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**INSTITUT FÜR MEERESKUNDE
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BUNDESREPUBLIK DEUTSCHLAND**

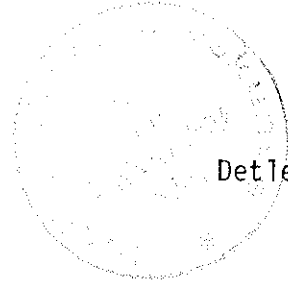
**Institute of Oceanography
University of Hamburg
Federal Republic of Germany**

NORDMEER 86 - RV VALDIVIA cruise 48

CTD observations in the Greenland Sea

Technical Report 2-87

Detlef Quadfasel and Dirk Grawunder



**2000 Hamburg 13
Heimhuder Strasse 71
Tel. 040-4123-2606
Telex 214732 unihhd**

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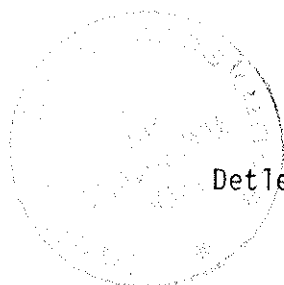
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Institut für Meereskunde
der Universität Hamburg

Tropowitzstr. 7
2000 Hamburg 54
F.R.G.

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Summary

This report summarizes CTD data collected during RV "VALDIVIA" cruise 48 in August 1986. The survey area covered the eastern part of the Greenland Sea and Fram Strait. Given are standard level listings of temperature, salinity, potential temperature and density, dynamic height anomaly and Brunt-Väisala frequency as well as profile plots of potential temperature and salinity.

Introduction:

From 1. to 30. August 1986 a large scale hydrographic survey of the eastern Greenland Sea and Fram Strait was carried out from RV VALDIVIA. This cruise 48 (NORDMEER 86) was part of a long term study of the "circulation, transformation and convection of water masses in the North European Polar seas", carried out by the Institut für Meereskunde during 1986 to 1988. The program is part of a special research project (SFB 318 at the University of Hamburg) on climate dynamics.

The major aim of VALDIVIA cruise 48 was to map the vertical distribution of temperature, salinity and dissolved oxygen in the Greenland Sea as a measure of the large scale circulation and transports. A first account on the regional circulation has been given by Quadfasel and Meincke (1987), based upon measurements with expendable bathythermographs.

Along six sections a total of 69 CTD profiles were taken (Figure 1). Four of these sections crossed the Arctic front that separates the Greenland Sea gyres from the warm and salty northward flowing Norwegian Atlantic and Westspitsbergen Currents. The sections were designed to form three closed boxes to allow calculation of transport budgets. Usual station spacing was 30 nautical miles except along the Fram Strait section at 78°50' N where sampling was increased to 15 mile intervals.

During the first two thirds of the cruise the CTD profiles were run to within 5 m of the bottom. At station 86 the conducting wire broke and the CTD was switched to another winch containing only 1100 m of cable. However, the former wire was used to run additional Nansen casts to ensure coverage of the deeper positions of the water column on these stations. These bottle data will be reported elsewhere.

A list of all CTD stations with some background information is given in table 1.

2. Data processing and calibration

The ME-Kiel Multisonde CTD (No 73) used for the hydrographic measurements provided data with a resolution of 0.2 dbar for pressure, 0.0015°C for temperature and 0.002 mS/cm for conductivity. It was supplemented by a Hydrobios

Rosette water sampler equipped with 20 bottles, 10 of which carried protected and unprotected reversing thermometers. Salinity samples were analysed by use of a Guildline Autosal Salinometer. Altogether 1950 water samples and 900 thermometer readings were taken, providing in-situ calibration values for the CTD-data.

The raw data from the CTD were stored directly on digital magnetic tape at a rate of 8 cycles per second. In addition every 8th cycle was logged onto a Kontron PSI 82 computer to serve as basis for quick-look plots and printouts. The latter data were not used in the final data evaluation. Here only the raw data from the undisturbed downcasts were used for further processing.

During the upcasts the CTD was stopped at up to 20 depth levels to operate the rosette sampler. When triggering the bottles the CTD data were averaged over 10 cycles and manually entered into a log sheet. These values were later compared with the sample salinities and thermometer readings.

Following the established procedure of CTD-data processing at the Institut für Meereskunde, Hamburg, these steps were taken:

- conversion of raw data into physical units using the polynoms based on pre-cruise laboratory calibration.
- eliminating all "upcast" data in the downcast profile that were introduced through ships heaving in heavy seas. This reduced the amount of data to about 40 %
- applying the second level calibration polynoms based on the comparison of bottle and in-situ CTD values. The differences between corresponding bottle and CTD values were checked for dependences against pressure, temperature and conductivity.

The resulting accuracies of the calibrated CTD data are then $p = \pm 3$ dbar for pressure, $T = \pm 0.009^\circ\text{C}$ for temperature and $C = \pm 0.005$ ms/cm for conductivity, corresponding to $S = \pm 0.006$ ‰ for salinity.

- eliminating spikes in the profiles by running a 7 point median filter (Sy, 1985). This filter gets rid of spikes but keeps sharp gradients in the profile as they are often observed in the upper thermo- and halocline of the

Polar ocean.

- calculating salinities from the pressure, temperature and conductivity data by using the UNESCO (1983) algorithm. The median filter was then also applied to the salinity profiles.
- all data were then averaged over 2 dbar intervals centered at 0, 2, 4, 6... dbar etc. Missing values were linearly interpolated and near the surface extrapolated, respectively.

This 2dbar step data set of temperature, conductivity and salinity served as a basis for further computations and analysis.

3. Presentation of data

The final data are presented in the form of standard level listings and plots of potential temperature and salinity versus depth.

Aside from pressure, temperature and salinity the listings contain several derived quantities: depth, potential temperature, density, potential density, dynamic height and Brunt väisala frequency. These were calculated using the UNESCO (1983) algorithms.

For the upper 500 dbars the profiles are plotted at an expanded scale to account for the larger vertical gradients of the hydrographic parameters in the upper layers. When near surface salinities fall out of the range of the plot ($S < 34.2 \text{ } ^\circ\text{/}\text{00}$) the surface value is given as SSS. The reader is then referred to the listing given to the right of the plot.

Acknowledgements:

We like to thank captain and crew of RV VALDIVIA for their valuable support at sea. Andrea Frische, Ingo Harms, Ester Schelenz, Klaus Schulze, Norbert Verch and Norbert Winkel shared the CTD-data acquisition. Fritz Geitner and Jens Meincke determined salinities. Ulrike Rühmkorf typed and assembled this report. Financial support was granted by Deutsche Forschungsgemeinschaft (SFB 318).

References:

Quadfasel, D. and J. Meincke (1987): Note on the thermal structure of the Greenland Sea gyres. Deep-Sea Research (34, 1883-1887).

Sy, A. (1985): An alternative editing technique for oceanographic data. Deep-Sea Research, 32, 1591-1599

UNESCO (1983): Algorithms for computations of fundamental properties of seawater. UNESCO techn. papers in Marine Science 44, 53pp.

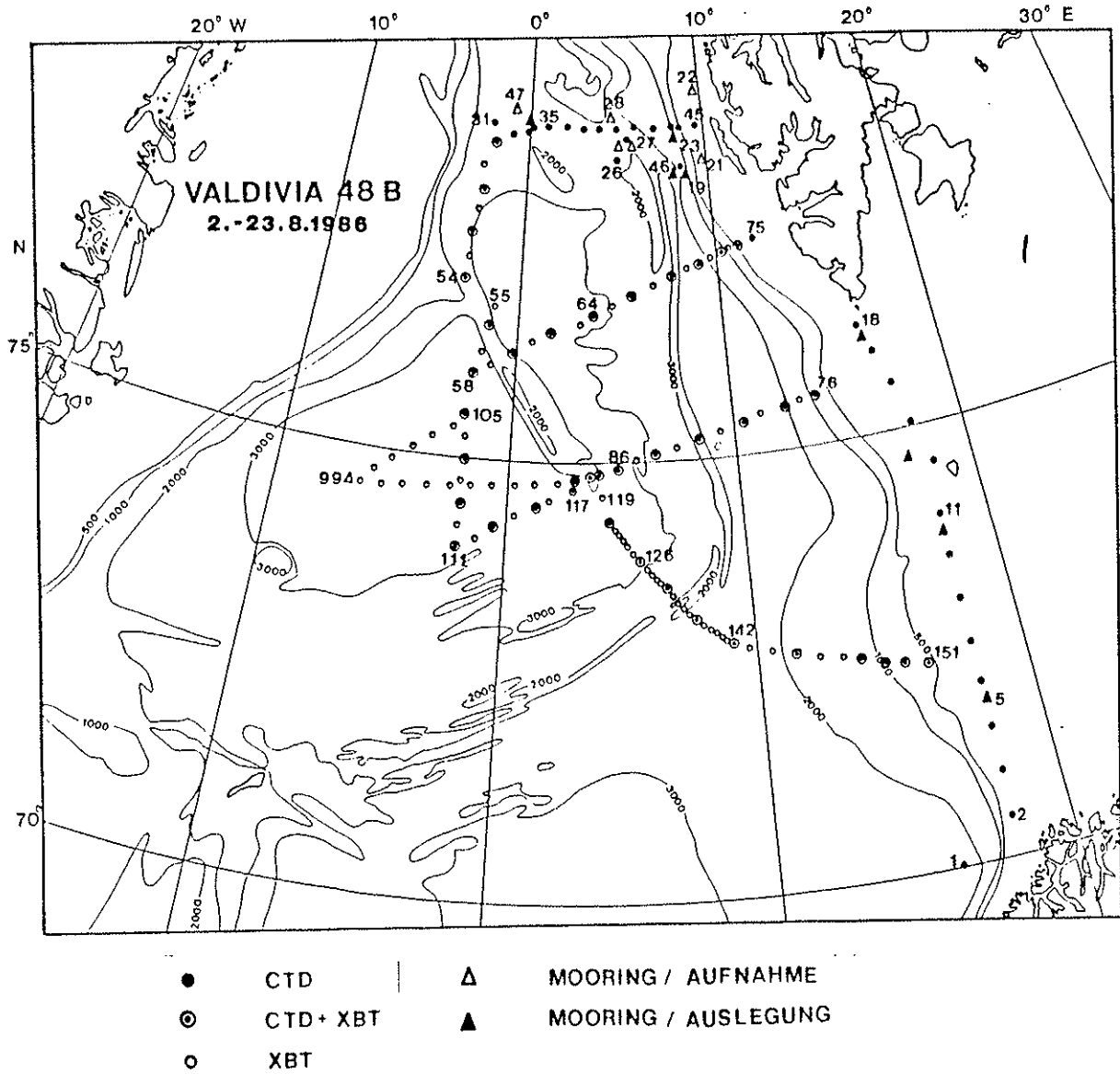


Figure 1:

Positions of the CTD stations occupied during RV VALDIVIA cruise 48 in the eastern Greenland Sea and Fram Strait during 1. to 30. August 1986. See table 1 for further details.

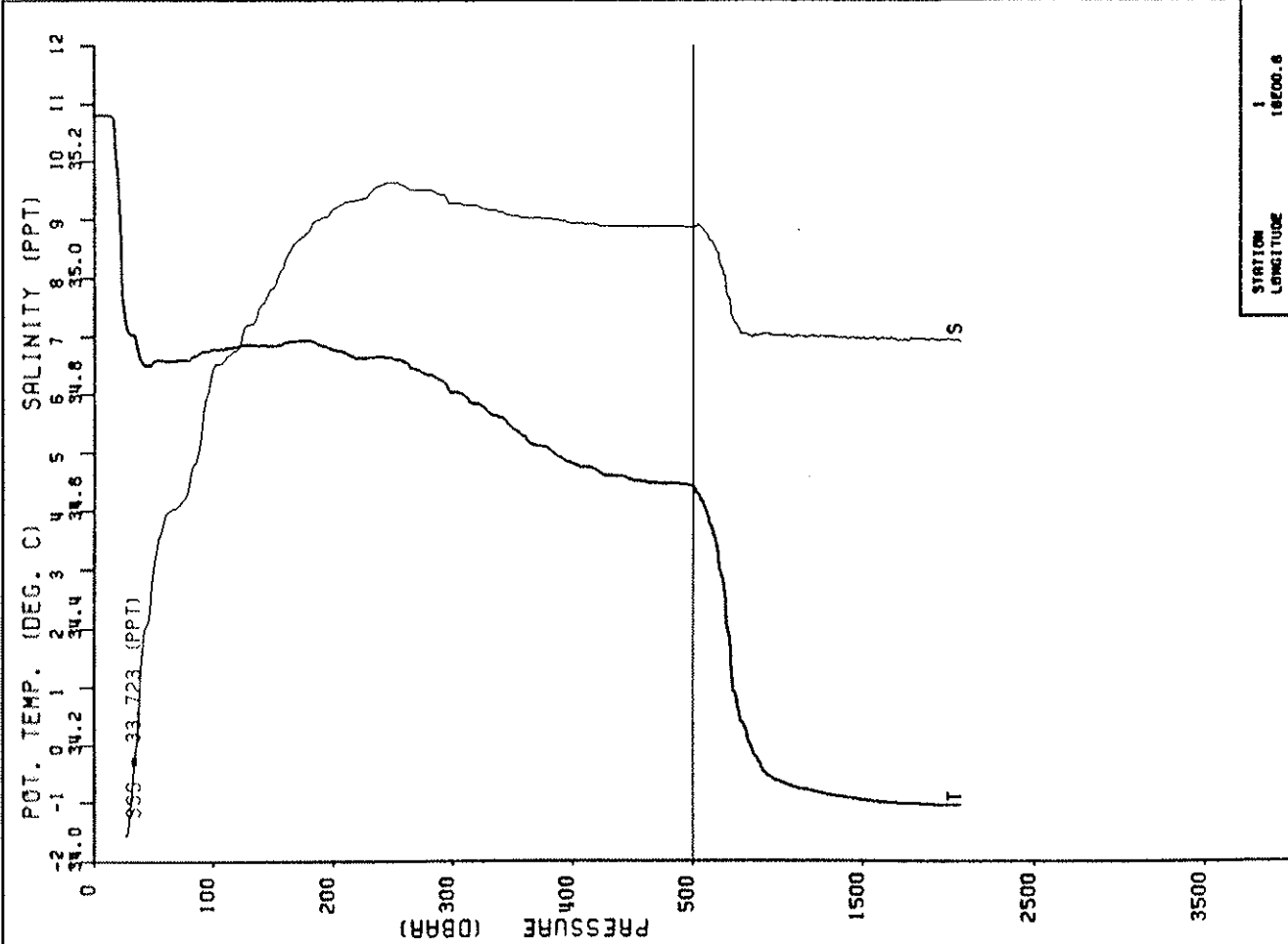
Table 1: List of CTD stations

Station No	Date 1986	time UTC	Latitude N	Longitude
1	02.08	17:10	70 00.50	16E00.60
2	02.08	23:36	70 29.89	17E59.91
3	03.08	03:33	71 00.10	17E59.13
4	03.08	08:27	71 29.92	17E59.39
6	03.08	12:41	71 59.83	18E00.08
7	03.08	16:36	72 29.82	17E59.75
8	03.08	20:10	72 59.70	17E59.50
9	03.08	23:59	73 29.75	17E59.83
11	04.08	05:13	73 59.92	17E58.69
12	04.08	09:22	74 34.80	18E09.60
14	04.08	13:22	75 03.82	17E45.82
15	04.08	17:01	75 31.83	17E14.92
16	04.08	20:45	75 59.70	16E39.30
18	05.08	00:05	76 17.74	16E25.02
20	05.08	22:14	78 20.13	08E30.14
26	07.08	17:37	78 29.90	05E01.00
A26	07.08	20:12	78 29.94	05E00.83
29	08.08	19:16	78 49.98	00W00.60
A29	08.08	23:25	78 49.89	00W00.71
B29	09.08	01:55	78 49.98	00W00.99
C29	09.08	03:44	78 49.50	00W00.81
31	09.08	12:15	78 50.03	02W00.48
32	09.08	16:11	78 44.94	00W59.12
33	09.08	20:24	78 50.10	00E01.90
34	10.08	00:02	78 50.10	00E58.70
35	10.08	03:51	78 50.10	02E00.10
36	10.08	07:19	78 50.16	03E00.85
37	10.08	10:54	78 49.90	04E00.20
38	10.08	14:11	78 49.49	05E01.18

Station No	Date 1986	time UTC	Latitude N	Longitude
39	10.08	17:41	78 42.60	05E38.11
41	10.08	21:51	78 49.90	05E59.60
42	11.08	00:35	78 49.85	06E59.26
43	11.08	04:30	78 49.91	08E00.01
44	11.08	06:42	78 49.86	08E35.00
45	11.08	08:36	78 49.92	09E29.88
48	12.08	08:14	78 40.10	02W00.56
50	12.08	13:55	78 08.02	02W18.05
52	12.08	20:58	77 36.01	02W00.10
54	13.08	04:29	77 03.30	01W24.75
56	13.08	12:13	76 32.82	01W17.63
58	13.08	19:34	76 00.10	01W59.50
60	14.08	01:30	76 15.85	00W09.68
62	14.08	07:19	76 30.05	01E40.10
64	14.08	12:31	76 42.80	03E29.88
66	14.08	17:47	76 55.80	05E25.50
68	14.08	23:08	77 07.76	07E34.25
70	15.08	04:37	77 15.17	08E58.80
72	15.08	08:09	77 21.00	10E19.30
74	15.08	10:47	77 25.10	11E14.19
75	15.08	13:01	77 28.99	11E54.09
76	16.08	09:33	75 34.40	13E59.50
78	16.08	13.00	75 30.22	12E20.59
80	16.08	17:45	75 22.20	10E19.95
82	16.08	23:11	75 14.24	08E20.59
84	17.08	04:50	75 05.03	06E24.75
86	17.08	09:47	74 57.10	04E39.70
A87	17.08	13:34	74 52.6	03E47.4
87	17.08	17:12	74 52.5	03E47.2
88	17.08	19:34	74 48.0	02E54.8
105	19.08	01:02	75 29.6	02W00.3
107	19.08	08:18	75 00.0	02W00.2
109	19.08	14:55	74 29.9	01W59.8
111	19.08	22:10	74 00.8	01W59.9
113	20.08	05:00	74 15.0	00W25.0

Station No Date time Latitude Longitude
 1986 UTC N

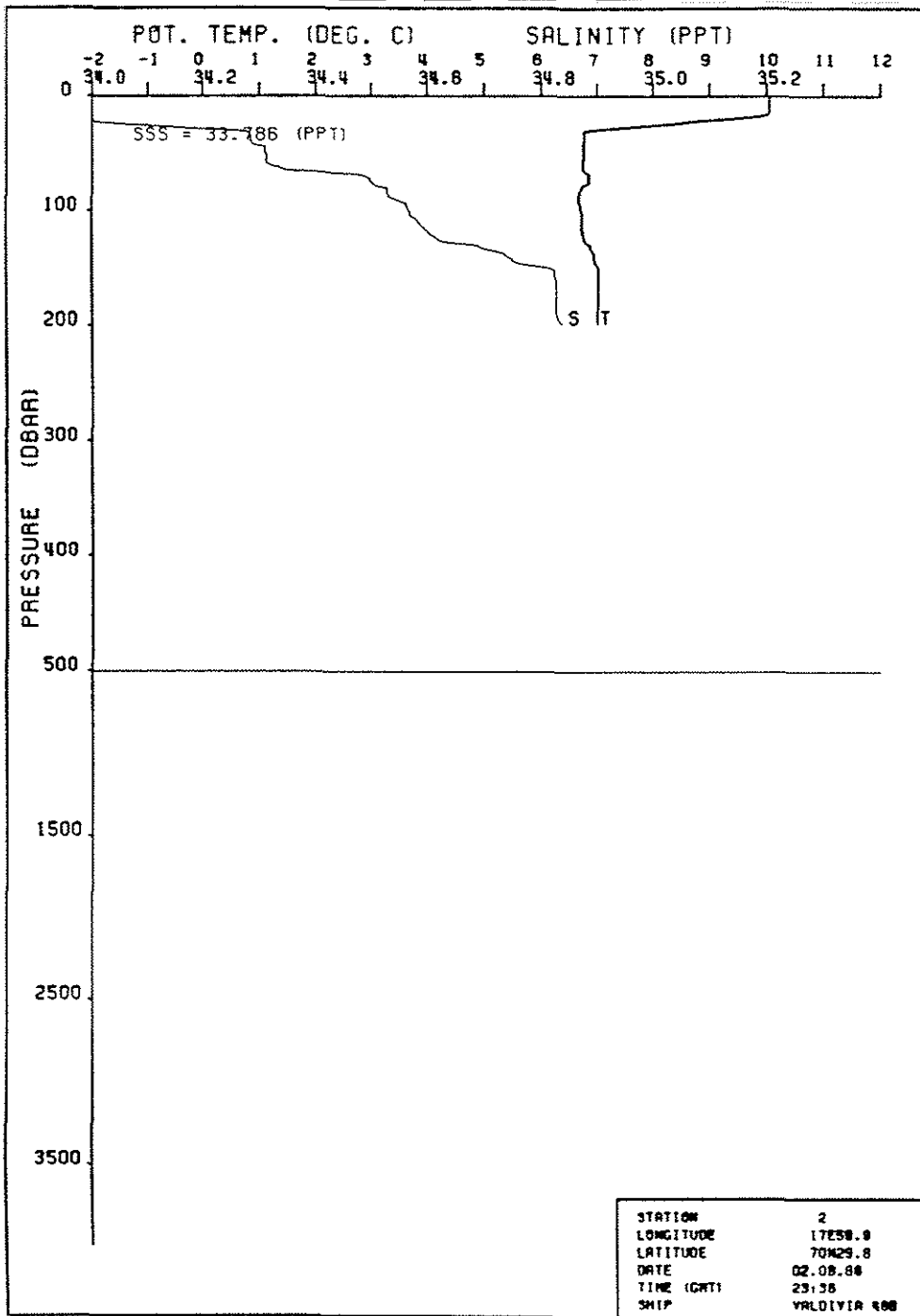
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117	21.08	02:03	74 43.5	02E39.1
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120	21.08	13:32	74 19.9	04E15.1
126	21.08	21:20	73 55.0	05E35.0
131	22.08	03:21	73 35.1	06E37.0
136	22.08	09:35	73 13.0	07E40.0
142	22.08	16:24	72 52.1	09E00.4
145	22.08	23:32	72 42.1	11E26.4
148	23.08	05:06	72 32.0	13E55.1
149	23.08	07:30	72 28.2	14E44.3
150	23.08	09:46	72 25.9	15E32.8
151	23.08	11:57	72 22.5	16E20.8



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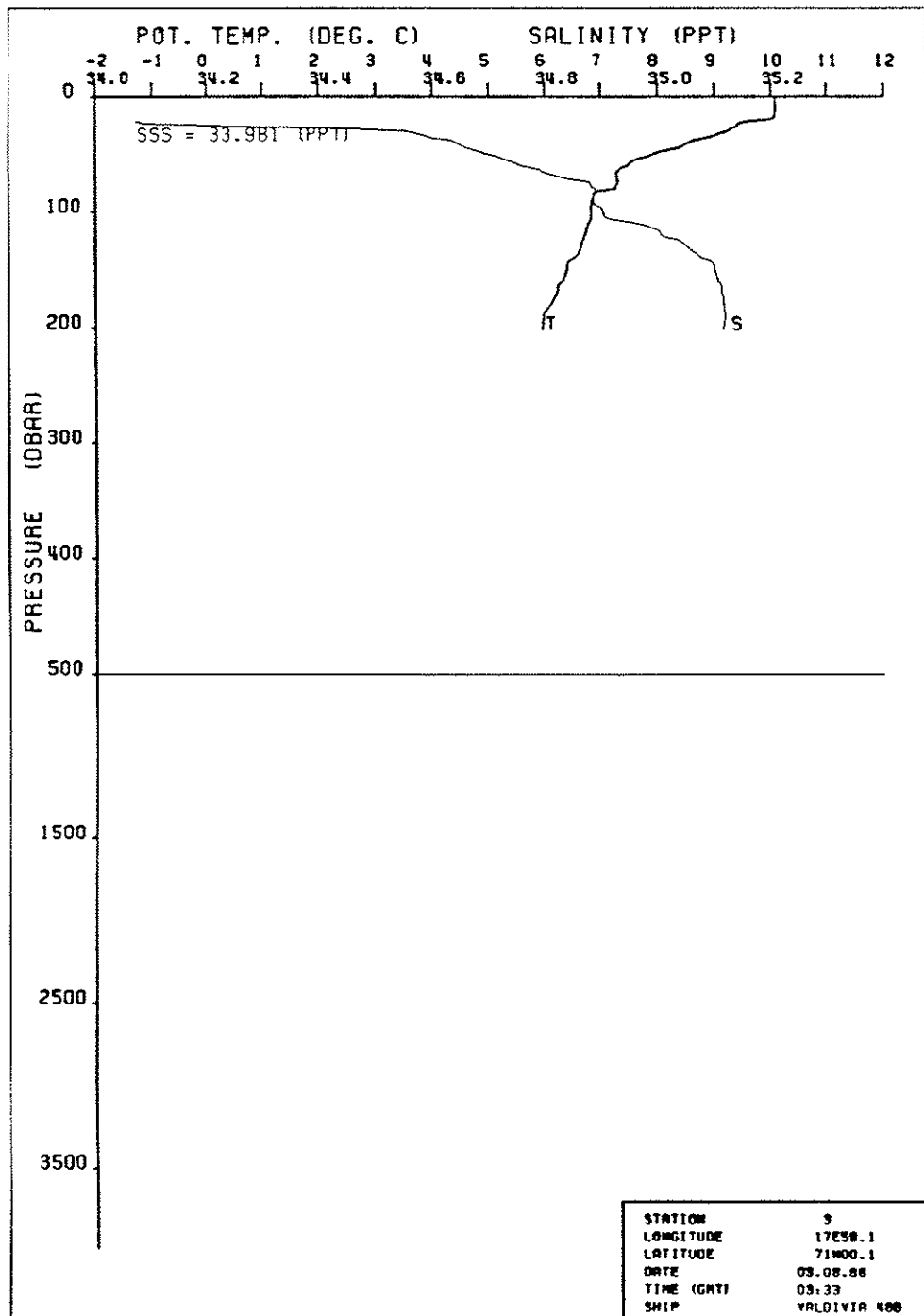
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5.	5.	10.804	33.723	10.803	25.816	0.011	0.00
10.	10.	10.804	33.723	10.802	25.816	0.022	0.00
15.	15.	10.776	33.723	10.775	25.817	0.033	5.41
20.	20.	9.695	33.961	9.693	26.193	0.043	12.60
25.	25.	7.495	34.021	7.493	26.533	0.051	14.70
30.	30.	7.046	34.070	7.043	26.880	0.058	11.26
40.	40.	6.583	34.350	6.580	26.964	0.070	9.65
50.	50.	6.570	34.500	6.565	27.084	0.080	5.36
60.	59.	6.590	34.594	6.585	27.156	0.090	4.17
70.	69.	6.597	34.607	6.591	27.165	0.099	1.76
75.	74.	6.599	34.618	6.593	27.172	0.103	2.21
80.	79.	6.609	34.649	6.601	27.197	0.108	3.62
90.	89.	6.733	34.732	6.725	27.246	0.116	4.48
100.	99.	6.787	34.846	6.777	27.328	0.124	4.35
120.	119.	6.833	34.877	6.822	27.347	0.139	4.51
125.	124.	6.868	34.908	6.857	27.360	0.143	2.41
140.	139.	6.864	34.934	6.851	27.403	0.153	2.61
150.	149.	6.859	34.984	6.845	27.428	0.160	2.79
160.	159.	6.906	35.031	6.891	27.459	0.179	2.87
180.	178.	6.948	35.080	6.931	27.492	0.179	2.49
200.	198.	6.801	35.117	6.783	27.542	0.191	2.44
220.	216.	6.652	35.132	6.632	27.574	0.202	1.95
240.	238.	6.673	35.159	6.651	27.592	0.213	1.71
250.	248.	6.636	35.163	6.613	27.600	0.218	1.32
260.	258.	6.588	35.156	6.564	27.602	0.223	1.62
280.	277.	6.368	35.150	6.343	27.627	0.233	1.71
300.	297.	6.071	35.128	6.045	27.649	0.243	1.80
320.	317.	5.872	35.124	5.844	27.671	0.253	2.12
340.	337.	5.649	35.114	5.620	27.691	0.262	2.02
360.	357.	5.313	35.104	5.283	27.724	0.270	2.37
380.	376.	5.105	35.101	5.075	27.747	0.278	1.74
400.	396.	4.844	35.084	4.812	27.772	0.286	1.64
420.	416.	4.728	35.091	4.696	27.783	0.293	1.43
440.	436.	4.621	35.088	4.587	27.793	0.300	1.01
460.	456.	4.528	35.087	4.493	27.803	0.307	1.12
480.	475.	4.497	35.088	4.460	27.807	0.314	0.41
500.	495.	4.457	35.087	4.419	27.810	0.320	1.13
550.	545.	4.211	35.085	4.170	27.836	0.337	1.14
600.	594.	3.808	35.064	3.764	27.862	0.352	1.28
650.	643.	3.200	35.031	3.156	27.895	0.366	1.47
700.	693.	2.058	34.971	2.017	27.947	0.377	1.85
750.	742.	0.929	34.923	0.892	27.990	0.385	1.73
800.	792.	0.377	34.904	0.339	28.010	0.391	1.04
850.	841.	-0.073	34.898	-0.109	28.031	0.395	0.86
900.	890.	-0.367	34.902	-0.405	28.048	0.398	1.03
1000.	989.	-0.595	34.900	-0.635	28.057	0.402	0.41
1100.	1088.	-0.698	34.900	-0.742	28.062	0.404	0.49
1200.	1186.	-0.760	34.900	-0.809	28.065	0.406	0.35
1300.	1285.	-0.817	34.899	-0.871	28.066	0.407	0.19
1400.	1400.	-0.856	34.898	-0.915	28.067	0.408	0.33
1500.	1482.	-0.894	34.897	-0.957	28.068	0.409	0.00
1750.	1728.	-0.943	34.893	-1.020	28.067	0.408	0.16
2000.	1973.	-0.951	34.894	-1.043	28.069	0.405	0.00



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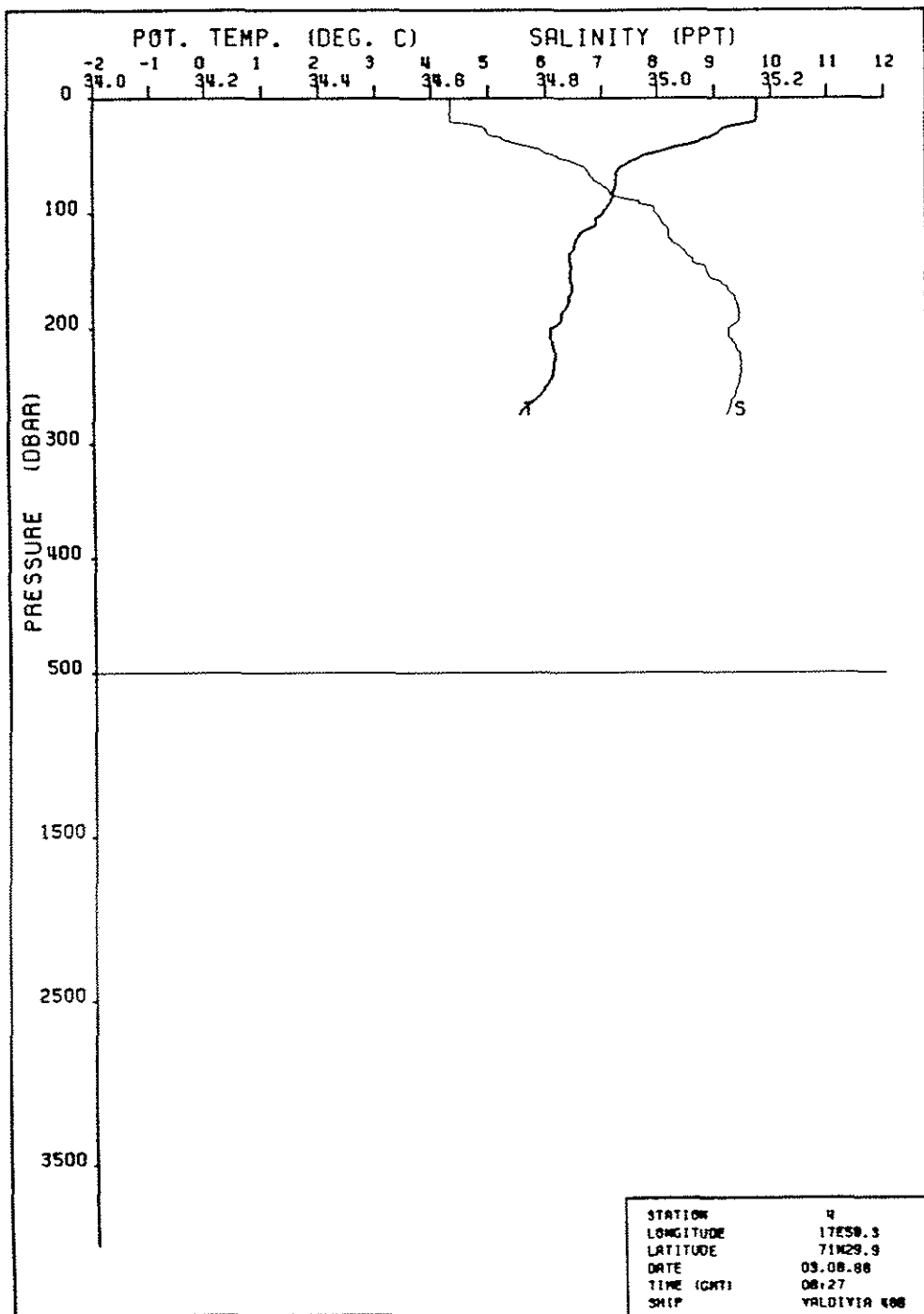
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15.	15.	10.044	33.788	10.043	25.996	0.030	3.13
20.	20.	9.205	33.930	9.202	26.248	0.040	11.13
25.	25.	8.116	34.081	8.113	26.474	0.048	14.24
30.	30.	6.782	34.275	6.779	26.878	0.054	12.56
40.	40.	6.770	34.287	6.756	26.889	0.066	1.34
50.	50.	6.759	34.312	6.755	26.910	0.077	2.47
60.	59.	6.754	34.320	6.748	26.918	0.089	2.34
70.	69.	6.856	34.492	6.849	27.039	0.100	6.06
75.	74.	6.851	34.502	6.944	27.046	0.105	3.93
80.	79.	6.735	34.528	6.728	27.084	0.110	3.72
90.	89.	6.684	34.544	6.676	27.104	0.120	2.90
100.	99.	6.726	34.569	6.717	27.118	0.129	0.83
120.	119.	6.755	34.605	6.744	27.143	0.148	2.65
125.	124.	6.785	34.621	6.774	27.149	0.153	3.24
140.	139.	6.959	34.742	6.946	27.223	0.166	3.69
150.	149.	7.028	34.818	7.014	27.274	0.174	3.03
160.	159.	7.031	34.826	7.016	27.280	0.182	1.97
180.	178.	7.032	34.828	7.015	27.281	0.199	4.06



VALDIVIA 488 STATION 3

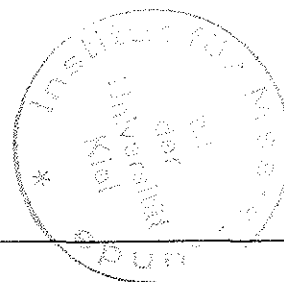
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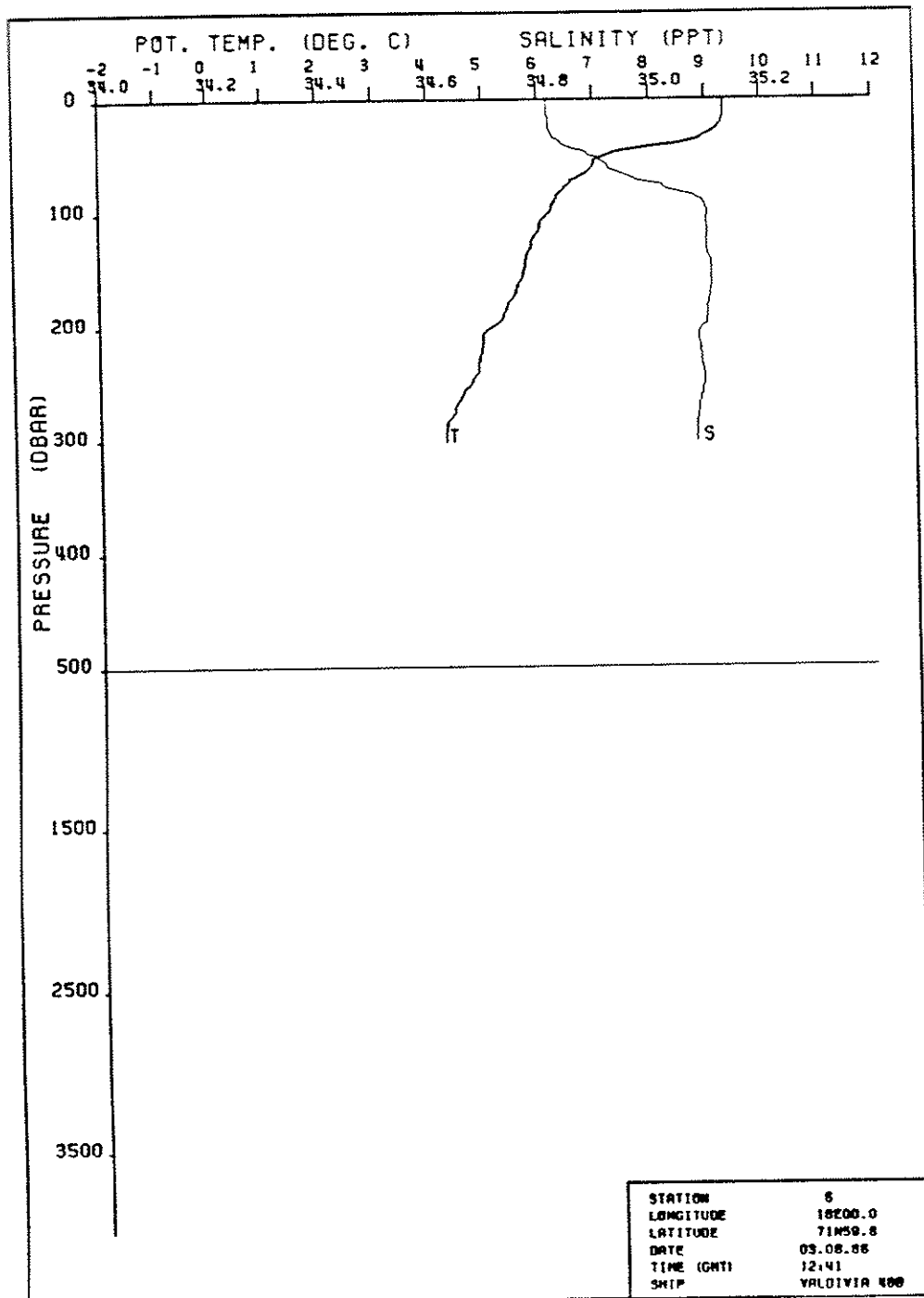
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10.	10.	10.091	33.981	10.089	26.142	0.019	0.25
15.	15.	10.088	33.981	10.087	26.142	0.028	0.62
20.	20.	10.008	33.988	10.005	26.161	0.037	7.08
25.	25.	9.413	34.165	9.410	26.335	0.046	11.34
30.	30.	9.241	34.551	9.237	26.729	0.053	12.12
40.	40.	8.554	34.642	8.550	26.909	0.065	7.29
50.	50.	7.943	34.695	7.938	27.044	0.076	6.72
60.	59.	7.487	34.757	7.481	27.160	0.086	6.15
70.	69.	7.299	34.833	7.292	27.247	0.094	4.42
75.	74.	7.315	34.882	7.308	27.282	0.098	4.47
80.	79.	7.284	34.892	7.277	27.295	0.102	5.11
90.	89.	6.880	34.888	6.872	27.349	0.110	2.04
100.	99.	6.852	34.906	6.842	27.367	0.117	2.20
120.	119.	6.759	35.006	6.748	27.459	0.130	4.10
125.	124.	6.706	35.039	6.695	27.488	0.134	3.51
140.	139.	6.553	35.078	6.540	27.543	0.142	3.51
150.	149.	6.426	35.102	6.413	27.579	0.148	2.94
160.	159.	6.356	35.107	6.341	27.593	0.153	2.26
180.	178.	6.161	35.117	6.145	27.627	0.163	2.38
200.	198.	6.002	35.116	5.985	27.647	0.172	*****



VALDIVIA 488 STATION 4
 LAT 71N29.9 LONG 17E59.3 DATE 03.08.86 TIME (UTC) 08:27

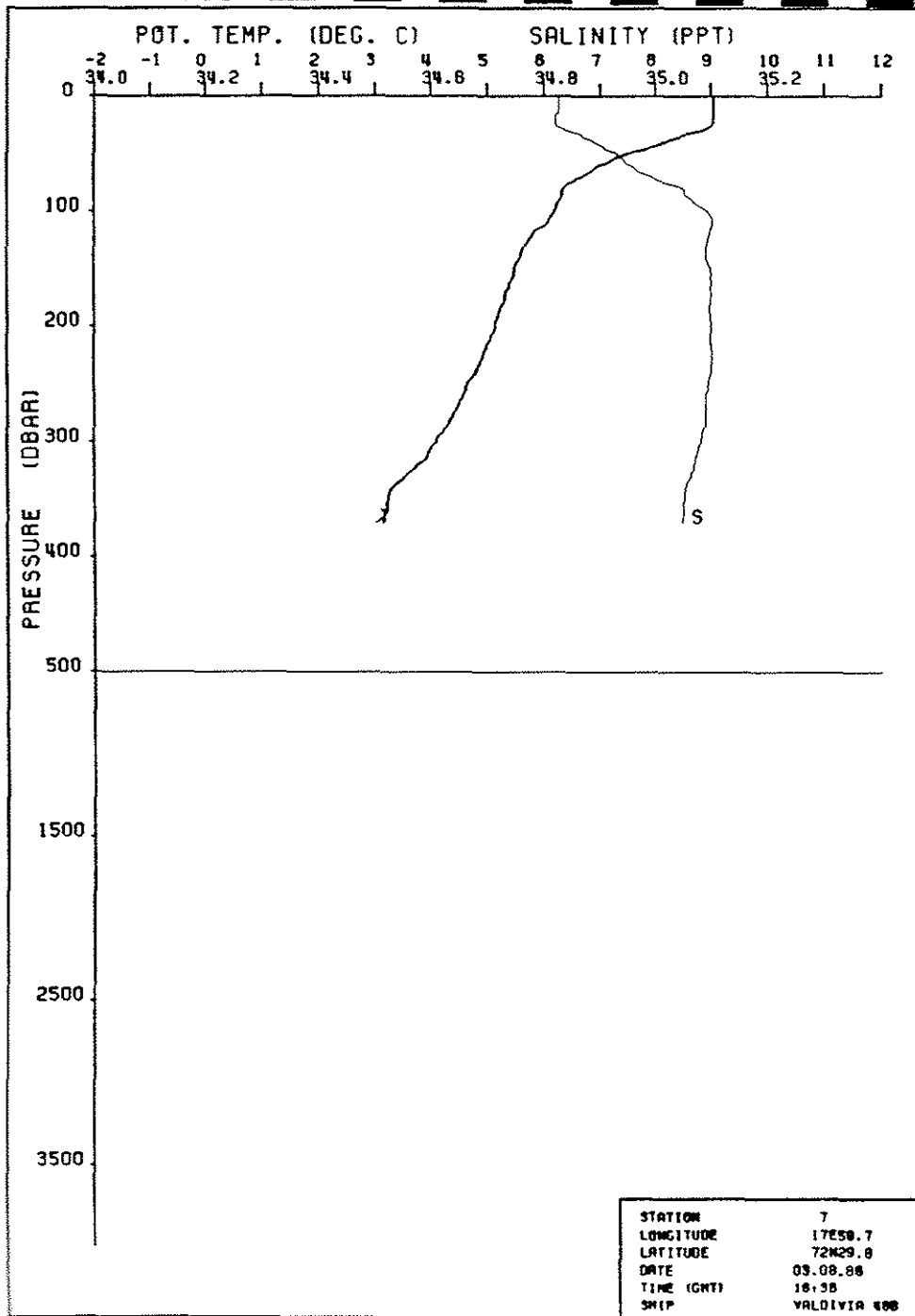
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5.	5.	9.771	34.635	9.771	26.706	0.007	0.00
10.	10.	9.771	34.635	9.770	26.706	0.013	0.24
15.	15.	9.771	34.635	9.770	26.706	0.020	0.37
20.	20.	9.754	34.635	9.752	26.709	0.027	4.47
25.	25.	9.261	34.691	9.259	26.817	0.033	6.91
30.	30.	9.090	34.699	9.085	26.869	0.039	6.08
40.	40.	8.574	34.757	8.570	26.996	0.050	7.00
50.	50.	7.731	34.823	7.725	27.175	0.060	6.64
60.	59.	7.351	34.871	7.346	27.268	0.068	5.48
70.	69.	7.272	34.886	7.265	27.292	0.076	2.31
75.	74.	7.266	34.900	7.259	27.302	0.080	2.56
80.	79.	7.239	34.913	7.231	27.318	0.084	3.10
90.	89.	7.189	34.967	7.191	27.368	0.091	4.11
100.	99.	7.033	34.997	7.024	27.413	0.098	3.79
120.	119.	6.602	35.020	6.591	27.491	0.111	3.46
125.	124.	6.547	35.026	6.535	27.501	0.114	3.18
140.	139.	6.435	35.051	6.423	27.546	0.123	2.76
150.	149.	6.457	35.087	6.444	27.563	0.128	2.28
160.	159.	6.456	35.111	6.441	27.583	0.133	2.13
180.	178.	6.421	35.142	6.405	27.612	0.144	2.45
200.	198.	6.133	35.126	6.115	27.638	0.153	1.35
220.	218.	6.166	35.141	6.146	27.645	0.163	1.00
240.	238.	6.146	35.146	6.125	27.652	0.172	1.32
250.	248.	6.048	35.143	6.026	27.662	0.177	1.78
260.	258.	5.869	35.135	5.847	27.679	0.181	2.46





VALDIVIA 488 STATION 6
 LAT 71NS9.8 LONG 18200.0 DATE 03.08.86 TIME (GMT) 12:41

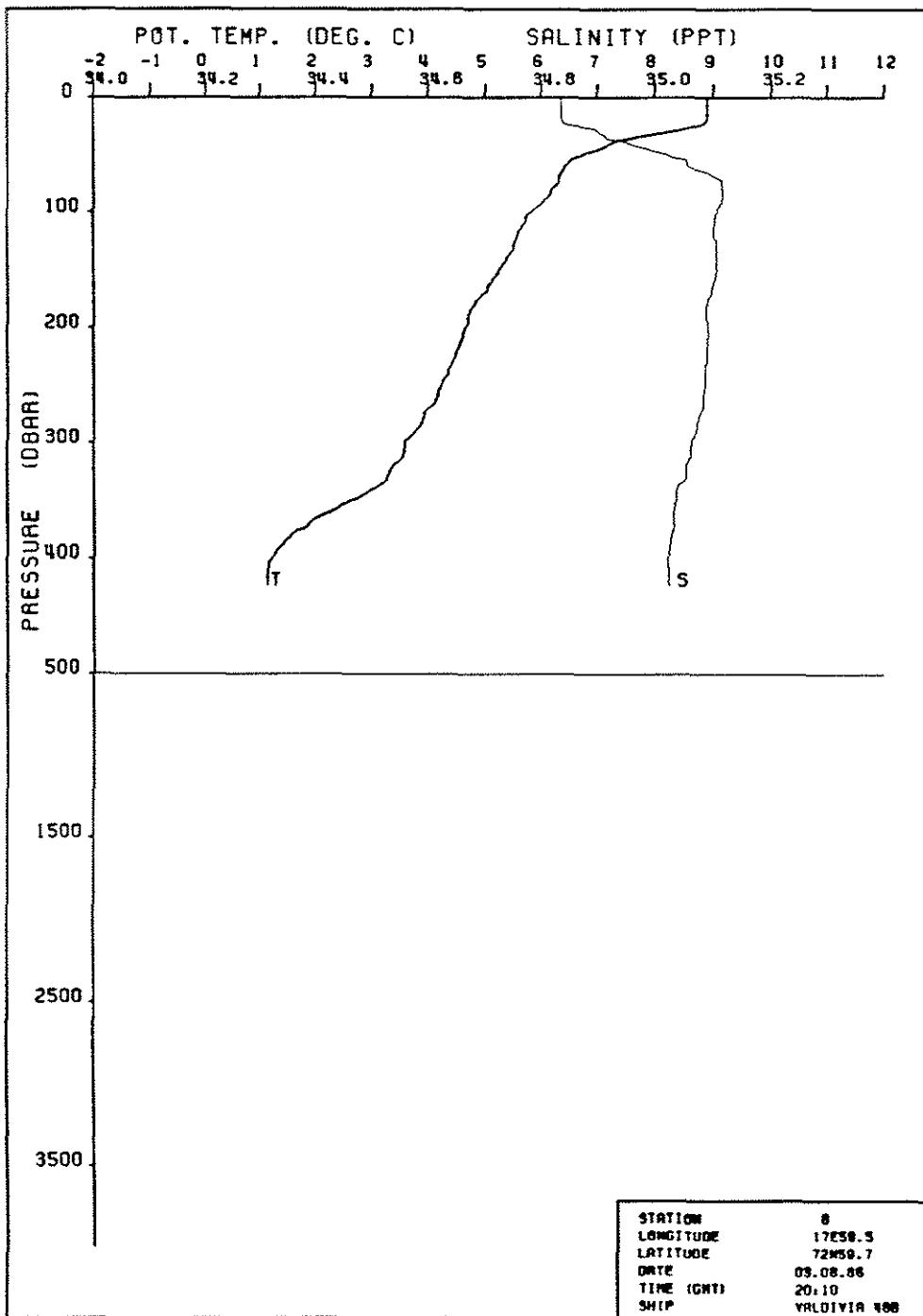
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-S (DYN-M)	NuN (CPH)
0.	0.	9.346	34.818	9.346	26.920	0.000	0.00
5.	5.	9.346	34.818	9.346	26.920	0.006	0.00
10.	10.	9.346	34.818	9.345	26.920	0.011	0.24
15.	15.	9.346	34.819	9.344	26.920	0.017	1.00
20.	20.	9.320	34.820	9.318	26.925	0.023	1.71
25.	25.	9.248	34.821	9.245	26.935	0.028	2.74
30.	30.	9.117	34.825	9.114	26.963	0.034	4.01
40.	40.	8.516	34.846	8.512	27.075	0.044	7.53
50.	50.	7.265	34.892	7.260	27.298	0.053	7.36
60.	59.	7.000	34.928	6.995	27.363	0.060	3.51
70.	69.	6.722	34.973	6.715	27.437	0.067	5.19
75.	74.	6.590	35.012	6.583	27.473	0.070	5.53
80.	79.	6.484	35.032	6.477	27.516	0.073	5.02
90.	89.	6.310	35.096	6.303	27.589	0.078	4.24
100.	99.	6.232	35.104	6.223	27.606	0.083	2.52
120.	119.	5.980	35.104	5.970	27.639	0.093	1.81
125.	124.	5.915	35.102	5.904	27.645	0.095	1.91
140.	139.	5.815	35.108	5.803	27.663	0.102	1.85
150.	149.	5.774	35.111	5.761	27.671	0.106	1.61
160.	159.	5.709	35.111	5.696	27.679	0.110	1.69
180.	178.	5.479	35.106	5.464	27.704	0.119	1.89
200.	198.	5.203	35.095	5.187	27.729	0.127	2.27
220.	218.	5.020	35.091	5.002	27.747	0.134	1.32
240.	238.	4.937	35.096	4.919	27.761	0.141	1.80
250.	248.	4.823	35.097	4.804	27.775	0.145	2.14
260.	258.	4.651	35.093	4.632	27.792	0.148	1.92
280.	277.	4.460	35.085	4.439	27.807	0.155	1.74
300.	297.	4.328	35.084	4.306	27.820	0.161	*****



VALDIVIA 488 STATION 7

LAT 72N29.8 LONG 17E59.7 DATE 03.08.86 TIME (UTC) 16:35

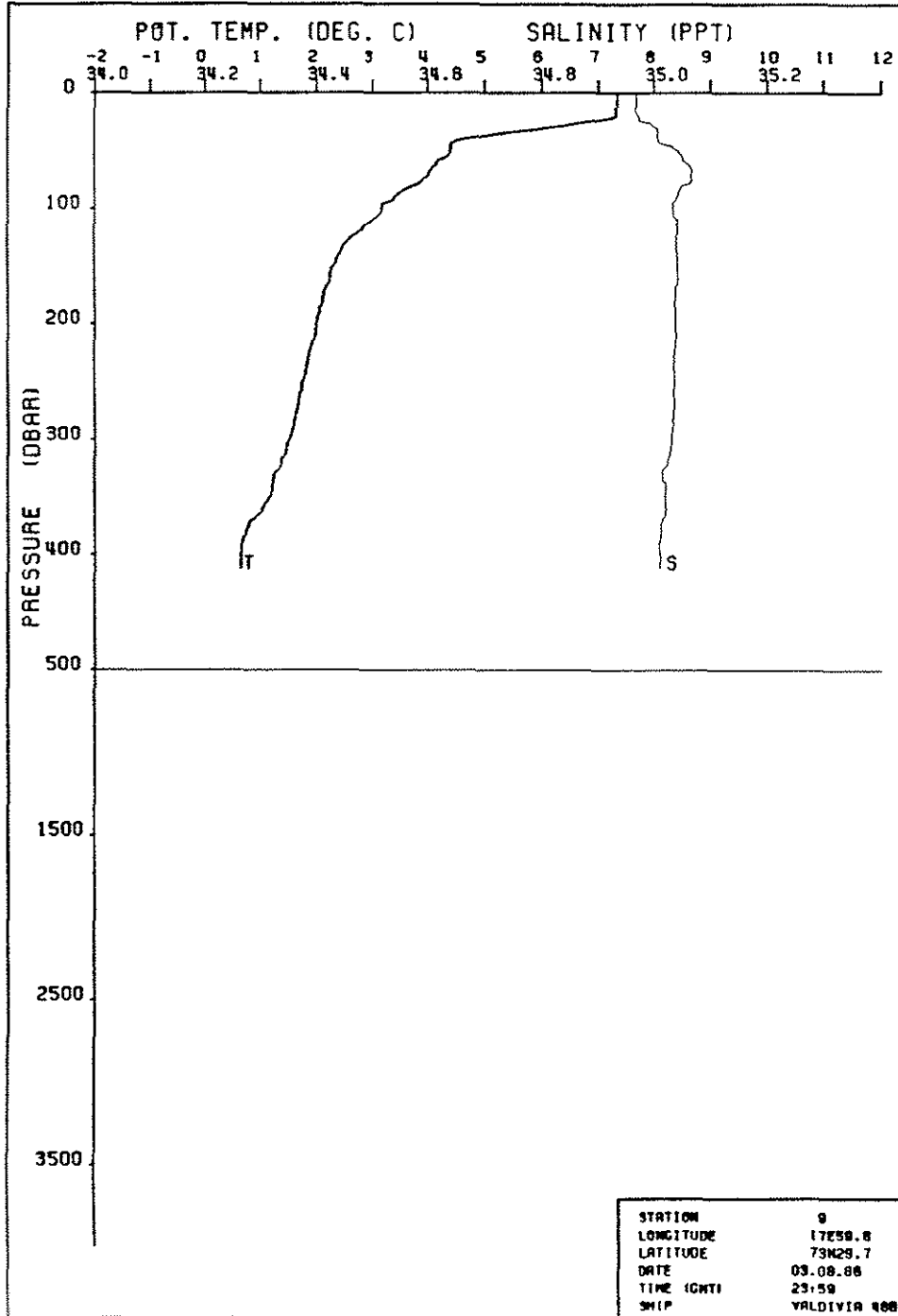
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-O (DYN-M)	N-N (CPH)
0.	0.	9.049	34.826	9.049	26.975	0.000	0.00
5.	5.	9.049	34.826	9.049	26.975	0.005	0.00
10.	10.	9.049	34.826	9.048	26.975	0.011	0.23
15.	15.	9.049	34.824	9.048	26.975	0.016	*****
20.	20.	9.048	34.820	9.045	26.970	0.021	2.15
25.	25.	9.024	34.822	9.021	26.973	0.027	2.35
30.	30.	8.813	34.840	8.810	27.023	0.032	5.78
40.	40.	8.145	34.890	8.141	27.166	0.042	5.70
50.	50.	7.495	34.932	7.490	27.296	0.050	6.56
60.	59.	6.972	34.955	6.967	27.388	0.058	5.25
70.	69.	6.682	34.995	6.675	27.460	0.064	4.87
75.	74.	6.475	35.019	6.468	27.495	0.067	5.39
80.	79.	6.358	35.050	6.351	27.547	0.070	4.86
90.	89.	6.306	35.066	6.298	27.566	0.075	2.72
100.	99.	6.200	35.095	6.191	27.603	0.080	3.23
120.	119.	5.818	35.098	5.808	27.655	0.090	2.58
125.	124.	5.751	35.094	5.741	27.659	0.092	2.42
140.	139.	5.614	35.093	5.602	27.677	0.098	2.14
150.	149.	5.502	35.100	5.490	27.696	0.103	1.94
160.	159.	5.450	35.102	5.437	27.704	0.107	1.56
180.	178.	5.307	35.101	5.293	27.720	0.115	1.73
200.	198.	5.154	35.100	5.138	27.739	0.122	1.63
220.	218.	5.003	35.102	4.986	27.758	0.130	1.85
240.	238.	4.827	35.101	4.809	27.778	0.137	1.90
250.	248.	4.681	35.096	4.662	27.791	0.140	1.75
260.	258.	4.596	35.092	4.577	27.797	0.143	1.65
280.	277.	4.383	35.090	4.362	27.819	0.149	1.90
300.	297.	4.126	35.083	4.104	27.842	0.155	1.81
320.	317.	3.782	35.072	3.760	27.868	0.161	2.24
340.	337.	3.328	35.055	3.305	27.900	0.166	1.92
360.	357.	3.242	35.051	3.218	27.906	0.170	1.31



VALDIVIA 488 STATION 8

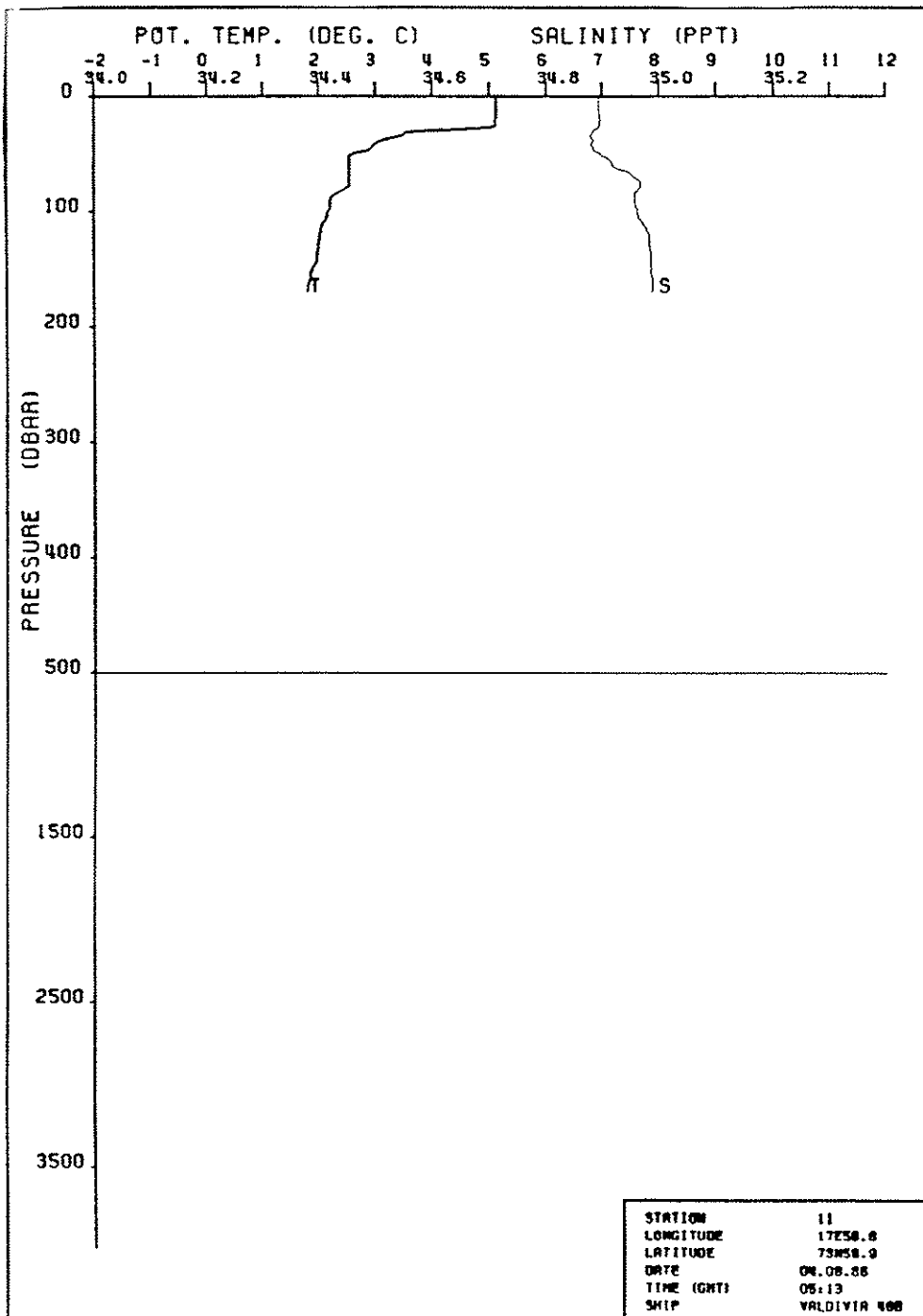
LAT 72N59.7 LONG 17E59.5 DATE 03.08.86 TIME (UTC) 20:10

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	N=N (CPH)
0.	0.	8.901	34.837	8.901	27.007	0.000	0.00
5.	5.	8.901	34.837	8.901	27.007	0.005	0.00
10.	10.	8.901	34.837	8.900	27.007	0.010	0.23
15.	15.	8.901	34.837	8.900	27.007	0.016	0.30
20.	20.	8.897	34.839	8.895	27.009	0.021	1.40
25.	25.	8.727	34.860	8.725	27.027	0.026	5.31
30.	30.	8.309	34.900	8.306	27.149	0.031	7.45
40.	40.	7.248	34.953	7.244	27.347	0.039	7.63
50.	50.	6.732	35.022	6.728	27.474	0.046	6.15
60.	59.	6.426	35.058	6.421	27.544	0.051	4.32
70.	69.	6.330	35.108	6.324	27.596	0.056	3.99
75.	74.	6.307	35.115	6.301	27.602	0.059	3.13
80.	79.	6.193	35.116	6.186	27.620	0.061	2.54
90.	89.	6.058	35.116	6.050	27.638	0.066	2.46
100.	99.	5.844	35.109	5.836	27.660	0.070	2.73
120.	119.	5.601	35.101	5.591	27.684	0.079	2.11
125.	124.	5.554	35.106	5.544	27.693	0.081	1.92
140.	139.	5.396	35.107	5.384	27.714	0.087	2.17
150.	149.	5.262	35.106	5.250	27.730	0.091	2.13
160.	159.	5.139	35.102	5.126	27.741	0.095	1.86
180.	178.	4.841	35.090	4.827	27.767	0.102	2.17
200.	198.	4.692	35.092	4.676	27.785	0.108	1.51
220.	218.	4.542	35.090	4.526	27.801	0.115	1.59
240.	238.	4.379	35.087	4.361	27.817	0.121	1.72
250.	248.	4.256	35.086	4.238	27.829	0.124	1.65
260.	258.	4.185	35.084	4.166	27.835	0.127	1.77
280.	277.	3.929	35.075	3.909	27.855	0.132	1.65
300.	297.	3.616	35.064	3.596	27.879	0.137	1.56
320.	317.	3.405	35.056	3.384	27.893	0.142	1.86
340.	337.	3.027	35.039	3.005	27.916	0.147	2.47
360.	357.	2.275	35.032	2.254	27.977	0.150	3.17
380.	376.	1.577	35.029	1.557	28.029	0.152	2.33
400.	396.	1.248	35.023	1.228	28.048	0.154	1.56
420.	416.	1.141	35.023	1.141	28.054	0.155	*****



VALDIVIA 488 STATION 9
 LAT 73N29.7 LONG 17E59.8 DATE 03.08.86 TIME (UTC) 23:59

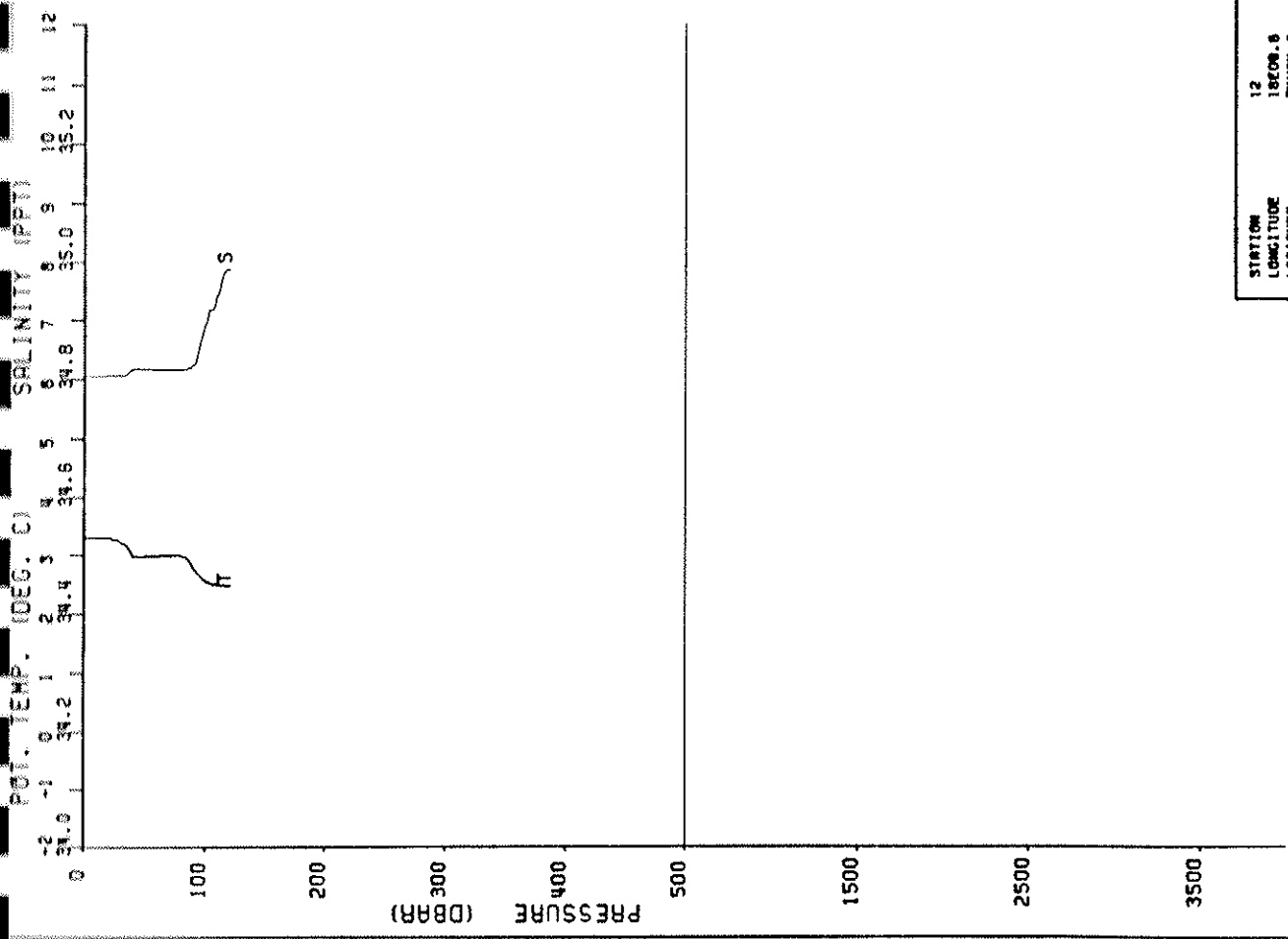
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTEP	DEL-S (DYN-M)	N*W (CPH)
0.	0.	7.329	34.967	7.329	27.347	0.000	0.00
5.	5.	7.329	34.967	7.328	27.347	0.004	0.00
10.	10.	7.329	34.967	7.328	27.347	0.007	0.21
15.	15.	7.325	34.968	7.323	27.347	0.011	0.87
20.	20.	7.318	34.973	7.316	27.353	0.014	2.95
25.	25.	6.794	34.984	6.792	27.408	0.018	6.44
30.	30.	6.083	35.007	6.081	27.548	0.021	8.13
40.	40.	4.631	35.009	4.628	27.725	0.025	7.02
50.	50.	4.419	35.045	4.416	27.777	0.029	3.45
60.	59.	4.180	35.057	4.176	27.813	0.032	3.71
70.	69.	4.035	35.067	4.030	27.837	0.034	2.34
75.	74.	3.931	35.067	3.926	27.846	0.036	2.23
80.	79.	3.781	35.049	3.776	27.849	0.037	2.82
90.	89.	3.411	35.042	3.405	27.880	0.039	2.31
100.	99.	3.189	35.034	3.183	27.895	0.041	2.29
120.	119.	2.781	35.044	2.773	27.941	0.045	2.88
125.	124.	2.643	35.042	2.636	27.948	0.046	2.49
140.	139.	2.431	35.042	2.423	27.970	0.048	1.76
150.	149.	2.318	35.043	2.310	27.981	0.049	1.64
160.	159.	2.259	35.043	2.250	27.986	0.051	1.28
180.	178.	2.127	35.039	2.117	27.994	0.053	1.26
200.	198.	2.015	35.039	2.004	28.003	0.055	1.03
220.	218.	1.933	35.040	1.921	28.010	0.058	1.10
240.	238.	1.838	35.037	1.825	28.016	0.060	0.97
250.	248.	1.781	35.037	1.767	28.020	0.061	1.10
260.	258.	1.729	35.037	1.715	28.023	0.061	1.14
280.	277.	1.642	35.036	1.627	28.029	0.063	0.90
300.	297.	1.541	35.032	1.526	28.034	0.065	1.04
320.	317.	1.406	35.026	1.390	28.039	0.066	0.33
340.	337.	1.243	35.022	1.226	28.048	0.068	1.29
360.	357.	1.058	35.022	1.040	28.061	0.069	1.67
380.	376.	0.766	35.014	0.749	28.073	0.070	1.12
400.	396.	0.670	35.011	0.652	28.077	0.071	0.50



VALDIVIA 488 STATION 11

LAT 73N59.9 LONG 17E58.6 DATE 04.08.86 TIME (UTC) 05:13

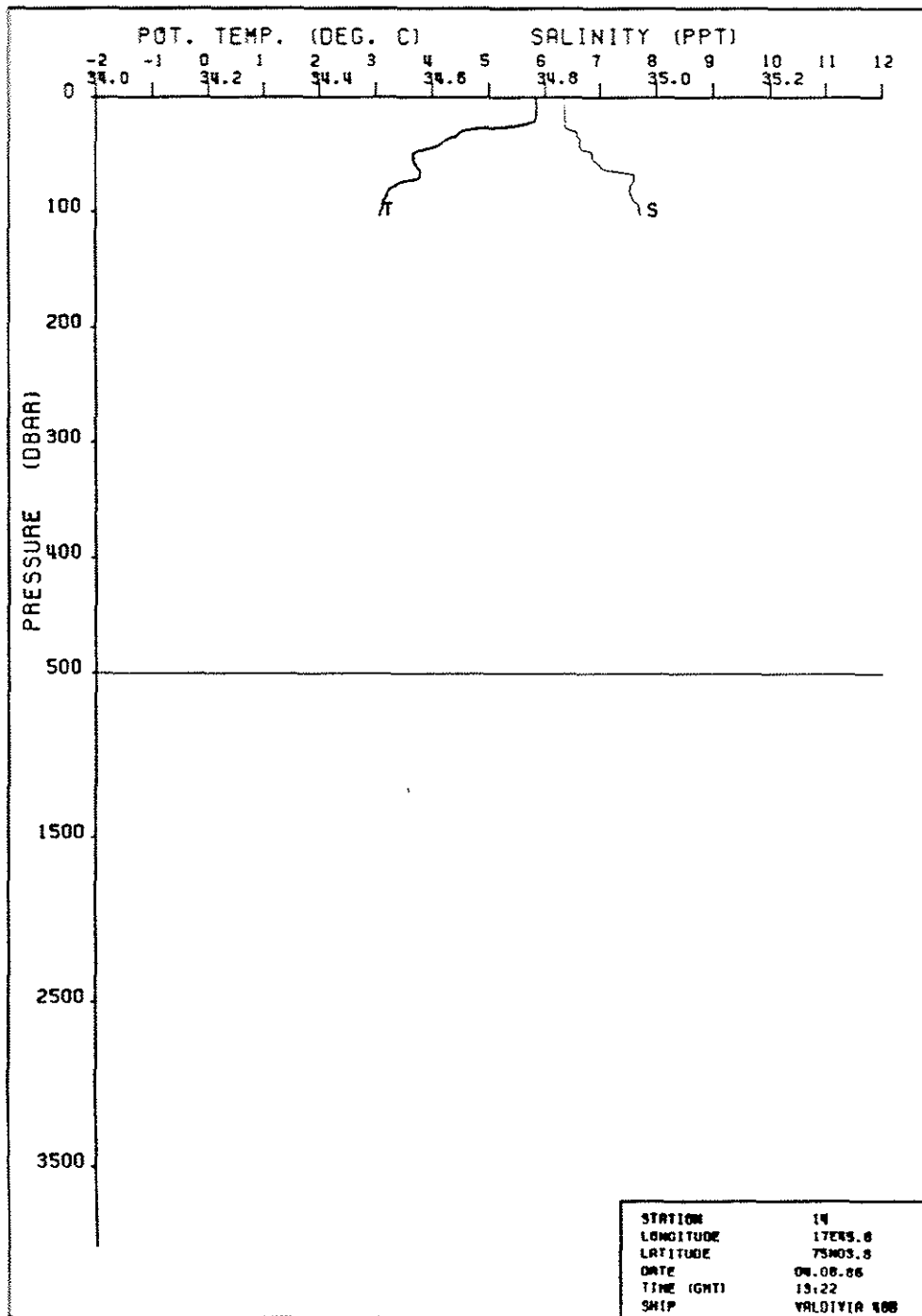
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DBY-M)	N*W (CPH)
0.	0.	5.121	34.895	5.121	27.578	0.000	0.00
5.	5.	5.121	34.895	5.120	27.578	0.003	0.00
10.	10.	5.121	34.895	5.120	27.578	0.005	0.17
15.	15.	5.121	34.895	5.120	27.578	0.008	0.55
20.	20.	5.121	34.897	5.119	27.579	0.010	0.68
25.	25.	5.115	34.896	5.113	27.579	0.013	1.40
30.	30.	4.211	34.885	4.209	27.673	0.015	7.13
40.	40.	3.062	34.885	3.059	27.787	0.018	4.02
50.	50.	2.648	34.897	2.645	27.835	0.021	4.14
60.	59.	2.553	34.919	2.549	27.861	0.024	2.41
70.	69.	2.557	34.956	2.553	27.890	0.026	3.15
75.	74.	2.560	34.967	2.556	27.899	0.027	2.11
80.	79.	2.499	34.967	2.494	27.904	0.028	1.77
90.	89.	2.236	34.959	2.231	27.920	0.030	2.22
100.	99.	2.195	34.962	2.190	27.926	0.032	1.47
120.	119.	2.050	34.983	2.043	27.955	0.035	1.81
125.	124.	2.030	34.984	2.023	27.957	0.036	1.44
140.	139.	1.987	34.987	1.979	27.963	0.038	1.27
150.	149.	1.912	34.989	1.904	27.970	0.039	1.37
160.	159.	1.863	34.989	1.854	27.975	0.041	1.36



STATION 12
 LONGITUDE 18E09.8
 LATITUDE 74NS4.8
 DATE 08.08.88
 TIME (GMT) 08:22
 SHIP VALDIVIA 888

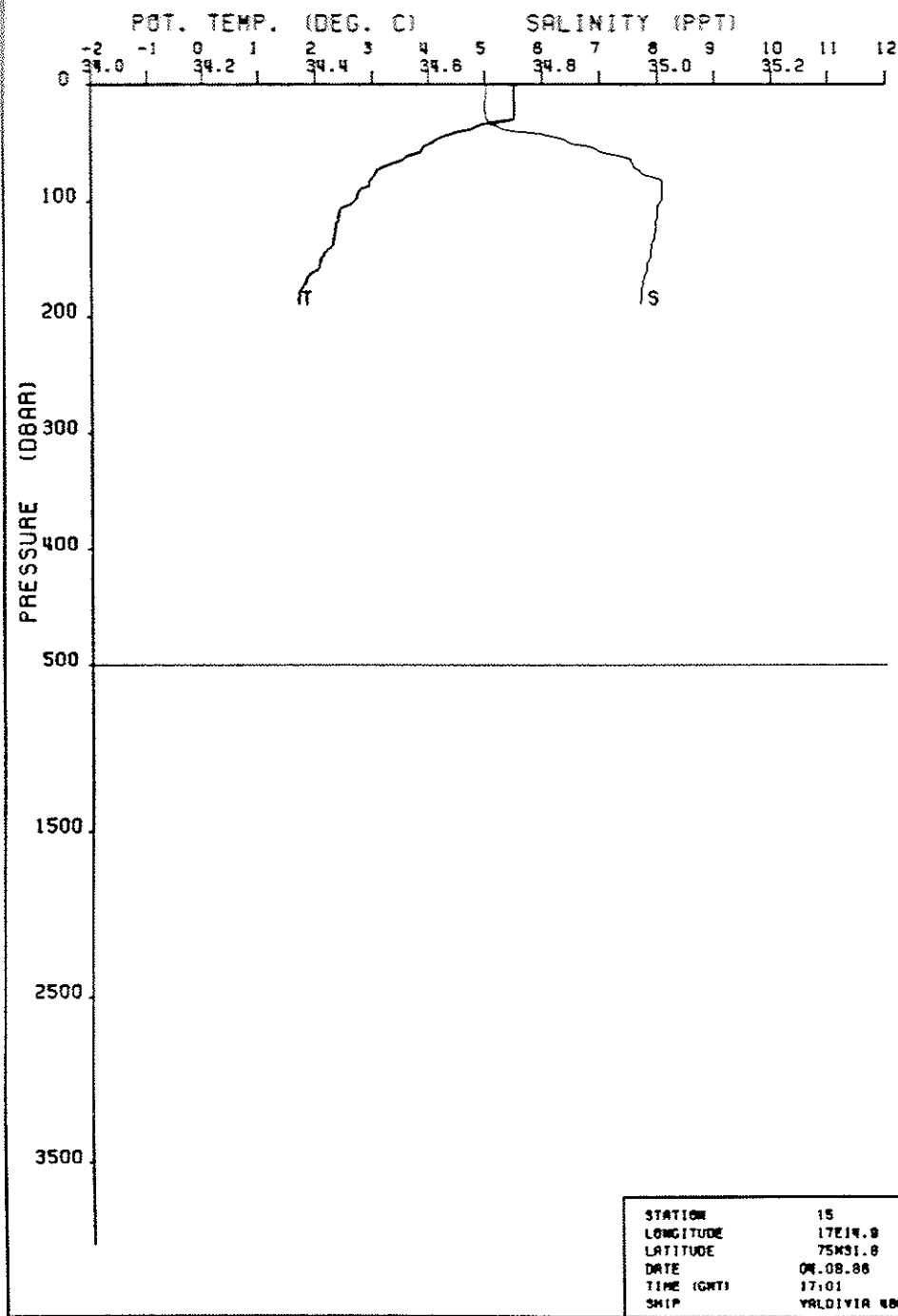
VALDIVIA 888 STATION 12
 LAT 74NS4.8 LONG 18E09.8 DATE 08.08.88 TIME 08:22:00Z

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGMA T	TOTAL DELTA SIGMA T	SPK (DBAR)
0.	0.	3.312	34.806	3.312	27.701	0.000	0.00
5.	5.	3.312	34.806	3.311	27.701	0.002	0.00
10.	10.	3.312	34.806	3.311	27.701	0.004	0.18
15.	15.	3.312	34.806	3.311	27.701	0.005	0.20
20.	20.	3.312	34.806	3.311	27.701	0.008	0.37
25.	25.	3.280	34.806	3.279	27.704	0.010	1.14
30.	30.	3.239	34.806	3.237	27.708	0.012	1.55
40.	40.	3.002	34.818	2.999	27.740	0.015	3.17
50.	50.	2.990	34.818	2.987	27.741	0.019	1.26
59.	59.	2.998	34.817	2.994	27.739	0.022	1.39
70.	69.	3.009	34.817	3.005	27.739	0.026	1.68
75.	74.	3.009	34.817	3.004	27.739	0.028	0.43
80.	79.	3.006	34.817	3.001	27.739	0.029	0.62
90.	88.	2.807	34.826	2.802	27.764	0.033	3.07
100.	99.	2.601	34.890	2.596	27.834	0.036	4.77
120.	119.	2.495	34.988	2.488	27.922	0.040	9.87



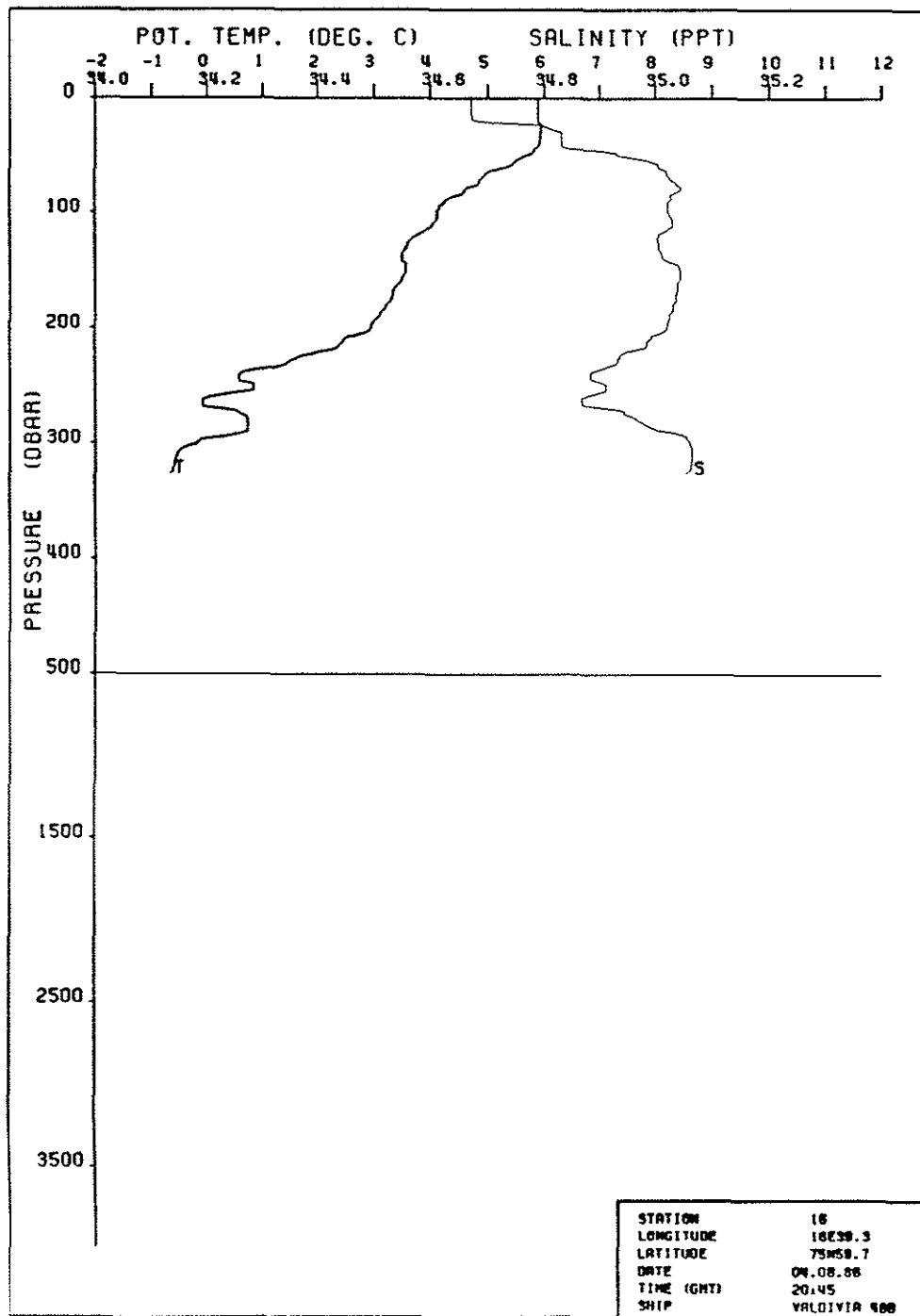
VALDIVIA 488 STATION 14
 LAT 75N03.8 LONG 17E45.8 DATE 04.08.86 TIME (UTC) 13:22

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	N=N (CPH)
0.	0.	5.836	34.835	5.836	27.443	0.000	0.00
5.	5.	5.836	34.835	5.836	27.443	0.003	0.00
10.	10.	5.836	34.835	5.835	27.444	0.006	0.18
15.	15.	5.836	34.835	5.835	27.444	0.009	0.18
20.	20.	5.835	34.835	5.833	27.444	0.013	0.92
25.	25.	5.555	34.837	5.553	27.464	0.016	5.30
30.	30.	4.525	34.858	4.522	27.617	0.018	7.49
40.	40.	4.189	34.865	4.186	27.659	0.023	3.66
50.	50.	3.676	34.885	3.672	27.729	0.027	4.47
60.	59.	3.718	34.901	3.714	27.737	0.030	1.34
70.	69.	3.786	34.960	3.781	27.777	0.034	3.93
75.	74.	3.419	34.958	3.414	27.810	0.035	3.83
80.	79.	3.265	34.953	3.260	27.824	0.037	3.57
90.	89.	3.150	34.959	3.144	27.839	0.039	2.33
100.	99.	3.094	34.968	3.087	27.851	0.042	2.08



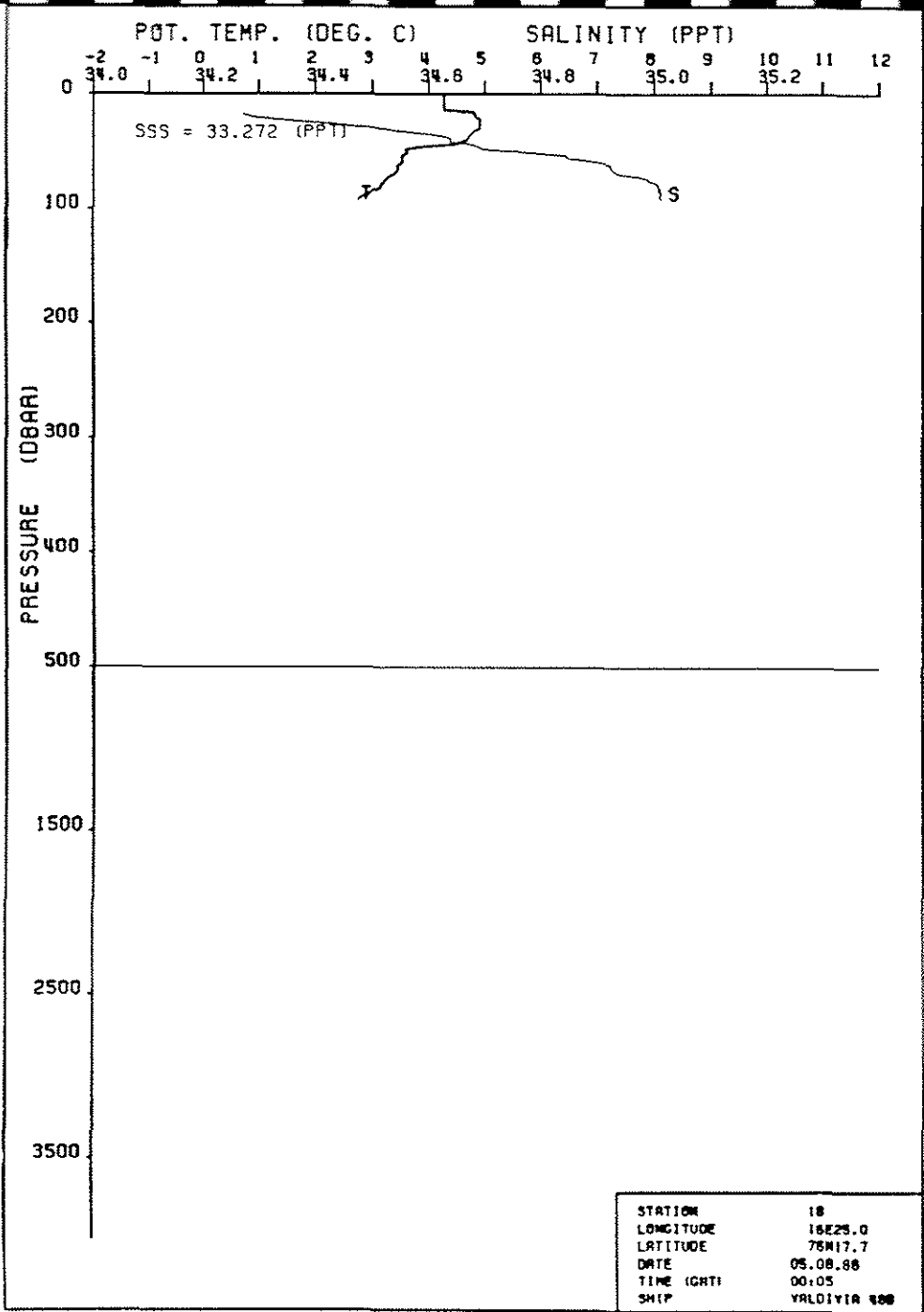
VALDIVIA 488 STATION 15
 LAT 75N31.8 LONG 17E14.9 DATE 04.08.88 TIME (UTC) 17:01

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-S (GYN-M)	NUM (CPH)
0.	0.	5.518	34.703	5.518	27.378	0.000	0.00
5.	5.	5.518	34.703	5.518	27.378	0.003	0.00
10.	10.	5.518	34.703	5.518	27.378	0.007	0.18
15.	15.	5.521	34.701	5.520	27.378	0.010	*****
20.	20.	5.527	34.699	5.525	27.375	0.014	*****
25.	25.	5.528	34.702	5.526	27.376	0.017	0.80
30.	30.	5.521	34.705	5.519	27.380	0.021	3.51
40.	40.	4.557	34.756	4.555	27.532	0.027	7.12
50.	50.	4.084	34.846	4.080	27.655	0.032	5.54
60.	59.	3.765	34.915	3.761	27.744	0.036	5.66
70.	69.	3.273	34.958	3.269	27.827	0.039	4.44
75.	74.	3.086	34.970	3.081	27.854	0.040	3.90
80.	79.	3.028	34.991	3.023	27.876	0.041	4.17
90.	89.	2.829	35.009	2.823	27.908	0.043	2.59
100.	99.	2.700	35.008	2.694	27.919	0.045	1.40
120.	119.	2.404	34.998	2.397	27.937	0.049	0.89
125.	124.	2.379	34.997	2.372	27.939	0.049	0.63
140.	139.	2.311	34.990	2.303	27.939	0.052	1.23
150.	149.	2.135	34.988	2.126	27.952	0.053	1.44
160.	159.	2.070	34.982	2.061	27.952	0.055	1.48
180.	178.	1.753	34.972	1.743	27.970	0.058	1.03



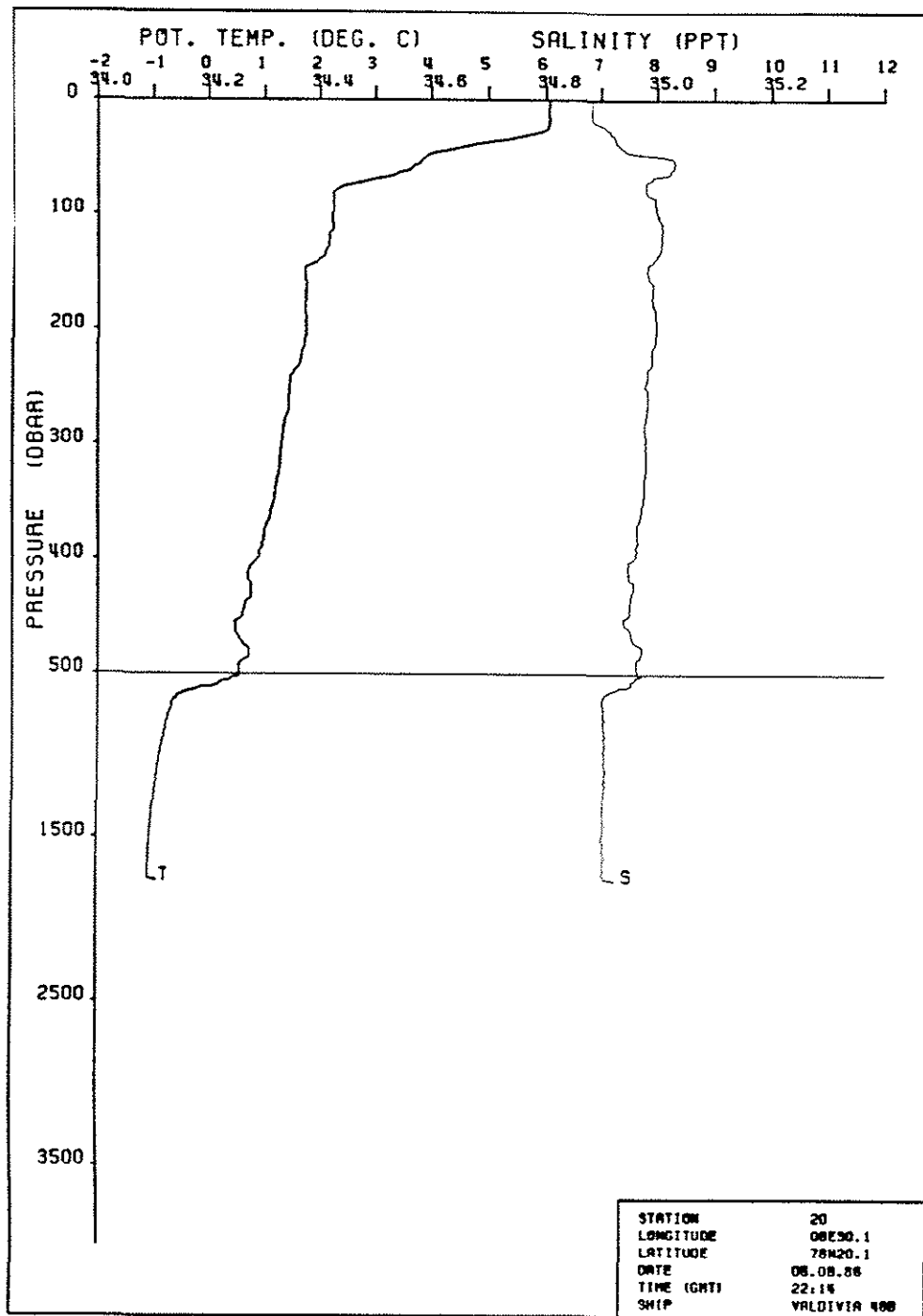
VALDIVIA 488 STATION 16
 LAT 75S59.7 LONG 16E39.3 DATE 04.08.86 TIME (UTC) 20:45

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	N=N (CPH)
0.	0.	5.890	34.671	5.890	27.307	0.000	0.00
5.	5.	5.890	34.671	5.889	27.307	0.004	0.00
10.	10.	5.890	34.671	5.889	27.307	0.008	0.18
15.	15.	5.890	34.671	5.889	27.307	0.011	0.57
20.	20.	5.891	34.675	5.889	27.310	0.015	3.08
25.	25.	5.939	34.801	5.937	27.399	0.019	5.74
30.	30.	5.939	34.830	5.936	27.426	0.022	5.36
40.	40.	5.920	34.832	5.917	27.431	0.028	1.52
50.	50.	5.693	34.930	5.689	27.537	0.034	6.66
60.	59.	5.339	35.005	5.334	27.640	0.039	5.34
70.	69.	4.902	35.027	4.897	27.709	0.043	3.99
75.	74.	4.845	35.038	4.840	27.721	0.045	3.71
80.	79.	4.617	35.046	4.611	27.757	0.047	3.38
90.	89.	4.273	35.024	4.266	27.777	0.050	3.02
100.	99.	4.129	35.024	4.122	27.793	0.054	2.00
120.	119.	3.755	35.007	3.747	27.818	0.060	2.10
125.	124.	3.639	35.006	3.630	27.826	0.061	2.18
140.	139.	3.516	35.014	3.507	27.848	0.065	2.32
150.	149.	3.578	35.046	3.568	27.867	0.067	1.95
160.	159.	3.496	35.040	3.485	27.871	0.070	1.66
180.	178.	3.244	35.033	3.232	27.890	0.074	1.40
200.	198.	2.975	35.022	2.962	27.906	0.079	2.13
220.	218.	2.106	34.950	2.094	27.924	0.082	2.27
240.	238.	0.597	34.886	0.587	27.981	0.085	2.10
250.	248.	0.853	34.912	0.841	27.985	0.087	1.90
260.	258.	0.004	34.870	-0.006	28.001	0.088	2.50
280.	277.	0.733	34.971	0.721	28.041	0.089	2.53
300.	297.	-0.159	35.063	-0.170	28.166	0.090	4.32
320.	317.	-0.588	35.064	-0.599	28.168	0.088	*****



VALDIVIA 488 STATION 18
 LAT 78N17.7 LONG 16E25.0 DATE 05.08.86 TIME (UTC) 00:05

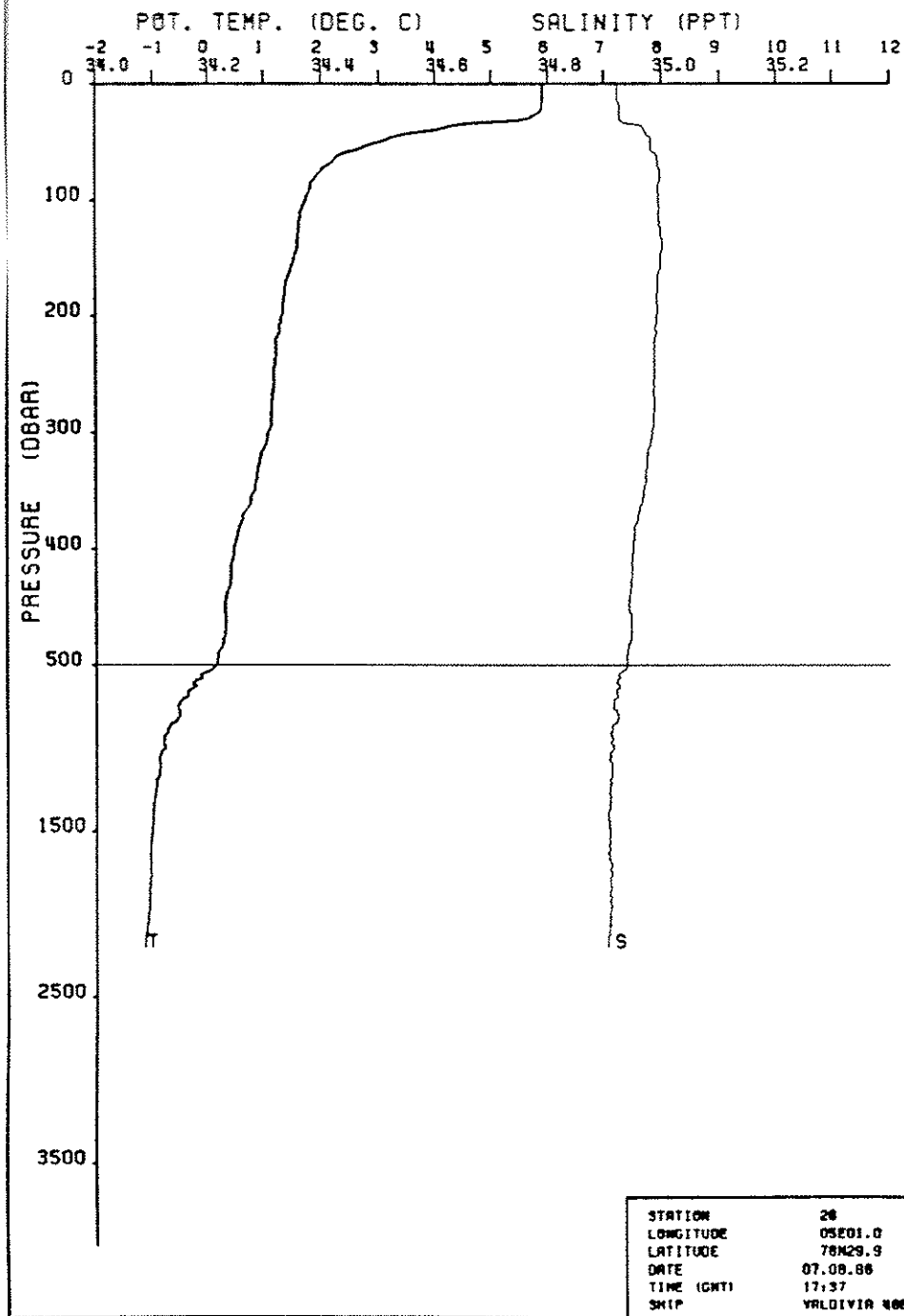
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTEP	DEL-D (DYN-M)	N*W (CPH)
0.	0.	4.268	33.272	4.268	26.384	0.000	0.00
5.	5.	4.268	33.272	4.268	26.384	0.008	0.00
10.	10.	4.268	33.272	4.267	26.384	0.016	0.15
15.	15.	4.535	33.557	4.534	26.384	0.024	13.22
20.	20.	4.843	34.290	4.841	27.131	0.030	15.57
25.	25.	4.910	34.394	4.908	27.124	0.034	9.39
30.	30.	4.910	34.521	4.907	27.306	0.038	7.65
40.	40.	4.679	34.639	4.676	27.425	0.045	5.69
50.	50.	3.609	34.753	3.606	27.633	0.051	8.48
60.	59.	3.538	34.906	3.534	27.753	0.055	6.01
70.	69.	3.403	34.937	3.399	27.797	0.058	4.03
75.	74.	3.243	34.990	3.238	27.853	0.059	4.92
80.	79.	3.172	35.006	3.167	27.875	0.060	3.92
90.	89.	2.805	35.008	2.799	27.910	0.062	3.45



VALDIVIA 488 STATION 20

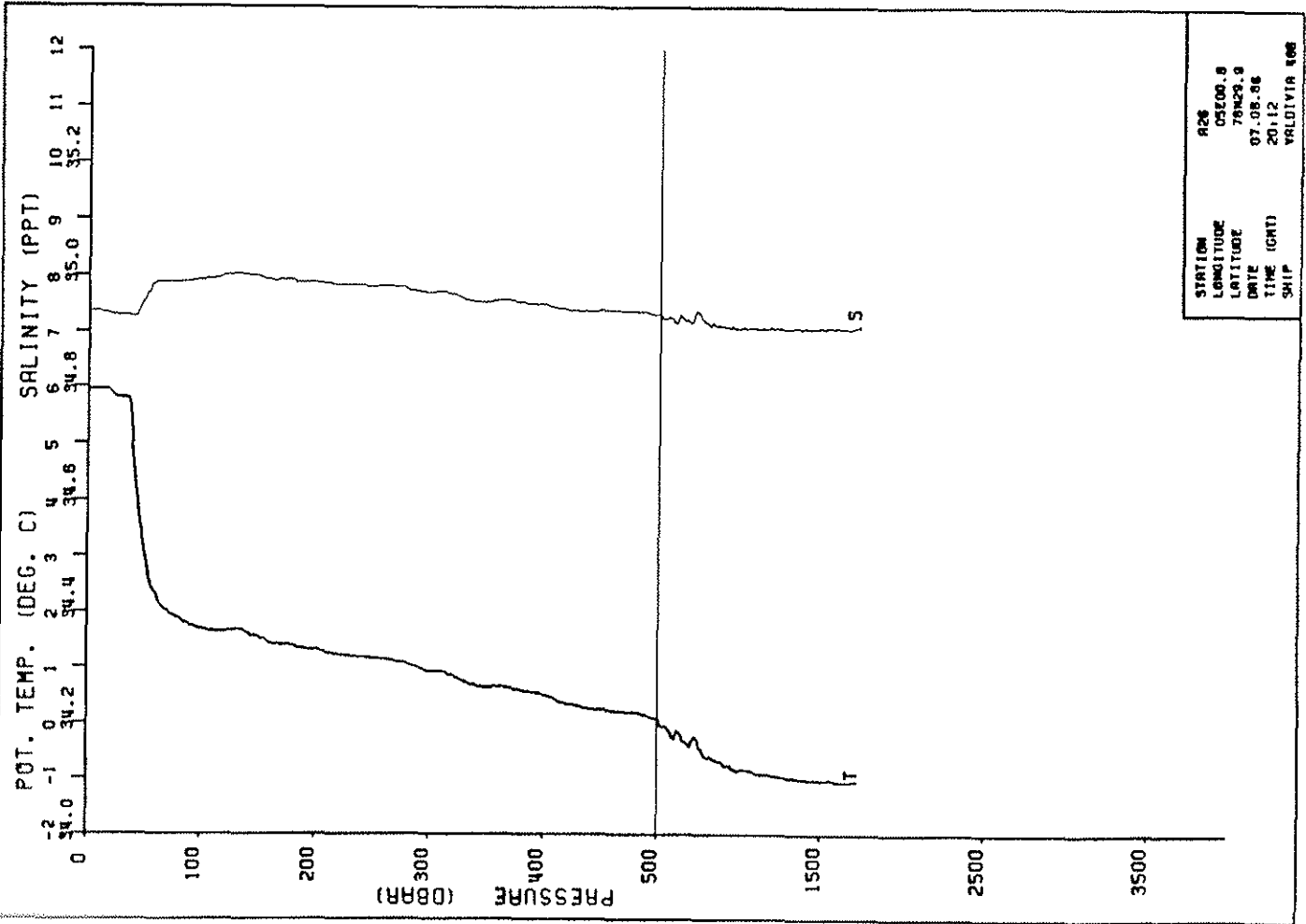
LAT 78N20.1 LONG 08E30.1 DATE 05.08.86 TIME (UTC) 22:14

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	N=N (CPH)
0.	0.	6.061	34.883	6.061	27.453	0.000	0.00
5.	5.	6.061	34.883	6.060	27.453	0.003	0.00
10.	10.	6.061	34.883	6.060	27.453	0.006	0.19
15.	15.	6.061	34.883	6.060	27.453	0.009	1.43
20.	20.	6.062	34.887	6.060	27.456	0.012	1.65
25.	25.	6.041	34.907	6.039	27.471	0.015	3.24
30.	30.	5.784	34.916	5.781	27.514	0.018	4.95
40.	40.	4.689	34.931	4.686	27.656	0.023	6.79
50.	50.	3.915	35.009	3.911	27.803	0.027	6.65
60.	59.	3.638	35.029	3.634	27.847	0.030	2.80
70.	69.	2.928	34.991	2.924	27.885	0.032	3.59
75.	74.	2.513	34.980	2.508	27.906	0.033	4.38
80.	79.	2.276	34.980	2.272	27.934	0.034	3.81
90.	89.	2.257	34.996	2.252	27.948	0.036	1.96
100.	99.	2.237	35.001	2.231	27.954	0.037	1.35
120.	119.	2.184	35.009	2.178	27.964	0.040	0.96
125.	124.	2.174	35.008	2.168	27.965	0.041	1.19
140.	139.	1.997	34.996	1.989	27.969	0.043	1.55
150.	149.	1.736	34.983	1.728	27.979	0.044	1.47
160.	159.	1.757	34.993	1.748	27.986	0.045	0.96
180.	178.	1.733	34.994	1.723	27.988	0.048	0.88
200.	198.	1.754	34.998	1.743	27.991	0.050	0.52
220.	218.	1.692	34.993	1.680	27.991	0.053	0.31
240.	238.	1.485	34.985	1.473	28.000	0.055	0.84
250.	248.	1.465	34.980	1.453	27.998	0.056	0.93
260.	258.	1.455	34.985	1.442	28.002	0.057	0.87
280.	277.	1.377	34.981	1.363	28.005	0.059	0.67
300.	297.	1.317	34.980	1.303	28.009	0.061	0.87
320.	317.	1.281	34.981	1.265	28.012	0.063	0.76
340.	337.	1.201	34.977	1.184	28.014	0.065	0.46
360.	357.	1.112	34.972	1.095	28.017	0.067	0.18
380.	375.	1.004	34.965	0.996	28.018	0.069	0.85
400.	395.	0.883	34.957	0.864	28.020	0.071	0.58
420.	415.	0.750	34.958	0.731	28.029	0.073	0.91
440.	435.	0.664	34.952	0.644	28.030	0.075	0.81
460.	456.	0.488	34.948	0.467	28.038	0.076	1.11
480.	475.	0.731	34.973	0.709	28.043	0.078	0.50
500.	495.	0.556	34.964	0.534	28.046	0.079	1.25
550.	545.	0.224	34.953	0.200	28.057	0.082	0.76
600.	594.	-0.281	34.921	-0.304	28.058	0.084	0.00
650.	643.	-0.564	34.903	-0.588	28.058	0.086	0.35
700.	693.	-0.646	34.902	-0.672	28.060	0.088	0.48
750.	742.	-0.702	34.904	-0.729	28.064	0.089	0.34
800.	792.	-0.737	34.903	-0.767	28.065	0.090	0.36
850.	841.	-0.764	34.905	-0.796	28.068	0.091	0.40
900.	890.	-0.792	34.904	-0.826	28.069	0.092	0.28
1000.	989.	-0.849	34.904	-0.887	28.071	0.094	0.22
1100.	1088.	-0.888	34.906	-0.931	28.075	0.094	0.34
1200.	1186.	-0.919	34.904	-0.967	28.074	0.095	0.00
1300.	1285.	-0.942	34.904	-0.995	28.075	0.095	0.23
1400.	1383.	-0.964	34.903	-1.022	28.076	0.094	0.29
1500.	1482.	-0.980	34.901	-1.042	28.075	0.093	0.24
1750.	1728.	-0.977	34.909	-1.053	28.081	0.089	61.55



VALDIVIA 488 STATION 26
 LAT 78N29.9 LONG 05E01.0 DATE 07.08.86 TIME (UTC) 17:37

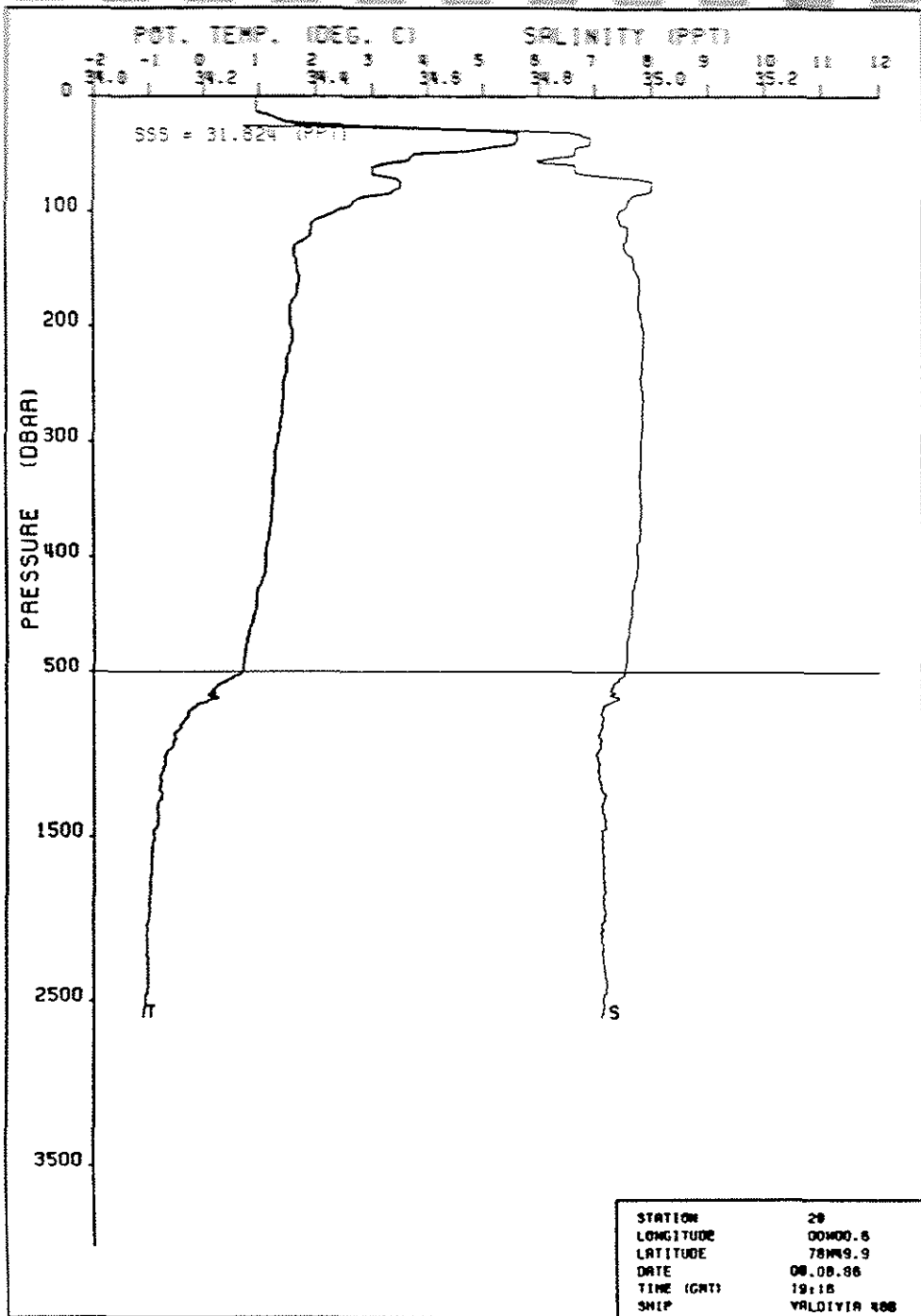
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	N*W (CPH)
0.	0.	5.919	34.923	5.919	27.502	0.000	0.00
5.	5.	5.919	34.923	5.919	27.502	0.003	0.00
10.	10.	5.919	34.923	5.918	27.502	0.006	0.18
15.	15.	5.917	34.924	5.916	27.502	0.009	1.10
20.	20.	5.906	34.927	5.905	27.507	0.011	1.31
25.	25.	5.860	34.927	5.858	27.509	0.014	2.33
30.	30.	5.680	34.927	5.678	27.536	0.017	4.35
40.	40.	3.961	34.971	3.958	27.767	0.021	8.57
50.	50.	3.014	34.982	3.011	27.869	0.024	5.08
60.	59.	2.396	34.989	2.393	27.931	0.026	4.34
70.	69.	2.138	34.994	2.134	27.956	0.027	2.63
75.	74.	2.013	34.997	2.009	27.967	0.028	2.64
80.	79.	1.928	34.998	1.924	27.976	0.029	2.22
90.	89.	1.825	34.994	1.820	27.981	0.030	0.91
100.	99.	1.752	34.995	1.747	27.988	0.031	1.53
120.	119.	1.635	34.997	1.629	27.998	0.034	1.09
125.	124.	1.631	34.998	1.625	27.999	0.034	1.04
140.	139.	1.606	35.002	1.598	28.005	0.036	0.89
150.	149.	1.558	34.999	1.551	28.006	0.037	0.83
160.	159.	1.497	34.998	1.489	28.010	0.038	0.90
180.	178.	1.401	34.993	1.392	28.013	0.040	0.81
200.	198.	1.345	34.993	1.335	28.016	0.041	0.80
220.	218.	1.247	34.989	1.236	28.021	0.043	0.52
240.	238.	1.223	34.987	1.212	28.021	0.045	0.50
250.	248.	1.205	34.987	1.192	28.022	0.046	0.45
260.	258.	1.201	34.988	1.188	28.023	0.047	0.51
280.	277.	1.159	34.987	1.146	28.025	0.049	0.54
300.	297.	1.105	34.984	1.090	28.026	0.050	0.48
320.	317.	0.971	34.975	0.956	28.029	0.052	0.75
340.	337.	0.896	34.972	0.880	28.031	0.054	0.37
360.	357.	0.794	34.966	0.777	28.033	0.055	0.91
380.	376.	0.579	34.954	0.562	28.036	0.057	0.33
400.	396.	0.481	34.950	0.464	28.039	0.058	0.46
420.	416.	0.426	34.947	0.407	28.041	0.059	0.41
440.	436.	0.343	34.944	0.324	28.043	0.061	0.74
460.	456.	0.322	34.946	0.308	28.045	0.062	0.63
480.	475.	0.287	34.944	0.266	28.046	0.063	0.47
500.	495.	0.166	34.938	0.145	28.049	0.065	0.65
550.	545.	-0.075	34.923	-0.098	28.049	0.067	0.35
600.	594.	-0.222	34.921	-0.246	28.055	0.070	0.48
650.	643.	-0.308	34.920	-0.334	28.059	0.072	0.39
700.	693.	-0.420	34.918	-0.447	28.063	0.074	0.51
750.	742.	-0.522	34.915	-0.551	28.065	0.075	0.49
800.	792.	-0.483	34.923	-0.514	28.070	0.077	0.42
850.	841.	-0.619	34.918	-0.652	28.072	0.078	0.40
900.	890.	-0.699	34.911	-0.734	28.070	0.079	0.31
1000.	989.	-0.746	34.914	-0.785	28.075	0.080	0.30
1100.	1088.	-0.825	34.911	-0.869	28.076	0.081	0.37
1200.	1186.	-0.882	34.909	-0.930	28.077	0.081	0.00
1300.	1285.	-0.911	34.909	-0.964	28.078	0.081	0.35
1400.	1383.	-0.935	34.905	-0.993	28.076	0.080	0.29
1500.	1482.	-0.948	34.908	-1.011	28.079	0.079	0.40
1750.	1728.	-0.955	34.911	-1.032	28.082	0.075	61.55
2000.	1973.	-0.991	34.907	-1.082	28.081	0.069	0.00



STATION A26
 LONGITUDE 78N29.8
 LATITUDE 34.8
 DATE 07.08.86
 TIME (GMT) 20:12
 SHIP VALDIVIA 186

VALDIVIA 488 STATION A26
 LAT 78N29.8 LONG 05E00.8 DATE 07.08.86 TIME (UTC)20:12

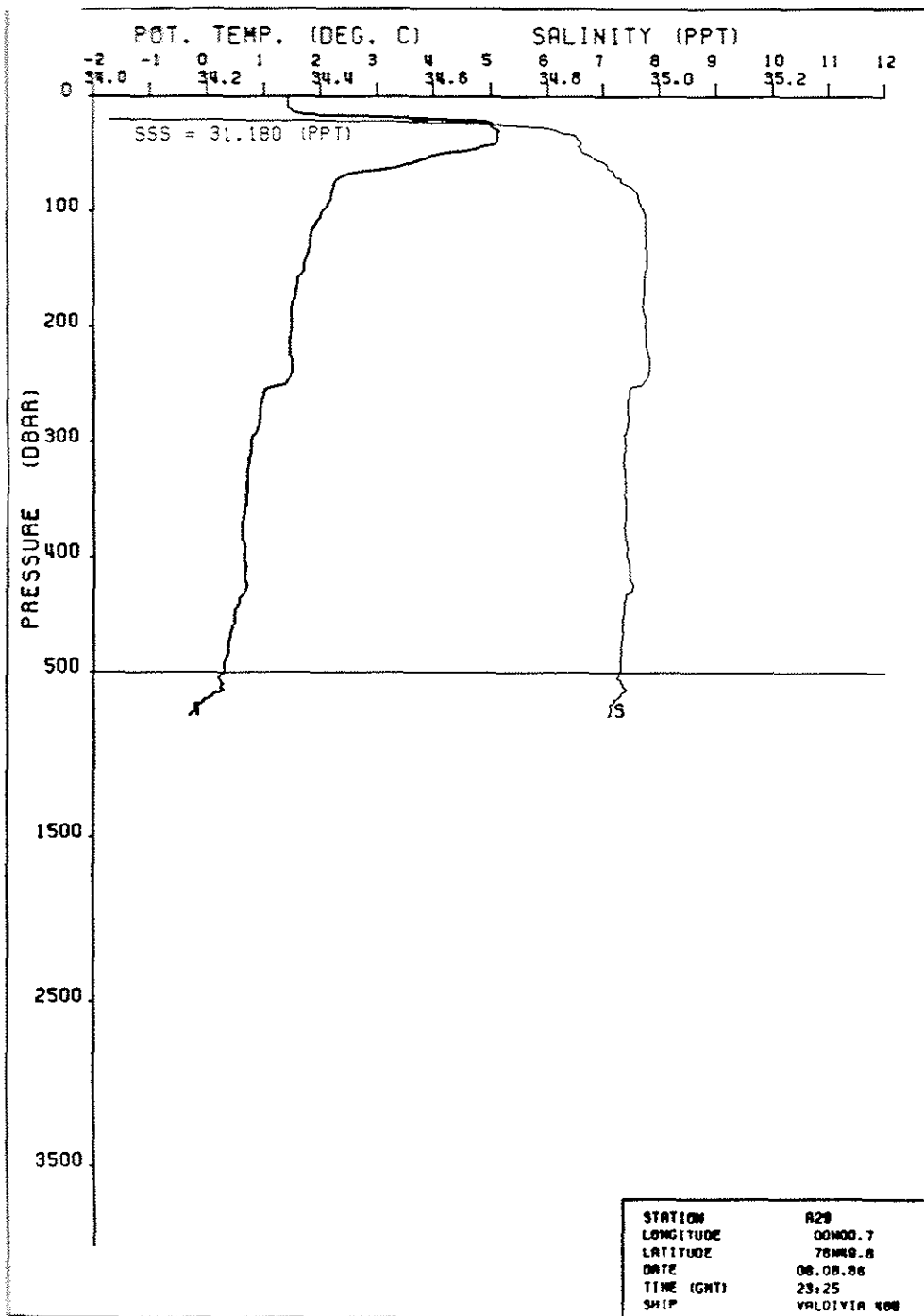
P (DBAR)	Z (M)	Y (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-B (10 ⁻¹ M)	N*W (CPH)
0.	0.	5.956	34.936	5.956	27.508	0.000	0.00
5.	5.	5.956	34.936	5.956	27.508	0.003	0.00
10.	10.	5.956	34.936	5.955	27.508	0.006	0.00
15.	15.	5.956	34.934	5.955	27.506	0.009	1.16
20.	20.	5.920	34.931	5.918	27.508	0.011	1.46
25.	25.	5.823	34.929	5.821	27.519	0.014	2.11
30.	30.	5.812	34.929	5.809	27.521	0.017	1.46
40.	40.	4.936	34.926	4.932	27.624	0.022	7.32
50.	50.	3.161	34.956	3.157	27.835	0.026	7.63
60.	59.	2.337	34.968	2.334	27.935	0.028	4.79
70.	69.	2.030	34.989	2.027	27.961	0.029	2.40
75.	74.	1.948	34.989	1.944	27.967	0.030	1.91
80.	79.	1.908	34.989	1.904	27.970	0.031	1.59
90.	89.	1.759	34.989	1.755	27.983	0.032	1.86
99.	99.	1.707	34.992	1.702	27.989	0.033	1.38
100.							
119.	119.	1.658	35.000	1.652	27.999	0.035	1.00
125.	124.	1.671	35.002	1.665	28.000	0.036	0.77
139.	139.	1.650	35.002	1.643	28.001	0.038	0.84
150.	149.	1.567	35.000	1.559	28.006	0.039	1.13
160.	159.	1.450	34.993	1.442	28.009	0.040	0.96
180.	178.	1.415	34.993	1.406	28.012	0.042	0.37
200.	198.	1.332	34.988	1.322	28.013	0.043	0.78
220.	218.	1.242	34.983	1.232	28.016	0.045	0.51
240.	238.	1.202	34.983	1.190	28.019	0.047	0.51
250.	248.	1.174	34.981	1.162	28.020	0.048	0.62
260.	258.	1.164	34.983	1.152	28.021	0.049	0.71
280.	277.	1.090	34.975	1.077	28.021	0.051	0.43
300.	297.	0.943	34.970	0.929	28.026	0.052	0.86
320.	317.	0.871	34.968	0.857	28.029	0.054	0.34
340.	337.	0.694	34.955	0.679	28.030	0.056	0.55
360.	357.	0.668	34.957	0.652	28.033	0.057	0.74
380.	376.	0.607	34.953	0.590	28.035	0.059	0.44
400.	396.	0.517	34.949	0.500	28.037	0.060	0.40
420.	416.	0.359	34.940	0.340	28.039	0.062	0.74
440.	436.	0.281	34.937	0.262	28.041	0.063	0.30
455.	455.	0.243	34.938	0.224	28.044	0.064	0.21
480.	475.	0.212	34.937	0.191	28.045	0.066	0.47
495.	495.	0.089	34.931	0.068	28.047	0.066	0.50
500.	515.	-0.039	34.926	-0.061	28.050	0.067	0.54
550.	534.	-0.252	34.915	-0.276	28.052	0.072	0.54
600.	543.	-0.230	34.922	-0.256	28.052	0.074	0.39
700.	593.	-0.087	34.919	-0.415	28.062	0.076	0.77
750.	742.	-0.518	34.928	-0.348	28.066	0.078	0.00
800.	782.	-0.575	34.913	-0.606	28.066	0.079	0.38
850.	841.	-0.620	34.911	-0.653	28.067	0.081	0.00
900.	890.	-0.668	34.909	-0.703	28.068	0.082	0.25
1000.	988.	-0.805	34.907	-0.843	28.072	0.083	0.00
1100.	1088.	-0.847	34.906	-0.890	28.073	0.084	0.21
1200.	1186.	-0.880	34.906	-0.928	28.074	0.085	0.13
1300.	1285.	-0.917	34.906	-0.969	28.076	0.085	0.20
1400.	1383.	-0.939	34.906	-0.997	28.077	0.084	0.00
1500.	1482.	-0.953	34.906	-1.016	28.078	0.083	0.00



VALDIVIA 488 STATION 29

LAT 78449.9 LONG 00400.6 DATE 08.08.86 TIME 19:15:15

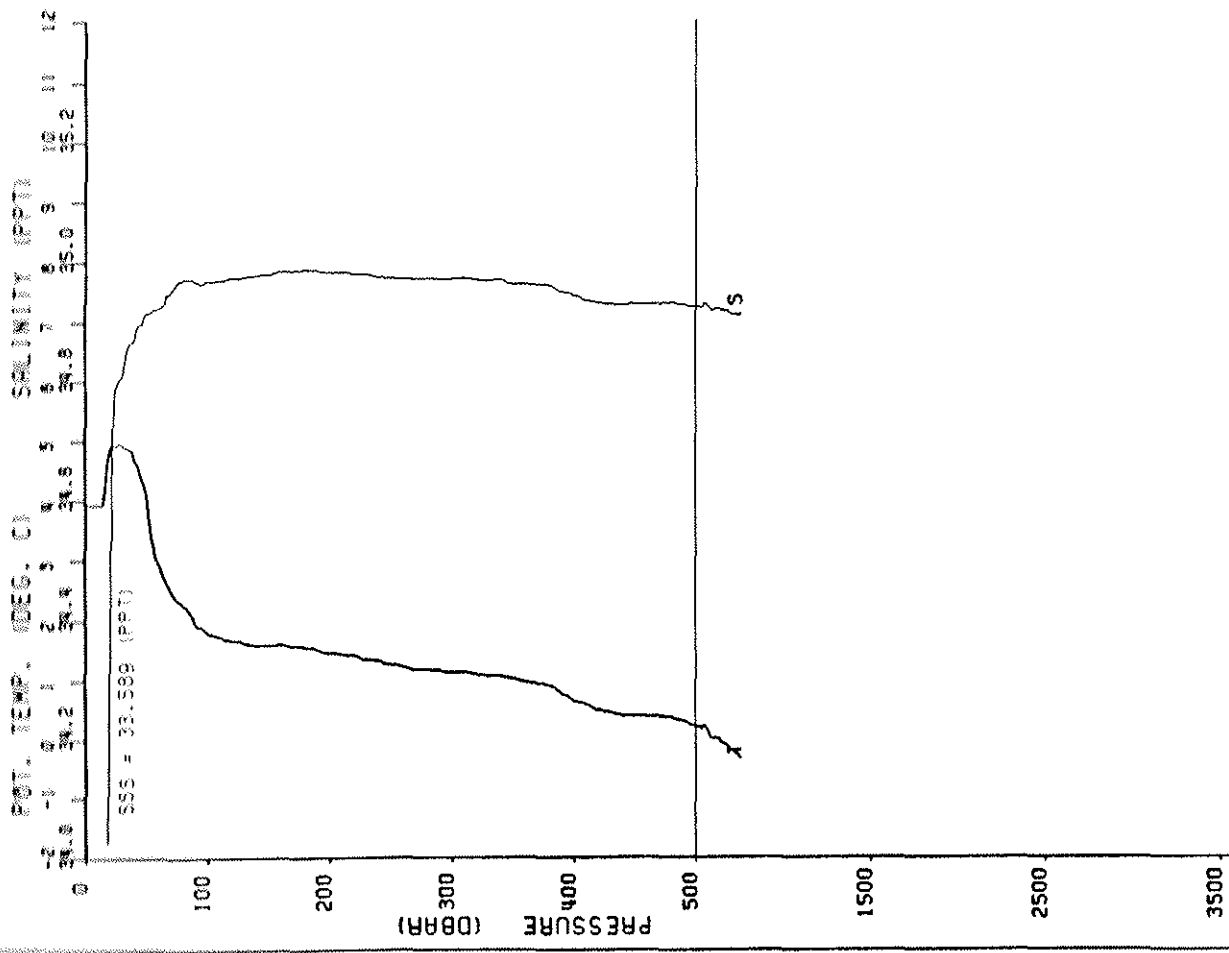
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTA (DEG C)	DEL-T (DEG C)	W-N (CFM)
0.	0.	0.948	31.824	0.948	25.495	0.000	0.00
5.	5.	0.948	31.824	0.948	25.495	0.012	0.00
10.	10.	0.948	31.824	0.948	25.495	0.025	0.00
15.	15.	1.041	32.112	1.040	25.495	0.037	14.34
20.	20.	1.344	33.325	1.343	26.677	0.046	20.45
25.	25.	2.139	34.068	2.138	27.087	0.051	19.88
30.	30.	5.351	34.769	5.348	27.451	0.055	14.70
40.	40.	5.592	34.891	5.589	27.518	0.061	2.81
50.	50.	3.773	34.863	3.770	27.701	0.066	7.62
60.	59.	3.125	34.863	3.122	27.764	0.070	4.63
70.	69.	3.241	34.927	3.236	27.805	0.073	3.79
75.	74.	3.502	35.000	3.497	27.837	0.074	4.06
80.	79.	3.502	35.000	3.496	27.838	0.075	3.06
90.	89.	2.744	34.962	2.739	27.879	0.078	3.09
100.	99.	2.369	34.943	2.363	27.896	0.080	2.43
120.	119.	1.924	34.957	1.918	27.944	0.084	2.22
125.	124.	1.822	34.956	1.815	27.949	0.084	1.95
140.	139.	1.639	34.966	1.632	27.973	0.087	1.67
150.	149.	1.688	34.969	1.680	27.972	0.088	1.18
160.	159.	1.726	34.978	1.718	27.976	0.089	0.99
180.	178.	1.591	34.976	1.582	27.985	0.092	1.31
200.	198.	1.564	34.982	1.554	27.992	0.094	0.50
220.	218.	1.551	34.985	1.540	27.995	0.096	0.94
240.	238.	1.495	34.982	1.483	27.997	0.099	0.60
250.	248.	1.444	34.980	1.431	27.999	0.100	0.90
260.	258.	1.443	34.984	1.430	28.003	0.101	0.87
280.	277.	1.404	34.983	1.390	28.004	0.103	0.61
300.	297.	1.352	34.981	1.337	28.007	0.105	0.75
320.	317.	1.301	34.981	1.285	28.010	0.107	0.61
340.	337.	1.268	34.980	1.251	28.012	0.109	0.79
360.	357.	1.236	34.981	1.218	28.015	0.111	0.49
380.	376.	1.199	34.979	1.180	28.017	0.113	0.30
400.	396.	1.131	34.975	1.111	28.018	0.115	0.74
420.	416.	1.070	34.971	1.049	28.019	0.117	0.67
440.	436.	0.963	34.965	0.942	28.021	0.119	0.12
460.	456.	0.856	34.959	0.834	28.024	0.121	0.79
480.	475.	0.768	34.955	0.745	28.026	0.123	0.31
500.	495.	0.728	34.951	0.705	28.026	0.124	0.48
550.	545.	0.461	34.942	0.437	28.034	0.129	0.46
600.	594.	-0.237	34.928	0.211	28.036	0.132	0.69
650.	643.	0.209	34.935	0.180	28.044	0.135	0.48
700.	693.	-0.090	34.917	-0.120	28.045	0.138	0.77
750.	742.	-0.255	34.910	-0.286	28.048	0.141	0.55
800.	792.	-0.337	34.911	-0.370	28.053	0.144	0.59
850.	841.	-0.412	34.909	-0.447	28.055	0.146	0.27
900.	890.	-0.498	34.908	-0.534	28.059	0.147	0.43
1000.	989.	-0.650	34.899	-0.690	28.059	0.150	0.20
1100.	1088.	-0.695	34.905	-0.740	28.065	0.153	0.43
1200.	1186.	-0.747	34.908	-0.796	28.071	0.154	0.38
1300.	1285.	-0.785	34.911	-0.839	28.075	0.155	0.16
1400.	1383.	-0.783	34.915	-0.842	28.078	0.155	0.28
1500.	1482.	-0.853	34.911	-0.917	28.078	0.154	0.28
1750.	1728.	-0.898	34.910	-0.976	28.080	0.152	0.33
2000.	1973.	-0.902	34.914	-0.995	28.084	0.146	0.00
2250.	2219.	-0.918	34.912	-1.027	28.083	0.140	0.29
2500.	2464.	-0.949	34.910	-1.075	28.084	0.131	0.17



VALDIVIA 468 STATION A29

LAT 78N49.8 LONG 00W00.7 DATE 08.08.86 TIME (UTC) 23:25

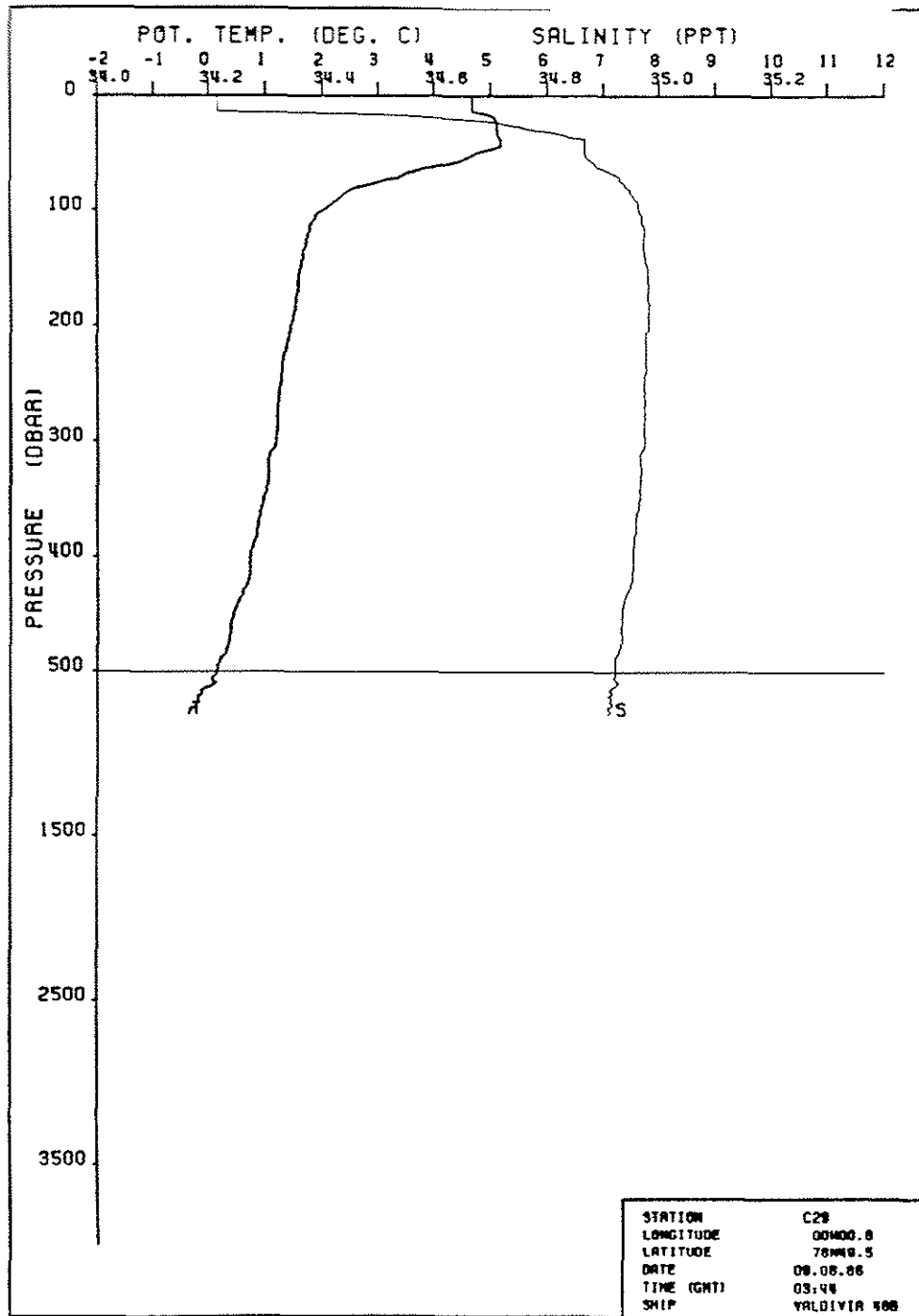
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	SWN (CPH)
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5.	5.	1.420	31.180	1.419	24.950	0.015	0.00
10.	10.	1.420	31.263	1.419	25.016	0.030	13.95
15.	15.	1.628	32.566	1.627	25.923	0.042	21.80
20.	20.	4.096	34.027	4.095	27.002	0.049	23.43
25.	25.	5.004	34.715	5.002	27.416	0.053	17.91
30.	30.	5.142	34.815	5.140	27.512	0.056	8.35
40.	40.	5.126	34.861	5.123	27.551	0.061	3.44
50.	50.	4.217	34.865	4.213	27.656	0.066	6.59
60.	59.	3.504	34.908	3.500	27.764	0.070	5.13
70.	69.	2.389	34.921	2.385	27.877	0.073	6.01
75.	74.	2.275	34.933	2.271	27.895	0.074	4.01
80.	79.	2.242	34.952	2.238	27.914	0.075	2.89
90.	89.	2.191	34.963	2.186	27.927	0.077	1.95
100.	99.	2.056	34.974	2.050	27.947	0.078	2.51
120.	119.	1.857	34.977	1.851	27.965	0.081	1.32
125.	124.	1.841	34.977	1.834	27.966	0.082	1.13
140.	139.	1.772	34.979	1.764	27.973	0.084	1.22
150.	149.	1.725	34.978	1.718	27.976	0.085	1.25
160.	159.	1.615	34.973	1.607	27.981	0.087	1.08
180.	178.	1.518	34.972	1.509	27.987	0.089	0.92
200.	198.	1.511	34.977	1.501	27.991	0.091	0.84
220.	218.	1.470	34.980	1.459	27.997	0.094	0.70
240.	238.	1.506	34.983	1.494	27.997	0.096	0.80
250.	248.	1.389	34.970	1.376	27.996	0.097	1.10
260.	258.	0.996	34.948	0.984	28.004	0.098	1.29
280.	277.	0.942	34.948	0.929	28.008	0.100	0.71
300.	297.	0.791	34.939	0.777	28.011	0.102	0.93
320.	317.	0.733	34.938	0.718	28.014	0.104	0.72
340.	337.	0.700	34.940	0.685	28.017	0.106	0.48
360.	357.	0.673	34.943	0.657	28.022	0.108	0.69
380.	376.	0.623	34.939	0.606	28.022	0.109	0.30
400.	396.	0.650	34.942	0.632	28.023	0.111	0.72
420.	416.	0.668	34.947	0.649	28.026	0.113	0.67
440.	436.	0.573	34.938	0.553	28.025	0.115	0.48
460.	456.	0.460	34.934	0.440	28.028	0.116	0.68
480.	475.	0.382	34.931	0.361	28.030	0.118	0.39
500.	495.	0.306	34.929	0.284	28.033	0.119	0.72
550.	545.	0.251	34.931	0.227	28.038	0.123	0.55
600.	594.	0.294	34.939	0.268	28.042	0.125	0.57
650.	643.	0.087	34.928	0.059	28.045	0.129	0.31
700.	693.	-0.156	34.911	-0.185	28.044	0.132	0.33
750.	742.	-0.249	34.911	-0.280	28.049	0.135	94.94



STATION 828
 LONGITUDE 09000.9
 LATITUDE 70000.9
 DATE 09.08.86
 TIME (GMT) 01.55
 SHIP VALDIVIA 808

VALDIVIA 808 STATION 828
 LAT 70000.9 LONG 09000.9 DATE 09.08.86 TIME 01.55

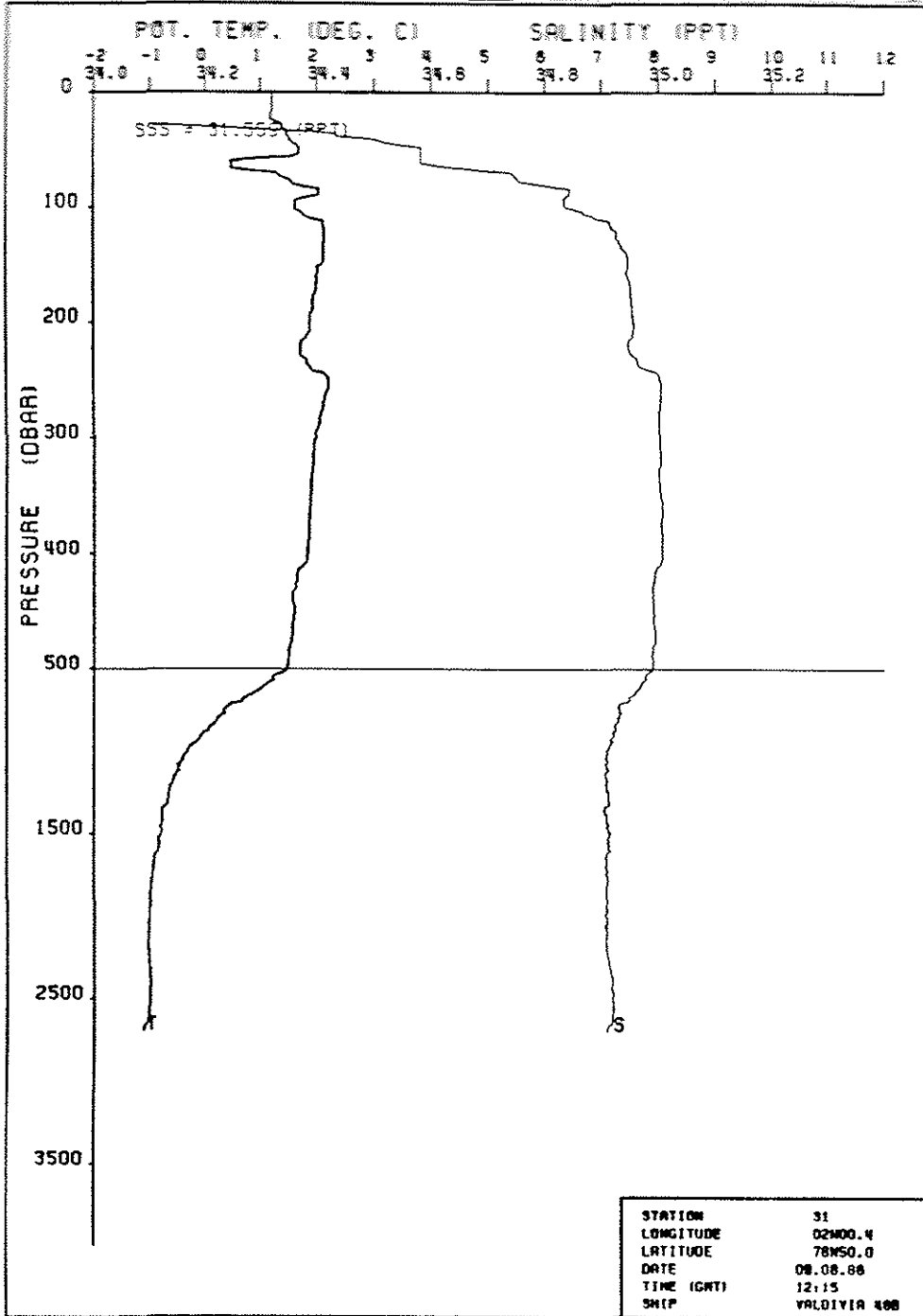
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THE9 (DEG C)	SIGTET	DELTA (DBAR)	MM (PPT)
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5.	5.	3.927	33.589	3.926	26.672	0.014	0.00
10.	10.	3.927	33.589	3.926	26.672	0.014	0.00
15.	15.	4.063	33.655	4.062	27.187	0.026	7.14
20.	20.	4.887	34.365	4.886	27.515	0.029	14.58
25.	25.	4.917	34.780	4.916	27.532	0.032	14.58
30.	30.	4.923	34.808	4.920	27.532	0.037	5.09
40.	40.	4.656	34.871	4.653	27.613	0.041	5.18
50.	50.	4.069	34.915	4.065	27.712	0.047	4.51
60.	60.	2.988	34.923	2.984	27.826	0.048	3.66
70.	70.	2.523	34.950	2.519	27.889	0.049	3.07
75.	75.	2.354	34.966	2.350	27.912	0.051	2.68
80.	80.	2.276	34.971	2.271	27.927	0.055	1.96
89.	89.	1.985	34.967	1.980	27.947	0.057	1.31
99.	99.	1.816	34.969	1.811	27.961	0.058	1.00
100.	100.	1.691	34.973	1.685	27.975	0.062	0.82
120.	120.	1.683	34.974	1.677	27.984	0.064	0.80
125.	125.	1.614	34.977	1.607	27.986	0.066	0.85
140.	140.	1.609	34.980	1.602	27.987	0.068	0.26
150.	150.	1.618	34.985	1.610	27.990	0.070	0.75
160.	160.	1.583	34.988	1.574	27.985	0.071	0.87
180.	180.	1.491	34.983	1.481	27.986	0.073	0.56
200.	200.	1.450	34.981	1.439	28.000	0.075	0.68
220.	220.	1.363	34.977	1.351	28.002	0.077	0.31
240.	240.	1.301	34.975	1.288	28.005	0.078	0.42
250.	250.	1.257	34.973	1.244	28.007	0.080	0.87
260.	260.	1.212	34.974	1.199	28.011	0.082	0.73
280.	280.	1.166	34.973	1.152	28.013	0.084	0.52
300.	300.	1.136	34.972	1.121	28.015	0.086	0.70
320.	320.	1.104	34.971	1.087	28.016	0.088	0.84
340.	340.	1.007	34.963	0.989	28.016	0.089	0.32
360.	360.	0.946	34.961	0.928	28.019	0.091	0.59
380.	380.	0.884	34.943	0.866	28.022	0.092	0.72
400.	400.	0.818	34.933	0.799	28.023	0.096	0.56
420.	420.	0.742	34.928	0.724	28.026	0.099	0.49
440.	440.	0.656	34.929	0.640	28.027	0.102	0.40
460.	460.	0.570	34.930	0.554	28.029	0.105	0.40
480.	480.	0.495	34.924	0.479	28.032	0.108	0.40
500.	500.	0.429	34.920	0.413	28.038	0.105	0.40
550.	550.	0.242	34.919	0.226	28.044	0.108	0.40
600.	600.	0.032	34.919	0.016	28.044	0.108	0.40
650.	650.	-0.047	34.918	-0.031	28.048	0.105	0.40
700.	700.	-0.183	34.914	-0.167	28.048	0.108	0.40
750.	750.	-0.273	34.909	-0.257	28.049	0.108	0.40



VALDIVIA 486 STATION C28

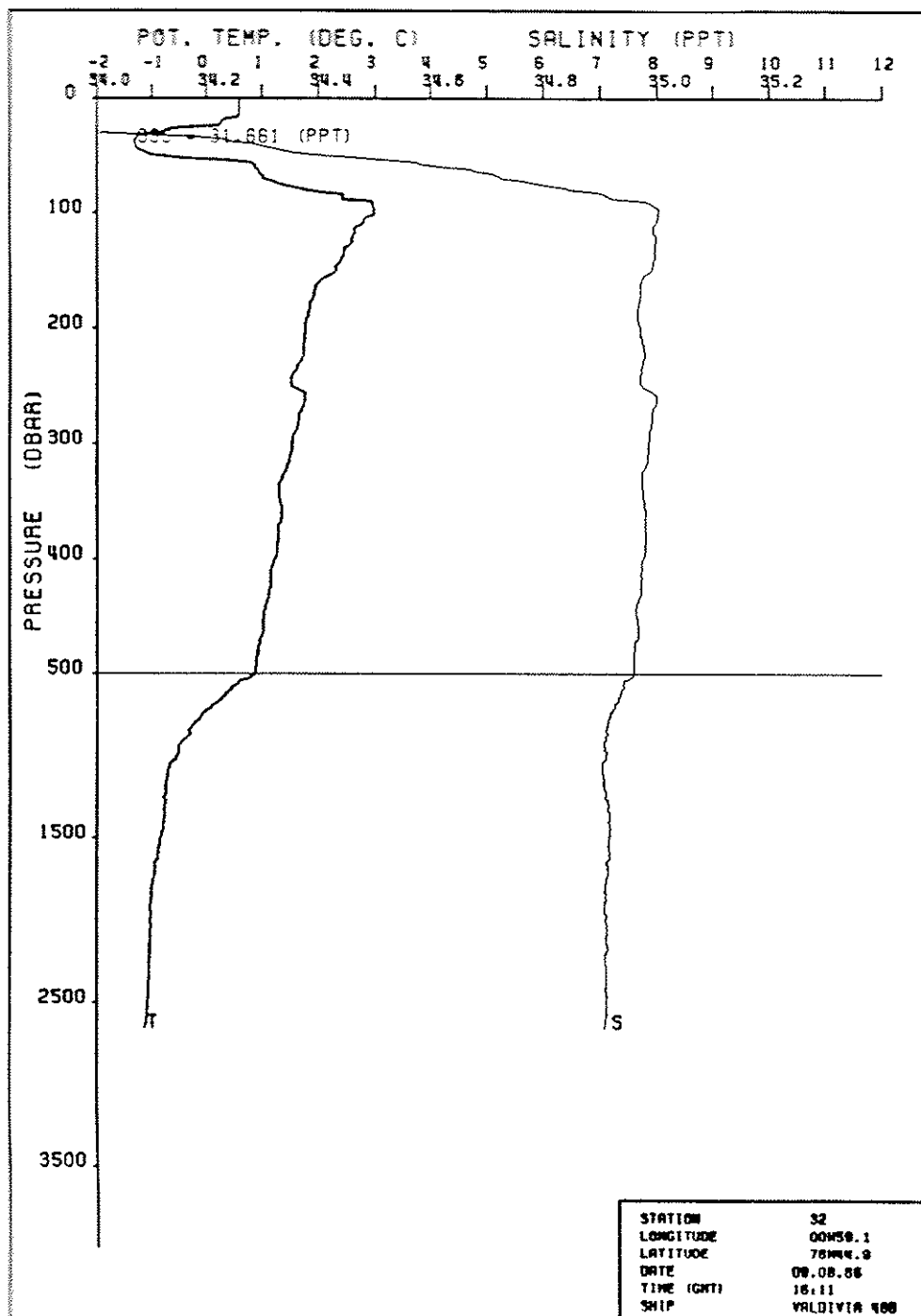
LAT 78449.5 LONG 00400.8 DATE 08.08.86 TIME (UTC) 03:44

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	N=N (CPH)
0.	0.	4.669	34.215	4.669	27.091	0.000	0.00
5.	5.	4.669	34.215	4.668	27.091	0.005	0.00
10.	10.	4.669	34.215	4.668	27.091	0.010	0.16
15.	15.	4.798	34.357	4.796	27.091	0.014	8.27
20.	20.	5.080	34.630	5.078	27.373	0.018	10.07
25.	25.	5.115	34.724	5.113	27.435	0.021	6.93
30.	30.	5.120	34.770	5.118	27.479	0.025	5.42
40.	40.	5.173	34.865	5.170	27.548	0.030	3.74
50.	50.	4.750	34.865	4.746	27.598	0.035	4.29
60.	59.	4.225	34.883	4.221	27.670	0.040	5.21
70.	69.	3.420	34.924	3.415	27.785	0.044	5.69
75.	74.	3.053	34.933	3.048	27.820	0.045	5.30
80.	79.	2.625	34.941	2.620	27.873	0.046	5.42
90.	89.	2.303	34.954	2.298	27.911	0.048	3.16
100.	99.	2.030	34.964	2.025	27.941	0.050	2.99
120.	119.	1.767	34.974	1.761	27.970	0.053	1.55
125.	124.	1.741	34.974	1.734	27.971	0.054	1.22
140.	139.	1.668	34.974	1.661	27.978	0.056	1.33
150.	149.	1.628	34.979	1.620	27.985	0.057	1.23
160.	159.	1.592	34.979	1.584	27.987	0.058	0.99
180.	178.	1.543	34.983	1.534	27.994	0.060	0.95
200.	198.	1.447	34.981	1.437	28.000	0.063	0.63
220.	218.	1.385	34.977	1.375	28.001	0.065	1.00
240.	238.	1.305	34.977	1.293	28.007	0.067	0.54
250.	248.	1.287	34.975	1.275	28.006	0.068	0.52
260.	258.	1.257	34.974	1.244	28.008	0.069	0.83
280.	277.	1.226	34.976	1.212	28.012	0.071	0.13
300.	297.	1.200	34.975	1.186	28.012	0.073	0.75
320.	317.	1.063	34.967	1.047	28.016	0.075	0.61
340.	337.	1.039	34.967	1.023	28.018	0.077	0.71
360.	357.	0.939	34.963	0.922	28.021	0.079	0.28
380.	376.	0.869	34.959	0.851	28.022	0.080	0.71
400.	396.	0.748	34.953	0.730	28.026	0.082	0.64
420.	416.	0.726	34.952	0.707	28.026	0.084	0.05
440.	436.	0.535	34.937	0.516	28.026	0.086	0.34
460.	456.	0.410	34.933	0.390	28.030	0.087	0.71
480.	475.	0.352	34.929	0.332	28.030	0.089	0.62
500.	495.	0.172	34.920	0.151	28.034	0.090	0.85
550.	545.	0.075	34.920	0.052	28.039	0.094	0.50
600.	594.	-0.041	34.914	-0.066	28.041	0.097	0.53
650.	643.	-0.169	34.908	-0.195	28.043	0.100	0.34
700.	693.	-0.198	34.915	-0.227	28.049	0.103	0.43
750.	742.	-0.324	34.909	-0.354	28.051	0.105	94.94



VALDIVIA 488 STATION 31
 LAT 78NS0.0 LONG 02W00.4 DATE 08.08.88 TIME (GMT) 12:15

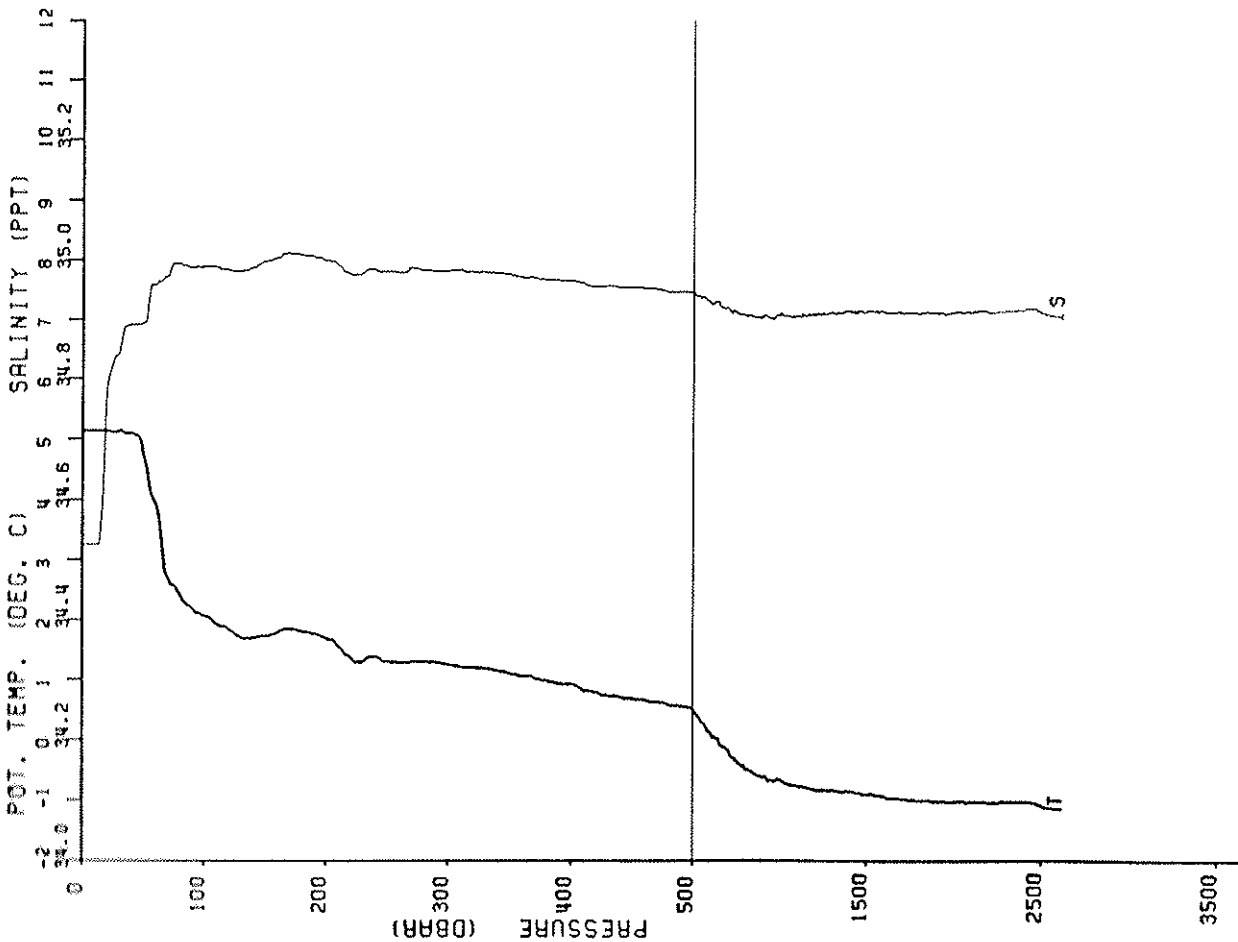
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	CEL-D (DYN-H)	W/M (CFH)
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5.	5.	1.208	31.559	1.208	25.267	0.013	0.00
10.	10.	1.208	31.559	1.208	25.267	0.027	0.09
15.	15.	1.208	31.559	1.208	25.267	0.040	5.20
20.	20.	1.189	32.923	1.188	26.283	0.052	21.79
25.	25.	1.229	33.771	1.228	26.956	0.059	23.73
30.	30.	1.391	34.213	1.390	27.386	0.063	14.77
40.	40.	1.527	34.491	1.525	27.600	0.068	7.05
50.	50.	1.695	34.582	1.692	27.661	0.073	3.89
60.	59.	0.478	34.582	0.475	27.742	0.077	5.09
70.	69.	1.286	34.743	1.283	27.819	0.080	4.90
75.	74.	1.481	34.752	1.477	27.816	0.081	1.39
80.	79.	1.575	34.784	1.571	27.831	0.083	2.51
90.	89.	2.046	34.845	2.041	27.844	0.085	2.54
100.	99.	1.636	34.840	1.631	27.872	0.088	2.83
120.	119.	2.158	34.923	2.152	27.897	0.092	1.07
125.	124.	2.149	34.927	2.142	27.902	0.093	1.45
140.	139.	2.135	34.945	2.127	27.917	0.096	1.61
150.	149.	2.116	34.947	2.107	27.920	0.098	1.34
160.	159.	2.016	34.946	2.007	27.928	0.099	1.46
180.	178.	1.963	34.953	1.953	27.938	0.103	1.16
200.	198.	1.896	34.958	1.885	27.947	0.106	0.99
220.	218.	1.739	34.949	1.728	27.952	0.109	1.18
240.	238.	1.914	34.972	1.901	27.957	0.113	0.60
250.	248.	2.235	35.004	2.221	27.957	0.114	0.77
260.	258.	2.207	35.006	2.192	27.961	0.116	1.03
280.	277.	2.105	35.003	2.089	27.967	0.119	0.88
300.	297.	2.005	35.003	1.988	27.975	0.121	1.17
320.	317.	1.954	35.005	1.936	27.981	0.124	0.48
340.	337.	1.918	35.003	1.899	27.982	0.127	0.80
360.	357.	1.901	35.007	1.882	27.987	0.130	0.92
380.	376.	1.887	35.006	1.866	27.987	0.132	0.57
400.	396.	1.856	35.007	1.834	27.991	0.135	0.77
420.	416.	1.673	34.995	1.651	27.995	0.137	0.49
440.	436.	1.591	34.992	1.568	27.998	0.140	0.64
460.	456.	1.591	34.993	1.567	28.000	0.142	0.84
480.	475.	1.548	34.991	1.522	28.001	0.145	0.43
500.	495.	1.497	34.991	1.471	28.005	0.147	0.67
550.	545.	1.231	34.977	1.203	28.013	0.153	0.70
600.	594.	1.100	34.969	1.070	28.016	0.158	0.57
650.	643.	0.892	34.959	0.860	28.021	0.163	0.62
700.	693.	0.666	34.946	0.632	28.026	0.168	0.50
750.	742.	0.355	34.932	0.321	28.033	0.172	0.67
800.	792.	0.244	34.929	0.208	28.038	0.176	0.62
850.	841.	0.104	34.924	0.066	28.041	0.179	0.56
900.	890.	-0.022	34.921	-0.062	28.046	0.182	0.39
1000.	989.	-0.293	34.909	-0.336	28.050	0.187	0.35
1100.	1088.	-0.455	34.910	-0.502	28.059	0.191	0.44
1200.	1186.	-0.569	34.909	-0.619	28.063	0.194	0.28
1300.	1285.	-0.630	34.913	-0.685	28.070	0.196	0.26
1400.	1383.	-0.729	34.909	-0.789	28.071	0.197	0.35
1500.	1482.	-0.729	34.914	-0.794	28.075	0.198	0.16
1750.	1728.	-0.867	34.910	-0.946	28.079	0.196	0.11
2000.	1973.	-0.919	34.907	-1.012	28.079	0.192	0.00
2250.	2219.	-0.905	34.911	-1.015	28.082	0.186	0.35
2500.	2464.	-0.870	34.919	-0.998	28.087	0.178	0.00



VALDIVIA 408 STATION 32

LAT 78N44.9 LONG 00W59.1 DATE 09.08.86 TIME (UTC) 16:11

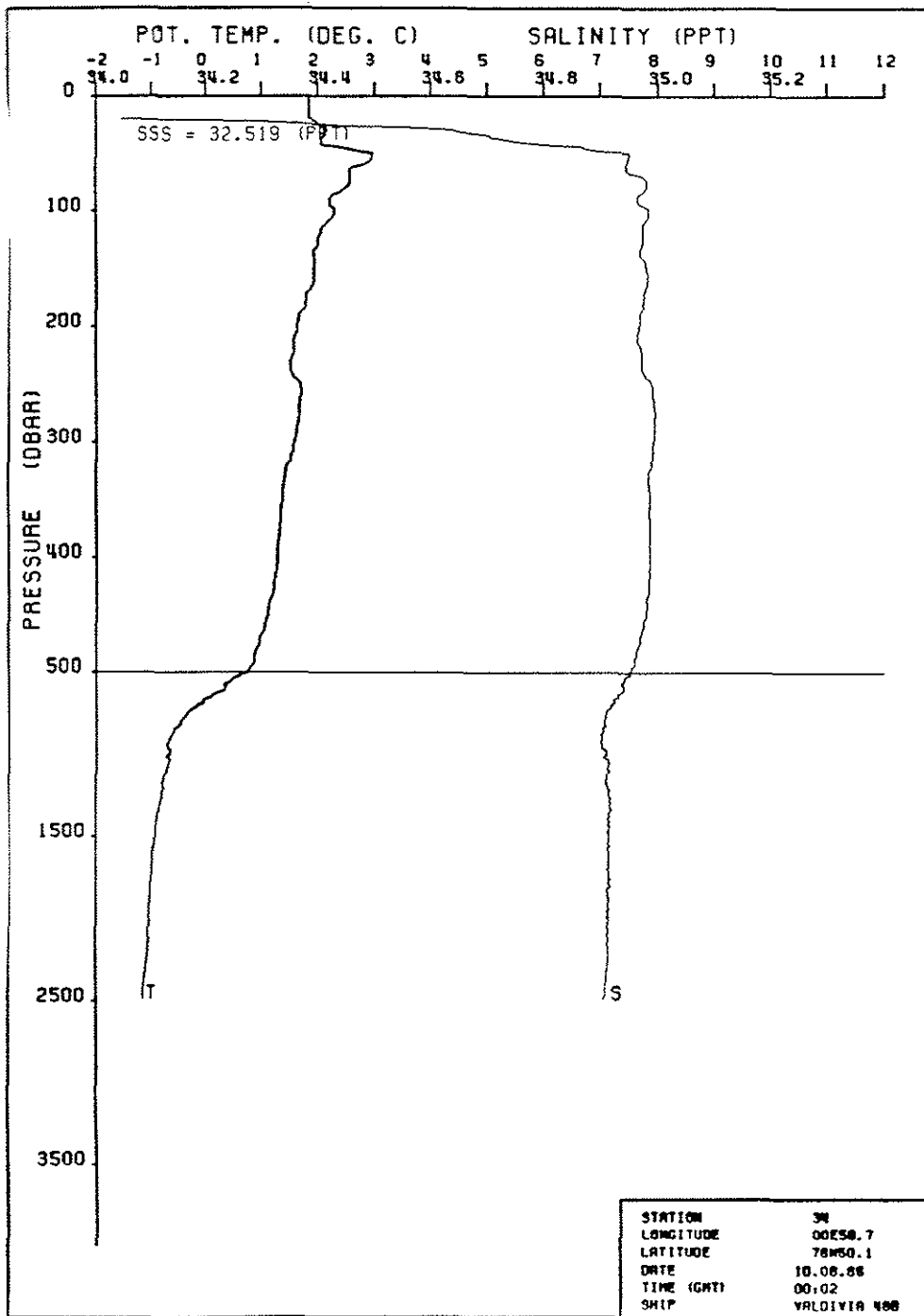
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	N-N (CPH)
0.	0.	0.581	31.661	0.581	25.384	0.000	0.00
5.	5.	0.581	31.661	0.581	25.384	0.013	0.00
10.	10.	0.581	31.661	0.580	25.384	0.026	0.08
15.	15.	0.576	31.668	0.575	25.384	0.039	4.24
20.	20.	0.287	32.244	0.286	25.868	0.051	16.22
25.	25.	-0.201	33.467	-0.202	26.691	0.059	23.09
30.	30.	-0.769	34.007	-0.770	27.339	0.064	19.64
40.	40.	-1.306	34.283	-1.307	27.583	0.069	7.30
50.	50.	-0.943	34.400	-0.944	27.665	0.074	5.66
60.	59.	0.864	34.625	0.862	27.753	0.078	5.10
70.	69.	1.026	34.728	1.023	27.825	0.081	4.33
75.	74.	1.338	34.793	1.335	27.852	0.082	3.88
80.	79.	1.802	34.849	1.798	27.866	0.083	3.31
90.	89.	2.952	34.980	2.946	27.874	0.085	1.78
100.	99.	2.986	35.003	2.980	27.889	0.087	1.89
120.	119.	2.622	34.998	2.615	27.919	0.091	1.75
125.	124.	2.598	34.998	2.591	27.921	0.092	1.71
140.	139.	2.427	34.997	2.419	27.935	0.095	1.63
150.	149.	2.320	34.991	2.311	27.939	0.097	1.49
160.	159.	2.018	34.974	2.009	27.950	0.098	1.53
180.	178.	1.865	34.969	1.856	27.958	0.101	0.82
200.	198.	1.782	34.971	1.772	27.967	0.104	1.28
220.	218.	1.766	34.978	1.754	27.974	0.107	1.01
240.	238.	1.567	34.973	1.555	27.984	0.110	1.28
250.	248.	1.542	34.975	1.529	27.988	0.111	0.91
260.	258.	1.783	35.000	1.769	27.990	0.112	0.69
280.	277.	1.672	34.992	1.658	27.992	0.115	0.73
300.	297.	1.559	34.987	1.544	27.996	0.117	0.84
320.	317.	1.472	34.981	1.455	27.998	0.119	0.74
340.	337.	1.314	34.975	1.297	28.005	0.122	0.85
360.	357.	1.372	34.982	1.354	28.006	0.124	0.46
380.	376.	1.302	34.981	1.283	28.011	0.126	0.91
400.	396.	1.244	34.976	1.224	28.011	0.128	0.35
420.	416.	1.166	34.972	1.146	28.013	0.130	0.65
440.	436.	1.087	34.965	1.060	28.013	0.132	0.22
460.	456.	1.039	34.967	1.016	28.018	0.134	0.84
480.	475.	0.946	34.961	0.923	28.019	0.136	0.41
500.	495.	0.890	34.960	0.866	28.022	0.138	0.57
550.	545.	0.603	34.942	0.578	28.026	0.142	0.63
600.	594.	0.453	34.937	0.426	28.032	0.146	0.68
650.	643.	0.299	34.932	0.270	28.036	0.150	0.51
700.	693.	0.111	34.927	0.081	28.043	0.154	0.52
750.	742.	-0.055	34.918	-0.087	28.045	0.157	0.26
800.	792.	-0.181	34.914	-0.215	28.048	0.159	0.57
850.	841.	-0.283	34.910	-0.319	28.050	0.162	0.33
900.	890.	-0.374	34.911	-0.411	28.055	0.164	0.51
1000.	989.	-0.499	34.910	-0.540	28.061	0.168	0.27
1100.	1088.	-0.654	34.904	-0.699	28.063	0.170	0.29
1200.	1186.	-0.689	34.908	-0.738	28.068	0.172	0.42
1300.	1285.	-0.704	34.916	-0.758	28.075	0.173	0.23
1400.	1383.	-0.713	34.915	-0.773	28.075	0.173	0.15
1500.	1482.	-0.769	34.916	-0.834	28.078	0.173	0.17
1750.	1728.	-0.889	34.911	-0.967	28.080	0.171	0.00
2000.	1973.	-0.928	34.910	-1.021	28.081	0.166	0.14
2250.	2219.	-0.932	34.909	-1.041	28.081	0.159	0.13
2500.	2464.	-0.944	34.910	-1.070	28.083	0.151	0.23



STATION 33
 LONGITUDE 00201.9
 LATITUDE 78NS0.1
 DATE 09.08.86
 TIME (GMT) 20.24
 SHIP VALDIVIA 108

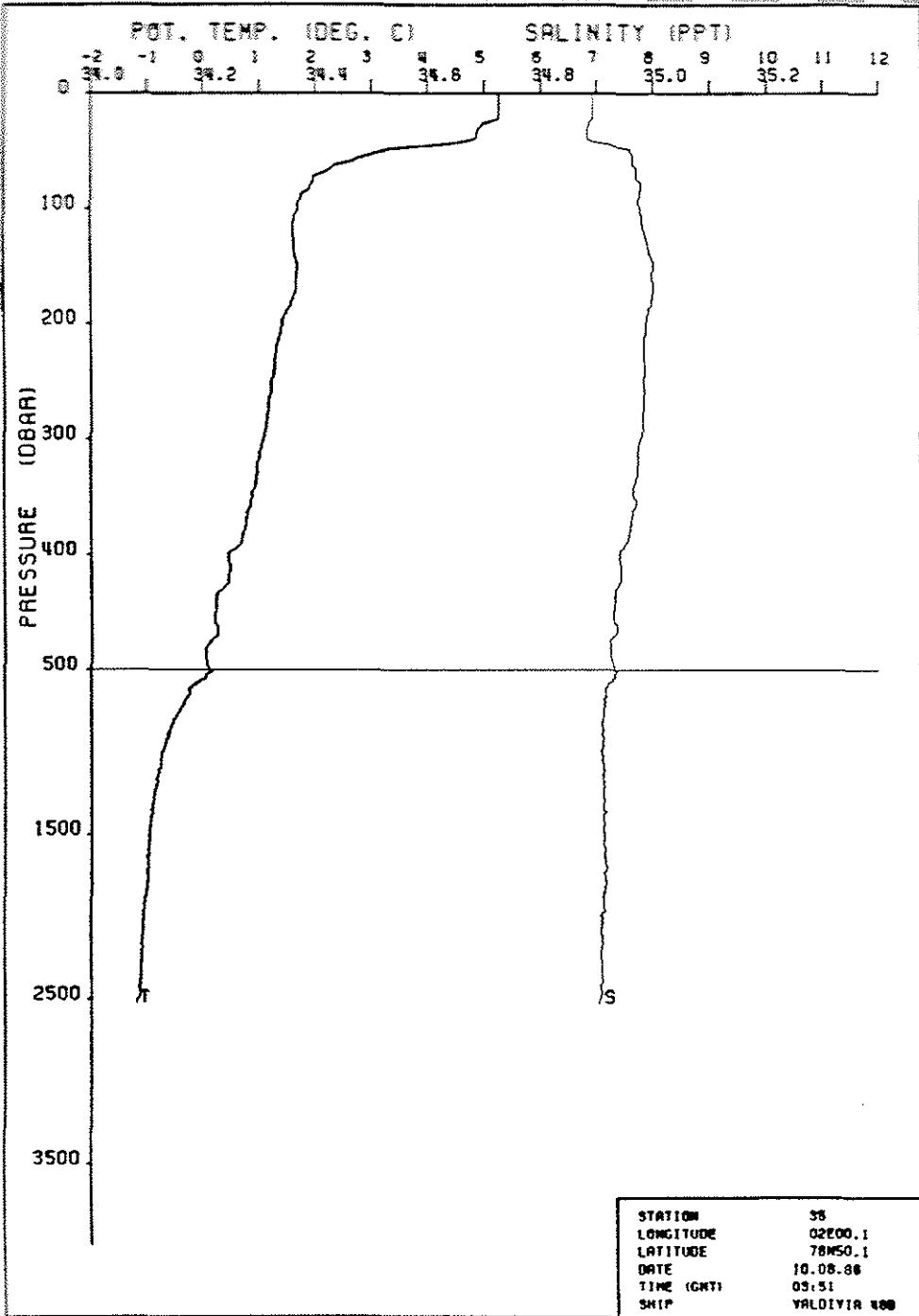
VALDIVIA 48B STATION 33
 LAT 78NS0.1 LONG 00E01.9 DATE 09.08.86 TIME (UTC) 20:24

P (DBARR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (0YN-H)	N*W (CPH)
0.	0.	5.139	34.526	5.139	27.283	0.000	0.00
5.	5.	5.139	34.526	5.139	27.283	0.004	0.00
10.	10.	5.139	34.526	5.138	27.283	0.008	0.17
15.	15.	5.139	34.557	5.138	27.283	0.012	5.20
20.	20.	5.141	34.785	5.140	27.488	0.015	8.36
25.	25.	5.122	34.826	5.120	27.516	0.018	7.03
30.	30.	5.127	34.840	5.125	27.534	0.021	3.81
40.	40.	4.742	34.891	5.099	27.578	0.026	3.05
50.	50.	4.742	34.894	4.739	27.622	0.031	4.44
60.	59.	3.923	34.959	3.919	27.762	0.035	6.58
70.	69.	2.714	34.974	2.710	27.891	0.037	6.43
75.	74.	2.591	34.995	2.587	27.916	0.038	4.34
80.	79.	2.402	34.995	2.398	27.934	0.039	3.02
90.	89.	2.202	34.989	2.197	27.947	0.041	1.92
100.	99.	2.095	34.989	2.089	27.956	0.042	1.49
119.	119.	1.876	34.985	1.870	27.970	0.045	1.95
125.	124.	1.790	34.982	1.784	27.973	0.046	1.44
140.	139.	1.718	34.988	1.711	27.985	0.048	1.47
150.	149.	1.750	34.999	1.742	27.991	0.049	1.03
160.	159.	1.801	35.005	1.792	27.992	0.050	0.60
180.	178.	1.830	35.010	1.821	27.994	0.052	0.59
200.	198.	1.720	35.001	1.709	27.995	0.055	0.56
220.	218.	1.411	34.978	1.400	28.000	0.057	1.20
240.	238.	1.402	34.986	1.390	28.007	0.059	0.72
250.	248.	1.321	34.983	1.308	28.010	0.060	0.66
260.	258.	1.301	34.981	1.288	28.010	0.061	0.61
280.	277.	1.325	34.984	1.311	28.012	0.063	0.73
300.	297.	1.274	34.982	1.260	28.015	0.065	0.89
320.	317.	1.229	34.982	1.213	28.017	0.067	0.33
340.	337.	1.178	34.980	1.161	28.018	0.069	0.54
360.	357.	1.082	34.974	1.065	28.020	0.071	0.25
380.	376.	1.002	34.969	0.984	28.021	0.072	0.73
400.	396.	0.942	34.967	0.923	28.024	0.074	0.65
420.	416.	0.808	34.957	0.788	28.025	0.076	0.76
440.	436.	0.726	34.957	0.706	28.030	0.078	0.36
460.	456.	0.678	34.955	0.657	28.032	0.079	0.56
480.	475.	0.594	34.949	0.572	28.032	0.081	0.51
500.	495.	0.528	34.947	0.506	28.034	0.082	0.69
550.	545.	0.315	34.939	0.291	28.040	0.086	0.66
600.	594.	0.137	34.930	0.111	28.044	0.089	0.59
650.	643.	-0.013	34.925	-0.041	28.048	0.092	0.14
700.	693.	-0.141	34.920	-0.170	28.051	0.093	0.37
750.	742.	-0.321	34.913	-0.351	28.054	0.097	0.51
800.	792.	-0.442	34.906	-0.459	28.055	0.099	0.41
850.	841.	-0.515	34.906	-0.549	28.058	0.101	0.38
900.	890.	-0.555	34.906	-0.620	28.061	0.103	0.40
1000.	989.	-0.682	34.910	-0.654	28.066	0.105	0.46
1100.	1088.	-0.715	34.907	-0.750	28.068	0.107	0.48
1200.	1186.	-0.770	34.908	-0.819	28.072	0.108	0.38
1300.	1285.	-0.773	34.915	-0.827	28.077	0.109	0.25
1400.	1383.	-0.791	34.915	-0.850	28.079	0.109	0.20
1500.	1482.	-0.834	34.915	-0.898	28.080	0.108	0.32
1600.	1581.	-0.906	34.912	-0.964	28.082	0.100	0.34
2000.	1973.	-0.921	34.913	-1.014	28.084	0.105	0.36
2250.	2219.	-0.919	34.913	-1.028	28.084	0.093	0.23
2500.	2464.	-0.954	34.910	-1.090	28.084	0.084	0.00



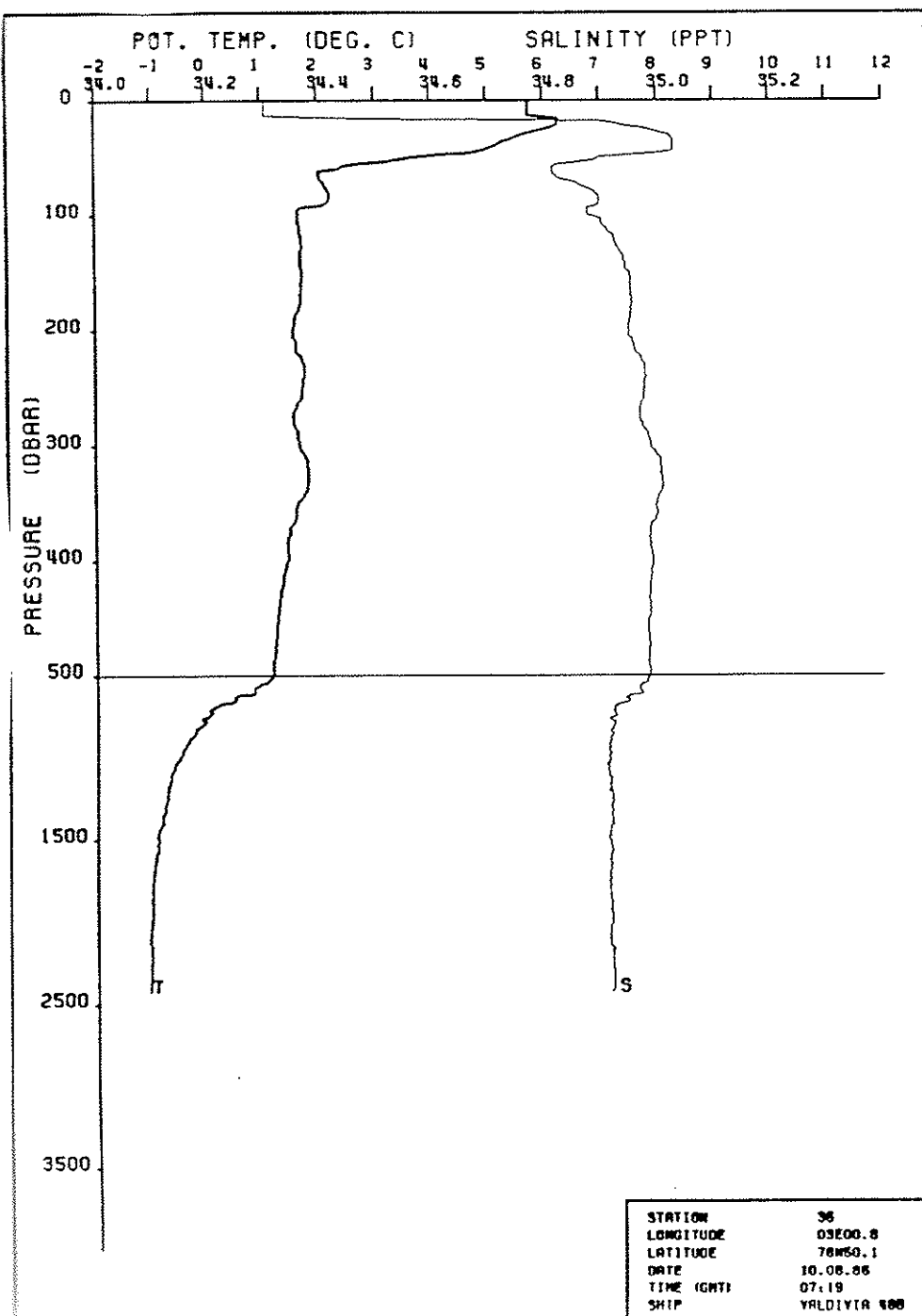
VALDIVIA 488 STATION 34
 LAT 78NS0.1 LONG 00E58.7 DATE 10.08.86 TIME (UTC) 00:02

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	NwN (CP4)
0.	0.	1.848	32.519	1.848	25.996	0.000	0.00
5.	5.	1.848	32.519	1.848	25.996	0.010	0.00
10.	10.	1.848	32.519	1.848	25.996	0.020	0.10
15.	15.	1.848	32.662	1.847	25.996	0.030	11.87
20.	20.	1.848	34.045	1.847	27.218	0.037	20.99
25.	25.	2.018	34.402	2.017	27.458	0.040	18.56
30.	30.	2.127	34.637	2.125	27.671	0.043	9.67
40.	40.	2.070	34.750	2.068	27.766	0.047	6.17
50.	50.	2.958	34.949	2.955	27.849	0.049	3.78
60.	59.	2.804	34.946	2.801	27.860	0.052	2.94
70.	69.	2.585	34.974	2.581	27.903	0.054	2.97
75.	74.	2.585	34.981	2.580	27.908	0.055	2.87
80.	79.	2.498	34.981	2.494	27.916	0.056	2.04
90.	89.	2.234	34.966	2.229	27.926	0.058	1.64
100.	99.	2.305	34.984	2.300	27.934	0.059	1.59
120.	119.	2.075	34.975	2.069	27.946	0.063	1.36
125.	124.	2.027	34.975	2.021	27.950	0.063	1.23
140.	139.	1.947	34.969	1.940	27.952	0.066	1.22
150.	149.	1.951	34.980	1.943	27.960	0.067	1.28
160.	159.	1.950	34.982	1.942	27.962	0.069	0.88
180.	178.	1.803	34.976	1.793	27.969	0.072	1.03
200.	198.	1.660	34.970	1.649	27.975	0.074	0.76
220.	218.	1.595	34.971	1.584	27.981	0.077	1.26
240.	238.	1.564	34.976	1.552	27.987	0.079	0.53
250.	248.	1.719	34.990	1.705	27.987	0.081	0.33
260.	258.	1.721	34.991	1.707	27.987	0.082	0.89
280.	277.	1.680	34.995	1.665	27.994	0.084	0.75
300.	297.	1.604	34.993	1.588	27.998	0.087	0.80
320.	317.	1.485	34.989	1.468	28.004	0.089	0.73
340.	337.	1.404	34.984	1.387	28.006	0.091	0.96
360.	357.	1.361	34.985	1.343	28.010	0.093	0.63
380.	376.	1.325	34.986	1.306	28.013	0.095	0.66
400.	396.	1.292	34.986	1.271	28.015	0.097	0.56
420.	416.	1.245	34.984	1.224	28.017	0.099	0.65
440.	436.	1.153	34.980	1.131	28.020	0.101	0.70
460.	456.	1.080	34.976	1.058	28.022	0.103	0.33
480.	475.	0.933	34.965	0.910	28.023	0.105	0.41
500.	495.	0.770	34.952	0.747	28.024	0.107	0.86
550.	545.	0.481	34.941	0.457	28.033	0.111	0.49
600.	594.	0.359	34.939	0.332	28.038	0.115	0.68
650.	643.	0.123	34.929	0.095	28.044	0.118	0.52
700.	693.	-0.117	34.919	-0.146	28.049	0.121	0.45
750.	742.	-0.315	34.910	-0.345	28.051	0.123	0.41
800.	792.	-0.437	34.905	-0.469	28.053	0.126	0.57
850.	841.	-0.558	34.903	-0.592	28.058	0.127	0.00
900.	890.	-0.626	34.901	-0.661	28.059	0.129	0.42
1000.	989.	-0.640	34.908	-0.680	28.065	0.132	0.30
1100.	1088.	-0.689	34.913	-0.734	28.072	0.133	0.30
1200.	1186.	-0.728	34.911	-0.777	28.072	0.135	0.49
1300.	1285.	-0.785	34.914	-0.839	28.077	0.135	0.36
1400.	1383.	-0.845	34.913	-0.904	28.079	0.135	0.00
1500.	1482.	-0.862	34.913	-0.926	28.080	0.134	0.38
1750.	1728.	-0.928	34.913	-1.005	28.083	0.130	0.00
2000.	1973.	-0.958	34.911	-1.050	28.083	0.125	0.00
2250.	2219.	-0.976	34.911	-1.084	28.084	0.117	0.00



VALDIVIA 488 STATION 35
 LAT 78NS0.1 LONG 02200.1 DATE 10.08.86 TIME (UTC)03:51

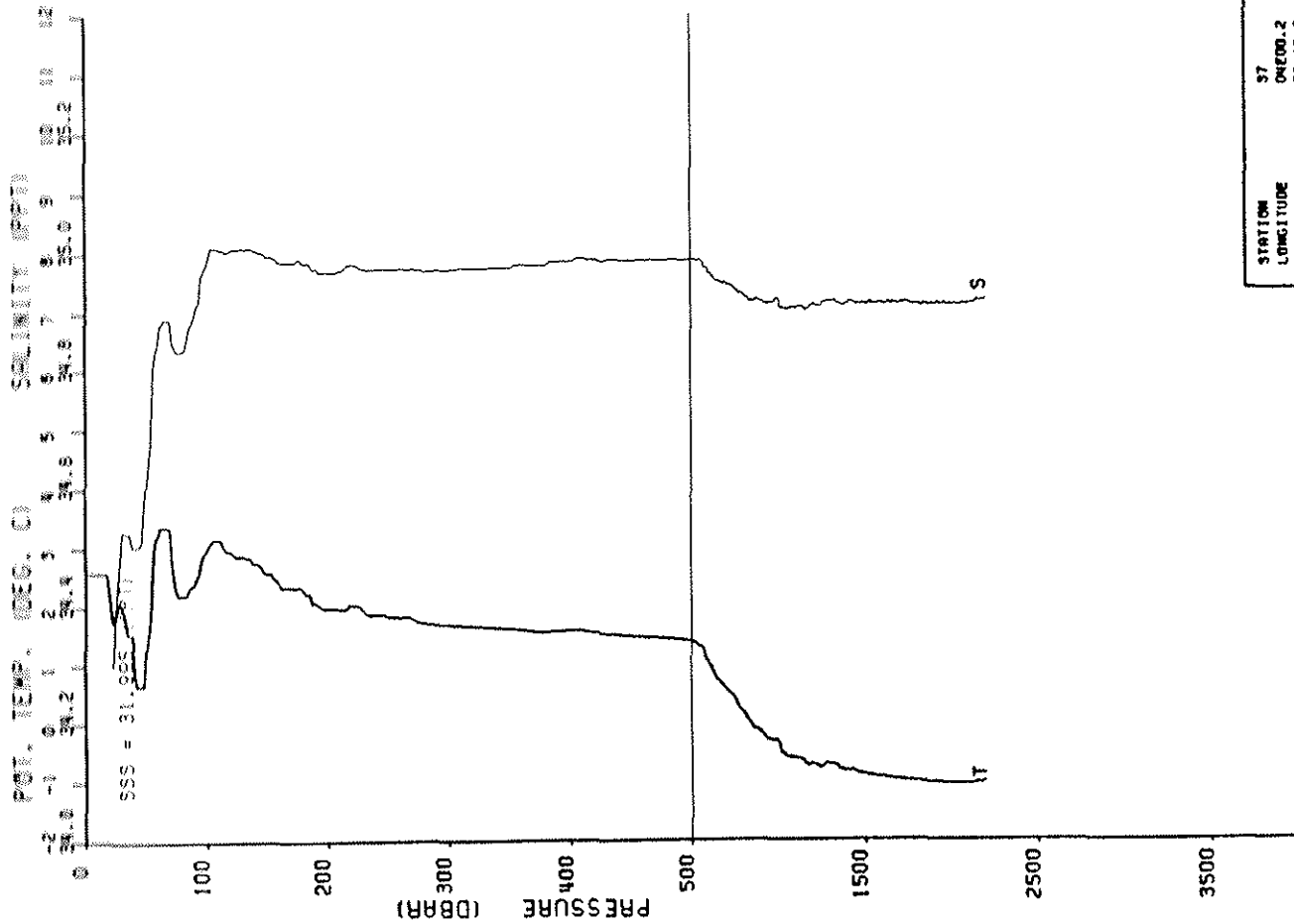
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	SWN (CFP)
0.	0.	5.267	34.893	5.267	27.559	0.000	0.00
5.	5.	5.267	34.893	5.266	27.559	0.003	0.00
10.	10.	5.267	34.893	5.266	27.559	0.005	0.17
15.	15.	5.266	34.893	5.265	27.559	0.008	0.40
20.	20.	5.260	34.893	5.259	27.560	0.010	0.84
25.	25.	5.069	34.888	5.068	27.570	0.013	3.02
30.	30.	4.921	34.884	4.918	27.593	0.015	3.20
40.	40.	4.793	34.884	4.790	27.608	0.020	3.62
50.	50.	3.247	34.959	3.244	27.829	0.024	8.21
60.	59.	2.553	34.964	2.549	27.897	0.026	4.54
70.	69.	2.074	34.970	2.071	27.942	0.028	3.39
75.	74.	1.974	34.973	1.970	27.950	0.029	2.82
80.	79.	1.933	34.978	1.929	27.960	0.030	2.00
90.	89.	1.750	34.975	1.745	27.972	0.031	1.73
100.	99.	1.701	34.978	1.696	27.978	0.032	1.42
120.	119.	1.617	34.986	1.611	27.990	0.035	1.15
125.	124.	1.623	34.988	1.617	27.992	0.035	1.09
140.	139.	1.650	34.995	1.643	27.996	0.037	0.85
150.	149.	1.693	35.001	1.685	27.997	0.038	0.47
160.	159.	1.680	34.999	1.672	27.996	0.039	0.46
180.	178.	1.606	34.999	1.597	28.002	0.041	0.88
200.	198.	1.422	34.988	1.412	28.007	0.043	0.89
220.	218.	1.327	34.985	1.316	28.012	0.045	0.88
240.	238.	1.284	34.986	1.272	28.016	0.047	0.59
250.	248.	1.232	34.983	1.220	28.017	0.048	0.70
260.	258.	1.221	34.984	1.208	28.019	0.049	0.88
280.	277.	1.155	34.982	1.142	28.021	0.051	0.54
300.	297.	1.105	34.979	1.091	28.022	0.053	0.39
320.	317.	0.988	34.975	0.972	28.027	0.054	0.76
340.	337.	0.949	34.969	0.933	28.025	0.056	0.63
360.	357.	0.823	34.967	0.806	28.032	0.058	0.77
380.	376.	0.745	34.960	0.728	28.031	0.059	0.18
400.	396.	0.462	34.941	0.445	28.033	0.061	0.61
420.	416.	0.469	34.944	0.451	28.035	0.062	0.40
440.	436.	0.242	34.932	0.224	28.039	0.064	0.79
460.	456.	0.228	34.935	0.208	28.042	0.065	0.54
480.	475.	0.082	34.923	0.063	28.040	0.066	0.58
500.	495.	0.133	34.934	0.112	28.047	0.068	0.78
550.	545.	0.066	34.931	0.043	28.048	0.071	0.34
600.	594.	-0.172	34.919	-0.196	28.051	0.073	0.27
650.	643.	-0.222	34.916	-0.248	28.052	0.075	0.31
700.	693.	-0.314	34.915	-0.342	28.055	0.078	0.46
750.	742.	-0.391	34.912	-0.421	28.057	0.080	0.42
800.	792.	-0.487	34.911	-0.518	28.060	0.082	0.28
850.	841.	-0.544	34.910	-0.578	28.062	0.084	0.49
900.	890.	-0.584	34.910	-0.619	28.065	0.085	0.40
1000.	989.	-0.703	34.907	-0.743	28.067	0.087	0.41
1100.	1088.	-0.724	34.910	-0.768	28.071	0.089	0.43
1200.	1186.	-0.779	34.911	-0.828	28.075	0.089	0.34
1300.	1285.	-0.838	34.912	-0.891	28.077	0.090	0.35
1400.	1383.	-0.874	34.910	-0.933	28.078	0.089	0.08
1500.	1482.	-0.892	34.913	-0.956	28.081	0.088	0.32
1750.	1728.	-0.921	34.913	-0.998	28.083	0.085	0.00
2000.	1973.	-0.968	34.908	-1.060	28.081	0.079	0.00
2250.	2219.	-0.991	34.906	-1.099	28.081	0.072	0.21
2500.	2464.	-1.047	34.903	-1.171	28.082	0.062	0.00



VALDIVIA 488 STATION 36

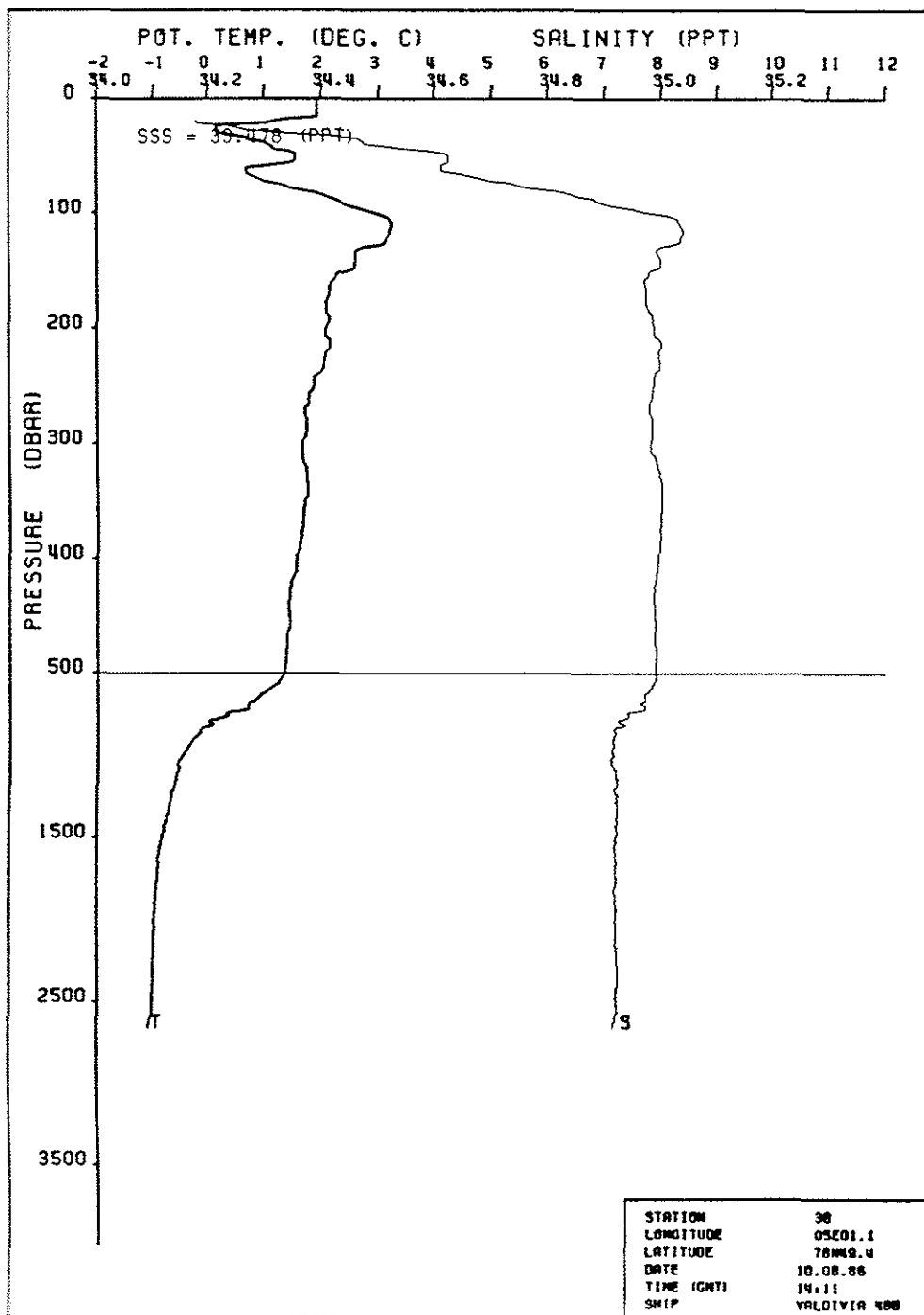
LAT 78N50.1 LONG 03E00.8 DATE 10.08.86 TIME (UTC) 07:19

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIG-TET	DEL-D (DM-M)	N-N (CPH)
0.	0.	5.758	34.309	5.758	27.037	0.000	0.00
5.	5.	5.758	34.309	5.758	27.037	0.005	0.00
10.	10.	5.758	34.309	5.757	27.037	0.010	0.18
15.	15.	6.014	34.393	6.013	27.037	0.015	7.97
20.	20.	6.271	34.927	6.269	27.451	0.019	11.71
25.	25.	6.056	34.982	6.054	27.510	0.022	9.34
30.	30.	5.658	35.024	5.655	27.516	0.024	7.11
40.	40.	5.186	35.030	5.183	27.578	0.029	4.54
50.	50.	3.737	34.901	3.733	27.735	0.033	4.55
60.	59.	2.398	34.819	2.394	27.794	0.036	4.41
70.	69.	2.087	34.847	2.083	27.942	0.039	2.94
75.	74.	2.154	34.870	2.150	27.954	0.040	3.24
80.	79.	2.221	34.893	2.216	27.868	0.041	2.52
90.	89.	2.169	34.900	2.164	27.878	0.043	1.78
100.	99.	1.676	34.880	1.671	27.301	0.045	3.24
120.	119.	1.736	34.926	1.730	27.534	0.049	1.58
125.	124.	1.738	34.930	1.731	27.936	0.050	1.73
140.	139.	1.722	34.944	1.714	27.949	0.052	1.47
150.	149.	1.746	34.953	1.738	27.954	0.054	1.06
160.	158.	1.737	34.954	1.729	27.956	0.055	1.08
180.	178.	1.707	34.957	1.698	27.961	0.058	1.12
200.	198.	1.588	34.952	1.578	27.966	0.061	0.70
220.	218.	1.636	34.966	1.625	27.374	0.064	0.78
240.	238.	1.788	34.982	1.776	27.975	0.067	0.57
250.	248.	1.753	34.979	1.739	27.975	0.068	0.70
260.	258.	1.732	34.977	1.719	27.975	0.069	0.71
280.	277.	1.592	34.975	1.577	27.985	0.072	1.07
300.	297.	1.692	34.989	1.676	27.989	0.074	0.86
320.	317.	1.838	35.007	1.821	27.992	0.077	0.68
340.	337.	1.823	35.008	1.805	27.993	0.079	0.87
360.	357.	1.638	35.000	1.619	28.001	0.082	0.78
380.	376.	1.481	34.986	1.462	28.001	0.084	1.02
400.	396.	1.480	34.991	1.459	28.006	0.086	0.80
420.	416.	1.393	34.986	1.371	28.008	0.089	0.70
440.	436.	1.317	34.986	1.294	28.014	0.091	0.79
460.	456.	1.277	34.983	1.254	28.014	0.093	0.25
480.	475.	1.249	34.984	1.225	28.017	0.095	0.68
500.	495.	1.212	34.984	1.186	28.020	0.097	0.70
550.	545.	1.027	34.972	1.000	28.023	0.102	0.68
600.	594.	0.875	34.970	0.846	28.032	0.106	0.68
650.	643.	0.528	34.948	0.498	28.036	0.110	0.20
700.	693.	0.124	34.921	0.094	28.038	0.114	0.48
750.	742.	0.054	34.922	0.022	28.042	0.117	0.47
800.	792.	-0.051	34.921	-0.086	28.047	0.120	0.65
850.	841.	-0.181	34.918	-0.217	28.051	0.123	0.31
900.	890.	-0.303	34.913	-0.341	28.054	0.125	0.44
1000.	989.	-0.459	34.912	-0.500	28.060	0.129	0.41
1100.	1088.	-0.617	34.911	-0.663	28.067	0.131	0.62
1200.	1186.	-0.666	34.911	-0.716	28.070	0.133	0.46
1300.	1285.	-0.712	34.916	-0.767	28.076	0.134	0.20
1400.	1383.	-0.753	34.919	-0.812	28.080	0.134	0.00
1500.	1482.	-0.824	34.913	-0.889	28.078	0.133	0.14
1750.	1728.	-0.908	34.911	-0.985	28.081	0.130	0.21
2000.	1973.	-0.914	34.916	-1.007	28.085	0.125	0.00
2250.	2219.	-0.918	34.916	-1.027	28.087	0.117	0.20



STATION 57
 LONGITUDE 08200.2
 LATITUDE 78W49.9
 DATE 10.08.88
 TIME (GMT) 10.54
 SHIP VALDIVIA 808

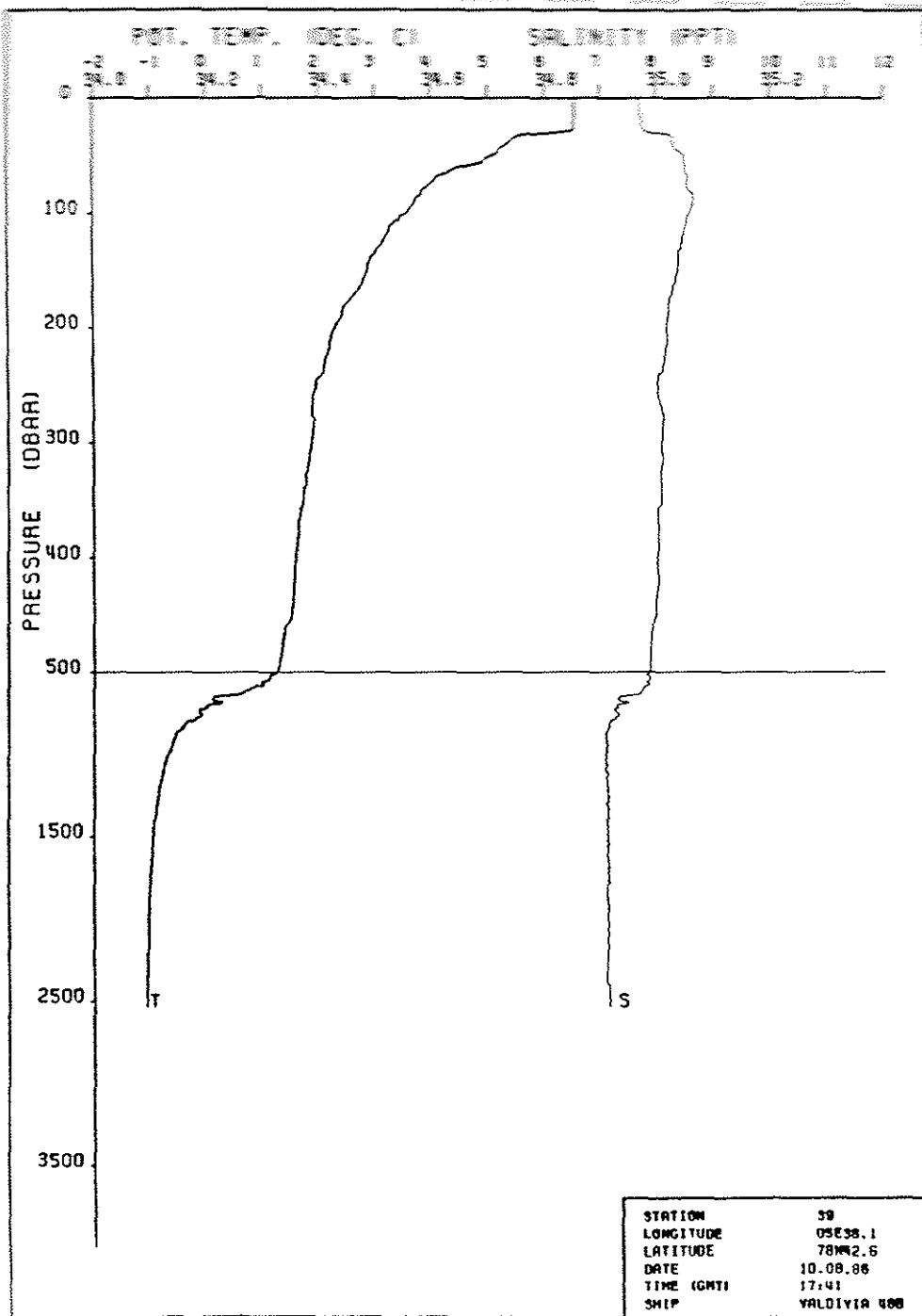
WINDWARD SIDE STATION 57
 LOG TEMPERATURE PRESSURE DRY BULB WIND SPEED WIND DIRECTION
 10894 131 1050.0 99.7 31.922 2.998 28.008 0.133 0.55 0.60
 15. 2.996 31.936 2.995 28.014 0.138 0.55 0.60
 15. 2.995 31.935 2.995 28.014 0.138 0.55 0.60
 20. 2.994 31.934 2.995 28.014 0.138 0.55 0.60
 25. 1.857 34.460 1.857 27.487 0.096 1.615 1.753
 30. 1.866 34.527 1.866 27.536 0.050 1.753 1.753
 40. 0.901 34.504 0.899 27.653 0.055 1.753 1.753
 50. 1.251 34.605 1.249 27.712 0.052 1.753 1.753
 60. 3.209 34.845 3.205 27.742 0.062 1.753 1.753
 70. 3.259 34.889 3.255 27.763 0.066 1.753 1.753
 75. 2.294 34.837 2.290 27.813 0.067 1.753 1.753
 80. 2.223 34.835 2.219 27.821 0.069 1.753 1.753
 90. 2.978 34.893 2.983 27.854 0.071 1.753 1.753
 99. 2.971 34.981 2.972 27.872 0.074 1.753 1.753
 119. 2.971 35.007 2.965 27.894 0.078 1.753 1.753
 124. 2.898 35.009 2.890 27.901 0.079 1.753 1.753
 140. 2.780 35.007 2.771 27.912 0.082 1.753 1.753
 149. 2.608 34.996 2.599 27.918 0.084 1.753 1.753
 150. 2.437 34.987 2.428 27.925 0.086 1.753 1.753
 160. 1.889 34.973 1.876 27.960 0.099 1.753 1.753
 248. 1.864 34.975 1.850 27.963 0.100 1.753 1.753
 250. 1.847 34.975 1.833 27.965 0.102 1.753 1.753
 280. 1.749 34.970 1.735 27.969 0.105 1.753 1.753
 300. 1.715 34.973 1.700 27.973 0.108 1.753 1.753
 317. 1.688 34.975 1.671 27.977 0.110 1.753 1.753
 320. 1.658 34.976 1.640 27.980 0.113 1.753 1.753
 340. 1.625 34.981 1.606 27.987 0.116 1.753 1.753
 360. 1.586 34.980 1.566 27.989 0.118 1.753 1.753
 380. 1.564 34.986 1.543 27.993 0.121 1.753 1.753
 400. 1.574 34.988 1.551 27.997 0.123 1.753 1.753
 420. 1.524 34.989 1.501 28.001 0.126 1.753 1.753
 440. 1.494 34.988 1.470 28.003 0.128 1.753 1.753
 460. 1.463 34.988 1.438 28.005 0.130 1.753 1.753
 480. 1.426 34.988 1.400 28.008 0.133 1.753 1.753
 500. 1.337 34.988 1.308 28.014 0.138 1.753 1.753
 550. 1.051 34.966 1.020 28.017 0.143 1.753 1.753
 600. 0.771 34.951 0.739 28.023 0.148 1.753 1.753
 650. 0.616 34.948 0.582 28.030 0.153 1.753 1.753
 700. 0.453 34.939 0.418 28.033 0.157 1.753 1.753
 750. 0.216 34.930 0.179 28.040 0.160 1.753 1.753
 800. 0.018 34.917 -0.055 28.042 0.164 1.753 1.753
 850. -0.140 34.918 -0.179 28.049 0.166 1.753 1.753
 900. 0.899 -0.307 0.866 28.050 0.171 1.753 1.753
 1000. 0.566 34.921 -0.350 28.060 0.174 1.753 1.753
 1100. -0.566 34.906 -0.612 28.061 0.174 1.753 1.753
 1200. -0.665 34.910 -0.723 28.068 0.176 1.753 1.753
 1300. -0.668 34.916 -0.723 28.074 0.177 1.753 1.753
 1400. -0.768 34.912 -0.828 28.075 0.178 1.753 1.753
 1500. -0.825 34.913 -0.889 28.078 0.178 1.753 1.753
 1750. -0.914 34.914 -0.992 28.084 0.174 1.753 1.753
 2000. -0.952 34.911 -1.044 28.083 0.169 1.753 1.753



VALDIVIA 488 STATION 38

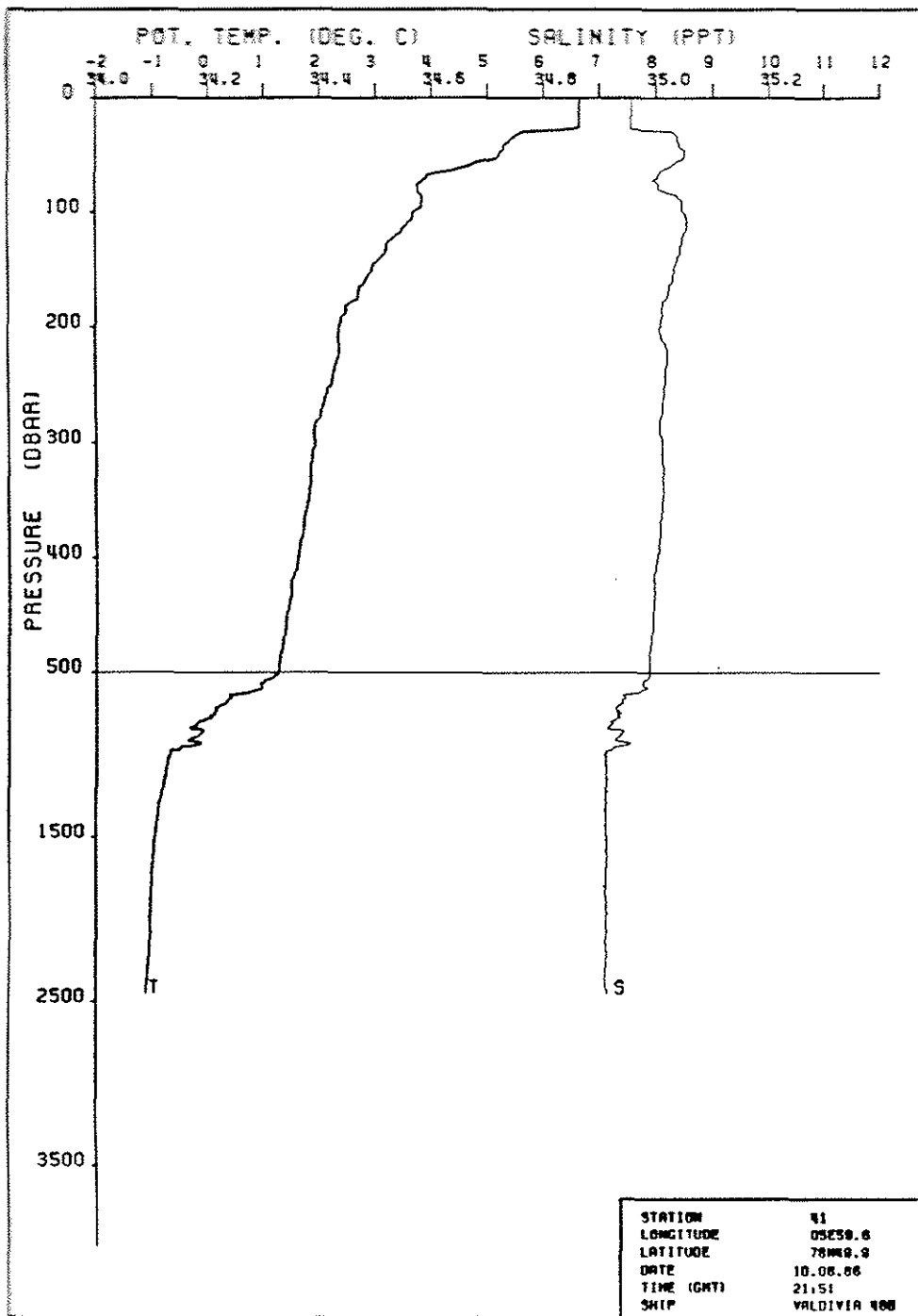
LAT 78N49.4 LONG 05E01.1 DATE 10.08.86 TIME (UTC) 14:11

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	N=N (CPH)
0.	0.	1.942	33.478	1.942	26.757	0.000	0.00
5.	5.	1.942	33.478	1.942	26.757	0.006	0.00
10.	10.	1.942	33.478	1.941	26.757	0.013	0.11
15.	15.	1.942	33.478	1.941	26.757	0.019	5.77
20.	20.	1.180	34.180	1.179	27.374	0.024	14.09
25.	25.	0.158	34.244	0.157	27.478	0.027	12.83
30.	30.	0.158	34.324	0.157	27.552	0.030	8.12
40.	40.	1.060	34.476	1.059	27.620	0.035	4.18
50.	50.	1.557	34.625	1.554	27.705	0.039	4.25
60.	59.	0.703	34.612	0.701	27.752	0.043	3.86
70.	69.	0.915	34.665	0.912	27.798	0.046	3.91
75.	74.	1.277	34.740	1.273	27.819	0.047	3.49
80.	79.	1.678	34.806	1.674	27.841	0.049	3.47
90.	89.	2.316	34.886	2.311	27.855	0.051	2.34
100.	99.	2.941	34.973	2.935	27.870	0.054	2.96
120.	119.	3.202	35.038	3.194	27.898	0.058	1.09
125.	124.	3.145	35.035	3.137	27.899	0.059	1.82
140.	139.	2.616	34.998	2.608	27.919	0.062	1.99
150.	149.	2.503	34.982	2.495	27.916	0.064	1.30
160.	159.	2.189	34.971	2.181	27.934	0.065	1.65
180.	178.	2.098	34.973	2.089	27.943	0.069	1.41
200.	198.	2.107	34.989	2.096	27.955	0.072	1.01
220.	218.	2.132	34.997	2.120	27.960	0.075	1.14
240.	238.	1.965	34.991	1.952	27.968	0.078	1.02
250.	246.	1.898	34.988	1.885	27.971	0.079	1.32
260.	258.	1.816	34.985	1.802	27.975	0.081	0.92
280.	277.	1.765	34.985	1.750	27.980	0.084	0.65
300.	297.	1.694	34.982	1.679	27.982	0.086	0.84
320.	317.	1.753	34.994	1.736	27.988	0.089	0.90
340.	337.	1.781	35.001	1.762	27.992	0.091	0.89
360.	357.	1.704	35.001	1.684	27.997	0.094	0.58
380.	376.	1.672	34.999	1.652	27.998	0.096	0.76
400.	396.	1.599	34.996	1.578	28.001	0.099	0.50
420.	416.	1.505	34.991	1.483	28.005	0.101	0.64
440.	436.	1.453	34.988	1.430	28.006	0.103	0.46
460.	456.	1.474	34.990	1.449	28.006	0.106	0.66
480.	475.	1.416	34.991	1.391	28.011	0.108	0.79
500.	495.	1.378	34.990	1.352	28.013	0.110	0.74
550.	545.	1.290	34.988	1.262	28.018	0.115	0.44
600.	594.	1.098	34.978	1.068	28.023	0.120	0.60
650.	643.	0.935	34.971	0.902	28.029	0.125	0.61
700.	693.	0.735	34.968	0.701	28.040	0.129	0.70
750.	742.	0.360	34.941	0.326	28.040	0.133	0.42
800.	792.	0.048	34.925	0.012	28.045	0.136	0.50
850.	841.	-0.122	34.916	-0.158	28.047	0.139	0.41
900.	890.	-0.234	34.916	-0.272	28.052	0.142	0.48
1000.	989.	-0.423	34.914	-0.465	28.060	0.146	0.41
1100.	1088.	-0.502	34.916	-0.548	28.066	0.149	0.54
1200.	1186.	-0.561	34.919	-0.612	28.071	0.151	0.14
1300.	1285.	-0.643	34.921	-0.698	28.076	0.152	0.31
1400.	1383.	-0.699	34.922	-0.759	28.080	0.152	0.00
1500.	1482.	-0.760	34.918	-0.825	28.080	0.152	0.11
1750.	1728.	-0.830	34.919	-0.909	28.084	0.149	0.34
2000.	1973.	-0.885	34.918	-0.978	28.086	0.144	0.18
2250.	2219.	-0.894	34.919	-1.004	28.088	0.137	0.18
2500.	2464.	-0.909	34.916	-1.036	28.087	0.128	0.21



YALDIYA 488 STATION 59
 LAT 78W42.6 LONG 05538.1 DATE 10.08.86 TIME 17:41

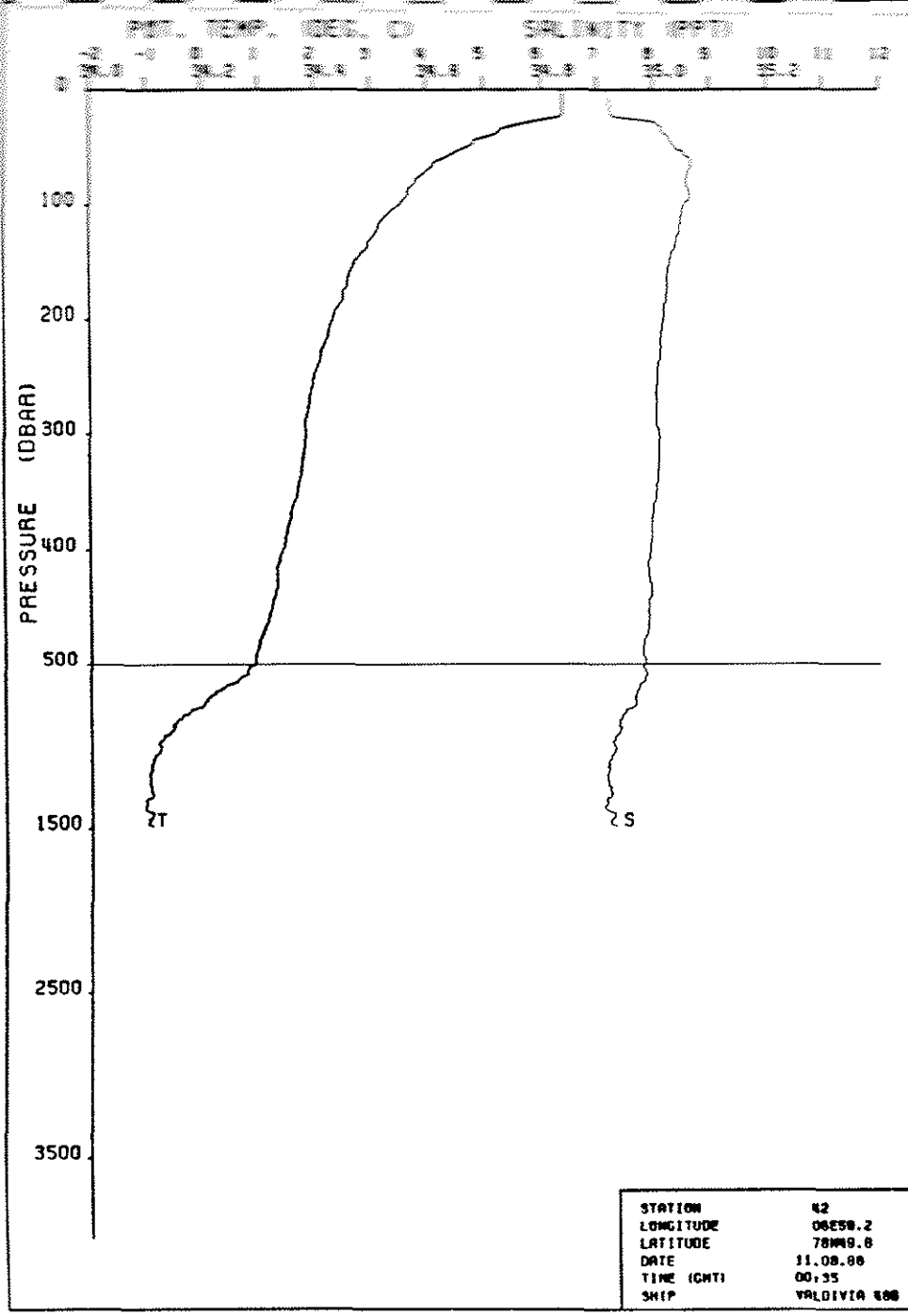
P (DBAR)	Z (M)	T (DEG. C)	S (PPT)	TEMP (DEG. C)	SIGTBT	DEL-S (DM-M)	SEA (CM)
0.	0.	6.541	34.973	6.541	27.460	0.000	0.00
5.	5.	6.541	34.973	6.541	27.460	0.003	0.00
10.	10.	6.541	34.973	6.540	27.460	0.008	0.18
15.	15.	6.541	34.973	6.540	27.460	0.009	0.46
20.	20.	6.539	34.974	6.537	27.462	0.012	0.83
25.	25.	6.533	34.976	6.531	27.463	0.015	1.25
30.	30.	6.195	34.987	6.193	27.518	0.018	6.99
40.	40.	5.338	35.030	5.335	27.660	0.023	3.82
50.	50.	5.075	35.050	5.071	27.707	0.027	4.07
60.	59.	4.559	35.052	4.554	27.768	0.031	4.49
70.	69.	4.114	35.058	4.109	27.821	0.034	3.60
75.	74.	4.008	35.056	4.003	27.828	0.035	2.77
80.	79.	3.878	35.058	3.872	27.845	0.036	2.94
90.	89.	3.738	35.066	3.732	27.867	0.039	2.44
100.	99.	3.571	35.060	3.564	27.879	0.041	2.14
120.	119.	3.238	35.050	3.231	27.903	0.045	1.65
125.	124.	3.187	35.047	3.179	27.905	0.046	1.49
140.	139.	2.966	35.040	2.957	27.921	0.049	1.67
150.	149.	2.899	35.039	2.889	27.926	0.051	1.21
160.	159.	2.812	35.034	2.803	27.931	0.053	1.08
180.	178.	2.522	35.024	2.511	27.948	0.056	1.75
200.	198.	2.324	35.020	2.313	27.962	0.059	1.49
220.	218.	2.216	35.017	2.203	27.969	0.062	0.82
240.	238.	2.127	35.012	2.114	27.972	0.065	0.92
250.	248.	1.988	35.004	1.975	27.977	0.067	1.14
260.	258.	1.929	35.004	1.915	27.982	0.068	1.22
280.	277.	1.942	35.013	1.926	27.988	0.070	0.58
300.	297.	1.911	35.011	1.894	27.989	0.073	0.57
320.	317.	1.843	35.012	1.826	27.995	0.075	0.95
340.	337.	1.784	35.009	1.766	27.998	0.078	0.78
360.	357.	1.705	35.003	1.686	27.999	0.080	0.57
380.	376.	1.657	35.004	1.637	28.003	0.083	0.66
400.	396.	1.617	35.003	1.596	28.005	0.085	0.48
420.	416.	1.591	35.004	1.569	28.008	0.087	0.51
440.	436.	1.557	34.998	1.534	28.007	0.089	0.55
460.	456.	1.429	34.994	1.405	28.012	0.092	0.85
480.	475.	1.365	34.989	1.340	28.013	0.094	0.59
500.	495.	1.262	34.988	1.236	28.019	0.096	0.94
550.	545.	1.081	34.984	1.053	28.029	0.101	0.76
600.	594.	0.806	34.975	0.777	28.040	0.105	0.81
650.	643.	0.154	34.933	0.125	28.046	0.108	0.21
700.	693.	0.039	34.929	0.009	28.048	0.111	0.55
750.	742.	-0.078	34.928	-0.110	28.054	0.114	0.70
800.	792.	-0.305	34.917	-0.338	28.057	0.116	0.15
850.	841.	-0.435	34.910	-0.470	28.058	0.118	0.29
900.	890.	-0.540	34.907	-0.576	28.060	0.120	0.45
1000.	989.	-0.645	34.907	-0.685	28.065	0.122	0.49
1100.	1088.	-0.726	34.908	-0.770	28.069	0.124	0.38
1200.	1186.	-0.793	34.910	-0.842	28.074	0.125	0.42
1300.	1285.	-0.830	34.907	-0.883	28.073	0.125	0.11
1400.	1383.	-0.867	34.910	-0.925	28.078	0.125	0.26
1500.	1482.	-0.889	34.911	-0.952	28.079	0.125	0.32
1750.	1728.	-0.927	34.911	-1.005	28.082	0.121	0.23
2000.	1973.	-0.940	34.910	-1.032	28.081	0.116	0.24
2250.	2219.	-0.935	34.909	-1.044	28.081	0.109	0.23
2500.	2464.	-0.939	34.912	-1.065	28.085	0.101	0.00



VALDIVIA 400 STATION 41

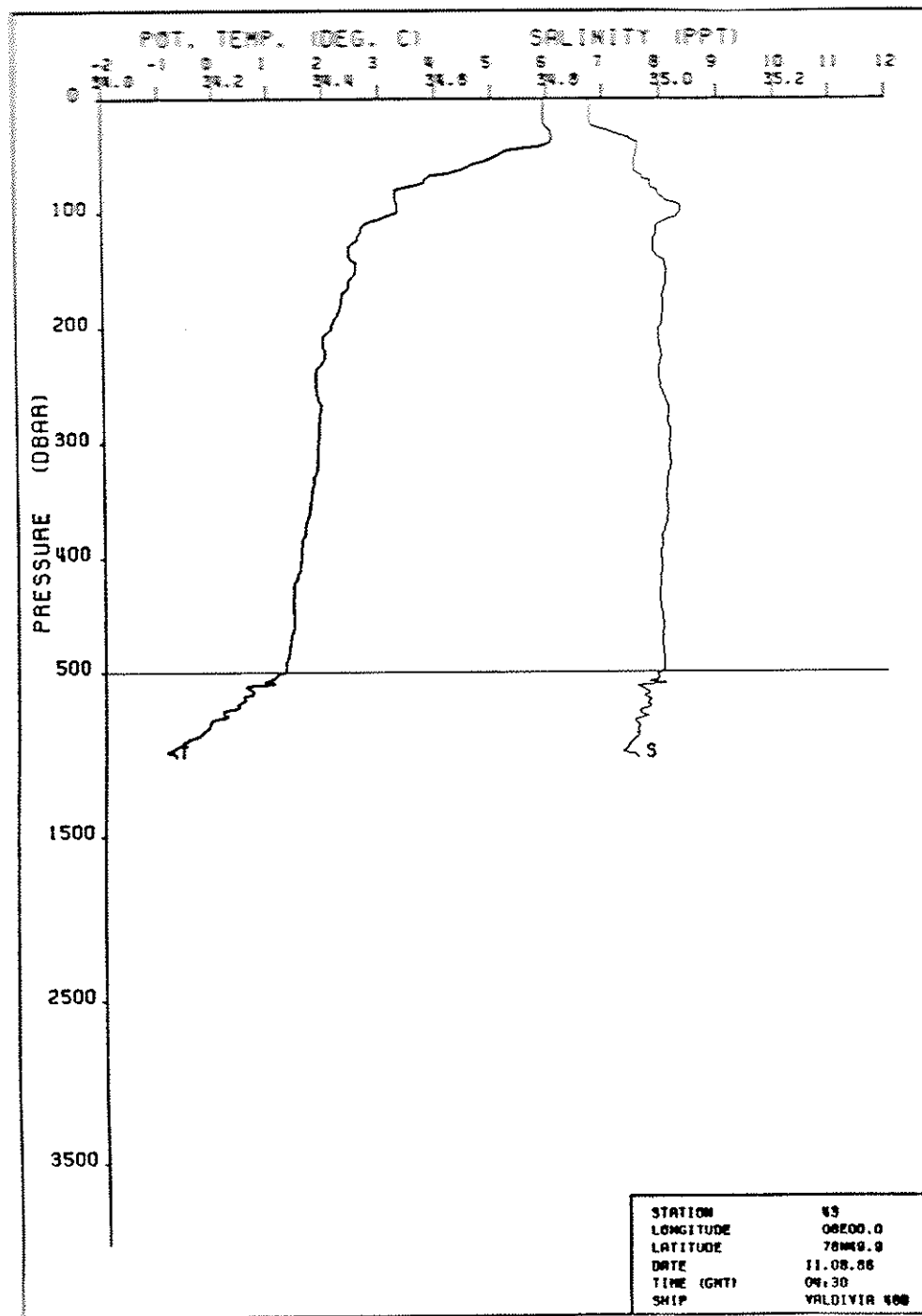
LAT 7849.9 LONG 0559.6 DATE 10.08.86 TIME (UTC) 21:51

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	NuN (CPM)
0.	0.	6.638	34.956	6.638	27.434	0.000	0.00
5.	5.	6.638	34.956	6.637	27.434	0.003	0.00
10.	10.	6.638	34.956	6.637	27.434	0.006	0.20
15.	15.	6.637	34.956	6.636	27.434	0.010	*****
20.	20.	6.634	34.954	6.632	27.434	0.013	1.97
25.	25.	6.632	34.955	6.630	27.434	0.016	1.54
30.	30.	5.645	35.027	5.643	27.619	0.019	8.00
40.	40.	5.340	35.039	5.336	27.666	0.023	3.39
50.	50.	5.222	35.048	5.218	27.688	0.027	2.48
60.	59.	4.651	35.025	4.646	27.735	0.031	4.21
70.	69.	3.928	35.004	3.923	27.797	0.035	3.91
75.	74.	3.789	35.002	3.784	27.806	0.036	2.87
80.	79.	3.758	35.004	3.753	27.815	0.037	2.87
90.	89.	3.837	35.045	3.831	27.840	0.040	2.35
100.	99.	3.694	35.048	3.687	27.857	0.043	2.60
120.	119.	3.388	35.049	3.380	27.888	0.047	2.26
125.	124.	3.273	35.046	3.265	27.896	0.048	1.85
140.	139.	3.116	35.038	3.107	27.905	0.052	1.39
150.	149.	2.951	35.031	2.942	27.915	0.053	1.61
160.	159.	2.841	35.029	2.831	27.924	0.055	1.52
180.	178.	2.542	35.011	2.531	27.936	0.059	1.35
200.	198.	2.393	35.009	2.381	27.947	0.062	1.24
220.	218.	2.379	35.020	2.366	27.957	0.066	1.31
240.	238.	2.281	35.017	2.267	27.963	0.069	0.88
250.	248.	2.242	35.017	2.228	27.966	0.070	1.16
260.	258.	2.145	35.013	2.130	27.972	0.072	1.22
280.	277.	2.011	35.007	1.996	27.978	0.074	1.12
300.	297.	1.938	35.010	1.921	27.986	0.077	0.95
320.	317.	1.865	35.012	1.848	27.993	0.080	0.92
340.	337.	1.866	35.014	1.847	27.995	0.082	0.56
360.	357.	1.797	35.011	1.778	27.998	0.084	0.56
380.	376.	1.732	35.007	1.711	28.000	0.087	0.87
400.	396.	1.650	35.002	1.629	28.002	0.089	0.72
420.	416.	1.528	34.995	1.506	28.006	0.092	0.97
440.	436.	1.493	34.995	1.470	28.008	0.094	0.73
460.	456.	1.421	34.993	1.397	28.012	0.096	0.50
480.	475.	1.370	34.989	1.345	28.013	0.098	0.57
500.	495.	1.303	34.988	1.277	28.017	0.100	0.77
550.	545.	1.060	34.976	1.033	28.024	0.105	0.71
600.	594.	0.992	34.979	0.963	28.031	0.110	0.53
650.	643.	0.443	34.943	0.414	28.037	0.114	0.42
700.	693.	0.267	34.932	0.236	28.038	0.117	0.56
750.	742.	0.139	34.934	0.106	28.047	0.121	0.67
800.	792.	-0.146	34.918	-0.179	28.050	0.123	0.33
850.	841.	-0.067	34.936	-0.104	28.060	0.126	0.86
900.	890.	-0.281	34.927	-0.319	28.064	0.128	0.67
1000.	989.	-0.657	34.907	-0.697	28.066	0.130	0.00
1100.	1088.	-0.725	34.909	-0.769	28.070	0.132	0.15
1200.	1186.	-0.763	34.908	-0.812	28.071	0.133	0.31
1300.	1285.	-0.825	34.909	-0.879	28.075	0.134	0.36
1400.	1383.	-0.854	34.909	-0.912	28.076	0.134	0.15
1500.	1482.	-0.892	34.911	-0.955	28.080	0.133	0.29
1750.	1728.	-0.936	34.909	-1.013	28.080	0.130	0.00
2000.	1973.	-0.950	34.908	-1.043	28.081	0.124	0.00
2250.	2219.	-0.950	34.909	-1.058	28.082	0.118	0.00



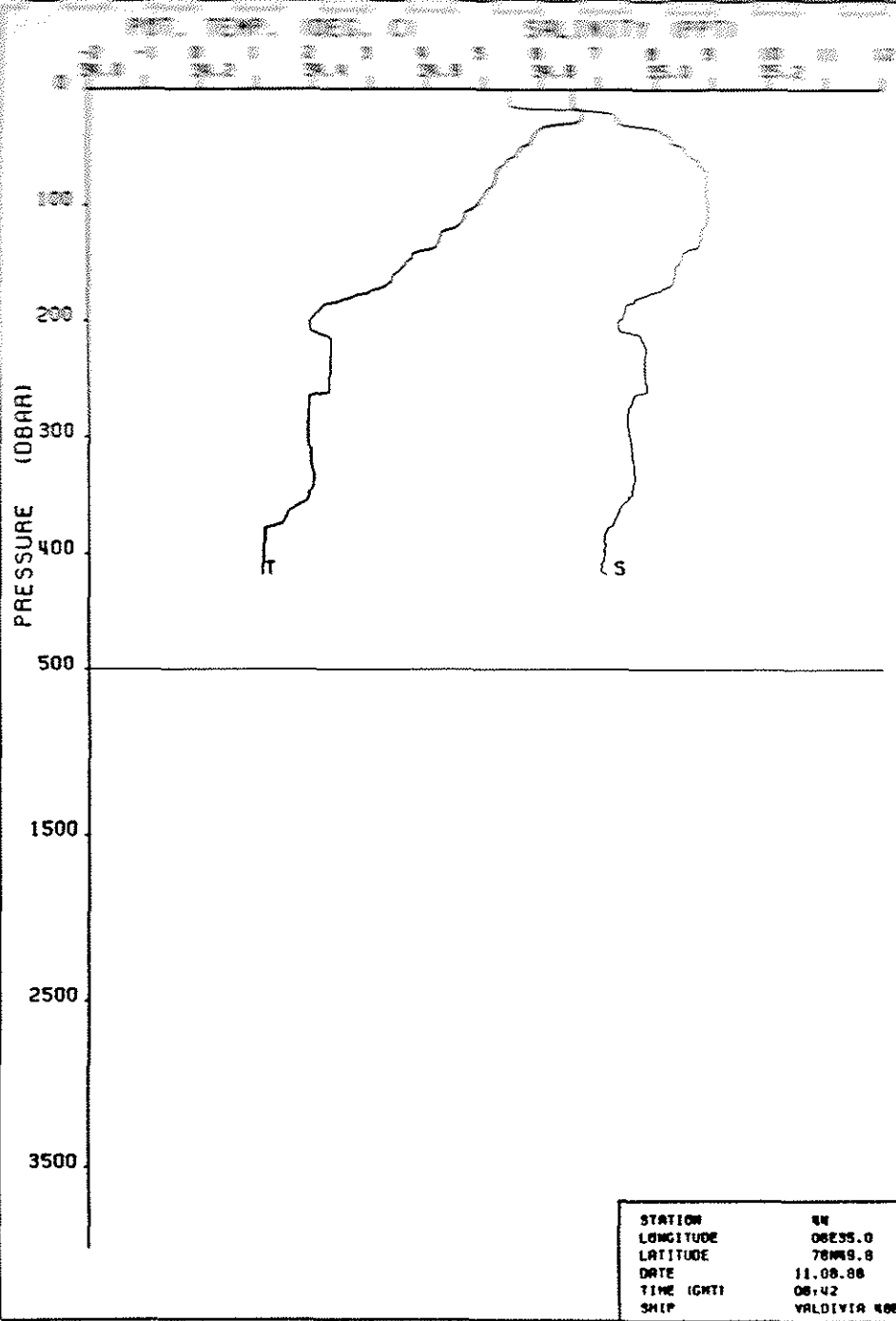
VALDIVIA 488 STATION 42
 LAT 78449.8 LONG 08558.2 DATE 11.08.88 TIME (GMT) 00:35

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTA	DEL-S (GM-M)	SIGMA (KG)
0.	0.	6.396	34.920	6.396	27.438	0.000	0.00
5.	5.	6.396	34.920	6.396	27.438	0.000	0.00
10.	10.	6.396	34.920	6.395	27.438	0.000	0.00
15.	15.	6.396	34.923	6.395	27.440	0.000	0.04
20.	20.	6.396	34.925	6.394	27.442	0.013	1.03
25.	25.	6.212	34.954	6.210	27.460	0.016	5.78
30.	30.	5.638	35.007	5.636	27.605	0.018	7.71
40.	40.	5.121	35.028	5.118	27.683	0.023	4.77
50.	50.	4.722	35.041	4.719	27.740	0.027	3.90
60.	59.	4.321	35.067	4.316	27.805	0.030	4.58
70.	69.	4.033	35.064	4.029	27.834	0.032	2.45
75.	74.	3.902	35.061	3.897	27.844	0.034	2.54
80.	79.	3.836	35.059	3.830	27.851	0.035	2.49
90.	89.	3.690	35.065	3.684	27.870	0.037	2.14
100.	99.	3.536	35.057	3.530	27.880	0.040	2.03
120.	119.	3.184	35.048	3.176	27.907	0.044	1.69
125.	124.	3.138	35.048	3.130	27.910	0.045	1.65
140.	139.	2.940	35.037	2.932	27.921	0.048	1.72
150.	149.	2.765	35.032	2.756	27.933	0.050	1.54
160.	159.	2.676	35.027	2.666	27.937	0.051	1.26
180.	178.	2.553	35.026	2.542	27.947	0.055	1.08
200.	198.	2.373	35.019	2.362	27.957	0.058	1.40
220.	218.	2.241	35.014	2.229	27.964	0.061	1.26
240.	238.	2.105	35.010	2.091	27.972	0.064	0.94
250.	248.	2.028	35.009	2.014	27.978	0.065	1.20
260.	258.	1.987	35.007	1.973	27.979	0.066	1.07
280.	277.	1.912	35.006	1.897	27.985	0.069	0.90
300.	297.	1.869	35.010	1.852	27.991	0.072	0.86
320.	317.	1.840	35.013	1.822	27.996	0.074	0.77
340.	337.	1.769	35.010	1.751	27.999	0.076	0.68
360.	357.	1.660	35.003	1.641	28.002	0.079	0.81
380.	376.	1.558	34.999	1.538	28.006	0.081	0.87
400.	396.	1.453	34.996	1.433	28.012	0.083	0.96
420.	416.	1.347	34.992	1.325	28.017	0.085	0.79
440.	436.	1.309	34.997	1.287	28.023	0.087	0.78
460.	456.	1.189	34.992	1.166	28.028	0.089	1.17
480.	475.	1.025	34.983	1.002	28.032	0.091	0.60
500.	495.	0.942	34.985	0.917	28.039	0.093	1.03
550.	545.	0.819	34.988	0.793	28.050	0.096	0.82
600.	594.	0.648	34.985	0.620	28.058	0.099	0.73
650.	643.	0.365	34.973	0.335	28.066	0.102	0.76
700.	693.	0.160	34.968	0.129	28.073	0.104	0.64
750.	742.	0.044	34.967	0.011	28.079	0.105	0.67
800.	792.	-0.230	34.948	-0.264	28.078	0.107	0.37
850.	841.	-0.436	34.939	-0.471	28.080	0.108	0.43
900.	890.	-0.500	34.939	-0.537	28.084	0.108	0.38
1000.	989.	-0.713	34.929	-0.752	28.086	0.109	0.47
1100.	1088.	-0.859	34.919	-0.902	28.084	0.108	0.15
1200.	1186.	-0.897	34.915	-0.945	28.083	0.108	0.30
1300.	1285.	-0.861	34.922	-0.914	28.087	0.107	0.36
1400.	1383.	-0.883	34.922	-0.941	28.088	0.106	0.65

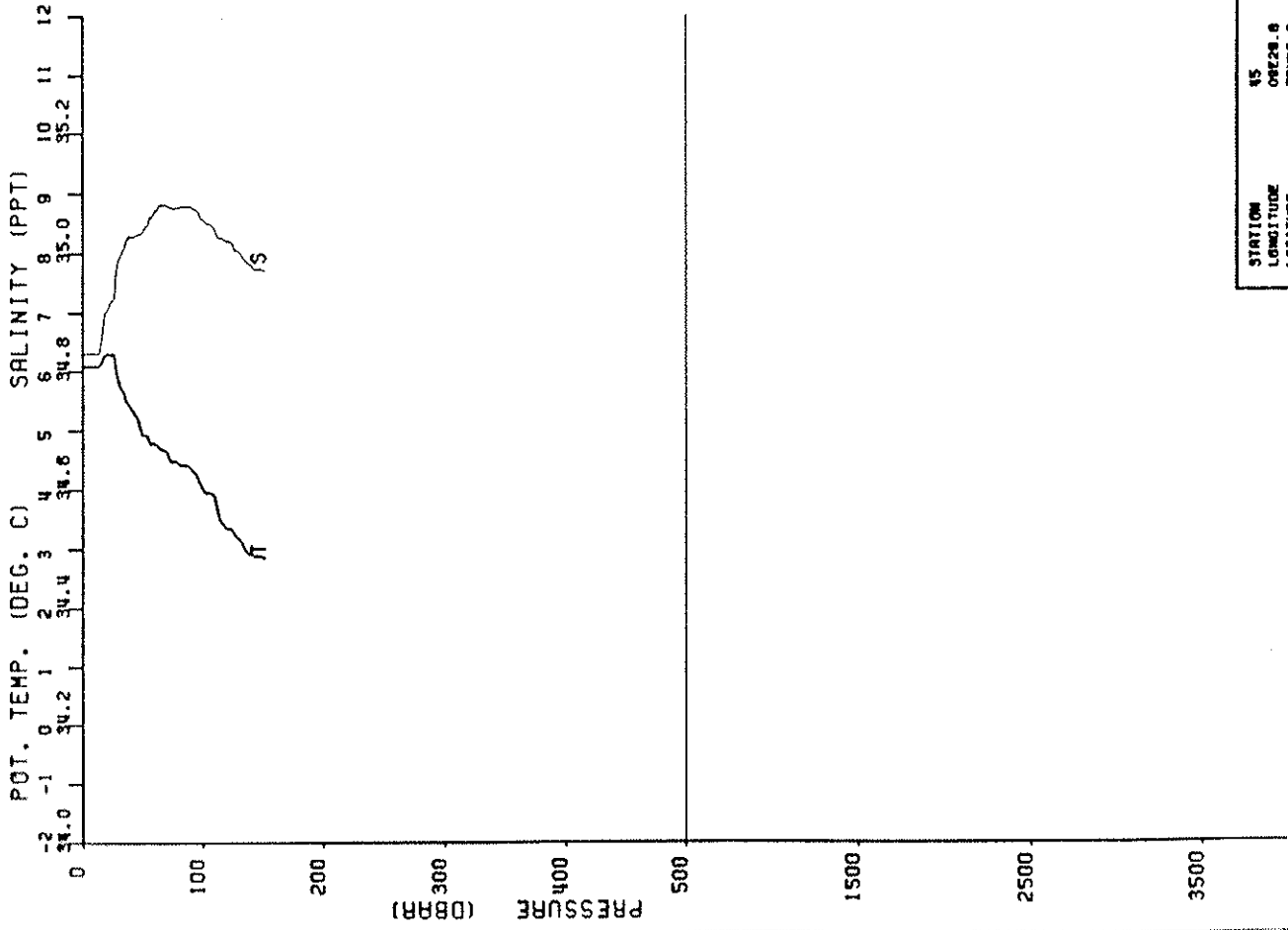


VALDIVIA 408 STATION 43
 LAT 78449.9 LONG 08200.0 DATE 11.08.88 TIME (UTC) 04:30

P (DBAR)	Z (M)	T (DEG. C)	S (PPT)	THETA (DEG. C)	SIGETA	DEL-S (DYN-M)	Sigma-t (CPH)
0.	0.	5.954	34.877	5.954	27.461	0.000	0.00
5.	5.	5.954	34.877	5.953	27.461	0.003	0.00
10.	10.	5.954	34.877	5.953	27.461	0.006	0.18
15.	15.	5.954	34.877	5.953	27.461	0.009	0.18
20.	20.	5.954	34.877	5.952	27.462	0.012	0.55
25.	25.	5.997	34.888	5.995	27.461	0.015	1.76
30.	30.	6.076	34.918	6.073	27.479	0.018	2.76
40.	40.	6.030	34.962	6.027	27.519	0.024	4.02
50.	50.	5.143	34.959	5.139	27.627	0.029	5.64
60.	59.	4.565	34.956	4.561	27.691	0.033	4.32
70.	69.	3.852	34.969	3.848	27.778	0.037	5.47
75.	74.	3.755	34.983	3.750	27.794	0.039	4.54
80.	79.	3.293	34.994	3.288	27.853	0.040	4.44
90.	89.	3.308	35.011	3.302	27.865	0.042	2.66
100.	99.	3.332	35.037	3.326	27.884	0.045	2.07
120.	119.	2.647	34.993	2.640	27.913	0.049	1.45
125.	124.	2.589	34.990	2.582	27.912	0.050	1.62
140.	139.	2.485	34.999	2.477	27.930	0.052	1.32
150.	149.	2.591	35.011	2.583	27.932	0.054	1.18
160.	159.	2.469	35.010	2.459	27.941	0.056	1.38
180.	178.	2.340	35.005	2.329	27.948	0.059	1.31
200.	198.	2.162	34.999	2.151	27.958	0.062	1.58
220.	218.	2.044	35.001	2.032	27.970	0.065	0.64
240.	238.	1.879	34.997	1.866	27.980	0.068	1.25
250.	248.	1.880	35.000	1.866	27.982	0.069	0.92
260.	258.	1.918	35.008	1.904	27.986	0.070	0.85
280.	277.	1.940	35.013	1.925	27.988	0.073	0.91
300.	297.	1.917	35.016	1.901	27.993	0.075	0.35
320.	317.	1.902	35.017	1.884	27.995	0.078	0.59
340.	337.	1.813	35.011	1.794	27.996	0.080	0.71
360.	357.	1.750	35.012	1.731	28.002	0.083	1.00
380.	376.	1.670	35.001	1.650	28.000	0.085	0.29
400.	396.	1.594	34.998	1.573	28.004	0.087	0.49
420.	416.	1.514	34.997	1.492	28.009	0.090	0.94
440.	436.	1.444	34.997	1.421	28.013	0.092	0.79
460.	456.	1.459	35.002	1.435	28.016	0.094	0.79
480.	475.	1.374	35.002	1.349	28.022	0.096	0.94
500.	495.	1.302	35.000	1.277	28.026	0.098	0.82
550.	545.	1.037	34.988	1.010	28.035	0.102	0.76
600.	594.	0.620	34.962	0.592	28.041	0.106	0.31
650.	643.	0.540	34.968	0.510	28.051	0.110	0.85
700.	693.	0.428	34.973	0.396	28.062	0.112	0.57
750.	742.	0.165	34.960	0.132	28.067	0.115	0.61
800.	792.	-0.059	34.951	-0.093	28.072	0.117	0.67
850.	841.	-0.149	34.955	-0.186	28.079	0.118	0.53
900.	890.	-0.390	34.952	-0.427	28.089	0.119	0.67
989.	989.	-0.728	34.944	-0.767	28.098	0.119	81.85



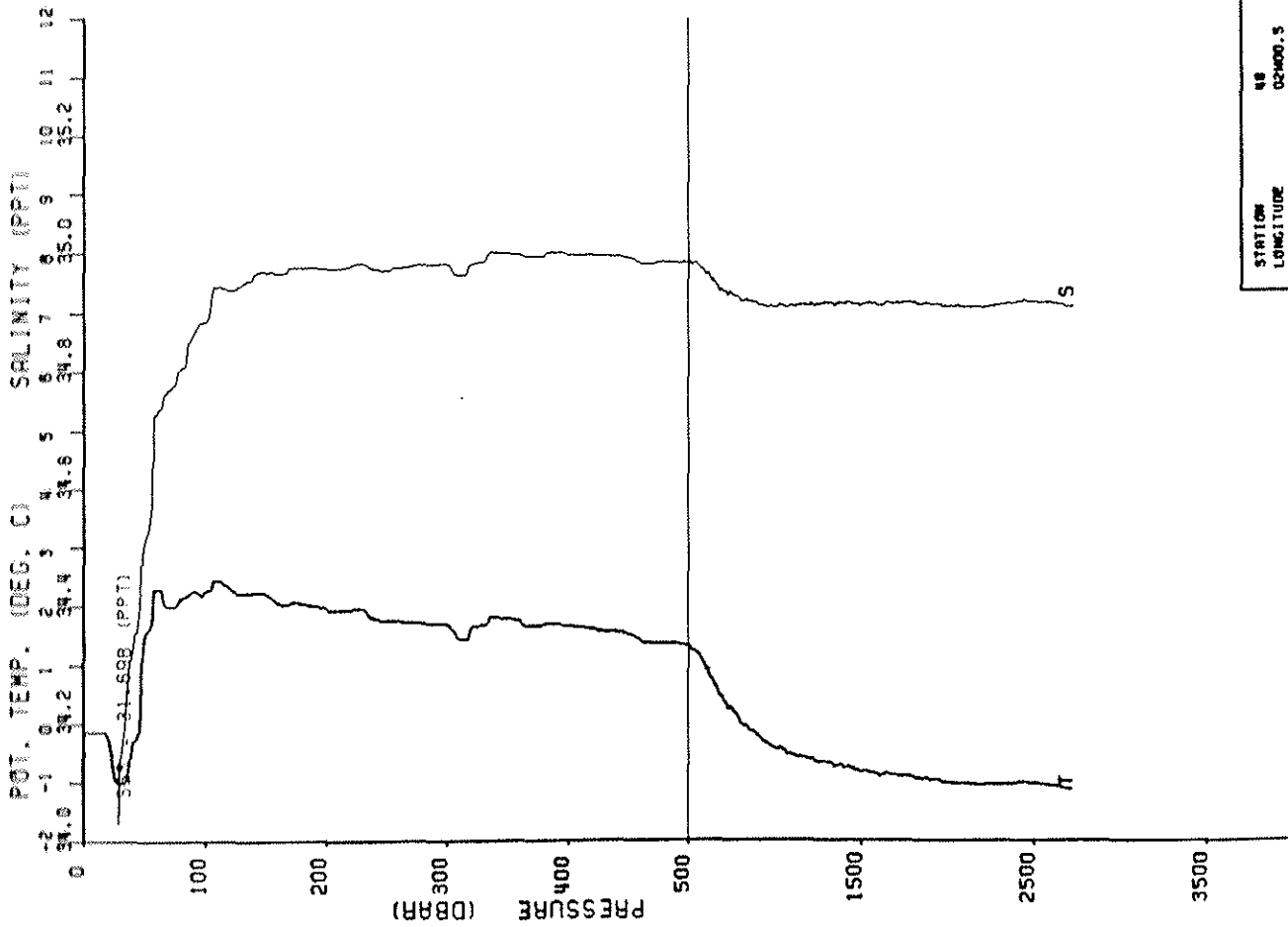
P	S	T	U	V	W	X	Y
0	39.0	5.888	34.944	5.252	27.717	0.041	2.85
5	39.0	5.888	34.944	5.252	27.717	0.041	2.85
10	39.0	5.888	34.944	5.252	27.717	0.041	2.85
15	39.0	5.888	34.944	5.252	27.717	0.041	2.85
20	39.0	5.888	34.944	5.252	27.717	0.041	2.85
25	39.0	5.888	34.944	5.252	27.717	0.041	2.85
30	39.0	5.888	34.944	5.252	27.717	0.041	2.85
35	39.0	5.888	34.944	5.252	27.717	0.041	2.85
40	40.0	5.886	35.025	5.683	27.688	0.032	4.45
45	40.0	5.886	35.025	5.683	27.688	0.032	4.45
50	50.0	5.652	35.051	5.648	27.638	0.032	4.01
55	50.0	5.652	35.051	5.648	27.638	0.032	4.01
60	59.0	5.461	35.071	5.456	27.678	0.037	3.77
65	59.0	5.461	35.071	5.456	27.678	0.037	3.77
70	69.0	5.257	35.090	5.252	27.717	0.041	3.25
75	69.0	5.257	35.090	5.252	27.717	0.041	3.25
80	79.0	5.210	35.090	5.204	27.723	0.042	2.15
85	79.0	5.210	35.090	5.204	27.723	0.042	2.15
90	89.0	5.050	35.088	5.049	27.740	0.048	1.34
95	89.0	5.050	35.088	5.049	27.740	0.048	1.34
100	99.0	4.914	35.092	4.906	27.759	0.051	2.55
105	99.0	4.914	35.092	4.906	27.759	0.051	2.55
110	119.0	4.478	35.083	4.469	27.802	0.058	2.62
115	119.0	4.478	35.083	4.469	27.802	0.058	2.62
120	124.0	4.280	35.081	4.271	27.822	0.059	2.41
125	124.0	4.280	35.081	4.271	27.822	0.059	2.44
130	139.0	3.889	35.053	3.879	27.841	0.063	2.26
135	139.0	3.889	35.053	3.879	27.841	0.063	2.26
140	149.0	3.652	35.042	3.642	27.857	0.066	2.52
145	149.0	3.652	35.042	3.642	27.857	0.066	2.52
150	159.0	3.436	35.034	3.426	27.872	0.069	2.01
155	159.0	3.436	35.034	3.426	27.872	0.069	2.01
160	178.0	2.677	34.971	2.666	27.892	0.073	2.38
165	178.0	2.677	34.971	2.666	27.892	0.073	2.38
170	198.0	1.981	34.937	1.970	27.924	0.077	1.15
175	198.0	1.981	34.937	1.970	27.924	0.077	1.15
180	218.0	2.345	34.980	2.333	27.928	0.081	1.08
185	218.0	2.345	34.980	2.333	27.928	0.081	1.08
190	238.0	2.324	34.981	2.311	27.931	0.084	0.07
195	238.0	2.324	34.981	2.311	27.931	0.084	0.07
200	258.0	2.300	34.982	2.286	27.934	0.086	0.92
205	258.0	2.300	34.982	2.286	27.934	0.086	0.92
210	268.0	2.300	34.985	2.285	27.936	0.088	1.48
215	268.0	2.300	34.985	2.285	27.936	0.088	1.48
220	277.0	1.947	34.952	1.931	27.939	0.091	0.75
225	277.0	1.947	34.952	1.931	27.939	0.091	0.75
230	297.0	1.929	34.954	1.912	27.942	0.095	0.91
235	297.0	1.929	34.954	1.912	27.942	0.095	0.91
240	317.0	1.990	34.961	1.973	27.943	0.098	0.35
245	317.0	1.990	34.961	1.973	27.943	0.098	0.35
250	337.0	2.036	34.963	2.017	27.941	0.102	0.71
255	337.0	2.036	34.963	2.017	27.941	0.102	0.71
260	357.0	1.689	34.939	1.670	27.949	0.105	1.22
265	357.0	1.689	34.939	1.670	27.949	0.105	1.22
270	376.0	1.163	34.916	1.144	27.968	0.108	1.24
275	376.0	1.163	34.916	1.144	27.968	0.108	1.24
280	396.0	1.146	34.911	1.127	27.965	0.111	1.86
285	396.0	1.146	34.911	1.127	27.965	0.111	1.86



STATION 45
 LONGITUDE 09229.8
 LATITUDE 78N49.9
 DATE 11-08-86
 TIME (GMT) 06:36
 SHIP VALDIVIA 488

VALDIVIA 488 STATION 45
 LAT 78N49.9 LONG 09229.8 DATE 11-08-86 TIME (UTC) 06:35

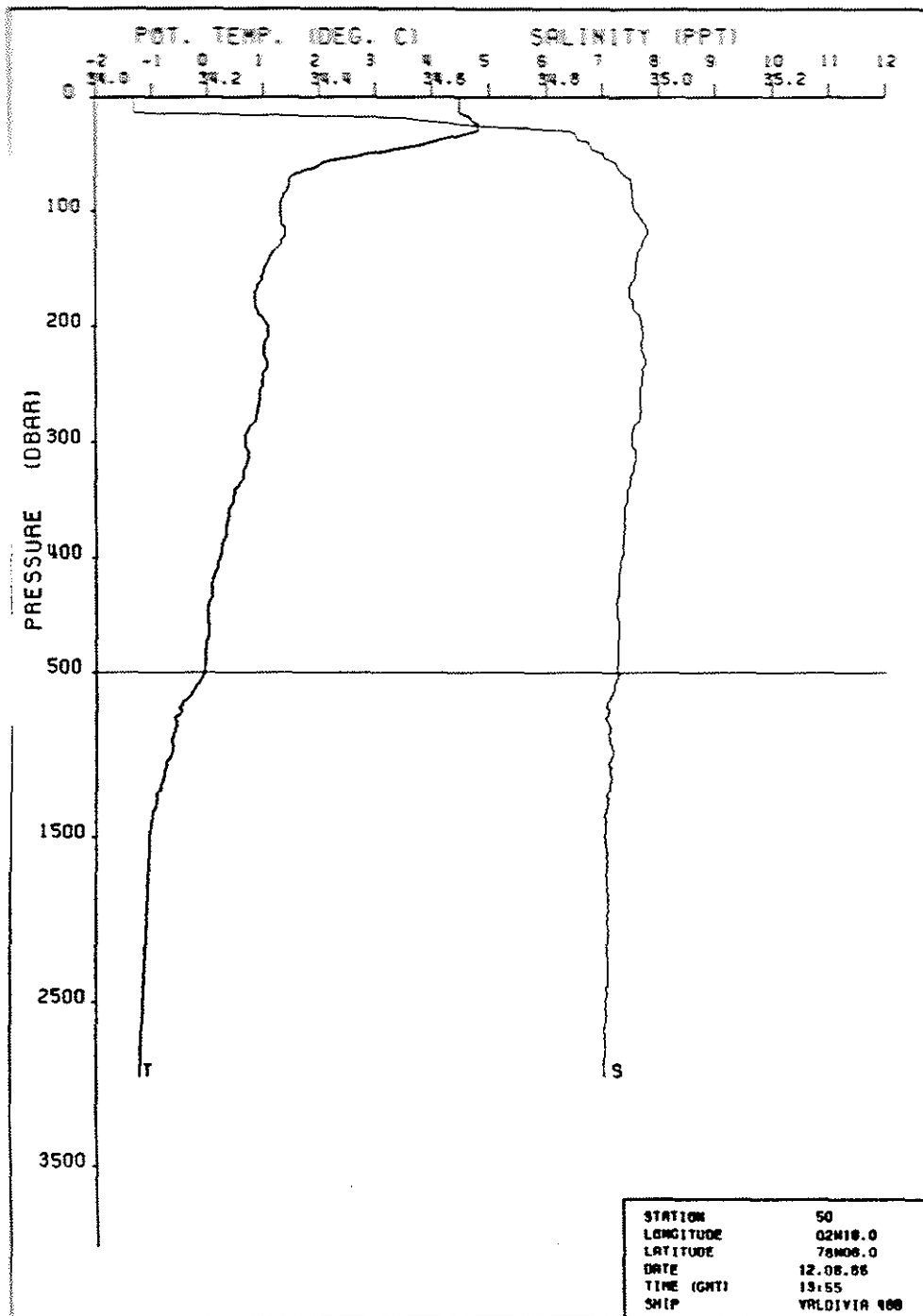
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DEYN-H)	M*N (CP)
0.	0.	6.094	34.830	6.094	27.407	0.000	0.00
5.	5.	6.094	34.830	6.094	27.407	0.003	0.00
10.	10.	6.094	34.830	6.093	27.407	0.007	0.19
15.	15.	6.128	34.843	6.127	27.407	0.010	2.49
20.	20.	6.296	34.903	6.295	27.438	0.013	3.40
25.	25.	6.296	34.921	6.294	27.451	0.016	4.42
30.	30.	5.839	34.992	5.837	27.567	0.019	6.68
40.	40.	5.406	35.028	5.403	27.650	0.024	4.84
50.	50.	4.943	35.036	4.939	27.711	0.028	4.37
60.	60.	4.792	35.072	4.787	27.757	0.032	3.65
70.	70.	4.659	35.082	4.654	27.780	0.035	3.06
75.	74.	4.495	35.077	4.489	27.795	0.036	2.48
80.	79.	4.456	35.078	4.450	27.799	0.038	1.96
90.	89.	4.381	35.079	4.374	27.809	0.041	1.70
100.	99.	4.028	35.058	4.021	27.830	0.044	2.48
120.	119.	3.360	35.022	3.352	27.869	0.049	2.54
125.	124.	3.318	35.012	3.310	27.867	0.050	1.90
140.	139.	2.956	34.982	2.948	27.875	0.054	0.88
150.	149.	2.895	34.972	2.886	27.873	0.056	*****



STATION 48
 LONGITUDE 02400.5
 LATITUDE 7840.1
 DATE 12.08.86
 TIME 06:14
 SHIP VALDIVIA 486

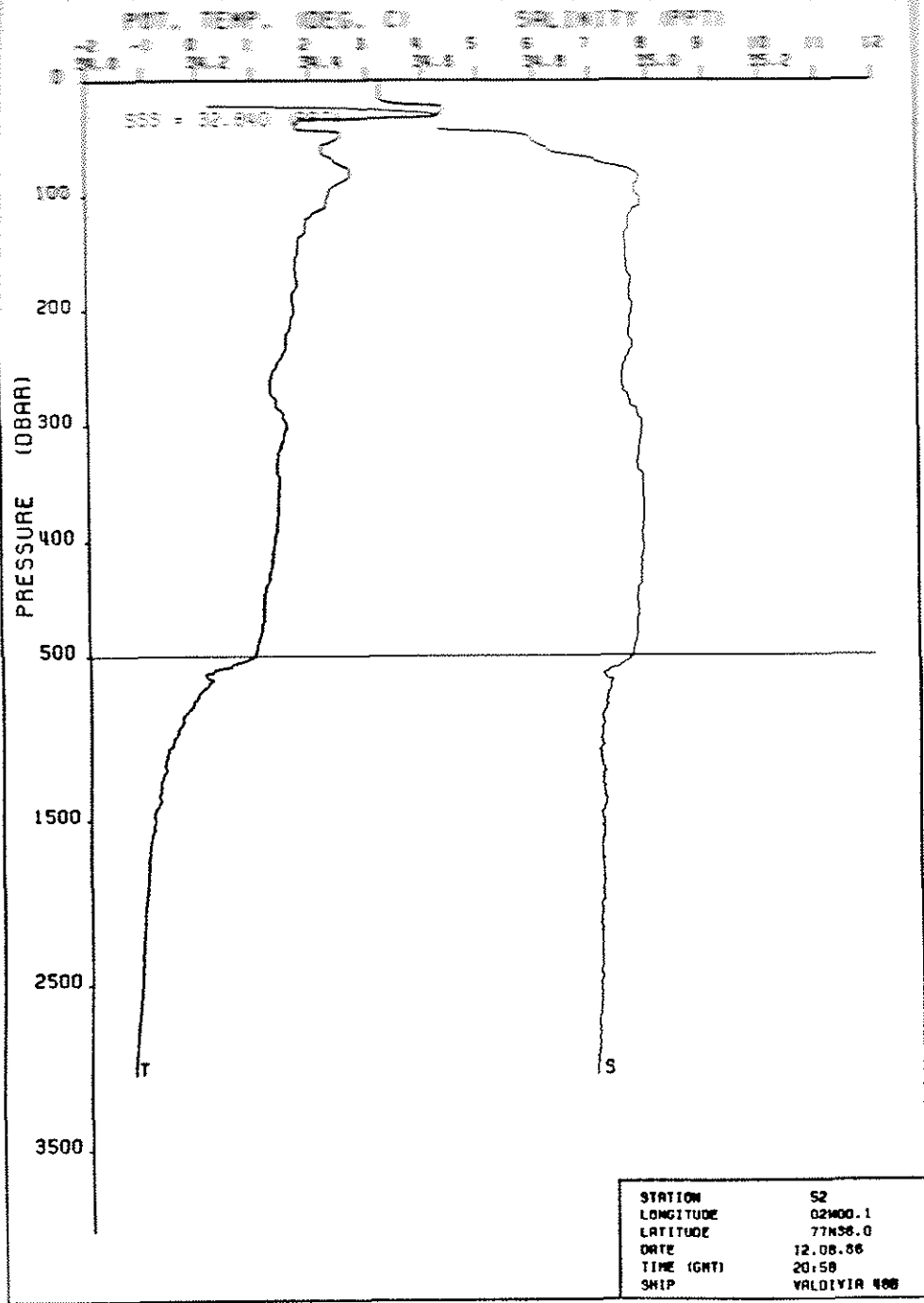
VALDIVIA 486 STATION 48
 LAT 7840.1 LONG 02400.5 DATE 12.08.86 TIME 06:14

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTA	CEL-D (DM-M)	MIN (DEP)
0.	0.	-0.147	31.698	-0.147	25.447	0.000	0.00
5.	5.	-0.147	31.698	-0.147	25.447	0.013	0.00
10.	10.	-0.147	31.698	-0.147	25.447	0.025	0.06
15.	15.	-0.147	32.008	-0.147	25.447	0.038	14.90
20.	20.	-0.272	33.247	-0.273	26.704	0.047	21.44
25.	25.	-0.830	33.791	-0.831	27.058	0.052	19.07
30.	30.	-1.003	34.141	-1.004	27.457	0.056	13.56
40.	40.	-0.307	34.325	-0.308	27.576	0.061	6.11
50.	50.	1.499	34.508	1.497	27.616	0.066	2.57
60.	60.	2.295	34.727	2.292	27.730	0.070	6.08
70.	70.	2.019	34.770	2.015	27.866	0.073	4.01
75.	74.	2.009	34.779	2.005	27.794	0.075	2.61
80.	78.	2.139	34.806	2.135	27.806	0.076	2.31
90.	89.	2.260	34.860	2.255	27.839	0.079	3.43
100.	99.	2.260	34.884	2.254	27.858	0.082	2.12
120.	119.	2.357	34.938	2.350	27.893	0.085	1.79
125.	124.	2.276	34.938	2.269	27.899	0.087	1.89
140.	139.	2.248	34.955	2.240	27.916	0.090	1.72
150.	149.	2.249	34.969	2.241	27.927	0.092	1.81
160.	159.	2.082	34.966	2.073	27.939	0.093	1.47
180.	178.	2.071	34.976	2.061	27.947	0.097	1.20
200.	198.	1.995	34.975	1.984	27.953	0.100	0.97
218.	218.	1.955	34.978	1.944	27.958	0.103	0.82
240.	238.	1.825	34.974	1.812	27.966	0.106	1.05
250.	248.	1.772	34.971	1.758	27.968	0.107	0.94
260.	258.	1.772	34.976	1.759	27.972	0.109	0.98
280.	277.	1.744	34.981	1.729	27.977	0.112	0.86
300.	297.	1.731	34.982	1.715	27.979	0.114	0.88
317.	317.	1.646	34.980	1.629	27.985	0.117	0.36
320.	337.	1.840	35.001	1.822	27.986	0.119	0.70
340.	360.	1.790	34.999	1.771	27.989	0.122	0.89
376.	376.	1.720	34.995	1.700	27.991	0.125	0.72
380.	400.	1.700	34.998	1.679	27.995	0.127	0.17
420.	420.	1.654	34.997	1.631	27.998	0.129	0.92
440.	436.	1.597	34.994	1.573	28.000	0.132	0.21
460.	456.	1.446	34.982	1.422	28.002	0.134	0.74
480.	475.	1.403	34.986	1.378	28.008	0.137	0.59
500.	495.	1.360	34.986	1.334	28.011	0.139	0.92
550.	545.	1.238	34.981	1.210	28.016	0.144	0.59
600.	594.	0.971	34.965	0.941	28.021	0.149	0.54
650.	643.	0.727	34.953	0.696	28.027	0.154	0.53
700.	693.	0.449	34.938	0.417	28.032	0.158	0.50
750.	742.	0.295	34.933	0.261	28.037	0.162	0.49
800.	792.	0.073	34.924	0.038	28.043	0.165	0.59
850.	841.	-0.081	34.918	-0.117	28.047	0.168	0.43
900.	890.	-0.172	34.916	-0.211	28.049	0.171	0.52
1000.	989.	-0.382	34.909	-0.424	28.055	0.175	0.51
1100.	1088.	-0.497	34.911	-0.543	28.062	0.179	0.46
1200.	1186.	-0.556	34.911	-0.606	28.064	0.181	0.00
1300.	1285.	-0.610	34.915	-0.666	28.071	0.183	0.40
1400.	1383.	-0.684	34.915	-0.744	28.074	0.184	0.30
1500.	1482.	-0.757	34.911	-0.822	28.074	0.185	0.24
1750.	1728.	-0.822	34.915	-0.901	28.080	0.183	0.35
2000.	1973.	-0.914	34.908	-1.007	28.079	0.179	0.19
2250.	2219.	-0.929	34.908	-1.038	28.080	0.173	0.30
2500.	2464.	-0.893	34.915	-1.020	28.086	0.165	0.00



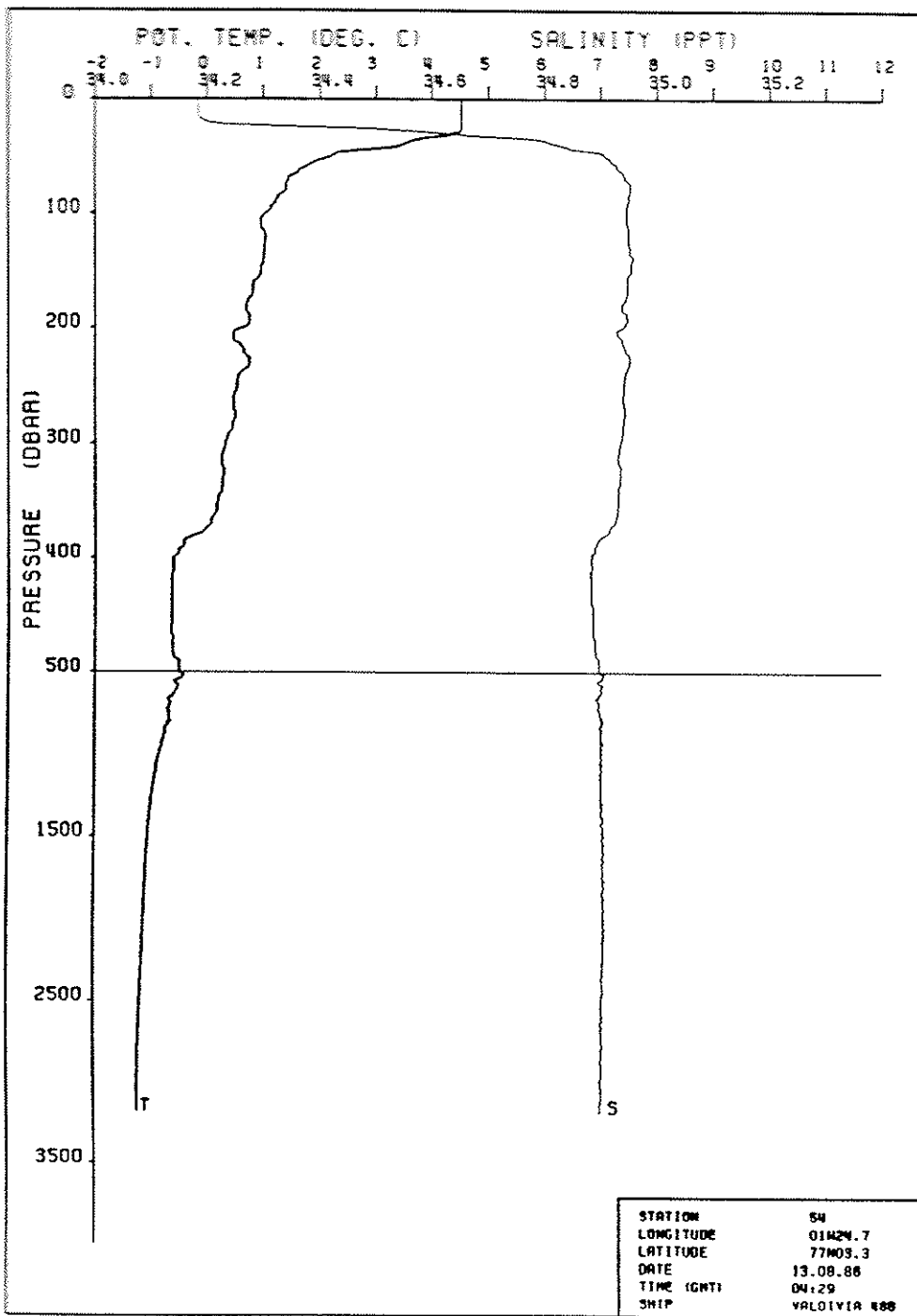
VRLDIVIA 488 STATION 50
 LAT 78N08.0 LONG 02N18.0 DATE 12.08.88 TIME (GMT) 13:55

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-S (DYN-M)	Sigma-t (CPH)
0	0	4.499	34.070	4.499	26.994	0.000	0.00
5	5	4.499	34.070	4.498	26.994	0.000	0.00
10	10	4.499	34.070	4.498	26.994	0.011	0.16
15	15	4.558	34.221	4.557	26.994	0.016	9.58
20	20	4.701	34.575	4.700	27.373	0.020	11.27
25	25	4.816	34.676	4.814	27.417	0.023	8.03
30	30	4.816	34.841	4.813	27.571	0.026	7.98
40	40	3.989	34.876	3.986	27.689	0.030	5.91
50	50	2.872	34.901	2.869	27.818	0.034	6.39
60	59	1.991	34.925	1.988	27.913	0.036	5.15
70	69	1.505	34.945	1.502	27.966	0.038	4.03
75	74	1.481	34.951	1.478	27.972	0.038	2.71
80	79	1.451	34.954	1.447	27.977	0.039	1.34
90	89	1.339	34.954	1.335	27.986	0.040	1.72
100	99	1.316	34.957	1.311	27.989	0.041	1.59
120	119	1.392	34.982	1.386	28.004	0.043	0.12
125	124	1.338	34.974	1.332	28.002	0.044	0.46
140	139	1.141	34.964	1.135	28.008	0.045	1.28
150	149	1.030	34.961	1.023	28.012	0.046	1.20
160	159	0.977	34.957	0.969	28.013	0.047	0.32
180	178	0.861	34.954	0.853	28.018	0.049	1.12
200	198	1.078	34.971	1.069	28.017	0.051	0.78
220	218	1.022	34.971	1.012	28.022	0.053	1.06
240	238	1.000	34.972	0.989	28.024	0.054	0.49
250	248	0.989	34.971	0.978	28.023	0.055	0.71
260	258	0.936	34.968	0.923	28.025	0.056	0.41
280	277	0.882	34.969	0.869	28.029	0.058	0.53
300	297	0.682	34.954	0.669	28.030	0.059	0.86
320	317	0.701	34.956	0.686	28.031	0.061	0.58
340	337	0.504	34.947	0.489	28.036	0.062	0.96
360	357	0.388	34.939	0.372	28.036	0.064	0.59
380	376	0.336	34.938	0.320	28.038	0.065	0.76
400	396	0.224	34.934	0.207	28.041	0.067	0.30
420	416	0.110	34.929	0.093	28.044	0.068	0.70
440	436	0.034	34.925	0.016	28.045	0.069	0.45
460	456	0.027	34.928	0.008	28.048	0.070	0.51
480	475	-0.017	34.927	-0.036	28.049	0.071	0.48
500	495	-0.045	34.925	-0.065	28.050	0.072	0.79
550	545	-0.118	34.924	-0.140	28.052	0.075	0.29
600	594	-0.220	34.920	-0.244	28.054	0.077	0.29
650	643	-0.310	34.913	-0.336	28.053	0.080	0.28
700	693	-0.438	34.906	-0.465	28.054	0.082	0.44
750	742	-0.462	34.910	-0.491	28.058	0.084	0.11
800	792	-0.528	34.908	-0.559	28.060	0.085	0.48
850	841	-0.548	34.913	-0.581	28.065	0.087	0.35
900	890	-0.596	34.911	-0.631	28.066	0.088	0.40
1000	989	-0.612	34.917	-0.652	28.071	0.090	0.00
1100	1088	-0.734	34.911	-0.778	28.072	0.092	0.19
1200	1186	-0.807	34.910	-0.856	28.075	0.092	0.07
1300	1285	-0.867	34.909	-0.920	28.076	0.093	0.00
1400	1383	-0.938	34.905	-0.995	28.076	0.092	0.33
1500	1482	-0.979	34.902	-1.041	28.076	0.091	0.00
1750	1728	-0.985	34.906	-1.052	28.080	0.088	0.26
2000	1973	-1.006	34.905	-1.097	28.081	0.082	0.00
2250	2219	-1.021	34.905	-1.129	28.082	0.074	0.19
2500	2464	-1.044	34.901	-1.168	28.080	0.064	0.00
2750	2709	-1.057	34.901	-1.199	28.081	0.053	0.35



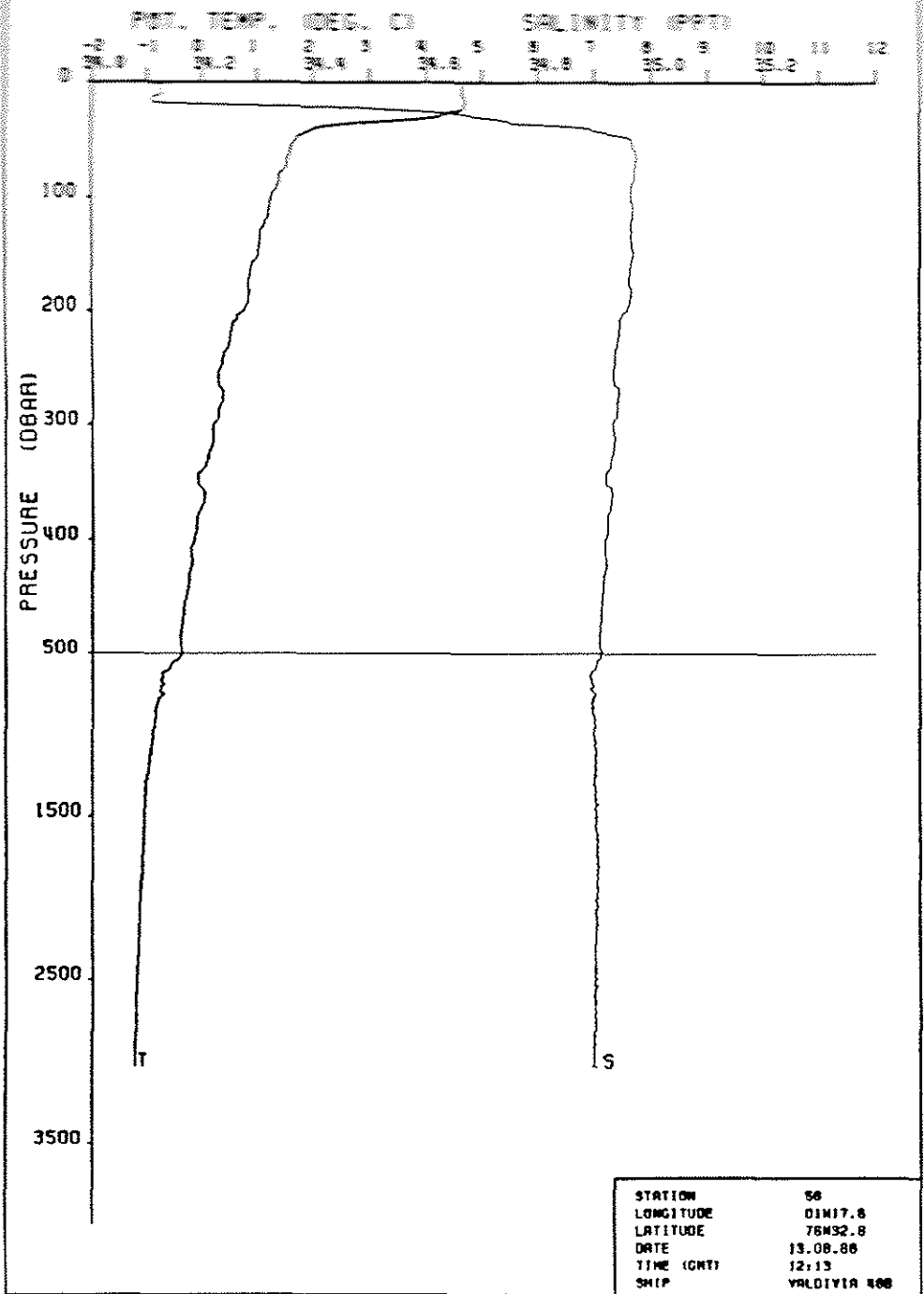
STATION S2
 LATITUDE LONGITUDE DATE TIME

P (DBAR)	T (°C)	S (PSU)	TEMPERATURE (°C)	SALINITY (PSU)	TEMPERATURE (°C)	SALINITY (PSU)	TEMPERATURE (°C)
0.	24.44	35.244	24.44	35.244	24.44	35.244	24.44
10.	24.44	35.244	24.44	35.244	24.44	35.244	24.44
15.	24.46	35.246	24.46	35.246	24.46	35.246	24.46
20.	24.552	35.552	24.552	35.552	24.552	35.552	24.552
25.	24.364	34.500	24.364	34.500	24.364	34.500	24.364
30.	24.301	34.631	24.301	34.631	24.301	34.631	24.301
40.	1.776	34.631	1.776	34.631	1.776	34.631	1.776
50.	2.546	34.797	2.546	34.797	2.546	34.797	2.546
60.	2.233	34.828	2.229	34.828	2.229	34.828	2.229
70.	2.433	34.913	2.429	34.913	2.429	34.913	2.429
75.	2.638	34.958	2.633	34.958	2.633	34.958	2.633
80.	2.738	34.984	2.733	34.984	2.733	34.984	2.733
90.	2.498	34.981	2.493	34.981	2.493	34.981	2.493
100.	2.334	34.982	2.329	34.982	2.329	34.982	2.329
120.	1.949	34.968	1.942	34.968	1.942	34.968	1.942
125.	1.940	34.968	1.933	34.968	1.933	34.968	1.933
140.	1.813	34.961	1.806	34.961	1.806	34.961	1.806
150.	1.801	34.962	1.793	34.962	1.793	34.962	1.793
160.	1.754	34.963	1.746	34.963	1.746	34.963	1.746
180.	1.782	34.970	1.773	34.970	1.773	34.970	1.773
200.	1.729	34.974	1.719	34.974	1.719	34.974	1.719
220.	1.614	34.967	1.603	34.967	1.603	34.967	1.603
240.	1.527	34.968	1.514	34.968	1.514	34.968	1.514
250.	1.411	34.957	1.399	34.957	1.399	34.957	1.399
260.	1.314	34.955	1.301	34.955	1.301	34.955	1.301
280.	1.403	34.969	1.389	34.969	1.389	34.969	1.389
300.	1.577	34.990	1.561	34.990	1.561	34.990	1.561
320.	1.476	34.983	1.460	34.983	1.460	34.983	1.460
340.	1.399	34.981	1.381	34.981	1.381	34.981	1.381
360.	1.425	34.990	1.407	34.990	1.407	34.990	1.407
380.	1.406	34.991	1.386	34.991	1.386	34.991	1.386
400.	1.360	34.988	1.340	34.988	1.340	34.988	1.340
420.	1.309	34.987	1.287	34.987	1.287	34.987	1.287
440.	1.206	34.981	1.184	34.981	1.184	34.981	1.184
460.	1.160	34.981	1.137	34.981	1.137	34.981	1.137
480.	1.124	34.979	1.101	34.979	1.101	34.979	1.101
500.	1.006	34.971	0.981	34.971	0.981	34.971	0.981
550.	0.587	34.948	0.561	34.948	0.561	34.948	0.561
600.	0.230	34.923	0.204	34.923	0.204	34.923	0.204
650.	0.224	34.932	0.196	34.932	0.196	34.932	0.196
700.	0.070	34.929	0.040	34.929	0.040	34.929	0.040
750.	-0.035	34.923	-0.067	34.923	-0.067	34.923	-0.067
800.	-0.121	34.923	-0.155	34.923	-0.155	34.923	-0.155
850.	-0.240	34.917	-0.276	34.917	-0.276	34.917	-0.276
900.	-0.299	34.915	-0.337	34.915	-0.337	34.915	-0.337
1000.	-0.442	34.912	-0.484	34.912	-0.484	34.912	-0.484
1100.	-0.581	34.911	-0.627	34.911	-0.627	34.911	-0.627
1200.	-0.601	34.917	-0.651	34.917	-0.651	34.917	-0.651
1300.	-0.679	34.918	-0.734	34.918	-0.734	34.918	-0.734
1400.	-0.705	34.921	-0.766	34.921	-0.766	34.921	-0.766
1500.	-0.780	34.916	-0.845	34.916	-0.845	34.916	-0.845
1750.	-0.875	34.913	-0.953	34.913	-0.953	34.913	-0.953
2000.	-0.930	34.909	-1.022	34.909	-1.022	34.909	-1.022
2250.	-0.960	34.910	-1.069	34.910	-1.069	34.910	-1.069
2500.	-0.975	34.907	-1.101	34.907	-1.101	34.907	-1.101
2750.	-1.014	34.904	-1.158	34.904	-1.158	34.904	-1.158
3000.	-1.050	34.901	-1.211	34.901	-1.211	34.901	-1.211



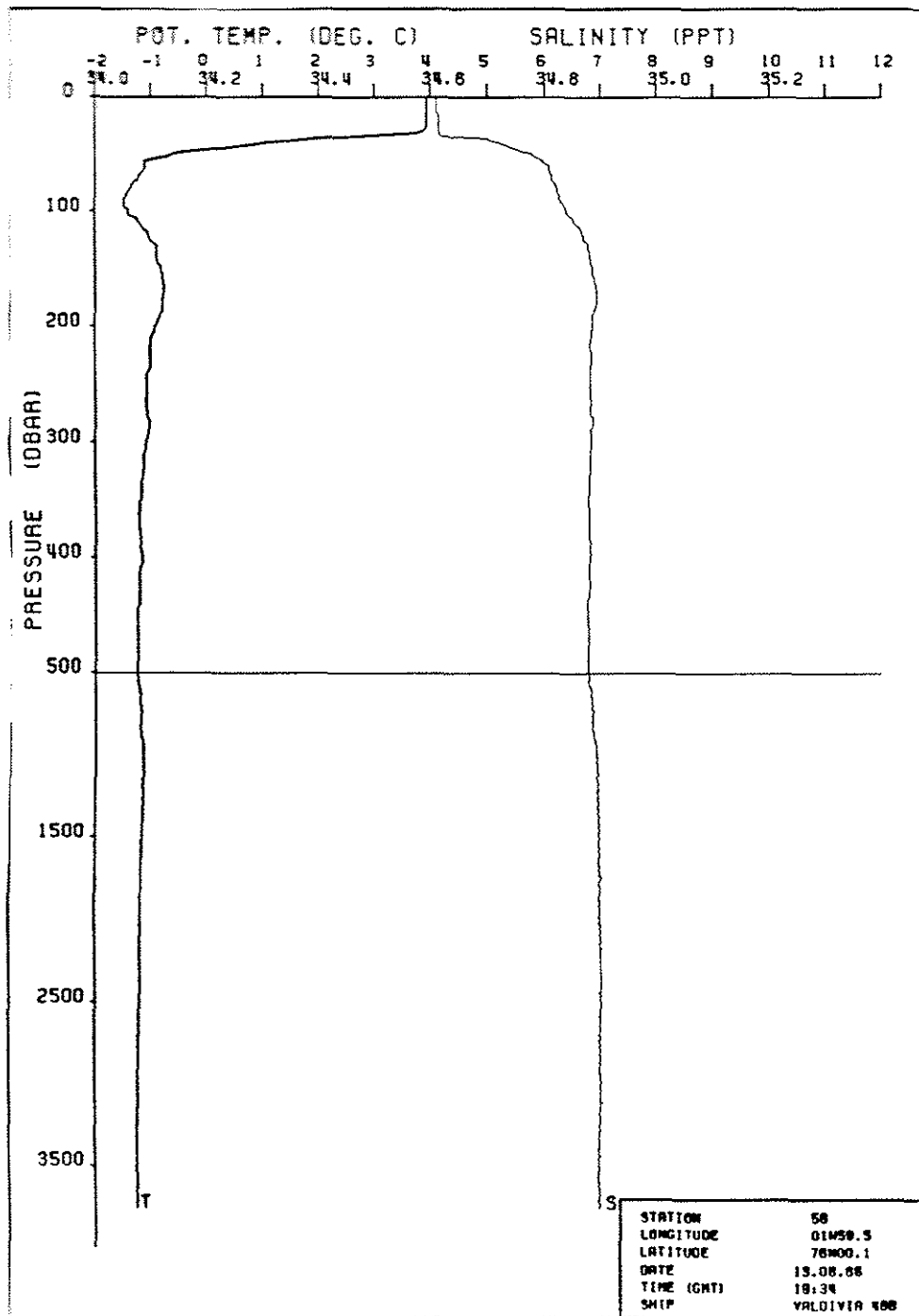
VALOIVIA 488 STATION 54
 LAT 7703.3 LONG 01424.7 DATE 13.08.86 TIME (UTC) 04:29

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-S (DYN-M)	MAN (CFM)
0.	0.	4.521	34.185	4.521	27.083	0.000	0.00
5.	5.	4.521	34.185	4.520	27.083	0.005	0.00
10.	10.	4.521	34.185	4.520	27.083	0.010	0.16
15.	15.	4.521	34.186	4.519	27.083	0.015	0.95
20.	20.	4.525	34.201	4.524	27.095	0.019	3.33
25.	25.	4.525	34.411	4.524	27.198	0.024	9.26
30.	30.	4.389	34.621	4.386	27.444	0.027	10.96
40.	40.	3.444	34.823	3.441	27.702	0.032	8.50
50.	50.	2.206	34.906	2.203	27.880	0.035	7.32
60.	59.	1.725	34.927	1.722	27.935	0.037	3.93
70.	69.	1.439	34.942	1.436	27.969	0.038	2.93
75.	74.	1.390	34.952	1.386	27.980	0.039	2.20
80.	79.	1.388	34.952	1.385	27.980	0.040	1.97
90.	89.	1.217	34.949	1.213	27.990	0.041	1.47
100.	99.	1.035	34.946	1.030	28.000	0.042	1.81
120.	119.	1.044	34.949	1.038	28.002	0.044	1.05
125.	124.	1.042	34.949	1.037	28.002	0.044	1.00
140.	139.	1.015	34.959	1.009	28.012	0.046	1.14
150.	149.	0.973	34.954	0.966	28.011	0.047	0.27
160.	159.	0.832	34.948	0.825	28.015	0.048	0.93
180.	178.	0.711	34.938	0.703	28.015	0.050	0.73
200.	198.	0.630	34.938	0.621	28.020	0.051	0.99
220.	218.	0.661	34.944	0.652	28.023	0.053	0.72
240.	238.	0.596	34.945	0.586	28.028	0.055	0.97
250.	248.	0.542	34.943	0.532	28.029	0.055	0.68
260.	258.	0.485	34.939	0.473	28.030	0.056	0.73
280.	277.	0.497	34.941	0.485	28.031	0.058	0.10
300.	297.	0.336	34.936	0.324	28.037	0.059	0.80
320.	317.	0.286	34.935	0.273	28.039	0.060	0.53
340.	337.	0.276	34.933	0.262	28.037	0.062	0.59
360.	357.	0.176	34.931	0.161	28.042	0.063	0.63
380.	376.	-0.207	34.906	-0.221	28.042	0.064	0.33
400.	396.	-0.577	34.885	-0.591	28.043	0.065	0.44
420.	416.	-0.611	34.884	-0.626	28.043	0.066	0.28
440.	436.	-0.605	34.885	-0.620	28.044	0.068	0.59
460.	456.	-0.610	34.887	-0.627	28.046	0.069	0.15
480.	475.	-0.590	34.890	-0.607	28.048	0.069	0.84
500.	495.	-0.481	34.899	-0.499	28.050	0.070	0.49
550.	545.	-0.545	34.898	-0.565	28.052	0.073	0.38
600.	594.	-0.512	34.901	-0.534	28.053	0.075	0.29
650.	643.	-0.606	34.897	-0.630	28.054	0.077	0.20
700.	693.	-0.635	34.898	-0.661	28.056	0.079	0.21
750.	742.	-0.652	34.899	-0.680	28.058	0.080	0.51
800.	792.	-0.611	34.902	-0.642	28.059	0.082	0.47
850.	841.	-0.709	34.901	-0.741	28.062	0.083	0.25
900.	890.	-0.723	34.901	-0.758	28.063	0.085	0.34
1000.	989.	-0.806	34.901	-0.844	28.067	0.087	0.45
1100.	1088.	-0.851	34.903	-0.894	28.070	0.088	0.26
1200.	1186.	-0.906	34.901	-0.954	28.071	0.089	0.23
1300.	1285.	-0.935	34.903	-0.988	28.074	0.089	0.29
1400.	1383.	-0.954	34.905	-1.012	28.077	0.088	0.00
1500.	1482.	-0.972	34.906	-1.035	28.078	0.087	0.20
1750.	1728.	-0.999	34.903	-1.075	28.078	0.084	0.18
2000.	1973.	-1.012	34.905	-1.104	28.081	0.078	0.28
2250.	2219.	-1.027	34.904	-1.135	28.081	0.070	0.15
2500.	2464.	-1.045	34.900	-1.169	28.079	0.060	0.00
2750.	2709.	-1.058	34.901	-1.200	28.081	0.049	0.34
3000.	2953.	-1.058	34.901	-1.219	28.081	0.036	0.14



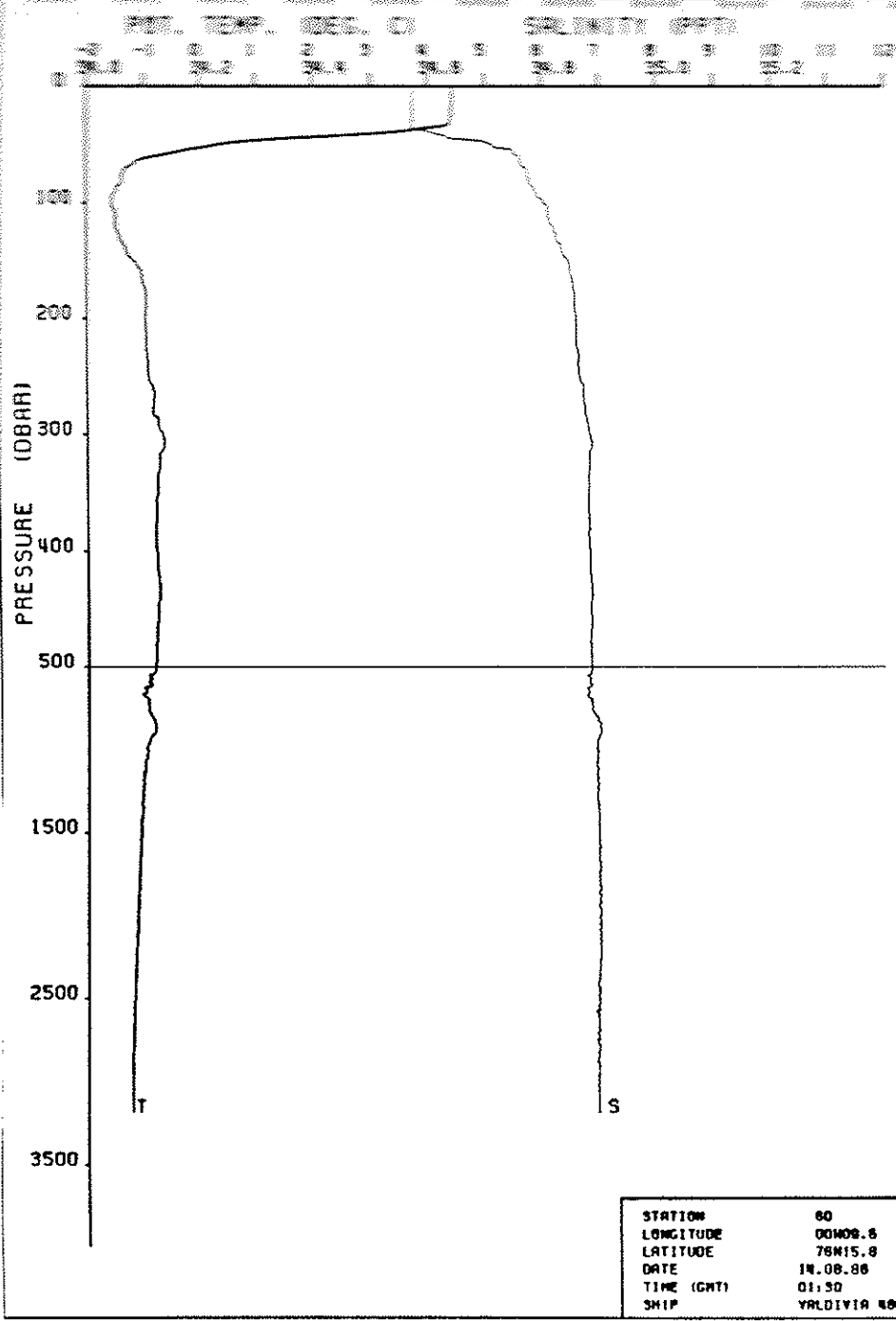
VALDIVIA 408 STATION 56
 LAT 78M32.8 LONG 01M17.8 DATE 13.08.88 TIME (GMT) 12:13

P (DBAR)	Z (M)	T (DEG. C)	S (PPT)	THETA (DEG. C)	SIGTA	DEL-D (DYN-CM)	S-S (PPT)
0.	0.	4.651	34.126	4.651	27.022	0.000	0.00
5.	5.	4.651	34.126	4.651	27.022	0.005	0.00
10.	10.	4.651	34.126	4.650	27.022	0.010	****
15.	15.	4.687	34.111	4.686	27.008	0.015	6.88
20.	20.	4.694	34.271	4.693	27.132	0.021	9.53
25.	25.	4.586	34.573	4.584	27.347	0.024	11.97
30.	30.	4.227	34.685	4.225	27.512	0.028	9.47
40.	40.	2.027	34.892	2.025	27.883	0.031	9.92
50.	50.	1.734	34.966	1.731	27.965	0.033	5.00
60.	59.	1.613	34.974	1.610	27.981	0.034	2.04
70.	69.	1.553	34.974	1.550	27.986	0.036	1.07
75.	74.	1.520	34.973	1.517	27.987	0.036	0.96
80.	79.	1.422	34.971	1.418	27.993	0.037	1.51
90.	89.	1.396	34.968	1.391	27.992	0.038	1.09
100.	99.	1.270	34.965	1.266	27.999	0.039	1.56
120.	119.	1.180	34.968	1.175	28.008	0.041	1.12
125.	124.	1.141	34.965	1.135	28.007	0.041	1.17
140.	139.	1.059	34.966	1.052	28.015	0.043	1.10
150.	149.	1.030	34.969	1.023	28.019	0.044	1.22
160.	159.	0.912	34.965	0.904	28.024	0.045	0.96
180.	178.	0.862	34.966	0.854	28.028	0.046	0.60
200.	198.	0.795	34.959	0.786	28.027	0.048	0.67
220.	218.	0.535	34.945	0.526	28.032	0.049	0.98
240.	238.	0.401	34.937	0.391	28.034	0.051	0.77
250.	248.	0.361	34.937	0.351	28.036	0.052	0.78
260.	258.	0.305	34.935	0.294	28.037	0.052	1.05
280.	277.	0.379	34.942	0.367	28.039	0.054	0.30
300.	297.	0.220	34.935	0.207	28.042	0.055	0.46
320.	317.	0.190	34.936	0.177	28.045	0.056	0.42
340.	337.	0.023	34.926	0.010	28.046	0.057	0.58
360.	357.	0.053	34.932	0.039	28.049	0.058	0.64
380.	376.	-0.083	34.925	-0.098	28.051	0.059	0.48
400.	396.	-0.132	34.920	-0.147	28.049	0.061	0.46
420.	416.	-0.175	34.921	-0.191	28.053	0.062	0.51
440.	436.	-0.222	34.917	-0.239	28.052	0.062	0.28
460.	456.	-0.312	34.913	-0.329	28.053	0.063	0.44
480.	475.	-0.361	34.911	-0.379	28.054	0.064	0.38
500.	495.	-0.347	34.912	-0.366	28.054	0.065	0.31
550.	545.	-0.494	34.905	-0.515	28.055	0.067	0.28
600.	594.	-0.599	34.900	-0.621	28.056	0.069	0.29
650.	643.	-0.713	34.893	-0.736	28.056	0.071	0.22
700.	693.	-0.719	34.897	-0.744	28.059	0.073	0.36
750.	742.	-0.685	34.900	-0.713	28.061	0.074	0.48
800.	792.	-0.790	34.896	-0.820	28.061	0.076	0.30
850.	841.	-0.835	34.896	-0.866	28.064	0.077	0.37
900.	890.	-0.834	34.900	-0.868	28.067	0.078	0.25
1000.	989.	-0.860	34.899	-0.899	28.068	0.079	0.15
1100.	1088.	-0.895	34.903	-0.938	28.073	0.080	0.24
1200.	1186.	-0.930	34.900	-0.977	28.072	0.081	0.23
1300.	1265.	-0.984	34.899	-1.036	28.073	0.081	0.36
1400.	1383.	-0.993	34.902	-1.050	28.076	0.080	0.41
1500.	1482.	-0.995	34.902	-1.057	28.077	0.079	0.33
1750.	1728.	-1.015	34.905	-1.091	28.080	0.075	0.29
2000.	1973.	-1.031	34.902	-1.122	28.079	0.069	0.28
2250.	2219.	-1.045	34.902	-1.152	28.080	0.061	0.00
2500.	2464.	-1.069	34.901	-1.193	28.080	0.051	0.00
2750.	2709.	-1.070	34.900	-1.212	28.081	0.040	0.14
3000.	2953.	-1.060	34.899	-1.221	28.080	0.027	0.45



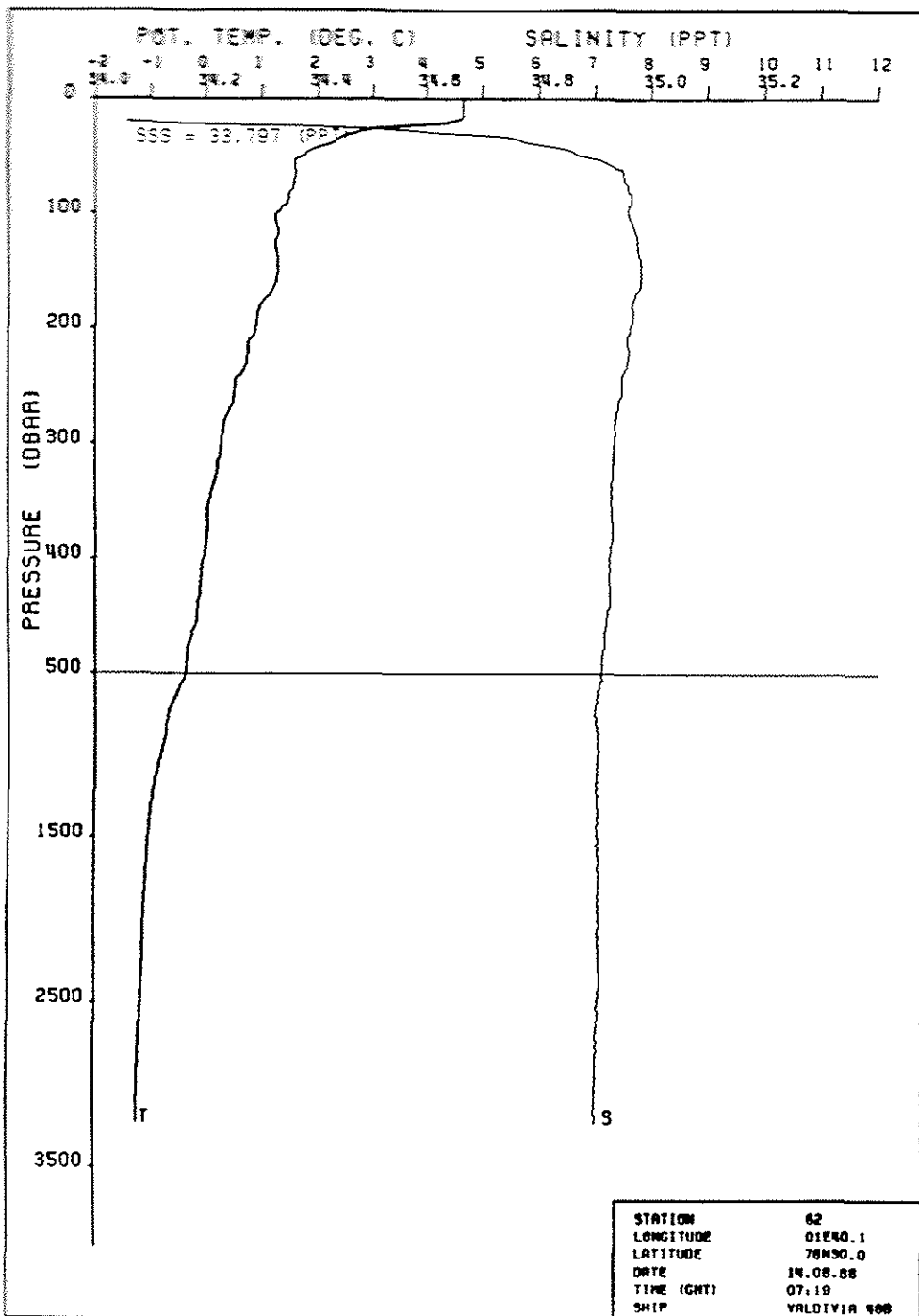
VALDIVIA 488 STATION 58
 LAT 76N00.1 LONG 01W59.5 DATE 13.08.86 TIME (UTC) 19:34

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	N=N (CPH)
0.	0.	3.938	34.611	3.938	27.483	0.000	0.00
5.	5.	3.938	34.611	3.937	27.483	0.003	0.00
10.	10.	3.938	34.611	3.937	27.483	0.006	0.15
15.	15.	3.938	34.613	3.937	27.483	0.009	0.89
20.	20.	3.938	34.614	3.936	27.486	0.012	0.97
25.	25.	3.935	34.615	3.934	27.486	0.015	0.75
30.	30.	3.879	34.615	3.877	27.492	0.018	2.66
40.	40.	1.085	34.719	1.084	27.814	0.022	10.33
50.	50.	-0.610	34.778	-0.612	27.957	0.024	6.11
60.	59.	-1.111	34.808	-1.112	28.002	0.025	3.45
70.	69.	-1.221	34.812	-1.223	28.009	0.026	1.59
75.	74.	-1.312	34.816	-1.314	28.014	0.027	2.06
80.	79.	-1.375	34.821	-1.377	28.022	0.027	2.05
90.	89.	-1.474	34.828	-1.477	28.031	0.028	1.75
100.	99.	-1.407	34.840	-1.409	28.039	0.028	1.40
120.	119.	-1.047	34.868	-1.050	28.048	0.029	1.24
125.	124.	-0.999	34.870	-1.002	28.049	0.030	0.93
140.	139.	-0.892	34.881	-0.896	28.053	0.030	0.38
150.	149.	-0.819	34.885	-0.824	28.053	0.031	0.69
160.	159.	-0.783	34.890	-0.788	28.055	0.031	0.78
180.	178.	-0.785	34.893	-0.791	28.058	0.032	0.54
200.	198.	-0.898	34.887	-0.904	28.058	0.033	0.76
220.	218.	-1.004	34.883	-1.010	28.059	0.034	0.42
240.	238.	-1.051	34.881	-1.058	28.059	0.035	0.29
250.	248.	-1.067	34.882	-1.074	28.061	0.035	0.67
260.	258.	-1.066	34.882	-1.074	28.061	0.035	0.36
280.	277.	-1.030	34.887	-1.038	28.063	0.036	0.39
300.	297.	-1.067	34.884	-1.076	28.062	0.037	0.39
320.	317.	-1.117	34.884	-1.127	28.064	0.037	0.35
340.	337.	-1.166	34.880	-1.176	28.063	0.038	0.16
360.	357.	-1.205	34.880	-1.215	28.065	0.038	0.54
380.	376.	-1.196	34.879	-1.208	28.064	0.039	0.44
400.	396.	-1.150	34.883	-1.162	28.064	0.040	0.37
420.	416.	-1.196	34.882	-1.209	28.066	0.040	0.41
440.	436.	-1.202	34.877	-1.215	28.062	0.041	0.09
460.	456.	-1.237	34.878	-1.251	28.064	0.041	0.41
480.	475.	-1.234	34.877	-1.248	28.063	0.042	0.28
500.	495.	-1.229	34.878	-1.244	28.064	0.042	0.48
550.	545.	-1.218	34.878	-1.235	28.063	0.043	0.00
600.	594.	-1.189	34.882	-1.208	28.066	0.044	0.35
650.	643.	-1.174	34.884	-1.195	28.067	0.045	0.25
700.	693.	-1.188	34.884	-1.191	28.067	0.046	0.00
750.	742.	-1.148	34.885	-1.173	28.068	0.046	0.17
800.	792.	-1.162	34.885	-1.189	28.068	0.047	0.00
850.	841.	-1.165	34.885	-1.194	28.068	0.048	0.32
900.	890.	-1.150	34.888	-1.181	28.069	0.048	0.26
1000.	989.	-1.107	34.891	-1.143	28.071	0.048	0.27
1100.	1088.	-1.094	34.893	-1.135	28.072	0.048	0.00
1200.	1185.	-1.103	34.895	-1.149	28.074	0.048	0.00
1300.	1285.	-1.088	34.896	-1.139	28.075	0.048	0.21
1400.	1383.	-1.096	34.896	-1.152	28.075	0.047	0.24
1500.	1482.	-1.103	34.897	-1.164	28.076	0.045	0.00
1750.	1728.	-1.105	34.900	-1.180	28.079	0.041	0.00
2000.	1973.	-1.098	34.898	-1.188	28.078	0.034	0.26
2250.	2219.	-1.089	34.899	-1.195	28.079	0.026	0.08
2500.	2464.	-1.082	34.898	-1.206	28.078	0.016	0.19
2750.	2709.	-1.077	34.897	-1.219	28.079	0.004	0.00
3000.	2953.	-1.072	34.898	-1.233	28.079	-0.009	0.00
3500.	3442.	-1.051	34.894	-1.254	28.077	-0.038	0.09



VALDIVIA 408
LAT 78N15.8 LONG 00008.8 DATE 14.08.88 TIME 01:30

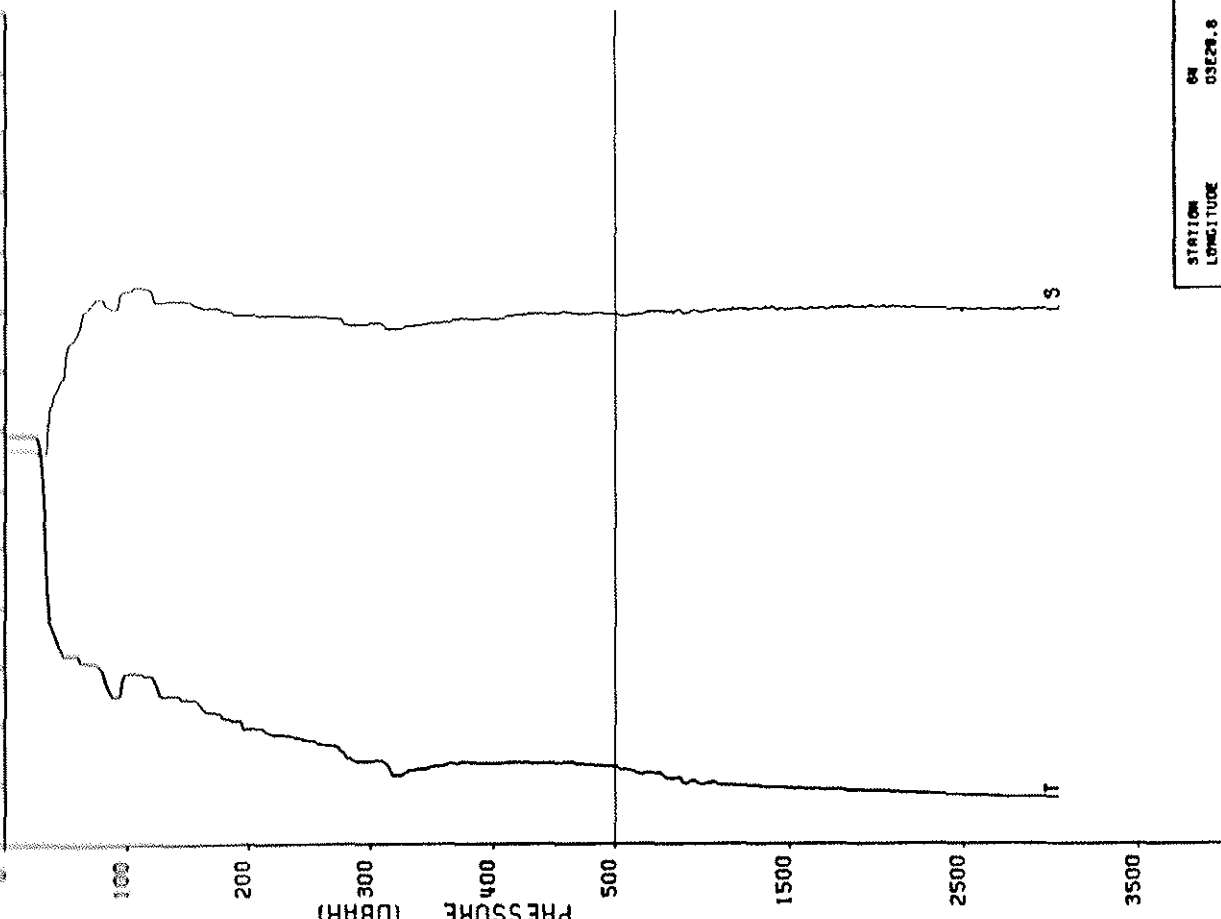
P	S	T	A	TEMP	SIGMA-T	S	RES
(DBAR)	(%)	(DBAR)	(%)	(C)	(KG/CM ³)	(DBAR)	(%)
0.	0.	4.440	34.898	01.810	0.000	0.000	0.00
5.	0.	4.430	34.898	01.810	0.000	0.000	0.00
10.	10.	4.420	34.898	01.810	0.000	0.000	0.00
15.	15.	4.420	34.898	01.810	0.000	0.000	0.00
20.	20.	4.420	34.898	01.810	0.000	0.000	0.00
25.	25.	4.420	34.898	01.810	0.000	0.000	0.00
30.	30.	4.410	34.898	01.810	0.000	0.000	0.00
40.	40.	3.101	34.814	3.038	27.558	0.028	0.65
50.	50.	0.298	34.716	0.298	27.661	0.038	0.83
60.	59.	-0.803	34.761	-0.805	27.952	0.032	1.30
70.	69.	-1.302	34.775	-1.304	27.982	0.033	2.70
75.	74.	-1.360	34.777	-1.362	27.986	0.033	2.25
80.	79.	-1.372	34.780	-1.374	27.989	0.034	1.41
90.	89.	-1.472	34.791	-1.474	28.001	0.035	2.12
100.	99.	-1.550	34.804	-1.552	28.014	0.036	2.26
120.	119.	-1.484	34.822	-1.487	28.027	0.037	1.17
125.	124.	-1.441	34.825	-1.444	28.026	0.038	1.09
140.	139.	-1.291	34.836	-1.295	28.032	0.039	1.05
150.	149.	-1.164	34.848	-1.168	28.037	0.039	0.62
160.	159.	-1.025	34.851	-1.030	28.034	0.040	0.44
180.	178.	-0.945	34.859	-0.950	28.037	0.041	0.35
200.	198.	-0.958	34.861	-0.964	28.040	0.042	0.60
220.	218.	-0.941	34.862	-0.948	28.039	0.044	0.61
240.	238.	-0.909	34.866	-0.916	28.041	0.045	0.19
250.	248.	-0.905	34.868	-0.913	28.043	0.045	0.84
260.	258.	-0.821	34.875	-0.829	28.045	0.046	0.62
280.	277.	-0.820	34.879	-0.829	28.048	0.047	0.55
300.	297.	-0.665	34.886	-0.675	28.048	0.048	0.60
320.	317.	-0.706	34.886	-0.717	28.049	0.049	0.13
340.	337.	-0.744	34.885	-0.755	28.050	0.050	0.42
360.	357.	-0.772	34.883	-0.784	28.050	0.051	0.40
380.	376.	-0.778	34.895	-0.790	28.052	0.052	0.17
400.	396.	-0.765	34.886	-0.779	28.052	0.052	0.22
420.	416.	-0.745	34.887	-0.759	28.052	0.053	0.33
440.	436.	-0.718	34.889	-0.733	28.053	0.054	0.37
460.	456.	-0.745	34.888	-0.761	28.053	0.055	0.51
480.	475.	-0.773	34.886	-0.790	28.053	0.056	0.35
500.	495.	-0.789	34.887	-0.807	28.054	0.057	0.48
550.	545.	-0.899	34.882	-0.917	28.054	0.058	0.34
600.	594.	-0.866	34.886	-0.887	28.057	0.060	0.35
650.	643.	-0.947	34.883	-0.970	28.057	0.062	0.19
700.	693.	-0.915	34.886	-0.940	28.059	0.063	0.44
750.	742.	-0.911	34.888	-0.938	28.060	0.064	0.27
800.	792.	-0.859	34.897	-0.888	28.065	0.066	0.39
850.	841.	-0.793	34.902	-0.825	28.067	0.067	0.42
900.	890.	-0.794	34.902	-0.829	28.067	0.067	0.24
1000.	989.	-0.929	34.895	-0.967	28.067	0.069	0.27
1100.	1088.	-0.956	34.895	-0.998	28.069	0.070	0.30
1200.	1186.	-0.981	34.898	-1.027	28.072	0.070	0.00
1300.	1285.	-1.000	34.896	-1.051	28.071	0.070	0.30
1400.	1383.	-1.001	34.899	-1.057	28.074	0.070	0.27
1500.	1482.	-1.066	34.900	-1.068	28.075	0.069	0.05
1750.	1728.	-1.025	34.900	-1.101	28.076	0.066	0.20
2000.	1973.	-1.039	34.900	-1.130	28.078	0.060	0.08
2250.	2219.	-1.053	34.900	-1.160	28.079	0.052	0.08
2500.	2464.	-1.065	34.897	-1.189	28.077	0.043	0.26
2750.	2709.	-1.069	34.896	-1.211	28.077	0.032	0.28
3000.	2953.	-1.064	34.895	-1.225	28.077	0.020	0.00



VALDIVIA 488 STATION 62
 LAT 78NS0.0 LONG 01E40.1 DATE 14.08.88 TIME (UTC) 07:19

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-S (DYN-M)	N+N (CPH)
0.	0.	4.667	33.797	4.667	26.759	0.000	0.00
5.	5.	4.667	33.797	4.667	26.759	0.006	0.00
10.	10.	4.667	33.797	4.667	26.759	0.013	0.16
15.	15.	4.663	33.800	4.662	26.759	0.019	1.97
20.	20.	4.460	34.058	4.458	26.989	0.025	10.19
25.	25.	3.299	34.430	3.298	27.313	0.030	15.48
30.	30.	2.697	34.613	2.695	27.603	0.032	13.75
40.	40.	2.191	34.794	2.189	27.791	0.036	6.85
50.	50.	1.763	34.871	1.760	27.888	0.038	5.12
60.	59.	1.609	34.937	1.606	27.952	0.040	3.70
70.	69.	1.603	34.951	1.599	27.963	0.042	1.19
75.	74.	1.584	34.957	1.581	27.969	0.042	1.74
80.	79.	1.555	34.958	1.551	27.973	0.043	2.10
90.	89.	1.472	34.965	1.468	27.985	0.044	1.47
100.	99.	1.278	34.959	1.273	27.994	0.045	1.85
120.	119.	1.299	34.973	1.293	28.003	0.047	1.17
125.	124.	1.252	34.975	1.246	28.008	0.048	1.14
140.	139.	1.289	34.979	1.282	28.009	0.049	0.60
150.	149.	1.292	34.982	1.284	28.011	0.050	0.81
160.	159.	1.264	34.981	1.256	28.012	0.051	0.52
180.	178.	0.998	34.965	0.990	28.018	0.053	1.32
200.	198.	0.912	34.963	0.903	28.022	0.055	0.97
220.	218.	0.777	34.960	0.768	28.028	0.056	1.08
240.	238.	0.650	34.949	0.639	28.028	0.058	0.83
250.	248.	0.543	34.947	0.532	28.033	0.059	0.95
260.	258.	0.514	34.945	0.503	28.033	0.059	0.12
280.	277.	0.356	34.936	0.344	28.036	0.061	0.82
300.	297.	0.291	34.934	0.278	28.038	0.062	0.03
320.	317.	0.219	34.931	0.206	28.040	0.064	0.78
340.	337.	0.116	34.928	0.102	28.043	0.065	0.79
360.	357.	0.029	34.928	0.015	28.047	0.066	0.71
380.	376.	0.020	34.930	0.005	28.049	0.067	0.38
400.	396.	-0.030	34.925	-0.046	28.048	0.068	0.38
420.	416.	-0.074	34.926	-0.091	28.051	0.069	0.48
440.	436.	-0.122	34.926	-0.139	28.054	0.070	0.21
460.	456.	-0.179	34.919	-0.197	28.051	0.071	0.24
480.	475.	-0.297	34.913	-0.315	28.052	0.072	0.42
500.	495.	-0.337	34.911	-0.356	28.053	0.073	0.31
550.	545.	-0.402	34.909	-0.422	28.054	0.076	0.22
600.	594.	-0.467	34.904	-0.490	28.054	0.078	0.21
650.	643.	-0.531	34.902	-0.556	28.055	0.080	0.00
700.	693.	-0.595	34.899	-0.621	28.056	0.082	0.15
750.	742.	-0.646	34.897	-0.674	28.056	0.083	0.33
800.	792.	-0.664	34.900	-0.695	28.059	0.085	0.29
850.	841.	-0.677	34.902	-0.709	28.062	0.086	0.27
900.	890.	-0.703	34.904	-0.738	28.064	0.088	0.37
1000.	989.	-0.763	34.902	-0.802	28.066	0.090	0.11
1100.	1088.	-0.827	34.902	-0.870	28.069	0.091	0.32
1200.	1186.	-0.883	34.901	-0.930	28.070	0.092	0.33
1300.	1285.	-0.915	34.902	-0.968	28.073	0.092	0.41
1400.	1383.	-0.936	34.904	-0.993	28.075	0.092	0.00
1500.	1482.	-0.955	34.904	-1.017	28.076	0.091	0.29
1750.	1728.	-0.982	34.906	-1.058	28.079	0.088	0.00
2000.	1973.	-1.013	34.903	-1.105	28.079	0.082	0.32
2250.	2219.	-1.021	34.903	-1.128	28.080	0.074	0.21
2500.	2464.	-1.038	34.901	-1.163	28.079	0.065	0.00
2750.	2709.	-1.046	34.901	-1.189	28.080	0.054	0.29
3000.	2953.	-1.050	34.898	-1.212	28.079	0.042	0.15

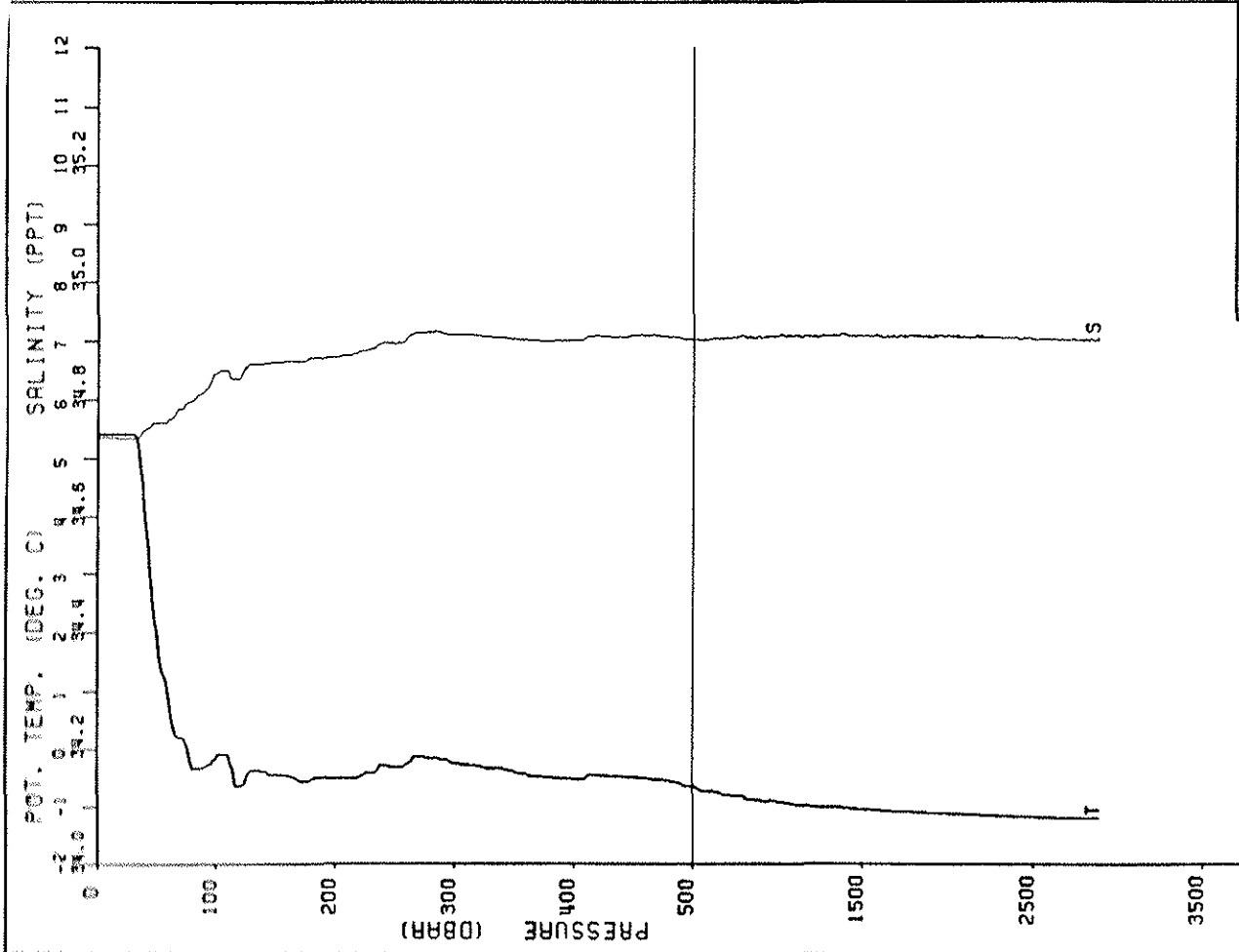
PRES. TEMP. (C) SALINITY (PPT)



STATION 03228.8
 LONGITUDE 78W42.8
 DATE 14.08.88
 TIME (GMT) 12:31
 SHIP VALDIVIA 488

WATERLOG SHEET STATION 03
 LAT 78W42.8 LONG 03228.8 DATE 14.08.88 TIME 12:31

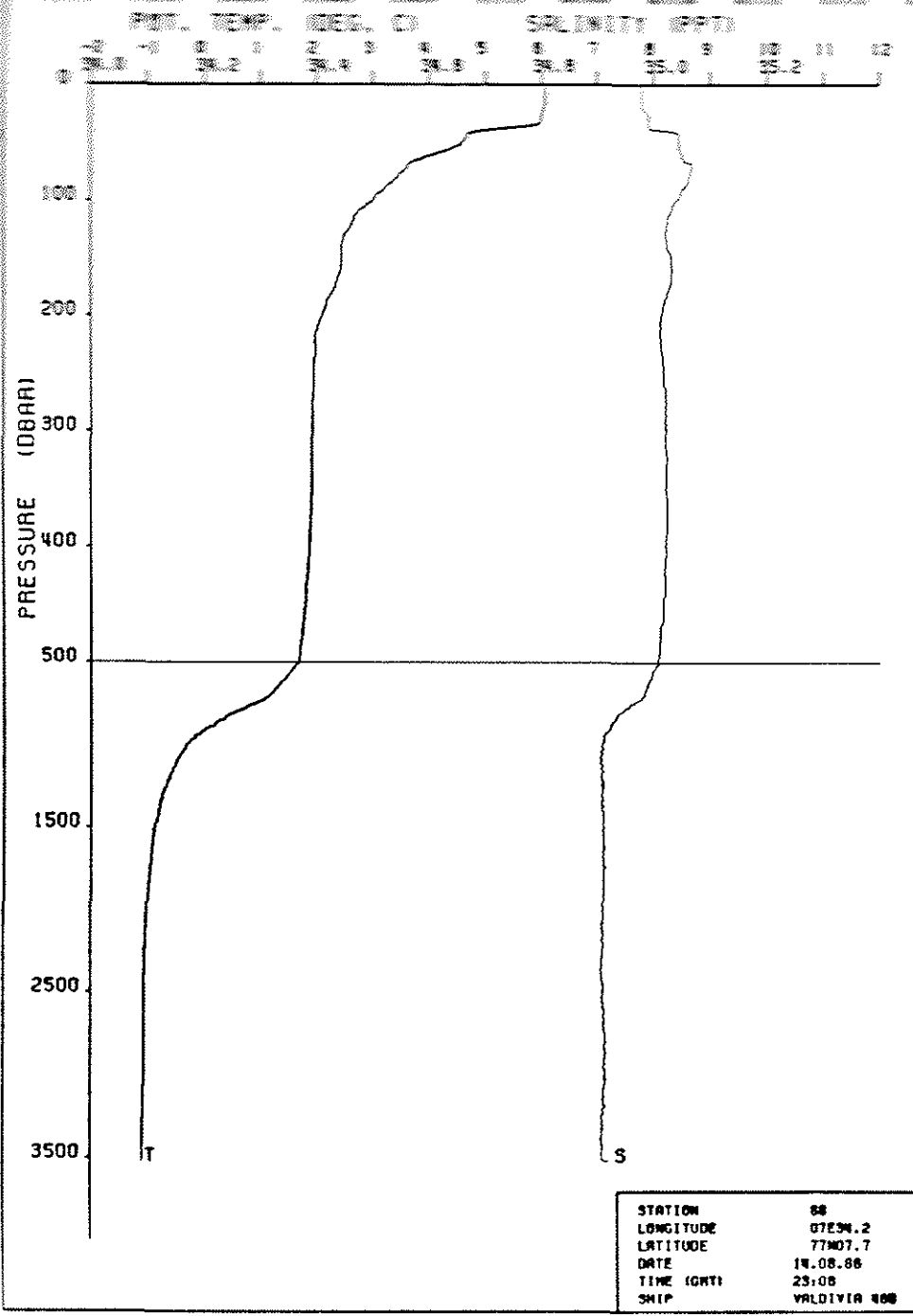
DEPTH (DBAR)	P (DBAR)	T (DBAR)	S (PPT)	TEMP (DBAR)	SIGTA	DELTA (DBAR)	NEW (DBAR)
0	0	4.896	34.655	4.896	27.422	0.000	0.00
5	5	4.896	34.655	4.896	27.422	0.000	0.00
10	10	4.896	34.655	4.896	27.422	0.000	0.00
15	15	4.896	34.655	4.896	27.422	0.000	0.00
20	20	4.896	34.655	4.896	27.422	0.000	0.00
25	25	4.893	34.664	4.891	27.422	0.013	0.38
30	30	4.297	34.658	4.295	27.483	0.019	0.33
40	40	1.581	34.760	1.579	27.812	0.023	0.50
50	50	1.206	34.826	1.204	27.891	0.026	0.50
60	60	1.206	34.862	1.203	27.921	0.028	0.50
70	70	1.067	34.909	1.064	27.968	0.029	0.22
75	75	1.054	34.918	1.051	27.976	0.030	0.39
80	80	0.946	34.918	0.943	27.984	0.031	2.42
90	89	0.505	34.903	0.501	27.999	0.032	1.81
100	99	0.894	34.933	0.890	27.999	0.033	0.82
119	119	0.848	34.931	0.842	28.000	0.035	0.90
125	124	0.606	34.915	0.601	27.998	0.035	0.88
140	139	0.514	34.916	0.508	28.010	0.037	0.78
150	149	0.447	34.915	0.440	28.012	0.037	1.20
160	159	0.338	34.907	0.332	28.012	0.038	0.82
180	178	0.121	34.900	0.114	28.019	0.040	0.85
200	198	-0.066	34.893	-0.074	28.024	0.042	1.03
220	218	-0.151	34.893	-0.159	28.028	0.043	0.96
240	238	-0.205	34.891	-0.213	28.029	0.045	0.59
250	248	-0.258	34.890	-0.265	28.031	0.045	0.90
260	258	-0.313	34.889	-0.323	28.033	0.046	0.70
280	277	-0.548	34.877	-0.557	28.035	0.047	0.68
300	297	-0.612	34.880	-0.622	28.040	0.049	0.50
320	317	-0.830	34.869	-0.840	28.041	0.050	0.87
340	337	-0.735	34.876	-0.747	28.042	0.051	0.22
360	357	-0.674	34.881	-0.686	28.044	0.052	0.65
380	376	-0.624	34.886	-0.637	28.046	0.053	0.47
400	396	-0.649	34.886	-0.663	28.047	0.054	0.46
420	416	-0.629	34.892	-0.643	28.051	0.055	0.91
440	436	-0.637	34.895	-0.652	28.053	0.056	0.43
460	456	-0.624	34.897	-0.641	28.054	0.057	0.55
480	475	-0.668	34.895	-0.685	28.055	0.057	0.54
500	495	-0.688	34.894	-0.705	28.055	0.058	0.36
550	545	-0.735	34.890	-0.755	28.054	0.060	0.22
600	594	-0.760	34.892	-0.781	28.057	0.062	0.47
650	643	-0.807	34.892	-0.830	28.059	0.064	0.33
700	693	-0.794	34.896	-0.819	28.062	0.065	0.32
750	742	-0.782	34.898	-0.810	28.063	0.066	0.42
800	792	-0.875	34.896	-0.904	28.065	0.067	0.29
850	841	-0.872	34.898	-0.903	28.067	0.068	0.24
900	890	-0.963	34.895	-0.996	28.068	0.069	0.19
1000	989	-0.968	34.895	-1.005	28.069	0.070	0.29
1100	1088	-0.966	34.898	-1.008	28.071	0.071	0.32
1200	1186	-0.982	34.901	-1.028	28.074	0.071	0.33
1300	1285	-0.981	34.903	-1.033	28.076	0.071	0.21
1400	1383	-1.004	34.904	-1.051	28.078	0.070	0.00
1500	1482	-1.003	34.901	-1.055	28.076	0.069	0.30
1750	1728	-1.023	34.902	-1.099	28.078	0.065	0.34
2000	1973	-1.032	34.904	-1.123	28.080	0.059	0.32
2250	2219	-1.049	34.902	-1.156	28.080	0.051	0.21
2500	2464	-1.067	34.901	-1.191	28.081	0.041	0.00
2750	2709	-1.078	34.899	-1.219	28.080	0.030	0.29
3000	2953	-1.060	34.898	-1.222	28.079	0.017	0.15



STATION 66
 LONGITUDE 0525.5
 LATITUDE 7655.8
 DATE 14.08.86
 TIME (GMT) 17:47
 SHIP VALDIVIA 488

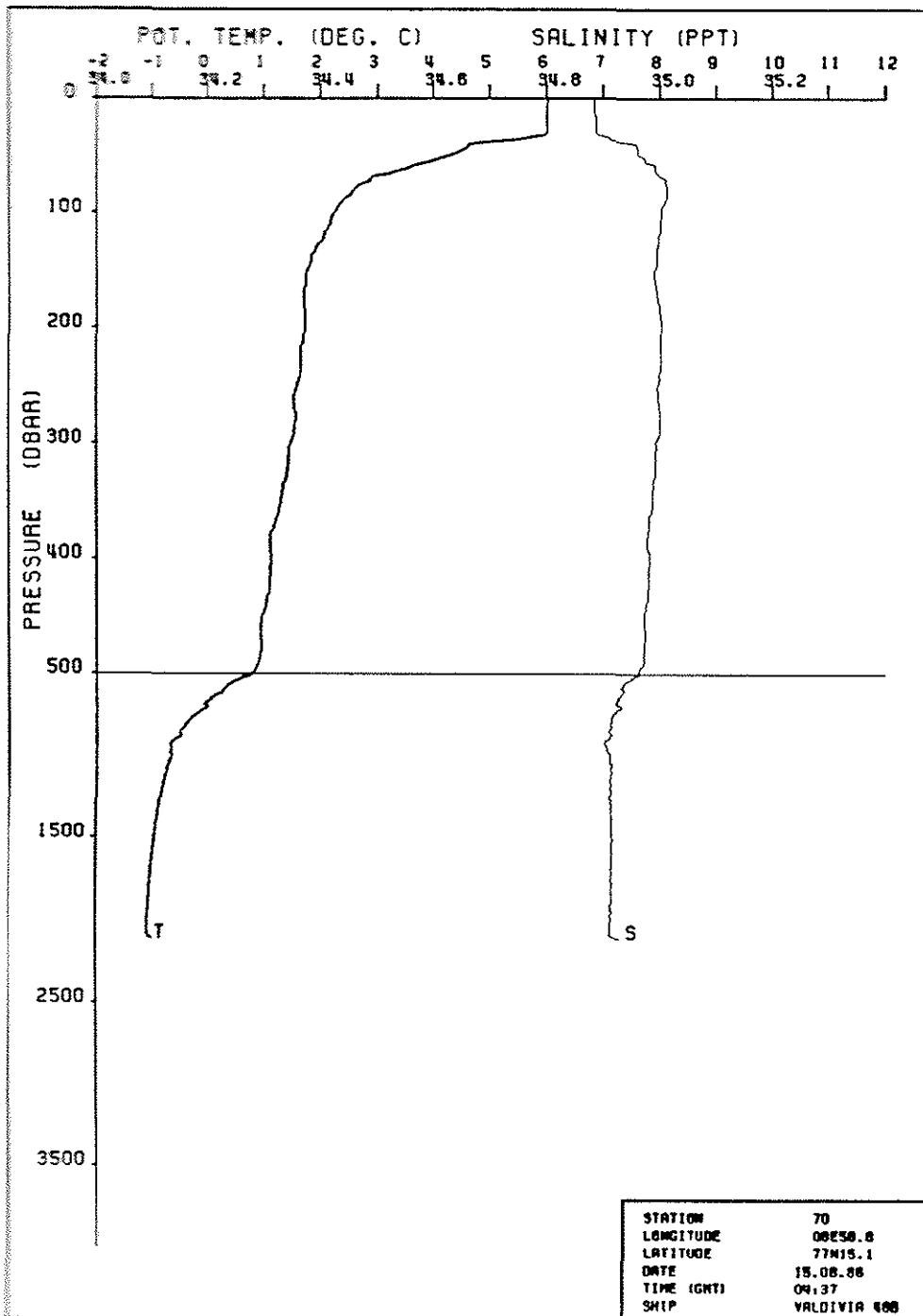
VALDIVIA 488 STATION 66
 LAT 7655.8 LONG 0525.5 DATE 14.08.86 TIME (UTC) 17:47

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	N-MN (CFH)
0.	0.	5.416	34.736	5.416	27.416	0.000	0.00
5.	5.	5.416	34.736	5.416	27.416	0.003	0.00
10.	10.	5.416	34.736	5.415	27.417	0.010	0.17
15.	15.	5.416	34.735	5.415	27.417	0.010	*****
20.	20.	5.415	34.734	5.413	27.415	0.013	*****
25.	25.	5.414	34.734	5.412	27.415	0.016	*****
30.	30.	5.413	34.734	5.410	27.416	0.020	0.34
40.	40.	3.991	34.747	3.988	27.586	0.026	8.20
50.	50.	2.032	34.762	2.029	27.779	0.030	7.67
60.	60.	0.834	34.768	0.831	27.870	0.032	4.75
70.	70.	0.203	34.786	0.201	27.922	0.034	3.30
75.	74.	0.073	34.795	0.071	27.934	0.035	3.16
80.	79.	-0.324	34.800	-0.326	27.962	0.036	3.59
90.	89.	-0.303	34.816	-0.307	27.973	0.037	2.07
100.	99.	-0.181	34.845	-0.185	27.990	0.038	1.92
120.	119.	-0.626	34.837	-0.630	28.006	0.040	1.97
125.	124.	-0.536	34.857	-0.540	28.020	0.041	1.89
140.	139.	-0.382	34.861	-0.387	28.014	0.042	0.85
150.	149.	-0.432	34.865	-0.437	28.019	0.043	1.17
160.	159.	-0.455	34.867	-0.461	28.023	0.044	0.69
180.	178.	-0.521	34.872	-0.527	28.029	0.045	0.92
200.	198.	-0.487	34.873	-0.501	28.029	0.047	0.64
220.	218.	-0.487	34.882	-0.484	28.036	0.048	0.83
240.	238.	-0.280	34.897	-0.289	28.038	0.049	0.78
250.	248.	-0.310	34.896	-0.319	28.039	0.050	0.95
260.	258.	-0.260	34.906	-0.270	28.044	0.050	0.90
280.	277.	-0.157	34.915	-0.167	28.046	0.052	0.64
300.	297.	-0.240	34.911	-0.251	28.047	0.053	0.61
320.	317.	-0.288	34.909	-0.300	28.049	0.054	0.39
340.	337.	-0.337	34.905	-0.348	28.048	0.055	0.23
360.	357.	-0.425	34.903	-0.438	28.050	0.056	0.59
380.	376.	-0.482	34.900	-0.495	28.050	0.057	0.54
400.	396.	-0.572	34.900	-0.526	28.052	0.058	0.45
420.	416.	-0.443	34.909	-0.458	28.056	0.059	0.60
440.	436.	-0.469	34.906	-0.485	28.055	0.059	0.46
460.	456.	-0.496	34.909	-0.513	28.058	0.060	0.59
480.	475.	-0.529	34.906	-0.546	28.058	0.061	0.28
500.	495.	-0.591	34.902	-0.553	28.060	0.062	0.24
520.	515.	-0.698	34.900	-0.717	28.061	0.063	0.34
540.	534.	-0.709	34.902	-0.731	28.063	0.063	0.33
600.	613.	-0.725	34.903	-0.748	28.064	0.066	0.27
650.	663.	-0.768	34.905	-0.793	28.068	0.068	0.27
700.	693.	-0.783	34.905	-0.811	28.069	0.069	0.35
750.	742.	-0.783	34.907	-0.826	28.071	0.070	0.21
800.	782.	-0.795	34.907	-0.873	28.071	0.070	0.15
850.	841.	-0.842	34.904	-0.893	28.072	0.071	0.42
900.	890.	-0.859	34.904	-0.916	28.075	0.072	0.46
1000.	999.	-0.878	34.908	-0.964	28.077	0.072	0.29
1100.	1088.	-0.922	34.906	-0.998	28.077	0.072	0.00
1200.	1186.	-0.950	34.906	-1.005	28.079	0.072	0.28
1300.	1285.	-0.953	34.908	-1.020	28.081	0.071	0.00
1400.	1383.	-0.963	34.910	-1.045	28.079	0.070	0.12
1500.	1482.	-0.983	34.906	-1.087	28.081	0.065	0.29
1750.	1728.	-1.010	34.907	-1.116	28.082	0.059	0.23
2000.	1973.	-1.024	34.904	-1.148	28.082	0.050	0.00
2250.	2219.	-1.041	34.904	-1.178	28.080	0.040	0.00
2500.	2464.	-1.054	34.901	-1.194	28.080	0.040	0.00
2750.	2709.	-1.052	34.900	-1.194	28.080	0.039	0.26



VALDIVIA 888 STATION 88
 LAT 77207.7 LONG 07234.2 DATE 14.08.88 TIME 23:08

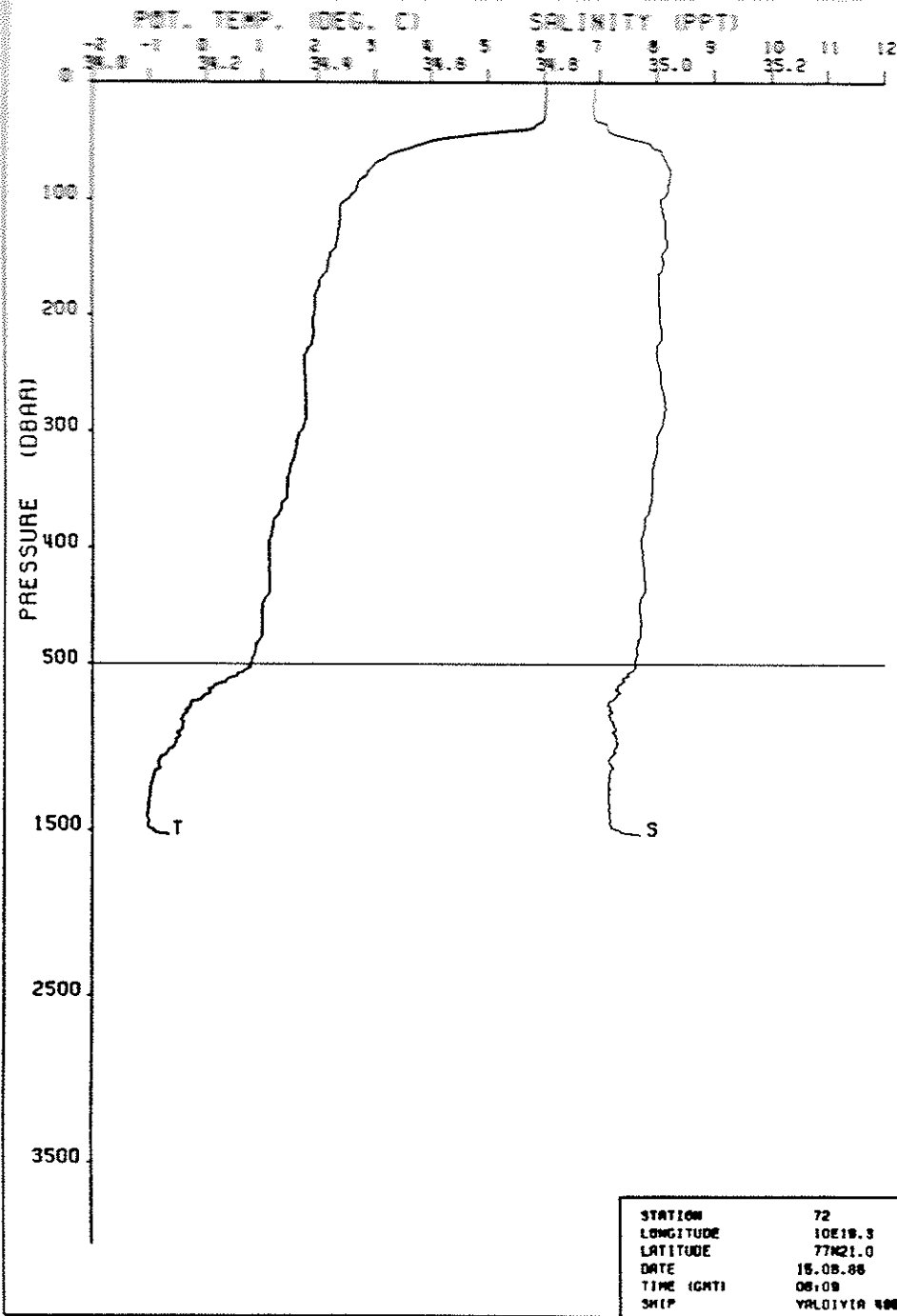
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-S (DYN-CM)	Sigma (CPH)
0.	0.	6.070	34.979	6.070	27.527	0.000	0.00
5.	5.	6.070	34.979	6.069	27.527	0.003	0.00
10.	10.	6.070	34.979	6.069	27.527	0.005	0.19
15.	15.	6.069	34.979	6.068	27.527	0.008	0.40
20.	20.	6.057	34.981	6.055	27.530	0.011	1.52
25.	25.	6.025	34.988	6.023	27.538	0.014	2.23
30.	30.	6.000	34.991	5.998	27.546	0.016	1.98
40.	40.	4.880	35.031	4.877	27.714	0.021	7.86
50.	50.	4.585	35.045	4.581	27.759	0.025	2.32
60.	59.	4.107	35.050	4.103	27.815	0.028	4.79
70.	69.	3.643	35.067	3.638	27.877	0.030	3.84
75.	74.	3.545	35.066	3.540	27.884	0.031	2.69
80.	79.	3.460	35.064	3.454	27.893	0.033	2.37
90.	89.	3.238	35.052	3.232	27.905	0.035	1.93
100.	99.	3.013	35.040	3.007	27.917	0.036	1.80
120.	119.	2.648	35.025	2.641	27.937	0.040	1.52
125.	124.	2.589	35.023	2.582	27.939	0.041	1.53
140.	139.	2.462	35.023	2.454	27.952	0.043	1.46
150.	149.	2.462	35.031	2.453	27.959	0.045	1.17
160.	159.	2.452	35.032	2.443	27.961	0.046	0.96
180.	178.	2.297	35.024	2.286	27.968	0.049	1.12
200.	198.	2.121	35.014	2.109	27.974	0.052	0.94
220.	218.	1.993	35.012	1.981	27.983	0.055	0.91
240.	238.	1.980	35.017	1.967	27.988	0.057	0.98
250.	248.	1.969	35.017	1.955	27.989	0.058	0.59
260.	258.	1.964	35.018	1.950	27.990	0.060	0.84
280.	277.	1.944	35.021	1.929	27.994	0.062	0.49
300.	297.	1.937	35.023	1.921	27.996	0.064	0.47
320.	317.	1.944	35.024	1.926	27.997	0.067	0.51
340.	337.	1.940	35.023	1.921	27.997	0.069	0.40
360.	357.	1.937	35.025	1.917	27.998	0.072	0.63
380.	376.	1.924	35.025	1.903	27.999	0.074	0.38
400.	396.	1.900	35.023	1.878	28.000	0.077	0.45
420.	416.	1.875	35.021	1.852	28.000	0.079	0.25
440.	436.	1.835	35.021	1.810	28.003	0.081	0.46
460.	456.	1.808	35.017	1.782	28.003	0.084	0.11
480.	475.	1.762	35.013	1.735	28.003	0.086	0.67
500.	495.	1.710	35.007	1.683	28.002	0.089	0.52
550.	545.	1.586	35.000	1.556	28.006	0.095	0.50
600.	594.	1.475	34.994	1.443	28.010	0.101	0.58
650.	643.	1.339	34.988	1.305	28.015	0.106	0.52
700.	693.	1.194	34.985	1.158	28.022	0.112	0.49
750.	742.	0.925	34.962	0.887	28.022	0.117	0.40
800.	792.	0.579	34.942	0.540	28.029	0.121	0.58
850.	841.	0.326	34.930	0.287	28.034	0.126	0.59
900.	890.	0.077	34.922	0.036	28.042	0.129	0.61
1000.	989.	-0.273	34.908	-0.316	28.048	0.135	0.58
1100.	1088.	-0.444	34.905	-0.491	28.054	0.139	0.61
1200.	1186.	-0.567	34.907	-0.618	28.062	0.142	0.58
1300.	1285.	-0.685	34.907	-0.740	28.068	0.144	0.39
1400.	1383.	-0.744	34.909	-0.804	28.071	0.145	0.16
1500.	1482.	-0.812	34.910	-0.876	28.076	0.145	0.34
1750.	1728.	-0.875	34.910	-0.954	28.079	0.143	0.31
2000.	1973.	-0.918	34.908	-1.011	28.079	0.139	0.35
2250.	2219.	-0.932	34.907	-1.041	28.080	0.133	0.00
2500.	2464.	-0.931	34.907	-1.057	28.080	0.125	0.00
2750.	2709.	-0.916	34.911	-1.061	28.084	0.116	0.33
3000.	2953.	-0.898	34.910	-1.063	28.083	0.105	0.00
3500.	3442.	-0.883	34.905	-1.090	28.080	0.082	43.43



VALDIVIA 488 STATION 70

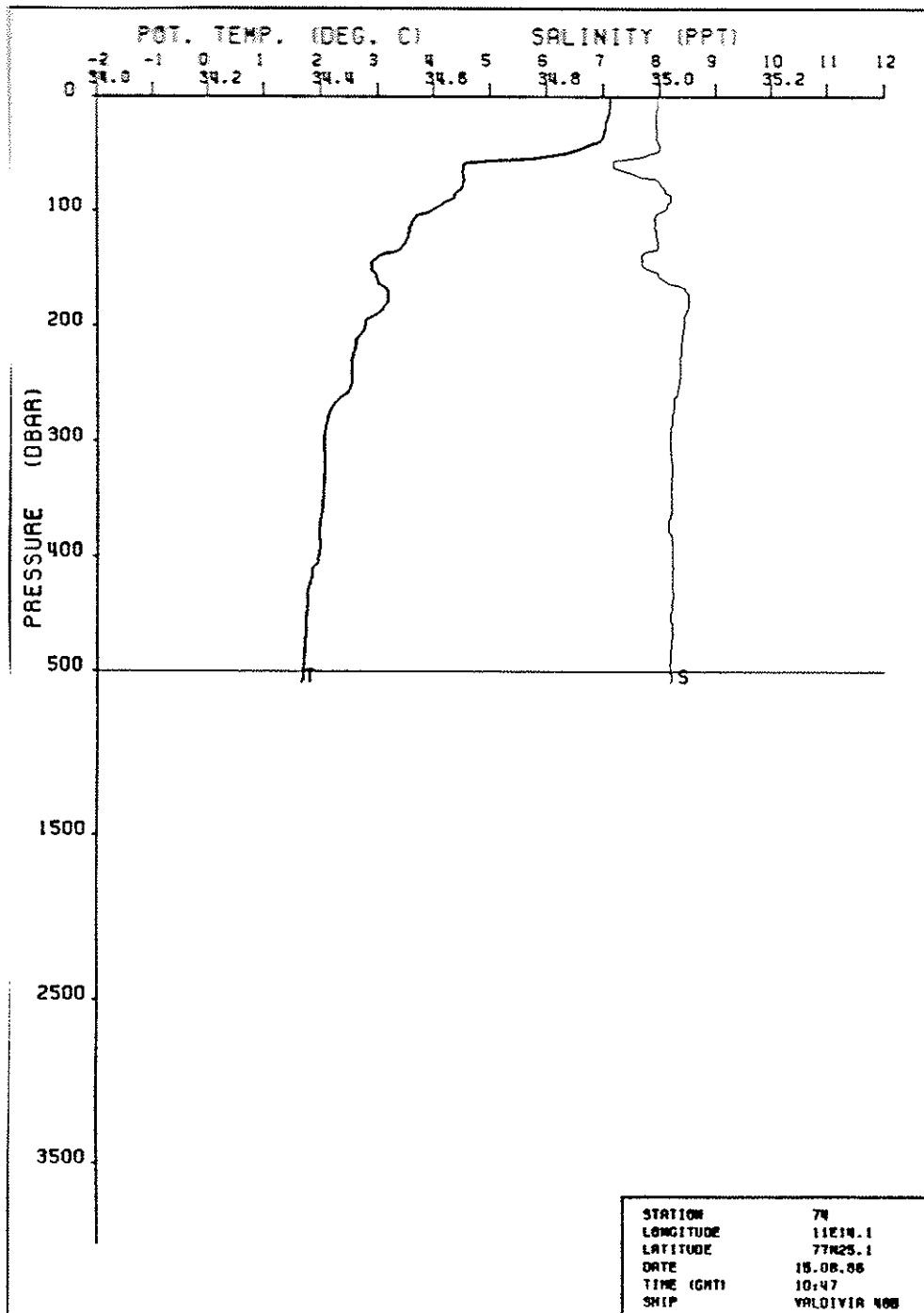
LAT 77N15.1 LONG 08E58.8 DATE 15.08.86 TIME (UTC) 04:37

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	N*W (CPH)
0.	0.	6.023	34.885	6.023	27.459	0.000	0.00
5.	5.	6.023	34.885	6.022	27.459	0.003	0.00
10.	10.	6.023	34.885	6.022	27.459	0.006	0.19
15.	15.	6.023	34.886	6.022	27.459	0.009	0.69
20.	20.	6.023	34.887	6.021	27.461	0.012	0.77
25.	25.	6.023	34.887	6.021	27.461	0.015	0.39
30.	30.	6.023	34.888	6.021	27.462	0.018	1.42
40.	40.	4.656	34.956	4.653	27.680	0.024	8.34
50.	50.	4.293	34.962	4.290	27.725	0.028	4.54
60.	59.	3.579	34.991	3.575	27.823	0.031	5.11
70.	69.	2.889	35.009	2.884	27.903	0.033	4.66
75.	74.	2.727	35.010	2.722	27.915	0.034	3.93
80.	79.	2.594	35.013	2.590	27.932	0.035	3.10
90.	89.	2.400	35.010	2.395	27.947	0.037	2.15
100.	99.	2.265	35.002	2.259	27.952	0.038	1.46
120.	119.	2.085	34.999	2.078	27.965	0.041	1.52
125.	124.	2.024	34.998	2.017	27.967	0.042	1.45
140.	139.	1.862	34.995	1.855	27.979	0.044	1.32
150.	149.	1.785	34.992	1.777	27.983	0.045	0.94
160.	159.	1.756	34.991	1.748	27.985	0.046	1.03
180.	178.	1.720	34.998	1.711	27.993	0.049	0.84
200.	198.	1.733	35.003	1.723	27.996	0.051	0.63
220.	218.	1.672	35.003	1.661	28.000	0.053	0.85
240.	238.	1.669	35.000	1.657	27.999	0.056	0.77
250.	248.	1.608	34.997	1.595	28.001	0.057	0.93
260.	258.	1.557	34.997	1.543	28.005	0.058	1.03
280.	277.	1.590	35.002	1.576	28.006	0.060	0.70
300.	297.	1.505	34.994	1.489	28.006	0.062	0.35
320.	317.	1.447	34.992	1.430	28.009	0.064	0.53
340.	337.	1.350	34.988	1.333	28.013	0.066	0.84
360.	357.	1.279	34.986	1.261	28.016	0.068	0.56
380.	376.	1.134	34.979	1.116	28.021	0.070	0.72
400.	396.	1.141	34.981	1.121	28.022	0.072	0.58
420.	416.	1.121	34.980	1.100	28.022	0.074	0.16
440.	436.	1.062	34.976	1.041	28.024	0.076	0.39
460.	456.	0.967	34.972	0.945	28.027	0.077	0.89
480.	475.	0.979	34.972	0.955	28.026	0.079	0.51
500.	495.	0.836	34.962	0.812	28.028	0.081	0.52
550.	545.	0.485	34.939	0.460	28.031	0.085	0.62
600.	594.	0.326	34.936	0.299	28.038	0.089	0.68
650.	643.	0.087	34.926	0.059	28.044	0.092	0.52
700.	693.	0.022	34.930	-0.008	28.050	0.095	0.62
750.	742.	-0.176	34.917	-0.208	28.050	0.098	0.43
800.	792.	-0.337	34.913	-0.370	28.055	0.100	0.51
850.	841.	-0.448	34.909	-0.482	28.057	0.102	0.53
900.	890.	-0.543	34.908	-0.579	28.061	0.103	0.00
1000.	989.	-0.616	34.911	-0.656	28.067	0.106	0.61
1100.	1088.	-0.699	34.913	-0.743	28.072	0.108	0.32
1200.	1186.	-0.762	34.911	-0.811	28.073	0.109	0.23
1300.	1285.	-0.809	34.914	-0.862	28.078	0.109	0.19
1400.	1383.	-0.848	34.913	-0.906	28.079	0.109	0.32
1500.	1482.	-0.879	34.914	-0.943	28.082	0.108	0.27
1750.	1729.	-0.941	34.913	-1.019	28.083	0.104	0.29
2000.	1973.	-0.976	34.914	-1.068	28.086	0.097	0.21



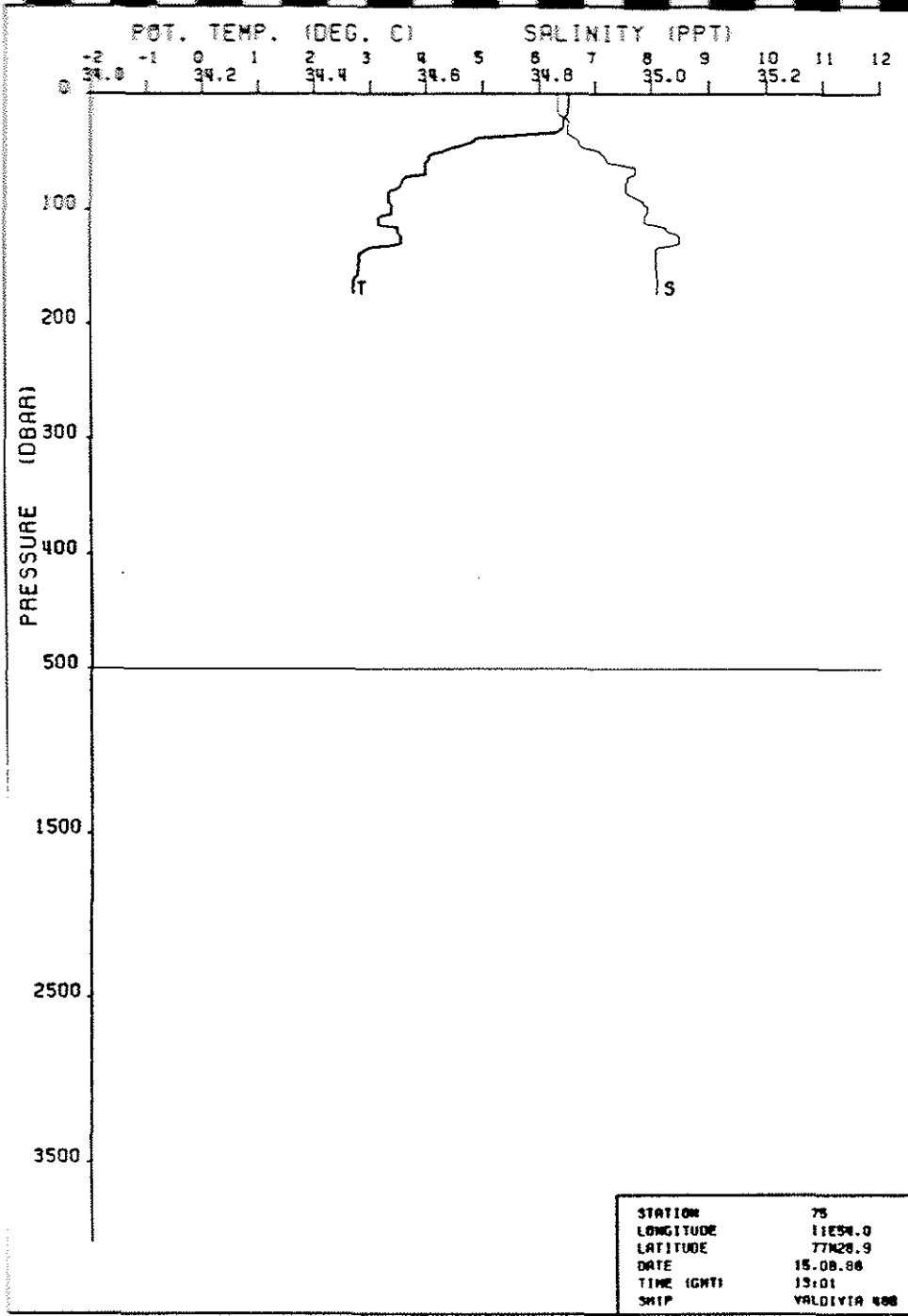
YALDIYIA 488 STATION 72
 LAT 77N21.0 LONG 10E19.3 DATE 15.08.86 TIME (UTC) 08:09

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-S (DYN-M)	N*W (CPH)
0.	0.	6.039	34.890	6.039	27.461	0.000	0.00
5.	5.	6.039	34.890	6.038	27.461	0.003	0.00
10.	10.	6.039	34.890	6.038	27.461	0.006	0.19
15.	15.	6.038	34.890	6.037	27.461	0.009	0.28
20.	20.	6.032	34.889	6.030	27.461	0.012	0.35
25.	25.	6.028	34.889	6.026	27.462	0.015	0.63
30.	30.	6.023	34.890	6.020	27.464	0.018	1.03
40.	40.	5.715	34.914	5.711	27.521	0.024	6.00
50.	50.	3.991	34.975	3.987	27.767	0.029	8.15
60.	59.	3.381	35.008	3.378	27.856	0.031	5.00
70.	69.	3.020	35.018	3.016	27.898	0.034	3.27
75.	74.	2.927	35.023	2.922	27.909	0.035	2.85
80.	79.	2.876	35.023	2.871	27.915	0.036	2.65
90.	89.	2.709	35.019	2.704	27.928	0.037	1.25
100.	99.	2.540	35.008	2.534	27.933	0.039	1.74
120.	119.	2.398	35.015	2.391	27.951	0.042	1.01
125.	124.	2.390	35.014	2.383	27.951	0.043	1.00
140.	139.	2.339	35.018	2.331	27.959	0.045	1.10
150.	149.	2.230	35.010	2.222	27.961	0.047	0.99
160.	159.	2.188	35.010	2.179	27.965	0.048	1.12
180.	178.	1.988	35.003	1.978	27.976	0.051	1.24
200.	198.	1.948	35.005	1.938	27.980	0.054	0.87
220.	218.	1.932	35.009	1.920	27.985	0.056	0.53
240.	238.	1.779	35.001	1.767	27.991	0.059	1.25
250.	248.	1.783	35.007	1.770	27.995	0.060	0.86
260.	258.	1.788	35.007	1.774	27.995	0.061	0.63
280.	277.	1.805	35.016	1.790	28.001	0.063	0.54
300.	297.	1.728	35.006	1.712	27.999	0.066	0.47
320.	317.	1.614	35.000	1.597	28.003	0.068	0.78
340.	337.	1.484	34.994	1.467	28.008	0.070	0.72
360.	357.	1.394	34.991	1.375	28.012	0.072	0.78
380.	376.	1.219	34.978	1.200	28.014	0.074	0.65
400.	396.	1.142	34.972	1.122	28.015	0.076	0.70
420.	416.	1.149	34.977	1.128	28.018	0.078	0.55
440.	436.	1.135	34.975	1.113	28.017	0.080	0.49
460.	456.	1.016	34.970	0.994	28.022	0.082	0.54
480.	475.	0.970	34.967	0.947	28.022	0.084	0.44
500.	495.	0.833	34.961	0.810	28.027	0.086	1.03
550.	545.	0.626	34.950	0.601	28.031	0.090	0.62
600.	594.	0.377	34.942	0.350	28.040	0.094	0.68
650.	643.	0.027	34.926	0.049	28.044	0.097	0.71
700.	693.	-0.039	34.928	-0.069	28.052	0.100	0.20
750.	742.	-0.248	34.916	-0.279	28.053	0.102	0.55
800.	792.	-0.350	34.916	-0.382	28.058	0.104	0.54
850.	841.	-0.365	34.922	-0.400	28.063	0.106	0.56
900.	890.	-0.406	34.925	-0.443	28.069	0.108	0.64
1000.	899.	-0.546	34.927	-0.587	28.077	0.110	0.33
1100.	1088.	-0.795	34.917	-0.839	28.080	0.110	0.61
1200.	1186.	-0.892	34.916	-0.940	28.083	0.110	0.23
1300.	1285.	-0.938	34.914	-0.990	28.084	0.109	0.19
1400.	1383.	-0.966	34.916	-1.024	28.086	0.108	0.32
1500.	1482.	-0.842	34.934	-0.906	28.096	0.106	1.23



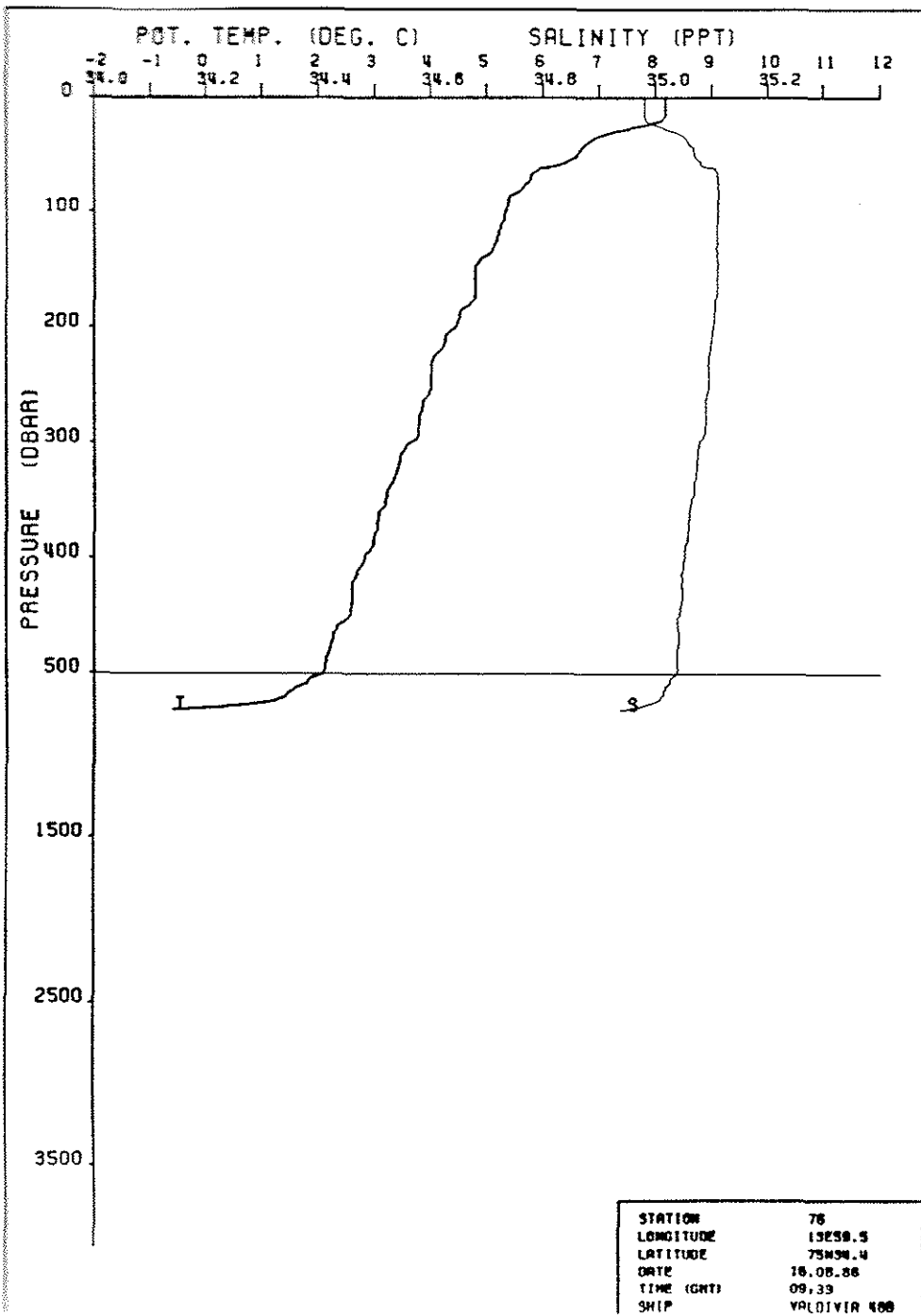
VALDIVIA 488 STATION 74
 LAT 77N25.1 LONG 11E14.1 DATE 15.08.86 TIME (UTC) 10:47

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	N-N (CPH)
0.	0.	7.119	34.995	7.119	27.399	0.000	0.00
5.	5.	7.119	34.995	7.118	27.399	0.003	0.00
10.	10.	7.119	34.995	7.118	27.399	0.007	0.48
15.	15.	7.103	34.994	7.102	27.400	0.010	0.79
20.	20.	7.068	34.994	7.066	27.405	0.013	1.43
25.	25.	7.050	34.994	7.048	27.407	0.017	1.54
30.	30.	7.033	34.995	7.030	27.411	0.020	1.45
40.	40.	6.915	34.997	6.911	27.429	0.027	3.56
50.	50.	6.336	34.982	6.331	27.496	0.033	5.02
60.	59.	4.540	34.918	4.536	27.663	0.038	6.43
70.	69.	4.545	34.964	4.540	27.699	0.042	4.20
75.	74.	4.550	35.000	4.545	27.726	0.044	3.72
80.	79.	4.520	35.008	4.514	27.737	0.046	2.96
90.	89.	4.310	35.020	4.304	27.770	0.049	3.29
100.	99.	3.981	35.009	3.974	27.796	0.052	2.32
120.	119.	3.565	34.995	3.557	27.828	0.058	1.72
125.	124.	3.536	34.997	3.527	27.831	0.059	1.86
140.	139.	3.045	34.970	3.036	27.858	0.063	2.36
150.	149.	2.915	34.976	2.906	27.874	0.066	2.38
160.	159.	3.014	35.007	3.004	27.890	0.068	2.42
180.	178.	3.203	35.053	3.192	27.910	0.072	1.51
200.	198.	2.807	35.045	2.795	27.940	0.076	1.95
220.	218.	2.635	35.039	2.622	27.951	0.079	1.17
240.	238.	2.568	35.037	2.554	27.955	0.082	0.26
250.	248.	2.563	35.036	2.548	27.954	0.084	0.58
260.	258.	2.426	35.032	2.411	27.964	0.085	1.73
280.	277.	2.148	35.024	2.133	27.980	0.088	1.07
300.	297.	2.082	35.020	2.065	27.983	0.091	0.58
320.	317.	2.099	35.023	2.081	27.984	0.094	0.31
340.	337.	2.077	35.022	2.057	27.985	0.096	0.47
360.	357.	2.052	35.022	2.032	27.987	0.099	0.44
380.	376.	2.002	35.020	1.980	27.990	0.102	0.88
400.	396.	1.983	35.024	1.960	27.994	0.104	1.11
420.	416.	1.858	35.023	1.834	28.003	0.107	1.12
440.	436.	1.785	35.024	1.761	28.010	0.109	0.39
460.	456.	1.759	35.023	1.734	28.011	0.111	0.79
480.	475.	1.746	35.021	1.720	28.010	0.114	0.41
500.	495.	1.721	35.019	1.693	28.011	0.116	0.22
550.	545.	1.715	35.021	1.685	28.013	0.122	*****



VALDIVIA 488 STATION 75
 LAT 77N28.9 LONG 11254.0 DATE 15.08.88 TIME (UTC) 13:01

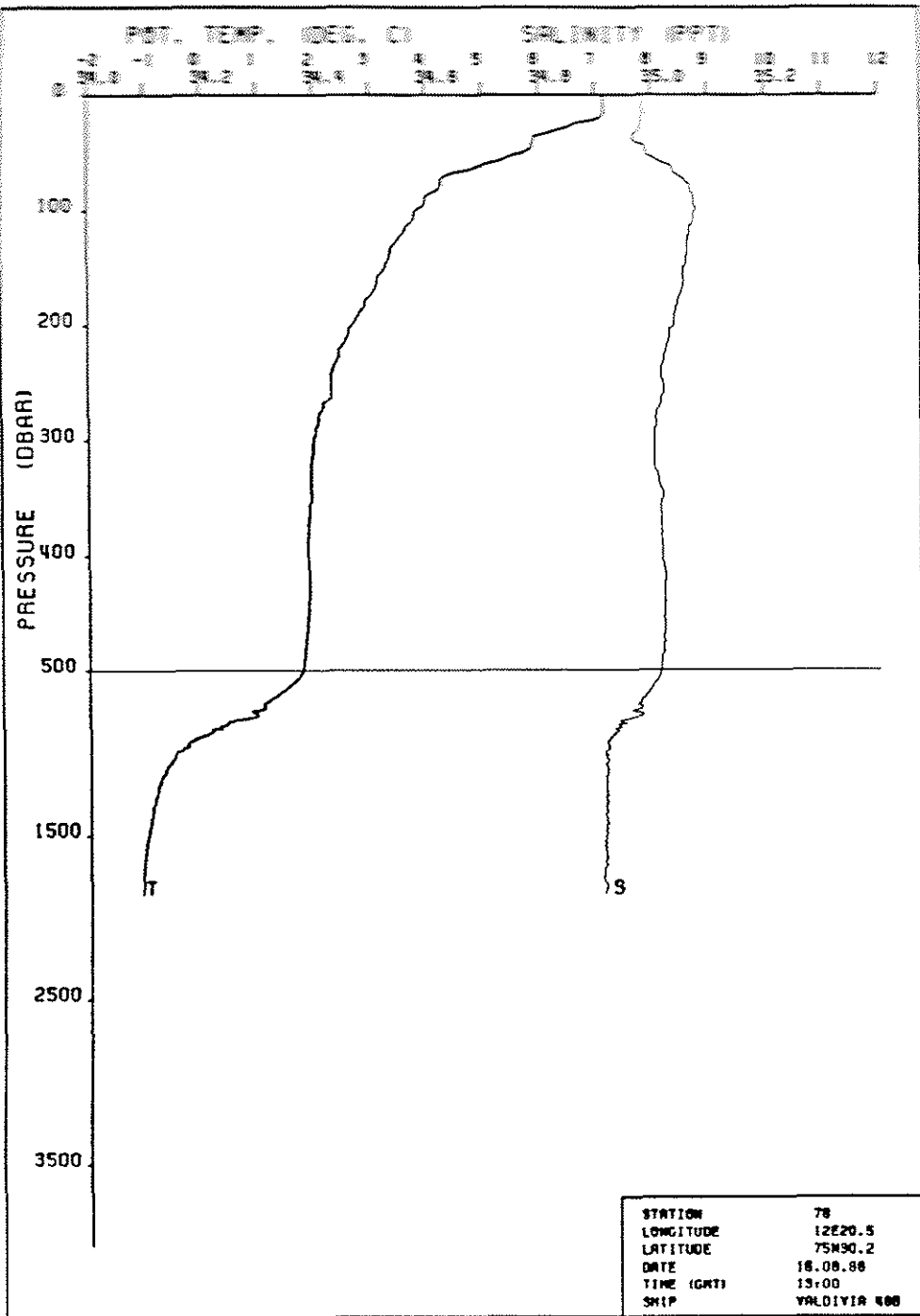
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	SPIN (CPH)
0.	0.	6.513	34.833	6.513	27.354	0.000	0.00
5.	5.	6.513	34.833	6.512	27.354	0.004	0.00
10.	10.	6.513	34.833	6.512	27.354	0.007	0.19
15.	15.	6.509	34.833	6.507	27.354	0.011	0.89
20.	20.	6.464	34.840	6.462	27.366	0.014	2.73
25.	25.	6.427	34.852	6.425	27.380	0.018	2.79
30.	30.	6.422	34.852	6.419	27.381	0.021	2.04
40.	40.	4.859	34.871	4.856	27.590	0.027	6.08
50.	50.	4.319	34.909	4.316	27.680	0.032	5.67
60.	59.	3.988	34.923	3.984	27.727	0.036	3.82
70.	69.	3.984	34.972	3.980	27.766	0.039	3.85
75.	74.	3.598	34.958	3.593	27.794	0.041	3.08
80.	79.	3.552	34.956	3.547	27.798	0.042	1.99
90.	89.	3.332	34.970	3.327	27.830	0.045	3.22
100.	99.	3.400	34.994	3.393	27.843	0.048	1.40
120.	119.	3.521	35.031	3.513	27.861	0.052	1.29
125.	124.	3.572	35.049	3.564	27.870	0.054	1.56
140.	139.	2.826	35.009	2.818	27.909	0.057	2.52
150.	149.	2.811	35.009	2.802	27.911	0.059	0.87
160.	159.	2.768	35.010	2.758	27.915	0.061	1.23



VALDIVIA 488 STATION 76

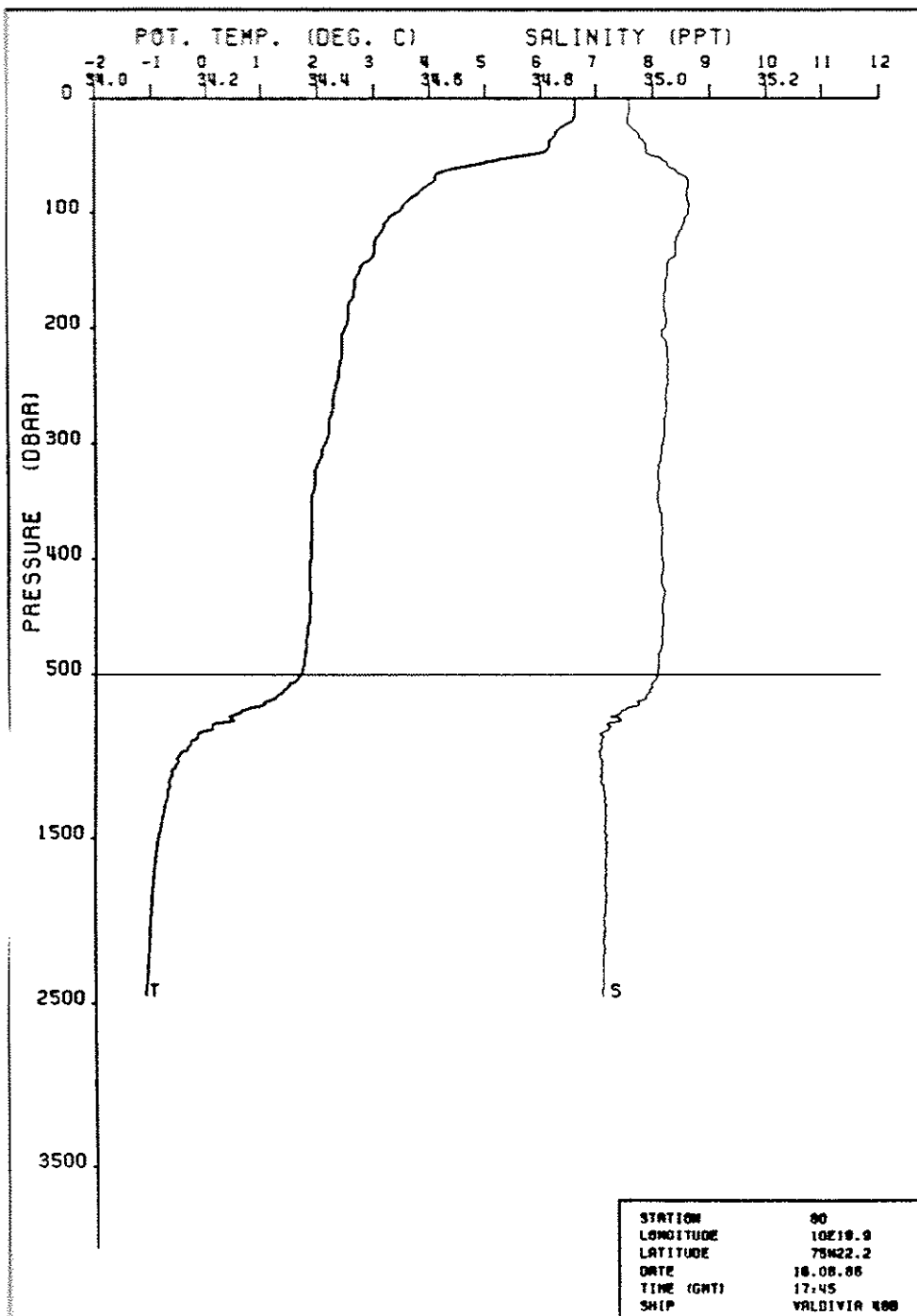
LAT 75N34.4 LONG 13E59.5 DATE 16.08.86 TIME (UTC) 09:33

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	NwN (CPH)
0.	0.	8.170	34.981	8.170	27.233	0.000	0.00
5.	5.	8.170	34.981	8.170	27.233	0.004	0.00
10.	10.	8.170	34.981	8.169	27.234	0.008	0.22
15.	15.	8.170	34.981	8.169	27.234	0.012	0.77
20.	20.	8.097	34.983	8.095	27.246	0.017	3.37
25.	25.	7.712	35.006	7.710	27.297	0.020	6.17
30.	30.	7.255	35.031	7.252	27.408	0.024	7.20
40.	40.	6.802	35.057	6.798	27.492	0.030	4.76
50.	50.	6.613	35.069	6.608	27.527	0.036	2.85
60.	59.	6.210	35.083	6.204	27.592	0.041	5.96
70.	69.	5.805	35.111	5.799	27.666	0.046	2.79
75.	74.	5.736	35.112	5.730	27.671	0.048	2.49
80.	79.	5.628	35.113	5.622	27.690	0.050	2.86
90.	89.	5.412	35.111	5.405	27.715	0.054	2.71
100.	99.	5.353	35.111	5.345	27.722	0.058	1.41
120.	119.	5.229	35.111	5.220	27.737	0.065	1.66
125.	124.	5.204	35.111	5.194	27.740	0.067	1.57
140.	139.	4.934	35.110	4.923	27.772	0.072	2.55
150.	149.	4.817	35.111	4.805	27.786	0.075	1.95
160.	159.	4.808	35.111	4.796	27.787	0.079	0.22
180.	178.	4.736	35.107	4.723	27.793	0.085	2.02
200.	198.	4.475	35.104	4.460	27.820	0.091	2.01
220.	218.	4.198	35.099	4.182	27.845	0.097	1.83
240.	238.	4.033	35.096	4.015	27.861	0.102	0.68
250.	248.	4.030	35.096	4.012	27.861	0.105	0.69
260.	258.	3.956	35.091	3.938	27.865	0.107	1.38
280.	277.	3.810	35.090	3.790	27.879	0.112	1.06
300.	297.	3.615	35.079	3.594	27.891	0.117	1.75
320.	317.	3.439	35.074	3.418	27.905	0.121	1.21
340.	337.	3.253	35.069	3.230	27.919	0.126	1.31
360.	357.	3.096	35.061	3.073	27.927	0.130	1.17
380.	376.	3.028	35.058	3.003	27.931	0.134	0.65
400.	396.	2.851	35.053	2.826	27.943	0.138	1.65
420.	416.	2.637	35.048	2.612	27.959	0.141	1.26
440.	436.	2.623	35.046	2.595	27.959	0.145	1.33
460.	456.	2.360	35.038	2.333	27.975	0.148	2.02
480.	475.	2.228	35.038	2.200	27.986	0.151	1.12
500.	495.	2.124	35.037	2.095	27.994	0.154	1.04
550.	545.	1.846	35.024	1.815	28.005	0.160	0.60
600.	594.	1.600	35.015	1.568	28.017	0.166	0.89
650.	643.	1.377	35.008	1.343	28.028	0.171	0.78
700.	693.	0.406	34.973	0.374	28.063	0.175	1.72



VALDIVIA 400 STATION 78
 LAT 75N30.2 LONG 12E20.5 DATE 18.08.88 TIME (GMT) 13:00

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGETA	DEL-D (DM-M)	SEA (CM)
0.	0.	7.163	34.985	7.163	27.384	0.000	0.00
5.	5.	7.163	34.985	7.163	27.384	0.003	0.00
10.	10.	7.163	34.985	7.163	27.385	0.007	0.20
15.	15.	7.158	34.985	7.156	27.385	0.010	0.91
20.	20.	7.072	34.982	7.070	27.395	0.014	3.02
25.	25.	6.638	34.982	6.635	27.450	0.017	5.02
30.	30.	6.339	34.976	6.336	27.490	0.020	5.32
40.	40.	5.918	34.967	5.915	27.538	0.026	3.76
50.	50.	5.747	34.992	5.743	27.579	0.031	4.05
60.	59.	5.077	35.028	5.073	27.689	0.035	5.90
70.	69.	4.376	35.049	4.371	27.785	0.039	5.24
75.	74.	4.294	35.062	4.288	27.804	0.040	3.94
80.	79.	4.274	35.069	4.268	27.813	0.042	2.53
90.	89.	4.021	35.077	4.015	27.846	0.045	3.02
100.	99.	3.850	35.080	3.844	27.867	0.047	2.48
120.	119.	3.622	35.068	3.614	27.880	0.052	1.94
125.	124.	3.541	35.067	3.533	27.886	0.053	1.93
140.	139.	3.395	35.065	3.386	27.900	0.056	1.46
150.	149.	3.308	35.059	3.298	27.904	0.058	1.46
160.	159.	3.166	35.058	3.156	27.917	0.060	1.49
180.	178.	2.956	35.048	2.945	27.929	0.064	1.48
200.	198.	2.718	35.040	2.706	27.944	0.067	1.32
220.	218.	2.508	35.027	2.495	27.952	0.071	1.08
240.	238.	2.370	35.018	2.356	27.957	0.074	1.20
250.	248.	2.340	35.020	2.325	27.961	0.076	1.05
260.	258.	2.344	35.022	2.329	27.963	0.077	1.19
280.	277.	2.117	35.009	2.101	27.971	0.080	0.67
300.	297.	2.017	35.005	2.000	27.975	0.083	0.75
320.	317.	1.979	35.004	1.962	27.978	0.086	1.12
340.	337.	1.969	35.014	1.950	27.987	0.088	1.04
360.	357.	1.949	35.016	1.929	27.990	0.091	0.44
380.	376.	1.921	35.019	1.900	27.995	0.094	0.73
400.	396.	1.916	35.019	1.893	27.995	0.096	0.50
420.	416.	1.919	35.022	1.895	27.998	0.099	0.08
440.	436.	1.919	35.022	1.895	27.998	0.101	0.21
460.	456.	1.892	35.021	1.866	27.999	0.104	0.69
480.	475.	1.859	35.018	1.832	28.000	0.106	0.46
500.	495.	1.818	35.015	1.790	28.000	0.109	0.49
550.	545.	1.714	35.009	1.684	28.004	0.115	0.46
600.	594.	1.554	34.999	1.521	28.008	0.121	0.65
650.	643.	1.348	34.987	1.313	28.014	0.127	0.56
700.	693.	1.154	34.977	1.118	28.019	0.132	0.70
750.	742.	0.919	34.963	0.881	28.024	0.137	0.73
800.	792.	0.634	34.949	0.595	28.031	0.142	0.42
850.	841.	0.372	34.938	0.332	28.038	0.146	0.43
900.	890.	0.013	34.922	-0.027	28.045	0.149	0.64
1000.	989.	-0.439	34.912	-0.480	28.059	0.154	0.43
1100.	1088.	-0.603	34.916	-0.548	28.071	0.156	0.65
1200.	1186.	-0.733	34.913	-0.783	28.074	0.157	0.23
1300.	1285.	-0.797	34.914	-0.851	28.077	0.158	0.29
1400.	1383.	-0.850	34.914	-0.908	28.080	0.157	0.50
1500.	1482.	-0.900	34.915	-0.963	28.083	0.157	0.22
1750.	1728.	-0.977	34.911	-1.053	28.083	0.152	0.00

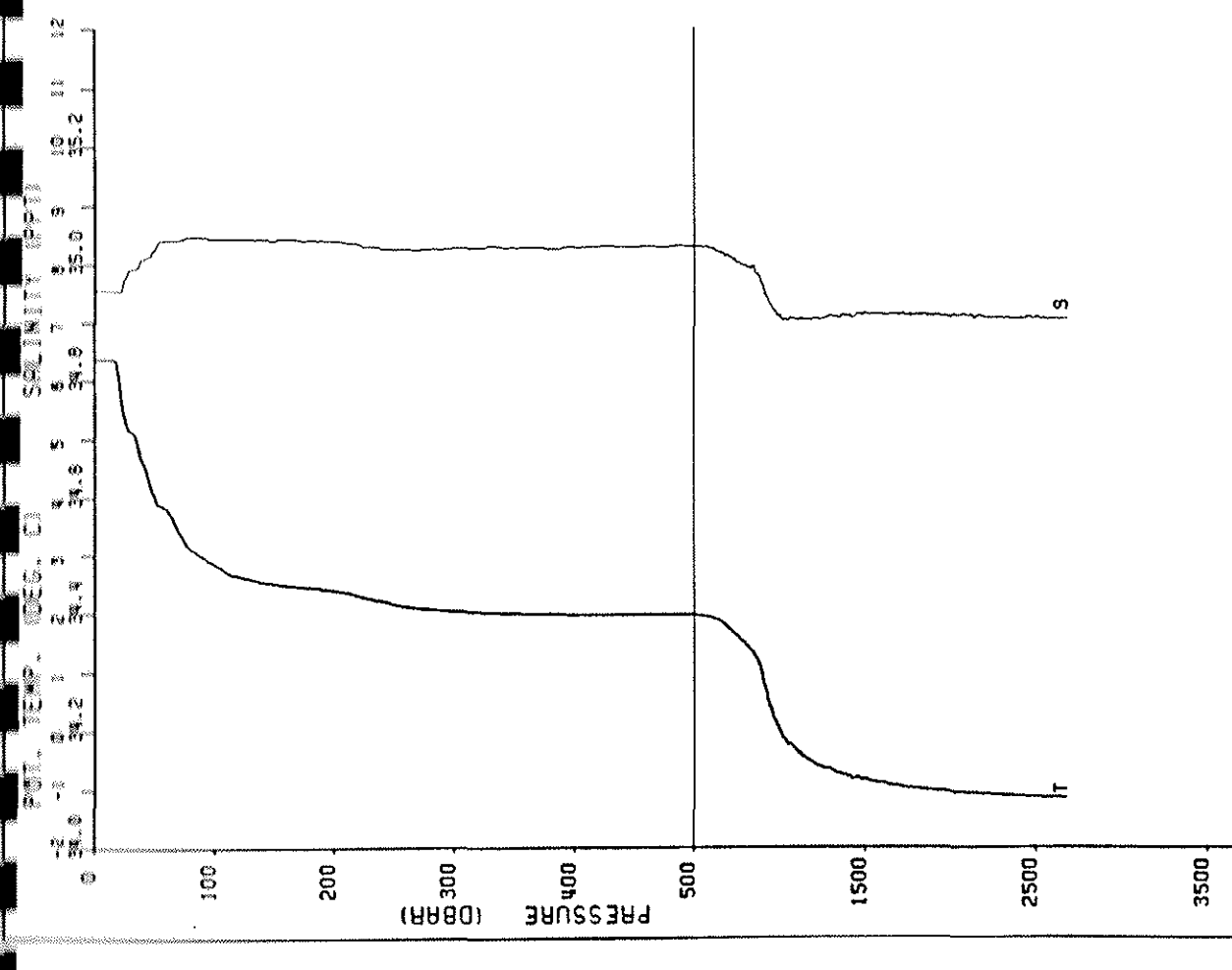


VALDIVIA 488 STATION 80
 LAT 75N22.2 LONG 10E19.9 DATE 16.08.86 TIME (UTC) 17:45

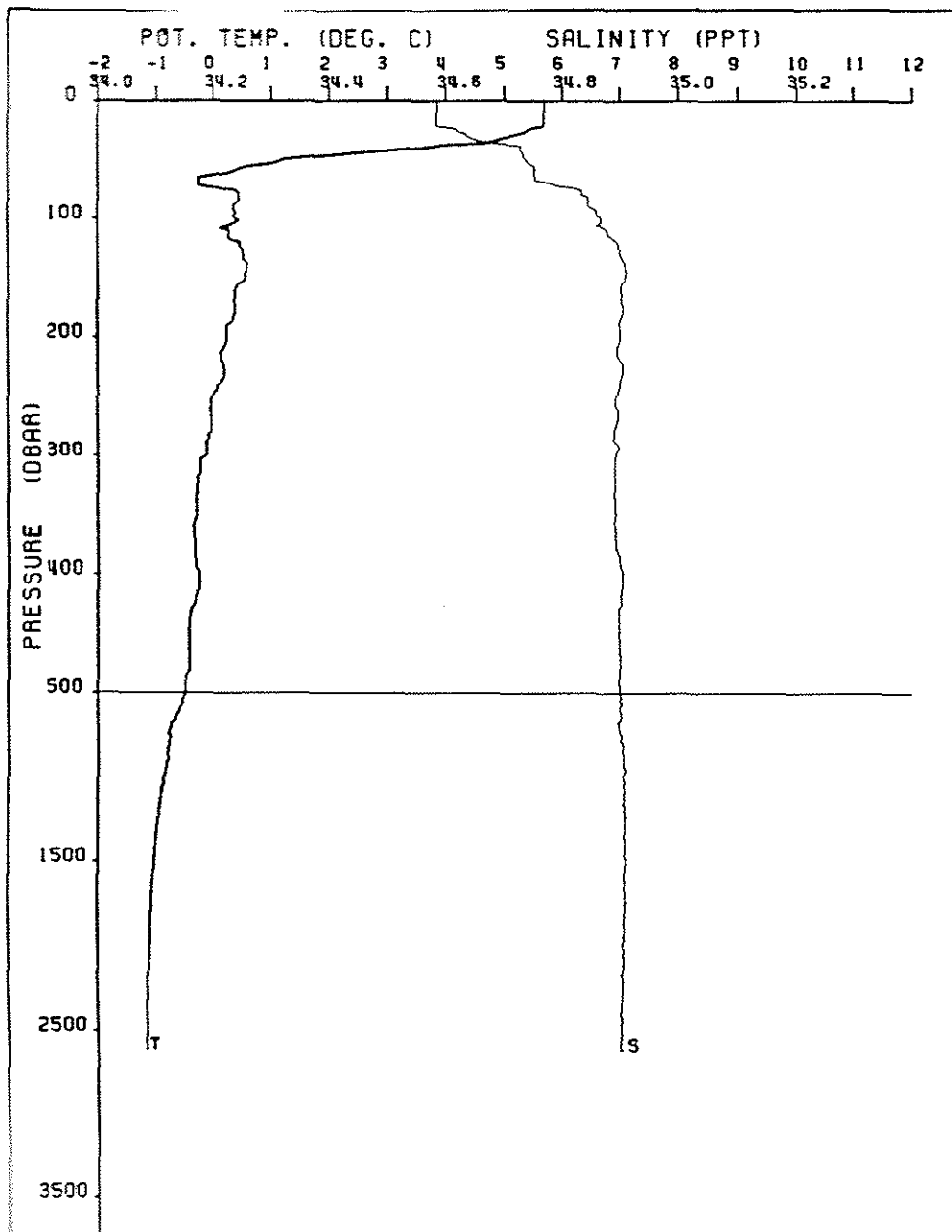
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	N=N (CPH)
0.	0.	6.622	34.958	6.622	27.438	0.000	0.00
5.	5.	6.622	34.958	6.622	27.438	0.003	0.00
10.	10.	6.622	34.958	6.621	27.438	0.006	0.20
15.	15.	6.621	34.957	6.620	27.438	0.010	1.71
20.	20.	6.586	34.956	6.584	27.441	0.013	2.07
25.	25.	6.400	34.961	6.398	27.462	0.016	3.79
30.	30.	6.300	34.974	6.297	27.493	0.019	3.80
40.	40.	6.173	34.987	6.170	27.520	0.024	2.77
50.	50.	5.811	34.995	5.807	27.573	0.030	5.97
60.	59.	4.576	35.028	4.571	27.747	0.034	6.68
70.	69.	4.104	35.062	4.099	27.825	0.037	4.01
75.	74.	4.019	35.063	4.014	27.831	0.039	3.02
80.	79.	3.861	35.062	3.855	27.850	0.040	2.92
90.	89.	3.616	35.063	3.610	27.877	0.042	2.97
100.	99.	3.432	35.063	3.425	27.895	0.044	2.46
120.	119.	3.098	35.045	3.090	27.913	0.048	0.97
125.	124.	3.046	35.041	3.038	27.914	0.049	1.01
140.	139.	2.987	35.033	2.978	27.914	0.052	1.36
150.	149.	2.777	35.026	2.768	27.927	0.054	1.64
160.	159.	2.682	35.023	2.673	27.933	0.056	1.15
180.	178.	2.573	35.020	2.563	27.940	0.059	1.14
200.	198.	2.519	35.023	2.507	27.947	0.063	0.92
220.	218.	2.457	35.025	2.444	27.955	0.066	1.21
240.	238.	2.389	35.026	2.375	27.961	0.069	1.04
250.	248.	2.340	35.025	2.326	27.965	0.071	0.88
260.	258.	2.301	35.023	2.286	27.966	0.072	0.77
280.	277.	2.228	35.020	2.212	27.970	0.075	0.71
300.	297.	2.158	35.018	2.141	27.975	0.078	1.00
320.	317.	2.008	35.010	1.990	27.980	0.081	0.90
340.	337.	1.964	35.010	1.945	27.984	0.083	0.73
360.	357.	1.915	35.013	1.895	27.991	0.086	0.95
380.	376.	1.911	35.015	1.890	27.993	0.089	0.40
400.	396.	1.896	35.015	1.874	27.994	0.091	0.68
420.	416.	1.876	35.014	1.853	27.995	0.094	0.56
440.	436.	1.877	35.015	1.853	27.995	0.096	0.49
460.	456.	1.845	35.015	1.819	27.998	0.099	0.63
480.	475.	1.809	35.011	1.782	27.998	0.101	0.57
500.	495.	1.733	35.006	1.706	28.000	0.104	0.94
550.	545.	1.541	34.997	1.512	28.007	0.110	0.65
600.	594.	1.412	34.991	1.380	28.012	0.116	0.65
650.	643.	1.237	34.983	1.203	28.018	0.121	0.80
700.	693.	0.861	34.954	0.826	28.020	0.126	0.45
750.	742.	0.499	34.930	0.464	28.024	0.131	0.74
800.	792.	0.149	34.915	0.113	28.032	0.135	0.60
850.	841.	-0.071	34.908	-0.108	28.038	0.139	0.53
900.	890.	-0.241	34.905	-0.279	28.044	0.142	0.51
1000.	989.	-0.485	34.903	-0.526	28.054	0.146	0.61
1100.	1088.	-0.607	34.907	-0.653	28.063	0.149	0.48
1200.	1186.	-0.657	34.909	-0.706	28.067	0.151	0.40
1300.	1285.	-0.712	34.913	-0.767	28.073	0.153	0.51
1400.	1383.	-0.764	34.913	-0.824	28.076	0.153	0.14
1500.	1482.	-0.819	34.912	-0.884	28.077	0.153	0.35
1750.	1728.	-0.889	34.913	-0.967	28.082	0.150	0.00
2000.	1973.	-0.930	34.911	-1.022	28.082	0.145	0.00
2250.	2219.	-0.955	34.909	-1.063	28.082	0.138	0.12

VALDIVIA 688 STATION 82
 LAT 75N14.2 LONG 082E20.5 DATE 16.08.86 TIME 00:23:11

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THEIR (DEG C)	SIGTET	DEL-D (CYM-M)	NUM (CPT)
0.	0.	6.372	34.954	6.372	27.468	0.000	0.00
5.	5.	6.372	34.954	6.371	27.468	0.003	0.00
10.	10.	6.371	34.954	6.371	27.468	0.005	0.19
15.	15.	6.371	34.954	6.369	27.469	0.009	0.15
20.	20.	6.055	34.954	6.054	27.509	0.012	5.30
25.	25.	5.375	34.974	5.373	27.600	0.015	7.25
30.	30.	5.153	34.991	5.151	27.651	0.017	5.15
40.	40.	4.609	35.010	4.605	27.728	0.021	5.15
50.	50.	4.020	35.026	4.017	27.805	0.024	5.20
60.	60.	3.821	35.041	3.817	27.838	0.027	2.60
70.	70.	3.419	35.043	3.414	27.880	0.029	3.49
75.	75.	3.233	35.045	3.229	27.896	0.030	3.56
80.	80.	3.123	35.046	3.118	27.911	0.031	3.05
90.	90.	2.999	35.046	2.993	27.922	0.033	2.01
100.	99.	2.857	35.044	2.851	27.934	0.035	1.77
120.	119.	2.660	35.044	2.653	27.952	0.038	1.44
125.	124.	2.634	35.044	2.627	27.954	0.039	1.22
139.	139.	2.553	35.042	2.545	27.960	0.041	0.90
150.	149.	2.529	35.041	2.520	27.961	0.043	0.97
160.	159.	2.498	35.043	2.489	27.965	0.044	0.93
180.	178.	2.462	35.042	2.451	27.967	0.047	0.69
200.	198.	2.415	35.039	2.403	27.970	0.050	0.50
220.	218.	2.332	35.035	2.320	27.973	0.053	0.70
240.	238.	2.230	35.027	2.217	27.975	0.056	0.85
250.	248.	2.177	35.025	2.163	27.979	0.057	0.91
260.	258.	2.137	35.025	2.123	27.982	0.058	0.85
280.	277.	2.091	35.026	2.075	27.986	0.061	0.84
300.	297.	2.057	35.028	2.041	27.991	0.063	0.76
320.	317.	2.042	35.027	2.024	27.992	0.066	0.83
340.	337.	2.026	35.028	2.007	27.994	0.069	0.50
360.	357.	2.015	35.029	1.995	27.995	0.071	0.47
380.	376.	2.007	35.026	1.986	27.994	0.074	0.38
400.	396.	2.004	35.029	1.981	27.996	0.076	0.67
420.	416.	2.003	35.030	1.979	27.997	0.079	0.45
440.	436.	2.005	35.030	1.980	27.998	0.081	0.04
460.	456.	2.006	35.030	1.980	27.997	0.084	0.36
480.	475.	2.006	35.030	1.978	27.998	0.086	0.43
500.	495.	2.005	35.030	1.977	27.998	0.089	0.27
550.	545.	1.991	35.029	1.959	27.998	0.095	0.32
600.	594.	1.968	35.027	1.933	27.999	0.102	0.65
650.	643.	1.813	35.021	1.876	27.998	0.109	0.08
700.	693.	1.796	35.015	1.758	28.003	0.116	0.52
750.	742.	1.661	35.002	1.619	28.003	0.122	0.55
800.	792.	1.529	34.998	1.485	28.009	0.129	0.60
850.	841.	1.366	34.988	1.319	28.013	0.135	0.47
900.	890.	0.961	34.961	0.914	28.020	0.141	0.64
1000.	989.	0.040	34.909	-0.005	28.033	0.150	0.62
1100.	1088.	-0.306	34.801	-0.354	28.045	0.156	0.68
1200.	1188.	-0.507	34.804	-0.559	28.056	0.160	0.48
1300.	1285.	-0.601	34.808	-0.657	28.064	0.162	0.46
1400.	1383.	-0.706	34.910	-0.766	28.070	0.164	0.15
1500.	1482.	-0.762	34.912	-0.827	28.075	0.164	0.34
1750.	1728.	-0.892	34.910	-0.970	28.079	0.162	0.00
2000.	1973.	-0.945	34.808	-1.038	28.080	0.157	0.30
2250.	2219.	-0.973	34.904	-1.081	28.079	0.150	0.09
2500.	2464.	-1.000	34.907	-1.125	28.083	0.142	0.03



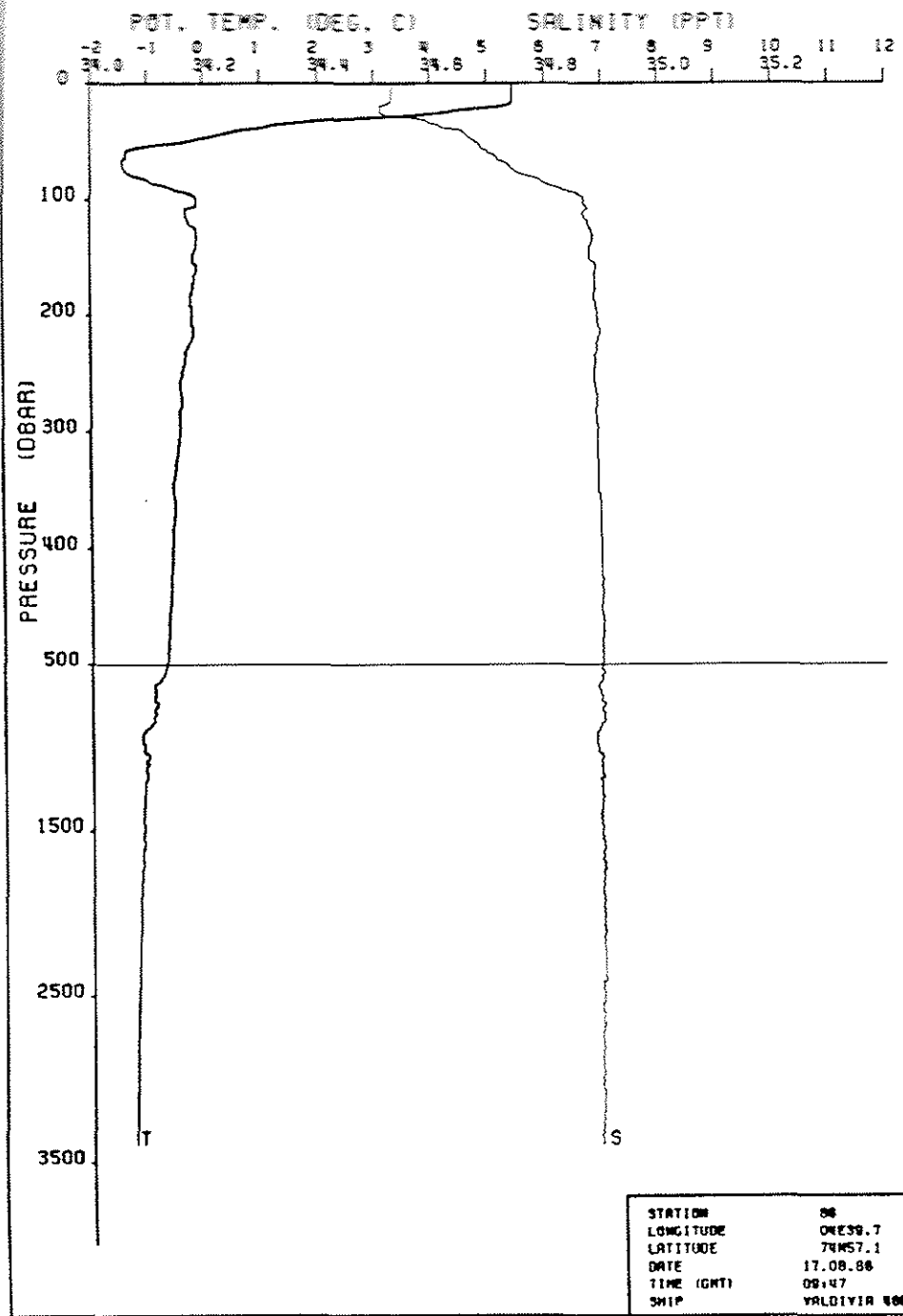
STATION 82
 LONGITUDE 082E20.5
 LATITUDE 75N14.2
 DATE 16.08.86
 TIME (GMT) 23:11
 SHIP VALDIVIA 688



VALDIVIA 488 STATION 84
 LAT 75N05.0 LONG 06E24.7 DATE 17.08.86 TIME (UTC) 04:50

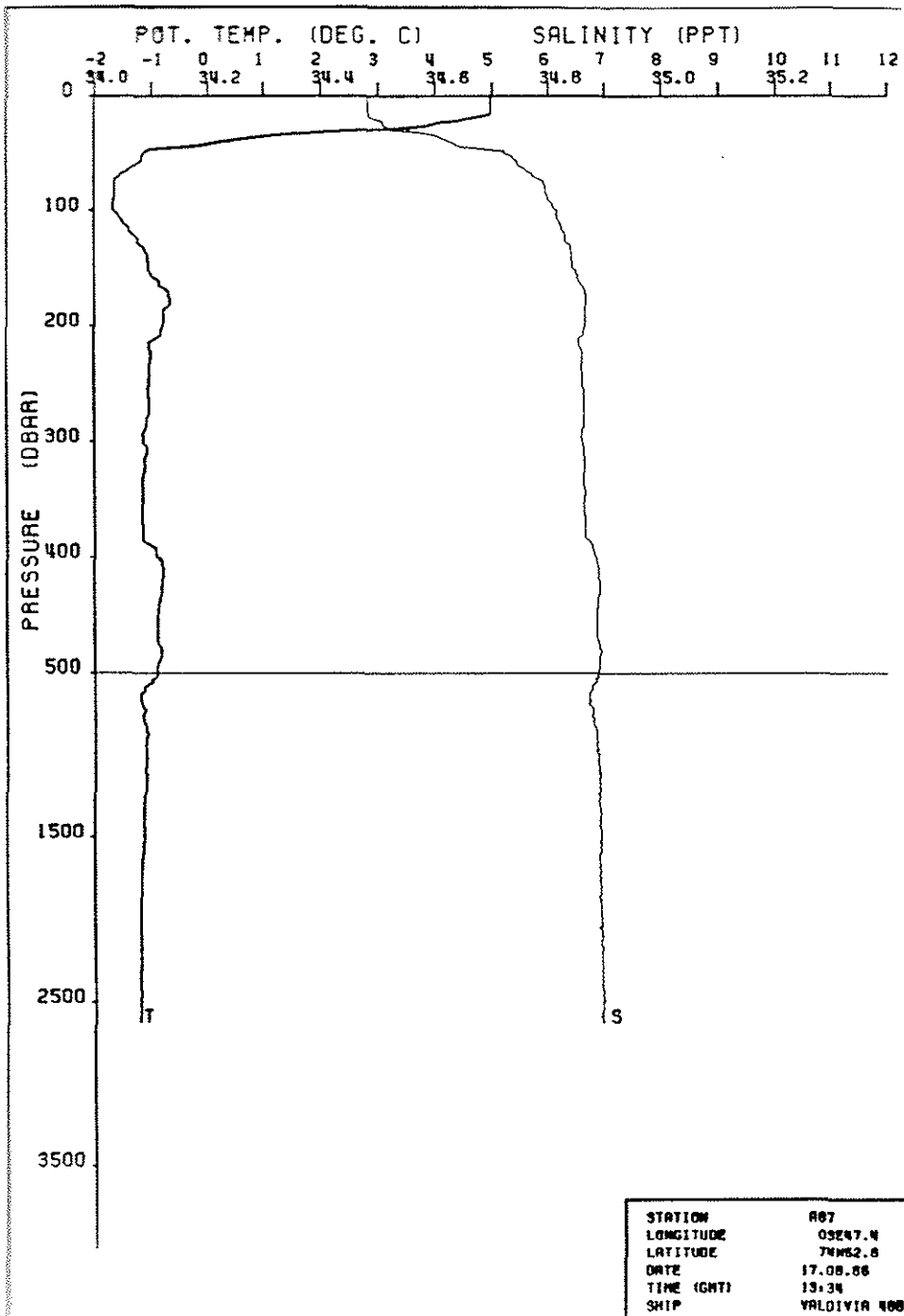
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	N-N (CPH)
0.	0.	5.698	34.583	5.698	27.261	0.000	0.00
5.	5.	5.698	34.583	5.698	27.261	0.004	0.00
10.	10.	5.698	34.583	5.697	27.261	0.008	0.18
15.	15.	5.698	34.583	5.697	27.261	0.012	0.18
20.	20.	5.698	34.583	5.697	27.262	0.016	0.96
25.	25.	5.426	34.619	5.424	27.318	0.020	4.99
30.	30.	5.103	34.635	5.101	27.375	0.024	6.32
40.	40.	3.703	34.729	3.700	27.602	0.030	9.22
50.	50.	1.281	34.738	1.279	27.816	0.033	7.33
60.	59.	0.373	34.751	0.371	27.885	0.036	4.51
70.	69.	-0.248	34.783	-0.250	27.944	0.038	4.11
75.	74.	0.155	34.826	0.152	27.964	0.038	3.03
80.	79.	0.452	34.834	0.449	27.947	0.039	1.50
90.	89.	0.379	34.848	0.376	27.962	0.040	2.12
100.	99.	0.399	34.868	0.395	27.978	0.042	1.27
120.	119.	0.472	34.896	0.467	27.996	0.044	1.38
125.	124.	0.508	34.899	0.503	27.997	0.044	0.90
140.	139.	0.599	34.910	0.593	27.999	0.046	0.93
150.	149.	0.574	34.909	0.568	28.000	0.047	0.82
160.	159.	0.389	34.903	0.383	28.006	0.048	1.01
180.	178.	0.401	34.907	0.393	28.009	0.050	0.52
200.	198.	0.249	34.901	0.241	28.013	0.052	0.59
220.	218.	0.158	34.902	0.149	28.019	0.054	1.08
240.	238.	0.108	34.901	0.098	28.021	0.055	0.66
250.	248.	0.007	34.896	-0.002	28.022	0.056	0.83
260.	258.	-0.032	34.898	-0.041	28.026	0.057	0.75
280.	277.	-0.019	34.892	-0.030	28.021	0.058	0.72
300.	297.	-0.112	34.894	-0.123	28.027	0.060	0.91
320.	317.	-0.256	34.892	-0.268	28.033	0.061	0.70
340.	337.	-0.271	34.894	-0.283	28.035	0.063	0.48
360.	357.	-0.315	34.893	-0.329	28.037	0.064	0.52
380.	376.	-0.302	34.895	-0.316	28.038	0.065	0.79
400.	396.	-0.238	34.905	-0.253	28.042	0.066	0.52
420.	416.	-0.272	34.903	-0.288	28.043	0.067	0.54
440.	436.	-0.390	34.899	-0.406	28.045	0.069	0.51
460.	456.	-0.404	34.899	-0.421	28.046	0.070	0.41
480.	475.	-0.402	34.899	-0.420	28.046	0.071	0.63
500.	495.	-0.458	34.900	-0.476	28.050	0.072	0.48
550.	545.	-0.523	34.901	-0.543	28.054	0.074	0.48
600.	594.	-0.578	34.901	-0.601	28.056	0.076	0.47
650.	643.	-0.641	34.902	-0.665	28.060	0.078	0.00
700.	693.	-0.721	34.899	-0.746	28.061	0.079	0.49
750.	742.	-0.735	34.902	-0.762	28.064	0.081	0.26
800.	792.	-0.744	34.904	-0.774	28.066	0.082	0.46
850.	841.	-0.769	34.904	-0.801	28.067	0.083	0.36
900.	890.	-0.767	34.905	-0.801	28.068	0.084	0.12
1000.	989.	-0.825	34.906	-0.864	28.072	0.085	0.38
1100.	1088.	-0.861	34.905	-0.904	28.073	0.086	0.00
1200.	1186.	-0.896	34.907	-0.944	28.076	0.086	0.32
1300.	1285.	-0.930	34.908	-0.982	28.078	0.086	0.10
1400.	1383.	-0.951	34.908	-1.008	28.079	0.085	0.24
1500.	1482.	-0.968	34.909	-1.031	28.081	0.084	0.31
1750.	1728.	-0.996	34.909	-1.072	28.083	0.080	0.00
2000.	1973.	-1.014	34.903	-1.106	28.079	0.073	0.26
2250.	2219.	-1.027	34.905	-1.134	28.081	0.065	0.00
2500.	2464.	-1.027	34.901	-1.151	28.079	0.056	0.00

STATION 84
 LONGITUDE 06E24.7
 LATITUDE 75N05.0
 DATE 17.08.86
 TIME (GMT) 04:50
 SHIP VALDIVIA 488



VALDIVIA 488 STATION 86
LAT 74NS7.1 LONG 09439.7 DATE 17.08.86 TIME (UTC) 09:47

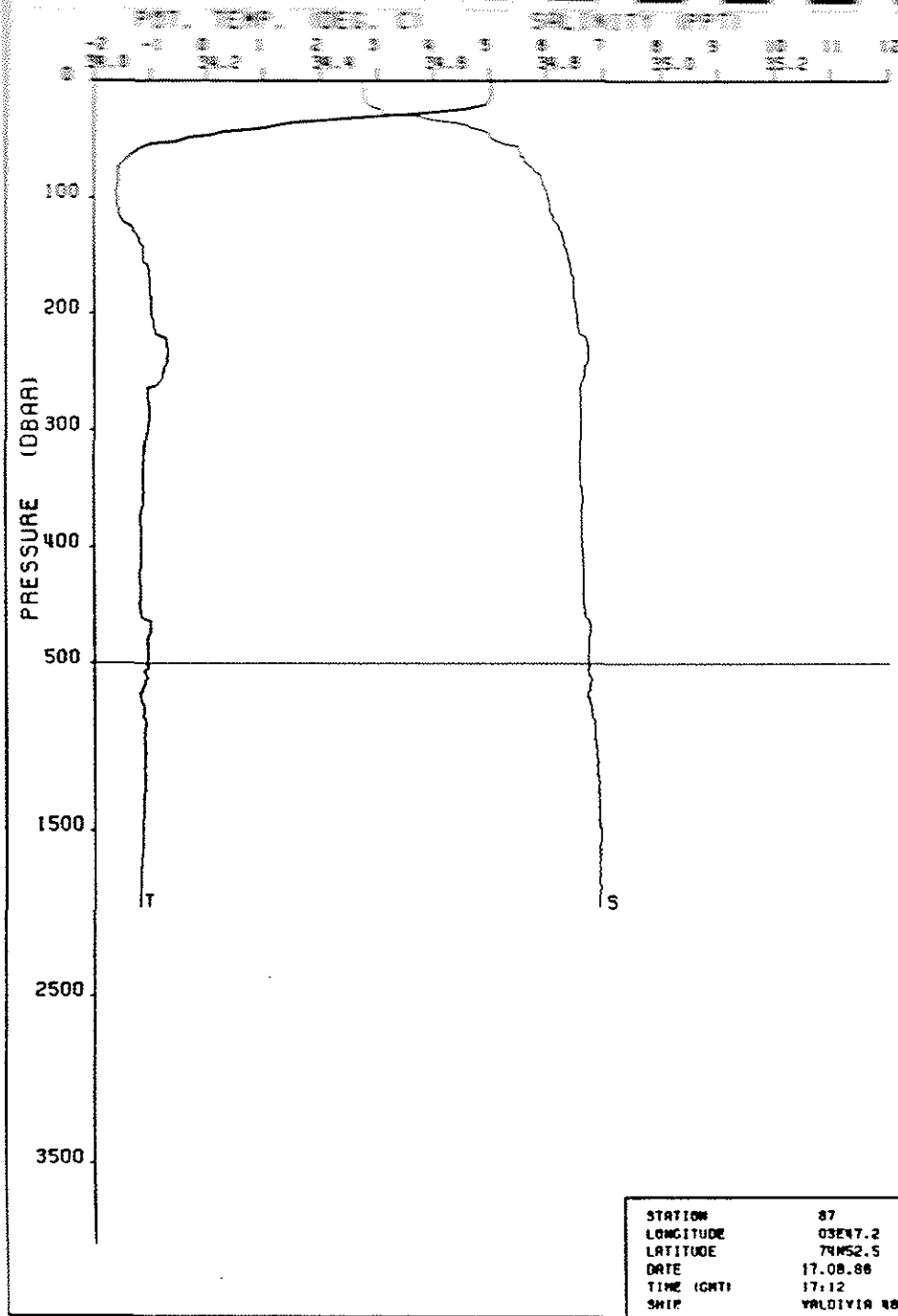
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	Sigma-t
0.	0.	5.458	34.533	5.458	27.251	0.000	0.00
5.	5.	5.458	34.533	5.458	27.251	0.004	0.00
10.	10.	5.458	34.533	5.457	27.251	0.008	0.17
15.	15.	5.458	34.533	5.457	27.251	0.012	2.08
20.	20.	5.279	34.514	5.278	27.257	0.016	4.26
25.	25.	4.354	34.514	4.352	27.351	0.020	6.98
30.	30.	2.815	34.570	2.813	27.559	0.023	10.26
40.	40.	0.673	34.658	0.672	27.791	0.027	7.14
50.	50.	-0.250	34.680	-0.252	27.861	0.030	4.85
60.	59.	-1.350	34.703	-1.352	27.926	0.032	4.29
70.	69.	-1.420	34.737	-1.422	27.956	0.033	2.73
75.	74.	-1.372	34.748	-1.373	27.962	0.034	2.57
80.	79.	-1.202	34.775	-1.204	27.978	0.035	2.91
90.	89.	-0.595	34.823	-0.598	27.993	0.036	1.87
100.	99.	-0.096	34.870	-0.100	28.006	0.037	1.76
120.	119.	-0.245	34.877	-0.249	28.020	0.038	1.08
125.	124.	-0.112	34.882	-0.117	28.017	0.039	0.70
140.	139.	-0.105	34.882	-0.110	28.017	0.040	0.65
150.	149.	-0.162	34.879	-0.168	28.018	0.041	0.98
160.	159.	-0.101	34.891	-0.107	28.024	0.042	0.95
180.	178.	-0.191	34.888	-0.198	28.026	0.043	0.89
200.	198.	-0.190	34.892	-0.198	28.030	0.045	0.66
220.	218.	-0.169	34.895	-0.177	28.031	0.046	0.43
240.	238.	-0.313	34.890	-0.322	28.034	0.047	0.49
250.	248.	-0.359	34.887	-0.367	28.034	0.048	0.64
260.	258.	-0.392	34.889	-0.401	28.037	0.049	0.87
280.	277.	-0.382	34.890	-0.392	28.038	0.050	0.33
300.	297.	-0.398	34.894	-0.409	28.042	0.051	0.54
320.	317.	-0.439	34.893	-0.451	28.043	0.052	0.84
340.	337.	-0.491	34.895	-0.503	28.047	0.053	0.64
360.	357.	-0.494	34.898	-0.507	28.049	0.054	0.45
380.	376.	-0.513	34.898	-0.527	28.050	0.055	0.63
400.	396.	-0.537	34.899	-0.551	28.052	0.056	0.44
420.	416.	-0.558	34.900	-0.573	28.054	0.057	0.59
440.	436.	-0.574	34.901	-0.589	28.056	0.058	0.54
460.	456.	-0.604	34.901	-0.621	28.057	0.059	0.70
480.	475.	-0.622	34.899	-0.639	28.056	0.060	0.42
500.	495.	-0.647	34.900	-0.664	28.058	0.060	0.31
550.	545.	-0.684	34.904	-0.703	28.063	0.062	0.42
600.	594.	-0.766	34.898	-0.787	28.062	0.064	0.24
650.	643.	-0.854	34.895	-0.876	28.063	0.065	0.43
700.	693.	-0.860	34.898	-0.885	28.066	0.066	0.50
750.	742.	-0.816	34.903	-0.844	28.068	0.067	0.26
800.	792.	-0.844	34.901	-0.873	28.068	0.068	0.35
850.	841.	-0.876	34.899	-0.907	28.068	0.069	0.36
900.	890.	-1.028	34.889	-1.060	28.066	0.070	0.12
1000.	989.	-1.034	34.892	-1.070	28.069	0.071	0.38
1100.	1088.	-0.961	34.899	-1.003	28.072	0.071	0.37
1200.	1186.	-1.009	34.896	-1.056	28.072	0.071	0.32
1300.	1285.	-1.031	34.899	-1.083	28.074	0.071	0.22
1400.	1383.	-1.035	34.895	-1.092	28.072	0.071	0.24
1500.	1482.	-1.036	34.896	-1.098	28.073	0.070	0.31
1750.	1728.	-1.055	34.898	-1.130	28.076	0.066	0.00
2000.	1973.	-1.058	34.901	-1.148	28.079	0.060	0.21
2250.	2219.	-1.068	34.900	-1.174	28.079	0.052	0.16
2500.	2464.	-1.071	34.898	-1.195	28.078	0.042	0.10
2750.	2709.	-1.074	34.895	-1.216	28.076	0.031	0.36
3000.	2953.	-1.065	34.895	-1.226	28.077	0.019	0.00



VALDIVIA 488 STATION A87

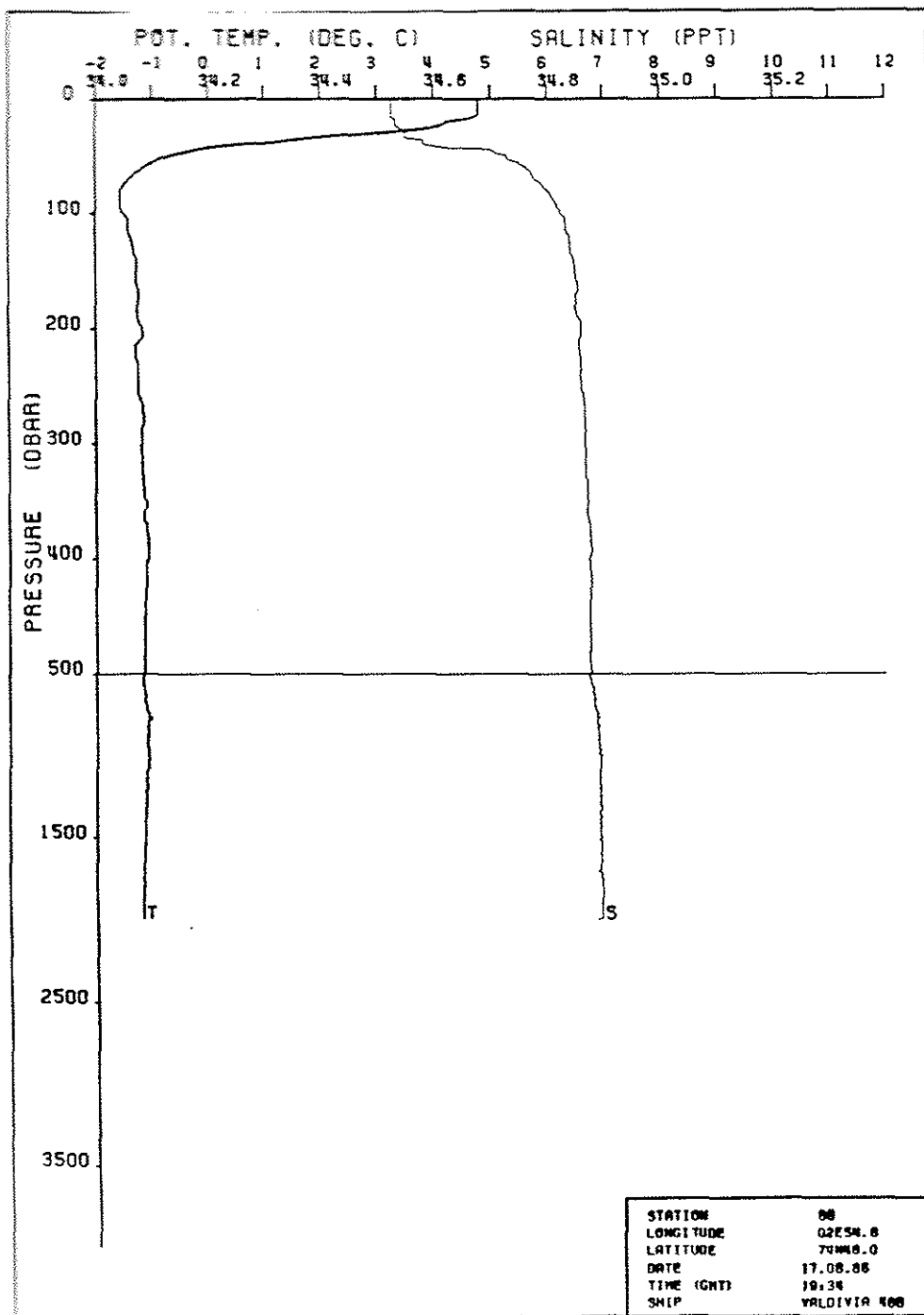
LAT 74N52.6 LONG 03E47.4 DATE 17.08.86 TIME (UTC) 13:34

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-S (DYN-M)	Σσ _θ (CPH)
0.	0.	4.986	34.484	4.986	27.268	0.000	0.00
5.	5.	4.986	34.484	4.986	27.268	0.004	0.00
10.	10.	4.986	34.484	4.985	27.268	0.008	0.17
15.	15.	4.980	34.485	4.979	27.268	0.012	1.89
20.	20.	4.548	34.493	4.547	27.325	0.016	5.22
25.	25.	3.957	34.511	3.955	27.392	0.019	6.87
30.	30.	2.764	34.521	2.763	27.524	0.022	9.34
40.	40.	0.242	34.627	0.240	27.792	0.026	7.65
50.	50.	-1.124	34.724	-1.125	27.934	0.029	6.44
60.	59.	-1.288	34.748	-1.290	27.960	0.030	2.55
70.	69.	-1.544	34.774	-1.546	27.990	0.031	3.05
75.	74.	-1.628	34.793	-1.630	28.006	0.032	2.87
80.	79.	-1.630	34.796	-1.631	28.010	0.032	2.14
90.	89.	-1.645	34.802	-1.647	28.016	0.033	1.42
100.	99.	-1.665	34.817	-1.667	28.028	0.034	1.70
120.	119.	-1.342	34.831	-1.345	28.029	0.035	0.60
125.	124.	-1.219	34.832	-1.222	28.026	0.035	0.65
140.	139.	-1.050	34.843	-1.054	28.028	0.037	0.65
150.	149.	-1.043	34.845	-1.047	28.029	0.037	0.86
160.	159.	-0.881	34.854	-0.886	28.030	0.038	0.82
180.	178.	-0.661	34.868	-0.667	28.033	0.039	0.71
200.	198.	-0.785	34.866	-0.791	28.036	0.040	0.70
220.	218.	-1.015	34.861	-1.021	28.041	0.042	0.93
240.	238.	-1.018	34.862	-1.025	28.042	0.043	0.43
250.	248.	-1.020	34.862	-1.028	28.043	0.043	0.69
260.	258.	-1.036	34.864	-1.043	28.045	0.044	0.76
280.	277.	-1.059	34.865	-1.067	28.047	0.045	0.34
300.	297.	-1.120	34.862	-1.129	28.047	0.046	0.41
320.	317.	-1.101	34.866	-1.110	28.049	0.047	0.50
340.	337.	-1.137	34.866	-1.147	28.050	0.047	0.54
360.	357.	-1.153	34.865	-1.164	28.050	0.048	0.50
380.	376.	-1.141	34.866	-1.152	28.051	0.049	0.82
400.	396.	-0.901	34.886	-0.914	28.057	0.050	0.30
420.	416.	-0.779	34.893	-0.793	28.058	0.051	0.59
440.	436.	-0.830	34.889	-0.845	28.057	0.051	0.33
460.	456.	-0.866	34.888	-0.882	28.057	0.052	0.27
480.	475.	-0.807	34.896	-0.824	28.062	0.053	0.46
500.	495.	-0.878	34.890	-0.895	28.060	0.053	0.18
550.	545.	-0.953	34.887	-0.971	28.061	0.055	0.00
600.	594.	-1.101	34.880	-1.121	28.061	0.056	0.00
650.	643.	-1.166	34.874	-1.187	28.058	0.058	0.33
700.	693.	-1.140	34.876	-1.163	28.059	0.059	0.15
750.	742.	-1.114	34.879	-1.139	28.061	0.060	0.30
800.	792.	-1.105	34.880	-1.133	28.061	0.061	0.27
850.	841.	-1.066	34.886	-1.096	28.065	0.062	0.20
900.	890.	-1.067	34.886	-1.099	28.065	0.062	0.36
1000.	989.	-1.061	34.889	-1.098	28.067	0.063	0.34
1100.	1088.	-1.063	34.891	-1.105	28.069	0.064	0.20
1200.	1186.	-1.050	34.891	-1.097	28.069	0.064	0.24
1300.	1285.	-1.068	34.892	-1.119	28.071	0.064	0.38
1400.	1383.	-1.071	34.894	-1.127	28.073	0.064	0.00
1500.	1482.	-1.065	34.894	-1.126	28.073	0.063	0.00
1750.	1728.	-1.097	34.893	-1.172	28.073	0.059	0.23
2000.	1973.	-1.094	34.895	-1.184	28.075	0.053	0.34
2250.	2219.	-1.083	34.895	-1.190	28.075	0.046	0.00
2500.	2464.	-1.071	34.896	-1.195	28.077	0.036	0.18



VALDIVIA 888 STATION 87
 LAT 7452.5 LONG 03247.2 DATE 17.08.88 TIME (GMT) 17:12

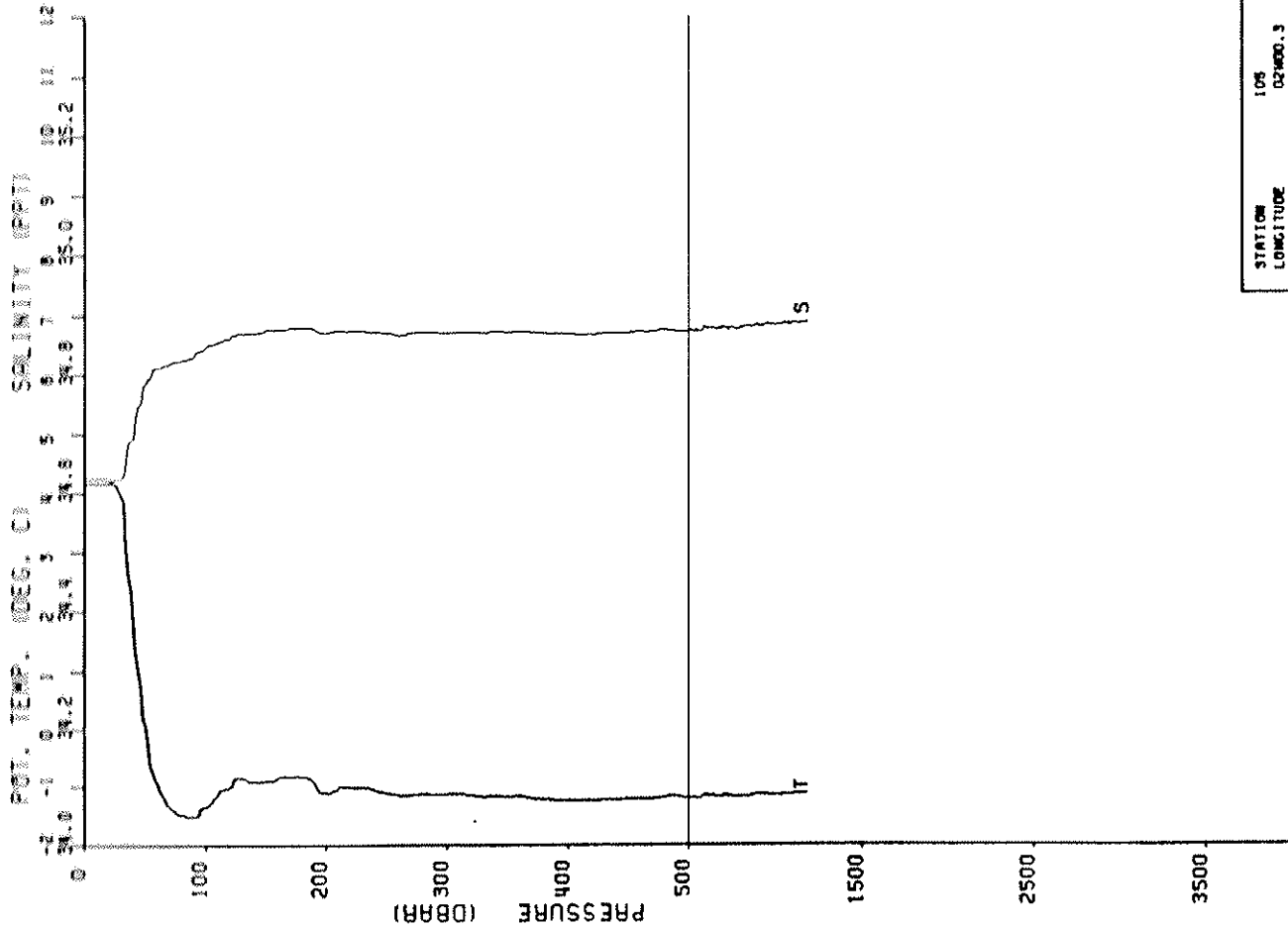
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	NaN (CFM)
0.	0.	5.040	34.477	5.040	27.256	0.000	0.00
5.	5.	5.040	34.477	5.039	27.256	0.004	0.00
10.	10.	5.040	34.477	5.039	27.256	0.008	0.17
15.	15.	5.030	34.479	5.029	27.256	0.012	1.45
20.	20.	4.957	34.485	4.955	27.272	0.016	3.75
25.	25.	4.393	34.508	4.391	27.333	0.020	6.65
30.	30.	3.011	34.573	3.009	27.544	0.023	9.74
40.	40.	1.066	34.668	1.064	27.774	0.027	8.19
50.	50.	-0.424	34.707	-0.425	27.891	0.030	5.36
60.	59.	-1.256	34.754	-1.258	27.964	0.031	4.46
70.	69.	-1.491	34.765	-1.499	27.991	0.032	2.45
75.	74.	-1.566	34.777	-1.567	27.992	0.033	2.42
80.	79.	-1.574	34.790	-1.576	28.004	0.033	2.44
90.	89.	-1.583	34.796	-1.585	28.009	0.034	1.45
100.	99.	-1.589	34.803	-1.592	28.015	0.035	1.28
120.	119.	-1.480	34.814	-1.482	28.020	0.037	0.74
125.	124.	-1.331	34.823	-1.334	28.023	0.037	0.85
140.	139.	-1.167	34.832	-1.171	28.024	0.038	0.96
150.	149.	-1.116	34.838	-1.120	28.027	0.039	0.65
160.	159.	-1.037	34.843	-1.041	28.028	0.040	0.79
180.	178.	-1.004	34.849	-1.009	28.031	0.041	0.33
200.	198.	-0.973	34.854	-0.979	28.034	0.042	0.66
220.	218.	-0.793	34.868	-0.800	28.038	0.044	0.80
240.	238.	-0.682	34.873	-0.690	28.038	0.045	0.65
250.	248.	-0.755	34.867	-0.763	28.036	0.045	0.62
260.	258.	-0.850	34.860	-0.859	28.034	0.046	0.88
280.	277.	-1.016	34.860	-1.025	28.041	0.047	0.62
300.	297.	-1.037	34.861	-1.046	28.042	0.048	0.58
320.	317.	-1.090	34.861	-1.100	28.044	0.049	0.45
340.	337.	-1.113	34.860	-1.123	28.045	0.050	0.50
360.	357.	-1.109	34.864	-1.120	28.048	0.051	0.41
380.	376.	-1.156	34.862	-1.167	28.048	0.052	0.46
400.	396.	-1.146	34.853	-1.158	28.049	0.053	0.47
420.	416.	-1.156	34.865	-1.169	28.051	0.054	0.59
440.	436.	-1.158	34.865	-1.172	28.050	0.054	0.46
460.	456.	-1.143	34.868	-1.157	28.053	0.055	0.53
480.	475.	-1.027	34.875	-1.042	28.053	0.056	0.28
500.	495.	-1.039	34.873	-1.056	28.053	0.057	0.56
550.	545.	-1.091	34.873	-1.109	28.055	0.058	0.34
600.	594.	-1.091	34.878	-1.091	28.058	0.060	0.29
650.	643.	-1.112	34.875	-1.133	28.058	0.061	0.08
700.	693.	-1.147	34.872	-1.171	28.057	0.062	0.31
750.	742.	-1.103	34.877	-1.128	28.059	0.064	0.33
800.	792.	-1.081	34.879	-1.108	28.060	0.065	0.26
850.	841.	-1.060	34.884	-1.090	28.063	0.065	0.40
900.	890.	-1.064	34.884	-1.096	28.063	0.066	0.27
1000.	989.	-1.059	34.886	-1.096	28.065	0.067	0.24
1100.	1088.	-1.054	34.889	-1.096	28.067	0.068	0.18
1200.	1188.	-1.053	34.890	-1.099	28.068	0.069	0.28
1300.	1285.	-1.064	34.891	-1.115	28.070	0.069	0.15
1400.	1383.	-1.062	34.892	-1.118	28.071	0.068	0.12
1500.	1482.	-1.067	34.894	-1.129	28.073	0.067	0.25
1750.	1728.	-1.096	34.892	-1.171	28.073	0.064	0.23



VALDIVIA 488 STATION 88

LAT 74448.0 LONG 02254.8 DATE 17.08.86 TIME (UTC) 19:34

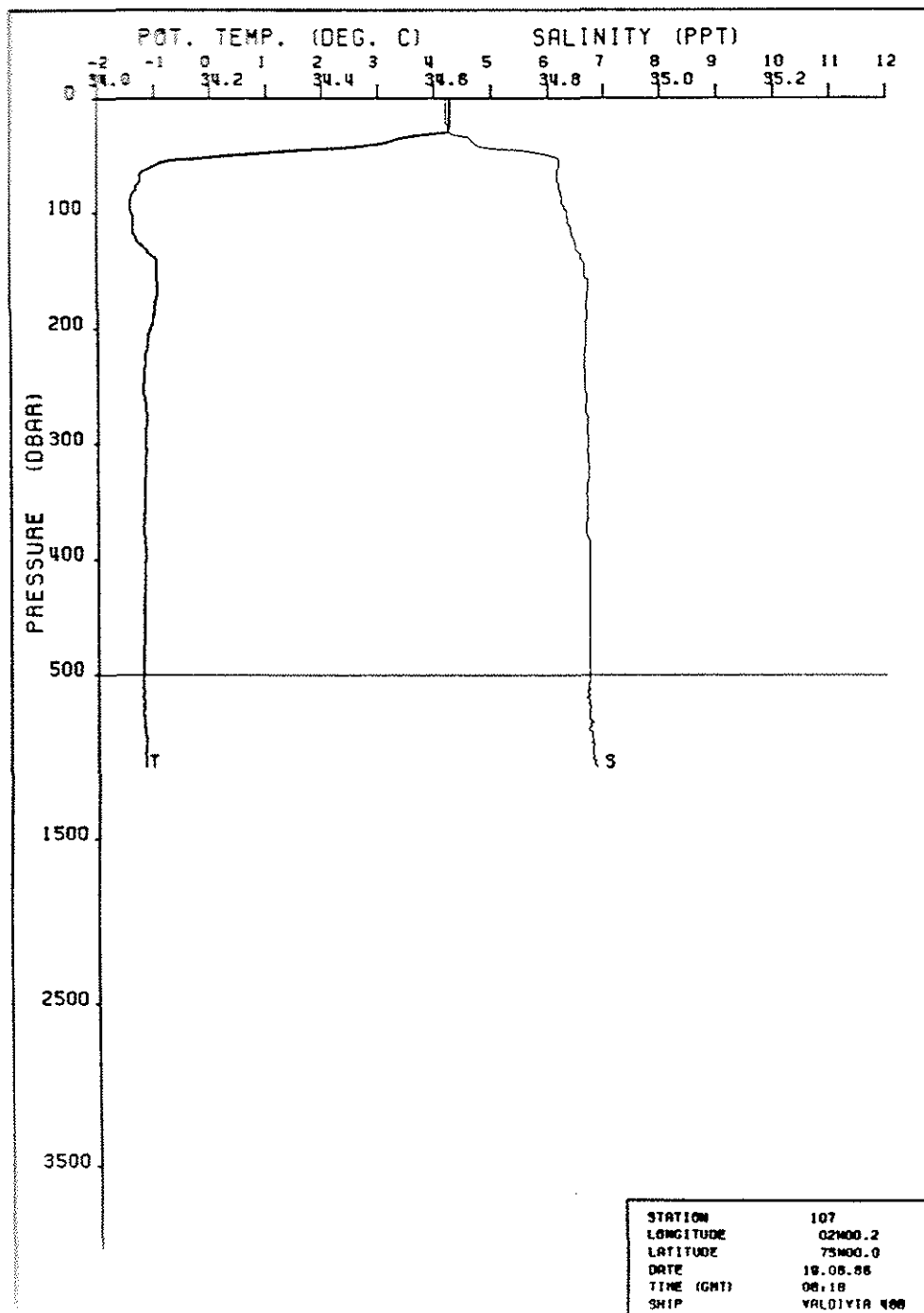
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	NuN (CPH)
0.	0.	4.782	34.526	4.782	27.325	0.000	0.00
5.	5.	4.782	34.526	4.782	27.325	0.004	0.00
10.	10.	4.782	34.526	4.782	27.325	0.007	0.16
15.	15.	4.750	34.527	4.749	27.325	0.011	2.38
20.	20.	4.223	34.534	4.222	27.392	0.015	4.70
25.	25.	4.032	34.540	4.030	27.404	0.018	5.89
30.	30.	3.038	34.552	3.036	27.524	0.021	7.56
40.	40.	0.614	34.583	0.613	27.735	0.025	8.19
50.	50.	-0.685	34.729	-0.686	27.920	0.028	6.70
60.	59.	-1.145	34.764	-1.146	27.968	0.029	3.62
70.	69.	-1.392	34.778	-1.394	27.988	0.031	2.73
75.	74.	-1.474	34.792	-1.476	28.000	0.031	2.69
80.	79.	-1.550	34.802	-1.552	28.012	0.032	2.60
90.	89.	-1.563	34.815	-1.565	28.024	0.032	1.79
100.	99.	-1.494	34.826	-1.497	28.030	0.033	1.32
120.	119.	-1.372	34.842	-1.375	28.039	0.034	0.66
125.	124.	-1.331	34.843	-1.334	28.038	0.035	0.72
140.	139.	-1.259	34.850	-1.262	28.042	0.035	0.86
150.	149.	-1.261	34.852	-1.265	28.043	0.036	0.71
160.	159.	-1.262	34.856	-1.267	28.047	0.037	0.65
180.	178.	-1.246	34.853	-1.251	28.044	0.038	0.57
200.	198.	-1.163	34.863	-1.169	28.049	0.039	0.57
220.	218.	-1.282	34.859	-1.288	28.050	0.039	0.77
240.	238.	-1.236	34.861	-1.243	28.050	0.040	0.53
250.	248.	-1.239	34.862	-1.246	28.051	0.041	0.73
260.	258.	-1.208	34.867	-1.216	28.054	0.041	0.69
280.	277.	-1.131	34.870	-1.139	28.053	0.042	0.42
300.	297.	-1.166	34.870	-1.175	28.055	0.043	0.19
320.	317.	-1.160	34.869	-1.170	28.054	0.044	0.40
340.	337.	-1.135	34.874	-1.145	28.057	0.044	0.61
360.	357.	-1.119	34.873	-1.130	28.056	0.045	0.41
380.	376.	-1.066	34.878	-1.078	28.058	0.046	0.17
400.	396.	-1.061	34.876	-1.074	28.056	0.046	0.25
420.	416.	-1.090	34.878	-1.103	28.059	0.047	0.23
440.	436.	-1.103	34.877	-1.117	28.058	0.048	0.12
460.	456.	-1.123	34.878	-1.137	28.059	0.048	0.27
480.	475.	-1.123	34.877	-1.138	28.059	0.049	0.20
500.	495.	-1.133	34.878	-1.149	28.060	0.050	0.21
550.	545.	-1.143	34.878	-1.160	28.061	0.051	0.38
600.	594.	-1.125	34.882	-1.145	28.063	0.052	0.33
650.	643.	-1.110	34.884	-1.132	28.065	0.053	0.00
700.	693.	-1.086	34.885	-1.110	28.065	0.054	0.36
750.	742.	-1.041	34.889	-1.067	28.066	0.055	0.00
800.	792.	-1.054	34.889	-1.082	28.066	0.056	0.44
850.	841.	-1.050	34.889	-1.080	28.067	0.056	0.00
900.	890.	-1.082	34.890	-1.094	28.068	0.057	0.22
1000.	989.	-1.053	34.894	-1.089	28.071	0.058	0.27
1100.	1088.	-1.050	34.892	-1.091	28.070	0.058	0.26
1200.	1186.	-1.054	34.894	-1.100	28.071	0.058	0.19
1300.	1285.	-1.063	34.894	-1.114	28.072	0.058	0.27
1400.	1383.	-1.073	34.894	-1.129	28.073	0.057	0.00
1500.	1482.	-1.075	34.894	-1.136	28.073	0.056	0.18
1750.	1728.	-1.079	34.895	-1.154	28.075	0.053	0.27



STATION 105
 LONGITUDE 02400.3
 LATITUDE 75425.5
 DATE 19.08.88
 TIME (GMT) 01:02
 SHIP VALDIVIA 408

VALDIVIA 408 STATION 105
 LAT 75425.5 LONG 02400.3 DATE 19.08.88 TIME 01:02

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THEIR (DEG C)	SIGTET	DEL-D (DYN-M)	NUM (CPR)
0.	0.	4.161	34.625	4.161	27.471	0.000	0.00
5.	5.	4.161	34.625	4.161	27.471	0.003	0.00
10.	10.	4.161	34.625	4.161	27.471	0.006	0.15
15.	15.	4.161	34.625	4.160	27.471	0.009	0.15
20.	20.	4.161	34.623	4.160	27.469	0.012	1.46
25.	25.	4.146	34.623	4.144	27.470	0.015	1.42
30.	30.	3.935	34.626	3.933	27.496	0.018	3.41
40.	40.	1.843	34.693	1.841	27.738	0.023	9.74
50.	50.	0.081	34.785	0.080	27.929	0.025	6.73
60.	60.	-0.938	34.812	-0.940	27.999	0.026	4.13
70.	70.	-1.326	34.820	-1.328	28.019	0.027	2.40
75.	75.	-1.420	34.823	-1.422	28.024	0.028	1.96
80.	80.	-1.465	34.824	-1.467	28.028	0.028	1.96
90.	89.	-1.509	34.829	-1.511	28.034	0.029	1.96
100.	99.	-1.537	34.806	-1.539	28.042	0.029	0.97
119.	119.	-0.998	34.861	-1.002	28.041	0.030	0.23
125.	124.	-0.844	34.868	-0.848	28.039	0.031	0.54
139.	139.	-0.904	34.871	-0.908	28.045	0.032	0.95
150.	149.	-0.892	34.875	-0.896	28.048	0.032	0.75
160.	159.	-0.848	34.877	-0.853	28.048	0.033	0.63
180.	178.	-0.809	34.879	-0.815	28.048	0.034	0.62
198.	198.	-1.097	34.871	-1.103	28.053	0.035	0.87
220.	218.	-0.989	34.875	-0.996	28.052	0.035	0.14
240.	238.	-1.031	34.871	-1.038	28.051	0.036	0.53
250.	248.	-1.086	34.871	-1.093	28.053	0.037	0.44
268.	258.	-1.125	34.867	-1.132	28.051	0.037	0.50
280.	277.	-1.119	34.872	-1.127	28.055	0.038	0.36
300.	297.	-1.121	34.871	-1.130	28.054	0.039	0.34
320.	317.	-1.138	34.872	-1.147	28.055	0.040	0.39
340.	337.	-1.150	34.873	-1.160	28.056	0.040	0.49
360.	357.	-1.148	34.873	-1.158	28.056	0.041	0.40
380.	376.	-1.198	34.870	-1.209	28.056	0.042	0.17
400.	396.	-1.225	34.869	-1.237	28.056	0.042	0.25
420.	416.	-1.217	34.869	-1.230	28.056	0.043	0.19
440.	436.	-1.205	34.871	-1.219	28.057	0.044	0.26
460.	456.	-1.196	34.873	-1.210	28.059	0.044	0.61
480.	475.	-1.172	34.876	-1.187	28.060	0.045	0.19
500.	495.	-1.179	34.874	-1.194	28.059	0.046	0.50
550.	545.	-1.180	34.874	-1.197	28.059	0.047	0.32
600.	594.	-1.117	34.878	-1.136	28.060	0.048	0.41
650.	643.	-1.150	34.877	-1.172	28.060	0.049	0.05
700.	693.	-1.130	34.879	-1.153	28.061	0.050	0.25
750.	742.	-1.141	34.879	-1.166	28.062	0.051	0.00
800.	792.	-1.143	34.880	-1.171	28.062	0.052	0.43
850.	841.	-1.137	34.882	-1.167	28.064	0.053	0.06
900.	890.	-1.107	34.883	-1.139	28.064	0.054	0.22
1000.	989.	-1.111	34.884	-1.147	28.065	0.055	0.29
1100.	1088.	-1.087	34.888	-1.128	28.067	0.055	0.26



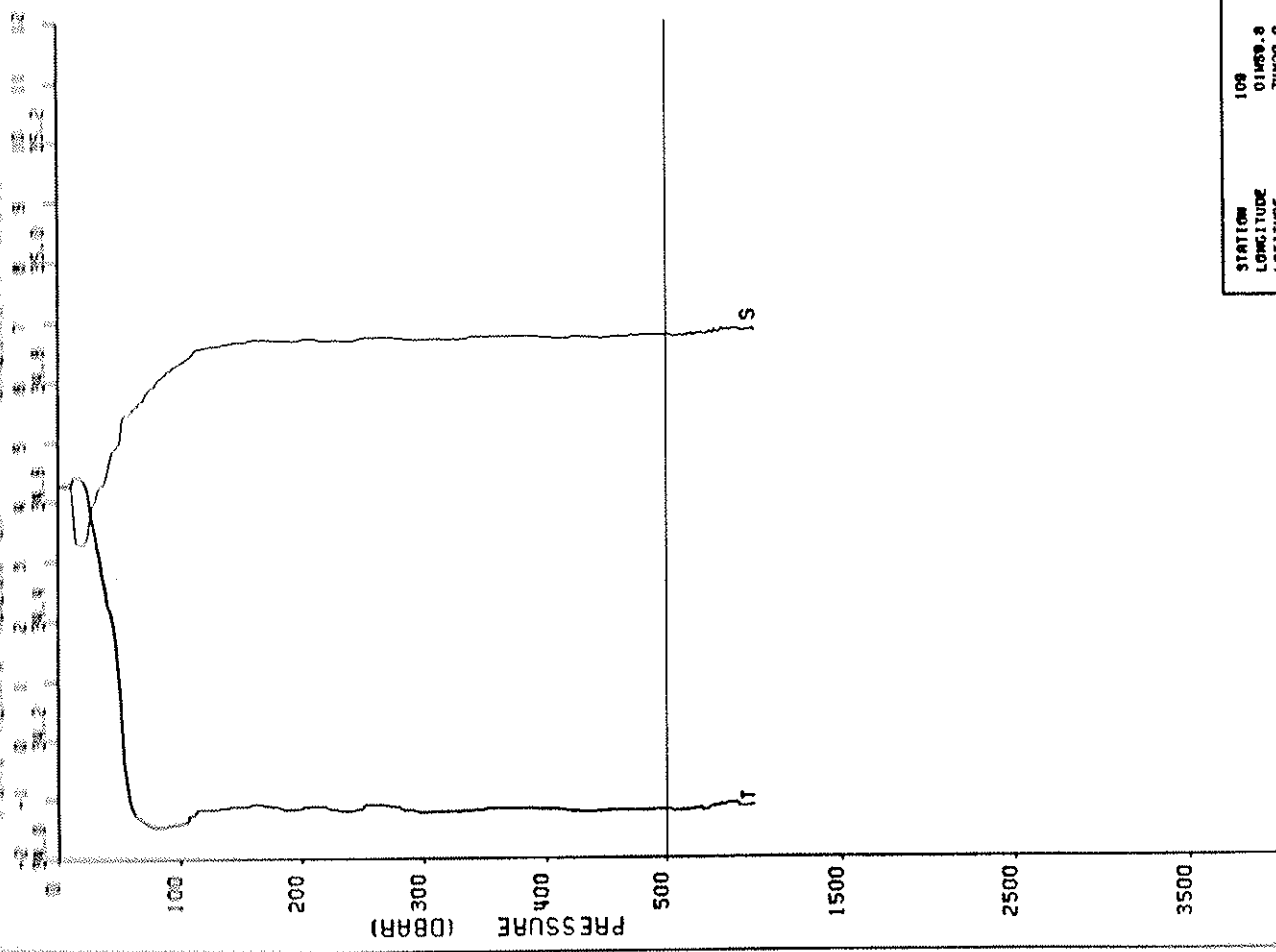
VALDIVIA 488 STATION 107

LAT 75N00.0 LONG 02400.2 DATE 19.08.86 TIME (UTC) 08:18

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	N-N (CFM)
0.	0.	4.277	34.621	4.277	27.456	0.000	0.00
5.	5.	4.277	34.621	4.277	27.456	0.003	0.00
10.	10.	4.277	34.621	4.276	27.456	0.006	0.15
15.	15.	4.277	34.621	4.276	27.456	0.009	0.15
20.	20.	4.275	34.621	4.274	27.456	0.012	0.46
25.	25.	4.272	34.624	4.271	27.459	0.015	1.10
30.	30.	4.257	34.625	4.255	27.461	0.018	4.08
40.	40.	3.068	34.672	3.066	27.617	0.024	6.77
50.	50.	0.393	34.801	0.391	27.924	0.027	9.96
60.	59.	-1.053	34.821	-1.055	28.010	0.028	3.77
70.	69.	-1.231	34.817	-1.233	28.014	0.029	0.48
75.	74.	-1.266	34.820	-1.268	28.016	0.029	1.25
80.	79.	-1.312	34.821	-1.314	28.020	0.030	1.74
90.	89.	-1.409	34.825	-1.411	28.027	0.030	1.12
100.	99.	-1.388	34.834	-1.391	28.033	0.031	1.27
120.	119.	-1.321	34.844	-1.324	28.039	0.032	0.95
125.	124.	-1.273	34.849	-1.276	28.041	0.033	0.73
140.	139.	-0.960	34.860	-0.964	28.038	0.034	0.65
150.	149.	-0.943	34.866	-0.947	28.043	0.034	1.06
160.	159.	-0.929	34.872	-0.934	28.047	0.035	0.85
180.	178.	-0.969	34.870	-0.974	28.047	0.036	0.39
200.	198.	-1.053	34.866	-1.059	28.048	0.037	0.49
220.	218.	-1.137	34.865	-1.143	28.050	0.038	0.50
240.	238.	-1.181	34.866	-1.188	28.052	0.039	0.66
250.	248.	-1.193	34.866	-1.200	28.052	0.039	0.62
260.	258.	-1.169	34.868	-1.177	28.053	0.039	0.24
280.	277.	-1.123	34.871	-1.131	28.054	0.040	0.50
300.	297.	-1.146	34.871	-1.155	28.055	0.041	0.31
320.	317.	-1.153	34.873	-1.163	28.057	0.042	0.52
340.	337.	-1.157	34.870	-1.167	28.054	0.043	0.11
360.	357.	-1.166	34.870	-1.177	28.055	0.043	0.33
380.	376.	-1.179	34.868	-1.190	28.054	0.044	0.60
400.	396.	-1.151	34.873	-1.163	28.057	0.045	0.13
420.	416.	-1.162	34.873	-1.175	28.057	0.045	0.18
440.	436.	-1.167	34.873	-1.181	28.058	0.046	0.18
460.	456.	-1.172	34.873	-1.186	28.058	0.047	0.18
480.	475.	-1.178	34.873	-1.192	28.058	0.047	0.18
500.	495.	-1.183	34.873	-1.198	28.058	0.048	0.18
550.	545.	-1.194	34.871	-1.211	28.057	0.049	0.00
600.	594.	-1.181	34.870	-1.200	28.056	0.051	0.21
650.	643.	-1.177	34.870	-1.198	28.056	0.052	0.00
700.	693.	-1.167	34.874	-1.190	28.059	0.053	0.42
750.	742.	-1.176	34.872	-1.201	28.057	0.054	0.00
800.	792.	-1.157	34.874	-1.184	28.058	0.055	0.00
850.	841.	-1.147	34.877	-1.176	28.061	0.056	0.40
900.	890.	-1.122	34.880	-1.154	28.062	0.057	0.43
1000.	989.	-1.127	34.880	-1.163	28.063	0.058	0.45

WATER TEMPERATURE, SALINITY, DENSITY, AND SOUND SPEED MEASUREMENTS

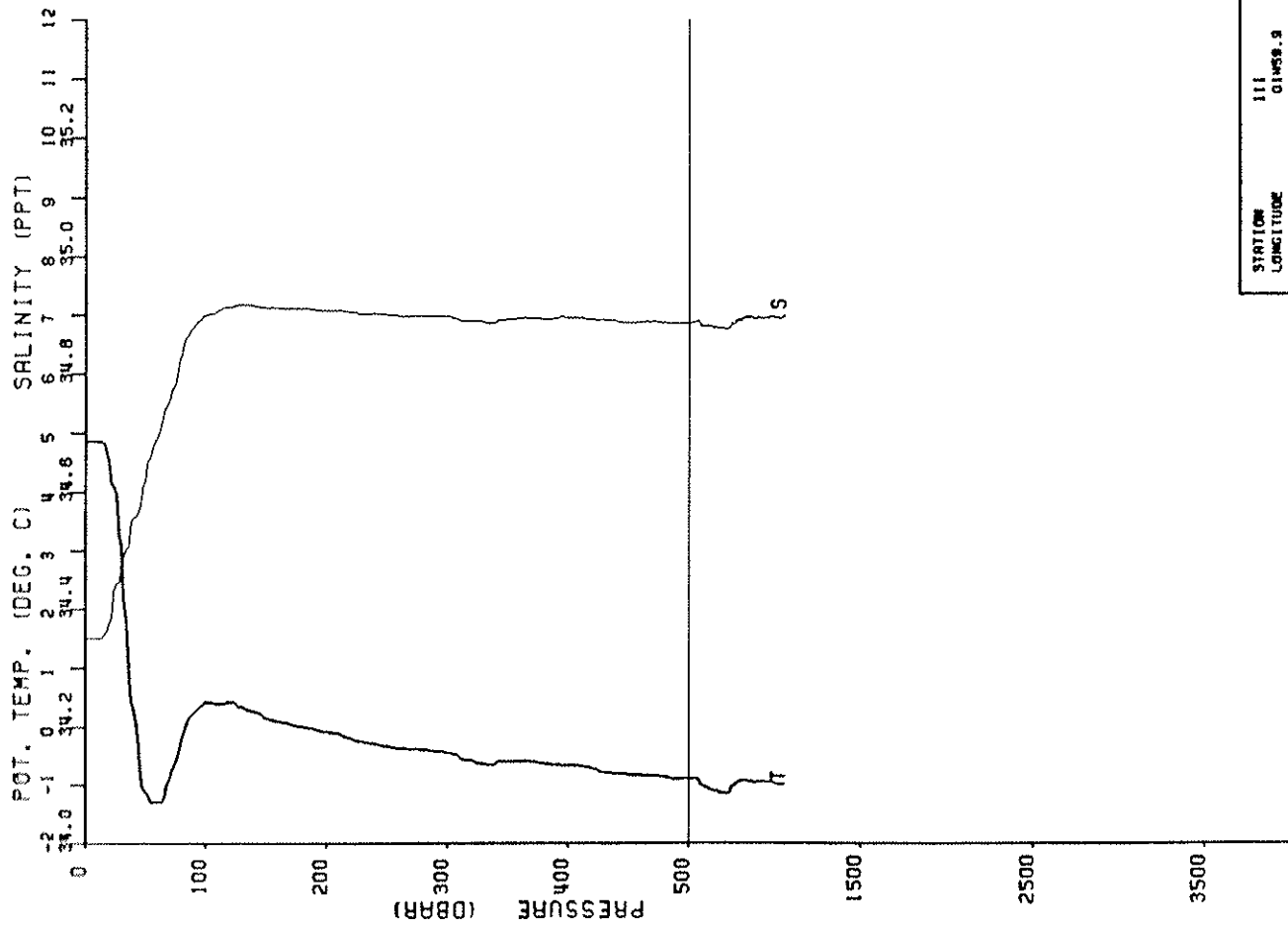
DEPTH (M)	TEMP (C)	SALINITY (PSU)	DENSITY (SIG T)	SOUND SPEED (M/S)	TEMP (C)	SALINITY (PSU)	DENSITY (SIG T)	SOUND SPEED (M/S)	TEMP (C)	SALINITY (PSU)	DENSITY (SIG T)	SOUND SPEED (M/S)
0	4.276	34.523	1.025	27.457	4.276	34.523	1.025	27.457	4.276	34.523	1.025	27.457
5	4.276	34.523	1.025	27.457	4.276	34.523	1.025	27.457	4.276	34.523	1.025	27.457
10	4.276	34.523	1.025	27.457	4.276	34.523	1.025	27.457	4.276	34.523	1.025	27.457
15	4.384	34.530	1.026	27.473	4.384	34.530	1.026	27.473	4.384	34.530	1.026	27.473
20	4.343	34.529	1.026	27.473	4.343	34.529	1.026	27.473	4.343	34.529	1.026	27.473
25	4.032	34.555	1.024	27.404	4.032	34.555	1.024	27.404	4.032	34.555	1.024	27.404
30	3.471	34.598	1.021	27.520	3.471	34.598	1.021	27.520	3.471	34.598	1.021	27.520
40	2.257	34.650	1.017	27.671	2.257	34.650	1.017	27.671	2.257	34.650	1.017	27.671
50	0.859	34.698	1.013	27.812	0.859	34.698	1.013	27.812	0.859	34.698	1.013	27.812
60	-1.134	34.752	1.009	27.958	-1.134	34.752	1.009	27.958	-1.134	34.752	1.009	27.958
70	-1.353	34.770	1.008	27.980	-1.353	34.770	1.008	27.980	-1.353	34.770	1.008	27.980
75	-1.423	34.790	1.007	27.997	-1.423	34.790	1.007	27.997	-1.423	34.790	1.007	27.997
80	-1.462	34.798	1.007	28.007	-1.462	34.798	1.007	28.007	-1.462	34.798	1.007	28.007
89	-1.437	34.819	1.007	28.023	-1.437	34.819	1.007	28.023	-1.437	34.819	1.007	28.023
100	-1.409	34.831	1.007	28.032	-1.409	34.831	1.007	28.032	-1.409	34.831	1.007	28.032
120	-1.174	34.858	1.006	28.045	-1.174	34.858	1.006	28.045	-1.174	34.858	1.006	28.045
125	-1.170	34.859	1.006	28.046	-1.170	34.859	1.006	28.046	-1.170	34.859	1.006	28.046
140	-1.132	34.864	1.006	28.049	-1.132	34.864	1.006	28.049	-1.132	34.864	1.006	28.049
150	-1.114	34.868	1.006	28.051	-1.114	34.868	1.006	28.051	-1.114	34.868	1.006	28.051
160	-1.075	34.870	1.006	28.051	-1.075	34.870	1.006	28.051	-1.075	34.870	1.006	28.051
178	-1.121	34.869	1.006	28.052	-1.121	34.869	1.006	28.052	-1.121	34.869	1.006	28.052
200	-1.150	34.871	1.006	28.055	-1.150	34.871	1.006	28.055	-1.150	34.871	1.006	28.055
220	-1.120	34.868	1.006	28.051	-1.120	34.868	1.006	28.051	-1.120	34.868	1.006	28.051
240	-1.186	34.868	1.006	28.054	-1.186	34.868	1.006	28.054	-1.186	34.868	1.006	28.054
250	-1.149	34.872	1.006	28.056	-1.149	34.872	1.006	28.056	-1.149	34.872	1.006	28.056
258	-1.091	34.873	1.006	28.055	-1.091	34.873	1.006	28.055	-1.091	34.873	1.006	28.055
280	-1.129	34.872	1.006	28.055	-1.129	34.872	1.006	28.055	-1.129	34.872	1.006	28.055
300	-1.210	34.870	1.006	28.058	-1.210	34.870	1.006	28.058	-1.210	34.870	1.006	28.058
320	-1.196	34.870	1.006	28.058	-1.196	34.870	1.006	28.058	-1.196	34.870	1.006	28.058
340	-1.183	34.875	1.006	28.059	-1.183	34.875	1.006	28.059	-1.183	34.875	1.006	28.059
360	-1.152	34.874	1.006	28.058	-1.152	34.874	1.006	28.058	-1.152	34.874	1.006	28.058
380	-1.147	34.875	1.006	28.058	-1.147	34.875	1.006	28.058	-1.147	34.875	1.006	28.058
400	-1.163	34.873	1.006	28.057	-1.163	34.873	1.006	28.057	-1.163	34.873	1.006	28.057
420	-1.188	34.872	1.006	28.057	-1.188	34.872	1.006	28.057	-1.188	34.872	1.006	28.057
440	-1.203	34.872	1.006	28.058	-1.203	34.872	1.006	28.058	-1.203	34.872	1.006	28.058
460	-1.186	34.875	1.006	28.059	-1.186	34.875	1.006	28.059	-1.186	34.875	1.006	28.059
480	-1.181	34.875	1.006	28.060	-1.181	34.875	1.006	28.060	-1.181	34.875	1.006	28.060
500	-1.163	34.875	1.006	28.060	-1.163	34.875	1.006	28.060	-1.163	34.875	1.006	28.060
550	-1.189	34.875	1.006	28.060	-1.189	34.875	1.006	28.060	-1.189	34.875	1.006	28.060
600	-1.186	34.874	1.006	28.059	-1.186	34.874	1.006	28.059	-1.186	34.874	1.006	28.059
650	-1.171	34.875	1.006	28.059	-1.171	34.875	1.006	28.059	-1.171	34.875	1.006	28.059
700	-1.141	34.879	1.006	28.061	-1.141	34.879	1.006	28.061	-1.141	34.879	1.006	28.061
750	-1.136	34.880	1.006	28.063	-1.136	34.880	1.006	28.063	-1.136	34.880	1.006	28.063
800	-1.100	34.881	1.006	28.062	-1.100	34.881	1.006	28.062	-1.100	34.881	1.006	28.062
850	-1.084	34.884	1.006	28.063	-1.084	34.884	1.006	28.063	-1.084	34.884	1.006	28.063
900	-1.053	34.887	1.006	28.065	-1.053	34.887	1.006	28.065	-1.053	34.887	1.006	28.065
1000	-1.088	34.881	1.006	28.062	-1.088	34.881	1.006	28.062	-1.088	34.881	1.006	28.062



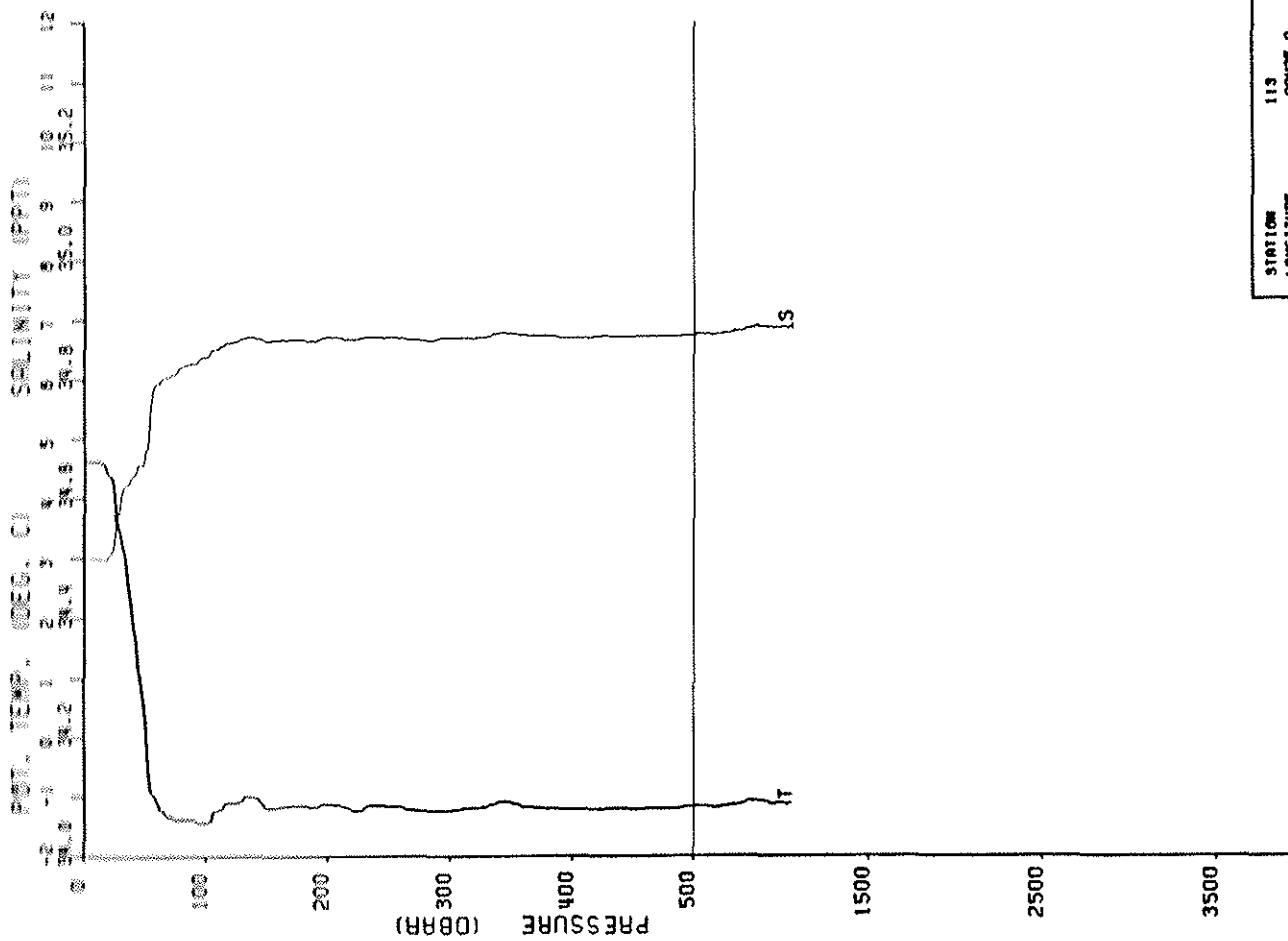
STATION 109
 LONGITUDE 01409.8
 LATITUDE 74429.3
 DATE 19.08.88
 TIME (GMT) 14:55
 SHIP VALDIVIA 888

VALDIVIA 488 STATION 111
 LAT 7400.8 LONG 0159.9 DATE 19.08.86 TIME 12:10

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	MUN (CPH)
0.	0.	4.858	34.350	4.858	27.176	0.000	0.00
5.	5.	4.858	34.350	4.858	27.176	0.004	0.00
10.	10.	4.858	34.350	4.857	27.176	0.009	0.16
15.	15.	4.840	34.353	4.839	27.176	0.013	2.51
20.	20.	4.487	34.377	4.485	27.239	0.018	5.82
25.	25.	4.037	34.439	4.035	27.324	0.021	7.63
30.	30.	3.112	34.466	3.110	27.448	0.025	9.16
40.	40.	0.323	34.555	0.321	27.729	0.029	7.96
50.	50.	-1.101	34.617	-1.103	27.847	0.032	5.43
60.	60.	-1.285	34.692	-1.286	27.915	0.034	3.75
70.	70.	-0.682	34.755	-0.684	27.951	0.036	3.33
75.	74.	-0.608	34.783	-0.610	27.958	0.037	2.81
80.	79.	-0.201	34.830	-0.204	27.980	0.037	3.16
90.	89.	0.241	34.878	0.237	27.994	0.038	1.35
100.	99.	0.431	34.900	0.427	28.001	0.039	1.39
119.	119.	0.424	34.914	0.419	28.013	0.041	1.49
125.	124.	0.337	34.917	0.332	28.015	0.042	1.29
139.	139.	0.276	34.916	0.270	28.023	0.043	0.99
140.	140.	0.154	34.912	0.148	28.027	0.044	0.77
150.	149.	0.101	34.912	0.095	28.030	0.044	0.88
160.	159.	0.101	34.912	0.095	28.030	0.044	0.77
180.	178.	0.009	34.911	0.002	28.034	0.046	0.82
198.	198.	-0.077	34.908	-0.085	28.036	0.047	0.57
200.	218.	-0.191	34.905	-0.199	28.040	0.049	0.65
220.	238.	-0.280	34.901	-0.289	28.042	0.050	0.89
240.	248.	-0.321	34.900	-0.330	28.042	0.050	0.61
250.	250.	-0.358	34.897	-0.367	28.042	0.051	0.50
260.	258.	-0.358	34.897	-0.367	28.042	0.051	0.50
280.	277.	-0.383	34.888	-0.393	28.044	0.052	0.58
300.	297.	-0.429	34.897	-0.440	28.044	0.053	0.41
320.	317.	-0.562	34.889	-0.573	28.045	0.054	0.73
340.	337.	-0.633	34.886	-0.644	28.046	0.055	0.33
360.	357.	-0.577	34.894	-0.590	28.050	0.056	0.55
380.	376.	-0.608	34.893	-0.621	28.050	0.057	0.49
400.	396.	-0.640	34.884	-0.654	28.053	0.058	0.57
420.	416.	-0.685	34.891	-0.699	28.053	0.059	0.51
440.	436.	-0.777	34.889	-0.792	28.055	0.060	0.60
460.	456.	-0.804	34.887	-0.820	28.054	0.060	0.34
480.	475.	-0.839	34.886	-0.856	28.055	0.061	0.11
500.	495.	-0.870	34.884	-0.886	28.055	0.062	0.25
550.	545.	-0.877	34.886	-0.886	28.055	0.064	0.25
600.	594.	-1.014	34.880	-1.034	28.059	0.065	0.16
650.	643.	-1.071	34.879	-1.092	28.065	0.065	0.32
700.	693.	-1.111	34.876	-1.135	28.059	0.067	0.00
750.	742.	-0.897	34.883	-1.023	28.080	0.068	0.00
800.	792.	-0.907	34.889	-0.935	28.080	0.069	0.56
850.	841.	-0.930	34.894	-0.953	28.061	0.070	0.38
900.	890.	-0.914	34.895	-0.947	28.066	0.072	0.00
1000.	989.	-0.929	34.893	-0.967	28.087	0.074	0.00



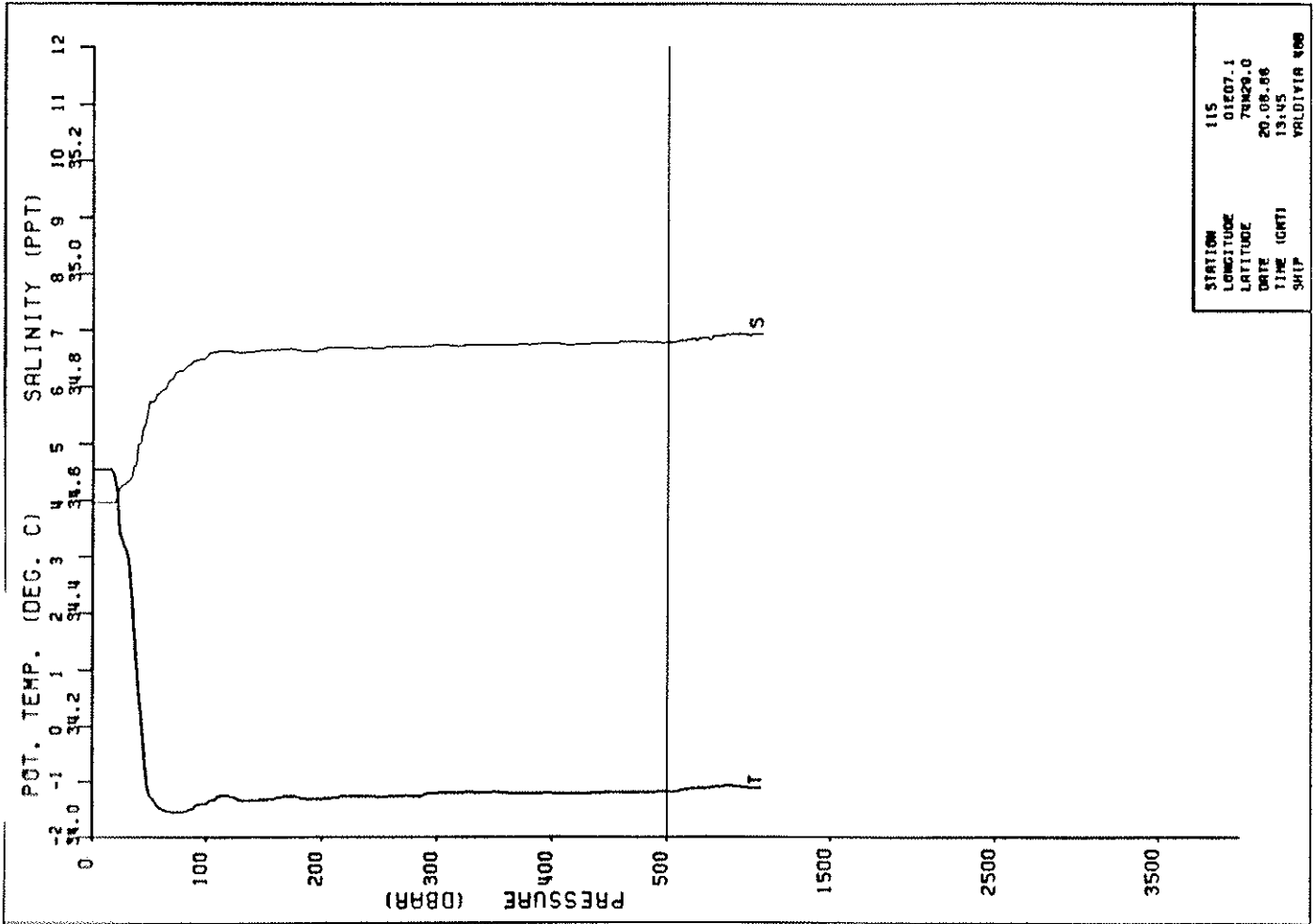
STATION 111
 LONGITUDE 0159.9
 LATITUDE 7400.8
 DATE 19.08.86
 TIME (GMT) 22:10
 SHIP VALDIVIA 488



STATION 113
 LONGITUDE 06055.0
 LATITUDE 74415.0
 DATE 20-08-86
 TIME (GMT) 05:00
 SHIP VALDIVIA 828

VALDIVIA 828 STATION 113
 LAT 74415.0 LONG 06055.0 DATE 20-08-86 TIME 05:00

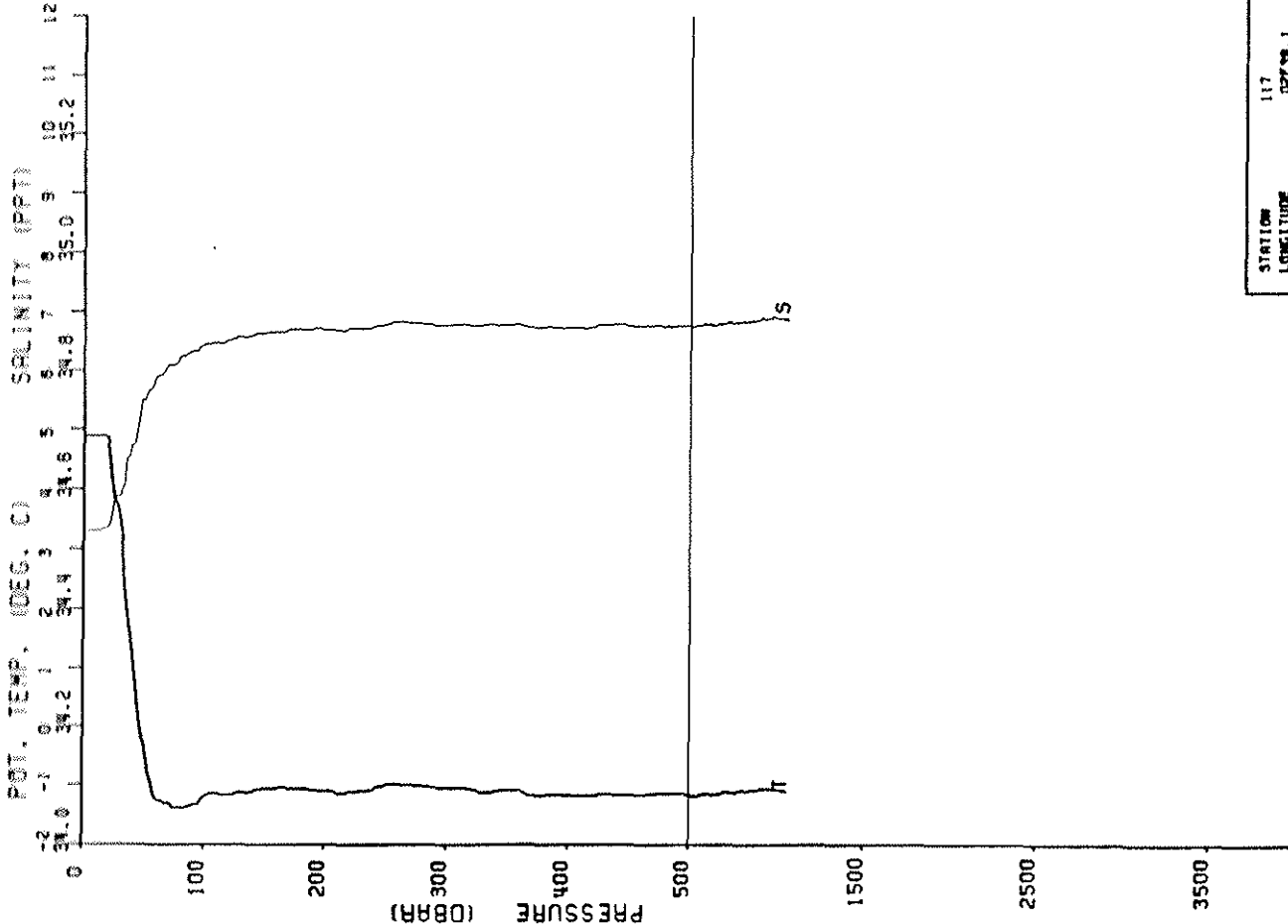
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	TEMP (DEG C)	SIGTEP	DELTA (10^-4)	SPR
0.	0.	4.615	34.499	4.615	27.322	0.500	0.00
5.	5.	4.615	34.499	4.615	27.322	0.504	0.00
10.	10.	4.615	34.499	4.614	27.322	0.607	0.16
15.	15.	4.611	34.499	4.611	27.322	0.611	1.51
20.	20.	4.367	34.506	4.366	27.352	0.615	3.28
25.	25.	3.943	34.531	3.941	27.382	0.616	6.77
30.	30.	3.385	34.608	3.383	27.536	0.621	8.12
40.	40.	1.875	34.630	1.873	27.691	0.626	6.86
50.	50.	0.319	34.680	0.317	27.830	0.629	7.21
60.	60.	-1.111	34.793	-1.112	27.990	0.631	6.09
70.	70.	-1.320	34.805	-1.322	28.008	0.632	2.21
75.	74.	-1.365	34.811	-1.367	28.013	0.632	1.97
80.	79.	-1.369	34.821	-1.371	28.022	0.633	2.02
90.	89.	-1.369	34.827	-1.372	28.027	0.633	1.25
100.	99.	-1.434	34.838	-1.437	28.038	0.634	1.71
120.	119.	-1.090	34.862	-1.102	28.046	0.635	1.13
125.	124.	-1.098	34.865	-1.102	28.047	0.635	0.76
140.	139.	-0.998	34.872	-1.002	28.050	0.636	0.50
150.	149.	-1.171	34.865	-1.175	28.051	0.637	0.70
160.	159.	-1.167	34.867	-1.172	28.052	0.637	0.37
180.	178.	-1.140	34.868	-1.145	28.052	0.638	0.42
200.	198.	-1.113	34.871	-1.119	28.054	0.639	0.74
220.	218.	-1.212	34.868	-1.218	28.055	0.640	0.54
240.	238.	-1.145	34.872	-1.152	28.056	0.641	0.16
250.	248.	-1.152	34.872	-1.159	28.056	0.641	0.61
260.	258.	-1.155	34.871	-1.163	28.055	0.641	0.50
280.	277.	-1.222	34.866	-1.230	28.053	0.642	0.43
300.	297.	-1.221	34.871	-1.230	28.057	0.643	0.43
320.	317.	-1.174	34.871	-1.184	28.056	0.644	0.30
340.	337.	-1.076	34.870	-1.086	28.058	0.644	0.61
360.	357.	-1.160	34.876	-1.171	28.059	0.645	0.41
380.	376.	-1.185	34.873	-1.196	28.058	0.646	0.49
400.	396.	-1.199	34.870	-1.211	28.056	0.646	0.06
420.	416.	-1.198	34.873	-1.211	28.058	0.647	0.58
440.	436.	-1.186	34.872	-1.199	28.057	0.648	0.30
460.	456.	-1.186	34.873	-1.200	28.058	0.648	0.33
480.	475.	-1.181	34.873	-1.196	28.058	0.649	0.26
500.	495.	-1.154	34.874	-1.170	28.058	0.649	0.29
550.	545.	-1.142	34.877	-1.159	28.060	0.651	0.15
600.	594.	-1.152	34.875	-1.172	28.059	0.652	0.32
650.	643.	-1.154	34.876	-1.175	28.060	0.653	0.25
700.	693.	-1.128	34.878	-1.151	28.061	0.654	0.27
750.	742.	-1.110	34.882	-1.136	28.063	0.655	0.56
800.	792.	-1.067	34.886	-1.094	28.064	0.656	0.46
850.	841.	-1.043	34.889	-1.073	28.066	0.657	0.25
900.	890.	-1.046	34.889	-1.078	28.067	0.658	0.00
1000.	989.	-1.065	34.889	-1.103	28.067	0.659	0.19



STATION 115
 LONGITUDE 01E07.1
 LATITUDE 74N29.0
 DATE 20.08.86
 TIME (GMT) 13:45
 SHIP VALDIVIA 488

VALDIVIA 488 STATION 115
 LAT 74N29.0 LONG 01E07.1 DATE 20.08.86 TIME (UTC) 13:45

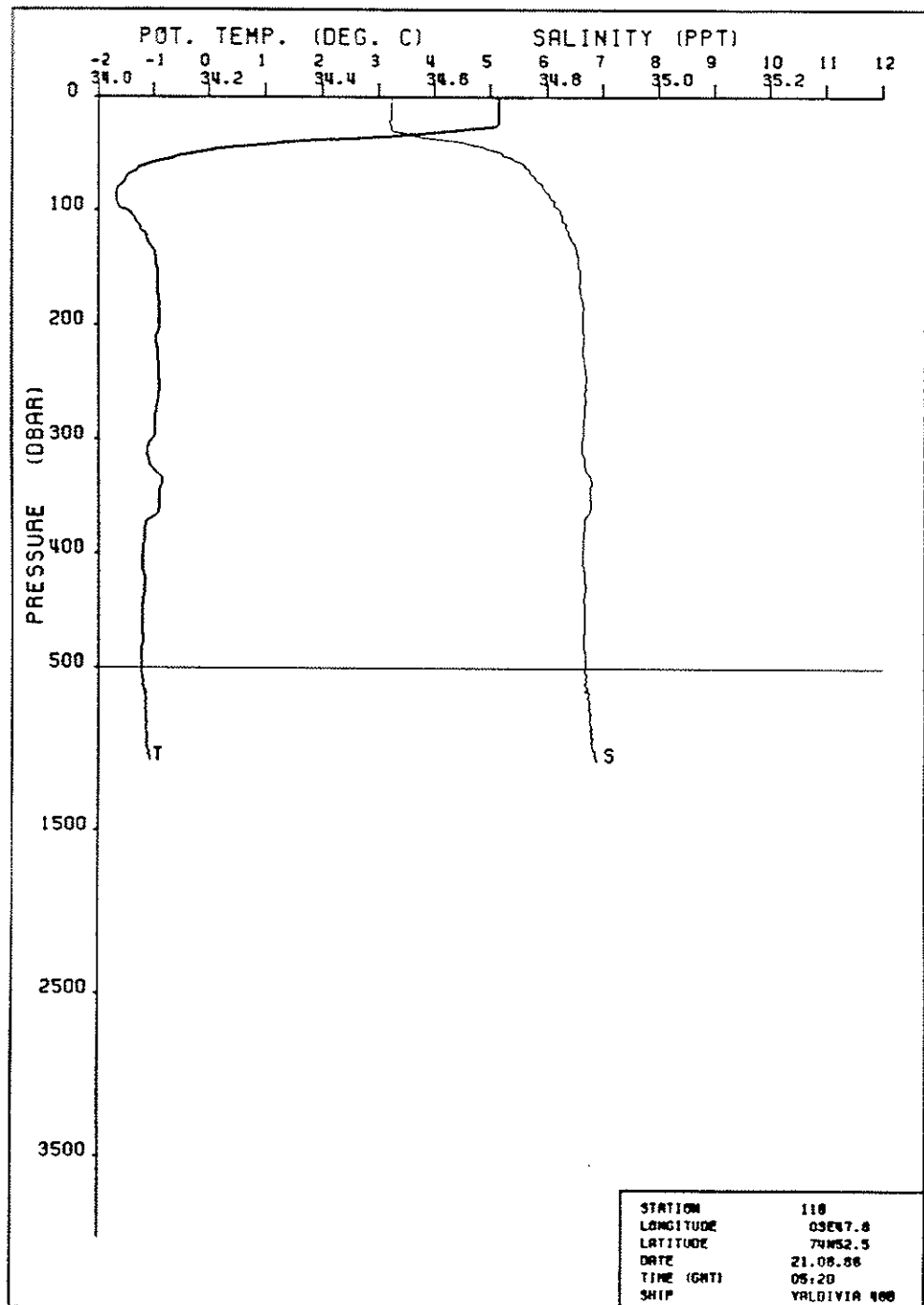
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTEI	DEL-D (DM-M)	N-M (CPH)
0.	0.	4.547	34.596	4.547	27.406	0.000	0.00
5.	5.	4.547	34.596	4.546	27.406	0.003	0.00
10.	10.	4.547	34.596	4.546	27.406	0.007	0.16
15.	15.	4.547	34.596	4.546	27.406	0.010	0.66
20.	20.	4.339	34.596	4.337	27.429	0.013	4.10
25.	25.	3.376	34.624	3.374	27.540	0.016	7.04
30.	30.	3.106	34.632	3.104	27.581	0.019	6.63
40.	40.	0.765	34.699	0.764	27.819	0.023	8.98
50.	50.	-1.235	34.774	-1.237	27.979	0.025	6.35
60.	59.	-1.474	34.794	-1.476	28.004	0.026	2.82
70.	69.	-1.544	34.814	-1.546	28.022	0.027	2.57
75.	74.	-1.544	34.828	-1.546	28.033	0.027	2.20
80.	80.	-1.540	34.830	-1.542	28.035	0.027	1.82
85.	89.	-1.438	34.847	-1.441	28.045	0.028	1.25
90.	89.	-1.392	34.853	-1.394	28.049	0.028	1.59
100.	119.	-1.241	34.863	-1.244	28.051	0.029	0.80
120.	124.	-1.277	34.861	-1.281	28.050	0.030	0.56
125.	139.	-1.328	34.862	-1.331	28.054	0.030	0.77
140.	149.	-1.321	34.865	-1.325	28.056	0.031	0.53
150.	159.	-1.296	34.866	-1.300	28.056	0.031	0.23
160.	178.	-1.263	34.865	-1.268	28.054	0.032	0.42
180.	198.	-1.300	34.867	-1.306	28.057	0.033	0.82
200.	218.	-1.256	34.869	-1.262	28.057	0.034	0.32
220.	238.	-1.254	34.868	-1.261	28.057	0.034	0.18
240.	248.	-1.254	34.869	-1.273	28.057	0.035	0.49
250.	258.	-1.258	34.871	-1.266	28.059	0.035	0.62
260.	277.	-1.249	34.871	-1.257	28.058	0.036	0.40
280.	297.	-1.203	34.875	-1.212	28.060	0.036	0.24
300.	317.	-1.183	34.872	-1.192	28.057	0.037	0.29
320.	337.	-1.188	34.875	-1.198	28.060	0.038	0.08
340.	357.	-1.189	34.875	-1.200	28.059	0.038	0.35
360.	376.	-1.193	34.875	-1.205	28.060	0.039	0.44
380.	396.	-1.189	34.877	-1.201	28.061	0.040	0.14
400.	416.	-1.197	34.877	-1.210	28.060	0.040	0.20
420.	436.	-1.184	34.877	-1.197	28.062	0.041	0.10
440.	456.	-1.175	34.879	-1.189	28.063	0.041	0.53
460.	475.	-1.171	34.879	-1.186	28.062	0.042	0.25
480.	495.	-1.156	34.878	-1.172	28.061	0.042	0.50
500.	515.	-1.159	34.879	-1.177	28.062	0.044	0.47
550.	594.	-1.128	34.880	-1.148	28.062	0.045	0.00
600.	643.	-1.102	34.884	-1.123	28.064	0.046	0.00
650.	693.	-1.084	34.885	-1.107	28.064	0.047	0.00
700.	742.	-1.088	34.883	-1.114	28.063	0.048	0.36
750.	792.	-1.062	34.889	-1.090	28.067	0.049	0.17
800.	841.	-1.040	34.891	-1.070	28.068	0.049	0.00
850.	890.	-1.043	34.892	-1.075	28.069	0.050	0.31
900.	940.	-1.068	34.890	-1.105	28.069	0.050	0.00
1000.	989.	-1.068	34.890	-1.105	28.069	0.050	0.00



STATION 117
 LONGITUDE 0259.1
 LATITUDE 7943.5
 DATE 21.08.88
 TIME (GMT) 02:03
 SHIP VALDIVIA 808

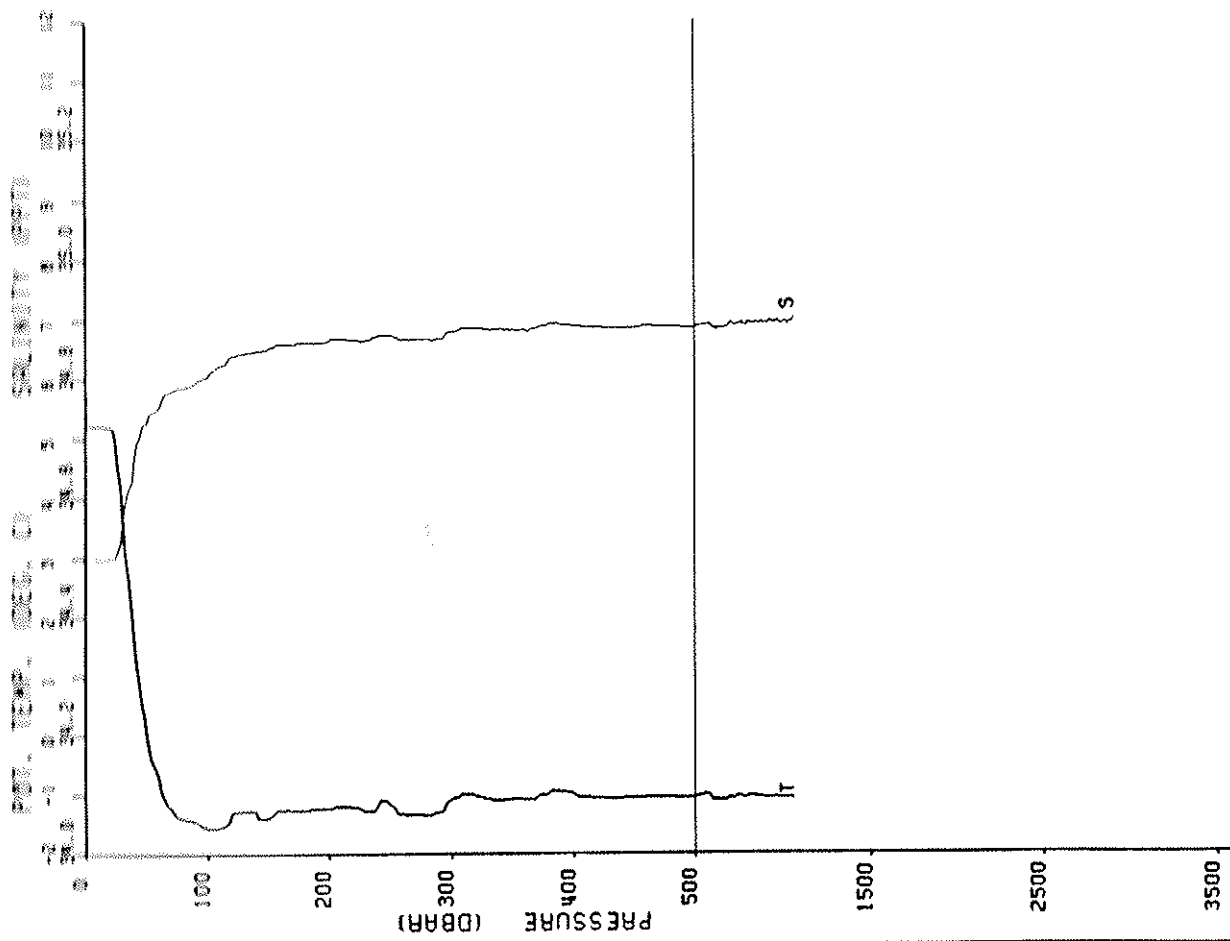
VALDIVIA 808 STATION 117
 LAT 7943.5 LONG 0259.1 DATE 21.08.88 TIME 02:03

P (OBARR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGMA T	DELTA SIGMA T	DELTA SIGMA T (DBAR)	WAVE PERIOD
0.	0.	4.889	34.531	4.889	27.316	0.00	0.00	0.00
5.	5.	4.889	34.531	4.889	27.316	0.00	0.00	0.00
10.	10.	4.889	34.531	4.889	27.316	0.00	0.00	0.00
15.	15.	4.888	34.532	4.888	27.316	0.01	0.02	0.16
20.	20.	4.859	34.534	4.859	27.324	0.015	0.18	0.12
25.	25.	3.954	34.577	3.953	27.433	0.018	0.18	0.12
30.	30.	3.503	34.588	3.501	27.508	0.021	0.18	0.12
40.	40.	1.387	34.672	1.385	27.756	0.028	0.18	0.12
50.	50.	-0.258	34.749	-0.260	27.917	0.028	0.18	0.12
60.	60.	-1.226	34.790	-1.228	27.992	0.030	0.22	0.22
70.	70.	-1.295	34.809	-1.297	28.009	0.031	0.22	0.22
75.	75.	-1.372	34.810	-1.374	28.013	0.031	0.22	0.22
80.	79.	-1.372	34.824	-1.374	28.025	0.031	0.22	0.22
90.	89.	-1.333	34.833	-1.335	28.030	0.032	0.22	0.22
100.	99.	-1.181	34.846	-1.183	28.035	0.033	0.22	0.22
120.	119.	-1.161	34.852	-1.164	28.040	0.034	0.22	0.22
125.	124.	-1.148	34.855	-1.151	28.041	0.034	0.22	0.22
140.	139.	-1.102	34.862	-1.106	28.045	0.035	0.22	0.22
150.	149.	-1.053	34.864	-1.057	28.046	0.036	0.22	0.22
160.	159.	-1.053	34.865	-1.058	28.047	0.036	0.22	0.22
180.	178.	-1.058	34.870	-1.063	28.051	0.037	0.22	0.22
200.	198.	-1.091	34.870	-1.097	28.052	0.038	0.22	0.22
220.	218.	-1.108	34.872	-1.114	28.054	0.039	0.22	0.22
240.	238.	-1.062	34.876	-1.069	28.055	0.040	0.22	0.22
250.	248.	-0.989	34.879	-0.996	28.055	0.040	0.22	0.22
260.	258.	-0.982	34.883	-0.989	28.058	0.041	0.23	0.23
280.	277.	-0.999	34.879	-1.008	28.056	0.041	0.23	0.23
300.	297.	-1.036	34.878	-1.045	28.057	0.042	0.23	0.23
320.	317.	-1.052	34.877	-1.062	28.056	0.043	0.23	0.23
340.	337.	-1.067	34.878	-1.088	28.058	0.044	0.23	0.23
360.	357.	-1.077	34.878	-1.098	28.058	0.044	0.23	0.23
380.	376.	-1.156	34.875	-1.167	28.059	0.045	0.23	0.23
400.	396.	-1.148	34.874	-1.160	28.058	0.046	0.23	0.23
420.	416.	-1.157	34.874	-1.170	28.058	0.046	0.23	0.23
440.	436.	-1.144	34.873	-1.157	28.062	0.047	0.23	0.23
460.	456.	-1.150	34.876	-1.153	28.060	0.047	0.23	0.23
480.	475.	-1.121	34.877	-1.126	28.059	0.048	0.25	0.25
500.	495.	-1.140	34.877	-1.159	28.060	0.049	0.30	0.30
550.	545.	-1.167	34.874	-1.184	28.061	0.050	0.40	0.40
600.	595.	-1.129	34.878	-1.148	28.061	0.051	0.00	0.00
650.	645.	-1.122	34.879	-1.153	28.061	0.052	0.00	0.00
700.	695.	-1.093	34.881	-1.117	28.061	0.053	0.27	0.27
750.	742.	-1.094	34.882	-1.120	28.062	0.054	0.35	0.35
800.	792.	-1.067	34.884	-1.094	28.063	0.055	0.09	0.09
850.	841.	-1.054	34.885	-1.084	28.063	0.056	0.25	0.25
900.	891.	-1.055	34.889	-1.087	28.066	0.057	0.24	0.24
950.	941.	-1.035	34.889	-1.072	28.066	0.058	0.00	0.00
1000.	991.	-1.035	34.889	-1.072	28.066	0.058	0.00	0.00



VALDIVIA 488 STATION 118
 LAT 74NS2.5 LONG 03E47.8 DATE 21.08.86 TIME (UTC) 05:20

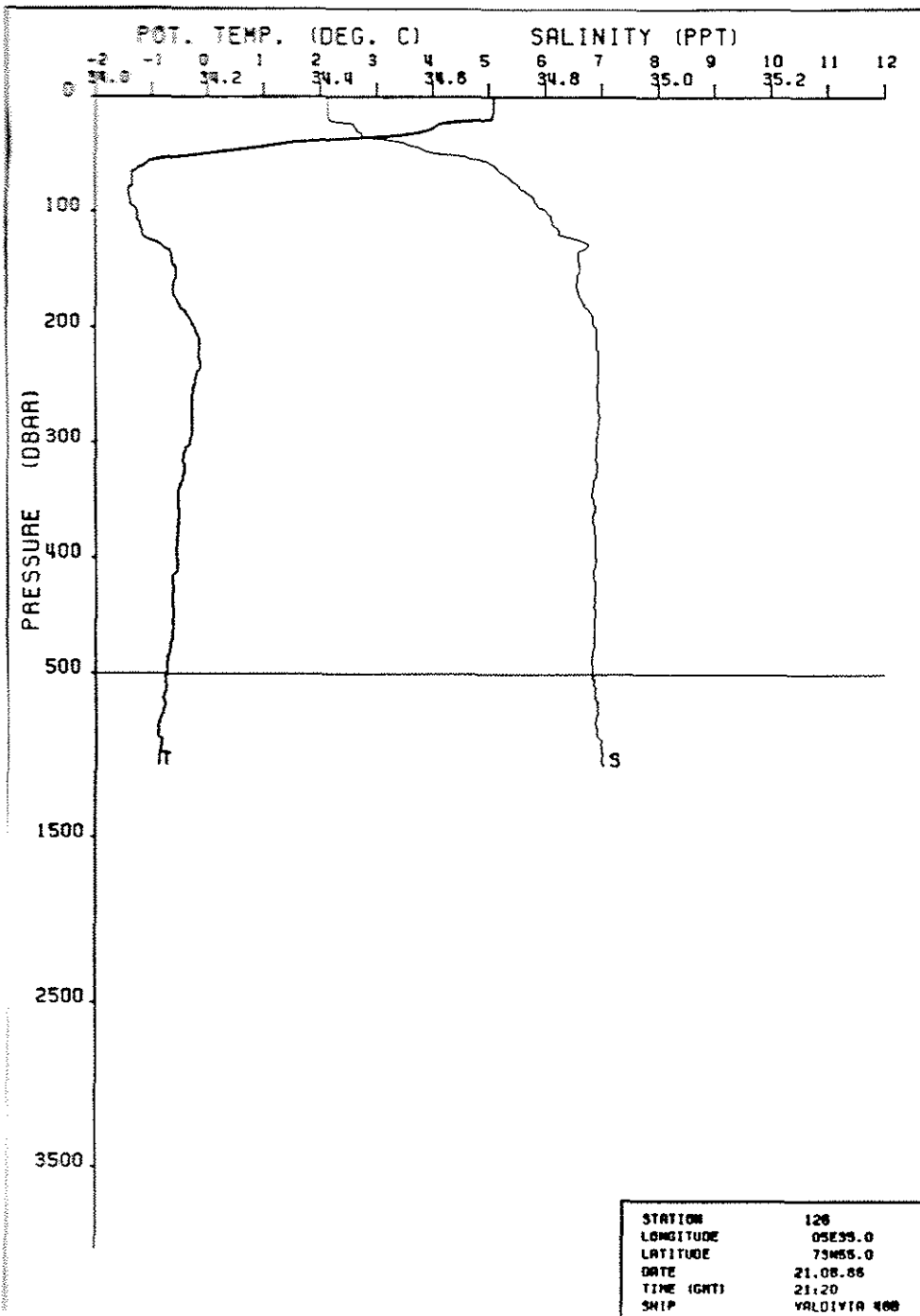
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-S (DYN-CM)	Sigma-t (CPH)
0.	0.	5.152	34.523	5.152	27.279	0.000	0.00
5.	5.	5.152	34.523	5.152	27.279	0.004	0.00
10.	10.	5.152	34.523	5.151	27.280	0.008	0.17
15.	15.	5.153	34.523	5.152	27.280	0.012	****
20.	20.	5.157	34.523	5.155	27.279	0.016	2.90
25.	25.	5.127	34.522	5.125	27.277	0.020	2.81
30.	30.	4.353	34.524	4.351	27.370	0.023	7.05
40.	40.	1.368	34.647	1.366	27.736	0.029	10.50
50.	50.	-0.267	34.721	-0.268	27.895	0.031	6.33
60.	59.	-1.144	34.761	-1.146	27.965	0.033	4.37
70.	69.	-1.484	34.780	-1.485	27.992	0.034	2.72
75.	74.	-1.517	34.786	-1.519	27.994	0.035	2.69
80.	79.	-1.638	34.794	-1.640	28.009	0.035	2.35
90.	89.	-1.668	34.808	-1.670	28.021	0.036	2.05
100.	99.	-1.474	34.825	-1.476	28.029	0.037	0.75
120.	119.	-1.145	34.838	-1.148	28.028	0.038	1.07
125.	124.	-1.105	34.843	-1.108	28.031	0.038	0.88
140.	139.	-0.957	34.855	-0.961	28.034	0.039	0.43
150.	149.	-0.930	34.856	-0.934	28.034	0.040	0.49
160.	159.	-0.916	34.859	-0.921	28.036	0.041	0.58
180.	178.	-0.895	34.865	-0.900	28.040	0.042	0.85
200.	198.	-0.885	34.864	-0.892	28.039	0.043	0.54
220.	218.	-0.921	34.865	-0.928	28.041	0.044	0.49
240.	238.	-0.899	34.869	-0.906	28.044	0.045	0.59
250.	248.	-0.888	34.870	-0.895	28.044	0.046	0.48
260.	258.	-0.899	34.869	-0.907	28.043	0.046	0.35
280.	277.	-0.963	34.868	-0.971	28.045	0.047	0.38
300.	297.	-1.007	34.865	-1.016	28.045	0.048	0.64
320.	317.	-1.065	34.868	-1.074	28.050	0.049	0.42
340.	337.	-0.829	34.880	-0.840	28.050	0.050	0.68
360.	357.	-0.889	34.879	-0.901	28.051	0.051	0.30
380.	376.	-1.148	34.868	-1.159	28.052	0.052	0.64
400.	396.	-1.177	34.864	-1.189	28.051	0.053	0.07
420.	416.	-1.150	34.869	-1.163	28.053	0.053	0.69
440.	436.	-1.171	34.867	-1.184	28.053	0.054	0.22
460.	456.	-1.182	34.868	-1.196	28.054	0.055	0.21
480.	475.	-1.181	34.866	-1.195	28.053	0.056	0.50
500.	495.	-1.189	34.869	-1.204	28.055	0.056	0.38
550.	545.	-1.190	34.871	-1.208	28.057	0.058	0.23
600.	594.	-1.173	34.870	-1.192	28.055	0.059	0.33
650.	643.	-1.127	34.875	-1.148	28.058	0.061	0.00
700.	693.	-1.117	34.876	-1.140	28.059	0.062	0.00
750.	742.	-1.122	34.876	-1.147	28.059	0.063	0.21
800.	792.	-1.110	34.878	-1.137	28.060	0.064	0.13
850.	841.	-1.097	34.879	-1.126	28.060	0.065	0.20
900.	890.	-1.089	34.880	-1.121	28.061	0.066	0.00
1000.	989.	-1.065	34.883	-1.101	28.062	0.067	0.40



STATION 120
 LONGITUDE 07515.1
 LATITUDE 7019.9
 DATE 21.08.86
 TIME (GMT) 1315Z
 SHIP VALDIVIA 188

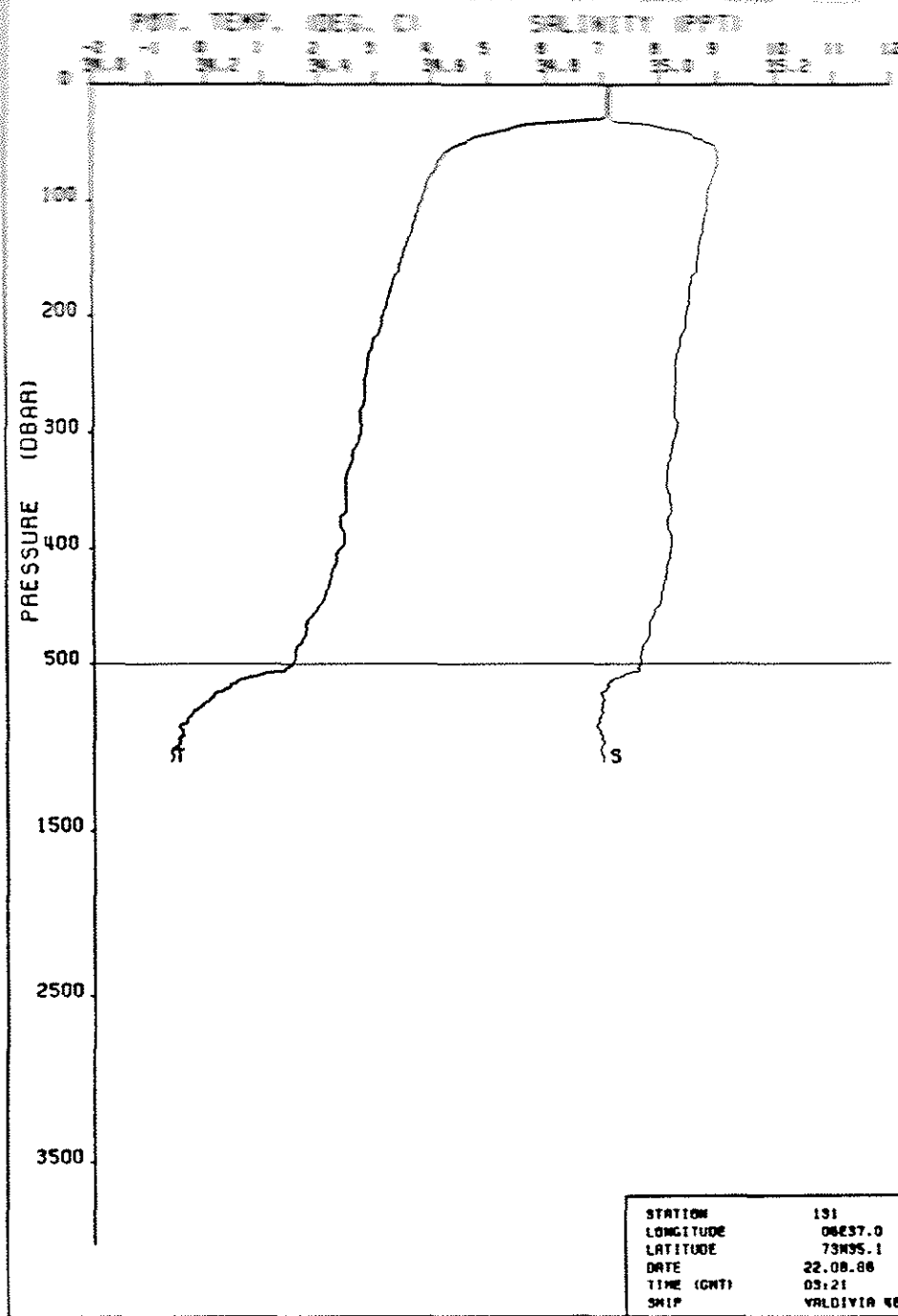
WINDAGE AND STATION LOG
 LAT. LONG. DATE 21.08.86 TIME 1315Z

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	TWTR (DEG C)	STDET	SELD (DBAR)	NW (CF)
0.	0.	5.209	34.497	5.209	27.252	0.000	0.00
5.	5.	5.209	34.497	5.209	27.252	0.000	0.00
10.	10.	5.209	34.497	5.209	27.252	0.000	0.00
15.	15.	5.209	34.497	5.209	27.252	0.000	0.00
20.	20.	5.191	34.500	5.189	27.257	0.012	0.84
25.	25.	4.770	34.506	4.768	27.283	0.016	5.73
30.	30.	3.717	34.557	3.715	27.463	0.024	8.48
40.	40.	1.557	34.671	1.555	27.742	0.028	8.70
50.	50.	-0.010	34.726	-0.012	27.866	0.031	6.27
60.	60.	-0.721	34.751	-0.723	27.940	0.033	3.92
70.	70.	-1.207	34.779	-1.209	27.982	0.034	3.04
75.	75.	-1.344	34.785	-1.346	27.991	0.035	2.11
80.	80.	-1.380	34.785	-1.382	27.993	0.035	1.77
89.	89.	-1.428	34.792	-1.430	28.001	0.036	1.80
99.	99.	-1.543	34.805	-1.545	28.015	0.037	2.06
120.	119.	-1.335	34.839	-1.339	28.036	0.038	1.35
125.	124.	-1.283	34.842	-1.286	28.039	0.039	1.13
140.	139.	-1.272	34.848	-1.276	28.041	0.040	1.18
149.	149.	-1.388	34.849	-1.391	28.046	0.040	1.28
160.	159.	-1.261	34.859	-1.265	28.049	0.041	0.72
180.	178.	-1.253	34.864	-1.258	28.053	0.042	0.45
200.	198.	-1.232	34.864	-1.237	28.052	0.042	0.81
220.	218.	-1.198	34.867	-1.204	28.054	0.043	0.55
240.	238.	-1.204	34.873	-1.211	28.058	0.044	0.73
250.	248.	-1.147	34.875	-1.154	28.058	0.045	0.58
260.	258.	-1.317	34.867	-1.324	28.058	0.045	0.62
280.	277.	-1.338	34.868	-1.345	28.060	0.046	0.38
300.	297.	-1.081	34.860	-1.090	28.060	0.046	0.66
320.	317.	-1.006	34.866	-1.016	28.061	0.047	0.50
340.	337.	-1.084	34.864	-1.095	28.063	0.048	0.12
360.	357.	-1.074	34.863	-1.085	28.062	0.048	0.51
380.	376.	-0.970	34.889	-0.982	28.066	0.049	0.29
400.	396.	-0.966	34.889	-0.979	28.063	0.049	0.21
420.	416.	-1.050	34.887	-1.063	28.064	0.050	0.07
440.	436.	-1.052	34.886	-1.066	28.064	0.051	0.16
460.	456.	-1.038	34.889	-1.053	28.066	0.051	0.51
480.	475.	-1.033	34.888	-1.049	28.065	0.052	0.50
500.	495.	-1.036	34.886	-1.052	28.063	0.052	0.24
550.	545.	-1.002	34.891	-1.020	28.066	0.053	0.33
600.	594.	-1.071	34.886	-1.090	28.065	0.054	0.33
650.	643.	-1.066	34.885	-1.107	28.065	0.055	0.23
700.	693.	-1.037	34.891	-1.061	28.068	0.055	0.33
750.	742.	-1.008	34.892	-1.034	28.067	0.057	0.17
800.	792.	-1.029	34.894	-1.057	28.070	0.058	0.13
850.	841.	-1.010	34.894	-1.041	28.069	0.059	0.22
900.	890.	-1.022	34.893	-1.054	28.069	0.059	0.37
1000.	989.	-1.019	34.895	-1.056	28.070	0.060	0.40



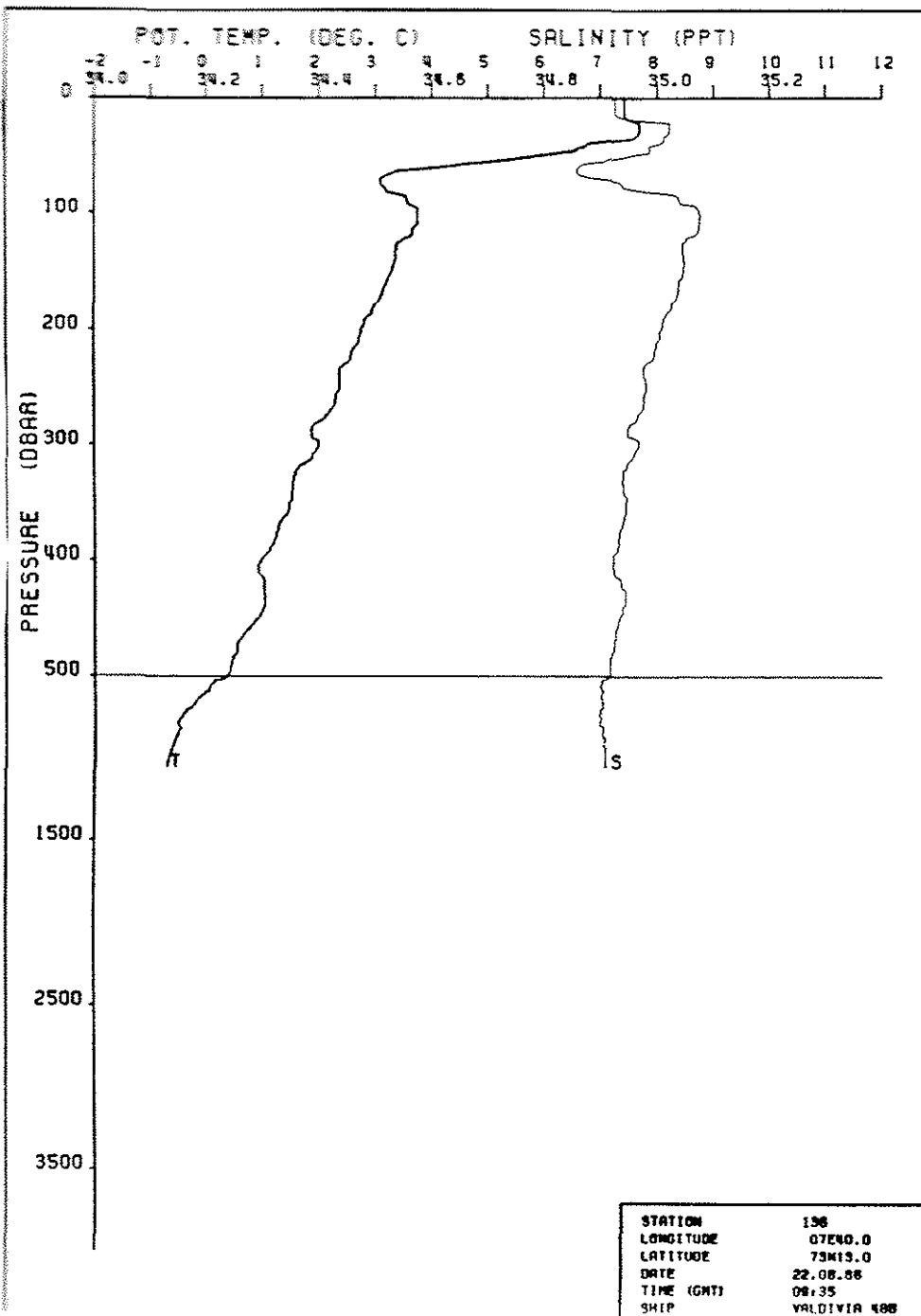
VALDIVIA 488 STATION 126
 LAT 73N55.0 LONG 05E35.0 DATE 21.08.86 TIME (UTC) 21:20

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-S (DYN-M)	M-N (CPH)
0.	0.	5.086	34.415	5.086	27.201	0.000	0.00
5.	5.	5.086	34.415	5.086	27.201	0.004	0.00
10.	10.	5.086	34.415	5.085	27.201	0.009	0.28
15.	15.	5.083	34.415	5.081	27.202	0.013	0.57
20.	20.	5.049	34.416	5.047	27.207	0.017	5.00
25.	25.	4.076	34.459	4.075	27.343	0.021	7.00
30.	30.	3.856	34.464	3.854	27.375	0.025	6.09
40.	40.	1.554	34.544	1.552	27.640	0.030	9.37
50.	50.	-0.009	34.605	-0.011	27.788	0.034	7.48
60.	59.	-1.131	34.711	-1.133	27.924	0.036	4.98
70.	69.	-1.349	34.736	-1.351	27.953	0.038	2.76
75.	74.	-1.349	34.747	-1.351	27.959	0.039	2.64
80.	79.	-1.406	34.756	-1.408	27.970	0.039	2.67
90.	89.	-1.381	34.782	-1.384	27.991	0.040	2.01
100.	99.	-1.260	34.803	-1.262	28.003	0.041	2.15
120.	119.	-1.162	34.824	-1.166	28.017	0.043	2.40
125.	124.	-1.017	34.864	-1.020	28.041	0.043	1.64
140.	139.	-0.637	34.858	-0.642	28.023	0.044	0.71
150.	149.	-0.562	34.860	-0.567	28.022	0.045	0.00
160.	159.	-0.593	34.856	-0.598	28.020	0.046	0.00
180.	178.	-0.511	34.868	-0.517	28.025	0.047	1.26
200.	198.	-0.225	34.890	-0.233	28.030	0.049	0.59
220.	218.	-0.141	34.894	-0.149	28.029	0.050	0.65
240.	238.	-0.188	34.894	-0.197	28.031	0.052	0.51
250.	248.	-0.216	34.892	-0.225	28.030	0.052	0.73
260.	258.	-0.267	34.892	-0.277	28.033	0.053	0.80
280.	277.	-0.271	34.895	-0.282	28.036	0.054	0.57
300.	297.	-0.304	34.891	-0.315	28.034	0.056	0.71
320.	317.	-0.391	34.892	-0.403	28.040	0.057	0.53
340.	337.	-0.485	34.885	-0.497	28.038	0.058	0.41
360.	357.	-0.496	34.888	-0.509	28.041	0.059	0.59
380.	376.	-0.515	34.888	-0.529	28.042	0.061	0.74
400.	396.	-0.545	34.889	-0.559	28.045	0.062	0.36
420.	416.	-0.615	34.888	-0.629	28.047	0.063	0.72
440.	436.	-0.616	34.887	-0.632	28.046	0.064	0.54
460.	456.	-0.589	34.888	-0.605	28.046	0.065	0.18
480.	475.	-0.650	34.885	-0.667	28.046	0.066	0.41
500.	495.	-0.698	34.884	-0.715	28.047	0.067	0.64
550.	545.	-0.737	34.886	-0.756	28.051	0.069	0.51
600.	594.	-0.722	34.887	-0.743	28.051	0.071	0.34
650.	643.	-0.774	34.888	-0.797	28.054	0.073	0.48
700.	693.	-0.744	34.892	-0.770	28.056	0.074	0.08
750.	742.	-0.786	34.891	-0.813	28.057	0.076	0.20
800.	792.	-0.840	34.888	-0.869	28.057	0.077	0.37
850.	841.	-0.850	34.891	-0.882	28.060	0.079	0.28
900.	890.	-0.792	34.897	-0.826	28.063	0.080	0.43
1000.	989.	-0.829	34.899	-0.867	28.066	0.082	0.07



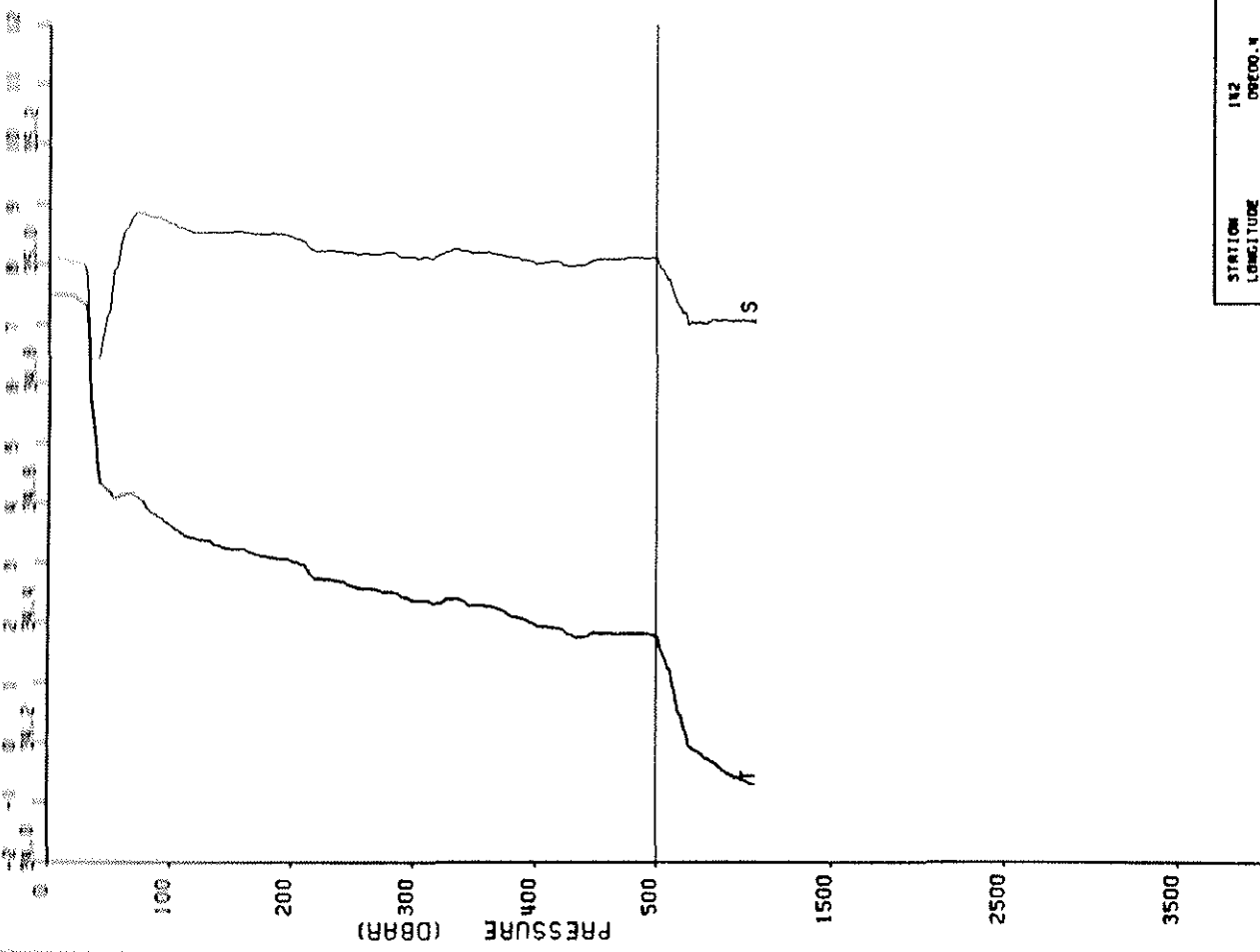
VALDIVIA 400 STATION 131
 LAT 73495.1 LONG 08237.0 DATE 22.08.88 TIME 03:21

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-S (10 ⁻⁴ M)	SKN (CP)
0.	0.	7.090	34.915	7.090	27.339	0.000	0.00
5.	5.	7.090	34.915	7.090	27.339	0.004	0.00
10.	10.	7.090	34.915	7.089	27.339	0.007	0.20
15.	15.	7.088	34.915	7.086	27.339	0.011	0.50
20.	20.	7.085	34.915	7.083	27.340	0.015	0.28
25.	25.	7.083	34.915	7.080	27.340	0.018	0.80
30.	30.	6.943	34.918	6.940	27.363	0.022	5.92
40.	40.	5.191	35.038	5.188	27.663	0.027	9.05
50.	50.	4.644	35.078	4.640	27.779	0.031	5.44
60.	59.	4.256	35.102	4.252	27.841	0.033	3.59
70.	69.	4.121	35.102	4.116	27.855	0.036	1.86
75.	74.	4.075	35.099	4.070	27.856	0.037	1.64
80.	79.	4.002	35.096	3.996	27.863	0.038	1.69
90.	89.	3.922	35.088	3.916	27.865	0.041	0.45
100.	99.	3.860	35.085	3.853	27.870	0.043	1.45
120.	119.	3.719	35.078	3.711	27.878	0.048	0.95
125.	124.	3.691	35.076	3.682	27.879	0.049	1.08
140.	139.	3.561	35.071	3.571	27.886	0.052	1.23
150.	149.	3.519	35.067	3.509	27.890	0.054	1.16
160.	159.	3.446	35.065	3.436	27.896	0.056	0.95
180.	178.	3.309	35.054	3.297	27.900	0.061	1.14
200.	198.	3.176	35.048	3.163	27.908	0.065	0.88
220.	218.	3.012	35.038	2.998	27.916	0.069	1.09
240.	238.	2.907	35.028	2.892	27.918	0.073	0.66
250.	248.	2.883	35.029	2.868	27.920	0.075	0.93
260.	258.	2.843	35.029	2.827	27.924	0.077	0.68
280.	277.	2.776	35.026	2.759	27.928	0.081	1.05
300.	297.	2.781	35.032	2.763	27.932	0.084	0.28
320.	317.	2.642	35.019	2.622	27.935	0.088	0.89
340.	337.	2.517	35.014	2.496	27.941	0.092	0.92
360.	357.	2.518	35.019	2.496	27.946	0.095	0.99
380.	376.	2.407	35.014	2.385	27.951	0.099	0.76
400.	396.	2.404	35.020	2.380	27.956	0.102	1.26
420.	416.	2.261	35.011	2.236	27.961	0.106	0.55
440.	436.	2.150	35.004	2.124	27.965	0.109	1.14
460.	456.	1.867	34.987	1.841	27.974	0.112	0.76
480.	475.	1.725	34.976	1.699	27.976	0.115	0.83
500.	495.	1.558	34.966	1.532	27.981	0.118	0.91
550.	545.	1.164	34.946	1.136	27.993	0.125	0.96
600.	594.	0.560	34.915	0.533	28.007	0.130	0.60
650.	643.	0.353	34.904	0.324	28.011	0.135	0.63
700.	693.	0.105	34.897	0.075	28.019	0.140	0.81
750.	742.	-0.061	34.897	-0.093	28.028	0.144	0.68
800.	792.	-0.232	34.896	-0.265	28.036	0.147	0.58
850.	841.	-0.332	34.892	-0.367	28.038	0.150	0.40
900.	890.	-0.402	34.894	-0.439	28.043	0.153	0.53
1000.	989.	-0.528	34.897	-0.569	28.052	0.157	0.39



VALDIVIA 488 STATION 136
 LAT 73N13.0 LONG 07E40.0 DATE 22.08.86 TIME (UTC) 09:35

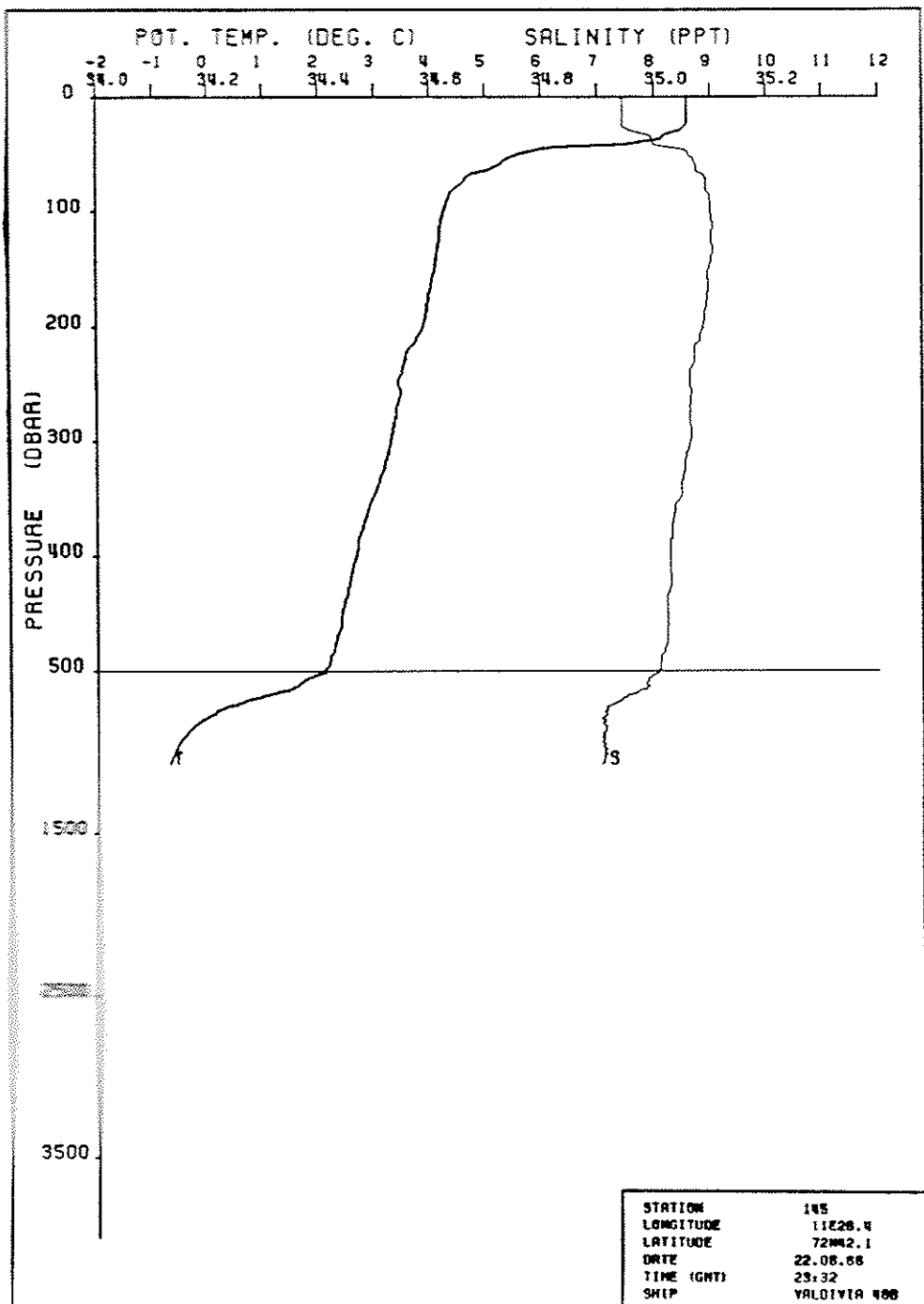
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DYN-M)	NuN (CPH)
0.	0.	7.417	34.926	7.417	27.301	0.000	0.00
5.	5.	7.417	34.926	7.416	27.301	0.004	0.00
10.	10.	7.417	34.926	7.416	27.302	0.008	0.21
15.	15.	7.417	34.928	7.415	27.302	0.011	1.47
20.	20.	7.546	34.971	7.544	27.319	0.015	3.43
25.	25.	7.689	35.022	7.687	27.338	0.019	3.04
30.	30.	7.689	35.022	7.686	27.338	0.023	0.43
40.	40.	6.782	35.005	6.778	27.454	0.030	5.78
50.	50.	5.987	34.958	5.982	27.522	0.036	5.71
60.	59.	4.215	34.863	4.211	27.655	0.041	6.83
70.	69.	3.116	34.885	3.111	27.783	0.044	6.01
75.	74.	3.106	34.936	3.102	27.825	0.046	4.78
80.	79.	3.199	34.959	3.193	27.834	0.047	3.61
90.	89.	3.578	35.040	3.572	27.862	0.050	1.82
100.	99.	3.756	35.074	3.749	27.871	0.052	1.82
120.	119.	3.651	35.062	3.643	27.872	0.056	1.47
125.	124.	3.433	35.048	3.425	27.882	0.058	1.14
140.	139.	3.362	35.047	3.353	27.889	0.061	1.08
150.	149.	3.305	35.046	3.296	27.894	0.063	1.10
160.	159.	3.199	35.039	3.188	27.898	0.065	1.15
180.	178.	3.002	35.027	2.991	27.908	0.069	1.11
200.	198.	2.772	35.008	2.760	27.914	0.073	0.87
220.	218.	2.592	34.997	2.579	27.920	0.077	0.55
240.	238.	2.378	34.977	2.364	27.923	0.081	1.27
250.	248.	2.382	34.981	2.367	27.926	0.083	0.88
260.	258.	2.312	34.977	2.297	27.929	0.085	1.05
280.	277.	1.992	34.961	1.976	27.942	0.088	1.10
300.	297.	2.006	34.957	1.990	27.946	0.092	1.05
320.	317.	1.655	34.946	1.638	27.957	0.095	1.18
340.	337.	1.554	34.941	1.536	27.960	0.098	1.25
360.	357.	1.467	34.944	1.448	27.969	0.101	1.27
380.	376.	1.283	34.934	1.244	27.975	0.104	0.72
400.	396.	0.996	34.922	0.976	27.984	0.107	1.19
420.	416.	1.043	34.936	1.023	27.992	0.109	1.20
440.	436.	1.055	34.940	1.033	27.995	0.111	1.04
460.	456.	0.757	34.928	0.735	28.005	0.114	1.55
480.	475.	0.550	34.920	0.528	28.011	0.116	0.76
500.	495.	0.389	34.917	0.367	28.018	0.118	0.87
550.	545.	0.125	34.901	0.101	28.021	0.122	0.64
600.	594.	-0.001	34.902	-0.026	28.028	0.126	0.75
650.	643.	-0.147	34.901	-0.174	28.036	0.129	0.66
700.	693.	-0.296	34.900	-0.324	28.042	0.132	0.62
750.	742.	-0.417	34.899	-0.447	28.048	0.135	0.58
800.	792.	-0.493	34.898	-0.525	28.050	0.137	0.43
850.	841.	-0.492	34.903	-0.525	28.054	0.139	0.47
900.	890.	-0.553	34.907	-0.589	28.060	0.141	0.41
1000.	989.	-0.658	34.907	-0.698	28.066	0.143	0.33



STATION 142
 LONGITUDE 09000.4
 LATITUDE 72502.1
 DATE 22.08.86
 TIME (GMT) 18124
 SHIP VALDIVIA 480

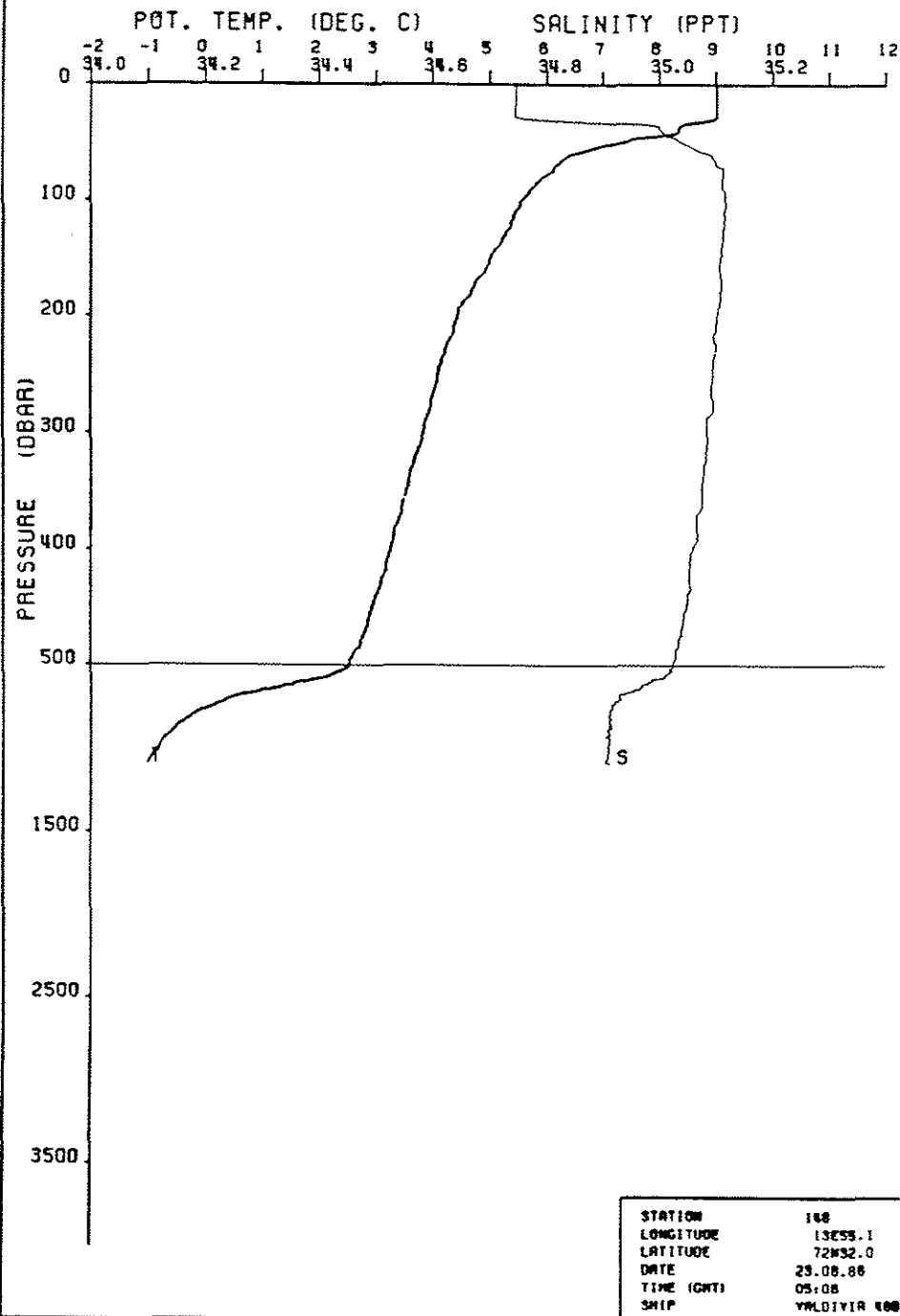
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000

DEPTH (M)	TEMP (C)	SAL (PPT)	SIGMA T (KG/D3)	WAVE PERIOD (S)	SEA STATE (M)	WIND SPEED (KTS)
0.	7.480	35.009	7.480	27.358	0.00	0.00
5.	7.480	35.009	7.479	27.358	0.00	0.00
10.	7.480	35.009	7.479	27.358	0.00	0.00
15.	7.480	35.007	7.478	27.358	0.00	0.00
20.	7.479	35.003	7.477	27.358	0.01	0.21
25.	7.399	35.000	7.396	27.350	0.01	1.23
30.	7.323	34.985	7.320	27.353	0.01	1.23
40.	4.595	34.842	4.592	27.597	0.02	1.26
50.	4.222	34.918	4.219	27.598	0.02	9.04
60.	4.134	35.039	4.130	27.803	0.03	5.95
70.	4.164	35.080	4.159	27.833	0.03	4.36
75.	4.083	35.085	4.078	27.844	0.03	2.80
80.	3.953	35.082	3.947	27.857	0.04	2.51
89.	3.806	35.078	3.800	27.869	0.04	1.72
99.	3.650	35.069	3.644	27.878	0.04	1.67
119.	3.436	35.053	3.429	27.887	0.04	1.06
124.	3.401	35.053	3.393	27.890	0.05	0.82
140.	3.320	35.053	3.311	27.898	0.05	1.47
150.	3.260	35.054	3.251	27.905	0.05	1.11
160.	3.259	35.055	3.249	27.905	0.06	0.90
180.	3.137	35.050	3.126	27.913	0.06	1.18
200.	3.067	35.048	3.054	27.918	0.06	0.53
220.	2.768	35.023	2.753	27.926	0.07	1.09
240.	2.728	35.022	2.714	27.929	0.07	0.93
250.	2.660	35.019	2.645	27.933	0.07	1.05
260.	2.595	35.018	2.579	27.938	0.07	0.91
280.	2.77.	35.020	2.525	27.944	0.08	0.78
300.	2.97.	35.012	2.387	27.949	0.08	1.20
320.	3.17.	35.014	2.323	27.956	0.07	0.74
340.	3.40.	35.022	2.380	27.958	0.09	1.16
360.	3.57.	35.020	2.275	27.965	0.09	0.58
380.	3.76.	35.012	2.119	27.972	0.09	1.06
400.	4.16.	35.001	1.979	27.974	0.10	1.12
420.	4.16.	35.005	1.916	27.982	0.10	0.93
440.	4.36.	34.999	1.767	27.989	0.10	0.88
460.	4.56.	35.008	1.624	27.992	0.10	0.58
480.	4.75.	35.011	1.627	27.995	0.11	0.51
500.	4.95.	35.012	1.768	28.000	0.11	0.53
550.	5.45.	34.985	1.375	28.007	0.11	0.79
600.	5.94.	34.952	0.899	28.014	0.12	0.67
650.	6.43.	34.921	0.542	28.023	0.12	0.76
700.	6.93.	34.900	-0.078	28.030	0.13	0.62
750.	7.42.	34.904	-0.171	28.038	0.13	0.69
800.	7.92.	34.905	-0.280	28.044	0.14	0.72
850.	8.41.	34.905	-0.373	28.050	0.14	0.42
900.	8.90.	34.907	-0.456	28.056	0.14	0.49
950.	9.39.	34.907	-0.492	28.062	0.14	0.36
1000.	9.88.	34.906	-0.531	28.062	0.14	0.36



VALDIVIA 488 STATION 145
LAT 72N42.1 LONG 11E26.4 DATE 22.08.86 TIME (UTC) 23:32

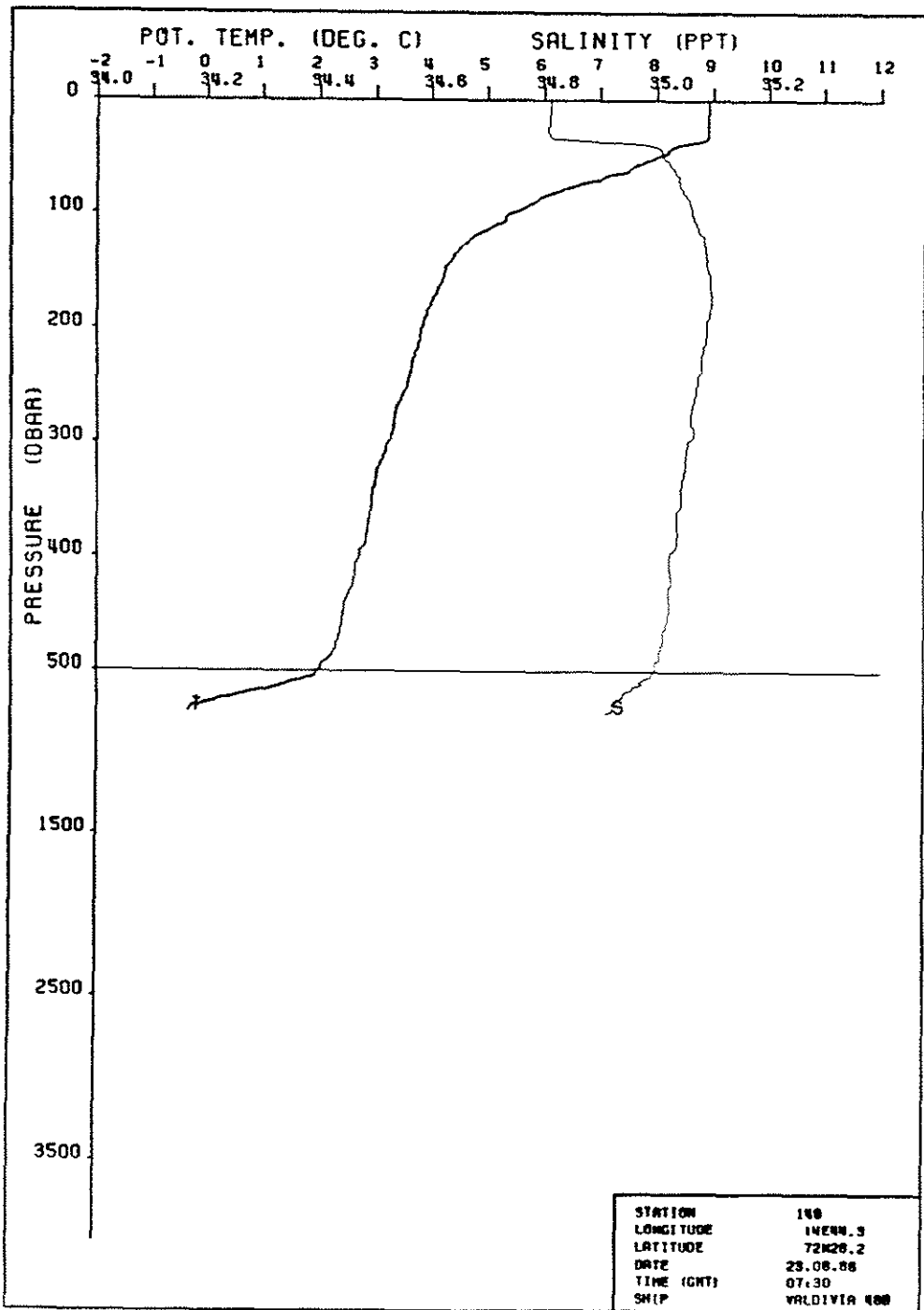
P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (GYN-M)	N-N (CPH)
0.	0.	8.594	34.945	8.594	27.140	0.000	0.00
5.	5.	8.594	34.945	8.593	27.140	0.005	0.00
10.	10.	8.594	34.945	8.593	27.140	0.009	0.23
15.	15.	8.594	34.945	8.592	27.140	0.014	0.23
20.	20.	8.594	34.945	8.591	27.140	0.018	0.23
25.	25.	8.568	34.945	8.565	27.142	0.023	1.97
30.	30.	8.450	34.959	8.447	27.174	0.027	4.68
40.	40.	7.771	34.998	7.767	27.307	0.036	6.71
50.	50.	5.661	35.061	5.657	27.645	0.041	9.94
60.	59.	5.258	35.075	5.253	27.705	0.045	4.12
70.	69.	4.696	35.092	4.690	27.784	0.049	4.70
75.	74.	4.619	35.092	4.613	27.791	0.051	3.63
80.	79.	4.480	35.092	4.474	27.808	0.052	2.87
90.	89.	4.348	35.100	4.342	27.829	0.055	2.46
100.	99.	4.282	35.101	4.275	27.837	0.058	1.44
120.	119.	4.197	35.102	4.188	27.848	0.063	0.90
125.	124.	4.190	35.102	4.181	27.848	0.064	0.92
140.	139.	4.144	35.103	4.134	27.854	0.068	0.91
150.	149.	4.107	35.099	4.097	27.855	0.070	0.32
160.	159.	4.059	35.097	4.048	27.859	0.073	1.06
180.	178.	3.986	35.093	3.973	27.863	0.078	0.50
200.	198.	3.898	35.088	3.885	27.868	0.083	1.26
220.	218.	3.638	35.073	3.623	27.883	0.088	1.50
240.	238.	3.522	35.064	3.506	27.887	0.092	0.99
250.	248.	3.453	35.063	3.436	27.894	0.095	1.07
260.	258.	3.481	35.067	3.464	27.894	0.097	0.66
280.	277.	3.396	35.064	3.378	27.900	0.101	1.17
300.	297.	3.318	35.064	3.298	27.908	0.106	0.78
320.	317.	3.210	35.056	3.189	27.912	0.110	0.78
340.	337.	3.081	35.049	3.059	27.919	0.114	1.35
360.	357.	2.914	35.037	2.892	27.924	0.118	0.46
380.	376.	2.782	35.031	2.758	27.932	0.122	1.14
400.	396.	2.701	35.027	2.677	27.936	0.126	1.08
420.	416.	2.595	35.029	2.569	27.947	0.130	1.13
440.	436.	2.493	35.021	2.467	27.949	0.133	0.75
460.	456.	2.434	35.022	2.407	27.956	0.137	1.02
480.	475.	2.312	35.018	2.284	27.963	0.140	0.60
500.	495.	2.148	35.007	2.119	27.968	0.143	0.75
550.	545.	1.806	34.987	1.776	27.979	0.151	0.92
600.	594.	1.599	34.985	1.566	27.993	0.158	0.86
650.	643.	1.048	34.949	1.015	28.004	0.165	1.09
700.	693.	0.586	34.927	0.553	28.015	0.170	0.68
750.	742.	0.177	34.910	0.144	28.026	0.174	0.95
800.	792.	-0.070	34.910	-0.104	28.039	0.178	0.77
850.	841.	-0.251	34.910	-0.287	28.049	0.181	0.80
900.	890.	-0.395	34.908	-0.432	28.054	0.183	0.59
1000.	989.	-0.566	34.908	-0.607	28.062	0.186	0.23



VALDIVIA 408 STATION 148

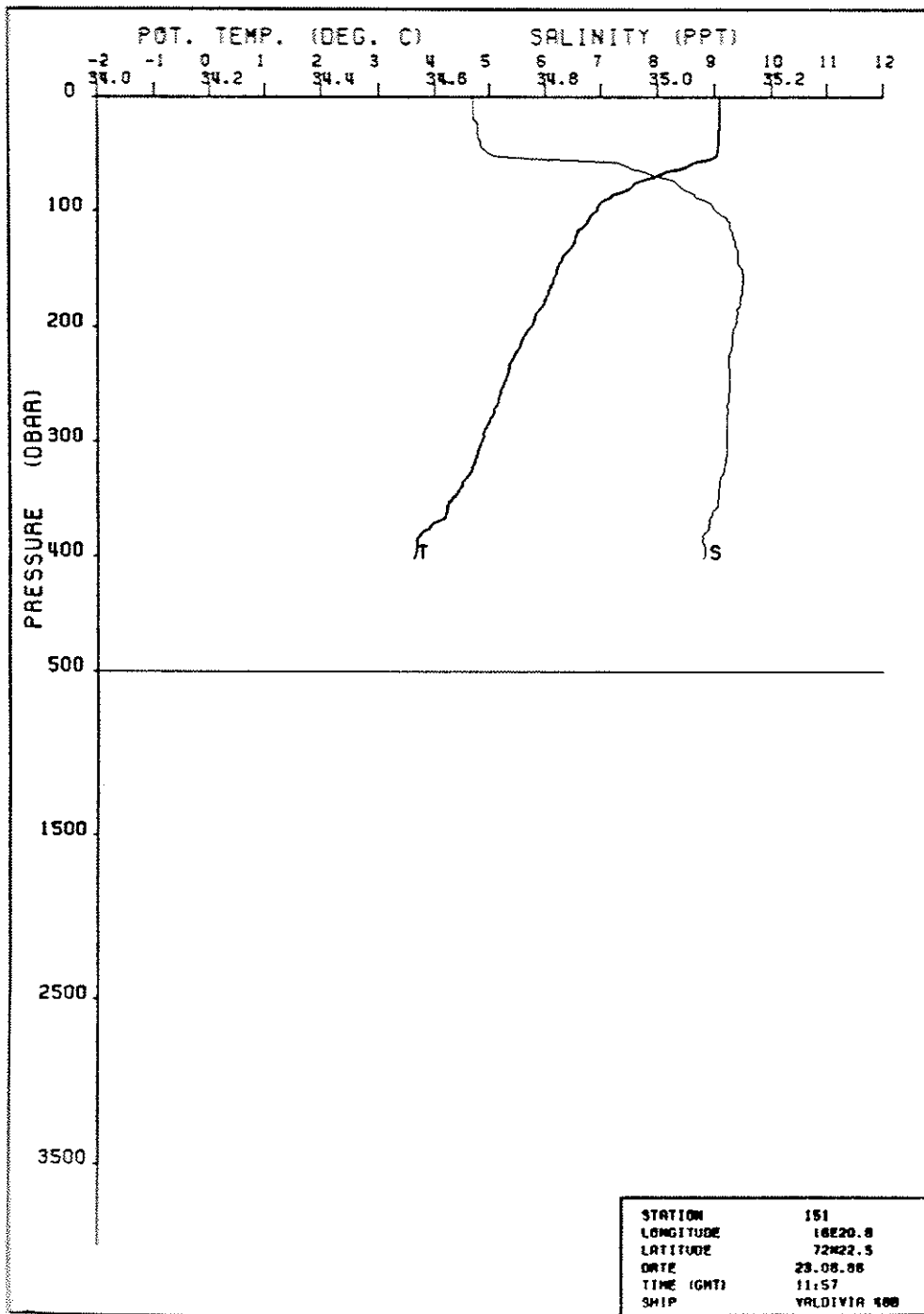
LAT 72N32.0 LONG 13555.1 DATE 23.08.86 TIME (GMT) 05:08

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DM-M)	NUM (CF-M)
0.	0.	9.031	34.747	9.031	26.915	0.000	0.00
5.	5.	9.031	34.747	9.031	26.915	0.006	0.00
10.	10.	9.031	34.747	9.030	26.915	0.011	0.23
15.	15.	9.031	34.747	9.030	26.915	0.017	0.23
20.	20.	9.031	34.747	9.029	26.916	0.023	*****
25.	25.	9.029	34.745	9.026	26.914	0.028	5.41
30.	30.	8.959	34.770	8.956	26.945	0.034	6.19
40.	40.	8.353	35.005	8.349	27.225	0.043	7.95
50.	50.	7.340	35.041	7.335	27.404	0.051	8.27
60.	59.	6.449	35.090	6.444	27.566	0.057	6.33
70.	69.	6.168	35.103	6.162	27.613	0.062	3.82
75.	74.	6.099	35.115	6.093	27.627	0.064	3.44
80.	79.	5.940	35.115	5.933	27.652	0.066	3.15
90.	89.	5.751	35.113	5.743	27.675	0.070	2.83
100.	99.	5.572	35.117	5.564	27.700	0.075	2.60
120.	119.	5.389	35.115	5.379	27.721	0.082	1.74
125.	124.	5.345	35.114	5.335	27.723	0.084	1.82
140.	139.	5.164	35.111	5.153	27.746	0.090	2.16
150.	149.	5.031	35.109	5.019	27.760	0.093	1.92
160.	159.	4.950	35.108	4.938	27.768	0.097	2.02
180.	178.	4.701	35.109	4.687	27.798	0.103	2.07
200.	198.	4.465	35.103	4.450	27.820	0.109	1.33
220.	218.	4.342	35.098	4.326	27.829	0.115	1.62
240.	238.	4.185	35.098	4.168	27.847	0.121	1.24
250.	248.	4.132	35.097	4.114	27.851	0.123	1.03
260.	258.	4.095	35.094	4.077	27.853	0.126	1.15
280.	277.	3.989	35.097	3.969	27.867	0.131	0.97
300.	297.	3.875	35.087	3.854	27.871	0.136	1.29
320.	317.	3.730	35.084	3.708	27.884	0.141	1.24
340.	337.	3.620	35.079	3.597	27.891	0.146	1.04
360.	357.	3.512	35.076	3.487	27.899	0.151	0.92
380.	376.	3.398	35.067	3.372	27.904	0.155	1.34
400.	396.	3.305	35.061	3.278	27.908	0.160	0.46
420.	416.	3.205	35.055	3.178	27.912	0.164	1.25
440.	436.	3.053	35.053	3.024	27.925	0.169	1.23
460.	456.	2.922	35.045	2.892	27.931	0.173	0.81
480.	475.	2.785	35.036	2.754	27.936	0.177	1.15
500.	495.	2.588	35.026	2.557	27.946	0.180	0.93
550.	545.	2.314	35.016	2.281	27.962	0.190	1.16
600.	594.	1.720	34.982	1.886	27.982	0.198	1.26
650.	643.	1.055	34.955	1.022	28.008	0.204	0.96
700.	693.	0.458	34.932	0.435	28.027	0.209	0.93
750.	742.	0.155	34.919	0.122	28.034	0.213	0.93
800.	792.	-0.167	34.913	-0.201	28.046	0.216	0.87
850.	841.	-0.396	34.916	-0.431	28.060	0.219	0.73
900.	890.	-0.547	34.913	-0.583	28.065	0.220	0.59
1000.	969.	-0.768	34.913	-0.807	28.075	0.222	0.44



VALDIVIA 488 STATION 148
 LAT 72N28.2 LONG 14E44.3 DATE 23.08.86 TIME (UTC) 07:30

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-D (DBAR-M)	SWN (CPH)
0.	0.	8.915	34.811	8.915	26.984	0.000	0.00
5.	5.	8.915	34.811	8.914	26.984	0.005	0.00
10.	10.	8.915	34.811	8.914	26.985	0.011	0.23
15.	15.	8.915	34.811	8.913	26.985	0.016	0.23
20.	20.	8.915	34.811	8.913	26.985	0.021	0.11
25.	25.	8.917	34.810	8.914	26.984	0.027	0.64
30.	30.	8.917	34.811	8.914	26.984	0.032	0.43
40.	40.	8.383	34.983	8.378	27.203	0.042	8.98
50.	50.	8.039	35.009	8.034	27.276	0.050	4.22
60.	59.	7.537	35.030	7.531	27.367	0.058	4.90
70.	69.	7.020	35.040	7.013	27.448	0.064	5.59
75.	74.	6.630	35.041	6.623	27.496	0.068	5.35
80.	79.	6.300	35.047	6.293	27.552	0.070	5.51
90.	89.	5.853	35.059	5.845	27.619	0.075	4.43
100.	99.	5.407	35.062	5.399	27.677	0.080	4.20
120.	119.	4.777	35.084	4.768	27.769	0.088	3.91
125.	124.	4.651	35.084	4.641	27.781	0.089	3.43
140.	139.	4.404	35.091	4.393	27.817	0.094	2.45
150.	149.	4.266	35.092	4.255	27.832	0.097	2.15
160.	159.	4.204	35.096	4.192	27.842	0.099	1.85
180.	178.	3.998	35.098	3.985	27.866	0.104	1.66
200.	198.	3.852	35.090	3.838	27.875	0.109	1.08
220.	218.	3.742	35.083	3.726	27.881	0.114	1.12
240.	238.	3.638	35.076	3.622	27.885	0.119	0.86
250.	248.	3.594	35.072	3.577	27.887	0.121	0.99
260.	258.	3.503	35.068	3.486	27.893	0.123	1.23
280.	277.	3.359	35.061	3.340	27.902	0.128	1.16
300.	297.	3.270	35.058	3.250	27.908	0.132	0.59
320.	317.	3.116	35.053	3.095	27.918	0.136	1.39
340.	337.	3.008	35.044	2.986	27.922	0.140	0.72
360.	357.	2.952	35.039	2.929	27.923	0.144	0.65
380.	376.	2.886	35.039	2.862	27.929	0.148	0.81
400.	396.	2.749	35.024	2.725	27.930	0.152	1.01
420.	416.	2.665	35.027	2.639	27.940	0.156	0.96
440.	436.	2.502	35.024	2.475	27.951	0.160	1.44
460.	456.	2.440	35.017	2.413	27.951	0.163	0.82
480.	475.	2.347	35.009	2.319	27.953	0.167	1.13
500.	495.	2.045	34.999	2.016	27.969	0.170	1.27
550.	545.	1.761	34.978	1.730	27.975	0.178	1.23
600.	594.	1.238	34.958	1.207	27.998	0.185	1.07
650.	643.	0.572	34.942	0.542	28.028	0.190	1.39
700.	693.	-0.022	34.923	-0.052	28.047	0.194	1.07
750.	742.	-0.286	34.921	-0.316	28.059	0.196	94.94



VALDIVIA 488 STATION 151

LAT 72N22.5 LONG 18E20.8 DATE 23.08.86 TIME (UTC) 11:57

P (DBAR)	Z (M)	T (DEG C)	S (PPT)	THETA (DEG C)	SIGTET	DEL-S (DYN-M)	W/M (CPS)
0.	0.	9.092	34.671	9.092	26.846	0.000	0.00
5.	5.	9.092	34.671	9.092	26.846	0.006	0.00
10.	10.	9.092	34.671	9.091	26.846	0.012	0.23
15.	15.	9.092	34.671	9.091	26.846	0.018	0.23
20.	20.	9.092	34.671	9.090	26.846	0.024	1.30
25.	25.	9.088	34.679	9.086	26.853	0.030	1.50
30.	30.	9.088	34.679	9.085	26.853	0.036	0.69
40.	40.	9.080	34.684	9.076	26.859	0.048	1.29
50.	50.	9.058	34.699	9.053	26.874	0.060	2.82
60.	59.	8.571	34.940	8.564	27.141	0.070	9.33
70.	69.	7.992	34.999	7.985	27.276	0.079	6.95
75.	74.	7.658	35.030	7.650	27.340	0.083	6.26
80.	79.	7.529	35.042	7.521	27.378	0.086	4.99
90.	89.	7.094	35.078	7.086	27.468	0.093	5.46
100.	99.	6.938	35.102	6.929	27.509	0.099	3.46
120.	119.	6.594	35.132	6.583	27.580	0.110	2.67
125.	124.	6.553	35.135	6.542	27.587	0.112	2.65
140.	139.	6.332	35.142	6.320	27.623	0.120	2.62
150.	149.	6.240	35.149	6.227	27.641	0.125	2.20
160.	159.	6.174	35.150	6.160	27.651	0.129	1.99
180.	178.	6.007	35.145	5.991	27.659	0.138	1.88
200.	198.	5.774	35.137	5.757	27.692	0.147	1.81
220.	218.	5.527	35.130	5.509	27.717	0.155	1.79
240.	238.	5.358	35.127	5.338	27.736	0.163	1.69
250.	248.	5.285	35.126	5.264	27.744	0.167	1.64
260.	258.	5.206	35.126	5.186	27.753	0.170	1.55
280.	277.	5.049	35.122	5.027	27.769	0.178	1.86
300.	297.	4.893	35.122	4.870	27.787	0.184	1.63
320.	317.	4.751	35.119	4.726	27.802	0.191	1.33
340.	337.	4.522	35.109	4.497	27.819	0.198	2.00
360.	357.	4.244	35.099	4.217	27.842	0.204	1.41
380.	376.	3.794	35.083	3.768	27.876	0.209	2.42
400.	396.	3.684	35.082	3.656	27.887	0.214	*****