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memorandum

TO: Distribution

DATE: Dec. 20, 1982

FROM: C. Grigsby and I. Matsunaga

MAIL STOP/TELEPHONE: J979/667-8938

SYMBOL: ESS-4

SUBJECT: Data Package for Experiment 2025

This package contains the entire set of data we collected during Experiment 2025. There has been no attempt at analysis of the data (especially the seismic data).

The preliminary results of the experiment are: approximately 153,000 gallons total were injected into EE-3 at 20 barrels per minute. Start-up included flow steps of 2, 5, 9, 14, and 20 bpm. No clear breakdown was observed, however, a brief pump at approximately 1/2 bpm gave a pressure plateau at 4700 psi. A great deal of seismic activity was recorded and locations of seismic events were calculated on-site. Several events were recorded on the surface net and one event appears to have a local magnitude of -1.

There was no pressure response recorded in EE-2.

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EXPERIMENT 2025 EVENT LOG

Date and Time		Description
13 Dec 82	10:26	Geophone Arm Set Geophone on station at 9660.5 ft in EE-1
	10:56	Much noise on geophone since setting of arm; interpreted as movement of package
	11:10	Moved arm on geophone to make sure it is fully extended. Noise gets less.
	11:18	Zero detonator package on flange at top of valve in EE-2. See Figure #1.
	11:40	Detonator package started in hole. Weight loss at ~500 ft in EE-2 indicates water level?
	12:50	Detonator package on station at 9200.34 ft in EE-2.
	12:54	Shot #1. No signal recorded at geophone. See Fig. 2.
	12:58	Shot #2. No signal recorded at geophone. No record made, but output identical to Fig. 2.
	13:01	Shot #3. No signal recorded at geophone. No record made, but output identical to Fig. 2.

Note: When the detonator tool was recovered, it was full of water and more of the detonators had fired.

13:30 Safety Meeting. The following parameters were discussed.

Max Treating Pressure	7000 psi
Max Rate	20 bpm
Backside operating pressure	1000 psi
Backside pressure relief valve	3100 psi
Max backside pressure	3000 psi
Injection temperature	160°F

It was also suggested by Nicholson that we get an instantaneous shut-in pressure measurement after breakdown.

Friction Reducer is to be added when the injection rate is 8-12 bpm.

Note: See Figure 3 for schematic drawing of EE-3 completion. Frontside and Backside are also indicated.

Date and Time	Description
Note:	Refer to Figure 4 for Frontside and Backside pressure vs. time for Expt. 2025 on 13 Dec. 82. Backside pressure vs. time recorded by Dowell shown in Fig. 5.
13:54	Pressurizing EE-3 backside
14:00	Pressurizing EE-3 wellhead (frontside)
14:03	Shut-in frontside and backside and pressures equalized.
14:10	Shut-in backside and pressurize frontisde. When frontside pressure reached ~2600 psi, backside pressure started to rise. Pressures equalized.
14:15	Noticed that HP9845 data printout was messed up. Everything moved 1 column to right after a new page was started.
14:20	Pumping up backside to pump seals down. When backside pressure reached ~900 psi, frontside pressure started to rise.
14:25	Bleeding frontside and backside.
Note:	It was decided to run a temperature log to find the leak. One of the mobile logging rigs was moved into position and prepared for running a slim-line thermistor tool. The backside pump truck was re-plumbed to pump into the frontside for a flowing temperature log. The remainder of the Dowell plumbing and the ESS-6 instrumentation were removed (~15:00) to avoid freezing.
17:47	Started temperature tool down to 150 ft.
17:52	Parked temperature tool at 150 ft. Results of this run-in are shown in Fig. 6. The temperature rose rapidly to 32°C by 100 feet, but after 100 ft the temperature declined by 4°C to 28°C at 150 ft. Because the re-plumbing of the backside truck was not complete we requested and received permission to come up to 50 feet and log the interval from 50 ft to wherever the geothermal gradient was clearly identified.
18:08 to 18:15	Second temperature log run. Results shown in Figure 7. Tabulated results presented as Table I. When temperature log was completed, the tool was returned to 50 feet.

Date and Time	Description
Note:	The temperature changed from 22.21°C at 282 ft to 23.24°C at 356 ft. The gradient is 1.03°C/74 ft = 44°C/km. Therefore, the log did not go deep enough to get on the geothermal gradient.
	Geophone tool retrieved from EE-1.
18:24	Pressurizing Frontside. Pressure rose rapidly to ~2000 psi. Logging cable spit out of packoff. See Fig. 8a for pressure record from Dowell strip chart. Temperature tool and packoff were removed from lock and a valve at the bottom of the lock was shut so that the wellhead could be pressurized.
18:45	Start pumping frontside at ~1/2 bpm (see Fig. 8b for frontside pressure record). Pressure steps are at: 2000 psi and hold; 3000 psi (sudden drop and rebound to 2400 psi); 3000 psi and hold; 3400 psi and activate pop-off valve which was set to 3100 psi. Pop-off valve outlet plumbed to a blind tee; pumped back up to 3400 psi and hold, Hendron estimated rate at 1/2 bpm using the tank water level and a watch; 4000 psi with sudden pressure changes, blind tee leaked, pumping shut off and leak fixed. Started pressurizing again.
	Pressure reached plateau at ~4700 psi at 1/2 bpm. This was called breakdown.
19:13	Flow increased to 1 bpm for 5 minutes. Pressure rose to 4800 psi.
19:18	Shut in. Backside pressurized to 1000 psi. (See Fig. 9 for geolograph chart record of backside pressure.)
19:28	Flow increased to 1 bpm for 5 minutes with backside pressurized to 1000 psi.
19:32	Shut-in.
20:04	Inject 3 bbl of 40% Ethylene glycol solution and shut-in EE-3 wellhead.
Note:	See Fig. 8c for pressure record of EE-3 wellhead after injection of Ethylene glycol solution.
	Temperature tool rigged down at this point.

Date and Time		Description
14 Dec. 82	08:22	Geophone on station at 9660.05 ft. Inclinometer readings: x angle -3.38° -1.168190 volts y angle 2.81° 0.969160 volts

Note: See Fig. 10 for frontside and backside pressures during this portion of the experiment. Also, see Table 2 for backside pressures and cumulative flow as reported over the net.

11:23	Start 2 bpm step. One flowmeter not working on DAT printout.
11:25	Start pressurizing backside to ~1000 psi.
11:29	Step to 5 bpm on frontside.
11:30	Backside 950 psi ~6 bbls away.
11:33	Step to 9 bpm on frontside.
11:38	67 bbls away on frontside. 6.8 bbls away on backside.
11:41	Start friction reducer on frontside.
	Accelerometer tool on station at 11649.94 ft in EE-2. Arm not yet extended.
11:47	Start 14 bpm step in EE-3.
11:55	Accelerometer arm extended.
11:58	Bringing one pumping unit down.
12:04	First seismic event captured by Biomation.
12:08	Disconnected bad flow meter on frontside. Connected to new flow meter.
12:09	Bring on 19.4 bpm flow step.
12:28	Go to 1 minute scans.
12:45	Bring in accelerometer arm. Only 1 horizontal component working.
~14:05	Very large event ($M_L \simeq -1$ i.e. 6 sec. coda recorded on surface net).
14:22	Pulling accelerometer tool up in EE-2.

Date and Time	Description
14:54	Something broke. Pressures suddenly equalized between frontside and backside. Venting both sides. At this point, the decision was made to send Dowell and the heaters home and to shut down the system. The system would be vented overnight and a temperature log run on 15 December.

Note: No indication of a flow path was seen on the temperature log of EE-3 on 15 Dec., however, when the casing was pulled, a split was observed about 10 feet from the box end of a joint which had been at 1700 feet. The split was approximately 28" long.

TOTAL INJECTION was 153342 gal on frontside.

15:30	Geophone arm pulled in and geophone started out of EE-1.

Preliminary Seismic Results (Locations etc. compliments of Toshi)

Because there were no detonator shots fired, the geophone tool could not be properly oriented and the correction factor for the geophone tool could not be calculated. The following maps of seismic events therefore have to be rotated both in azimuth and in dip. Figure 11 shows the plan and usual elevation views of the early seismic events (1st disk), Fig. 12 shows all events on the first 4 disks and Fig. 13 shows all events captured on the Biomation. Notice that the earliest events are the highest and that as time progressed, the events continue to cluster high, but also grow downward. The maximum extent of events in plan view is approximately 700 m while the maximum extent in elevation view is 500 m.

Other Data

The DAT printout for Exp. 2025 is included as Table 3. A plot of frontside wellhead pressure and injection flow rate (Frontside) is presented in Fig. 14, and a plot of backside pressure and flow rate is presented in Fig. 15. Plots of data from the disk are presented in Figures ~~13-16.~~ 16-19.

Pressures recorded from EE-2 do not indicate any sign of a breakthrough into the EE-2 system.

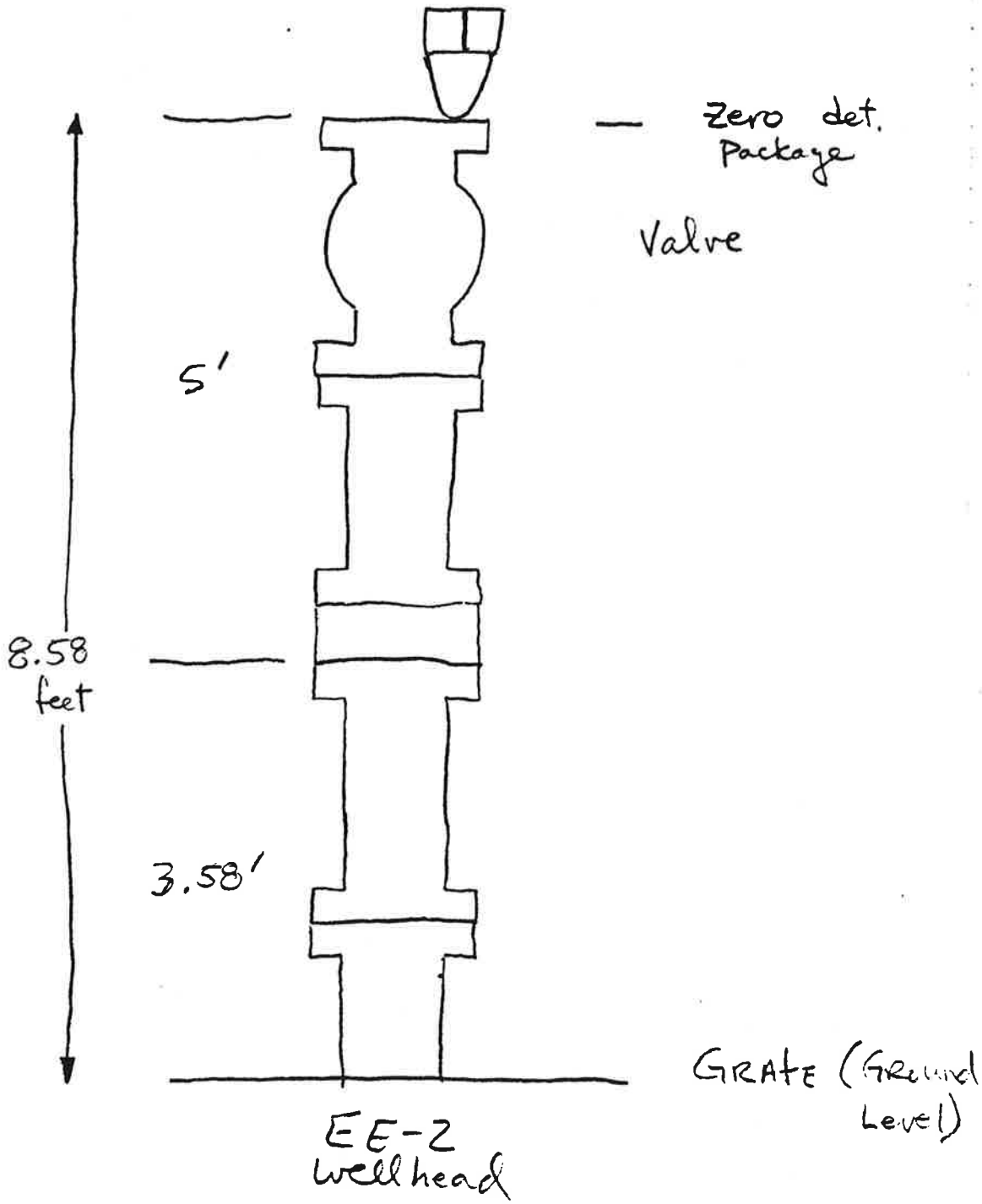
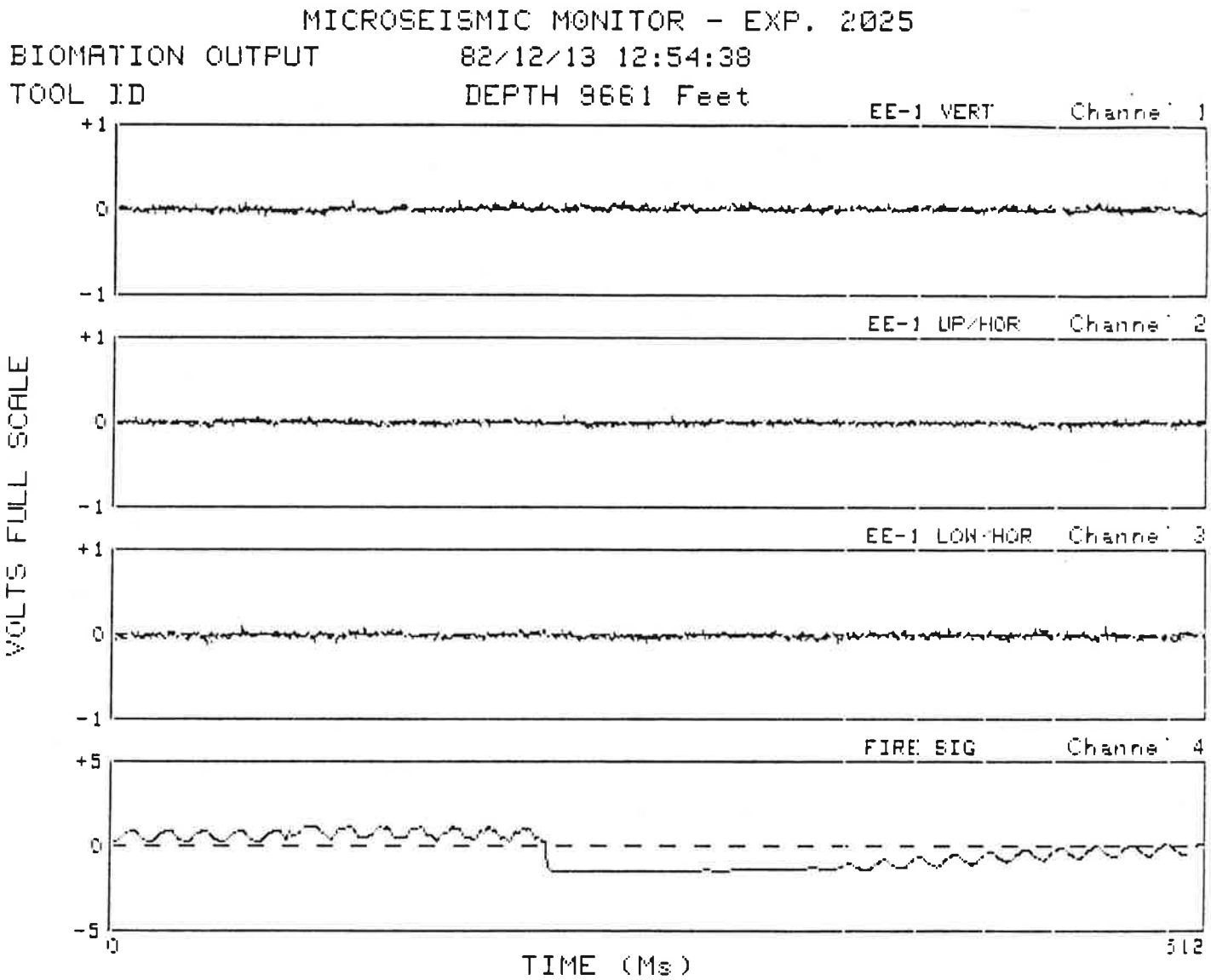


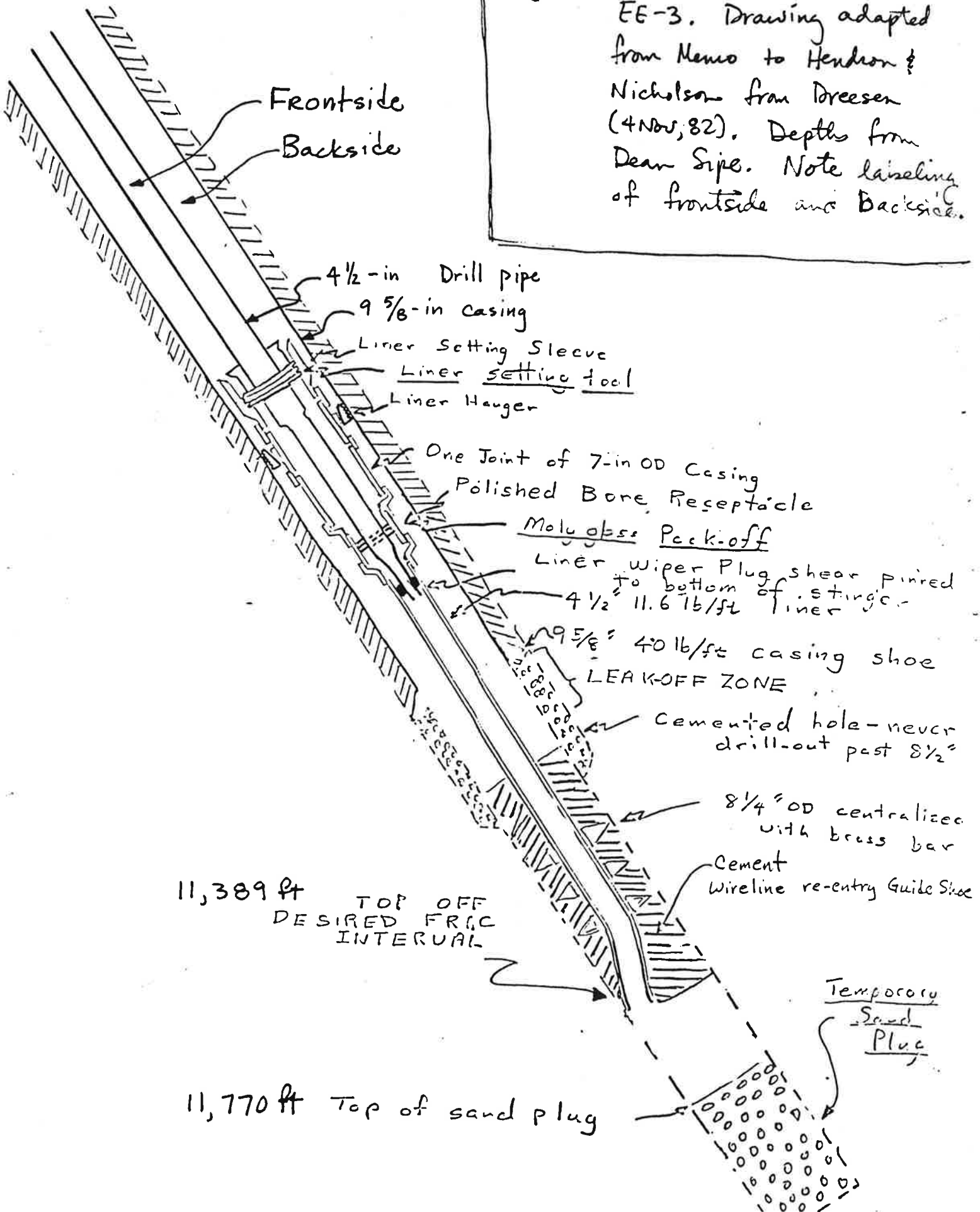
Figure 1. Wellhead Assembly on EE-2 and Location of Zero for Detonator package in Experiment 2025.



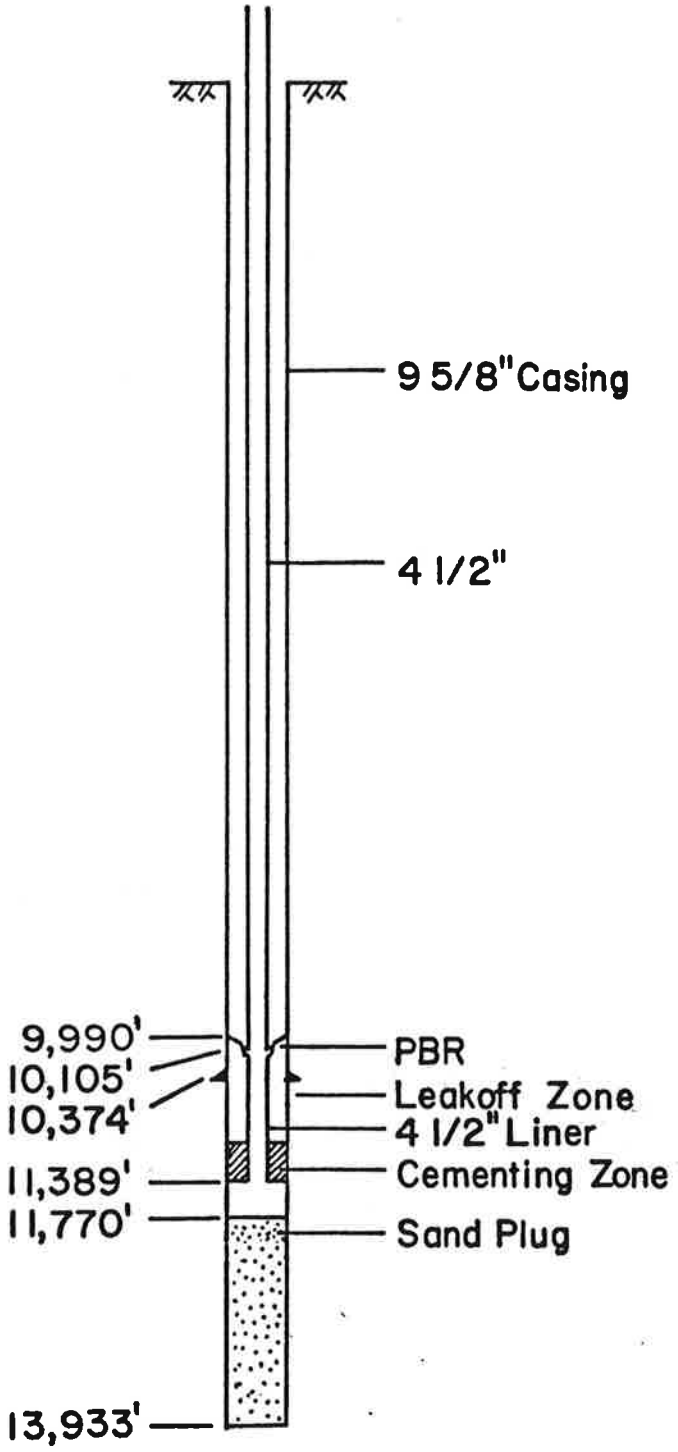
Disk-file: 1 Disk-unit: 0

Figure 2. Geophone output for first detonator shot.

Fig 3. Temporary Completion of EE-3. Drawing adapted from Memo to Hendron & Nicholson from Dreesen (4 Nov, 82). Depths from Dean Sipe. Note labeling of frontside and Backside.



Exp. 2025


9 5/8" Casing
4 1/2"
9,990'
10,105'
10,374'
11,389'
11,770'
13,933'
PBR
Leakoff Zone
4 1/2" Liner
Cementing Zone
Sand Plug

EE-3

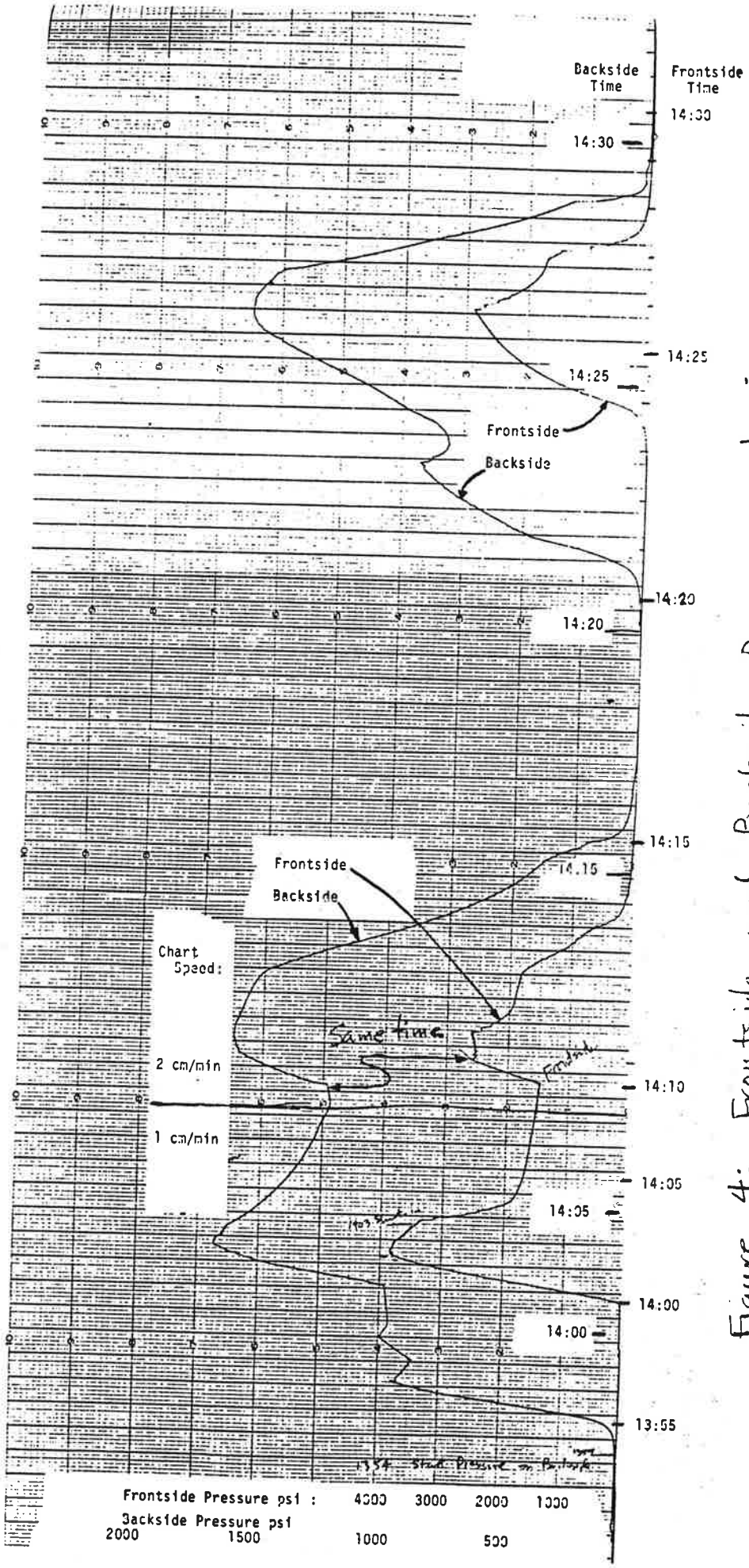


Figure 4: Frontside and Backside Pressures during first attempt at running (Sept. 2025, 13 Dec 82
Note: Frontside and Backside Pressures have different scales.
Also note change in chart speed.

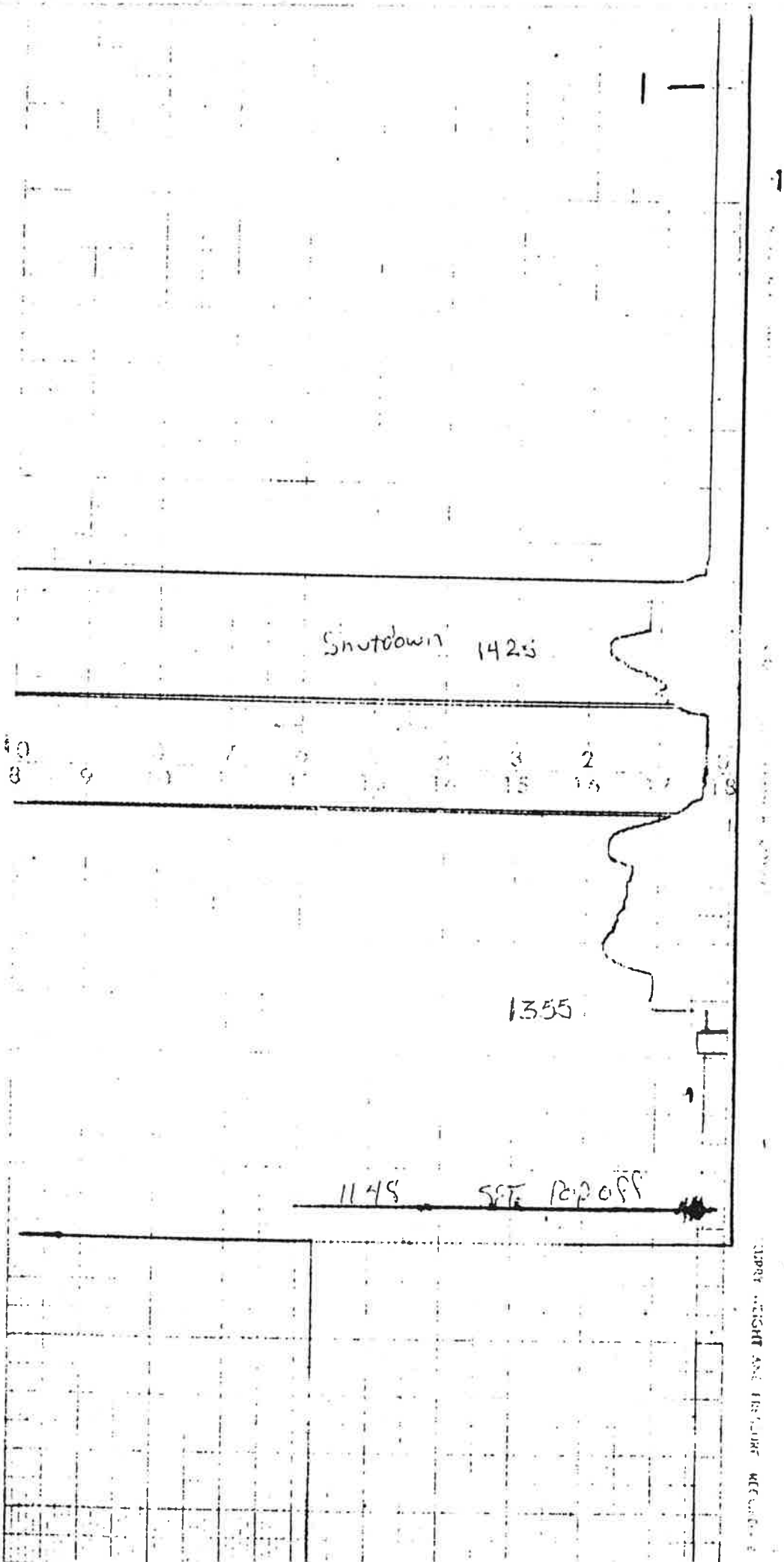
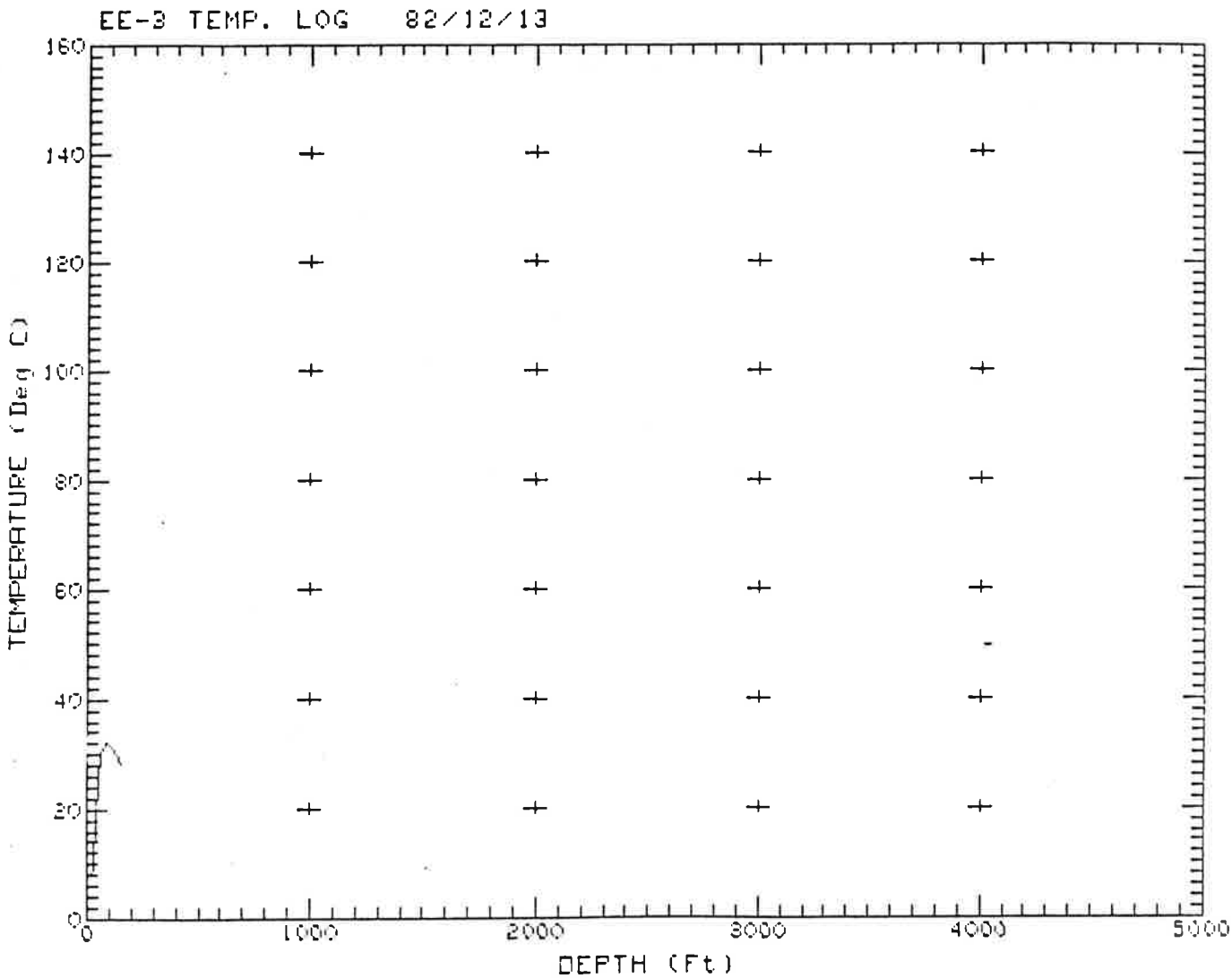


Figure 5

Backside Pressure

Experiment 2025 13NW E2 Recorded at Dowell Strip Chart.

Fig 6. EE-3 Temperature log Surface to 150'. Note temperature decline of 4°c from 100 to 150'.



Page 1 EE-3 TEMP. LOG 82/12/13

	Time	Depth Ft	Temp C	Time	Depth Ft	Temp C
1	17:47:59.065	19.98	8.21	17:48:20.637	25.04	9.63
2	17:48:34.576	30.03	12.34	17:48:46.022	35.00	16.81
3	17:48:54.682	40.01	20.57	17:49:03.158	44.94	23.95
4	17:49:11.927	49.98	26.79	17:49:20.565	54.99	28.75
5	17:49:29.339	60.06	30.49	17:49:37.808	64.97	31.24
6	17:49:46.538	70.02	31.36	17:49:55.195	75.06	31.55
7	17:50:03.846	80.08	31.88	17:50:12.266	84.99	32.04
8	17:50:20.975	90.04	32.14	17:50:29.537	95.03	32.03
9	17:50:38.194	100.06	31.76	17:50:46.604	104.97	31.81
10	17:50:55.237	109.98	31.48	17:51:03.950	115.06	31.27
11	17:51:12.368	119.95	30.98	17:51:20.890	124.94	30.64
12	17:51:29.669	130.02	30.29	17:51:38.078	134.94	29.93
13	17:51:46.766	139.98	29.47	17:51:55.180	144.97	29.07
14	17:52:03.755	149.99	28.37			

Fig 7. Second EE-3 Temperature log 50' to 356'.

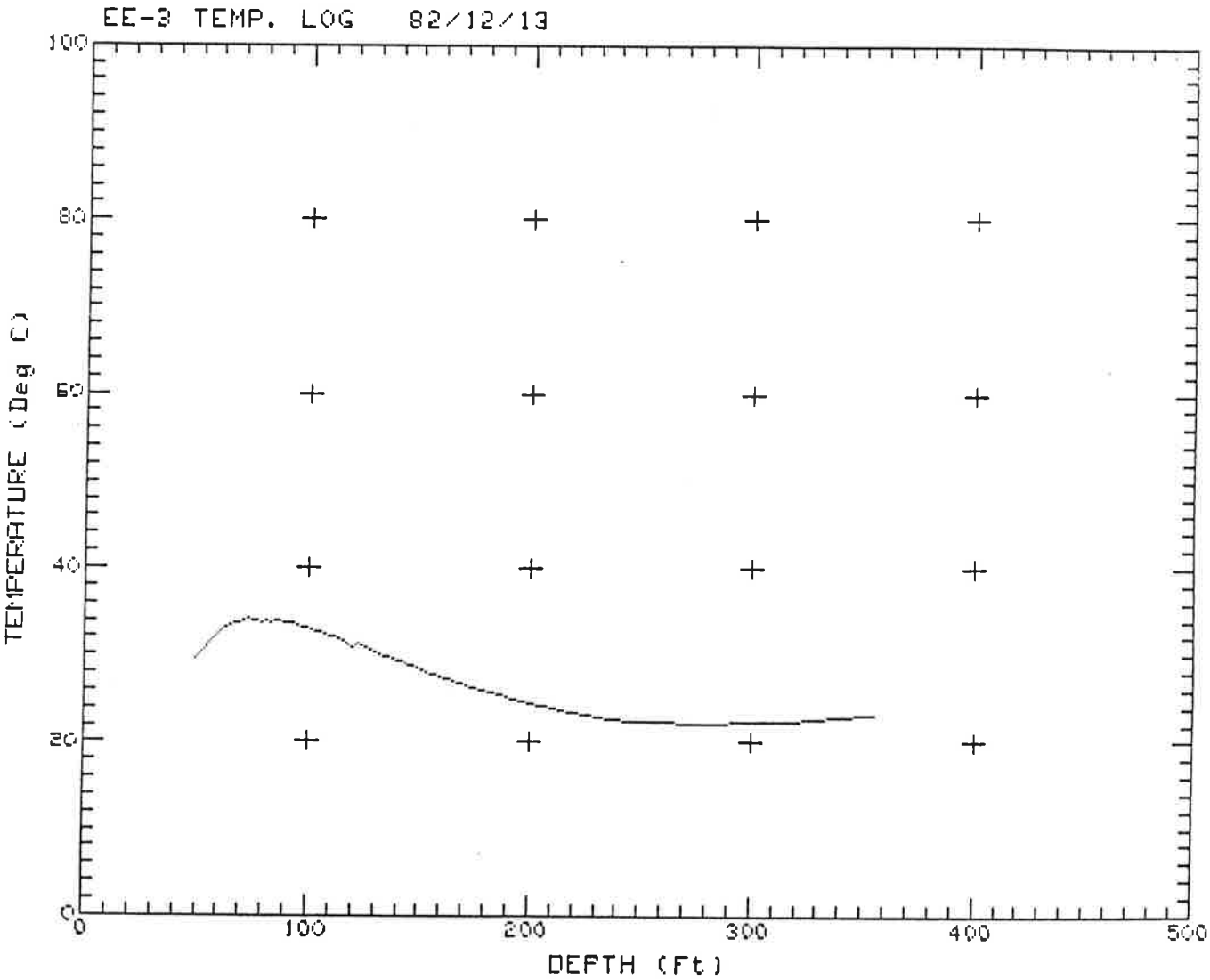


Table 1. Tabulated results of Second EE-3 Temperature log (Fig 7)

 EE-3 TEMP. LOG 82/12/13

	Time	Depth Ft	Temp C	Time	Depth Ft	Temp C
1	18:08:24.394	49.81	29.53	18:08:59.716	52.03	30.23
2	18:09:02.501	53.95	30.61	18:09:05.147	56.02	31.25
3	18:09:07.556	57.98	31.75	18:09:10.009	59.98	32.26
4	18:09:12.417	61.97	32.79	18:09:14.837	63.95	33.10
5	18:09:17.253	65.92	33.42	18:09:19.906	68.10	33.63
6	18:09:22.128	69.92	33.74	18:09:24.601	71.96	33.91
7	18:09:27.016	73.93	34.13	18:09:29.426	75.91	33.93
8	18:09:32.074	78.07	33.75	18:09:34.491	80.06	33.73
9	18:09:36.919	82.06	33.76	18:09:39.335	84.02	33.74
10	18:09:41.751	86.01	33.82	18:09:44.169	87.98	33.75
11	18:09:46.581	89.96	33.64	18:09:48.993	91.95	33.63
12	18:09:51.585	94.06	33.52	18:09:53.998	96.04	33.31
13	18:09:56.416	98.02	33.17	18:09:58.840	100.01	32.99
14	18:10:01.258	101.99	32.87	18:10:03.794	104.07	32.71
15	18:10:06.207	106.04	32.53	18:10:08.620	108.00	32.33
16	18:10:11.030	109.98	32.14	18:10:13.451	111.97	31.96
17	18:10:15.866	113.94	31.78	18:10:18.414	116.02	31.62
18	18:10:20.827	117.98	30.97	18:10:23.245	119.95	30.70
19	18:10:25.655	121.93	31.25	18:10:28.304	124.10	31.07
20	18:10:30.717	126.06	30.83	18:10:33.137	128.03	30.59
21	18:10:35.548	130.01	30.27	18:10:37.964	131.99	30.08
22	18:10:40.366	133.95	29.92	18:10:42.777	135.92	29.76
23	18:10:45.392	138.04	29.60	18:10:47.807	140.01	29.33
24	18:10:50.219	141.99	29.16	18:10:52.635	143.97	29.00
25	18:10:55.048	145.93	28.88	18:10:57.608	148.02	28.73
26	18:11:00.020	149.99	28.53	18:11:02.429	151.96	28.27
27	18:11:04.831	154.00	28.05	18:11:07.242	155.97	27.85
28	18:11:09.650	157.93	27.66	18:11:12.182	160.01	27.46
29	18:11:14.600	162.00	27.30	18:11:17.020	164.00	27.12
30	18:11:19.433	165.97	26.95	18:11:21.845	167.92	26.79
31	18:11:24.489	170.08	26.63	18:11:26.892	172.06	26.44
32	18:11:29.298	174.04	26.28	18:11:31.709	176.00	26.13
33	18:11:34.115	177.98	25.99	18:11:36.531	179.95	25.88
34	18:11:39.055	182.03	25.74	18:11:41.471	184.01	25.61
35	18:11:43.889	185.98	25.48	18:11:46.307	187.96	25.34
36	18:11:48.715	189.94	25.21	18:11:51.119	191.92	25.06
37	18:11:53.615	193.96	24.93	18:11:56.026	195.93	24.81
38	18:11:58.664	198.08	24.65	18:12:00.942	199.95	24.53
39	18:12:03.348	201.93	24.40	18:12:05.886	204.01	24.28
40	18:12:08.300	205.99	24.19	18:12:10.726	207.98	24.06
41	18:12:13.150	209.96	23.94	18:12:15.579	211.96	23.84
42	18:12:18.011	213.96	23.72	18:12:20.552	216.03	23.61
43	18:12:22.986	218.03	23.52	18:12:25.415	220.02	23.42
44	18:12:27.707	222.01	23.33	18:12:30.142	224.05	23.23
45	18:12:32.591	226.04	23.14	18:12:35.022	228.03	23.06
46	18:12:37.441	230.01	22.99	18:12:39.872	232.00	22.90
47	18:12:42.295	233.99	22.80	18:12:44.727	235.98	22.71
48	18:12:47.268	238.06	22.64	18:12:49.696	240.05	22.58
49	18:12:52.124	242.04	22.55	18:12:54.556	244.04	22.50
50	18:12:56.982	246.03	22.47	18:12:59.337	247.95	22.44
51	18:13:01.830	249.99	22.43	18:13:04.254	251.99	22.39
52	18:13:06.676	253.99	22.39	18:13:09.104	255.97	22.38
53	18:13:11.529	257.96	22.36	18:13:14.048	260.03	22.34
54	18:13:16.472	262.02	22.32	18:13:18.903	264.02	22.30
55	18:13:21.331	266.02	22.28	18:13:23.864	268.09	22.24
56	18:13:26.287	270.09	22.22	18:13:28.532	271.94	22.22
57	18:13:30.956	273.94	22.22	18:13:33.385	275.94	22.20
58	18:13:35.805	277.92	22.21	18:13:38.222	279.91	22.21
59	18:13:40.778	282.03	22.21	18:13:43.201	284.03	22.23
60	18:13:45.624	286.02	22.23	18:13:48.053	288.06	22.24

Table 1 cont.

Page 3 EE-3 TEMP. LOG 82/12/13

	Time	Depth Ft	Temp C	Time	Depth Ft	Temp C
1	18:13:50.364	289.98	22.26	18:13:52.792	291.99	22.27
2	18:13:55.254	294.03	22.28	18:13:57.682	295.98	22.28
3	18:14:00.112	297.91	22.29	18:14:02.782	300.05	22.31
4	18:14:05.208	302.04	22.34	18:14:07.729	304.07	22.35
5	18:14:10.153	305.98	22.36	18:14:12.819	308.08	22.37
6	18:14:15.240	309.98	22.38	18:14:17.666	311.95	22.40
7	18:14:20.321	314.10	22.41	18:14:22.770	316.07	22.43
8	18:14:25.191	318.02	22.45	18:14:27.617	319.98	22.48
9	18:14:30.043	321.94	22.51	18:14:32.714	324.10	22.54
10	18:14:35.164	326.07	22.58	18:14:37.588	328.02	22.60
11	18:14:40.011	329.97	22.64	18:14:42.434	331.93	22.70
12	18:14:45.100	334.08	22.75	18:14:47.528	336.03	22.80
13	18:14:49.666	337.91	22.84	18:14:52.530	340.07	22.89
14	18:14:54.955	342.03	22.93	18:14:57.387	343.98	22.98
15	18:14:59.816	345.94	23.03	18:15:02.483	348.09	23.08
16	18:15:04.947	350.08	23.11	18:15:07.246	351.94	23.16
17	18:15:09.914	354.07	23.19	18:15:12.351	356.04	23.24

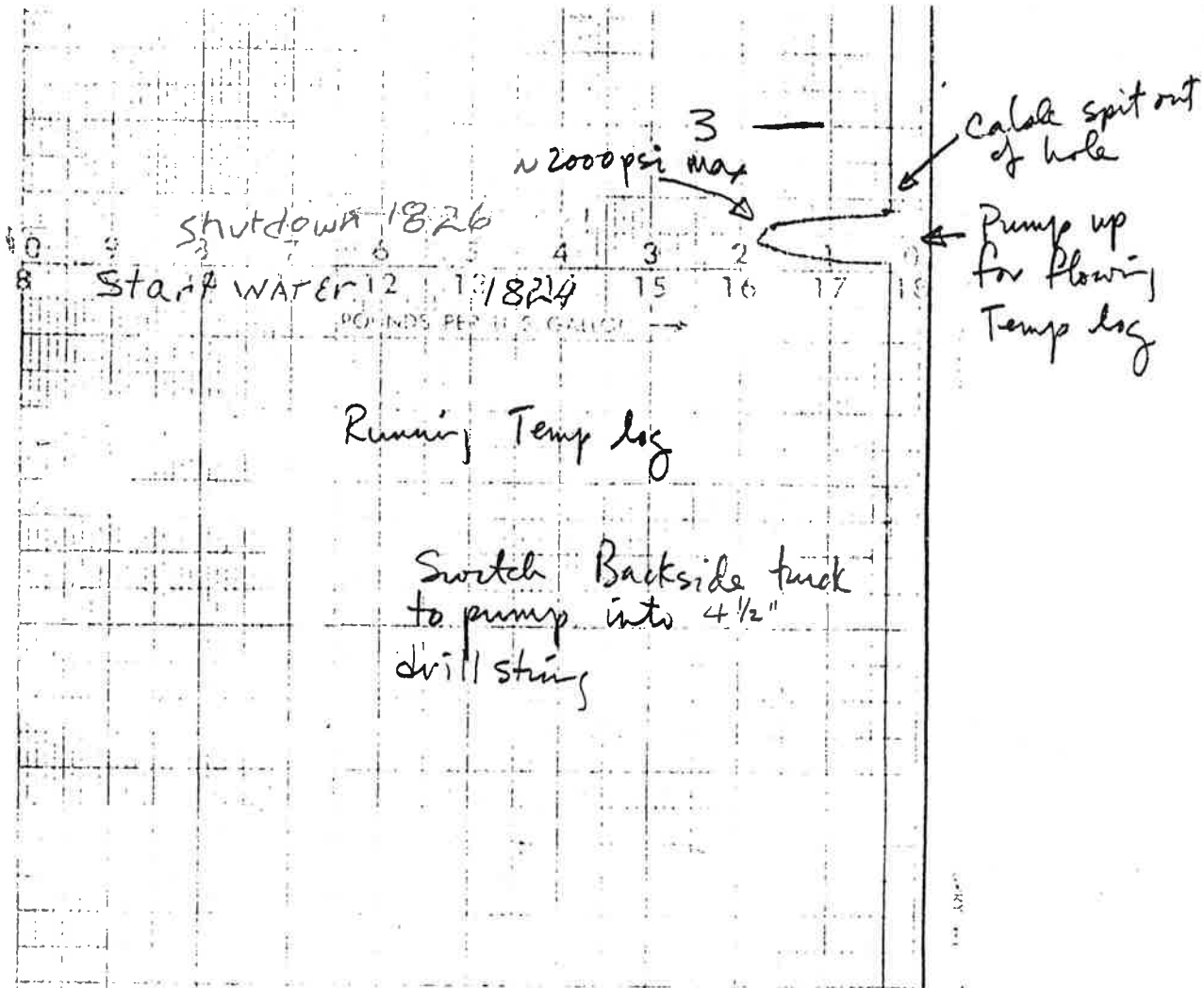
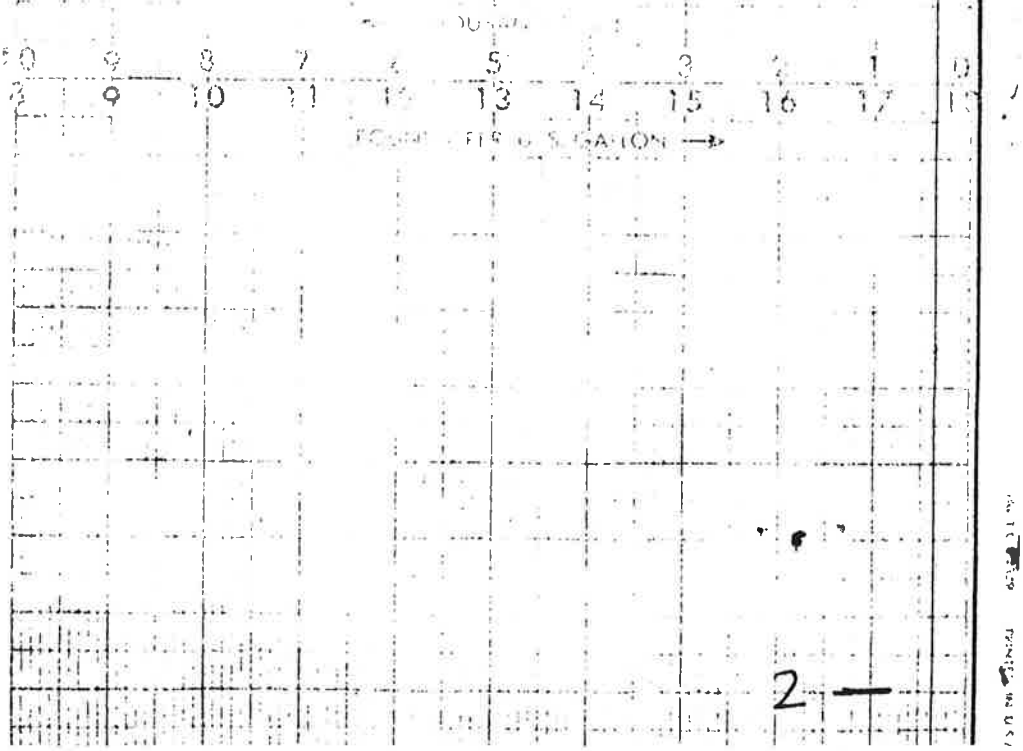


Fig 8a. Dowell Stripchart Record of EE-3 wellhead pressure for start of flowing temperature log.



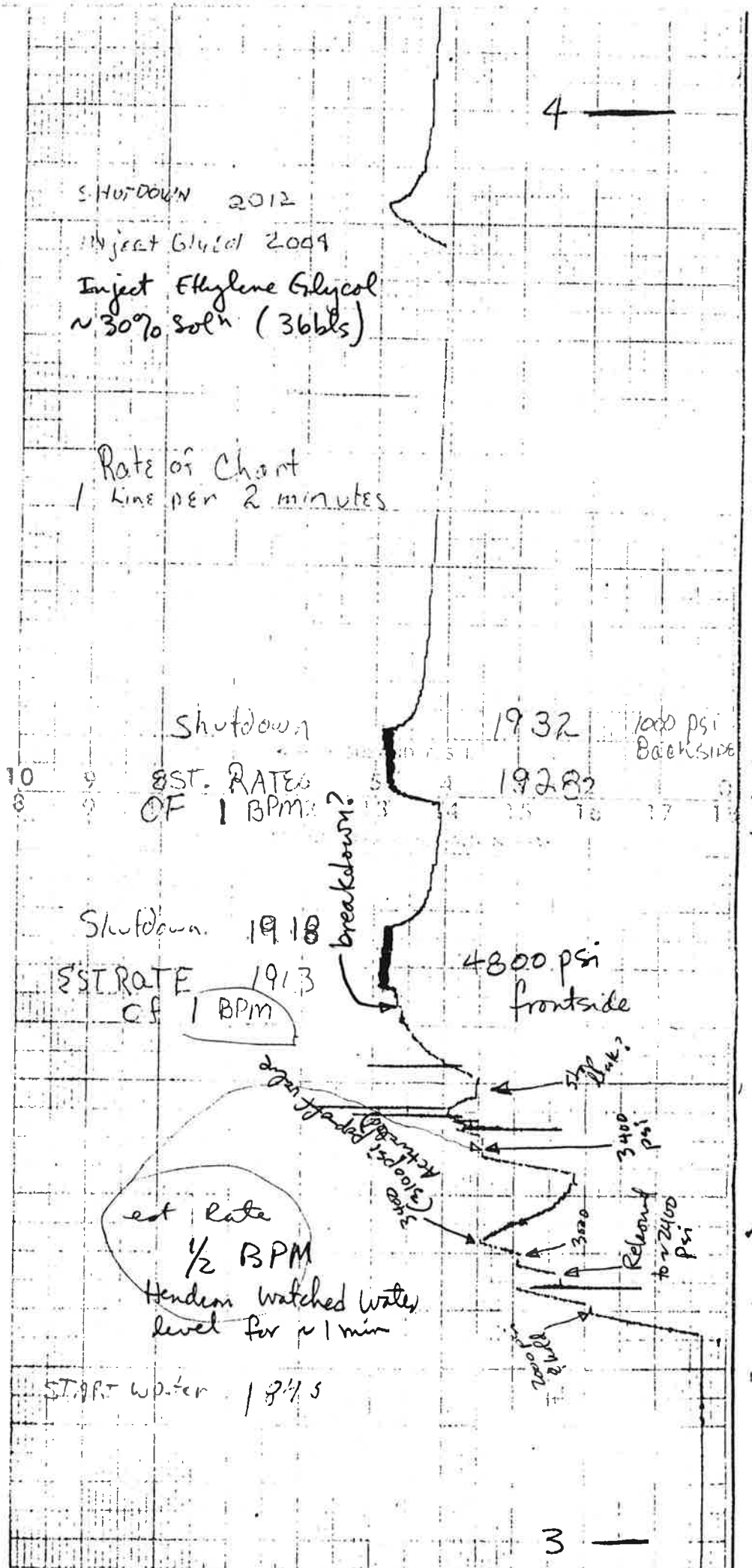


Fig 8b. Dowell Strip chart record of pressure test on frontside of EE-3, 13 Nov 82.

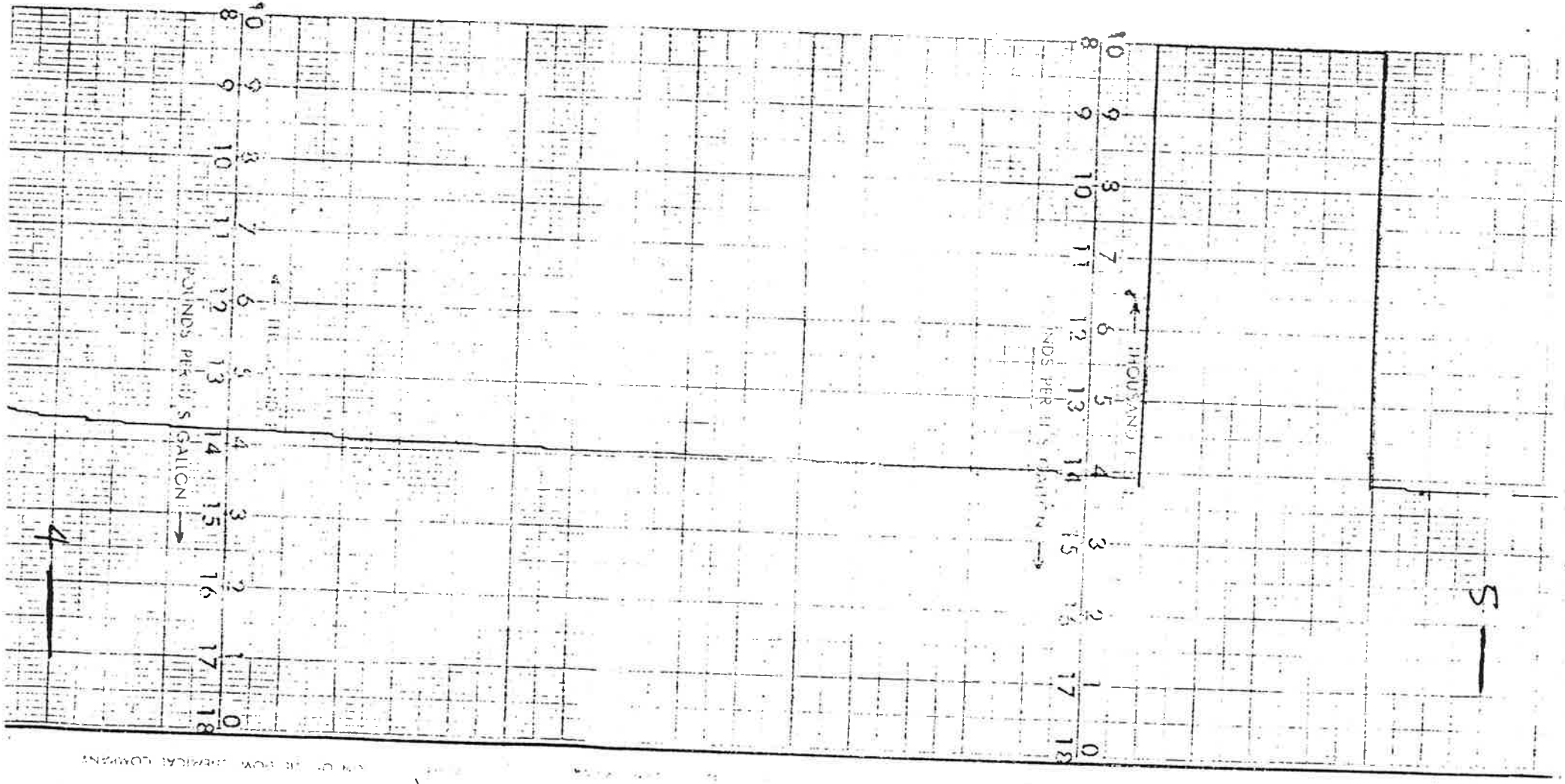


Fig 8c. Dowell strip chart record of shut-in pressure after injection of bbl % ethylene glycol solution.

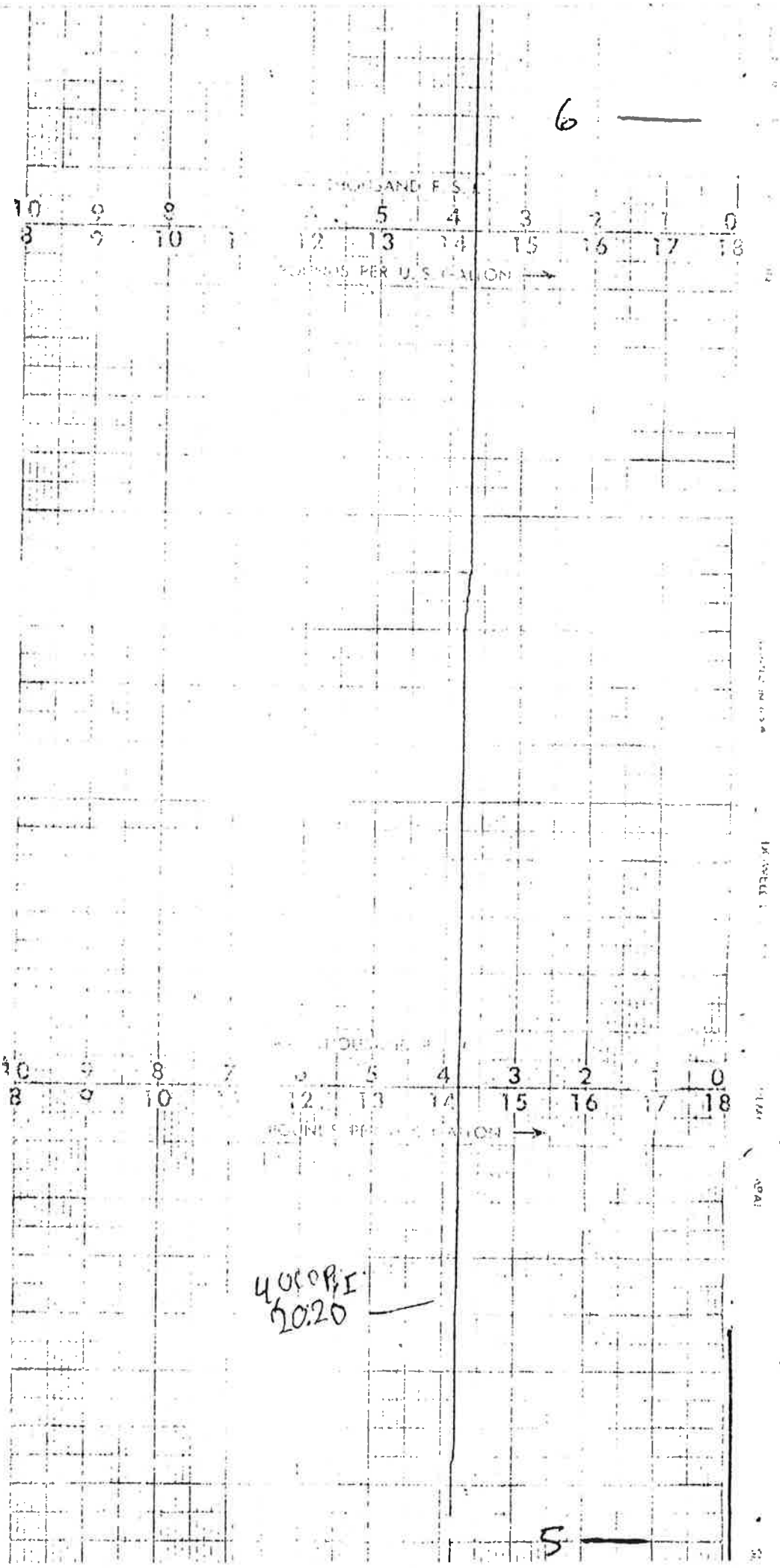


Fig 8c continued

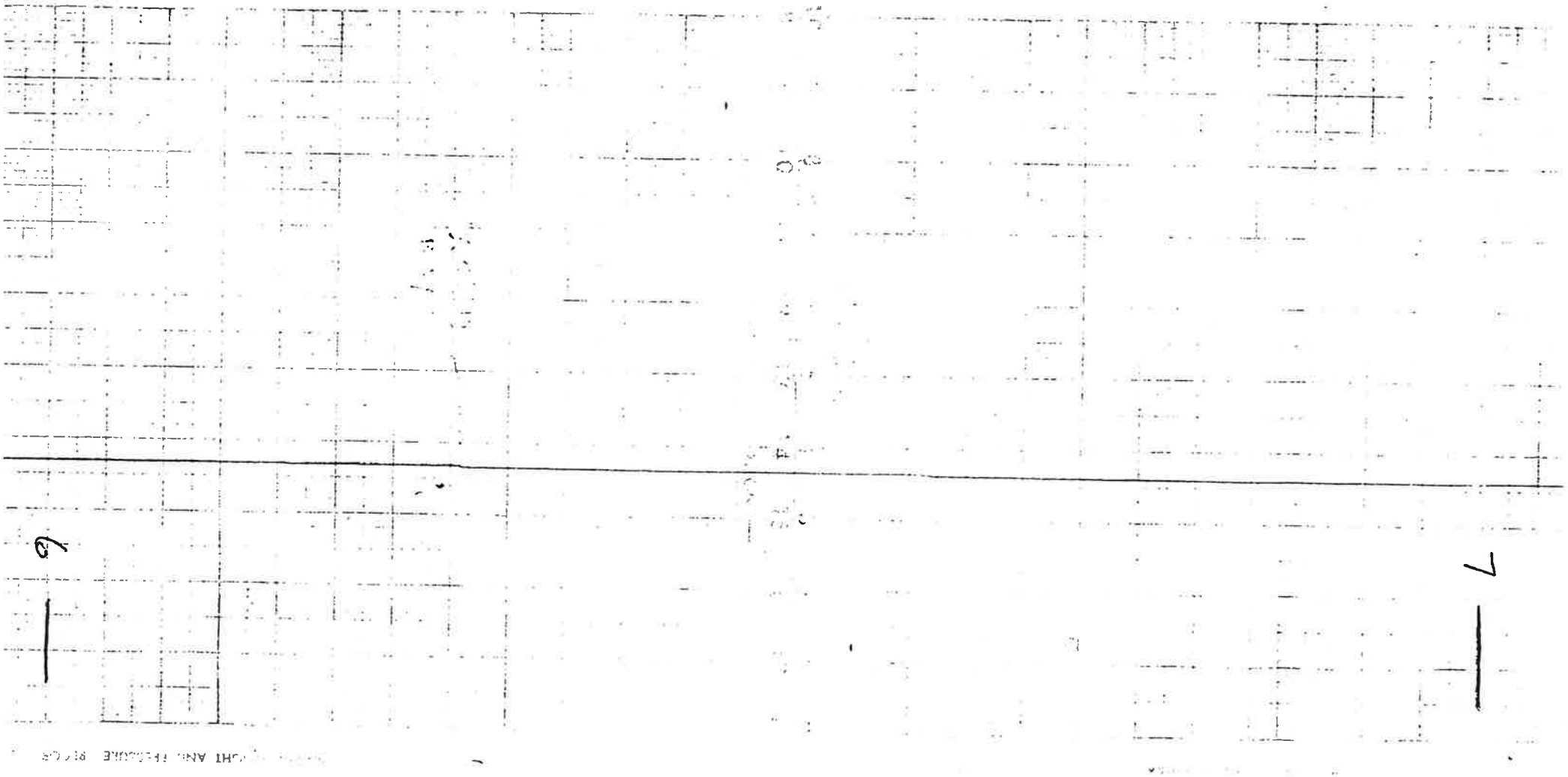


Figure 8c continued

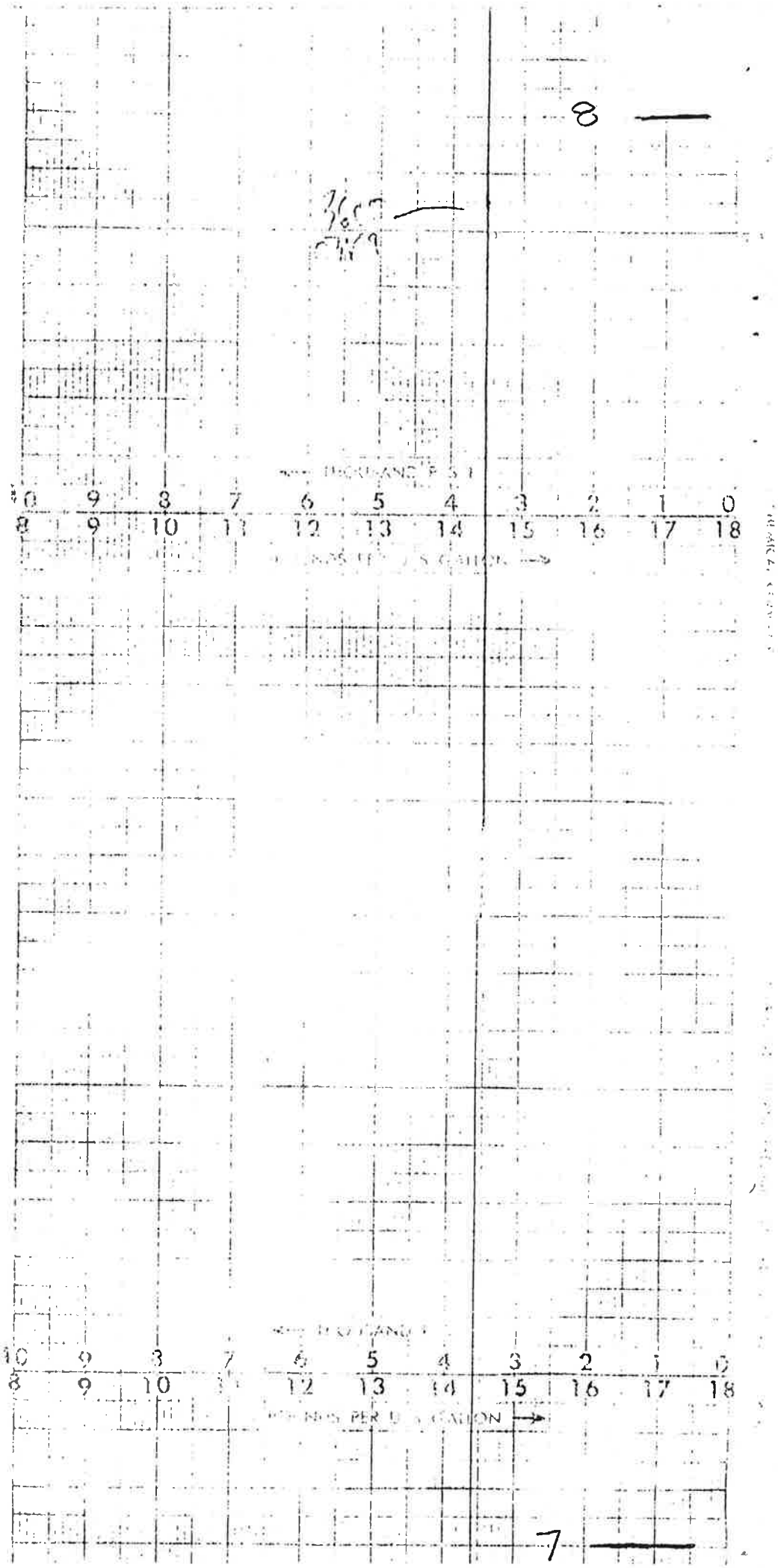


Figure 8C continued

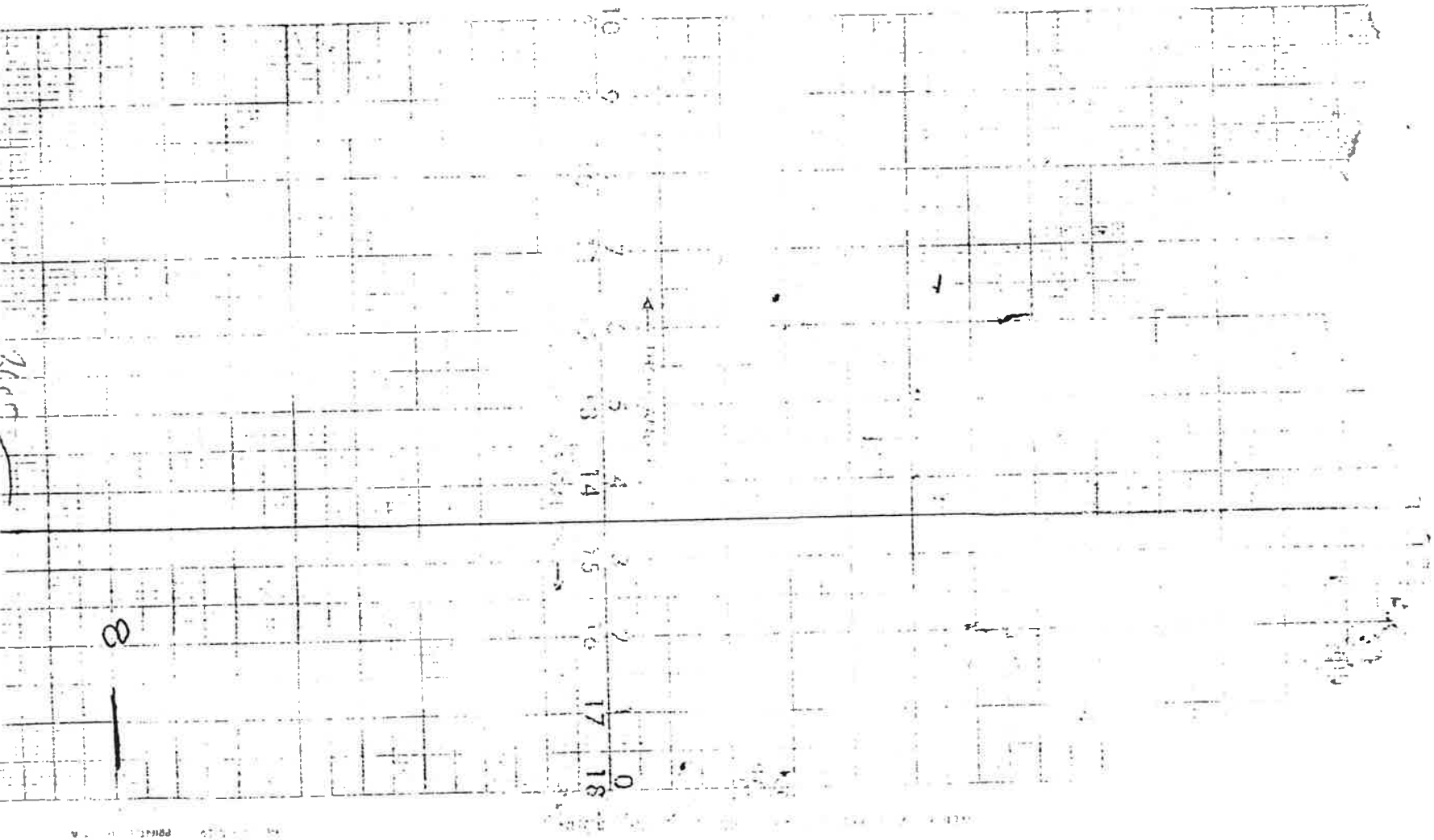


Figure 8c continued

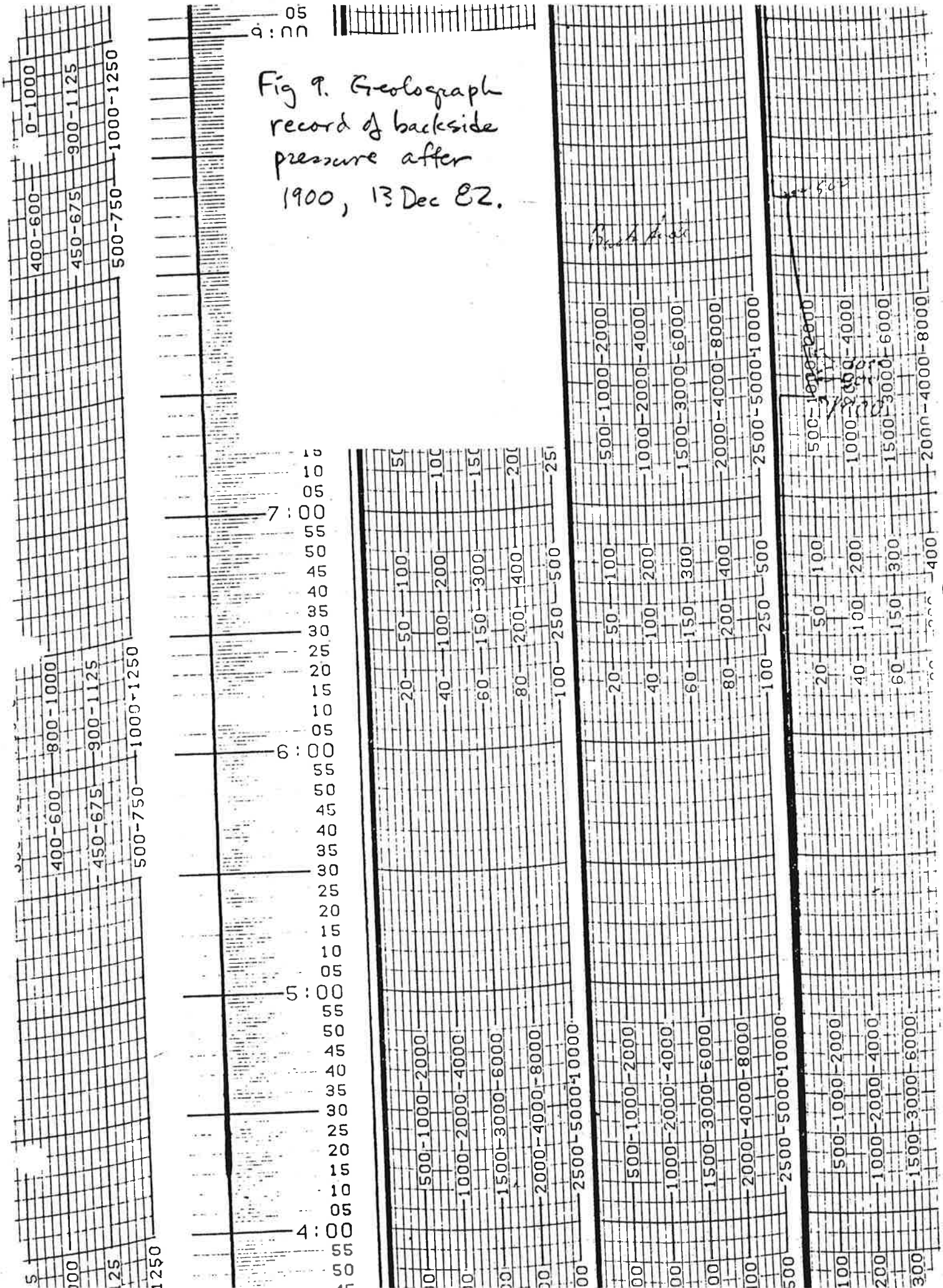
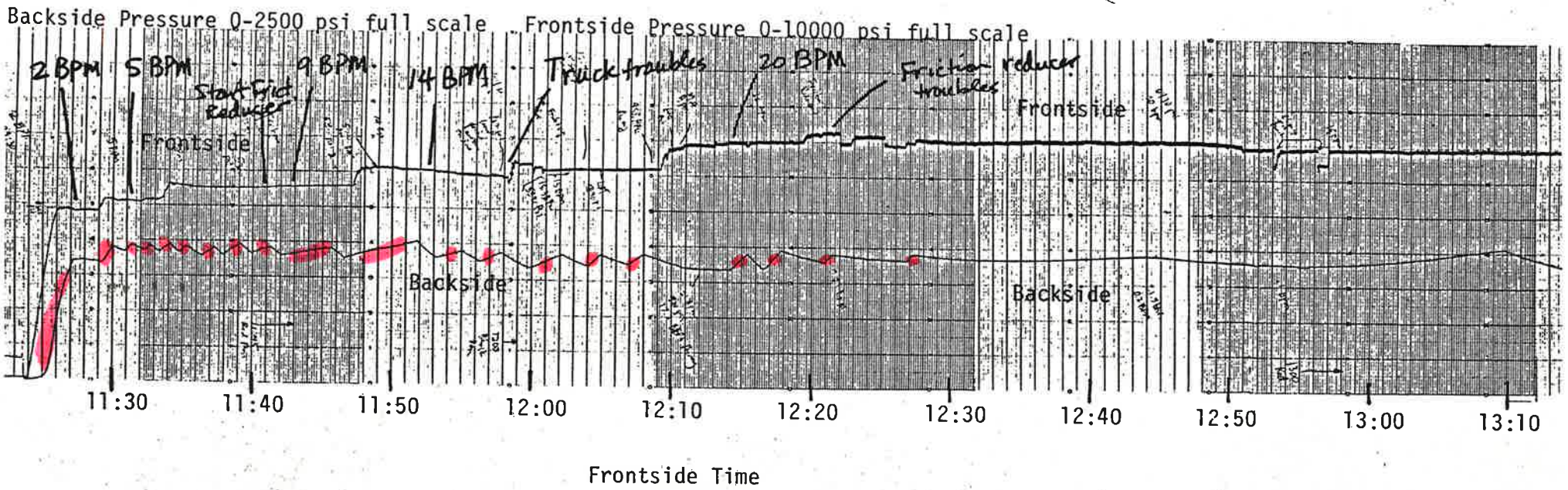
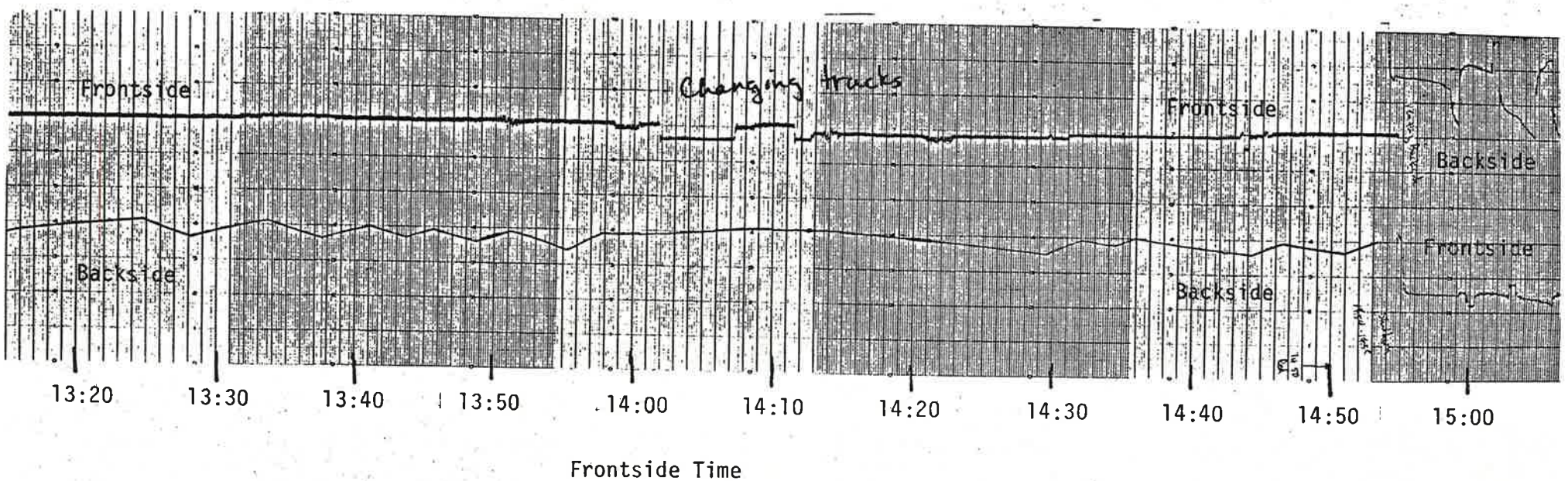


Fig 9. Geolograph record of backside pressure after 1900, 13 Dec 82.

Fig 10. Frontside and Backside Pressure during Expt 2025, 14 Dec 82. Backside time lags Frontside time by 1 1/3 minutes (8 divisions). (Note - there are 6 divisions per minute)





Exp. 2025

第1回 (Dec. 13, 1982)

Table 2. Backside Pressures and total flow as reported over the net Dec 13, 1982.

□ backside

13:55	backside pumping start		B.
13:58		1000 psi	Q=7.3
14:00			7.6
03	backside pressure increase	1500 psi	7.8
03:30	return backside	1750 psi	7.2 −0.6
06		1500	
09	pumping stop		
15	Annulus return start		
14:17	〃 stop		4.0 △3.8
	} drill (frac) pipe loading		
14:20	backside tank fill up (45°C)		
21	backside pumping start		
22		750	Q=3
22:45			4
23	→ 1000 psi		
23:10	backside pumping slow down		
45	pumping start		5
24:00	backside pressure increase		5.3
25:00	pumping stop	1400	
45		1700	
26:00		1750	
26:30	Exp. Stop decided		
27:00	{ backside return. frac pipe側からも return		
31:00			2.5 △2.8

その後 temperature log をやることに決定。
Dowell は lerese せず

Detonator Package Missfire : cartridge は3本ともそのまゝ
Aluminum の腐食ひどい。 connection tube もふくれる
↑
ESS-6 staff gas の影響か

Exp. 2025-2 (Dec. 14, 1982)

Backside

Table 2a Backside Pressures and ~~flow~~ Cumulative flow as reported over the net.

1) Backside pressurization stage Dec 14, 1982

	BR	psi	
11:30	5	900	
31	5.7	1000	
33:15	6		
35	6.2		
40	7.8		
43	9		
46	10 → 0		11:47 No 3 pump track st
49:30	1		
51:45	2		
54:55	3		
58:45	4		11:59 No. 4 pumptrack st
12:03	5		
07:40	6		
12:20	7		
16:50	8		
21:30	9		
26:50	10 → 0		
30:50	1		
41:10	2		
49:30	3		
56:20	4	1200	
1:03:55	5	1:12–1:16	
1:16:55	6	1:27–1:30	
26:30	7		1:35:35–1:39:30
43:00	8	1:43–1:45:35, 1:47:35–50:40, 1:53:10–57:10	
2:43:10	9.2	1:59:? –	
2:48:00	9.5	2:04 leak from Powell injection pump track	
2:55:00	9.6	3000psi	
56:10	~8.8	1800psi	14:54 backside breaks through
3:06:20		vent	
3:00.00		2400psi	

EQ 153,342 galns

Table 3. DAT Printout for Exp 2025.

Page No. 1 82/12/14

	TIME	EE-3 P-BORE PSI	EE-3 T-IN °C	EE-3 Q-IN GPM	EE-3 Q-IN GPM	EE-3 SUM GPM	EE-3 P-BACK PSI	EE-2 P-BORE PSI	EE-2 T-VENT °C	PTS
1	11:18:40	12.1	48.1	.0	-1.1	-1.1	235.2	.3	-.2	2
2	11:18:50	12.3	48.1	.1	-1.1	-1.1	232.2	.3	-.3	3
3	11:19:00	11.6	48.0	.0	-1.1	-1.1	228.8	.1	-.3	3
4	11:19:10	11.4	47.9	-.0	-1.1	-1.1	225.2	.1	-.3	4
5	11:19:20	11.7	47.8	-.0	-1.2	-1.2	221.8	.1	-.3	3
6	11:19:30	11.4	47.7	.1	-1.1	-1.1	218.9	.1	-.3	3
7	11:19:40	10.8	47.7	.0	-1.2	-1.1	216.0	.1	-.3	3
8	11:19:50	10.8	47.7	.0	-1.2	-1.1	213.0	.1	-.3	4
9	11:20:00	10.6	47.7	.1	-1.2	-1.1	210.0	.1	-.3	3
10	11:20:10	10.8	47.6	-.0	-1.1	-1.1	207.4	.2	-.3	3
11	11:20:20	10.8	47.5	.0	-1.1	-1.1	204.7	.2	-.3	4
12	11:20:30	10.9	47.4	.0	-1.1	-1.1	202.1	.1	-.3	3
13	11:20:40	10.7	47.3	-.0	-1.1	-1.2	199.7	.2	-.3	3
14	11:20:50	11.0	47.2	.1	-1.1	-1.0	197.5	.3	-.3	3
15	11:21:00	11.0	47.1	.0	-1.1	-1.1	195.1	.3	-.2	4
16	11:21:10	10.9	47.0	.0	-1.1	-1.1	192.6	.3	-.3	3
17	11:21:20	10.8	47.0	.1	-1.1	-1.0	190.6	.3	-.2	3
18	11:21:30	10.8	46.9	.0	-1.1	-1.1	188.4	.3	-.2	4
19	11:21:40	11.0	46.9	.0	-1.1	-1.1	186.2	.3	-.2	3
20	11:21:50	10.8	46.9	.1	-1.1	-1.1	184.3	.4	-.2	3
21	11:22:00.	11.2	46.9	.1	-1.1	-1.0	182.5	.5	-.2	3
22	11:22:10	11.2	46.8	.0	-1.1	-1.1	180.4	.4	-.2	4
23	11:22:20	10.8	46.7	.1	-1.1	-1.0	178.3	.4	-.2	3
24	11:22:30	17.5	46.6	261.7	177.1	438.8	176.6	.4	-.2	3
25	11:22:40	33.3	47.1	59.7	-1.1	58.6	174.7	.4	-.2	4
26	11:22:50	35.0	47.6	52.4	-1.1	51.3	172.9	.4	-.2	3
27	11:23:00	38.8	48.1	3.5	-1.1	2.4	171.3	.4	-.2	3
28	11:23:10	38.7	48.4	.8	-1.1	-.3	169.8	.4	-.2	3
29	11:23:20	39.3	48.8	4.5	-1.1	3.4	168.0	.4	-.2	4
30	11:23:30	39.3	49.4	2.6	-1.1	1.4	166.2	.3	-.2	3
31	11:23:40	38.6	49.7	5.8	-1.1	4.7	164.8	.3	-.2	3
32	11:23:50	38.9	50.1	2.1	-1.1	.9	163.3	.3	-.2	4
33	11:24:00	37.7	50.3	.3	-1.1	-.8	161.9	.3	-.2	3
34	11:24:10	45.6	50.2	9.4	-1.1	8.3	160.5	.2	-.3	3
35	11:24:20	296.6	49.9	40.6	-1.1	39.5	159.0	.2	-.3	4
36	11:24:30	707.6	50.0	37.9	-1.2	36.7	157.5	.2	-.2	3
37	11:24:40	1094.7	50.2	41.1	-1.1	40.0	156.3	.3	-.2	3
38	11:24:50	1537.5	50.3	39.0	-1.2	37.8	154.8	.3	-.2	4
39	11:25:00	1974.1	50.4	37.6	-1.1	36.4	153.6	.4	-.2	3
40	11:25:10	2303.3	50.6	37.1	-1.1	36.0	290.7	.4	-.2	3
41	11:25:20	2724.3	50.7	34.9	-1.1	33.8	3.2	.3	-.2	3
42	11:25:30	3117.0	50.8	31.7	-1.1	30.6	.6	.4	-.2	4
43	11:25:40	3511.6	50.8	40.8	-1.2	39.6	2.2	.3	-.2	3
44	11:25:50	3832.1	50.8	41.2	-1.1	40.0	4.0	.3	-.2	3
45	11:26:00	4185.2	50.9	61.5	-1.1	60.4	6.3	.4	-.2	4
46	11:26:10	4392.5	50.9	49.0	-1.1	47.9	9.3	.4	-.2	3
47	11:26:20	4539.6	51.0	27.2	-1.1	26.1	13.5	.5	-.2	3
48	11:26:30	4568.3	51.0	49.0	-1.1	47.9	20.4	.5	-.2	4
49	11:26:40	4544.8	51.0	35.6	-1.2	34.4	32.6	.4	-.2	3
50	11:26:50	4554.6	51.0	47.1	-1.1	46.0	54.4	.4	-.2	3

Page No. 2 82/12/14 EE-3 PUMP TEST

	TIME	********** EE-3 **********						**** EE-2 ****		PTS
		P-BORE PSI	T-IN °C	Q-IN GPM	Q-IN GPM	SUM GPM	P-BACK PSI	P-BORE PSI	T-VENT °C	
1	11:27:10	4553.5	51.0	30.3	-1.1	29.2	169.4	.5	-.1	4
2	11:27:20	4527.6	51.0	43.7	-1.1	42.5	291.2	.5	-.2	4
3	11:27:30	4533.6	51.0	39.7	-1.1	38.6	413.9	.5	-.2	3
4	11:27:40	4522.3	51.1	40.9	-1.1	39.8	486.4	.5	-.2	3
5	11:27:50	4514.0	51.1	44.6	-1.1	43.5	558.9	.4	-.2	3
6	11:28:00	4537.1	51.2	39.8	-1.1	38.7	637.4	.5	-.2	4
7	11:28:10	4508.9	51.2	42.8	-1.1	41.7	710.6	.5	-.2	3
8	11:28:20	4554.6	51.3	38.4	-1.1	37.3	752.9	.5	-.2	3
9	11:28:30	4524.6	51.3	38.3	-1.1	37.2	797.2	.4	-.2	4
10	11:28:40	4524.4	51.4	40.4	-1.1	39.2	839.0	.3	-.2	3
11	11:28:50	4537.9	51.4	40.2	-1.1	39.0	856.1	.3	-.2	3
12	11:29:00	4524.4	51.4	51.6	-1.2	50.4	858.0	.3	-.2	3
13	11:29:10	4526.1	51.5	41.0	-1.2	39.8	860.2	.3	-.2	4
14	11:29:20	4643.3	51.5	63.7	-1.1	62.5	861.7	.3	-.2	3
15	11:29:30	4707.1	51.7	74.6	-1.1	73.4	862.8	.4	-.2	3
16	11:29:40	4814.6	51.9	92.5	-1.1	91.4	862.4	.4	-.2	3
17	11:29:50	4853.4	52.2	98.4	-1.1	97.3	858.7	.5	-.2	4
18	11:30:00	4834.3	52.3	95.6	-1.1	94.5	856.0	.4	-.2	3
19	11:30:10	4842.5	52.5	105.1	-1.1	104.0	853.2	.5	-.2	3
20	11:30:20	4846.4	52.6	108.4	-1.1	107.2	853.5	.4	-.2	3
21	11:30:30	4861.5	52.7	110.6	-1.1	109.5	849.4	.5	-.2	4
22	11:30:40	4816.2	52.9	90.6	-1.1	89.5	847.0	.6	-.1	3
23	11:30:50	4811.2	53.0	109.2	-1.1	108.1	849.3	.5	-.1	3
24	11:31:00	4870.4	53.2	108.9	-1.2	107.8	869.4	.4	-.2	4
25	11:31:10	4792.5	53.4	109.8	-1.1	108.7	899.6	.5	-.2	3
26	11:31:20	4823.4	53.5	107.2	-1.1	106.0	925.5	.4	-.2	3
27	11:31:30	4793.0	53.7	90.7	-1.1	89.6	954.1	.4	-.2	4
28	11:31:40	4746.4	53.9	99.1	-1.1	98.0	957.1	.4	-.2	3
29	11:31:50	4840.4	54.1	106.4	-1.1	105.3	947.8	.5	-.2	3
30	11:32:00	4853.4	54.2	105.8	-1.1	104.7	939.2	.5	-.2	4
31	11:32:10	4816.3	54.4	103.2	-1.1	102.1	932.3	.4	-.2	3
32	11:32:20	4764.0	54.5	101.3	-1.1	100.2	929.7	.4	-.2	3
33	11:32:30	4792.4	54.6	100.1	-1.1	99.0	933.9	.4	-.2	4
34	11:32:40	4864.7	54.8	96.8	-1.1	95.7	951.8	.5	-.2	3
35	11:32:50	4845.1	55.0	113.0	-1.1	111.9	967.4	.4	-.2	3
36	11:33:00	4842.2	55.1	98.8	-1.1	97.7	969.6	.3	-.2	3
37	11:33:10	4841.4	55.2	102.0	-1.2	100.8	965.4	.3	-.2	3
38	11:33:20	4828.3	55.4	105.5	-1.1	104.3	956.0	.4	-.2	4
39	11:33:30	4842.1	55.5	100.6	-1.1	99.5	948.6	.4	-.2	3
40	11:33:40	4911.1	55.5	103.0	-1.2	101.9	941.8	.4	-.2	3
41	11:33:50	4905.8	55.6	120.4	-1.2	119.3	936.7	.3	-.2	4
42	11:34:00	5077.9	55.7	153.6	-1.2	152.4	947.0	.3	-.2	3
43	11:34:10	5154.3	55.8	170.2	-1.1	169.1	968.1	.3	-.2	3
44	11:34:20	5225.5	56.0	182.2	-1.2	181.0	966.1	.3	-.2	4
45	11:34:30	5195.1	56.0	184.3	-1.2	183.1	951.8	.3	-.2	3
46	11:34:40	5274.9	56.1	187.5	-1.2	186.3	940.0	.3	-.2	3
47	11:34:50	5302.1	56.2	188.0	-1.2	186.8	930.2	.3	-.2	3
48	11:35:00	5251.8	56.2	187.3	-1.2	186.2	933.7	.3	-.2	4
49	11:35:10	5268.6	56.3	180.9	-1.2	179.7	947.1	.4	-.2	3
50	11:35:20	5181.1	56.5	189.0	-1.1	187.9	959.5	.6	-.1	3

Page No. 3 82/12/14 EE-3 PUMP TEST

	TIME	LL-3 P-BORE PSI	LL-3 T-IN °C	LL-3 C-IN GPM	LL-3 S-IN GPM	LL-3 SUM GPM	LL-3 P-BACK PSI	LL-2 P-BORE PSI	LL-2 T-VENT °C	PTS
1	11:35:40	5162.8	56.6	180.8	-1.1	179.7	979.1	.5	-.1	4
2	11:35:50	5142.3	56.7	191.3	-1.1	190.1	966.9	.5	-.1	3
3	11:36:00	5231.6	56.7	179.9	-1.1	178.8	952.2	.5	-.1	4
4	11:36:10	5245.3	56.8	188.3	-1.1	187.2	935.5	.5	-.1	3
5	11:36:20	5208.8	56.9	189.5	-1.1	188.4	929.4	.5	-.1	3
6	11:36:30	5185.7	57.0	186.4	-1.1	185.3	940.6	.5	-.1	4
7	11:36:40	5225.8	57.1	182.2	-1.2	181.0	956.6	.5	-.1	3
8	11:36:50	5262.9	57.2	183.8	-1.1	182.7	966.2	.5	-.1	3
9	11:37:00	5175.2	57.3	184.8	-1.1	183.7	956.9	.5	-.1	4
10	11:37:10	5175.0	57.4	179.2	-1.1	178.0	944.5	.5	-.1	3
11	11:37:20	5140.8	57.4	192.1	-1.1	191.0	935.5	.4	-.1	3
12	11:37:30	5213.0	57.4	187.0	-1.1	185.8	927.8	.4	-.2	3
13	11:37:40	5130.8	57.5	179.6	-1.1	178.5	918.1	.4	-.2	3
14	11:37:50	5220.2	57.6	189.3	-1.1	188.2	905.5	.5	-.2	4
15	11:38:00	5189.5	57.7	191.4	-1.2	190.3	902.0	.4	-.2	3
16	11:38:10	5177.0	57.8	186.5	-1.1	185.4	914.3	.4	-.2	3
17	11:38:20	5179.6	57.9	185.2	-1.1	184.0	925.9	.4	-.2	4
18	11:38:30	5181.7	57.9	181.7	-1.1	180.5	935.3	.4	-.2	3
19	11:38:40	5167.1	58.0	187.0	-1.2	185.9	943.9	.5	-.1	3
20	11:38:50	5161.4	58.0	188.5	-1.1	187.3	955.9	.4	-.2	4
21	11:39:00	5166.1	58.0	188.7	-1.1	187.6	944.5	.4	-.2	3
22	11:39:10	5141.1	58.1	185.3	-1.1	184.2	930.7	.4	-.2	3
23	11:39:20	5184.8	58.2	175.3	-1.1	174.2	915.6	.4	-.2	3
24	11:39:30	5188.2	58.2	185.0	-1.1	183.9	910.8	.4	-.2	3
25	11:39:40	5143.8	58.4	181.1	-1.1	179.9	925.2	.5	-.1	4
26	11:39:50	5219.6	58.4	188.7	-1.1	187.5	937.5	.6	-.1	3
27	11:40:00	5187.6	58.5	185.8	-1.1	184.7	948.1	.6	-.1	3
28	11:40:10	5213.3	58.6	186.2	-1.1	185.2	957.1	.6	-.1	4
29	11:40:20	5200.7	58.6	186.4	-1.1	185.3	968.6	.6	-.1	3
30	11:40:30	5225.0	58.6	185.8	-1.1	184.7	978.3	.6	-.1	3
31	11:40:40	5193.3	58.6	182.0	-1.1	180.9	986.1	.5	-.1	4
32	11:40:50	5199.3	58.7	179.1	-1.1	178.0	977.2	.5	-.1	3
33	11:41:00	5200.6	58.8	177.8	-1.1	176.7	963.9	.7	-.1	3
34	11:41:10	5187.5	58.8	181.8	-1.1	180.7	946.6	.7	-.1	4
35	11:41:20	5166.3	58.9	183.6	-1.1	182.5	932.4	.6	-.1	3
36	11:41:30	5217.7	58.9	182.0	-1.1	180.9	921.5	.5	-.1	3
37	11:41:40	5190.9	58.9	181.6	-1.2	180.4	928.7	.4	-.2	3
38	11:41:50	5182.3	58.9	189.6	-1.2	188.5	934.3	.4	-.2	3
39	11:42:00	5215.6	59.0	194.4	-1.1	193.3	942.0	.6	-.1	4
40	11:42:10	5236.2	59.0	182.3	-1.1	181.2	947.2	.6	-.1	3
41	11:42:20	5167.1	59.0	183.5	-1.1	182.4	950.8	.5	-.1	3
42	11:42:30	5219.9	59.0	188.2	-1.2	187.0	958.1	.5	-.1	4
43	11:42:40	5215.1	59.1	189.6	-1.1	188.5	963.7	.5	-.1	3
44	11:42:50	5223.2	59.1	189.2	-1.1	188.1	967.3	.5	-.1	3
45	11:43:00	5221.6	59.2	210.8	-1.1	209.7	956.9	.6	-.1	4
46	11:43:10	5197.0	59.3	194.8	-1.1	193.7	942.5	.7	-.1	3
47	11:43:20	5206.7	59.3	191.0	-1.1	189.9	927.7	.7	-.0	3
48	11:43:30	5209.9	59.3	188.1	-1.1	187.1	917.6	.8	.0	3
49	11:43:40	5216.4	59.4	189.5	-1.1	188.4	912.1	.8	0.0	4
50	11:43:50	5188.0	59.4	189.3	-1.1	188.2	912.6	.8	-.0	3

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	TIME	********** FT-3 **********						**** EE-2 ****		PTS
		P-BORE PSI	T-IN °C	C-IN CPM	C-IN CPM	SUM CPM	P-BACK PSI	P-BORE PSI	T-VENT °C	
1	11:44:10	5215.8	59.4	163.5	-1.1	162.5	916.1	.8	.0	4
2	11:44:20	5251.1	59.4	196.1	-1.1	185.0	918.6	.8	.0	3
3	11:44:30	5222.2	59.4	207.2	-1.1	206.1	922.0	.7	0.0	4
4	11:44:40	5230.2	59.4	178.1	-1.1	177.0	925.5	.7	-.0	3
5	11:44:50	5268.1	59.5	184.5	-1.1	183.3	927.7	.7	0.0	3
6	11:45:00	5231.6	59.5	186.6	-1.1	185.5	930.9	.6	-.0	3
7	11:45:10	5247.3	59.5	184.8	-1.1	183.7	934.3	.6	-.0	4
8	11:45:20	5209.1	59.5	188.0	-1.1	186.9	937.9	.6	0.0	3
9	11:45:30	5251.9	59.6	198.2	-1.1	197.1	940.6	.7	.0	3
10	11:45:40	5280.5	59.6	188.9	-1.1	187.8	944.0	.6	-.0	4
11	11:45:50	5251.3	59.5	201.7	-1.1	200.6	946.1	.5	-.0	3
12	11:46:00	5233.6	59.6	192.6	-1.1	191.5	948.9	.5	-.1	3
13	11:46:10	5237.1	59.6	188.5	-1.2	187.4	952.7	.4	-.1	3
14	11:46:20	5236.4	59.6	183.1	-1.2	181.9	953.9	.4	-.1	4
15	11:46:30	5227.3	59.6	190.1	-1.1	188.9	958.9	.4	-.1	3
16	11:46:40	5233.5	59.6	197.4	-1.1	196.2	957.6	.4	-.1	3
17	11:46:50	5264.1	59.7	186.9	-1.1	185.8	961.6	.5	-.1	4
18	11:47:00	5305.6	59.7	168.6	-1.1	167.5	965.3	.4	-.1	3
19	11:47:10	5297.5	59.7	189.2	-1.2	188.0	967.1	.4	-.1	3
20	11:47:20	5224.8	59.7	176.0	-1.2	174.9	957.8	.4	-.1	3
21	11:47:30	5350.4	59.7	197.1	-1.1	195.9	946.5	.4	-.1	4
22	11:47:40	5617.2	59.7	250.5	-1.2	249.3	936.5	.4	-.1	3
23	11:47:50	5692.0	59.6	245.7	-1.2	244.6	921.3	.4	-.1	3
24	11:48:00	5697.7	59.6	268.5	-1.2	267.3	910.1	.3	-.1	3
25	11:48:10	5712.7	59.6	261.4	-1.2	260.2	895.3	.4	-.1	4
26	11:48:20	5731.5	59.7	272.7	-1.2	271.6	904.6	.4	-.1	3
27	11:48:30	5728.9	59.7	279.8	-1.2	278.6	904.0	.4	-.1	3
28	11:48:40	5748.2	59.7	273.3	-1.2	272.1	913.0	.4	-.1	3
29	11:48:50	5752.0	59.7	282.8	-1.2	281.6	918.4	.4	-.1	4
30	11:49:00	5739.7	59.8	279.9	-1.2	278.7	924.5	.5	-.1	3
31	11:49:10	5719.9	59.8	283.5	-1.2	282.3	928.7	.4	-.1	3
32	11:49:20	5755.9	59.9	281.7	-1.2	280.6	931.0	.4	-.1	4
33	11:49:30	5807.4	60.0	280.5	-1.2	279.3	939.9	.4	-.1	3
34	11:49:40	5701.4	60.1	287.6	-1.2	286.4	941.6	.5	-.1	3
35	11:49:50	5719.4	60.1	280.8	-1.2	279.7	943.7	.5	-.1	3
36	11:50:00	5773.7	60.2	279.4	-1.1	278.3	944.6	.5	-.0	3
37	11:50:10	5687.9	60.2	279.9	-1.1	278.8	950.8	.6	-.0	4
38	11:50:20	5849.4	60.3	282.5	-1.1	281.4	953.2	.6	-.0	3
39	11:50:30	5850.8	60.3	280.5	-1.1	279.3	958.6	.6	-.0	3
40	11:50:40	5642.7	60.3	277.8	-1.1	276.6	966.0	.5	-.1	4
41	11:50:50	5718.3	60.3	291.4	-1.1	290.2	960.9	.5	-.0	3
42	11:51:00	5837.4	60.3	269.2	-1.1	268.0	973.6	.6	-.0	3
43	11:51:10	5725.7	60.2	284.1	-1.1	282.9	970.3	.5	-.1	3
44	11:51:20	5652.7	60.2	289.6	-1.1	288.5	972.3	.6	-.0	4
45	11:51:30	5705.7	60.3	294.9	-1.1	293.8	980.5	.7	-.0	3
46	11:51:40	5691.1	60.3	286.0	-1.1	284.9	981.9	.7	-.0	3
47	11:51:50	5792.3	60.3	283.9	-1.1	282.7	983.2	.7	-.0	4
48	11:52:00	5694.9	60.4	286.2	-1.1	285.1	988.2	.7	-.0	3
49	11:52:10	5675.3	60.4	292.1	-1.1	291.0	989.4	.7	0.0	3
50	11:52:20	5610.0	60.4	286.2	-1.1	285.1	994.3	.7	0.0	3

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	TIME	EE-3 P-BORE PSI	EE-3 T-IN °C	EE-3 Q-IN GPM	EE-3 Q-IN GPM	EE-3 SUM GPM	EE-3 P-BACK PSI	EE-2 P-BORE PSI	EE-2 T-VENT °C	PTS
1	11:52:40	5739.6	60.4	285.2	-1.1	284.1	1001.2	.7	.0	4
2	11:52:50	5653.8	60.4	284.1	-1.1	282.9	1006.7	.7	.0	4
3	11:53:00	5670.3	60.4	294.6	-1.1	293.4	1013.8	.7	.0	3
4	11:53:10	5617.8	60.5	286.9	-1.1	285.8	1015.6	.7	.1	3
5	11:53:20	5643.1	60.4	289.1	-1.1	287.9	1023.6	.8	.1	4
6	11:53:30	5668.2	60.5	278.4	-1.1	277.3	1011.2	.9	.1	3
7	11:53:40	5607.6	60.4	288.1	-1.1	286.9	993.2	.7	.1	3
8	11:53:50	5615.0	60.4	285.3	-1.1	284.2	979.0	.8	.1	3
9	11:54:00	5670.7	60.4	289.6	-1.1	288.5	967.7	.7	.0	3
10	11:54:10	5659.6	60.4	287.0	-1.1	285.9	950.4	.7	.1	4
11	11:54:20	5640.7	60.4	286.3	-1.1	285.2	936.3	.7	.1	3
12	11:54:30	5553.2	60.4	288.0	-1.1	286.8	924.4	.6	.0	3
13	11:54:40	5640.1	60.4	294.7	-1.1	293.6	909.4	.7	.0	4
14	11:54:50	5648.4	60.4	294.3	-1.1	293.2	910.5	.7	.1	3
15	11:55:00	5558.6	60.4	279.4	-1.2	278.3	913.3	.6	.1	3
16	11:55:10	5518.4	60.4	285.9	-1.2	284.8	918.0	.6	.1	3
17	11:55:20	5571.4	60.4	290.7	-1.1	289.6	920.1	.6	.0	4
18	11:55:30	5628.0	60.3	290.7	-1.2	289.5	924.6	.6	0.0	3
19	11:55:40	5652.4	60.3	286.1	-1.2	284.9	928.7	.6	.0	3
20	11:55:50	5563.8	60.3	286.6	-1.1	285.5	937.7	.6	.0	3
21	11:56:00	5658.0	60.3	285.5	-1.2	284.4	940.7	.6	.0	4
22	11:56:10	5594.0	60.3	289.8	-1.1	288.7	950.2	.6	.0	3
23	11:56:20	5538.8	60.3	286.4	-1.1	285.2	945.0	.6	.1	3
24	11:56:30	5529.4	60.3	288.5	-1.1	287.4	953.3	.6	.1	3
25	11:56:40	5520.8	60.2	287.3	-1.1	286.2	954.9	.6	.0	4
26	11:56:50	5623.5	60.2	288.5	-1.1	287.3	944.3	.6	.0	3
27	11:57:00	5647.8	60.3	290.1	-1.1	289.0	930.5	.6	.0	3
28	11:57:10	5586.1	60.3	288.4	-1.1	287.3	923.3	.6	.1	4
29	11:57:20	5686.8	60.3	290.9	-1.1	289.8	915.6	.7	.0	3
30	11:57:30	5713.2	60.3	295.2	-1.1	294.0	903.0	.7	.0	3
31	11:57:40	5542.6	60.2	281.7	-1.1	280.6	894.0	.6	.0	3
32	11:57:50	5646.1	60.1	282.3	-1.1	281.1	890.4	.6	.0	3
33	11:58:00	5552.0	59.9	284.6	-1.1	283.5	885.7	.6	.0	4
34	11:58:10	5610.3	59.8	281.2	-1.1	280.1	890.2	.6	.1	3
35	11:58:20	5596.7	59.8	274.2	-1.1	273.1	898.1	.6	.1	3
36	11:58:30	5473.0	59.7	261.2	-1.1	260.1	906.5	.7	.1	4
37	11:58:40	5506.4	59.7	256.9	-1.1	255.8	911.1	.6	.1	3
38	11:58:50	5756.1	59.7	326.5	-1.1	325.3	926.0	.7	.0	3
39	11:59:00	5930.8	59.7	367.1	530.9	898.0	926.5	.6	.0	4
40	11:59:10	6038.5	59.6	361.5	534.2	895.7	937.0	.6	.0	3
41	11:59:20	5878.4	59.6	357.4	521.3	878.7	940.2	.7	.0	3
42	11:59:30	5783.8	59.6	356.9	498.8	855.7	942.8	.7	.1	4
43	11:59:40	5812.6	59.6	362.9	500.5	863.4	929.8	.7	.1	3
44	11:59:50	5865.5	59.6	348.8	167.5	516.3	921.5	.7	.1	3
45	12:00:00	5899.1	59.7	351.2	492.3	843.5	917.3	.8	.1	3
46	12:00:10	5834.6	59.7	349.4	483.1	832.5	905.7	.8	.1	3
47	12:00:20	5599.2	59.7	316.1	360.4	676.5	891.9	.8	.1	4
48	12:00:30	5701.7	59.7	326.5	480.8	807.3	884.0	.8	.1	3
49	12:00:40	5832.6	59.8	331.5	6.4	337.9	875.8	.8	.1	3
50	12:00:50	5750.7	59.8	335.8	-1.0	334.8	871.6	.8	.2	3

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	TIME	********** EE-3 **********						**** EE-2 ****		PTS
		P-BORE PSI	T-IN °C	Q-IN CPM	Q-IN GPM	SUM GPM	P-BACK PSI	P-BORE PSI	T-VENT °C	
1	12:01:00	5695.8	59.8	307.0	-1.0	306.0	858.7	.8	.1	1
2	12:01:10	5689.4	59.8	318.8	-1.0	317.8	852.4	.8	.1	3
3	12:01:20	5698.7	59.8	311.4	-1.0	310.4	848.2	.8	.1	3
4	12:01:30	5769.6	59.8	310.6	-1.0	309.6	844.8	.8	.1	3
5	12:01:40	5789.0	59.8	310.2	-1.0	309.2	848.0	.8	.1	4
6	12:01:50	5715.6	59.8	311.2	-1.0	310.2	859.5	.9	.2	3
7	12:02:00	5780.1	59.9	315.8	-1.0	314.8	862.0	1.0	.2	3
8	12:02:10	5711.3	59.9	811.8	-1.0	310.8	869.5	1.0	.2	3
9	12:02:20	5734.9	59.8	317.5	-1.0	316.5	879.4	.9	.2	4
10	12:02:30	5654.3	59.8	326.1	-1.0	325.1	888.4	.9	.2	3
11	12:02:40	5756.1	59.7	317.0	-1.0	316.0	897.5	.9	.2	3
12	12:02:50	5642.5	59.8	312.8	-1.0	311.8	898.5	1.0	.2	3
13	12:03:00	5788.5	59.7	322.0	-1.0	321.0	907.5	.9	.2	4
14	12:03:10	5703.9	59.7	315.0	-1.0	314.0	914.5	1.0	.2	3
15	12:03:20	5775.3	59.7	320.2	-1.0	319.2	918.9	1.0	.2	3
16	12:03:30	5800.8	59.7	314.0	-1.0	313.0	924.7	.9	.2	3
17	12:03:40	5720.7	59.7	317.9	-1.0	316.9	934.3	.9	.2	3
18	12:03:50	5754.4	59.7	311.4	-1.0	310.4	940.1	.9	.2	4
19	12:04:00	5788.4	59.7	320.0	-1.0	319.0	925.9	.9	.2	3
20	12:04:10	5753.5	59.7	313.7	-1.0	312.8	918.3	.8	.2	3
21	12:04:20	5767.3	59.7	317.7	-1.0	316.7	913.6	.8	.2	3
22	12:04:30	5767.3	59.7	321.5	-1.0	320.5	901.4	.9	.2	4
23	12:04:40	5772.0	59.7	316.2	-1.0	315.2	895.2	.9	.2	3
24	12:04:50	5832.8	59.7	320.0	-1.0	319.1	887.2	.9	.2	3
25	12:05:00	5747.4	59.7	317.7	-1.0	316.7	884.0	.8	.1	3
26	12:05:10	5733.3	59.7	324.5	-1.0	323.5	877.7	.8	.1	4
27	12:05:20	5745.9	59.7	316.4	-1.0	315.4	867.1	.8	.2	3
28	12:05:30	5766.9	59.7	318.6	-1.0	317.6	866.7	.9	.2	3
29	12:05:40	5801.4	59.8	320.6	-1.0	319.6	867.0	.9	.2	4
30	12:05:50	5798.7	59.8	318.4	-1.0	317.4	883.4	.9	.2	3
31	12:06:00	5764.4	59.8	315.8	-1.0	314.8	900.2	.9	.2	3
32	12:06:10	5714.9	59.8	312.3	-1.0	311.3	910.1	1.0	.2	3
33	12:06:20	5739.4	59.9	321.8	-1.0	320.8	927.8	1.0	.2	3
34	12:06:30	5687.0	59.8	322.0	-1.0	321.0	939.0	1.0	.2	4
35	12:06:40	5753.0	59.8	316.4	-1.0	315.5	937.7	1.0	.2	3
36	12:06:50	5749.5	59.9	320.7	-1.0	319.7	928.0	1.0	.2	3
37	12:07:00	5810.4	60.0	324.0	-1.0	323.0	923.5	1.0	.2	3
38	12:07:10	5793.9	60.2	313.4	-1.0	312.4	916.0	.9	.1	4
39	12:07:20	5790.4	60.3	318.5	-1.0	317.6	912.0	.9	.2	3
40	12:07:30	5717.9	60.4	319.9	-.7	319.2	906.6	.8	.1	3
41	12:07:40	5652.5	60.4	317.1	-.0	317.1	900.1	.9	.2	3
42	12:07:50	5738.1	60.5	314.3	-.1	314.2	895.5	.8	.1	4
43	12:08:00	5739.4	60.5	321.9	-.1	321.8	890.6	.8	.1	3
44	12:08:10	5740.7	60.5	316.3	-.0	316.2	886.7	.8	.1	3
45	12:08:20	5747.0	60.5	317.3	-1.0	316.3	880.4	.8	.1	4
46	12:08:30	5766.3	60.5	319.8	-1.0	318.8	877.1	.7	.1	3
47	12:08:40	5734.3	60.5	311.5	-1.0	310.5	884.0	.7	.1	3
48	12:08:50	5872.3	60.5	316.3	-1.0	315.3	897.4	.8	.2	3
49	12:09:00	5783.7	60.5	322.8	-1.0	321.8	906.8	.8	.1	4
50	12:09:10	5798.0	60.5	314.5	-1.0	313.5	919.4	.8	.2	3

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	TIME	********** EE-3 **********						**** EE-2 ****		PTS
		P-BORE PSI	T-IN °C	C-IN GPM	C-EN GPM	SUM GPM	P-BACK PSI	P-BORE PSI	T-VENT °C	
1	12:09:30	5795.0	60.6	325.9	-1.0	324.9	939.4	.9	.2	4
2	12:09:40	5985.4	60.6	359.5	-1.0	358.6	944.6	1.0	.2	3
3	12:09:50	6154.5	60.6	384.1	-1.0	383.1	943.2	.9	.2	4
4	12:10:00	6291.1	60.5	394.9	-1.0	393.9	944.5	.9	.2	3
5	12:10:10	6359.3	60.5	406.3	-1.0	405.3	929.7	.8	.1	3
6	12:10:20	6355.0	60.5	401.7	-1.0	400.6	926.2	.8	.1	3
7	12:10:30	6301.8	60.5	404.2	-1.0	403.2	917.4	.8	.1	3
8	12:10:40	6440.3	60.5	403.5	-1.0	402.4	909.8	.7	.1	4
9	12:10:50	6354.2	60.5	403.8	-1.0	402.8	906.5	.7	.1	3
10	12:11:00	6405.7	60.5	408.8	-1.0	407.8	904.7	.7	.0	3
11	12:11:10	6365.2	60.5	417.5	-1.0	416.5	892.0	.7	.1	3
12	12:11:20	6500.8	60.5	418.5	-1.1	417.4	891.0	.7	.1	4
13	12:11:30	6541.2	60.5	420.8	-1.0	419.7	887.1	.7	.1	3
14	12:11:40	6551.5	60.5	420.6	-1.0	419.6	888.1	.7	.1	3
15	12:11:50	6439.2	60.5	425.7	-1.0	424.7	873.6	.8	.1	3
16	12:12:00	6397.5	60.5	422.6	-1.0	421.5	873.5	.8	.1	4
17	12:12:10	6517.1	59.9	418.4	-1.0	417.4	868.5	.8	.2	3
18	12:12:20	6490.7	58.7	422.1	-1.0	421.1	856.2	.8	.2	3
19	12:12:30	6458.2	58.3	420.5	-1.0	419.5	858.7	.8	.2	3
20	12:12:40	6484.3	58.2	417.4	-1.0	416.5	854.1	.8	.2	3
21	12:12:50	6451.1	58.2	425.9	-1.0	424.8	853.0	.7	.1	4
22	12:13:00	6497.3	58.2	421.4	-1.0	420.4	851.3	.7	.1	3
23	12:13:10	6379.2	58.2	415.6	-1.1	414.6	854.6	.7	.1	3
24	12:13:20	6439.5	58.1	418.1	-1.1	417.0	848.8	.6	.1	4
25	12:13:30	6390.7	58.1	437.8	-.6	437.2	849.3	.0	.1	3
26	12:13:40	6496.0	58.1	428.2	-1.1	427.1	852.9	.2	.0	3
27	12:13:50	6539.8	58.2	429.4	-1.1	428.3	846.3	.2	.1	3
28	12:14:00	6515.2	58.3	432.4	-1.1	431.3	841.9	.2	.1	4
29	12:14:10	6518.9	58.4	423.3	-1.1	427.2	846.7	.3	.1	3
30	12:14:20	6671.8	58.5	432.4	-1.0	431.4	845.4	.3	.1	3
31	12:14:30	6485.4	58.6	430.4	82.0	512.3	844.1	.4	.1	3
32	12:14:40	6474.5	58.8	428.2	55.5	483.6	841.7	.4	.1	4
33	12:14:50	6420.3	58.9	431.6	-1.0	430.7	842.2	.4	.1	3
34	12:15:00	6599.1	59.0	430.1	-1.0	429.1	841.7	.5	.1	3
35	12:15:10	6522.0	59.1	431.1	-1.1	430.1	846.0	.4	.1	4
36	12:15:20	6453.6	59.1	432.1	-1.0	431.0	844.2	.4	.1	3
37	12:15:30	6434.7	59.1	427.7	-1.0	426.6	839.3	.5	.1	3
38	12:15:40	6487.3	59.2	420.2	-1.0	419.1	845.4	.4	.1	3
39	12:15:50	6509.2	59.3	428.5	-1.1	427.4	846.8	.4	.1	4
40	12:16:00	6428.1	59.3	427.6	-1.0	426.6	862.3	.4	.1	3
41	12:16:10	6545.3	59.4	425.0	-1.0	424.0	879.2	.5	.1	3
42	12:16:20	6593.3	59.5	423.9	-1.1	422.8	896.5	.5	.1	3
43	12:16:30	6440.7	59.5	431.6	-1.0	430.6	903.5	.5	.1	3
44	12:16:40	6539.7	59.5	427.4	-1.0	426.4	918.9	.4	.1	4
45	12:16:50	6514.1	59.5	431.4	-1.0	430.3	945.7	.4	.1	3
46	12:17:00	6501.4	59.6	434.5	-1.0	433.4	951.0	.4	.1	3
47	12:17:10	6498.0	59.6	423.0	-1.1	421.9	947.1	.4	.1	4
48	12:17:20	6607.7	59.7	434.3	-1.0	433.2	926.2	.5	.1	3
49	12:17:30	6420.3	59.7	434.5	-1.0	433.5	903.4	.5	.1	3
50	12:17:40	6524.5	59.8	428.7	-1.0	427.7	853.7	.6	.1	4

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	TIME	********** EE-3 **********						**** EE-2 ****		PTS
		P-BORE PSI	T-IN °C	Q-IN GPM	Q-IN GPM	SUM GPM	P-BACK PSI	P-BORE PSI	T-VENT °C	
1	12:18:00	6596.7	59.8	433.6	-1.0	432.5	867.4	.8	.2	3
2	12:18:10	6485.6	59.9	428.3	-1.0	427.3	854.3	.6	.1	4
3	12:18:20	6542.2	59.9	434.7	-1.0	433.7	857.0	.6	.2	3
4	12:18:30	6552.9	59.9	428.7	-1.0	427.7	877.4	.6	.4	3
5	12:18:40	6514.0	60.0	425.2	-1.0	424.1	893.6	.6	.3	3
6	12:18:50	6577.9	60.0	425.2	-1.0	424.2	914.8	.6	.1	4
7	12:19:00	6557.2	60.0	422.5	-1.0	421.5	938.6	1.6	-.1	3
8	12:19:10	6486.3	60.0	418.3	-1.0	417.3	951.1	.9	-.3	3
9	12:19:20	6509.5	60.1	420.5	-1.0	419.5	971.4	1.0	-.2	4
10	12:19:30	6505.6	60.1	422.6	-1.0	421.6	981.7	1.0	-.3	3
11	12:19:40	6616.3	60.2	427.2	-1.0	426.2	974.5	1.0	-.2	3
12	12:19:50	6561.8	60.2	441.6	-1.0	440.6	966.4	1.1	-.2	3
13	12:20:00	6742.9	60.2	439.1	-1.0	438.1	965.4	1.1	-.2	4
14	12:20:10	6854.3	60.2	441.9	-1.0	440.9	962.1	1.1	-.1	3
15	12:20:20	6750.4	60.2	446.5	-1.0	445.4	956.5	1.1	.4	3
16	12:20:30	6806.3	60.2	436.7	-1.1	435.7	951.1	1.0	1.3	3
17	12:20:40	6791.3	60.2	438.3	-1.0	437.3	946.1	1.1	1.2	3
18	12:20:50	6667.0	60.2	438.3	-1.0	437.3	938.8	1.1	1.2	4
19	12:21:00	6795.2	60.2	450.2	-1.1	449.1	935.0	1.1	1.3	3
20	12:21:10	6817.8	60.2	451.0	-1.0	450.0	928.5	1.1	2.0	3
21	12:21:20	6769.5	60.2	453.3	-1.0	452.3	932.8	1.1	2.2	3
22	12:21:30	6885.6	60.2	447.8	-1.1	446.7	924.0	1.0	2.4	4
23	12:21:40	6841.8	60.2	446.1	-1.0	445.0	918.5	1.1	2.5	3
24	12:21:50	6782.5	60.2	451.5	-1.0	450.5	918.9	1.1	2.5	3
25	12:22:00	6894.0	60.3	451.8	-1.0	450.8	916.1	1.3	2.6	3
26	12:22:10	6691.7	60.3	437.8	-1.1	436.8	908.9	1.3	2.9	4
27	12:22:20	6563.0	60.3	408.3	-1.0	407.3	900.8	1.3	2.9	3
28	12:22:30	6453.3	60.3	404.3	-1.0	403.3	900.1	1.2	2.9	3
29	12:22:40	6492.2	60.3	412.4	-1.0	411.4	915.0	1.2	2.9	3
30	12:22:50	6480.0	60.4	405.4	-1.0	404.4	933.0	1.3	2.9	4
31	12:23:00	6576.6	60.4	412.6	-1.0	411.6	953.4	1.5	2.9	3
32	12:23:10	6705.2	60.4	428.9	-1.0	427.9	953.2	1.5	2.9	3
33	12:23:20	6682.7	60.4	435.0	-1.0	434.0	954.7	1.5	2.9	3
34	12:23:30	6658.6	60.4	438.5	-1.0	437.5	953.5	1.6	3.6	4
35	12:23:40	6657.4	60.5	426.8	-1.0	425.9	952.5	1.6	5.4	3
36	12:23:50	6703.0	60.5	429.1	-1.0	428.1	950.6	1.6	7.0	3
37	12:24:00	6725.5	60.5	428.0	-1.0	427.1	944.6	1.6	7.7	3
38	12:24:10	6679.3	60.6	431.1	-1.0	430.1	946.7	1.6	7.9	4
39	12:24:20	6700.2	60.6	429.6	-1.0	428.7	945.8	1.6	7.7	3
40	12:24:30	6737.9	60.5	430.3	-1.0	429.3	947.9	1.7	7.5	3
41	12:24:40	6729.4	60.4	439.6	-1.0	438.6	939.3	1.7	7.3	3
42	12:24:50	6722.3	60.3	441.8	-1.0	440.9	942.7	1.7	7.3	4
43	12:25:00	6712.1	60.0	435.9	-1.0	434.9	941.6	1.8	7.4	3
44	12:25:10	6730.8	59.9	442.3	272.6	715.9	934.5	1.8	8.8	3
45	12:25:20	6722.2	59.8	442.7	418.0	860.7	934.5	1.8	10.1	4
46	12:25:30	6545.2	59.7	410.9	384.4	795.3	933.1	1.8	10.4	3
47	12:25:40	6476.9	59.7	408.2	381.3	789.5	924.7	2.0	10.7	3
48	12:25:50	6471.2	59.6	413.3	382.7	796.0	929.6	1.9	10.7	3
49	12:26:00	6519.0	59.6	406.4	379.7	786.1	929.0	1.9	10.1	4
50	12:26:10	6445.1	59.6	404.3	377.7	782.1	924.8	2.0	9.7	3

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	TIME	********** EL-3 **********						**** EL-2 ****		PTS
		P-BOPL PSI	T-IN °C	Q-IN GPM	Q-IN GPM	SUM GPM	P-BACK PSI	P-BORE PSI	T-VENT °C	
1	12:26:30	6555.4	59.6	413.8	384.0	797.8	923.9	2.1	8.9	4
2	12:26:40	6469.7	59.6	405.1	377.5	782.6	925.7	2.2	8.7	3
3	12:26:50	6503.1	59.5	417.3	386.1	803.4	924.1	2.1	8.5	3
4	12:27:00	6584.6	59.5	422.0	391.8	813.8	922.4	2.1	8.5	3
5	12:27:10	6524.9	59.5	431.5	401.2	832.8	919.9	2.2	8.7	4
6	12:27:20	6558.4	59.5	433.5	399.9	833.4	916.8	2.3	8.7	3
7	12:27:30	6534.6	59.4	433.0	398.2	831.2	918.6	2.3	8.9	3
8	12:27:40	6636.4	59.4	441.9	414.2	856.0	922.7	2.4	8.9	3
9	12:28:00	6632.3	59.4	448.6	417.0	865.6	919.9	2.8	9.5	7
10	12:29:00	6610.7	59.5	445.7	412.0	857.7	938.6	4.6	10.2	24
11	12:30:00	6575.8	59.5	449.0	413.8	862.9	958.4	14.9	11.5	23
12	12:31:00	6586.9	59.2	442.2	417.0	859.2	947.6	41.2	13.1	24
13	12:32:00	6614.4	59.3	444.8	414.8	859.6	940.5	7.3	13.1	24
14	12:33:00	6555.5	60.1	447.0	417.3	864.3	933.0	1.4	11.3	23
15	12:34:00	6607.1	60.6	444.9	415.1	860.0	931.9	.6	9.6	24
16	12:35:00	6594.3	60.6	442.5	411.8	854.2	928.4	.5	6.5	24
17	12:36:00	6582.5	60.5	444.0	413.4	857.4	925.9	.3	4.6	23
18	12:37:00	6615.6	60.6	440.8	412.4	853.2	926.5	.4	3.6	24
19	12:38:00	6611.5	60.7	441.3	412.7	853.9	930.6	.4	3.2	24
20	12:39:00	6606.8	60.7	439.9	409.1	849.0	933.0	.5	2.9	23
21	12:40:00	6636.1	60.7	441.4	411.7	853.1	937.8	.5	2.7	24
22	12:41:00	6634.4	60.6	442.5	411.8	854.3	938.6	.5	2.6	24
23	12:42:00	6613.1	60.7	439.9	408.1	848.0	945.4	.6	2.5	24
24	12:43:00	6610.5	60.6	438.7	408.0	846.7	949.8	.5	2.4	23
25	12:44:00	6609.4	60.6	438.0	407.5	845.6	952.6	.5	2.3	24
26	12:45:00	6619.5	59.6	443.8	409.7	853.5	957.6	.5	2.3	23
27	12:46:00	6621.8	50.7	445.4	413.7	859.0	962.3	.6	2.3	24
28	12:47:00	6579.4	49.3	444.4	412.4	856.8	954.6	.6	2.2	24
29	12:48:00	6624.1	50.0	444.5	412.0	856.5	950.0	.7	2.2	23
30	12:49:00	6630.8	50.7	444.7	414.9	859.6	939.3	.8	2.2	24
31	12:50:00	6602.8	51.1	440.4	411.6	852.0	932.8	.8	2.2	24
32	12:51:00	6560.1	51.6	436.5	406.5	843.0	925.1	.7	2.1	23
33	12:52:00	6465.9	51.9	420.4	391.4	811.9	921.3	.7	2.1	24
34	12:53:00	6448.9	52.1	422.4	393.1	815.5	917.0	.7	2.0	24
35	12:54:00	6341.3	52.3	401.1	371.7	772.8	910.2	.8	2.0	23
36	12:55:00	6461.1	52.5	421.6	387.5	809.1	911.6	.9	2.0	24
37	12:56:00	6475.7	52.8	424.3	387.9	812.2	906.8	.7	1.9	24
38	12:57:00	6245.3	53.1	379.7	296.6	676.3	901.3	.7	1.9	23
39	12:58:00	6376.9	53.3	409.7	324.0	733.8	905.7	.7	1.8	24
40	12:59:00	6466.0	53.7	426.0	390.0	816.0	908.3	.8	1.9	23
41	13:00:00	6463.1	54.6	426.1	390.3	816.3	912.3	.9	1.9	24
42	13:01:00	6484.0	55.6	427.3	391.5	818.8	916.9	1.0	1.9	24
43	13:02:00	6483.7	57.0	428.7	389.8	818.5	921.8	1.0	1.9	24
44	13:03:00	6484.8	58.1	424.2	389.1	813.2	932.0	1.0	1.8	23
45	13:04:00	6451.2	58.9	426.5	389.5	816.0	940.8	.9	1.8	24
46	13:05:00	6485.9	59.6	426.6	391.1	817.7	952.4	.9	1.7	24
47	13:06:00	6475.9	60.2	423.9	389.1	813.1	964.7	1.1	1.8	23
48	13:07:00	6519.6	60.5	424.5	389.0	813.5	976.3	1.1	1.7	24
49	13:08:00	6518.5	60.8	423.5	388.1	811.6	990.1	1.2	1.8	23
50	13:09:00	6462.4	60.9	424.1	388.3	812.4	1003.8	1.1	1.7	24

1-1/2 TO 2 MOORE BUSINESS FORMS, INC.

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	TIME	EE-3 P-BORE PSI	EE-3 T-IN °C	EE-3 Q-IN GPM	EE-3 Q-IN GPM	EE-3 SUM GPM	EE-3 P-BACK PSI	EE-2 P-BORE PSI	EE-2 T-VENT °C	PTS
1	13:10:00	6467.1	61.0	424.1	387.4	811.5	1015.8	1.1	1.7	20
2	13:11:00	6501.0	61.1	425.2	387.7	812.9	1027.6	1.2	1.7	24
3	13:12:00	6474.5	61.2	420.5	383.9	804.4	1029.7	1.1	1.6	24
4	13:13:00	6463.2	61.2	418.9	383.5	802.5	997.7	1.2	1.6	24
5	13:14:00	6495.8	61.2	419.0	383.7	802.8	964.9	1.1	1.6	23
6	13:15:00	6589.5	61.3	431.8	388.4	820.2	936.6	1.3	1.6	24
7	13:16:00	6599.1	60.3	443.8	406.6	850.5	913.9	1.2	1.5	24
8	13:17:00	6610.7	52.2	448.9	416.7	865.6	932.1	1.2	1.5	23
9	13:18:00	6598.7	51.8	438.5	420.7	859.2	947.7	1.1	1.5	24
10	13:19:00	6605.9	54.0	432.8	419.1	851.8	964.9	1.3	1.5	24
11	13:20:00	6598.1	54.9	432.2	418.4	850.5	974.3	1.3	1.5	23
12	13:21:00	6584.4	55.7	449.2	418.8	868.0	985.3	1.4	1.5	24
13	13:22:00	6593.9	56.2	444.1	416.9	861.0	997.0	1.4	1.5	24
14	13:23:00	6603.5	56.6	442.2	419.1	861.2	1006.5	1.3	1.5	23
15	13:24:00	6582.9	56.7	440.2	418.7	858.9	1012.9	1.2	1.4	24
16	13:25:00	6640.4	57.0	439.6	419.6	859.2	1022.4	1.1	1.4	24
17	13:26:00	6589.9	57.2	435.6	417.6	853.2	1026.8	1.2	1.4	23
18	13:27:00	6592.3	57.4	432.9	416.7	849.7	1028.7	1.3	1.4	24
19	13:28:00	6597.9	57.7	426.0	420.1	846.0	988.3	1.5	1.5	24
20	13:29:00	6613.0	57.8	430.2	416.5	846.7	957.5	1.4	1.4	23
21	13:30:00	6622.1	57.9	428.0	418.2	846.2	926.5	1.4	1.4	24
22	13:31:00	6580.6	58.0	427.6	415.7	843.3	937.8	1.4	1.4	24
23	13:32:00	6571.2	58.4	427.4	411.2	838.6	963.0	1.4	1.4	23
24	13:33:00	6644.3	59.1	433.1	413.9	847.0	985.7	1.4	1.4	24
25	13:34:00	6649.7	59.3	435.5	414.5	850.1	1008.2	1.5	1.4	24
26	13:35:00	6675.3	58.3	435.4	419.1	854.5	1027.1	1.5	1.4	23
27	13:36:00	6641.1	56.9	436.6	420.7	857.3	1030.8	1.5	1.4	24
28	13:37:00	6678.0	57.1	439.9	422.2	862.1	996.7	1.6	1.4	24
29	13:38:00	6652.4	57.4	442.4	422.2	864.7	967.3	1.5	1.4	23
30	13:39:00	6635.5	57.7	442.0	422.4	864.5	936.9	1.6	1.4	24
31	13:40:00	6635.2	57.7	439.7	421.7	861.4	926.3	1.5	1.3	24
32	13:41:00	6596.0	57.7	439.2	422.6	861.8	952.1	1.6	1.3	23
33	13:42:00	6593.9	57.6	441.4	423.1	864.6	976.2	1.6	1.3	24
34	13:43:00	6601.3	57.6	440.5	424.2	864.7	996.9	1.6	1.3	24
35	13:44:00	6667.4	57.3	441.3	426.7	868.0	984.9	1.6	1.3	23
36	13:45:00	6624.1	57.1	441.8	420.9	862.7	950.6	1.6	1.3	24
37	13:46:00	6642.8	57.2	439.1	419.7	858.8	943.1	1.7	1.4	24
38	13:47:00	6621.5	57.4	437.4	419.9	857.3	970.3	1.7	1.4	23
39	13:48:00	6659.3	57.5	442.3	423.6	865.8	981.6	1.7	1.4	24
40	13:49:00	6658.5	57.6	442.0	422.2	864.2	953.6	1.8	1.4	24
41	13:50:00	6627.2	57.6	439.3	419.5	858.8	924.9	1.8	1.4	23
42	13:51:00	6546.0	57.8	439.6	411.7	851.3	916.2	1.8	1.4	24
43	13:52:00	6618.9	57.9	440.6	405.3	845.9	942.5	2.1	1.5	24
44	13:53:00	6616.6	58.0	440.4	416.6	857.0	975.6	2.2	1.5	23
45	13:54:00	6628.8	54.0	455.8	412.9	868.6	967.2	2.2	1.5	24
46	13:55:00	6645.7	49.0	458.1	412.2	870.3	935.9	2.1	1.5	24
47	13:56:00	6672.8	48.4	459.9	412.6	872.5	904.4	2.0	1.5	23
48	13:57:00	6610.2	57.9	461.5	409.9	871.4	870.7	2.0	1.4	24
49	13:58:00	6639.9	68.0	459.8	409.5	869.3	890.6	2.0	1.4	23
50	13:59:00	6563.5	71.0	453.9	406.3	860.2	942.0	2.0	1.5	24

Page No. 11 82/12/14 EE-3 PUMP TEST

	TIME	********** EE-3 **********						**** EE-2 ****		PTS
		P-BORE PSI	T-IN °C	Q-IN GPM	Q-IN GPM	SUM GPM	P-PACK PSI	P-BORE PSI	T-VENT °C	
1	14:00:00	6474.1	72.5	431.0	389.6	820.5	980.6	2.1	1.5	20
2	14:01:00	6541.5	73.2	442.8	399.9	842.7	981.2	2.0	1.4	24
3	14:02:00	6626.6	73.7	452.9	406.9	859.7	982.7	2.1	1.5	24
4	14:03:00	6221.7	73.1	382.8	343.2	726.0	981.1	1.9	1.4	23
5	14:04:00	6252.2	73.8	384.6	343.1	727.7	985.5	2.0	1.4	24
6	14:05:00	6257.8	74.4	385.6	341.9	727.5	992.6	2.2	1.5	24
7	14:06:00	6233.0	74.5	381.9	343.0	725.0	999.9	2.1	1.5	23
8	14:07:00	6241.5	73.2	385.0	345.5	730.5	1006.9	2.0	1.4	24
9	14:08:00	6432.6	71.1	421.1	375.3	796.4	1015.3	2.1	1.4	23
10	14:09:00	6545.1	69.6	447.6	401.6	849.2	1022.1	2.1	1.4	24
11	14:10:00	6674.8	68.0	458.5	414.4	872.9	1029.0	2.1	1.4	23
12	14:11:00	6659.0	66.2	459.3	414.5	873.8	1032.9	2.1	1.4	24
13	14:12:00	6507.0	66.0	432.4	389.7	822.0	1030.8	1.9	1.4	24
14	14:13:00	6274.4	65.7	380.1	349.6	729.6	1025.5	2.1	1.4	23
15	14:14:00	6417.4	66.3	411.3	370.7	782.1	1026.8	2.2	1.5	24
16	14:15:00	6438.2	66.4	433.4	388.6	822.1	1027.2	2.1	1.5	24
17	14:16:00	6402.0	64.8	413.5	378.6	792.0	1024.3	2.1	1.4	23
18	14:17:00	6434.1	64.7	416.7	379.7	796.4	1020.1	2.0	1.4	24
19	14:18:00	6413.6	64.6	414.1	377.8	791.9	1012.7	2.0	1.4	23
20	14:19:00	6381.9	64.3	413.1	375.5	788.6	1003.7	1.9	1.4	24
21	14:20:00	6426.0	64.1	414.5	381.8	796.3	997.5	2.0	1.5	24
22	14:21:00	6405.9	63.9	414.1	374.3	788.4	988.7	2.0	1.4	23
23	14:22:00	6281.4	63.6	403.2	357.8	761.0	976.4	1.9	1.4	24
24	14:23:00	6401.8	63.4	414.0	365.1	779.1	969.5	2.0	1.4	24
25	14:24:00	6379.3	63.0	413.4	378.5	791.9	962.2	1.9	1.4	23
26	14:25:00	6425.8	62.8	414.1	378.0	792.1	954.3	2.0	1.4	24
27	14:26:00	6386.3	62.9	413.1	379.9	793.0	943.9	2.1	1.5	23
28	14:27:00	6419.8	62.7	413.8	378.6	792.4	935.8	2.2	1.5	24
29	14:28:00	6405.5	62.6	412.3	376.2	788.5	924.8	2.2	1.5	24
30	14:29:00	6419.9	62.5	422.9	385.5	808.5	913.9	2.3	1.5	23
31	14:30:00	6405.1	62.4	419.2	378.8	798.0	903.9	2.3	1.6	24
32	14:31:00	6368.8	62.4	412.4	379.6	792.0	893.1	2.3	1.6	24
33	14:32:00	6476.5	62.3	426.5	388.2	814.7	906.6	2.4	1.6	23
34	14:33:00	6505.7	62.2	427.9	392.8	820.7	947.8	2.4	1.6	24
35	14:34:00	6510.7	62.1	429.5	389.9	819.5	980.4	2.4	1.6	24
36	14:35:00	6532.7	62.0	426.8	389.5	816.3	975.6	2.3	1.6	23
37	14:36:00	6466.5	61.9	428.3	389.8	818.1	959.7	2.3	1.6	24
38	14:37:00	6436.6	61.8	427.6	391.8	819.4	970.6	2.2	1.6	24
39	14:38:00	6558.1	61.7	431.0	388.5	819.5	1003.9	2.2	1.5	23
40	14:39:00	6470.3	61.7	426.6	388.8	815.3	992.3	2.1	1.5	24
41	14:40:00	6491.5	61.6	428.1	390.4	818.4	977.1	2.2	1.5	24
42	14:41:00	6509.6	61.5	425.2	386.0	811.3	963.2	2.2	1.5	23
43	14:42:00	6496.9	61.6	392.3	431.2	823.5	949.4	2.3	1.6	24
44	14:43:00	6448.3	61.6	411.5	557.3	968.8	938.1	2.3	1.6	23
45	14:44:00	6446.1	61.5	394.0	571.1	965.1	926.5	2.4	1.6	24
46	14:45:00	6482.9	61.5	381.2	586.2	967.4	914.0	2.4	1.6	24
47	14:46:00	6546.1	61.4	400.7	617.0	1017.7	905.5	2.4	1.6	23
48	14:47:00	6656.0	61.3	407.8	625.4	1033.2	928.8	2.4	1.6	24
49	14:48:00	6605.7	61.2	403.9	630.6	1034.5	967.7	2.5	1.6	24
50	14:49:00	6626.2	61.2	402.9	625.7	1028.6	980.0	2.7	1.6	23

14173 A (7L) 3 MOORE BUSINESS FORMS, INC.

Page No. 12 82/12/14 EF-3 PUMP TEST

	TIME	EE-3 P-BORE PSI	EE-3 T-IN °C	EE-3 Q-IN CPM	EE-3 Q-EX CPM	EE-3 SUM CPM	EE-3 P-PACK PSI	EE-2 P-BORE PSI	EE-2 T-VENT °C	PTS
1	14:50:00	6618.3	61.1	402.6	626.9	1029.5	964.9	2.6	1.5	21
2	14:51:00	6670.3	61.0	402.2	628.0	1030.3	947.9	2.1	3.5	23
3	14:52:00	6635.4	61.0	402.3	626.1	1028.4	936.3	2.1	2.0	24
4	14:53:00	6600.3	61.0	402.9	626.5	1029.4	927.3	2.2	1.6	24
5	14:54:00	6645.3	61.0	404.0	624.9	1028.9	960.2	2.1	1.5	23
6	14:55:00	6086.7	62.6	405.5	630.6	1036.2	1202.7	2.0	1.4	24
7	14:56:00	2960.0	62.4	156.3	215.0	371.3	2716.1	2.1	1.4	23
8	14:57:00	2372.0	61.1	.1	-1.0	-.9	2188.9	2.1	1.3	24
9	14:58:00	2358.4	60.7	2.3	-1.0	1.4	2179.8	2.1	1.3	23
10	14:59:00	2342.5	60.4	.0	-1.0	-1.0	2166.5	1.9	1.3	24
11	15:00:00	2368.8	59.8	-.0	-1.0	-1.1	2133.3	1.7	1.2	24
12	15:01:00	2187.0	59.5	.0	-1.0	-1.0	2056.0	1.7	1.2	23
13	15:02:00	2395.6	59.2	.0	-1.0	-1.0	2282.4	1.7	1.2	24
14	15:03:00	2371.6	58.9	.0	-1.0	-1.0	2254.3	1.7	1.1	24
15	15:04:00	2493.5	58.5	-.0	-1.0	-1.0	2251.7	1.6	1.0	23
16	15:05:00	2261.4	57.9	-.0	-1.1	-1.1	1951.1	1.4	.9	24
17	15:06:00	2199.2	57.2	-.0	-1.1	-1.1	1862.0	1.4	.9	24
18	15:07:00	2284.6	56.8	-.0	-1.1	-1.1	2112.4	1.3	.8	23
19	15:08:00	2351.6	56.5	-.0	-1.1	-1.1	2129.7	1.3	.8	24
20	15:09:00	2041.1	56.0	-.0	-1.1	-1.1	1727.8	1.2	.7	23
21	15:10:00	2068.5	55.5	-.1	-1.1	-1.1	1882.1	1.1	.7	24
22	15:11:00	2250.6	55.1	-.1	-1.1	-1.2	2170.9	1.1	.6	23
23	15:12:00	2292.9	54.7	-.1	-1.1	-1.1	2198.2	1.1	.6	24
24	15:13:00	2348.7	54.3	-.0	-1.1	-1.1	2240.8	1.1	.6	24
25	15:14:00	2353.6	54.0	-.0	-1.1	-1.1	2236.8	1.2	.7	23
26	15:15:00	2354.4	53.6	-.0	-1.1	-1.1	2227.7	1.1	.6	24
27	15:16:00	2340.1	53.2	-.0	-1.1	-1.1	2212.2	1.1	.6	24
28	15:17:00	2312.1	52.8	-.1	-1.1	-1.1	2198.0	.9	.5	23
29	15:18:00	2306.5	52.4	-.0	-1.1	-1.1	2182.6	1.1	.6	24
30	15:19:00	2231.3	52.1	-.0	-1.1	-1.1	2150.7	1.0	.5	24
31	15:20:00	1871.1	51.7	-.1	-1.1	-1.2	1970.7	.9	.5	23
32	15:21:00	2015.5	51.4	-.0	-1.0	-1.1	2068.6	1.1	.5	24
33	15:22:00	1972.0	51.1	-.0	-1.1	-1.1	2043.6	1.0	.5	23
34	15:23:00	1961.1	50.9	-.0	-1.1	-1.1	2025.3	1.0	.5	24
35	15:24:00	2000.7	50.6	-.0	-1.1	-1.1	2051.4	.9	.4	24
36	15:25:00	2010.5	50.3	15.8	1.3	17.1	2062.3	-157.5	-16.1	23
37	15:26:00	2037.8	31.3	-.1	-.1	-.3	933.7	-.8	-.3	24
38	15:27:00	2026.6	-.3	-.2	-.2	-.3	-.8	-.9	-.3	24
39	15:28:00	2031.3	-.3	-.2	-.2	-.3	-.8	-.9	-.3	24
40	15:29:00	1992.2	-.3	-.2	-.2	-.3	-.8	-.9	-.3	23
41	15:30:00	2021.2	-.3	-.1	-.1	-.3	-.7	-.8	-.3	24
42	15:31:00	1999.4	-.3	-.1	-.1	-.3	-.7	-.8	-.3	24
43	15:32:00	1984.7	-.3	-.1	-.1	-.3	-.7	-.8	-.3	23
44	15:33:00	1966.9	-.3	-.1	-.1	-.3	-.7	-.9	-.3	24
45	15:34:00	1922.8	-.3	-.1	-.1	-.3	-.8	-.8	-.3	24
46	15:35:00	1899.2	-.3	-.2	-.2	-.3	-.8	-.9	-.3	23
47	15:36:00	1840.2	-.3	-.1	-.1	-.3	-.7	-.8	-.3	24
48	15:37:00	153.6	-.3	-.2	-.2	-.3	-.8	-.8	-.3	24
49	15:38:00	-1.3	-.3	-.1	-.1	-.3	-.7	-.8	-.3	23
50	15:39:00	-.8	-.3	-.1	-.1	-.3	-.7	-.8	-.3	24

Page No. 13 82/12/14 EL-3 PUMP TEST

	TIME	********** EL-3 **********						**** EE-2 ****		PTS
		P-BORE PSI	T-IN °C	Q-IN GPM	Q-IN GPM	SUM GPM	P-BACK PSI	P-BORE PSI	T-VENT °C	
1	15:40:00	-1.5	-.3	-.2	-.2	-.3	-.8	-.9	-.4	21
2	15:41:00	-1.6	-.4	-.2	-.2	-.3	-.9	-.9	-.4	23
3	15:42:00	-.5	-.3	-.1	-.1	-.3	-.7	-.8	-.3	24
4	15:43:00	392.2	-.3	-.1	-.1	-.3	-.7	-.7	-.3	24

1412TA LTL-2 MOORE BUSINESS FORMS, INC.

PLAN VIEW 2025 EE-1 DATA 12: 3:32 TO 13:24:27 THETA = 108

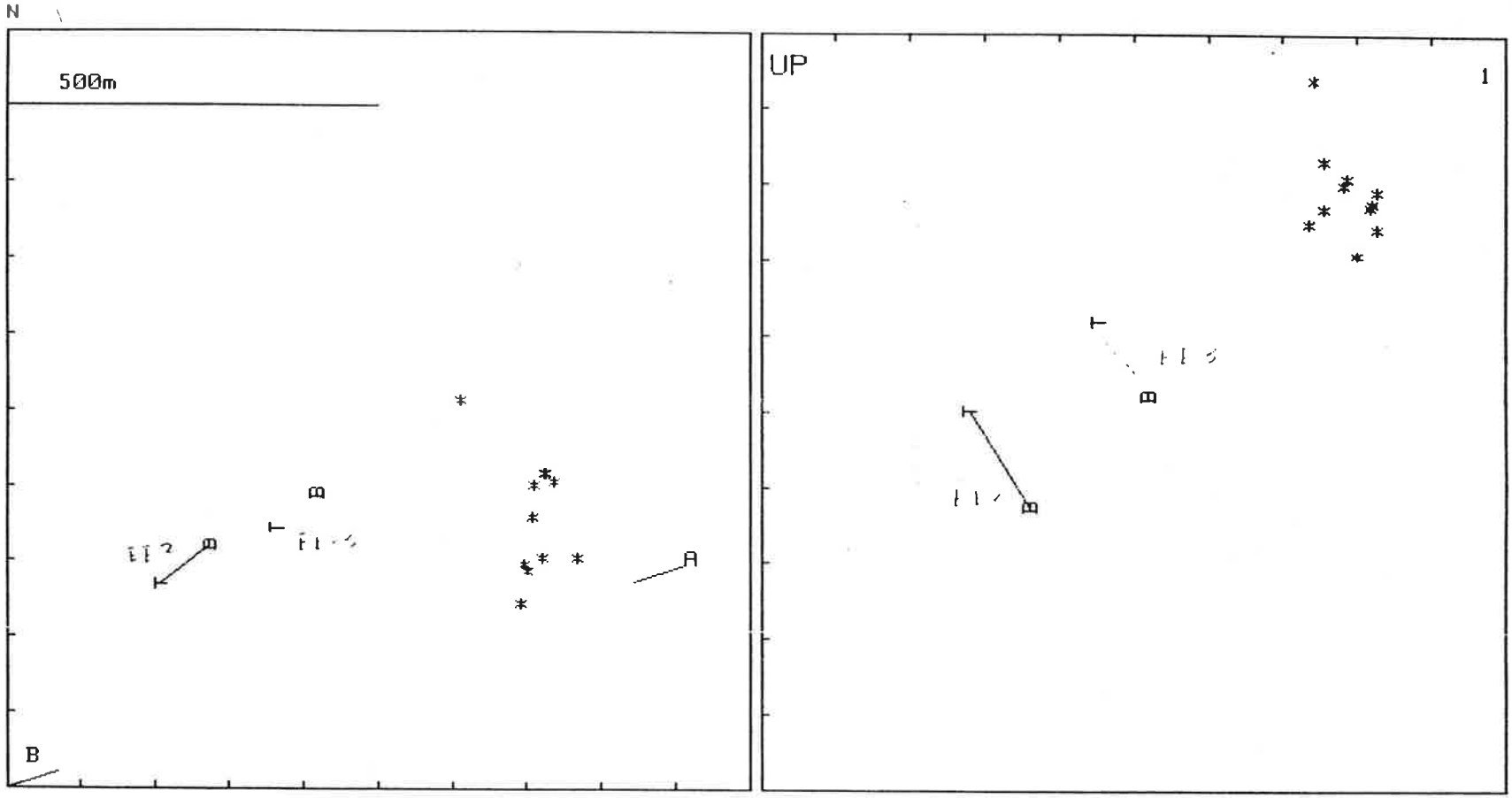
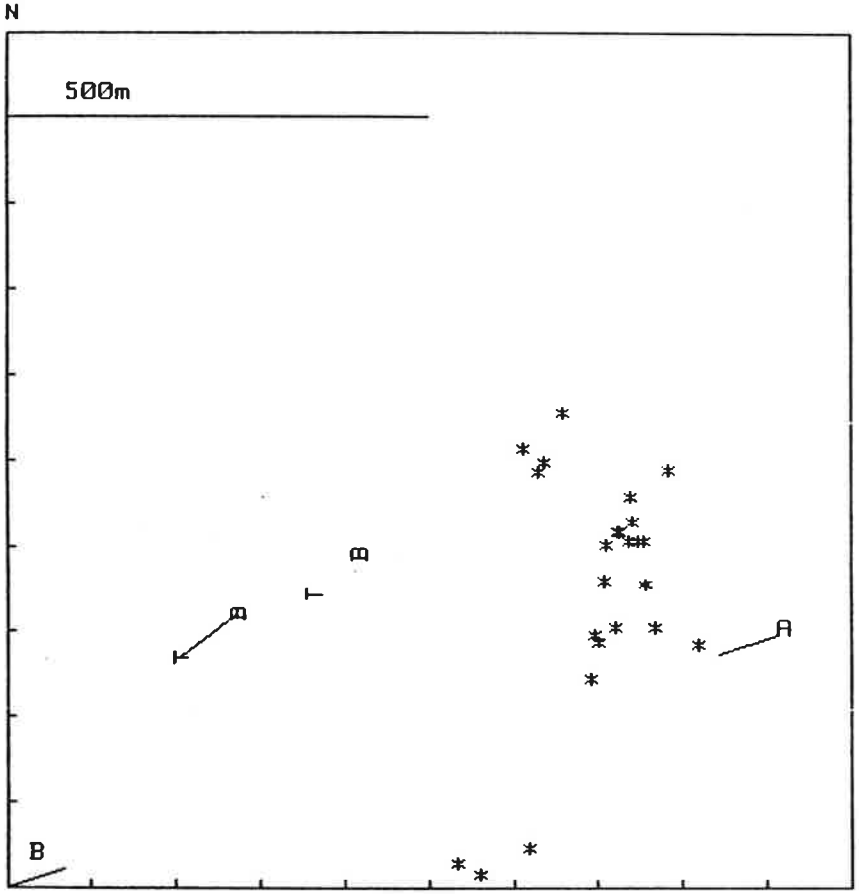


Fig 11. Locations of seismic events from the first disk (of 6 disks). These locations appear to require "correction" in both azimuth and elevation.

PLAN VIEW 2025 EE-1 DATA 12: 3:32 TO 14:49:47 THETA = 108



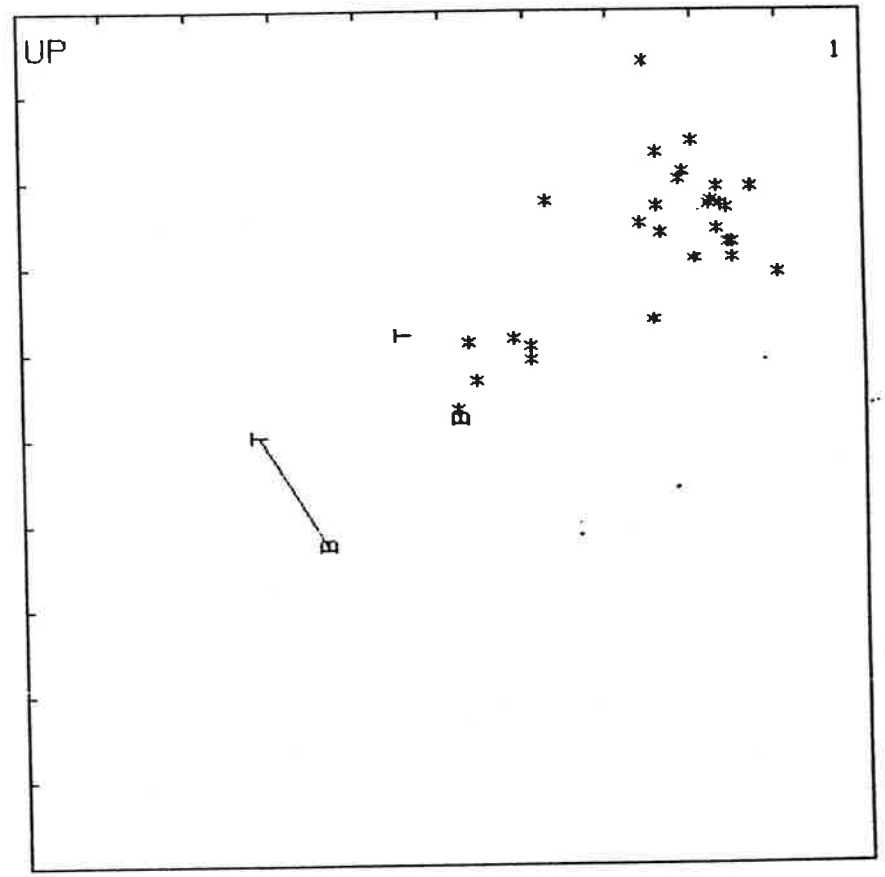


Fig 12. Cumulative plot of first 4 decks (29 events total) from Exp 2025. Note the apparent downward growth.

Risk #1 ~ #6
No. 1 ~ 40.

PLAN VIEW 2025 EE-1 DATA

12: 3:32 TO 15:28:47 THETA = 108

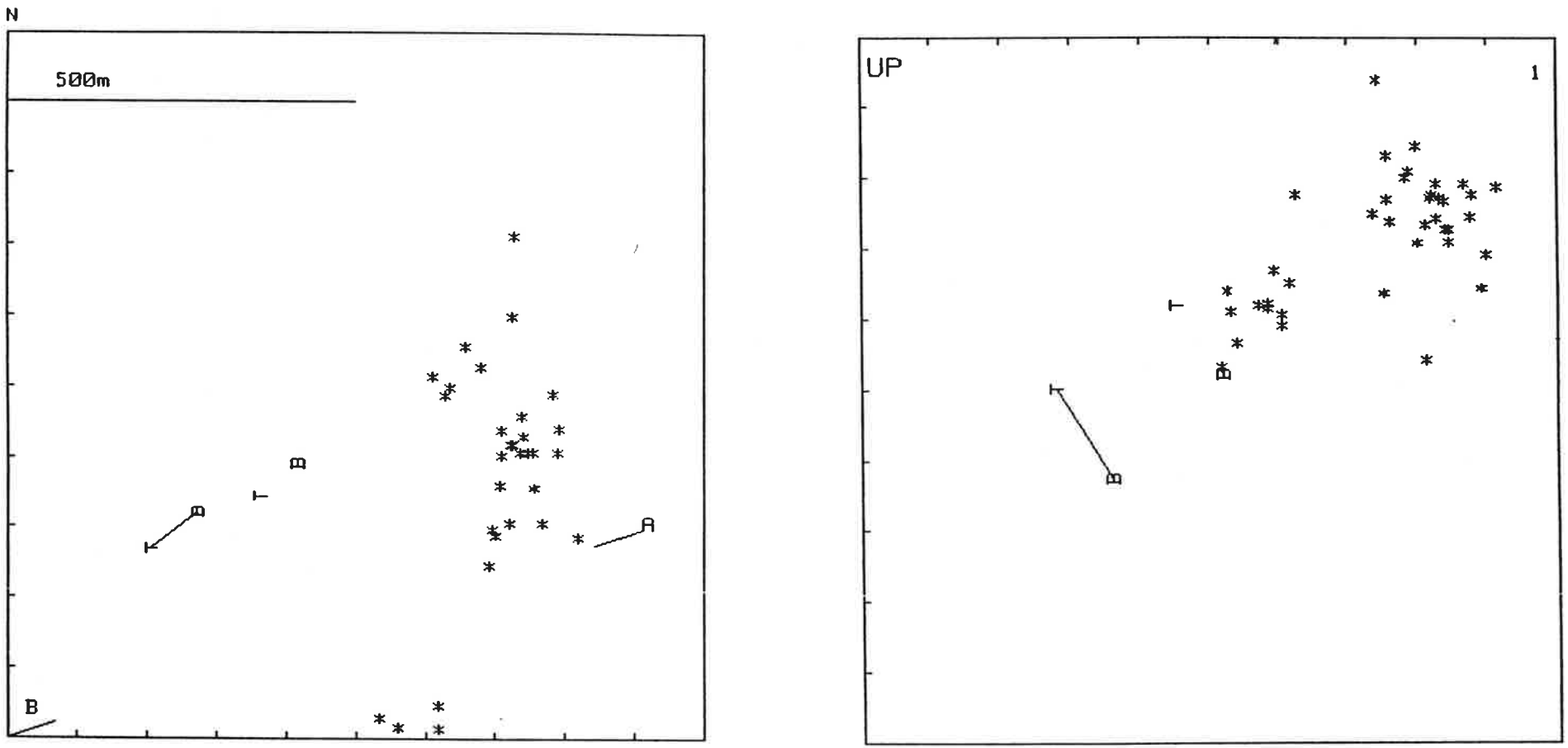


Fig 13. Plot of all events captured on Biomation during Exp 2025.

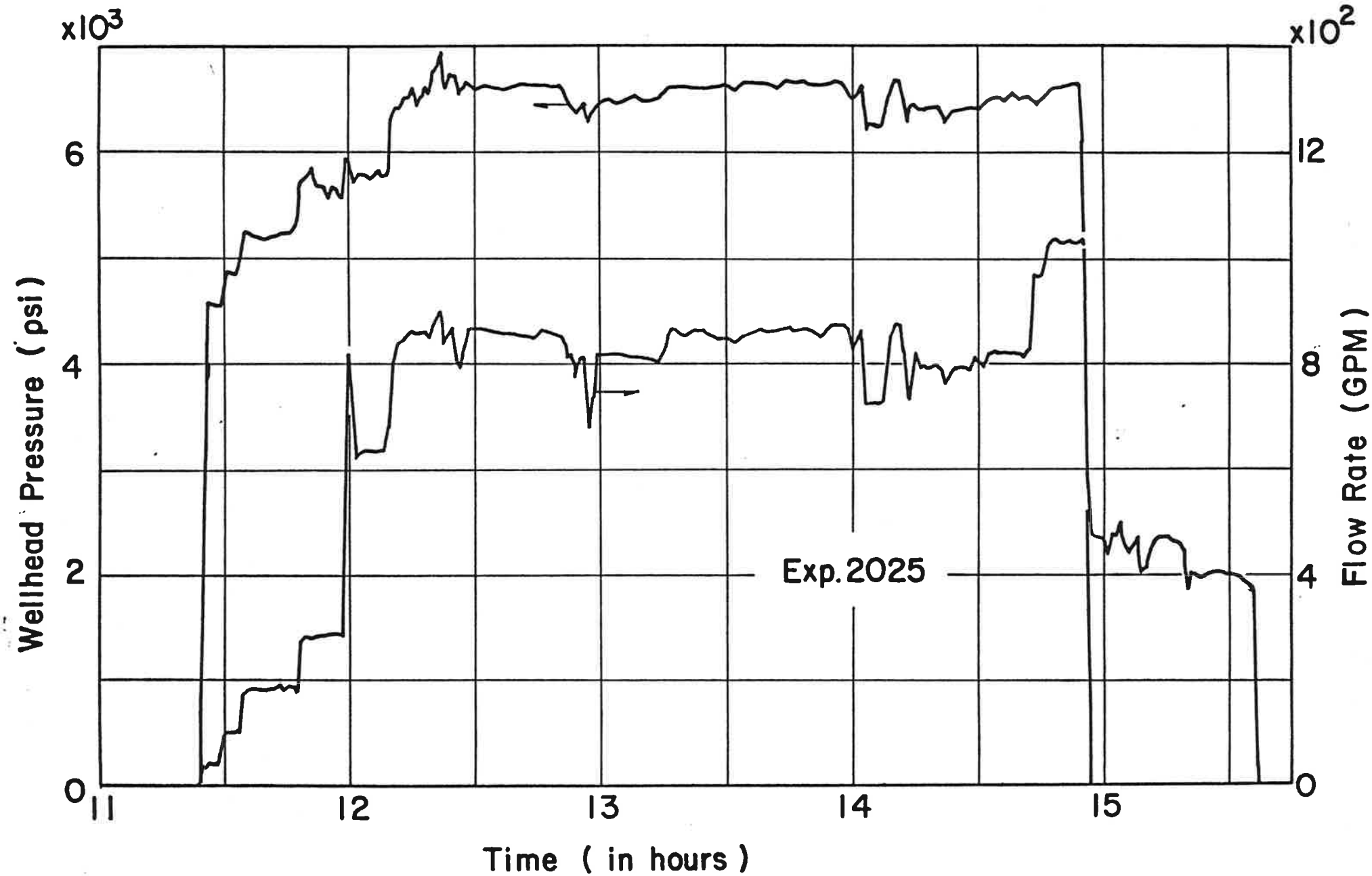


Fig. 14 Frontside pressure and flow rate during Exp 2025.

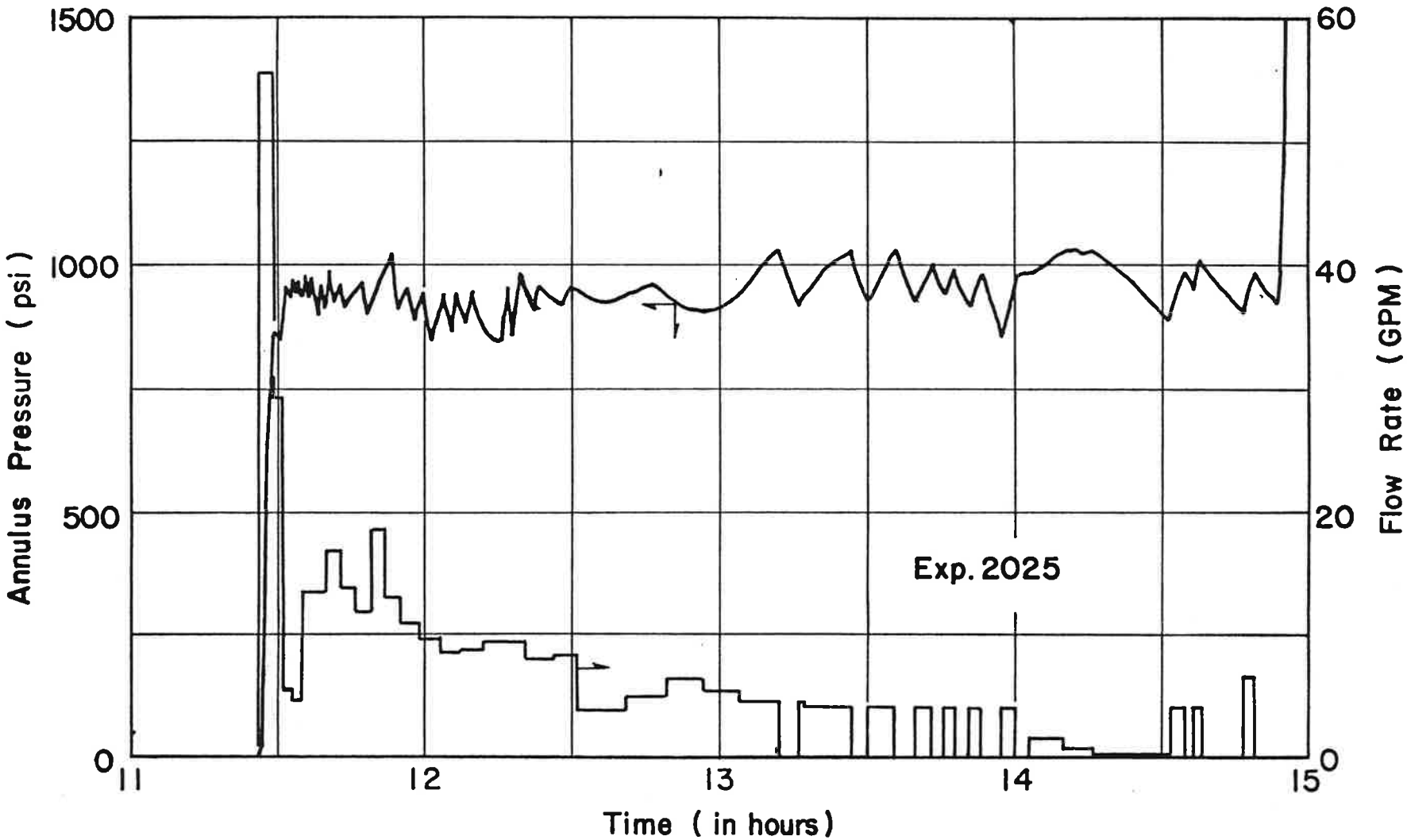


Fig. 15 Backside pressure and flowrate during Exp 2025.

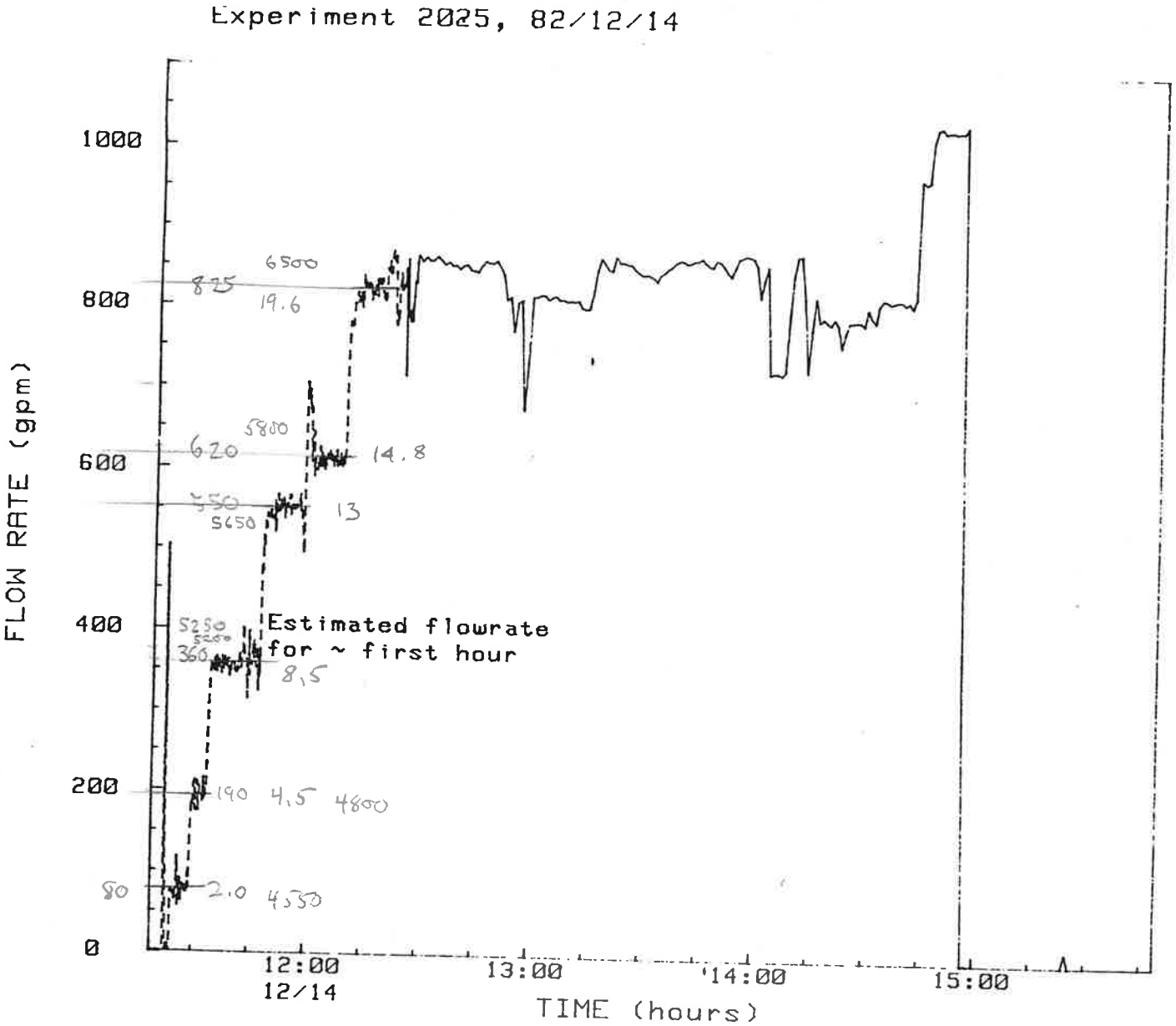


Fig. 17 Frontside flowrate during Exp 2025.

$r = \frac{\Delta P}{Q}$

420

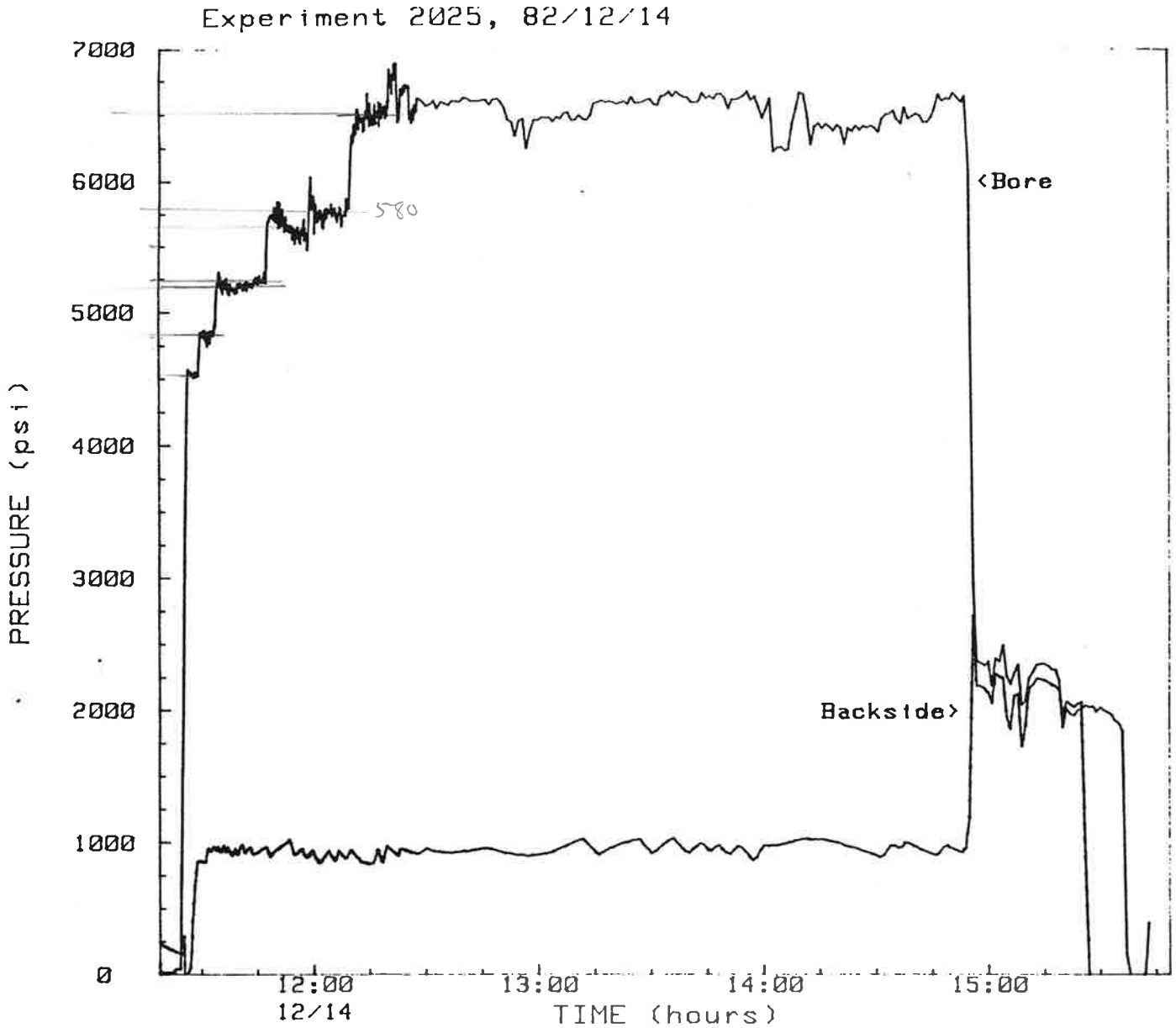


Fig 16. Frontside and Backside Pressure during Exp 2025.

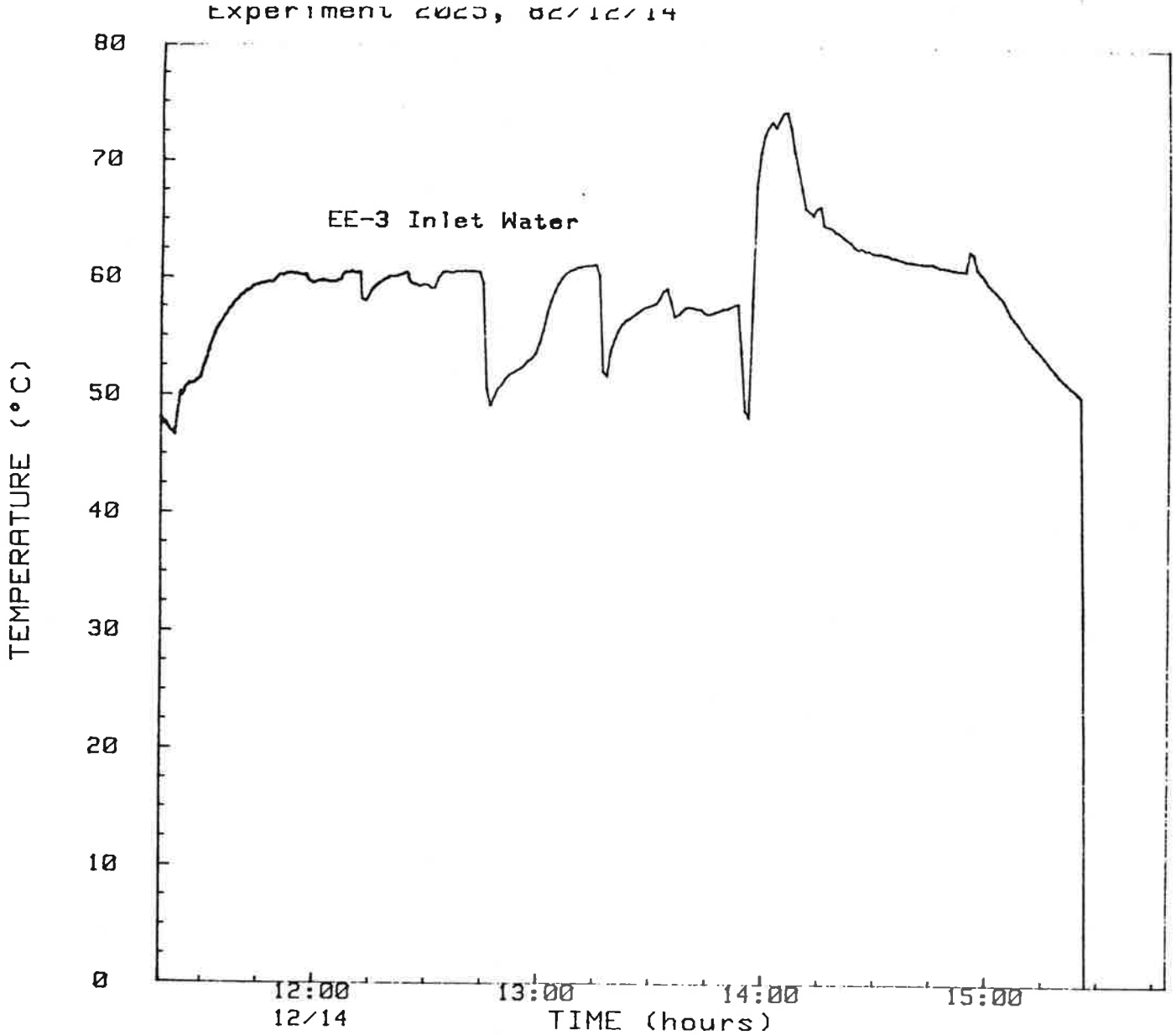


Fig 13. Inlet water temperature on frontside.

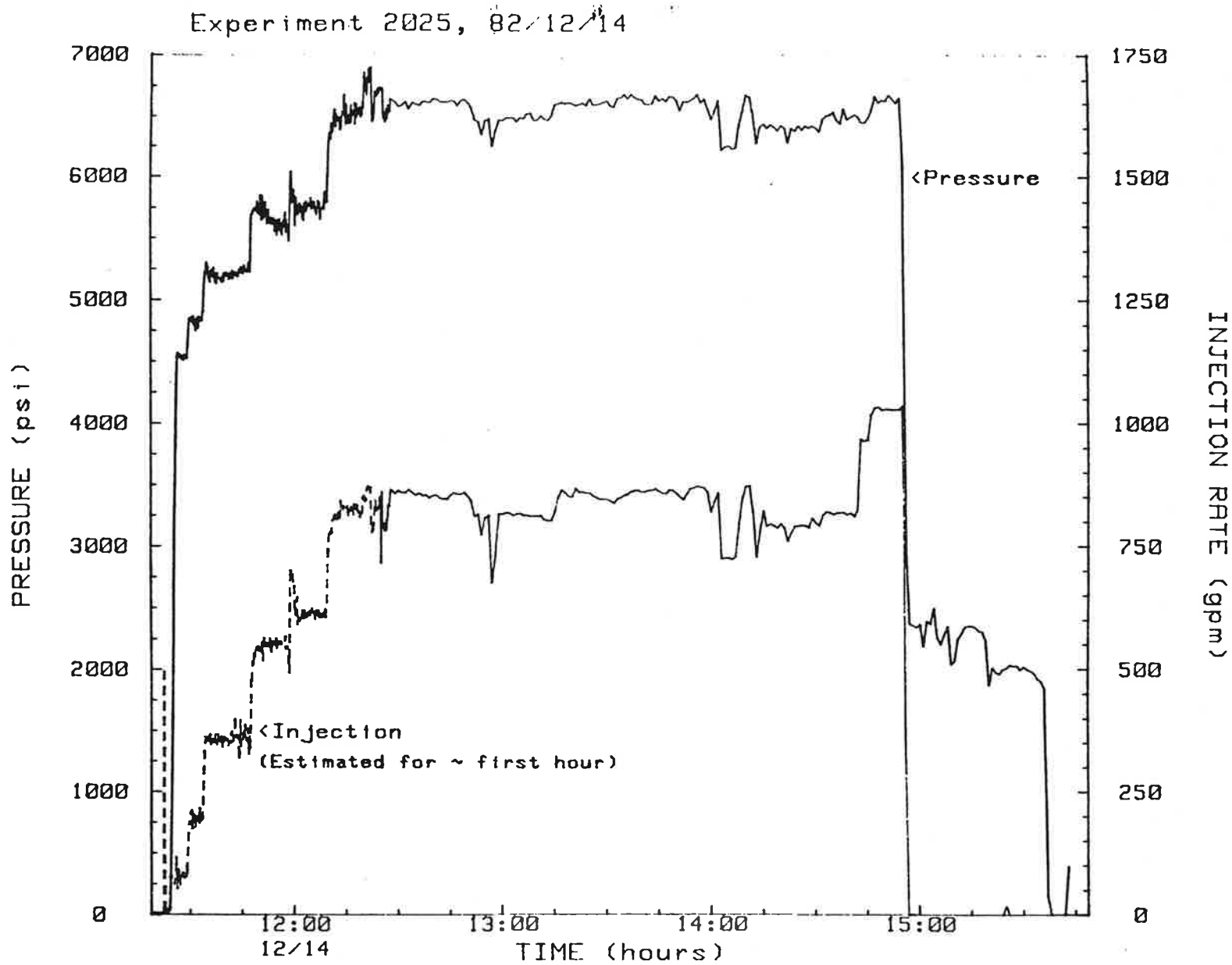


Fig 19. Frontside Pressure and Injection flow rate for Exp 2025.