

GeothermEx, Inc.

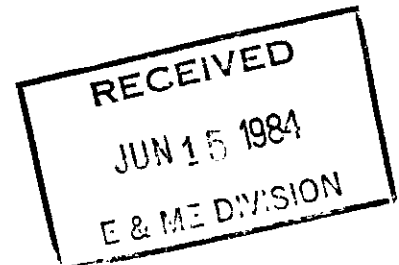
SUITE 201
5221 CENTRAL AVENUE
RICHMOND, CALIFORNIA 94804

(415) 527-9876

CABLE ADDRESS: GEOTHERMEX
TELEX: 709152 STEAM UD

June 14, 1984

Dr. Harry J. Olson
AMAX Exploration, Inc.
Denver West Office Park
1707 Cole Boulevard
Golden, Colorado 80401

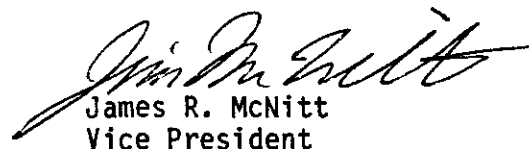


Dear Harry:

Enclosed are the results of testing Well 88-11. In addition to plotting measured pressures, computer calculations were performed to determine wellhead steam quality (percent) and flow rate (lb/hour) at each time step. These calculations are not available for tests 1, 2, and 3 due to inaccurate lip pressure measurements.

The attached table lists the data being sent for each test.

Yours truly,


James R. McNitt
Vice President

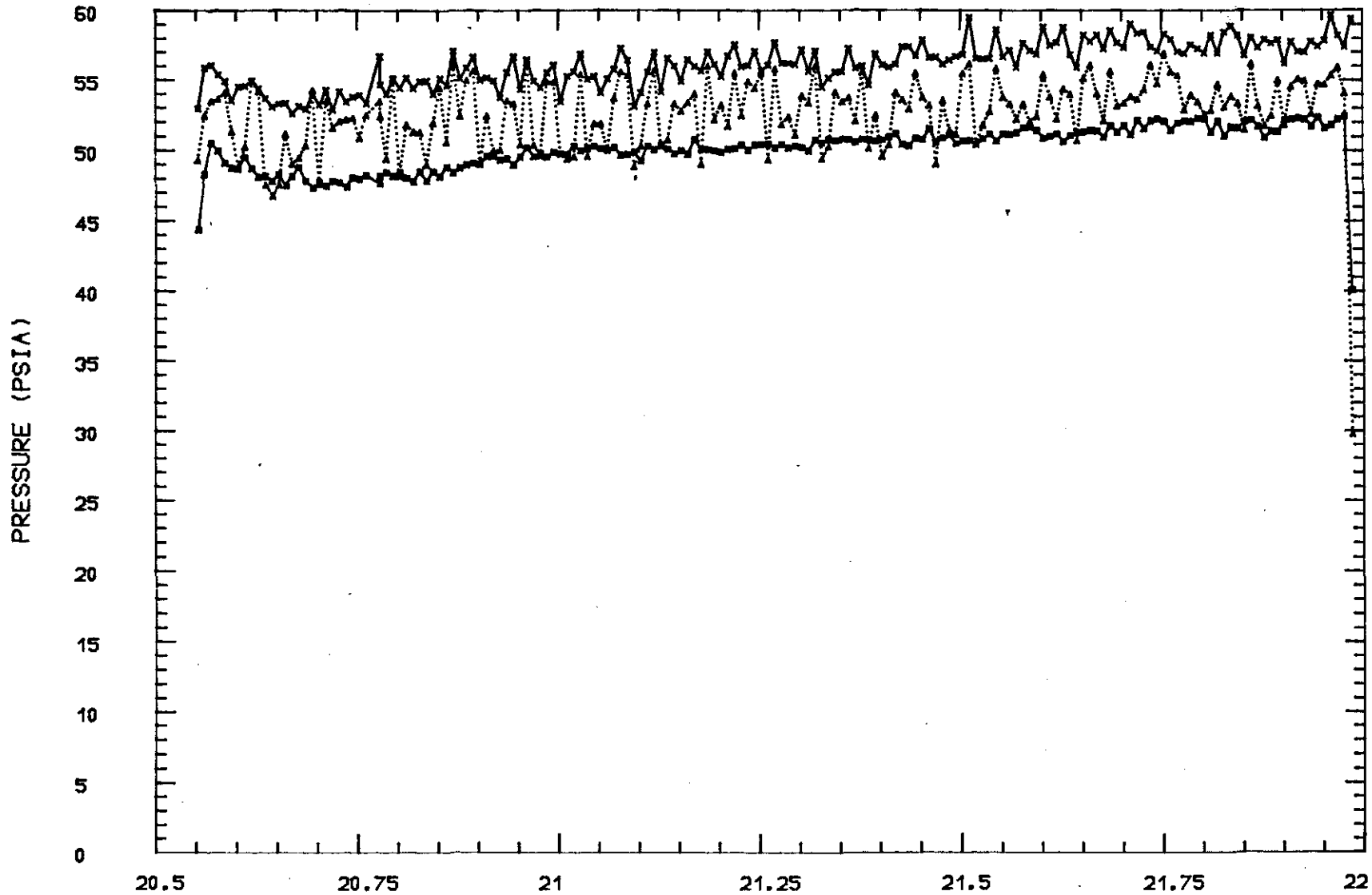
JRM/mm

Attachment

FISHLAKE TESTING: WELL 88-11

Test Number	1	2	3	4	5	6	7	8
Clock Start Time	7:44AM	8:33AM	10:15AM	1:30PM	2:38PM	4:04PM	5:32PM	6:37PM
Clock Finish Time	8:18AM	9:59AM	1:09PM	2:26PM	3:46PM	4:58PM	6:16PM	7:14PM
Test Start Time (Hrs)	19.5	20.0	22.0	25.5	26.0	28.0	29.5	30.5
Test Finish Time (Hrs)	20.5	22.0	25.5	26.5	28.0	29.0	30.5	31.5
Orifice Diameter (Inches)	7.5	6.5	6.5	6.5	5.5	5.5	6.5	6.5
James Tube Diameter (Inches)	6.0	6.0	7.0	5.0	5.0	4.0	6.0	7.0
Computer Calculations	No	No	No	Yes	Yes	Yes	Yes	Yes
Plots:								
Pressure vs. Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Flow Rate vs. Time	No	No	No	Yes	Yes	Yes	Yes	Yes
Steam Quality vs. Time	No	No	No	Yes	Yes	Yes	Yes	Yes
Steam Quality vs. Flow Rate	No	No	No	Yes	Yes	Yes	Yes	Yes

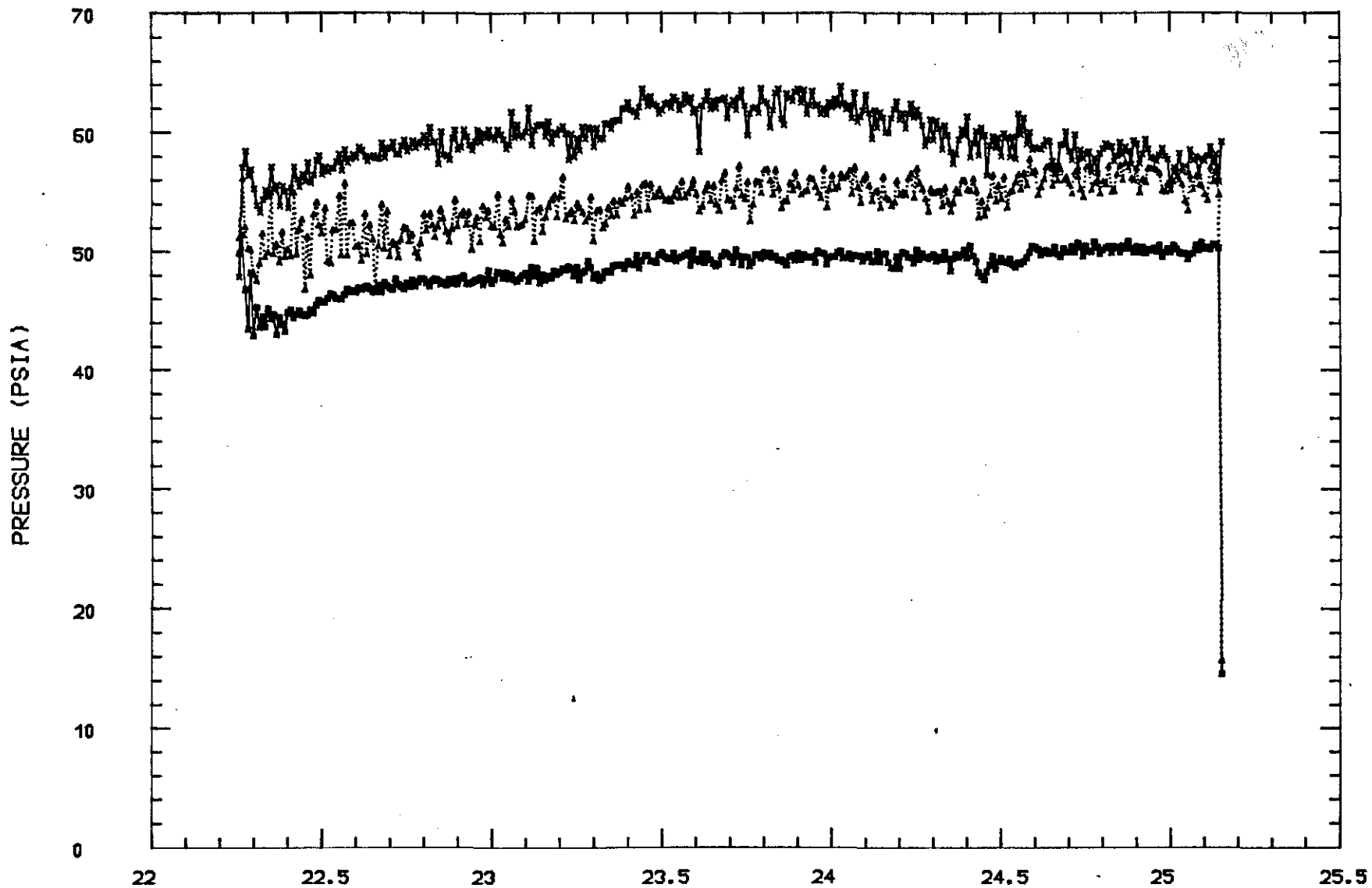
FISHLAKE TEST 2 - PRESSURE MEASUREMENTS



LEGEND:
● ORIFICE DOWNSTREAM PRESSURE
▲ ORIFICE UPSTREAM PRESSURE
* WELLHEAD PRESSURE

TIME (HOURS)

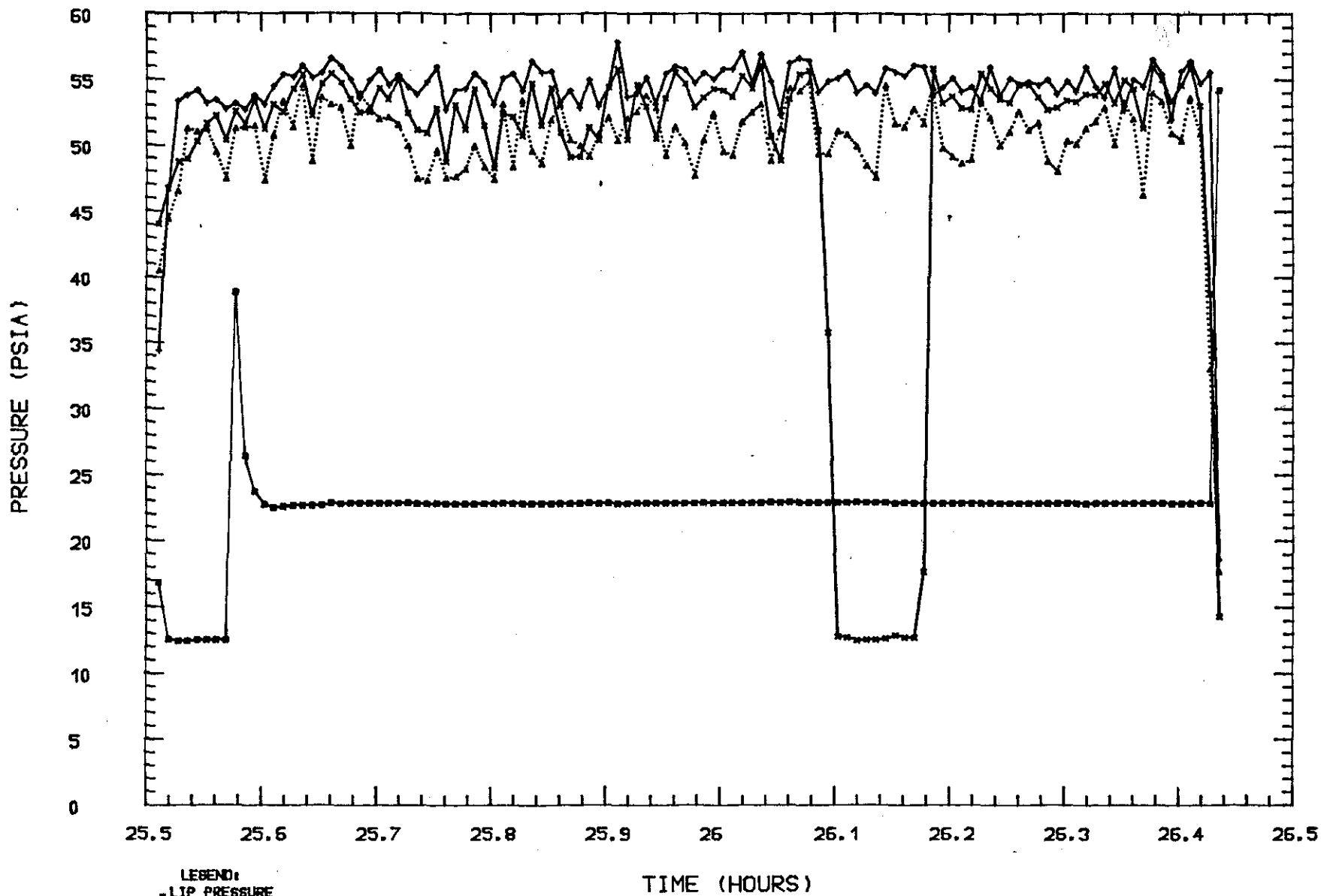
FISHLAKE TEST 3 - PRESSURE MEASUREMENTS



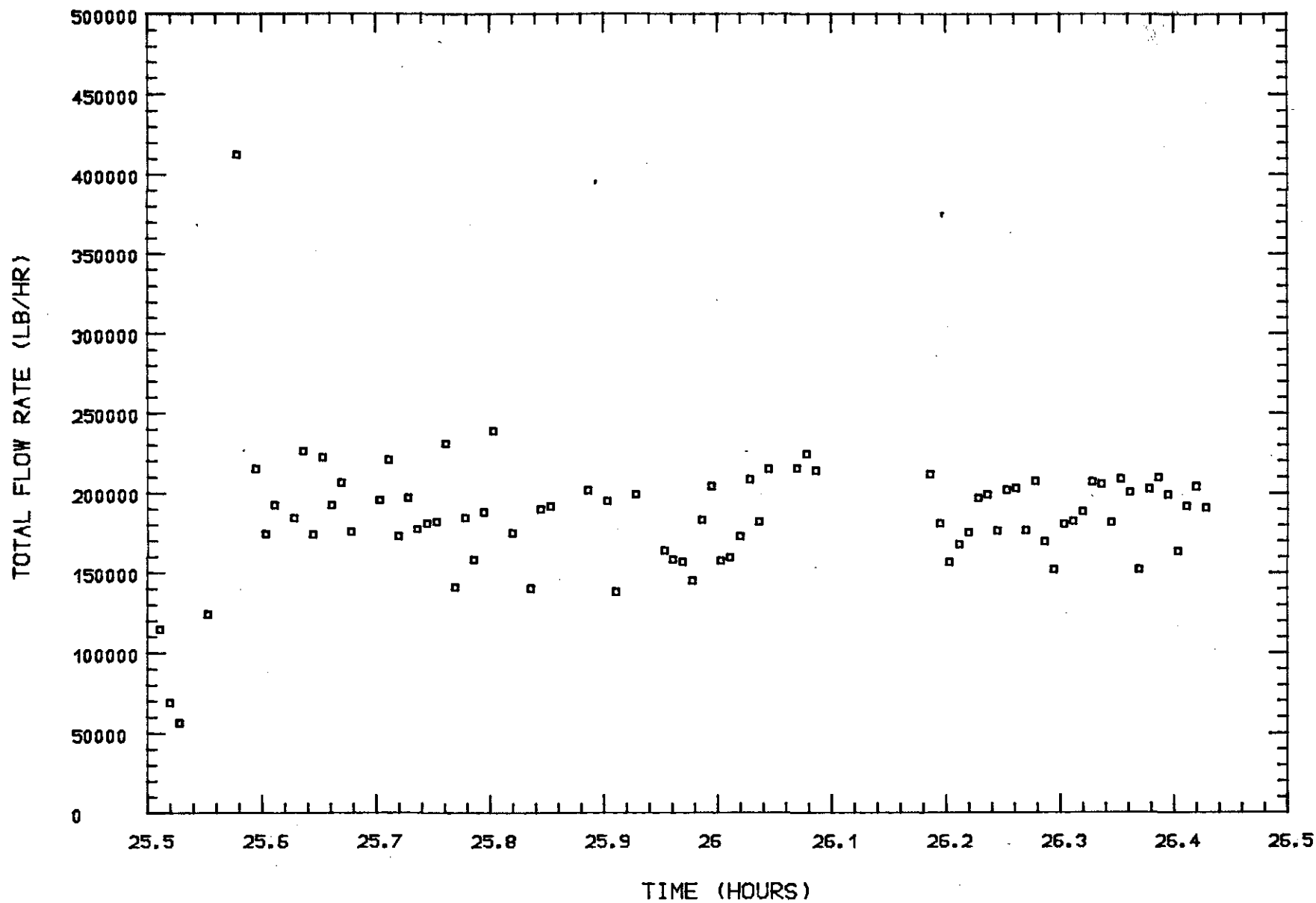
LEGEND:
■ ORIFICE DOWNSTREAM PRESSURE
▲ ORIFICE UPSTREAM PRESSURE
× WELLHEAD PRESSURE

TIME (HOURS)

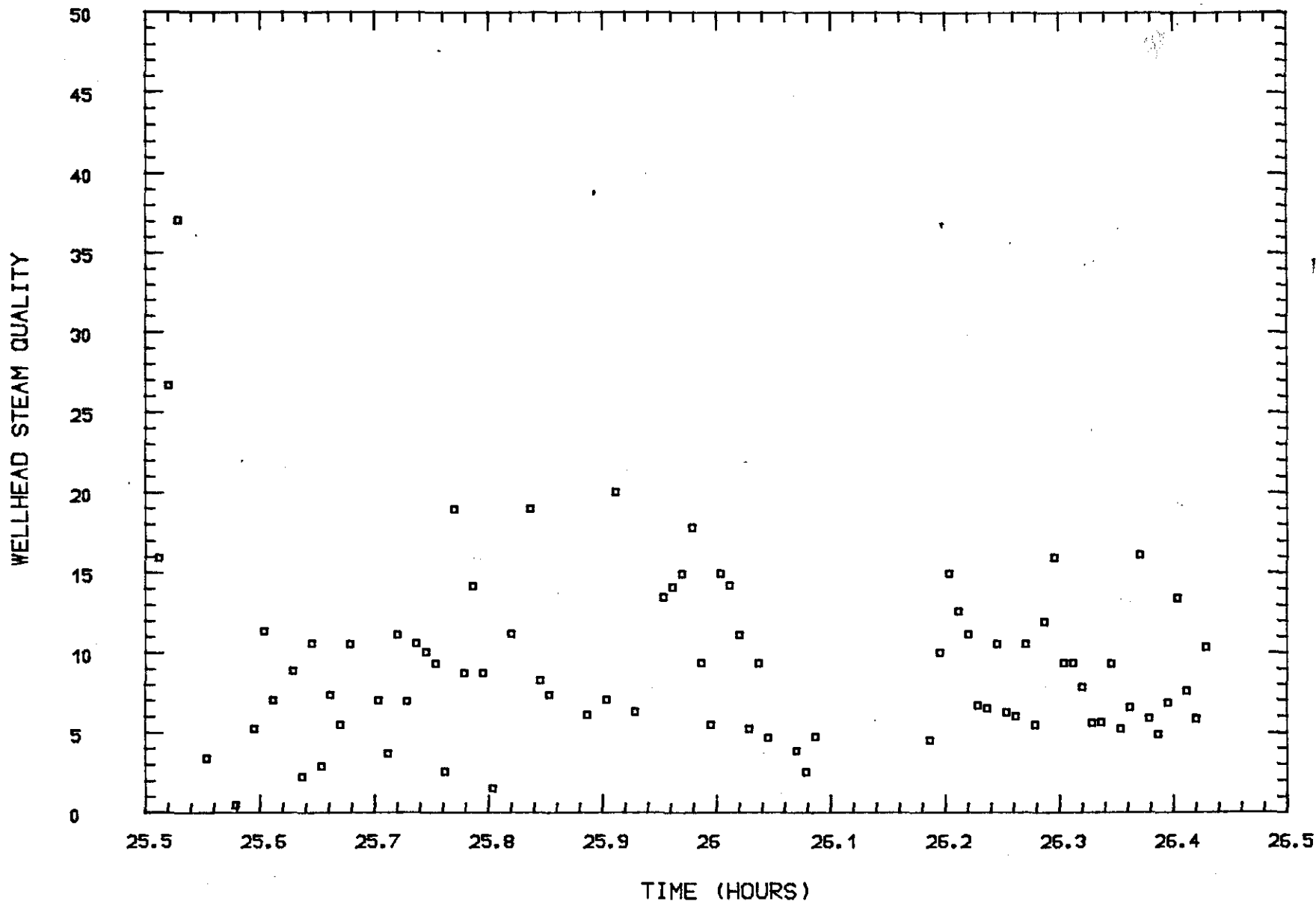
FISHLAKE TEST 4 - PRESSURE MEASUREMENTS



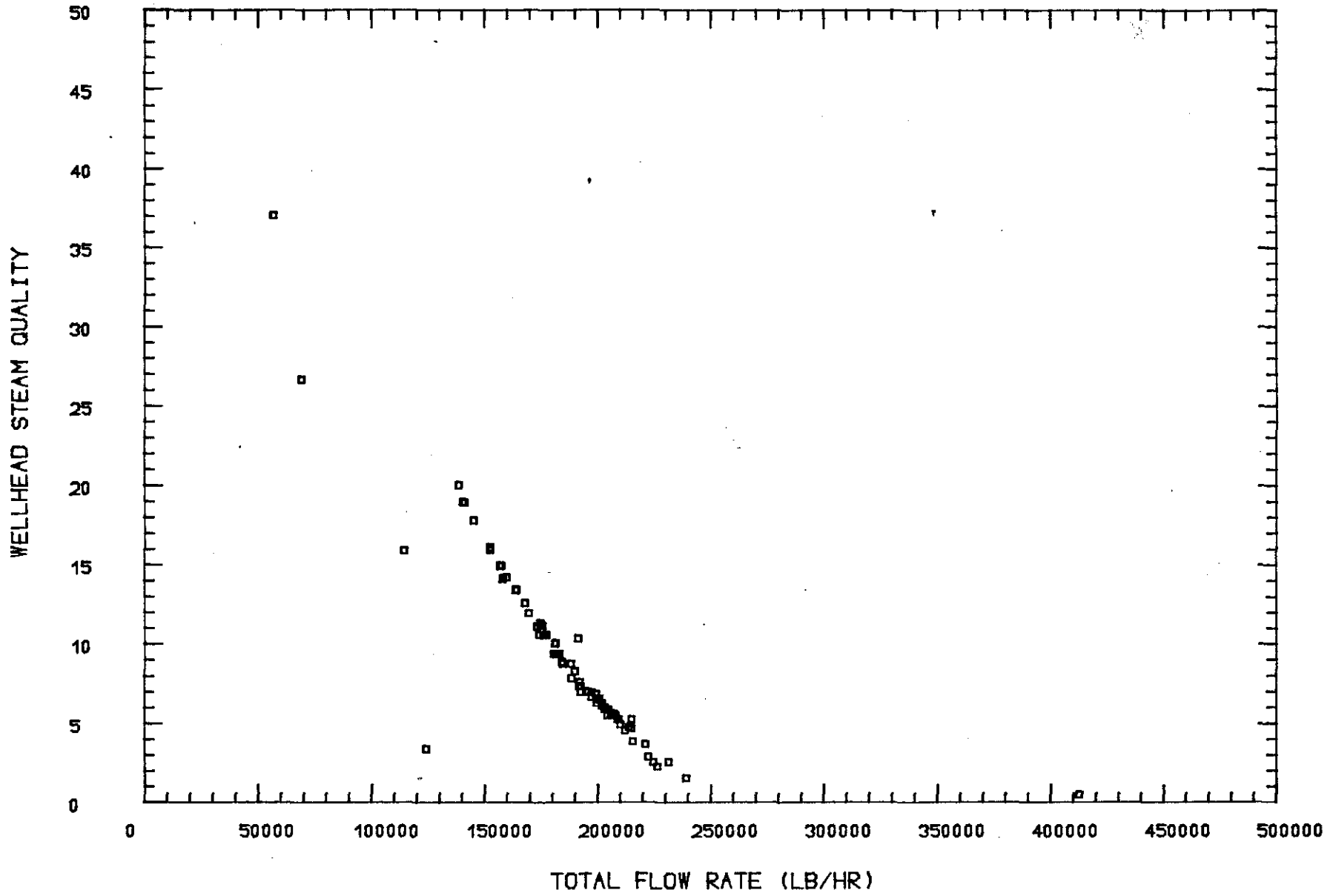
FISHLAKE TEST FOUR - WELL 88-11



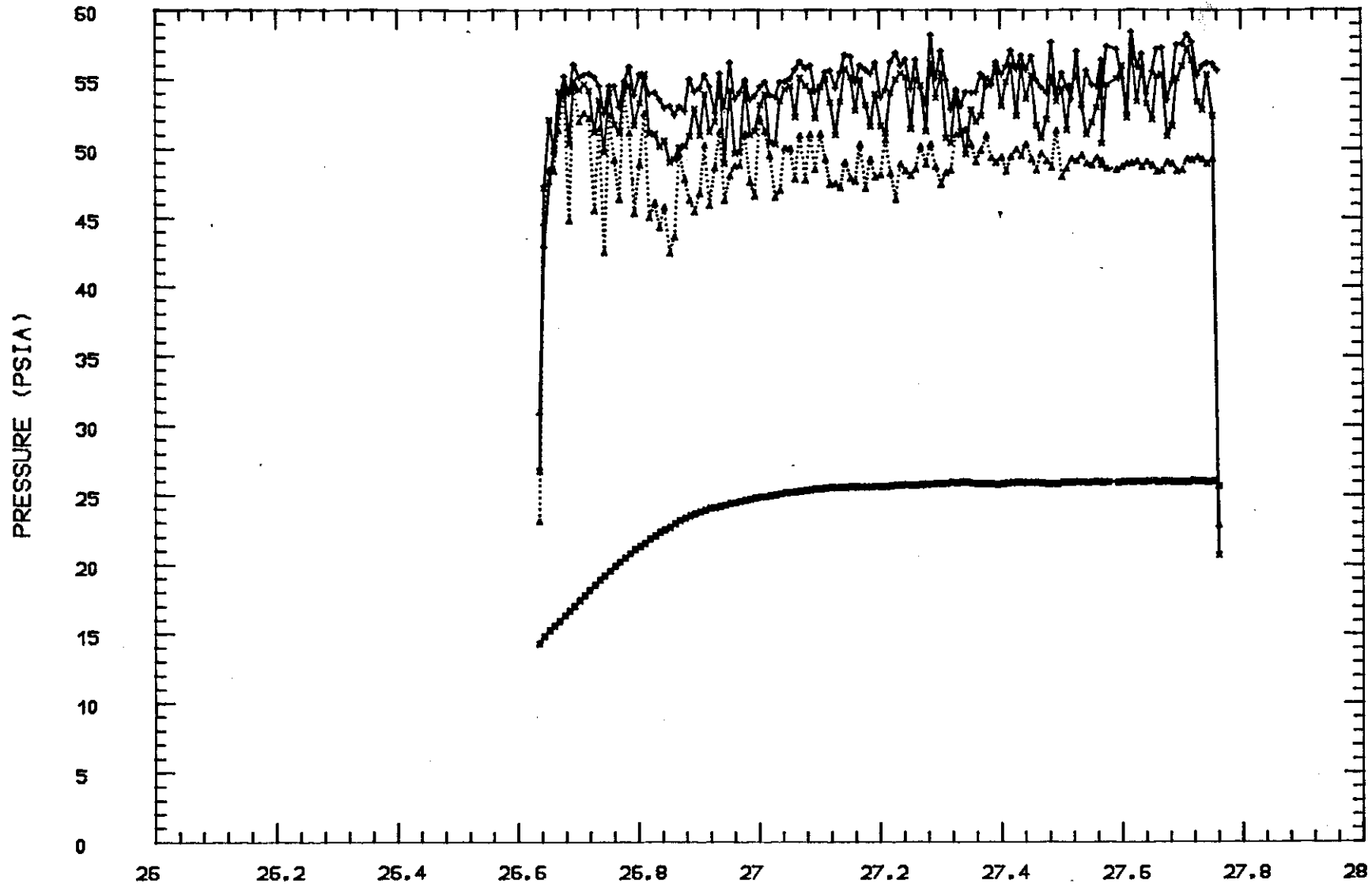
FISHLAKE TEST FOUR - WELL 88-11



FISHLAKE TEST FOUR - WELL 88-11



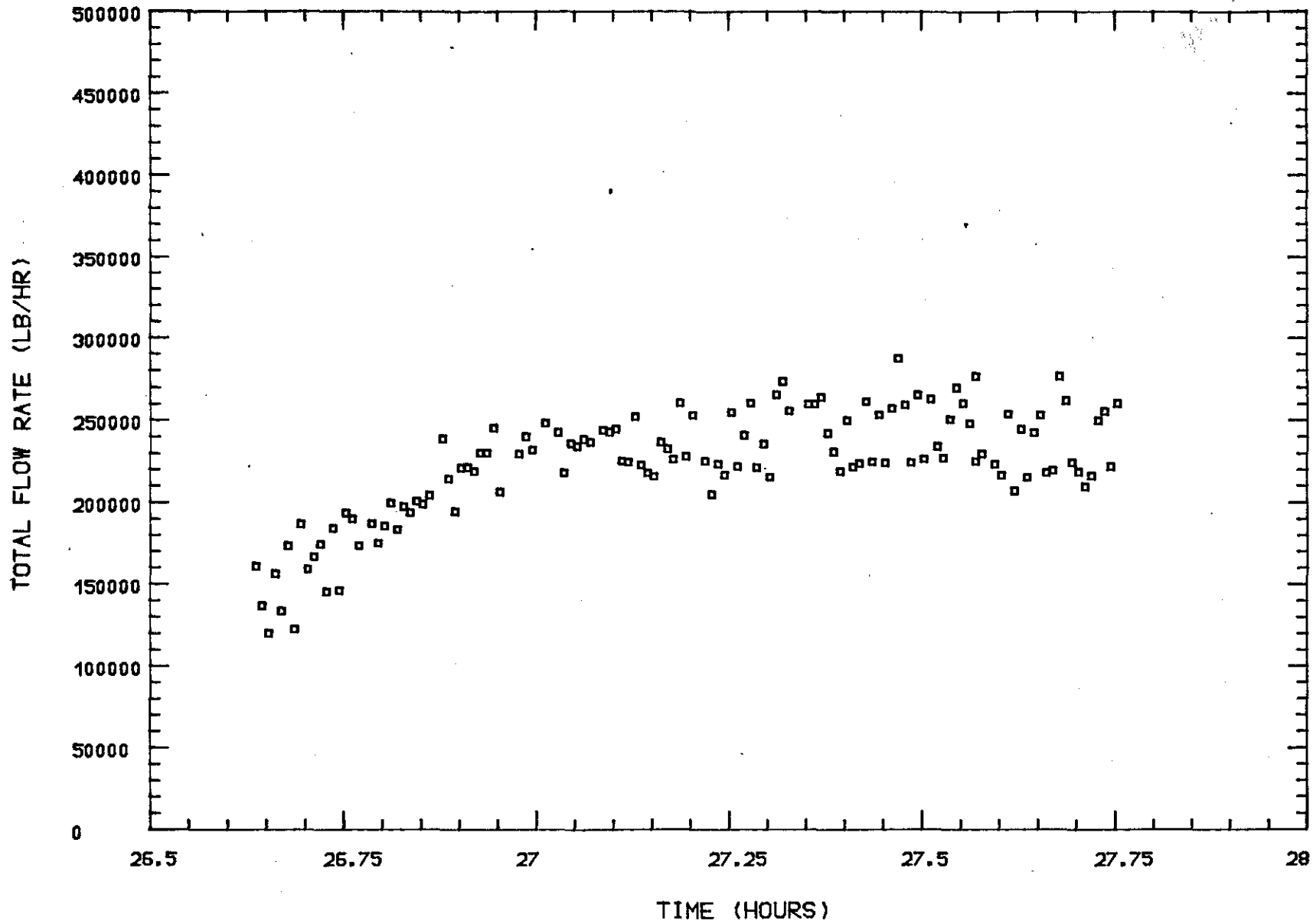
FISHLAKE TEST 5 - PRESSURE MEASUREMENTS



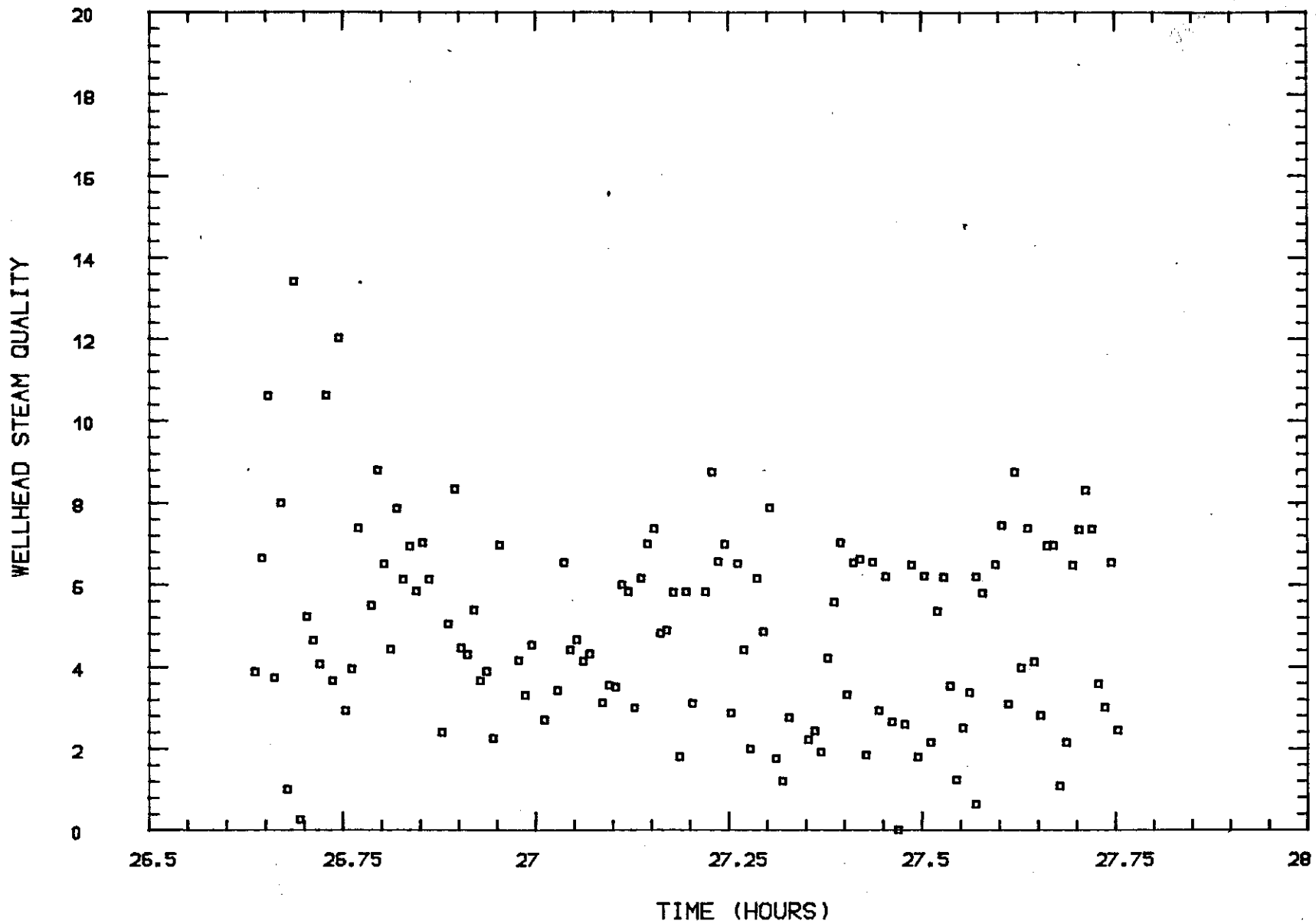
LEGEND:
■ LIP PRESSURE
▲ ORIFICE DOWNSTREAM PRESSURE
* ORIFICE UPSTREAM PRESSURE
◆ WELLHEAD PRESSURE

TIME (HOURS)

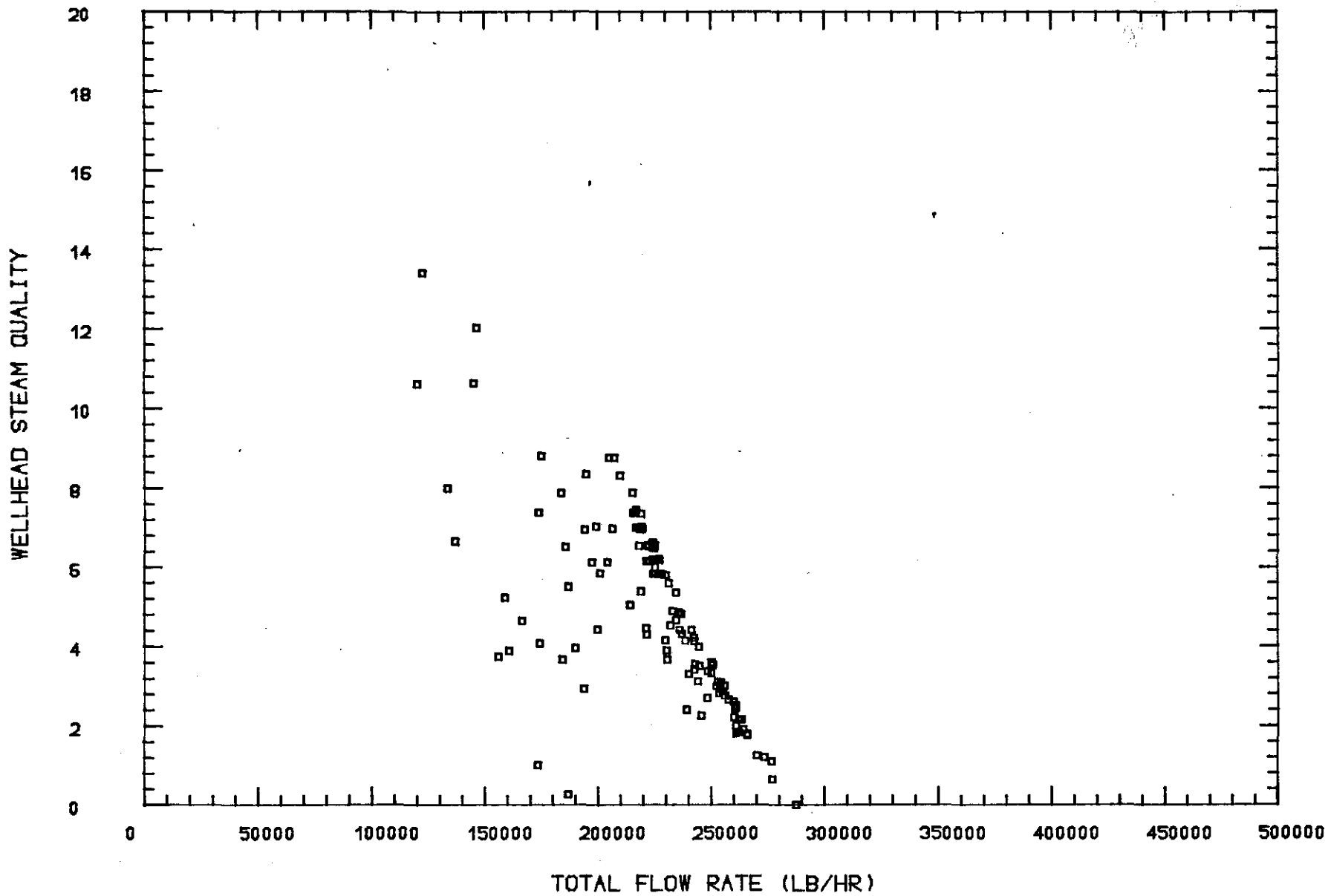
FISHLAKE TEST FIVE - WELL 88-11



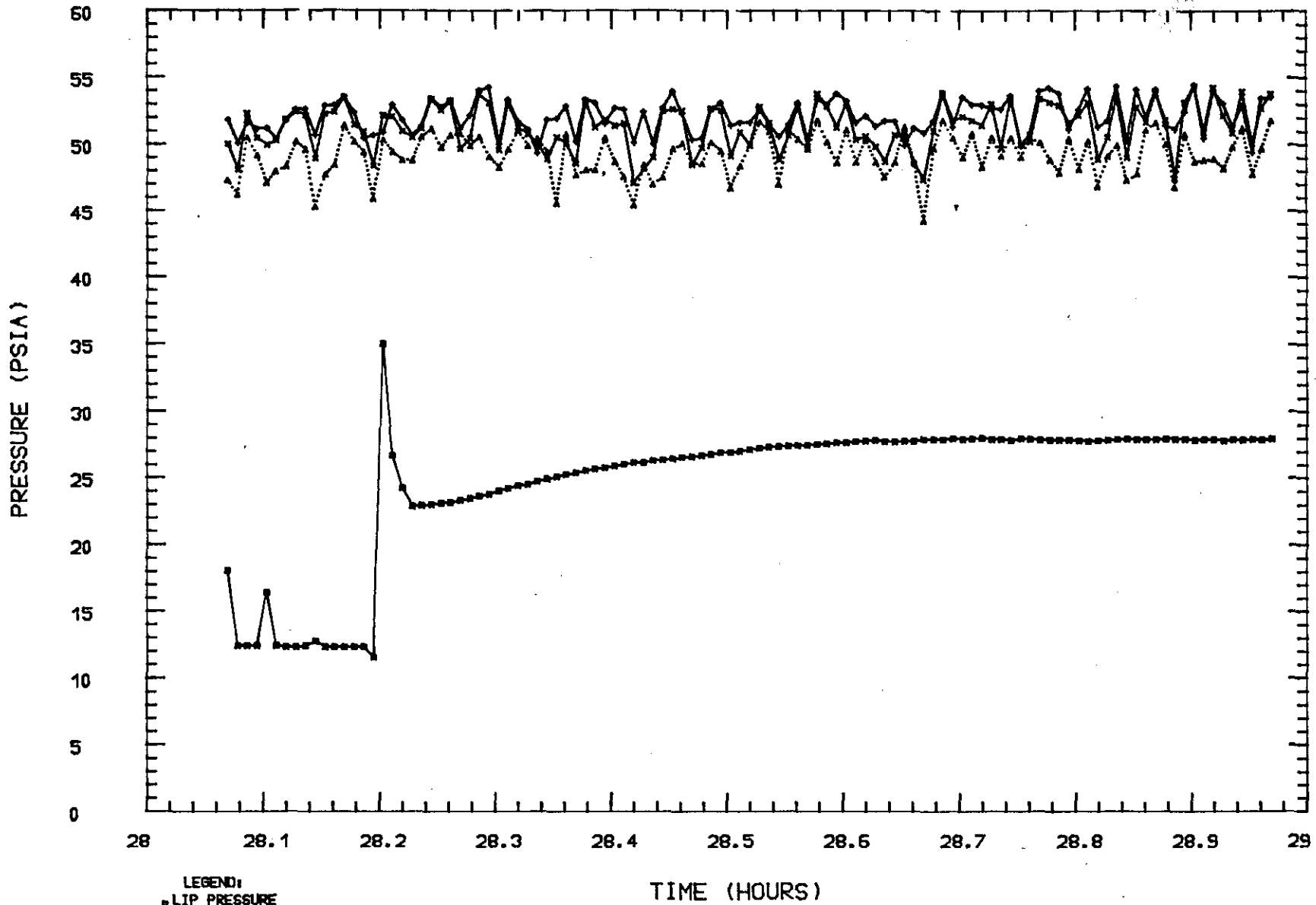
FISHLAKE TEST FIVE - WELL 88-11



FISHLAKE TEST FIVE - WELL 88-11

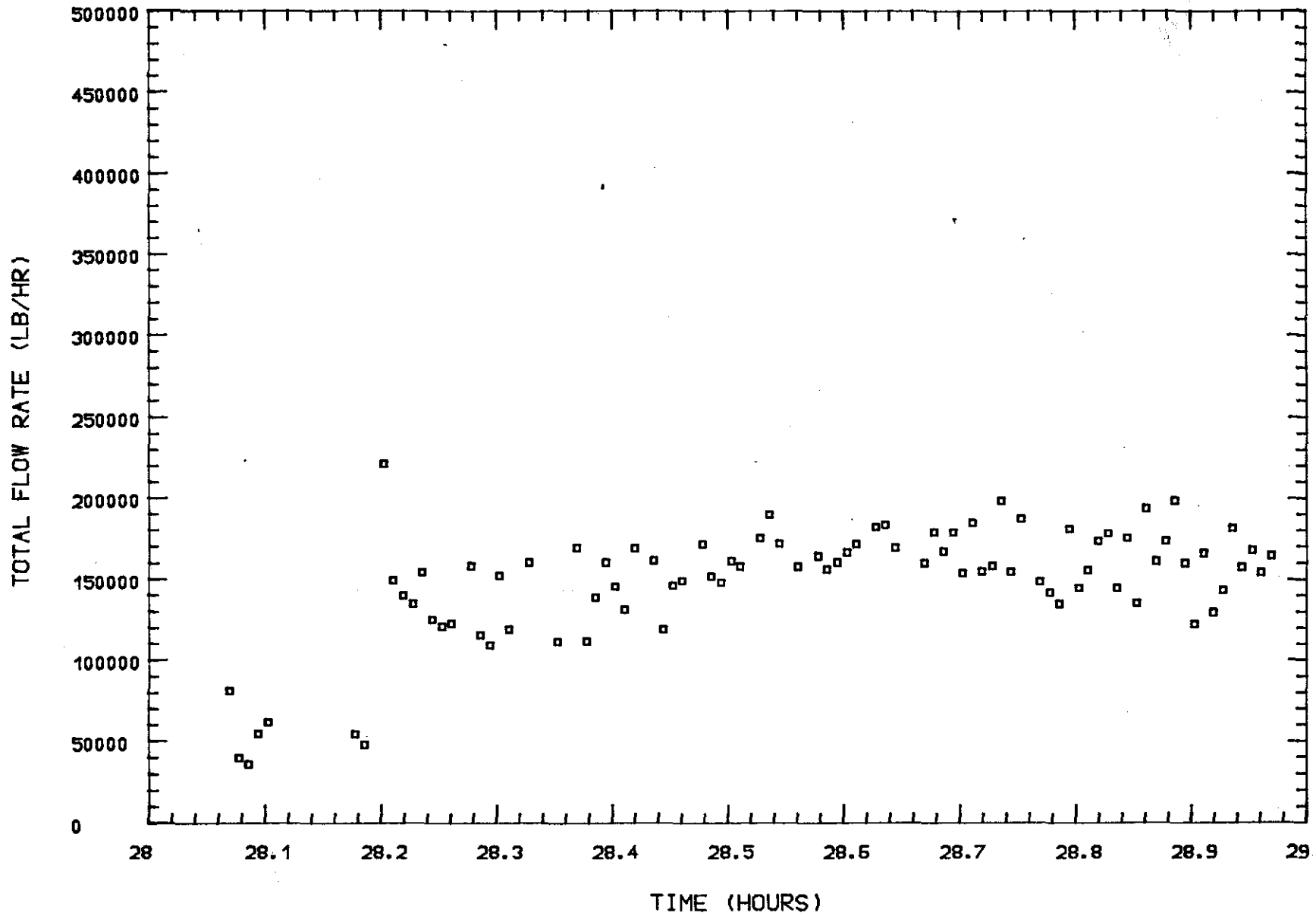


FISHLAKE TEST 6 - PRESSURE MEASUREMENTS

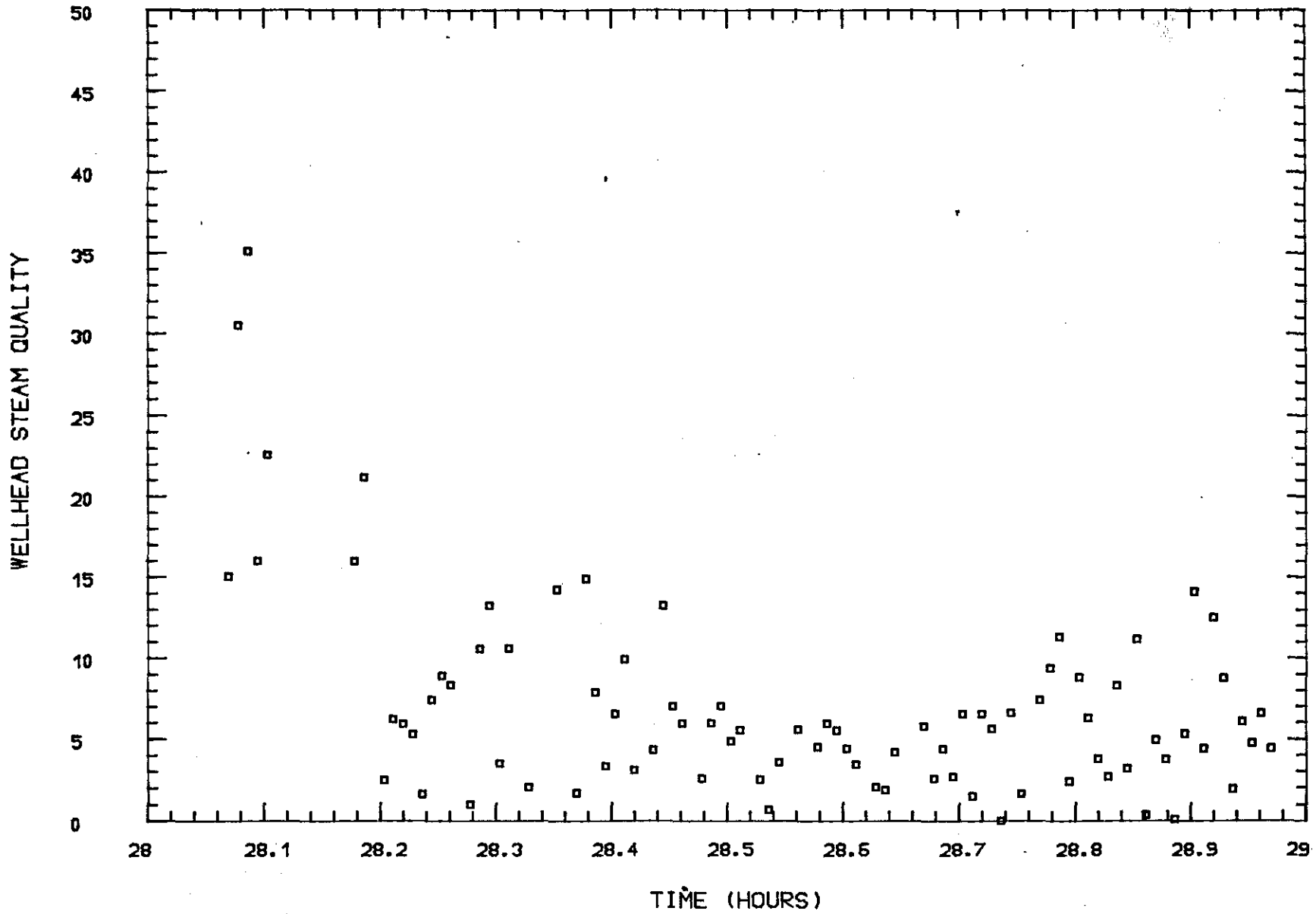


LEGEND:
■ LIP PRESSURE
▲ ORIFICE DOWNSTREAM PRESSURE
× ORIFICE UPSTREAM PRESSURE
◆ WELLHEAD PRESSURE

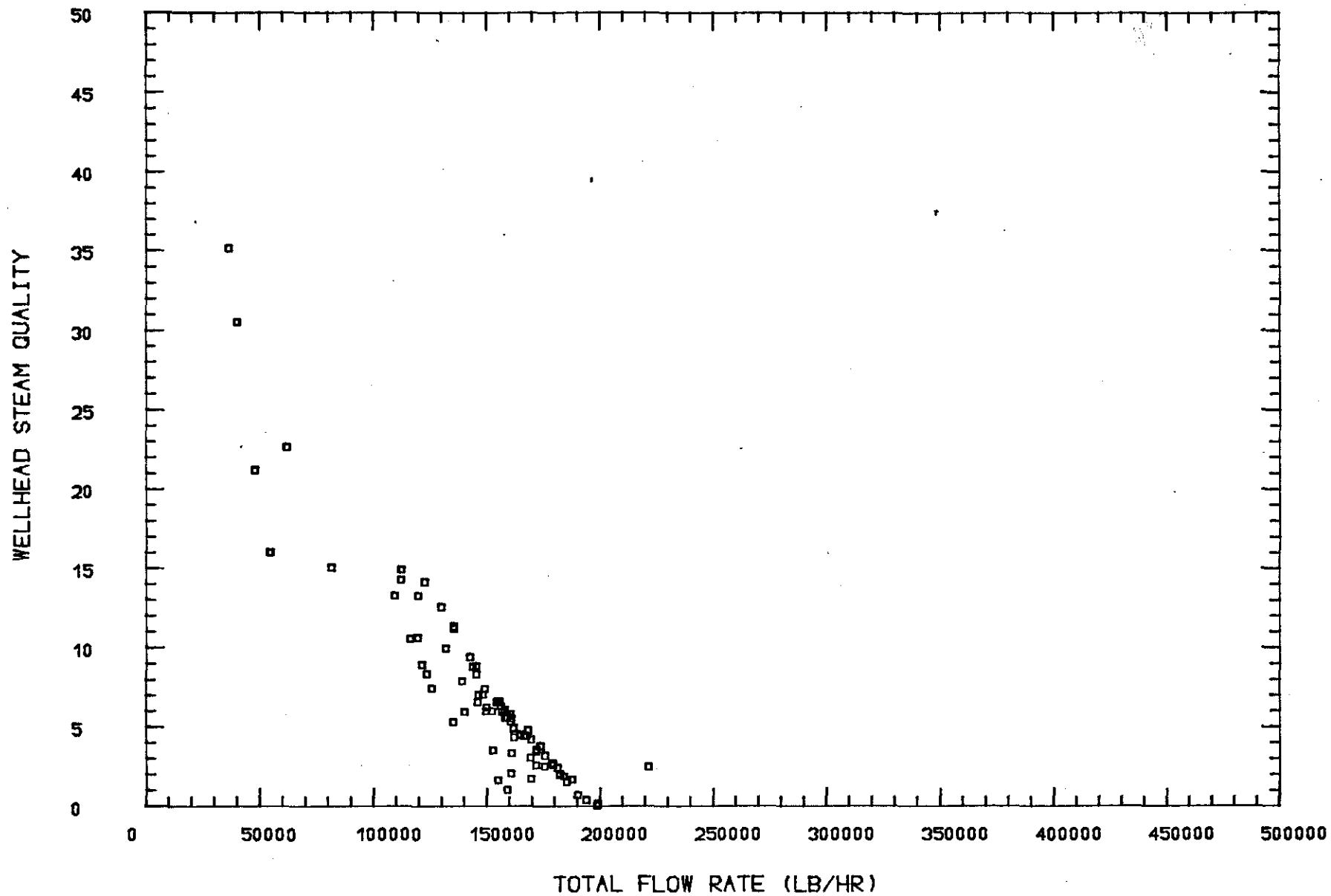
FISHLAKE TEST SIX - WELL 88-11



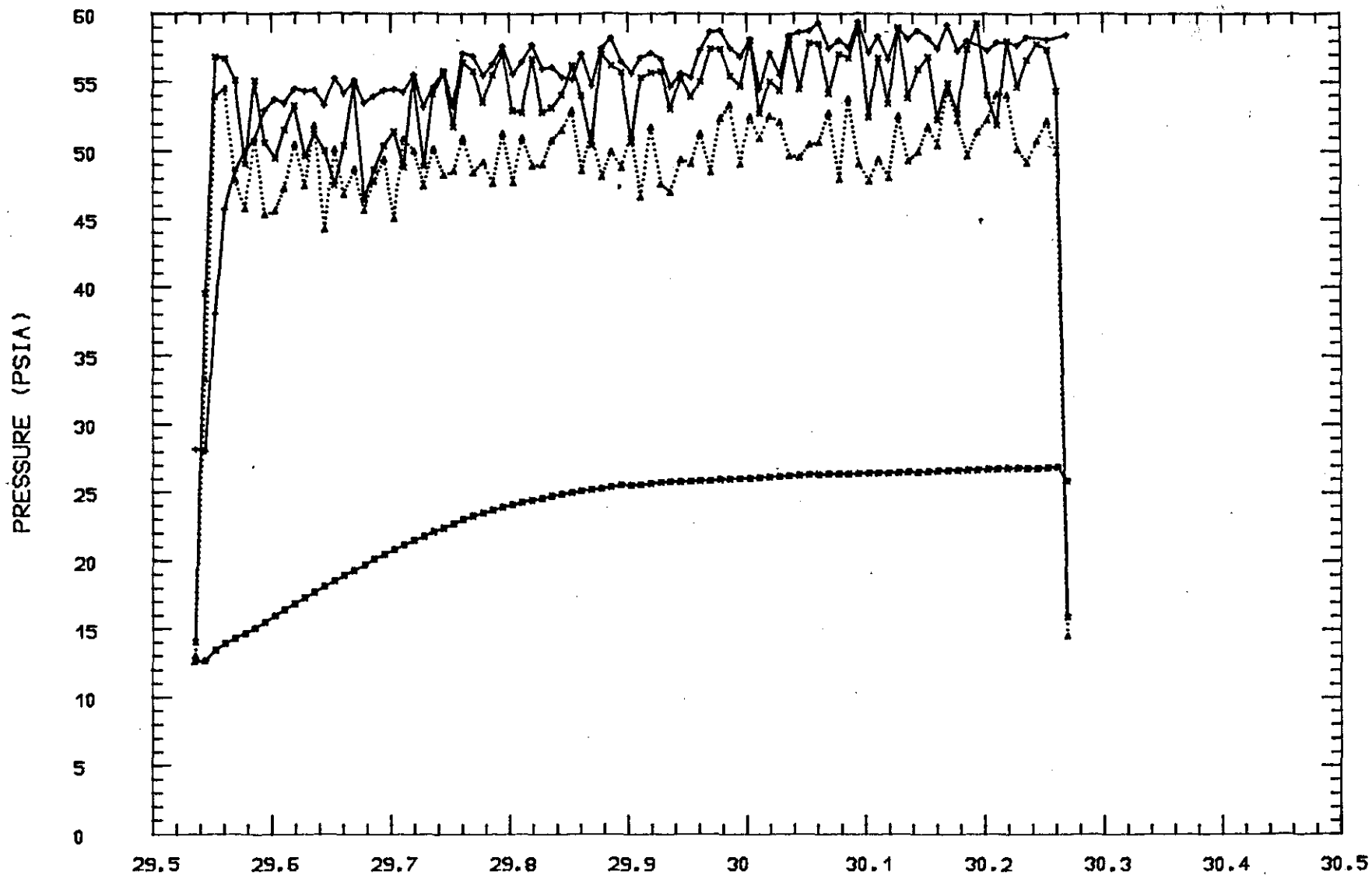
FISHLAKE TEST SIX - WELL 88-11



FISHLAKE TEST SIX - WELL 88-11



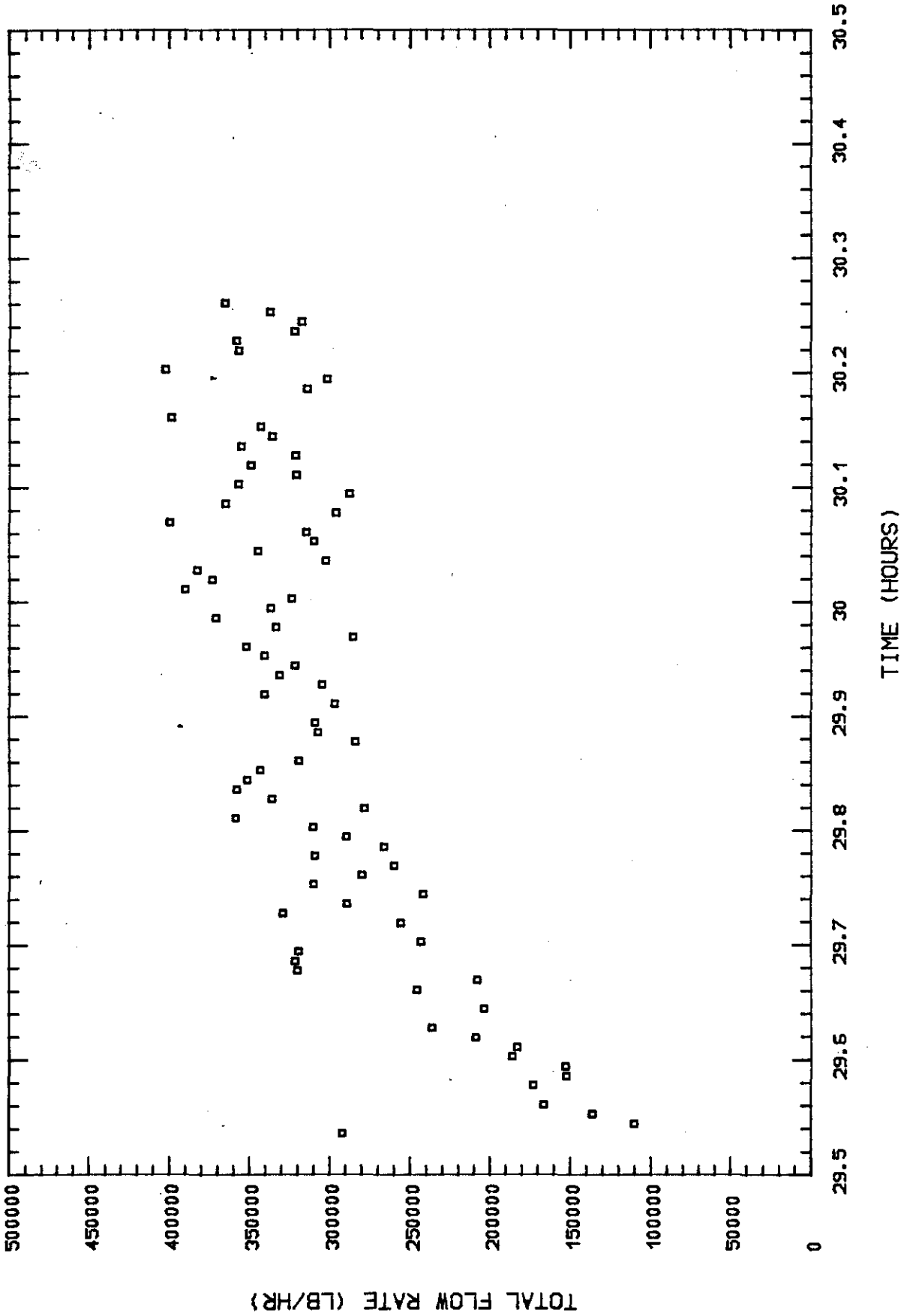
FISHLAKE TEST 7 - PRESSURE MEASUREMENTS



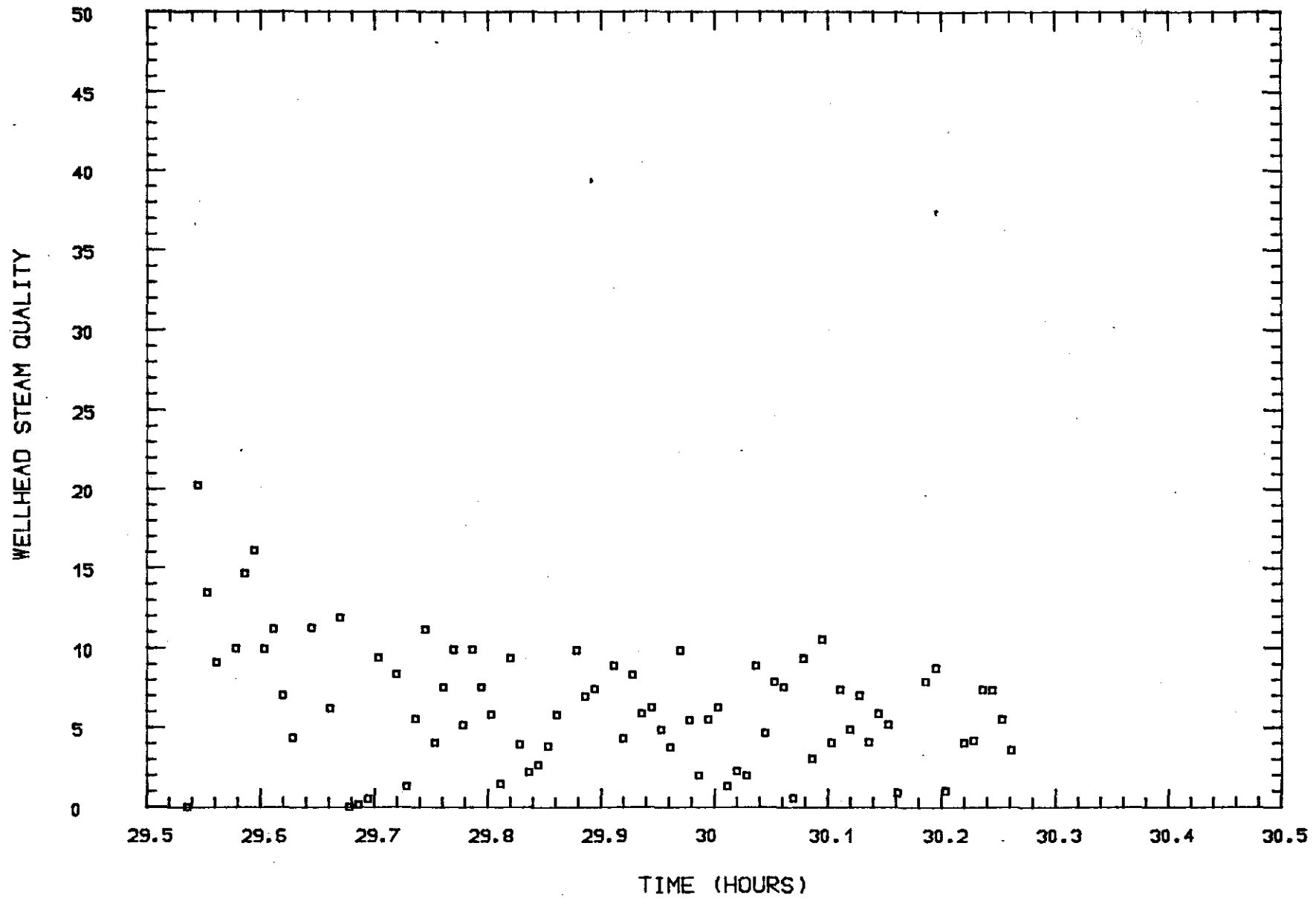
LEGEND:
▲ LIP PRESSURE
△ ORIFICE DOWNSTREAM PRESSURE
× ORIFICE UPSTREAM PRESSURE
● WELLHEAD PRESSURE

TIME (HOURS)

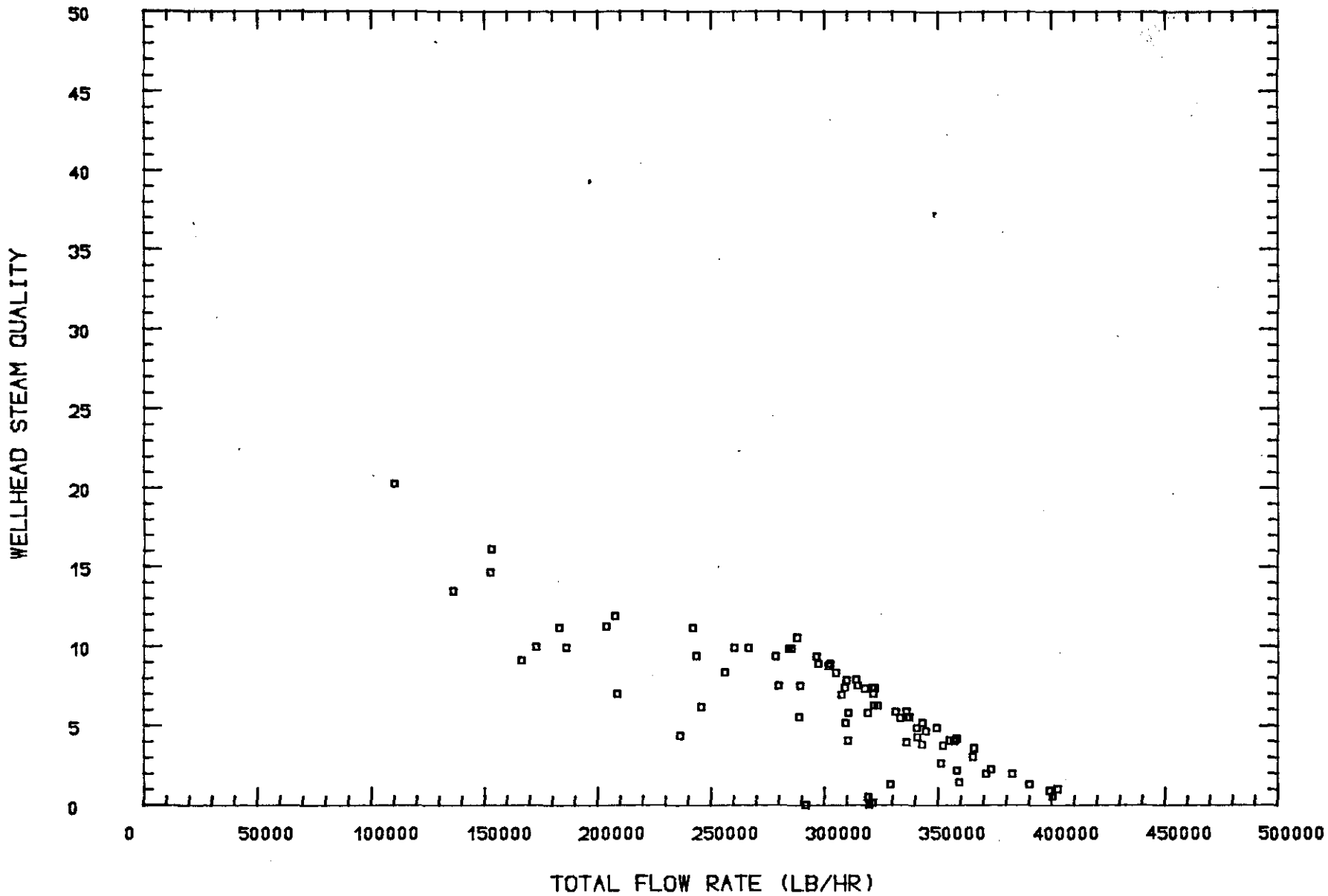
FISHLAKE TEST SEVEN - WELL 88-11



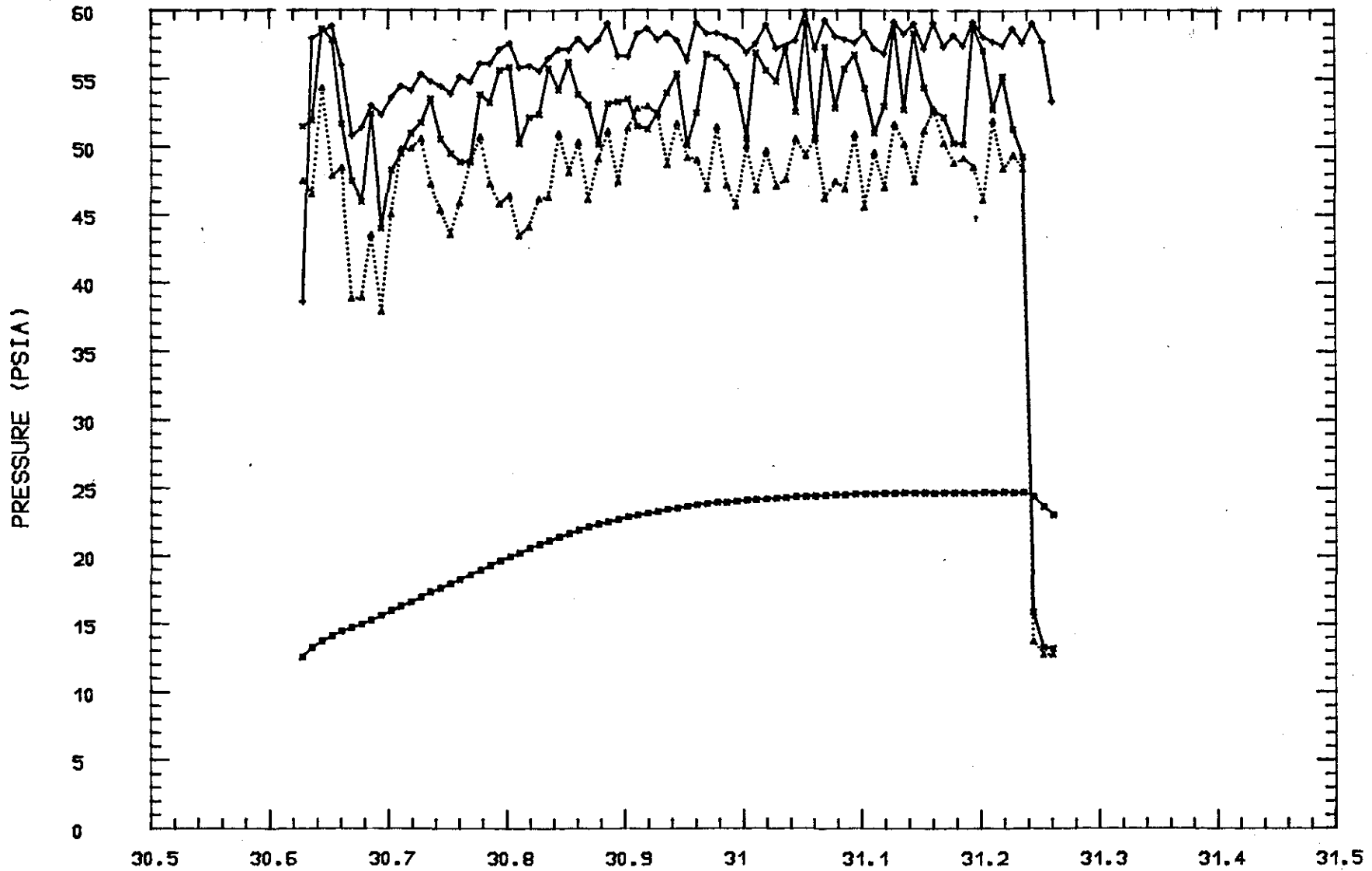
FISHLAKE TEST SEVEN - WELL 88-11



FISHLAKE TEST SEVEN - WELL 88-11



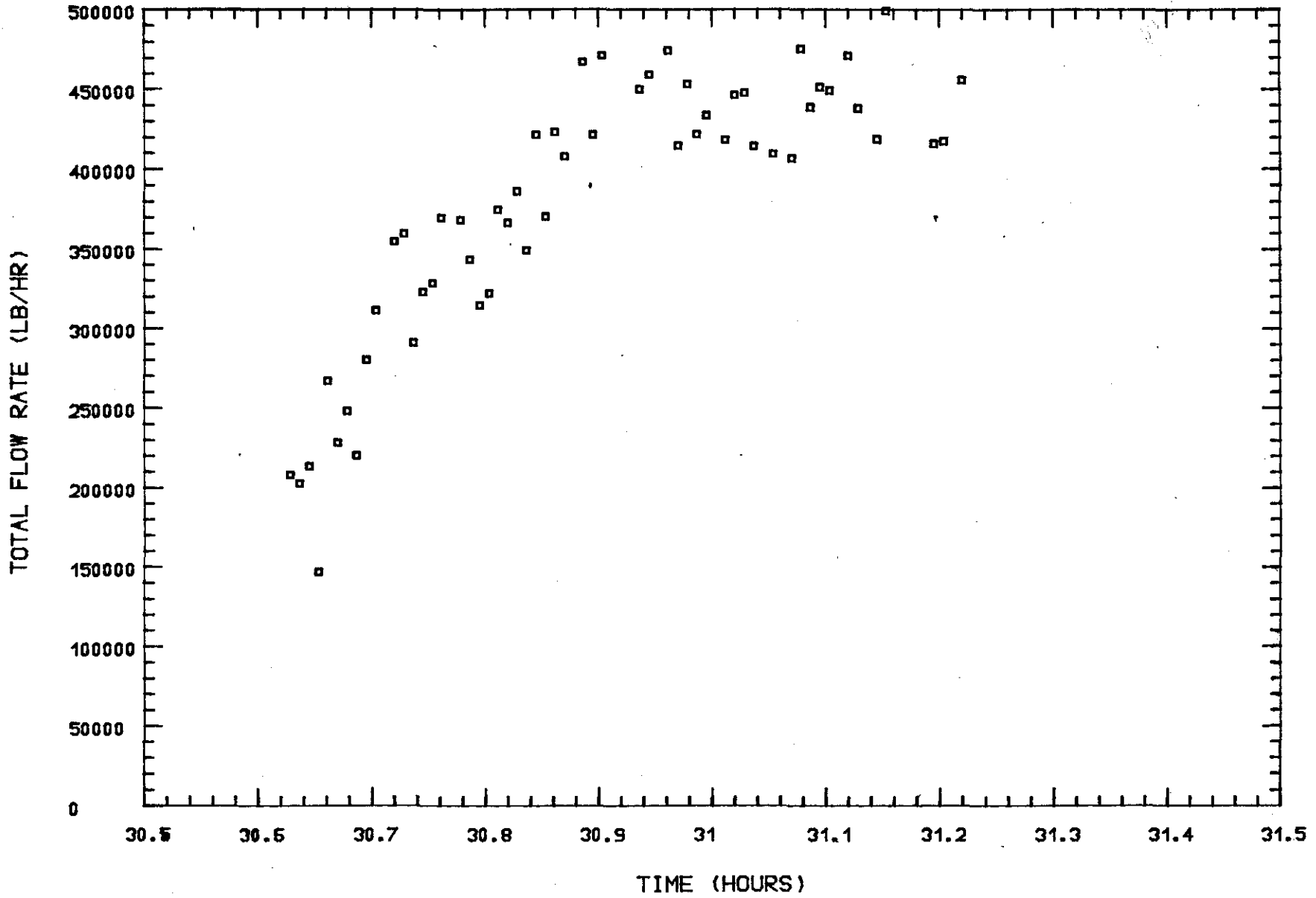
FISHLAKE TEST 8 - PRESSURE MEASUREMENTS



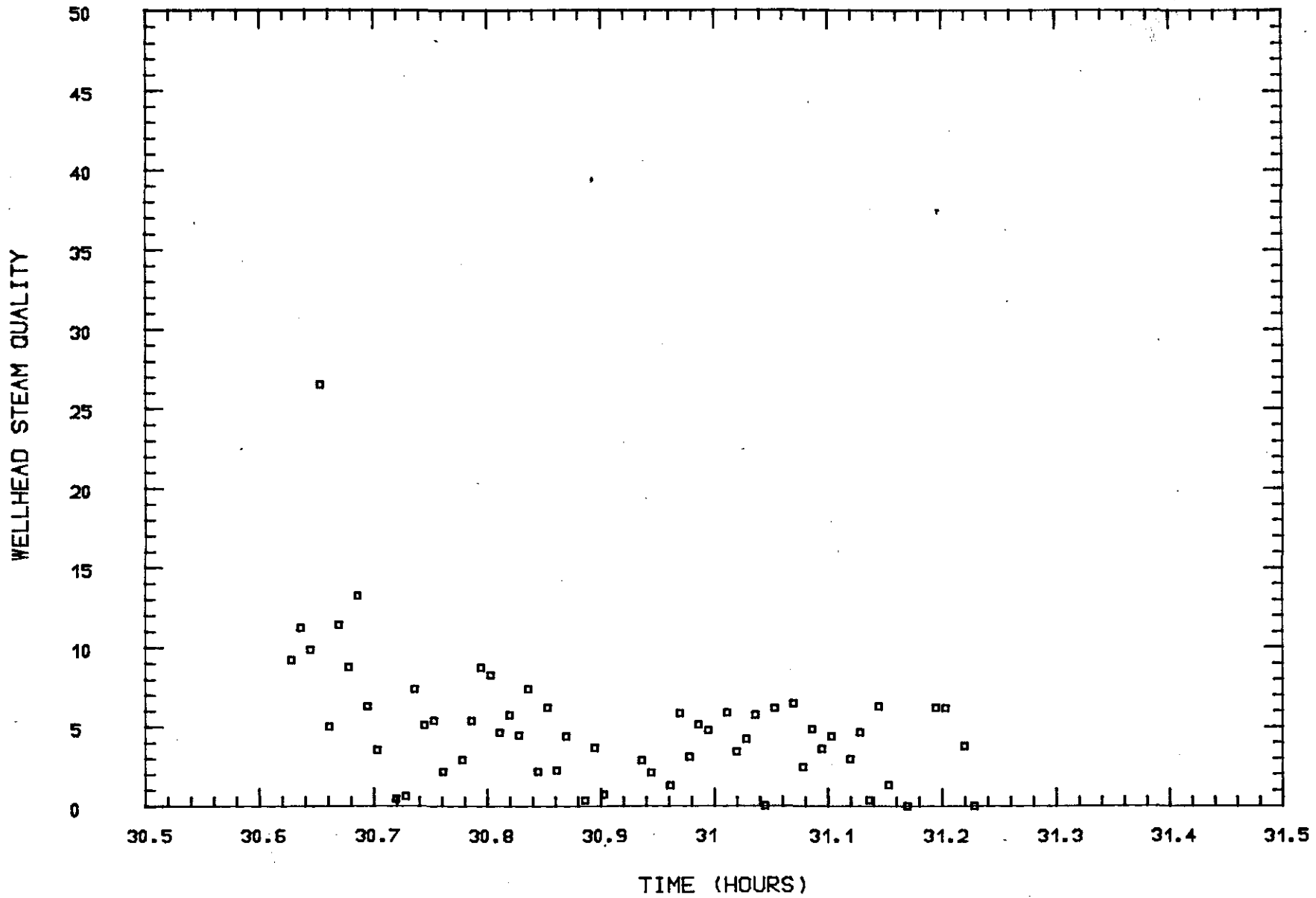
LEGEND:
■ LIP PRESSURE
▲ ORIFICE DOWNSTREAM PRESSURE
× ORIFICE UPSTREAM PRESSURE
◆ WELLHEAD PRESSURE

TIME (HOURS)

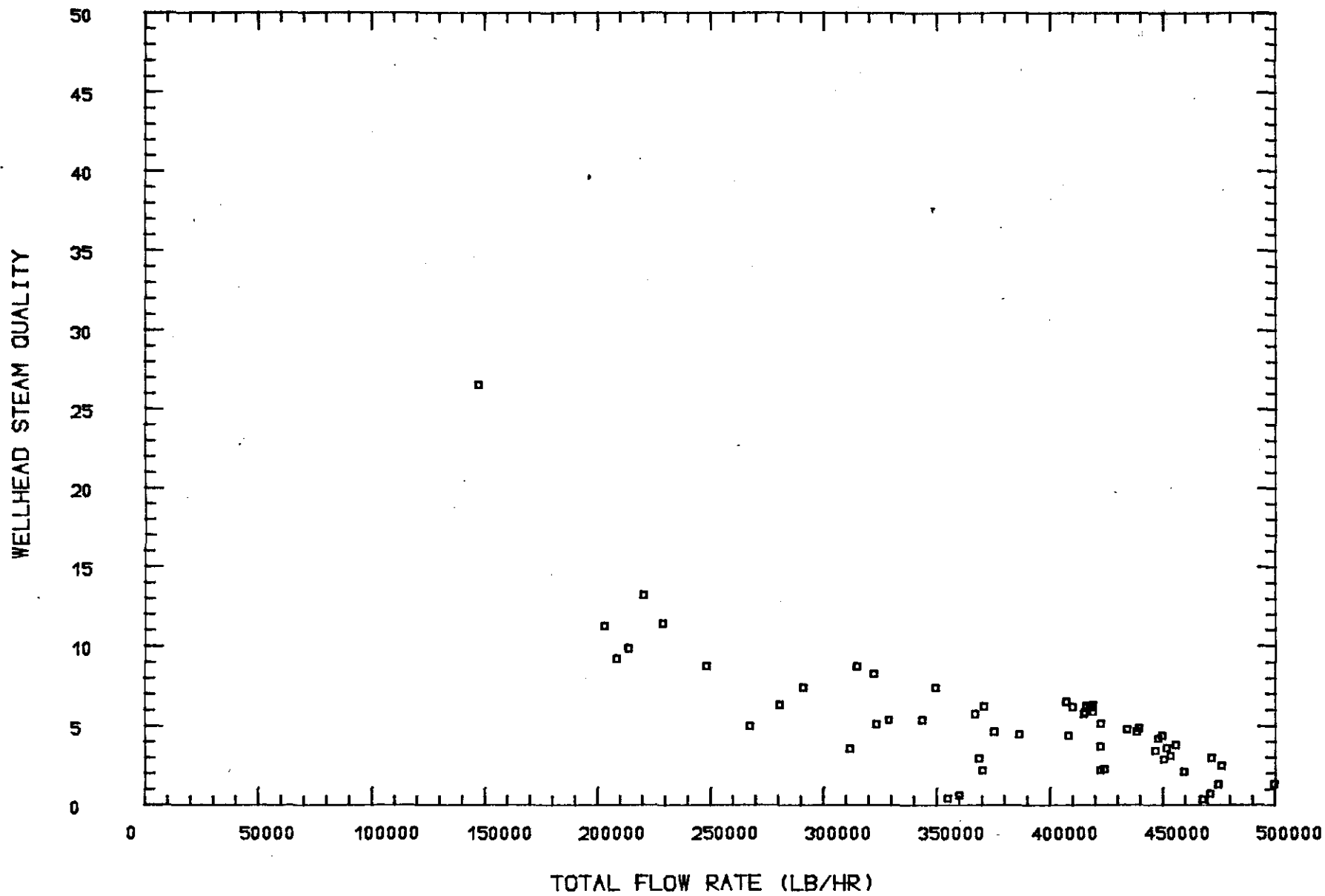
FISHLAKE TEST EIGHT - WELL 88-11



FISHLAKE TEST EIGHT - WELL 88-11



FISHLAKE TEST EIGHT - WELL 88-11



FISHLAKE PROJECT - TEST FOUR

GEOTHERMEX INC. - PROGRAM JAMESORI

TEST TIME 1:30 PM TO 2:26 PM

MAIN FLOW LINE DIAMETER (IN) = 10.000

ORIFICE DIAMETER (IN) = 6.500

CRITICAL FLOW PIPE DIAMETER (IN) = 5.000

ATMOSPHERIC PRESSURE (PSIA) = 13.200

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO.OF ITERA- TIONS
25:30:41	16.86	44.07	40.56	34.42	258.3	114743.	96448.	18295.	15.94	376.76	20.75	10
25:31:11	12.57	46.71	44.48	46.90	277.0	69025.	50596.	18430.	26.70	493.44	32.74	3
25:31:41	12.48	48.74	46.53	53.38	285.1	56762.	35718.	21044.	37.07	595.78	43.25	1
25:32:11	12.47	48.97	51.33	53.82	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
25:32:41	12.56	50.31	51.08	54.21	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
25:33:11	12.54	51.66	51.27	53.20	284.9	124229.	120004.	4224.	3.40	285.43	11.38	17
25:33:41	12.54	52.23	49.52	53.45	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
25:34:11	12.56	50.40	47.47	52.75	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
25:34:41	38.87	52.58	51.32	53.20	284.9	412727.	410798.	1928.	.47	258.42	8.60	7
25:35:11	26.41	51.57	51.37	52.69	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
25:35:41	23.75	53.46	51.52	53.82	285.7	215204.	203849.	11356.	5.28	303.45	13.23	18
25:36:11	22.76	51.29	47.34	53.11	284.8	174548.	154703.	19845.	11.37	358.74	18.90	28
25:36:41	22.50	53.12	50.81	54.52	286.5	192740.	179230.	13510.	7.01	320.21	14.95	16
25:37:11	22.59	52.50	53.39	55.41	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
25:37:41	22.66	54.30	51.40	55.19	287.3	184434.	167983.	16452.	8.92	398.54	16.83	22
25:38:11	22.65	55.40	54.58	56.08	288.3	226407.	221244.	5162.	2.28	278.54	10.67	16
25:38:41	22.66	52.27	48.80	55.16	287.3	174131.	155633.	18498.	10.62	354.17	18.43	17
25:39:11	22.74	54.70	53.69	55.54	287.7	222265.	215826.	6439.	2.90	283.58	11.19	22
25:39:41	22.83	55.47	53.09	56.64	289.0	192604.	178376.	14228.	7.39	326.07	15.55	8

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO.OF ITERA- TIONS
25:40:11	22.82	54.77	52.91	56.01	288.2	206745.	195372.	11373.	5.50	308.05	13.70	10
25:40:41	22.85	53.48	50.04	55.02	287.1	175750.	157113.	18637.	10.60	353.84	18.40	17
25:41:11	22.84	52.51	53.92	53.60	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
25:41:41	22.86	52.56	52.84	54.97	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
25:42:11	22.86	54.37	52.04	55.79	288.0	195764.	182060.	13704.	7.00	321.58	15.09	16
25:42:41	22.86	53.49	52.16	54.61	286.6	221003.	212877.	8127.	3.68	289.65	11.81	28
25:43:11	22.86	55.08	51.58	55.37	287.5	173150.	153836.	19315.	11.15	359.29	18.96	9
25:43:41	22.88	52.45	49.99	54.42	286.4	197272.	183482.	13789.	6.99	319.91	14.92	16
25:44:11	22.79	51.19	47.49	53.85	285.7	177250.	158397.	18854.	10.64	352.83	18.30	17
25:44:41	22.81	50.92	47.32	54.81	286.8	181285.	163012.	18272.	10.08	348.78	17.88	25
25:45:11	22.83	52.81	49.66	56.01	288.2	182169.	165061.	17108.	9.39	343.79	17.37	14
25:45:41	22.82	48.76	47.56	52.73	284.4	231346.	225320.	6026.	2.60	277.54	10.57	22
25:46:11	22.82	53.05	47.63	54.21	286.1	141081.	114301.	26780.	18.98	430.04	26.23	13
25:46:41	22.80	51.25	48.20	54.34	286.3	184995.	168744.	16252.	8.78	336.35	16.60	3
25:47:11	22.80	54.27	50.03	55.50	287.6	158304.	135855.	22449.	14.18	387.25	21.83	15
25:47:41	22.84	51.53	48.37	54.75	286.8	188407.	171866.	16541.	8.78	336.76	16.65	3
25:48:11	22.84	48.30	47.40	53.11	284.8	239223.	235463.	3760.	1.57	268.48	9.64	13
25:48:41	22.89	52.41	53.15	55.16	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
25:49:11	22.84	52.18	48.35	55.50	287.6	175209.	155552.	19657.	11.22	360.02	19.04	9

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO.OF ITERA- TIONS
25:49:41	22.86	50.77	53.42	54.15								
25:50:11	22.84	54.78	49.64	56.47	288.8	140473.	113784.	26689.	19.00	432.52	26.48	13
25:50:41	22.89	51.60	48.63	55.60	287.8	190101.	174335.	15766.	8.29	333.25	16.29	11
25:51:11	22.84	54.38	51.98	55.68	287.9	191978.	177791.	14187.	7.39	325.02	15.44	8
25:51:41	22.85	51.05	53.15	53.26								
25:52:11	22.89	49.16	50.51	54.20								
25:52:41	22.86	49.14	50.01	52.91								
25:53:11	22.87	51.41	49.18	55.03	287.1	201830.	189507.	12323.	6.11	312.48	14.15	13
25:53:41	22.86	50.47	50.93	52.98								
25:54:11	22.88	54.46	52.15	54.52	286.5	195111.	181339.	13771.	7.06	320.66	14.99	16
25:54:41	22.87	55.79	50.48	57.86	290.3	138519.	110749.	27769.	20.05	443.54	27.61	5
25:55:11	22.85	50.49	52.08	53.69								
25:55:41	22.87	54.64	52.60	53.98	285.9	199535.	186942.	12593.	6.31	313.16	14.22	13
25:56:11	22.89	52.99	53.79	55.18								
25:56:41	22.87	50.60	52.90	53.16								
25:57:11	22.88	53.58	49.28	55.50	287.6	164140.	141999.	22141.	13.49	380.89	21.18	23
25:57:41	22.87	55.58	51.46	56.08	288.3	158235.	135875.	22360.	14.13	387.41	21.85	15
25:58:11	22.89	54.72	50.22	55.82	288.0	157136.	133666.	23470.	14.94	394.54	22.58	7
25:58:41	22.90	52.91	47.71	54.78	286.8	145159.	119274.	25885.	17.83	420.06	25.20	2

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS
25:59:11	22.94	53.61	50.47	55.56	287.7	183279.	166056.	17223.	9.40	343.34	17.32	14
25:59:41	22.92	54.31	52.47	55.06	287.1	204386.	193079.	11307.	5.53	307.24	13.62	10
26: 0:11	22.93	54.19	49.60	55.84	288.0	157706.	134093.	23614.	14.97	394.89	22.62	7
26: 0:41	22.93	53.70	49.30	55.84	288.0	159863.	137109.	22754.	14.23	388.10	21.92	15
26: 1:11	22.94	55.31	51.83	57.11	289.5	173118.	153790.	19328.	11.16	361.26	19.16	9
26: 1:41	22.95	54.34	52.55	54.75	286.8	208777.	197778.	11000.	5.27	304.46	13.33	18
26: 2:11	22.95	56.10	53.16	56.93	289.3	182192.	165086.	17106.	9.39	344.77	17.47	14
26: 2:41	22.97	50.77	48.91	54.87	286.9	215107.	205016.	10091.	4.69	299.29	12.80	7
26: 3:11	22.96	48.91	51.34	52.32	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
26: 3:41	22.96	53.52	54.38	56.27	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
26: 4:11	22.94	55.42	54.11	56.61	288.9	215634.	207287.	8347.	3.87	293.75	12.23	20
26: 4:41	22.96	55.74	54.84	56.47	288.8	224573.	218796.	5777.	2.57	281.66	10.99	19
26: 5:11	22.93	51.23	49.40	54.07	286.0	213934.	203717.	10216.	4.78	299.13	12.78	7
26: 5:41	22.94	35.84	49.42	54.91	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
26: 6:11	22.94	12.86	51.14	55.15	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
26: 6:41	22.94	12.75	50.89	55.62	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
26: 7:11	22.96	12.56	49.99	54.02	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
26: 7:41	22.95	12.59	48.50	54.62	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
26: 8:11	22.93	12.58	47.59	53.99	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
26: 8:41	22.94	12.65	54.59	55.91	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
26: 9:11	22.91	12.93	51.72	55.62	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
26: 9:41	22.93	12.77	51.44	55.34	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
26:10:11	22.91	12.78	52.79	56.14	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
26:10:41	22.90	17.71	51.72	56.03	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
26:11:11	22.90	55.89	54.47	53.86	285.7	212071.	202405.	9666.	4.56	296.88	12.55	4

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEC.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO.OF ITERA- TIONS
26:11:41	22.89	53.25	49.83	54.46	286.4	181147.	162924.	18223.	10.06	348.21	17.82	25
26:12:11	22.91	53.77	49.18	55.21	287.3	157054.	133547.	23507.	14.97	394.17	22.54	7
26:12:41	22.88	52.83	48.69	54.11	286.0	167913.	146741.	21172.	12.61	371.28	20.19	12
26:13:11	22.90	52.76	48.96	54.50	286.5	175664.	156001.	19663.	11.19	358.69	18.90	9
26:13:41	22.90	55.49	53.38	53.36	285.1	197352.	184104.	13248.	6.71	316.14	14.53	5
26:14:11	22.91	54.36	52.15	56.01	288.2	199635.	186594.	13041.	6.53	317.53	14.67	5
26:14:41	22.89	53.52	50.05	53.80	285.7	176474.	157764.	18710.	10.60	352.46	18.26	17
26:15:11	22.89	53.29	51.10	55.15	287.2	202181.	189499.	12682.	6.27	314.15	14.32	32
26:15:41	22.89	54.64	52.63	54.74	286.8	203239.	190980.	12259.	6.03	311.47	14.05	40
26:16:11	22.89	54.64	51.23	54.90	286.9	177025.	158277.	18748.	10.59	353.58	18.37	17
26:16:41	22.90	53.73	51.81	54.62	286.6	207831.	196344.	11487.	5.53	306.69	13.56	10
26:17:11	22.89	52.75	48.85	55.05	287.1	169714.	149383.	20332.	11.98	366.52	19.70	20
26:17:41	22.89	52.95	48.08	53.95	285.8	152328.	127983.	24345.	15.98	402.15	23.36	18
26:18:11	22.90	53.46	50.40	54.94	287.0	180853.	163845.	17008.	9.40	342.72	17.26	14
26:18:41	22.89	53.31	50.17	54.12	286.0	182816.	165603.	17212.	9.42	341.90	17.17	14
26:19:11	22.87	53.93	51.36	56.01	288.2	188620.	173753.	14867.	7.88	329.92	15.94	19
26:19:41	22.87	53.83	51.89	54.50	286.5	207244.	195604.	11640.	5.62	307.38	13.63	29
26:20:11	22.88	54.77	52.92	53.69	285.5	205850.	194229.	11621.	5.65	306.69	13.56	10
26:20:41	22.87	53.25	50.14	55.92	288.1	181805.	164728.	17077.	9.39	343.71	17.36	14

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG. F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS
26:21:11	22.87	55.03	53.34	52.72	284.4	209277.	198285.	10992.	5.25	301.93	13.07	45
26:21:41	22.90	54.32	52.08	55.08	287.2	200884.	187675.	13209.	6.58	316.85	14.60	5
26:22:11	22.89	51.38	46.30	54.49	286.5	152470.	127824.	24646.	16.16	404.41	23.59	18
26:22:41	22.88	55.97	54.04	56.58	288.9	203093.	191082.	12012.	5.91	312.48	14.15	21
26:23:11	22.89	55.02	53.38	55.46	287.6	210067.	199720.	10347.	4.93	302.12	13.09	7
26:23:41	22.90	53.35	51.02	52.03	283.5	199306.	185625.	13681.	6.86	315.97	14.51	43
26:24:11	22.91	54.65	50.48	55.72	287.9	163858.	141832.	22027.	13.44	380.70	21.16	23
26:24:41	22.91	56.09	53.67	56.47	288.8	192173.	177533.	14640.	7.62	328.00	15.75	46
26:25:11	22.92	53.06	50.99	54.75	286.8	204572.	192567.	12005.	5.87	309.98	13.90	21
26:25:41	22.91	38.82	33.05	55.63	287.8	191418.	171587.	19832.	10.36	352.28	18.24	6
26:26:11	54.26	14.32	17.76	18.62	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							

FISHLAKE PROJECT - TEST FIVE

GEOTHERMEX INC. - PROGRAM JAMESORI

TEST TIME 2:38 PM TO 3:46 PM

MAIN FLOW LINE DIAMETER (IN) = 10.000

ORIFICE DIAMETER (IN) = 5.500

CRITICAL FLOW PIPE DIAMETER (IN) = 5.000

ATMOSPHERIC PRESSURE (PSIA) = 13.200

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO.OF ITERA- TIONS	
26:38:11	14.34	26.79	23.17	30.90	252.0	160815.	154566.	6249.	3.89	257.23	8.48	12	
26:38:41	14.83	47.19	44.74	42.88	271.5	136871.	127758.	9113.	6.66	302.30	13.11	32	
26:39:11	15.27	52.10	48.53	47.51	277.8	120324.	107548.	12776.	10.62	345.16	17.51	17	
26:39:41	15.63	49.92	48.43	49.72	280.7	156082.	150225.	5857.	3.75	284.41	11.27	9	
26:40:11	15.97	54.14	51.36	52.56	284.2	133593.	122907.	10686.	8.00	327.05	15.65	19	
26:40:41	16.37	54.50	53.90	55.29	287.4	173518.	171775.	1744.	1.00	265.89	9.37	6	
26:41:11	16.72	50.43	44.86	54.04	285.9	122500.	106056.	16444.	13.42	378.69	20.95	4	
26:41:41	17.07	54.95	54.44	56.11	288.4	186932.	186445.	486.	.26	260.02	8.77	9	
26:42:11	17.44	54.27	52.00	55.18	287.3	159005.	150679.	8326.	5.24	304.66	13.35	18	
26:42:41	17.82	54.71	52.59	55.41	287.5	166694.	158935.	7759.	4.65	299.58	12.83	15	
26:43:11	18.20	54.23	52.20	55.50	287.6	174376.	167256.	7120.	4.08	294.43	12.30	12	
26:43:41	18.56	51.22	45.59	55.25	287.4	145422.	129944.	15478.	10.64	354.46	18.46	17	
26:44:11	18.92	53.54	51.52	54.61	286.6	184386.	177597.	6789.	3.68	289.69	11.81	28	
26:44:41	19.25	49.82	42.50	52.53	284.1	146391.	128774.	17617.	12.03	364.22	19.47	20	
26:45:11	19.60	54.11	52.42	54.61	286.6	193826.	188144.	5682.	2.93	282.79	11.10	22	
26:45:41	19.94	51.77	49.23	54.58	286.6	190186.	182636.	7550.	3.97	292.31	12.08	12	
26:46:11	20.26	51.17	46.36	53.04	284.7	173819.	160972.	12847.	7.39	322.01	15.13	8	
26:46:41	20.55	54.60	54.27	54.94	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.								
26:47:11	20.85	54.61	51.18	55.95	288.2	187143.	176859.	10284.	5.50	307.93	13.69	10	

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEC.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS
26:47:41	21.15	51.74	45.35	53.90	285.8	175195.	159783.	15412.	8.80	335.96	16.56	3
26:48:11	21.35	53.34	48.89	55.41	287.5	185732.	173625.	12107.	6.52	316.72	14.59	5
26:48:41	21.60	55.42	52.58	55.12	287.2	199870.	191023.	8847.	4.43	297.14	12.58	4
26:49:11	21.88	51.16	45.05	53.99	285.9	183852.	169360.	14492.	7.88	327.64	15.71	19
26:49:41	22.11	51.11	46.12	54.11	286.0	197714.	185577.	12137.	6.14	311.73	14.08	13
26:50:11	22.35	50.22	44.33	53.60	285.4	194043.	180560.	13482.	6.95	318.58	14.78	16
26:50:41	22.55	50.64	45.80	52.97	284.7	201062.	189309.	11753.	5.85	307.68	13.66	21
26:51:11	22.74	49.07	42.46	53.13	284.9	199060.	185062.	13998.	7.03	318.80	14.80	35
26:51:41	22.96	49.30	43.65	52.47	284.1	204481.	191924.	12557.	6.14	309.82	13.88	13
26:52:11	23.18	50.15	49.67	53.07	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
26:52:41	23.38	50.25	47.79	52.73	284.4	239013.	233269.	5745.	2.40	275.69	10.37	19
26:53:11	23.54	50.97	46.31	55.06	287.1	214316.	203499.	10817.	5.05	302.78	13.16	18
26:53:41	23.68	52.88	45.50	54.14	286.1	194899.	178628.	16271.	8.35	332.10	16.17	11
26:54:11	23.82	51.04	46.81	54.43	286.4	221352.	211449.	9904.	4.47	296.78	12.54	15
26:54:41	23.94	53.98	50.33	55.38	287.5	221735.	212196.	9539.	4.30	296.31	12.49	4
26:55:11	24.09	51.27	45.99	54.56	286.6	219175.	207355.	11820.	5.39	305.39	13.42	10
26:55:41	24.16	51.99	48.68	52.57	284.2	230564.	222089.	8474.	3.68	287.22	11.56	9
26:56:11	24.23	54.75	51.33	55.48	287.6	230391.	221384.	9007.	3.91	292.82	12.13	20
26:56:41	24.34	48.98	46.31	52.84	284.5	245509.	239947.	5562.	2.27	274.54	10.26	19

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO.OF ITERA- TIONS
26:57:11	24.45	54.30	48.13	56.23	288.5	206474.	192064.	14411.	6.98	321.87	15.12	16
26:57:41	24.51	49.73	48.79	53.61	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
26:58:11	24.60	49.80	48.85	54.11	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
26:58:41	24.69	54.77	51.14	55.02	287.1	229758.	220194.	9564.	4.16	294.60	12.32	12
26:59:11	24.78	51.07	47.63	53.60	285.4	240000.	232048.	7957.	3.32	285.13	11.34	17
26:59:41	24.85	51.31	46.62	53.89	285.8	232204.	221683.	10521.	4.53	296.67	12.53	15
27: 0:11	24.92	53.19	52.25	54.56	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
27: 0:41	24.93	53.98	51.31	54.89	286.9	248318.	241611.	6707.	2.70	281.00	10.92	11
27: 1:11	25.04	50.49	49.56	53.92	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
27: 1:41	25.09	50.37	46.55	53.80	285.7	242555.	234222.	8333.	3.44	286.48	11.48	9
27: 2:11	25.17	53.49	47.03	54.90	286.9	218071.	203789.	14282.	6.55	316.41	14.56	5
27: 2:41	25.23	54.37	50.11	54.94	287.0	236225.	225774.	10451.	4.42	296.92	12.55	23
27: 3:11	25.24	54.57	50.08	55.16	287.3	234500.	223567.	10933.	4.66	299.36	12.81	15
27: 3:41	25.27	52.31	47.86	55.81	288.0	238599.	228698.	9902.	4.15	295.40	12.40	4
27: 4:11	25.33	55.18	51.02	56.33	288.6	237142.	226905.	10237.	4.32	297.53	12.62	4
27: 4:41	25.38	24.58	47.74	55.87	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
27: 5:11	25.40	54.24	51.13	56.08	288.3	244141.	236475.	7666.	3.14	286.44	11.48	6
27: 5:41	25.48	52.24	48.54	54.21	286.1	242942.	234302.	8639.	3.56	288.08	11.65	9
27: 6:11	25.49	54.54	51.16	54.61	286.6	244838.	236212.	8625.	3.52	288.23	11.66	17

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG. F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS
27: 6:41	25.56	55.12	49.29	55.57	287.7	225380.	211836.	13545.	6.01	312.22	14.13	40
27: 7:11	25.58	53.36	47.46	55.72	287.9	224721.	211619.	13102.	5.83	310.74	13.97	21
27: 7:41	25.59	51.05	47.50	54.45	286.4	252432.	244849.	7584.	3.00	283.27	11.15	6
27: 8:11	25.58	53.46	47.19	55.60	287.8	222900.	209149.	13751.	6.17	313.72	14.28	13
27: 8:41	25.59	55.86	49.07	56.80	289.1	218054.	202766.	15288.	7.01	322.80	15.21	16
27: 9:11	25.66	55.25	47.91	56.66	289.0	216007.	200066.	15941.	7.38	326.02	15.54	8
27: 9:41	25.63	52.80	47.66	54.83	286.9	236990.	225556.	11434.	4.82	300.46	12.92	7
27:10:11	25.62	55.07	50.36	56.08	288.3	233046.	221661.	11385.	4.89	302.48	13.13	7
27:10:41	25.64	53.21	47.16	55.76	288.0	226711.	213516.	13195.	5.82	310.70	13.97	21
27:11:11	25.63	51.68	49.27	55.48	287.6	260940.	256225.	4716.	1.81	273.49	10.15	5
27:11:41	25.66	54.03	47.98	56.23	288.5	228451.	215121.	13931.	5.84	311.37	14.04	21
27:12:11	25.65	51.69	48.17	53.77	285.6	252997.	245099.	7898.	3.12	283.55	11.18	6
27:12:41	25.69	51.18	50.71	54.34	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
27:13:11	25.72	54.12	48.28	56.29	288.6	225408.	212252.	13156.	5.84	311.44	14.05	21
27:13:41	25.75	55.07	46.38	56.92	289.3	205104.	187109.	17994.	8.77	339.11	16.89	3
27:14:11	25.76	55.51	48.95	56.08	288.3	223812.	209091.	14721.	6.58	318.02	14.72	5
27:14:41	25.79	55.24	48.44	56.44	288.7	216942.	201746.	15196.	7.00	322.33	15.17	16
27:15:11	25.77	51.50	48.12	54.36	286.3	255138.	247797.	7341.	2.88	282.00	11.02	14
27:15:41	25.77	55.11	48.60	56.45	288.7	222341.	207793.	14548.	6.54	318.11	14.73	5

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEC.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO.OF ITERA- TIONS	
27:16:11	25.81	54.62	50.26	54.42	286.4	241382.	230707.	10675.	4.42	296.29	12.49	4	
27:16:41	25.84	51.35	48.93	53.29	285.0	260929.	255709.	5220.	2.00	272.65	10.06	5	
27:17:11	25.86	56.24	50.43	58.24	290.8	221661.	207999.	13661.	6.16	316.60	14.58	13	
27:17:41	25.91	53.72	48.74	55.12	287.2	235791.	224323.	11469.	4.86	301.17	12.99	7	
27:18:11	25.89	55.54	47.44	57.08	289.5	215481.	198486.	16995.	7.89	331.15	16.07	19	
27:18:41	25.91	50.86	48.33	55.00	287.1	265877.	261169.	4708.	1.77	272.59	10.06	5	
27:19:11	25.98	50.45	48.52	52.87	284.5	273642.	270336.	3306.	1.21	264.83	9.26	23	
27:19:41	25.92	53.97	51.12	54.31	286.3	256029.	248974.	7055.	2.76	280.83	10.90	11	
27:20:11	26.02	51.32	51.16	53.11	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.								
27:20:41	26.01	49.68	51.46	54.14	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.								
27:21:11	25.94	52.86	50.36	54.12	286.0	260021.	254238.	5784.	2.22	275.72	10.38	16	
27:21:41	25.91	51.97	49.09	54.14	286.1	260261.	253924.	6337.	2.43	277.67	10.58	19	
27:22:11	25.88	52.41	49.94	55.47	287.6	264060.	258997.	5063.	1.92	274.49	10.25	24	
27:22:41	25.90	55.14	51.07	54.61	286.6	242277.	232046.	10230.	4.22	294.67	12.32	12	
27:23:11	25.89	54.93	49.42	54.65	286.7	231349.	218408.	12941.	5.59	307.34	13.62	10	
27:23:41	25.87	55.91	49.05	56.29	288.6	219068.	203657.	15411.	7.03	322.45	15.18	16	
27:24:11	25.89	53.09	49.46	55.46	287.6	250184.	241860.	8323.	3.33	287.43	11.58	17	
27:24:41	25.96	54.90	48.39	56.04	288.3	221814.	207277.	14538.	6.55	317.76	14.69	5	
27:25:11	25.96	56.12	49.49	57.12	289.5	224076.	209186.	14889.	6.64	319.79	14.90	24	

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEC.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS
27:25:41	26.02	52.42	50.02	55.81	288.0	262062.	257209.	4853.	1.85	274.28	10.23	5
27:26:11	25.99	56.10	49.55	56.76	289.1	225078.	210290.	14789.	6.57	318.70	14.79	5
27:26:41	25.99	53.65	50.43	55.76	288.0	253750.	246280.	7470.	2.94	284.27	11.26	14
27:27:11	25.99	55.39	49.29	56.73	289.1	224459.	210541.	13918.	6.20	315.28	14.44	13
27:27:41	25.99	51.73	48.50	55.02	287.1	257689.	250804.	6885.	2.67	280.89	10.91	22
27:28:11	25.96	50.83	49.70	54.52	286.5	287678.	288752.	0.	.00	252.28	7.97	9
27:28:41	25.90	52.17	49.13	54.05	286.0	259988.	253206.	6782.	2.61	279.17	10.73	11
27:29:11	25.88	55.33	48.68	57.74	290.2	224706.	210117.	14589.	6.49	319.08	14.83	5
27:29:41	25.90	53.44	51.35	53.99	285.9	265939.	261157.	4782.	1.80	271.64	9.96	10
27:30:11	25.96	54.43	48.04	55.56	287.7	226952.	212844.	14109.	6.22	314.11	14.32	13
27:30:41	25.96	51.41	48.63	54.53	286.5	263259.	257561.	5699.	2.16	275.65	10.37	8
27:31:11	25.99	54.65	49.34	53.64	285.5	234539.	221966.	12574.	5.36	304.02	13.28	18
27:31:41	26.00	55.43	49.16	57.07	289.4	227300.	213241.	14060.	6.19	315.51	14.46	13
27:32:11	26.01	53.25	49.61	53.04	284.7	250873.	241963.	8911.	3.55	286.64	11.50	17
27:32:41	25.99	51.10	48.96	55.72	287.9	270348.	266956.	3392.	1.25	268.69	9.66	18
27:33:11	26.01	51.92	48.85	54.71	286.7	260830.	254255.	6575.	2.52	279.14	10.73	11
27:33:41	26.02	53.01	49.42	54.61	286.6	248518.	240085.	8433.	3.39	287.04	11.54	17
27:34:11	26.01	55.35	49.18	56.47	288.8	225560.	211547.	14013.	6.21	315.09	14.42	13
27:34:11	26.00	50.45	48.87	53.69	285.5	277038.	275241.	1797.	.65	260.68	8.83	14

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS
27:34:41	26.01	54.70	48.64	57.43	289.9	230199.	216837.	13362.	5.80	312.42	14.15	21
27:35:41	25.98	55.16	48.54	57.18	289.6	223892.	209314.	14578.	6.51	318.63	14.79	5
27:36:11	26.04	56.05	48.78	55.13	287.2	216889.	200701.	16188.	7.46	325.09	15.45	8
27:36:41	26.06	52.28	48.97	52.62	284.2	254243.	246334.	7909.	3.11	282.07	11.03	14
27:37:11	26.03	57.41	49.03	58.47	291.0	207253.	189077.	18175.	8.77	340.75	17.06	3
27:37:41	26.08	53.45	49.16	55.98	288.2	244646.	234890.	9756.	3.99	294.11	12.27	12
27:38:11	26.02	55.92	48.74	56.89	289.2	215557.	199624.	15933.	7.39	326.39	15.58	8
27:38:41	26.06	53.31	49.09	54.01	285.9	242692.	232663.	10028.	4.13	293.14	12.17	12
27:39:11	26.10	52.16	48.87	55.62	287.8	253519.	246362.	7157.	2.82	282.99	11.12	14
27:39:41	26.04	55.32	48.42	57.24	289.6	218510.	203270.	15240.	6.97	322.95	15.23	16
27:40:11	26.07	55.47	48.50	57.33	289.7	219659.	204335.	15324.	6.98	323.06	15.24	16
27:40:41	26.05	50.96	49.09	53.57	285.4	276929.	273911.	3018.	1.09	264.60	9.24	12
27:41:11	26.04	51.71	48.97	54.84	286.9	262189.	256513.	5676.	2.16	276.02	10.41	8
27:41:41	26.04	55.15	48.47	57.53	290.0	224767.	210169.	14598.	6.49	318.87	14.81	5
27:42:11	26.02	56.00	48.55	57.59	290.0	219080.	202936.	16143.	7.37	326.96	15.64	8
27:42:41	26.00	57.28	49.34	58.29	290.8	209998.	192527.	17471.	8.32	336.43	16.61	11
27:43:11	26.09	56.41	49.23	57.74	290.2	216592.	200617.	15975.	7.38	327.18	15.66	8
27:43:41	26.06	53.39	49.46	55.35	287.5	250209.	241184.	9024.	3.61	289.88	11.83	28
27:44:11	26.07	52.83	49.30	56.04	288.3	255790.	248063.	7727.	3.02	285.30	11.36	6

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO.OF ITERA- TIONS
27:44:41	26.04	55.42	48.96	56.26	288.5	222234.	207643.	14590.	6.57	318.10	14.73	5
27:45:11	26.08	52.40	49.31	56.14	288.4	250851.	254404.	6446.	2.47	280.36	10.85	30
27:45:41	25.70	20.77	22.94	55.73 ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.								

FISHLAKE PROJECT - TEST SIX

GEOTHERMEX INC. - PROGRAM JAMESORI

TEST TIME 4:04 PM TO 4:58 PM

MAIN FLOW LINE DIAMETER (IN) = 10.000

ORIFICE DIAMETER (IN) = 5.500

CRITICAL FLOW PIPE DIAMETER (IN) = 4.000

ATMOSPHERIC PRESSURE (PSIA) = 13.200

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO.OF ITERA- TIONS
28: 4:11	18.12	50.06	47.33	51.86	283.3	81557.	69278.	12279.	15.06	391.31	22.25	7
28: 4:41	12.45	48.12	46.26	50.13	281.2	40177.	27923.	12253.	30.50	532.03	36.70	6
28: 5:11	12.44	52.33	50.54	51.65	283.1	36396.	23615.	12782.	35.12	576.16	41.23	1
28: 5:41	12.44	50.50	49.21	51.20	282.5	54836.	46061.	8775.	16.00	399.30	23.07	18
28: 6:11	16.41	49.98	47.12	51.24	282.6	61942.	47928.	14013.	22.62	460.46	29.35	8
28: 6:41	12.44	50.33	47.98	50.39	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
28: 7:11	12.36	51.89	48.36	51.86	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
28: 7:41	12.37	52.48	50.26	52.65	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
28: 8:11	12.48	52.19	49.57	52.68	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
28: 8:41	12.80	48.99	45.34	50.73	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
28: 9:11	12.36	52.32	47.78	52.92	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
28: 9:41	12.36	52.44	48.52	53.00	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
28:10:11	12.37	53.56	51.47	53.60	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
28:10:41	12.38	51.49	50.24	52.41	284.0	54629.	45886.	8742.	16.00	400.67	23.21	18
28:11:11	12.36	50.97	49.47	50.48	281.6	47975.	37811.	10164.	21.19	446.37	27.90	16
28:11:41	11.59	48.42	45.91	50.73	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
28:12:11	35.07	52.19	50.39	50.94	282.2	221472.	215958.	5514.	2.49	274.27	10.23	16
28:12:41	26.76	52.10	49.47	52.98	284.7	149800.	140449.	9351.	6.24	311.36	14.04	13
28:13:11	24.29	51.02	48.85	51.83	283.3	140004.	131703.	8302.	5.93	307.10	13.60	21

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG. F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS	
28:13:41	22.93	50.54	48.82	50.73	281.9	135012.	127853.	7159.	5.30	299.98	12.87	18	
28:14:11	22.97	51.22	50.59	51.36	282.7	154899.	152360.	2540.	1.64	266.95	9.48	7	
28:14:41	23.08	53.40	51.16	53.45	285.2	125691.	116334.	9357.	7.44	322.98	15.23	8	
28:15:11	23.14	52.58	49.81	52.82	284.5	121210.	110364.	10846.	8.95	336.10	16.58	22	
28:15:41	23.19	53.30	50.74	53.30	285.1	123081.	112770.	10311.	8.38	331.40	16.10	11	
28:16:11	23.37	49.71	50.86	51.18	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.								
28:16:41	23.52	50.50	49.94	52.21	283.7	158925.	157282.	1643.	1.03	262.42	9.01	9	
28:17:11	23.69	53.78	50.60	54.07	286.0	116030.	103731.	12299.	10.60	352.74	18.29	17	
28:17:41	23.83	53.14	49.12	54.29	286.2	109375.	94846.	14529.	13.28	377.68	20.85	4	
28:18:11	24.08	49.65	48.30	50.07	281.1	152650.	147297.	5352.	3.51	282.57	11.08	17	
28:18:41	24.23	53.12	49.69	53.35	285.1	119397.	106733.	12663.	10.61	351.98	18.21	17	
28:19:11	24.47	51.34	51.08	51.71	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.								
28:19:41	24.57	50.80	49.95	51.17	282.5	160723.	157418.	3305.	2.06	270.55	9.85	13	
28:20:11	24.78	50.10	50.46	49.38	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.								
28:20:41	24.93	48.89	49.44	51.86	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.								
28:21:11	25.10	50.59	45.57	51.96	283.4	112010.	96053.	15956.	14.25	383.95	21.49	15	
28:21:41	25.26	50.11	50.82	52.88	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.								
28:22:11	25.43	48.57	47.70	50.22	281.3	169362.	166522.	2840.	1.68	265.86	9.37	10	
28:22:41	25.57	53.29	48.12	53.38	285.1	112441.	95687.	16754.	14.90	391.56	22.27	7	

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS
28:23:11	25.72	51.33	48.11	53.14	284.9	139217.	128204.	11013.	7.91	326.92	15.64	19
28:23:41	25.80	51.90	50.56	51.59	283.0	160775.	155403.	5372.	3.34	282.94	11.12	6
28:24:11	25.92	51.41	48.70	52.76	284.4	145781.	136210.	9571.	6.57	314.07	14.32	5
28:24:41	26.07	51.57	47.58	52.62	284.2	131710.	118617.	13093.	9.94	345.02	17.49	6
28:25:11	26.21	47.11	45.47	50.16	281.2	169110.	163896.	5213.	3.08	278.77	10.69	25
28:25:41	26.18	48.20	48.51	52.46	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
28:26:11	26.37	49.05	47.02	50.06	281.1	161817.	154779.	7038.	4.35	290.35	11.88	4
28:26:41	26.43	52.51	47.53	52.76	284.4	119521.	103675.	15847.	13.26	375.76	20.65	4
28:27:11	26.49	52.63	49.69	53.95	285.8	146289.	136025.	10264.	7.02	319.61	14.89 ^f	16
28:27:41	26.61	52.53	50.11	52.34	283.9	149608.	140663.	8945.	5.98	308.17	13.71	21
28:28:11	26.68	48.49	48.57	50.39	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
28:28:41	26.76	49.82	48.59	50.48	281.6	171714.	167267.	4447.	2.59	274.62	10.27	19
28:29:11	26.86	52.72	50.21	52.66	284.3	152385.	143287.	9098.	5.97	308.47	13.74	21
28:29:41	26.96	52.57	49.54	53.17	284.9	148410.	137952.	10458.	7.05	318.99	14.82	16
28:30:11	26.99	49.17	46.76	51.48	282.8	161678.	153773.	7905.	4.89	297.08	12.57	26
28:30:41	27.07	50.99	48.42	51.67	283.1	158314.	149521.	8793.	5.55	303.44	13.22	10
28:31:11	27.19	49.97	49.97	51.70	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
28:31:41	27.28	52.85	51.70	52.68	284.3	175402.	171018.	4984.	2.50	276.50	10.46	8
28:32:11	27.36	51.62	51.02	51.56	283.0	190130.	188795.	1335.	.70	258.55	8.61	13

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEC. F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS
28:32:41	27.42	48.88	47.02	50.61	281.8	171876.	165715.	6160.	3.58	283.97	11.23	9
28:33:11	27.47	50.71	51.09	51.53	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
28:33:41	27.51	52.88	50.42	53.11	284.8	157976.	149174.	8802.	5.57	305.34	13.42	10
28:34:11	27.54	49.90	49.73	50.42	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
28:34:41	27.58	53.81	51.85	53.39	285.2	164598.	157187.	7410.	4.50	295.81	12.44	23
28:35:11	27.62	52.89	50.24	53.01	284.7	156685.	147348.	9337.	5.96	308.78	13.77	21
28:35:41	27.70	51.35	48.66	53.86	285.7	160945.	152064.	8881.	5.52	305.72	13.46	29
28:36:11	27.72	53.15	51.15	53.28	285.0	166448.	159120.	7328.	4.40	294.75	12.33	4
28:36:41	27.81	50.39	48.70	51.68	283.1	171638.	165757.	5881.	3.43	283.83	11.21	17
28:37:11	27.83	50.65	50.46	52.18	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
28:37:41	27.89	49.89	48.73	51.43	282.8	182207.	178484.	3723.	2.04	270.76	9.87	5
28:38:11	27.82	48.77	47.57	51.78	283.2	183870.	180404.	3466.	1.89	269.74	9.76	5
28:38:41	27.81	50.77	48.71	51.75	283.2	169372.	162300.	7072.	4.18	290.89	11.93	31
28:39:11	27.86	50.67	51.32	49.94	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
28:39:41	27.86	48.57	48.77	51.27	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
28:40:11	27.97	47.36	44.23	50.88	282.1	160448.	151147.	9301.	5.80	304.73	13.36	21
28:40:41	27.96	51.08	49.76	51.80	283.2	179097.	174474.	4623.	2.58	276.18	10.43	19
28:41:11	27.99	53.84	51.84	53.89	285.8	167353.	159980.	7373.	4.41	295.52	12.41	4
28:41:41	28.05	51.85	50.54	51.39	282.7	179052.	174217.	4834.	2.70	276.77	10.49	19

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS	
28:42:11	27.99	52.12	49.09	53.60	285.4	154474.	144350.	10125.	6.55	314.95	14.41	5	
28:42:41	28.01	51.79	50.88	53.04	284.7	185039.	182241.	2797.	1.51	267.84	9.57	7	
28:43:11	28.09	51.47	48.35	53.00	284.7	155633.	145430.	10203.	6.56	314.27	14.34	5	
28:43:41	27.96	53.08	50.59	52.71	284.3	158839.	149929.	8910.	5.61	305.20	13.41	10	
28:44:11	27.97	49.76	49.18	52.69	284.3	198785.	198747.	38.	.02	253.66	8.11	9	
28:44:41	27.90	53.51	50.53	53.66	285.5	155297.	145031.	10266.	6.61	315.54	14.47	5	
28:45:11	28.01	50.01	49.06	49.94	280.9	187725.	184598.	3128.	1.67	265.40	9.32	7	
28:45:41	27.97	50.23	50.48	50.92	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.								
28:46:11	27.94	53.44	50.19	54.04	285.9	149062.	137997.	11065.	7.42	323.46	15.28	8	
28:46:41	27.91	53.13	48.90	54.26	286.2	142430.	129024.	13406.	9.41	342.02	17.19	14	
28:47:11	27.92	52.98	47.90	53.83	285.7	135261.	119927.	15335.	11.34	359.26	18.96	28	
28:47:41	27.93	51.67	50.48	51.21	282.5	181222.	176861.	4361.	2.41	273.84	10.19	16	
28:48:11	27.87	52.24	48.18	52.68	284.3	145046.	132244.	12802.	8.83	334.81	16.45	3	
28:48:41	27.85	53.18	50.31	54.18	286.1	156173.	146307.	9866.	6.32	313.46	14.25	32	
28:49:11	27.88	48.95	46.89	51.37	282.7	173622.	167048.	6574.	3.79	286.77	11.51	20	
28:49:41	27.92	50.61	49.21	51.83	283.3	178532.	173755.	4777.	2.68	277.09	10.52	11	
28:50:11	27.98	53.64	50.01	54.40	286.4	145029.	132912.	12117.	8.35	332.45	16.20	11	
28:50:41	28.02	49.06	47.38	50.38	281.5	175538.	169927.	5612.	3.20	280.10	10.83	6	
28:51:11	27.97	52.85	47.85	54.14	286.1	135464.	120308.	15157.	11.19	358.24	18.85	9	

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG. F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS
28:51:41	27.96	51.71	51.16	52.11	283.6	194039.	193348.	691.	.36	256.04	8.36	9
28:52:11	27.99	53.86	51.70	54.15	286.1	161779.	153786.	7993.	4.94	300.75	12.95	7
28:52:41	28.02	51.85	50.05	51.48	282.8	173697.	167165.	6532.	3.76	286.66	11.50	9
28:53:11	28.03	47.51	46.86	51.21	282.5	199162.	198915.	247.	.12	252.78	8.02	10
28:53:41	28.01	53.19	50.83	52.52	284.1	160467.	151887.	8580.	5.35	302.55	13.13	18
28:54:11	27.93	54.40	48.75	54.52	286.5	122656.	105325.	17330.	14.13	385.71	21.67	15
28:54:41	27.97	50.98	48.90	50.56	281.7	166418.	159003.	7414.	4.46	291.94	12.04	4
28:55:11	27.97	54.30	48.98	54.01	285.9	129976.	113665.	16311.	12.55	370.61	20.12	12
28:55:41	27.90	52.22	48.24	53.11	284.8	143707.	131037.	12670.	8.82	335.23	16.49	3
28:56:11	27.97	50.91	49.88	51.43	282.8	182137.	178617.	3520.	1.93	269.74	9.76	21
28:56:41	27.93	53.98	51.29	52.98	284.7	157998.	148363.	9635.	6.10	310.03	13.90	40
28:57:11	27.97	50.17	47.82	49.47	280.3	168121.	160087.	8034.	4.78	293.59	12.21	15
28:57:41	27.93	52.78	49.78	53.49	285.3	154808.	144611.	10197.	6.59	315.13	14.43	5
28:58:11	28.00	53.81	51.87	53.57	285.4	164958.	157653.	7305.	4.43	295.34	12.39	4

FISHLAKE PROJECT - TEST SEVEN

GEOTHERMEX INC. - PROGRAM JAMESORI

TEST TIME 5:32 PM TO 6:16 PM

MAIN FLOW LINE DIAMETER (IN) = 10.000

ORIFICE DIAMETER (IN) = 6.500

CRITICAL FLOW PIPE DIAMETER (IN) = 6.000

ATMOSPHERIC PRESSURE (PSIA) = 13.200

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS	
29:32:11	12.62	14.08	13.08	28.18	247.5	292033.	300916.	0.	.00	187.16	1.28	18	
29:32:41	12.68	39.54	33.32	28.08	247.1	110315.	87978.	22337.	20.25	407.43	23.90	8	
29:33:11	13.47	56.84	53.95	38.08	264.3	136398.	118008.	18390.	13.48	359.18	18.95	15	
29:33:41	13.96	56.72	54.54	45.77	275.5	166421.	151257.	15163.	9.11	328.98	15.85	3	
29:34:11	14.32	55.12	47.93	48.58	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.								
29:34:41	14.72	49.08	45.77	50.03	281.0	172838.	155612.	17226.	9.97	342.21	17.21	6	
29:35:11	15.13	55.13	50.94	50.91	282.1	152849.	130449.	22401.	14.66	386.54	21.76	7	
29:35:41	15.54	50.62	45.39	52.97	284.7	153106.	128421.	24685.	16.12	402.38	23.39	18	
29:36:11	16.02	49.52	45.65	53.76	285.6	186191.	167654.	18537.	9.96	346.46	17.64	6	
29:36:41	16.44	51.58	47.30	53.44	285.2	183148.	162617.	20530.	11.21	357.64	18.79	9	
29:37:11	16.87	53.28	50.54	54.49	286.5	208980.	194317.	14663.	7.02	320.24	14.95	16	
29:37:41	17.31	49.65	47.47	54.34	286.3	236636.	226257.	10379.	4.39	295.87	12.45	15	
29:38:11	17.72	51.30	51.87	54.43	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.								
29:38:41	18.16	50.01	44.26	53.33	285.1	203832.	180899.	22934.	11.25	357.90	18.82	9	
29:39:11	18.54	47.51	50.15	55.28	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.								
29:39:41	18.97	50.42	46.85	54.18	286.1	245811.	230584.	15227.	6.19	312.32	14.14	32	
29:40:11	19.34	54.75	48.78	55.13	287.2	207942.	183156.	24786.	11.92	366.06	19.66	20	
29:40:41	19.73	46.40	45.69	53.51	285.3	320045.	321826.	0.	.00	249.36	7.67	9	
29:41:11	20.15	48.67	47.80	53.96	285.9	321594.	321097.	497.	.15	256.47	8.40	8	

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO.OF ITERA- TIONS
29:41:41	20.51	50.40	49.47	54.40	286.4	319443.	317843.	1600.	.50	260.19	8.78	22
29:42:11	20.86	51.44	45.07	54.49	286.5	243531.	220620.	22911.	9.41	342.24	17.21	14
29:42:41	21.20	48.86	50.91	54.27 ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.								
29:43:11	21.49	55.38	50.03	55.54	287.7	256050.	234651.	21399.	8.36	333.77	16.34	11
29:43:41	21.83	48.94	47.46	53.19	284.9	329016.	324782.	4234.	1.29	265.95	9.37	18
29:44:11	22.15	54.10	50.19	54.65	286.7	289094.	273061.	16033.	5.55	306.90	13.58	10
29:44:41	22.43	55.81	48.28	55.79	288.0	242058.	215080.	26978.	11.15	359.67	19.00	9
29:45:11	22.73	51.81	48.59	53.29	285.0	310625.	297970.	12655.	4.07	291.75	12.02	12
29:45:41	23.01	56.44	50.98	57.15	289.5	280082.	259074.	21008.	7.50	327.68	15.71	27
29:46:11	23.28	55.80	48.46	56.95	289.3	260266.	234507.	25759.	9.90	349.46	17.93	6
29:46:41	23.51	53.54	49.26	55.48	287.6	309679.	293659.	16020.	5.17	304.43	13.33	18
29:47:11	23.73	55.53	47.66	56.35	288.6	266646.	240241.	26404.	9.90	348.85	17.89	6
29:47:41	23.92	57.13	51.31	57.67	290.1	289666.	267935.	21732.	7.50	328.26	15.77	27
29:48:11	24.12	52.93	47.70	55.60	287.8	310861.	292785.	18076.	5.81	310.47	13.95	21
29:48:41	24.27	52.82	51.04	56.54	288.8	359285.	354049.	5236.	1.46	271.51	9.95	10
29:49:11	24.44	56.73	48.96	57.75	290.2	278634.	252494.	26140.	9.38	345.59	17.55	14
29:49:41	24.59	52.85	49.08	56.01	288.2	336373.	323119.	13254.	3.94	293.71	12.23	12
29:50:11	24.77	53.14	50.83	56.17	288.4	358455.	350654.	7801.	2.18	277.69	10.58	8
29:50:41	24.90	54.06	51.59	55.35	287.5	351484.	342121.	9363.	2.66	281.21	10.94	11

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG. F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS
29:51:11	25.02	56.22	52.99	55.18	287.3	343230.	330014.	13216.	3.85	291.91	12.04	28
29:51:41	25.13	54.04	48.60	57.09	289.5	319462.	300968.	18494.	5.79	311.91	14.09	21
29:52:11	25.26	50.46	51.35	54.78	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
29:52:41	25.32	57.06	48.14	57.50	289.9	284285.	256163.	28122.	9.89	350.01	18.01	6
29:53:11	25.47	56.23	50.04	58.28	290.8	307836.	286400.	21436.	6.96	323.98	15.33	16
29:53:41	25.59	55.70	48.79	56.49	288.8	309437.	286540.	22897.	7.40	326.03	15.54	8
29:54:11	25.60	50.71	51.26	55.66	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
29:54:41	25.65	55.38	46.67	56.83	289.2	297483.	271005.	26479.	8.90	340.18	17.00	22
29:55:11	25.71	55.74	51.79	57.15	289.5	341017.	326366.	14651.	4.30	298.27	12.69	4
29:55:41	25.78	55.79	47.63	56.67	289.0	305019.	279597.	25422.	8.33	334.81	16.45	11
29:56:11	25.83	53.08	47.00	54.67	286.7	331508.	312033.	19474.	5.87	309.94	13.89	21
29:56:41	25.85	55.27	49.42	55.66	287.8	322087.	301955.	20193.	6.25	314.54	14.36	13
29:57:11	25.89	53.93	49.12	55.35	287.5	340817.	324246.	16571.	4.86	301.42	13.02	7
29:57:41	25.94	55.07	51.33	57.39	289.8	352475.	339141.	13334.	3.78	293.83	12.24	20
29:58:11	25.95	57.44	48.50	58.73	291.3	285619.	257398.	28220.	9.88	351.21	18.13	6
29:58:41	26.00	57.42	52.35	58.81	291.4	333591.	315309.	18282.	5.48	310.96	14.00	10
29:59:11	26.05	55.47	53.33	57.56	290.0	371211.	363834.	7377.	1.99	277.55	10.57	5
29:59:41	26.10	54.70	49.10	56.89	289.2	336875.	318271.	18605.	5.52	309.23	13.82	29
30: 0:11	26.11	58.09	52.53	58.19	290.7	323691.	303461.	20230.	6.25	317.34	14.65	13

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG. F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS
30: 0:41	26.14	52.76	50.99	54.49	286.5	390015.	384984.	5032.	1.29	267.55	9.54	23
30: 1:11	26.19	55.05	52.59	57.21	289.6	373316.	364870.	8446.	2.26	279.67	10.78	8
30: 1:41	26.23	54.38	52.17	55.56	287.7	382612.	375092.	7520.	1.97	275.03	10.31	13
30: 2:11	26.28	58.14	49.69	58.44	291.0	302589.	275657.	26933.	8.90	341.92	17.18	22
30: 2:41	26.33	54.49	49.59	58.72	291.3	344987.	328860.	16127.	4.67	303.48	13.23	7
30: 3:11	26.38	57.89	50.53	58.79	291.4	310037.	285576.	24461.	7.89	333.03	16.26	19
30: 3:41	26.35	57.79	50.62	59.33	292.0	314794.	290977.	23817.	7.57	330.64	16.02	46
30: 4:11	26.40	54.19	52.79	57.49	289.9	400256.	398112.	2144.	.54	264.15	9.19	11
30: 4:41	26.42	57.06	47.97	58.09	290.6	296745.	268916.	27829.	9.38	345.92	17.59	14
30: 5:11	26.41	56.74	53.79	57.56	290.0	365428.	354261.	11167.	3.06	287.36	11.57	14
30: 5:41	26.48	59.02	49.11	59.45	292.1	288122.	257730.	30391.	10.55	358.08	18.84	17
30: 6:11	26.52	52.50	47.83	57.21	289.6	357288.	342775.	14513.	4.06	296.19	12.48	4
30: 6:41	26.50	56.83	49.44	58.43	291.0	321302.	297646.	23656.	7.36	327.80	15.73	8
30: 7:11	26.51	53.48	48.11	56.66	289.0	349565.	332481.	17084.	4.89	303.13	13.19	45
30: 7:41	26.55	59.03	52.57	59.00	291.6	321752.	299123.	22629.	7.03	325.40	15.48	16
30: 8:11	26.60	53.83	49.34	58.21	290.7	355410.	340892.	14518.	4.08	297.51	12.62	4
30: 8:41	26.61	55.96	49.95	58.84	291.4	336428.	316661.	19767.	5.88	314.61	14.37	40
30: 9:11	26.64	56.90	51.83	58.28	290.8	343445.	325601.	17845.	5.20	307.78	13.67	18
30: 9:41	26.69	52.33	50.46	57.50	289.9	399069.	395450.	3620.	.91	267.57	9.54	23

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO.OF ITERA- TIONS
30:10:11	26.70	54.96	54.43	59.26	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
30:10:41	26.71	52.78	52.29	57.34	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
30:11:11	26.78	57.44	49.73	58.10	290.6	314477.	289631.	24845.	7.90	332.39	16.20	19
30:11:41	26.77	59.39	51.45	60.23	292.9	301842.	275408.	26434.	8.75	342.49	17.24	3
30:12:11	26.81	54.12	52.34	57.37	289.8	402590.	398459.	4131.	1.03	268.51	9.64	12
30:12:41	26.82	51.93	54.17	57.97	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
30:13:11	26.85	58.04	54.06	60.09	292.8	357089.	342546.	14543.	4.07	299.47	12.82	31
30:13:41	26.88	54.69	50.19	57.75	290.2	358405.	343430.	14975.	4.18	297.86	12.65	4
30:14:11	26.86	56.70	49.21	58.37	290.9	322494.	298756.	23738.	7.36	327.72	15.72	8
30:14:41	26.85	57.84	50.82	60.15	292.9	318016.	294709.	23307.	7.33	329.34	15.88	8
30:15:11	26.88	57.43	52.23	58.15	290.7	337622.	318985.	18638.	5.52	310.61	13.96	10
30:15:41	26.92	54.37	49.94	62.41	295.3	365980.	352864.	13116.	3.58	297.48	12.61	12
30:16:11	25.89	15.95	14.56	58.51	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							

FISHLAKE PROJECT - TEST EIGHT

GEOTHERMEX INC. - PROGRAM JAMESORI

TEST TIME 6:37 PM TO 7:14 PM

MAIN FLOW LINE DIAMETER (IN) = 10.000

ORIFICE DIAMETER (IN) = 6.500

CRITICAL FLOW PIPE DIAMETER (IN) = 7.000

ATMOSPHERIC PRESSURE (PSIA) = 13.200

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO.OF ITERA- TIONS	
30:37:41	12.58	51.55	47.60	38.68	265.2	208415.	189190.	19225.	9.22	320.23	14.95	3	
30:38:11	13.29	52.00	46.59	58.00	290.5	203209.	180328.	22880.	11.26	363.08	19.35	9	
30:38:41	13.75	58.72	54.42	61.38	294.2	213593.	192539.	21053.	9.86	353.75	18.39	6	
30:39:11	14.13	57.90	47.95	58.92	291.5	147072.	108012.	39059.	26.56	504.24	33.85	3	
30:39:41	14.48	51.74	48.54	56.01	288.2	267335.	253879.	13456.	5.03	303.75	13.26	18	
30:40:11	14.77	47.53	38.89	50.85	282.1	228833.	202633.	26199.	11.45	356.88	18.71	28	
30:40:41	15.04	46.02	38.98	51.45	282.8	248435.	226551.	21884.	8.81	333.21	16.28	3	
30:41:11	15.33	52.52	43.59	53.13	284.9	220411.	191161.	29250.	13.27	376.28	20.70	4	
30:41:41	15.69	44.06	37.92	52.40	284.0	280507.	262818.	17689.	6.31	311.26	14.03	5	
30:42:11	16.00	48.36	45.12	53.73	285.6	311676.	300623.	11053.	3.55	287.41	11.58	20	
30:42:41	16.33	49.59	49.88	54.55	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.								
30:43:11	16.65	51.01	49.95	54.18	286.1	355076.	353555.	1521.	.43	259.26	8.69	8	
30:43:41	17.00	51.82	50.61	55.38	287.5	360125.	357906.	2219.	.62	262.42	9.01	14	
30:44:11	17.38	53.59	47.31	54.86	286.9	291182.	269646.	21536.	7.40	324.15	15.35	8	
30:44:41	17.69	50.64	45.48	54.56	286.6	323423.	306815.	16608.	5.14	303.01	13.18	37	
30:45:11	18.01	49.60	43.61	53.96	285.9	328786.	310972.	17814.	5.42	304.92	13.38	29	
30:45:41	18.35	49.00	45.99	55.22	287.3	370155.	362051.	8104.	2.19	276.69	10.48	11	
30:46:11	18.68	48.96	49.03	54.84	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.								
30:46:41	19.04	53.95	50.80	56.19	288.4	368685.	357874.	10812.	2.93	284.65	11.30	14	

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG. F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS	
30:47:11	19.38	53.31	47.37	56.22	288.5	343595.	325015.	18579.	5.41	307.42	13.63	10	
30:47:41	19.70	55.70	45.88	57.27	289.7	314897.	287269.	27628.	8.77	339.49	16.93	3	
30:48:11	20.01	55.95	46.52	57.74	290.2	322456.	295659.	26797.	8.31	335.75	16.54	11	
30:48:41	20.30	50.32	43.56	55.89	288.1	375280.	357760.	17520.	4.67	300.27	12.90	26	
30:49:11	20.63	52.22	44.19	56.04	288.3	366852.	345735.	21117.	5.76	310.43	13.94	21	
30:49:41	20.90	52.46	46.25	55.65	287.8	386429.	369099.	17331.	4.48	298.29	12.70	15	
30:50:11	21.16	55.84	46.37	56.58	288.9	349512.	323646.	25866.	7.40	326.13	15.56	8	
30:50:41	21.42	54.25	51.01	57.23	289.6	422041.	412828.	9213.	2.18	278.96	10.71	8	
30:51:11	21.67	56.28	48.18	57.21	289.6	370963.	347899.	23064.	6.22	315.97	14.51	13	
30:51:41	21.92	53.94	50.42	58.02	290.5	423821.	414268.	9553.	2.25	280.51	10.87	19	
30:52:11	22.16	53.17	46.18	57.26	289.7	408047.	390005.	18042.	4.42	299.54	12.82	15	
30:52:41	22.36	50.23	49.21	57.87	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.								
30:53:11	22.54	53.25	51.18	59.13	291.7	467759.	466077.	1682.	.36	264.40	9.22	14	
30:53:41	22.73	53.37	47.50	56.71	289.0	422092.	406458.	15634.	3.70	292.34	12.08	20	
30:54:11	22.92	53.59	51.43	56.68	289.0	471444.	467974.	3470.	.74	265.05	9.28	6	
30:54:41	23.07	51.54	52.91	58.38	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.								
30:55:11	23.20	51.34	53.06	58.75	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.								
30:55:41	23.34	52.55	52.41	57.94	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.								
30:56:11	23.50	54.01	48.74	58.41	291.0	450352.	437204.	13148.	2.92	287.05	11.54	6	

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEG.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS
30:56:41	23.60	55.41	51.78	57.86	290.3	459456.	449778.	9678.	2.11	278.97	10.71	16
30:57:11	23.73	50.15	49.29	56.36	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
30:57:41	23.84	52.54	49.10	59.17	291.8	474720.	468583.	6137.	1.29	273.00	10.10	21
30:58:11	23.93	56.86	46.99	58.35	290.9	415324.	390980.	24344.	5.86	313.96	14.30	21
30:58:41	24.00	56.60	51.50	58.40	290.9	453255.	439017.	14237.	3.14	289.07	11.75	6
30:59:11	24.04	55.88	47.24	58.09	290.6	422481.	400730.	21751.	5.15	307.13	13.60	18
30:59:41	24.10	54.55	45.73	57.86	290.3	434049.	413193.	20856.	4.80	303.72	13.25	26
31: 0:11	24.17	50.64	50.15	56.98	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
31: 0:41	24.22	56.98	46.90	57.68	290.1	418856.	394125.	24731.	5.90	313.62	14.27	21
31: 1:11	24.27	55.61	49.76	59.04	291.6	446589.	431257.	15333.	3.43	292.46	12.10	9
31: 1:41	24.34	54.85	47.17	57.27	289.7	447969.	429044.	18925.	4.22	297.75	12.64	4
31: 2:11	24.36	57.38	47.69	60.45	293.2	414771.	390822.	23949.	5.77	315.42	14.46	21
31: 2:41	24.44	52.64	50.63	57.87	290.3	516378.	516918.	0.	.00	258.71	8.63	7
31: 3:11	24.46	59.21	49.41	59.98	292.7	409920.	384468.	25451.	6.21	318.90	14.81	13
31: 3:41	24.49	50.71	50.70	57.26	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
31: 4:11	24.53	57.41	46.27	59.38	292.0	407022.	380560.	26462.	6.50	320.94	15.02	5
31: 4:41	24.57	52.92	47.55	58.21	290.7	476021.	464157.	11864.	2.49	282.91	11.12	22
31: 5:11	24.60	55.80	46.99	57.99	290.5	439262.	417853.	21409.	4.87	304.50	13.33	26
31: 5:41	24.66	56.83	50.97	57.74	290.2	451551.	435137.	16414.	3.64	292.86	12.14	9

TIME (HR:MIN :SEC)	LIP PRESS. (PSIA)	ORIFICE UPSTREAM PRESSURE (PSIA)	ORIFICE DOWNSTREAM PRESSURE (PSIA)	WELLHEAD PRESSURE (PSIA)	WELLHEAD TEMPERA- TURE (DEC.F)	TOTAL MASS FLOW RATE (LBS/HR)	WATER RATE AT WELLHEAD (LBS/HR)	STEAM RATE AT WELLHEAD (LBS/HR)	WELLHEAD STEAM QUALITY (PERCENT)	TOTAL FLUID ENTHALPY (BTU/LB)	STEAM QUAL AT ATM PR. (PERCENT)	NO. OF ITERA- TIONS
31: 6:11	24.66	54.36	45.63	58.48	291.0	449550.	429694.	19856.	4.42	300.86	12.96	15
31: 6:41	24.69	51.07	49.66	57.27	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
31: 7:11	24.73	53.05	47.05	56.89	289.2	471629.	457642.	13987.	2.97	285.76	11.41	6
31: 7:41	24.72	59.05	51.73	59.25	291.9	438432.	417945.	20487.	4.67	304.04	13.29	15
31: 8:11	24.75	52.79	50.26	58.37	290.9	511691.	509698.	1992.	.39	263.80	9.15	14
31: 8:41	24.77	58.44	47.52	59.10	291.7	418982.	392563.	26419.	6.31	318.84	14.81	32
31: 9:11	24.75	54.41	51.21	57.27	289.7	499504.	492824.	6680.	1.34	271.25	9.92	7
31: 9:41	24.71	52.66	52.86	59.14	ORIFICE DOWNSTREAM PRESSURE GREATER THAN UPSTREAM.							
31:10:11	24.75	52.23	50.34	57.43	289.9	530040.	532178.	0.	.00	255.46	8.30	8
31:10:41	24.74	50.32	48.88	58.29	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
31:11:11	24.76	50.22	49.24	57.52	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
31:11:41	24.75	58.90	48.59	59.23	291.9	416159.	390217.	25942.	6.23	318.33	14.75	13
31:12:11	24.78	57.14	46.17	58.15	290.7	417739.	391804.	25936.	6.21	316.92	14.61	13
31:12:41	24.78	52.79	51.97	57.80	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
31:13:11	24.78	55.24	48.44	57.52	290.0	455734.	438481.	17253.	3.79	294.00	12.26	20
31:13:41	24.77	51.34	49.46	58.75	291.3	539722.	544300.	0.	.00	252.89	8.03	9
31:14:11	24.80	49.38	48.46	57.71	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
31:14:41	24.50	15.98	13.79	59.14	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
31:15:11	23.73	13.34	12.81	57.75	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							
31:15:41	23.10	13.22	12.79	53.39	MORE THAN 100 ITERATIONS WITH NO CONVERGENCE.							