

March 3, 1987

→ Mook

A. W. Hoch, President  
Magma Power Company  
P.O. Box 17760  
Los Angeles, CA 90017

SUBJECT: EAST MESA OPERATIONS FOR FEBRUARY 1987

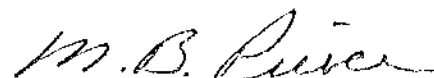
Dear Andy:

PLANT OPERATIONS HIGHLIGHTS: The plant had an on line percentage of 99.48 with gross generation of 6,622,000 KWH and sales of 3,837,000 KWH. Down time was contributed to a loss of the 34.5 kv line due to inclement weather. The brine flow into the plant averaged 1,304,988 lbs/hr and 349 degrees.

WELL OPERATIONS HIGHLIGHTS: Production well 48-7 (number 5) was brought on line the 3rd and we have been injecting a scale inhibitor into the pump suction. The inhibitor seems to be working well for us as the flow out of the well has been stable. Production well 61-7 (number 8) was taken out of service on February 5 because of low flow and the motor amps were swinging. The line shaft bearings on the lower end of the assembly had failed. The pump has been rebuilt and will be installed as soon as the lube string and shaft have been repaired.

PROBLEMS AND SOLUTIONS: The plant heat rate has been higher than normal since the turbine rotor was installed on the 19th of December. There has been a loss in efficiency due to a suspected seal failure on the inlet vane assembly. Southern Calif. Edison will be taking the 500KV transmission line out this week at which time we will open the expander up for inspection. We will also inspect and clean the water inlet to the condensers, to insure that they are ready for the long peak period run this summer.

Sincerely,



Michael B. Pierce  
Plant Superintendent

MBP/jb

CC: B.C. McCabe  
Jim Shepard  
April Taylor  
Joe Aidlin  
T.C. Hinrichs  
R.L. Tenney  
Buck McCabe  
Ed Zajac  
G.R. Crane  
S. Hagerty  
A. Taylor  
J. Shepard  
A.L. Johnson  
P.M. Pankratz  
J.M. Leathers  
R.L. Walzel  
Fred Teeters

PLANT FEB 87	BRINE FLOW LBS/HR	TEMP IN DEGREES F	TEMP OUT DEGREES F	GROSS MW DAY	NET MW DAY	HOURS DAY	COOLING WATER TEMP	COND PRESS	WET BULB DEGREES F	HEAT RATE LBS/KW	PLANT EFF.	TURBINE IN DEGREES F	TURBINE OUT DEGREES F
1	1151000	348	155	210	118	24.0	59.3	42.0	58.0	131.5	13.4	301	154
2	1067667	348	154	182	101	24.0	59.3	41.0	60.7	140.8	12.5	301	154
3	1091000	346	155	196	104	24.0	60.3	41.3	59.7	133.6	13.4	301	156
4	1369333	348	161	252	141	24.0	61.0	44.0	60.7	130.4	14.0	303	158
5	1345667	348	157	238	142	24.0	60.0	44.0	60.7	135.7	13.2	300	155
6	1345000	349	156	238	142	24.0	59.7	44.3	64.3	135.6	13.0	301	154
7	1344333	349	157	252	140	24.0	59.7	44.7	62.0	128.0	13.9	300	155
8	1344333	349	158	238	142	24.0	60.3	45.7	61.3	135.6	13.2	301	155
9	1340333	349	158	238	143	24.0	61.3	45.7	62.0	135.2	13.2	301	155
10	1337000	349	158	252	141	24.0	61.0	47.0	62.0	127.3	14.0	300	157
11	1335333	349	159	238	137	24.0	63.3	48.0	66.0	134.7	13.3	300	157
12	1338000	349	159	224	135	24.0	64.3	48.3	65.7	143.4	12.5	300	157
13	1337333	348	160	238	134	24.0	64.7	49.3	65.7	134.9	13.5	300	157
14	1336667	348	159	238	135	24.0	65.3	48.3	64.7	134.8	13.4	300	156
15	1336667	348	158	238	139	24.0	63.7	47.7	61.0	134.8	13.3	300	155
16	1335667	348	157	238	142	24.0	62.0	46.3	61.7	134.7	13.3	300	153
17	1334333	348	156	252	144	24.0	59.3	44.0	59.7	127.1	14.0	300	153
18	1333667	348	156	238	144	24.0	59.3	44.0	59.3	134.5	13.2	300	153
19	1334333	349	156	252	146	24.0	57.7	43.0	58.7	127.1	13.9	300	152
20	1334000	349	154	252	147	24.0	56.7	42.3	56.7	127.0	13.8	300	151
21	1334333	349	154	238	147	24.0	55.3	41.7	57.7	134.6	13.0	300	152
22	1336000	349	154	252	145	24.0	56.0	43.0	57.3	127.2	13.8	300	152
23	1332667	349	155	238	143	24.0	58.0	44.7	57.3	134.4	13.1	300	153
24	1086000	348	157	210	114	20.5	57.3	42.7	57.0	106.0	16.9	303	156
25	1342667	349	158	238	143	24.0	56.7	40.3	55.0	139.4	13.2	304	159
26	1339000	349	158	252	144	24.0	55.3	40.0	52.3	127.5	14.0	304	157
27	1337667	349	158	238	144	24.0	54.7	40.7	55.3	134.9	13.2	304	159
28	1337667	349	158	252	140	24.0	55.7	42.0	55.7	127.6	14.0	304	159
29													
30													
31													

AVERAGE 1304988 349 157 237 137 60 44 60 131.9 13.5 301 155

TOTAL 872384550 6622 3837 668.5

ON LINE PERCENTAGE = 99.48%

PEAK PERIOD AVERAGE = 5.65

HIGH PEAK AVERAGE = 6.12

OFF PEAK AVERAGE = 5.47

MEGAWATTS: FEB 87	PEAK PER DAY	MID PEAK PER DAY	OFF PEAK PER DAY	PEAK AVERAGE	MID PEAK AVERAGE	OFF PEAK AVERAGE	TOTAL PER DAY	AVERAGE PER HOUR
1			118	0.00	0.00	4.92	118	4.92
2	16	43	42	4.00	4.78	3.82	101	4.21
3	16	40	48	4.00	4.44	4.36	104	4.33
4	24	55	62	6.00	6.11	5.64	141	5.88
5	24	56	62	6.00	6.22	5.64	142	5.92
6	23	57	62	5.75	6.33	5.64	142	5.92
7			140	0.00	0.00	5.83	140	5.83
8			142	0.00	0.00	5.92	142	5.92
9	23	57	63	5.75	6.33	5.73	143	5.96
10	23	57	61	5.75	6.33	5.55	141	5.88
11	22	55	60	5.50	6.11	5.45	137	5.71
12	22	54	59	5.50	6.00	5.36	135	5.63
13	22	54	58	5.50	6.00	5.27	134	5.58
14			135	0.00	0.00	5.63	135	5.63
15			139	0.00	0.00	5.79	139	5.79
16	23	57	62	5.75	6.33	5.64	142	5.92
17	24	57	63	6.00	6.33	5.73	144	6.00
18	24	57	63	6.00	6.33	5.73	144	6.00
19	24	58	64	6.00	6.44	5.82	146	6.08
20	24	59	64	6.00	6.56	5.82	147	6.13
21			147	0.00	0.00	6.13	147	6.13
22			145	0.00	0.00	6.04	145	6.04
23	24	57	62	6.00	6.33	5.64	143	5.96
24	23	58	33	5.75	6.44	3.00	114	4.75
25	23	57	63	5.75	6.33	5.73	143	5.96
26	24	57	63	6.00	6.33	5.73	144	6.00
27	24	57	63	6.00	6.33	5.73	144	6.00
28			140	0.00	0.00	5.83	140	5.83
29								0.00
30								0.00
31								0.00

TOTAL	452	1102	2283				3837	
AVERAGE	22.6	55.1	81.5	5.65	6.12	5.47	137.0	5.71
PEAK EARNINGS		52439.20						
MID PEAK		90749.80						
OFF PEAK		133555.60						
GRAND PAYMENT		73335.00						
TOTAL		278744.60						

POWER DATE FEB 87	SPRAYS PANEL	WELLS PANEL	TOSHIBA PANEL	KVA PANEL	ELED BFP PANEL	GROSS MW PANEL	MW BOUGHT 31 DK METER	MW SOLD 31 K METER	DEMAND METER
1	15.4	12.6	33.6	5.6	24.5	210.0	0.0	118.0	0.0
2	12.6	16.8	33.6	1.4	28.0	182.0	0.0	101.0	0.0
3	14.0	16.8	33.6	4.2	24.5	196.0	0.0	104.0	0.0
4	14.0	21.0	33.6	2.8	24.5	252.0	0.0	141.0	0.0
5	14.0	25.2	33.6	4.2	24.5	238.0	0.0	142.0	0.0
6	14.0	21.0	33.6	4.2	21.0	238.0	0.0	142.0	0.0
7	15.4	25.2	37.8	2.8	24.5	252.0	0.0	140.0	0.0
8	14.0	21.0	33.6	4.2	24.5	238.0	0.0	142.0	0.0
9	12.6	25.2	33.6	2.8	24.5	238.0	0.0	143.0	0.0
10	14.0	21.0	33.6	4.2	24.5	252.0	0.0	141.0	0.0
11	14.0	25.2	33.6	2.8	24.5	238.0	0.0	137.0	0.0
12	14.0	21.0	33.6	2.8	24.5	224.0	0.0	135.0	0.0
13	14.0	25.2	37.8	4.2	24.5	238.0	0.0	134.0	0.0
14	15.4	25.2	33.6	2.8	24.5	238.0	0.0	135.0	0.0
15	12.6	21.0	33.6	4.2	24.5	238.0	0.0	139.0	0.0
16	12.6	25.2	33.6	2.8	24.5	238.0	0.0	142.0	0.0
17	14.0	21.0	33.6	4.2	24.5	252.0	0.0	144.0	0.0
18	14.0	25.2	33.6	2.8	24.5	238.0	0.0	144.0	0.0
19	14.0	21.0	33.6	4.2	24.5	252.0	0.0	146.0	0.0
20	14.0	21.0	33.6	2.8	24.5	252.0	0.0	147.0	0.0
21	15.4	25.2	37.8	2.8	24.5	238.0	0.0	147.0	0.0
22	12.6	21.0	33.6	4.2	24.5	252.0	0.0	145.0	0.0
23	15.4	25.2	33.6	2.8	24.5	238.0	0.0	143.0	0.0
24	11.2	16.8	33.6	2.8	21.0	210.0	4.0	114.0	1.7
25	14.0	25.2	33.6	4.2	24.5	238.0	0.0	143.0	1.7
26	15.4	21.0	33.6	2.8	24.5	252.0	0.0	144.0	1.7
27	14.0	25.2	33.6	4.2	24.5	238.0	0.0	144.0	1.7
28	15.4	25.2	37.8	2.8	24.5	252.0	0.0	140.0	1.7
29									
30									
31									
AVERAGE	14.0	22.2	34.2	3.5	24.4	236.5		137.0	
TOTAL	392.0	621.6	957.6	96.6	682.5	6622.0	4.0	3837.0	
METER DIFFERENCE			= 38.7						

WELLS	WELL #1	WELL #2	WELL #3	WELL #4	WELL #5	WELL #6	WELL #7	WELL #8	WELL #9	WELL #10	TOTAL
DATE	FLOW	FLOW	FLOW	FLOW	FLOW	FLOW	FLOW	FLOW	FLOW	FLOW	BRINE FLOW
FEB 87	44-7A	44-7	44-7B	48-7A	48-7	88-7	63-7	61-7	81-7	83-7	
1			168000	298000		210000	153000	133000	119000	152000	1233000
2			167000	300000		211000	156000		126000	155000	11115000
3			164000	298000	330000	210000	156000		127000	155000	11440000
4			158000	284000	314000	210000	157000	140000	128000	156000	11547000
5			164000	279000	305000	207000	159000		129000	156000	11399000
6			165000	278000	300000	207000	160000		129000	156000	11395000
7			165000	276000	301000	209000	160000		129000	160000	11400000
8			162000	272000	305000	209000	160000		129000	157000	11394000
9			166000	273000	303000	209000	160000		129000	157000	11397000
10			163000	272000	298000	208000	159000		128000	156000	11384000
11			168000	273000	298000	208000	160000		128000	156000	11391000
12			165000	272000	299000	208000	160000		128000	156000	11388000
13			162000	271000	299000	209000	160000		128000	156000	11385000
14			166000	271000	299000	209000	160000		128000	156000	11389000
15			165000	271000	299000	208000	160000		128000	156000	11387000
16			165000	271000	298000	208000	160000		128000	156000	11386000
17			160000	270000	299000	209000	160000		128000	156000	11382000
18			160000	269000	298000	210000	160000		128000	156000	11381000
19			162000	269000	297000	209000	160000		128000	156000	11381000
20			159000	270000	297000	210000	160000		128000	156000	11380000
21			161000	271000	296000	209000	160000		128000	156000	11381000
22			162000	270000	296000	210000	160000		128000	156000	11382000
23			158000	270000	297000	209000	160000		128000	156000	11378000
24			154000	288000	298000	214000	160000		128000	157000	11399000
25			162000	278000	296000	210000	160000		128000	158000	11392000
26			154000	271000	299000	210000	160000		127000	156000	11377000
27			158000	270000	298000	210000	160000		127000	156000	11379000
28			156000	270000	296000	209000	160000		127000	156000	11374000
29											
30											
31											
AVERAGE			162107	275892	300577	209250	159285	136500	127642	156107	1379142

INJECTION:	46-7B	WELL 46-7B	46-7	WELL 46-7	84-7	WELL 84-7	TOTAL
WELLS	#1	#1	#3	#3	#4	#4	BRINE
FEB 87	PSIG	FLOW	PSIG	FLOW	PSIG	FLOW	FLOW
1	420	850000	420	54000	400	318000	1222000
2	383	730000	420	48000	397	324000	1102000
3	388	750000	423	54000	401	318000	1122000
4	445	960000	451	60000	432	366000	1386000
5	447	960000	449	60000	425	360000	1380000
6	448	950000	451	60000	428	348000	1358000
7	451	960000	451	60000	431	354000	1374000
8	451	960000	452	66000	430	348000	1374000
9	454	960000	453	60000	431	354000	1374000
10	452	960000	453	60000	432	354000	1374000
11	451	950000	458	60000	437	360000	1370000
12	452	950000	460	60000	440	360000	1370000
13	454	950000	460	60000	439	360000	1370000
14	450	950000	460	60000	440	360000	1370000
15	453	950000	460	60000	440	360000	1370000
16	452	950000	460	60000	438	360000	1370000
17	450	950000	459	60000	437	360000	1370000
18	450	950000	458	60000	436	360000	1370000
19	449	950000	457	60000	433	360000	1370000
20	447	950000	455	60000	432	360000	1370000
21	445	940000	453	60000	432	354000	1354000
22	447	950000	456	60000	431	354000	1364000
23	448	950000	455	60000	432	360000	1370000
24	436	920000	456	78000	436	384000	1382000
25	438	910000	469	66000	449	402000	1378000
26	440	920000	469	60000	448	384000	1364000
27	441	930000	470	66000	450	384000	1380000
28	445	920000	471	66000	450	384000	1370000
29							
30							
31							
AVERAGE	442	927857	454	60643	432	358929	1347429
TOTAL		623520000		40752000		241200000	905472000

WELL NUMBER 3 FEBRUARY 87	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	ANPS	NPSH FEET	NPSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000,000 LBS
1	282	335	302	28	168000	24.0	109	698.7	297.0	378.0	538.8
2	281	335	298	28	167000	24.0	109	688.5	293.1	375.8	542.0
3	280	335	296	28	164000	24.0	109	683.4	291.1	369.0	551.9
4	281	335	287	28	158000	24.0	110	660.4	282.3	355.5	578.1
5	280	335	295	28	164000	24.0	110	680.8	290.1	369.0	557.0
6	281	335	306	28	165000	24.0	110	708.9	300.9	371.3	553.6
7	280	335	315	27	165000	24.0	110	734.4	309.7	371.3	553.6
8	280	335	301	27	162000	24.0	110	698.7	296.0	364.5	563.9
9	281	335	286	27	166000	24.0	110	660.4	281.3	373.5	550.3
10	282	335	306	27	163000	24.0	110	711.4	300.9	366.8	560.4
11	281	334	328	27	168000	24.0	111	767.6	322.5	378.0	549.7
12	280	334	310	26	165000	24.0	111	724.2	304.8	371.3	558.6
13	280	334	302	26	162000	24.0	110	703.8	297.0	364.5	563.7
14	280	334	305	26	166000	24.0	111	711.4	299.9	373.5	555.3
15	281	334	305	25	165000	24.0	111	714.0	299.9	371.3	558.6
16	281	331	337	26	165000	24.0	111	793.1	331.3	371.3	538.6
17	281	334	330	25	160000	24.0	111	777.8	324.4	369.0	576.1
18	281	334	319	25	160000	24.0	111	749.7	313.6	360.0	576.1
19	281	334	324	25	162000	24.0	111	762.4	318.5	364.5	569.0
20	281	334	325	25	159000	24.0	111	765.0	319.5	367.8	579.7
21	281	334	330	25	161000	24.0	111	777.8	324.4	362.3	572.5
22	280	334	312	25	162000	24.0	111	731.8	306.8	364.5	569.0
23	280	334	320	25	158000	24.0	113	752.3	314.6	355.5	593.9
24	284	334	300	24	154000	18.5	114	703.8	295.0	346.5	619.7
25	284	332	308	26	162000	24.0	112	719.1	302.9	364.5	574.1
26	283	332	300	25	154000	24.0	113	701.3	295.0	346.5	609.3
27	283	332	320	24	158000	24.0	114	754.8	314.6	355.5	599.1
28	284	332	325	25	156000	24.0	114	765.0	319.5	351.0	606.8
29											
30											
31											
AVERAGE	281	334	310	26	162107		111	725	305	365	569
TOTAL					10804411	666.5					



WELL NUMBER 4 FEBRUARY 87	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	AMPS	NPSH FEET	NPSH PSIG	FLOW GPH	POWER CONSUMPTION KW/1,000,000LBS
1	278	348	320	85	298000	24.0	324	599.3	315.7	670.5	902.9
2	275	348	305	85	300000	24.0	324	561.0	301.0	675.0	896.8
3	277	348	301	88	298000	24.0	325	543.2	297.1	670.5	905.6
4	290	348	299	89	284000	24.0	320	535.5	295.2	639.0	935.7
5	290	348	303	88	279000	24.0	319	548.3	299.1	627.8	949.5
6	289	348	300	88	278000	24.0	319	540.6	296.1	625.5	952.9
7	288	348	307	87	276000	24.0	315	561.0	303.0	621.0	947.7
8	289	348	317	88	272000	24.0	318	583.9	312.8	612.0	970.8
9	288	348	314	89	273000	24.0	317	573.8	309.9	614.3	964.2
10	288	348	324	90	272000	24.0	317	596.7	319.7	612.0	967.8
11	288	348	353	90	273000	24.0	315	670.7	348.2	614.3	958.2
12	288	348	345	90	272000	24.0	316	650.3	340.3	612.0	964.7
13	288	348	352	90	270000	24.0	317	668.1	347.2	607.5	975.0
14	289	348	350	90	271000	24.0	316	663.0	345.3	609.8	968.3
15	288	348	342	90	271000	24.0	315	642.6	337.4	609.8	965.2
16	289	348	349	90	271000	24.0	314	660.4	344.3	609.8	962.2
17	289	348	350	90	270000	24.0	314	663.0	345.3	607.5	965.7
18	289	348	349	90	269000	24.0	314	660.4	344.3	605.3	969.3
19	288	348	353	92	269000	24.0	314	665.6	348.2	605.3	969.3
20	287	348	349	94	270000	24.0	314	650.3	344.3	607.5	965.7
21	289	348	344	95	271000	24.0	315	634.9	339.5	609.8	965.2
22	289	348	340	95	270000	24.0	315	624.8	335.5	607.5	968.8
23	289	348	342	93	270000	24.0	315	634.9	337.5	607.5	968.8
24	285	348	340	92	288000	12.7	320	632.4	335.5	648.0	922.7
25	284	348	328	72	278000	24.0	318	652.8	323.3	625.5	949.9
26	284	348	347	98	271000	24.0	317	634.9	342.5	609.8	971.4
27	288	348	352	100	270000	24.0	318	642.6	347.4	607.5	978.0
28	288	348	353	100	270000	24.0	318	645.2	348.4	607.5	978.0
29											
30											
31											
AVERAGE	287	348	333	90	275857		317	619	329	621	956
TOTAL					182258614	660.7					

WELL NUMBER 5 FEBRUARY 87	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	ANPS	NPSH FEET	NPSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000,000LBS
1											
2											
3	295	335	265	70	330000	3.0	290	497.2	261.4	742.5	729.7
4	306	345	264	82	314000	22.5	275	464.1	260.7	706.5	727.3
5	315	345	265	92	305000	24.0	262	441.2	261.8	686.3	713.3
6	317	347	264	96	300000	24.0	262	428.4	260.9	675.0	725.2
7	316	348	263	97	301000	24.0	262	423.3	260.0	677.3	722.8
8	315	348	260	96	305000	24.0	261	418.2	257.0	686.3	710.6
9	313	348	259	97	303000	24.0	263	413.1	256.0	681.8	720.8
10	319	348	261	99	298000	24.0	263	413.1	258.0	670.5	732.9
11	318	348	261	100	298000	24.0	265	410.5	258.1	670.5	738.4
12	318	348	263	100	299000	24.0	264	415.7	260.0	672.8	733.2
13	317	348	260	100	299000	24.0	265	408.0	257.1	672.8	736.0
14	315	348	260	100	299000	24.0	263	408.0	257.1	672.8	730.4
15	316	348	260	100	299000	24.0	262	408.0	257.1	672.8	727.6
16	316	348	260	100	298000	24.0	261	408.0	257.1	670.5	727.3
17	316	348	260	100	299000	24.0	262	408.0	257.1	672.8	727.6
18	316	348	260	100	298000	24.0	262	408.0	257.1	670.5	730.1
19	316	348	260	100	297000	24.0	262	408.0	257.1	668.3	732.5
20	315	348	260	100	297000	24.0	262	408.0	257.1	668.3	732.5
21	317	348	260	100	296000	24.0	261	408.0	257.1	665.0	732.2
22	316	348	260	100	296000	24.0	262	408.0	257.1	666.0	735.0
23	315	349	260	100	297000	24.0	261	408.0	257.1	668.3	729.7
24	316	348	260	100	298000	20.5	268	408.0	257.1	670.5	746.8
25	317	349	261	100	296000	24.0	263	410.5	258.1	666.0	737.8
26	315	349	260	100	299000	24.0	261	408.0	257.1	672.8	724.9
27	315	349	260	100	298000	24.0	261	408.0	257.1	670.5	727.3
28	317	349	260	100	296000	24.0	261	408.0	257.1	666.0	732.2
29											
30											
31											
AVERAGE TOTAL	315	347	261	97	300577 179745000	558.0	264	418	258	676	729

WELL NUMBER & FEBRUARY 87	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	AMPS	NPSH FEET	NPSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000.000LBS
1	337	350	238	98	210000	24.0	200	357.0	235.4	472.5	790.7
2	336	350	238	98	211000	24.0	203	357.0	235.4	474.8	798.9
3	335	350	238	98	210000	24.0	200	357.0	235.4	472.5	790.9
4	338	350	239	98	210000	24.0	200	359.5	236.4	472.5	790.9
5	340	350	240	98	207000	24.0	199	362.1	237.4	465.8	798.5
6	340	350	240	98	207000	24.0	200	362.1	237.4	465.8	802.3
7	339	350	239	98	209000	24.0	198	359.5	236.4	470.3	786.7
8	338	350	239	98	209000	24.0	198	359.5	236.4	470.3	786.7
9	337	350	239	98	209000	24.0	199	359.5	236.4	470.3	790.7
10	338	350	238	98	208000	24.0	199	357.0	235.4	468.0	794.5
11	337	350	239	98	208000	24.0	200	359.5	236.4	468.0	798.5
12	338	350	238	98	208000	24.0	200	357.0	235.4	468.0	798.5
13	337	350	238	98	209000	24.0	200	357.0	235.4	470.3	794.6
14	339	350	238	98	209000	24.0	201	357.0	235.4	470.3	798.6
15	338	350	238	98	208000	24.0	200	357.0	235.4	468.0	798.5
16	338	350	238	98	208000	24.0	200	357.0	235.4	468.0	798.5
17	337	350	238	98	209000	24.0	200	357.0	235.4	470.3	794.6
18	336	350	238	98	210000	24.0	200	357.0	235.4	472.5	790.9
19	337	350	238	98	209000	24.0	200	357.0	235.4	470.3	794.6
20	336	350	238	98	210000	24.0	199	357.0	235.4	472.5	786.9
21	337	350	238	98	209000	24.0	200	357.0	235.4	470.3	794.6
22	335	350	238	98	210000	24.0	200	357.0	235.4	472.5	790.9
23	337	350	238	98	209000	24.0	200	357.0	235.4	470.3	794.6
24	335	350	238	98	214000	22.8	202	357.0	235.4	481.5	783.8
25	335	350	238	98	210000	24.0	201	357.0	235.4	472.5	794.8
26	335	350	237	98	210000	24.0	202	354.5	234.5	472.5	798.8
27	337	350	238	98	210000	24.0	202	357.0	235.4	472.5	798.8
28	337	350	238	98	209000	24.0	200	357.0	235.4	470.3	794.6
29											
30											
31											
AVERAGE TOTAL	337	350	238	98	209250 140364900	670.8	200	358	236	471	794

WELL NUMBER 7 FEBRUARY 87	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	AMPS	NPSH FEET	NPSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000,000LBS
1	280	351	285	92	153000	24	111	492.2	281.5	344.3	602.4
2	270	351	285	92	156000	24	111	492.2	281.5	351.0	590.9
3	270	350	285	92	156000	24	111	492.2	281.5	351.0	590.9
4	273	350	290	91	157000	24	111	507.5	286.4	353.3	587.1
5	270	350	287	91	159000	24	111	499.8	283.4	357.8	579.7
6	271	350	294	91	160000	24	111	517.7	290.3	360.0	576.1
7	271	351	296	92	160000	24	112	520.2	292.3	360.0	591.3
8	270	351	298	92	160000	24	112	525.3	294.2	360.0	581.3
9	270	351	300	92	160000	24	112	530.4	296.2	360.0	581.3
10	272	351	300	92	159000	24	112	530.4	296.2	357.8	584.9
11	270	351	301	92	160000	24	111	532.9	297.2	360.0	576.1
12	270	351	305	91	160000	24	111	545.7	301.1	360.0	576.1
13	270	351	304	91	160000	24	111	543.2	300.1	360.0	576.1
14	270	351	304	91	160000	24	111	543.2	300.1	360.0	576.1
15	270	351	308	91	160000	24	111	553.3	304.0	360.0	576.1
16	270	350	308	91	160000	24	111	553.3	304.0	360.0	576.1
17	270	350	309	91	160000	24	111	558.9	305.0	360.0	576.1
18	270	350	313	91	160000	24	111	566.1	308.9	360.0	576.1
19	271	350	316	90	160000	24	111	576.3	311.9	360.0	576.1
20	271	350	320	90	160000	24	110	586.5	315.8	360.0	570.9
21	271	350	320	90	160000	24	111	586.5	315.8	360.0	576.1
22	270	350	320	91	160000	24	111	583.9	315.8	360.0	576.1
23	271	350	320	90	160000	24	110	586.5	315.8	360.0	570.9
24	273	350	318	91	160000	23	111	578.8	313.9	360.0	576.1
25	273	350	320	92	160000	24	110	581.4	315.8	360.0	570.9
26	273	350	310	92	160000	24	110	585.9	306.0	360.0	570.9
27	273	350	315	92	160000	24	111	568.7	310.9	360.0	576.1
28	275	350	325	93	160000	24	111	591.6	320.8	360.0	576.1
29											
30											
31											
AVERAGE	271	350	306	91	159266		111	546	302	358	579
TOTAL					106880714	671.0					

WELL NUMBER B FEBRUARY B7	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	AMPS	NPSH FEET	NPSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000,000LBS
1	293	353	333	9	133000	16.3	117	826.2	327.1	299.3	730.5
2											
3											
4	305	350	325	90	140000	4.5	120	599.3	320.7	315.0	711.8
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
AVERAGE	299	352	329	50	136500		119	713	324	307	721
TOTAL					2839200	20.8					

WELL NUMBER 9 FEBRUARY 87	WELLHEAD PSIG	TEMPERATURE DEGREES F.	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	AMPS	NPSH FEET	HPSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000,000LBS
1	272	348	317	85	119000	24.0	117	591.6	312.8	267.8	816.4
2	260	348	343	87	126000	24.0	118	652.8	338.3	283.5	777.7
3	260	348	317	90	127000	24.0	118	578.8	312.9	285.8	771.6
4	262	348	308	92	128000	24.0	119	550.8	304.1	288.0	772.0
5	262	348	301	93	128000	24.0	119	530.4	297.2	288.0	772.0
6	262	348	327	94	128000	24.0	119	594.2	322.7	288.0	772.0
7	262	349	315	95	129000	24.0	119	561.0	311.0	290.3	766.0
8	263	349	320	95	129000	24.0	119	573.8	315.9	290.3	766.0
9	261	348	326	96	129000	24.0	119	586.5	321.8	290.3	766.0
10	262	349	331	96	128000	24.0	118	599.3	326.7	288.0	765.5
11	262	349	333	96	128000	24.0	118	604.3	328.7	288.0	765.5
12	262	349	350	95	128000	24.0	119	650.3	345.3	288.0	772.0
13	261	349	322	96	128000	24.0	118	576.3	317.9	288.0	765.5
14	262	349	330	97	128000	24.0	118	594.2	325.7	288.0	765.5
15	262	349	332	97	128000	24.0	118	599.3	327.7	288.0	765.5
16	263	349	346	96	128000	24.0	118	637.5	341.4	288.0	765.5
17	262	349	351	96	128000	24.0	117	650.3	346.3	288.0	759.0
18	262	349	350	95	128000	24.0	117	650.3	345.3	288.0	759.0
19	262	349	340	95	128000	24.0	117	624.8	335.5	288.0	759.0
20	262	349	354	95	128000	24.0	117	660.4	349.3	288.0	759.0
21	262	349	330	95	128000	24.0	118	599.3	325.7	288.0	765.5
22	261	349	315	95	128000	24.0	118	561.0	311.0	288.0	765.5
23	261	349	330	95	128000	24.0	118	599.3	325.7	288.0	765.5
24	264	348	348	95	128000	23.3	119	645.2	343.4	288.0	772.0
25	268	349	332	95	128000	24.0	119	604.3	327.7	288.0	772.0
26	266	349	312	95	127000	24.0	118	553.3	308.0	285.8	771.6
27	267	349	300	94	127000	24.0	117	525.3	296.2	285.8	765.0
28	269	348	343	96	127000	24.0	118	629.8	338.5	285.8	771.6
29											
30											
31											
AVERAGE TOTAL	263	349	329	94	127571 85638700		118	599	325	287	769

WELL NUMBER 101	WELLHEAD	TEMPERATURE	NITROGEN	ANNULUS	FLOW	HOURS	ANES	DESB	WELL	FLOW	FLOWER CONVERSION
FEBRUARY 87	PSIG	DEGREES F.	PSIG	PSIG	LBS/HR			FEET	PSIG	GPS	PER 1,000,000 LBS
1	287	345	290	65	152000	24.0	120	573.8	285.9	349.0	633.4
2	279	346	290	70	155000	24.0	120	561.0	286.0	348.8	632.9
3	277	345	293	70	155000	24.0	120	568.7	288.9	348.8	632.9
4	279	346	294	70	156000	24.0	119	571.2	287.9	351.0	633.4
5	276	346	292	70	156000	24.0	119	566.1	287.9	351.0	633.4
6	274	347	294	73	156000	24.0	120	563.6	290.0	351.0	633.4
7	274	346	293	73	160000	24.0	118	561.0	289.0	360.0	632.9
8	274	346	293	72	157000	24.0	119	563.6	289.0	353.3	629.4
9	274	347	292	73	157000	24.0	119	558.4	288.0	353.3	629.4
10	276	347	294	73	156000	24.0	119	563.6	290.0	351.0	633.4
11	275	348	295	78	156000	24.0	119	563.3	291.0	351.0	633.4
12	275	347	292	77	156000	24.0	119	548.3	288.1	351.0	633.4
13	274	347	294	78	156000	24.0	120	550.8	290.1	351.0	633.4
14	276	347	295	80	156000	24.0	119	548.3	291.1	351.0	633.4
15	275	348	295	80	156000	24.0	120	548.3	291.1	351.0	633.4
16	275	348	295	80	156000	24.0	119	548.3	291.1	351.0	633.4
17	275	348	295	80	156000	24.0	120	548.3	291.1	351.0	633.4
18	274	348	295	80	156000	24.0	120	548.3	291.1	351.0	633.4
19	275	348	295	80	156000	24.0	120	548.3	291.1	351.0	633.4
20	276	348	295	80	156000	24.0	120	548.3	291.1	351.0	633.4
21	275	348	295	81	156000	24.0	119	545.7	291.1	351.0	633.4
22	275	348	295	80	156000	24.0	119	548.3	291.1	351.0	633.4
23	275	347	295	80	156000	24.0	118	548.3	291.1	351.0	628.1
24	274	346	295	80	157000	22.5	121	548.3	291.1	353.3	640.0
25	275	348	271	80	158000	24.0	121	487.0	267.5	355.5	635.9
26	274	348	295	80	156000	24.0	120	548.3	291.1	351.0	633.4
27	275	348	295	82	156000	24.0	120	543.2	291.1	351.0	633.4
28	276	348	296	82	156000	24.0	119	545.7	292.1	351.0	633.4
29											
30											
31											
AVERAGE	276	347	293	77	156107		120	552	289	351	636
TOTAL					104669839	670.5					