

October 4, 1987

From: H.S. Pierce  
Superintendent  
Nagaa Electric Co

To: R.L. Tenney  
Manager of Operations  
Imperial Valley

Subject: Monthy Status Report, September 1987

I. Status

During the month of September the facility has been on line 96.2 percent, the gross power generation was 7756 Megawatt hours, with sales of 4960 Megawatt hours. The average brine flow has been 1.52 M lbs/hr (3420 gpm) at 347 degrees F inlet and 170 degrees F outlet.

II. Production Well Highlights

Production well #63-7 was taken off line 9-23 after 6841 operating hours. There is a suspected failure in the drive line assembly. Production well #81-7 was taken off line due to decreasing production flow after 9940 operating hours. A new pump assembly has been purchased for use in well #81-7 as the pump removed will be sent in for repairs.

Production well #48-7 has been taken out of service for a short period while a leak in the pump production tube is repaired.

### III. Problems And Solutions:

An auxillary generating unit with 1.2 megawatt capacity has been installed and tested. The new generator will be used during start-ups and to help offset plant electrical parasitics during peak rate periods.

There were five incidences of down time this month. Two of the outages were due to plant problems (loss of control air and a brine leak). The other three outages were caused by a loss of the 34.5 KV transmission line.

*M. B. Pierce*

Michael B. Fierce

MEF/j11

CC: A.L. Johnson  
A.W. Hoch  
J. Shepard  
T.C. Hinrichs  
B.C. McCabe  
L. Davis  
P.M. Pankratz  
R.L. Walzel  
F. Teeters  
S.G. Stiger  
P.M. Wright  
M. Lipmann  
R.E. Corbaley  
Buck McCabe  
B.K. Crane  
S. Haggerty

PLANT SEPT. 87	BRINE FLOW LBS/HR	TEMP IN DEGREES	TEMP OUT DEGREES F	GROSS HW DAY	NET HW DAY	HOURS DAY	COOLING WZB DEGREES F	COND PRESS	NET BULB DEGREES F	HEAT RATE LBS/KW	PLANT EFF.	TURBINE IN DEGREES F	TURBINE OUT DEGREES F
1	1030000	343	150	42	18	7.3	80.0	66.0	76.0	179.0	11.7	302	164
2	1494000	343	178	238	140	23.7	80.0	65.0	76.0	148.8	13.7	300	160
3	1427000	347	174	252	144	24.0	80.0	63.3	79.3	135.9	14.5	300	158
4	1469333	346	176	238	151	24.0	80.3	63.7	79.3	150.2	13.4	301	158
5	1081333	346	177	266	159	24.0	80.3	63.7	75.7	140.0	14.4	300	159
6	1550000	347	175	266	167	24.0	77.9	60.3	71.0	139.8	14.2	300	156
7	1048000	347	174	289	172	24.0	76.0	59.0	71.0	132.7	14.9	300	155
8	1000333	347	173	266	169	24.0	76.0	59.0	73.0	140.2	14.0	300	155
9	1070000	345	173	126	71	12.8	75.3	62.0	73.7	160.0	12.4	302	157
10	1000000	346	167	260	181	24.0	75.7	62.7	72.7	135.9	14.0	302	158
11	1070333	347	168	294	186	24.0	74.0	60.3	73.7	128.2	14.6	300	151
12	1060000	347	164	280	188	24.0	73.0	59.0	71.0	134.4	13.9	300	150
13	1050667	348	163	294	187	24.0	71.0	56.3	68.0	127.3	14.5	299	148
14	1007000	348	162	294	195	24.0	72.3	55.0	70.0	127.1	14.4	300	149
15	1062000	348	163	294	188	24.0	73.3	57.0	73.3	127.5	14.5	300	150
16	1040000	348	165	294	184	24.0	75.0	59.7	72.3	127.3	14.6	300	152
17	1050667	348	164	280	188	24.0	73.7	57.0	71.3	133.3	13.9	300	150
18	1007667	348	164	294	185	24.0	75.0	59.0	75.3	127.2	14.6	300	151
19	1000333	348	165	260	182	24.0	75.3	60.0	75.7	133.7	13.9	300	153
20	1041667	348	166	280	176	24.0	76.7	61.3	75.3	133.9	14.0	300	154
21	1000000	348	167	280	180	24.0	77.0	62.0	79.0	133.4	14.1	300	154
22	1000333	348	167	280	176	24.0	77.3	61.7	79.0	133.2	14.1	300	154
23	1480000	348	170	162	111	17.0	79.0	62.0	76.0	138.7	13.8	300	156
24	1041667	347	173	266	164	24.0	78.0	61.7	75.7	138.2	14.2	300	155
25	1000333	348	174	280	179	24.0	78.0	62.7	75.3	137.0	14.3	300	155
26	1070333	347	174	294	175	24.0	77.7	62.7	77.0	130.1	15.2	300	155
27	1000333	346	175	250	178	24.0	77.7	62.0	77.0	135.7	14.7	300	155
28	1090000	347	174	280	179	24.0	78.3	61.7	75.7	136.3	14.5	300	156
29	1040333	346	174	252	149	24.0	78.7	60.7	76.7	128.4	15.2	300	155
30	1000000	348	172	224	138	22.6	78.3	61.3	77.3	137.7	14.3	300	156
AVERAGE	1000658	347	170	259	162		77	61	75	137.0	14.2	300	155
TOTAL	1009210000			7726	4860	683							

ON LINE PERCENTAGE = 94.92%  
 PEAK PERIOD AVERAGE = 7.28  
 MID PEAK AVERAGE = 6.83  
 OFF PEAK AVERAGE = 5.92

MEGAWATTS: SEPTEMBER	PEAK PER DAY	MID PEAK PER DAY	OFF PEAK PER DAY	TOTAL PER DAY	AVERAGE PER HOUR	EARNINGS PER DAY
1	0	7	11	18	0.75	\$870.16
2	35	50	55	140	5.83	\$15,468.64
3	39	53	52	144	6.00	\$16,162.51
4	43	56	52	151	6.29	\$17,131.19
5			159	159	6.63	\$8,253.70
6			167	167	6.96	\$8,669.75
7			172	172	7.17	\$8,929.78
8	46	62	61	169	7.04	\$18,556.93
9	0	29	42	71	2.96	\$3,910.53
10	49	67	65	181	7.54	\$19,661.00
11	51	67	68	186	7.75	\$20,208.88
12			188	188	7.83	\$9,761.87
13			187	187	7.79	\$9,709.86
14	53	71	71	195	8.13	\$21,003.36
15	51	69	68	188	7.83	\$20,332.18
16	50	67	67	184	7.67	\$19,960.94
17	50	69	69	188	7.83	\$20,188.25
18	50	68	67	185	7.71	\$20,022.59
19			182	182	7.58	\$9,449.83
20			176	176	7.33	\$9,137.80
21	48	67	65	180	7.50	\$19,465.06
22	48	64	64	176	7.33	\$19,228.11
23	36	34	41	111	4.63	\$13,799.82
24	45	57	62	164	6.83	\$18,104.77
25	46	65	66	179	7.46	\$19,393.77
26			175	175	7.29	\$9,085.79
27			178	178	7.42	\$9,241.81
28	49	65	65	179	7.46	\$19,537.70
29	42	54	53	149	6.21	\$16,863.97
30	40	45	53	138	5.75	\$15,917.27
TOTAL	873	1186	2801	4860		\$450,357.85
AVERAGE	7.28	6.28	6.92	162.0	6.75	
PEAK EARNINGS		=218213.83				
MID PEAK		= 73720.18				
OFF PEAK		=146093.84				
BONUS PAYMENT		= 12330.00				
TOTAL		=450357.85				
PROJECTED		=450357.84				

POWER DATE	SPRAYS PANEL	WELLS PANEL	TOSHIBA PANEL	KVA PANEL	ELEC GFP PANEL	GROSS MW PANEL	MW BOUGHT 31 DK METER	MW SOLD 31 K METER	DEMAND METER
SEPT. 87	201	202	203	204	206	207			
1	8.4	12.6	16.8	1.4	0.0	42.0	16.0	18.0	2.4
2	14.0	25.2	37.8	4.2	24.5	238.0	1.0	140.0	2.5
3	14.0	25.2	33.6	4.2	21.0	252.0	0.0	144.0	2.5
4	14.0	25.2	29.4	2.8	24.5	238.0	0.0	151.0	2.5
5	15.4	25.2	37.8	2.8	21.0	266.0	0.0	159.0	2.5
6	15.4	25.2	33.6	4.2	24.5	266.0	0.0	167.0	2.5
7	12.6	25.2	33.6	2.8	24.5	280.0	0.0	172.0	2.5
8	15.4	25.2	33.6	4.2	21.0	266.0	0.0	169.0	2.5
9	8.4	12.6	16.8	2.8	10.5	126.0	8.0	71.0	2.5
10	12.6	25.2	33.6	2.8	24.5	280.0	0.0	181.0	2.5
11	15.4	25.2	37.8	2.8	24.5	294.0	0.0	186.0	2.5
12	14.0	25.2	29.4	4.2	24.5	280.0	0.0	188.0	2.5
13	12.6	25.2	37.8	2.8	21.0	294.0	0.0	187.0	2.5
14	14.0	29.4	29.4	4.2	24.5	294.0	0.0	195.0	2.5
15	14.0	25.2	37.8	2.8	24.5	294.0	0.0	188.0	2.5
16	14.0	25.2	33.6	4.2	24.5	294.0	0.0	184.0	2.5
17	14.0	25.2	33.6	2.8	21.0	280.0	0.0	188.0	2.5
18	14.0	25.2	33.6	2.8	24.5	294.0	0.0	185.0	2.5
19	16.8	29.4	33.6	4.2	24.5	280.0	0.0	182.0	2.5
20	15.4	25.2	33.6	2.8	24.5	280.0	0.0	176.0	2.5
21	12.6	25.2	33.6	4.2	21.0	280.0	0.0	180.0	2.5
22	14.0	25.2	33.6	2.8	24.5	280.0	0.0	176.0	2.5
23	11.2	21.0	25.2	2.8	16.5	182.0	5.0	111.0	2.5
24	14.0	29.4	33.6	4.2	21.0	266.0	0.0	164.0	2.5
25	14.0	29.4	33.6	2.8	24.5	280.0	0.0	179.0	2.5
26	15.4	29.4	33.6	4.2	24.5	294.0	0.0	175.0	2.5
27	16.8	33.6	37.8	2.8	24.5	280.0	0.0	178.0	2.5
28	14.0	25.2	29.4	4.2	21.0	280.0	0.0	179.0	2.5
29	12.6	25.2	33.6	2.8	24.5	252.0	0.0	149.0	2.5
30	14.0	25.2	33.6	4.2	21.0	224.0	2.0	138.0	1.9
AVERAGE	13.8	25.2	32.5	3.4	21.9	258.5		162.0	
TOTAL	413.0	756.0	974.4	100.8	657.0	7756.0	32.0	4860.0	
METER DIFFERENCE			= 26.8						

WELLS	WELL #1	WELL #2	WELL #3	WELL #4	WELL #5	WELL #6	WELL #7	WELL #8	WELL #9	WELL #10	TOTAL
DATE	FLRM	FLOW	FLOW	FLOW	FLOW	FLOW	FLOW	FLOW	FLOW	FLOW	BRINE
SEPT 8/1	44-7A	44-7	44-7B	48-7A	48-7	88-7	63-7	61-7	81-7	83-7	FLOW
1		1454000	1153000		1335000	1227000	1150000	1157000		160000	11646000
2		1460000	1152000		1316000	1216000	1158000	1154000		159000	11615000
3		1461000	1152900		1312000	1214000		1154000		160000	11453000
4		1455000	1151000		1306000	1211000	1159000	1150000		155000	11587000
5		1450000	1147000		1306000	1209000	1159000	1146000		152000	11569000
6		1449000	1144000		1307000	1207000	1159000	1146000		152000	11564000
7		1450000	1145000		1307000	1208000	1159000	1146000		151000	11566000
8		1450000	1145000		1305000	1209000	1159000	1146000		152000	11566000
9		1438000	1146000		1310000	1225000	1159000	1146000		154000	11598000
10		1440000	1147000		1308000	1220000	1160000	1149000		155000	11597000
11		1455000	1150000		1306000	1212000	1159000	1149000		154000	11585000
12		1434000	1145000		1307000	1211000	1159000	1148000		154000	11578000
13		1452000	1143000		1310000	1208000	1159000	1146000		153000	11573000
14		1452000	1145000		1307000	1209000	1159000	1148000		153000	11573000
15		1452000	1146000		1305000	1209000	1159000	1147000		153000	11571000
16		1452900	1145000		1309000	1207000	1159000	1147000		153000	11572000
17		1451000	1145000		1305000	1203000	1159000	1147000		152000	11564000
18		1431000	1145000		1308000	1210000	1159000	1147000		152000	11572000
19		1451000	1145000		1308000	1210000	1159000	1147000		152000	11573000
20		1450000	1145000		1308000	1210000	1159000	1147000		152000	11571000
21		1450000	1147000		1304000	1209000	1159000	1147000		152000	11568000
22		1450000	1146000		1308000	1209000	1159000	1147000		152000	11571000
23		1436000	1148000		1311000	1213000	1159000	1148000		153000	11588000
24		1469000	1145000	1236000	1307000	1209000		1147000		153000	11640000
25		1434000	1148000	1260000	1285000	1205000		1146000		150000	11628000
26		1461000	1145000	1249000	1286000	1206000		1146000		152000	11625000
27		1467000	1148000	1247000	1281000	1206000		1145000		151000	11625000
28		1451000	1148000	1242000	1270000	1200000		1145000		151000	11607000
29		1455000	1145000	1257000		1206000		1148000		154000	1165000
30		1459000	1145000	1255000		1208000		1148000		154000	11679000
AVERAGE		452300	146733	250000	304593	210267	158591	147867		153333	1569700

INJECTION WELLS SEPT 07	46-7B #1 PSIG	WELL 46-7B #1 FLOW	46-7 #3 PSIG	WELL 46-7 #3 FLOW	84-7 #4 PSIG	WELL 84-7 #4 FLOW	TOTAL BRINE FLOW
1	447	930000	466	102000	308	456000	1488000
2	411	760000	432	84000	405	696000	1540000
3	397	720000	450	84000	419	712000	1516000
4	427	800000	449	84000	419	690000	1574000
5	450	870000	450	84000	421	696000	1650000
6	450	860000	450	84000	420	696000	1640000
7	450	860000	450	84000	420	696000	1640000
8	450	860000	450	66000	420	696000	1622000
9	453	860000	451	72000	421	696000	1628000
10	436	680000	438	84000	406	704000	1668000
11	438	870000	440	96000	410	696000	1662000
12	437	860000	438	90000	407	696000	1646000
13	430	860000	432	90000	400	696000	1646000
14	433	860000	433	90000	403	696000	1646000
15	434	850000	434	84000	402	704000	1638000
16	435	850000	434	84000	403	704000	1638000
17	433	850000	435	84000	401	704000	1638000
18	435	850000	436	84000	401	696000	1630000
19	435	850000	435	84000	401	704000	1638000
20	435	850000	437	84000	401	704000	1638000
21	435	850000	437	84000	403	704000	1638000
22	435	850000	436	84000	400	704000	1638000
23	418	820000	416	72000	386	680000	1572000
24	390	720000	443	90000	410	744000	1554000
25	444	870000	443	84000	408	744000	1698000
26	445	870000	445	84000	412	736000	1690000
27	446	860000	445	84000	413	744000	1688000
28	446	860000	449	78000	412	736000	1674000
29	357	570000	448	72000	416	768000	1410000
30	350	600000	448	70000	415	760000	1438000
AVERAGE	429	827333	442	83600	405	701933	1612867
TOTAL		595680000		60192000		505392000	1161264000

WELL #2	WELLHEAD	TEMP	NITROGEN	ANNULUS	FLOW	HOURS	ANPS	OIL	NPSH	NPSH	FLOW	POWER CONSUMPTION
SEPTEMBER	PSIG	DEE F	PSIG	PSIG	LBS/HR			PSIG	FEET	PSIG	GPM	KW/1,000,000LBS
1	280	330	283	65	464000	7.8	323	100	555.9	279.0	1044.0	578.1
2	275	334	271	72	460000	23.5	321	100	507.5	267.4	1035.0	579.5
3	270	335	270	73	461000	24.0	320	91	502.3	266.4	1037.3	576.4
4	277	335	260	72	455000	24.0	323	75	479.4	256.6	1023.8	589.5
5	286	335	270	72	450000	24.0	331	70	504.9	266.4	1012.5	610.8
6	286	335	270	70	449000	24.0	324	85	510.0	266.3	1010.3	599.2
7	285	335	270	70	450000	24.0	324	75	510.0	266.3	1012.5	597.9
8	285	335	270	70	450000	24.0	322	85	510.0	266.3	1012.5	594.2
9	278	335	273	68	458000	12.0	320	90	522.8	269.3	1030.5	580.2
10	276	335	270	70	460000	24.0	322	75	510.0	266.3	1035.0	581.3
11	275	335	267	70	455000	24.0	322	93	502.3	263.4	1023.8	587.7
12	274	335	265	70	454000	24.0	323	90	497.2	261.4	1021.5	590.8
13	275	335	262	69	452000	24.0	320	65	492.2	258.5	1017.0	587.9
14	272	335	262	69	452000	24.0	323	60	492.2	258.5	1017.0	593.4
15	273	335	261	69	452000	24.0	325	55	489.6	257.5	1017.0	597.1
16	273	335	260	69	452000	24.0	323	55	487.0	256.5	1017.0	593.4
17	272	335	260	69	451000	21.0	322	75	487.0	256.5	1014.8	592.9
18	272	335	260	69	451000	24.0	326	60	487.0	256.5	1014.8	600.2
19	273	335	260	69	451000	24.0	325	50	487.0	256.5	1014.8	598.4
20	273	335	260	69	450000	24.0	326	50	487.0	256.5	1012.5	601.6
21	273	335	260	69	450000	24.0	325	56	487.0	256.5	1012.5	599.7
22	272	335	260	69	450000	24.0	325	58	487.0	256.5	1012.5	599.7
23	274	334	266	67	456000	17.5	324	60	507.5	262.4	1026.0	590.0
24	283	333	270	68	449000	24.0	324	60	515.1	266.3	1010.3	599.2
25	302	335	272	69	434000	24.0	324	60	517.7	268.3	976.5	619.9
26	294	335	270	70	441000	24.0	322	55	510.0	266.3	992.3	606.3
27	290	335	270	68	447000	24.0	323	63	515.1	266.3	1005.8	600.0
28	282	334	265	67	451000	24.0	322	58	504.9	261.4	1014.8	592.9
29	270	334	262	67	455000	24.0	321	63	497.2	258.4	1023.8	585.8
30	270	334	263	68	459000	22.8	324	65	497.2	259.4	1032.8	586.2
AVERAGE	278	335	266	69	452300		323	70	502	262	1018	594
TOTAL					309192280	683.6						



WELL NO	WELLHEAD	TEMP	NITROGEN	ANNULUS	FLOW	HOURS	ARPS	OIL	NPSH	NPSH	FLOW	POWER CONSUMPTION
SEPTEMBER	PSIG	DEG F	PSIG	PSIG	LB/HR			PSIG	FEET	PSIG	GPM	KW/1,000,000LBS
1	290	330	268	13	153000	6.5	119	10	650.3	263.3	344.3	645.9
2	289	343	268	24	152000	23.9	116	18	622.2	263.5	342.0	633.7
3	285	347	261	31	152000	24.0	116	15	586.5	256.8	342.0	633.7
4	293	347	262	32	151000	24.0	115	15	586.5	257.8	339.8	632.4
5	301	349	264	32	147000	24.0	115	18	591.6	259.8	330.8	649.6
6	300	348	261	31	149000	24.0	115	18	586.5	256.8	324.0	663.2
7	299	348	262	31	145000	24.0	115	15	589.1	257.8	326.3	658.6
8	298	348	260	30	145000	24.0	115	20	586.5	255.8	326.3	658.6
9	294	342	265	17	146000	11.3	116	20	632.4	260.5	328.5	659.8
10	294	349	270	28	147000	24.0	115	16	617.1	265.6	330.8	649.6
11	290	349	265	29	150000	24.0	115	15	601.8	260.7	337.5	636.6
12	289	348	260	30	145000	24.0	115	15	586.5	255.8	326.3	658.6
13	287	348	260	30	143000	24.0	115	15	586.5	255.8	321.8	667.8
14	287	348	260	30	145000	24.0	115	15	586.5	255.8	326.3	658.6
15	289	348	260	29	146000	24.0	115	15	589.1	255.8	328.5	654.1
16	289	349	260	30	145000	24.0	115	13	586.5	255.8	326.3	658.6
17	287	349	260	30	145000	24.0	116	15	586.5	255.8	326.3	664.3
18	289	349	260	30	145000	24.0	115	15	586.5	255.8	326.3	658.6
19	287	349	260	28	146000	24.0	116	15	591.6	255.8	328.5	659.8
20	289	350	260	28	145000	24.0	116	10	591.6	255.8	326.3	664.3
21	287	350	260	28	147000	24.0	115	10	591.6	255.8	330.8	649.6
22	287	350	260	28	146000	24.0	116	10	591.6	255.8	328.5	659.8
23	289	350	260	27	148000	19.0	115	10	594.2	255.7	333.0	645.2
24	290	350	260	27	145000	24.0	115	10	594.2	255.7	326.3	658.6
25	300	350	265	28	149000	24.0	116	16	604.3	260.7	333.0	650.9
26	297	350	261	28	145000	24.0	116	10	594.2	256.7	326.3	664.3
27	298	350	260	28	148000	24.0	115	10	591.6	255.8	333.0	645.2
28	298	349	260	28	145000	24.0	115	10	591.6	255.8	333.0	645.2
29	285	350	255	27	145000	24.0	116	10	581.4	250.8	326.3	664.3
30	285	350	254	29	145000	23.0	116	10	573.8	249.9	326.3	664.3
AVERAGE	291	348	261	28	146733		116	14	595	257	330	654
TOTAL					100262887	683.3						

WELL NO	WELLHEAD	TEMP	NITROGEN	ANNULUS	FLOW	HOURS	ANPS	OIL	NPSH	NPSH	FLOW	POWER CONSUMPTION
SEPTEMBER	PSIG	DEG F	PSIG	PSIG	LRS/HR			PSIG	FEET	PSIG	GPM	KW/1,000,000LBS
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24	340	340	242	70	235000	7.5	260	140	438.6	238.9	528.8	918.7
25	345	345	238	85	260000	23.5	248	143	390.2	235.2	505.0	856.0
26	350	345	238	87	249000	24.0	258	145	385.0	235.2	560.3	860.4
27	350	345	235	88	247000	24.0	255	141	374.8	232.3	555.8	857.3
28	350	346	232	90	242000	24.0	251	149	362.1	229.4	544.5	861.3
29	337	347	226	90	257000	24.0	246	151	346.8	223.5	578.3	794.9
30	335	347	227	90	265000	22.5	250	153	349.3	224.5	596.3	783.4
AVERAGE	344	345	234	86	250714		255	146	370	231	564	847
TOTAL					37481786	149.5						

WELL NO	WELLHEAD	TEMP	NITROGEN	ANNULUS	FLOW	HOURS	AMPS	DIL	NPSH	NPSH	FLOW	POWER CONSUMPTION
SEPTEMBER	PSIG	DEG F	PSIG	PSIG	LBS/HR			PSIG	FEET	PSIG	GPH	KW/1,000,000LBS
1	310	337	268	98	335000	4.5	280	120	433.5	264.9	753.8	694.1
2	321	340	291	107	316000	23.5	275	129	469.2	287.6	711.0	722.7
3	325	340	295	110	312000	24.0	271	133	471.7	291.6	702.0	721.3
4	331	341	294	116	306000	24.0	268	138	453.9	290.8	688.5	727.3
5	332	340	290	122	306000	24.0	269	145	428.4	286.9	688.5	730.0
6	327	340	290	124	307000	24.0	268	143	423.3	287.0	690.8	724.9
7	328	340	292	124	307000	24.0	269	143	428.4	288.9	690.8	727.6
8	328	340	290	125	305000	24.0	270	143	420.7	287.0	686.3	735.1
9	326	340	290	127	310000	11.7	274	165	415.7	287.0	697.5	734.0
10	328	340	289	139	308000	24.0	272	165	382.5	286.3	693.0	733.3
11	329	340	284	143	306000	24.0	270	155	359.5	281.4	688.5	732.7
12	326	340	284	126	307000	24.0	270	160	402.9	281.1	690.8	730.3
13	323	340	292	122	310000	24.0	268	158	433.5	288.9	697.5	717.9
14	328	340	287	119	307000	24.0	267	155	428.4	283.9	690.8	722.2
15	327	340	288	120	305000	24.0	270	160	428.4	294.9	686.3	735.1
16	328	340	290	120	309000	24.0	269	160	433.5	286.9	695.3	722.9
17	326	340	288	119	305000	24.0	268	161	431.0	294.9	686.3	729.7
18	325	340	288	120	308000	24.0	268	160	428.4	284.9	693.0	722.6
19	324	340	290	120	303000	24.0	268	161	433.5	286.9	693.0	722.6
20	323	340	290	120	308000	24.0	269	160	433.5	286.9	693.0	725.3
21	325	340	288	121	304000	24.0	270	160	425.8	285.0	684.0	737.5
22	324	340	290	120	303000	24.0	270	161	433.5	286.9	693.0	727.9
23	326	340	290	120	311000	18.0	274	165	433.5	286.9	699.8	731.6
24	325	340	290	120	307000	24.0	270	165	433.5	286.9	690.8	730.3
25	340	340	290	120	285000	24.0	269	165	433.5	286.9	641.3	783.8
26	340	340	289	120	286000	24.0	265	165	431.0	285.9	643.5	769.4
27	338	340	290	121	281000	24.0	267	163	431.0	286.9	632.3	789.0
28	345	339	285	128	270000	24.0	265	161	400.3	282.1	607.5	815.0
29												
30												
AVERAGE	328	340	289	121	304893		270	154	427	286	686	736
TOTAL					193210604	633.7						

WELL #6 SEPTEMBER	WELLHEAD PSIG	TEMP DEG F	NITROGEN PSIG	ANNULUS PSIG	FLOW LBS/HR	HOURS	ANPS	OIL PSIG	NPSH FEET	NPSH PSIG	FLOW GPM	POWER CONSUMPTION KW/1,000,000LBS
1	331	350	255	94	227000	13.0	216	140	410.5	252.1	510.8	790.2
2	333	350	253	95	216000	24.0	210	141	402.9	250.1	486.0	807.3
3	334	350	254	96	214000	24.0	209	142	402.9	251.1	481.5	811.0
4	334	350	255	96	211000	24.0	206	141	405.5	252.1	474.8	810.7
5	336	350	259	96	209000	24.0	203	143	415.7	256.0	470.3	806.6
6	337	350	257	95	207000	24.0	204	140	413.1	254.0	465.8	818.4
7	338	350	258	95	208000	24.0	202	141	415.7	255.0	468.0	806.4
8	338	350	260	96	209000	24.0	202	141	418.2	257.0	470.3	802.6
9	335	350	258	96	225000	13.0	210	143	413.1	255.0	506.3	775.0
10	333	350	254	95	220000	24.0	210	145	405.5	251.1	495.0	792.7
11	336	350	255	96	212000	24.0	208	141	405.5	252.1	477.0	814.7
12	335	350	256	96	211000	24.0	207	145	408.0	253.1	474.8	814.7
13	340	350	255	96	208000	24.0	204	141	413.1	255.0	468.0	814.4
14	337	350	258	96	209000	24.0	203	139	413.1	255.0	470.3	806.6
15	337	350	259	96	209000	24.0	205	143	415.7	256.0	470.3	814.5
16	337	350	256	96	207000	24.0	205	141	408.0	253.1	465.8	822.4
17	340	350	260	96	205000	24.0	204	141	418.2	257.0	461.3	826.3
18	335	350	259	96	210000	24.0	204	143	415.7	256.0	472.5	806.7
19	334	350	259	97	210000	24.0	203	143	413.1	256.0	472.5	802.7
20	332	350	259	97	210000	24.0	204	143	413.1	256.0	472.5	806.7
21	332	350	258	97	209000	24.0	205	145	410.5	255.1	470.3	814.5
22	332	350	251	97	209000	24.0	204	143	392.7	248.2	470.3	810.5
23	338	350	258	97	213000	20.5	207	142	410.5	255.1	479.3	807.0
24	338	350	258	97	209000	24.0	205	141	410.5	255.1	470.3	814.5
25	340	350	258	97	205000	24.0	203	140	410.5	255.1	461.3	822.3
26	340	350	259	97	206000	24.0	203	140	413.1	256.0	463.5	818.3
27	339	350	258	97	206000	24.0	204	140	410.5	255.1	463.5	822.3
28	342	350	260	97	200000	24.0	203	141	415.7	257.0	450.0	842.9
29	336	350	251	97	206000	24.0	204	138	392.7	248.2	463.5	822.3
30	336	350	255	97	208000	23.5	206	138	402.9	252.1	468.0	822.4
AVERAGE TOTAL	336	350	257	96	210267	23.0	205	142	410	254	473	812

WELL #7	WELLHEAD	TEMP	NITROGEN	ANNULUS	FLOW	HOURS	AMPS	DIL	NPSH	NPSH	FLOW	POWER CONSUMPTION
SEPTEMBER	PSIG	DEG F	PSIG	PSIG	LB/DAY			PSIG	FEET	PSIG	GPH	KW/1,000,000LBS
1	290	350	348	90	159355	1.0	114	38	657.9	343.3	358.5	594.1
2	286	348	351	98	158000	9.0	114	48	645.2	346.4	355.5	599.1
3												
4	290	344	349	71	159000	13.5	113	90	708.9	343.9	357.8	590.2
5	291	347	350	80	159000	24.0	115	80	688.5	345.1	357.8	600.6
6	290	349	341	80	159000	24.0	114	60	665.6	336.2	357.8	595.4
7	290	349	342	80	159000	24.0	114	60	668.1	337.2	357.8	595.4
8	290	350	340	75	159000	24.0	112	60	675.8	335.2	357.8	584.9
9	205	348	348	76	159000	12.7	112	75	693.6	343.0	357.8	584.9
10	284	350	348	75	160000	24.0	112	75	656.2	343.0	360.0	581.3
11	283	350	347	75	159000	24.0	113	90	693.6	342.0	357.8	590.2
12	280	350	346	78	159000	24.0	113	103	683.4	341.1	357.8	590.2
13	280	350	345	77	159000	24.0	114	105	683.4	340.1	357.8	595.4
14	278	350	346	79	159000	24.0	114	105	680.8	341.1	357.8	595.4
15	279	350	348	78	159000	24.0	113	110	688.5	343.1	357.8	590.2
16	280	350	348	79	159000	24.0	113	108	685.9	343.1	357.8	590.2
17	279	350	340	78	159000	24.0	113	108	688.5	343.1	357.8	590.2
18	279	350	349	80	159000	24.0	114	108	685.9	344.1	357.8	595.4
19	279	350	347	80	159000	23.5	113	93	680.8	342.1	357.8	590.2
20	277	350	347	80	159000	24.0	113	60	680.8	342.1	357.8	590.2
21	277	350	347	80	159000	24.0	113	60	680.8	342.1	357.8	590.2
22	278	350	344	80	159000	24.0	113	60	673.2	339.2	357.8	590.2
23	277	350	347	80	159000	5.0	113	60	680.8	342.1	357.8	590.2
24												
25												
26												
27												
28												
29												
30												
AVERAGE	283	349	347	80	159016		113	79	681	342	358	592
TOTAL					71350940	448.7						

WELL #8	WELLHEAD	TEMP	NITROGEN	ANNULUS	FLOW	HOURS	AMPS	OIL	NPSH	NPSH	FLOW	POWER CONSUMPTION
SEPTEMBER	PSIG	DEG F	PSIG	PSIG	LBS/HR			PSIG	FEET	PSIG	GPM	KW/1,000,000LBS
1	285	352	297	70	157000	11.7	122	112	578.8	292.9	353.3	645.3
2	287	352	304	74	154000	24.0	119	113	586.5	299.8	346.5	641.7
3	281	352	300	75	154000	24.0	118	118	573.8	295.9	346.5	636.3
4	292	352	300	77	150000	24.0	118	90	568.7	295.9	337.5	653.2
5	300	352	292	75	146000	24.0	117	110	553.3	288.0	328.5	665.5
6	300	352	300	75	146000	24.0	116	113	573.8	295.9	328.5	659.8
7	300	352	300	75	146000	24.0	116	118	573.8	295.9	328.5	659.8
8	298	352	285	75	146000	24.0	117	120	535.5	281.2	328.5	665.5
9	298	352	300	75	146000	12.3	116	130	573.8	295.9	328.5	659.8
10	292	352	285	71	149000	24.0	117	119	545.7	281.1	335.3	652.1
11	290	352	298	73	149000	24.0	116	123	573.8	293.9	335.3	646.5
12	290	352	294	71	148000	24.0	116	123	568.7	289.9	333.0	650.9
13	288	352	300	71	148000	24.0	116	129	583.9	295.8	333.0	650.9
14	288	352	292	71	148000	24.0	115	130	563.6	288.0	333.0	645.2
15	288	352	290	70	147000	24.0	115	130	561.0	286.0	330.8	649.6
16	289	352	295	70	147000	24.0	115	130	573.8	290.9	330.8	649.6
17	288	352	285	70	147000	24.0	116	128	548.3	281.1	330.8	655.3
18	288	352	285	69	147000	24.0	115	128	550.8	281.1	330.8	649.6
19	289	352	290	70	147000	24.0	115	130	561.0	286.0	330.8	649.6
20	289	352	290	70	147000	24.0	116	130	561.0	286.0	330.8	655.3
21	288	352	293	72	147000	24.0	116	130	563.6	289.0	330.8	655.3
22	288	352	290	70	147000	24.0	116	130	561.0	286.0	330.8	655.3
23	287	352	291	69	148000	19.8	117	130	566.1	286.9	333.0	656.5
24	286	352	290	68	147000	24.0	116	130	566.1	285.9	330.8	655.3
25	295	352	295	68	146000	24.0	116	130	578.8	290.9	328.5	659.8
26	291	352	280	65	146000	24.0	116	130	548.3	276.1	328.5	659.8
27	292	352	290	65	145000	24.0	116	130	573.8	285.9	326.3	664.3
28	292	352	290	65	145000	24.0	116	129	573.8	285.9	326.3	664.3
29	281	352	288	65	148000	24.0	116	130	568.7	283.9	333.0	650.9
30	282	352	290	65	148000	23.1	117	130	573.8	285.9	333.0	656.5
AVERAGE	290	352	293	71	147867		116	124	566	289	333	654
TOTAL					102161080	690.9						

WELL #10	WELLHEAD	TEMP	NITROGEN	ANNULUS	FLOW	HOURS	AMPS	OIL	NPSH	NPSH	FLOW	POWER CONSUMPTION
SEPTEMBER	PSIG	DEG F	PSIG	PSIG	LBS/HR			PSIG	FEET	PSIG	GPM	KW/1,000,000LBS
1	285	345	315	10	140000	4.0	122	90	777.8	309.4	360.0	633.2
2	281	348	303	7	159000	24.0	121	113	754.8	297.6	357.8	631.9
3	274	349	300	7	140000	24.0	120	123	747.2	294.7	360.0	622.8
4	294	348	258	7	153000	24.0	120	121	742.1	292.7	348.8	642.9
5	292	349	296	10	152000	24.0	120	120	729.3	290.8	342.0	655.6
6	292	349	298	10	152000	24.0	120	130	734.4	292.7	342.0	655.6
7	291	349	297	10	151000	24.0	120	118	731.8	291.8	339.8	659.9
8	290	349	295	6	152000	24.0	120	118	736.9	289.7	342.0	655.6
9	297	348	295	7	154000	11.0	122	111	734.4	289.7	346.5	657.8
10	286	349	300	8	155000	24.0	120	111	744.6	294.7	348.8	642.9
11	283	349	297	10	154000	24.0	121	111	731.8	291.8	346.5	652.5
12	282	349	291	10	154000	24.0	120	116	716.6	285.9	346.5	647.1
13	280	349	290	10	153000	24.0	119	110	714.0	284.9	344.3	645.9
14	280	349	290	5	153000	24.0	120	113	726.8	284.8	344.3	651.3
15	281	349	290	8	153000	24.0	122	112	719.1	284.9	344.3	662.1
16	280	349	290	8	153000	24.0	121	110	719.1	284.9	344.3	656.7
17	280	349	290	9	152000	24.0	120	111	716.6	284.9	342.0	655.6
18	280	349	290	9	152000	24.0	120	110	716.6	284.9	342.0	655.6
19	280	349	290	7	152000	24.0	120	113	721.7	284.8	342.0	655.6
20	280	349	290	7	152000	24.0	120	111	721.7	284.8	342.0	655.6
21	280	349	290	7	152000	24.0	121	110	721.7	284.8	342.0	661.0
22	280	349	290	7	152000	24.0	120	110	721.7	284.8	342.0	655.6
23	279	349	290	4	153000	19.5	121	105	725.3	284.8	344.3	656.7
24	278	349	290	2	153000	24.0	120	100	734.4	284.7	344.3	651.3
25	286	349	290	6	150000	24.0	120	105	724.2	284.8	337.5	664.3
26	283	350	283	9	152000	24.0	120	110	698.7	278.0	342.0	655.6
27	295	350	289	10	151000	24.0	120	110	711.4	283.9	339.8	659.9
28	285	349	288	8	151000	24.0	120	108	714.0	282.9	339.8	659.9
29	272	349	285	7	154000	24.0	121	110	708.9	279.9	346.5	652.5
30	274	349	285	7	154000	23.2	120	110	708.9	279.9	346.5	647.1
AVERAGE	282	349	293	8	153333		120	111	727	288	345	652
TOTAL					104527333	601.7						