0	
16	1.90	1	.00	0/	00/00	0	
17	1.96	1	.00	0/	00/00	0	
18	1.93	1	.00	0/	00/00	0	
19	1.92	1	.00	0/	00/00	0	
20	1.93	1	.00	0/	00/00	0	
21	1.93	1	.00	0/	00/00	0	
22	1.87	1	.00	0/	00/00	0	
23	1.92	1	.00	0/	00/00	0	
24	1.93	1	.00	0/	00/00	0	
25	1.95	1	.00	0/	00/00	0	
26	1.95	1	.00	0/	00/00	0	
27	1.94	1	.00	0/	00/00	0	
28	2.00	1	.00	0/	00/00	0	
29	2.09	1	.00	0/	00/00	0	
30	1.91	1	.00	0/	00/00	0	
31	2.09	1	.00	0/	00/00	0	PL 16893
	60.75	31	.00				PRODUCED 31 DAYS

TOTAL OIL SALES... 61.30

OWNERS RECEIVING REPORTS