

NOAA Data Report ERL AOML-9

CTD/O₂ DATA COLLECTED IN 1985 AND 1986 FOR EPOCS

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CTD/ σ_0 DATA COLLECTED IN 1985 AND 1986 FOR EPOCS

Abstract. A summary of CTD measurements collected during four cruises in 1985 and 1986, as part of the Equatorial Pacific Ocean Climate Studies (EPOCS), is presented. These cruises continued the EPOCS program efforts along 110°W and 85°W, and extended the research area southeast along 15°S. Station locations and profiles of temperature, salinity and sigma-T are plotted for each cast. Dissolved oxygen bottle values, theta-s diagrams, and temperature and salinity sections are shown.

Introduction

EPOCS is a NOAA-sponsored program initiated in 1979 to study the role of the ocean in the world's climate. One objective is to understand the dominant mechanisms involved in producing large-scale variations in sea-surface temperature in the eastern equatorial Pacific Ocean. Previous EPOCS field work concentrated zonal observations along the equator and meridional sections across the equator at 140°W, 110°W and 85°W. CTD data collected and contributed to EPOCS by the Atlantic Oceanographic and Meteorological Laboratories (AOML) and the Pacific Marine Environmental Laboratory (PMEL) from 1979 through 1985 can be found in several data reports (Mangum et al., 1987, Mangum and Hayes, 1985, Mangum and Hayes, 1983, Mangum et al., 1980, Roffer et al., 1984, and Roffer and Leetmaa, 1982). The four cruises of data presented in this report cover the meridional sections at 110°W and 85°W again, in addition to a zonal section along 15°S from 110°W into the coast of Peru. The cruises are coded, EPx-YR-yy, where x is the EPOCS sequential cruise number, YR is the year, and yy is the ship (RS for NOAA Ship Researcher and OC for NOAA Ship Oceanographer).

Data Acquisition and Processing

CTD measurements on all four cruises were collected with a Neil Brown Instrument Systems (NBIS) Mark III CTD equipped with a Beckman dissolved oxygen probe. AOML provided the Researcher cruises with a NBIS CTD system and PMEL provided the system for the Oceanographer cruises. Pressure, temperature, conductivity and dissolved oxygen are sampled at a nominal rate of 32 Hz (Brown, 1974) while the

digitized signal is being recorded on a LSI 11/23 computer system. The CTD was lowered at a rate of 30 m/min for the first 200 meters and 60 m/min thereafter. The CTD data were recorded on the downcast (and upcast on **Researcher** cruises) and water samples were collected on the upcast for calibration purposes. Water sample salinity was determined with a Guildline Autosal and the dissolved oxygen was measured by the Winkler method.

The data recorded on magnetic tape are edited and one-decibar averages are computed. Salinity is determined from conductivity, temperature and pressure. Information from pre- and post-cruise instrument calibrations (when available) and historical data are used along with the bottle sample data to determine corrections to pressure, temperature and salinity.

Data Presentation

The final calibrated data from each cruise follow. Each set of cruise data includes a figure with CTD station locations indicating whether a 1000 meter or a deeper cast was done. All cast profiles are plotted on a 1000 m scale. The deep casts are plotted on an expanded scale as well. Dissolved oxygen bottle values are presented in a table with nominal pressure (db) to the left followed by the actual pressure, dissolved oxygen pairs for each cast. Theta-s diagrams of selected casts from the major zonal and meridional sections (110° W, 85° W, 15° S) are shown. Several latitude vs. pressure (to 400 db) and longitude vs. pressure (to 400 db) sections of temperature and salinity are contoured for each cruise. The temperature and salinity contour intervals are 1° C and 0.2 PSU, respectively.

Acknowledgements

The authors gratefully acknowledge the assistance of the officers and crew of the NOAA Ships **Researcher** and **Oceanographer**. Much of the CTD and bottle sample processing was performed by the survey departments on each ship.

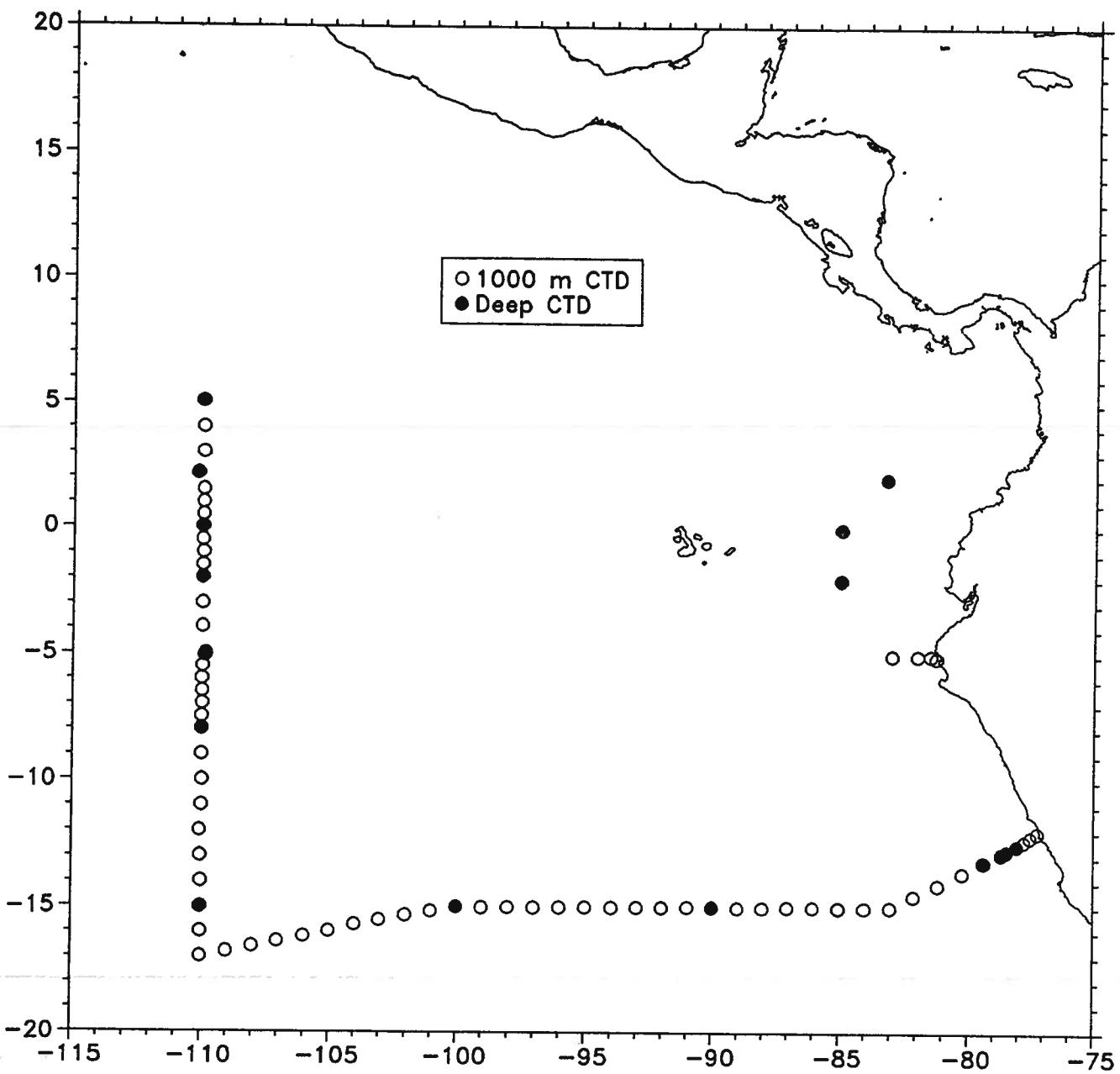
References

- Brown, N. L., 1974. A precision CTD microprofiler. Ocean 74, 2, 270-278.
- Mangum, L. J. and S. P. Hayes, 1985. CTD/O₂ measurements during 1982 and 1983 as part of the Equatorial Pacific Ocean Climate Studies (EPOCS). NOAA Data Report ERL PMEL-13, 421 pp.
- Mangum, L. J. and S. P. Hayes, 1983. CTD/O₂ measurements during 1980 and 1981 as part of the Equatorial Pacific Ocean Climate Studies (EPOCS). NOAA Data Report ERL PMEL-9, 621 pp.
- Mangum, L. J., J. M. Lynch and S. P. Hayes, 1987. CTD/O₂ measurements during 1984 and 1985 as part of the Equatorial Pacific Ocean Climate Studies (EPOCS). NOAA Data Report ERL PMEL-18, 341 pp.
- Mangum, L. J., N. N. Soreide, B. D. Davies, B. D. Spell and S. P. Hayes, 1980. CTD/O₂ measurements during the Equatorial Pacific Ocean Climate Studies (EPOCS) in 1979. NOAA Data Report ERL PMEL-1, 645 pp.
- Roffer, C., D. W. Behringer and A. Leetmaa, 1984. Hydrographic data collected in 1982 and 1983 for EPOCS. NOAA Tech. Memo. ERL AOML-57, 259 pp.
- Roffer, C. and A. Leetmaa, 1982. CTD/O₂ data collected in November 1981 and March 1982 for EPOCS. NOAA Tech. Memo. ERL AOML-52, 123 pp.

EP4-85-RS / EP5-85-RS

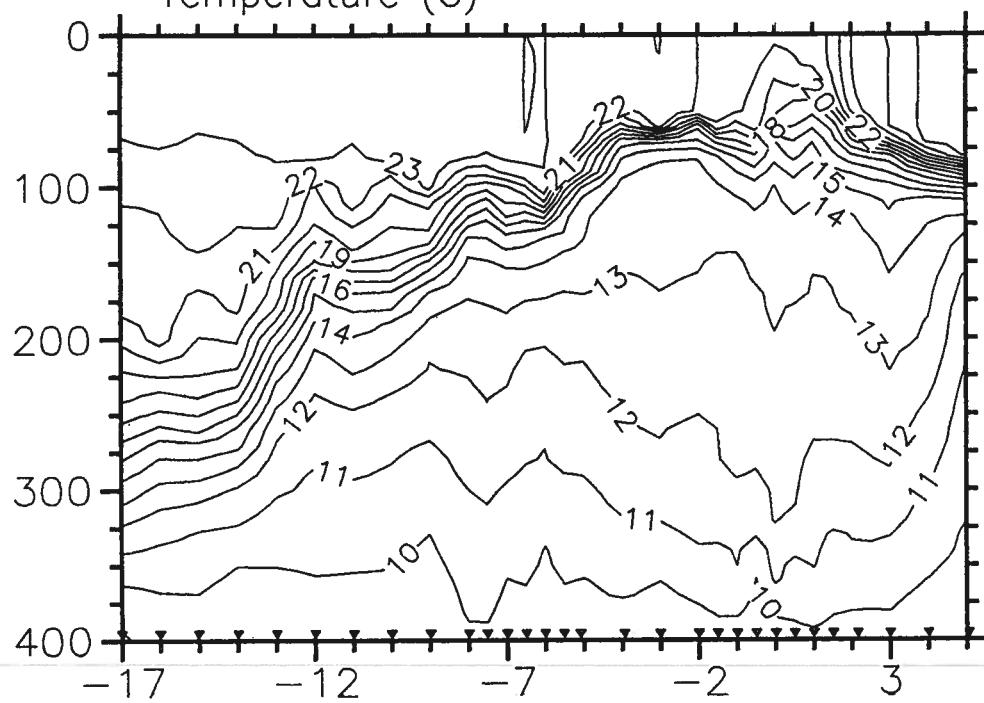
08 November 1985 - 06 December 1985

CTD STATIONS
EP4-85-RS/EP5-85-RS 08 Nov 85 - 06 Dec 85

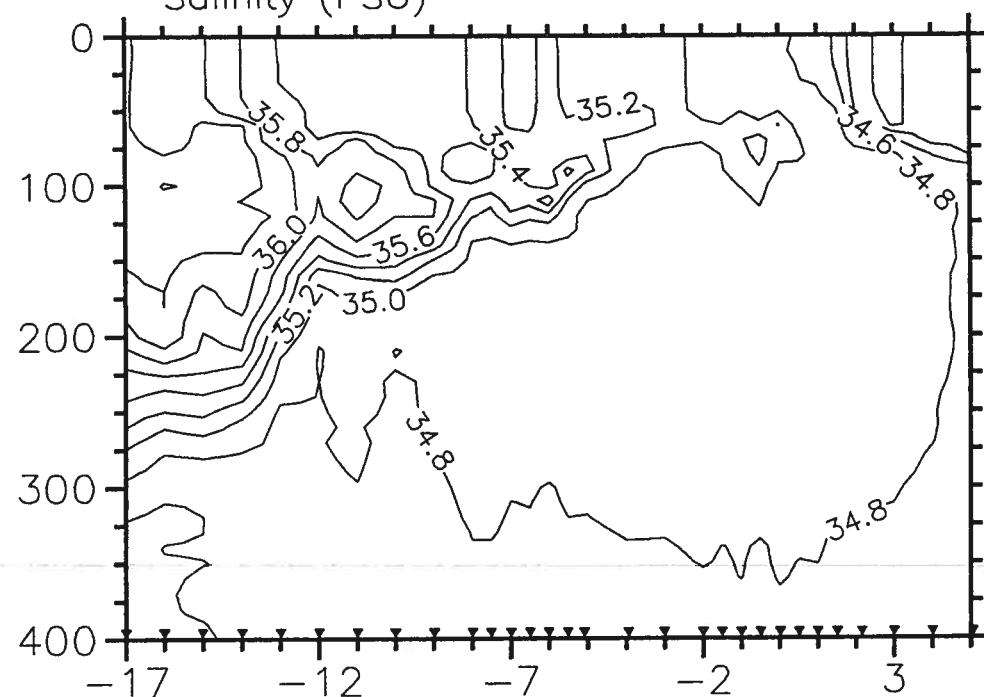


EP4-85-RS 110 West

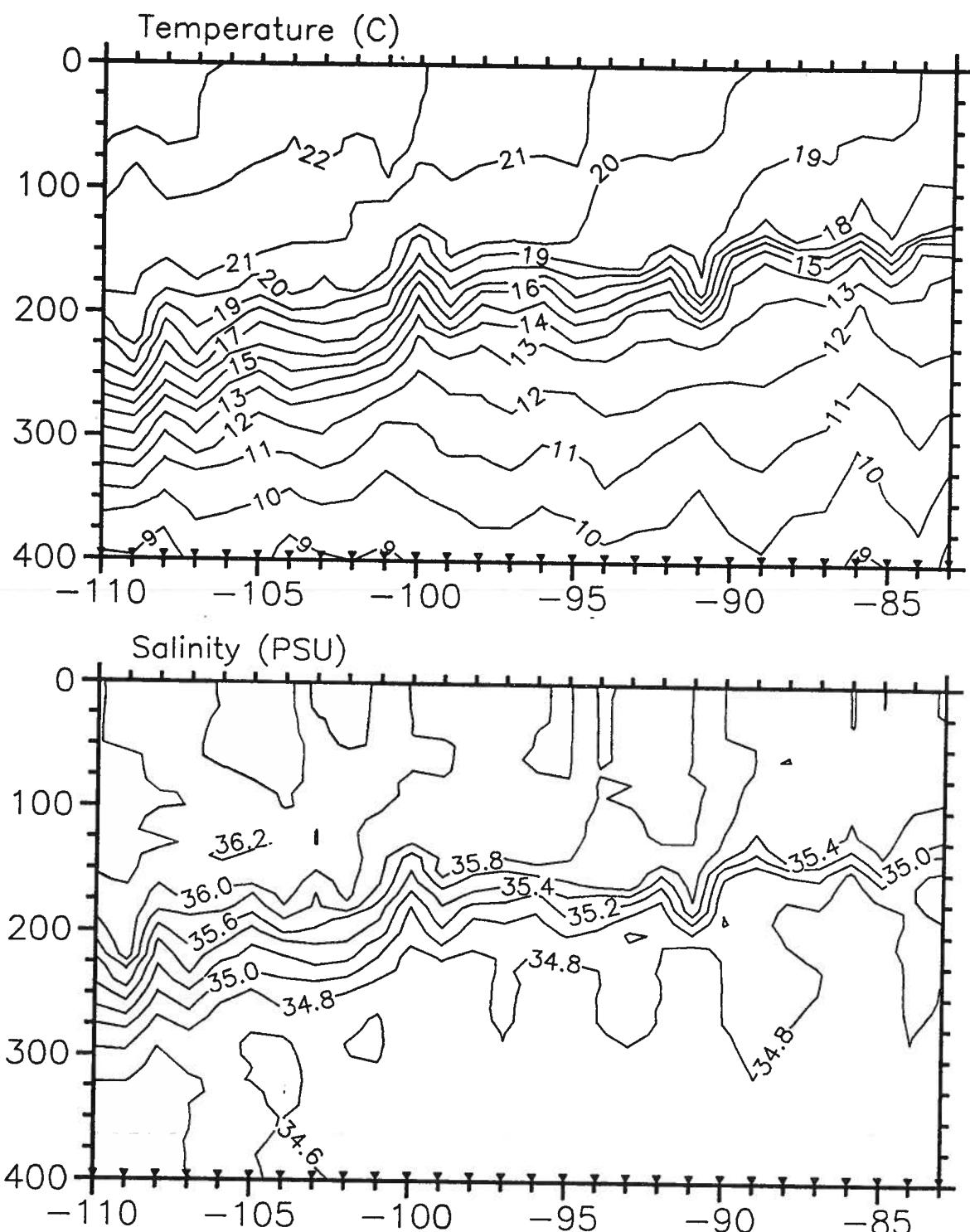
Temperature (C)



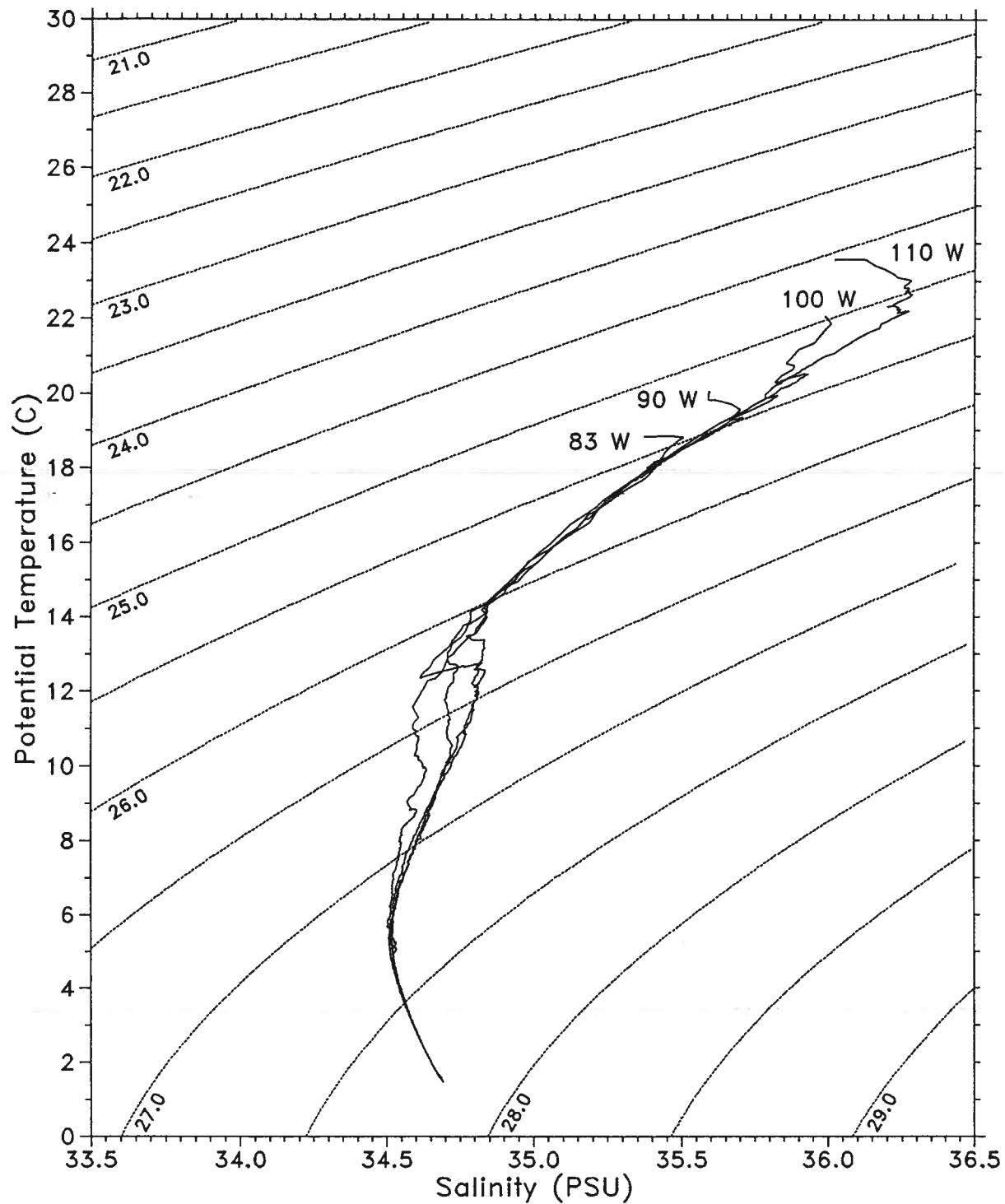
Salinity (PSU)



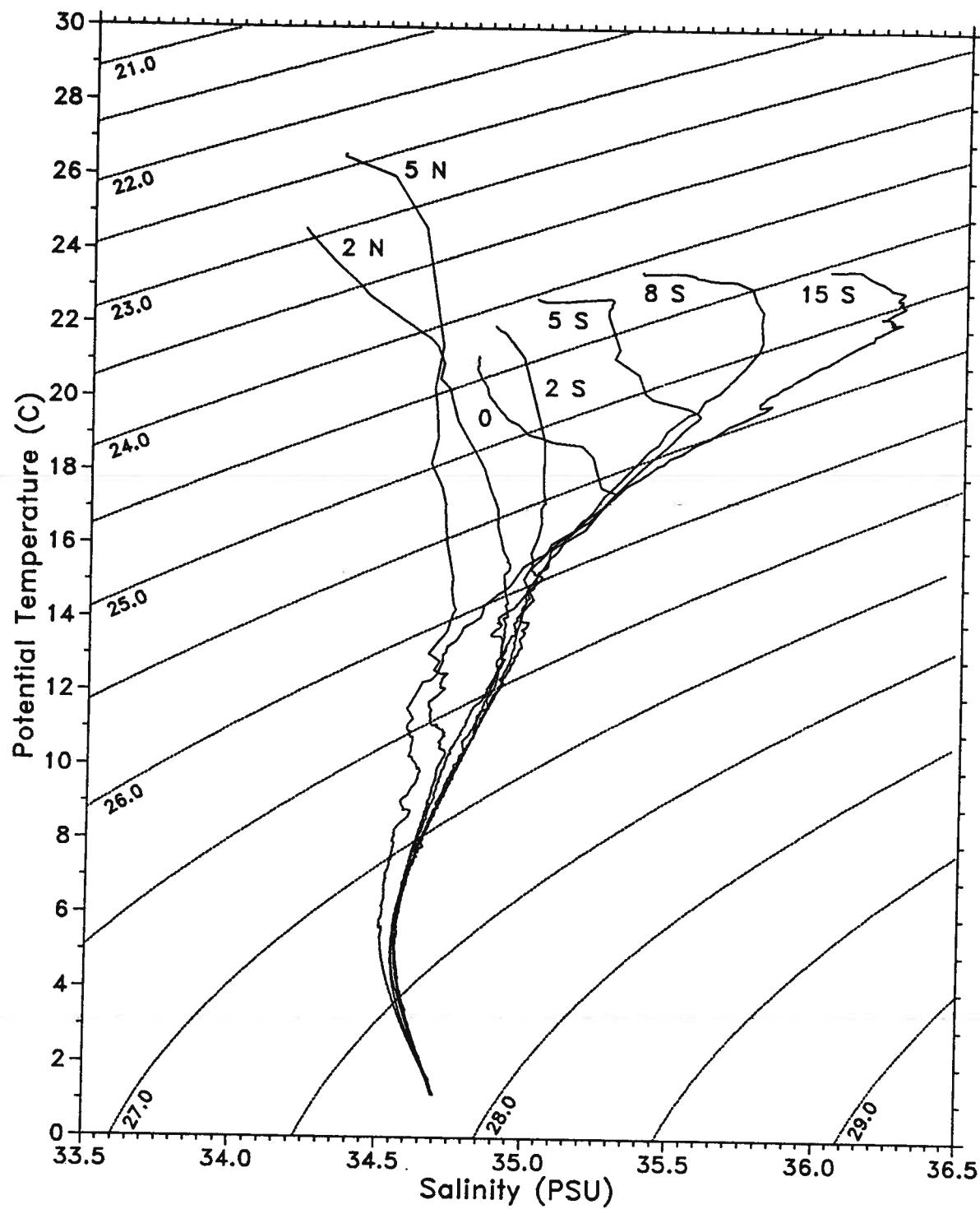
EP4-85-RS 15 South



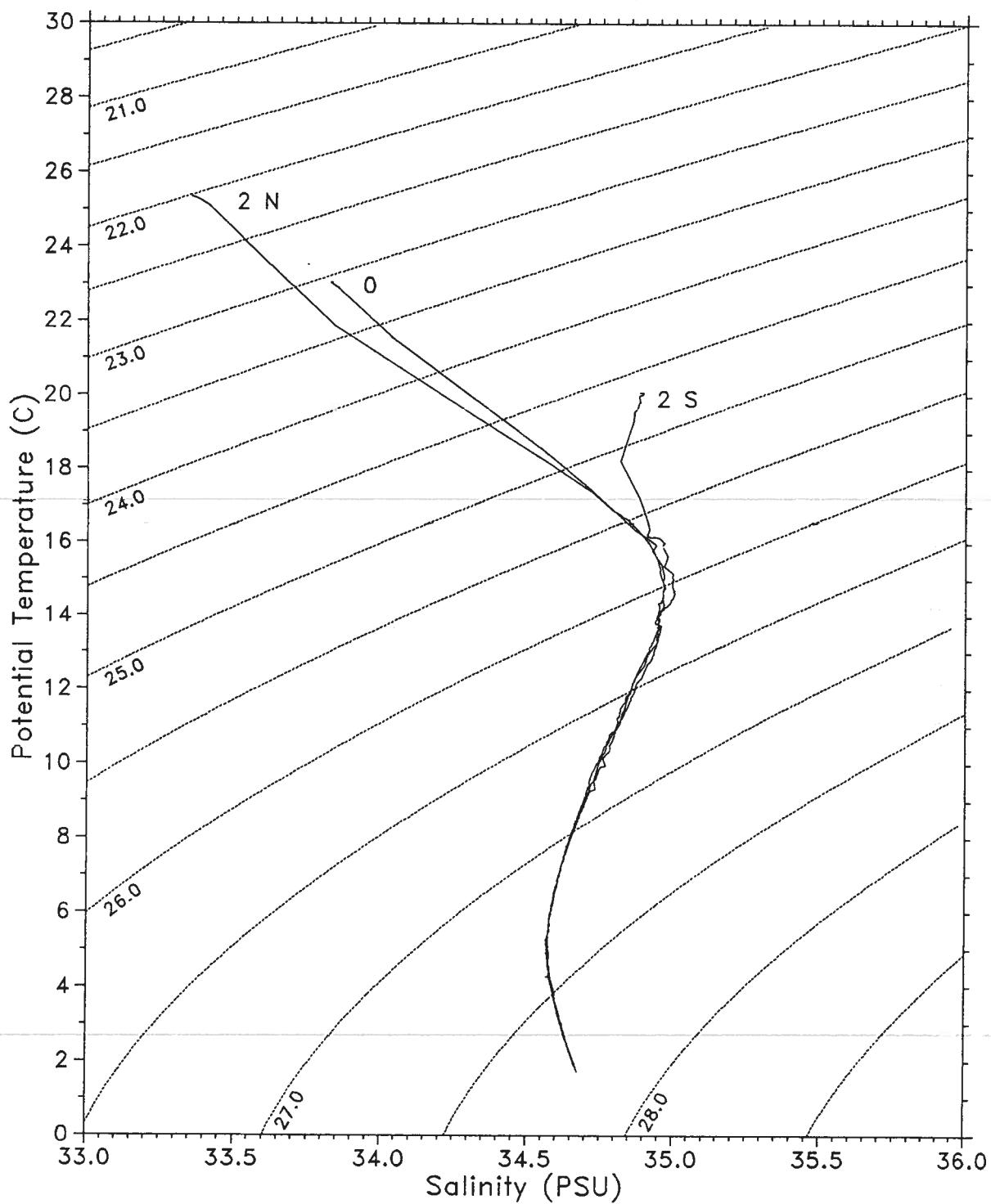
Θ - S EP4-85-RS 15 South



$\Theta - S$ EP4-85-RS 110 West



$\Theta - S$ EP5-85-RS 85 West



EP4-85-RS

DISSOLVED OXYGEN (ml/l) BOTTLE VALUES

CD #	2	3	4	6	7	8	9	11	12	13
0							0 4.75	15 4.47	16 4.54	15 4.79
15	16 5.07		16 3.82	15 5.56						
20				30 5.26			21 4.54			28 4.63
30					60 4.94					
45						75 3.34				
60						100 1.91	99 2.94	101 1.38		
75									60 2.24	
100									76 1.39	
150										101 1.21
200			200 1.11	200 1.26	200 1.12	200 1.26				
300	299 1.38		300 1.21	299 0.93			305 0.70	207 2.08	200 1.57	201 1.20
400			424 0.42				308 0.74			
500	499 0.39		500 0.98	500 0.58	501 1.01					
750			751 1.13		775 1.69		754 1.61	499 0.89	500 0.88	
1000	1000 1.47	1015 1.44	1020 1.03		1019 1.91	1011 2.10	1011 1.95	750 1.61	752 1.63	
1500	1498 1.81							985 2.00	1013 1.99	1006 2.06
2000	1999 2.41							1508 2.18		
2500	2500 2.95							2006 2.58		
3000	2998 3.03							2516 3.04		
3500	3499 3.21							3007 2.95		
Max								3503 3.64		
Depth	3753	3.73						3586 3.66		

EP4-85-RS

DISSOLVED OXYGEN (mL/L) BOTTLE VALUES

CTD #	14	15	17	18	20	21	22	23	24	25
0	0 4.68	15 4.92	16 5.19	17 5.22	15 5.22					
15						20 5.27	20 5.14			
20							20 5.27	20 5.14	20 4.26	
30			29 5.36	30 5.27						
45			46 5.10							
60			61 3.26	60 3.29						
75			76 1.51	77 1.21						
100			100 1.19	105 0.97			104 1.01	100 4.97	102 3.68	100 3.38
150						203 0.59	201 0.73	203 0.83	201 0.72	202 2.50
200	200 1.20	201 1.03	201 0.33							
300		300 0.37	300 0.64	301 0.43						
400										
500	500 1.54	501 1.34	501 0.95	501 0.90	500 0.77	503 1.85	500 0.58	503 0.47	501 0.45	500 0.40
750	750 2.03		749 1.42	753 1.60		751 2.06	749 1.90	748 1.66	749 1.51	749 1.19
1000	1013 2.06	1003 2.05	1008 1.79	1025 2.31	1004 1.63	1013 2.03	1018 2.07	1013 2.14	1010 2.07	1000 1.70
1500			1500 2.21			1499 2.24				
2000			1997 2.59			1999 2.74				
2500			2500 2.97			2497 3.24				
3000						2999 3.30				
3500			3498 3.64							
Max Depth			3726 3.73				3306 4.50			

EP4-85-RS

DISSOLVED OXYGEN (ml/l) BOTTLE VALUES

CD #	27	28	29	30	31	32	33	34	36	37
0										
15	15 5.24									
20		21 5.21								
30	30 5.13		31 5.16		22 5.27		16 4.24		15 5.23	
45	46 5.21		45 4.97			30 4.14		20 5.00		20 5.21
60		62 5.22		61 5.09		63 5.26		61 3.68		32 5.10
75	76 5.07		77 4.99			76 4.13		60 5.43		46 5.04
100	101 4.30		99 4.56		102 4.89		104 4.36		62 5.26	
150							101 4.89		101 5.09	
200	200 0.86		199 0.98		202 0.85		207 2.85		200 2.16	
300		300 1.58		302 0.58		301 0.61		310 0.77		300 0.45
400		401 0.87						301 4.47		301 4.47
500	500 0.32		500 0.98		501 0.62		507 0.93		500 1.15	
750		749 1.15		747 0.92		749 0.89		760 0.94		749 1.32
1000	976 2.37		1005 1.96		1008 2.02		1013 1.77		1000 1.75	
1500								1008 1.63		1007 1.80
2000		2002 2.74								1016 1.69
2500		2502 3.18								1014 1.92
3000		3000 3.56								1006 1.67
Max Depth		3201 3.53								1497 2.32
										2503 3.00
										2997 3.58
										3201 3.48

EP4-85-RS

DISSOLVED OXYGEN (mL/L) BOTTLE VALUES

CTD #	38	39	40	41	42	43	44	45	46	47
0										
15				15 4.12						
20	20 5.10	20 5.24		20 4.36	20 5.39			20 5.22	20 5.13	15 5.22
30			30 5.19			31 5.08				30 5.21
45			45 5.25			47 4.99				45 5.29
60	61 5.09	60 5.31	60 5.07	60 4.66	60 5.27	61 5.08	60 5.20	61 5.18	61 5.18	63 5.44
75			74 5.18			75 5.19				75 5.20
100	100 4.94	101 5.13	101 5.14	101 4.43	100 5.07	100 5.09	100 4.17	98 4.95	102 5.14	
150										
200	201 4.94	201 4.51	201 4.61	200 4.00	201 4.52	200 5.07	200 3.87	200 4.45	201 4.19	200 2.23
300	299 3.64	301 3.29		300 2.05	300 1.79	299 2.49	300 1.18	300 1.88	303 1.59	
400										
500	500 2.30	501 2.08	500 1.33	501 1.67	500 1.16	502 1.32	499 1.37	508 1.36	502 1.07	501 0.81
750	750 1.88	750 1.78	752 1.37	750 1.64	750 1.19	751 1.16	749 1.28	752 1.26		
1000	1008 1.93	1012 1.77	1029 1.77	1012 1.75	1001 1.65	1011 1.61	1021 1.71	1010 1.42	1009 1.43	998 1.55
1500										
2000										1498 2.66
2500										2000 3.44
3000										2504 3.39
										3000 3.35

EP4-85-RS

DISSOLVED OXYGEN (ml/l) BOTTLE VALUES

CTD #	48	49	50	51	52	53	54	55	56	57
0										
15	14 5.09									
20										
30	31 5.16									
45	46 5.15									
60	60 5.09									
75	76 4.75									
100										
150										
200	201 3.02									
300	302 0.49									
400										
500	505 0.76									
750	759 1.03									
1000	1014 1.48	1010 1.33	1008 1.95	1009 1.47	1005 1.54	1010 1.61	1014 1.47	1011 1.47	1018 1.54	999 1.39
1500										1500 1.93
2000										2016 2.70
2500										2514 3.16
3000										3019 3.49
3500										3519 3.49
Max										
Depth										
										4102 3.49

EP4-85-RS

DISSOLVED OXYGEN (ml/l) BOTTLE VALUES

CTD #	58	60	61	62	63	64	65	66	67	71
0										
15	19 5.36									
20	29 5.33	31 4.96								
45	47 5.30	47 5.28	45 5.30							
60	62 5.32	61 5.31	60 5.30	60 5.27						
75	77 5.13	75 4.49	76 5.18	74 5.14	74 5.14					
100	103 4.99	101 5.07	101 5.04	101 4.82	101 4.82	102 3.45				
150	152 2.46	151 3.97	150 4.57	152 2.09	152 2.09	150 0.43	150 0.43			
200	204 0.23	200 0.55	200 0.87	200 0.50	200 0.50	200 0.20	201 0.24	201 0.24		
300	303 0.12	300 0.13	300 0.20	301 0.17	301 0.17	303 0.16	303 0.16			
400										
500	502 0.27	499 0.55	500 3.03	498 0.67	498 0.67	500 0.51	501 0.42			
750										
1000	1010 1.23	1012 1.45	1008 1.57	1015 1.44	1014 1.31	1007 1.35	996 1.44	1016 1.43	1005 1.19	1001 1.18
1500										
2000										
2500										
3000										
3500										
4000										
4500										
Max Depth										

EP4-85-RS**DISSOLVED OXYGEN (mL/l) BOTTLE VALUES**

CTD #	72	73	74	75	76
0					
15	15 5.21	16 3.73	11 5.70	11 5.70	5 2.65
20			20 1.93	20 1.93	11 1.99
30	31 3.68	31 1.29	30 1.20	30 1.20	21 0.76
45	45 1.05	45 0.26	48 0.47	48 0.47	31 0.43
60	60 0.34	63 0.43	61 0.53	61 0.53	40 0.24
75	75 0.38	74 0.39	75 0.80	75 0.80	
100	100 0.45	102 0.59	101 0.31	101 0.31	
150	151 0.52	152 0.51	142 0.36	142 0.36	
200	201 0.51	200 0.72			
300	298 0.66	299 0.54			
400					
500			501 0.42		
750				1010 1.25	
1000					
1500			1508 2.04		
2000	1998 2.08				
2500	2497 2.49				
3000	2999 3.23				
3500	3500 3.03				
4000	3994 3.40				
4500	4500 3.51				
Max					
Depth	5513 4.23	2398 3.35			

EP5-85-RS

DISSOLVED OXYGEN (ml/l) BOTTLE VALUES

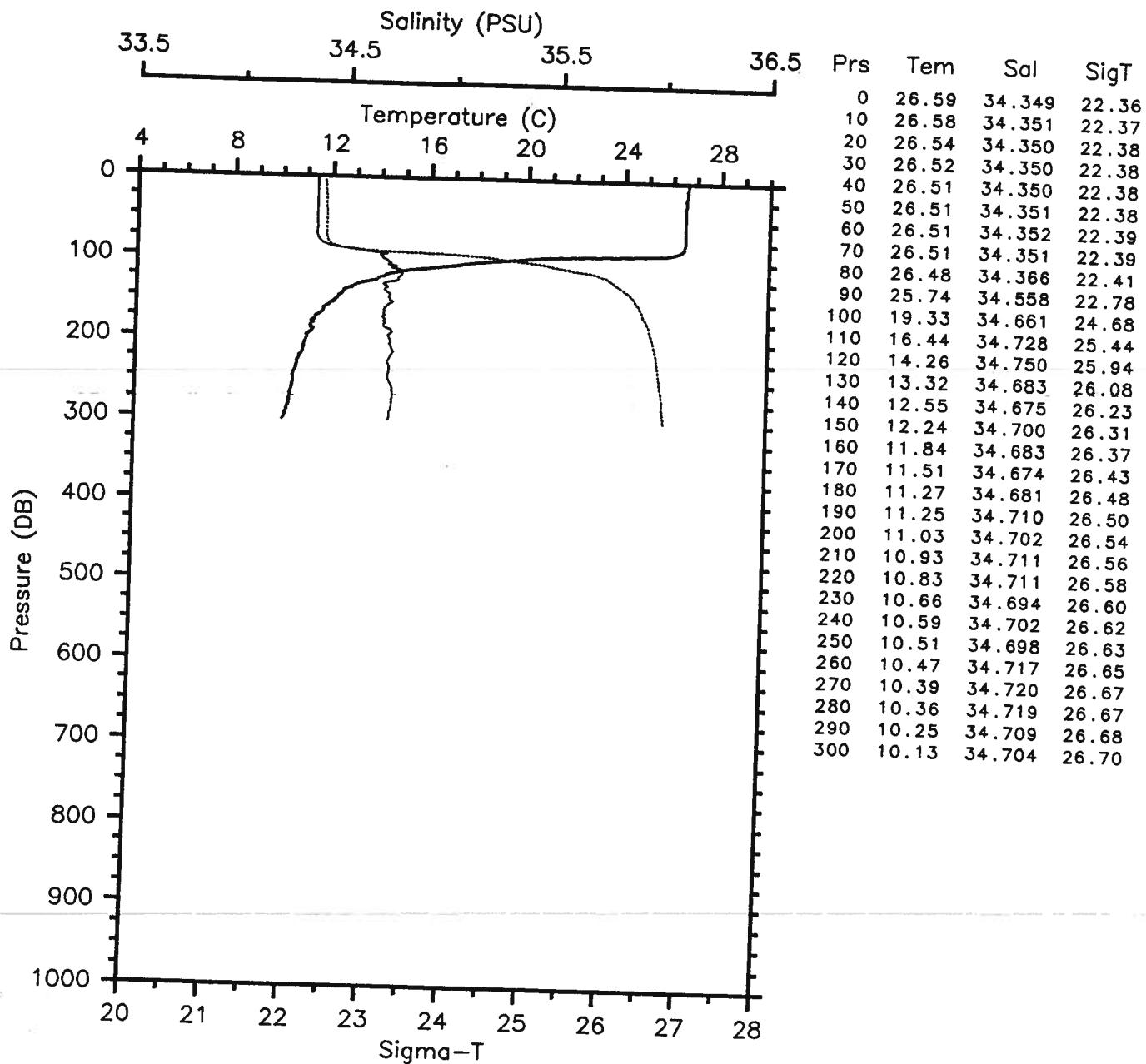
CID #	1	2	3	4	6
15	10 2.70	15 1.82	15 1.11	15 3.92	15 4.92
30	20 2.21	30 1.12	30 0.52	30 1.11	30 2.92
45	40 1.31	45 1.38	45 1.28	45 0.82	45 1.68
60	60 1.15	60 1.38	60 1.52	60 1.20	60 1.58
75	80 1.07	75 1.57	75 1.53	75 1.18	75 1.55
100	100 0.85	100 0.97	100 1.47	100 1.08	100 1.68
200		200 0.58	200 1.00	200 0.72	200 1.72
300		300 0.29	300 0.61	300 0.22	300 1.11
1000		1000 1.41	1000 1.41	1000 1.30	1000 1.69
					3100 2.64

EPOCS EP4-85-RS CTD 1 RESEARCHER

Date 11 08 85 Latitude 5.059 N

Time 2137 Z Longitude 110.024 W

— Tem — Sal
— SigT

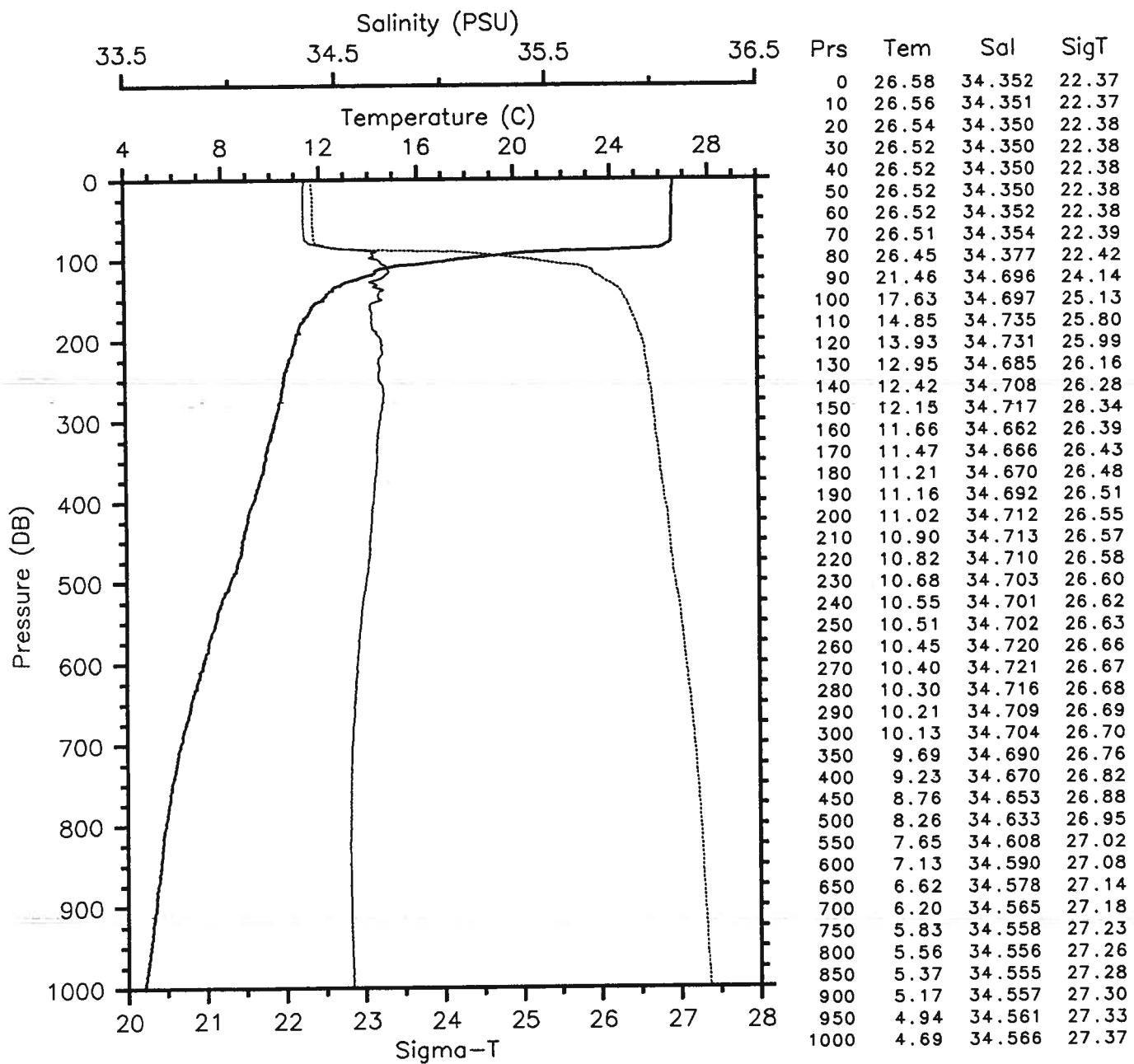


EPOCS EP4-85-RS CTD 2 RESEARCHER

Date 11 08 85 Latitude 5.060 N

Time 2237 Z Longitude 109.994 W

— Tem	— Sal
— SigT	

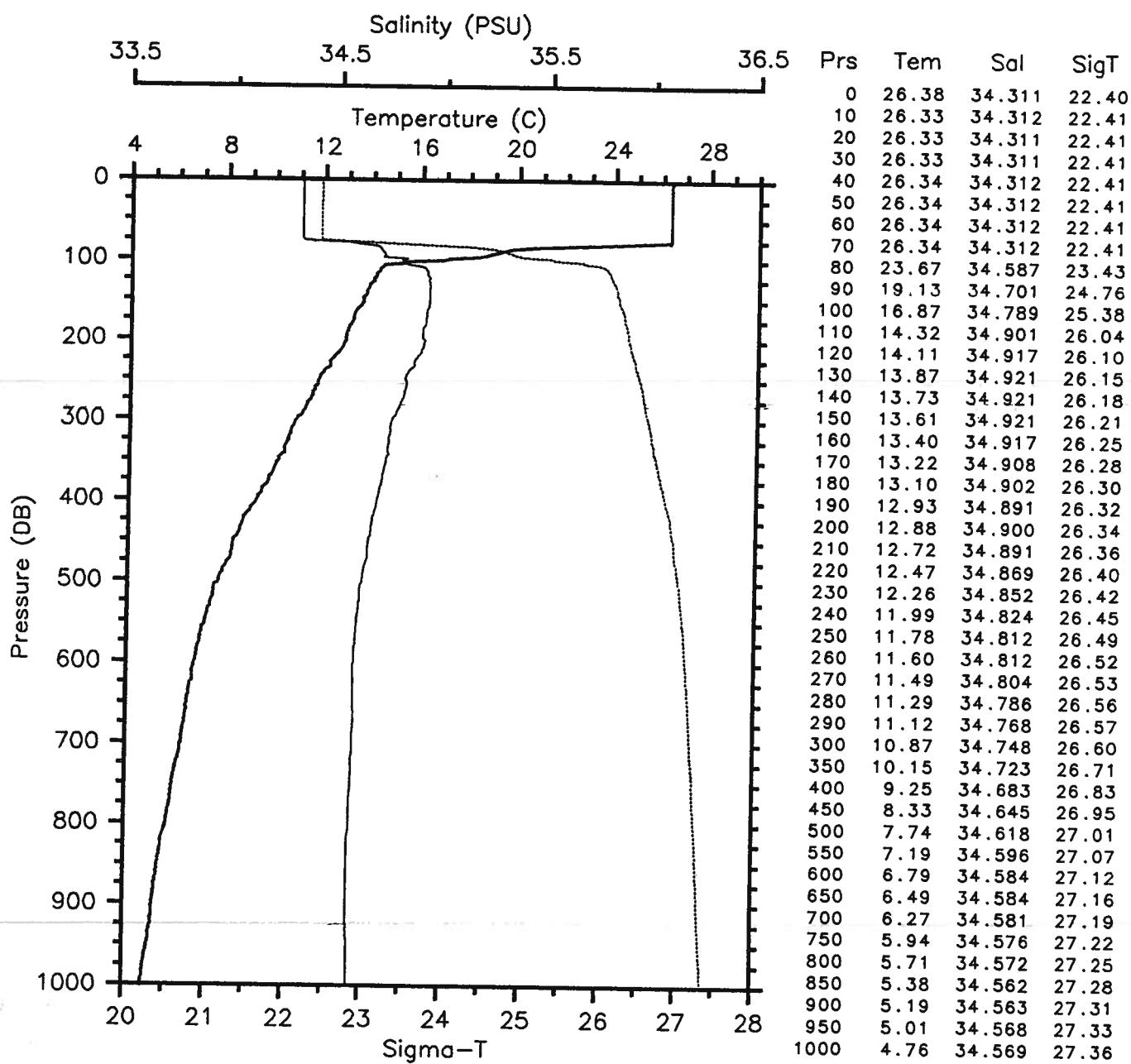


EPOCS EP4-85-RS CTD 3 RESEARCHER

Date 11 09 85 Latitude 4.010 N

Time 0553 Z Longitude 109.992 W

— Tem	— Sal
— SigT	

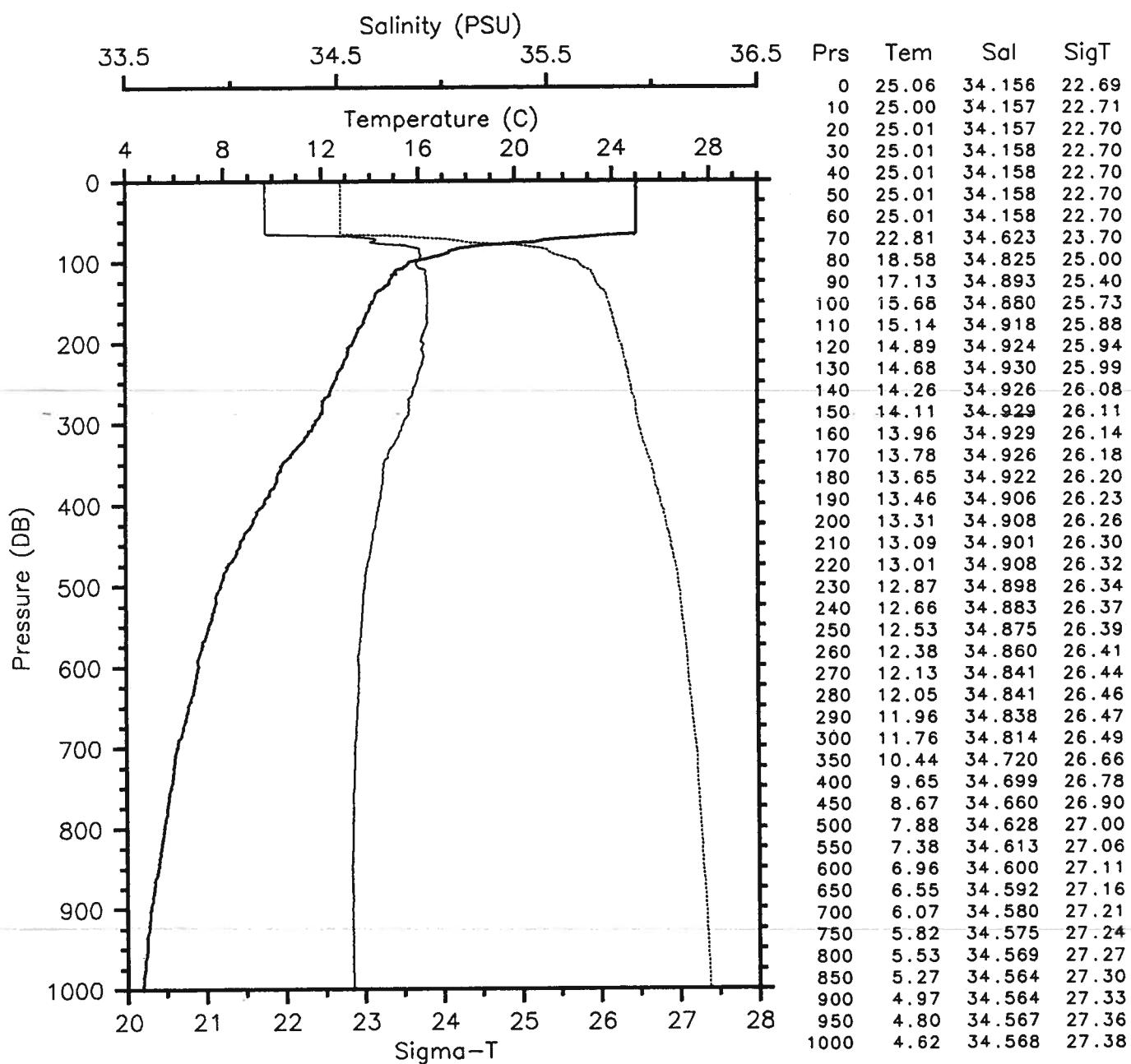


EPOCS EP4-85-RS CTD 4 RESEARCHER

Date 11 09 85 Latitude 3.000 N

Time 1105 Z Longitude 109.998 W

— Tem — Sal
— SigT

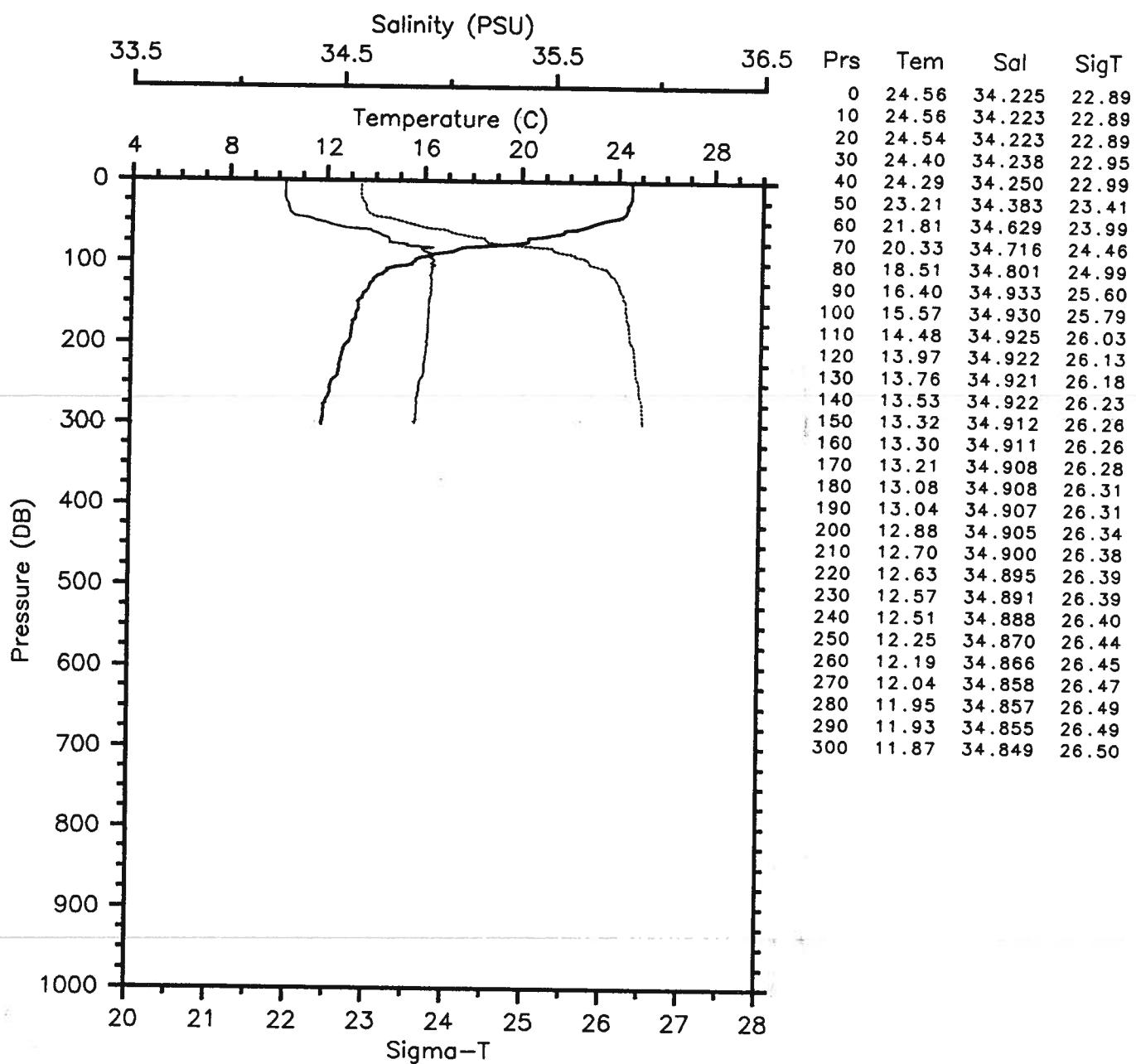


EPOCS EP4-85-RS CTD 5 RESEARCHER

Date 11 09 85 Latitude 2.150 N

Time 2328 Z Longitude 110.220 W

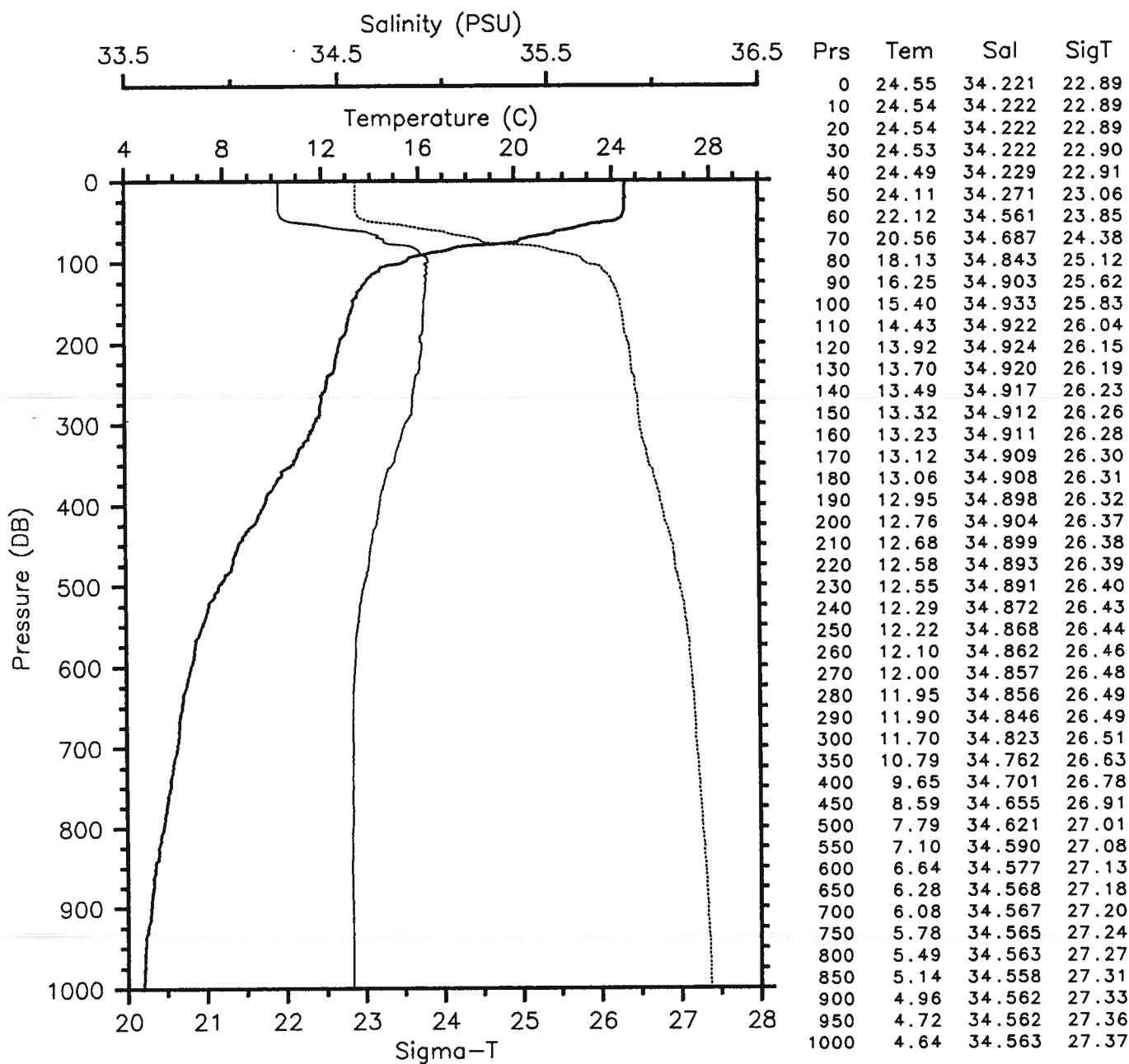
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 6 RESEARCHER

Date 11 10 85 Latitude 2.165 N
Time 0144 Z Longitude 110.195 W

— Tem — Sal
--- SigT

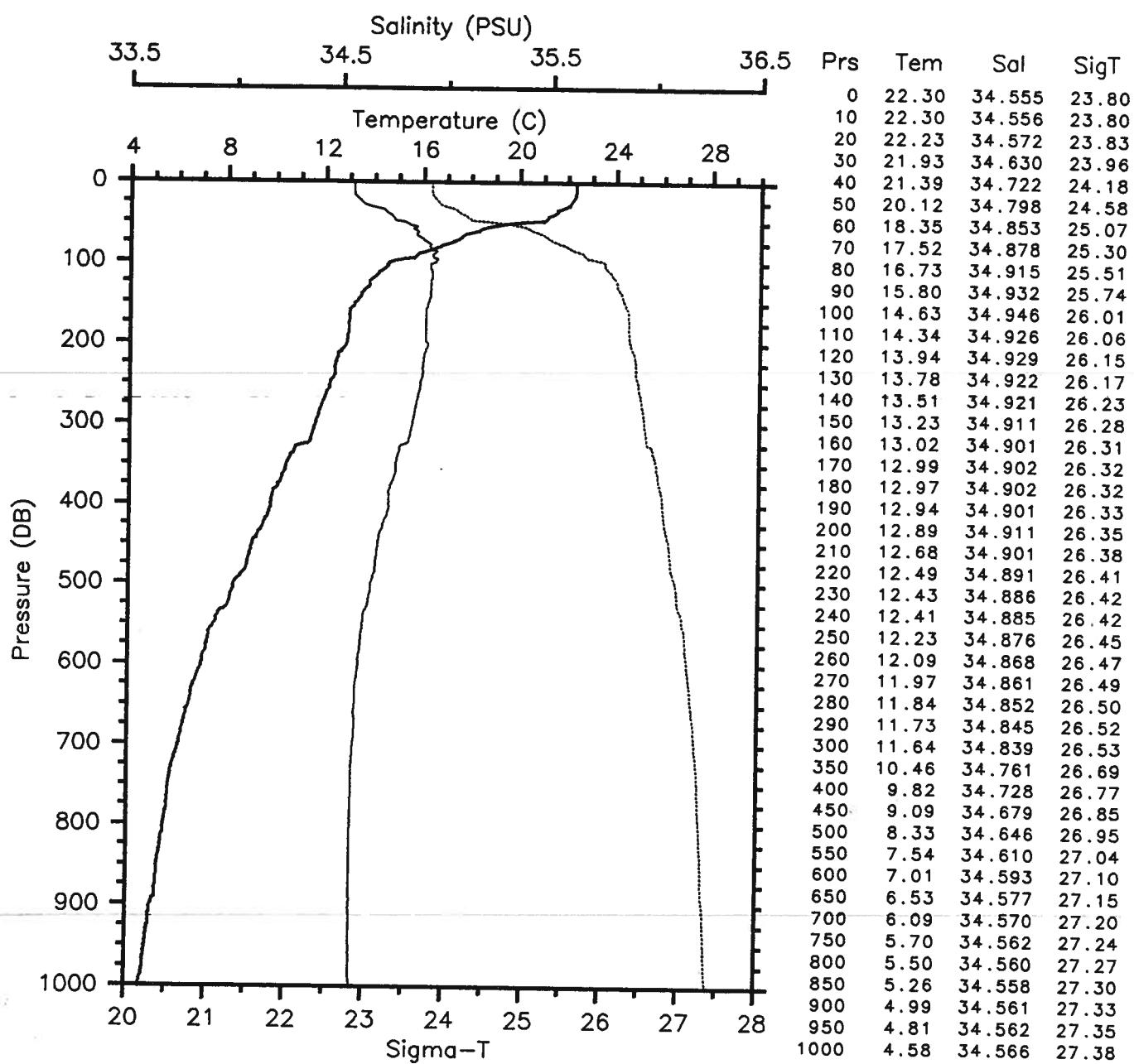


EPOCS EP4-85-RS CTD 7 RESEARCHER

Date 11 10 85 Latitude 1.509 N

Time 0826 Z Longitude 109.992 W

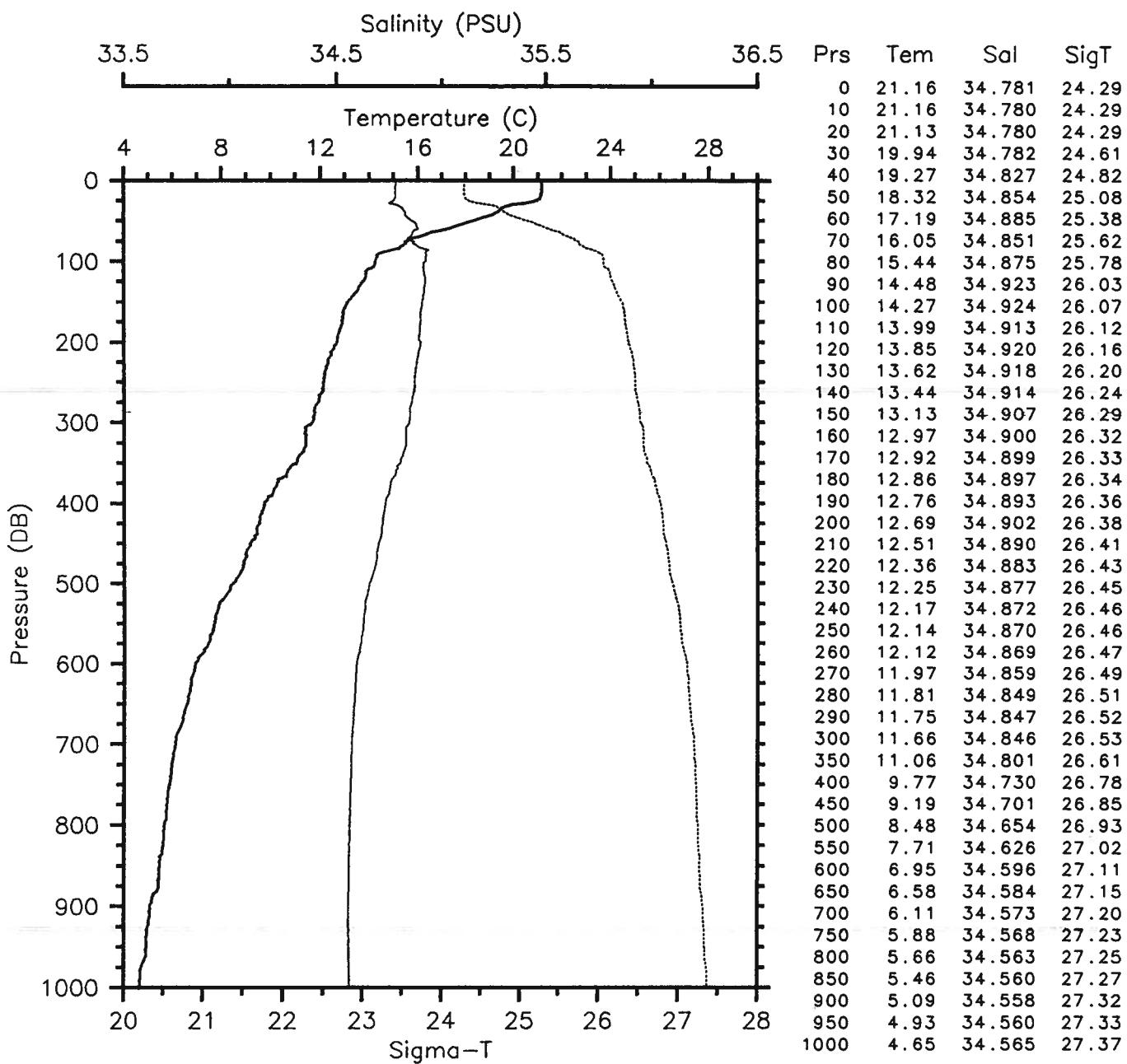
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 8 RESEARCHER

Date 11 10 85 Latitude 0.998 N
Time 1414 Z Longitude 109.990 W

— Tem — Sal
— SigT

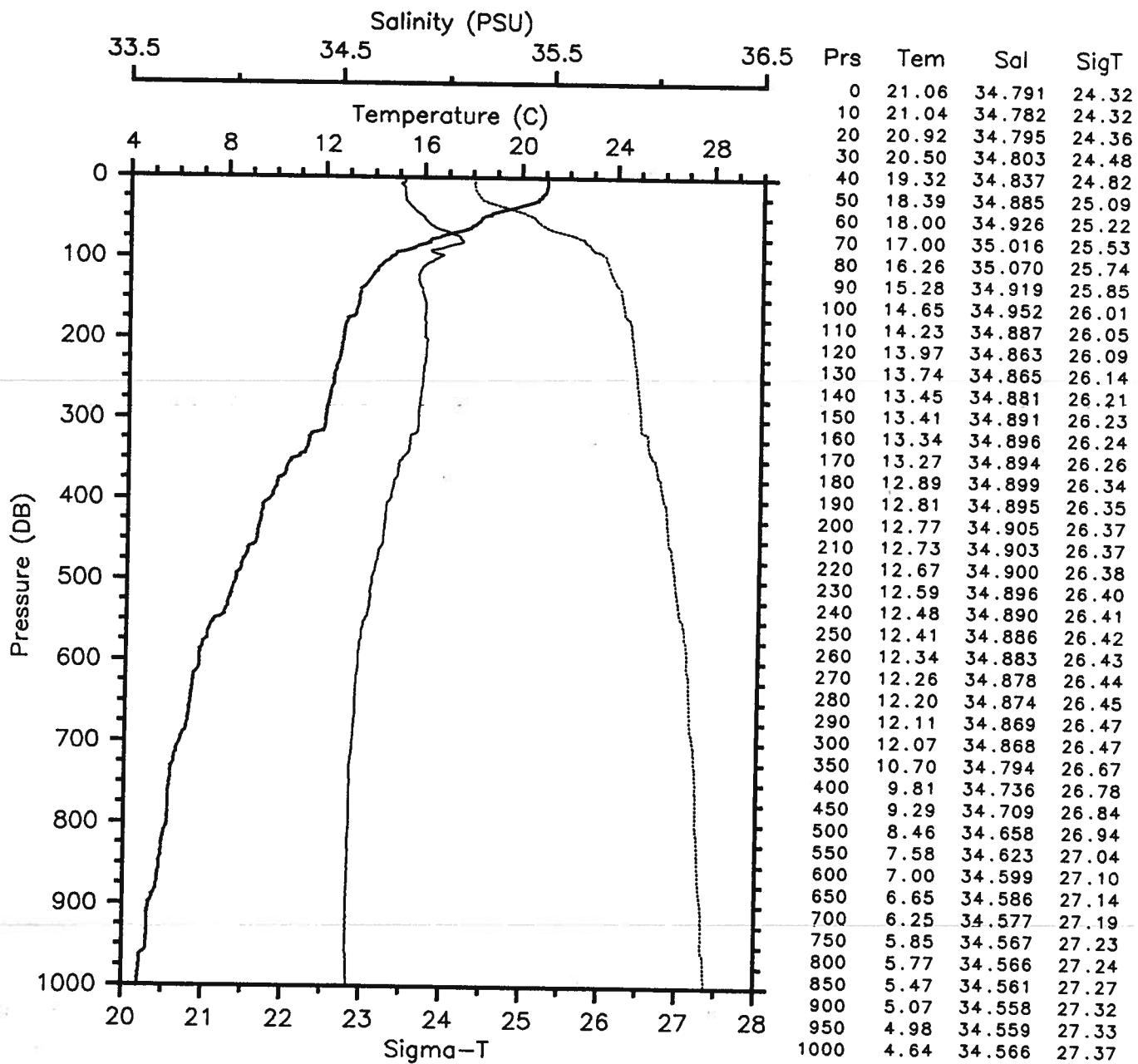


EPOCS EP4-85-RS CTD 9 RESEARCHER

Date 11 10 85 Latitude 0.502 N

Time 1508 Z Longitude 109.990 W

— Tem — Sal
— SigT

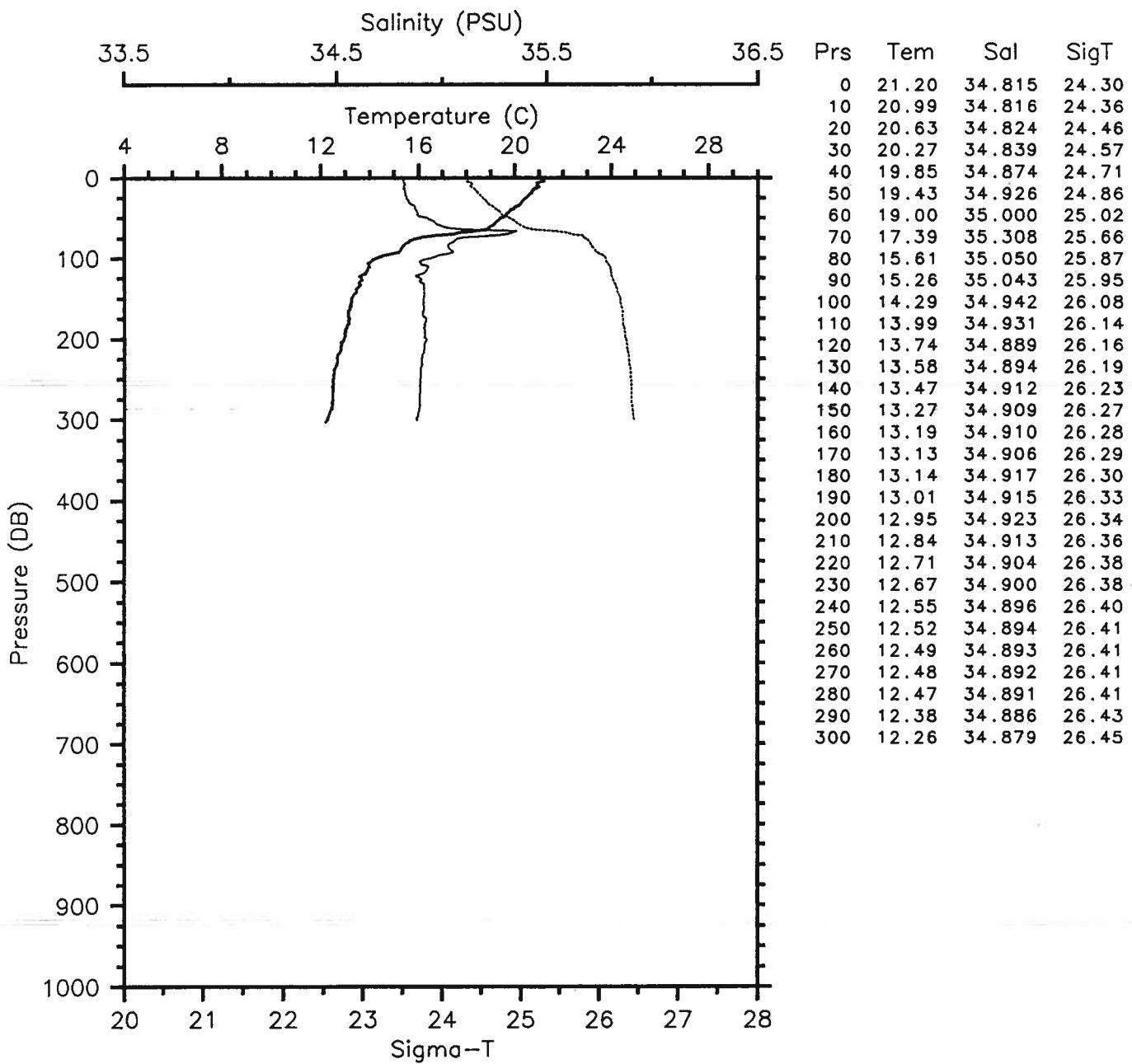


EPOCS EP4-85-RS CTD 10 RESEARCHER

Date 11 10 85 Latitude 0.021 N

Time 1850 Z Longitude 110.019 W

— Tem — Sal
--- SigT

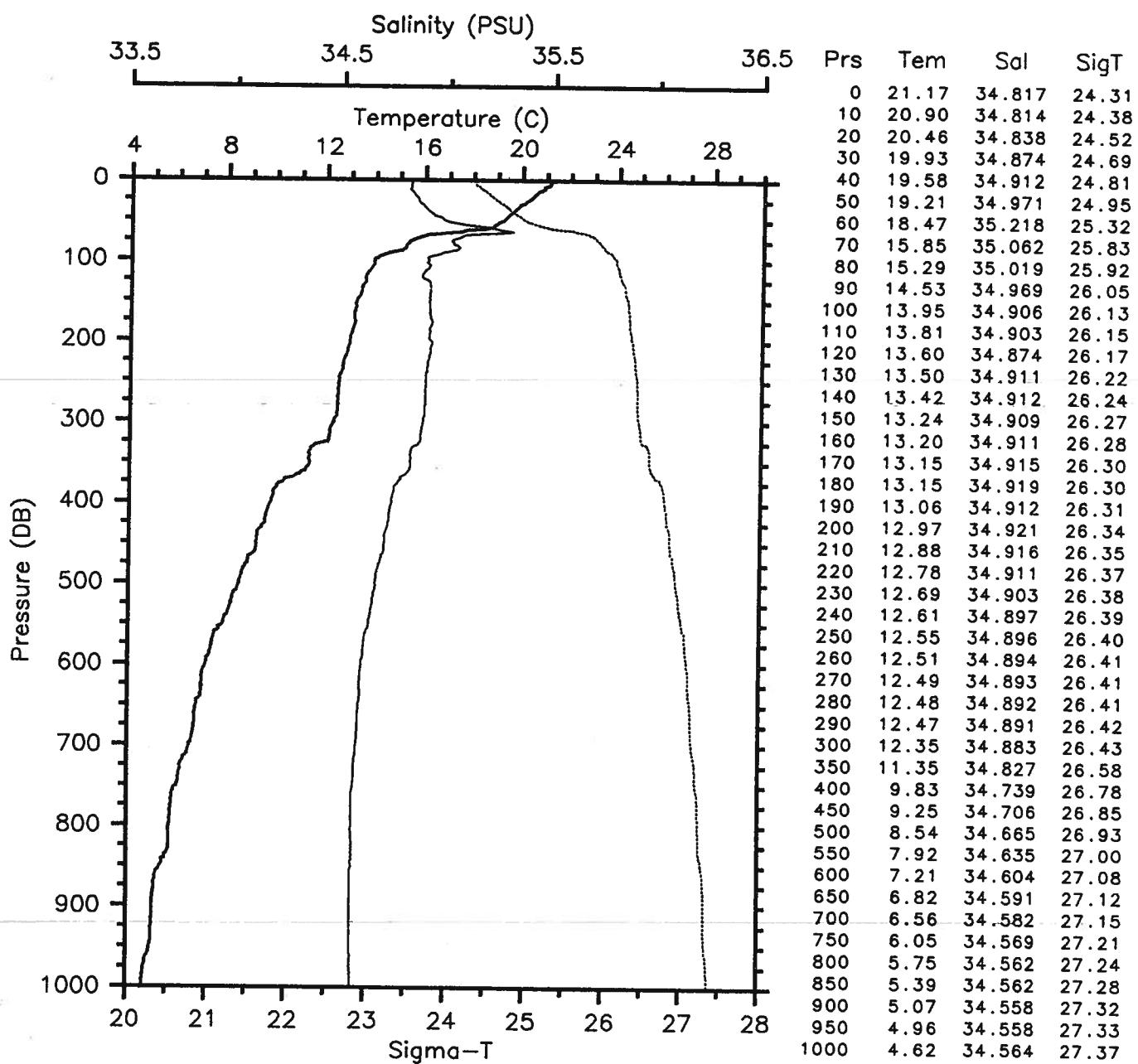


EPOCS EP4-85-RS CTD 11 RESEARCHER

Date 11 10 85 Latitude 0.015 N

Time 1949 Z Longitude 110.005 W

— Tem — Sal
— SigT

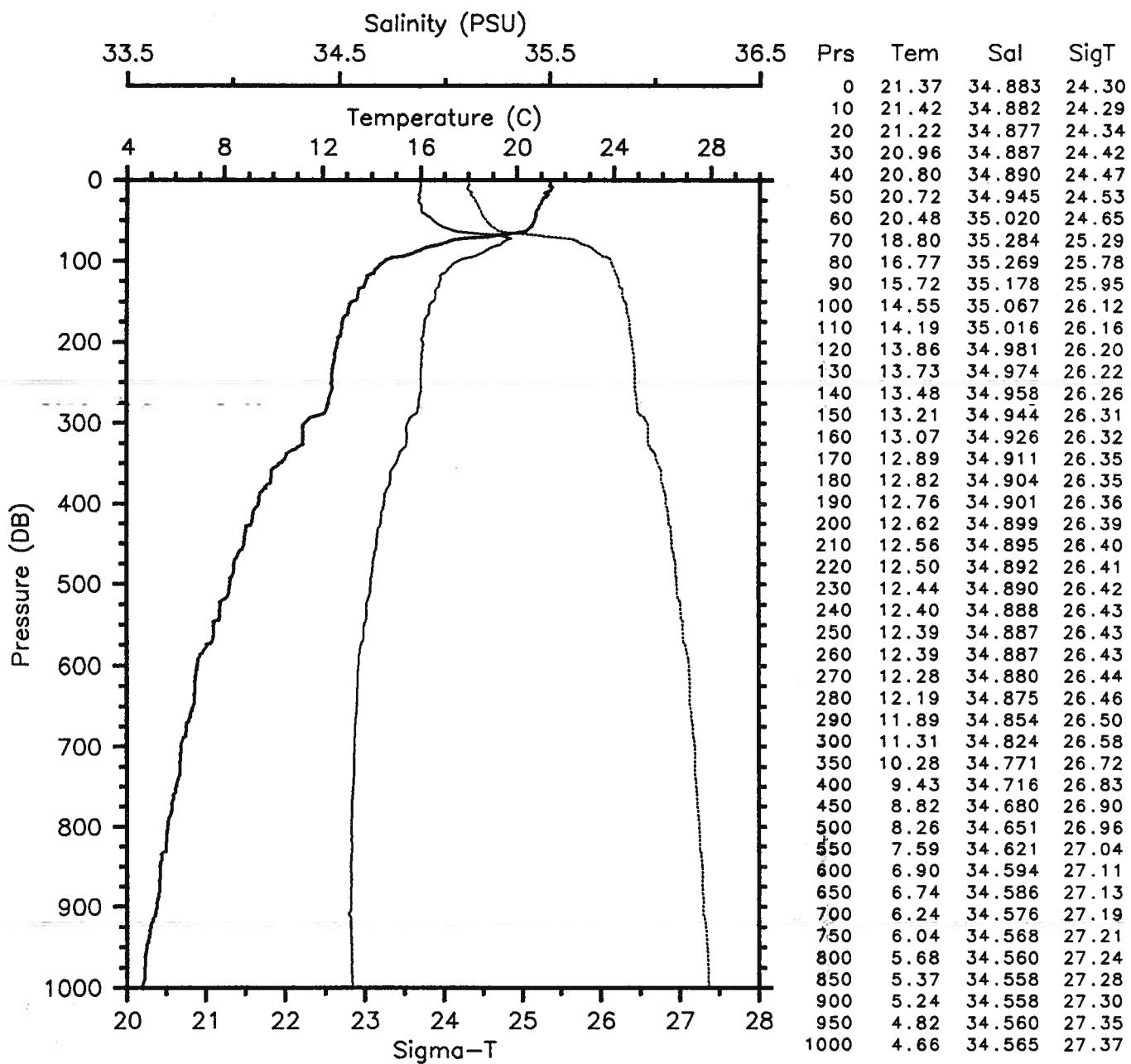


EPOCS EP4-85-RS CTD 12 RESEARCHER

Date 11 11 85 Latitude 0.499 S

Time 0224 Z Longitude 110.017 W

— Tem — Sal
— SigT

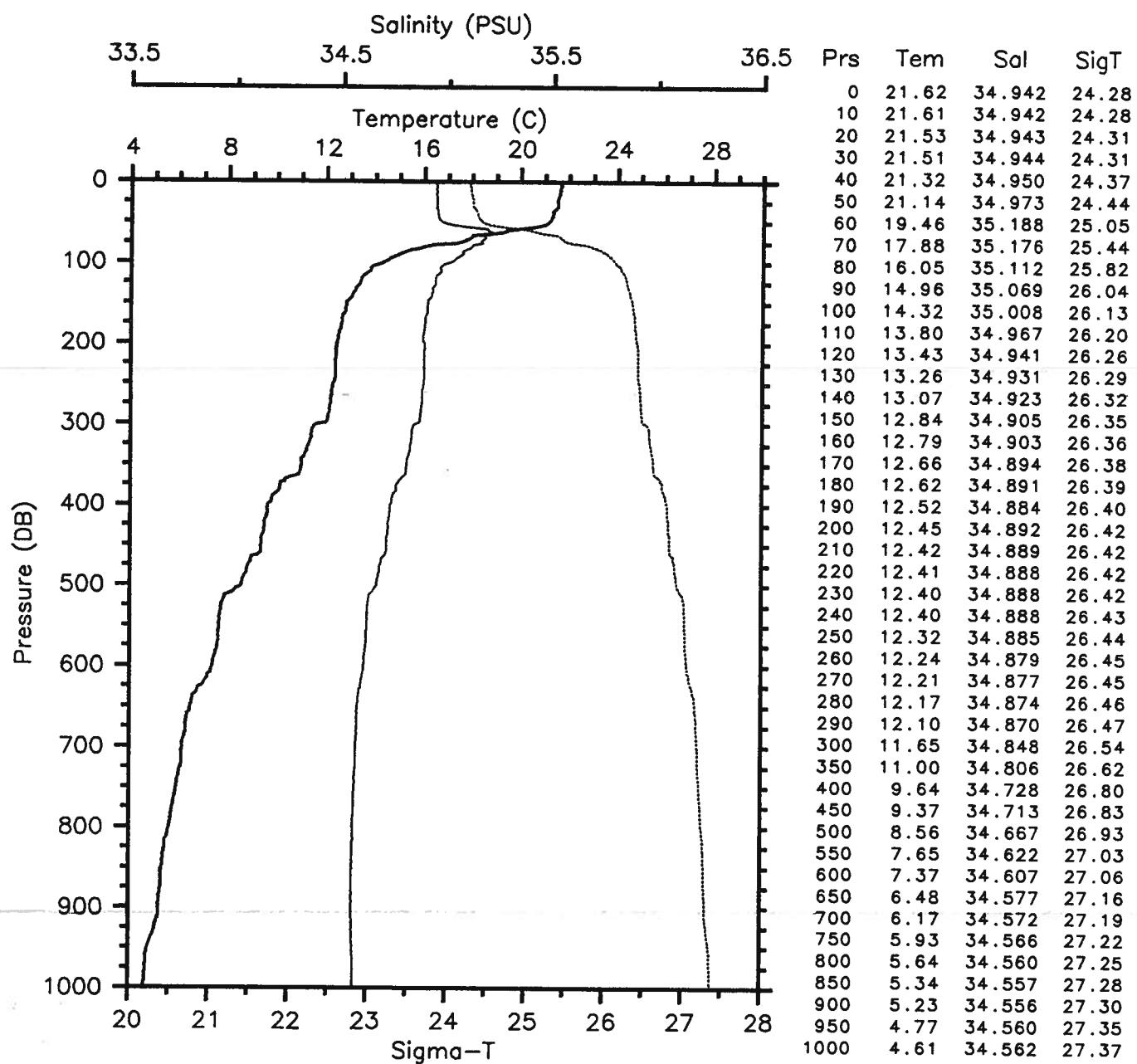


EPOCS EP4-85-RS CTD 13 RESEARCHER

Date 11 11 85 Latitude 1.000 S

Time 0554 Z Longitude 109.986 W

— Tem	— Sal
— SigT	

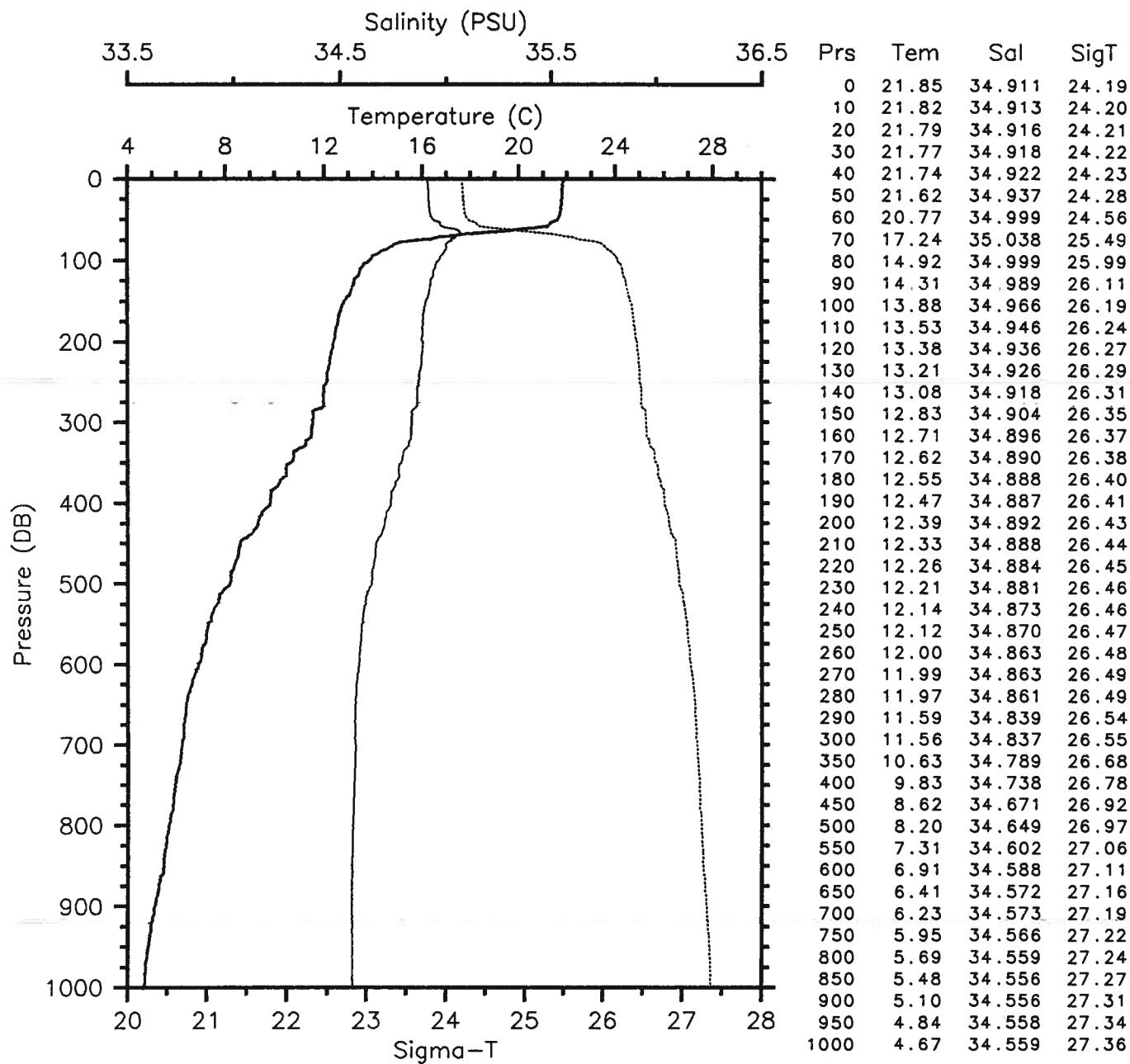


EPOCS EP4-85-RS CTD 14 RESEARCHER

Date 11 11 85 Latitude 1.506 S

Time 0911 Z Longitude 110.003 W

— Tem	— Sal
— SigT	

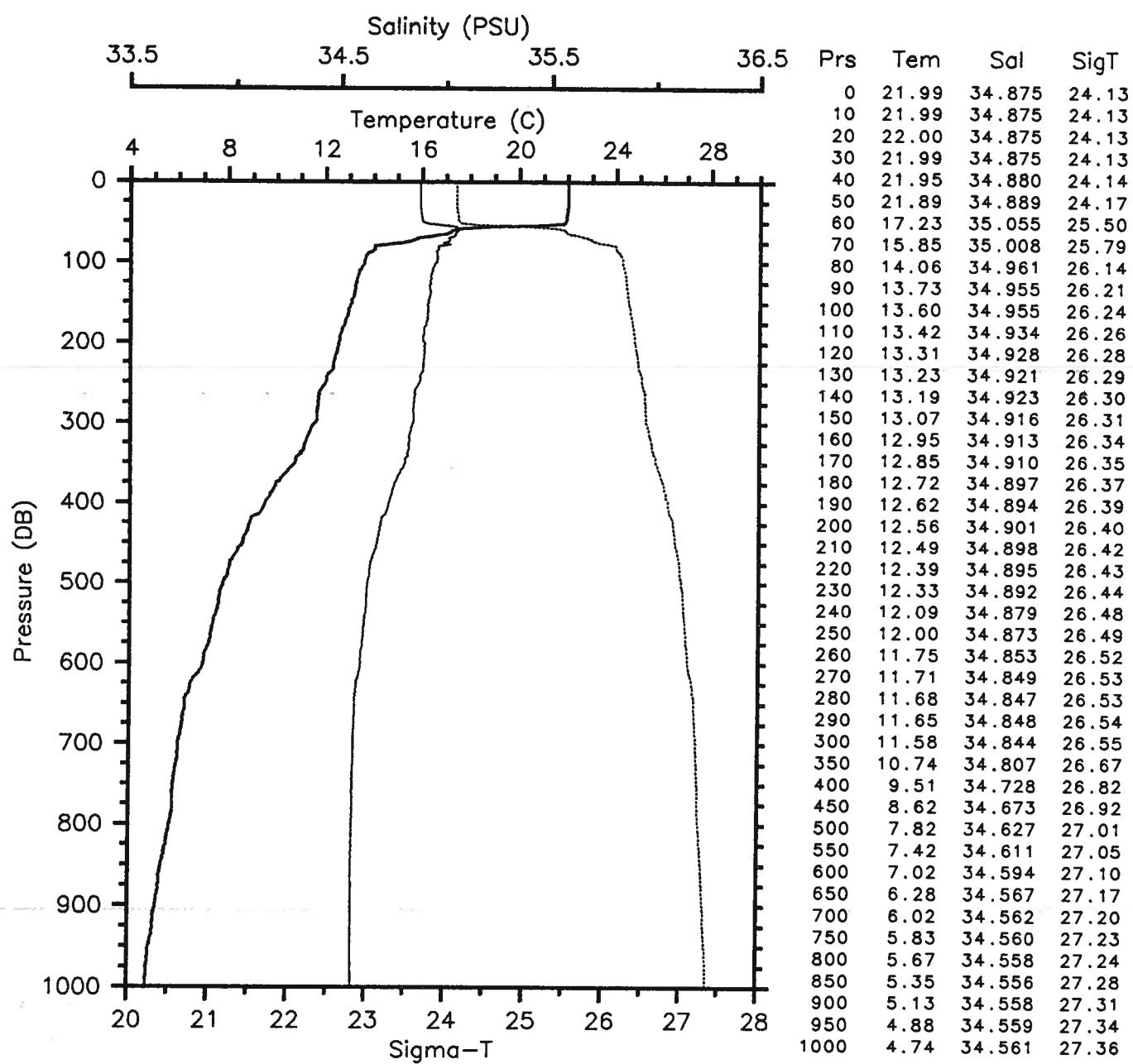


EPOCS EP4-85-RS CTD 15 RESEARCHER

Date 11 11 85 Latitude 1.997 S

Time 1154 Z Longitude 110.005 W

— Tem	— Sal
— SigT	

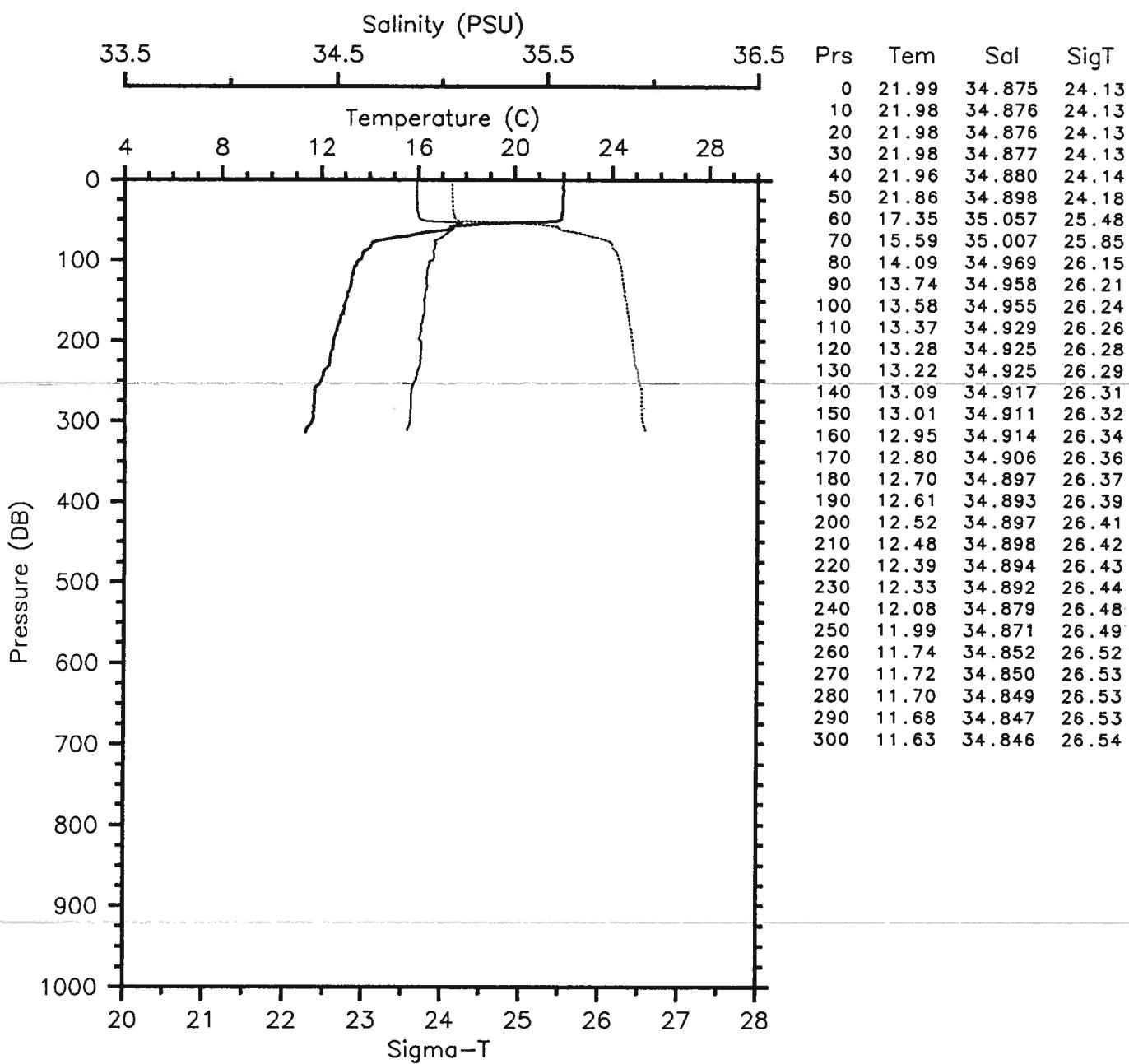


EPOCS EP4-85-RS CTD 16 RESEARCHER

Date 11 11 85 Latitude 1.993 S

Time 1510 Z Longitude 110.013 W

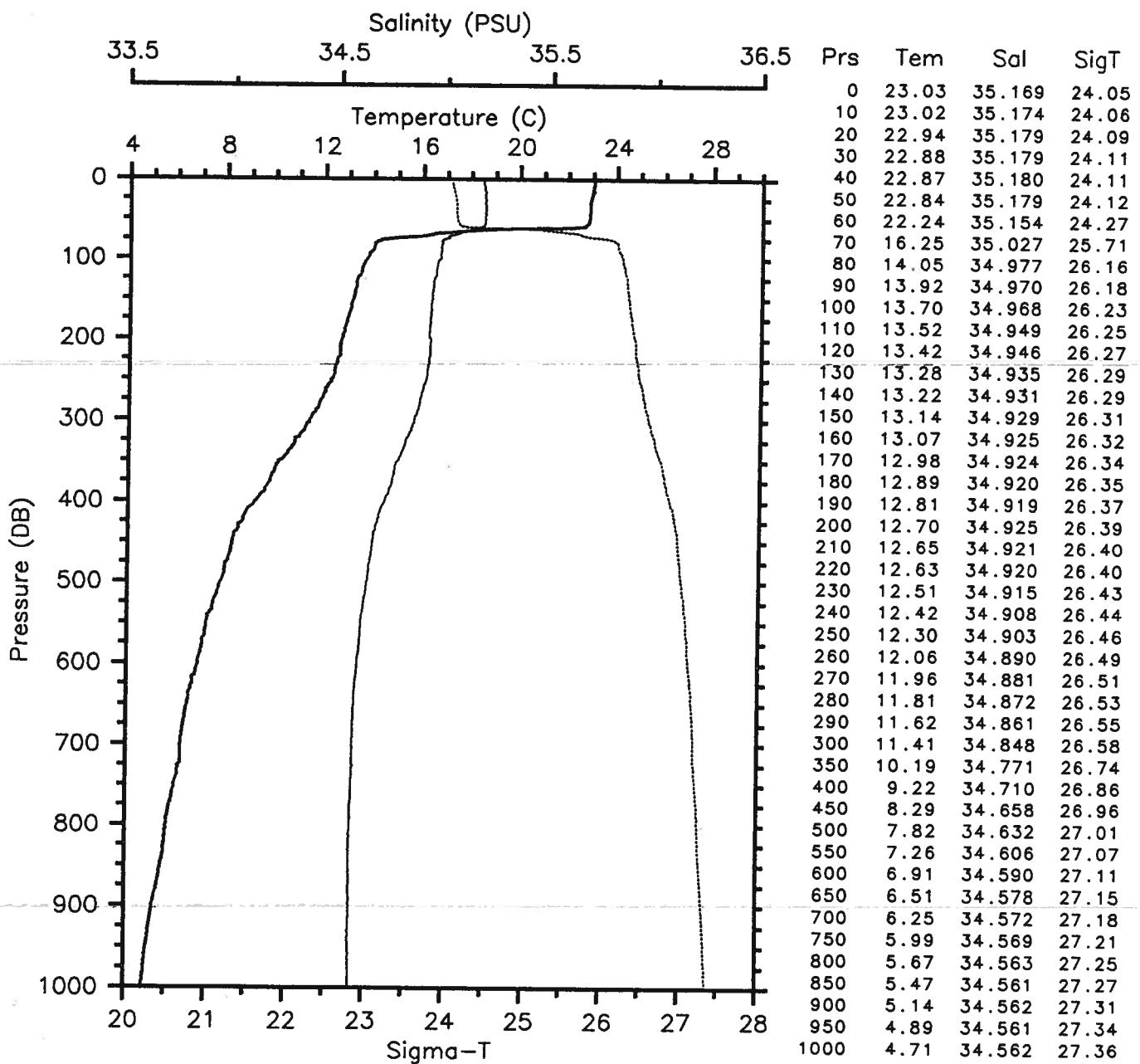
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 17 RESEARCHER

Date 11 11 85 Latitude 3.000 S
Time 2252 Z Longitude 110.000 W

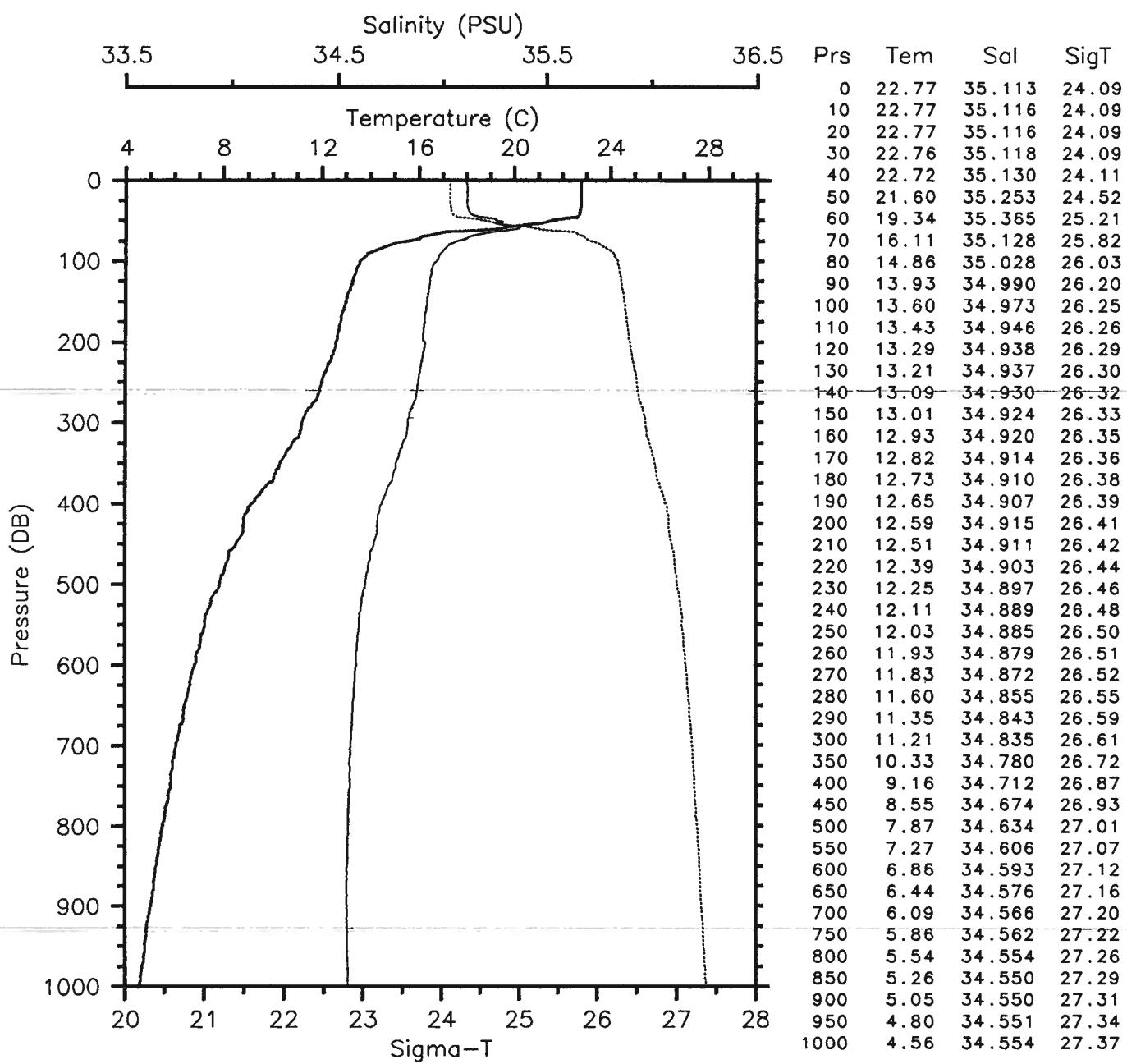
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 18 RESEARCHER

Date 11 12 85 Latitude 3.933 S
Time 0419 Z Longitude 109.997 W

— Tem — Sal
— SigT

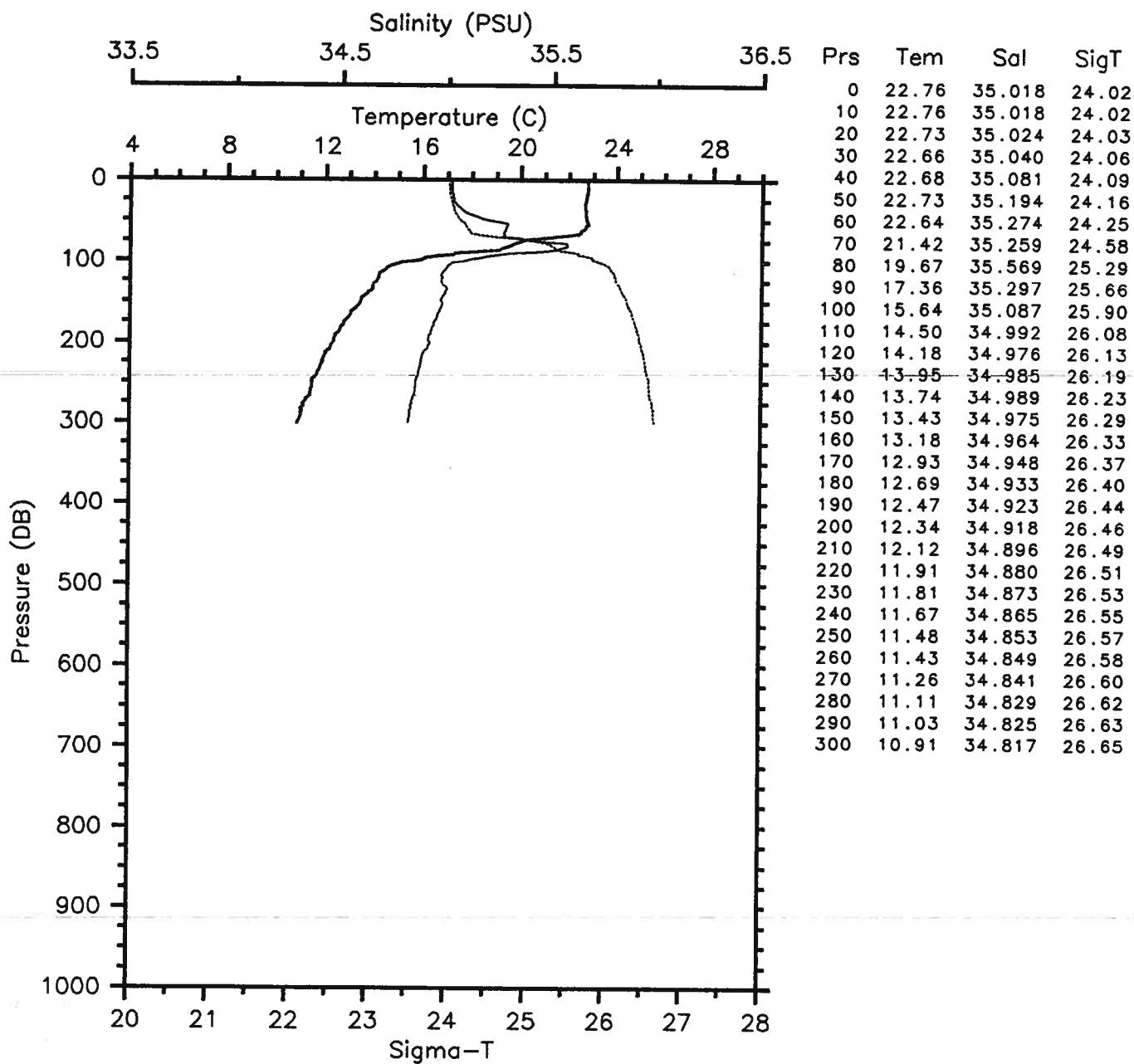


EPOCS EP4-85-RS CTD 19 RESEARCHER

Date 11 13 85 Latitude 4.995 S

Time 0217 Z Longitude 109.867 W

— Tem — Sal
— SigT

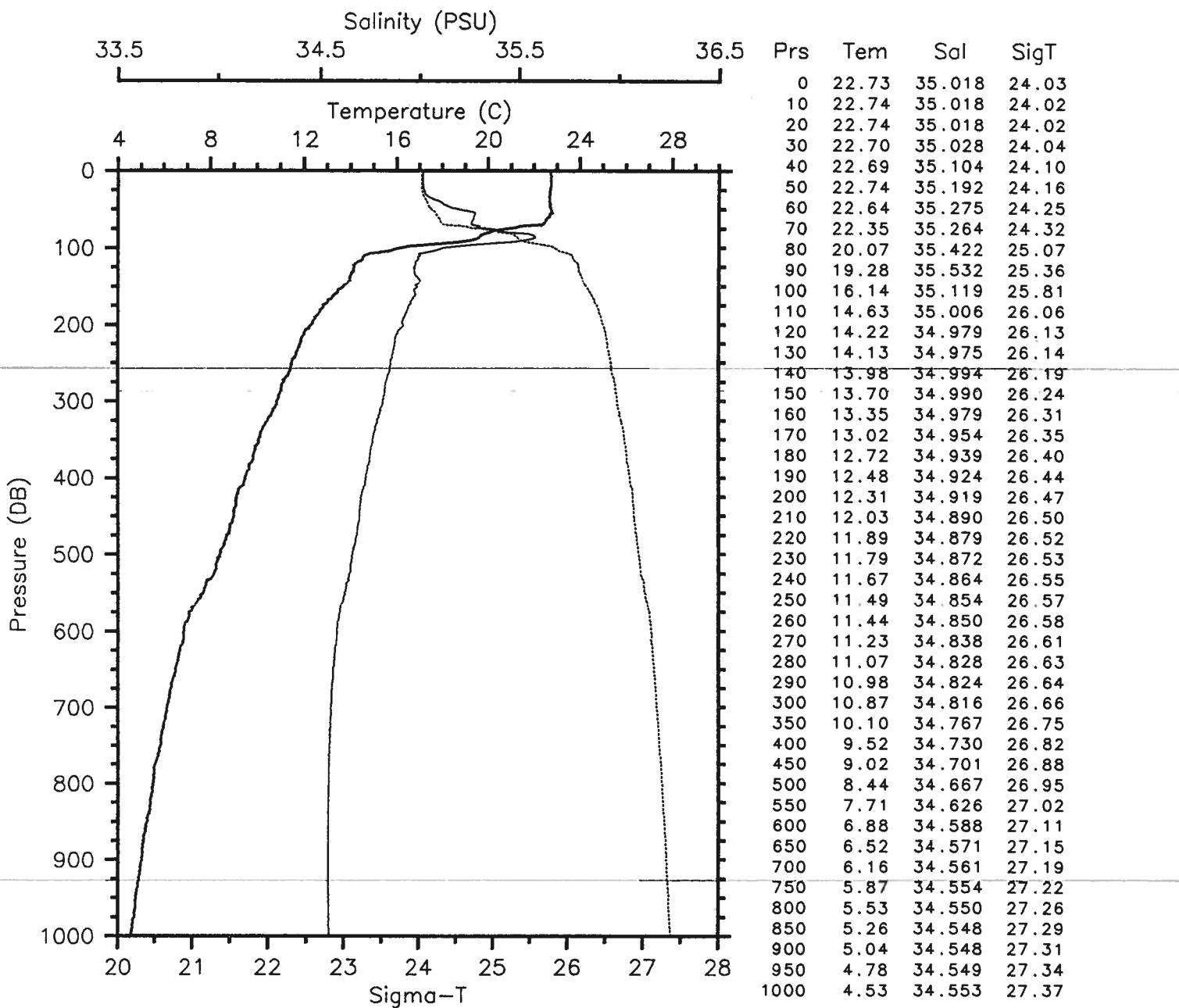


EPOCS EP4-85-RS CTD 20 RESEARCHER

Date 11 13 85 Latitude 5.080 S

Time 0337 Z Longitude 109.895 W

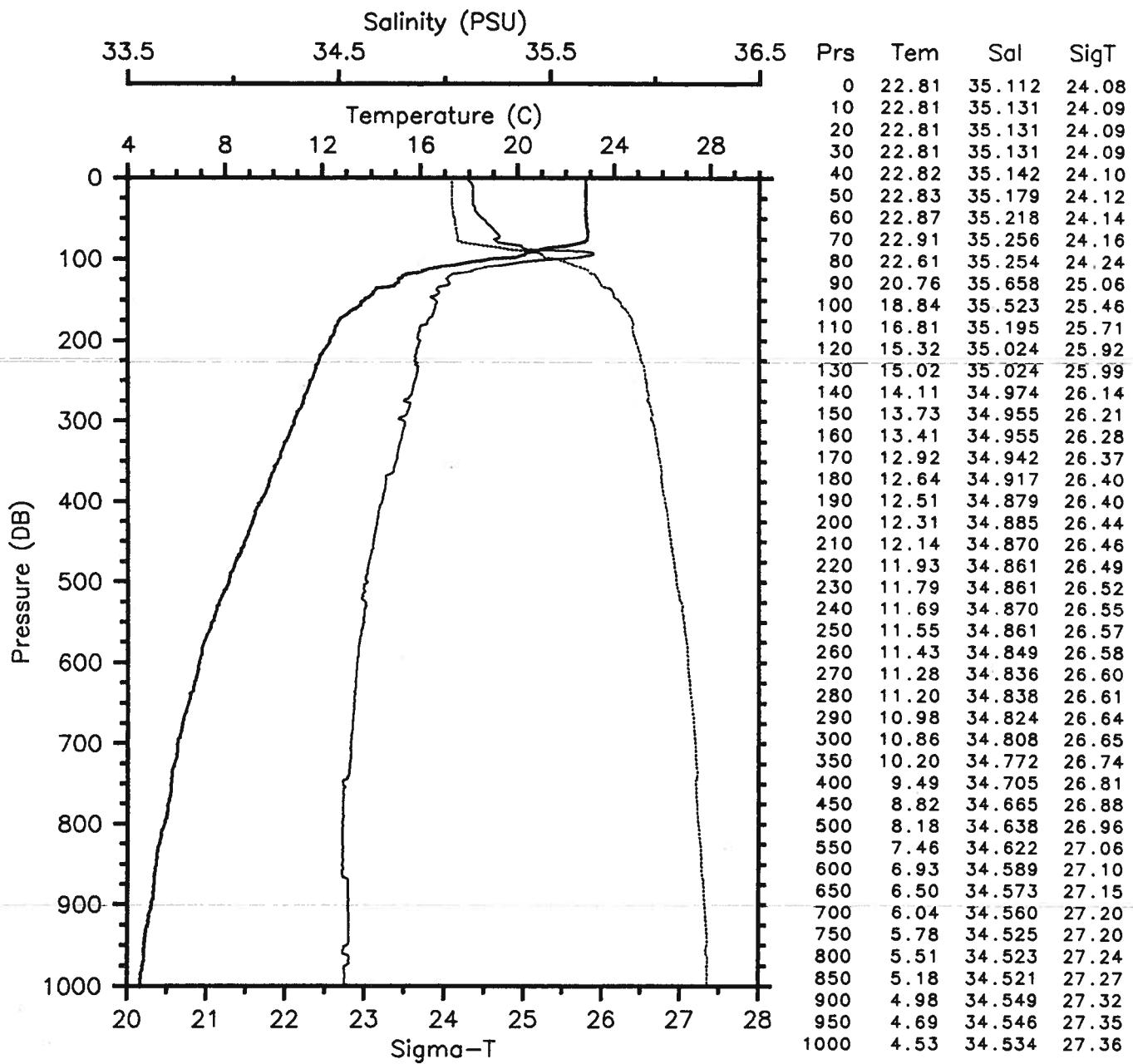
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 21 RESEARCHER

Date 11 13 85 Latitude 5.511 S
Time 0838 Z Longitude 109.982 W

— Tem	— Sal
— SigT	

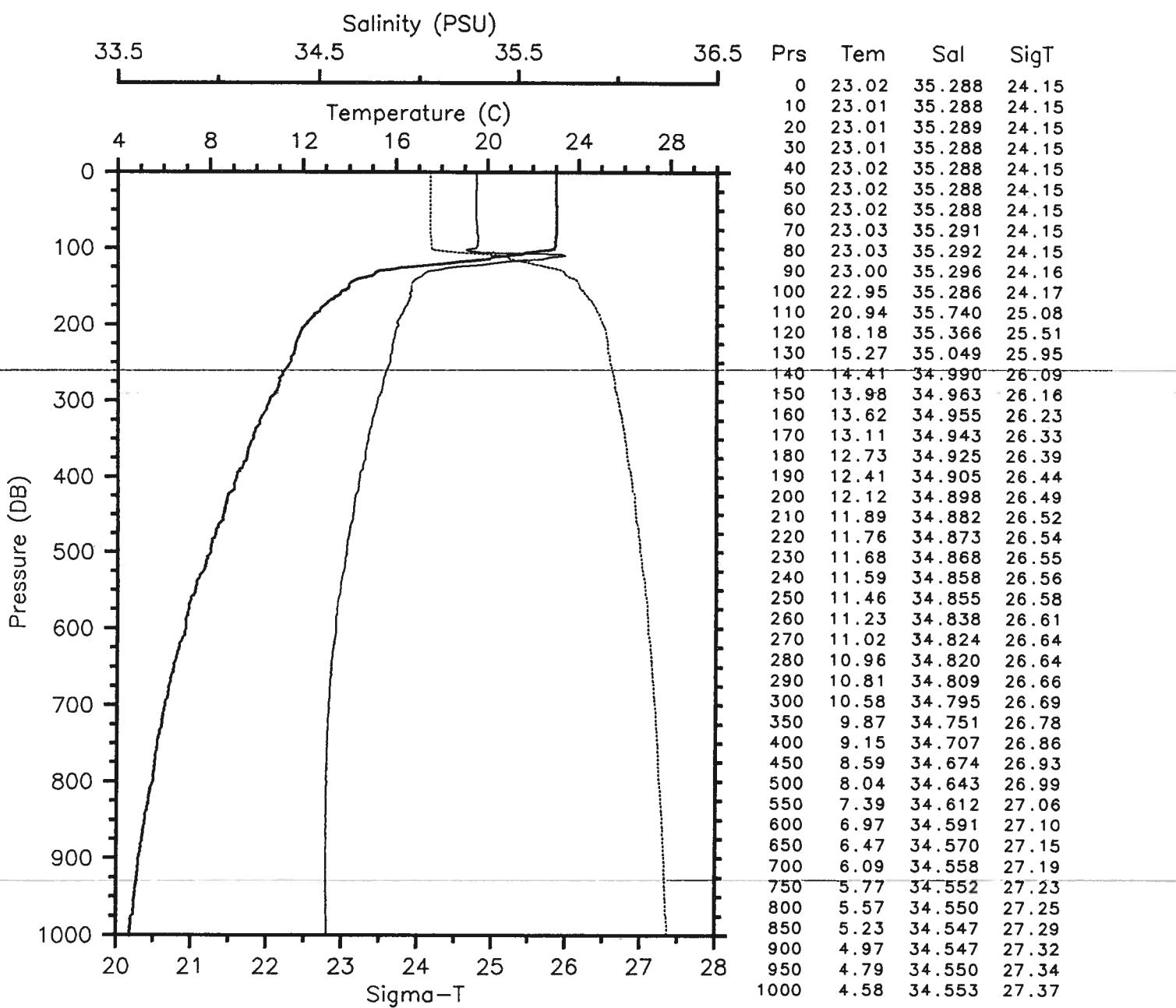


EPOCS EP4-85-RS CTD 22 RESEARCHER

Date 11 13 85 Latitude 6.002 S

Time 1209 Z Longitude 110.003 W

— Tem — Sal
--- SigT

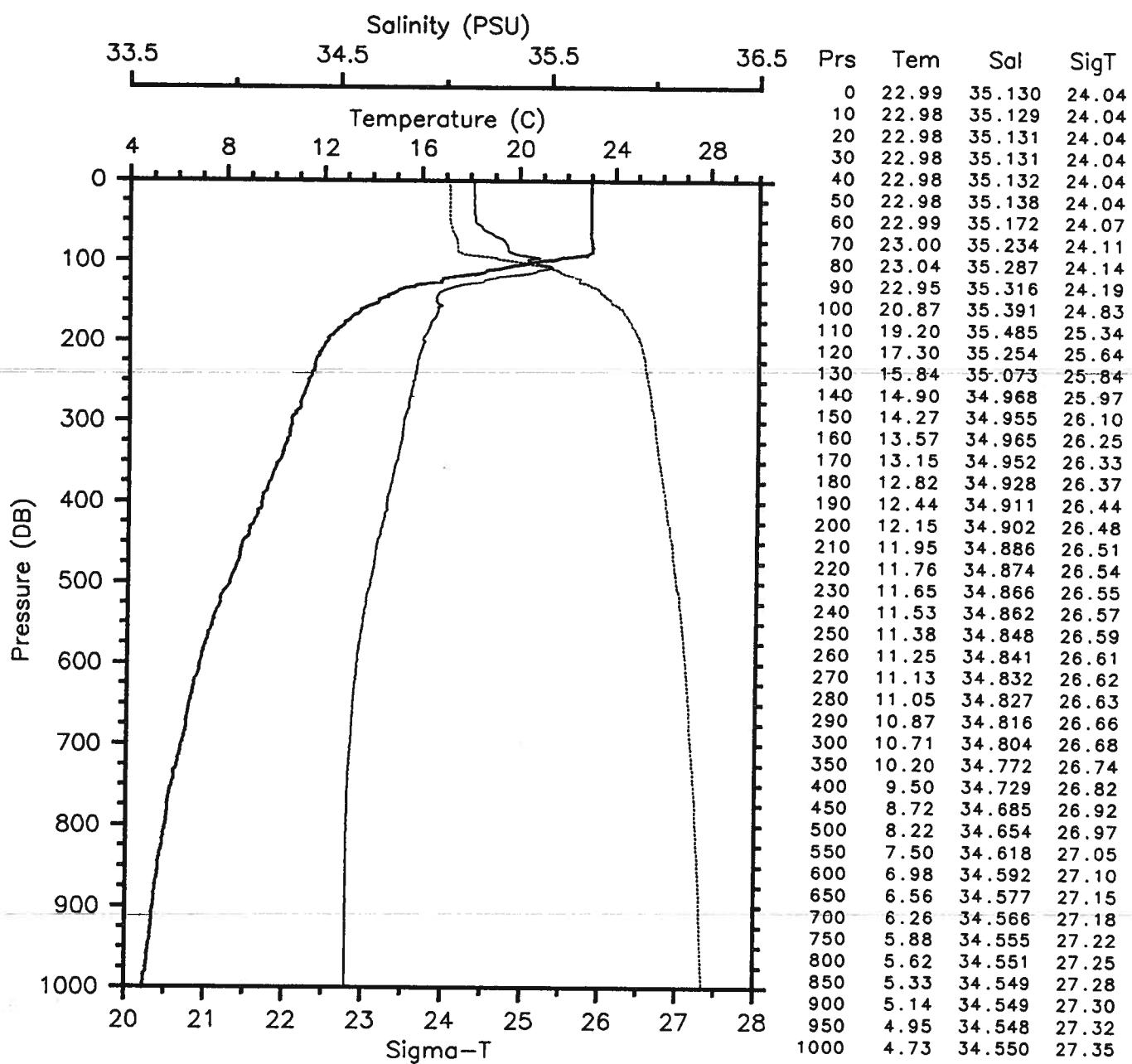


EPOCS EP4-85-RS CTD 23 RESEARCHER

Date 11 13 85 Latitude 6.490 S

Time 1509 Z Longitude 109.993 W

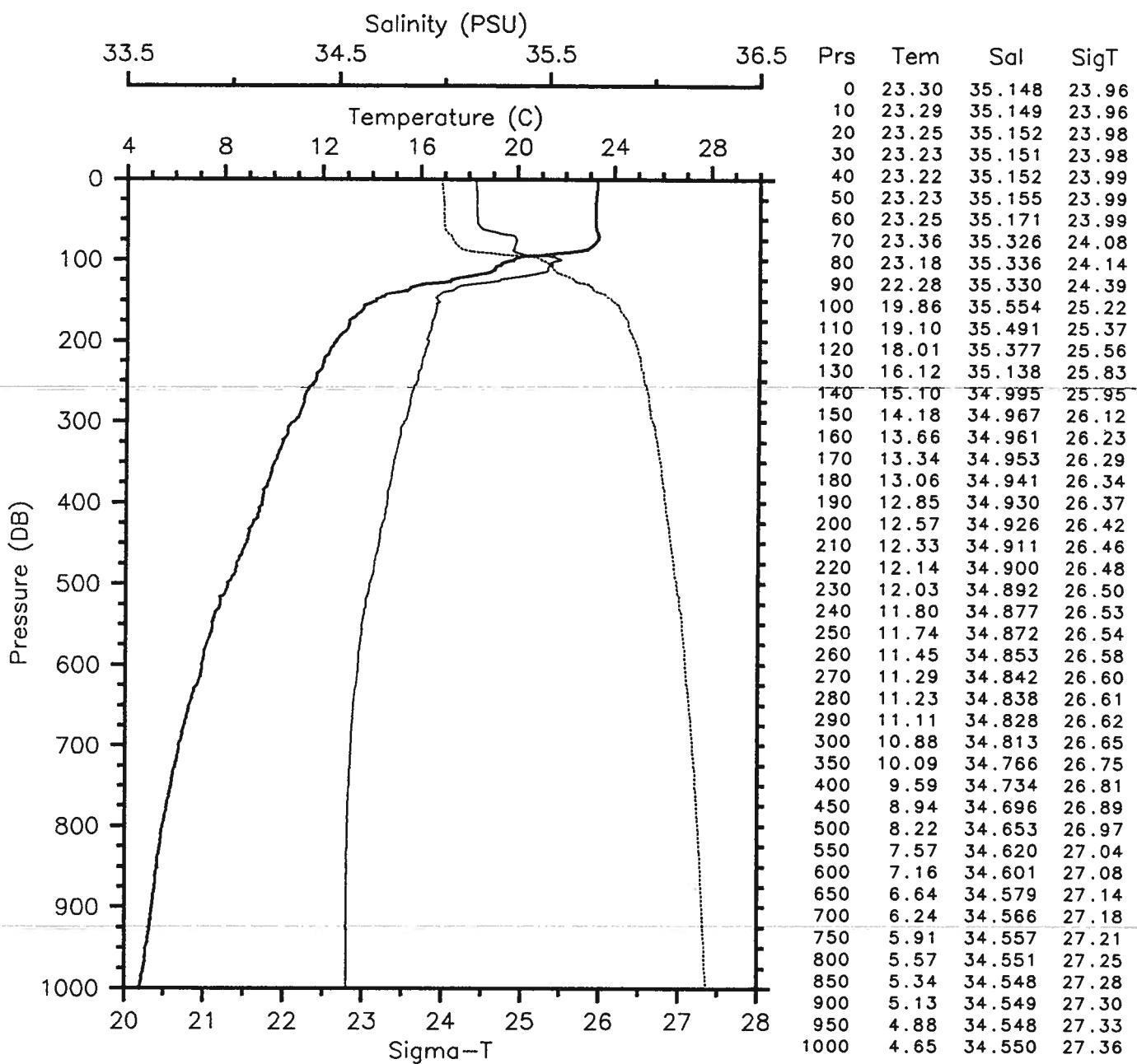
— Tem	— Sal
— SigT	



EPOCS EP4-85-RS CTD 24 RESEARCHER

Date 11 13 85 Latitude 6.991 S
Time 1907 Z Longitude 109.986 W

— Tem — Sal
— SigT

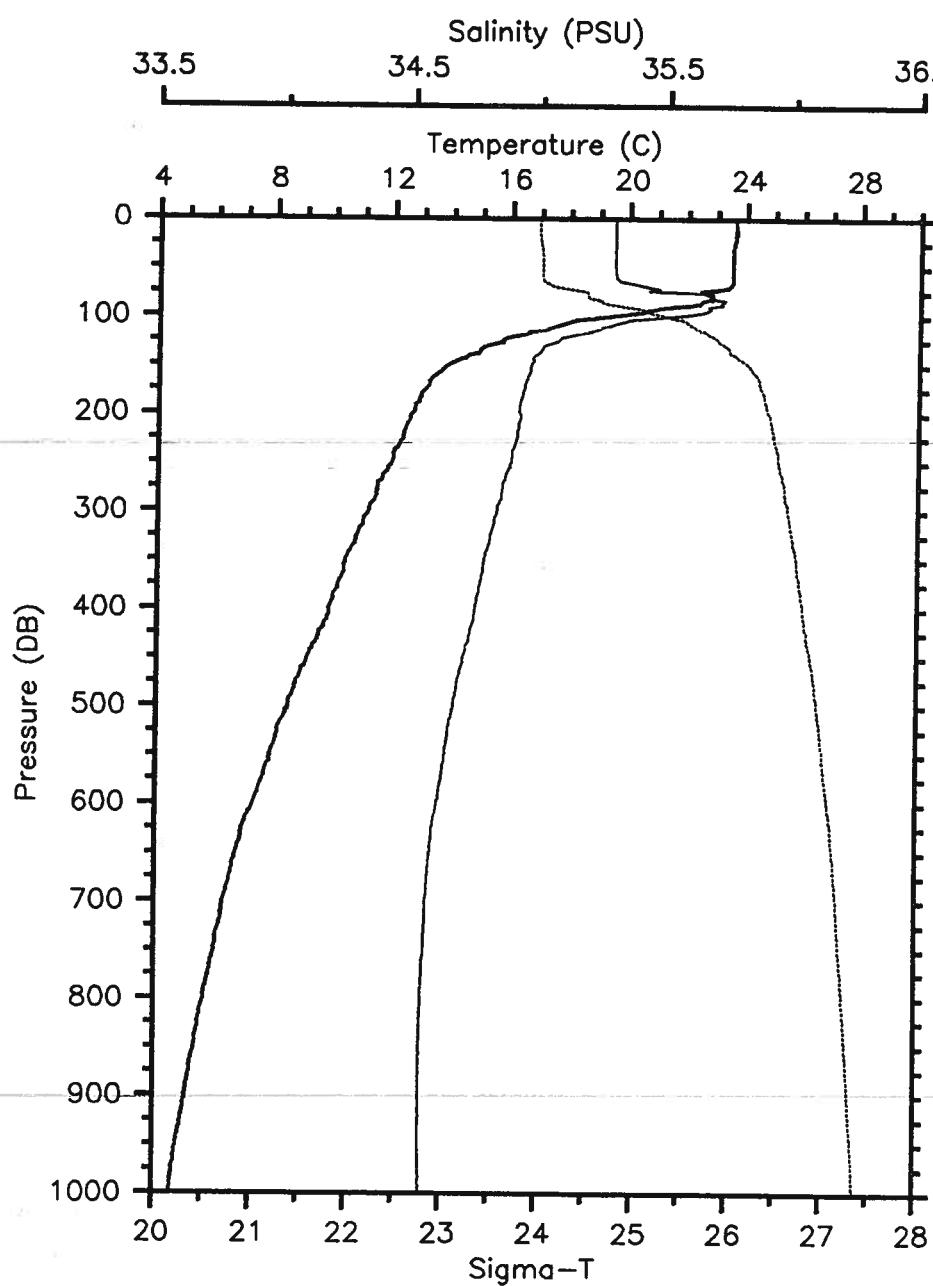


EPOCS EP4-85-RS CTD 25 RESEARCHER

Date 11 13 85 Latitude 7.505 S

Time 2246 Z Longitude 110.002 W

— Tem — Sal
— SigT



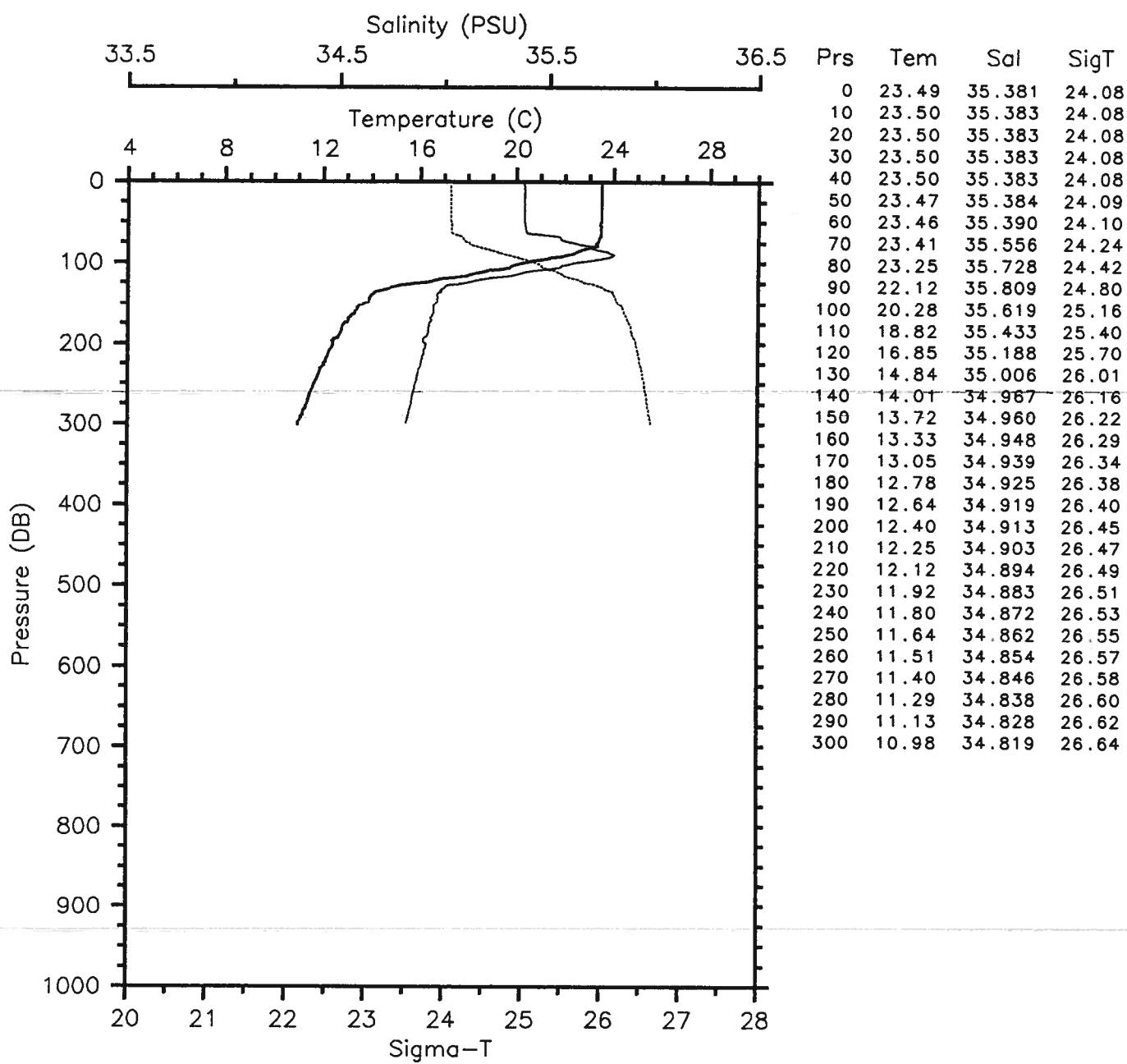
Prs	Tem	Sal	SigT
0	23.61	35.287	23.97
10	23.62	35.287	23.97
20	23.60	35.287	23.98
30	23.53	35.287	24.00
40	23.51	35.287	24.00
50	23.51	35.288	24.01
60	23.51	35.292	24.01
70	23.39	35.420	24.14
80	22.84	35.671	24.49
90	21.44	35.657	24.87
100	19.40	35.516	25.31
110	17.57	35.274	25.59
120	16.16	35.116	25.80
130	15.20	35.017	25.94
140	14.57	34.981	26.05
150	13.87	34.963	26.19
160	13.46	34.955	26.27
170	13.18	34.940	26.31
180	12.94	34.931	26.35
190	12.77	34.920	26.38
200	12.62	34.925	26.41
210	12.47	34.917	26.43
220	12.35	34.911	26.45
230	12.22	34.903	26.47
240	12.01	34.891	26.50
250	11.96	34.887	26.51
260	11.73	34.871	26.54
270	11.50	34.857	26.57
280	11.43	34.852	26.58
290	11.33	34.843	26.59
300	11.17	34.833	26.61
350	10.40	34.783	26.71
400	9.85	34.749	26.78
450	9.12	34.704	26.87
500	8.49	34.666	26.94
550	7.88	34.635	27.01
600	7.32	34.607	27.07
650	6.74	34.579	27.12
700	6.30	34.562	27.17
750	6.03	34.557	27.20
800	5.68	34.549	27.24
850	5.35	34.544	27.27
900	5.08	34.543	27.30
950	4.78	34.544	27.34
1000	4.57	34.547	27.36

EPOCS EP4-85-RS CTD 26 RESEARCHER

Date 11 14 85 Latitude 7.990 S

Time 0116 Z Longitude 110.013 W

— Tem — Sal
— SigT

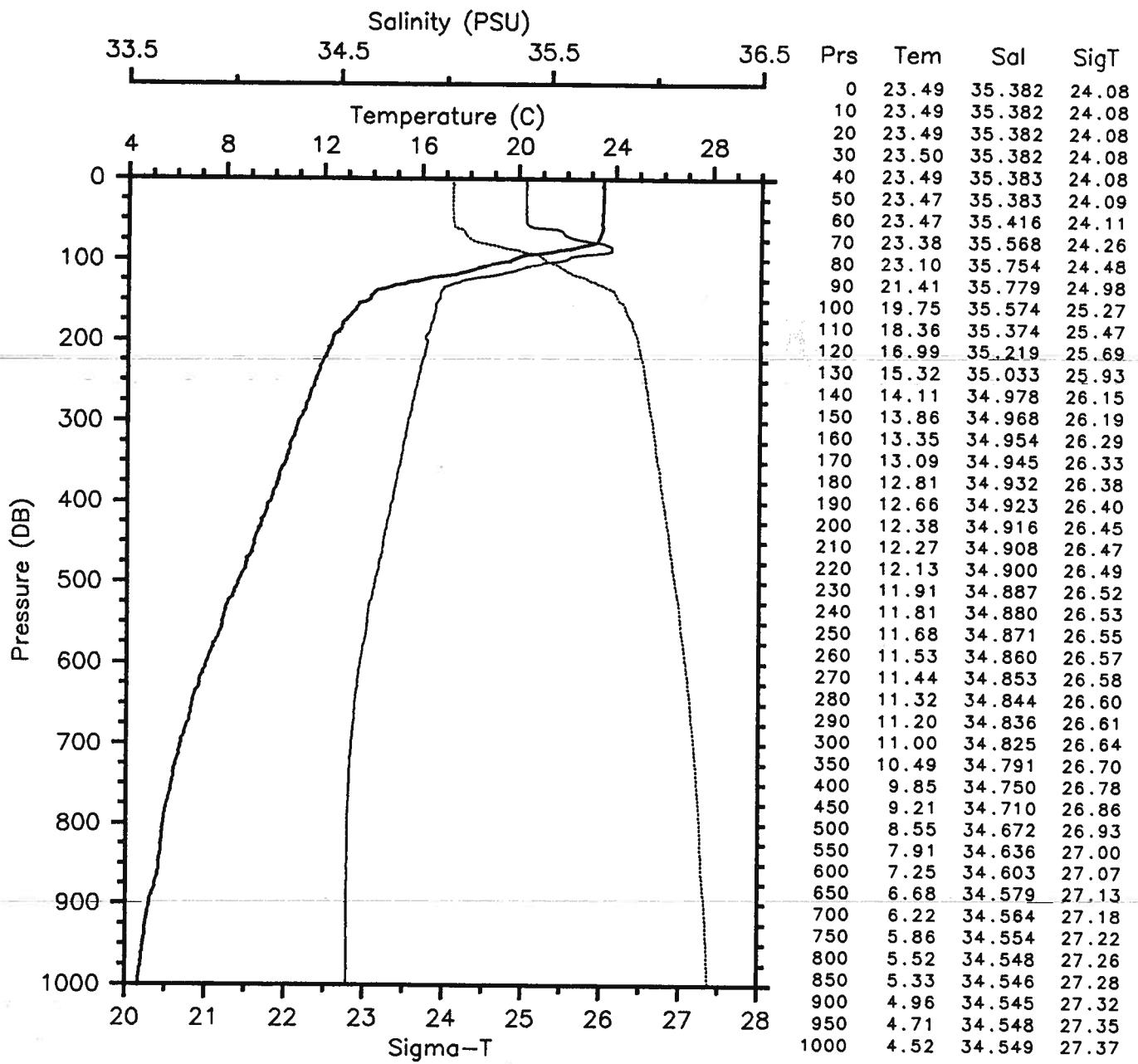


EPOCS EP4-85-RS CTD 27 RESEARCHER

Date 11 14 85 Latitude 7.988 S

Time 0214 Z Longitude 109.995 W

— Tem — Sal
— SigT

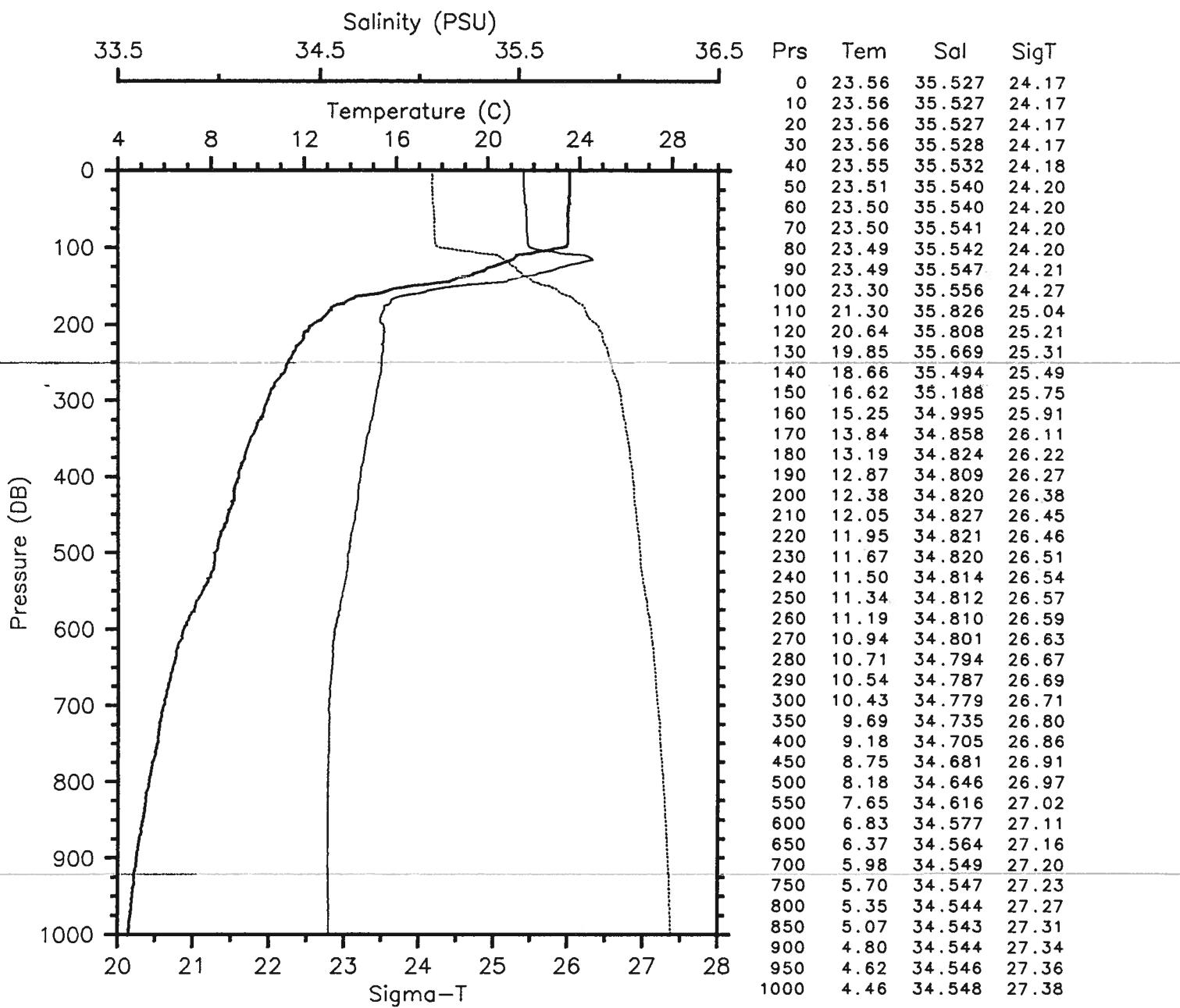


EPOCS EP4-85-RS CTD 28 RESEARCHER

Date 11 15 85 Latitude 8.992 S

Time 0146 Z Longitude 110.002 W

— Tem	— Sal
----- SigT	

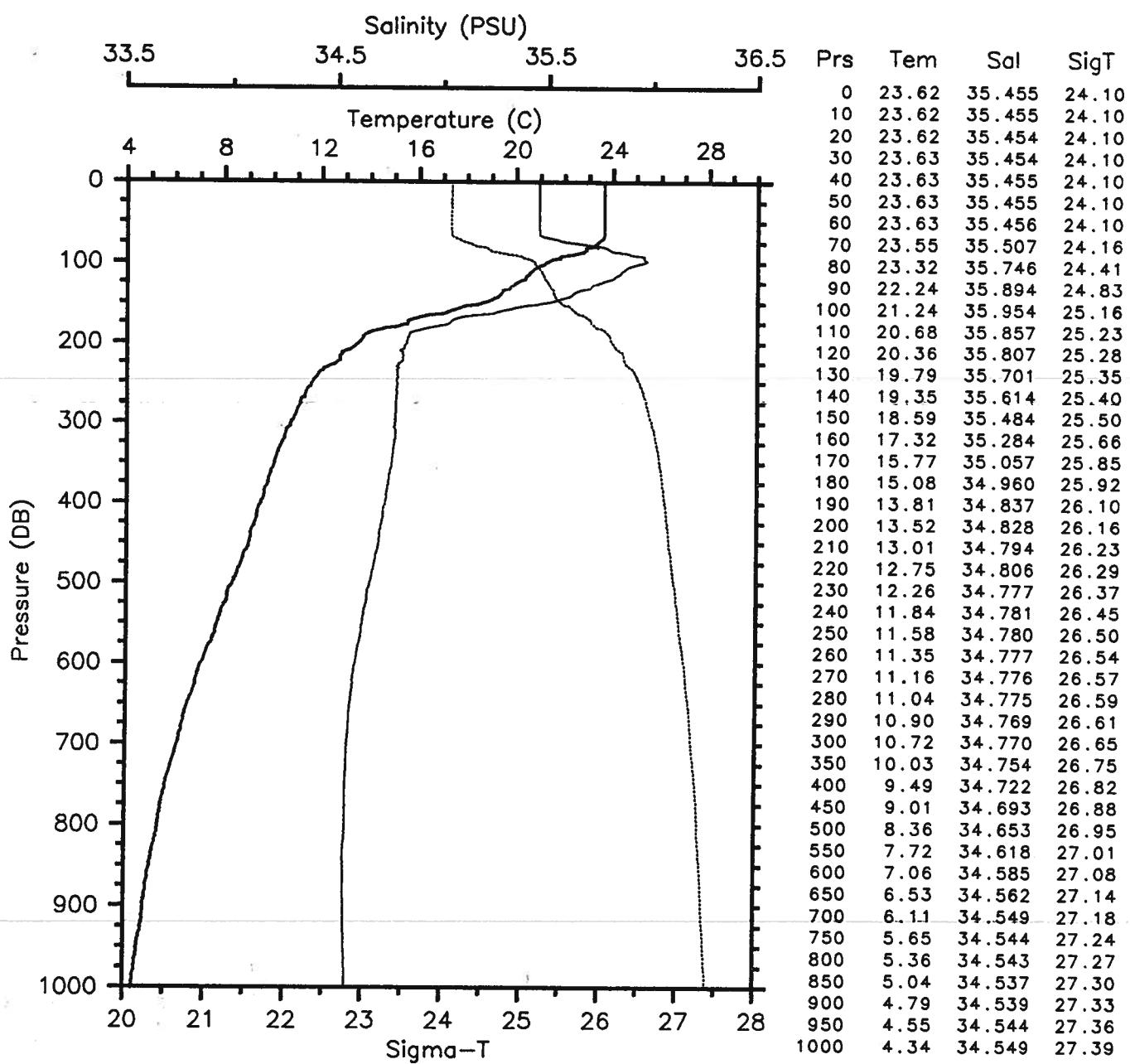


EPOCS EP4-85-RS CTD 29 RESEARCHER

Date 11 15 85 Latitude 10.009 S

Time 0738 Z Longitude 109.967 W

— Tem — Sal
— SigT

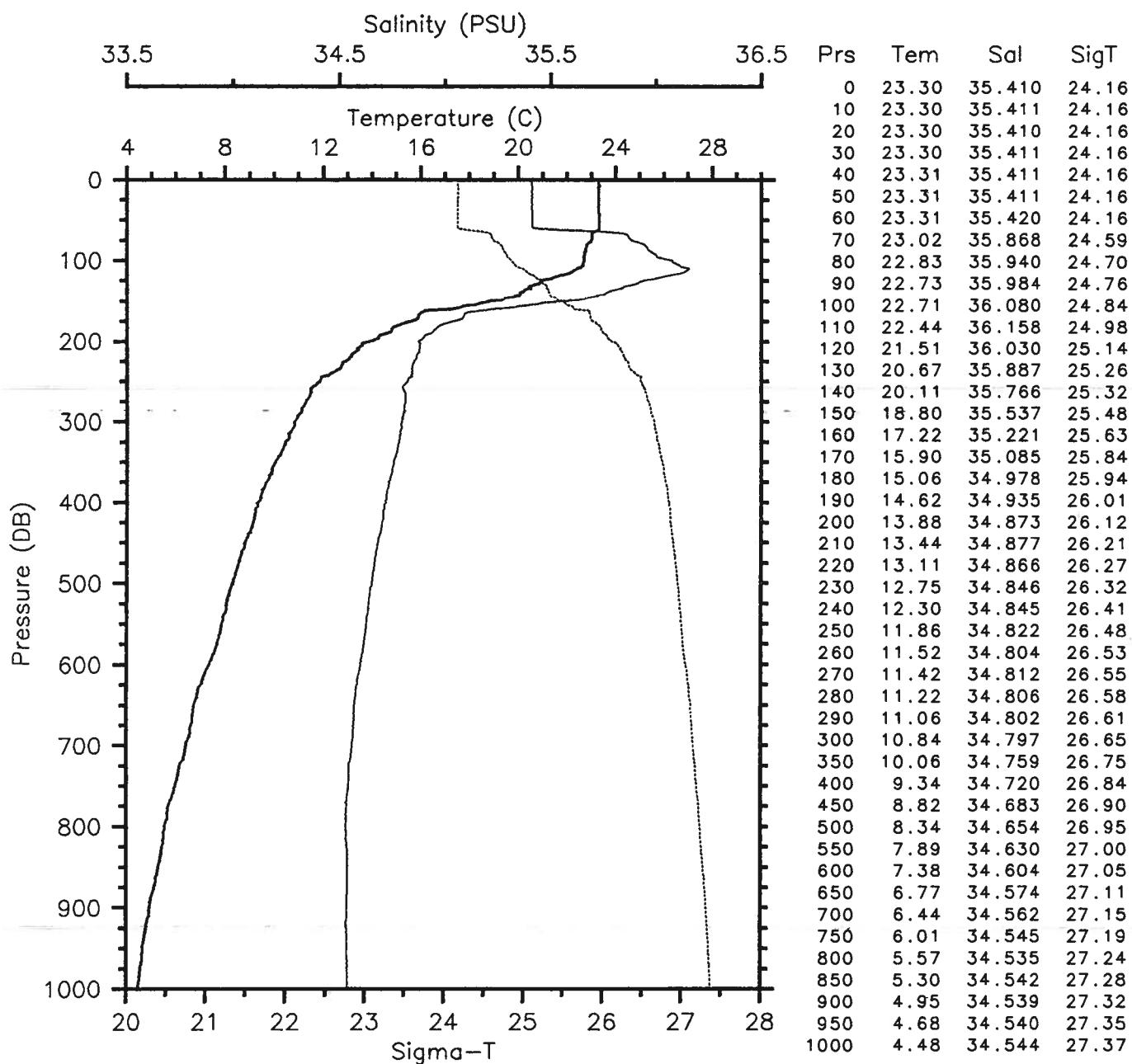


EPOCS EP4-85-RS CTD 30 RESEARCHER

Date 11 15 85 Latitude 11.000 S

Time 1351 Z Longitude 110.000 W

— Tem	— Sal
--- SigT	

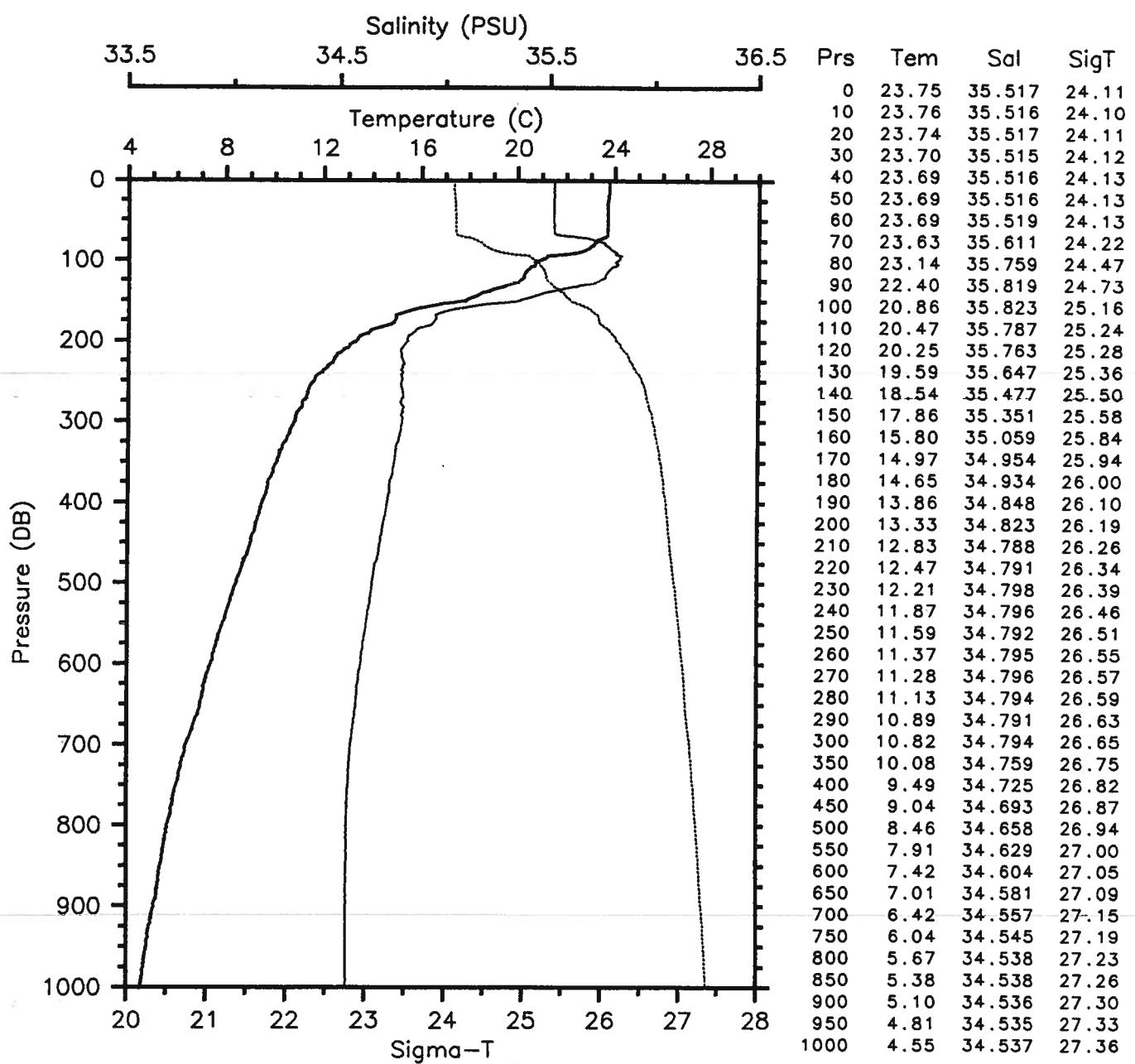


EPOCS EP4-85-RS CTD 31 RESEARCHER

Date 11 15 85 Latitude 12.003 S

Time 1906 Z Longitude 110.050 W

— Tem — Sal
— SigT

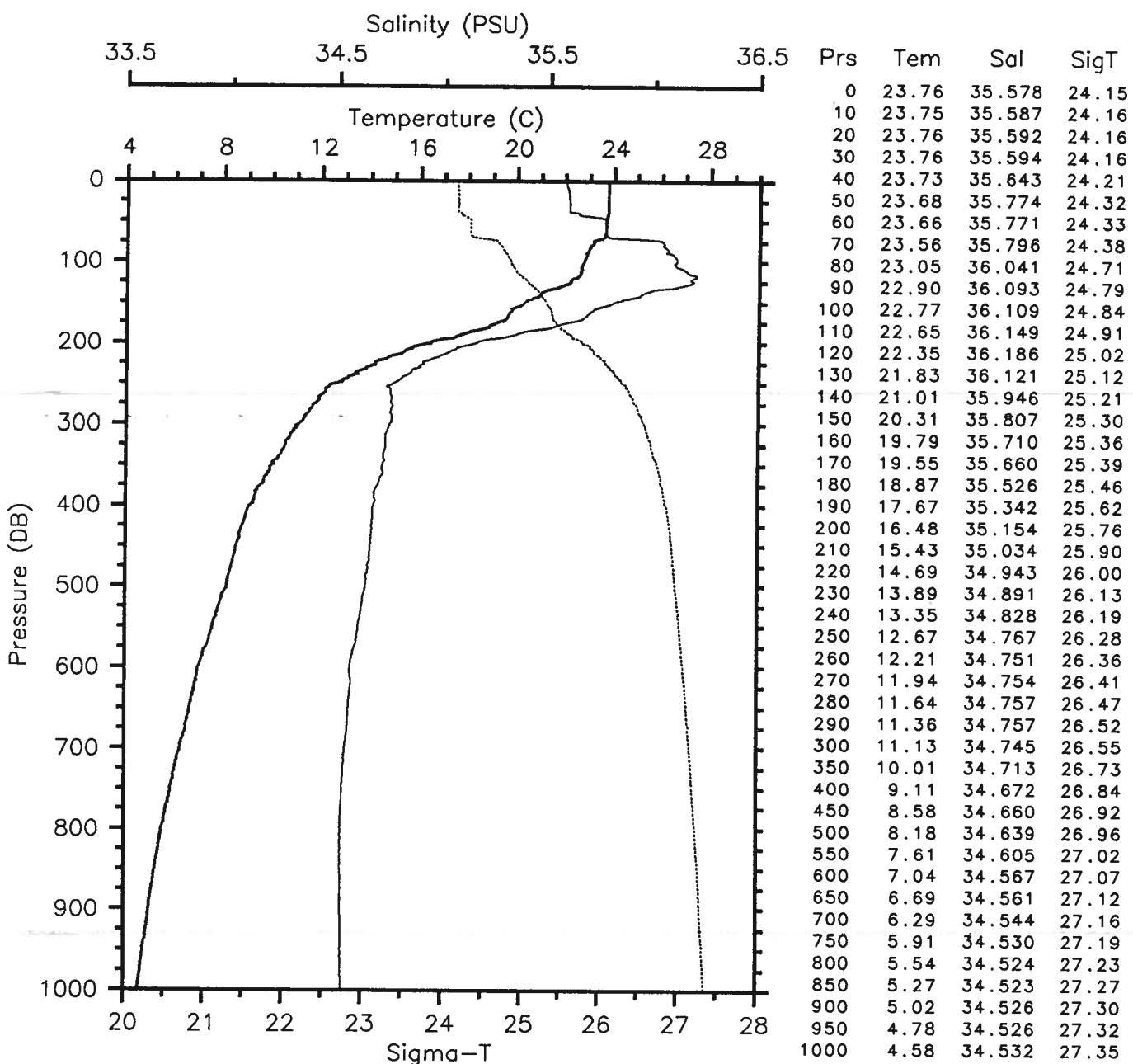


EPOCS EP4-85-RS CTD 32 RESEARCHER

Date 11 16 85 Latitude 12.993 S

Time 0047 Z Longitude 110.023 W

— Tem — Sal
— SigT

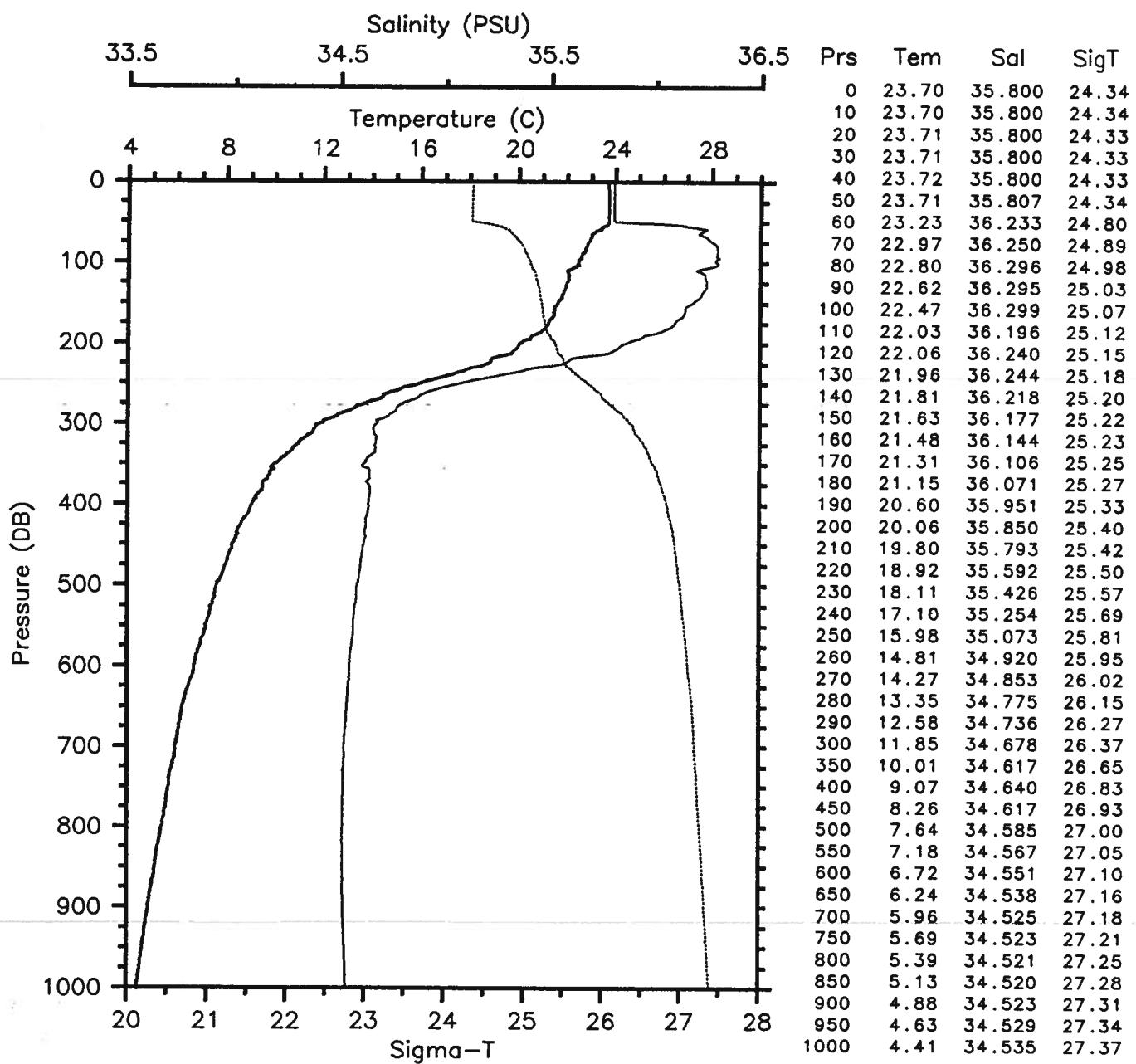


EPOCS EP4-85-RS CTD 33 RESEARCHER

Date 11 16 85 Latitude 14.000 S

Time 0605 Z Longitude 110.000 W

— Tem — Sal
— SigT

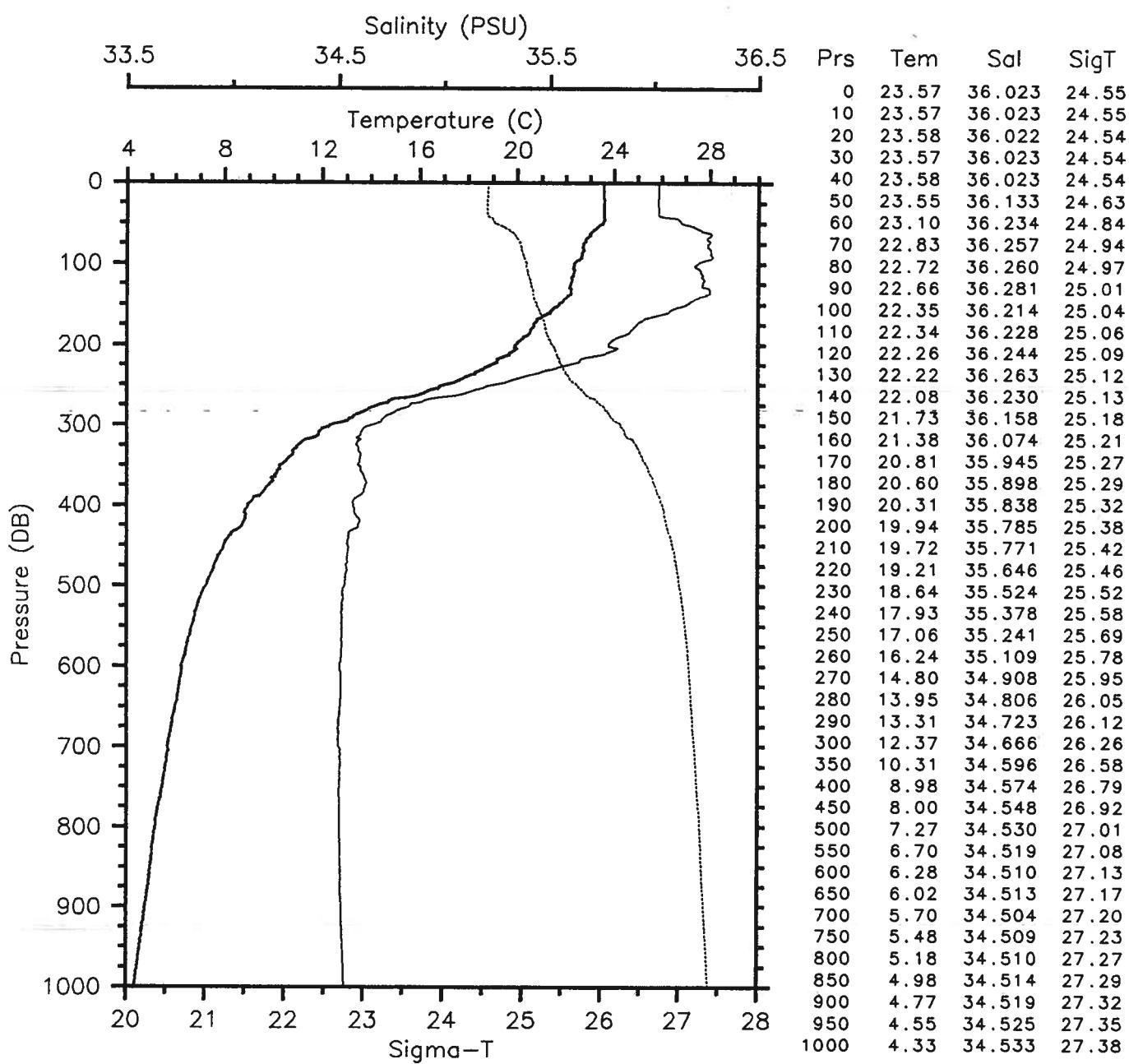


EPOCS EP4-85-RS CTD 34 RESEARCHER

Date 11 16 85 Latitude 15.015 S

Time 1140 Z Longitude 110.003 W

— Tem	— Sal
— SigT	

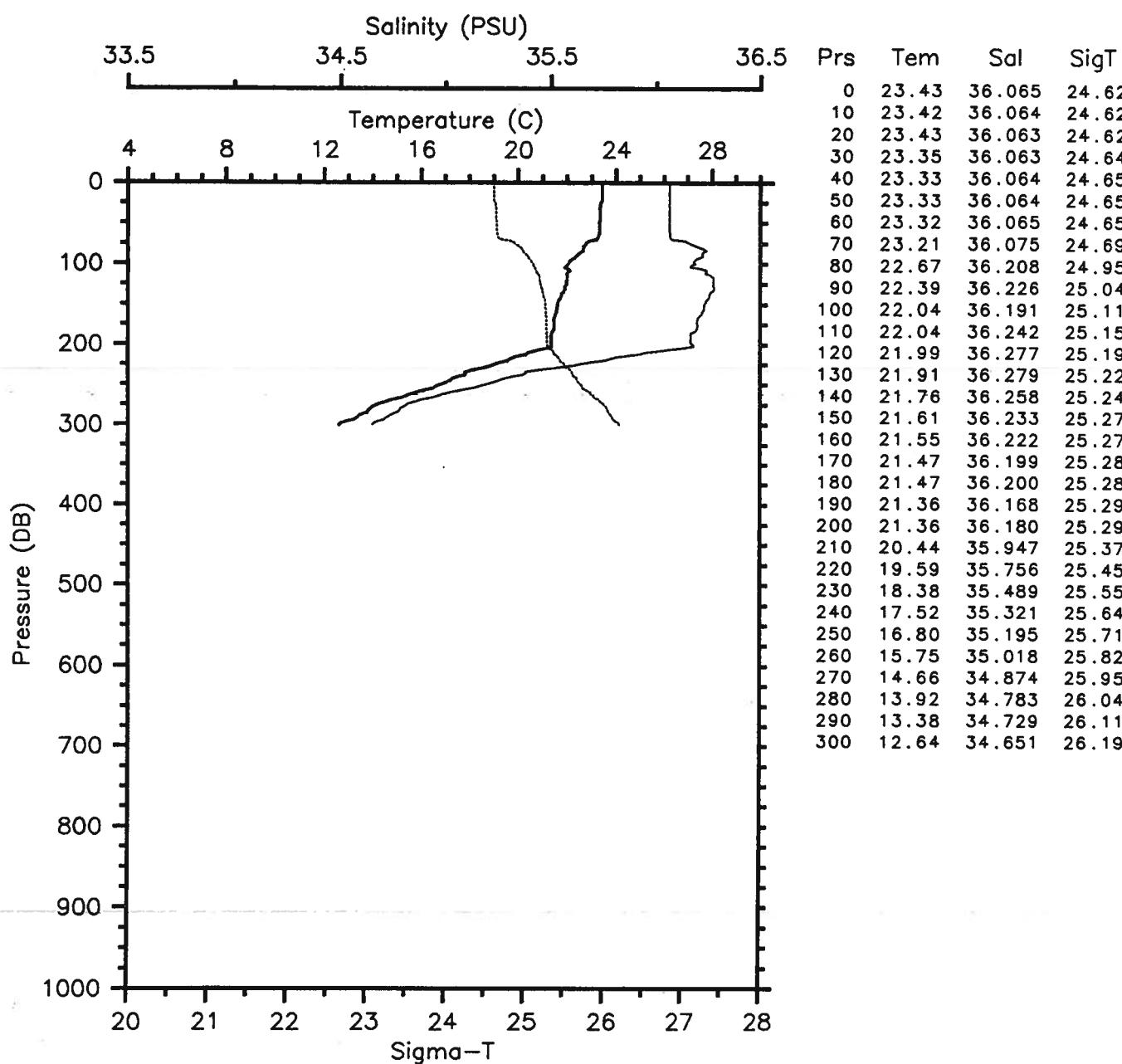


EPOCS EP4-85-RS CTD 35 RESEARCHER

Date 11 16 85 Latitude 15.022 S

Time 1933 Z Longitude 110.023 W

— Tem	— Sal
— SigT	

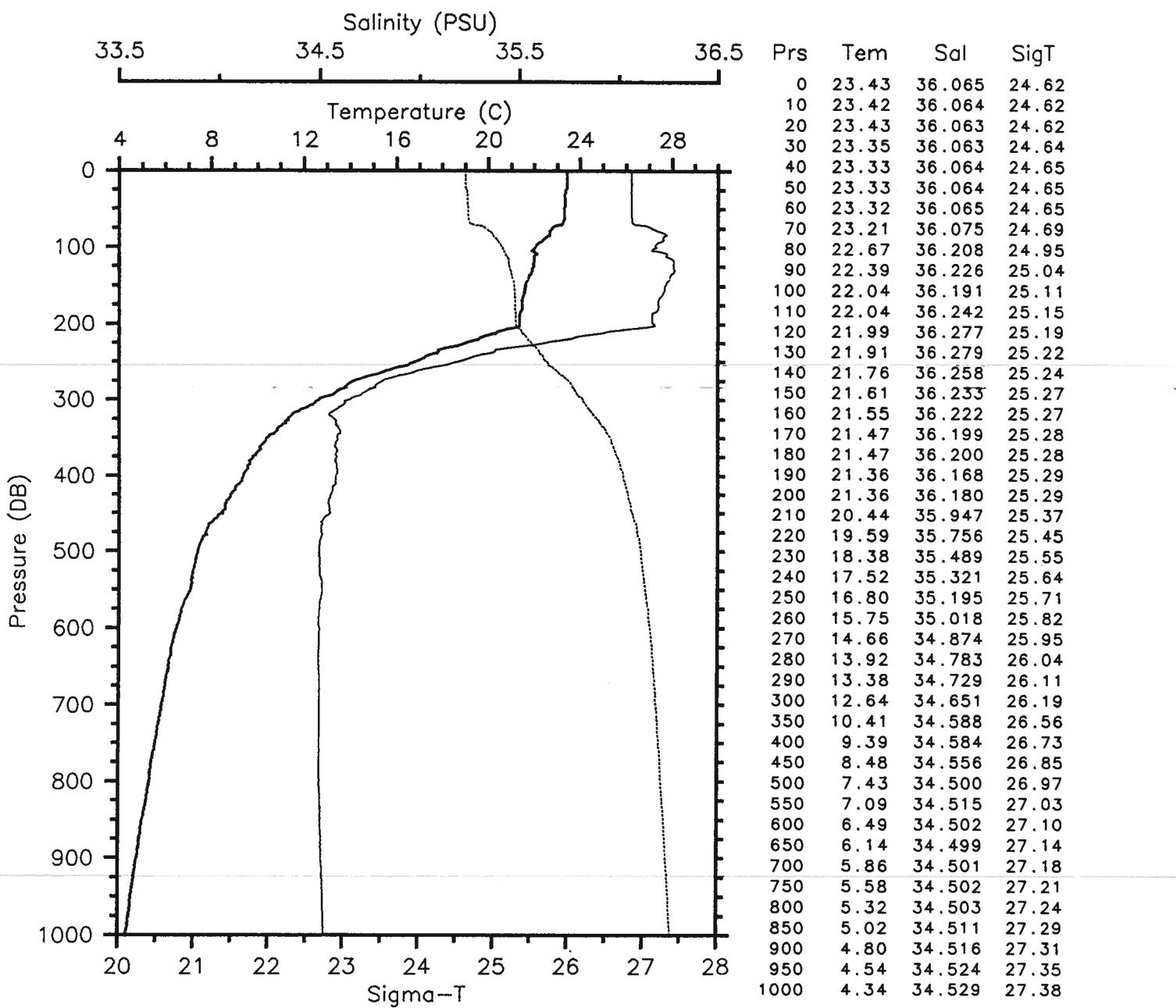


EPOCS EP4-85-RS CTD 36 RESEARCHER

Date 11 16 85 Latitude 16.000 S

Time 1933 Z Longitude 110.000 W

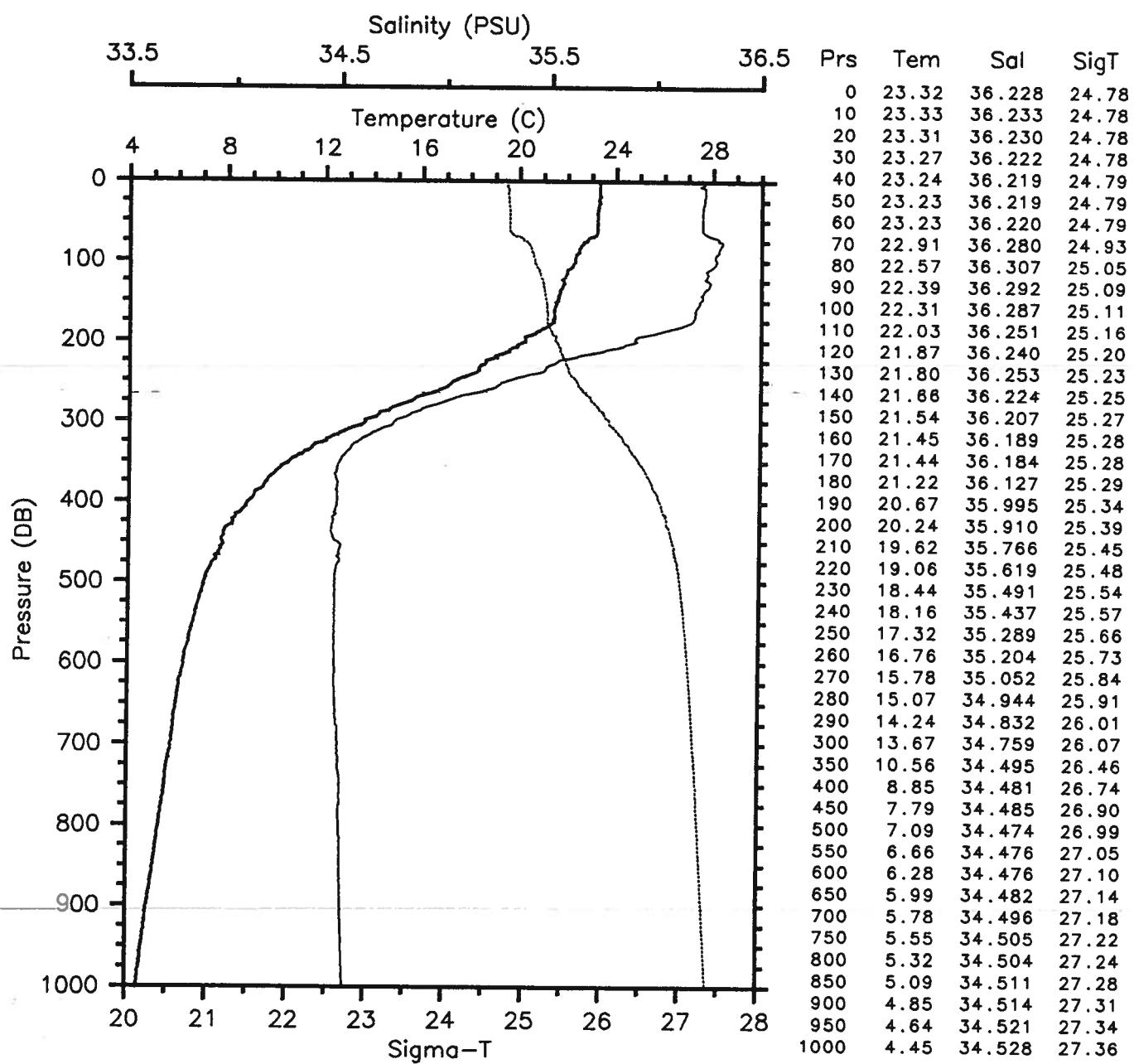
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 37 RESEARCHER

Date 11 17 85 Latitude 17.001 S
Time 0048 Z Longitude 109.990 W

— Tem — Sal
— SigT

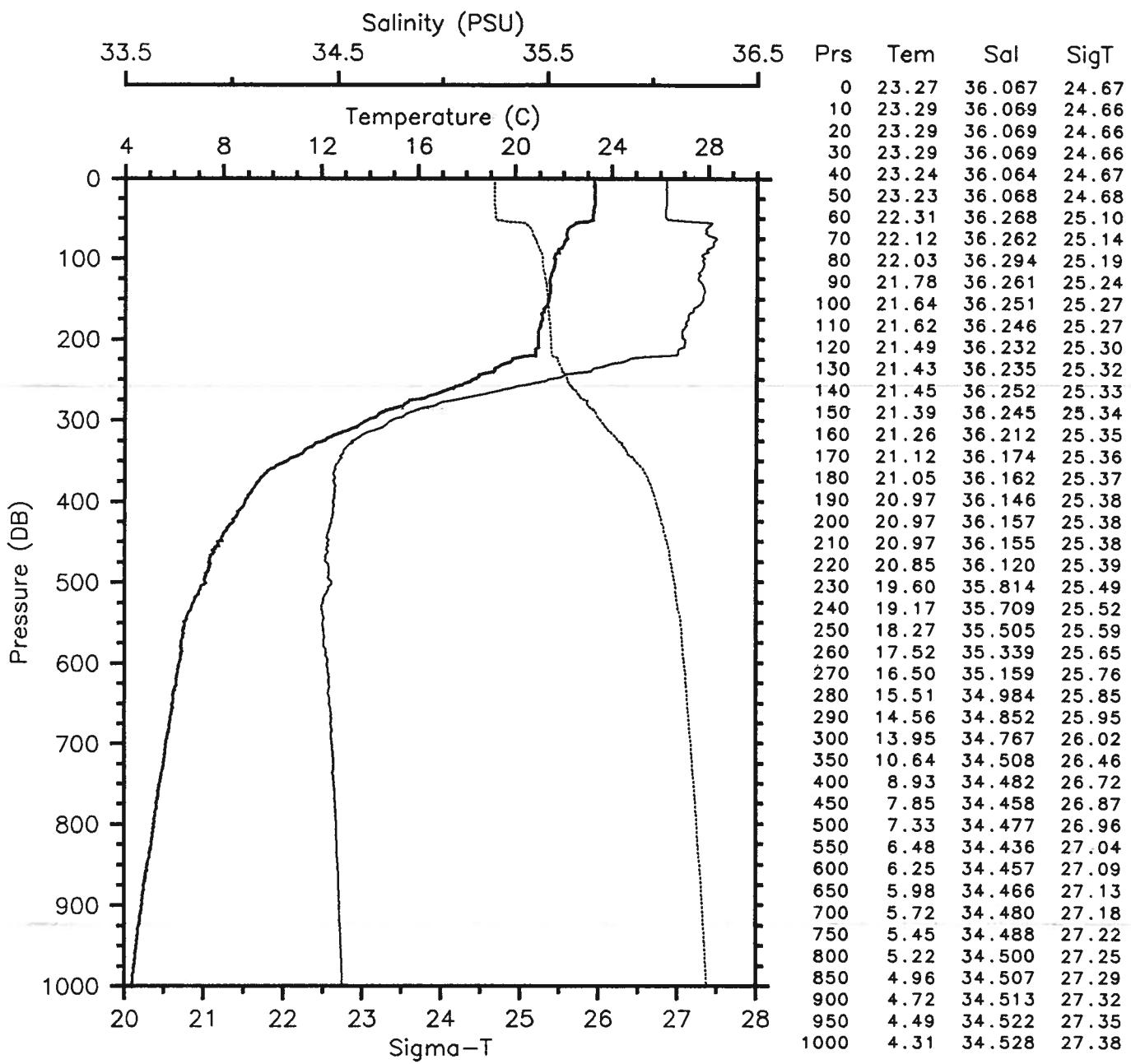


EPOCS EP4-85-RS CTD 38 RESEARCHER

Date 11 17 85 Latitude 16.796 S

Time 0611 Z Longitude 108.998 W

— Tem — Sal
— SigT

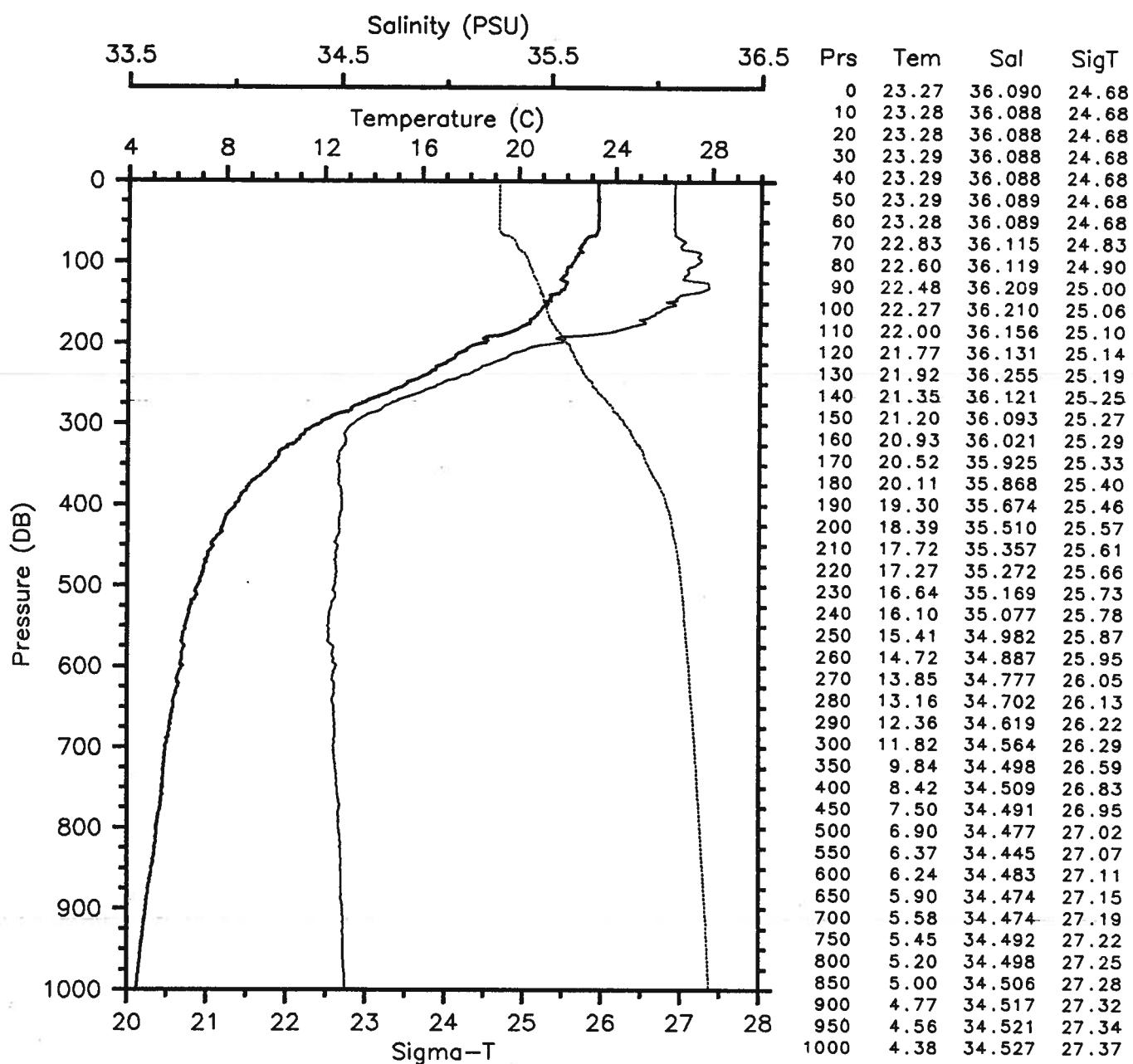


EPOCS EP4-85-RS CTD 39 RESEARCHER

Date 11 17 85 Latitude 16.582 S

Time 1152 Z Longitude 107.995 W

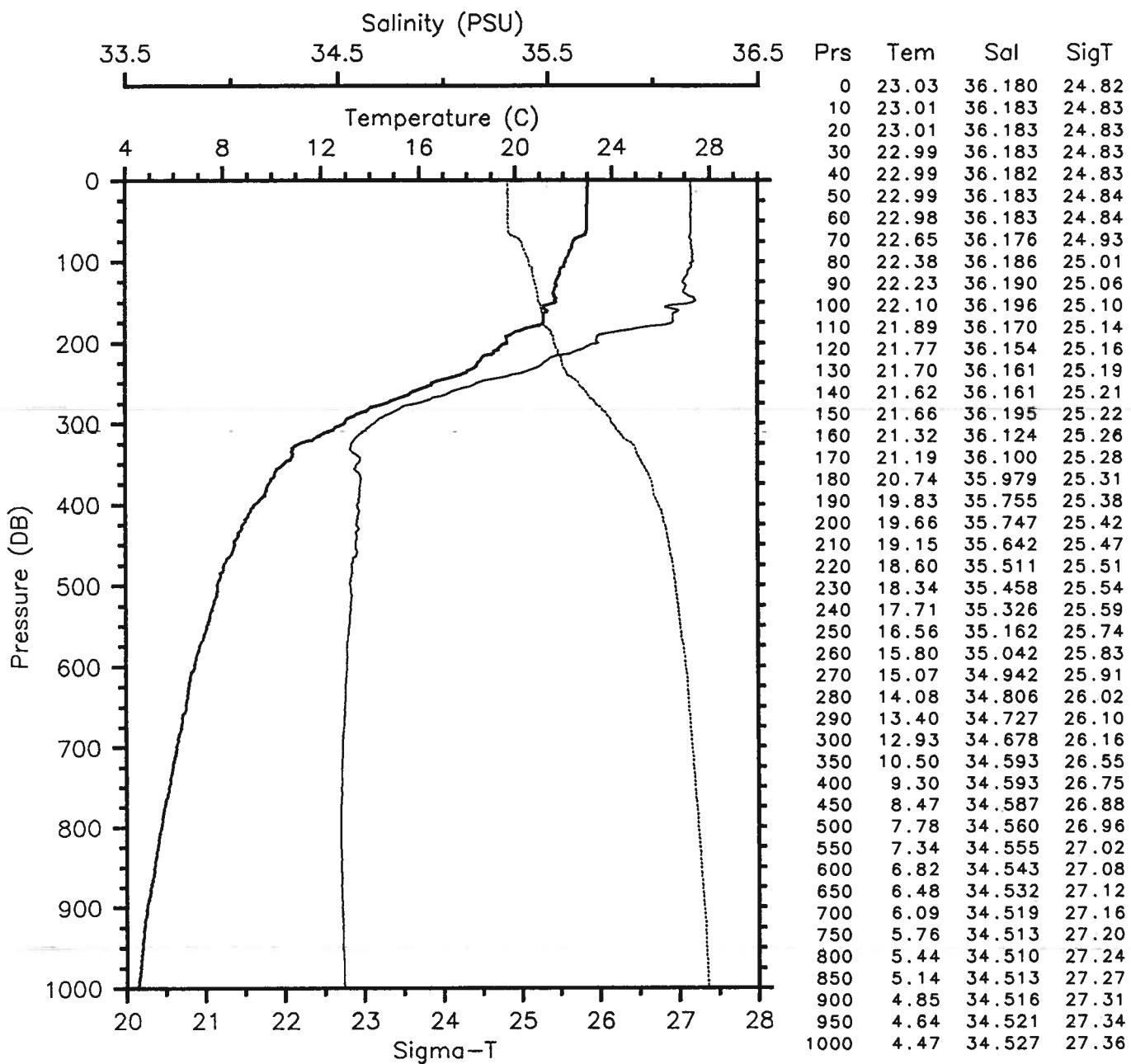
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 40 RESEARCHER

Date 11 17 85 Latitude 16.375 S
 Time 1712 Z Longitude 107.010 W

— Tem — Sal
 - - - SigT

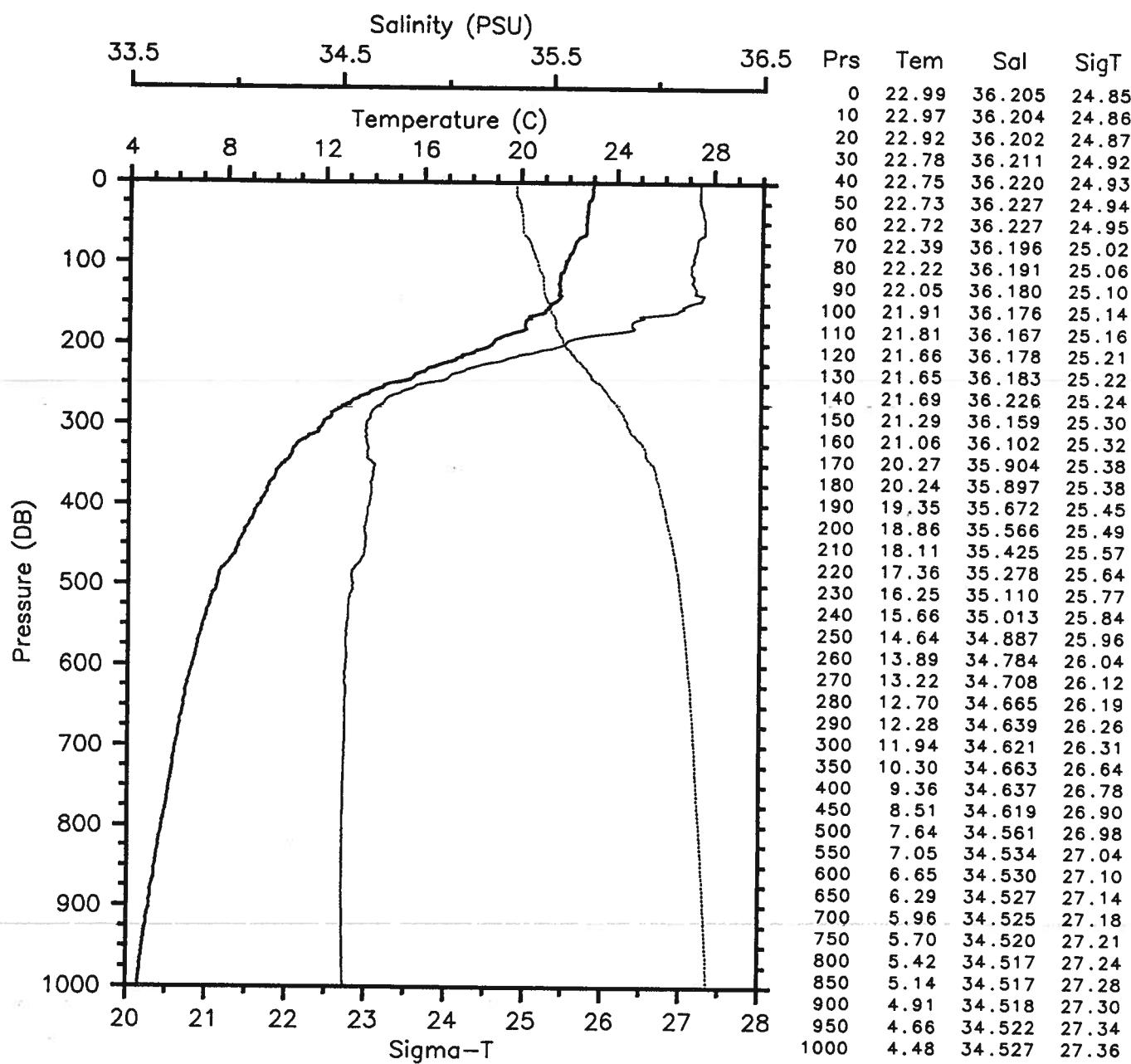


EPOCS EP4-85-RS CTD 41 RESEARCHER

Date 11 17 85 Latitude 16.173 S

Time 2403 Z Longitude 105.995 W

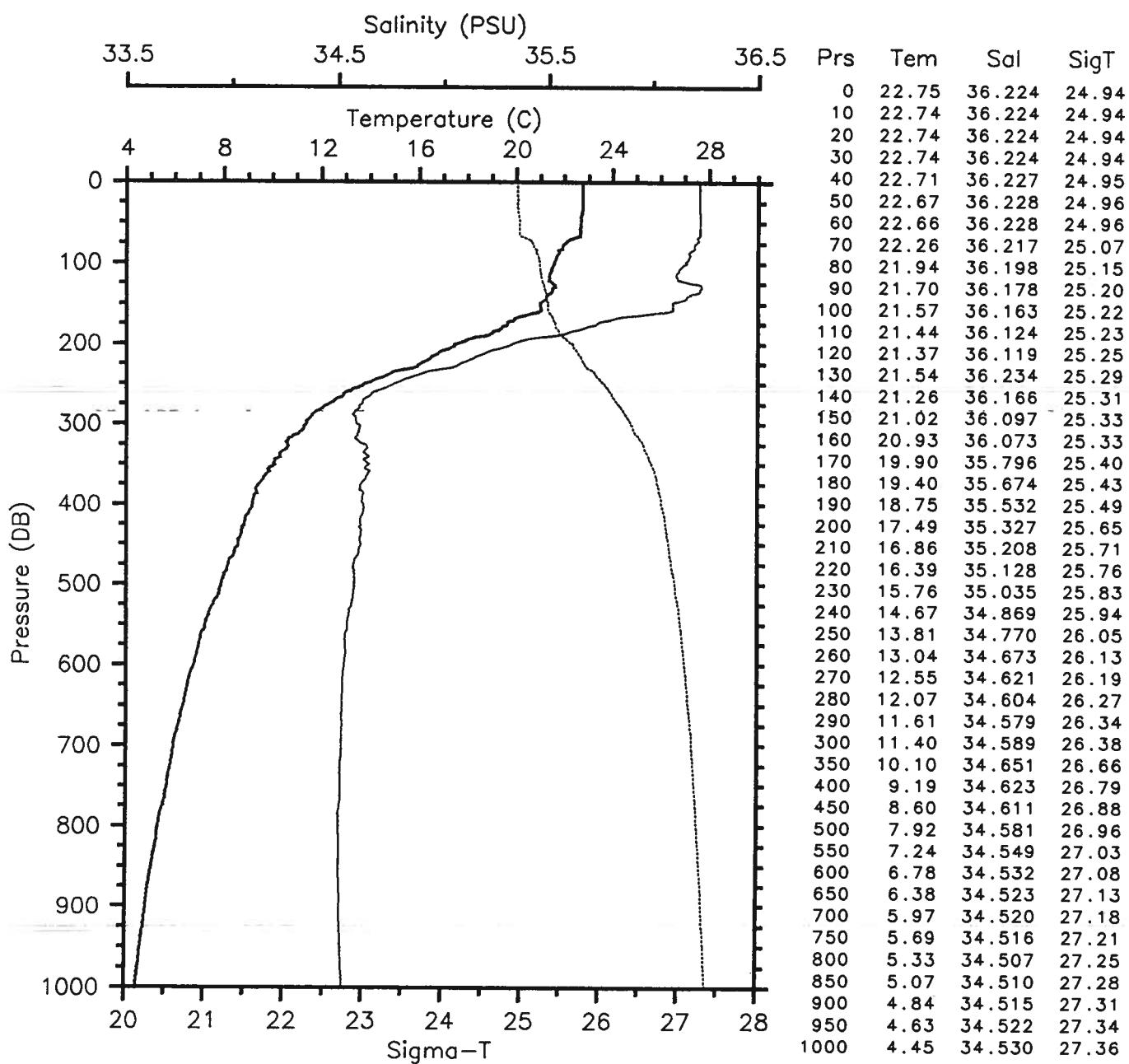
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 42 RESEARCHER

Date 11 18 85 Latitude 15.961 S
Time 0518 Z Longitude 104.998 W

— Tem — Sal
— SigT

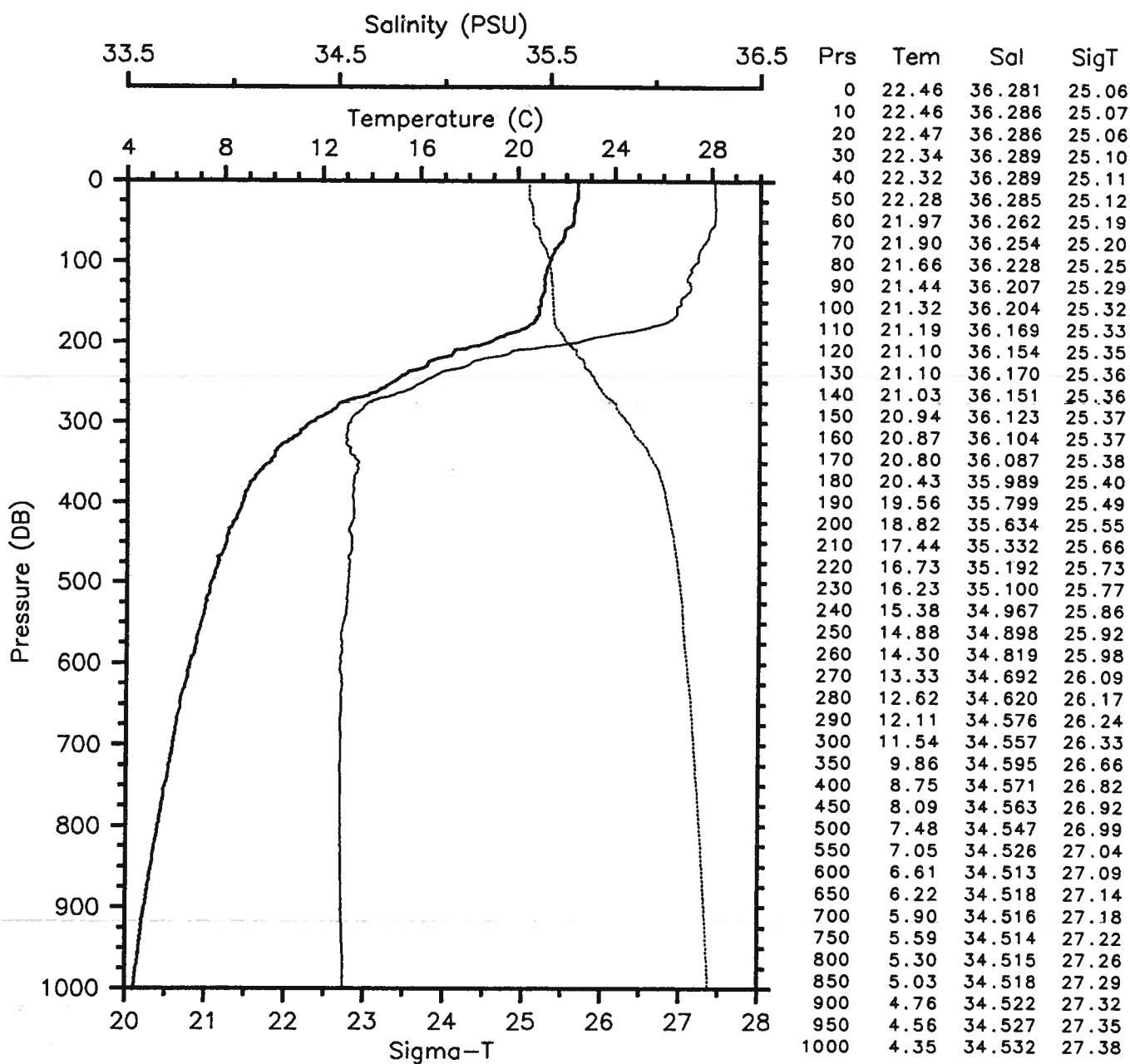


EPOCS EP4-85-RS CTD 43 RESEARCHER

Date 11 18 85 Latitude 15.708 S

Time 1048 Z Longitude 104.002 W

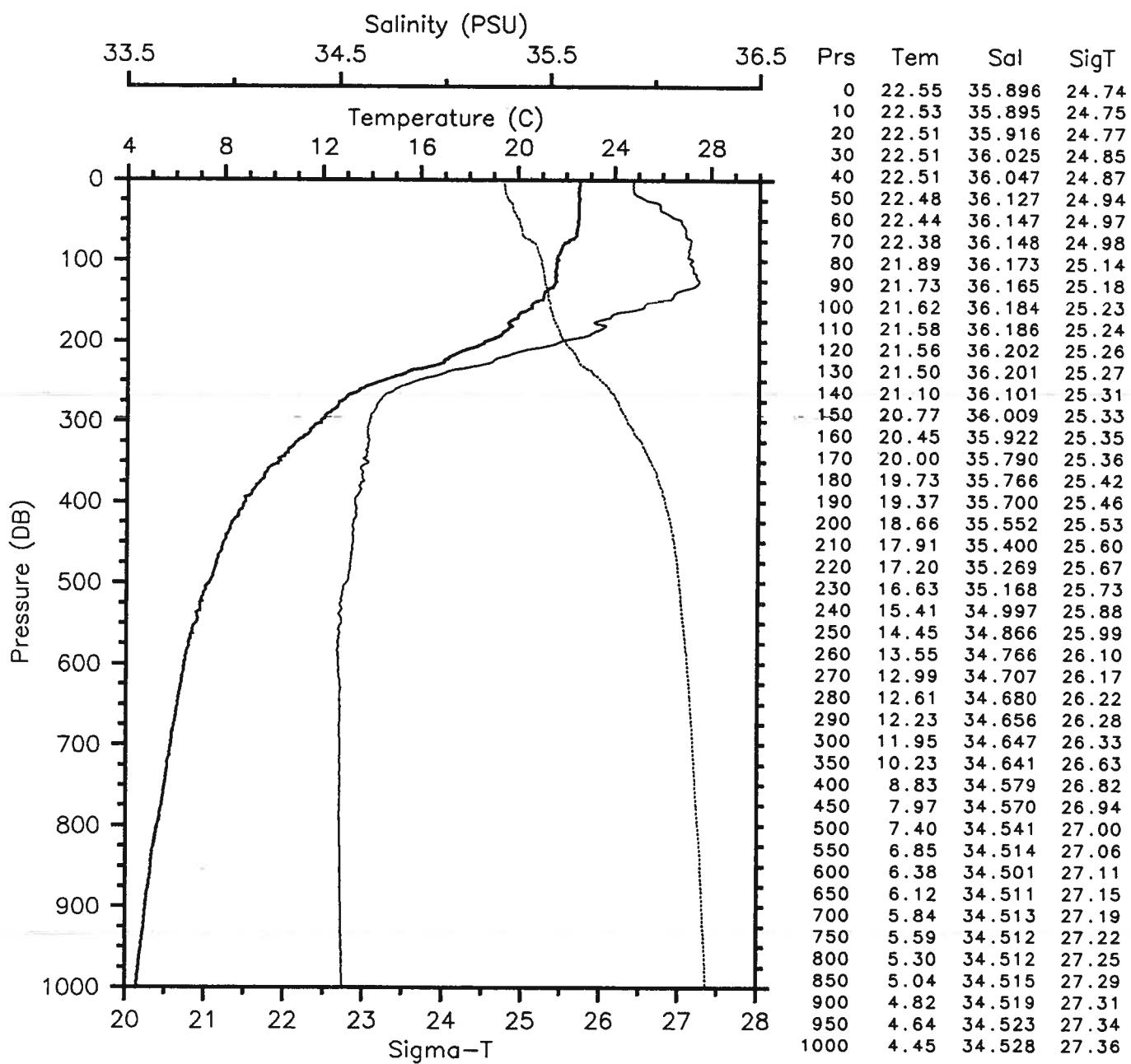
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 44 RESEARCHER

Date 11 18 85 Latitude 15.513 S
Time 1526 Z Longitude 103.003 W

— Tem — Sal
— SigT

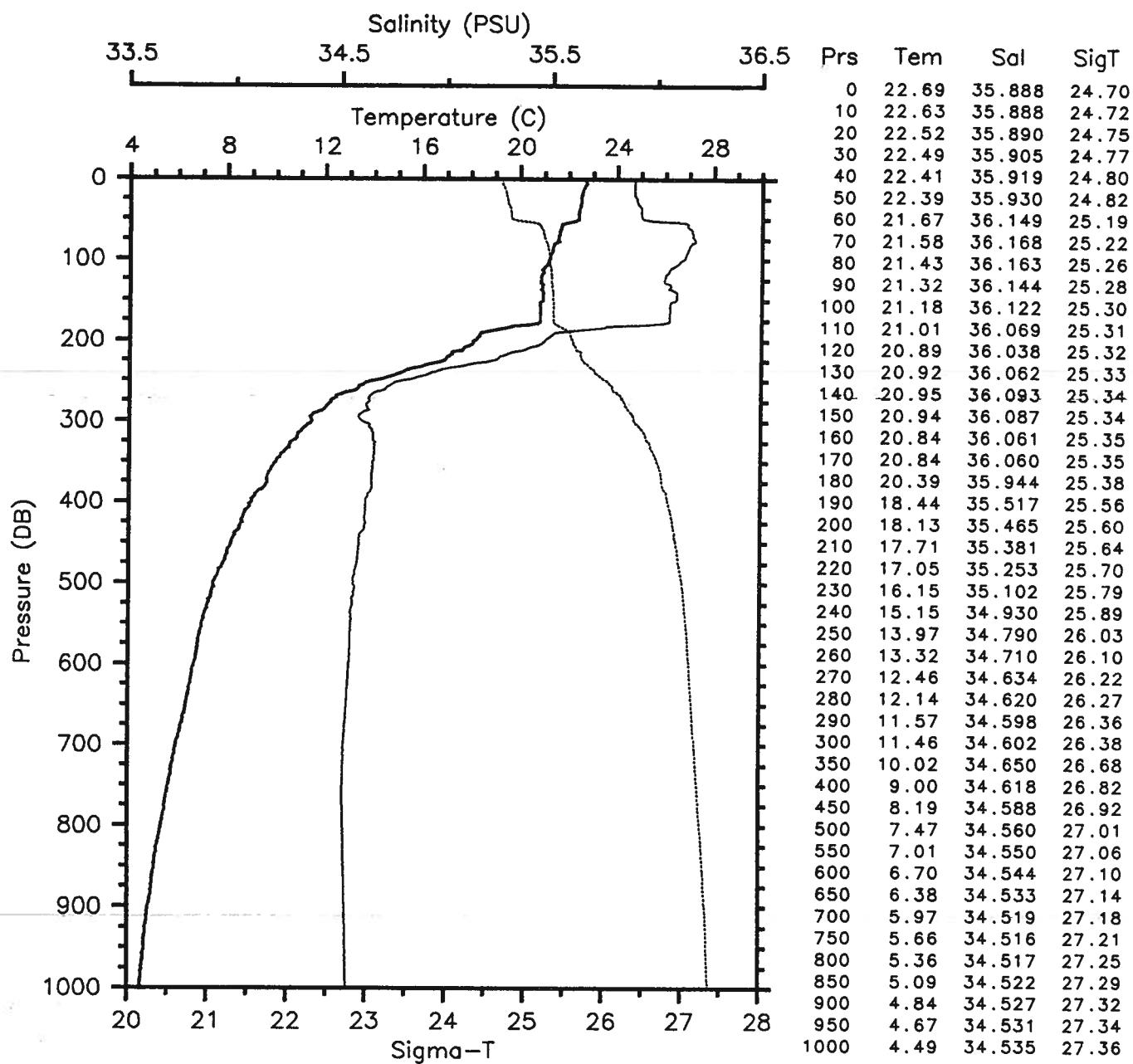


EPOCS EP4-85-RS CTD 45 RESEARCHER

Date 11 18 85 Latitude 15.318 S

Time 2137 Z Longitude 102.000 W

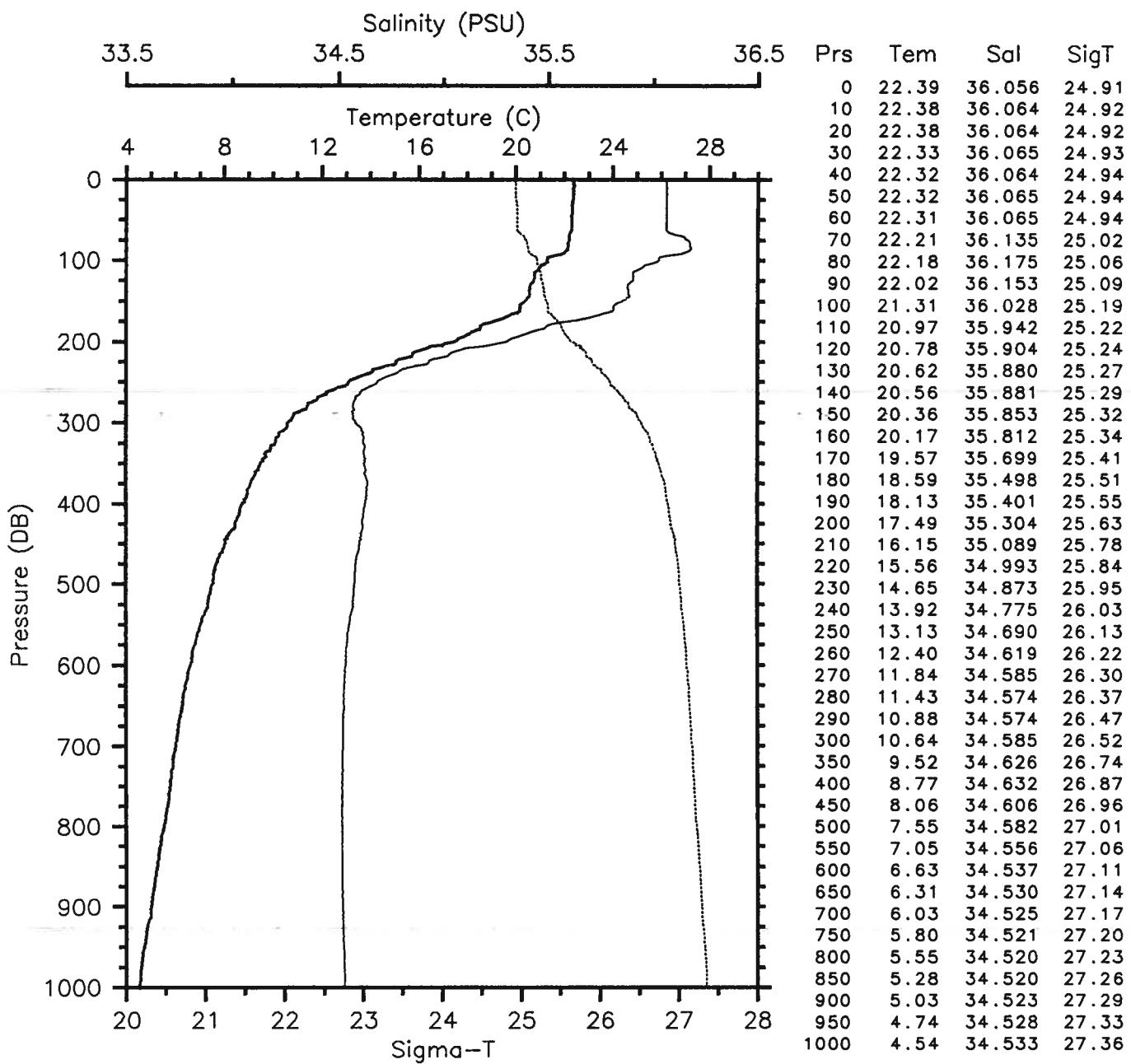
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 46 RESEARCHER

Date 11 19 85 Latitude 15.157 S
Time 0343 Z Longitude 101.000 W

— Tem	— Sal
— SigT	

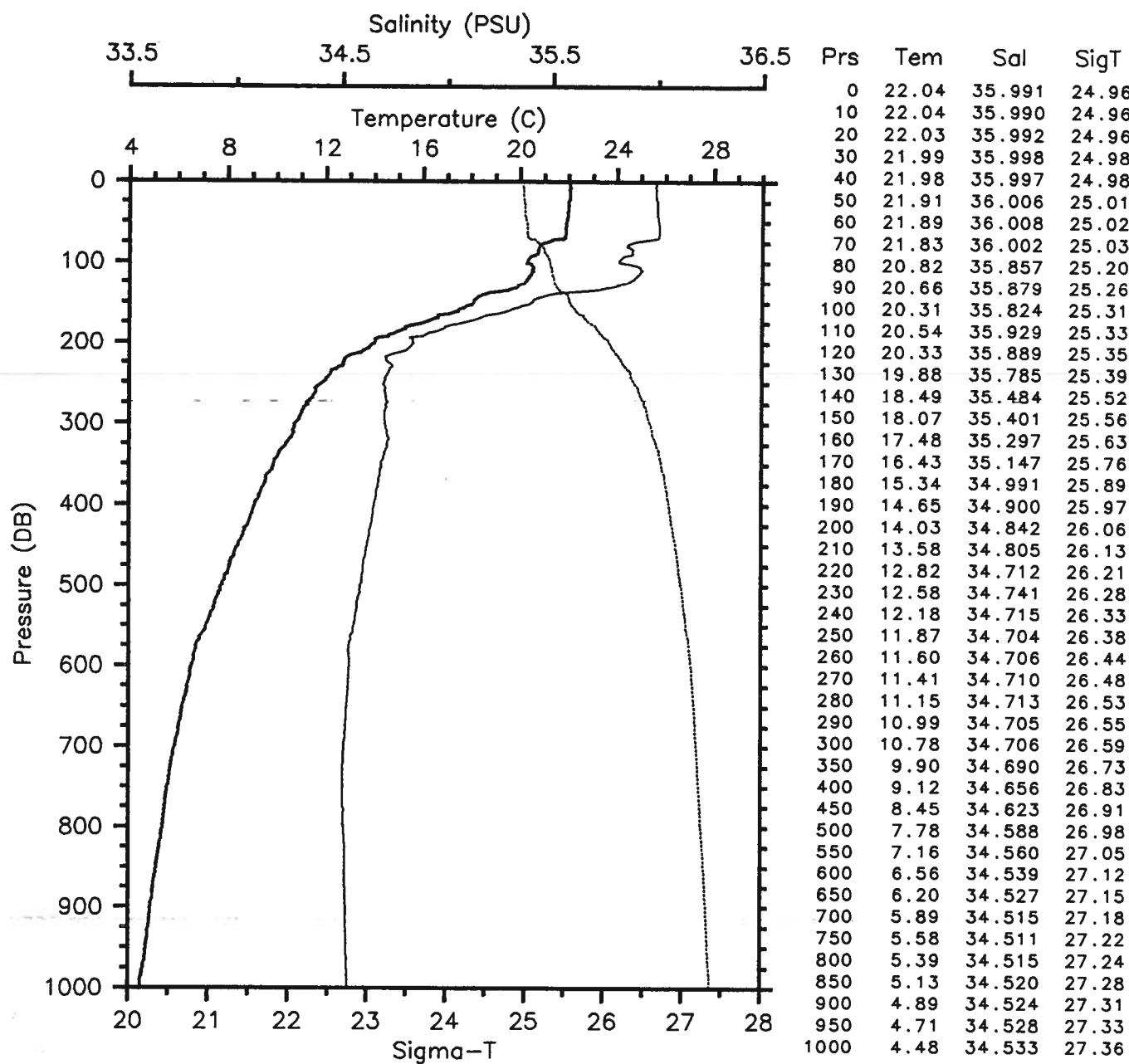


EPOCS EP4-85-RS CTD 47 RESEARCHER

Date 11 19 85 Latitude 14.988 S

Time 0852 Z Longitude 99.997 W

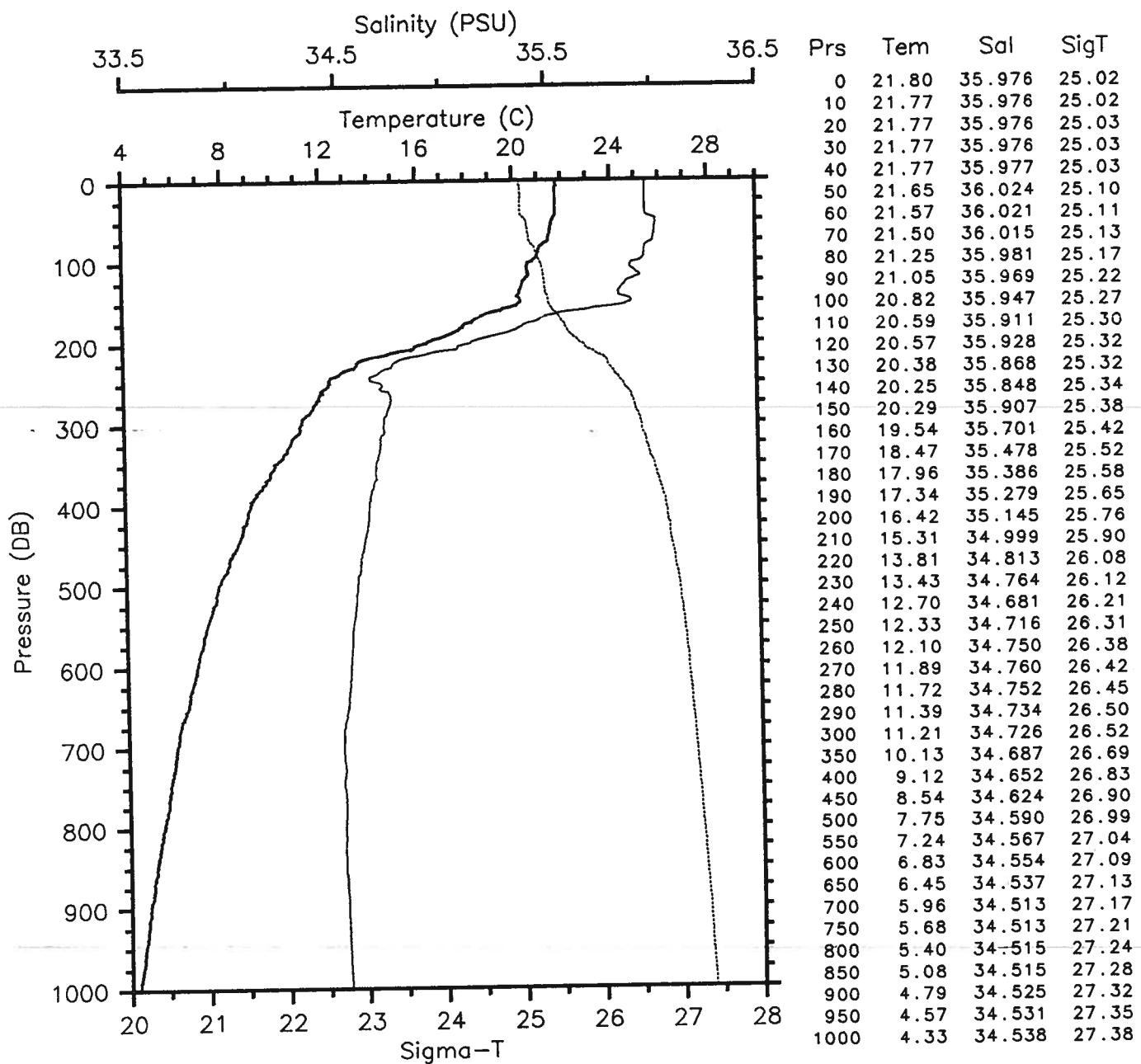
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 48 RESEARCHER

Date 11 19 85 Latitude 15.003 S
Time 1610 Z Longitude 99.007 W

— Tem — Sal
— SigT

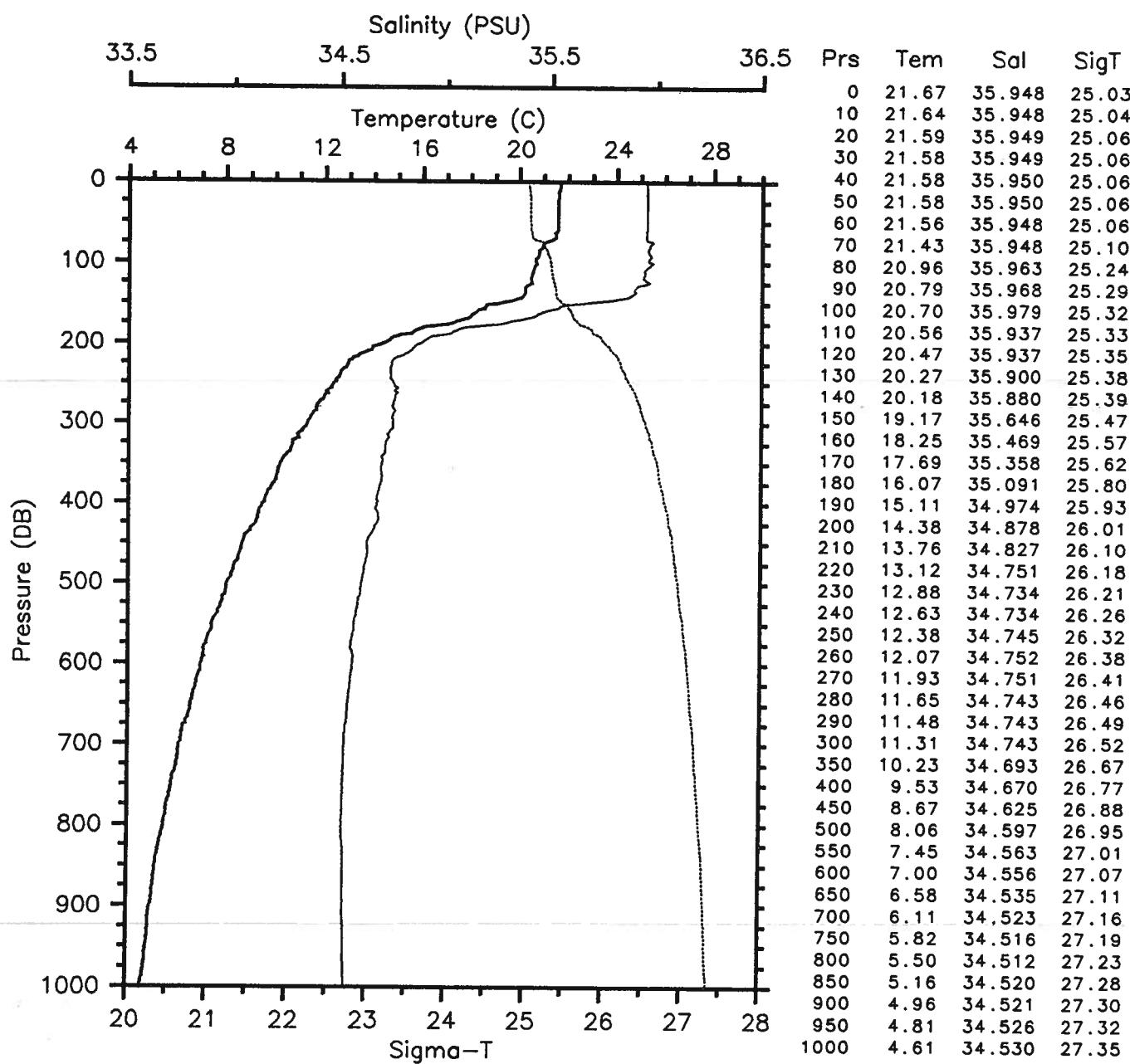


EPOCS EP4-85-RS CTD 49 RESEARCHER

Date 11 19 85 Latitude 15.002 S

Time 1842 Z Longitude 98.000 W

— Tem	— Sal
— SigT	

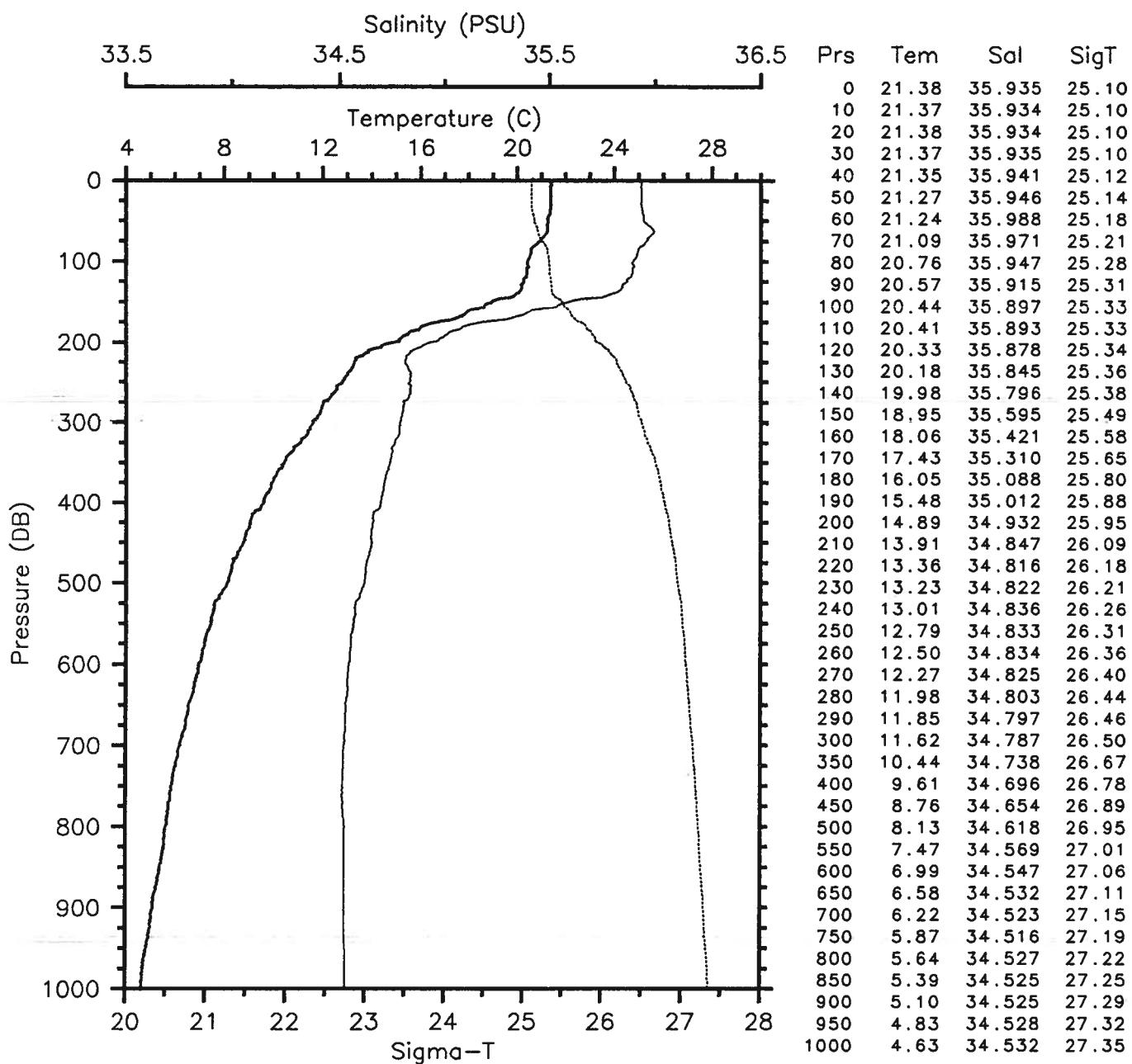


EPOCS EP4-85-RS CTD 50 RESEARCHER

Date 11 20 85 Latitude 15.017 S

Time 0556 Z Longitude 96.997 W

— Tem — Sal
— SigT

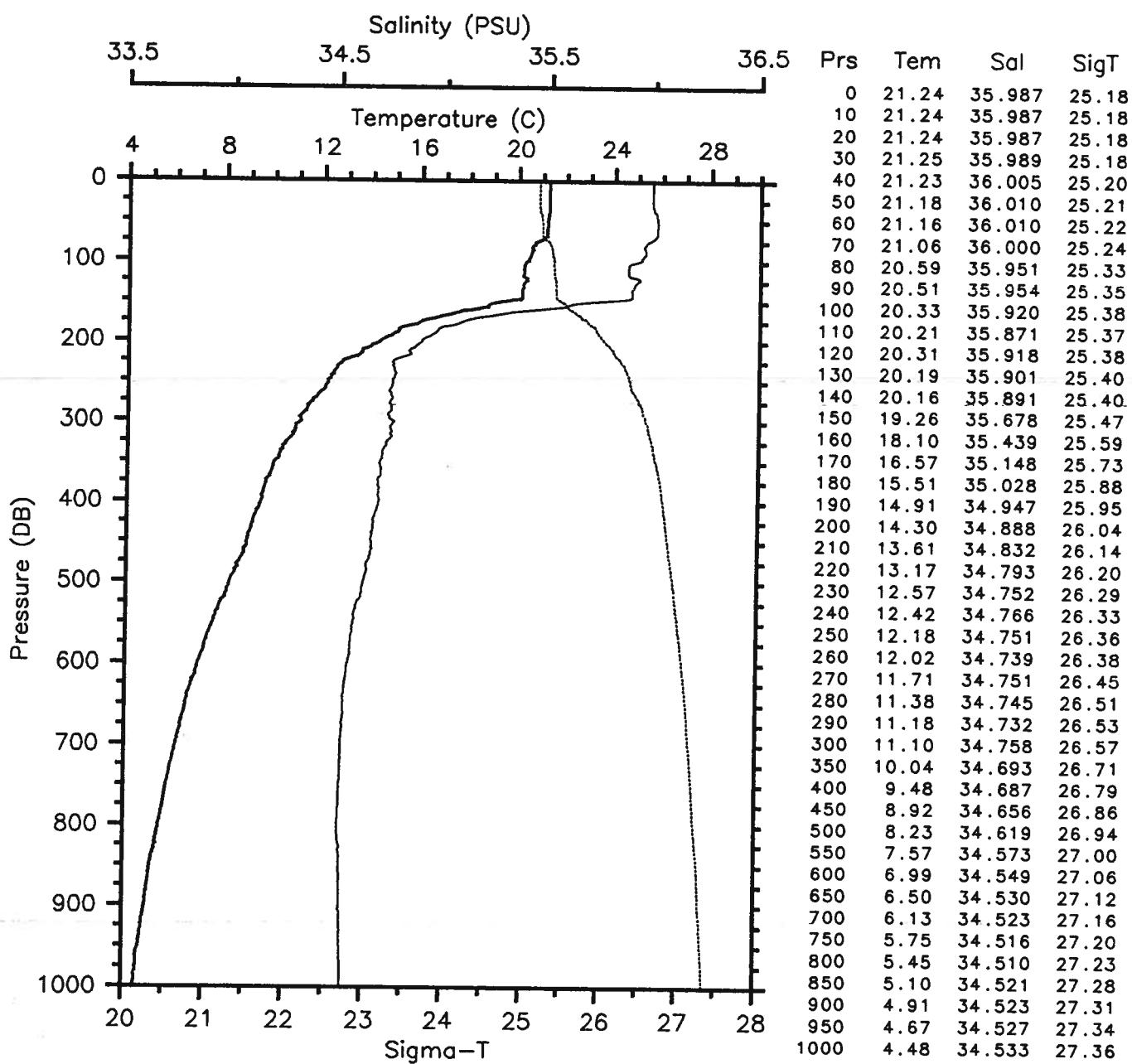


EPOCS EP4-85-RS CTD 51 RESEARCHER

Date 11 20 85 Latitude 15.000 S

Time 1039 Z Longitude 96.000 W

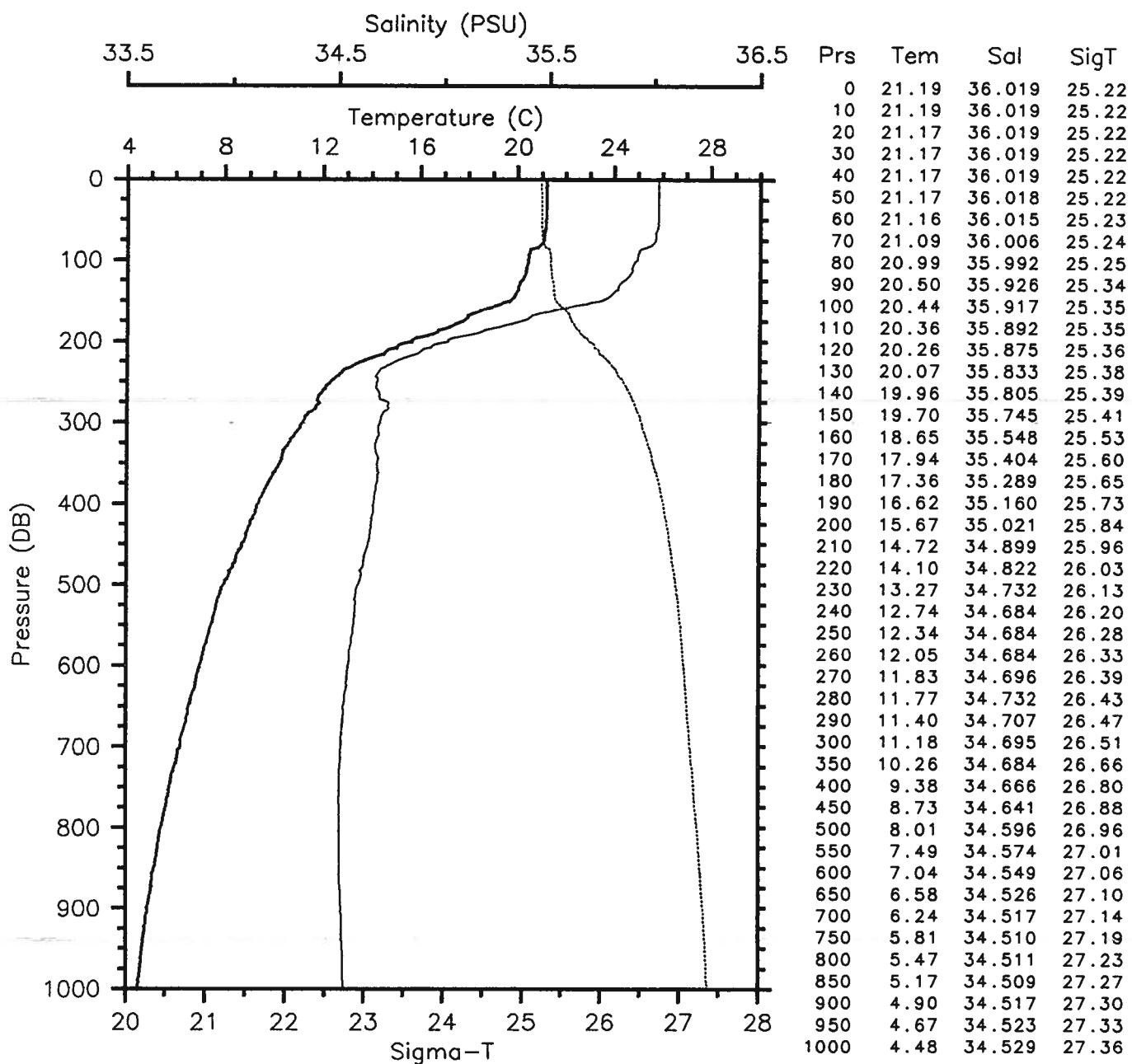
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 52 RESEARCHER

Date 11 20 85 Latitude 14.985 S
Time 1619 Z Longitude 95.003 W

— Tem — Sal
— SigT

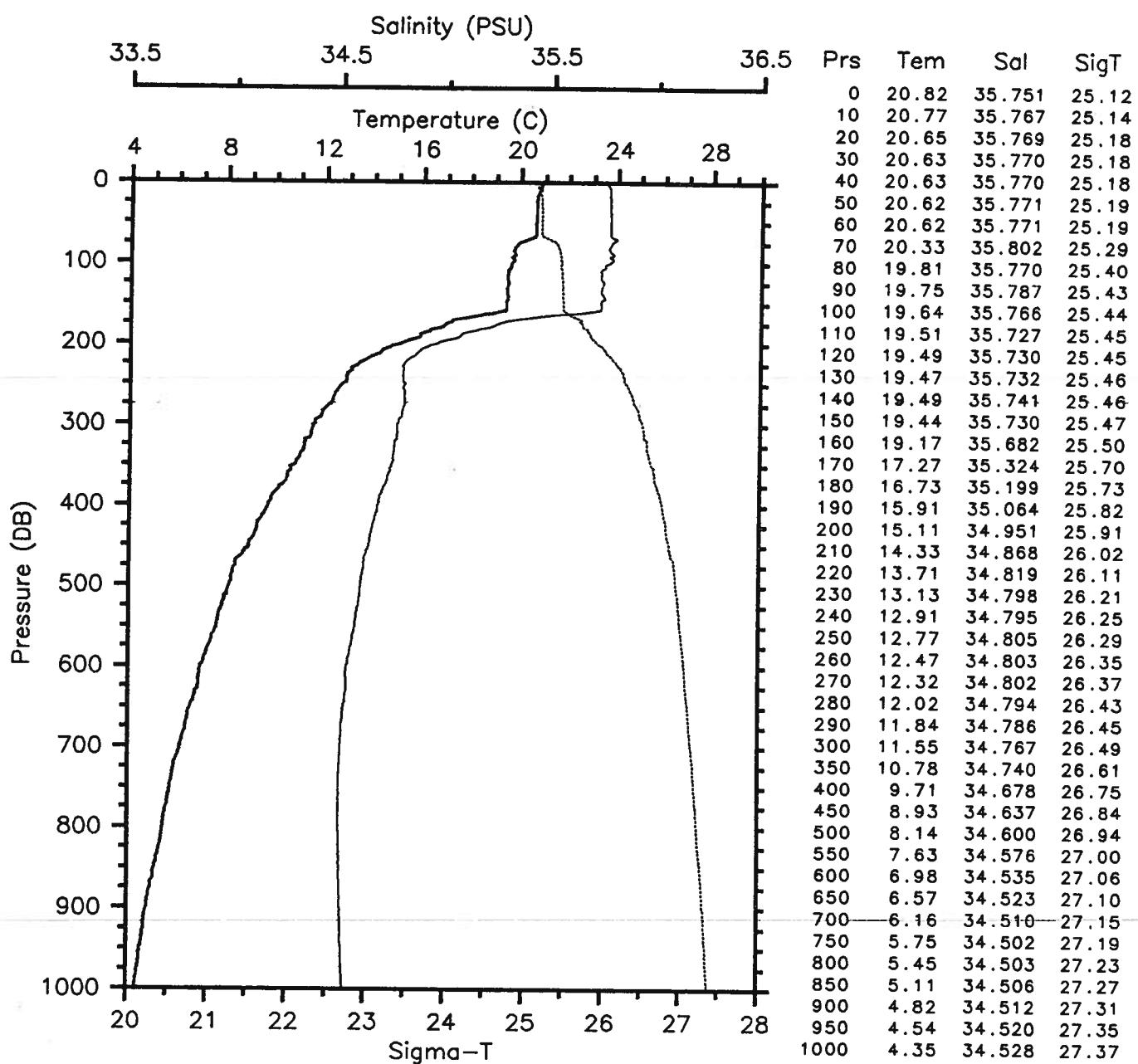


EPOCS EP4-85-RS CTD 53 RESEARCHER

Date 11 20 85 Latitude 15.000 S

Time 2151 Z Longitude 93.969 W

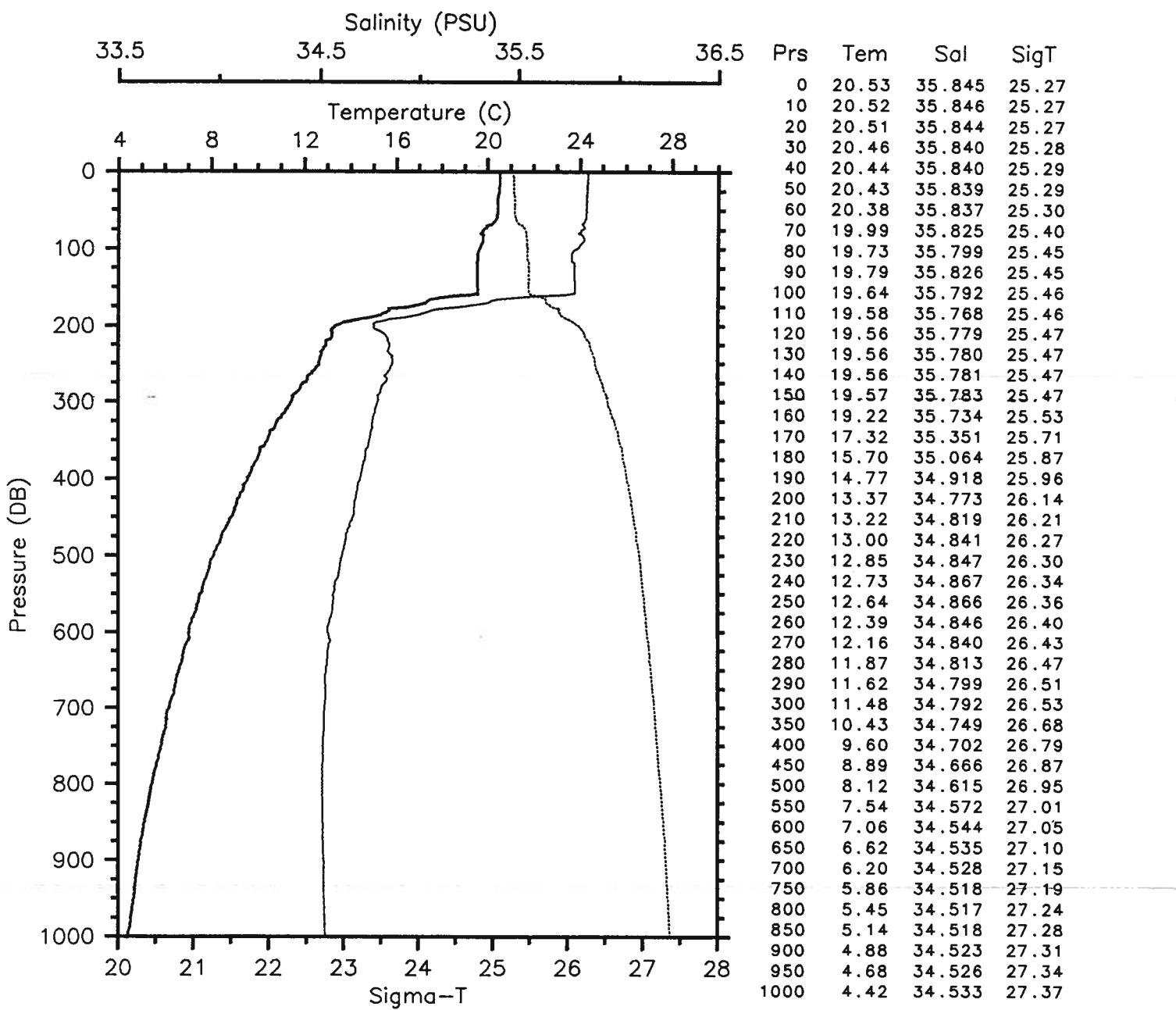
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 54 RESEARCHER

Date 11 21 85 Latitude 14.984 S
Time 0328 Z Longitude 92.998 W

— Tem — Sal
--- SigT

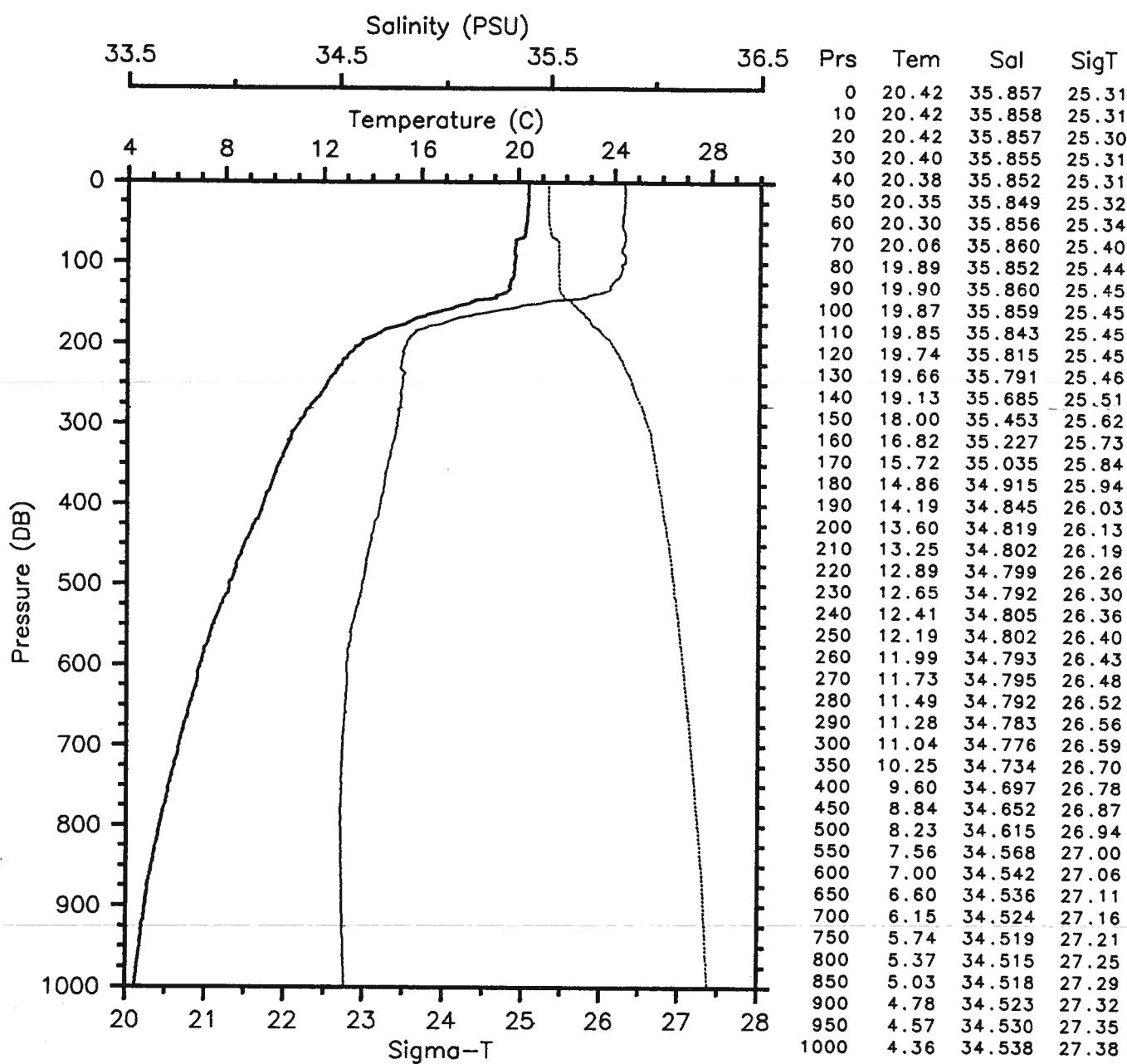


EPOCS EP4-85-RS CTD 55 RESEARCHER

Date 11 21 85 Latitude 14.992 S

Time 0959 Z Longitude 92.004 W

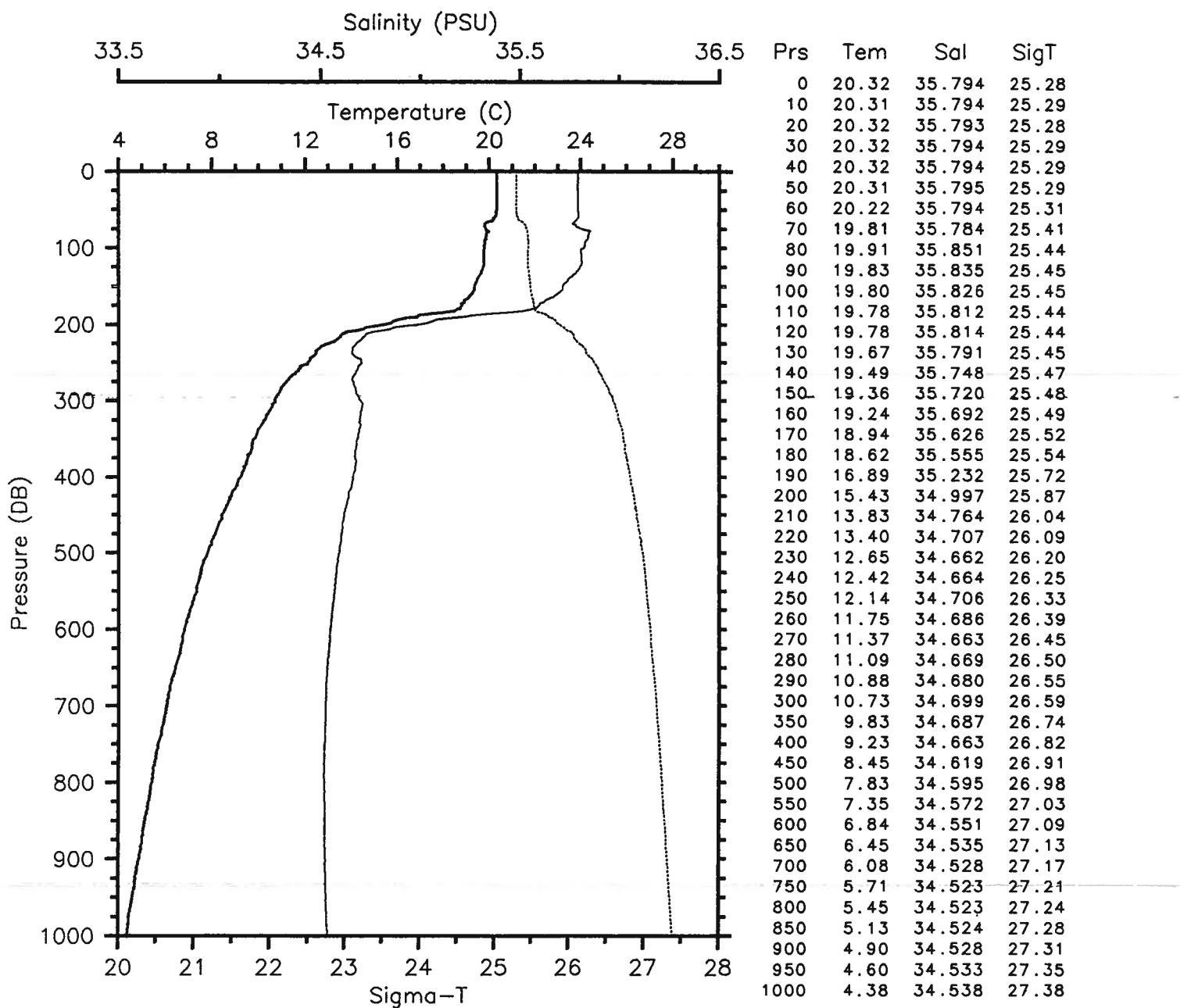
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 56 RESEARCHER

Date 11 21 85 Latitude 14.985 S
Time 1357 Z Longitude 90.992 W

— Tem — Sal
— SigT

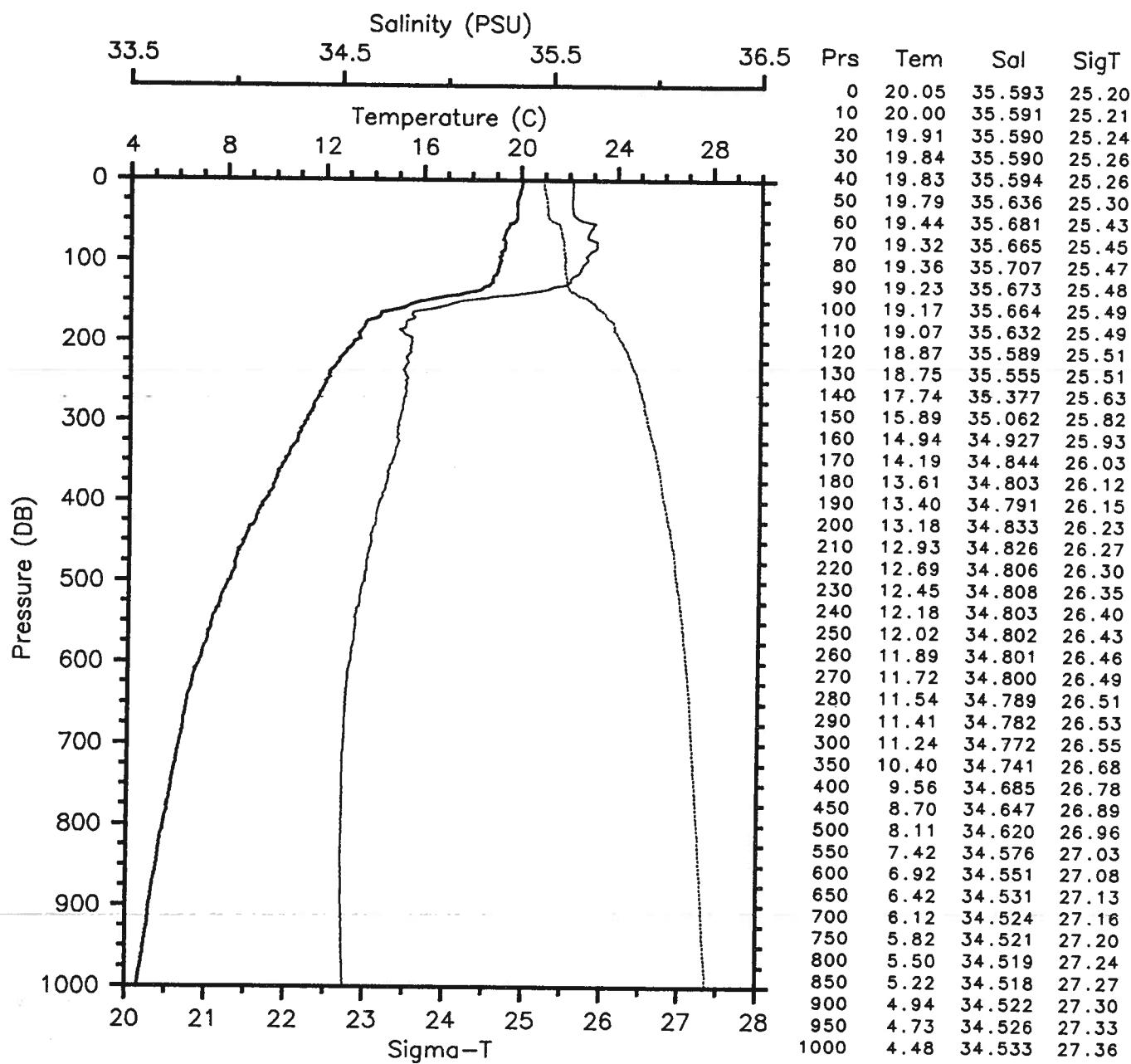


EPOCS EP4-85-RS CTD 57 RESEARCHER

Date 11 21 85 Latitude 14.995 S

Time 1630 Z Longitude 89.999 W

— Tem — Sal
— SigT

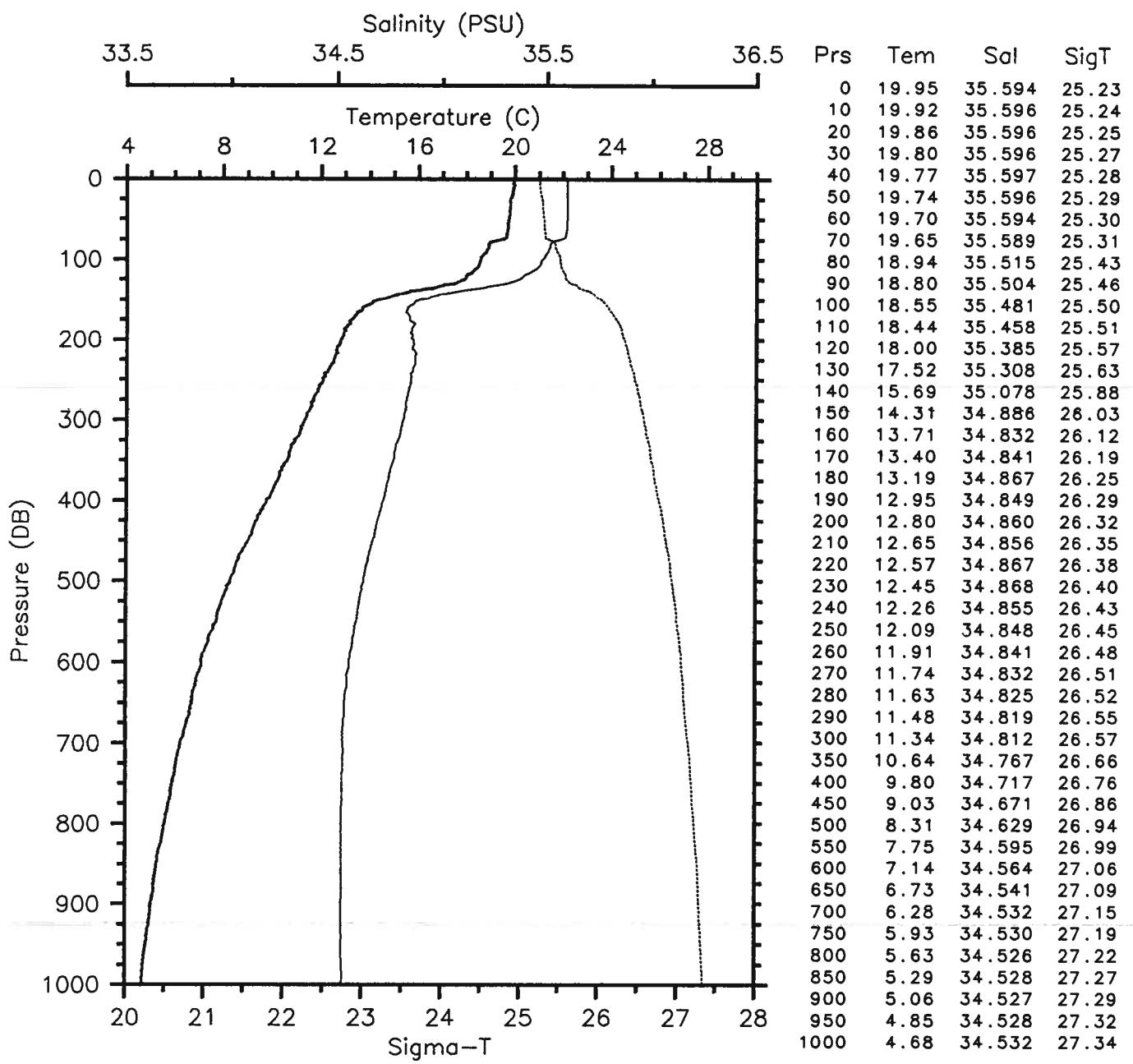


EPOCS EP4-85-RS CTD 58 RESEARCHER

Date 11 22 85 Latitude 15.012 S

Time 0237 Z Longitude 88.995 W

— Tem	— Sal
— SigT	

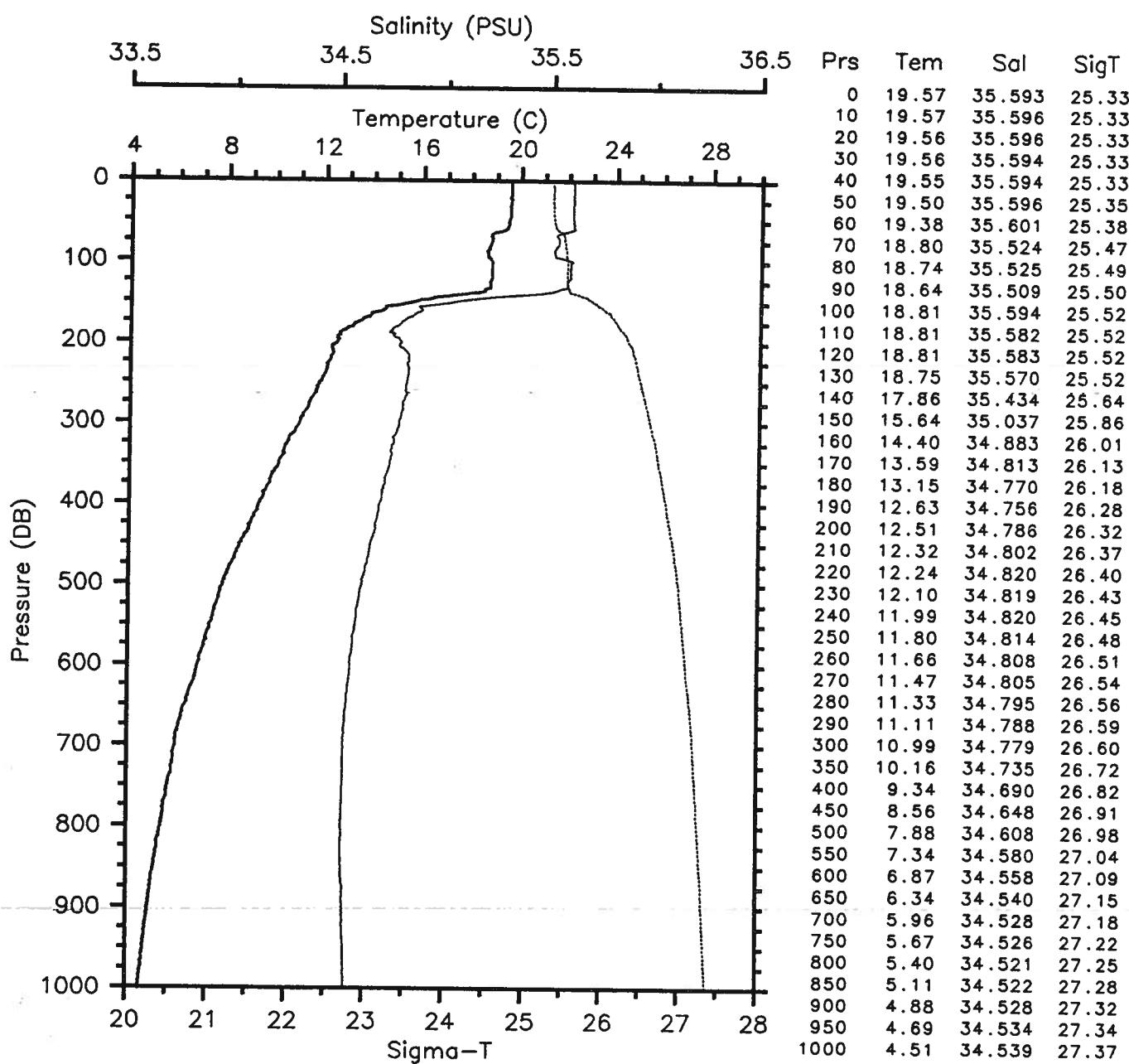


EPOCS EP4-85-RS CTD 59 RESEARCHER

Date 11 22 85 Latitude 15.011 S

Time 0747 Z Longitude 88.007 W

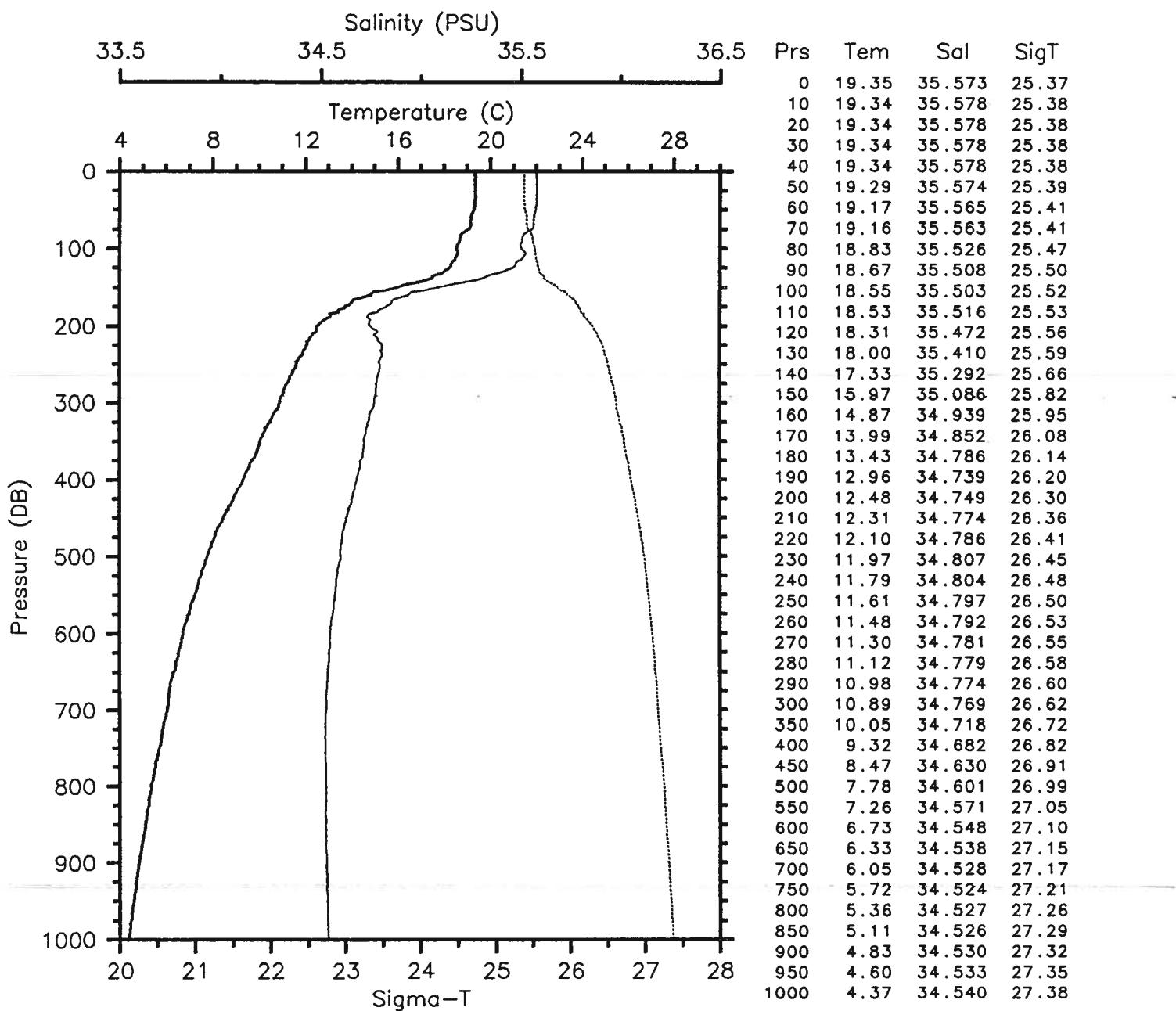
— Tem	— Sal
— SigT	



EPOCS EP4-85-RS CTD 60 RESEARCHER

Date 11 22 85 Latitude 14.990 S
Time 1022 Z Longitude 87.000 W

— Tem — Sal
— SigT

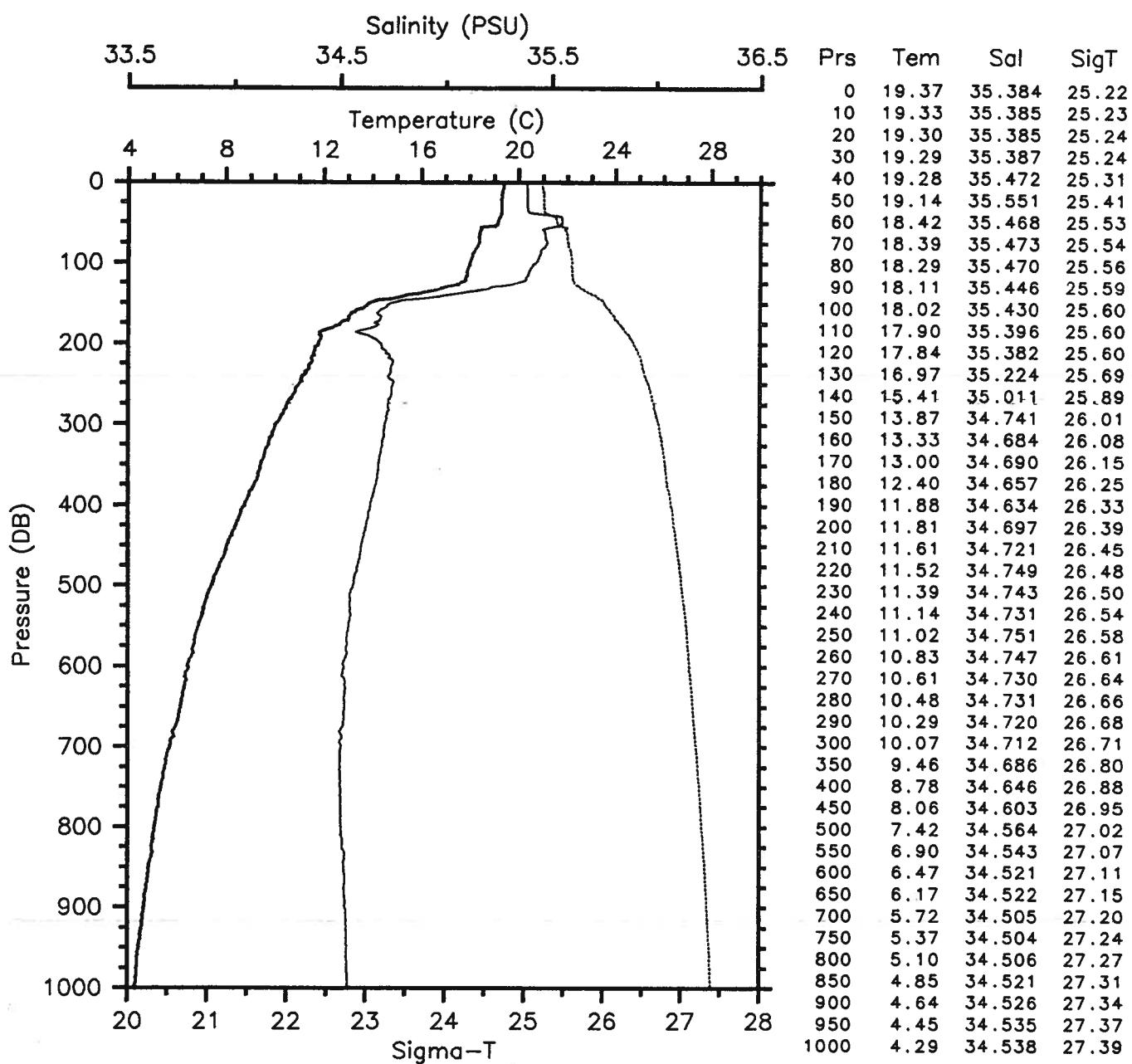


EPOCS EP4-85-RS CTD 61 RESEARCHER

Date 11 22 85 Latitude 14.983 S

Time 1531 Z Longitude 86.007 W

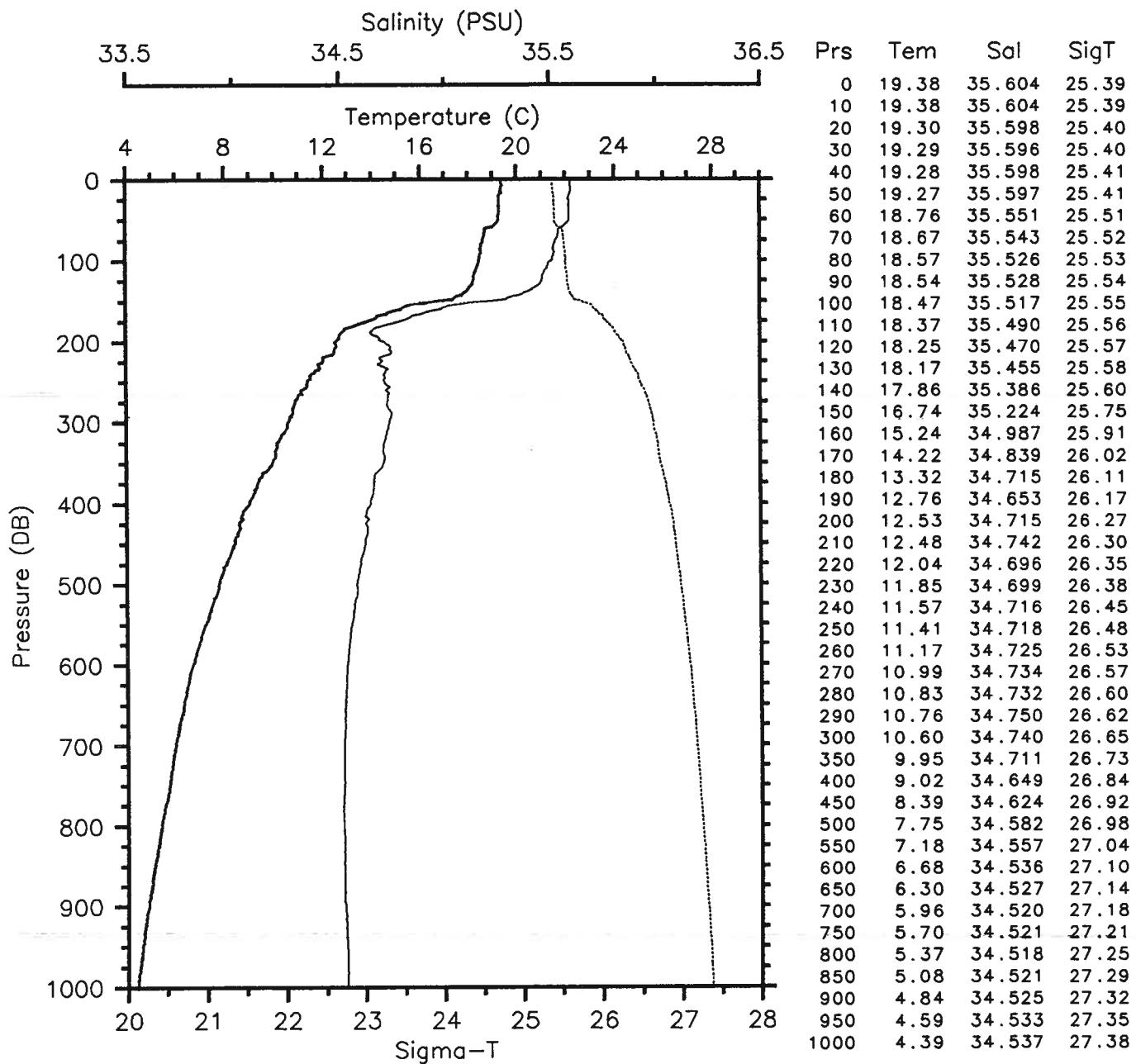
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 62 RESEARCHER

Date 11 22 85 Latitude 15.015 S
Time 2021 Z Longitude 85.015 W

— Tem — Sal
--- SigT

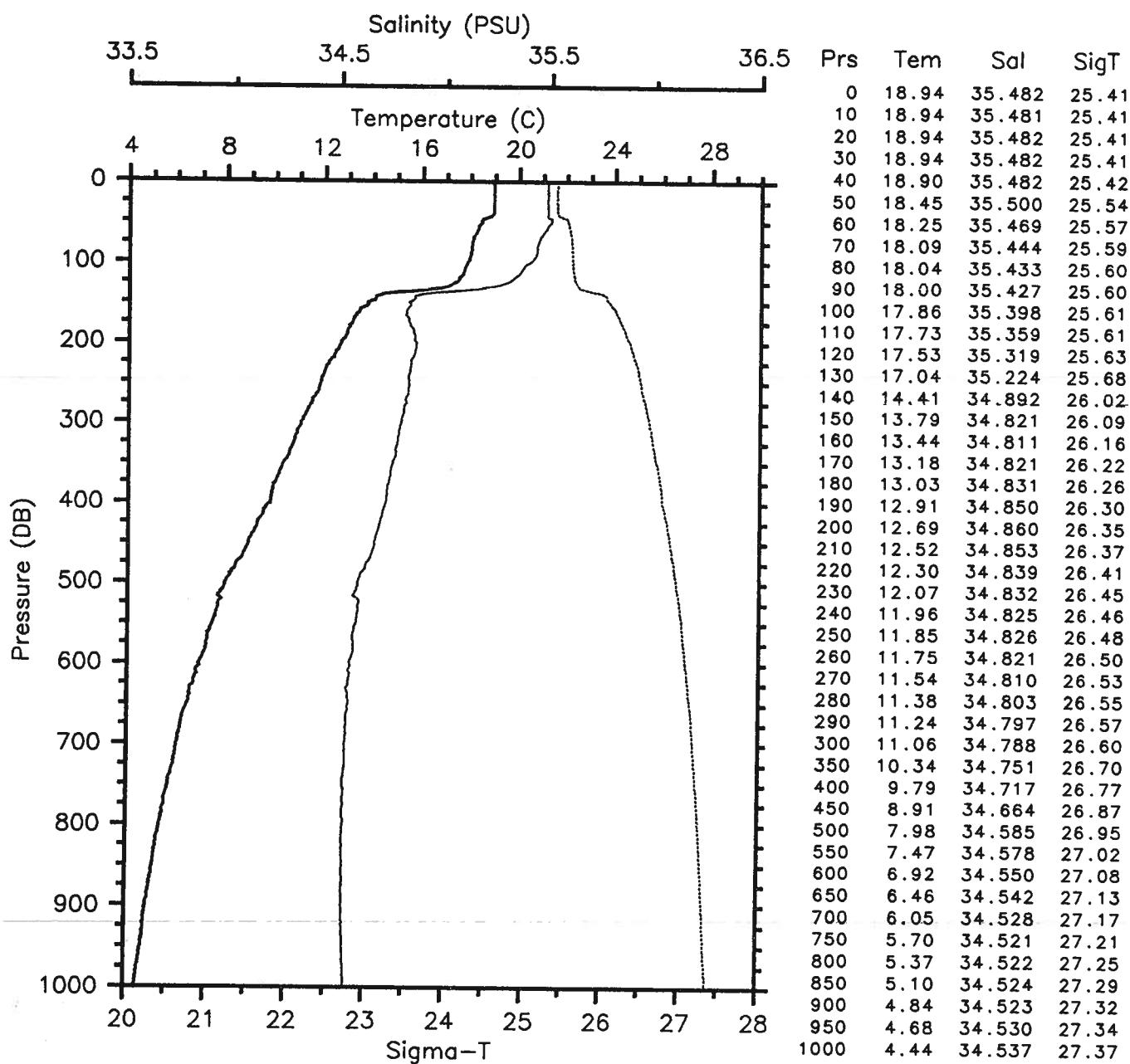


EPOCS EP4-85-RS CTD 63 RESEARCHER

Date 11 23 85 Latitude 15.005 S

Time 0514 Z Longitude 84.006 W

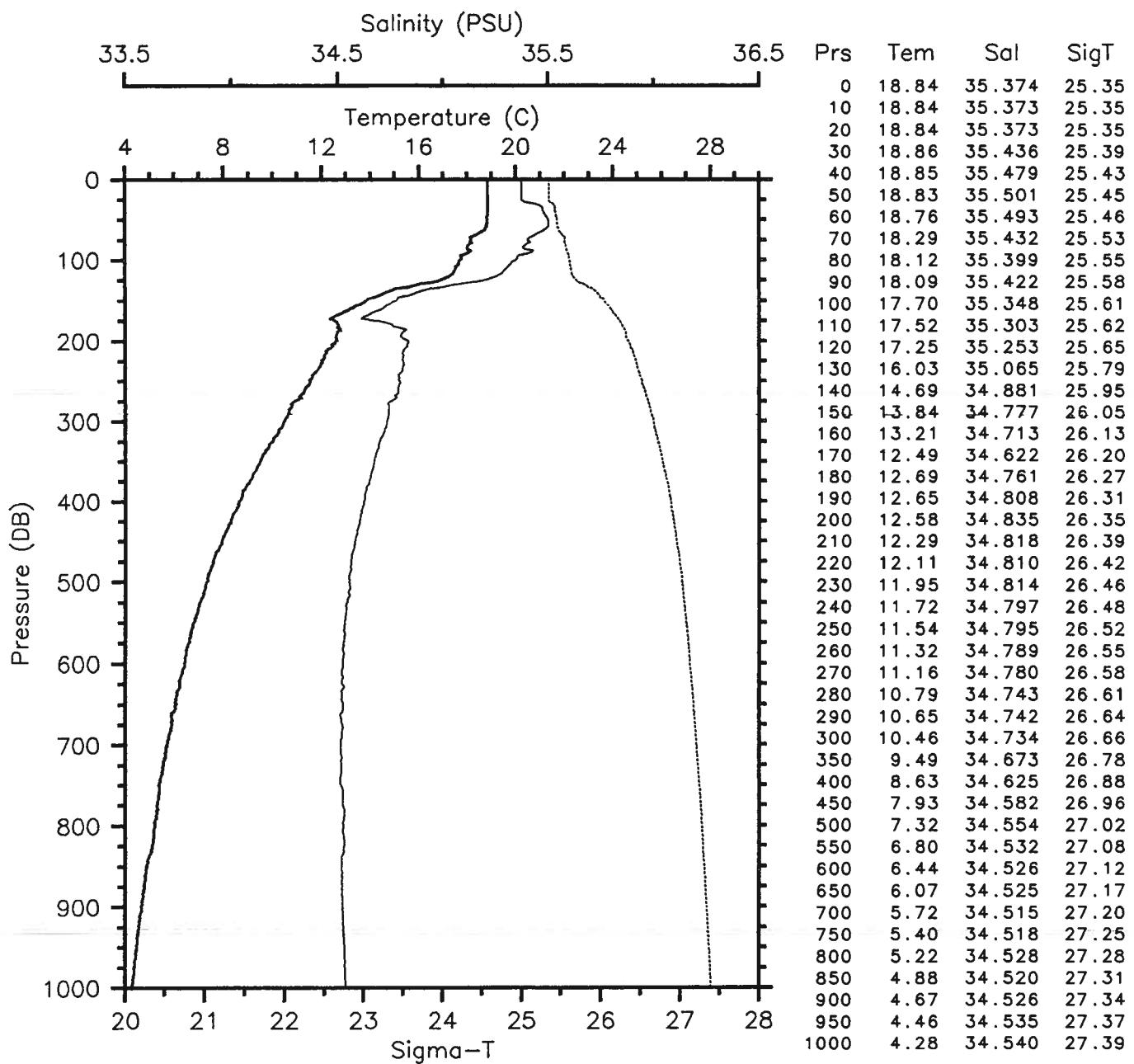
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 64 RESEARCHER

Date 11 23 85 Latitude 14.995 S
Time 1043 Z Longitude 83.000 W

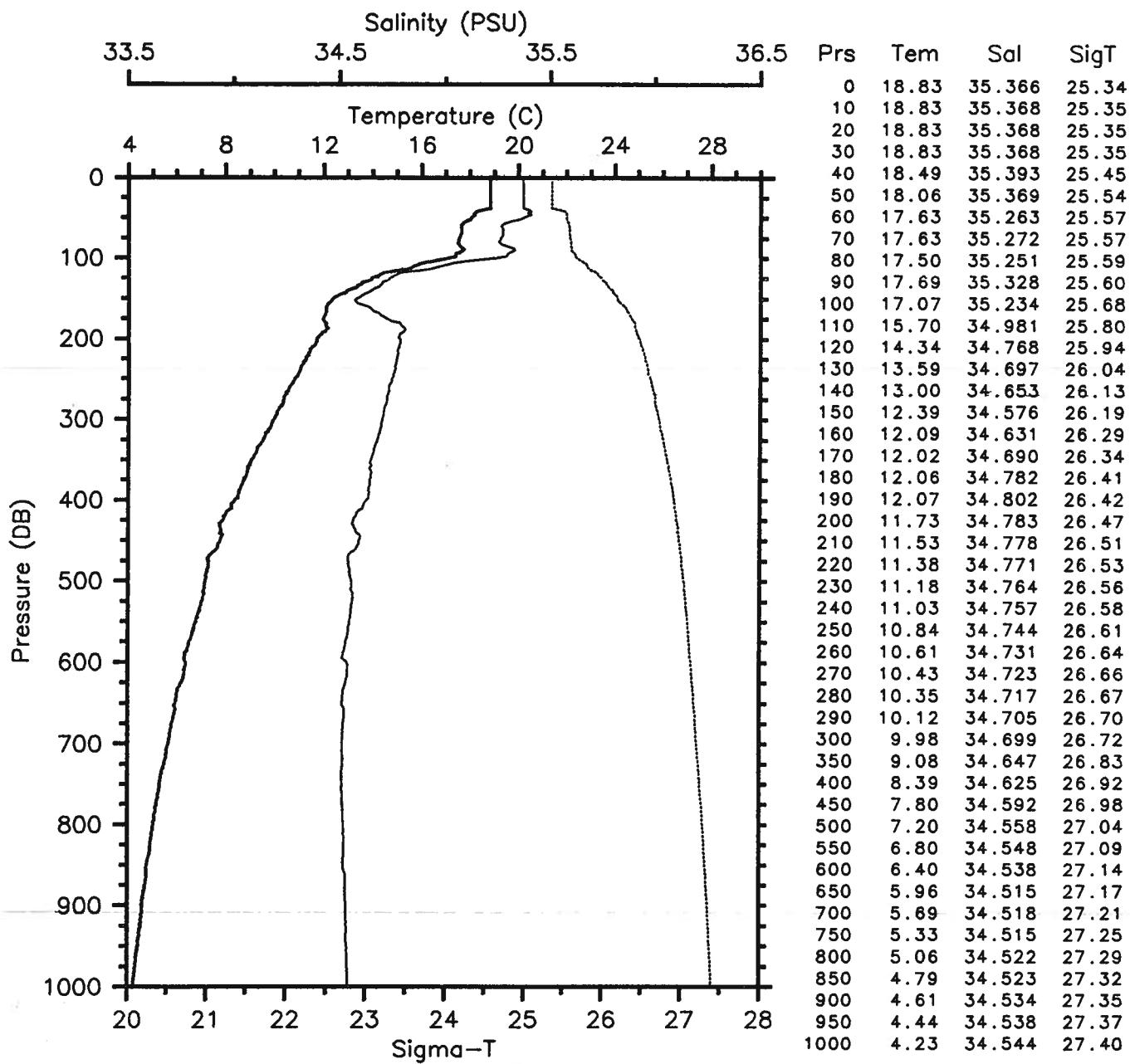
— Tem — Sal
--- SigT



EPOCS EP4-85-RS CTD 65 RESEARCHER

Date 11 23 85 Latitude 14.522 S
Time 1559 Z Longitude 82.095 W

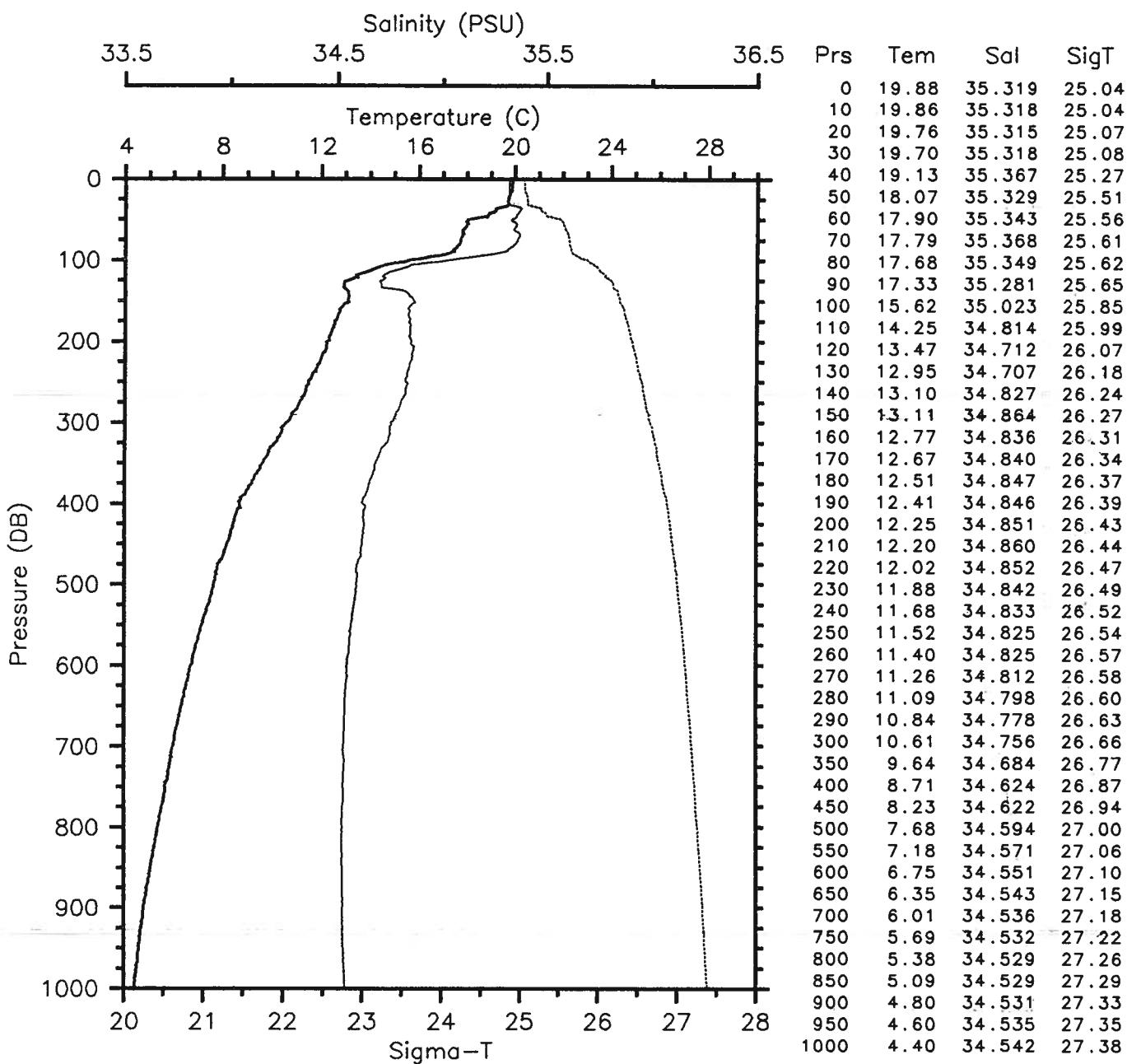
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 66 RESEARCHER

Date 11 23 85 Latitude 14.092 S
Time 2029 Z Longitude 81.182 W

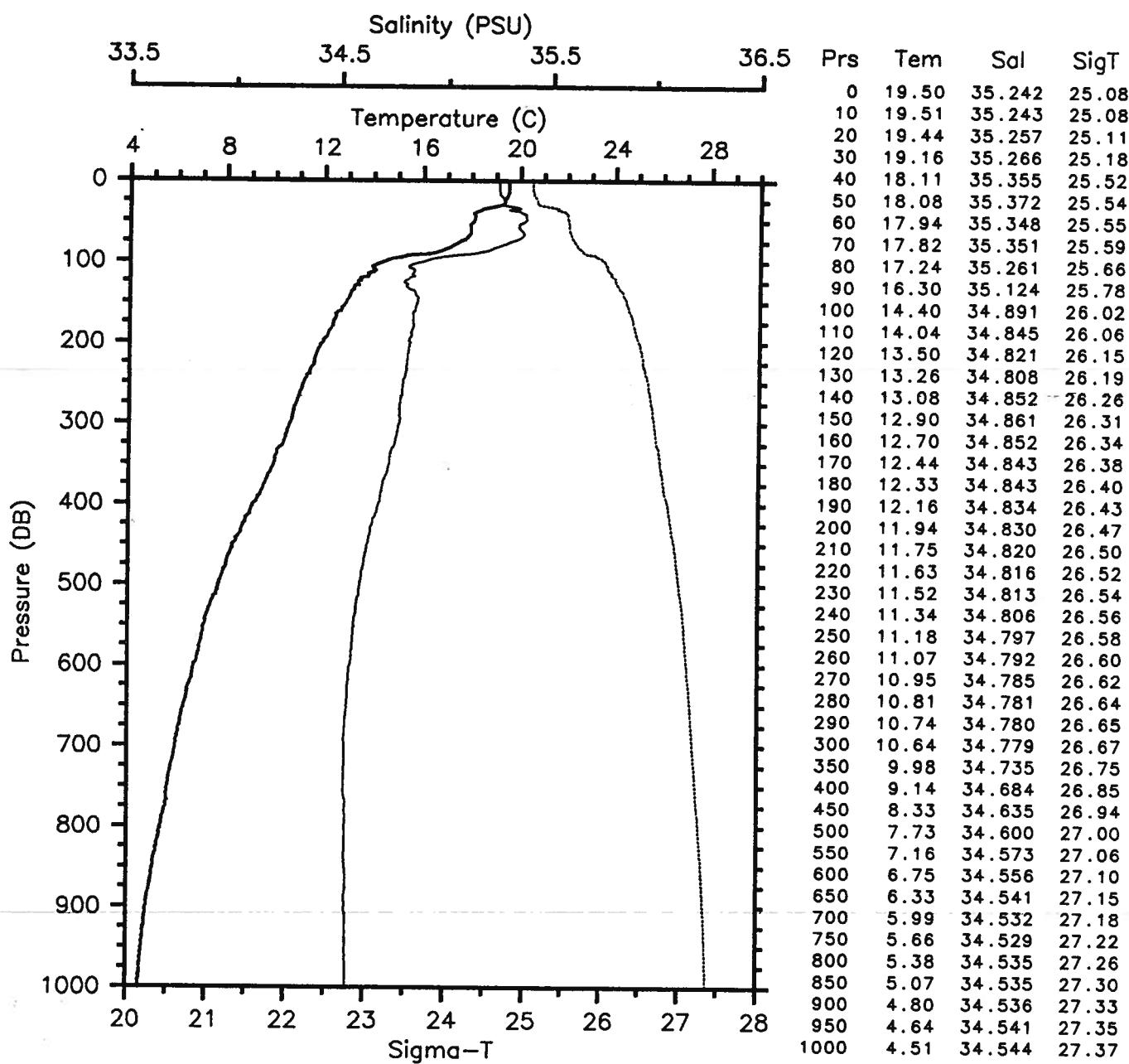
— Tem — Sal
--- SigT



EPOCS EP4-85-RS CTD 67 RESEARCHER

Date 11 24 85 Latitude 13.612 S
Time 0304 Z Longitude 80.243 W

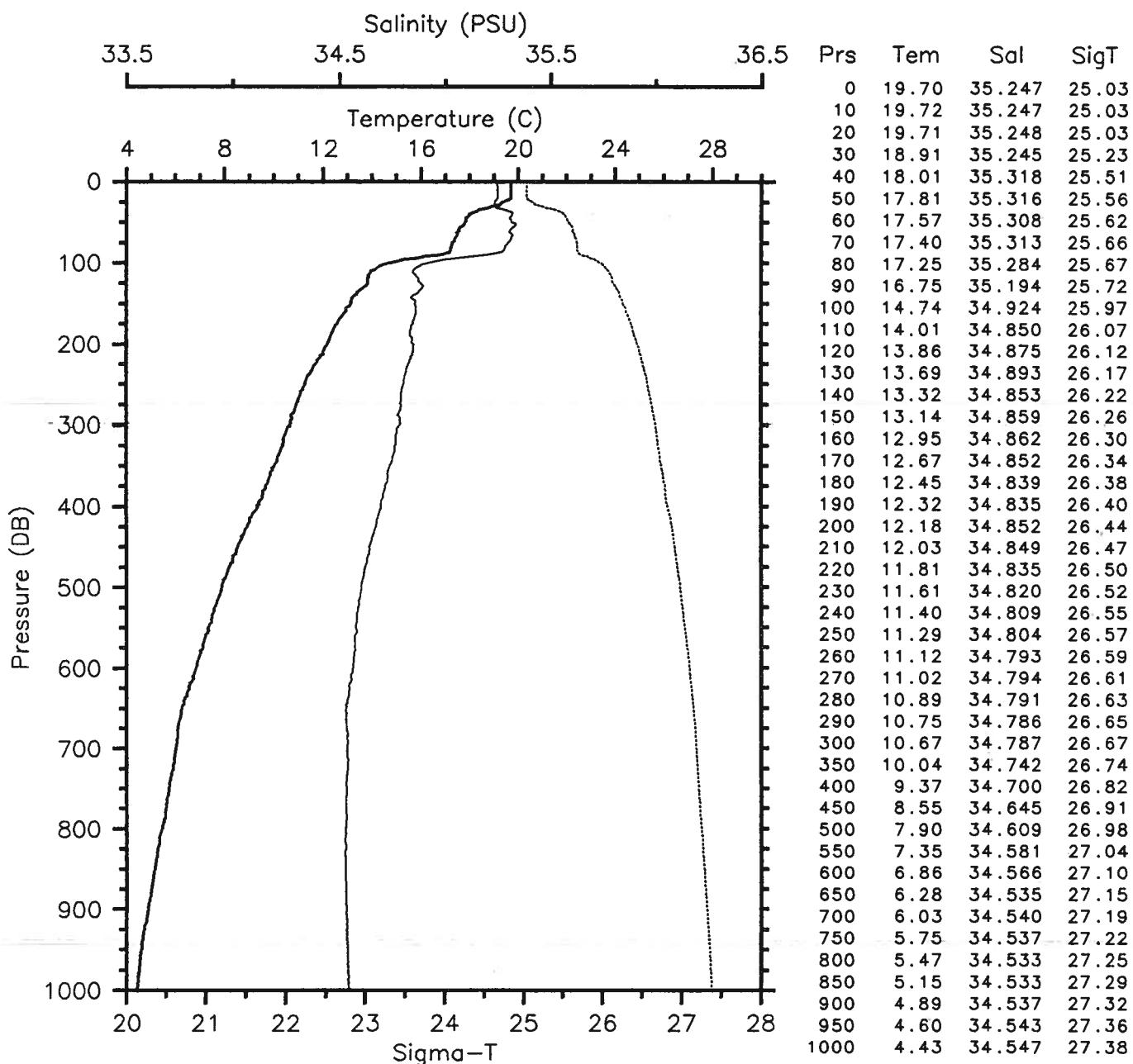
— Tem	— Sal
— SigT	



EPOCS EP4-85-RS CTD 68 RESEARCHER

Date 11 24 85 Latitude 13.163 S
Time 0529 Z Longitude 79.423 W

— Tem — Sal
— SigT

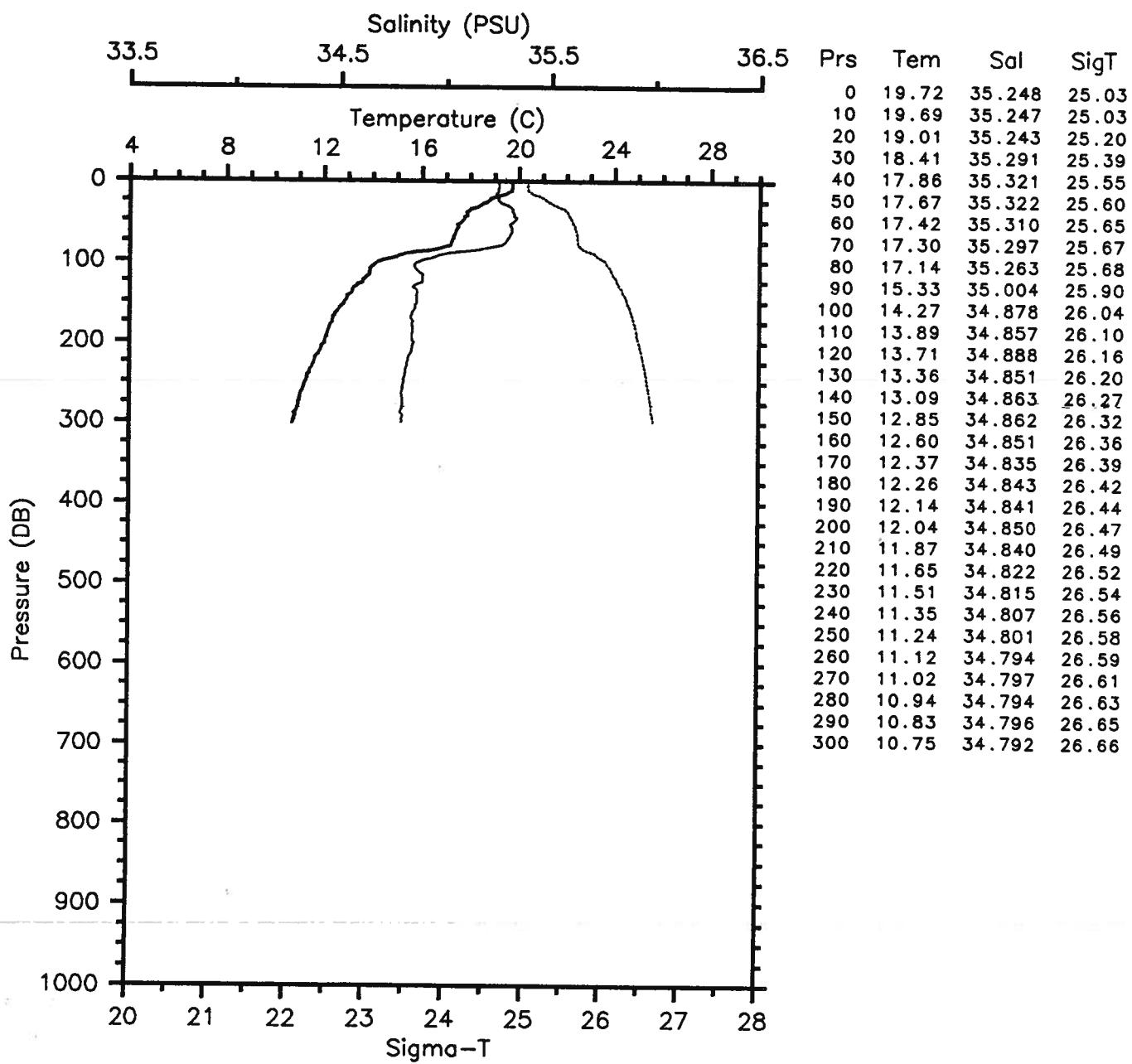


EPOCS EP4-85-RS CTD 69 RESEARCHER

Date 11 24 85 Latitude 13.175 S

Time 1025 Z Longitude 79.400 W

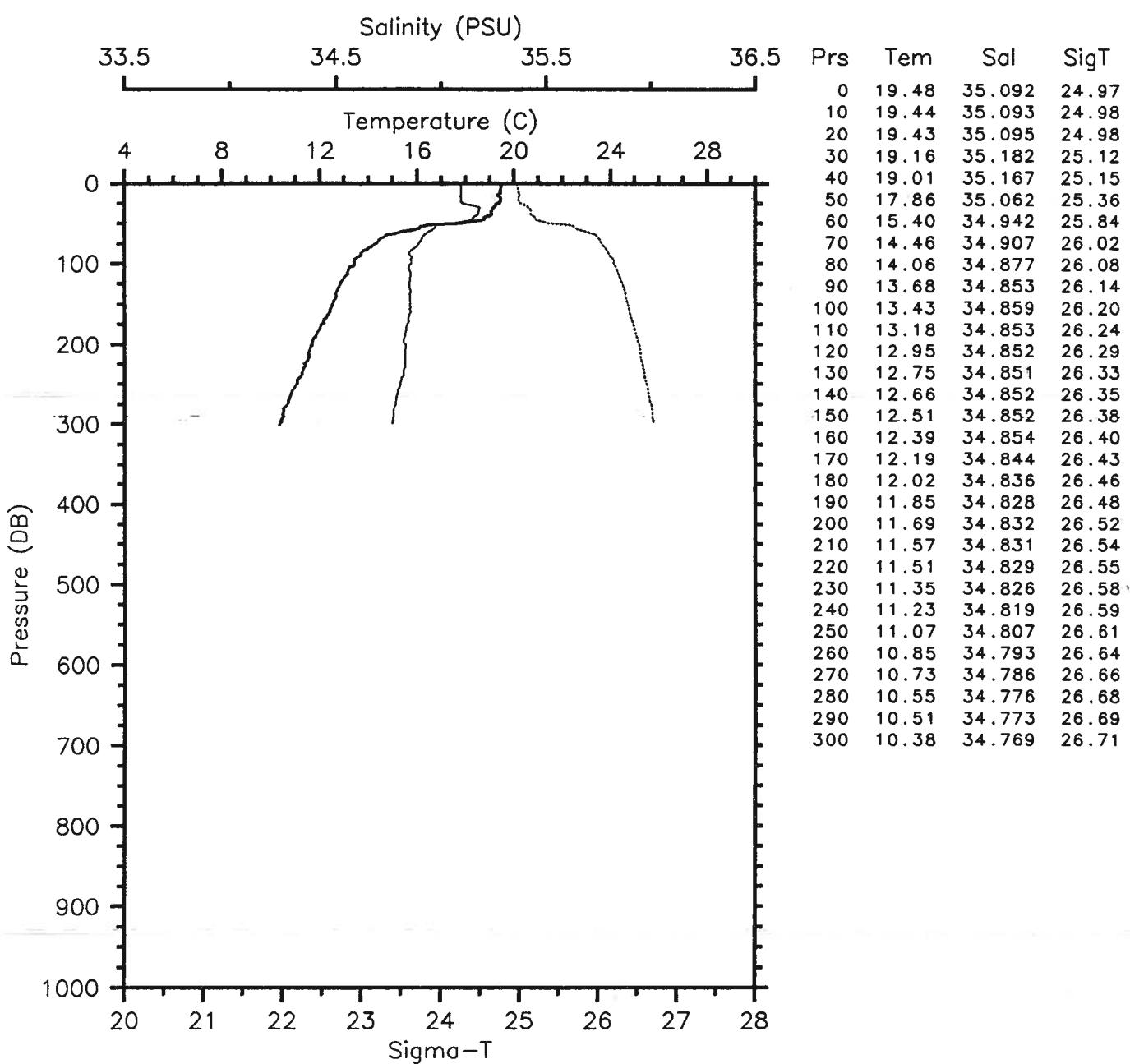
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 70 RESEARCHER

Date 11 24 85 Latitude 12.842 S
Time 1427 Z Longitude 78.700 W

— Tem — Sal
— SigT

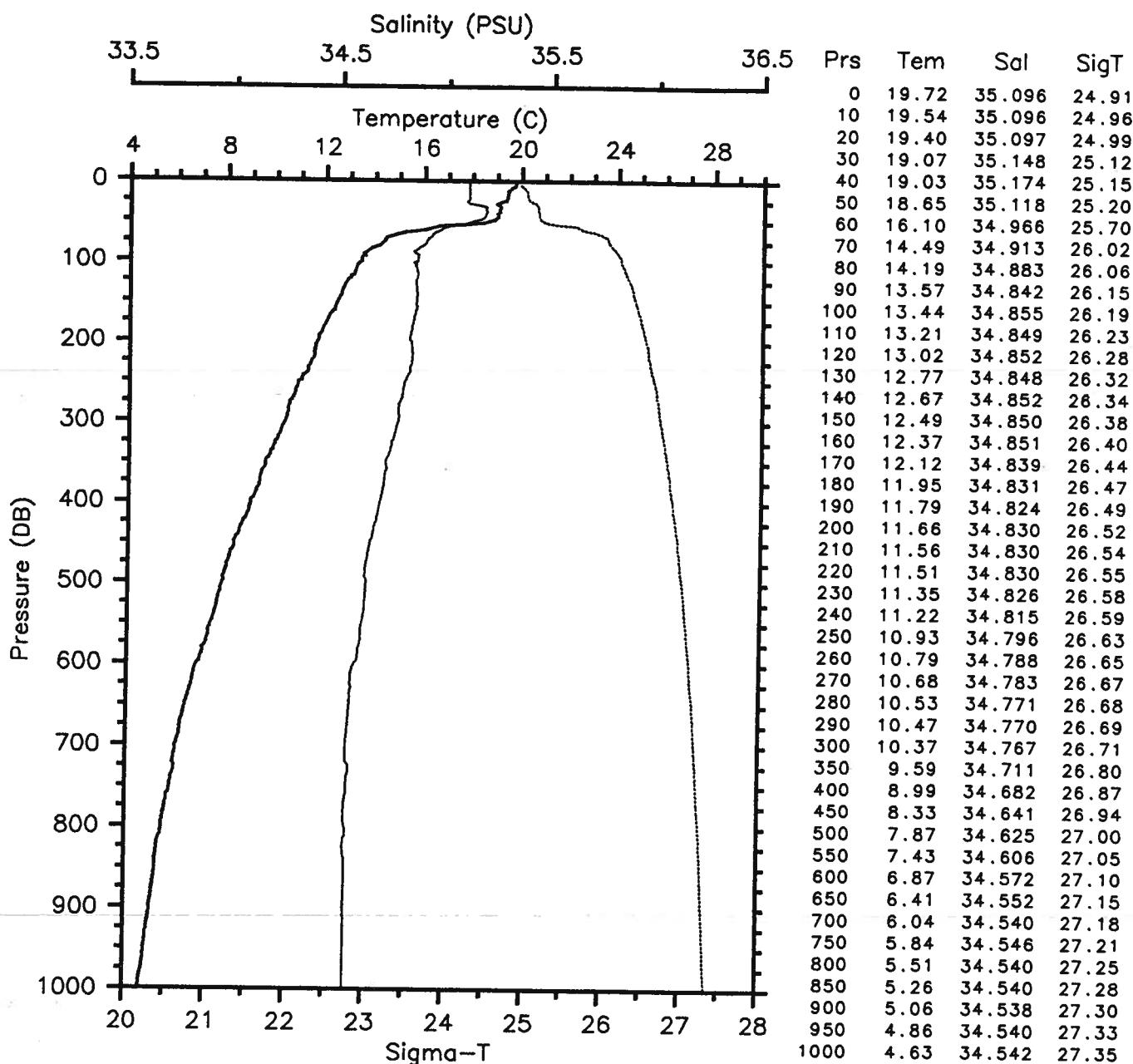


EPOCS EP4-85-RS CTD 71 RESEARCHER

Date 11 24 85 Latitude 12.831 S

Time 1525 Z Longitude 78.702 W

— Tem — Sal
— SigT

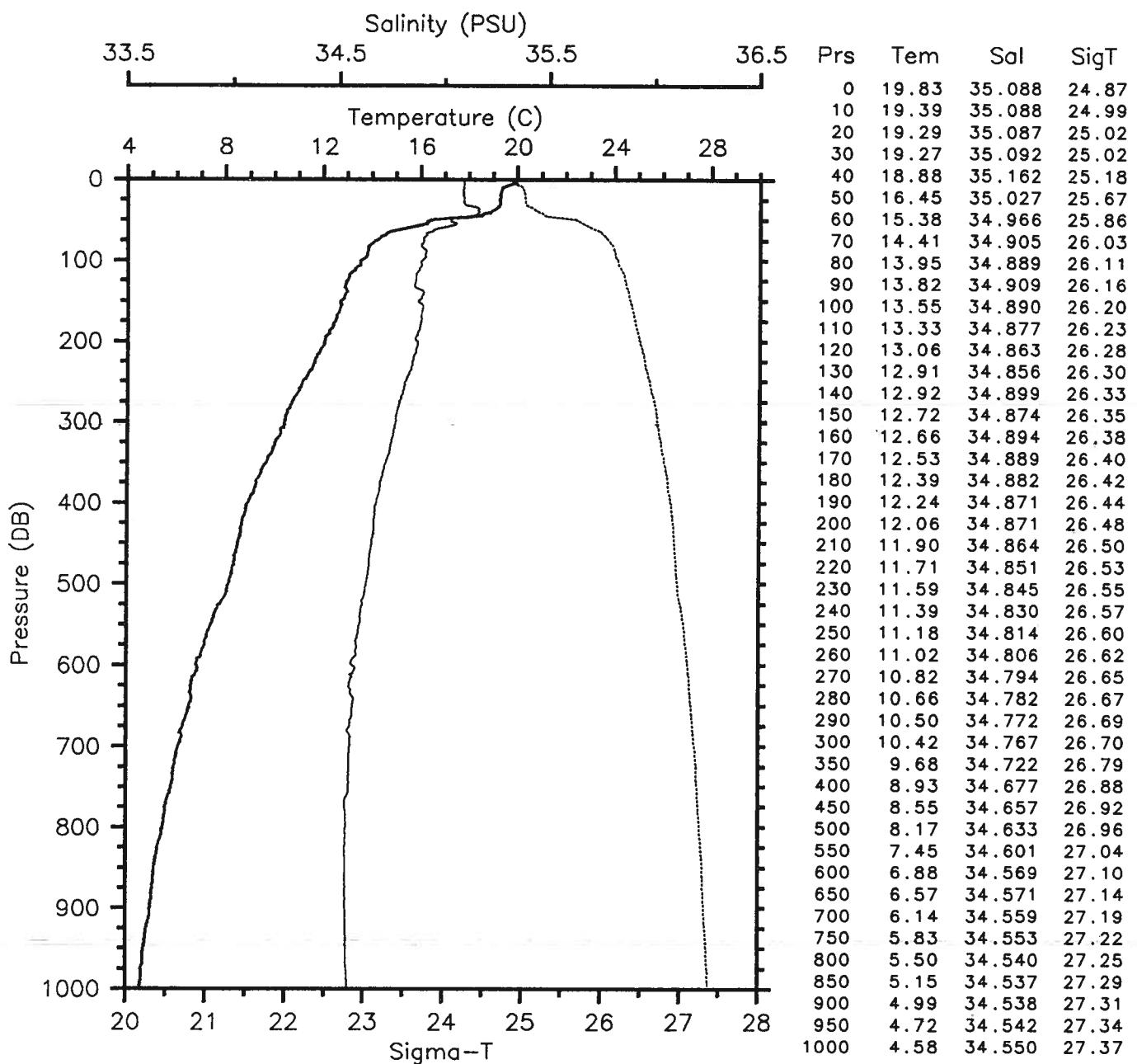


EPOCS EP4-85-RS CTD 72 RESEARCHER

Date 11 24 85 Latitude 12.728 S

Time 2055 Z Longitude 78.503 W

— Tem — Sal
--- SigT

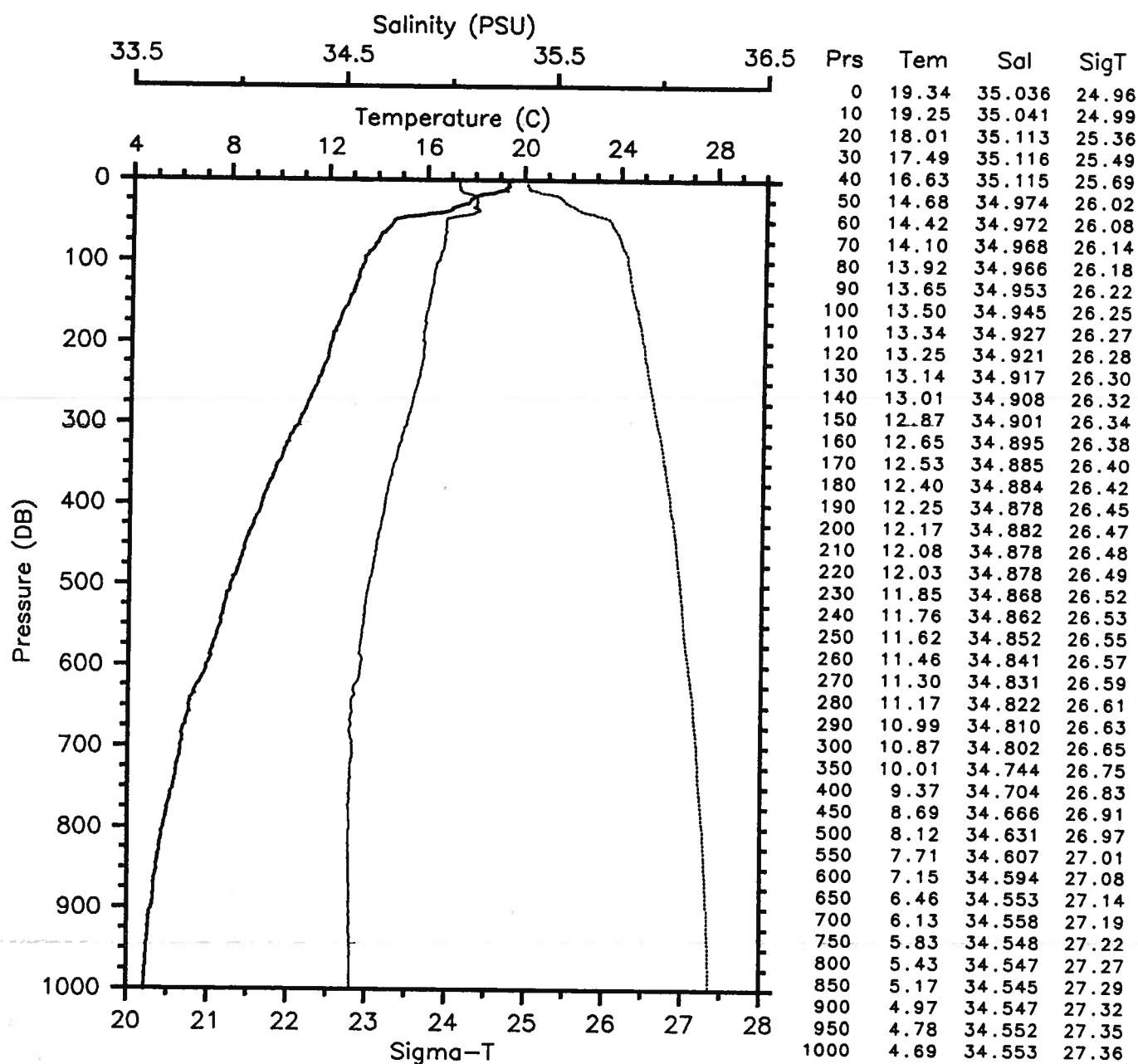


EPOCS EP4-85-RS CTD 73 RESEARCHER

Date 11 25 85 Latitude 12.507 S

Time 0259 Z Longitude 78.083 W

— Tem — Sal
— SigT

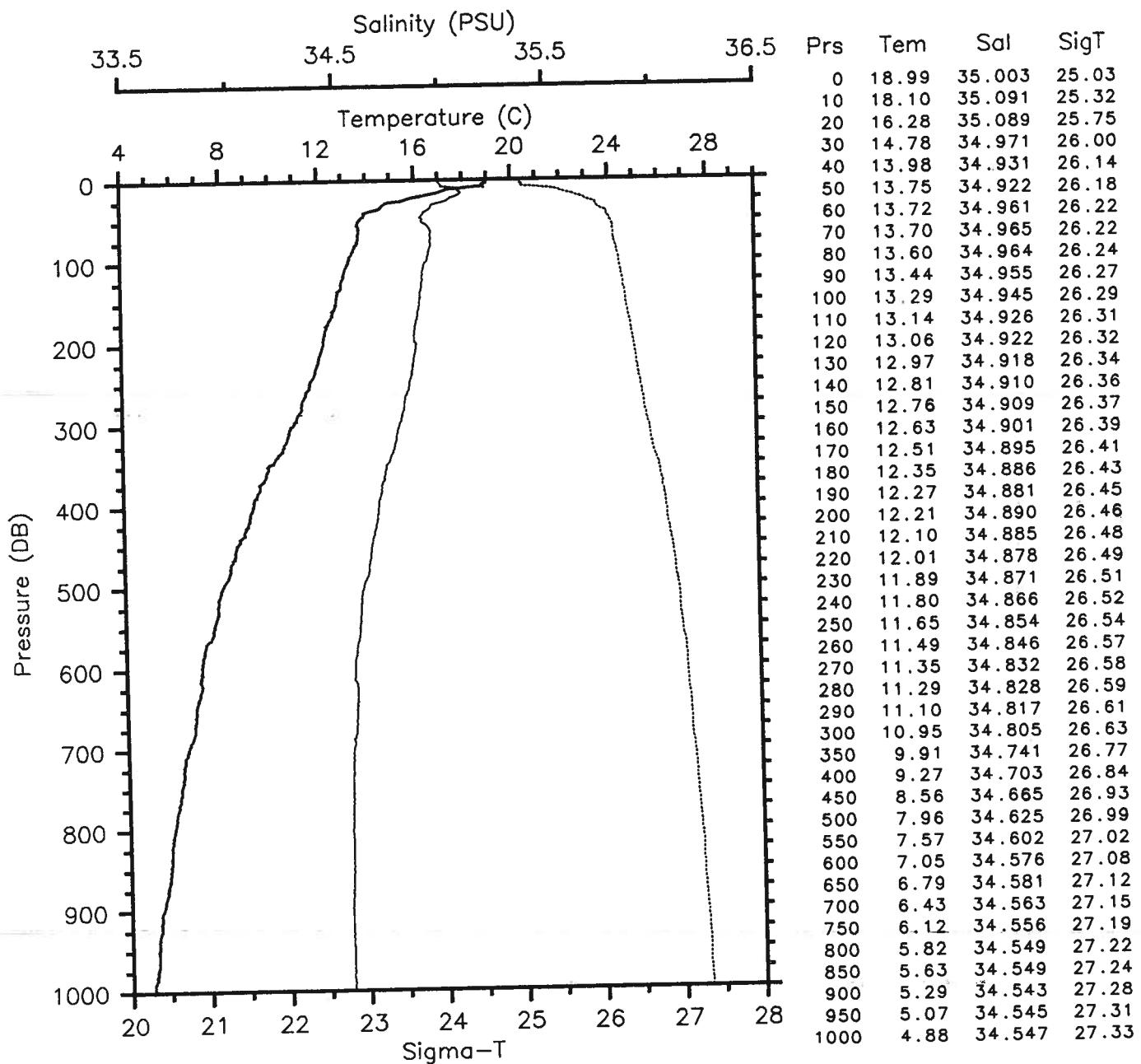


EPOCS EP4-85-RS CTD 74 RESEARCHER

Date 11 25 85 Latitude 12.333 S

Time 0602 Z Longitude 77.787 W

— Tem — Sal
— SigT

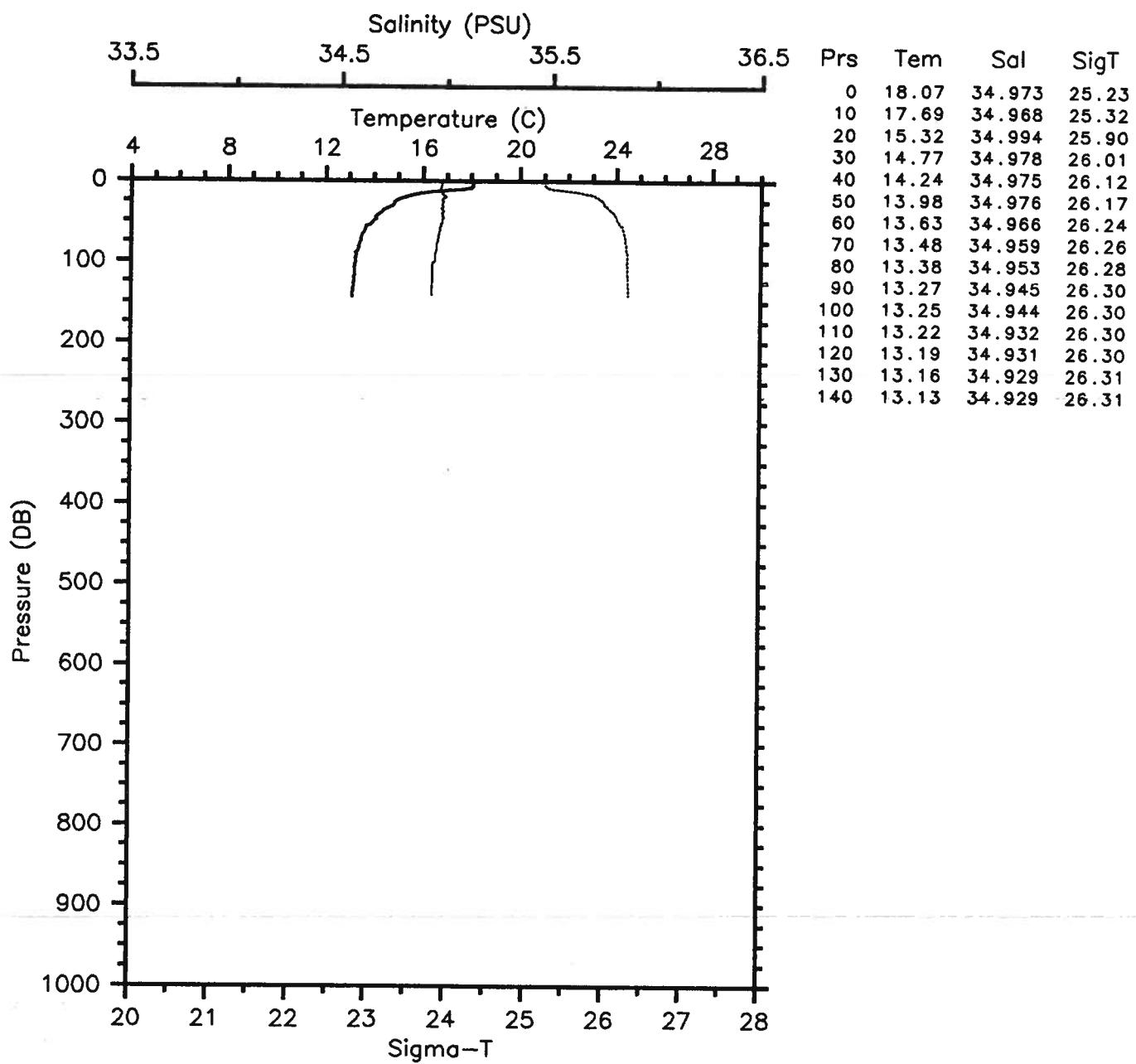


EPOCS EP4-85-RS CTD 75 RESEARCHER

Date 11 25 85 Latitude 12.163 S

Time 0833 Z Longitude 77.532 W

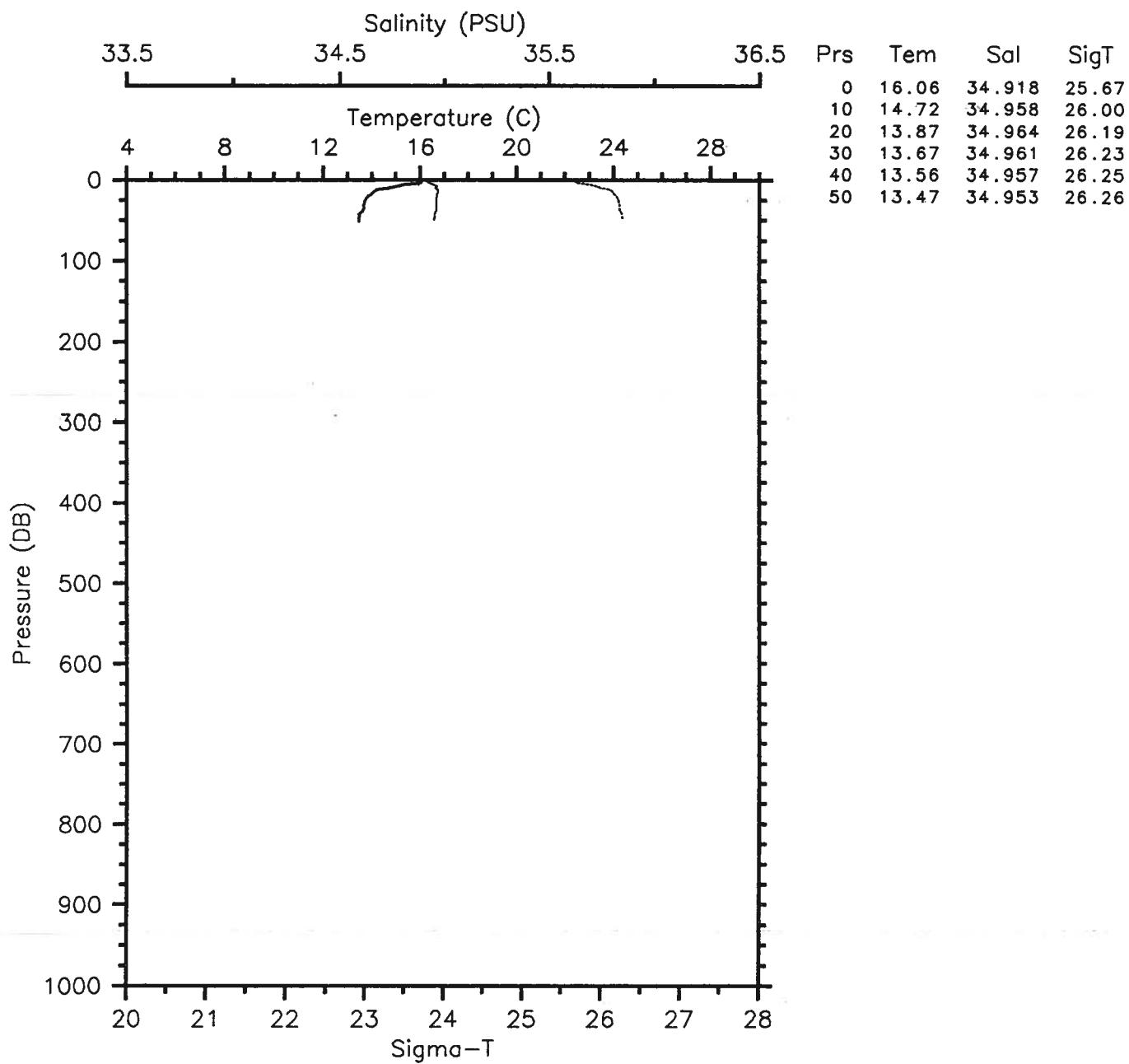
— Tem — Sal
— SigT



EPOCS EP4-85-RS CTD 76 RESEARCHER

Date 11 25 85 Latitude 11.993 S
Time 1029 Z Longitude 77.241 W

— Tem — Sal
— SigT

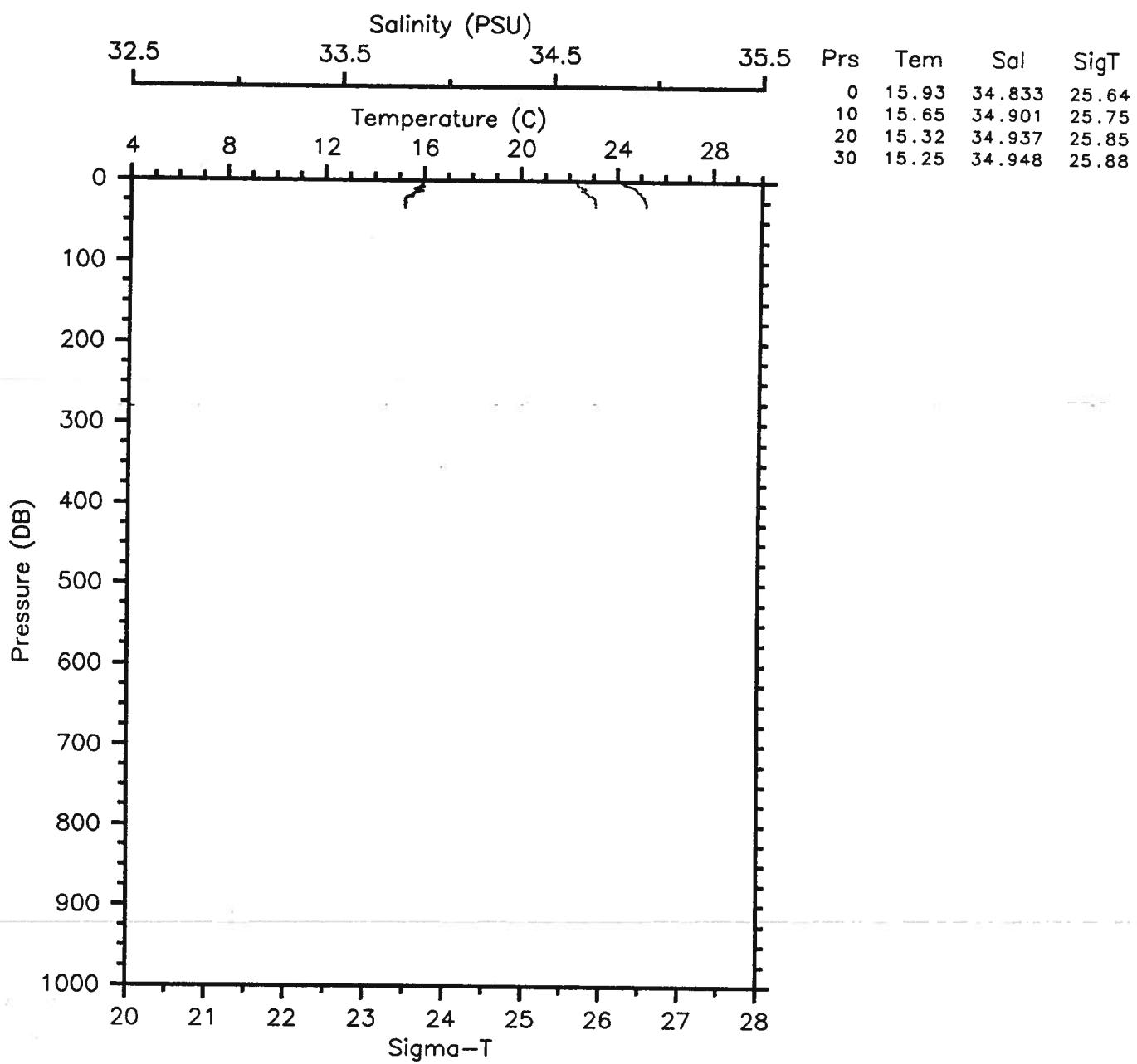


EPOCS EP5-85-RS CTD 1 RESEARCHER

Date 12 04 85 Latitude 5.081 S

Time 0226 Z Longitude 81.284 W

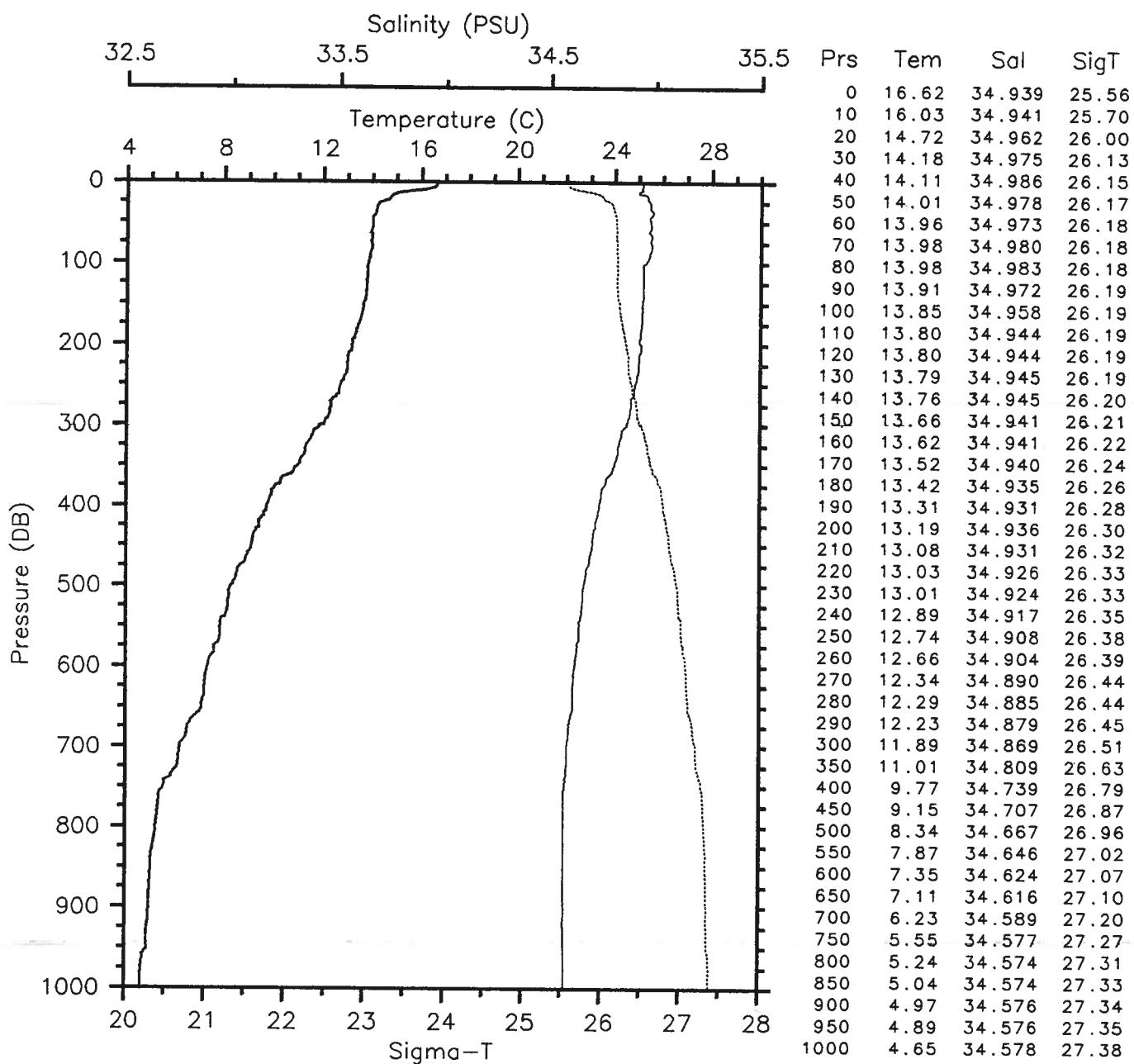
— Tem — Sal
— SigT



EPOCS EP5-85-RS CTD 2 RESEARCHER

Date 12 04 85 Latitude 4.997 S
Time 0443 Z Longitude 81.508 W

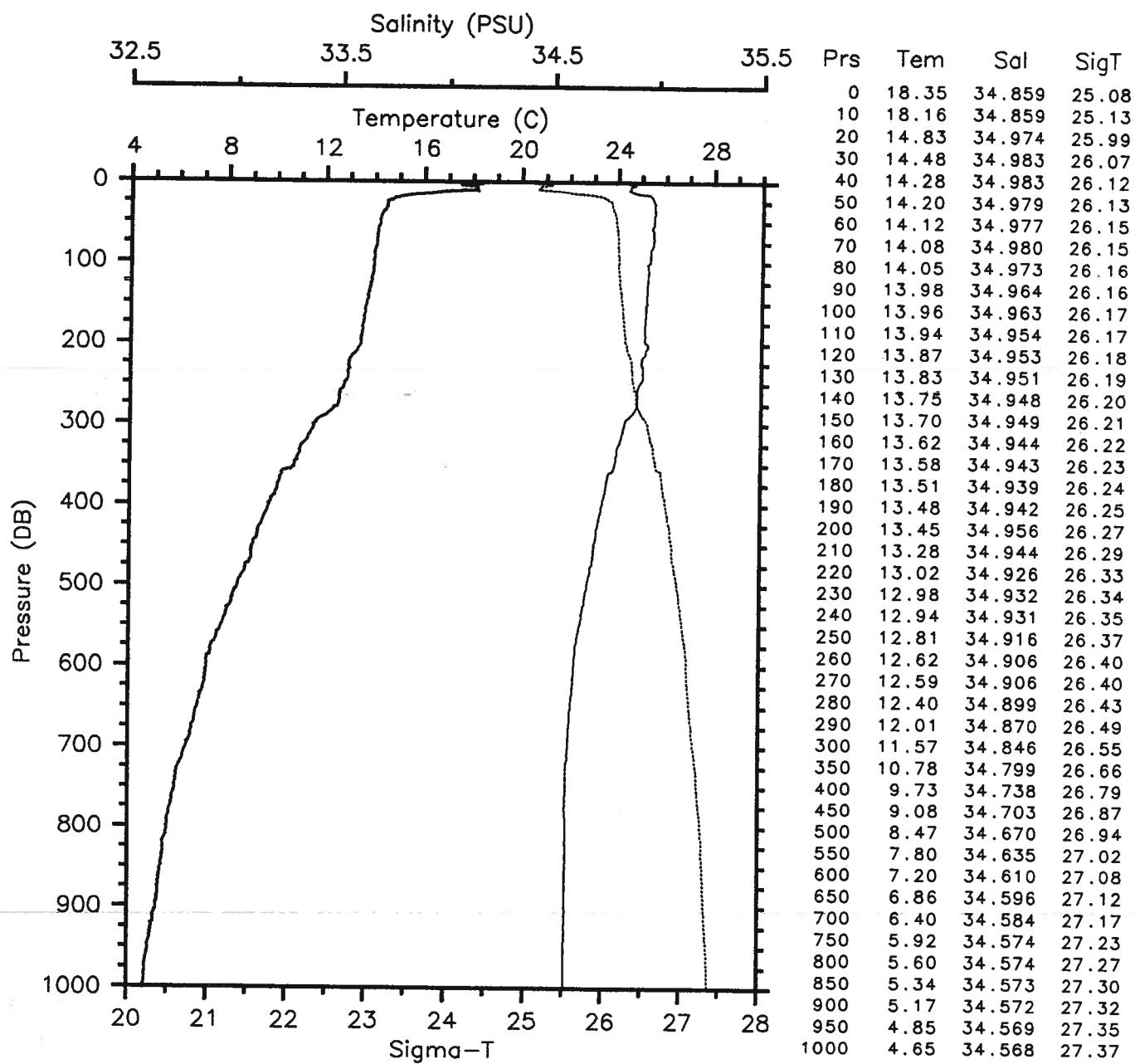
— Tem — Sal
--- SigT



EPOCS EP5-85-RS CTD 3 RESEARCHER

Date 12 04 85 Latitude 4.999 S
Time 0644 Z Longitude 82.003 W

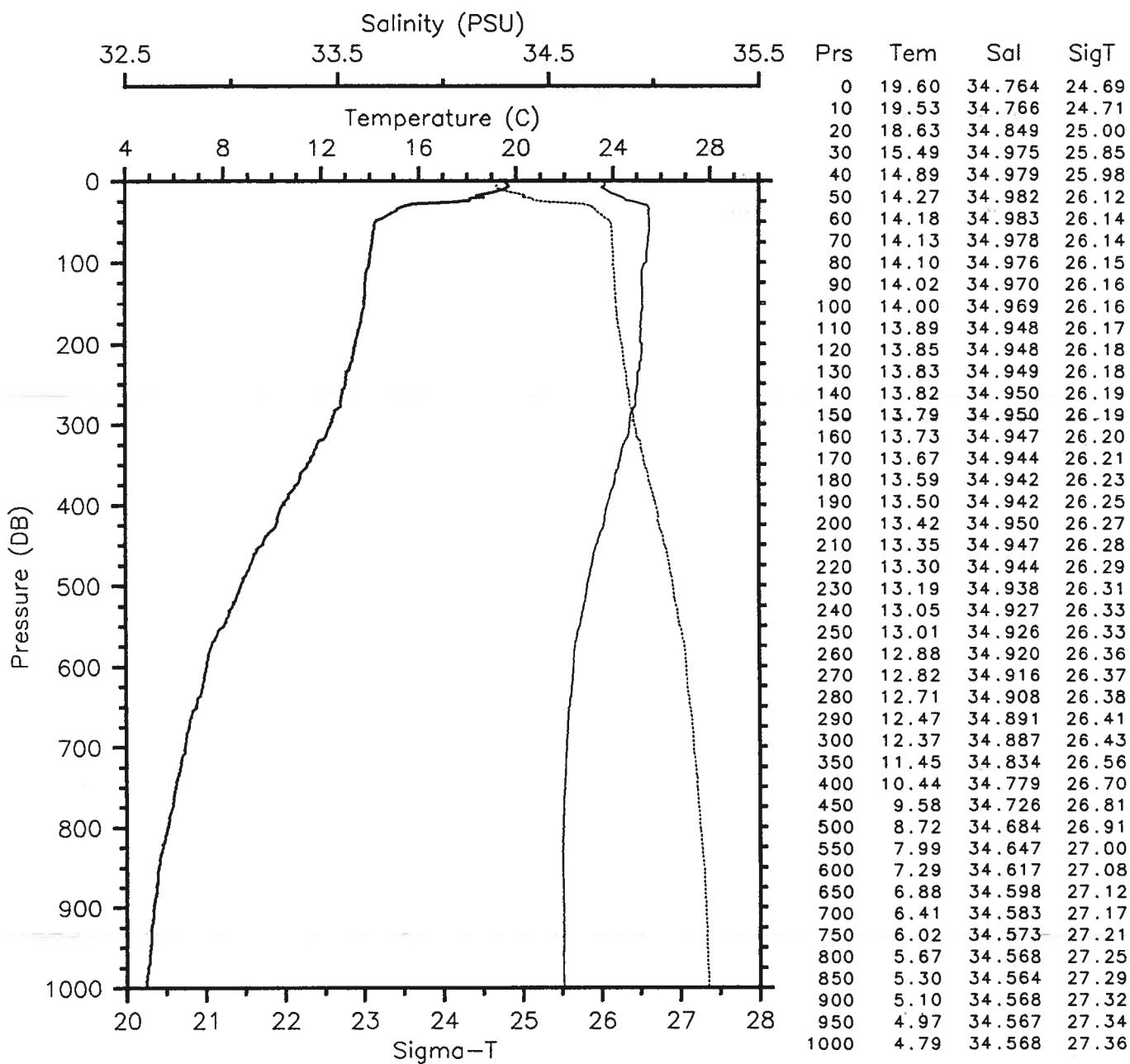
— Tem — Sal
--- SigT



EPOCS EP5-85-RS CTD 4 RESEARCHER

Date 12 04 85 Latitude 4.997 S
Time 1335 Z Longitude 83.007 W

— Tem — Sal
--- SigT

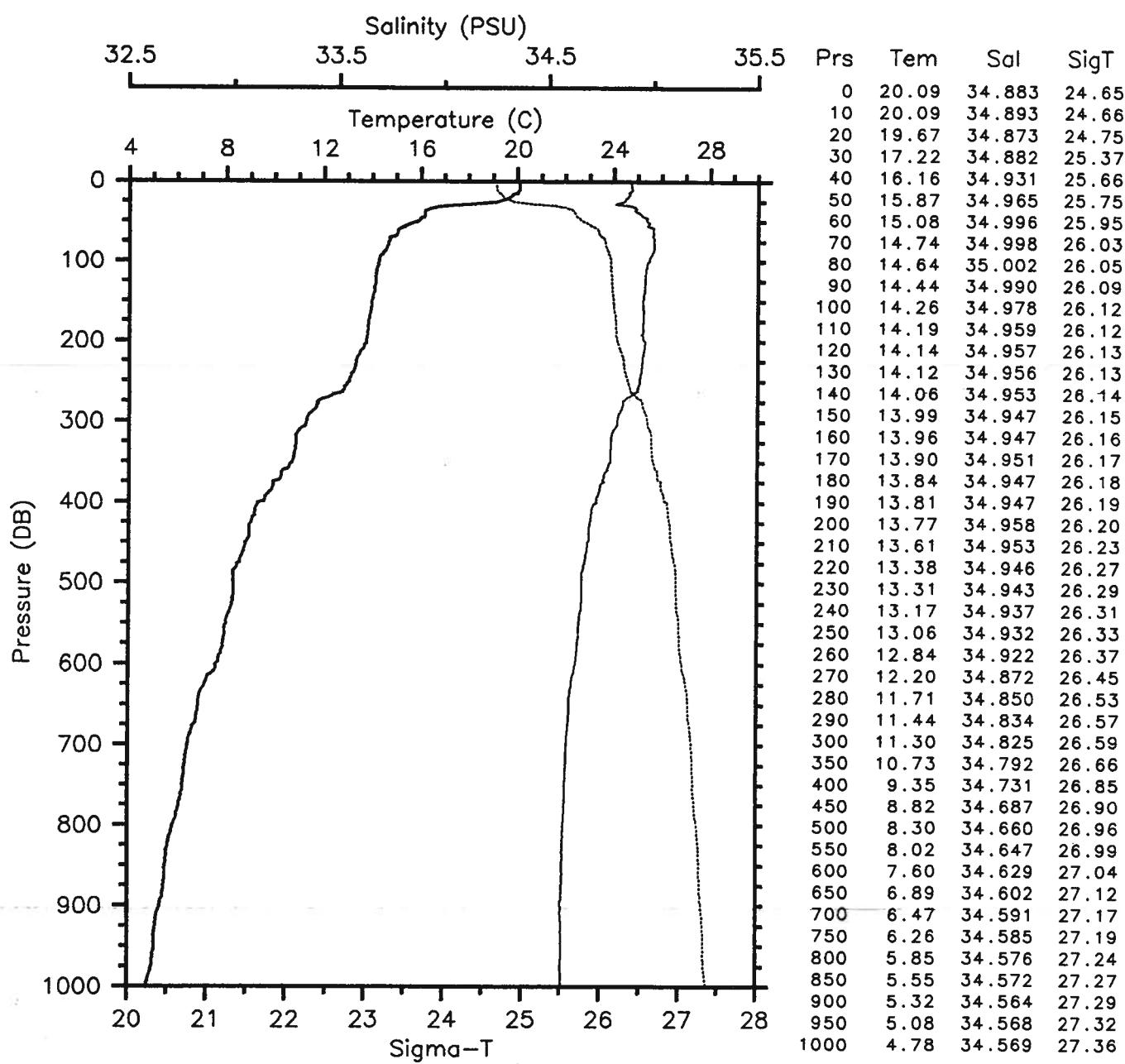


EPOCS EP5-85-RS CTD 5 RESEARCHER

Date 12 05 85 Latitude 2.017 S

Time 0103 Z Longitude 85.007 W

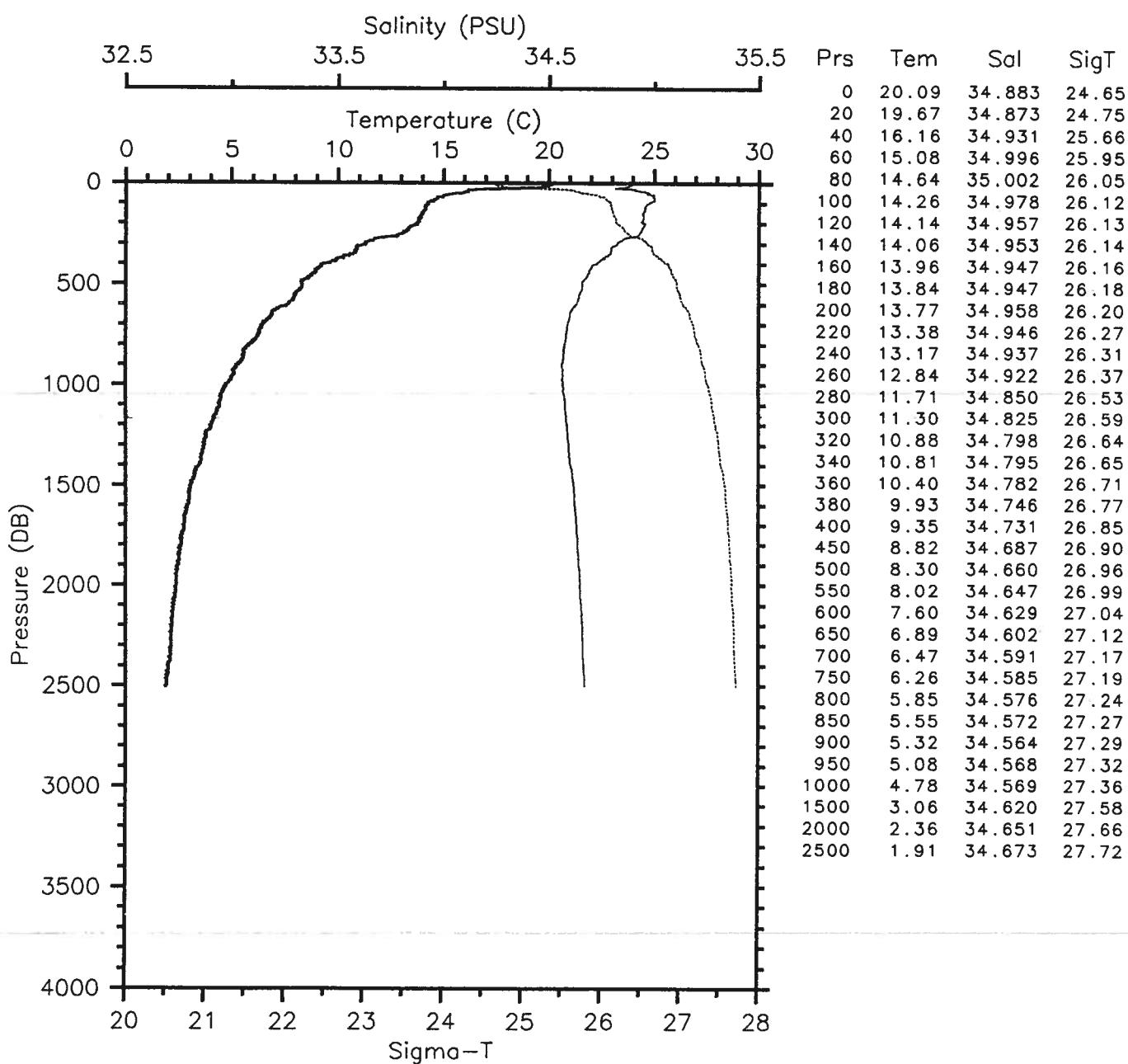
— Tem	— Sal
— SigT	



EPOCS EP5-85-RS CTD 5 RESEARCHER

Date 12 05 85 Latitude 2.017 S
Time 0103 Z Longitude 85.007 W

— Tem — Sal
---- SigT

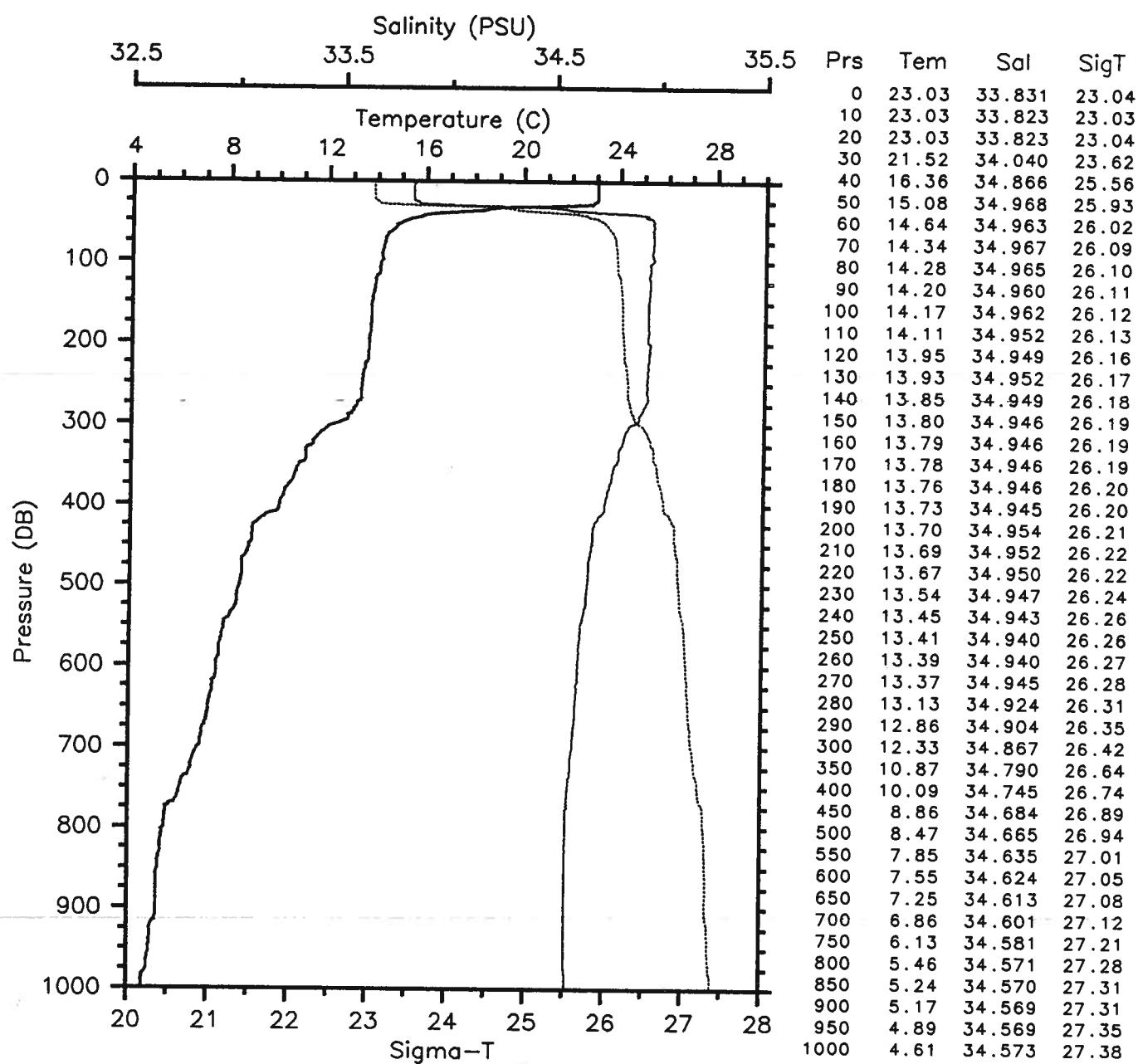


EPOCS EP5-85-RS CTD 6 RESEARCHER

Date 12 05 85 Latitude 0.004 S

Time 1345 Z Longitude 85.002 W

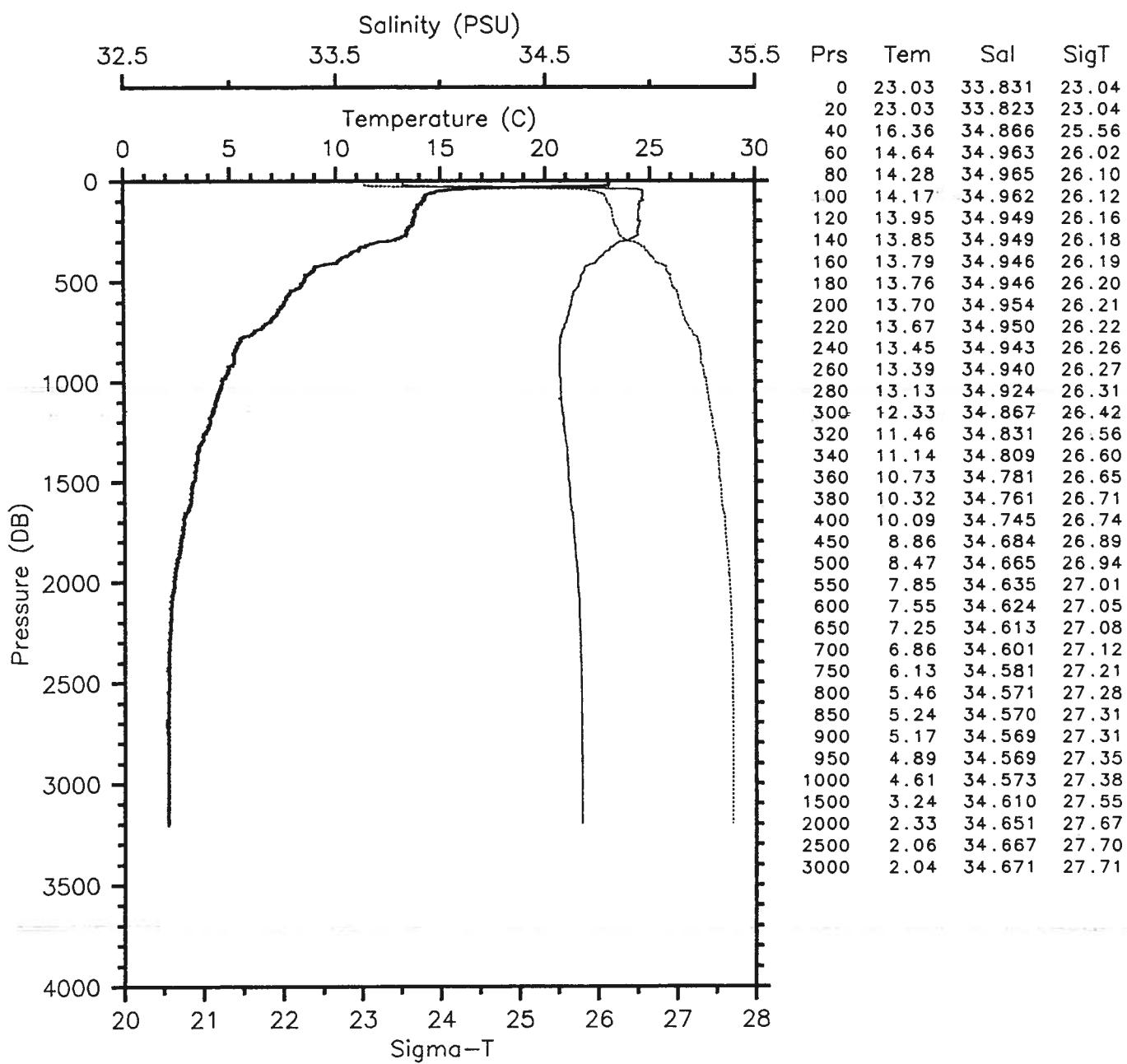
— Tem — Sal
— SigT



EPOCS EP5-85-RS CTD 6 RESEARCHER

Date 12 05 85 Latitude 0.004 S
Time 1345 Z Longitude 85.002 W

— Tem — Sal
— SigT

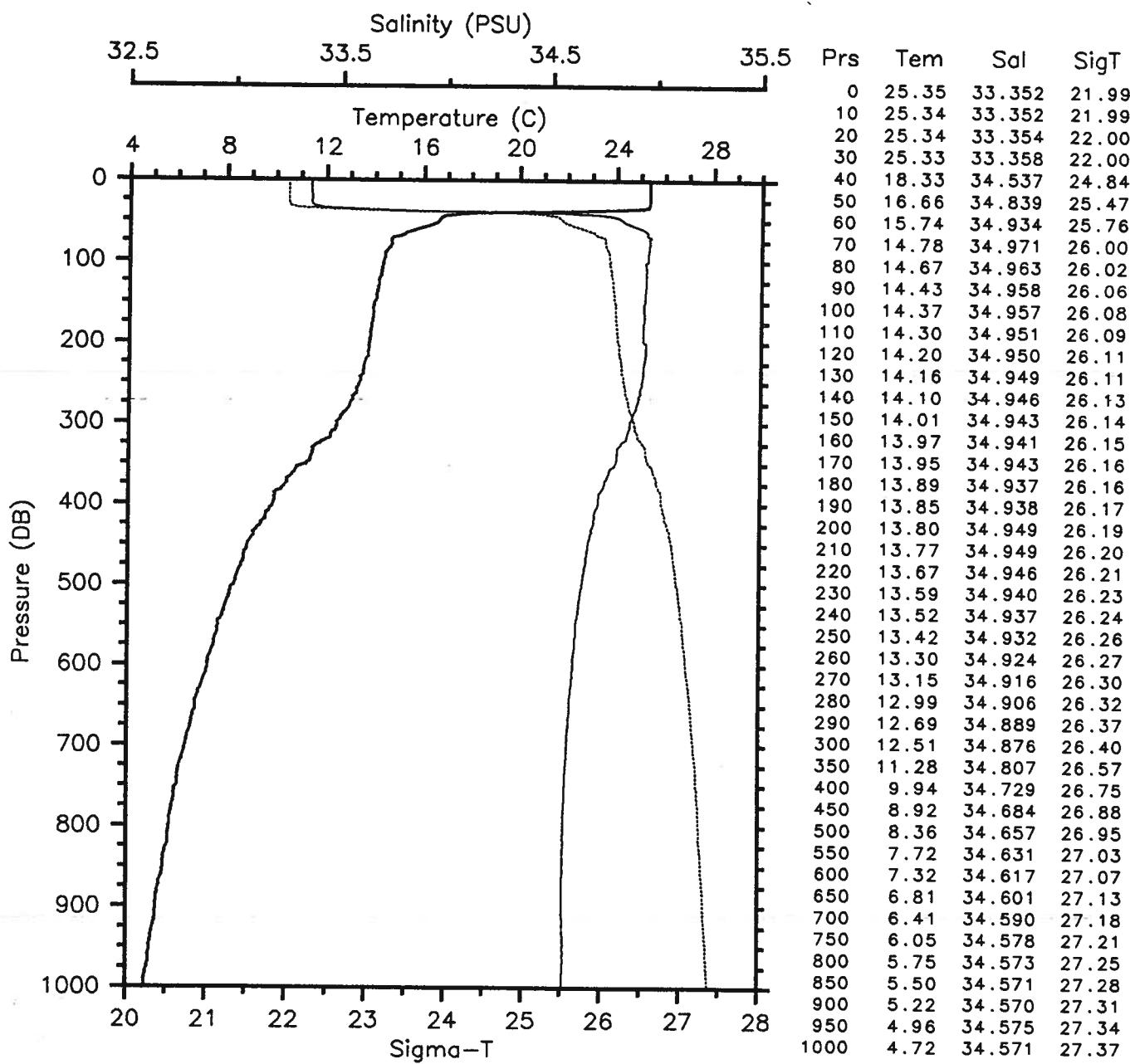


EPOCS EP5-85-RS CTD 7 RESEARCHER

Date 12 06 85 Latitude 2.003 N

Time 0236 Z Longitude 83.257 W

— Tem — Sal
— SigT

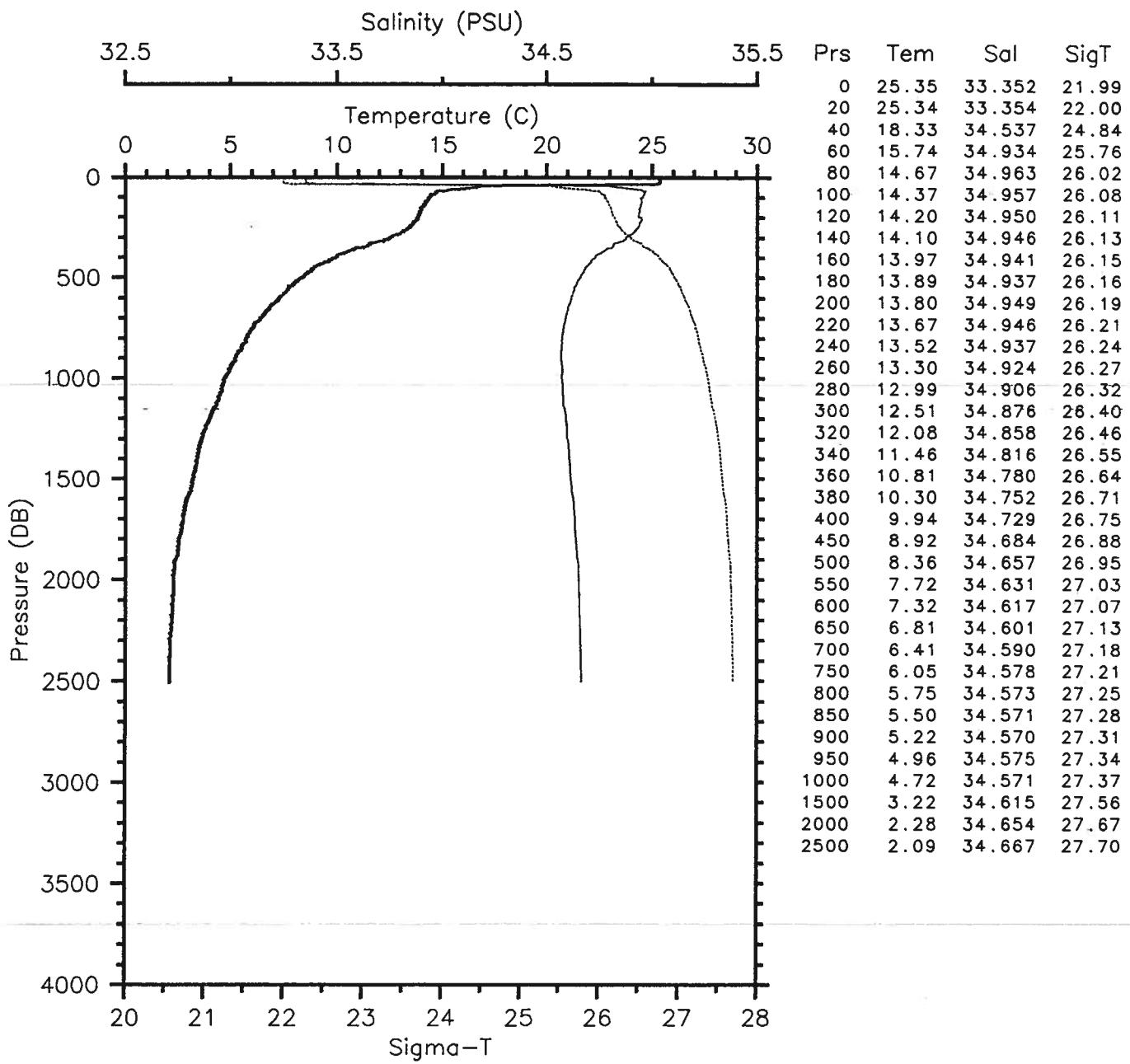


EPOCS EP5-85-RS CTD 7 RESEARCHER

Date 12 06 85 Latitude 2.003 N

Time 0236 Z Longitude 83.257 W

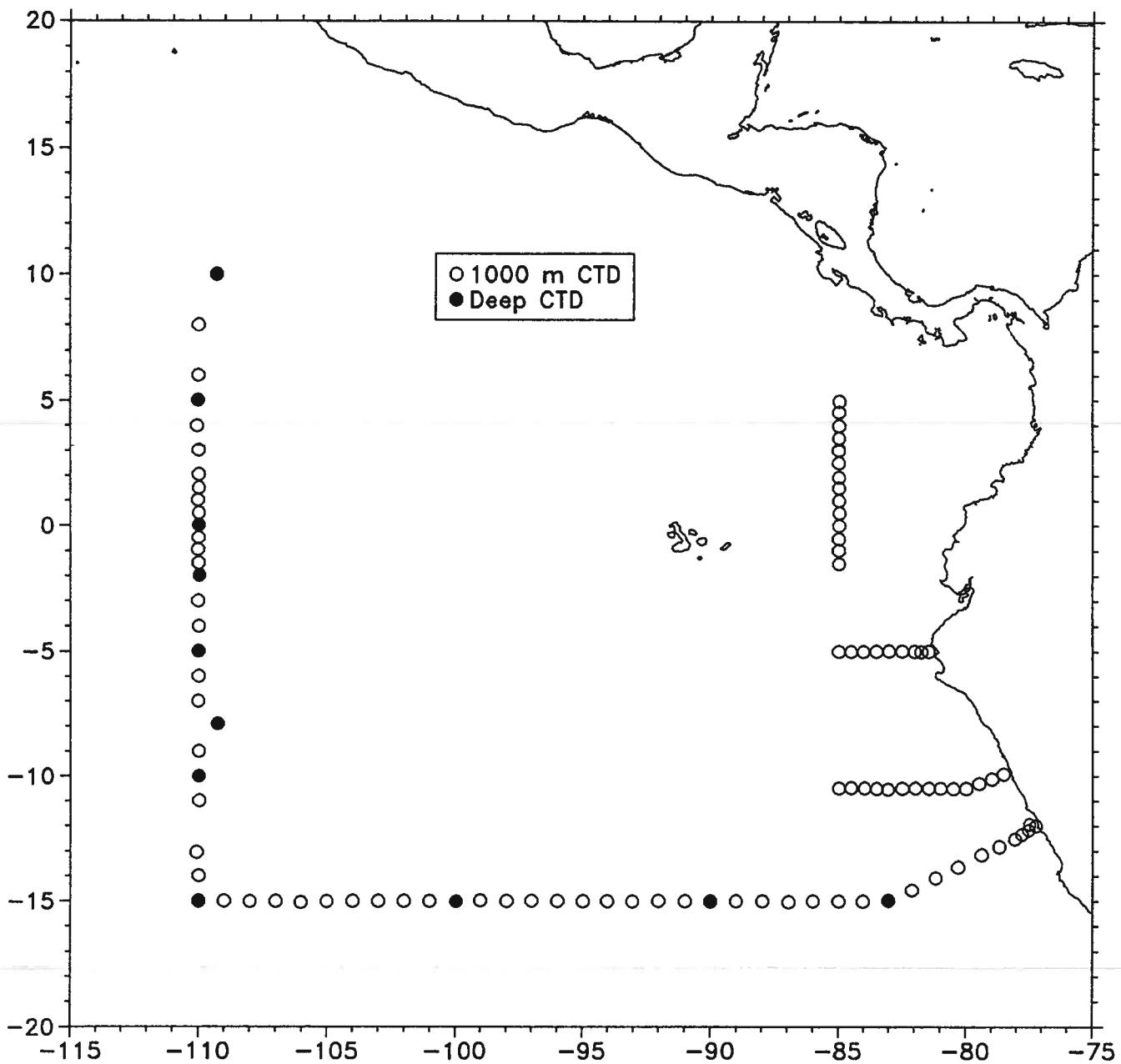
— Tem	— Sal
— SigT	



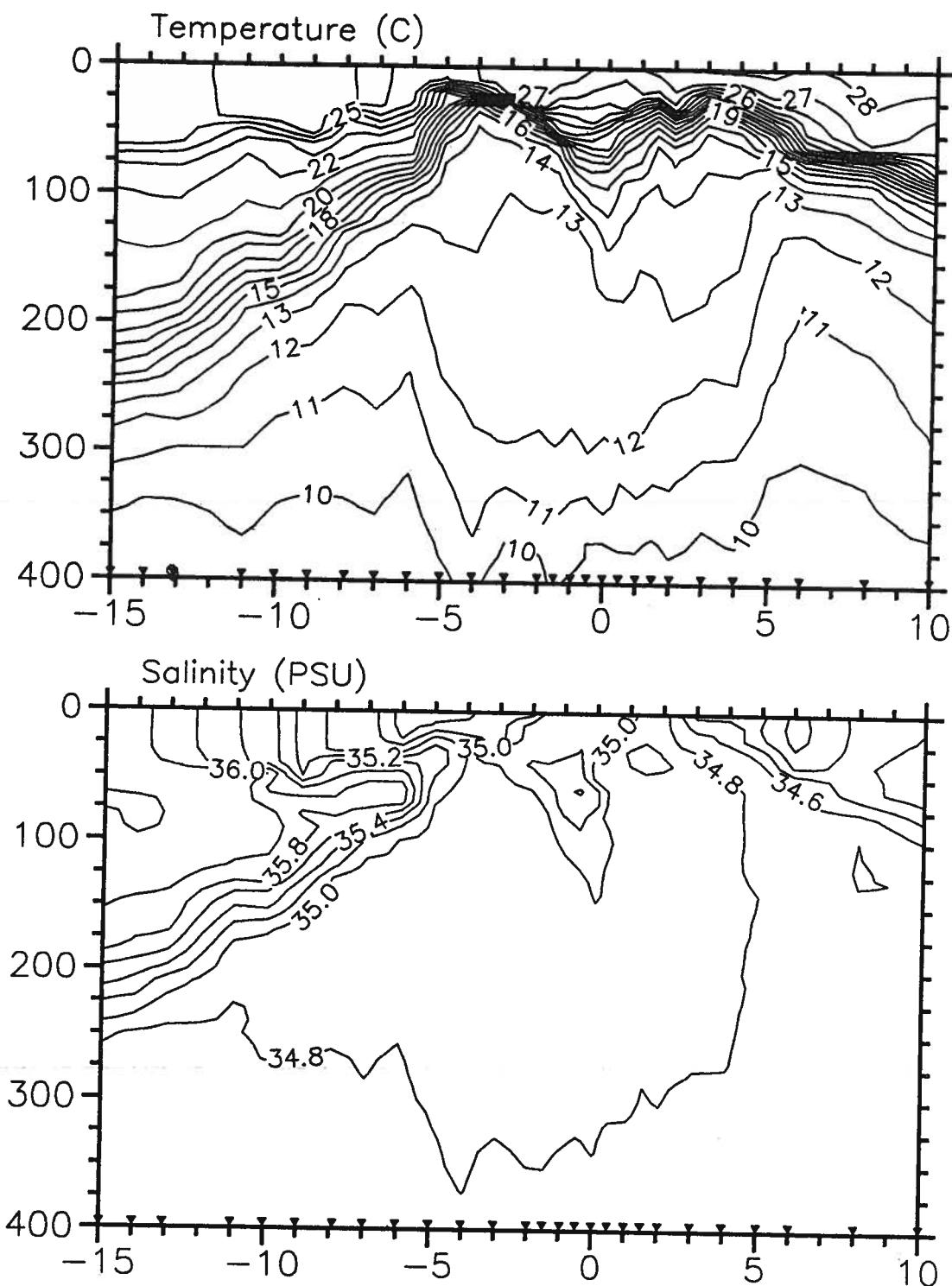
EP1-86-OC

13 April 1986 - 15 May 1986

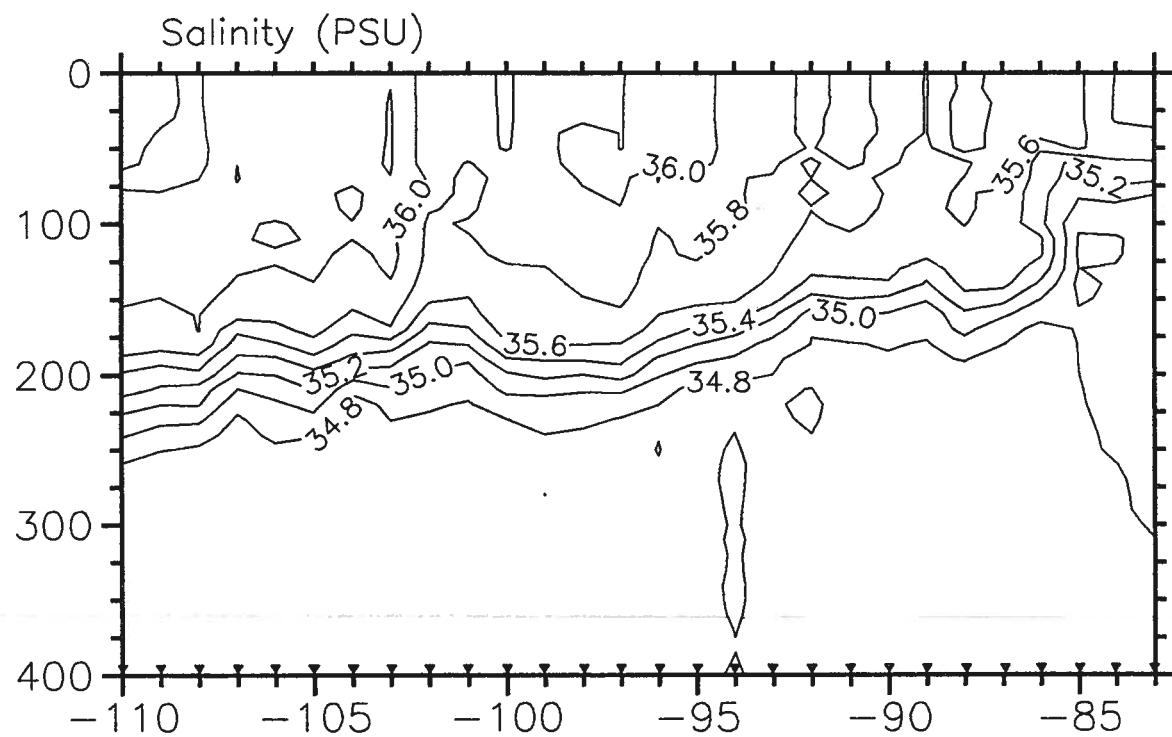
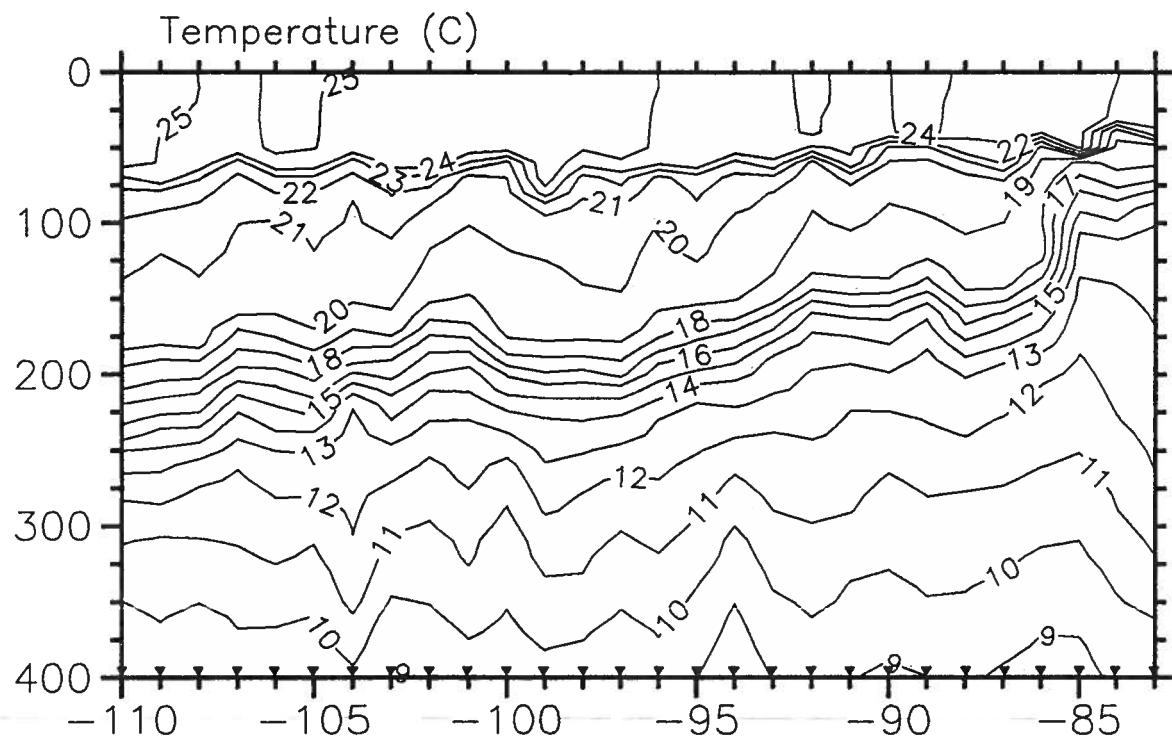
CTD STATIONS
EP1-86-OC 13 Apr 86 – 15 May 86



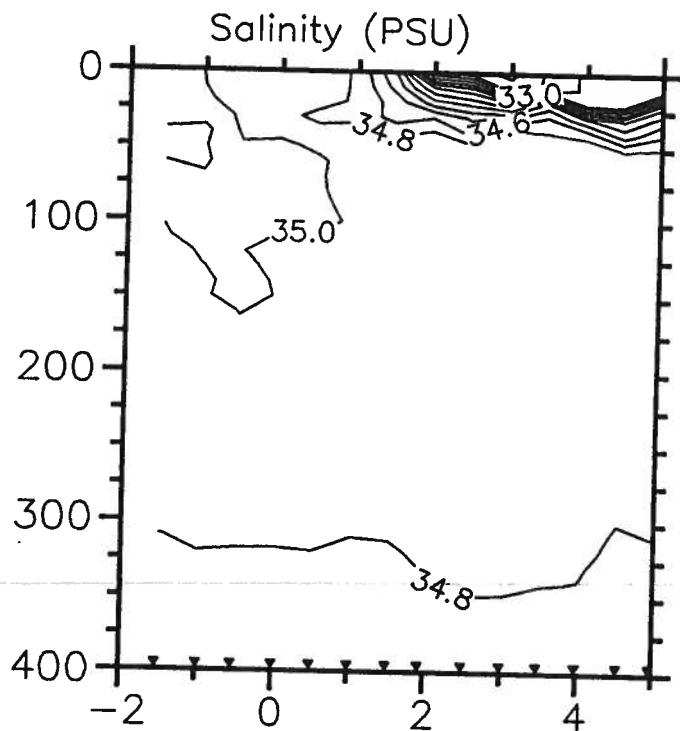
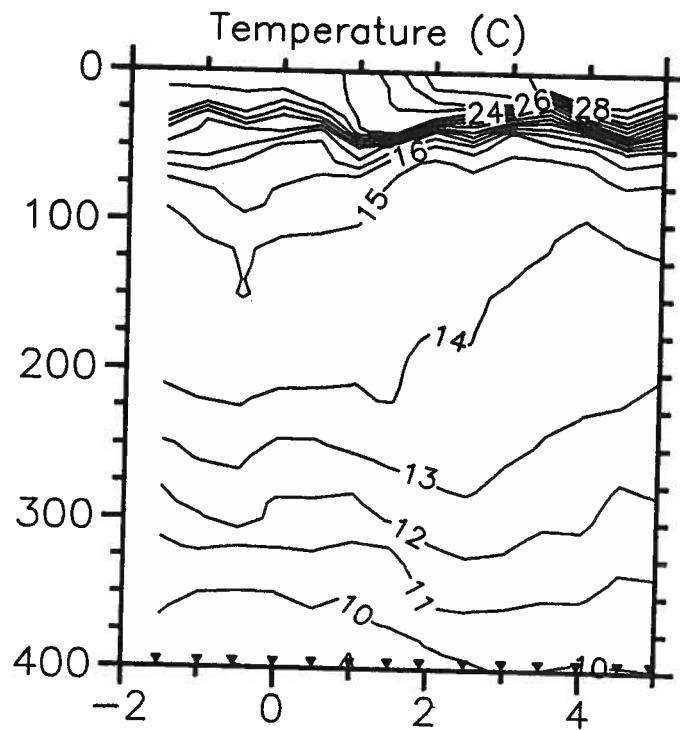
EP1-86-OC 110 West



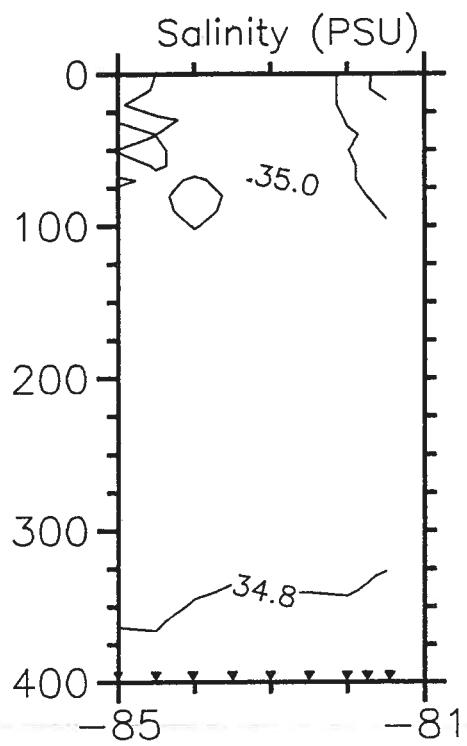
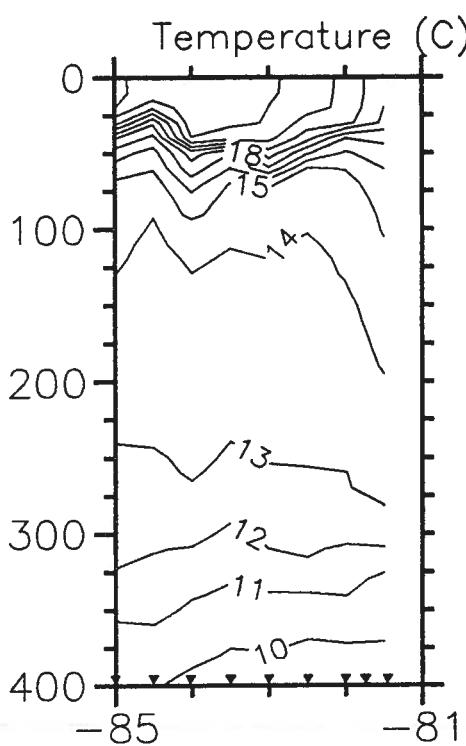
EP1-86-OC 15 South



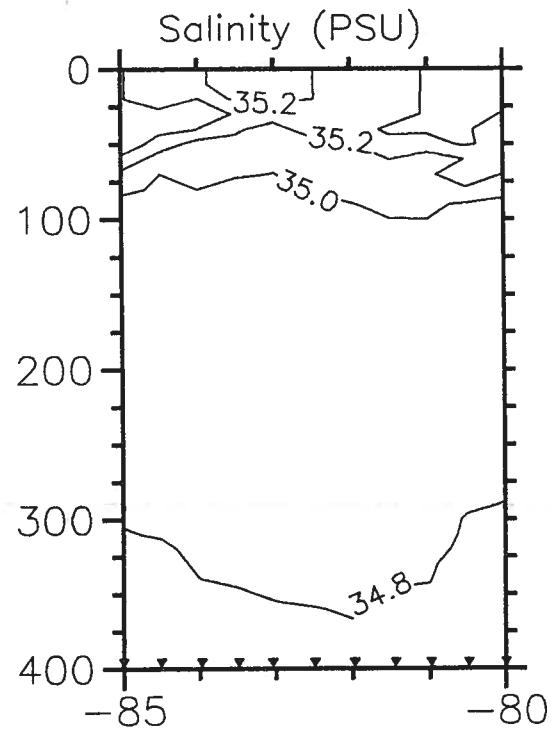
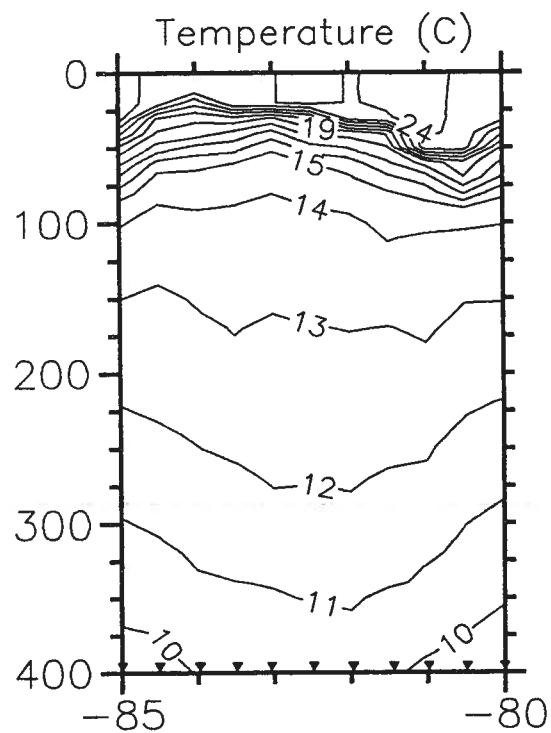
EP1-86-OC 85 West



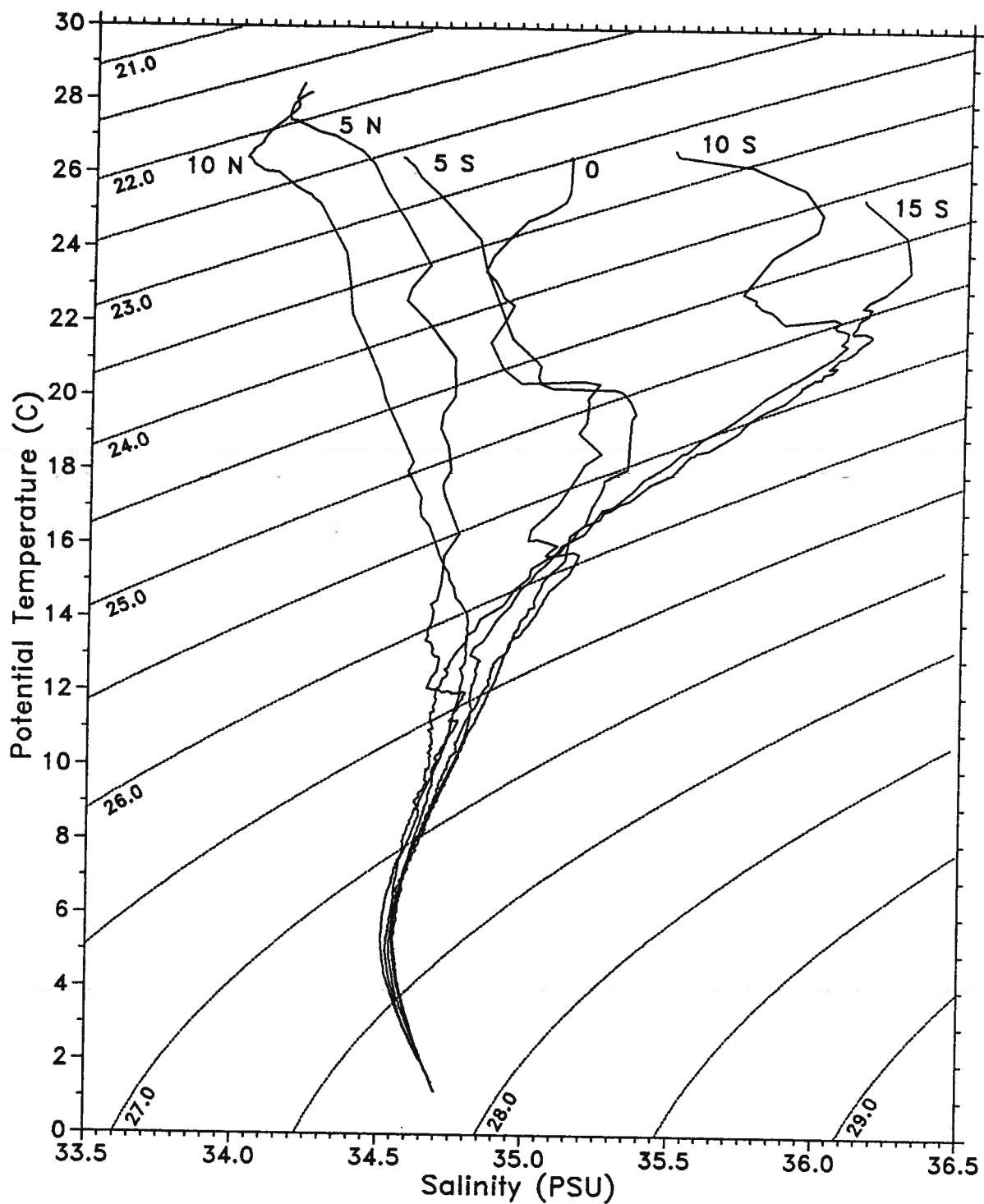
EP1-86-OC 5 South



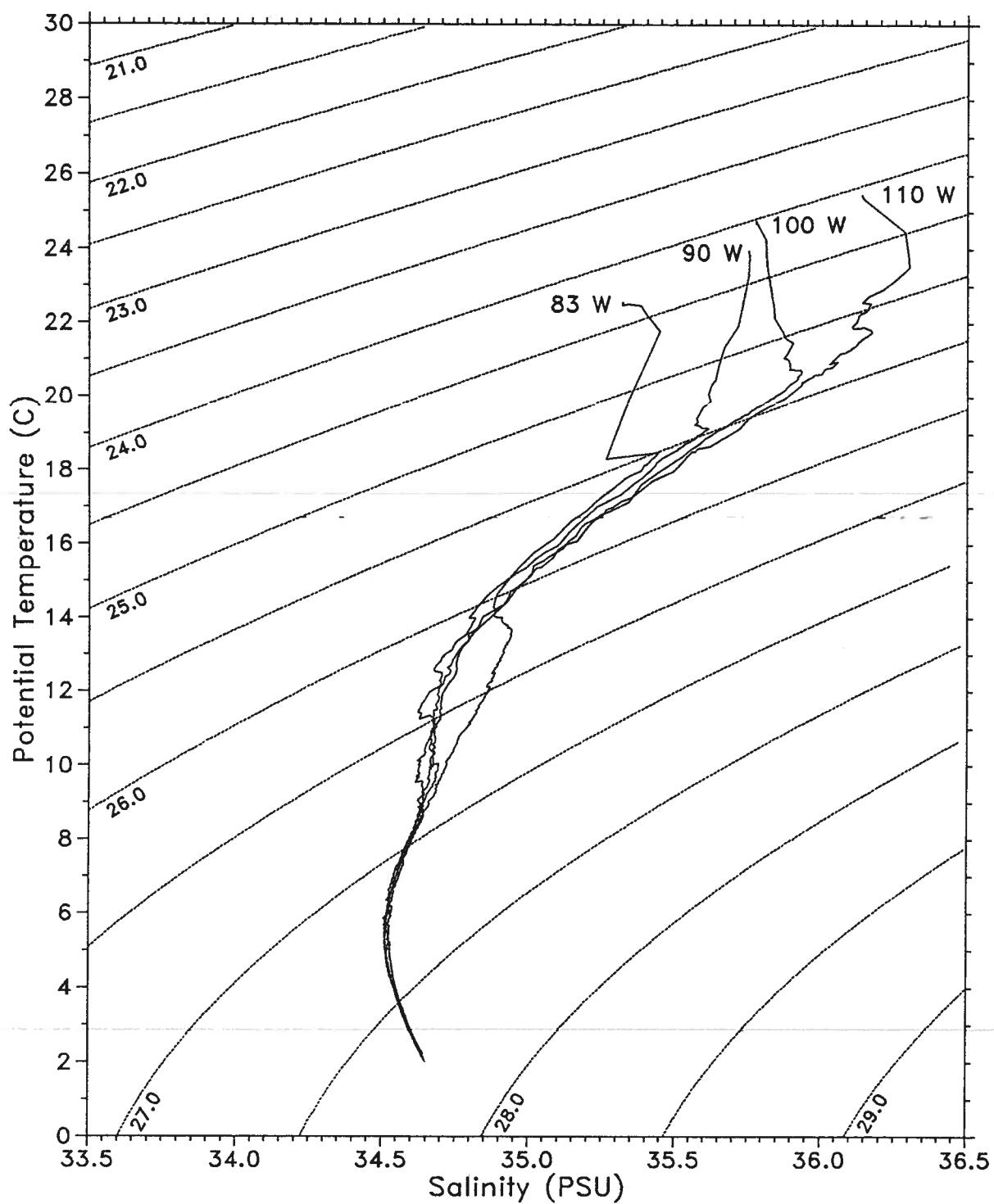
EP1-86-OC 10.5 South



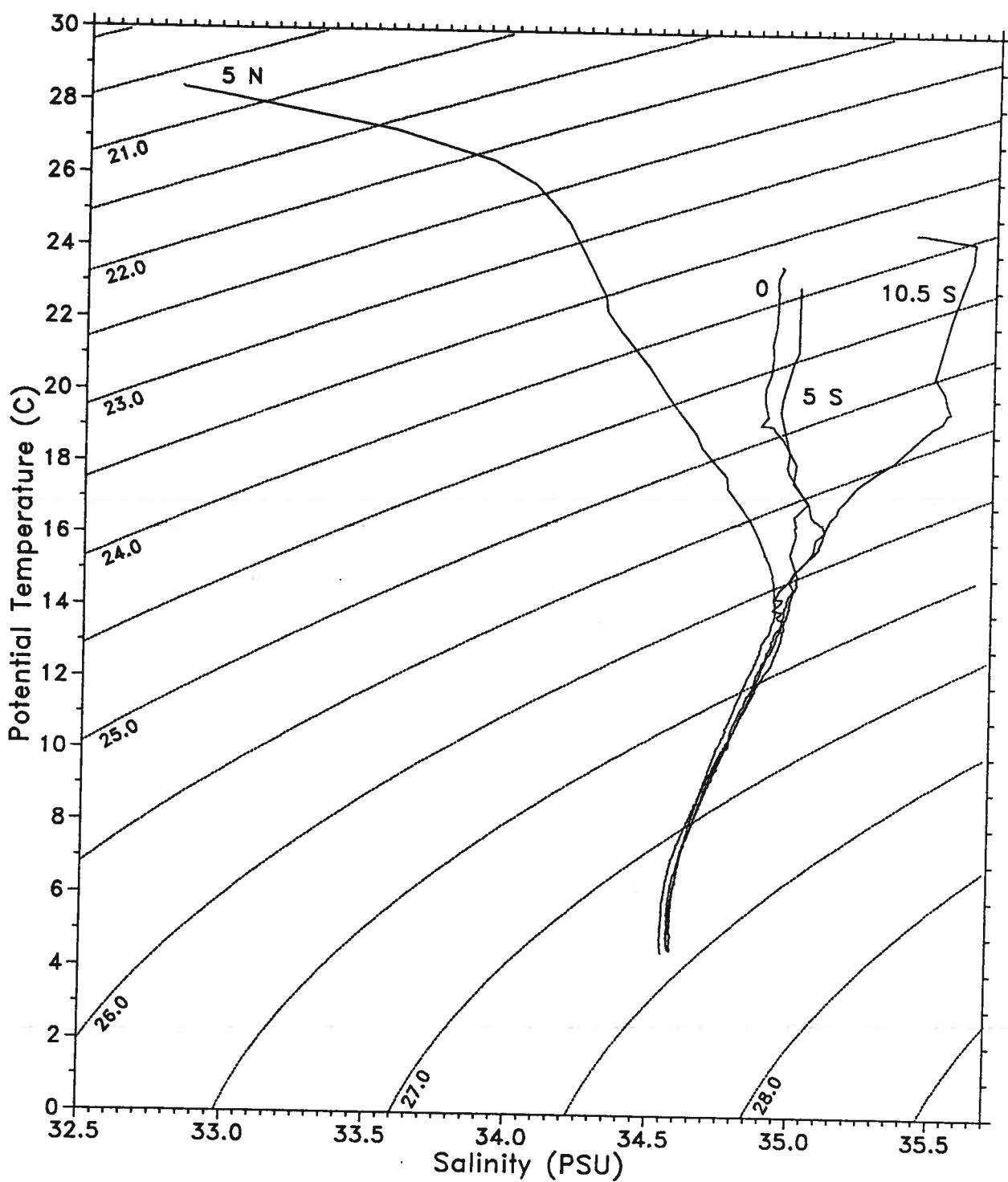
$\Theta - S$ EP1-86-OC 110 West



$\Theta - S$ EP1-86-OC 15 South



$\Theta - S$ EP1-86-OC 85 West



DISSOLVED OXYGEN (ml/l) BOTTLE VALUES

CID #	3	4	6	7	8	9	10	11	12	13
15			12 4.01	13 5.05	12 5.02	12 4.71				13 3.09
30			31 2.82	30 5.07	30 3.87	31 4.32				33 3.25
45			46 2.04	45 3.64	45 2.57	46 2.41				47 3.17
60			60 1.85	60 2.28	61 1.85	60 2.09				62 2.68
75			75 1.64	75 1.93	75 1.67	76 1.99				
100			97 1.67	98 1.64	99 1.40	100 1.66				100 4.60
200			197 1.11	199 0.97	201 0.90					197 3.46
500	497 0.24		498 0.21	496 1.08	500 0.97	499 0.89	502 0.84	586 1.10	500 2.52	497 0.86
750			748 1.22	751 1.17	746 1.07		748 1.70	749 1.64		775 1.68
1000	1012 1.07		998 1.24	1012 1.48	1029 1.67	1007 1.75	1027 1.91	1007 1.89	982 1.90	1007 1.92
1500			1489 1.81							1007 1.88
2000			1999 2.35							2009 1.52
2500			2503 2.87							
3000			2997 2.84							
3500			3480 3.60							
			3805 3.51							
CID #	14	15	16	17	18	19	20	21	22	23
15	13 5.00		13 4.90	13 5.08		13 3.52			15 4.77	13 5.25
30	30 5.22		30 4.90	30 3.51		30 2.31			31 5.01	31 5.40
45	45 4.25		45 3.33	46 1.76		46 1.40			45 5.27	45 5.11
60	60 3.73		61 1.81	61 1.26		62 0.92			60 4.50	60 5.23
75	75 1.91		74 1.53	77 1.21		75 0.95			75 4.24	76 5.57
100	99 1.36		97 1.26	98 1.22		97 0.97			99 2.26	97 3.64
200	199 1.69			201 0.99		199 0.51			198 0.87	197 0.90
500	499 1.68		501 1.21	501 1.12	499 0.82	504 0.68	500 0.54	499 0.54	498 0.56	500 0.69
750	754 0.87		750 1.88		748 1.52	754 1.64	754 1.55	751 1.63		752 1.15
1000	1012 0.87		1008 2.18	1014 1.97	1010 1.97	1007 2.12	1005 2.10	1003 1.98	999 2.21	998 1.99
1500										
2000										1994 2.60
										2010 3.00

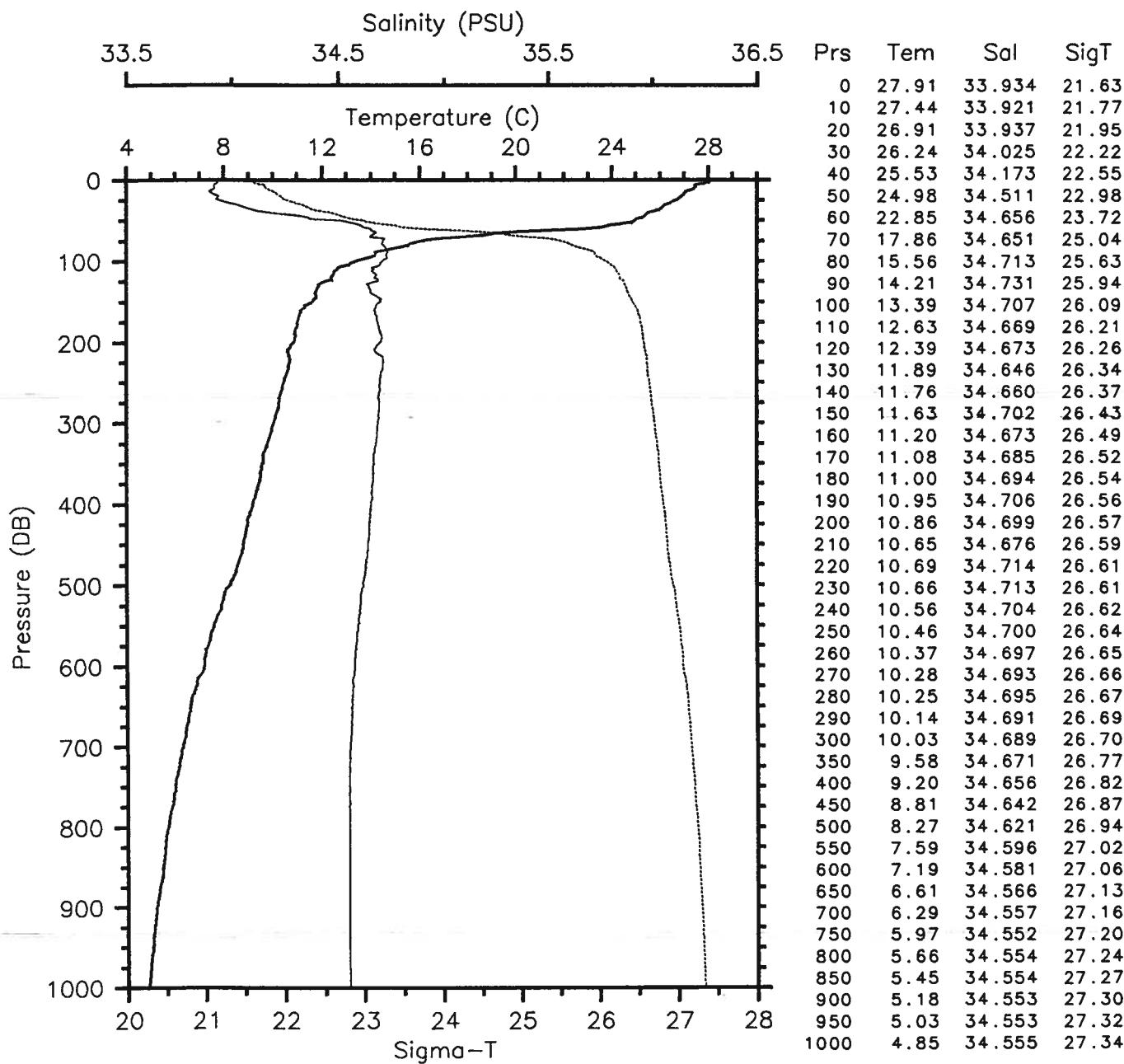
DISSOLVED OXYGEN (ml/l) BOTTLE VALUES

CID #	24	26	27	28	29	30	31	33	34	35
	15	30	31	32	33	34	35	36	37	38
45	31 4.86	31 4.83	32 4.82	31 5.01	31 5.01	29 5.05	29 5.05	31 5.00	31 5.00	
60	45 4.96	46 4.72	46 4.72	46 5.06	46 5.06	44 5.05	44 5.05	46 5.08	46 5.08	
75	60 4.82	60 4.86	60 4.86	60 4.96	60 4.96	62 5.26	62 5.26	60 5.26	60 5.26	
100	74 4.97	82 5.03	82 5.03	79 4.86	79 4.86	76 5.02	76 5.02	75 5.34	75 5.34	
200	197 4.21	98 4.68	100 4.85	199 4.48	199 4.48	100 4.86	100 4.86			
500	503 1.75	498 1.51	499 1.42	502 1.03	505 1.11	499 0.70	503 0.91	200 4.67	200 4.67	
750	747 1.49	748 1.77	755 1.19	754 1.30	750 1.20	756 1.16	752 1.33	495 1.23	495 1.23	
1000	1005 1.75	1011 1.59	1013 1.75	1005 1.68	1004 1.65	1011 1.45	1012 1.54	748 1.34	748 1.34	
1500	1500 2.60							1009 1.50	1009 1.50	
2000	2010 2.90							1009 1.72	1009 1.72	
								2012 2.96	2012 2.96	
CID #	36	37	38	39	40	41	42	43	44	45
15	14 5.10									
30	31 5.00	30 4.95	30 5.03							
45	46 5.08	45 4.97	45 5.06	30 5.09						
60	60 5.26	60 5.29	60 5.10	45 5.03	45 5.03					
75	75 5.34	77 5.33	75 5.20	60 5.04	60 5.04	60 5.18				
100	100 4.88			75 5.34	75 5.34	77 5.31				
200	200 2.65	197 3.75	197 4.00	99 4.93						
500	498 0.93	500 0.55	498 0.84	504 0.83	501 0.79	498 1.12	499 0.62	494 1.49	201 3.11	
750	752 1.00	749 0.99	746 1.09	762 1.29	747 0.96	747 1.11	748 1.12	511 1.01	502 0.79	
1000	1011 1.48	1003 1.48	1003 1.46	995 1.45	1002 1.41	1011 1.46	1023 1.59	1011 1.66	749 1.09	745 1.24
1500									1014 1.57	1006 1.52
2000										

EPOCS EP1-86-OC CTD 3 OCEANOGRAPHER

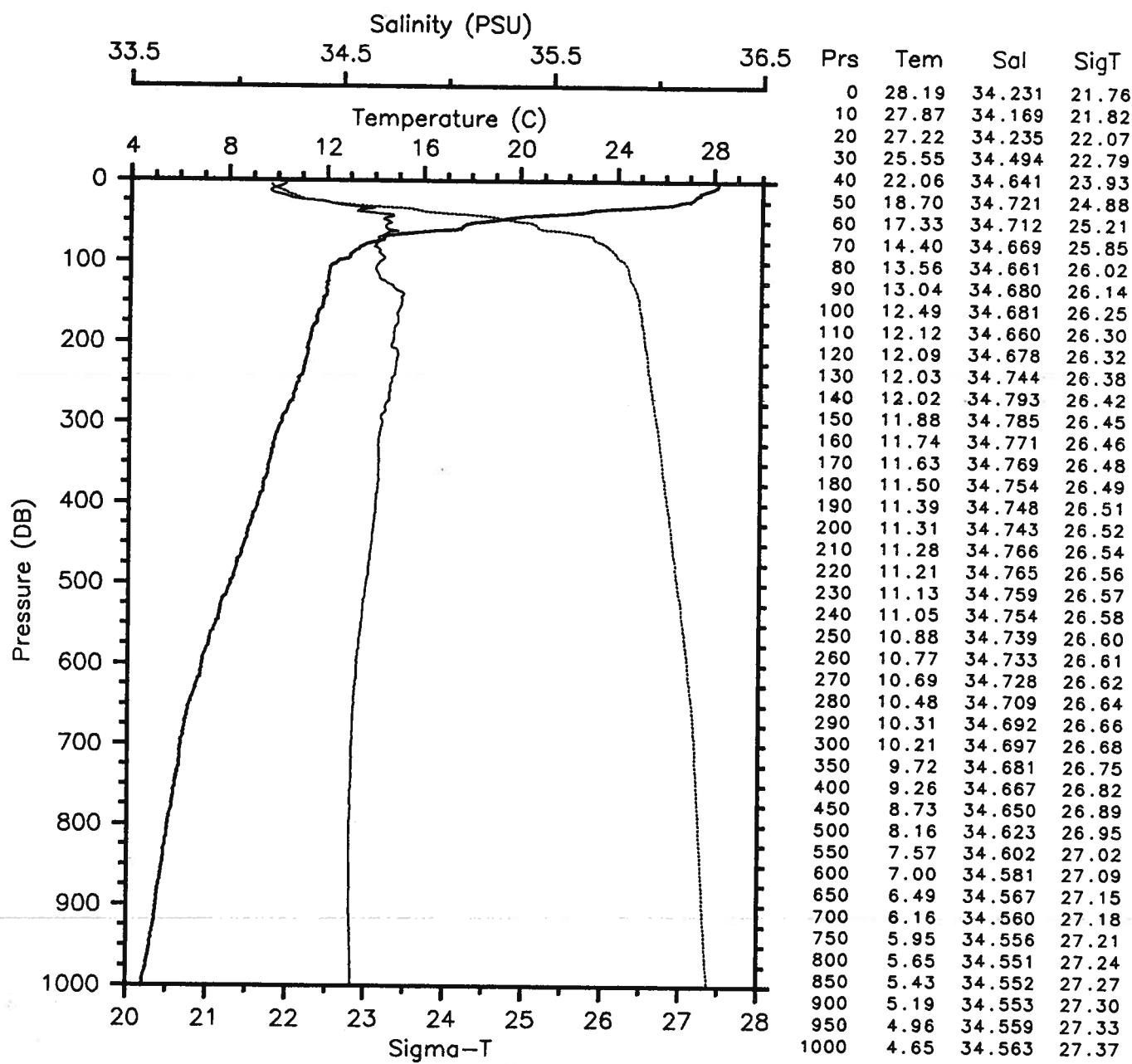
Date 04 20 86 Latitude 6.010 N
 Time 0402 Z Longitude 110.005 W

— Tem — Sal
 — SigT



EPOCS EP1-86-OC CTD 4 OCEANOGRAPHER
 Date 04 20 86 Latitude 5.017 N
 Time 0949 Z Longitude 110.017 W

— Tem — Sal
 — SigT

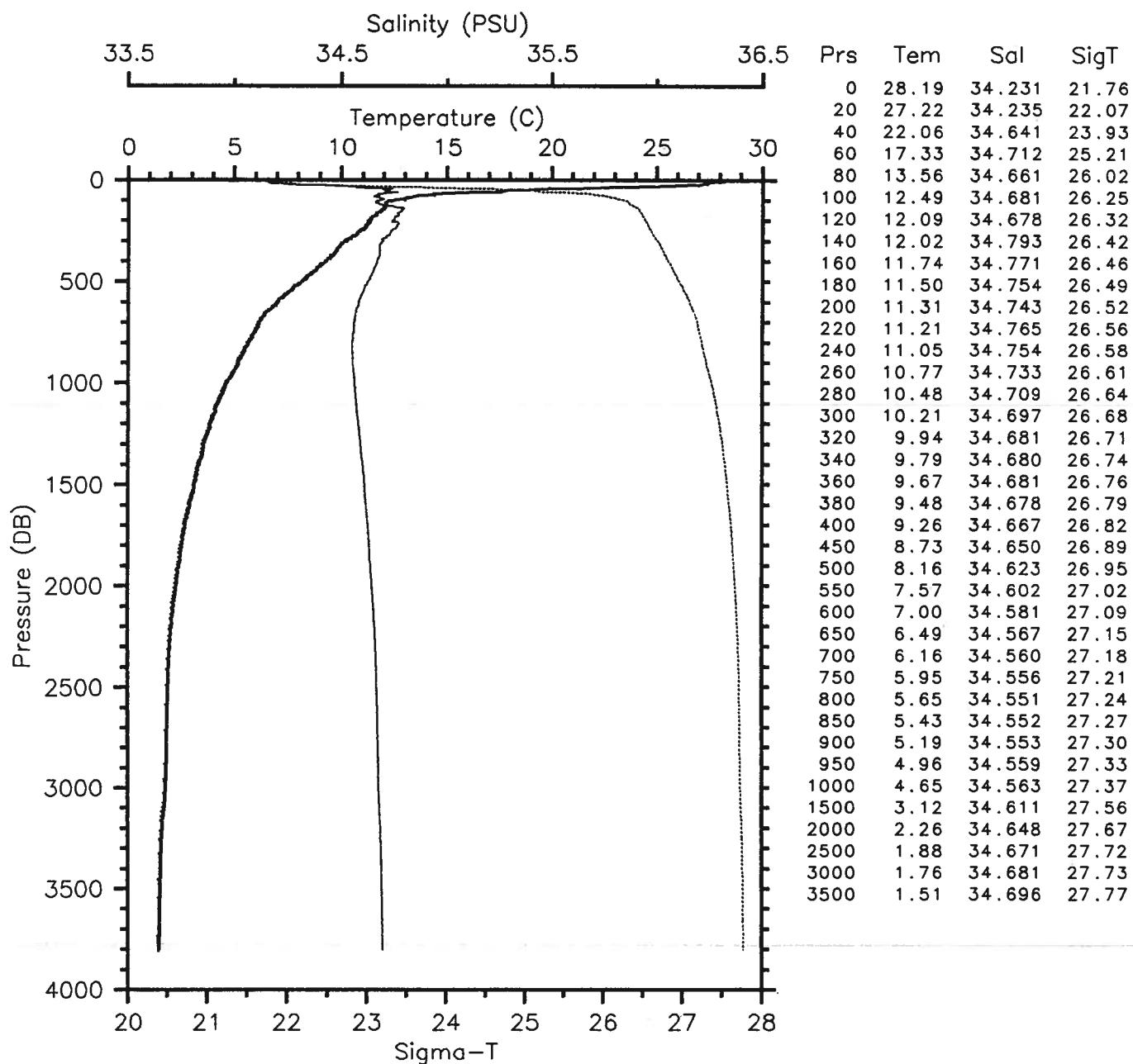


EPOCS EP1-86-OC CTD 4 OCEANOGRAPHER

Date 04 20 86 Latitude 5.017 N

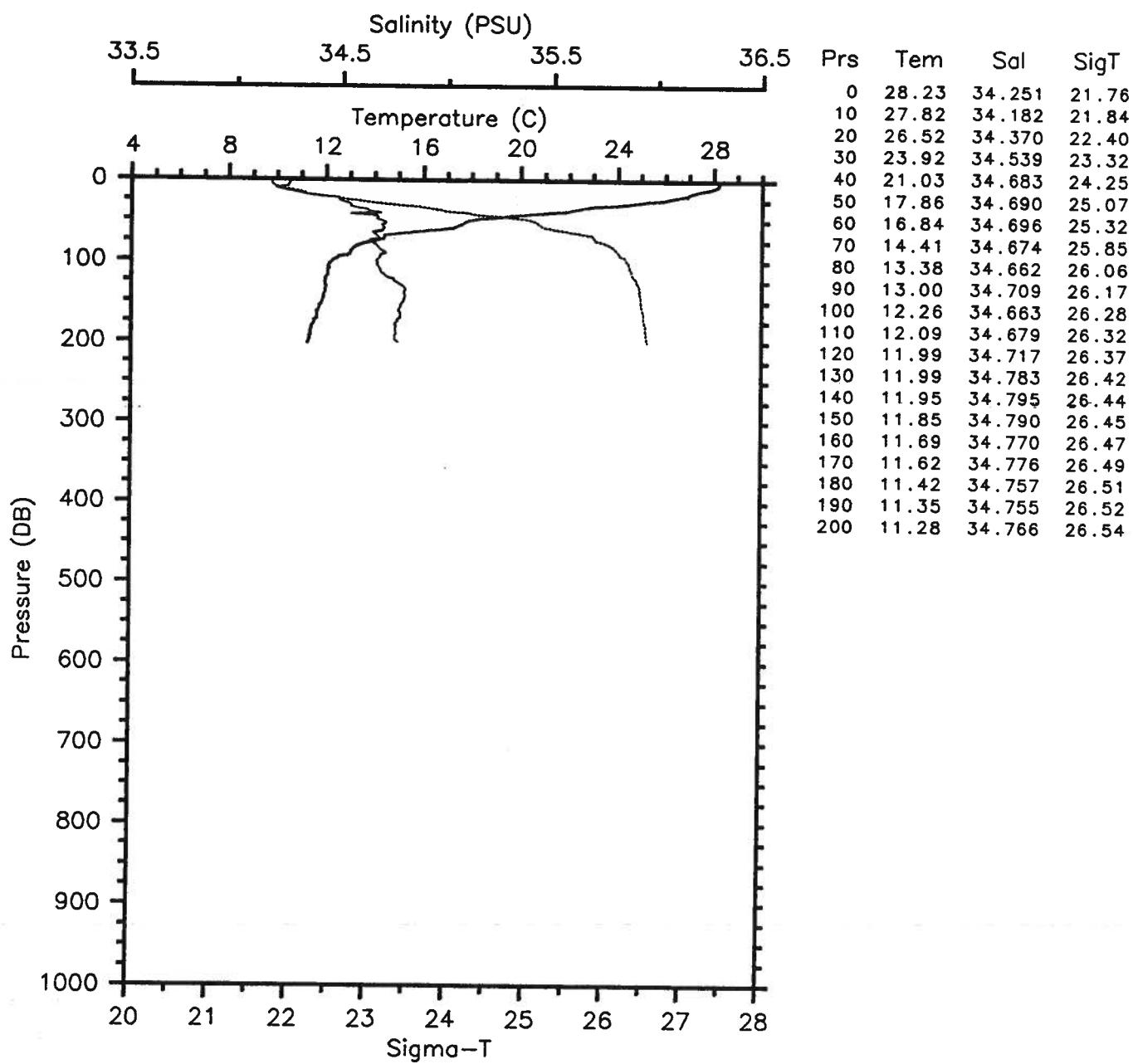
Time 0949 Z Longitude 110.017 W

— Tem — Sal
--- SigT



EPOCS EP1-86-OC CTD 5 OCEANOGRAPHER
 Date 04 20 86 Latitude 5.017 N
 Time 1415 Z Longitude 110.030 W

— Tem — Sal
 — SigT

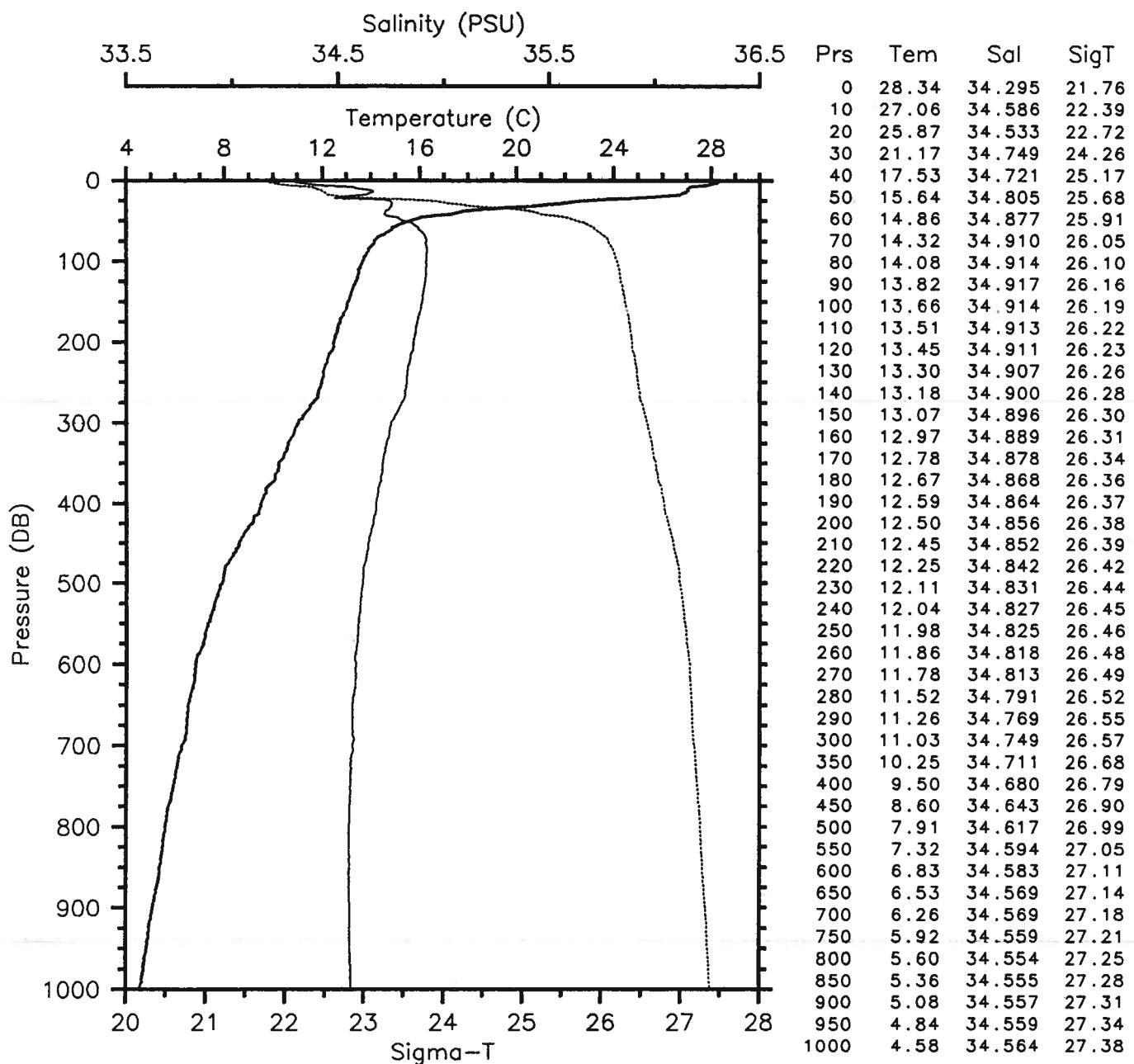


EPOCS EP1-86-OC CTD 6 OCEANOGRAPHER

Date 04 20 86 Latitude 3.982 N

Time 2138 Z Longitude 110.063 W

— Tem	— Sal
— SigT	

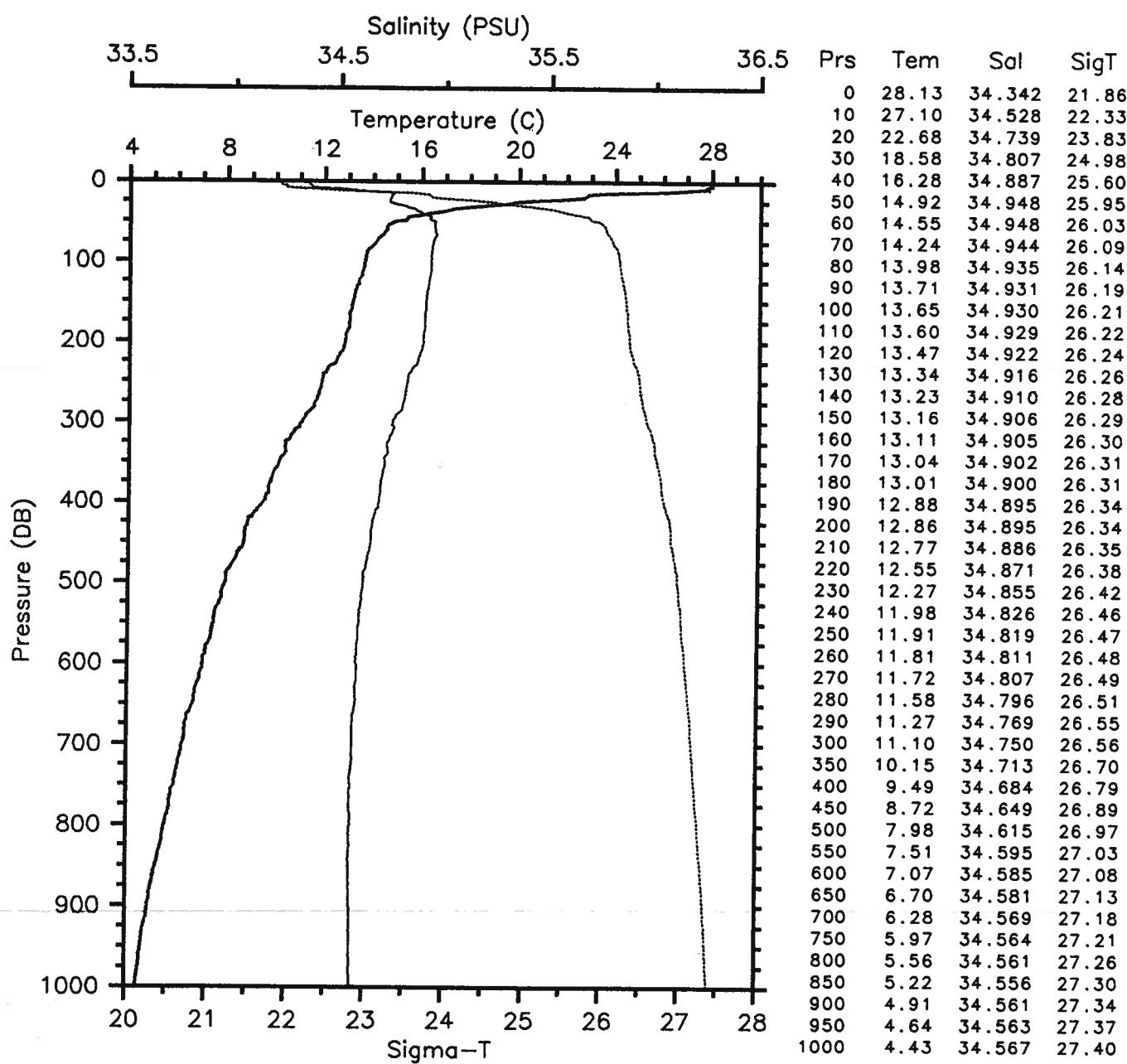


EPOCS EP1-86-OC CTD 7 OCEANOGRAPHER

Date 04 21 86 Latitude 3.002 N

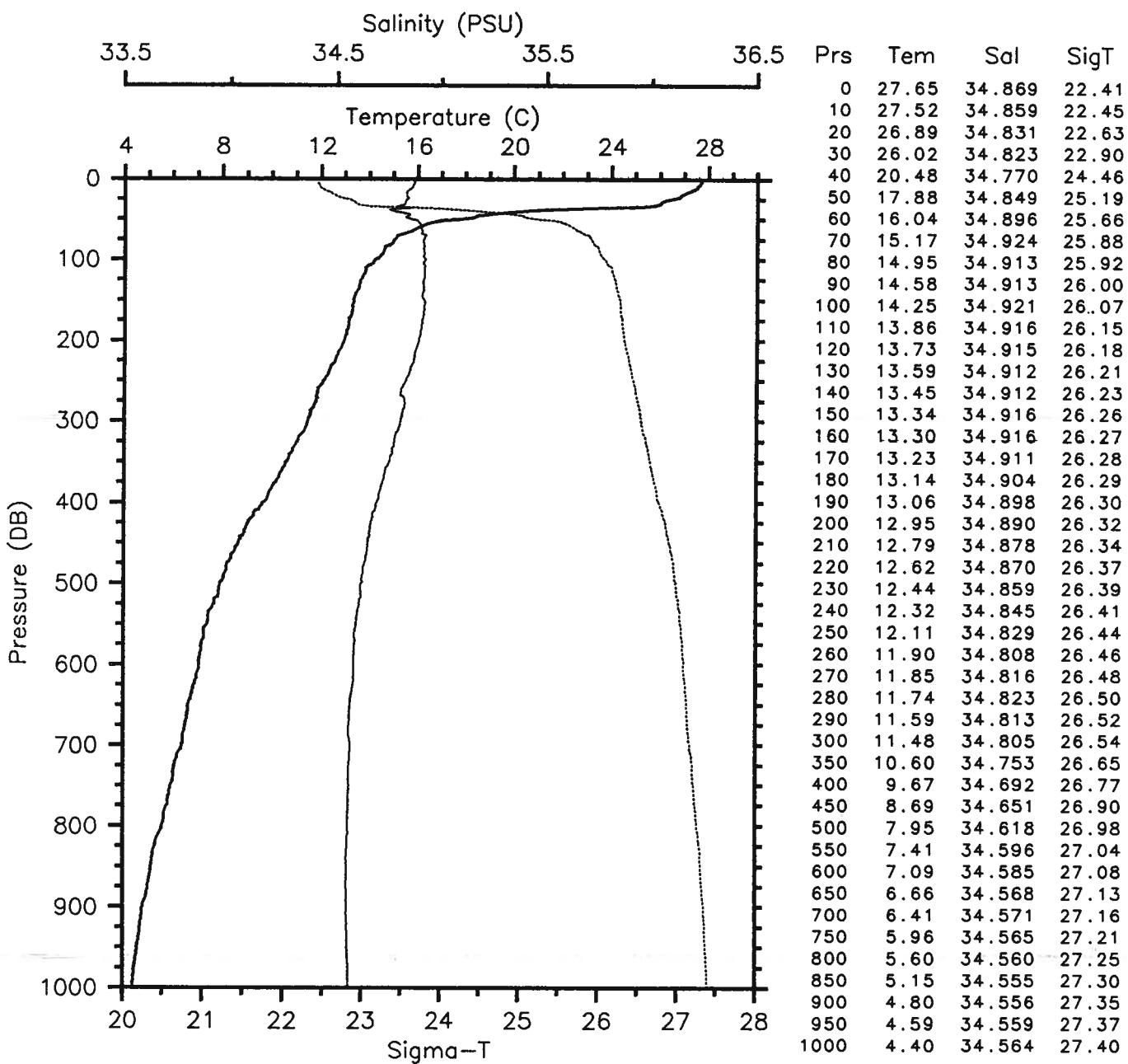
Time 0304 Z Longitude 110.002 W

— Tem	— Sal
— SigT	



EPOCS EP1-86-OC CTD 8 OCEANOGRAPHER
 Date 04 21 86 Latitude 2.040 N
 Time 2231 Z Longitude 109.998 W

— Term — Sal
 — SigT

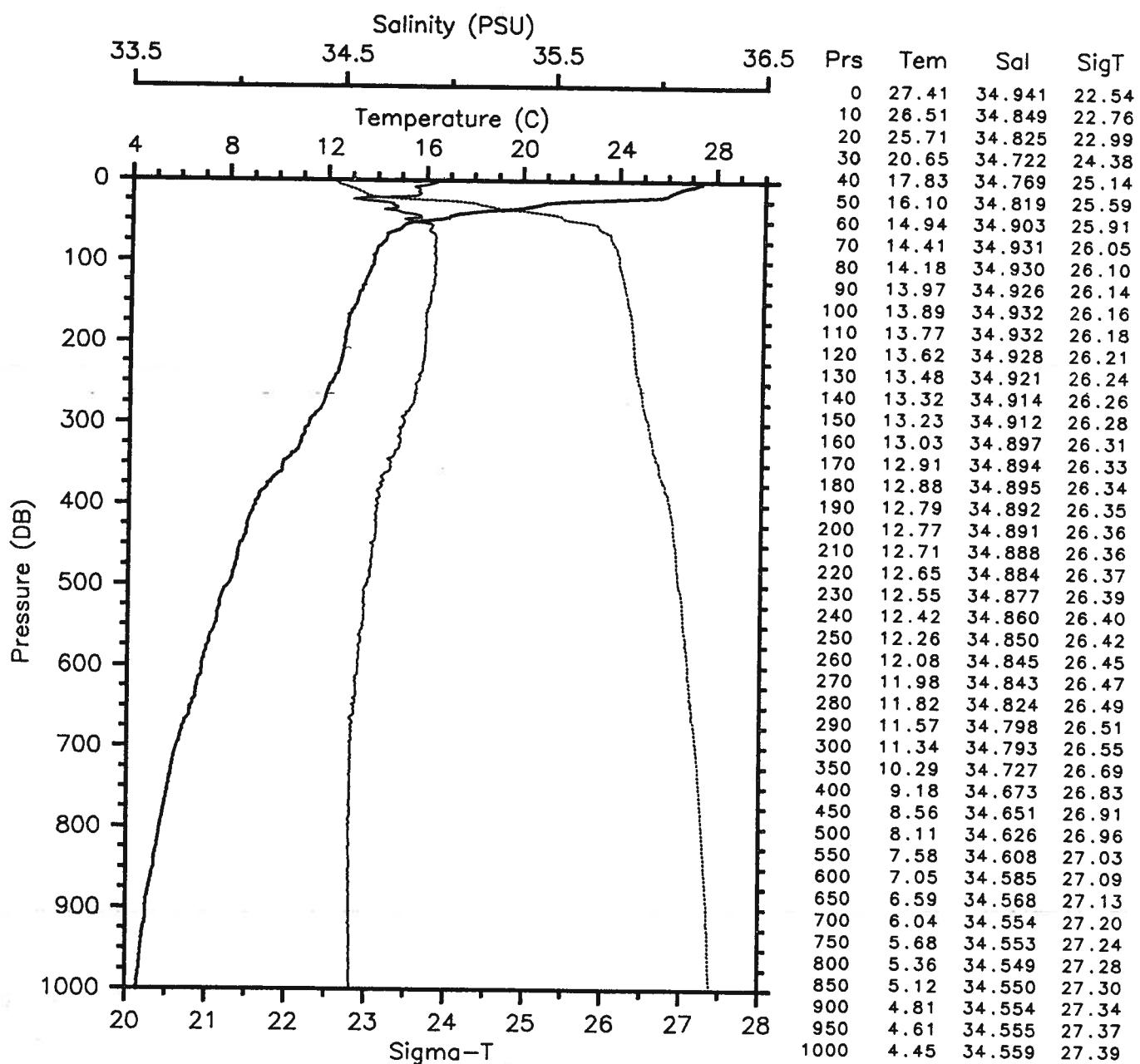


EPOCS EP1-86-OC CTD 9 OCEANOGRAPHER

Date 04 22 86 Latitude 1.508 N

Time 0050 Z Longitude 109.997 W

— Tem — Sal
— SigT

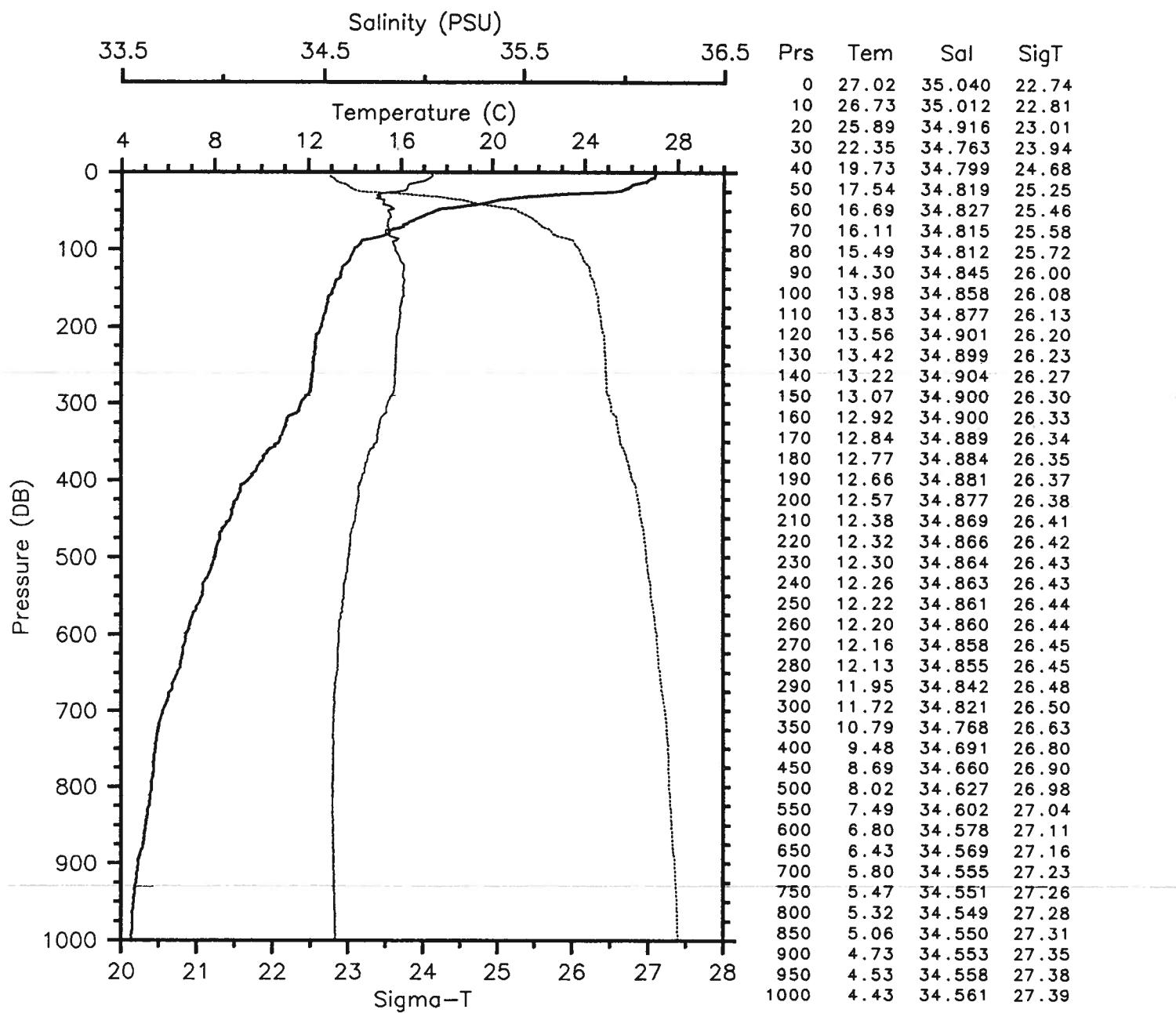


EPOCS EP1-86-OC CTD 10 OCEANOGRAPHER

Date 04 22 86 Latitude 1.015 N

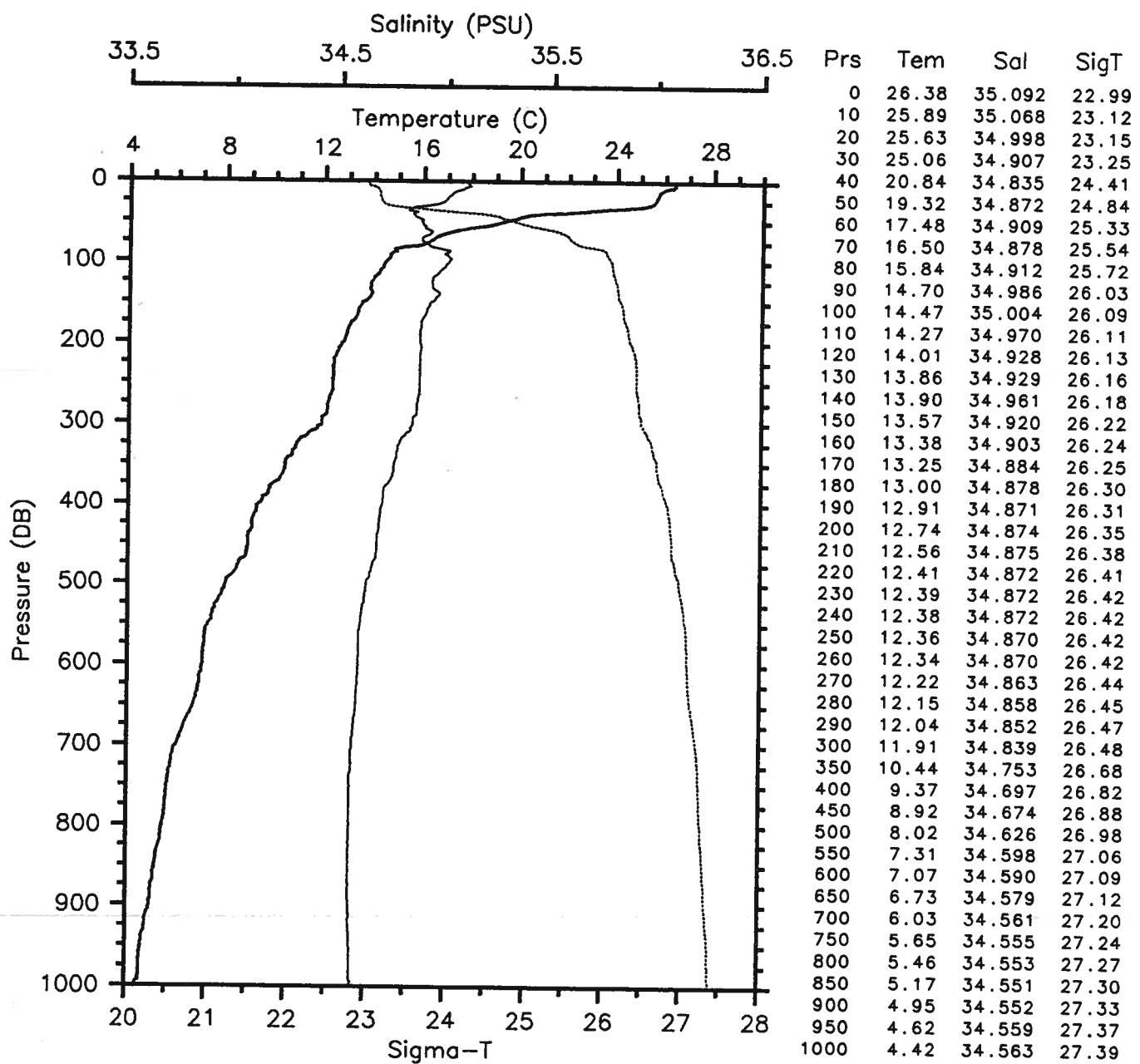
Time 0554 Z Longitude 110.028 W

— Tem	— Sal
— SigT	



EPOCS EP1-86-OC CTD 11 OCEANOGRAPHER
 Date 04 22 86 Latitude 0.500 N
 Time 1048 Z Longitude 109.997 W

— Tem — Sal
 — SigT

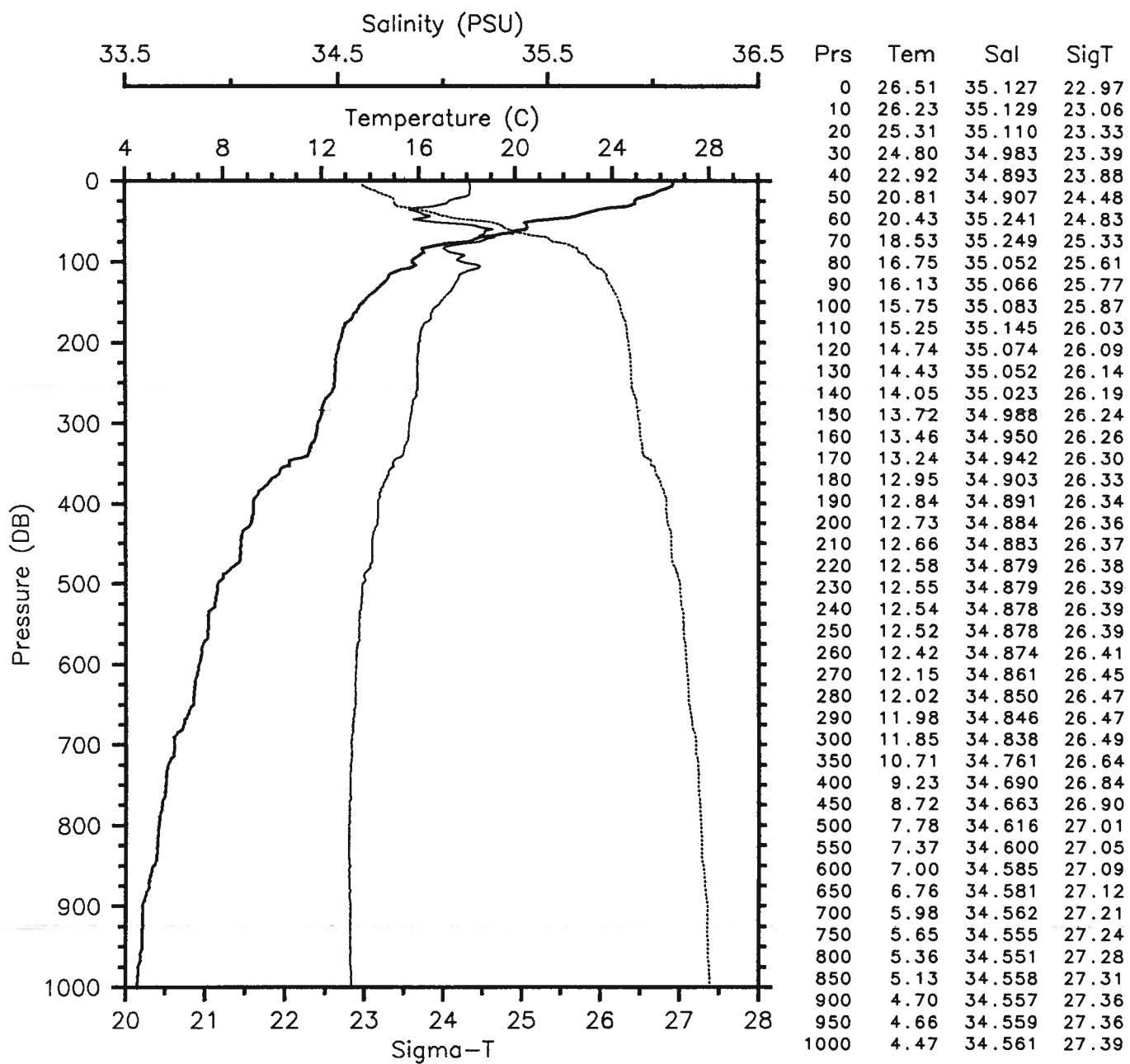


EPOCS EP1-86-OC CTD 12 OCEANOGRAPHER

Date 04 22 86 Latitude 0.015 N

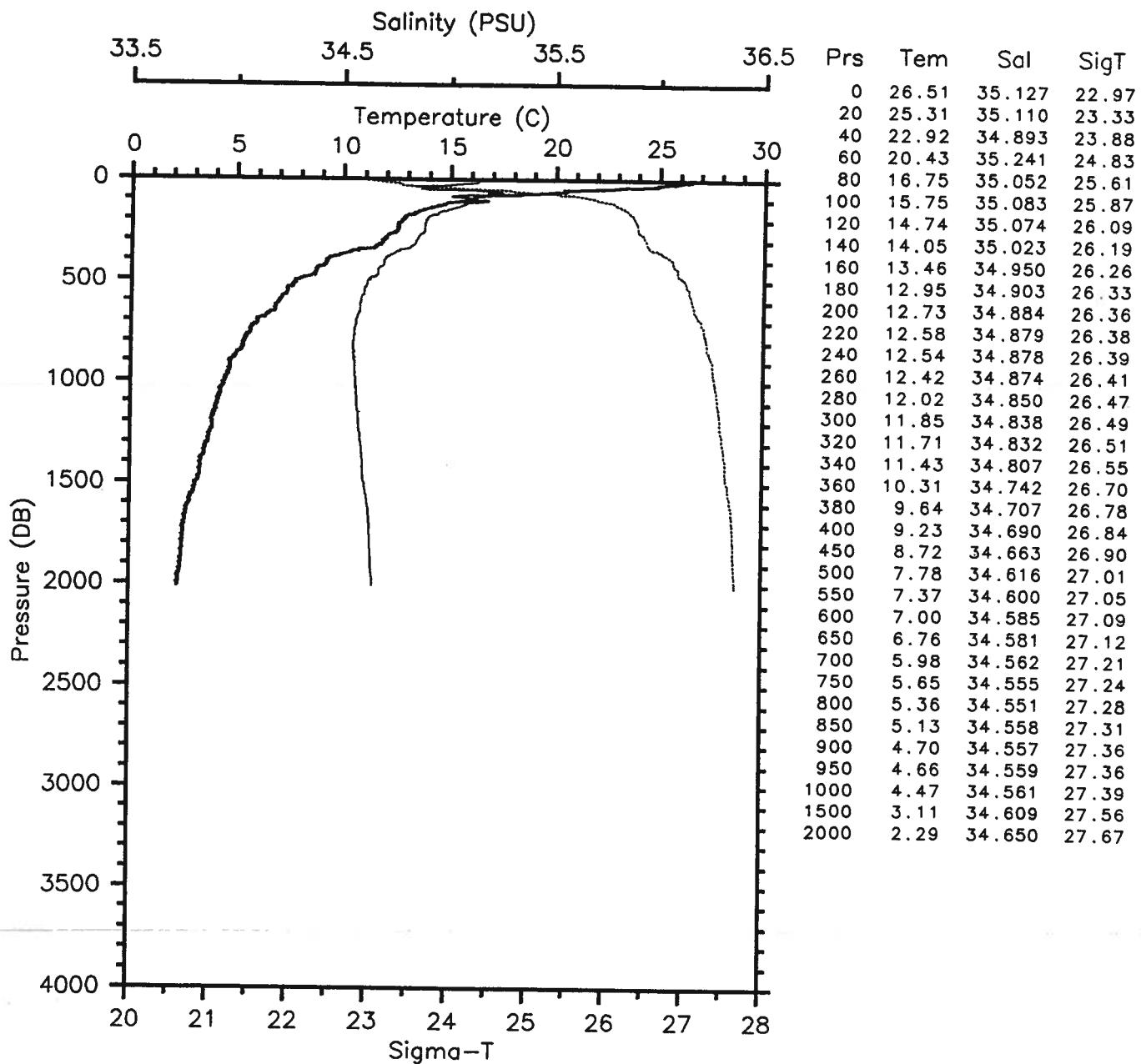
Time 1456 Z Longitude 109.988 W

— Tem	— Sal
— SigT	



EPOCS EP1-86-OC CTD 12 OCEANOGRAPHER
 Date 04 22 86 Latitude 0.015 N
 Time 1456 Z Longitude 109.988 W

— Tem — Sal
 — SigT

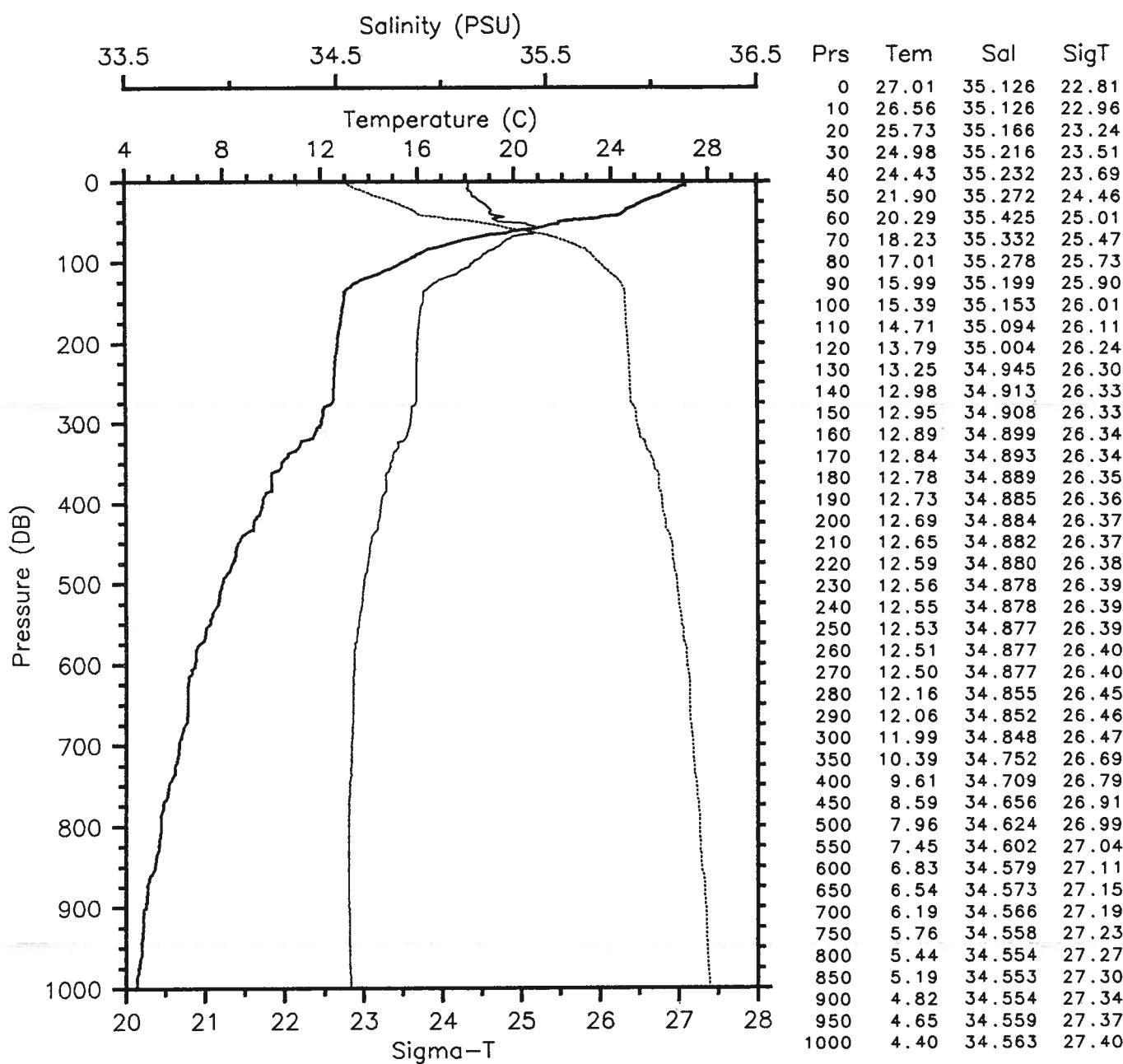


EPOCS EP1-86-OC CTD 13 OCEANOGRAPHER

Date 04 22 86 Latitude 0.482 S

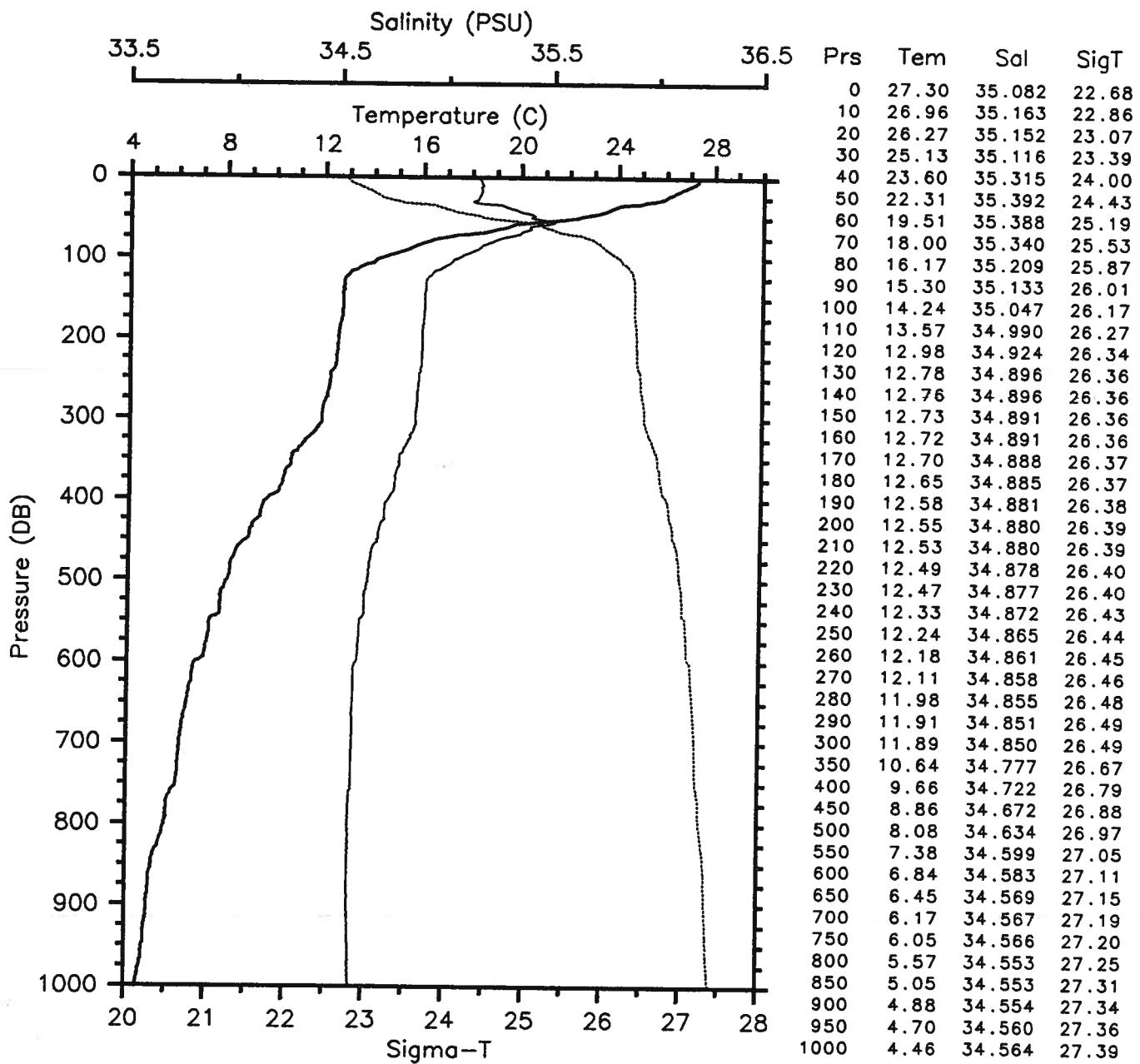
Time 2142 Z Longitude 110.003 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 14 OCEANOGRAPHER
 Date 04 23 86 Latitude 0.957 S
 Time 0131 Z Longitude 110.025 W

— Tem — Sal
 — SigT

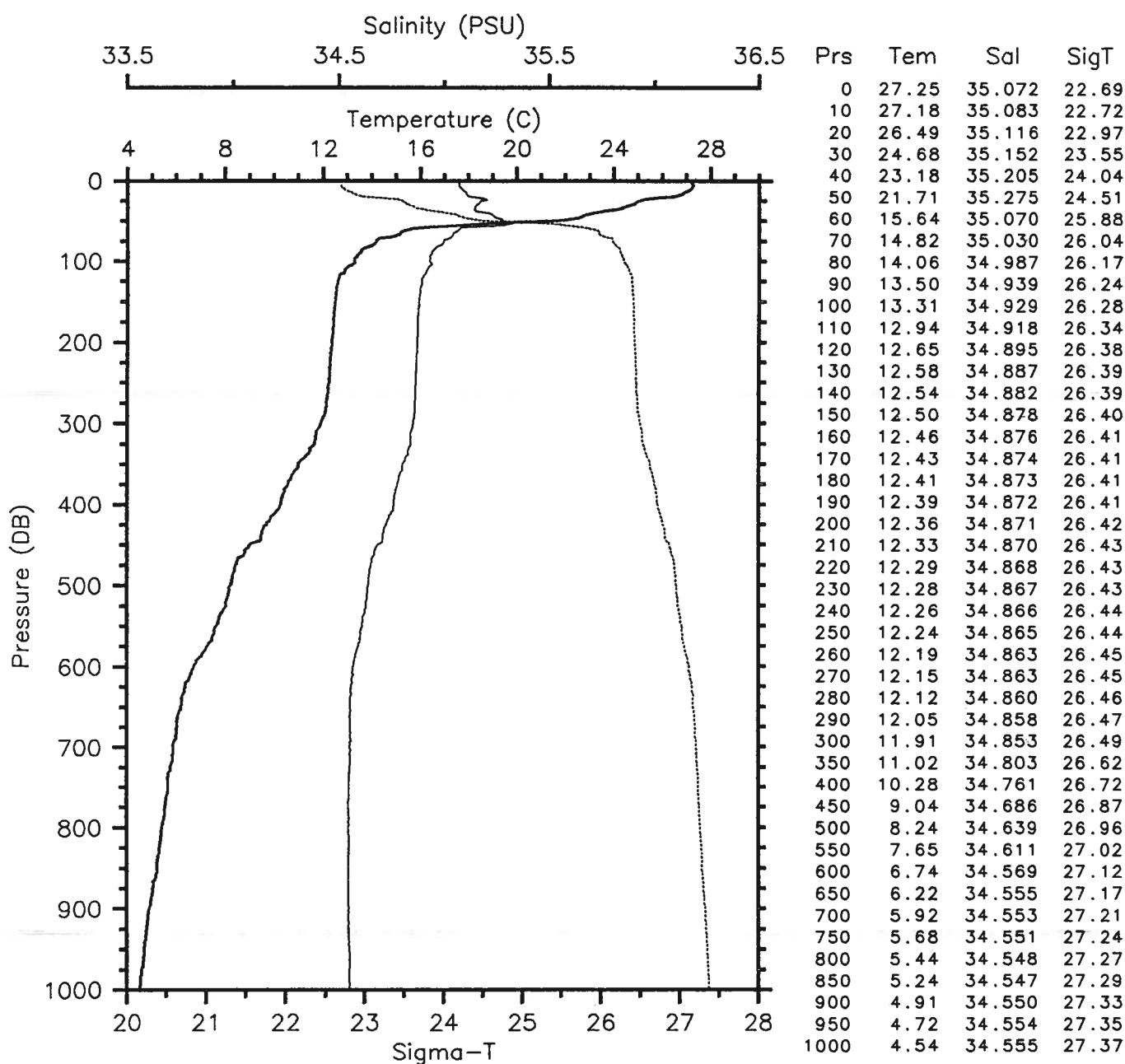


EPOCS EP1-86-OC CTD 15 OCEANOGRAPHER

Date 04 23 86 Latitude 1.493 S

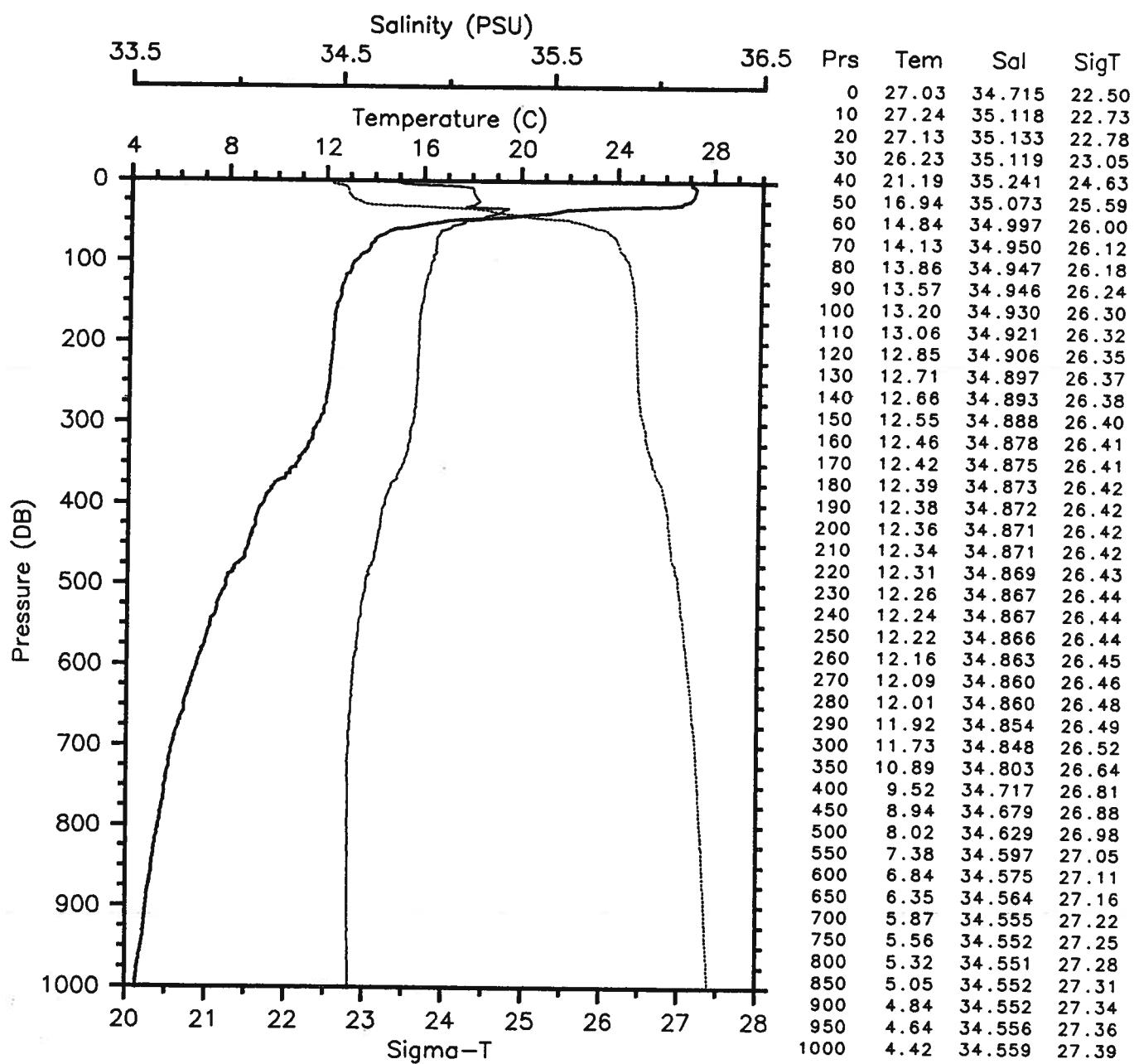
Time 0550 Z Longitude 110.002 W

— Tem — Sal
— SigT



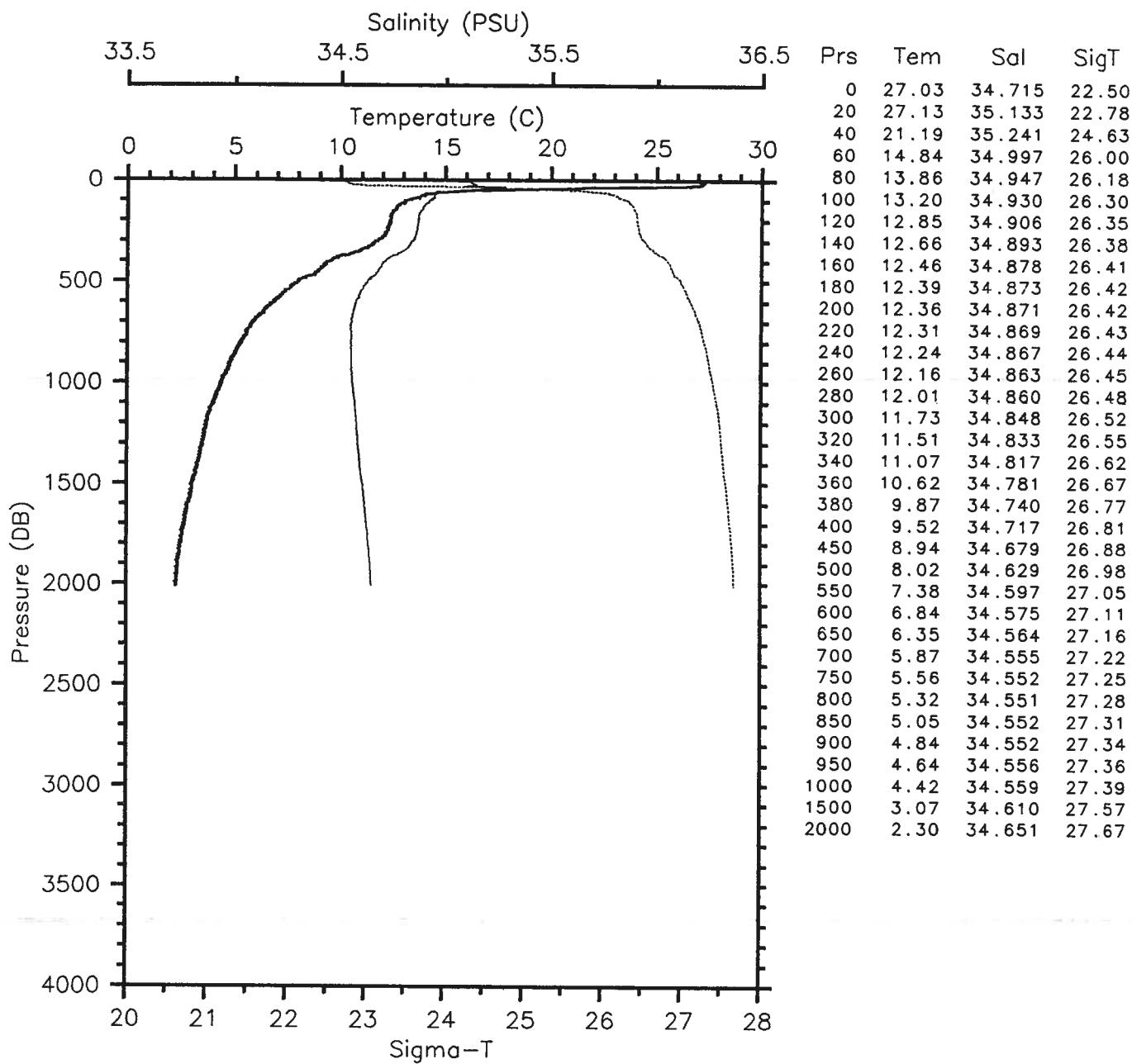
EPOCS EP1-86-OC CTD 16 OCEANOGRAPHER
 Date 04 23 86 Latitude 1.987 S
 Time 0858 Z Longitude 109.975 W

— Tem — Sal
 — SigT



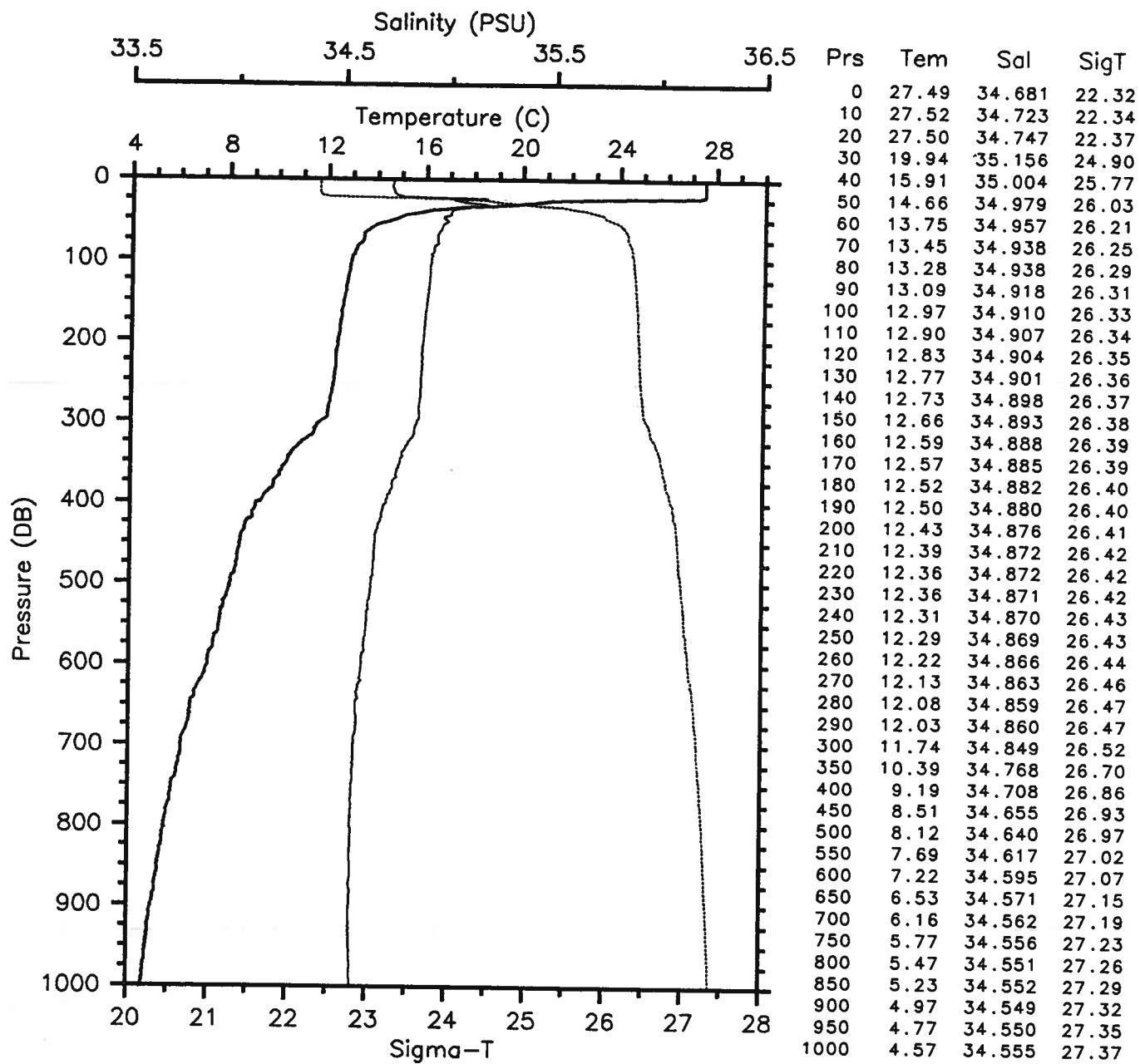
EPOCS EP1-86-OC CTD 16 OCEANOGRAPHER
 Date 04 23 86 Latitude 1.987 S
 Time 0858 Z Longitude 109.975 W

— Tem — Sal
 SigT



EPOCS EP1-86-OC CTD 17 OCEANOGRAPHER
 Date 04 23 86 Latitude 2.998 S
 Time 1749 Z Longitude 110.020 W

— Tem — Sal
 — SigT

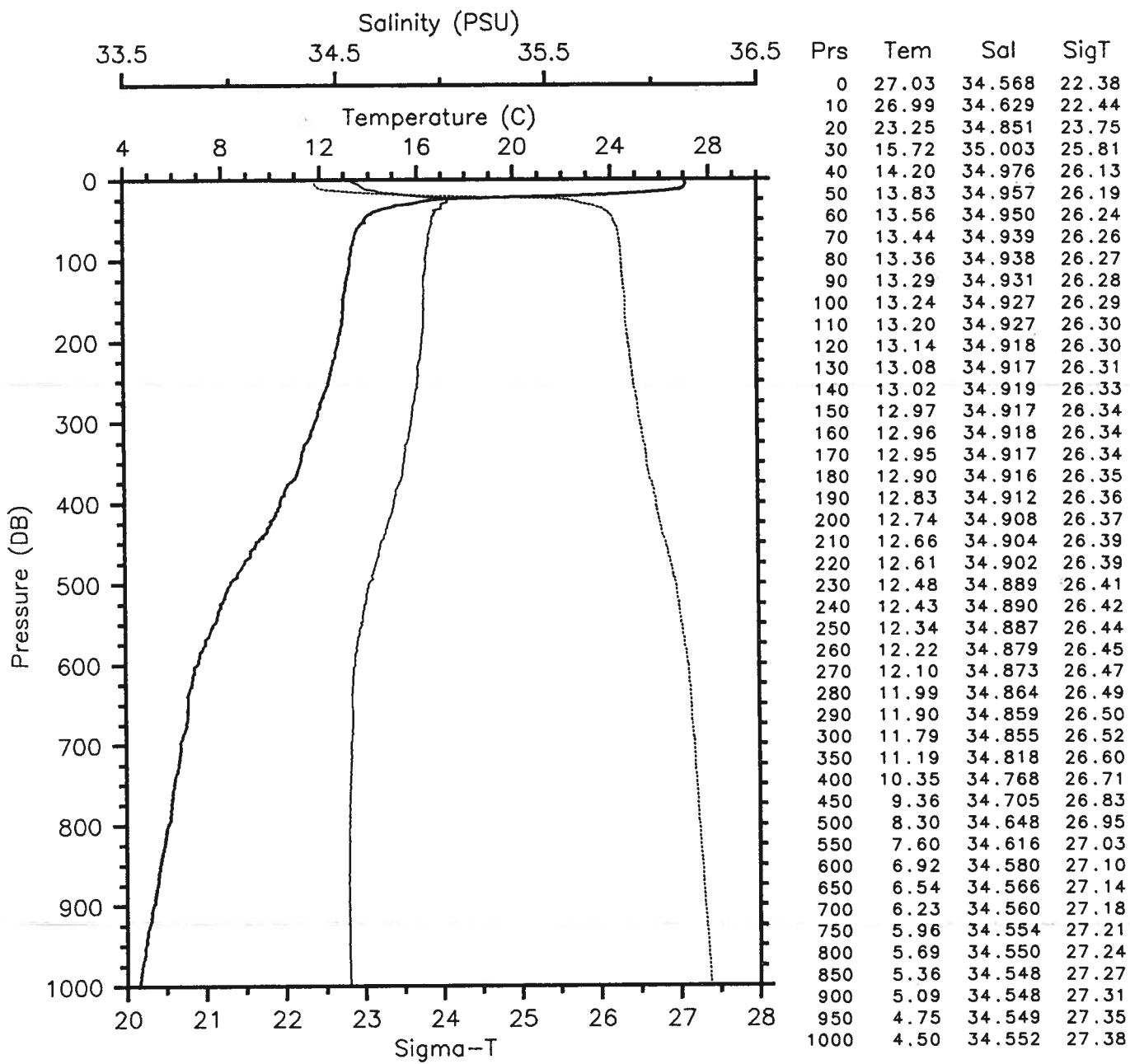


EPOCS EP1-86-OC CTD 18 OCEANOGRAPHER

Date 04 24 86 Latitude 4.000 S

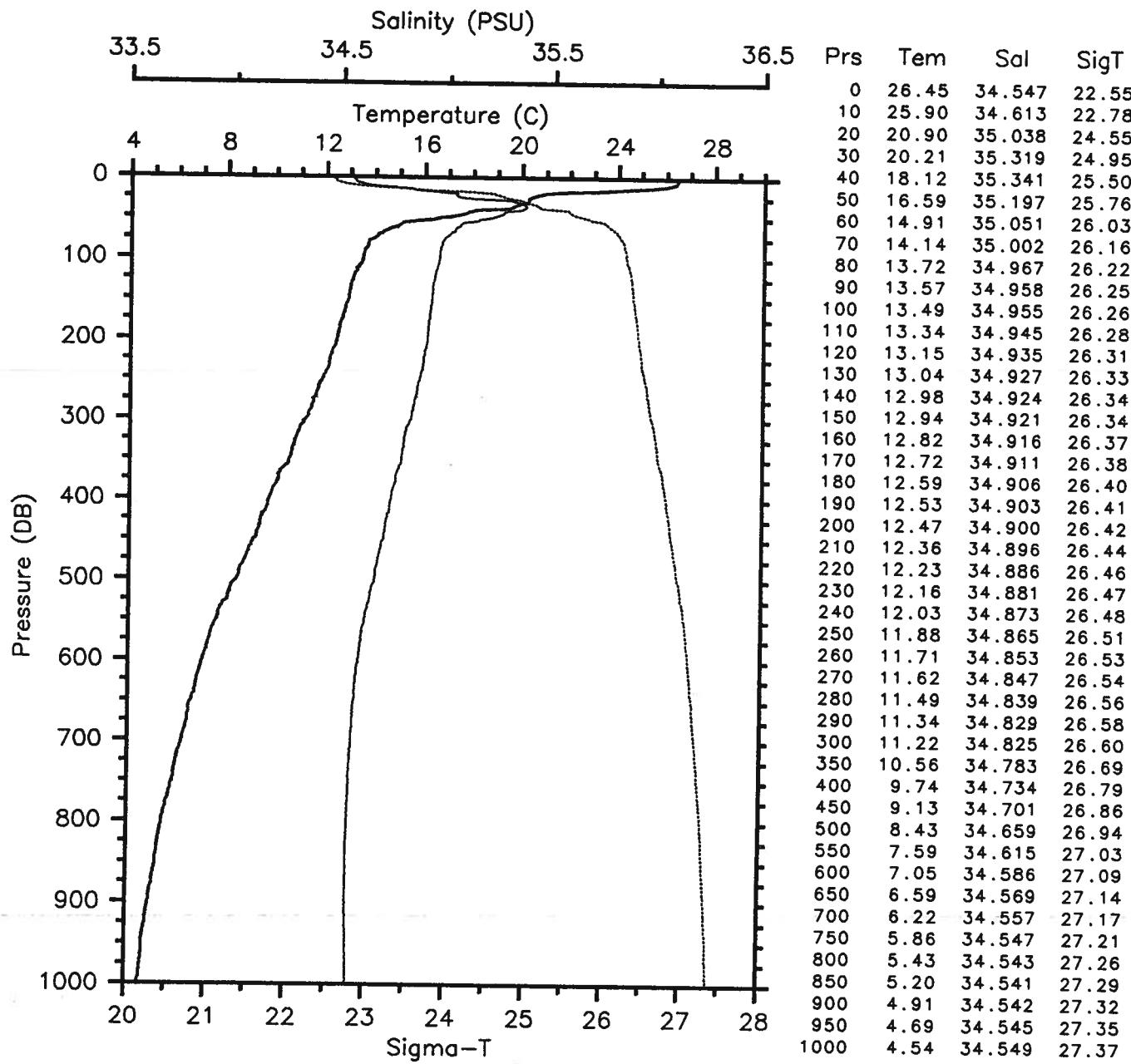
Time 0111 Z Longitude 109.997 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 19 OCEANOGRAPHER
 Date 04 24 86 Latitude 4.993 S
 Time 0805 Z Longitude 110.005 W

— Tem — Sal
 — SigT

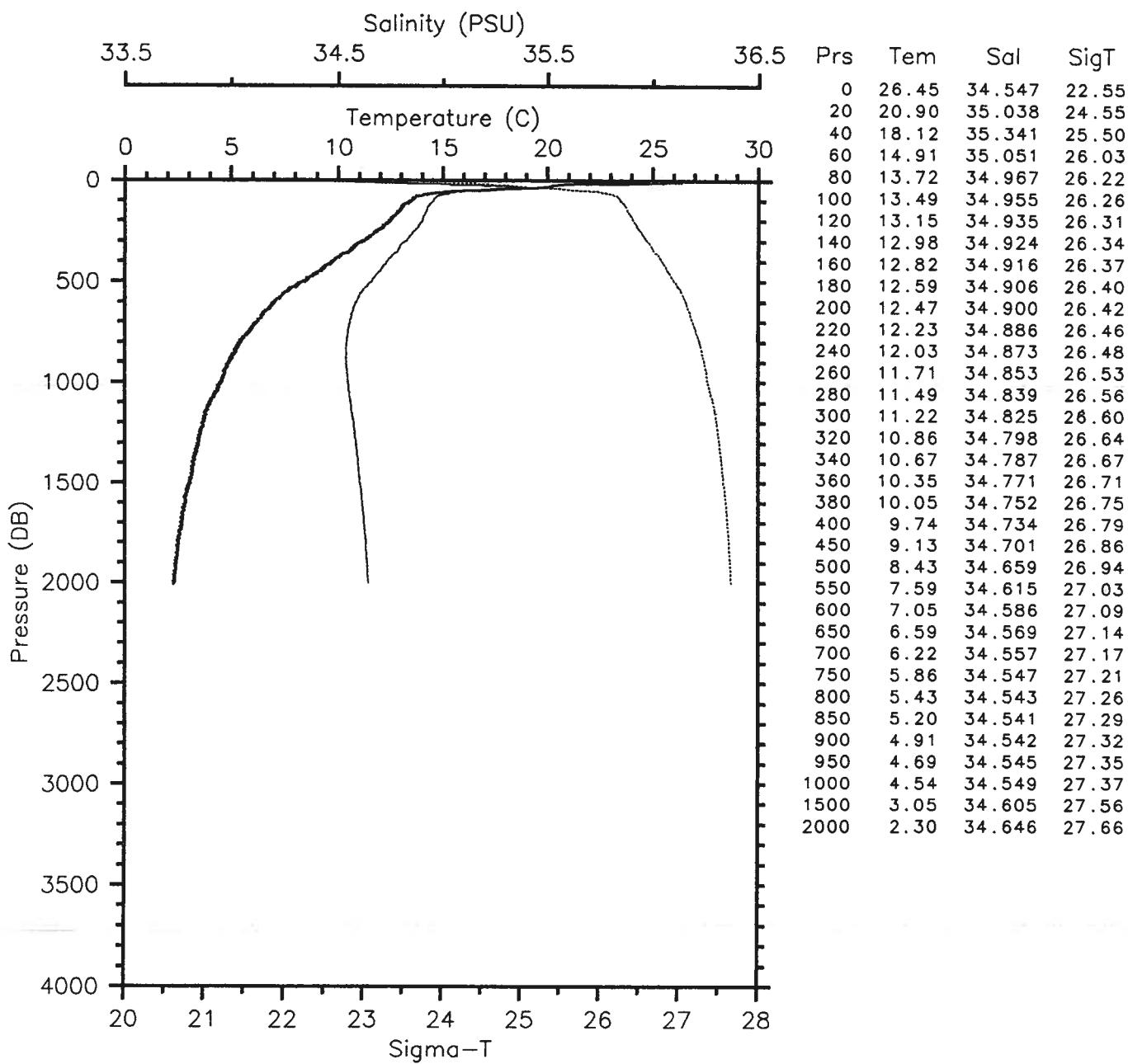


EPOCS EP1-86-OC CTD 19 OCEANOGRAPHER

Date 04 24 86 Latitude 4.993 S

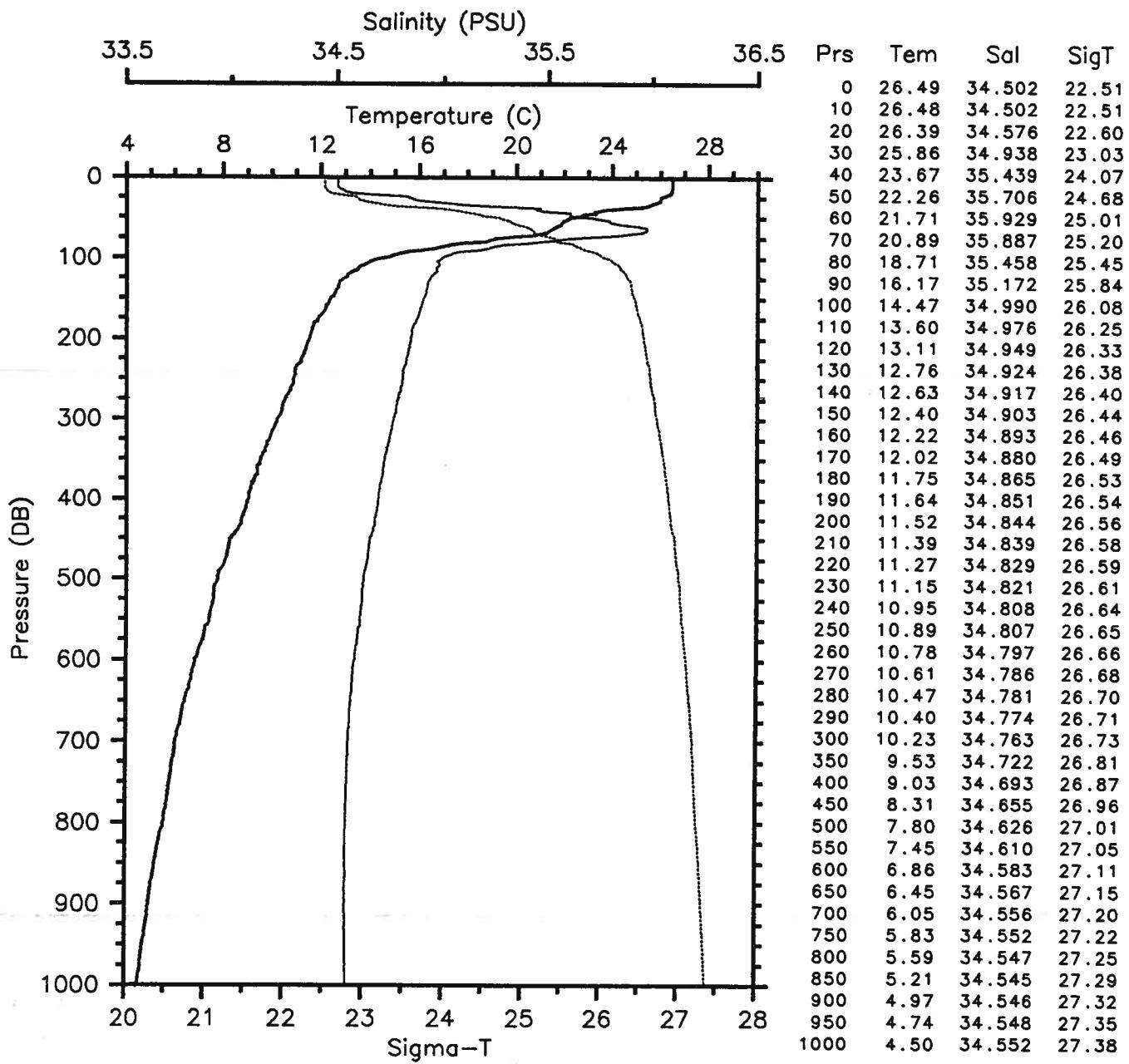
Time 0805 Z Longitude 110.005 W

— Tem — Sal
---- SigT



EPOCS EP1-86-OC CTD 20 OCEANOGRAPHER
 Date 04 24 86 Latitude 6.005 S
 Time 1422 Z Longitude 110.003 W

— Tem — Sal
 — SigT

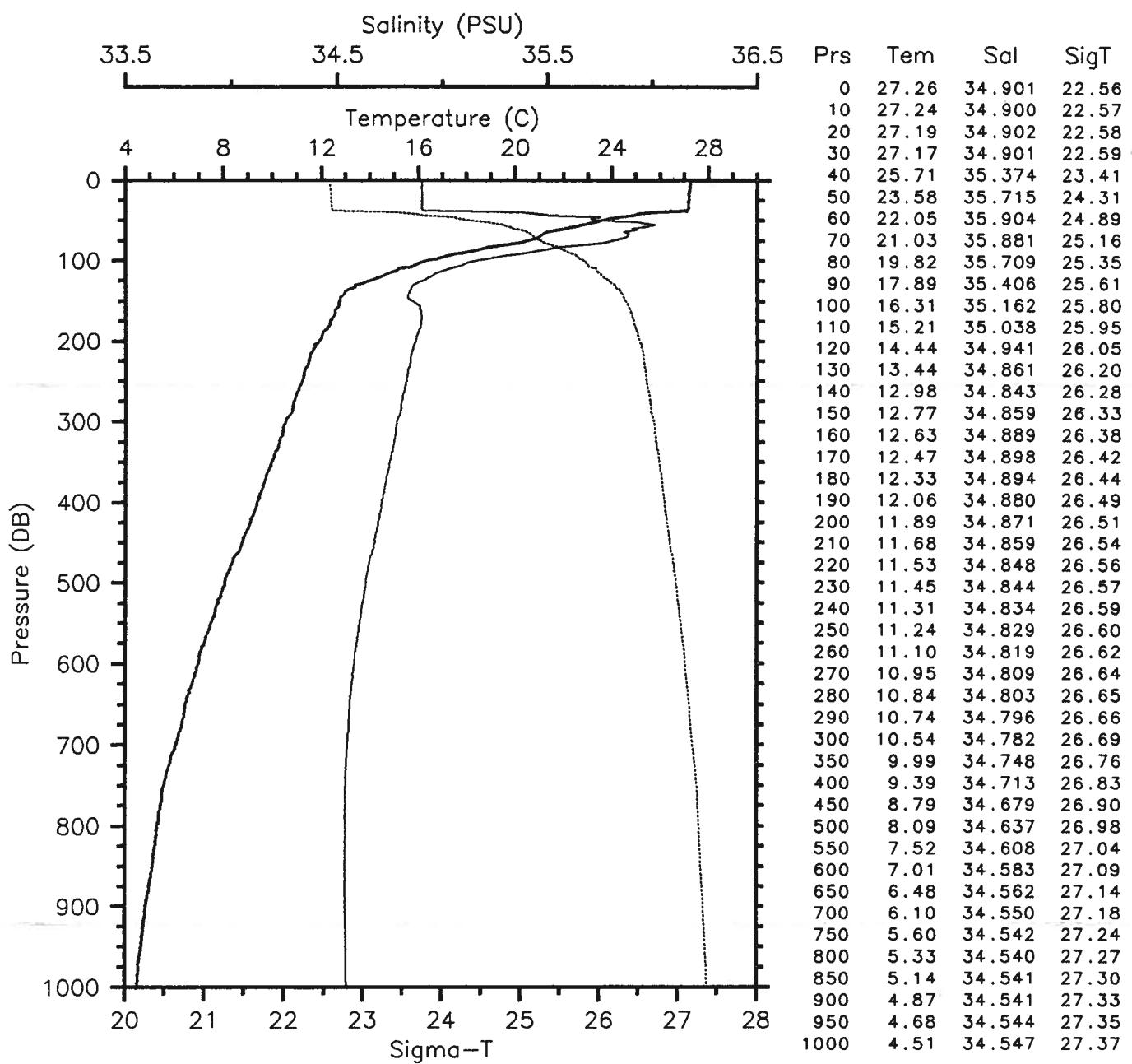


EPOCS EP1-86-OC CTD 21 OCEANOGRAPHER

Date 04 24 86 Latitude 6.998 S

Time 2117 Z Longitude 110.008 W

— Tem	— Sal
— SigT	

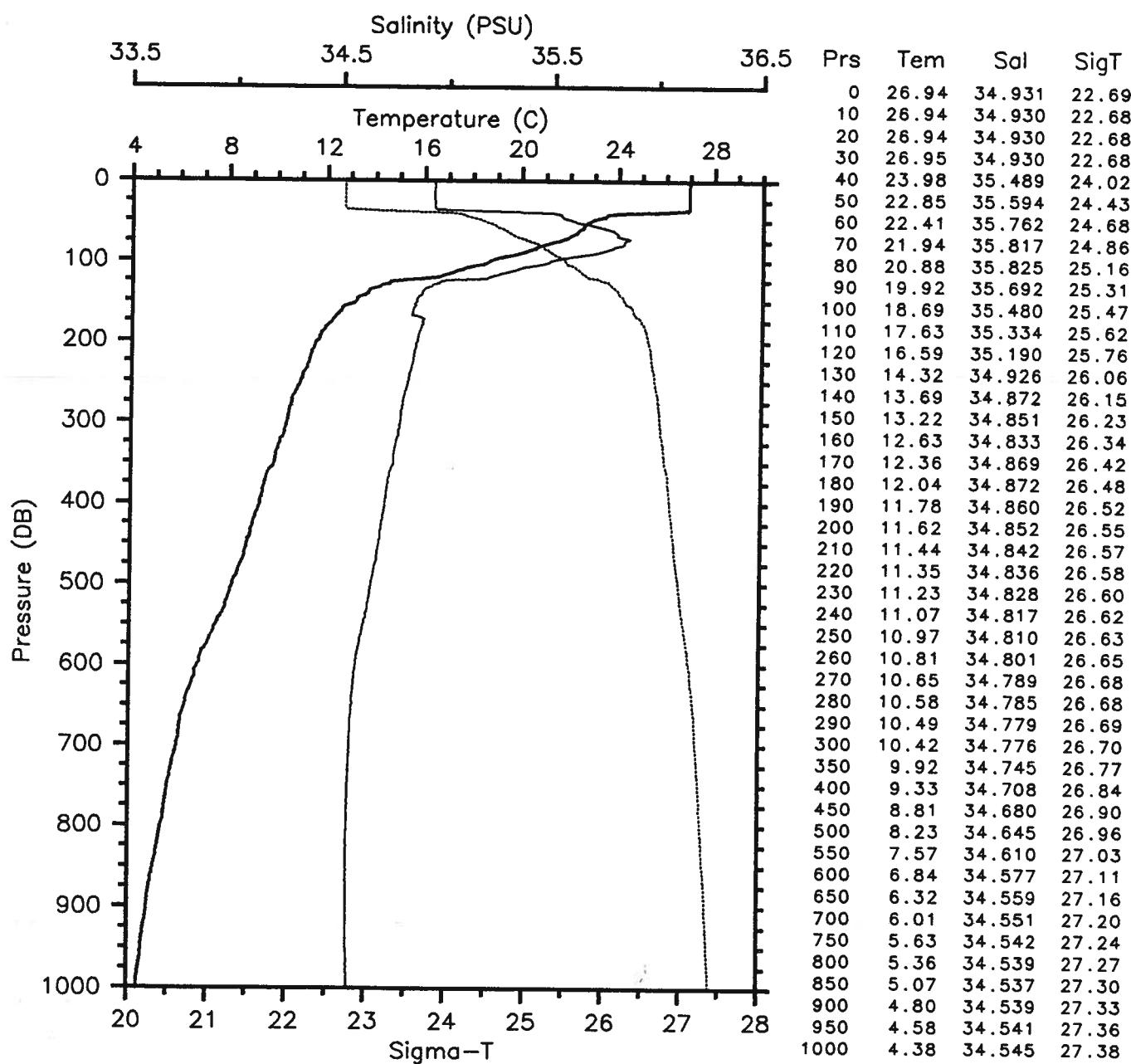


EPOCS EP1-86-OC CTD 22 OCEANOGRAPHER

Date 04 25 86 Latitude 7.898 S

Time 0408 Z Longitude 109.255 W

— Tem — Sal
— SigT

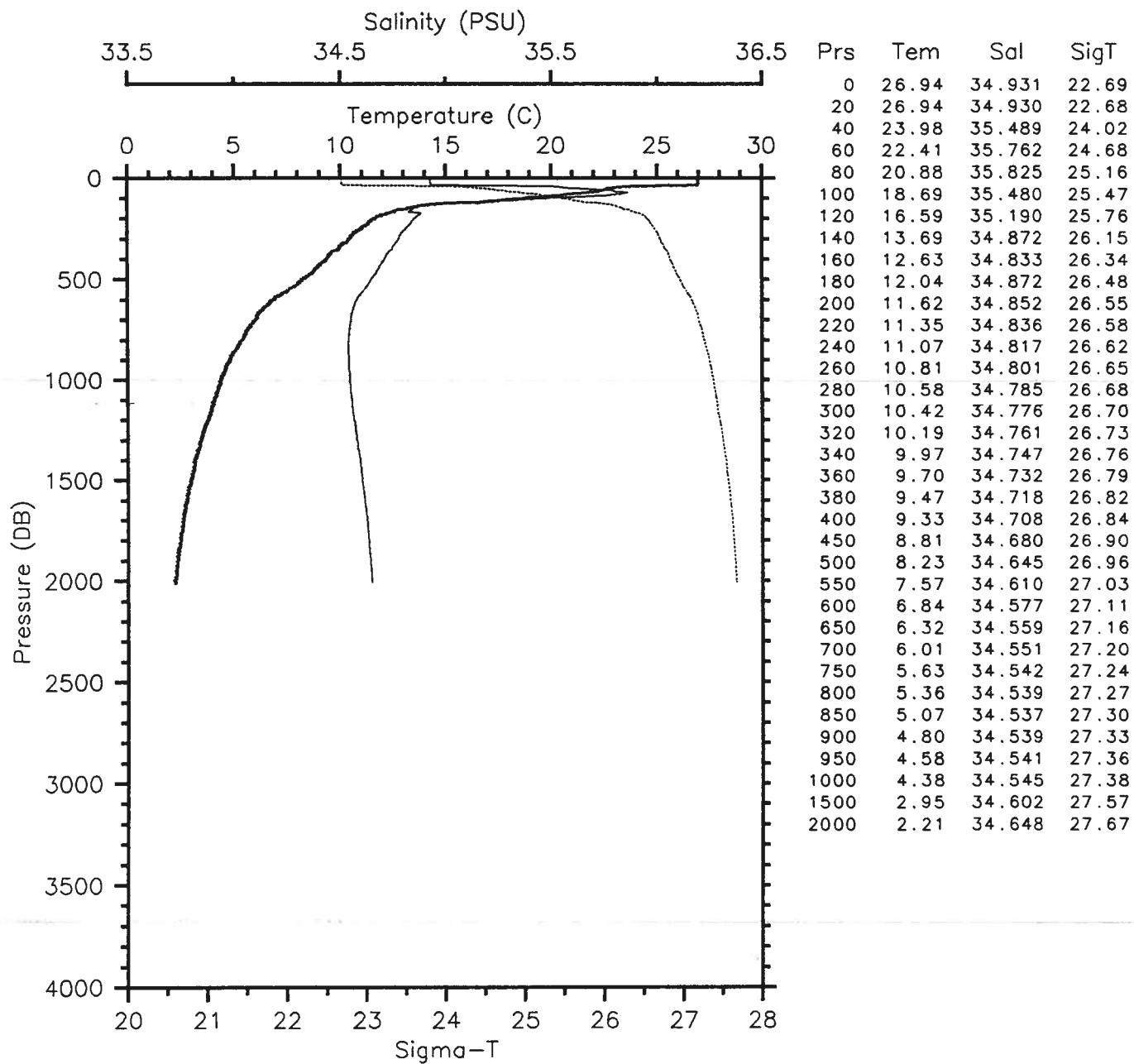


EPOCS EP1-86-OC CTD 22 OCEANOGRAPHER

Date 04 25 86 Latitude 7.898 S

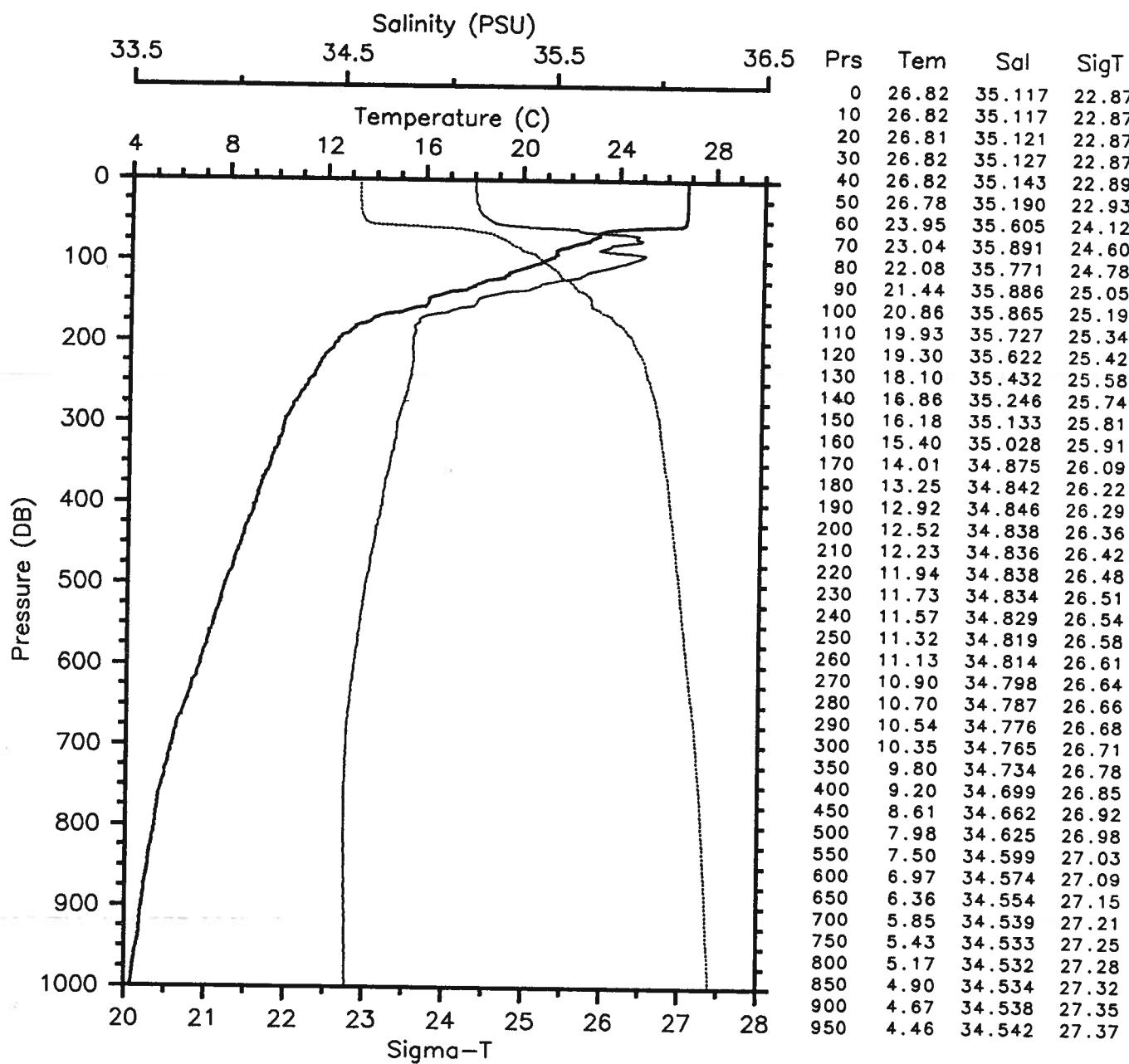
Time 0408 Z Longitude 109.255 W

— Tem — Sal
--- SigT



EPOCS EP1-86-OC CTD 23 OCEANOGRAPHER
 Date 04 25 86 Latitude 9.010 S
 Time 1438 Z Longitude 109.987 W

— Tem — Sal
 — SigT

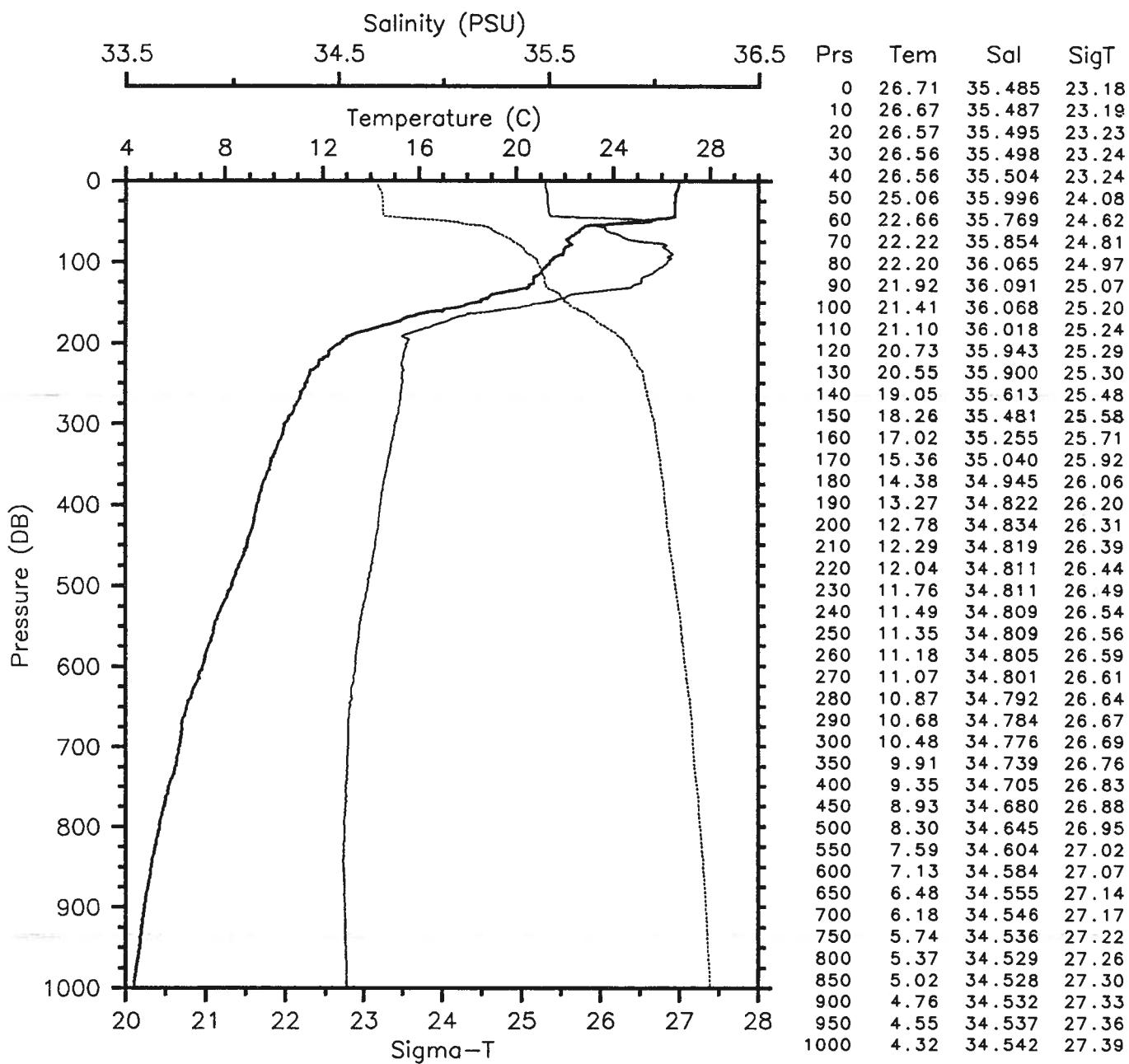


EPOCS EP1-86-OC CTD 24 OCEANOGRAPHER

Date 04 25 86 Latitude 10.012 S

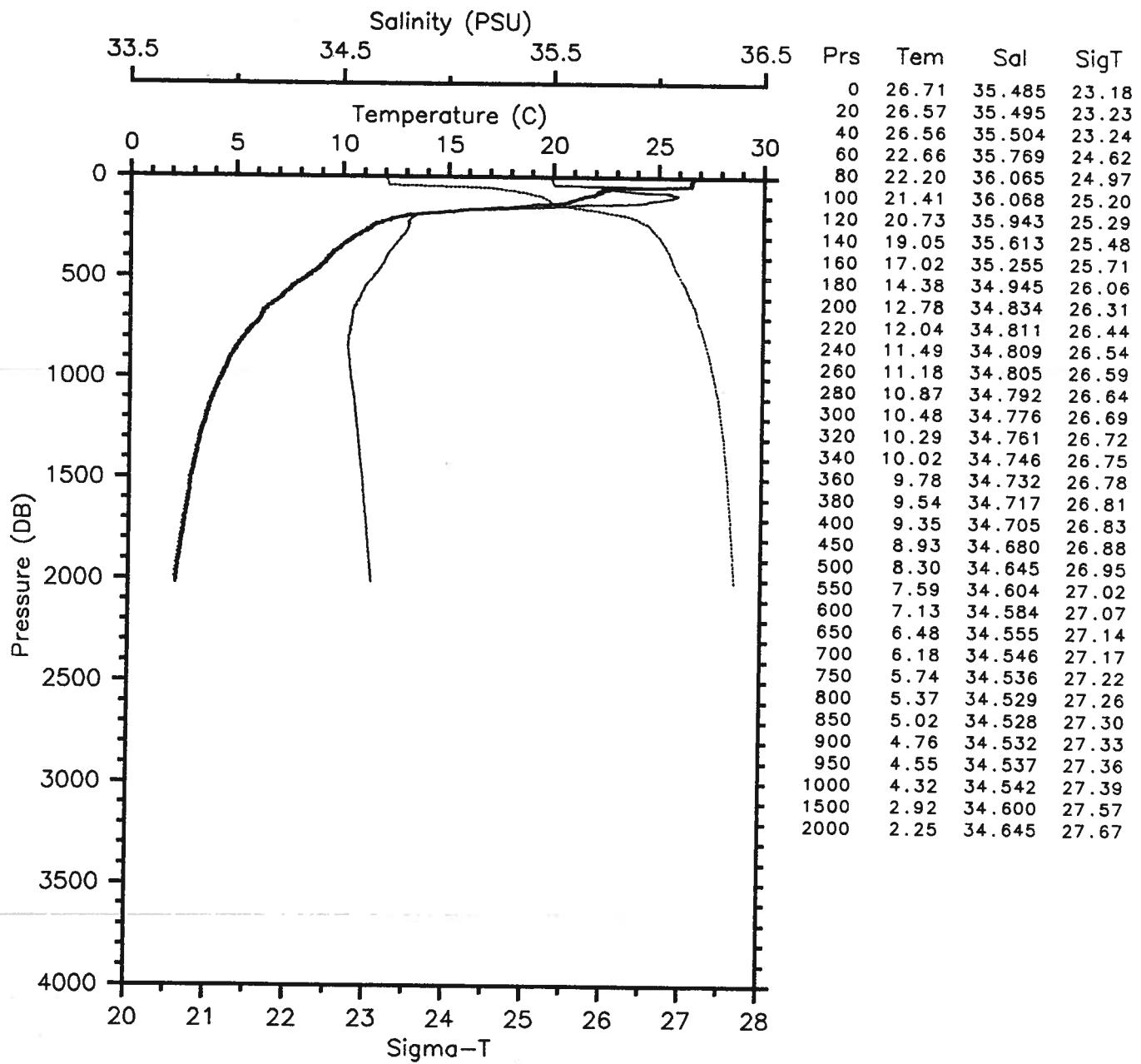
Time 2245 Z Longitude 109.987 W

— Tem — Sal
— SigT



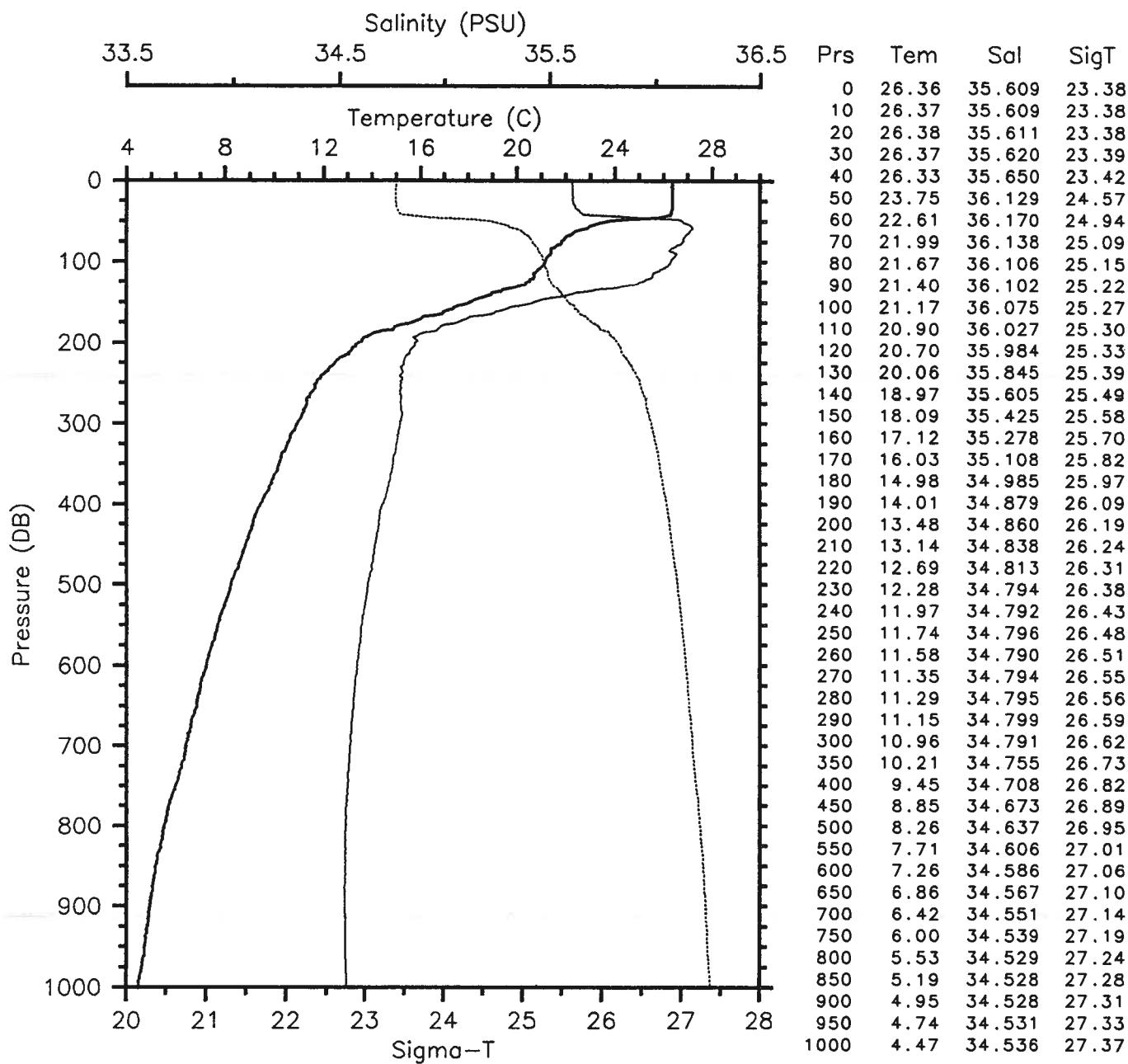
EPOCS EP1-86-OC CTD 24 OCEANOGRAPHER
 Date 04 25 86 Latitude 10.012 S
 Time 2245 Z Longitude 109.987 W

— Tem — Sal
 — SigT

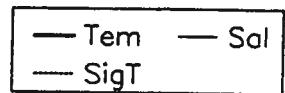


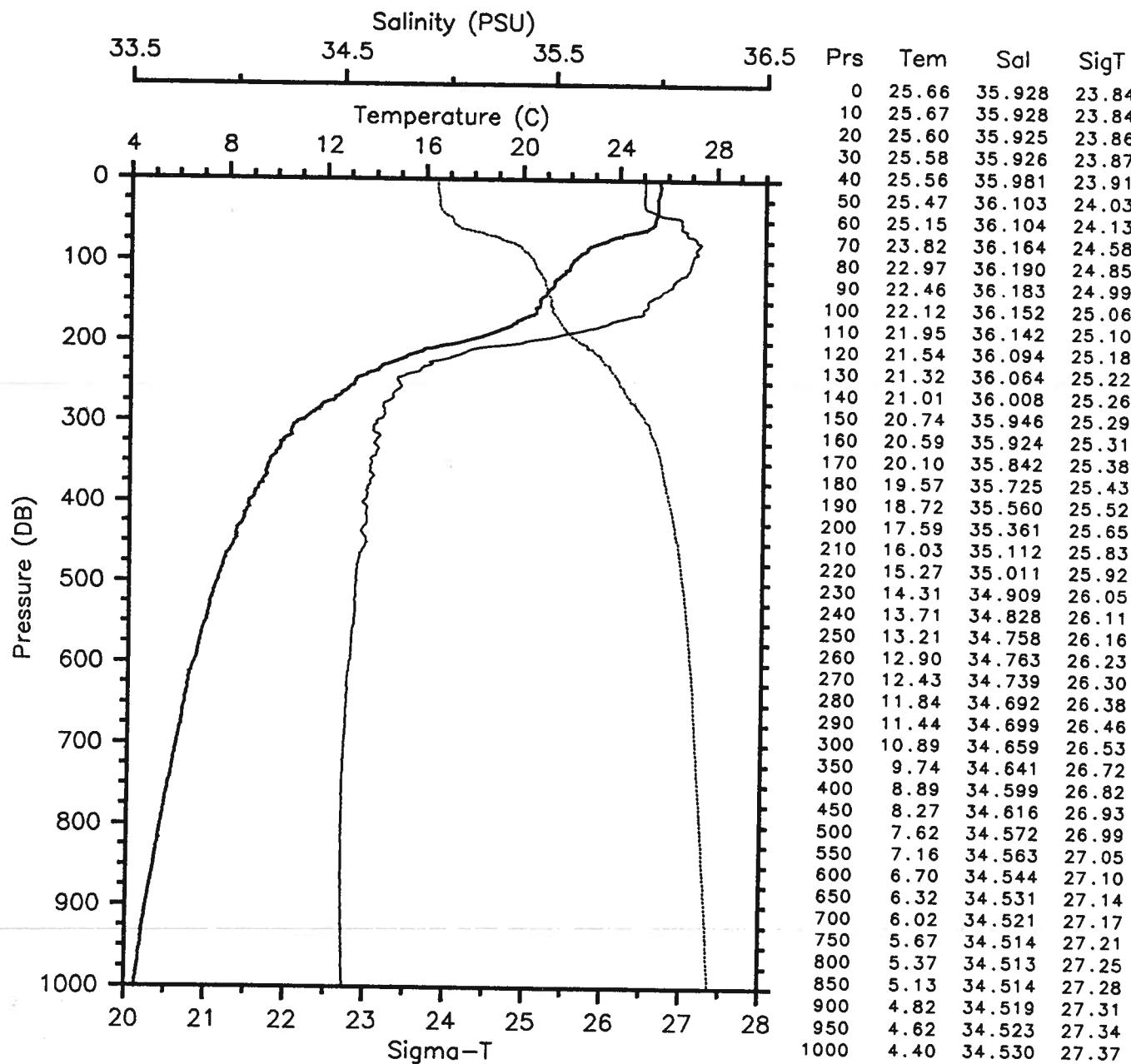
EPOCS EP1-86-OC CTD 25 OCEANOGRAPHER
 Date 04 26 86 Latitude 10.998 S
 Time 0509 Z Longitude 109.982 W

— Tem — Sal
 — SigT



EPOCS EP1-86-OC CTD 26 OCEANOGRAPHER
 Date 04 27 86 Latitude 13.070 S
 Time 0056 Z Longitude 110.068 W


 — Tem — Sal
 — SigT

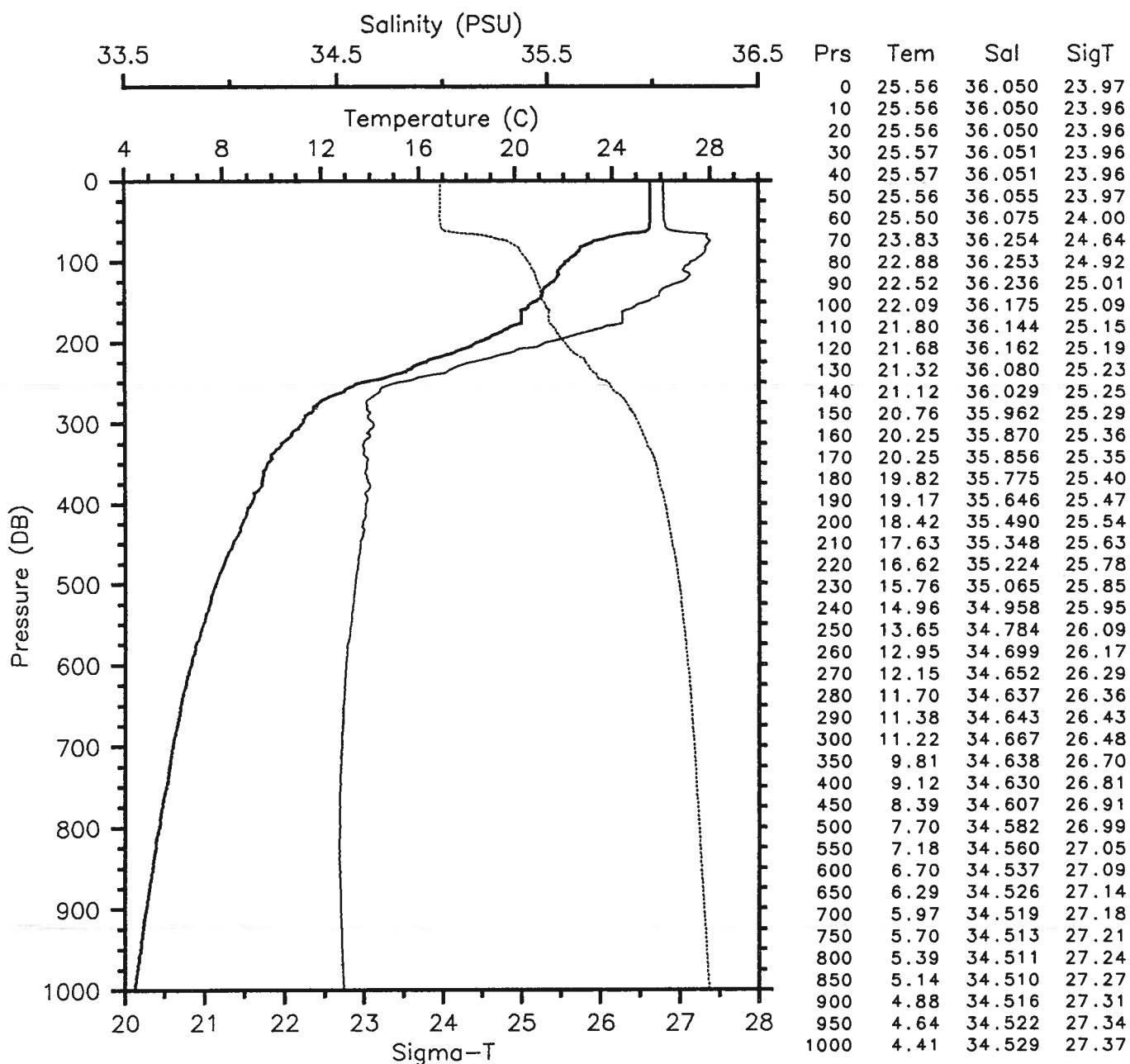


EPOCS EP1-86-OC CTD 27 OCEANOGRAPHER

Date 04 27 86 Latitude 13.992 S

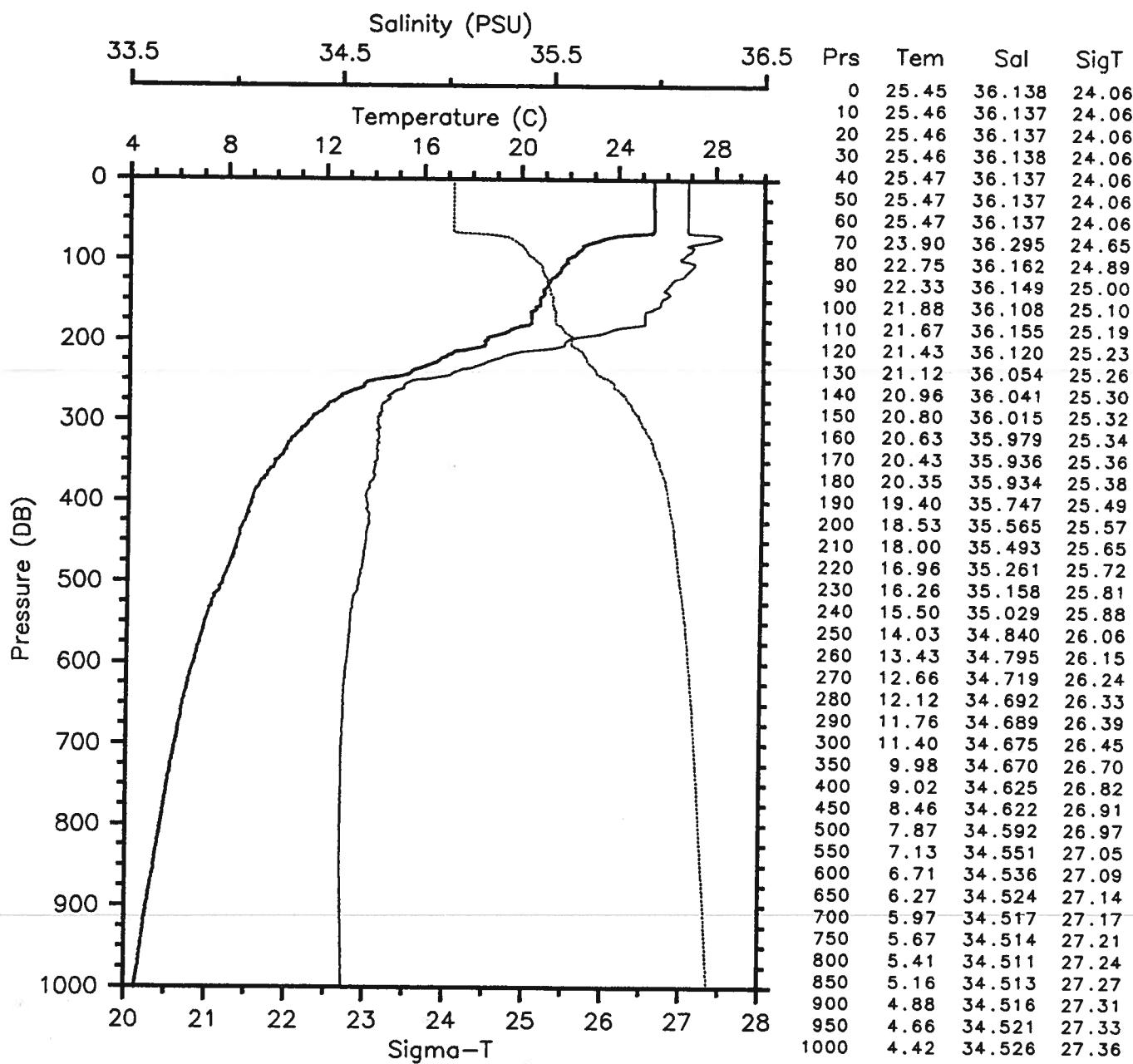
Time 0434 Z Longitude 109.998 W

— Tem	— Sal
--- SigT	



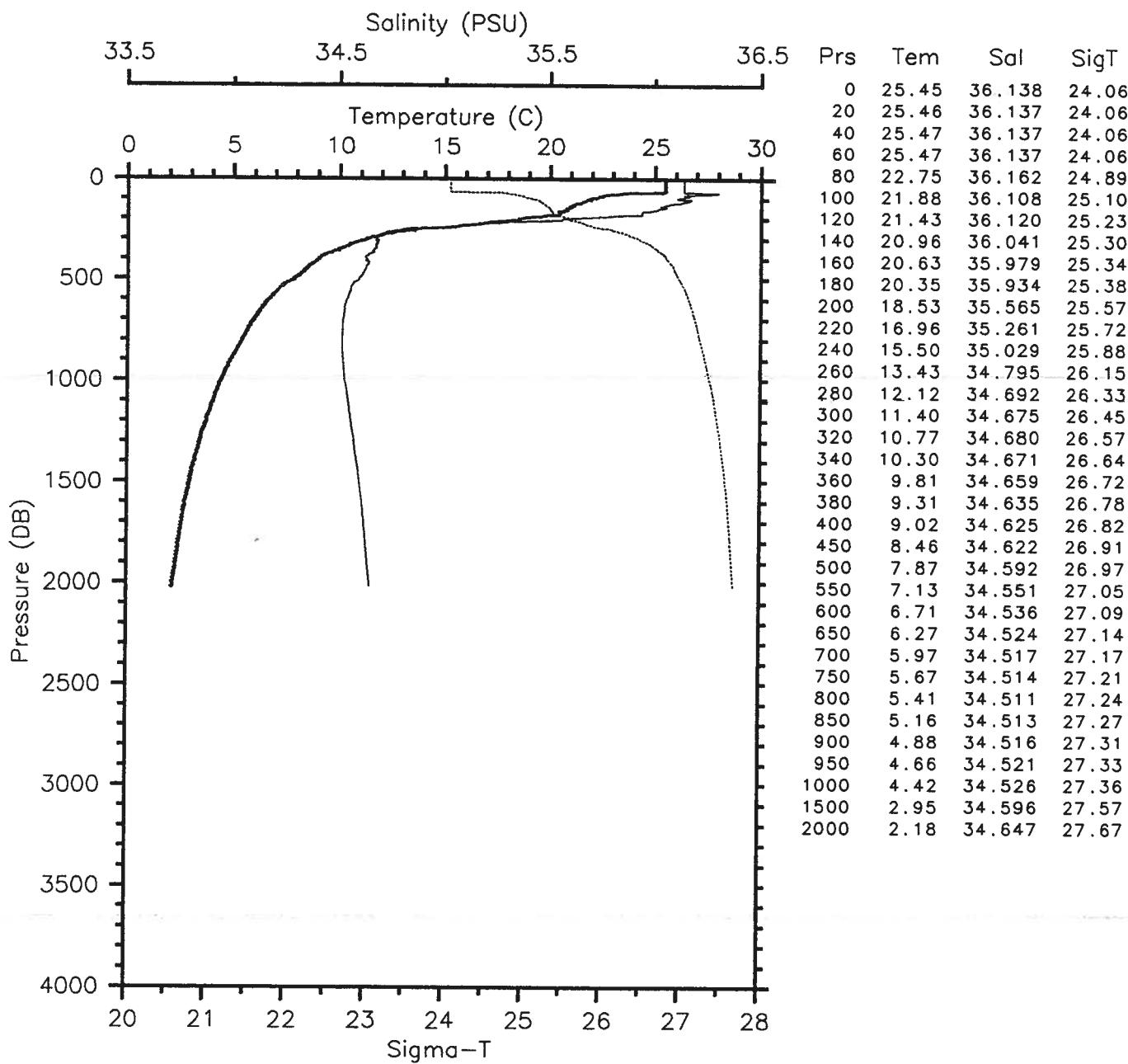
EPOCS EP1-86-OC CTD 28 OCEANOGRAPHER
 Date 04 27 86 Latitude 14.997 S
 Time 1324 Z Longitude 109.998 W

— Tem — Sal
 — SigT



EPOCS EP1-86-OC CTD 28 OCEANOGRAPHER
 Date 04 27 86 Latitude 14.997 S
 Time 1324 Z Longitude 109.998 W

— Tem — Sal
 ---- SigT

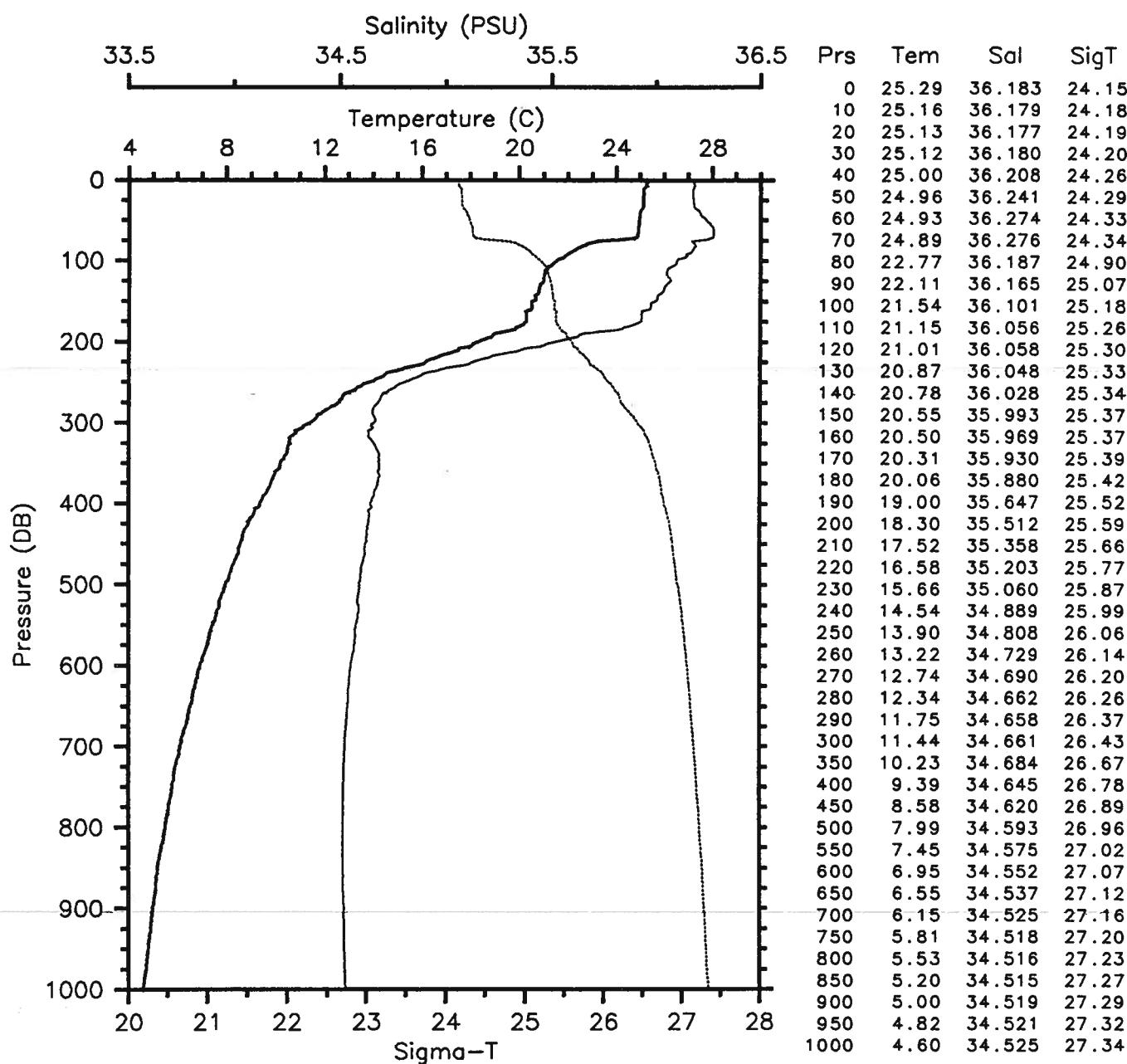


EPOCS EP1-86-OC CTD 29 OCEANOGRAPHER

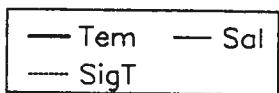
Date 04 27 86 Latitude 14.998 S

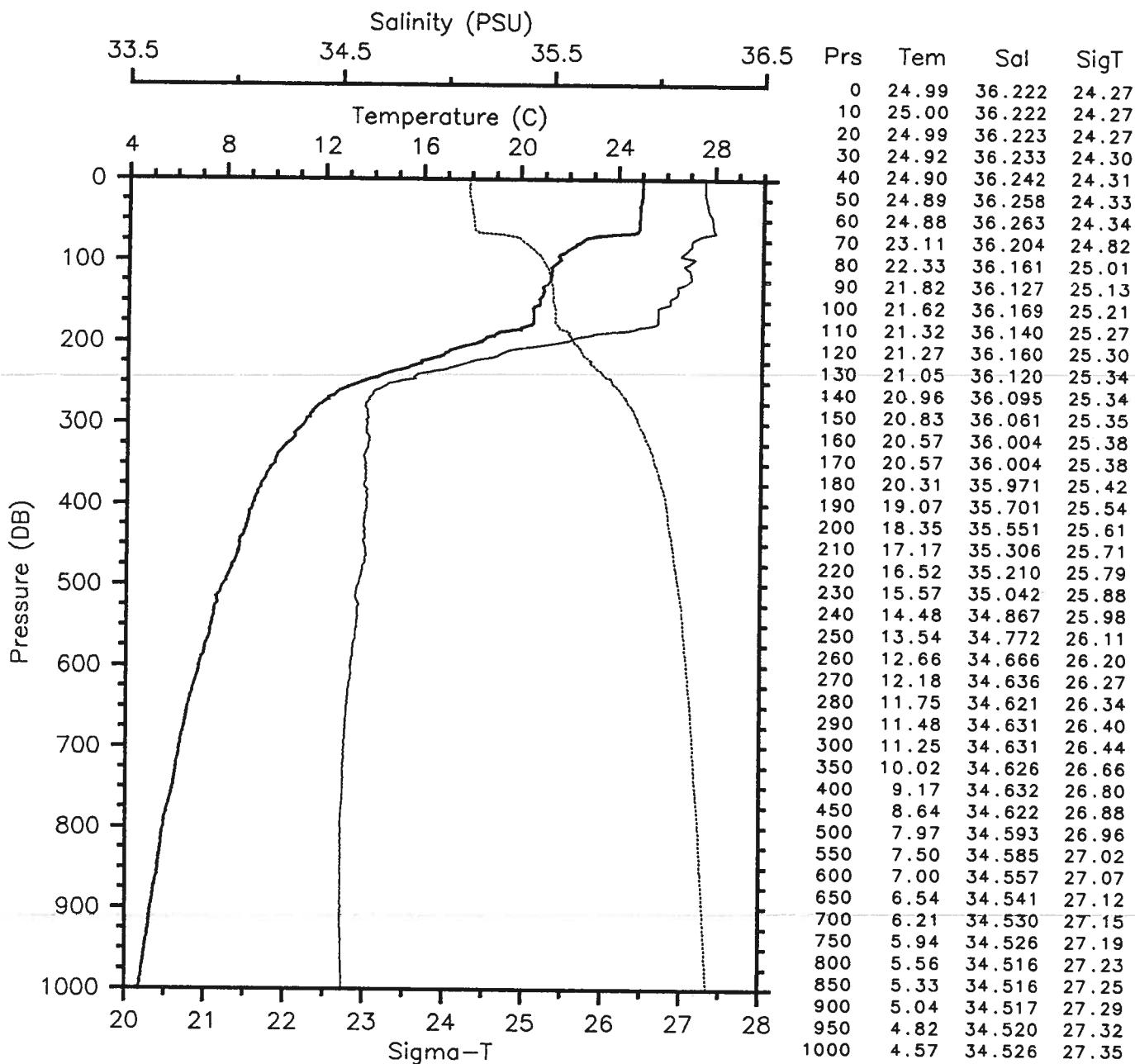
Time 1927 Z Longitude 109.007 W

— Tem — Sal
— SigT



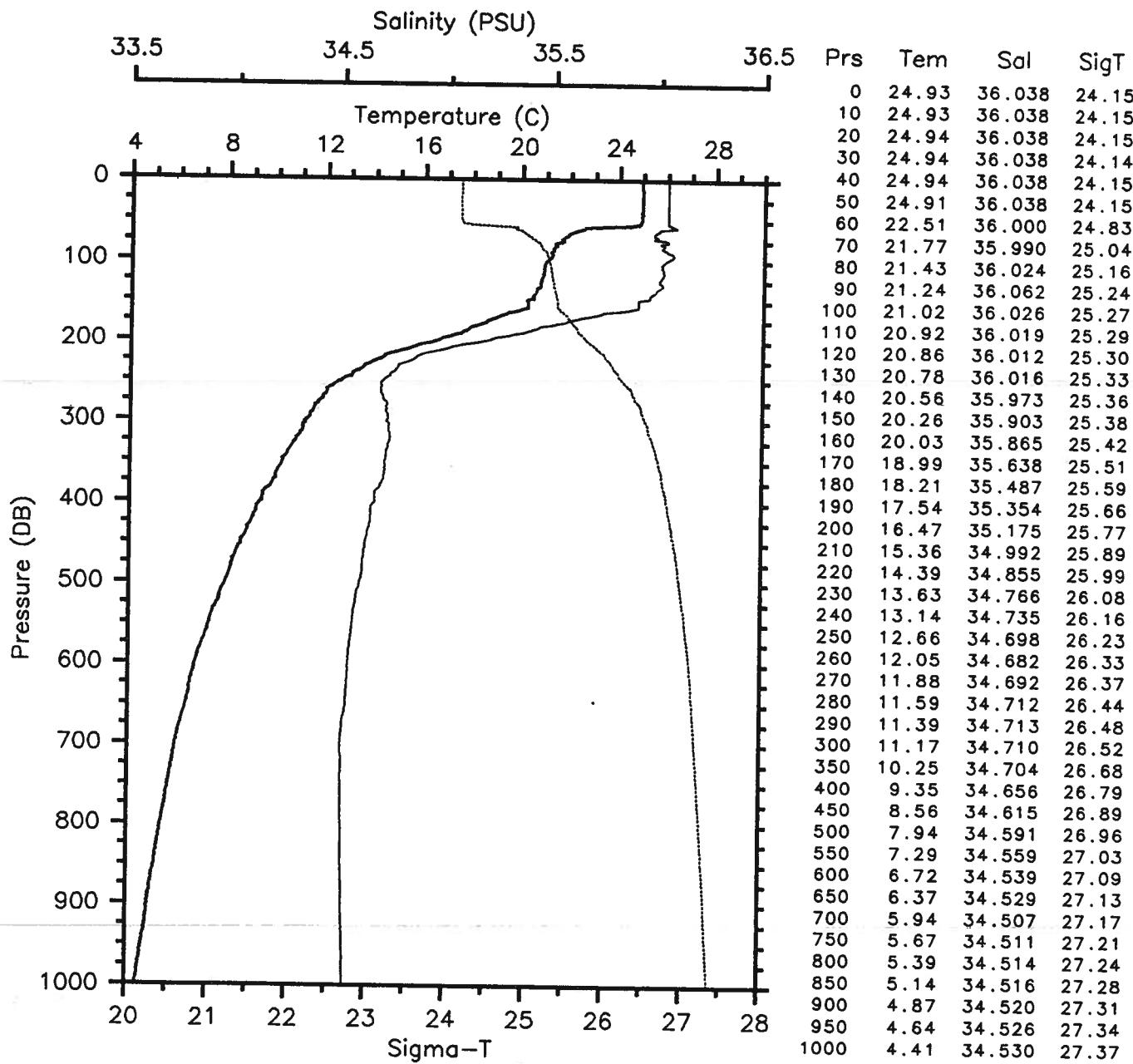
EPOCS EP1-86-OC CTD 30 OCEANOGRAPHER
 Date 04 28 86 Latitude 15.010 S
 Time 0257 Z Longitude 108.007 W


 — Tem — Sal
 — SigT



EPOCS EP1-86-OC CTD 31 OCEANOGRAPHER
 Date 04 28 86 Latitude 15.003 S
 Time 0701 Z Longitude 107.013 W

— Tem — Sal
 — SigT

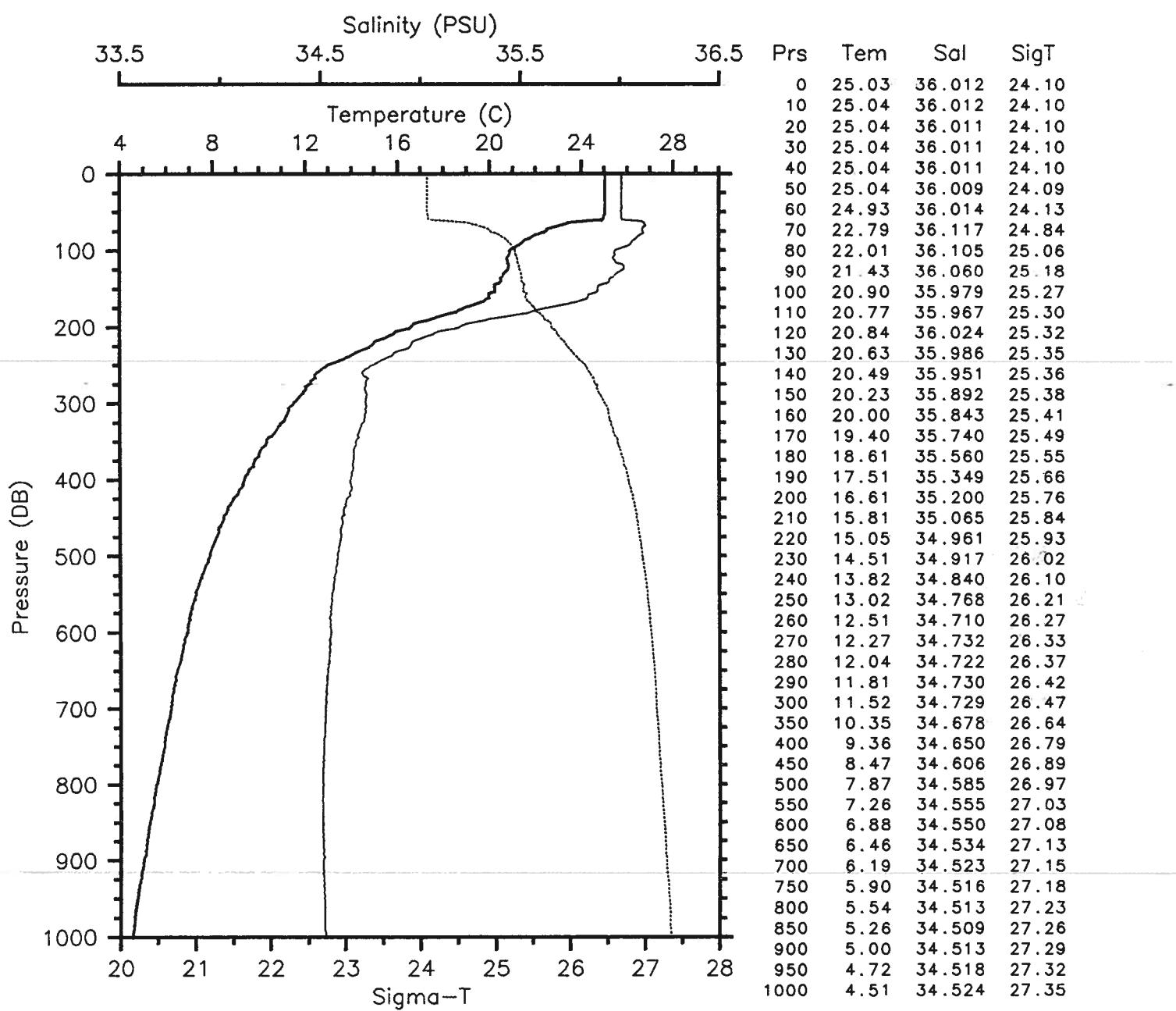


EPOCS EP1-86-OC CTD 32 OCEANOGRAPHER

Date 04 28 86 Latitude 15.048 S

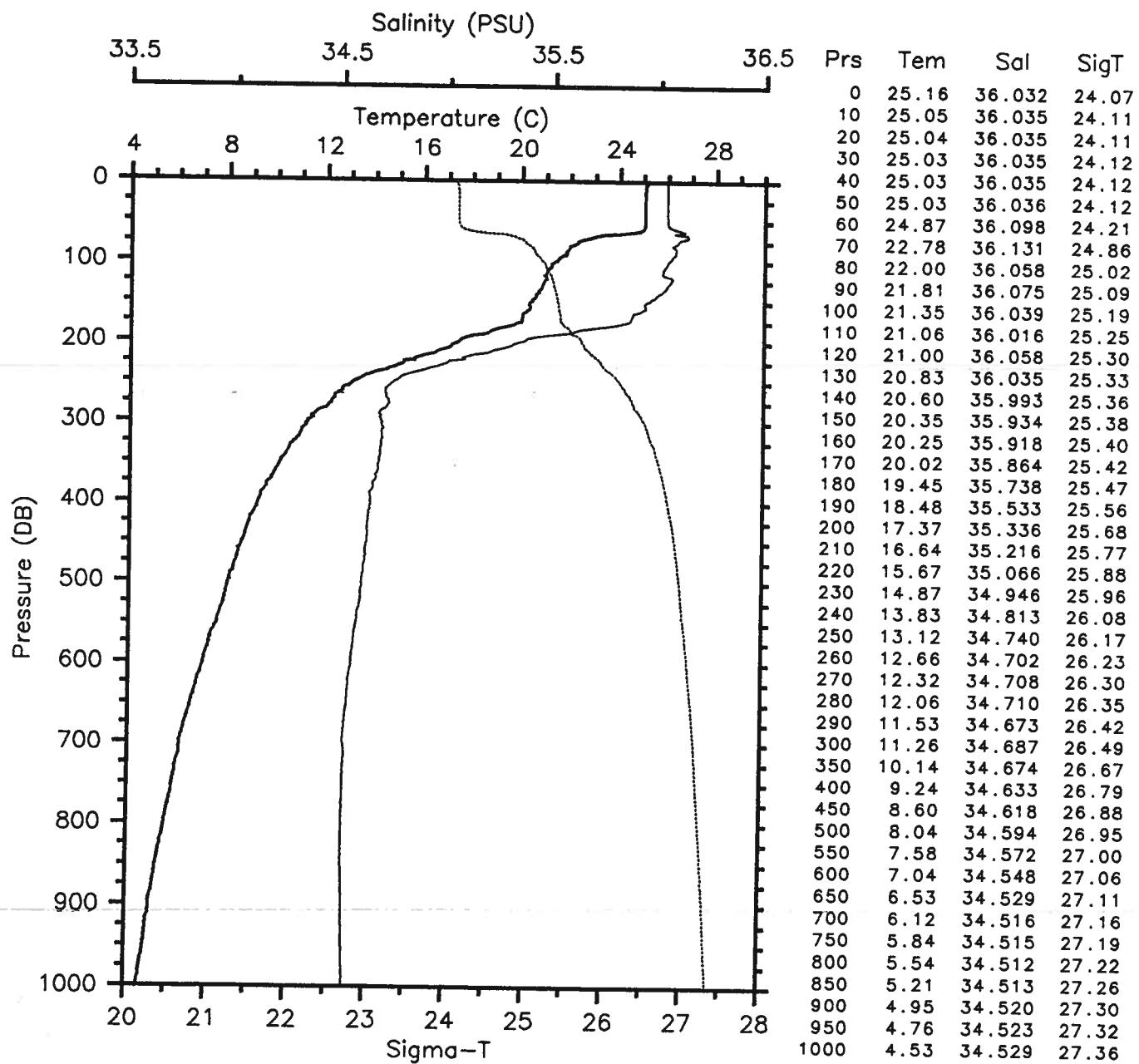
Time 1414 Z Longitude 106.030 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 33 OCEANOGRAPHER
 Date 04 28 86 Latitude 15.010 S
 Time 1915 Z Longitude 105.023 W

— Tem — Sal
 — SigT

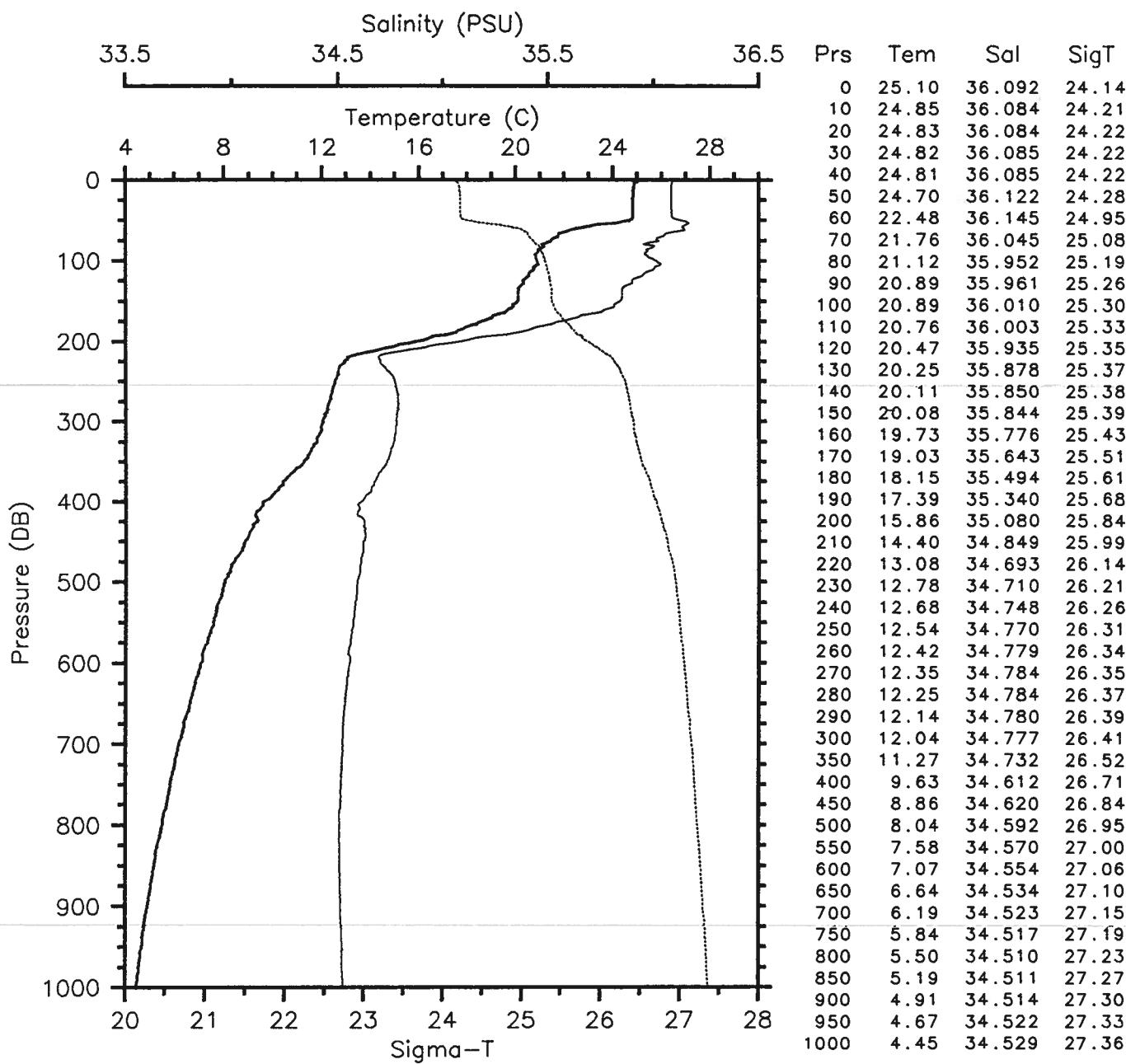


EPOCS EP1-86-OC CTD 34 OCEANOGRAPHER

Date 04 29 86 Latitude 15.000 S

Time 0129 Z Longitude 104.007 W

— Tem — Sal
— SigT

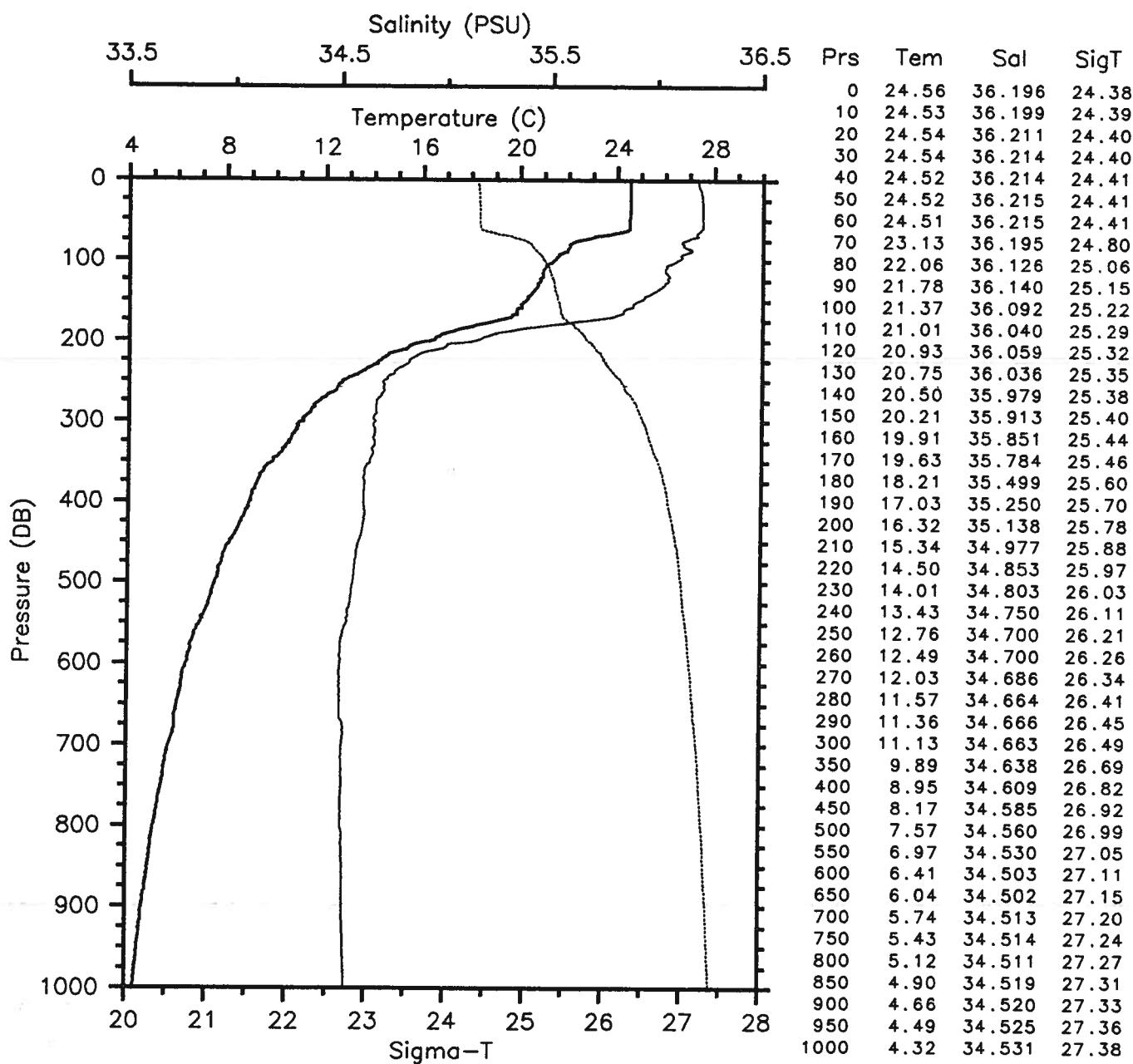


EPOCS EP1-86-OC CTD 35 OCEANOGRAPHER

Date 04 29 86 Latitude 15.003 S

Time 0559 Z Longitude 103.003 W

— Tem	— Sal
— SigT	

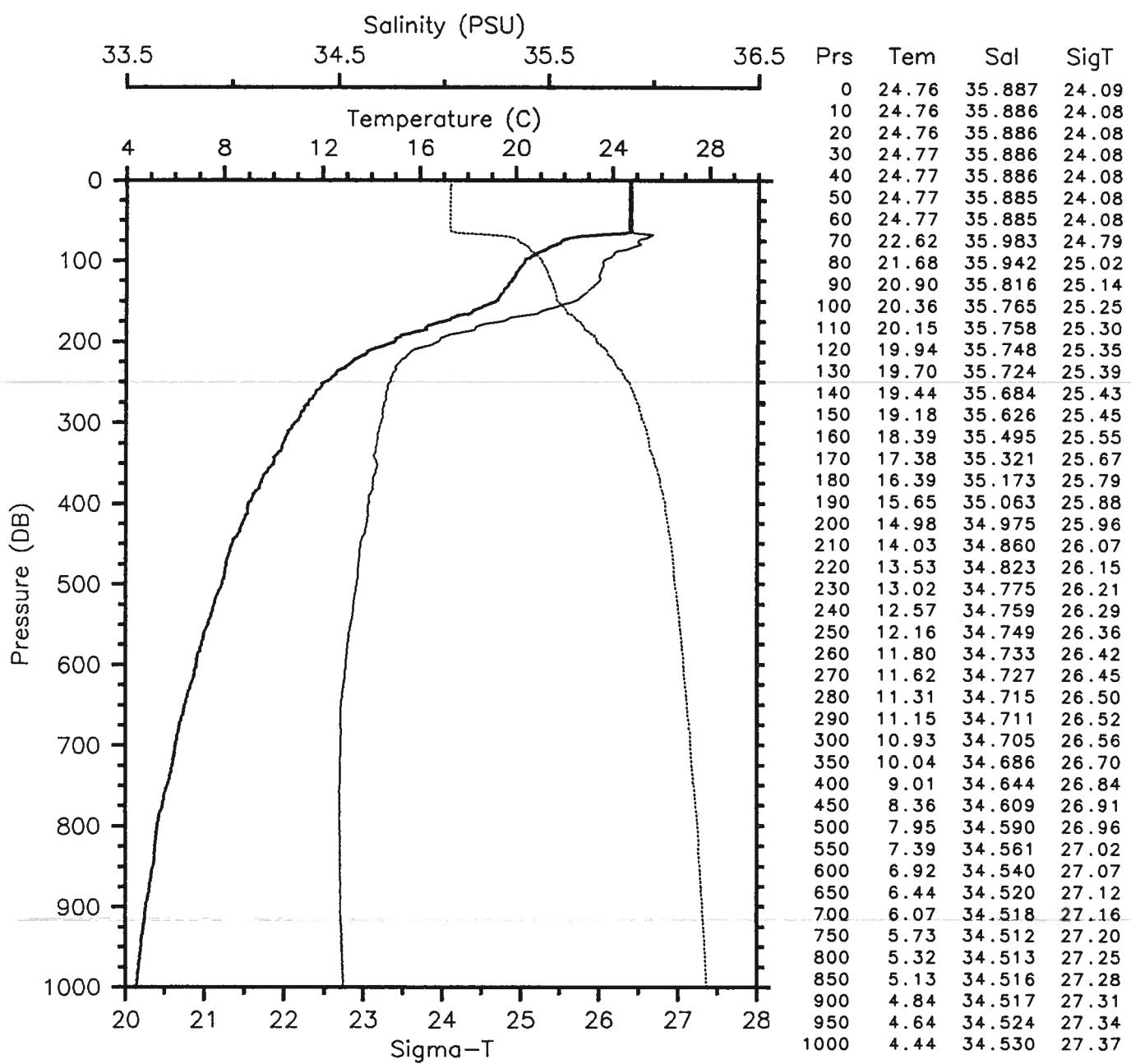


EPOCS EP1-86-OC CTD 36 OCEANOGRAPHER

Date 04 29 86 Latitude 15.002 S

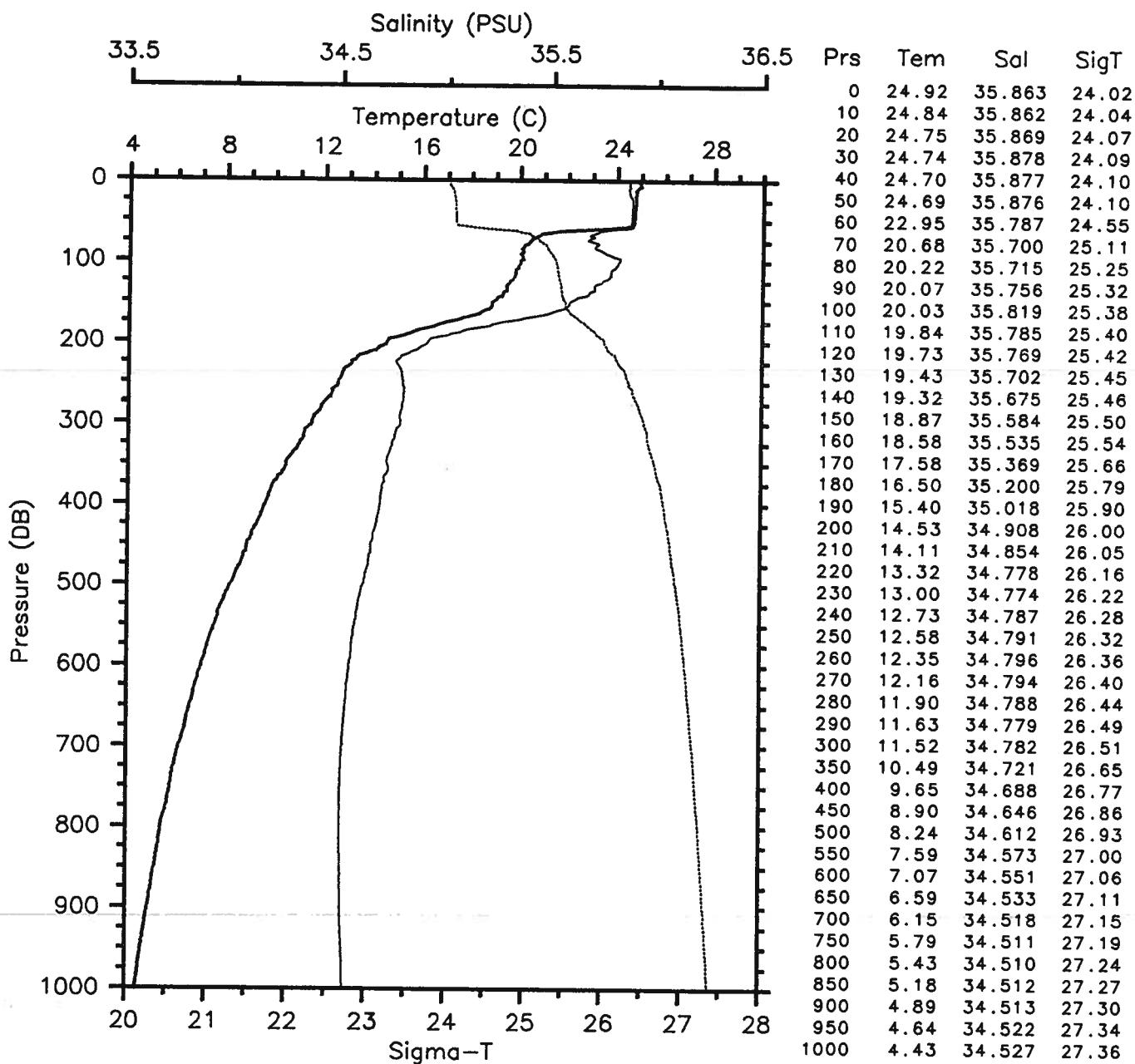
Time 1422 Z Longitude 102.010 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 37 OCEANOGRAPHER
 Date 04 29 86 Latitude 15.005 S
 Time 2021 Z Longitude 101.018 W

— Tem — Sal
 — SigT

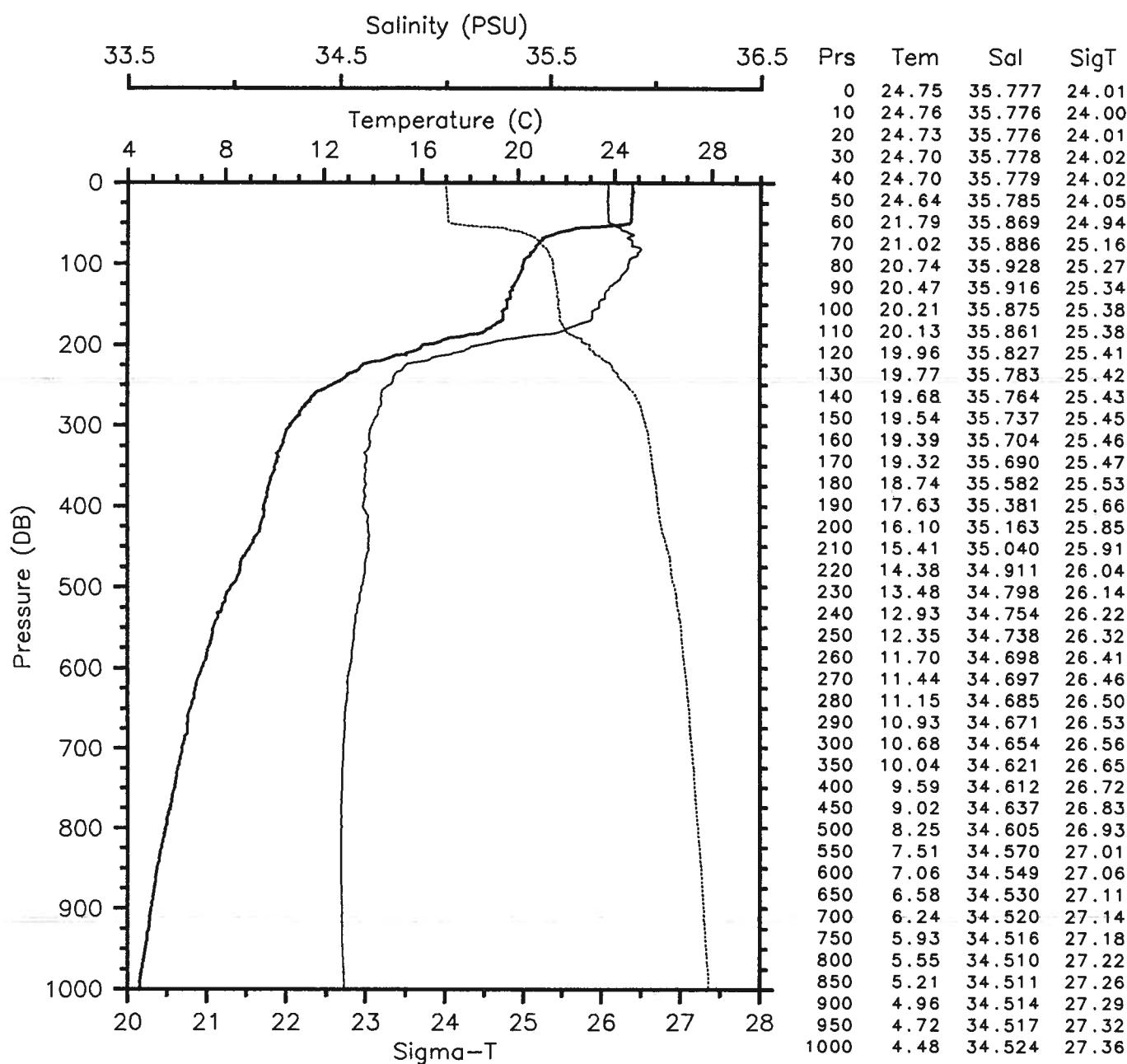


EPOCS EP1-86-OC CTD 38 OCEANOGRAPHER

Date 04 30 86 Latitude 15.007 S

Time 0102 Z Longitude 100.000 W

— Tem — Sal
--- SigT

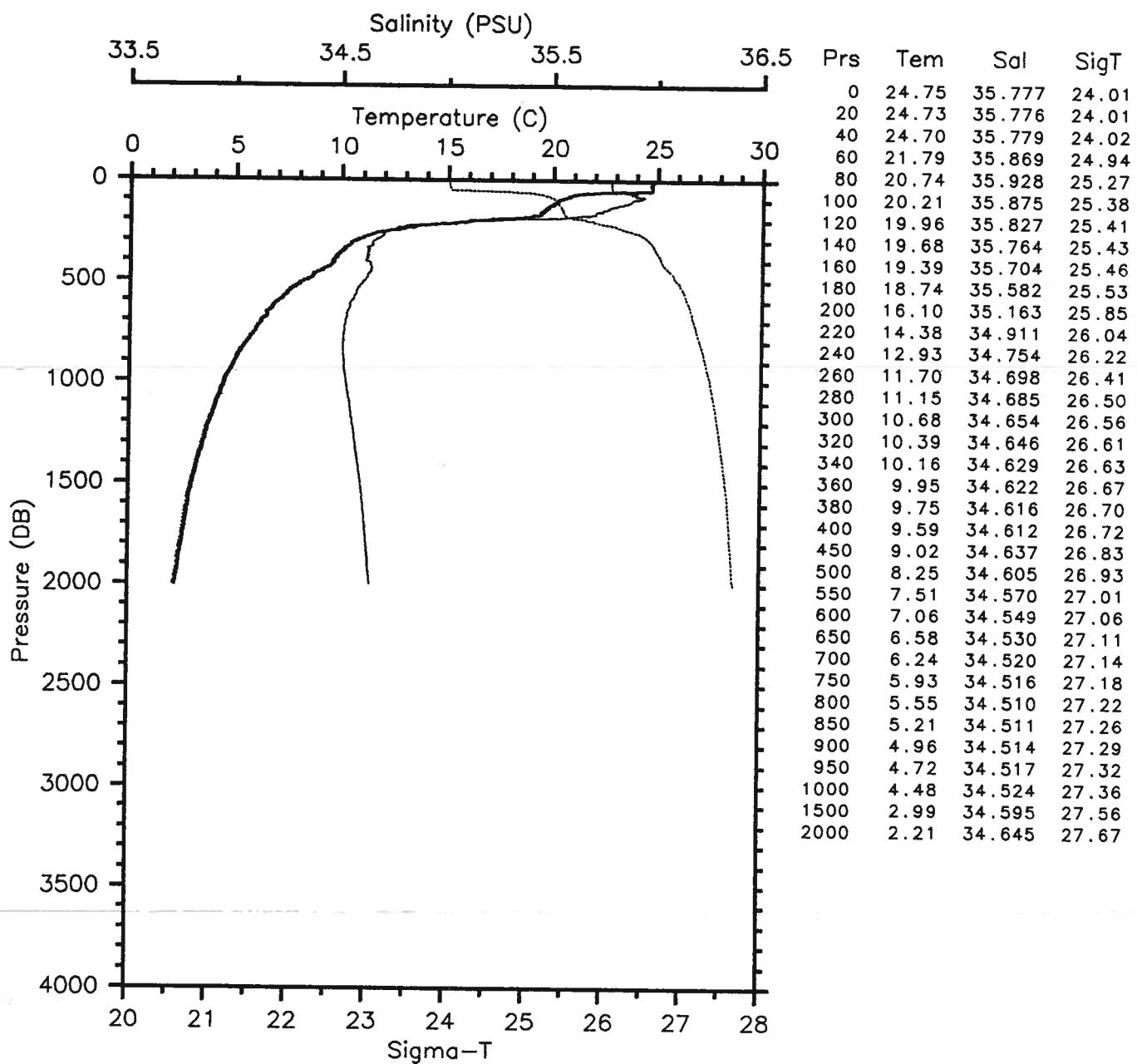


EPOCS EP1-86-OC CTD 38 OCEANOGRAPHER

Date 04 30 86 Latitude 15.007 S

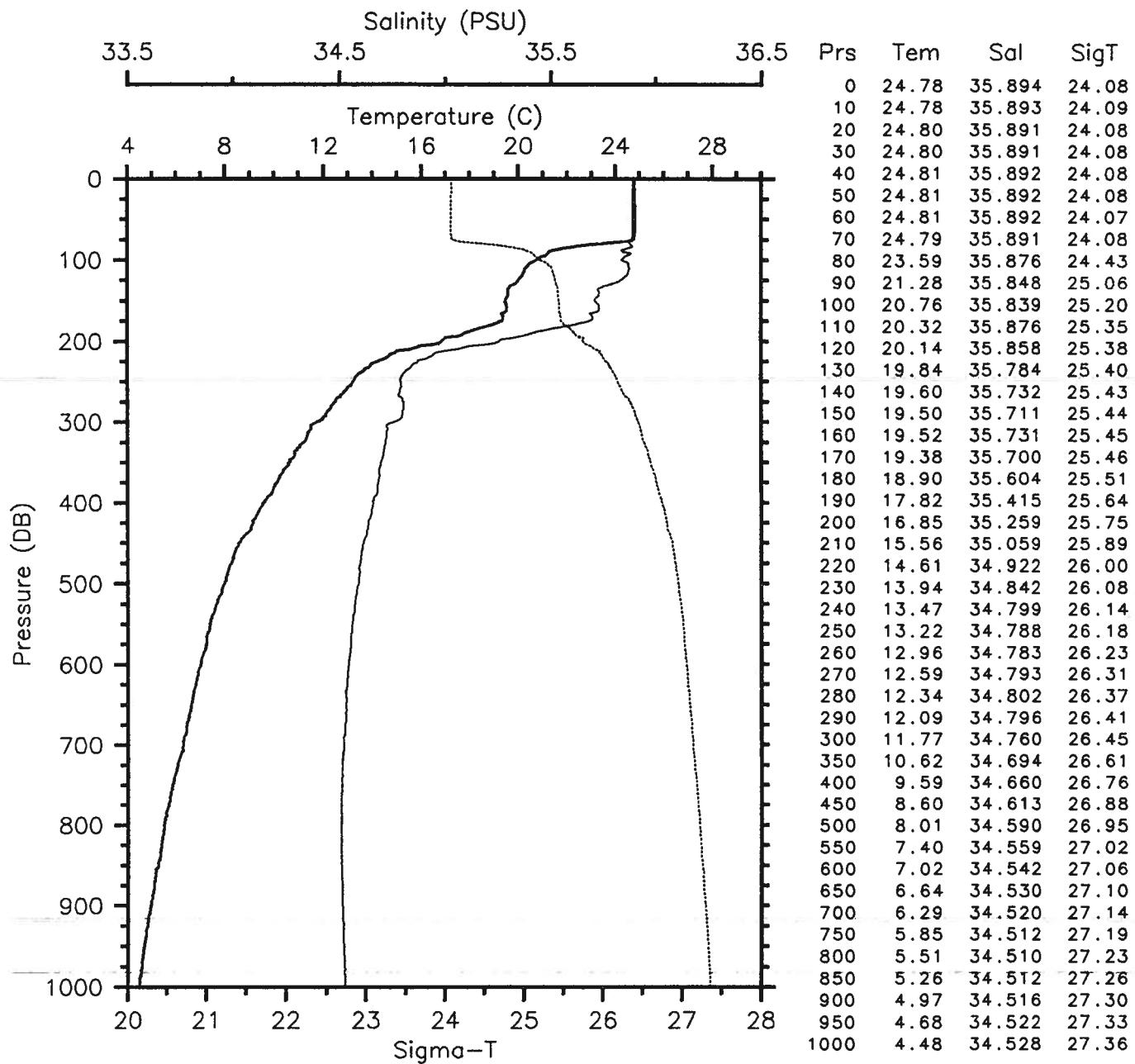
Time 0102 Z Longitude 100.000 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 39 OCEANOGRAPHER
 Date 04 30 86 Latitude 14.988 S
 Time 0748 Z Longitude 99.028 W

— Tem — Sal
 — SigT

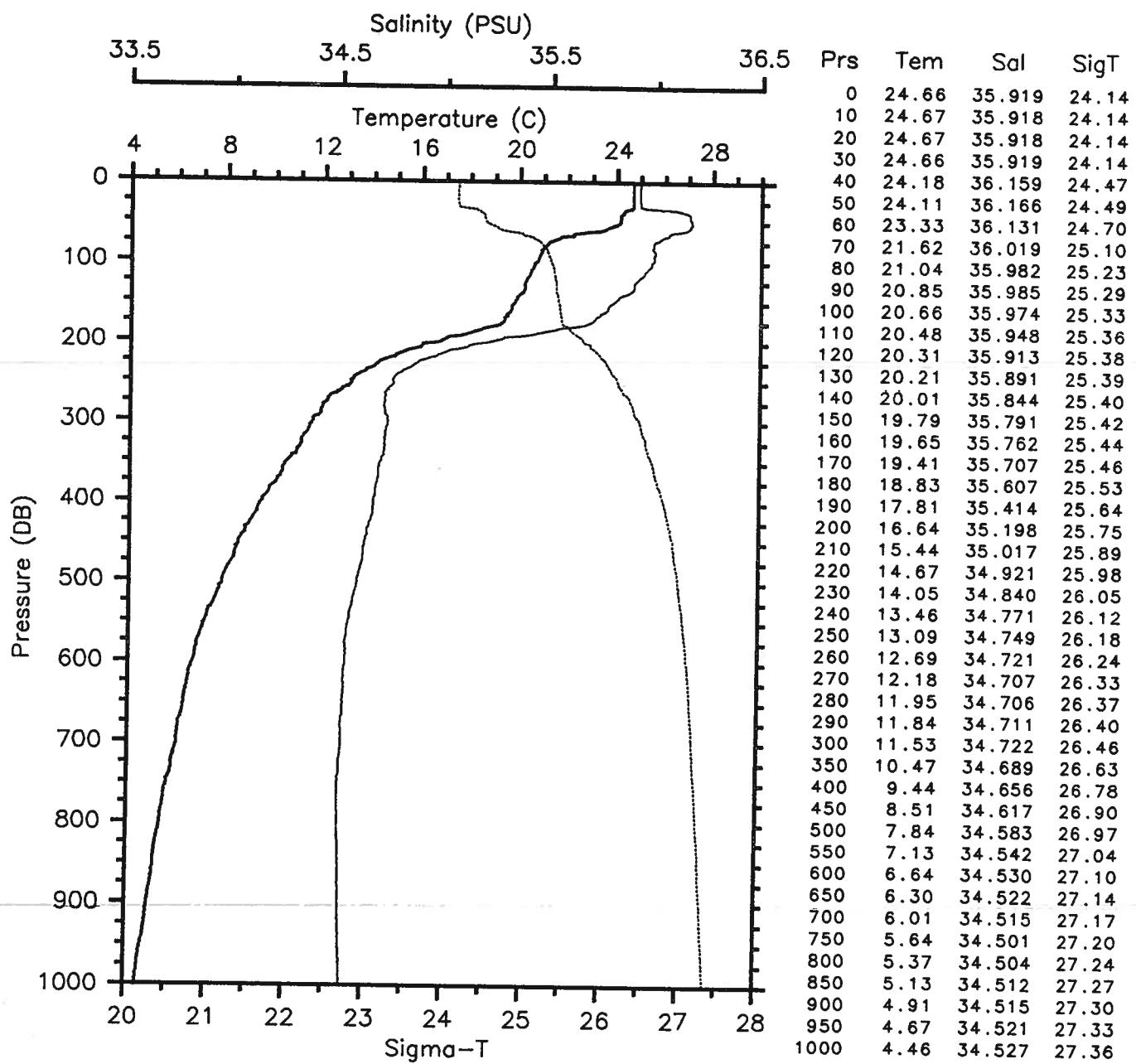


EPOCS EP1-86-OC CTD 40 OCEANOGRAPHER

Date 04 30 86 Latitude 15.002 S

Time 1326 Z Longitude 97.982 W

— Tem	— Sal
— SigT	

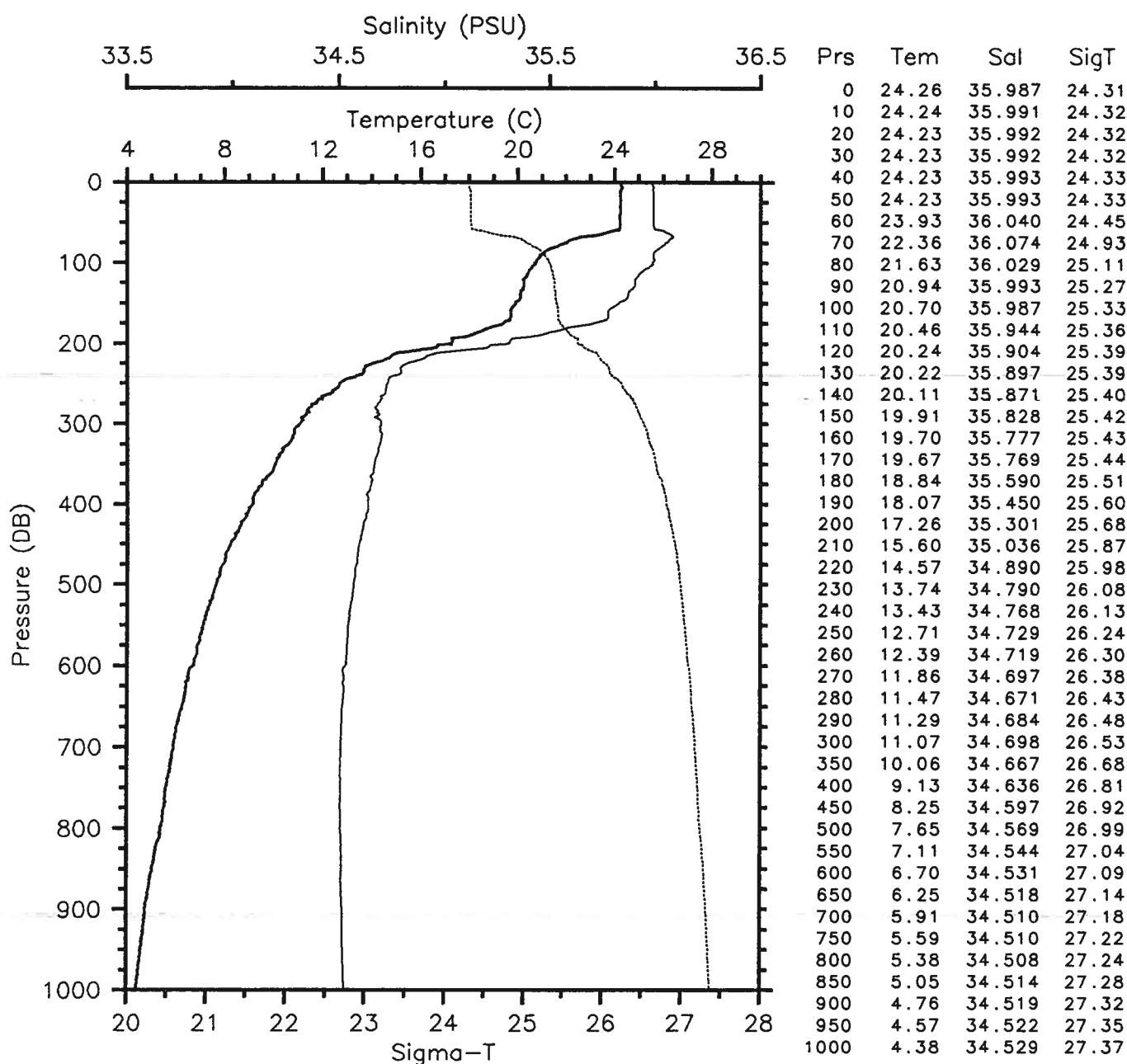


EPOCS EP1-86-OC CTD 41 OCEANOGRAPHER

Date 04 30 86 Latitude 14.993 S

Time 1956 Z Longitude 97.005 W

— Tem	— Sal
--- SigT	

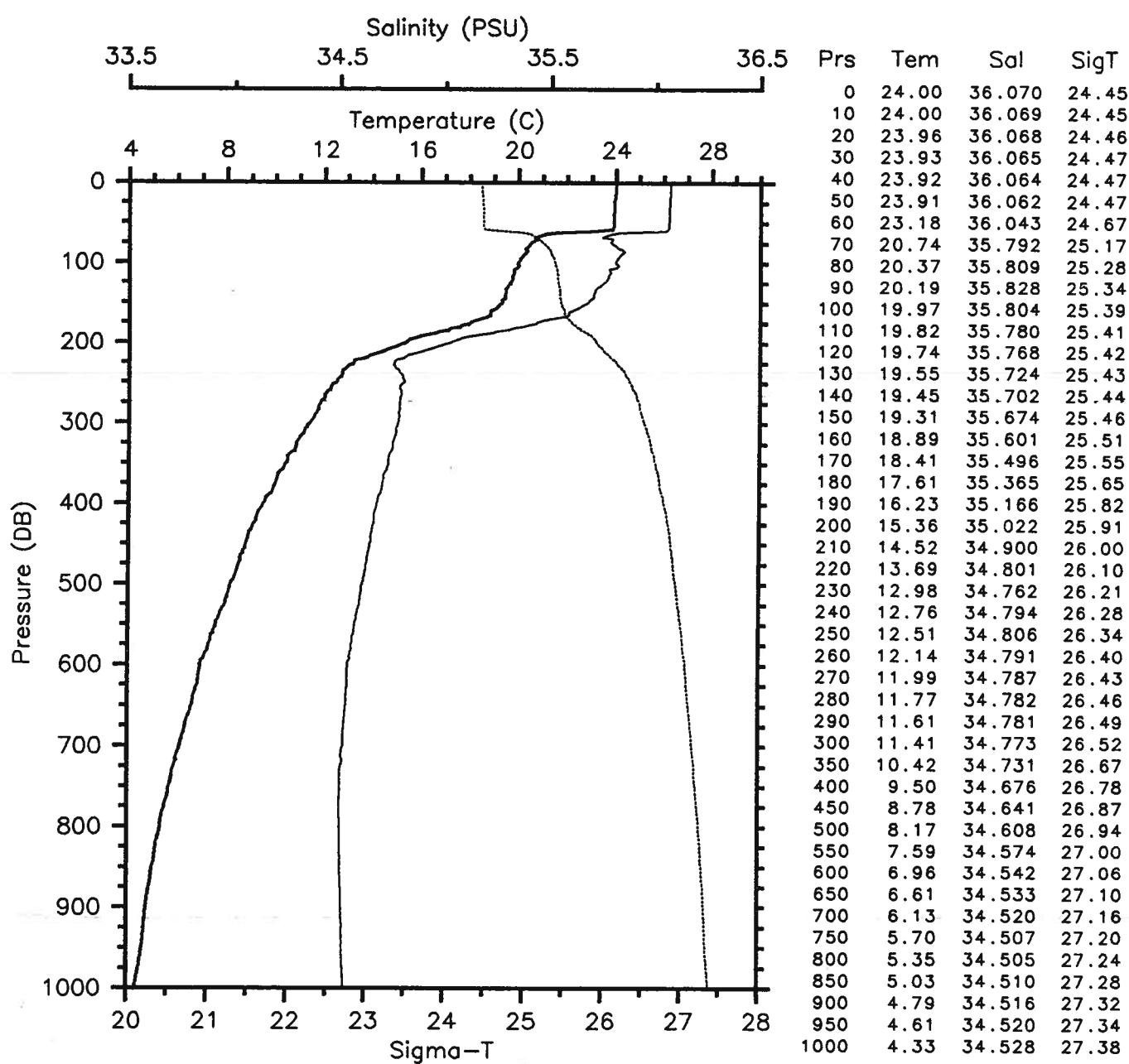


EPOCS EP1-86-OC CTD 42 OCEANOGRAPHER

Date 05 01 86 Latitude 14.995 S

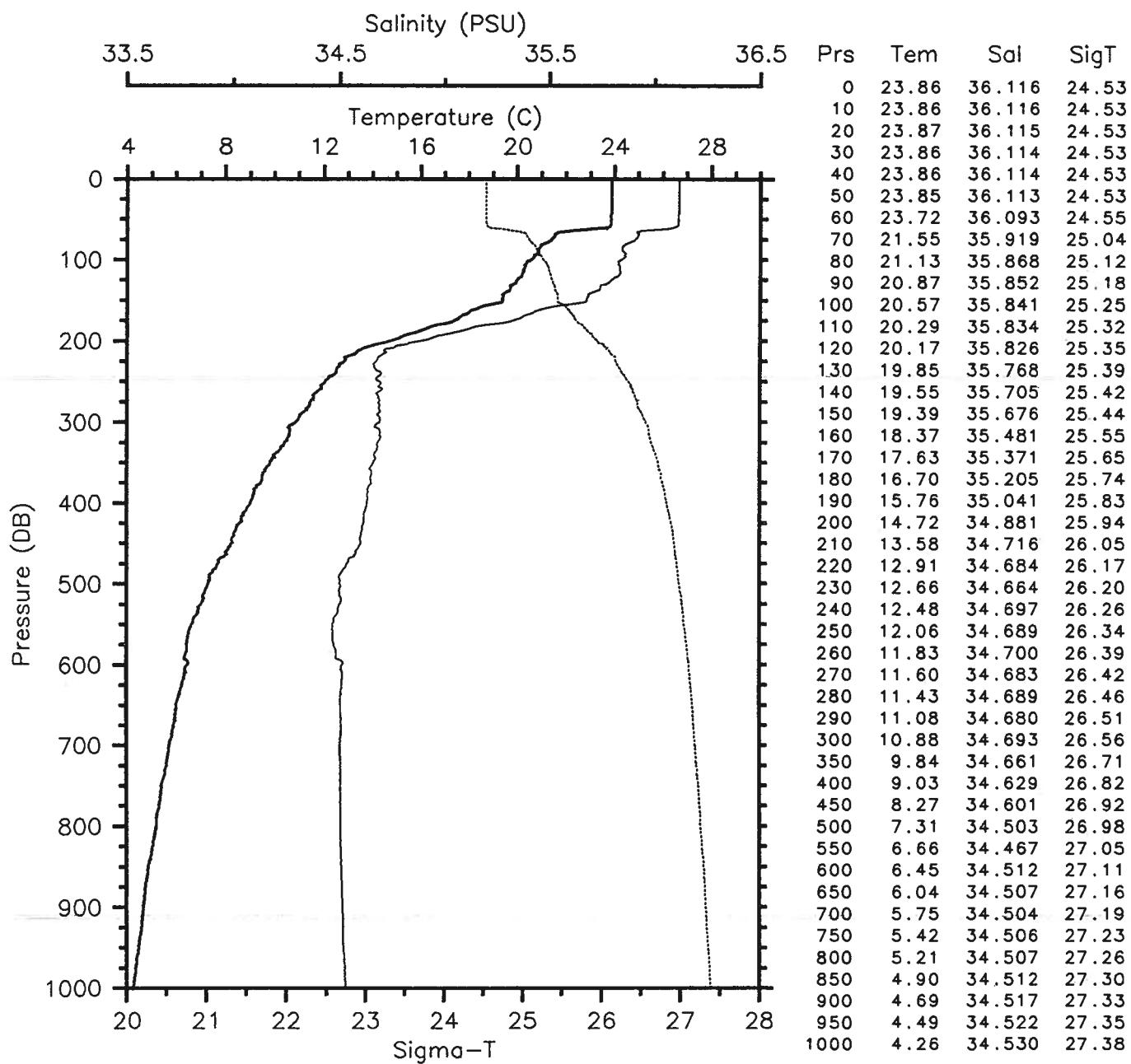
Time 0148 Z Longitude 95.992 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 43 OCEANOGRAPHER
 Date 05 01 86 Latitude 15.002 S
 Time 0604 Z Longitude 94.992 W

— Tem — Sal
 — SigT

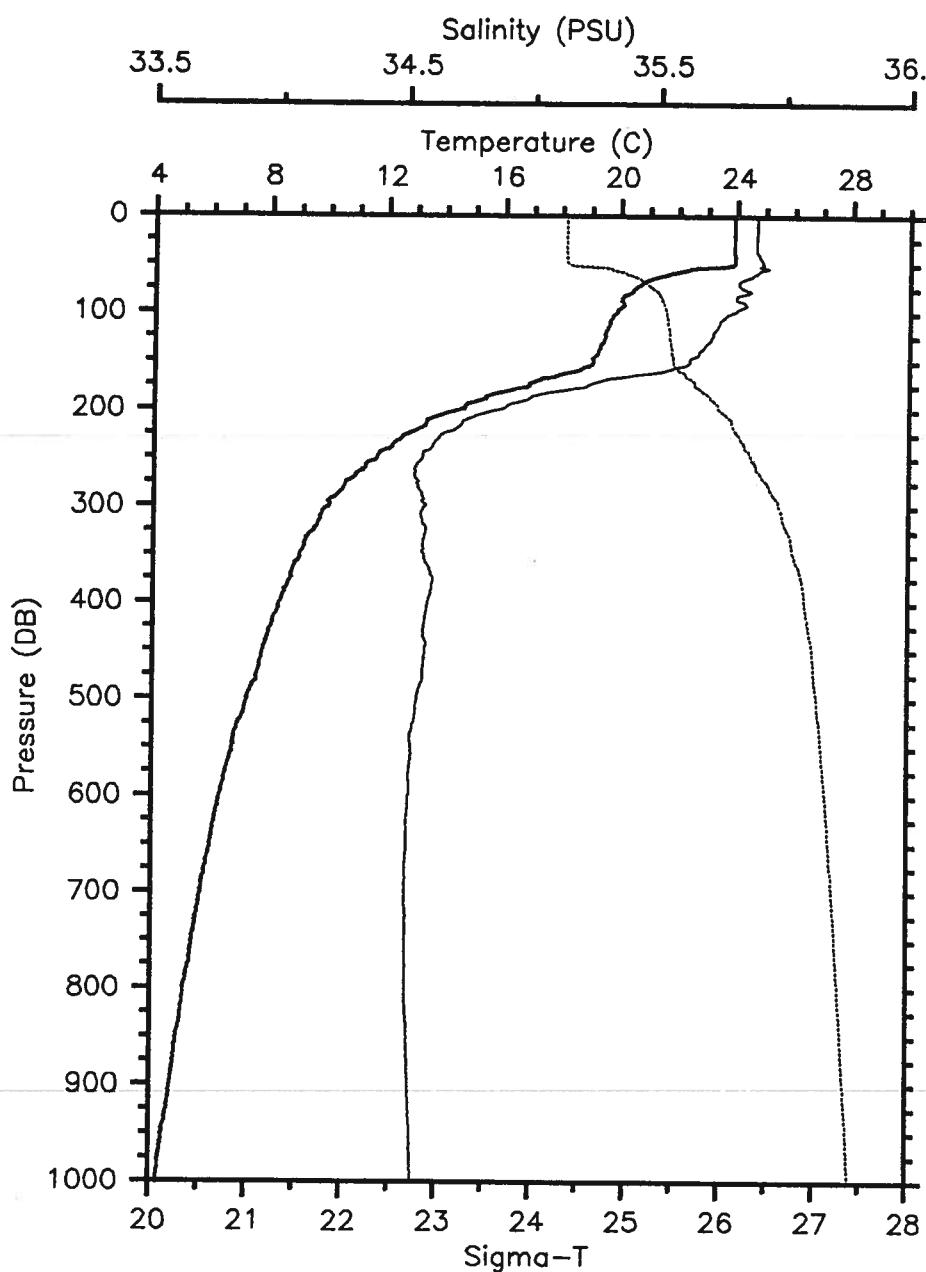


EPOCS EP1-86-OC CTD 44 OCEANOGRAPHER

Date 05 01 86 Latitude 15.015 S

Time 0915 Z Longitude 94.017 W

— Tem — Sal
— SigT



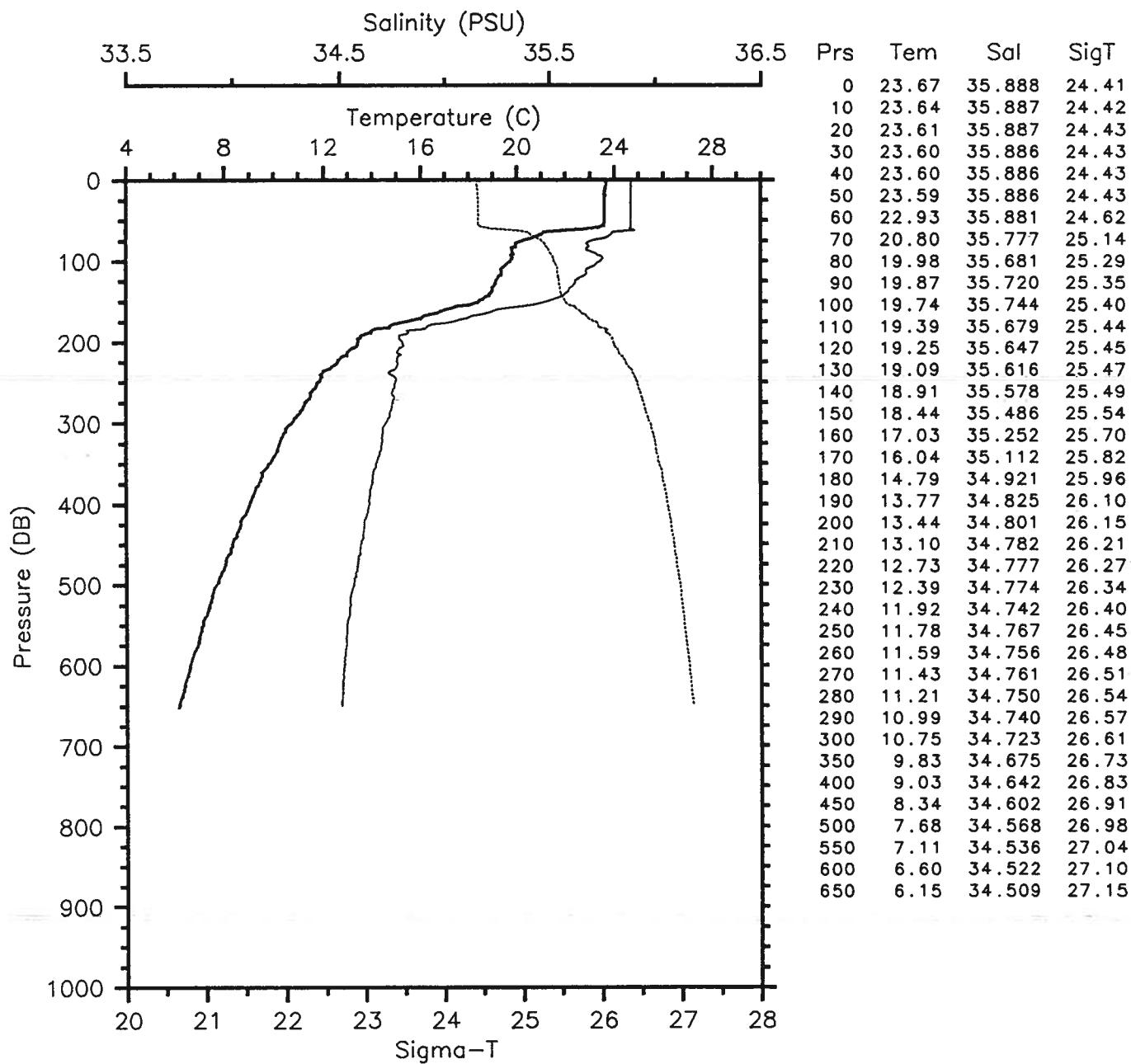
Prs	Tem	Sal	SigT
0	23.88	35.886	24.35
10	23.89	35.885	24.35
20	23.89	35.884	24.35
30	23.89	35.885	24.35
40	23.91	35.894	24.35
50	23.86	35.912	24.38
60	21.60	35.873	24.99
70	20.72	35.815	25.19
80	20.31	35.849	25.33
90	20.10	35.844	25.38
100	19.83	35.786	25.41
110	19.63	35.740	25.42
120	19.49	35.715	25.44
130	19.41	35.697	25.45
140	19.24	35.659	25.46
150	19.07	35.622	25.48
160	18.47	35.519	25.55
170	17.10	35.267	25.70
180	16.21	35.116	25.79
190	15.24	34.975	25.90
200	14.44	34.860	25.99
210	13.39	34.738	26.11
220	13.11	34.695	26.14
230	12.47	34.621	26.20
240	12.09	34.594	26.26
250	11.63	34.561	26.32
260	11.22	34.533	26.37
270	10.86	34.535	26.44
280	10.51	34.546	26.51
290	10.23	34.562	26.57
300	9.99	34.573	26.62
350	9.01	34.570	26.78
400	8.33	34.585	26.90
450	7.78	34.575	26.97
500	7.24	34.547	27.03
550	6.75	34.525	27.08
600	6.33	34.516	27.13
650	5.99	34.509	27.17
700	5.68	34.504	27.20
750	5.41	34.508	27.24
800	5.12	34.508	27.27
850	4.87	34.517	27.31
900	4.68	34.522	27.33
950	4.42	34.530	27.37
1000	4.25	34.534	27.39

EPOCS EP1-86-OC CTD 45 OCEANOGRAPHER

Date 05 01 86 Latitude 15.020 S

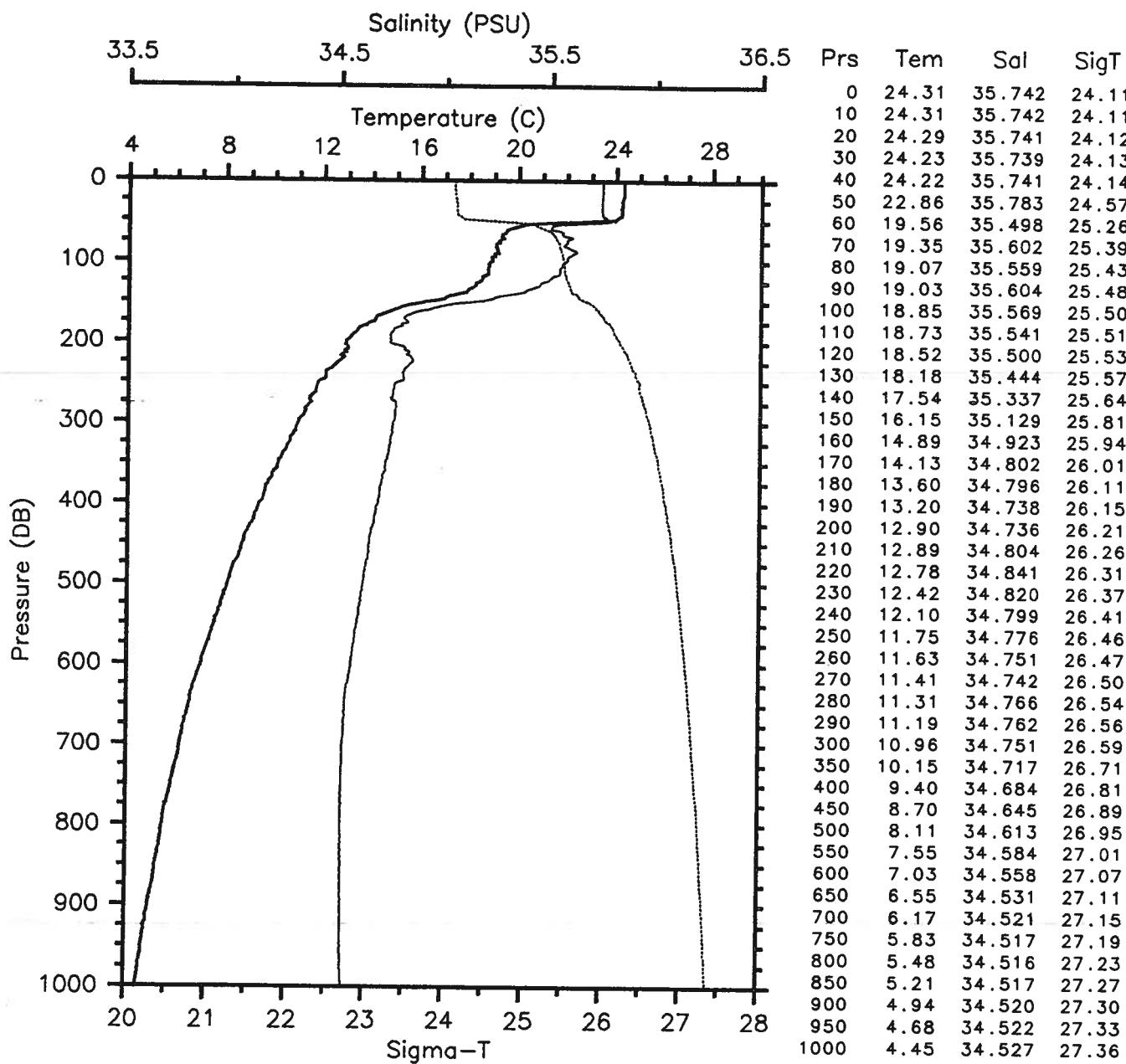
Time 1649 Z Longitude 93.032 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 46 OCEANOGRAPHER
 Date 05 01 86 Latitude 14.995 S
 Time 2349 Z Longitude 92.018 W

— Tem — Sal
 — SigT

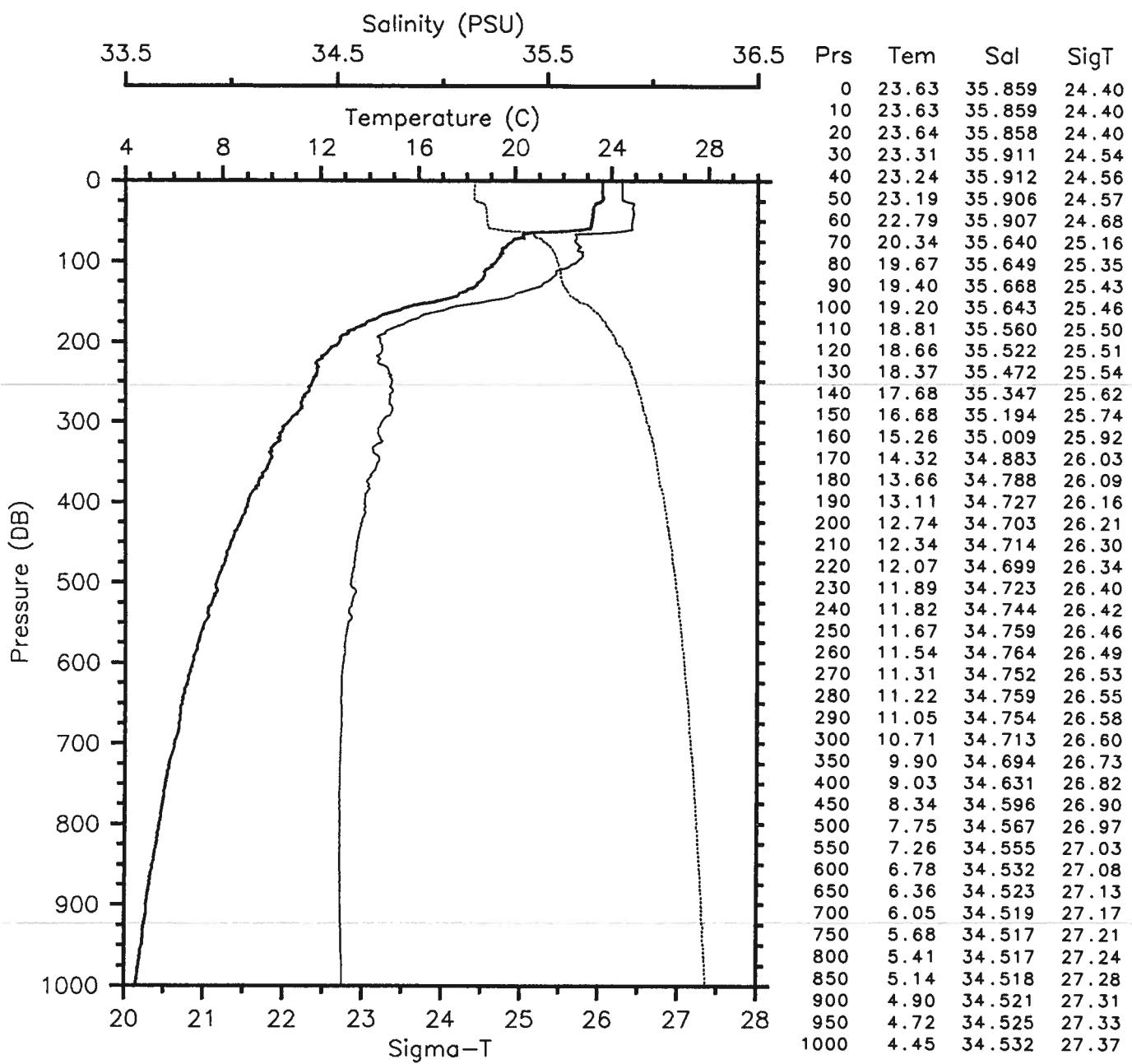


EPOCS EP1-86-OC CTD 47 OCEANOGRAPHER

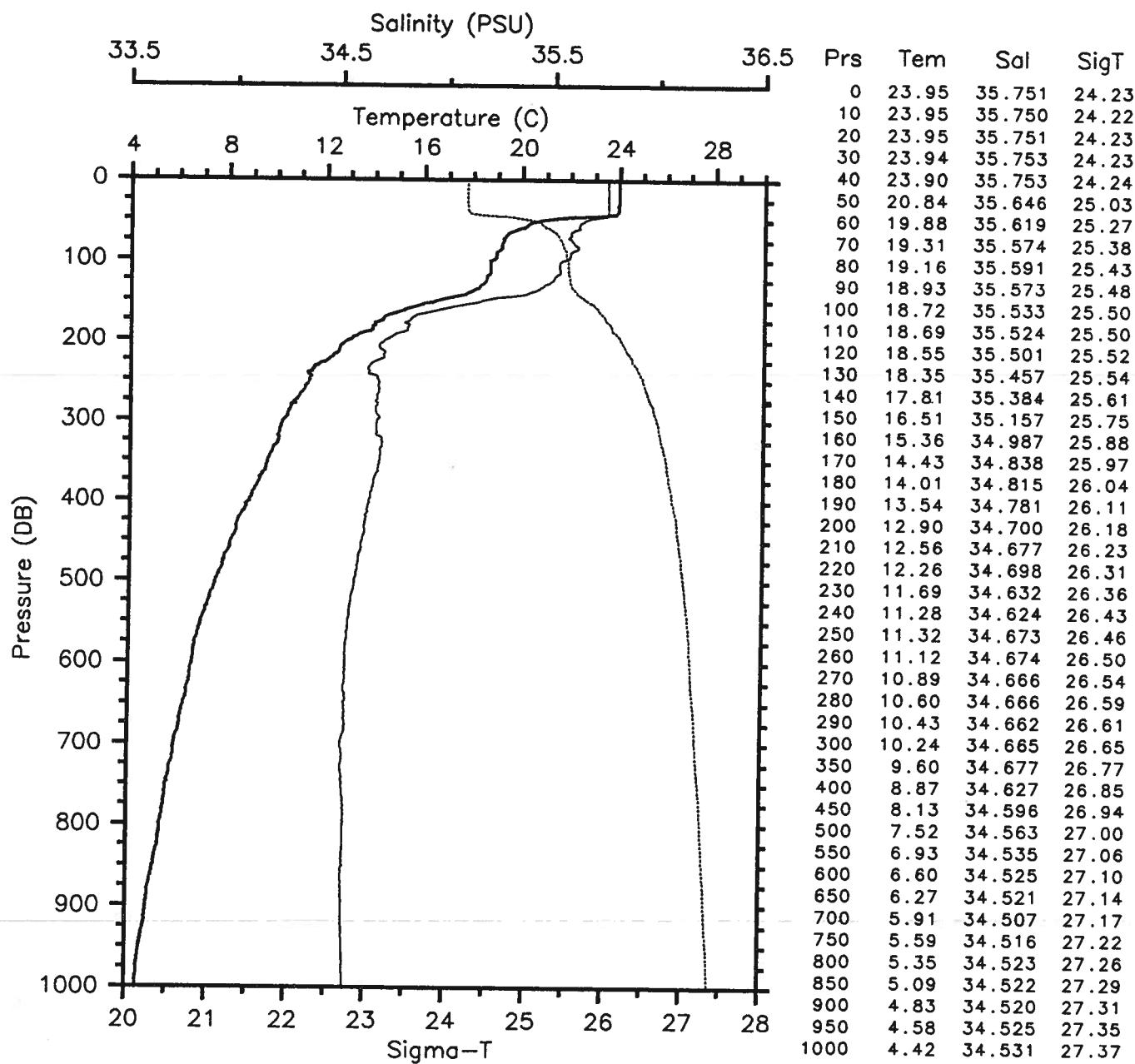
Date 05 02 86 Latitude 14.998 S

Time 0310 Z Longitude 91.005 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 48 OCEANOGRAPHER
 Date 05 02 86 Latitude 15.002 S
 Time 1104 Z Longitude 90.010 W

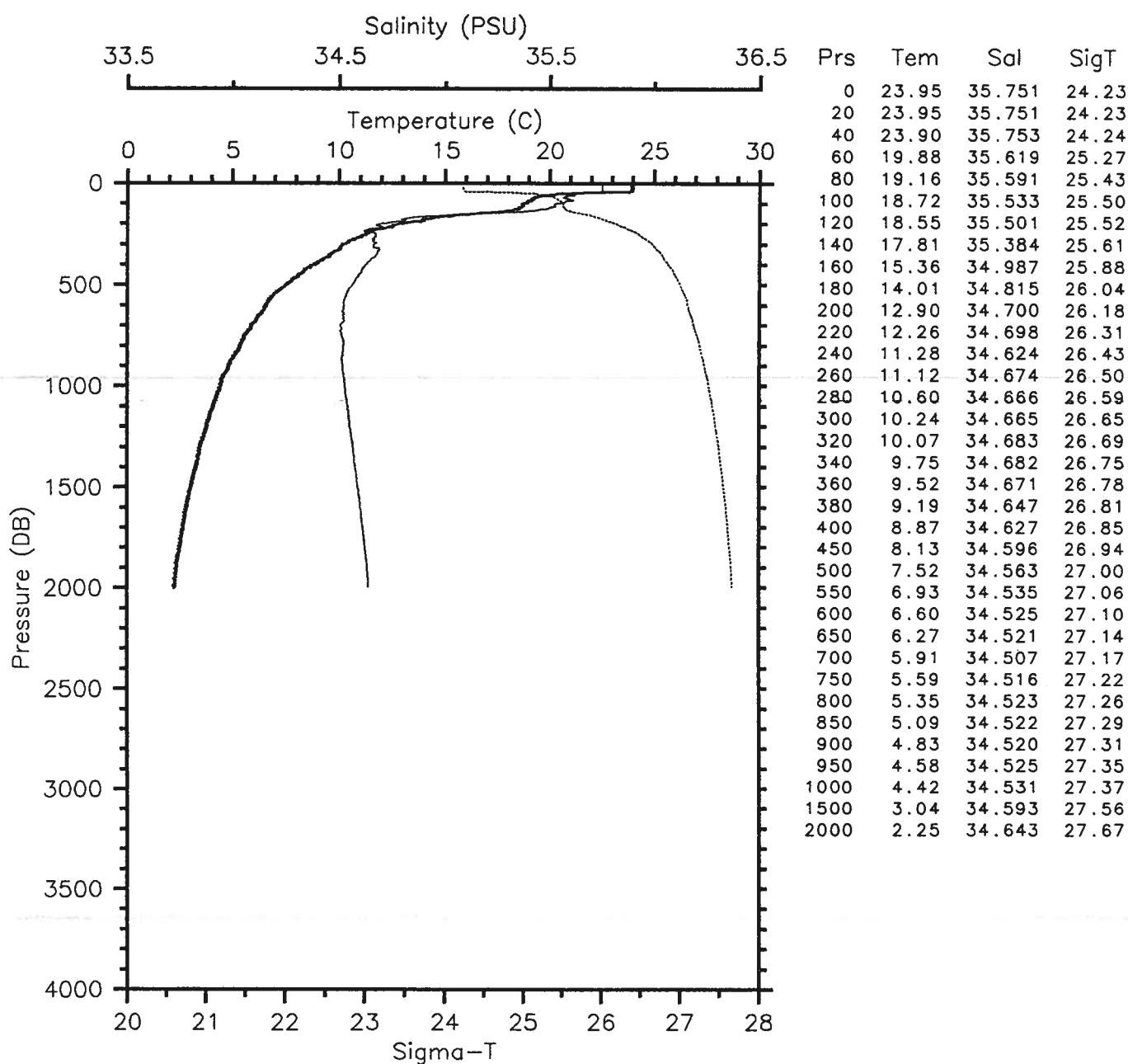


EPOCS EP1-86-OC CTD 48 OCEANOGRAPHER

Date 05 02 86 Latitude 15.002 S

Time 1104 Z Longitude 90.010 W

— Tem — Sal
--- SigT

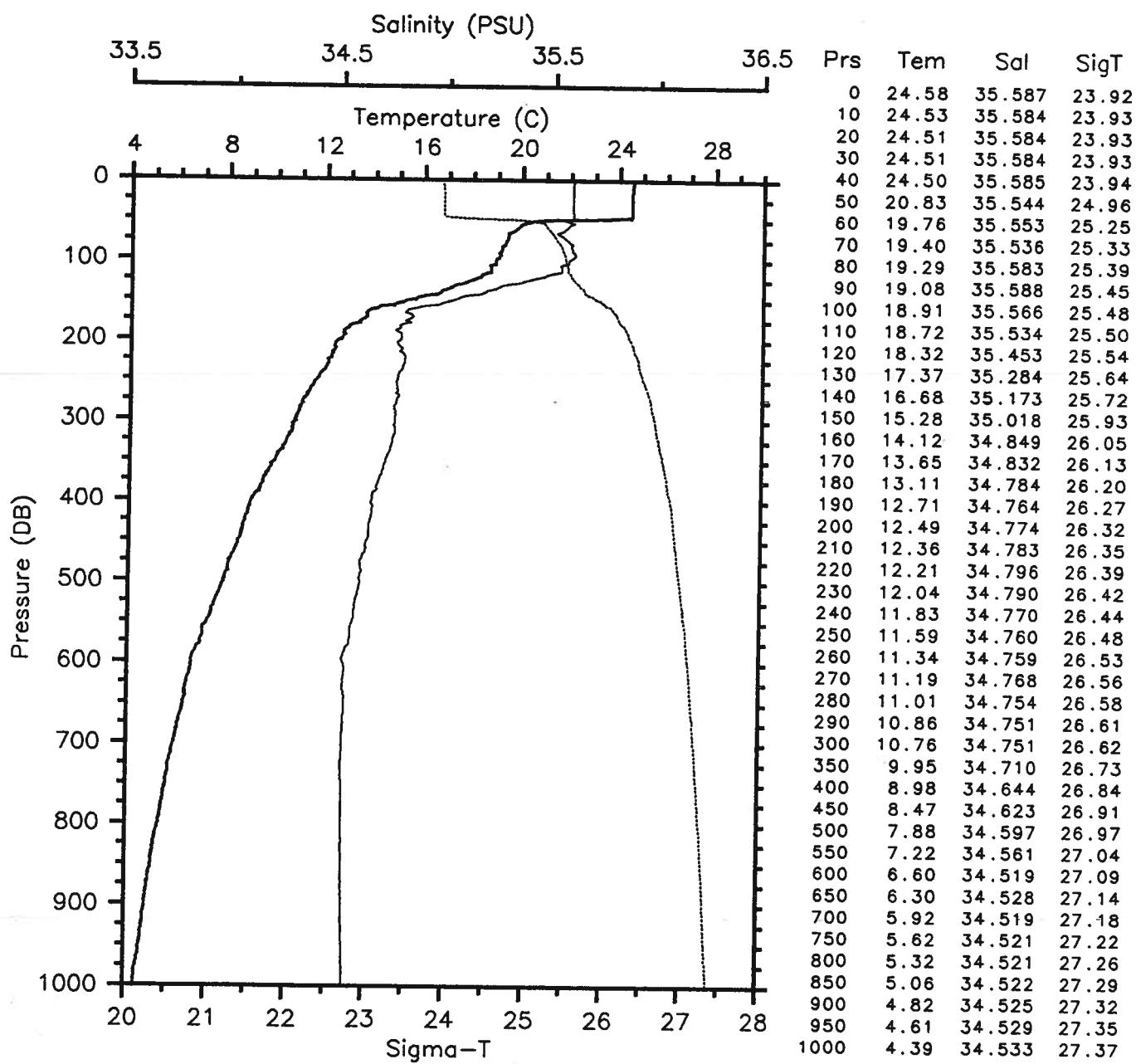


EPOCS EP1-86-OC CTD 49 OCEANOGRAPHER

Date 05 02 86 Latitude 15.002 S

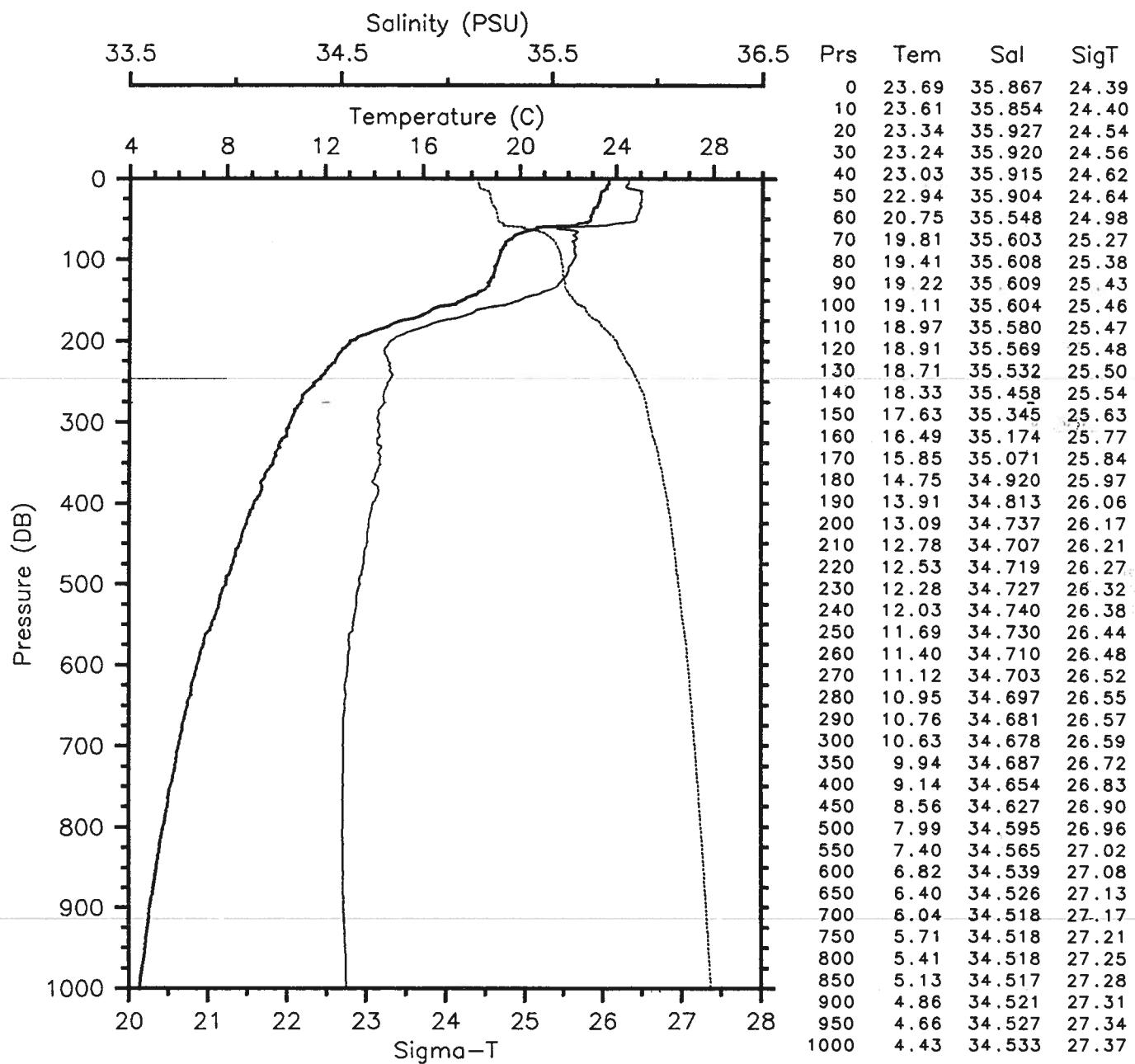
Time 1532 Z Longitude 89.015 W

— Tem — Sal
— SigT



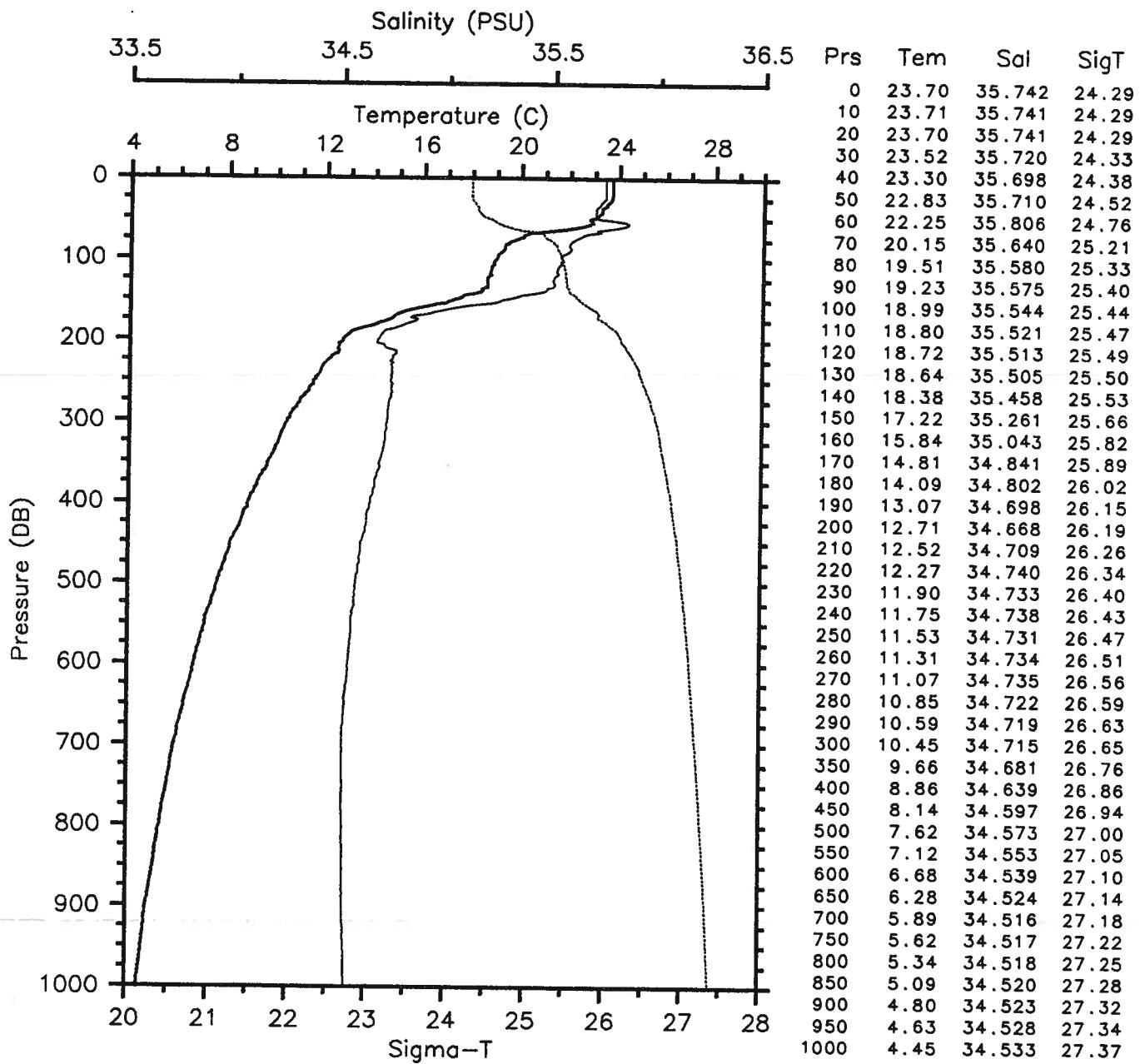
EPOCS EP1-86-OC CTD 50 OCEANOGRAPHER
 Date 05 02 86 Latitude 15.010 S
 Time 2047 Z Longitude 87.975 W

— Tem — Sal
 --- SigT



EPOCS EP1-86-OC CTD 51 OCEANOGRAPHER
 Date 05 03 86 Latitude 15.042 S
 Time 0213 Z Longitude 86.958 W

— Tem — Sal
 — SigT

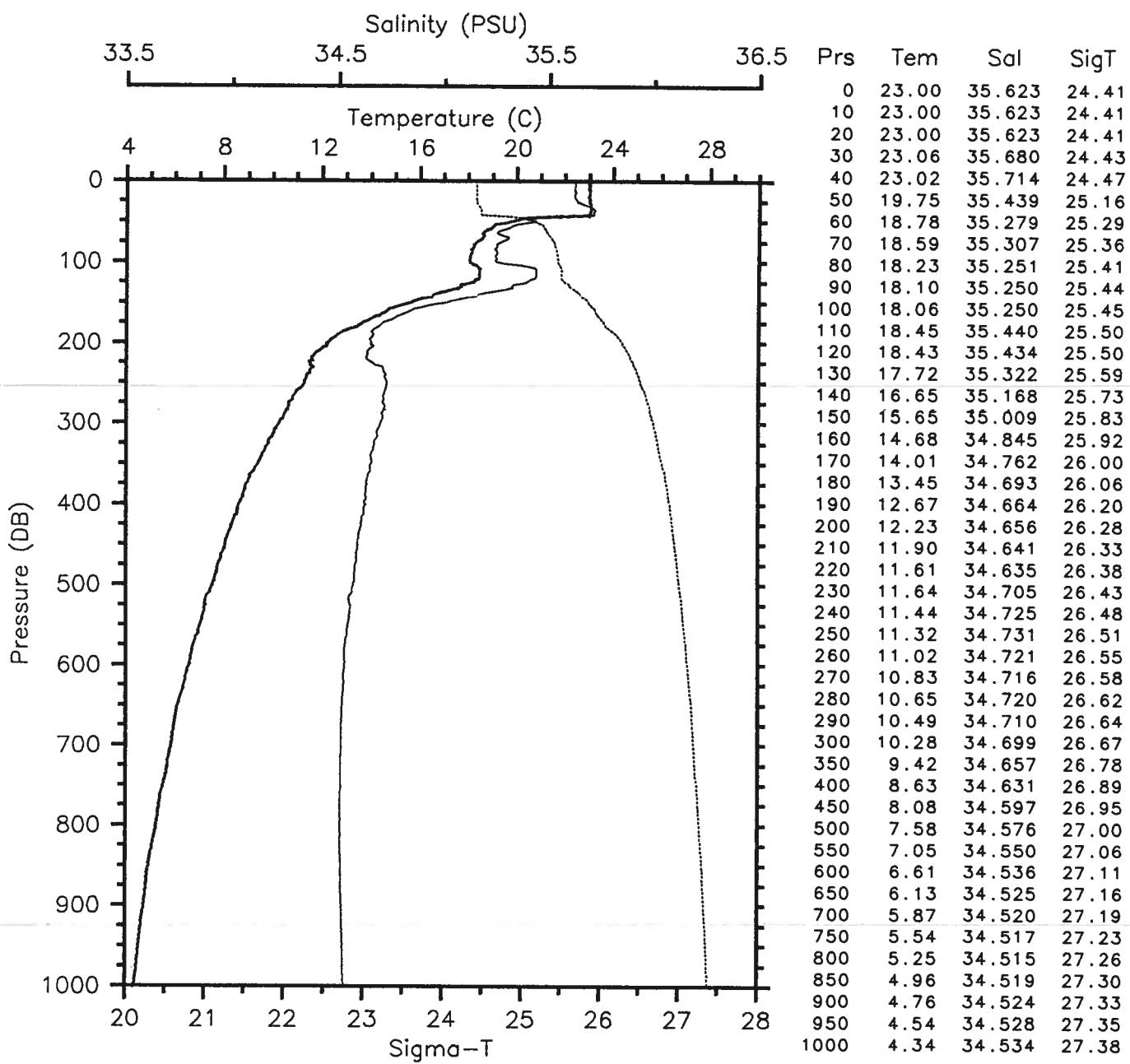


EPOCS EP1-86-OC CTD 52 OCEANOGRAPHER

Date 05 03 86 Latitude 15.005 S

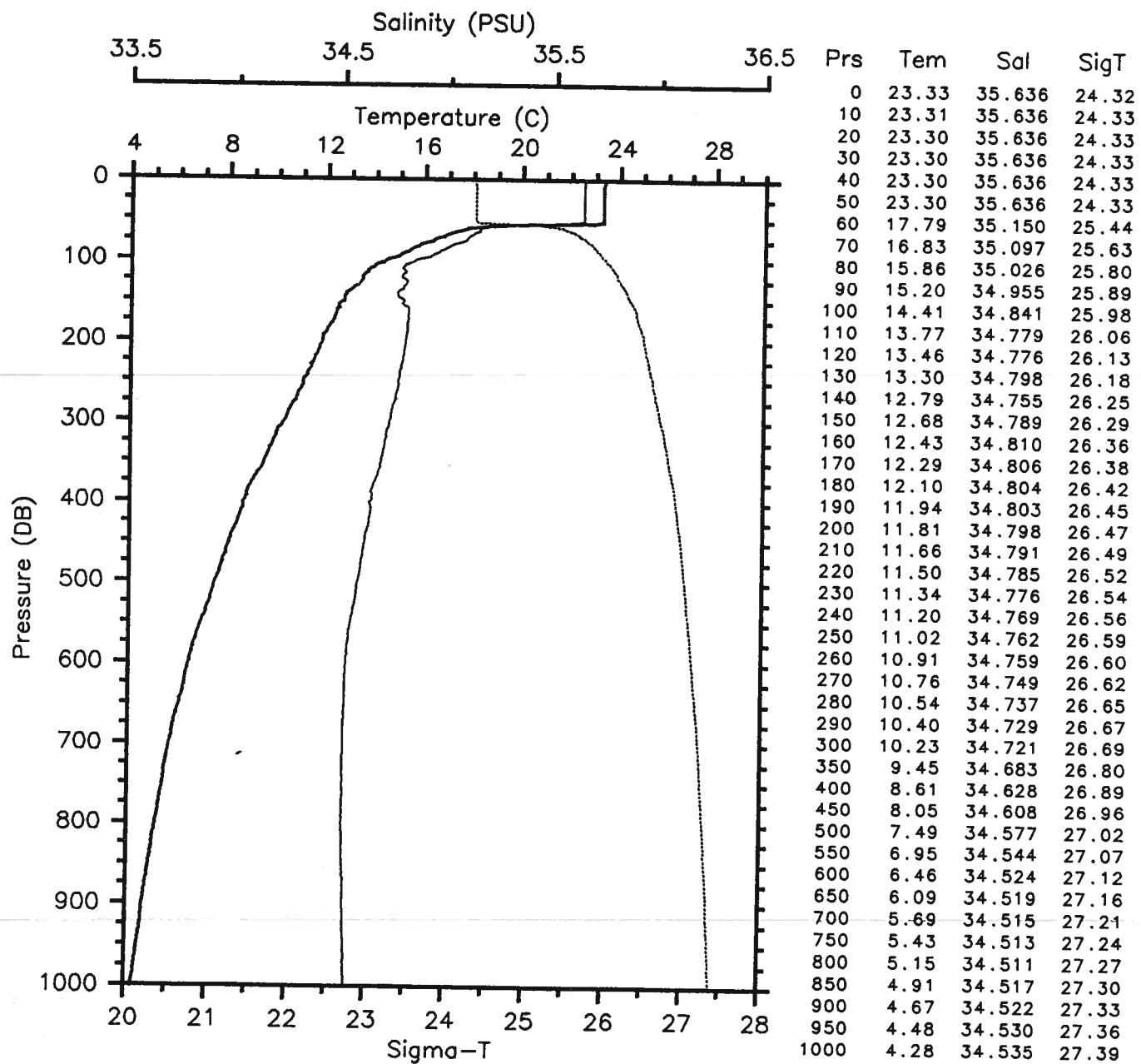
Time 1139 Z Longitude 86.012 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 53 OCEANOGRAPHER
 Date 05 03 86 Latitude 15.012 S
 Time 1627 Z Longitude 85.002 W

— Tem — Sal
 — SigT

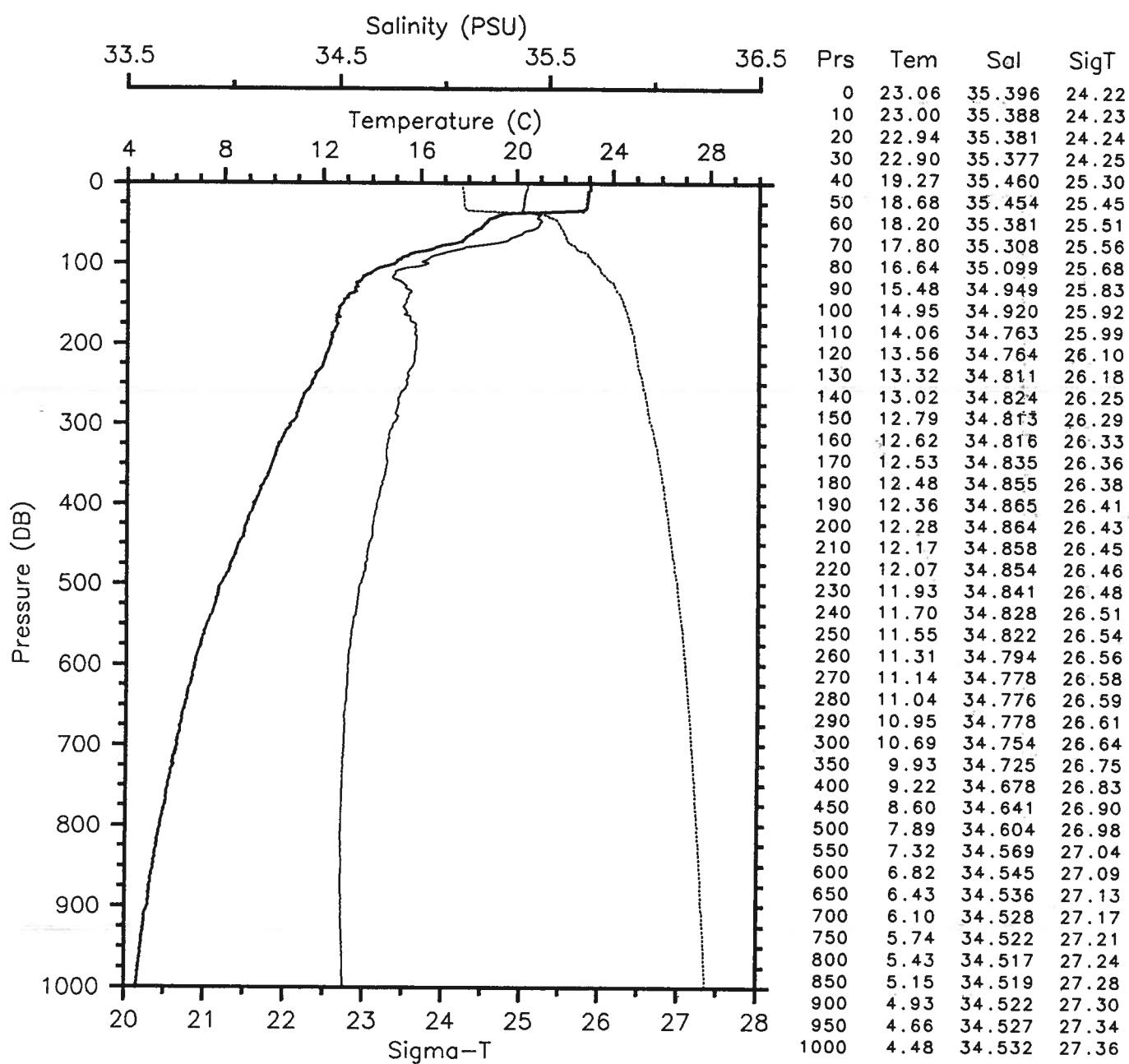


EPOCS EP1-86-OC CTD 54 OCEANOGRAPHER

Date 05 03 86 Latitude 15.017 S

Time 2112 Z Longitude 84.035 W

— Tem	— Sal
— SigT	

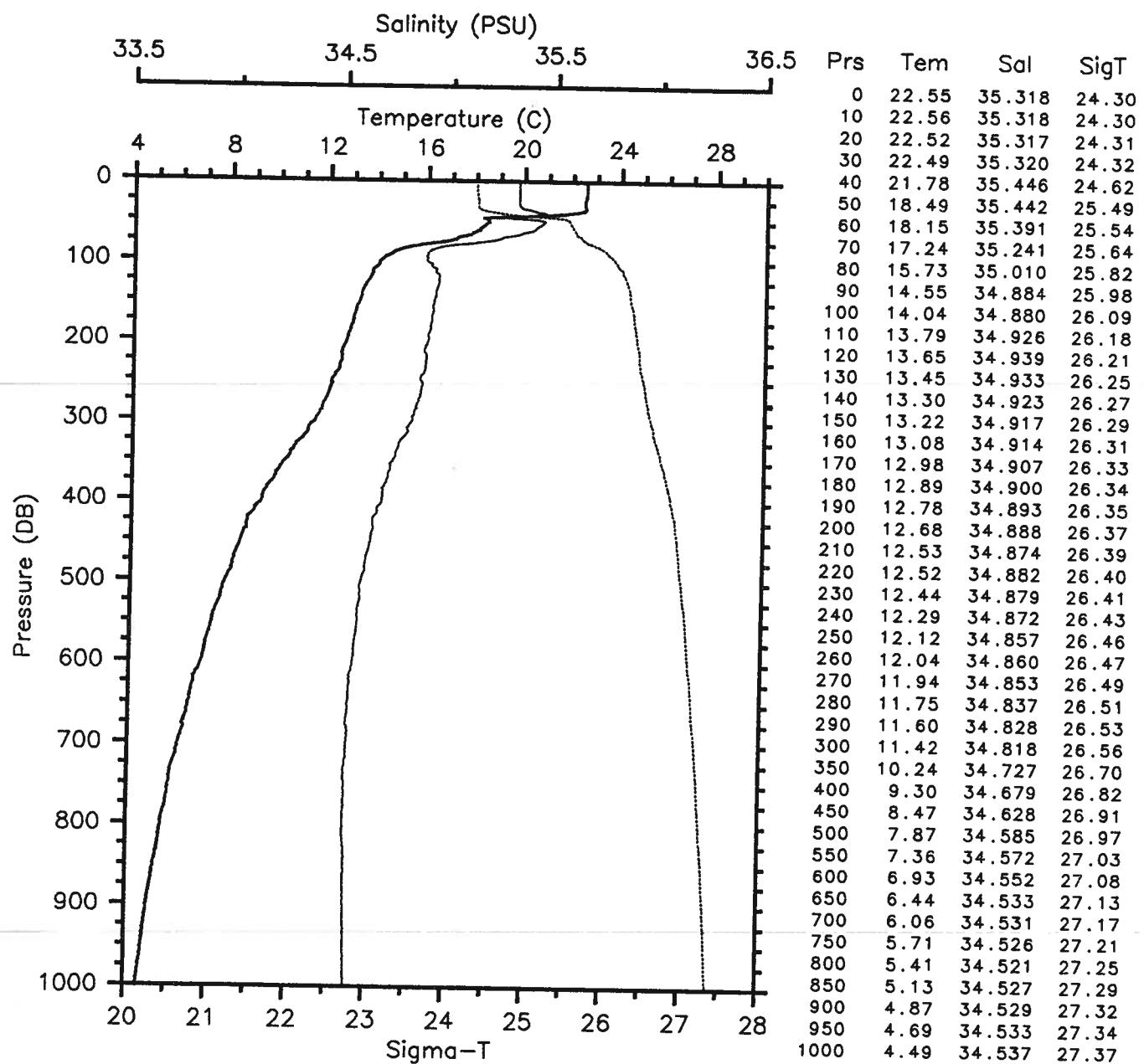


EPOCS EP1-86-OC CTD 55 OCEANOGRAPHER

Date 05 04 86 Latitude 14.975 S

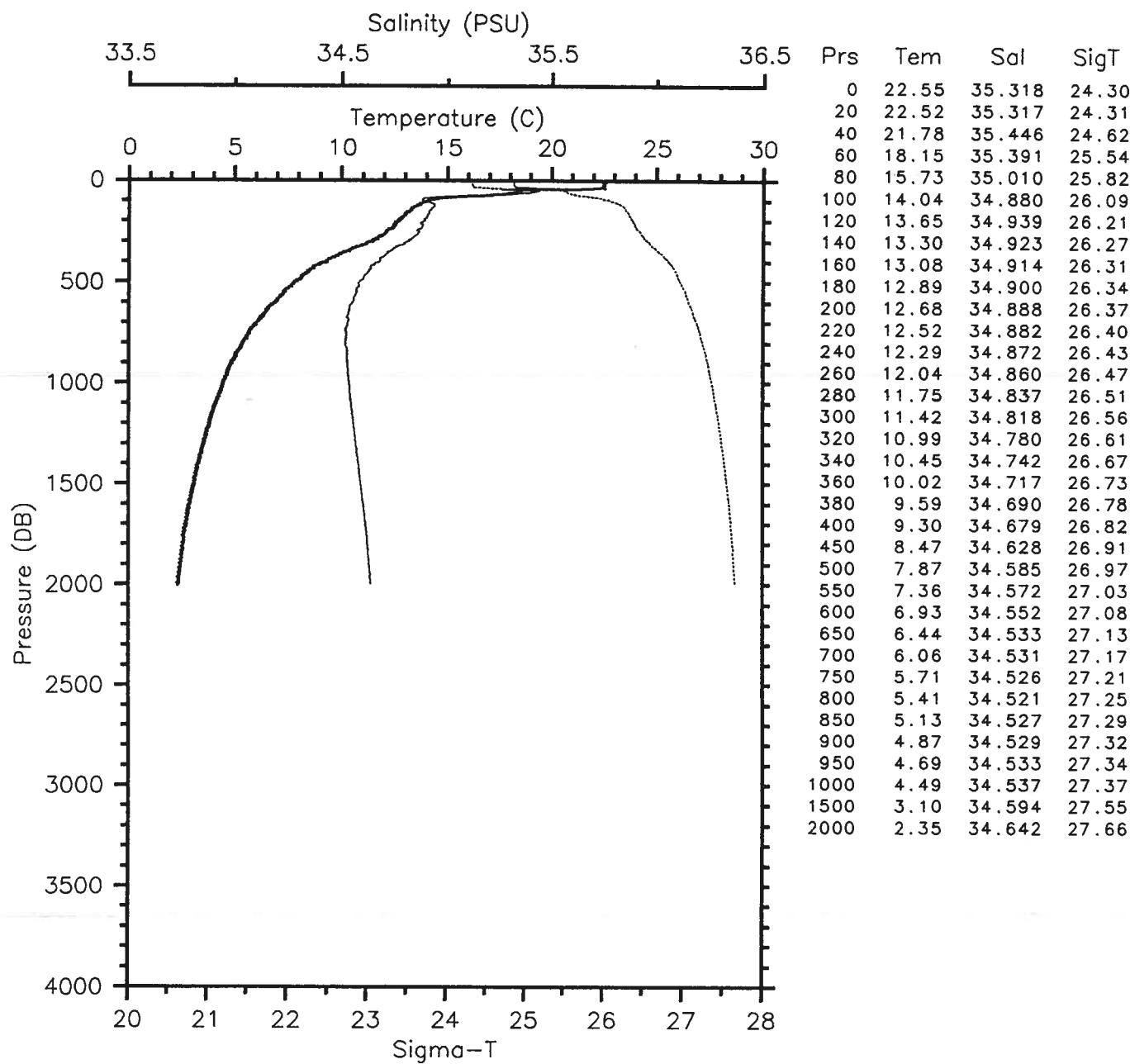
Time 0145 Z Longitude 83.020 W

— Tem — Sal
— SigT



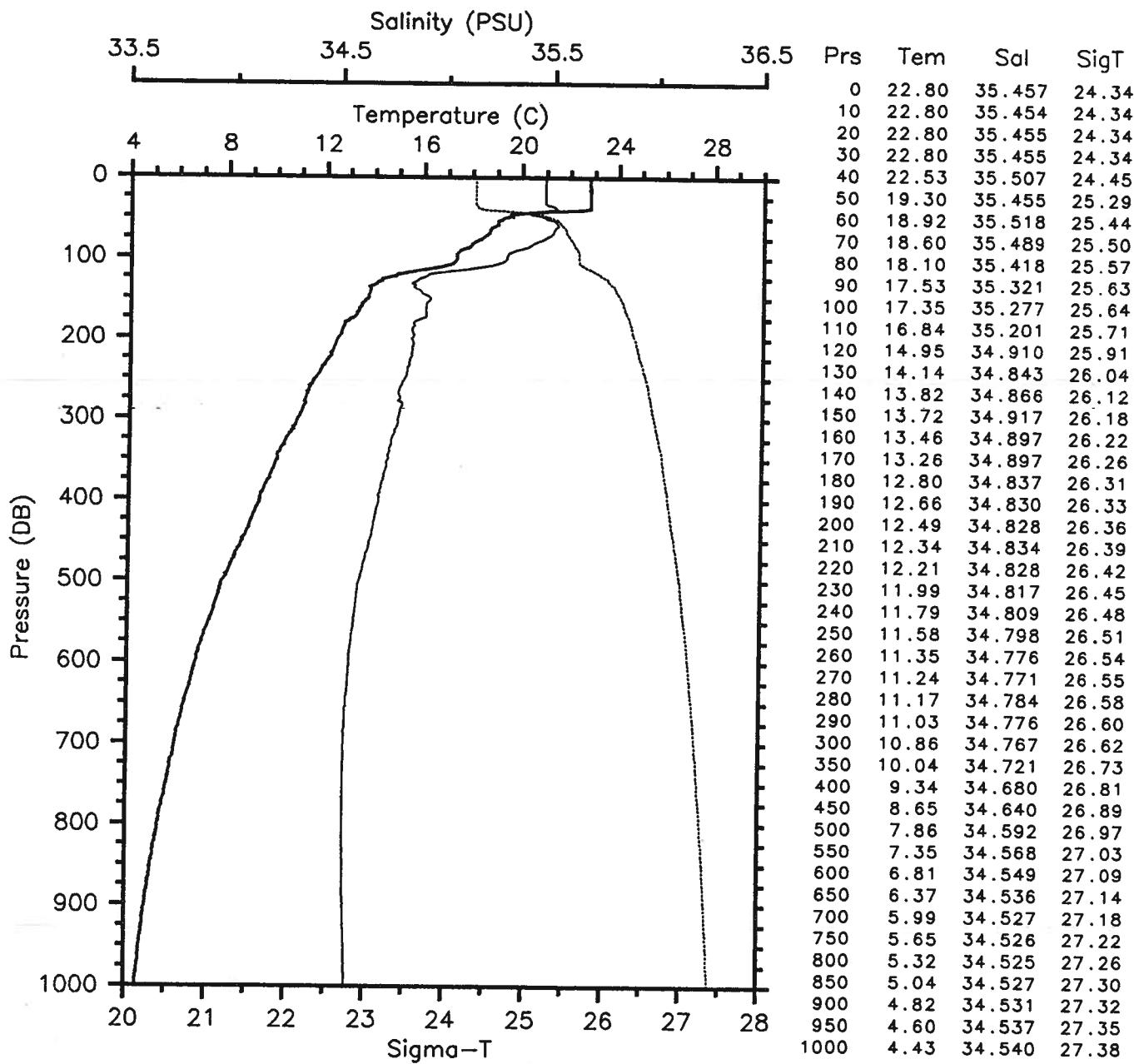
EPOCS EP1-86-OC CTD 55 OCEANOGRAPHER
 Date 05 04 86 Latitude 14.975 S
 Time 0145 Z Longitude 83.020 W

— Tem — Sal
 --- SigT



EPOCS EP1-86-OC CTD 56 OCEANOGRAPHER
 Date 05 04 86 Latitude 14.567 S
 Time 1058 Z Longitude 82.105 W

— Tem — Sal
 — SigT

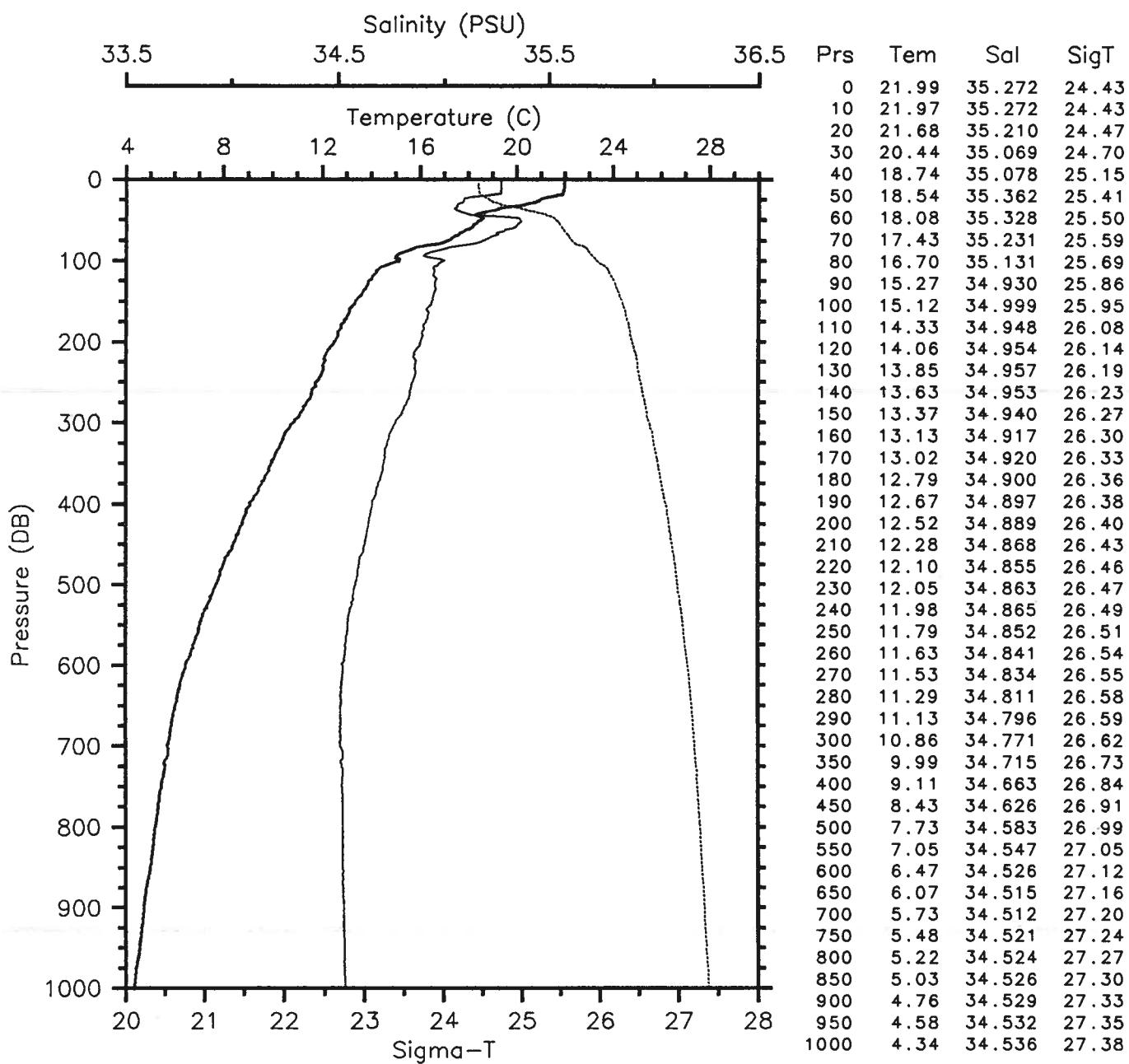


EPOCS EP1-86-OC CTD 57 OCEANOGRAPHER

Date 05 04 86 Latitude 14.083 S

Time 1617 Z Longitude 81.183 W

— Tem — Sal
--- SigT

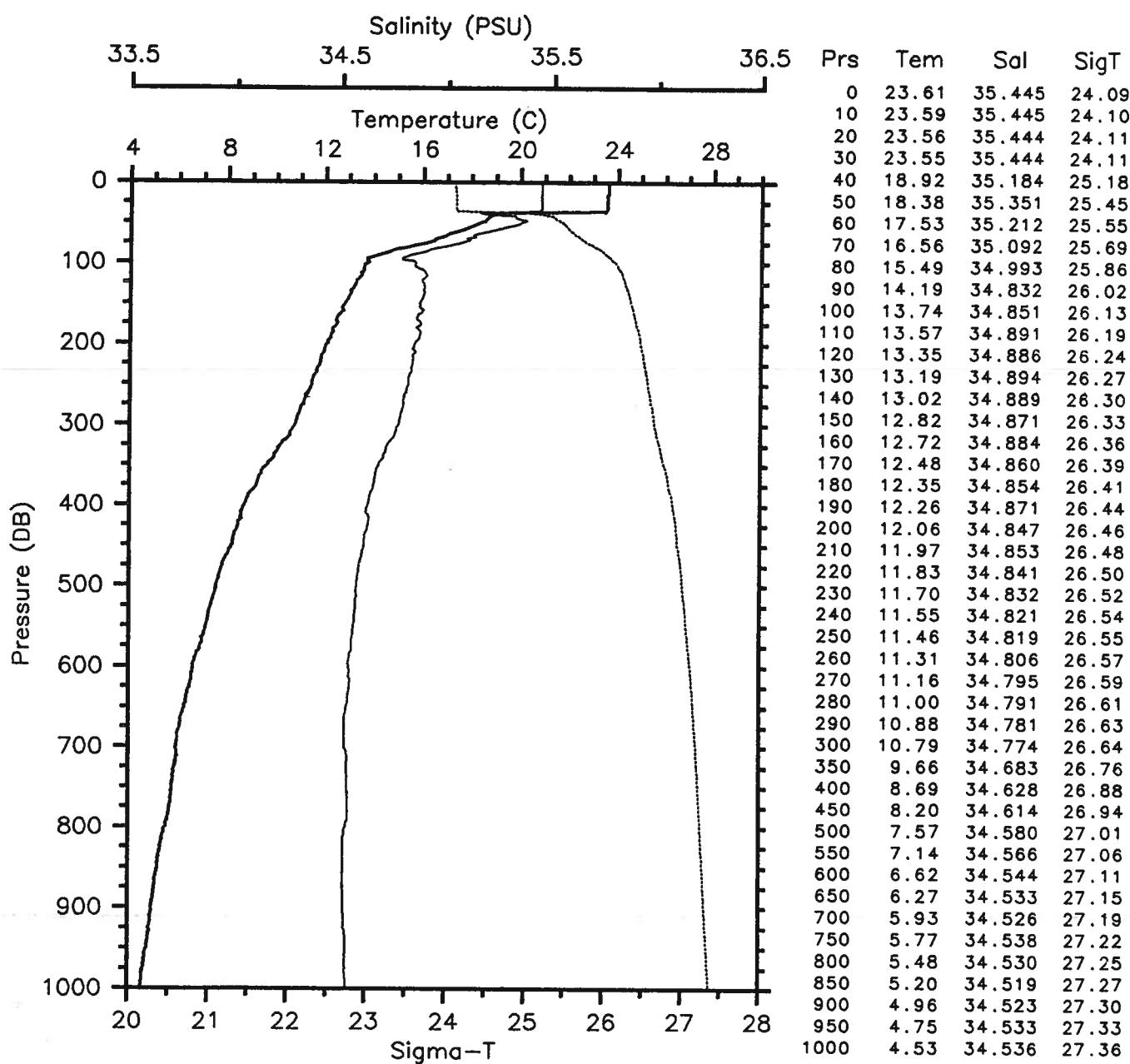


EPOCS EP1-86-OC CTD 58 OCEANOGRAPHER

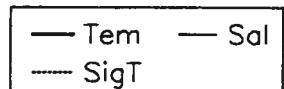
Date 05 04 86 Latitude 13.648 S

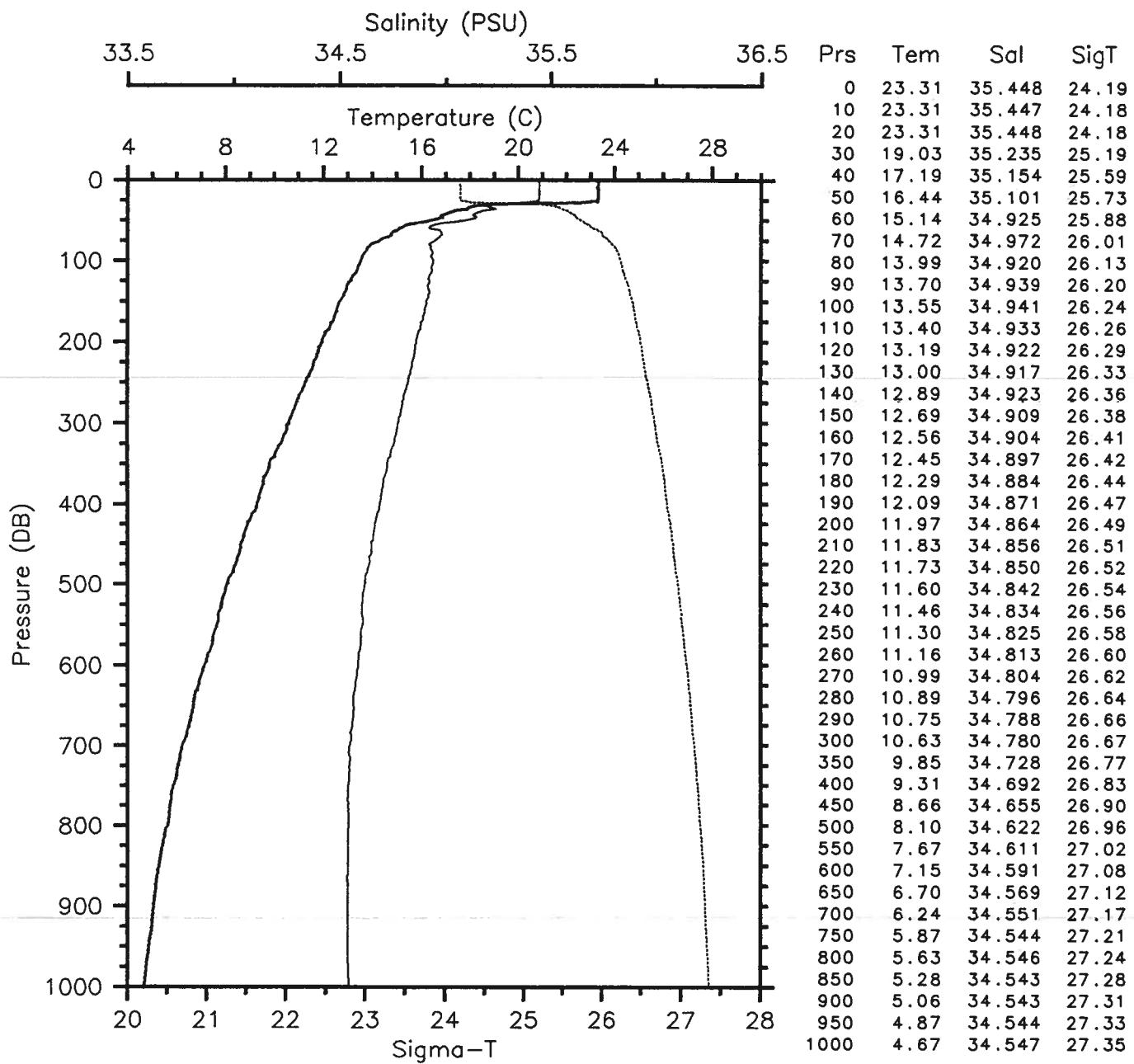
Time 2255 Z Longitude 80.303 W

— Tem	— Sal
— SigT	



EPOCS EP1-86-OC CTD 59 OCEANOGRAPHER
 Date 05 05 86 Latitude 13.158 S
 Time 0212 Z Longitude 79.398 W



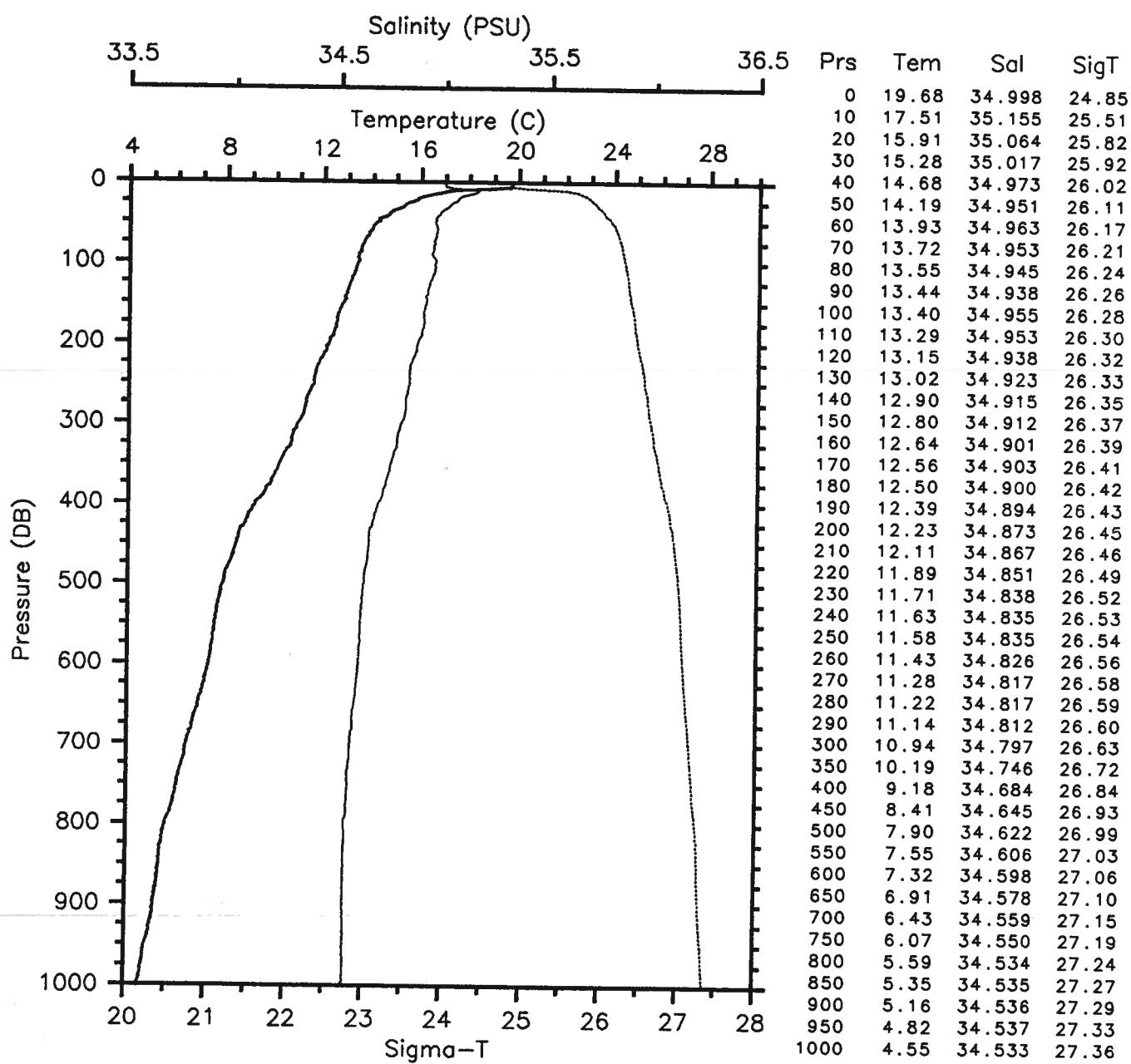


EPOCS EP1-86-OC CTD 60 OCEANOGRAPHER

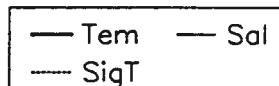
Date 05 05 86 Latitude 12.838 S

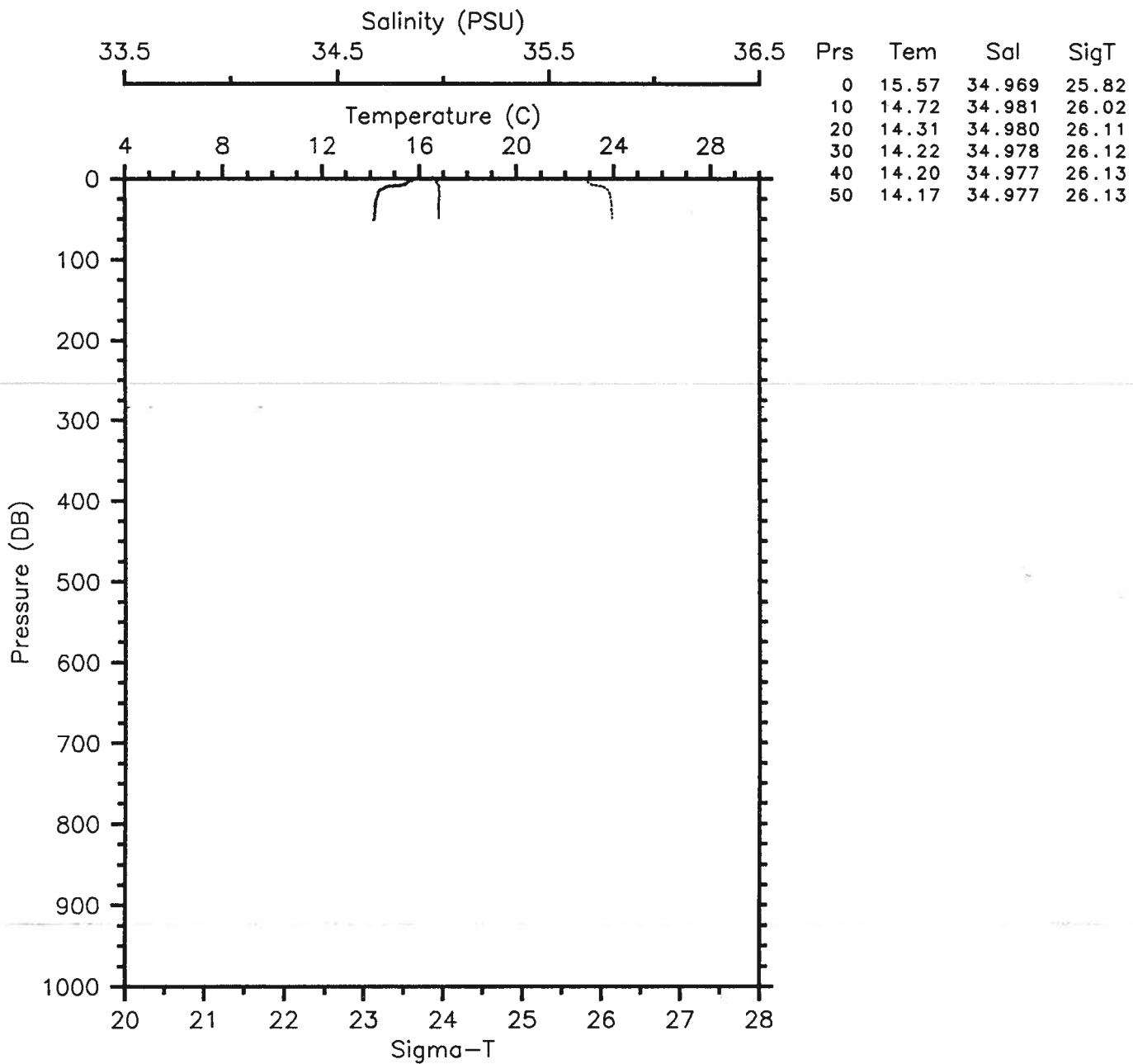
Time 1013 Z Longitude 78.700 W

— Tem — Sal
— SigT



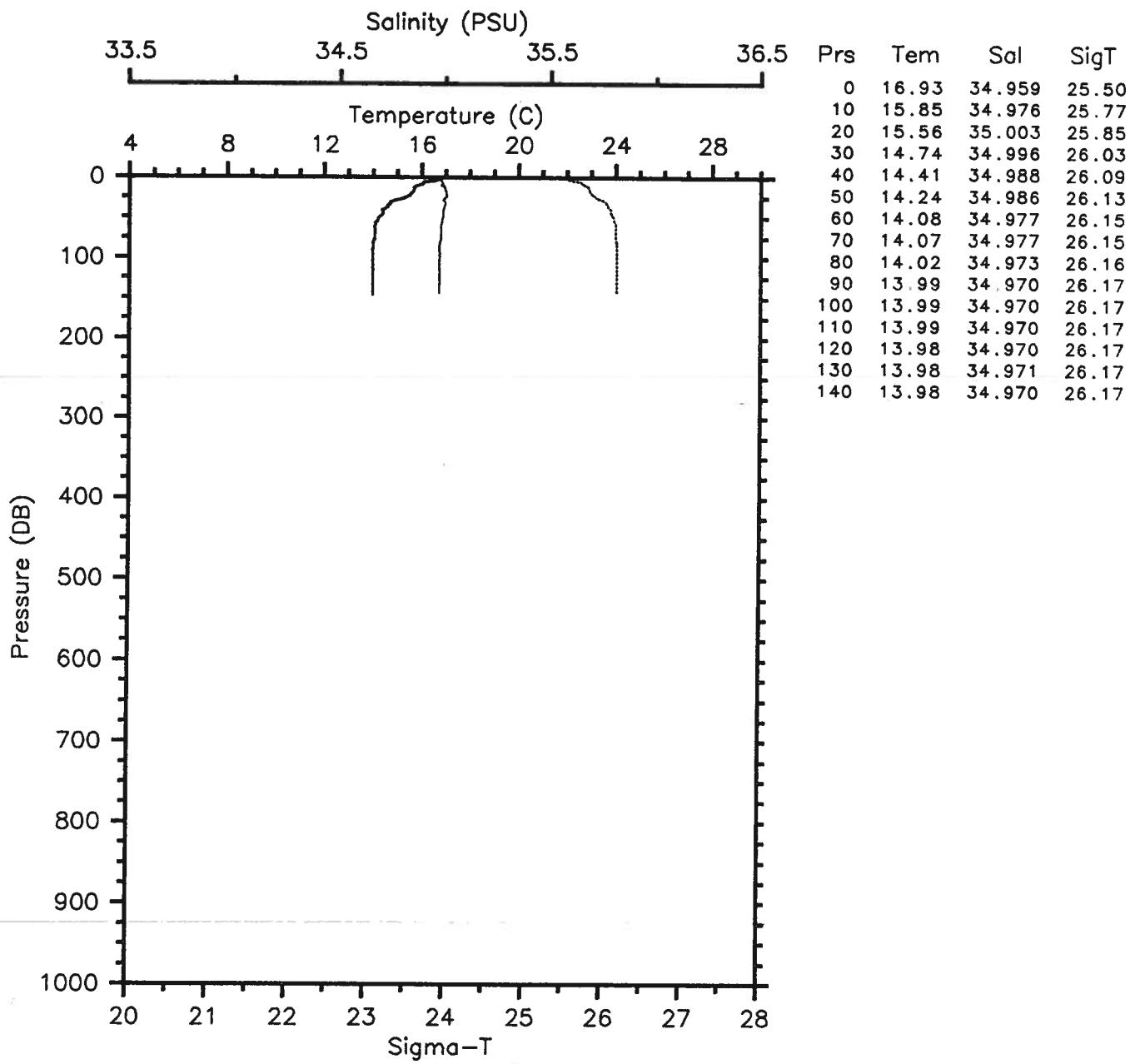
EPOCS EP1-86-OC CTD 61 OCEANOGRAPHER
 Date 05 05 86 Latitude 11.998 S
 Time 2211 Z Longitude 77.235 W


 — Tem — Sal
 - - - SigT



EPOCS EP1-86-OC CTD 62 OCEANOGRAPHER
 Date 05 06 86 Latitude 12.172 S
 Time 0008 Z Longitude 77.533 W

— Tem — Sal
 — SigT

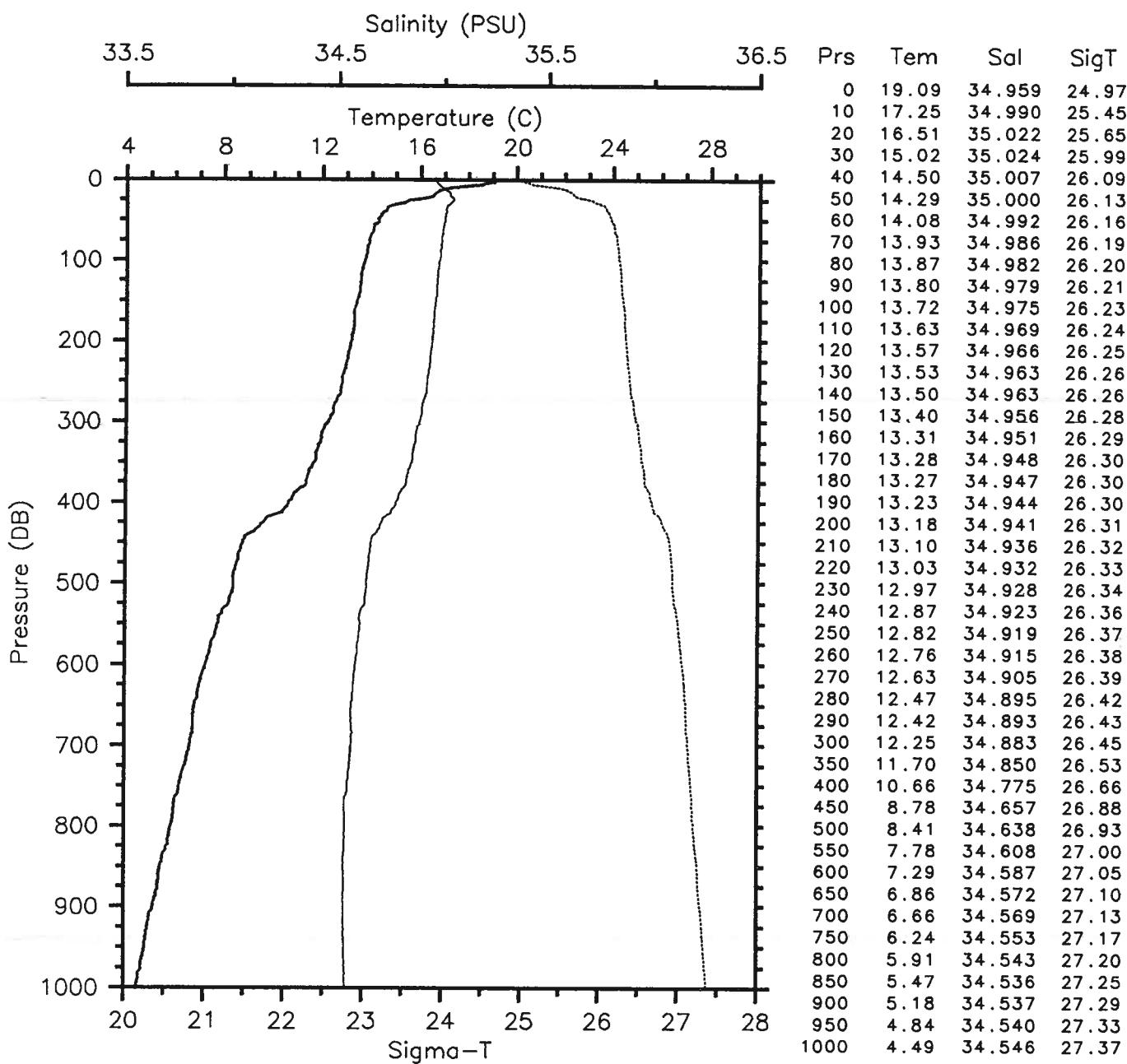


EPOCS EP1-86-OC CTD 63 OCEANOGRAPHER

Date 05 06 86 Latitude 12.343 S

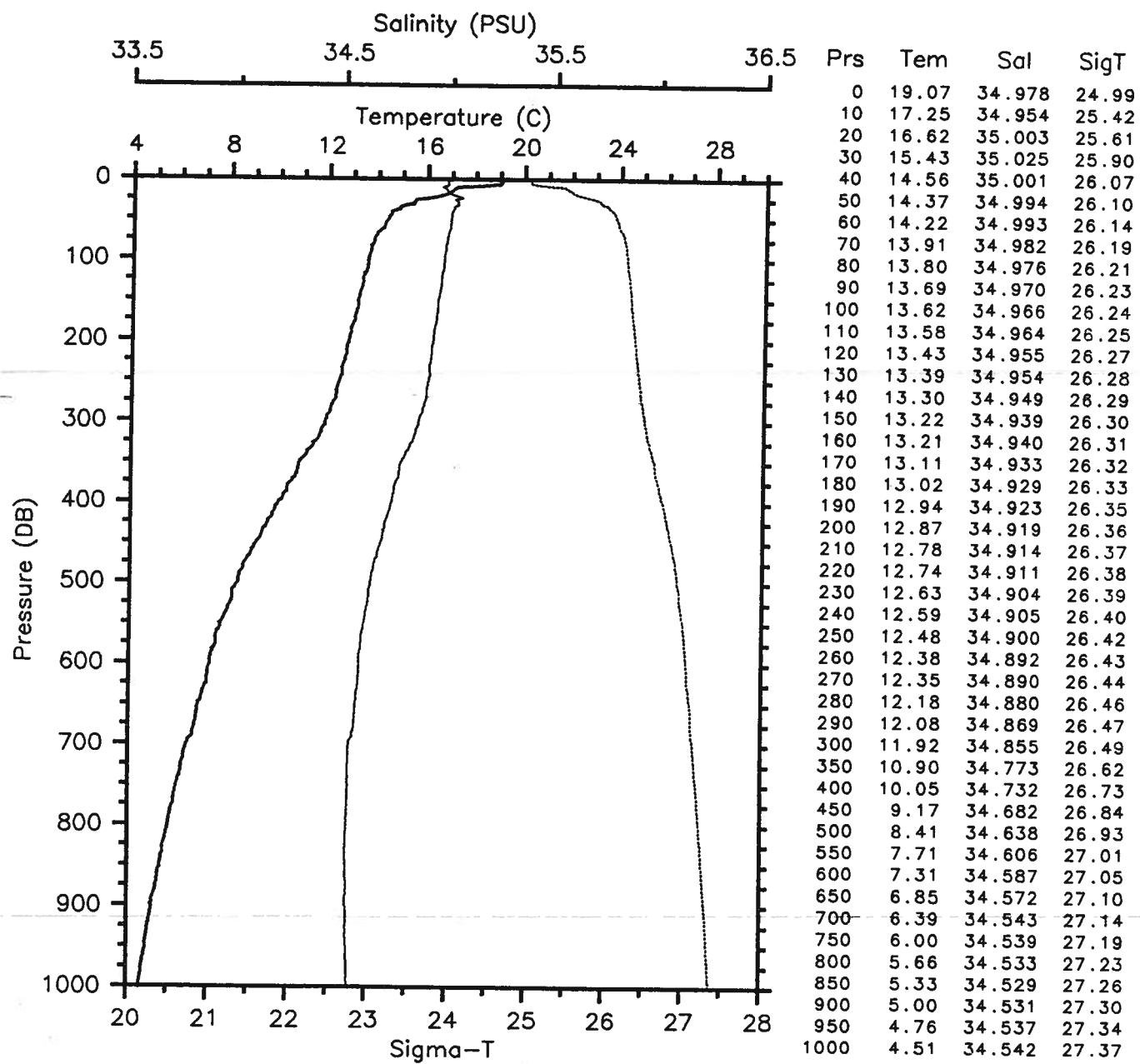
Time 0124 Z Longitude 77.807 W

— Tem	— Sal
--- SigT	



EPOCS EP1-86-OC CTD 64 OCEANOGRAPHER
 Date 05 06 86 Latitude 12.535 S
 Time 0538 Z Longitude 78.088 W

— Tem — Sal
 — SigT

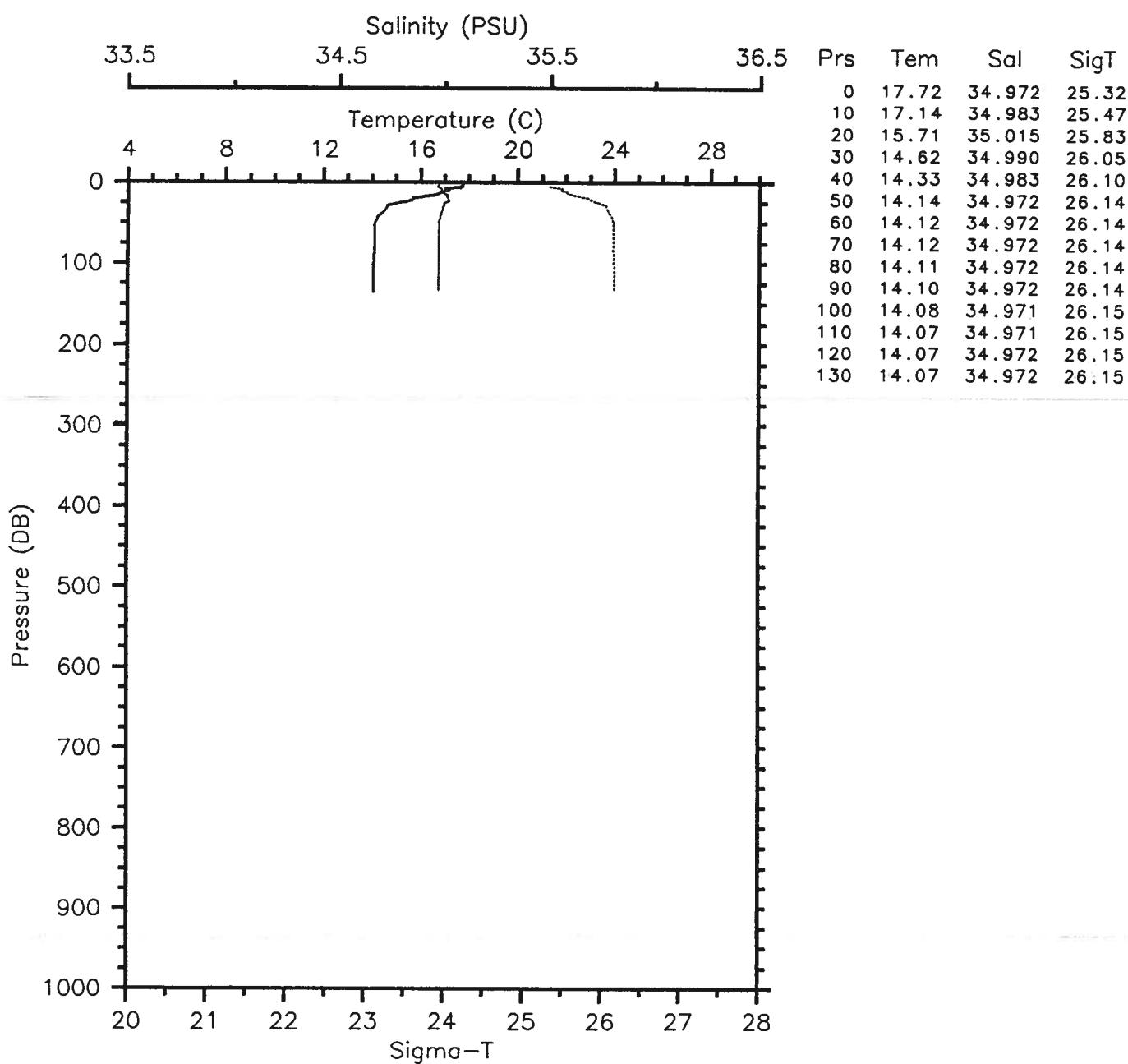


EPOCS EP1-86-OC CTD 65 OCEANOGRAPHER

Date 05 06 86 Latitude 11.942 S

Time 1225 Z Longitude 77.503 W

— Tem — Sal
— SigT

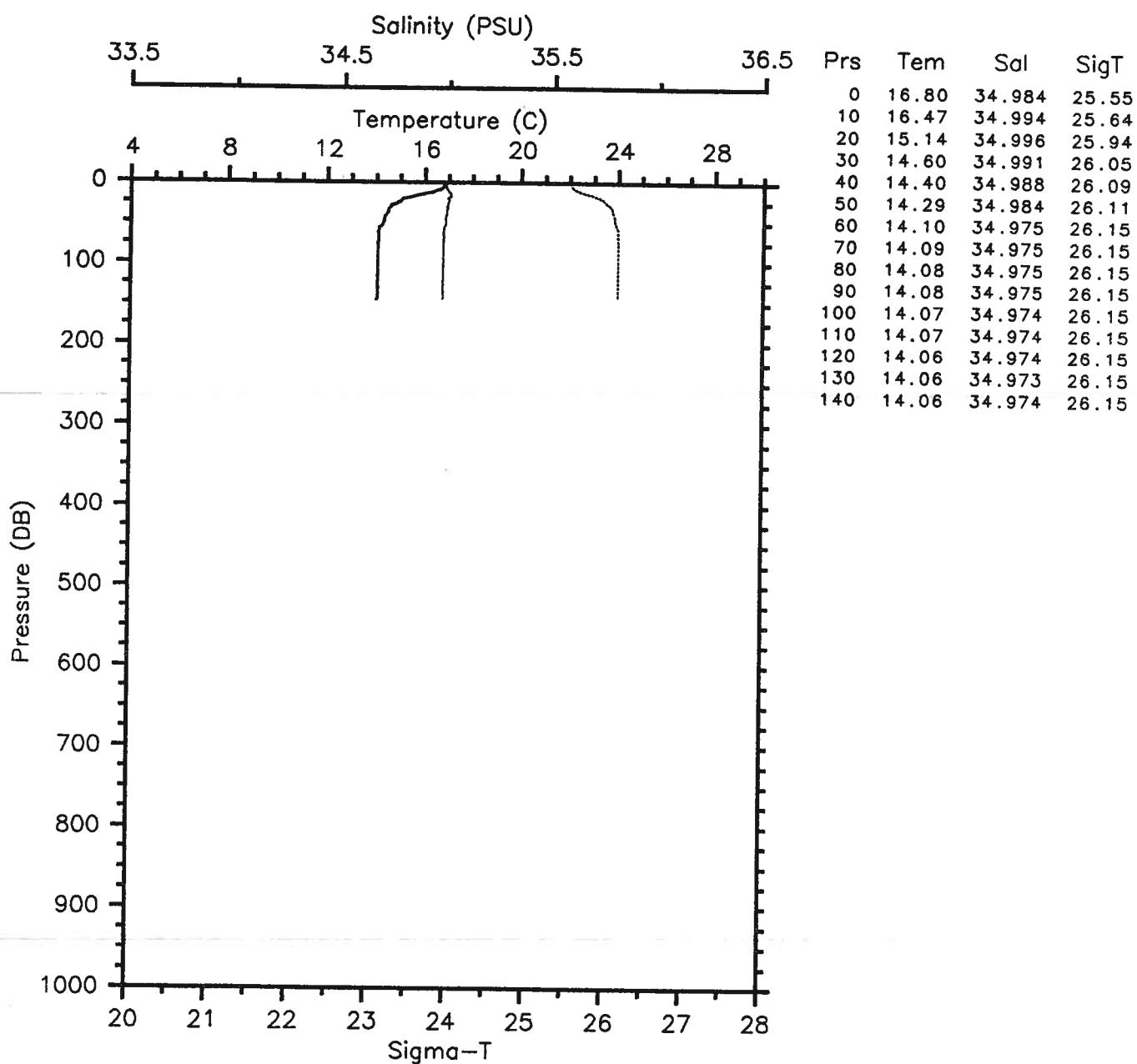


EPOCS EP1-86-OC CTD 66 OCEANOGRAPHER

Date 05 07 86 Latitude 9.935 S

Time 0316 Z Longitude 78.545 W

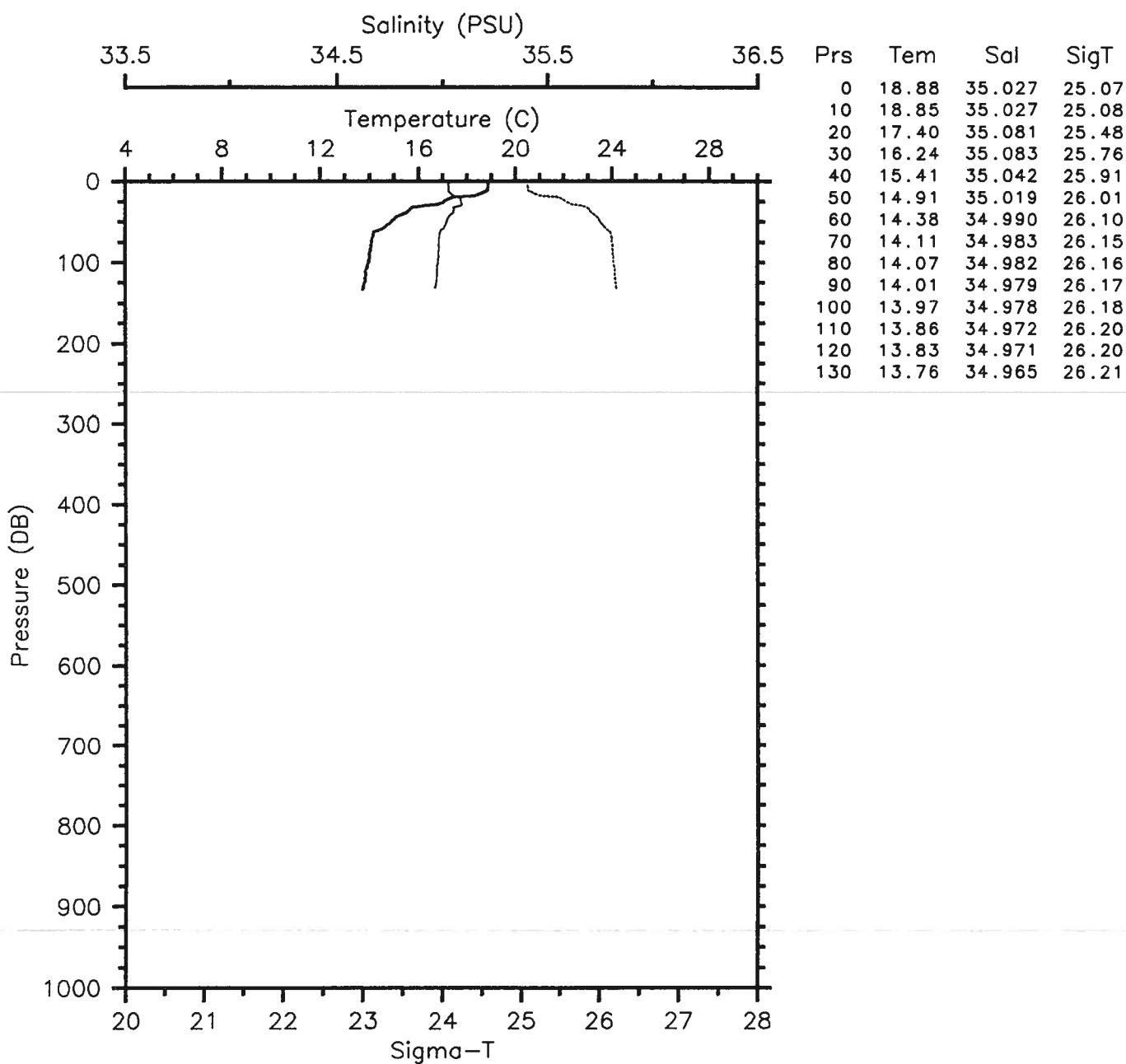
— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 67 OCEANOGRAPHER

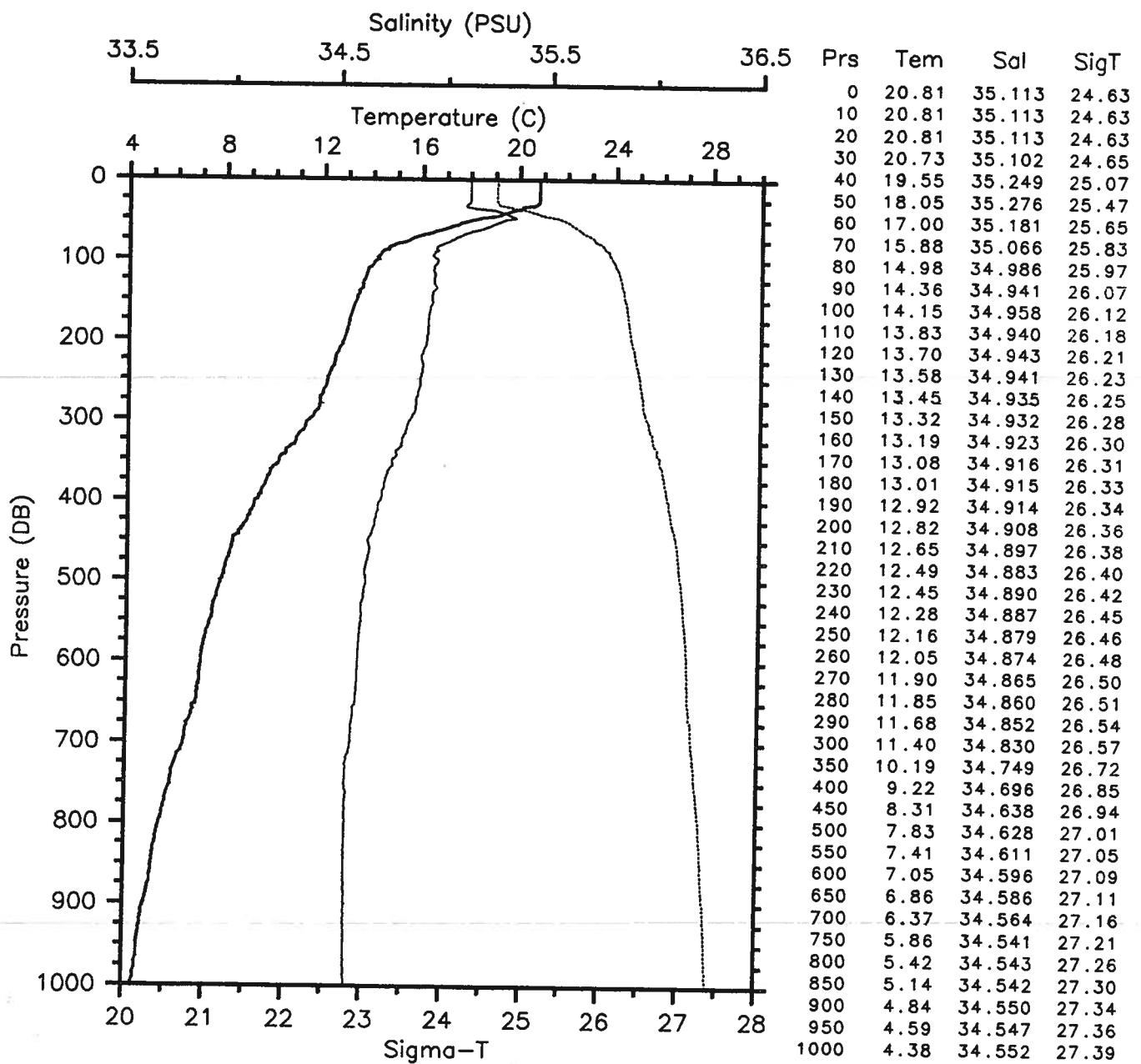
Date 05 07 86 Latitude 10.130 S
Time 0800 Z Longitude 78.998 W

— Tem — Sal
--- SigT



EPOCS EP1-86-OC CTD 68 OCEANOGRAPHER
 Date 05 07 86 Latitude 10.308 S
 Time 1044 Z Longitude 79.500 W

— Tem — Sal
 — SigT

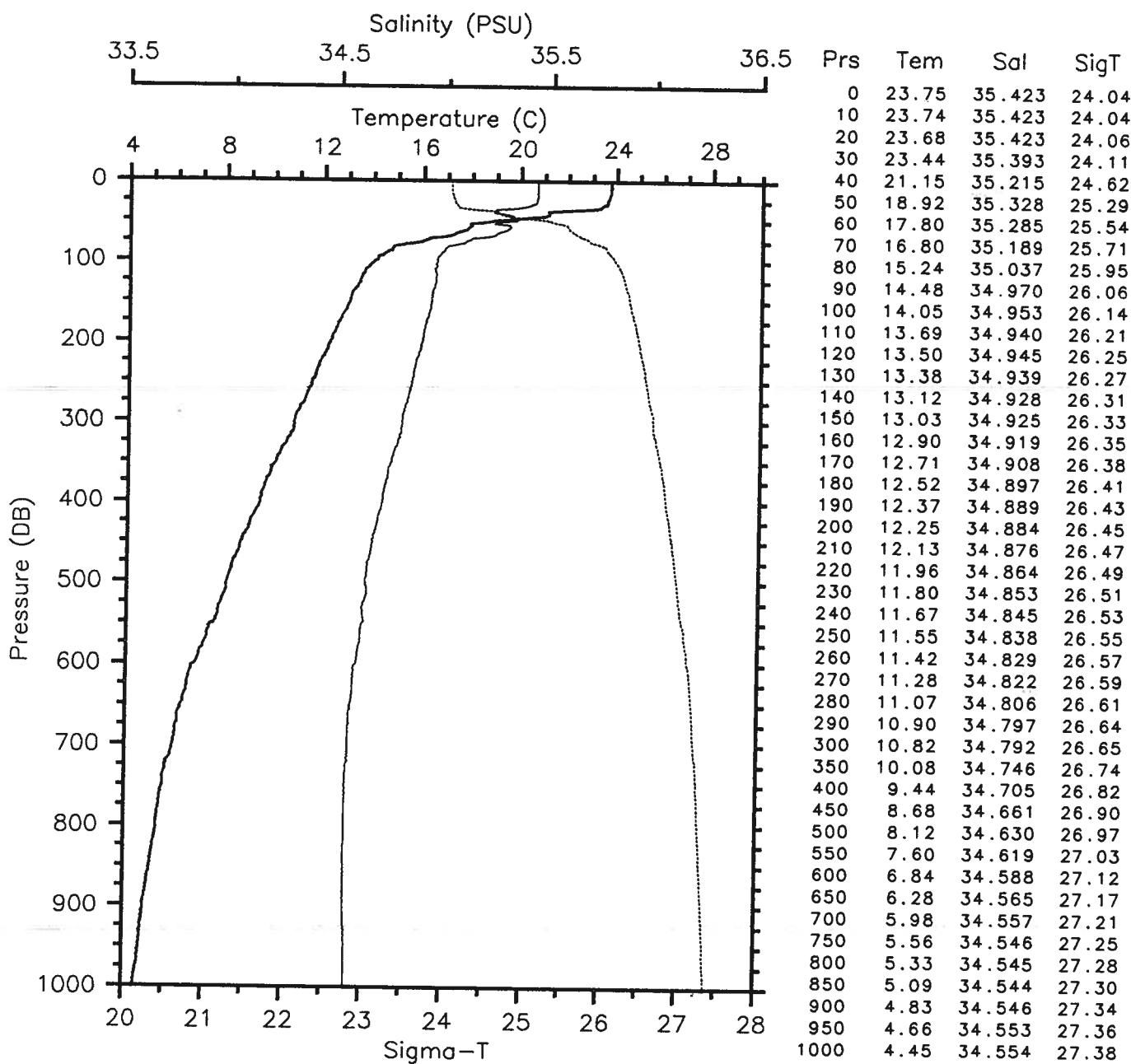


EPOCS EP1-86-OC CTD 69 OCEANOGRAPHER

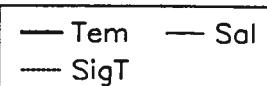
Date 05 07 86 Latitude 10.510 S

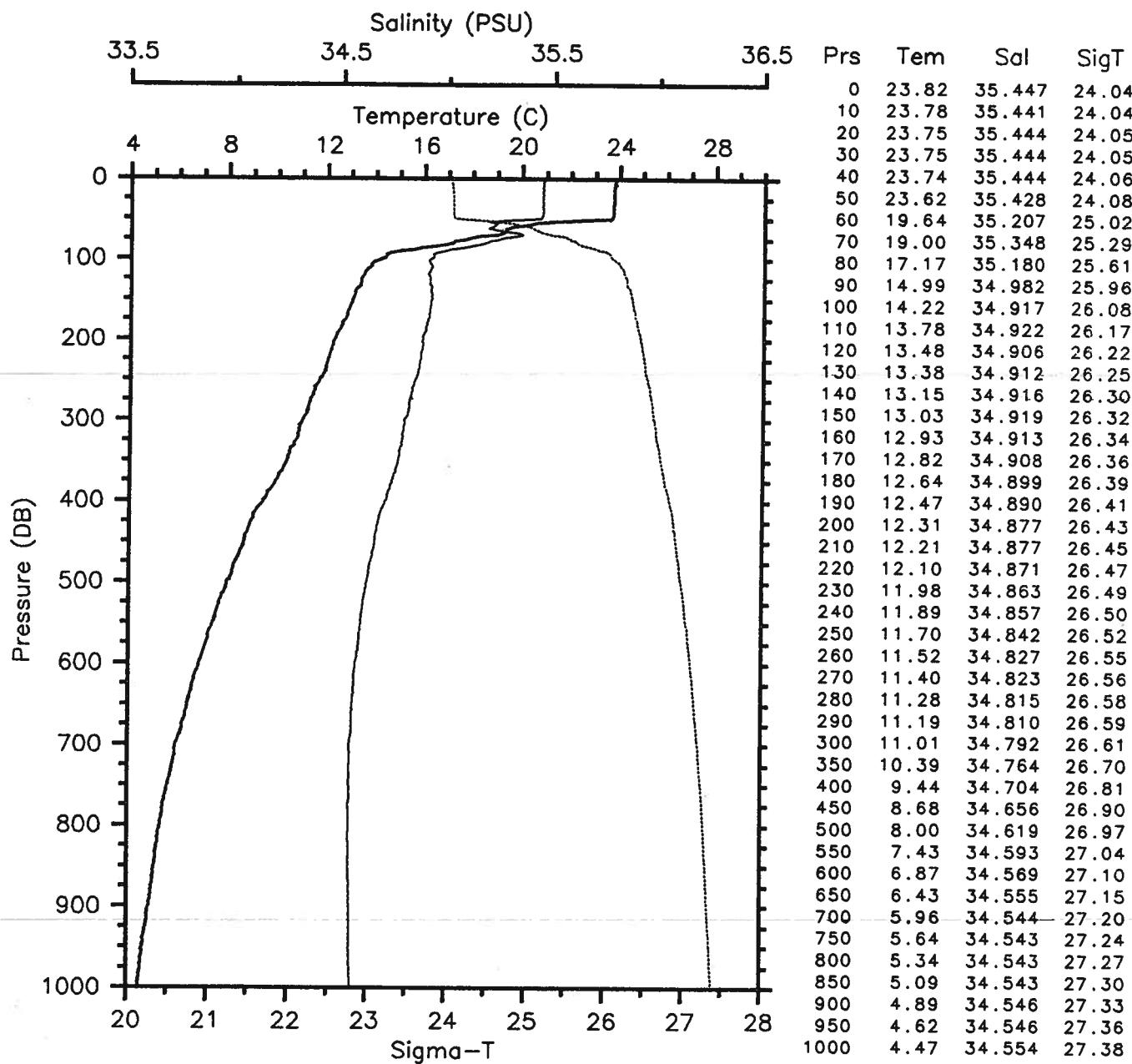
Time 1329 Z Longitude 79.998 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 70 OCEANOGRAPHER
 Date 05 07 86 Latitude 10.515 S
 Time 1831 Z Longitude 80.492 W

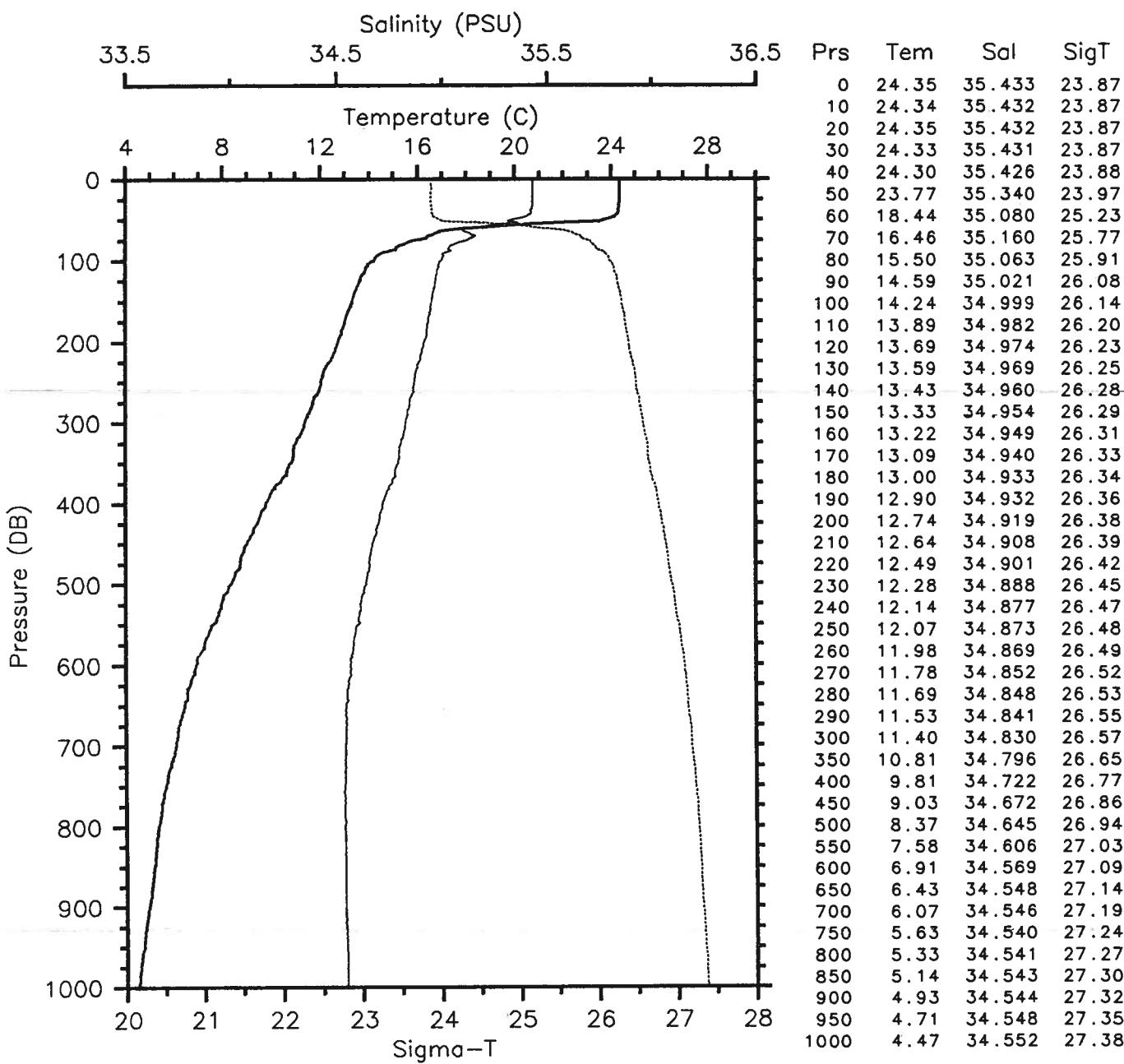




EPOCS EP1-86-OC CTD 71 OCEANOGRAPHER

Date 05 07 86 Latitude 10.502 S
Time 2148 Z Longitude 80.990 W

— Tem — Sal
— SigT

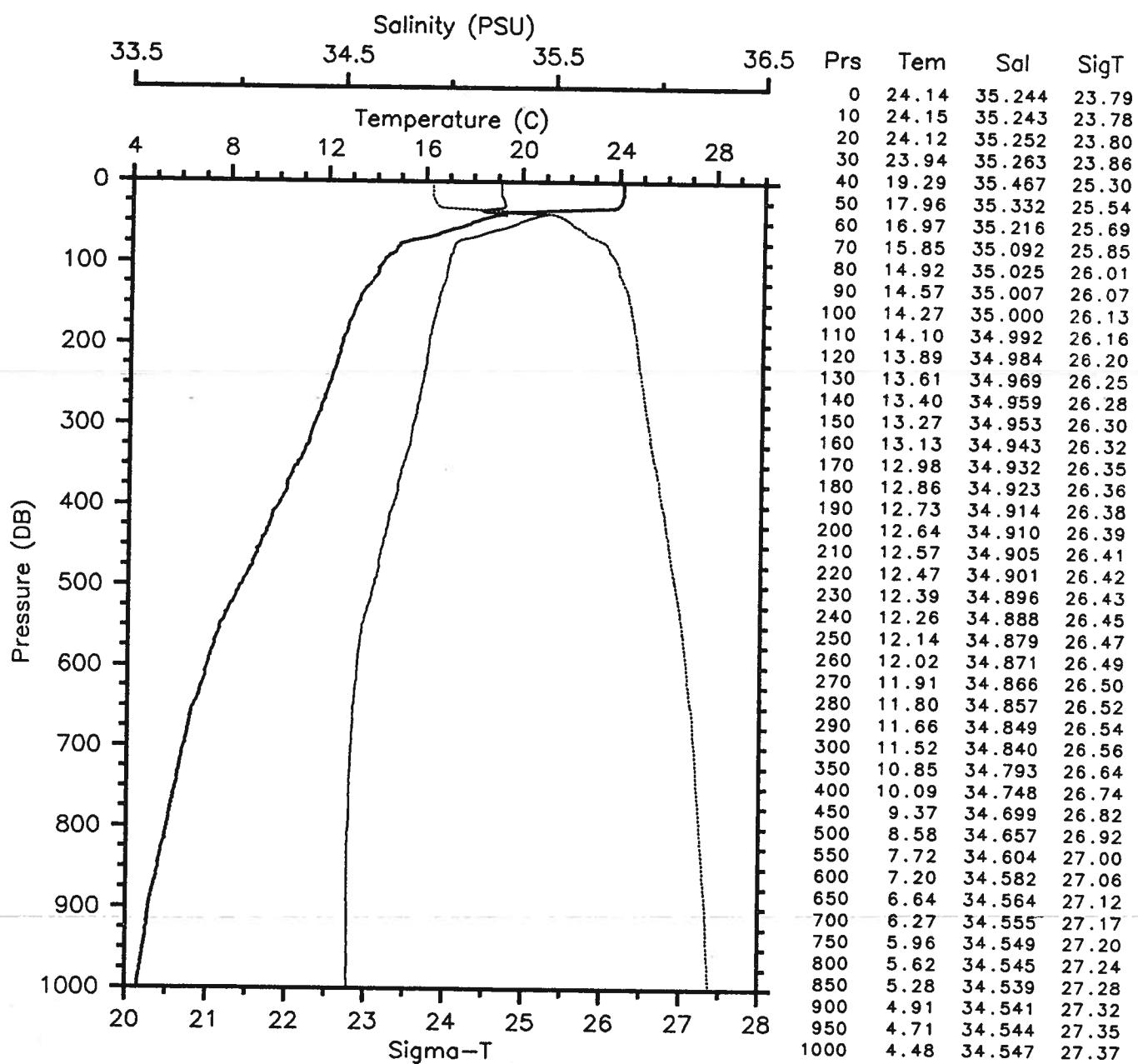


EPOCS EP1-86-OC CTD 72 OCEANOGRAPHER

Date 05 08 86 Latitude 10.507 S

Time 0129 Z Longitude 81.448 W

— Tem	— Sal
— SigT	

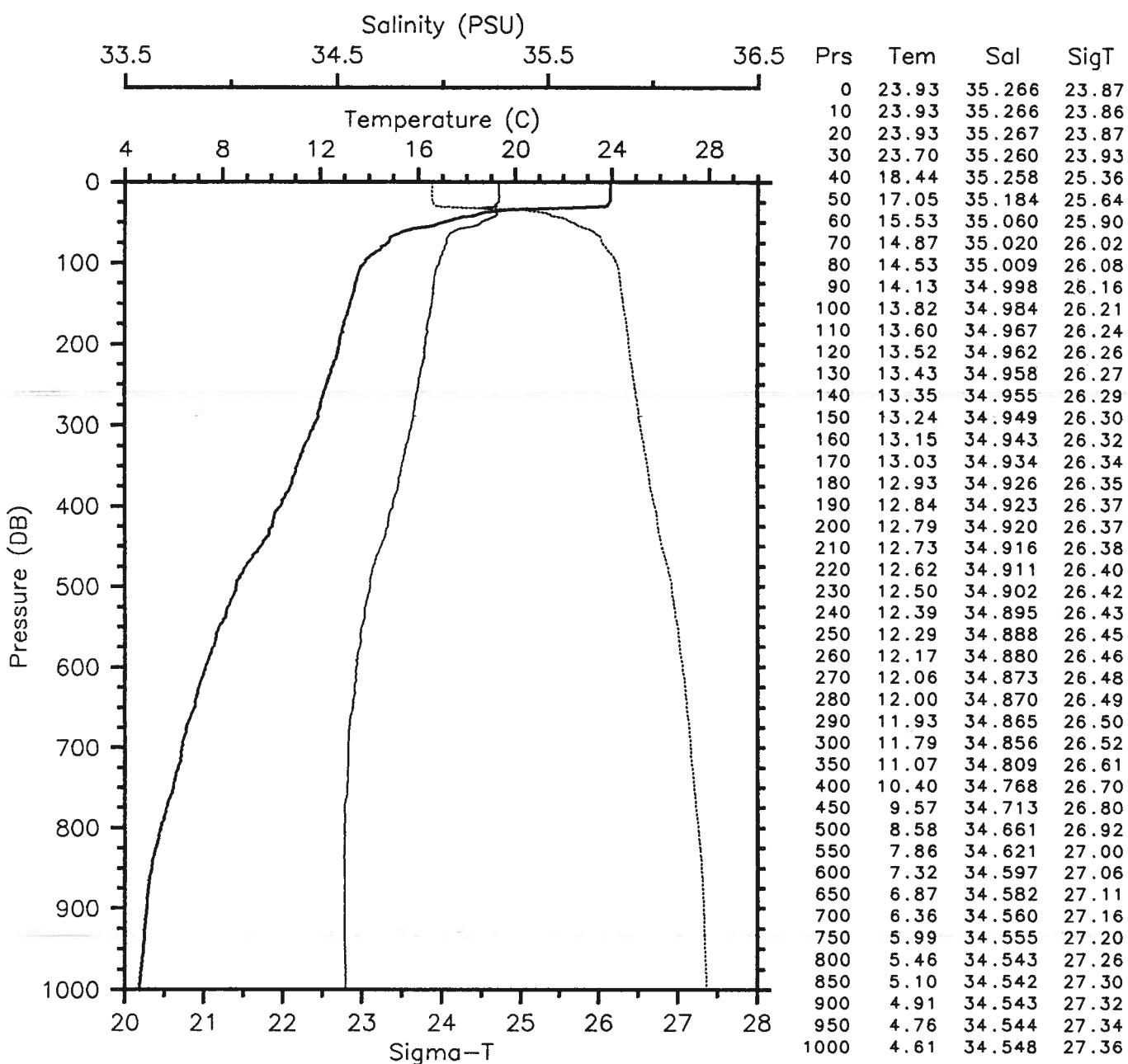


EPOCS EP1-86-OC CTD 73 OCEANOGRAPHER

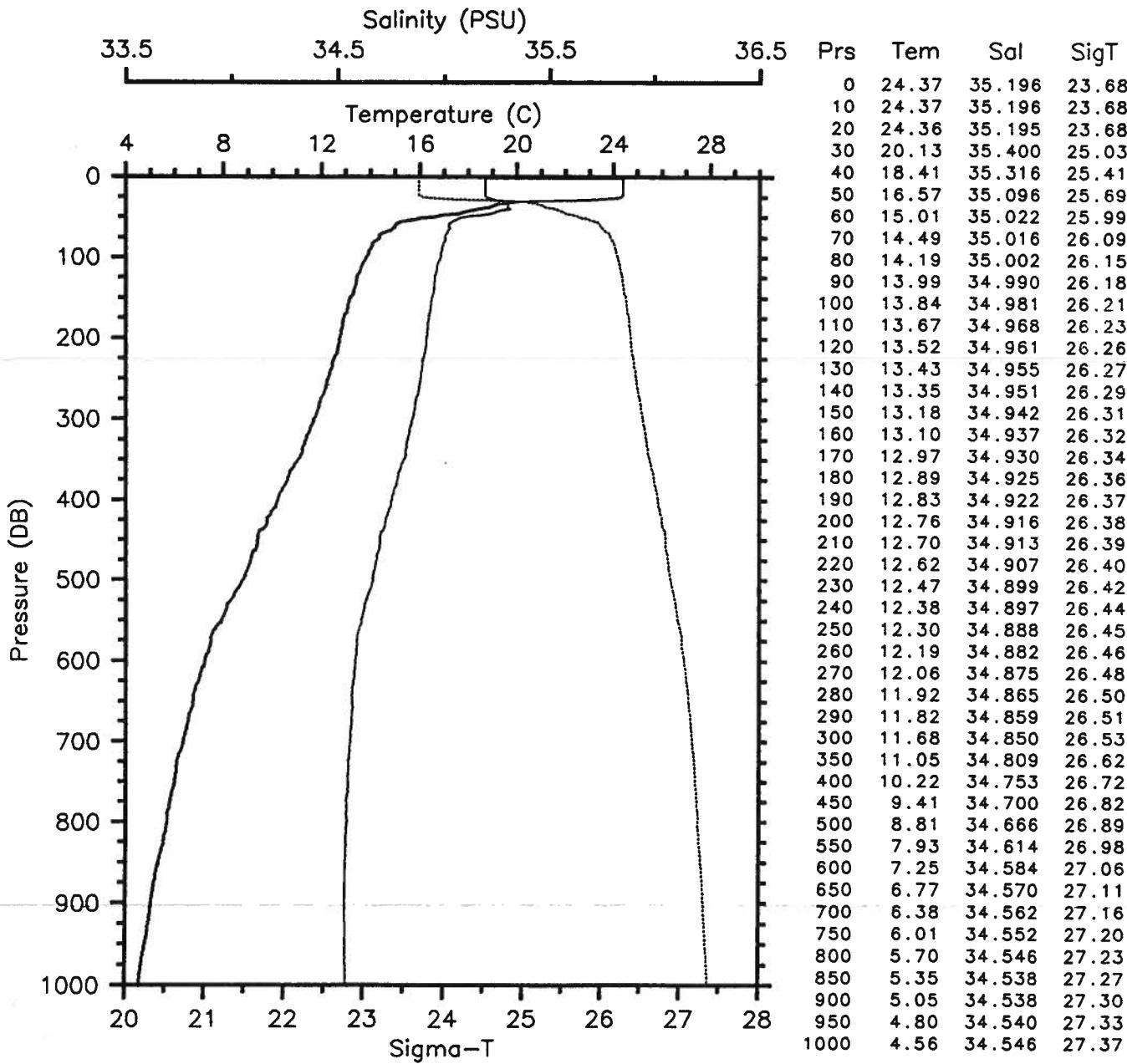
Date 05 08 86 Latitude 10.495 S

Time 0512 Z Longitude 81.977 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 74 OCEANOGRAPHER
 Date 05 08 86 Latitude 10.508 S
 Time 0836 Z Longitude 82.490 W

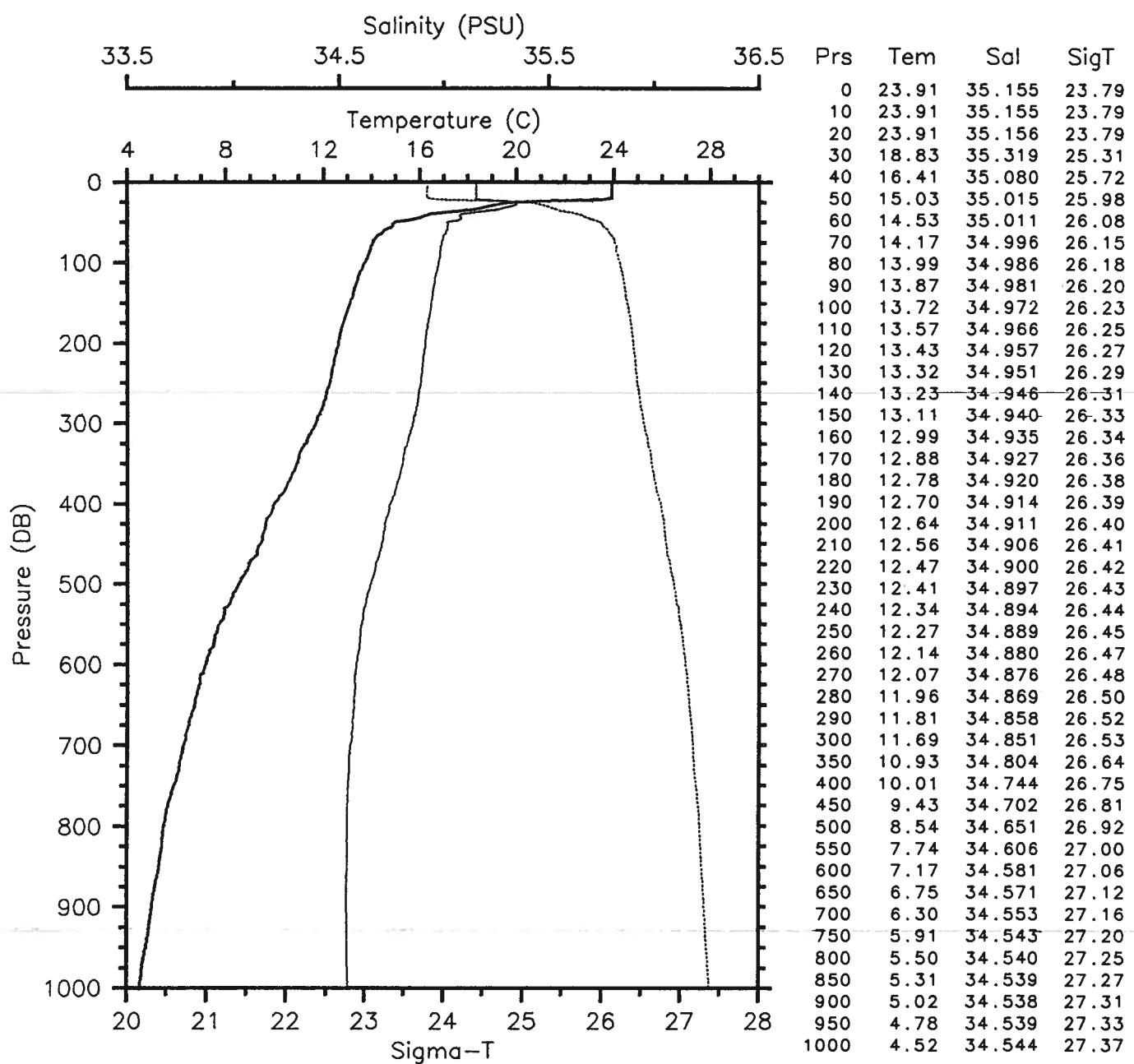


EPOCS EP1-86-OC CTD 75 OCEANOGRAPHER

Date 05 08 86 Latitude 10.543 S

Time 1201 Z Longitude 83.042 W

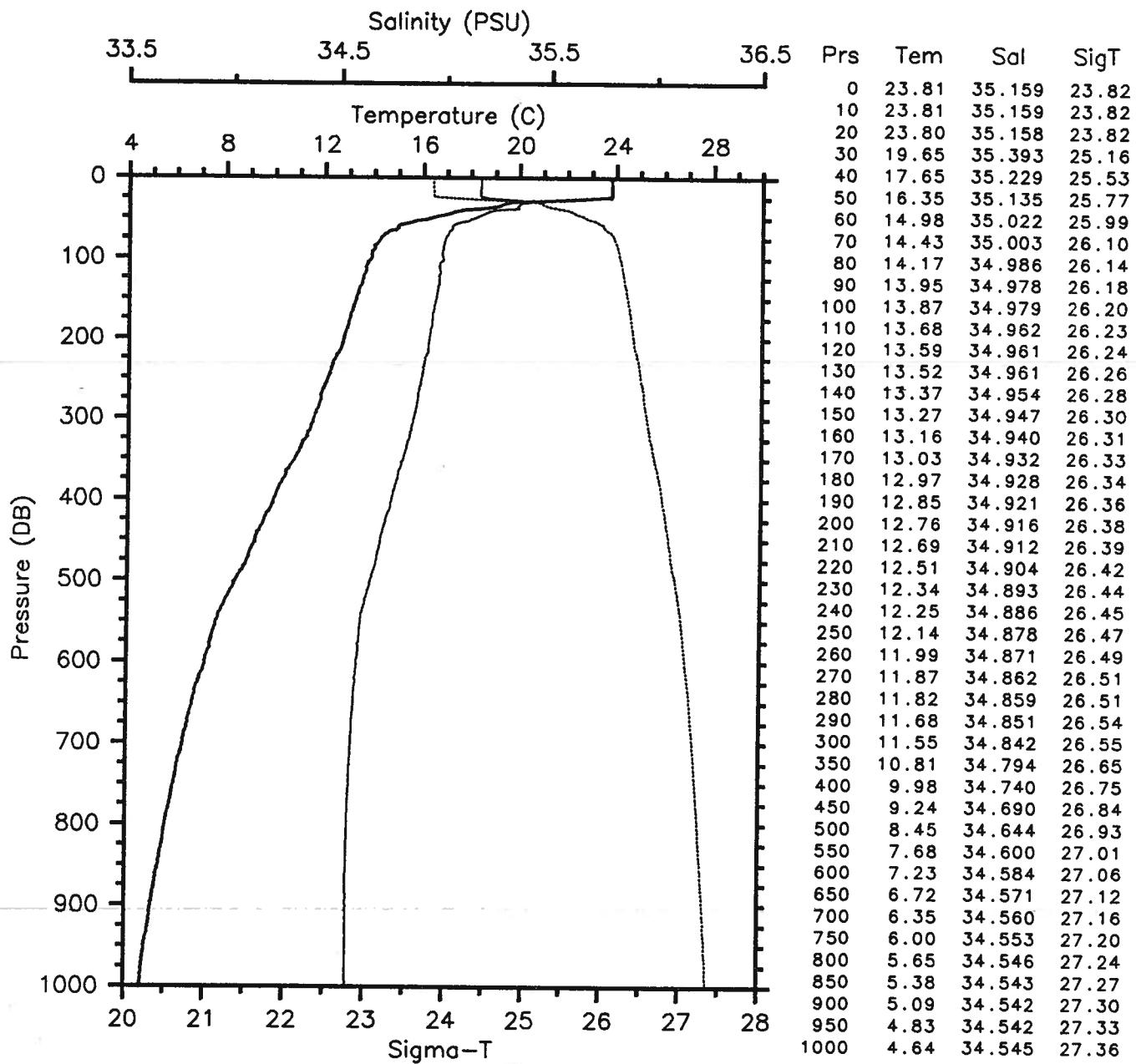
— Tem	— Sal
— SigT	



EPOCS EP1-86-OC CTD 76 OCEANOGRAPHER

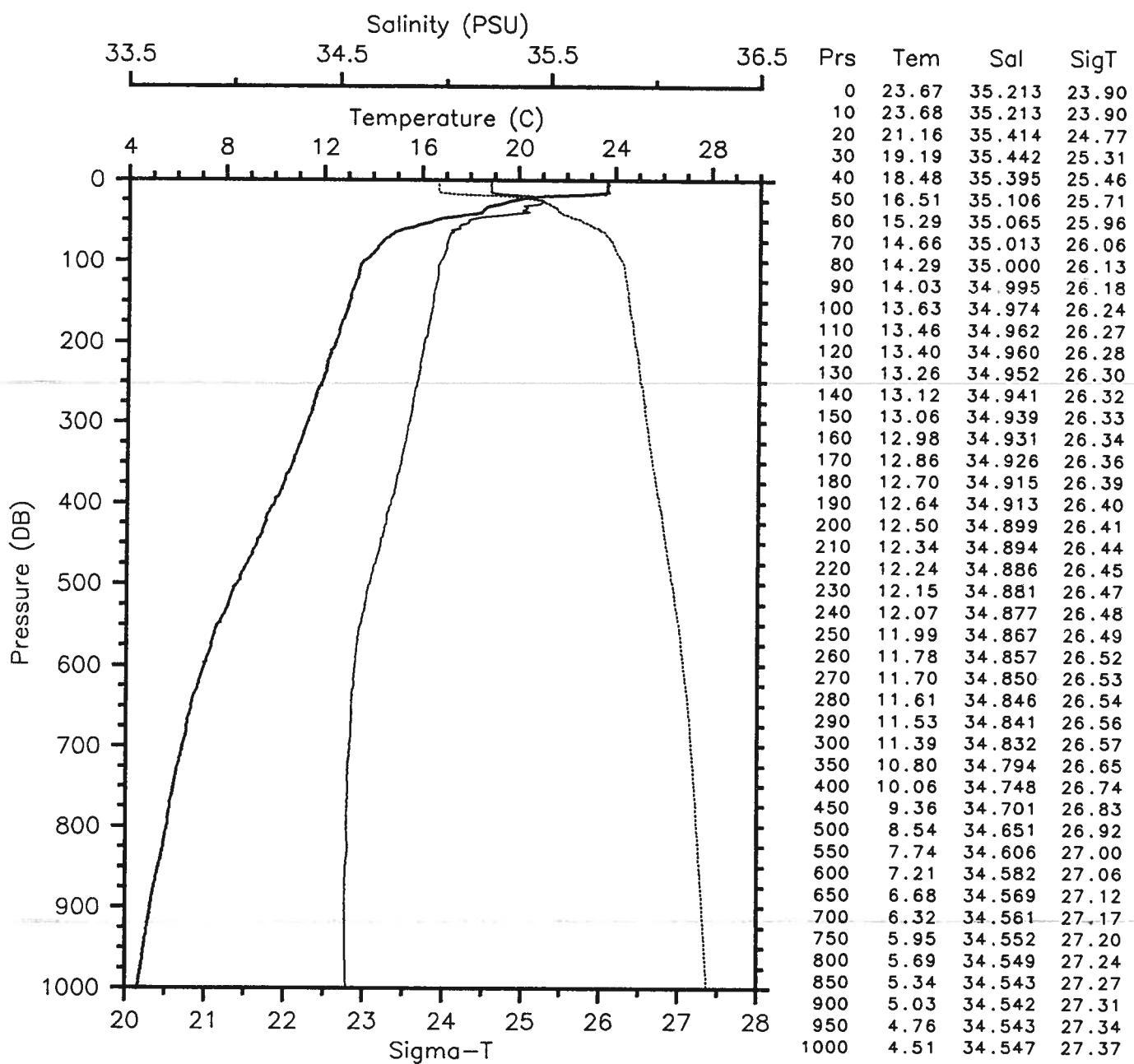
Date 05 08 86 Latitude 10.517 S
Time 1443 Z Longitude 83.490 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 77 OCEANOGRAPHER
 Date 05 08 86 Latitude 10.495 S
 Time 2006 Z Longitude 83.975 W

— Tem — Sal
 --- SigT

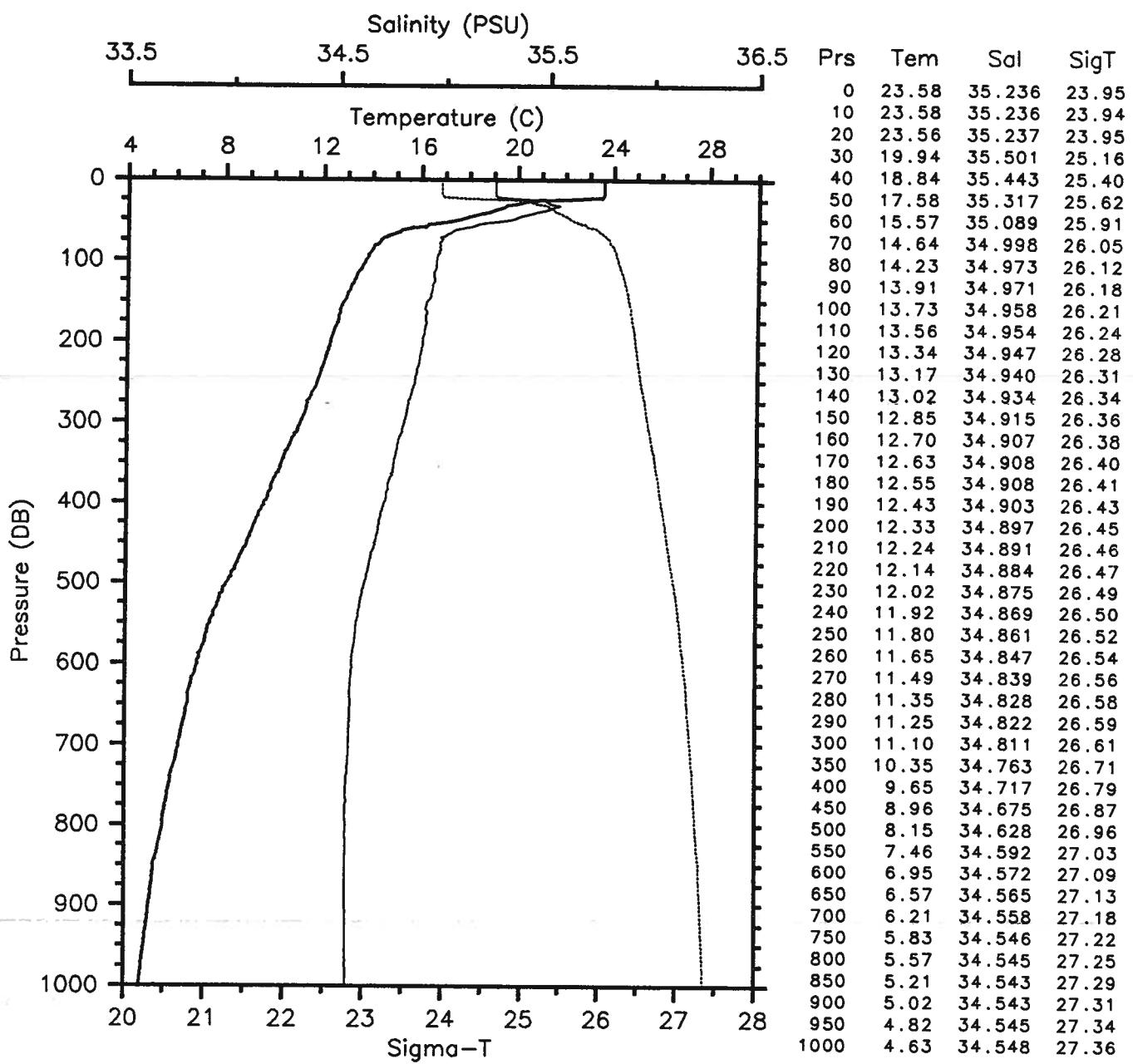


EPOCS EP1-86-OC CTD 78 OCEANOGRAPHER

Date 05 09 86 Latitude 10.488 S

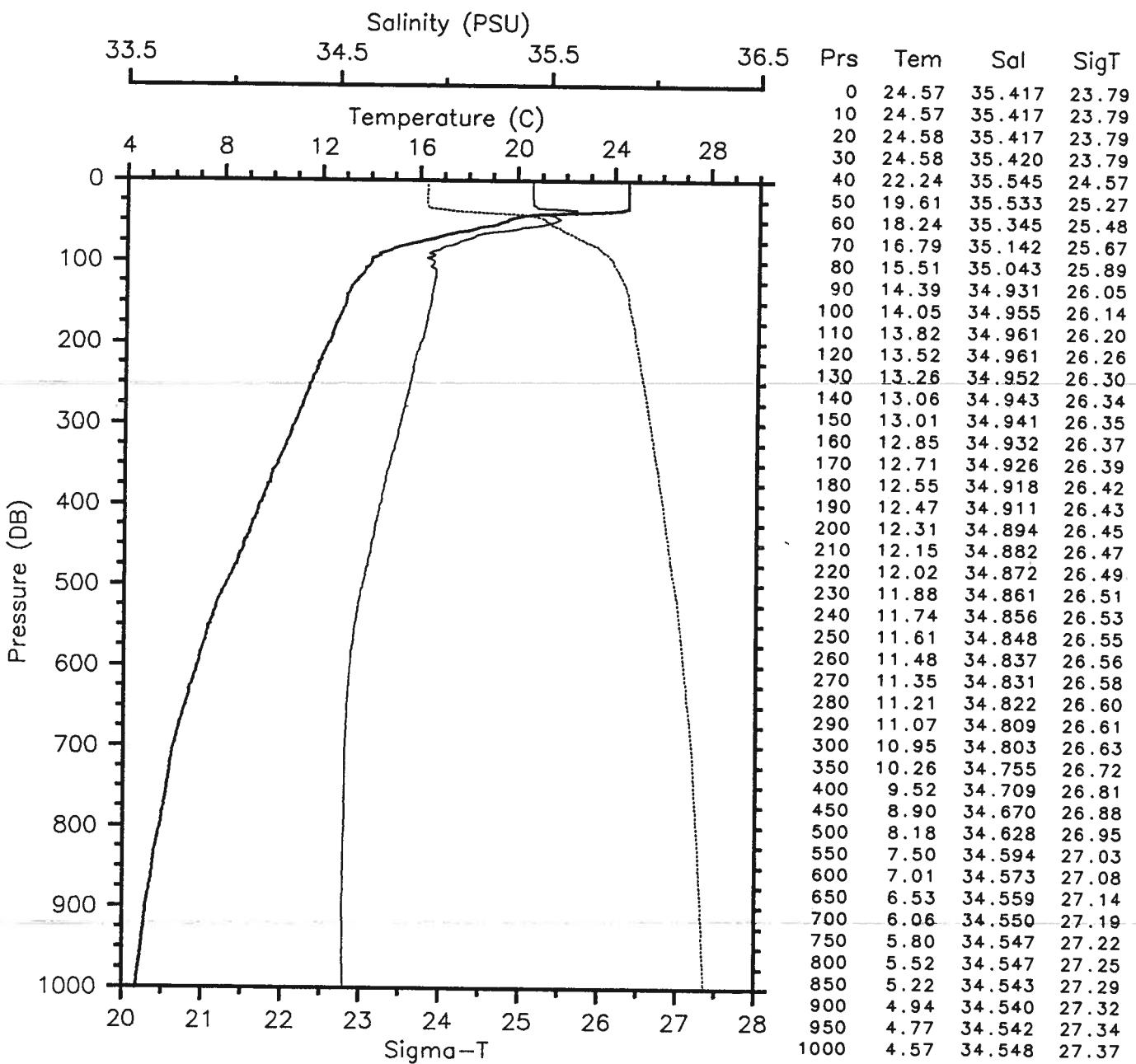
Time 0013 Z Longitude 84.505 W

— Tem — Sal
— SigT

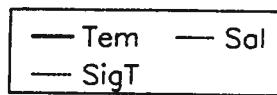


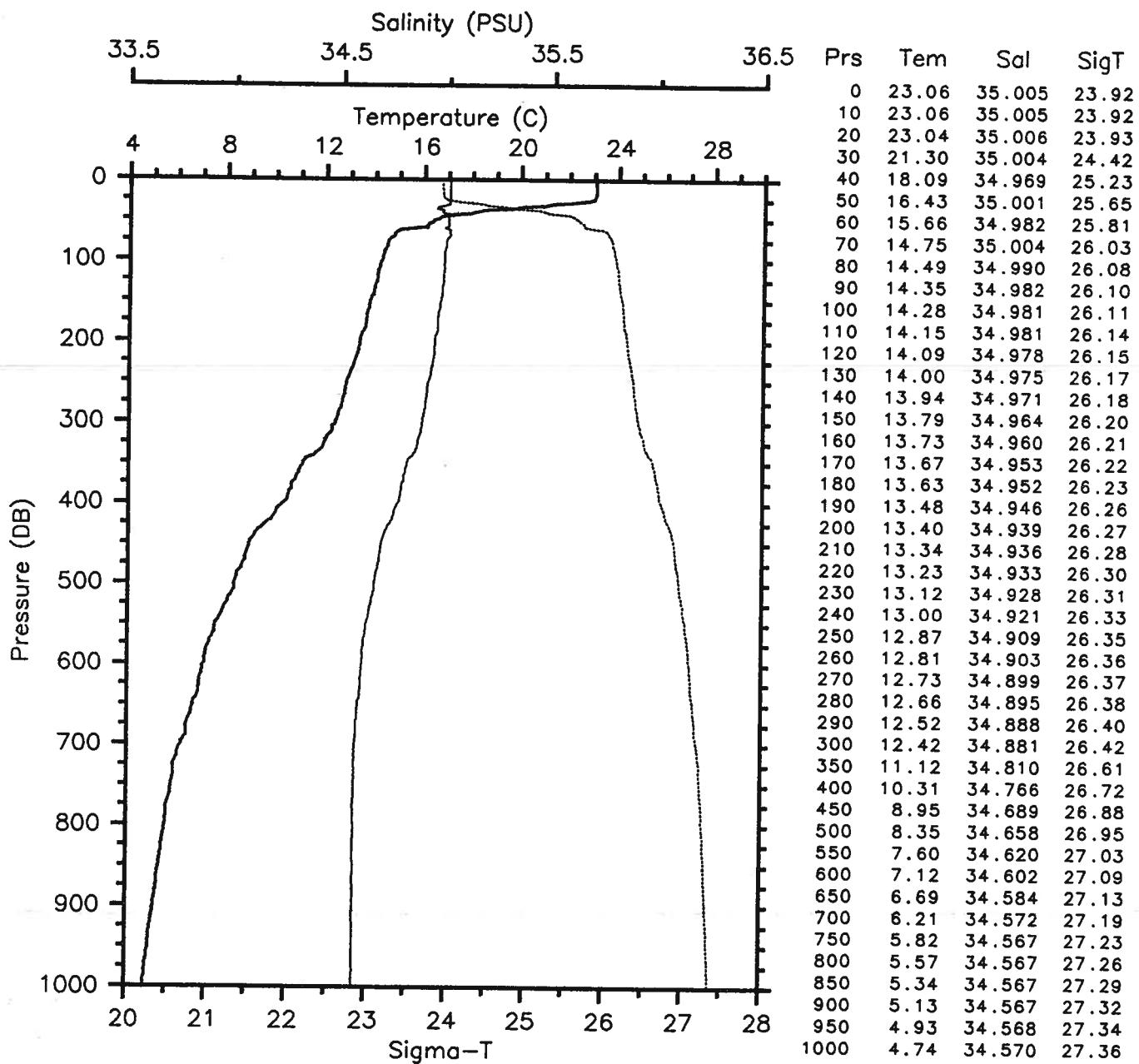
EPOCS EP1-86-OC CTD 79 OCEANOGRAPHER
 Date 05 09 86 Latitude 10.497 S
 Time 0341 Z Longitude 84.998 W

— Tem — Sal
 --- SigT



EPOCS EP1-86-OC CTD 80 OCEANOGRAPHER
 Date 05 10 86 Latitude 5.015 S
 Time 0417 Z Longitude 85.003 W


 — Tem — Sal
 — SigT

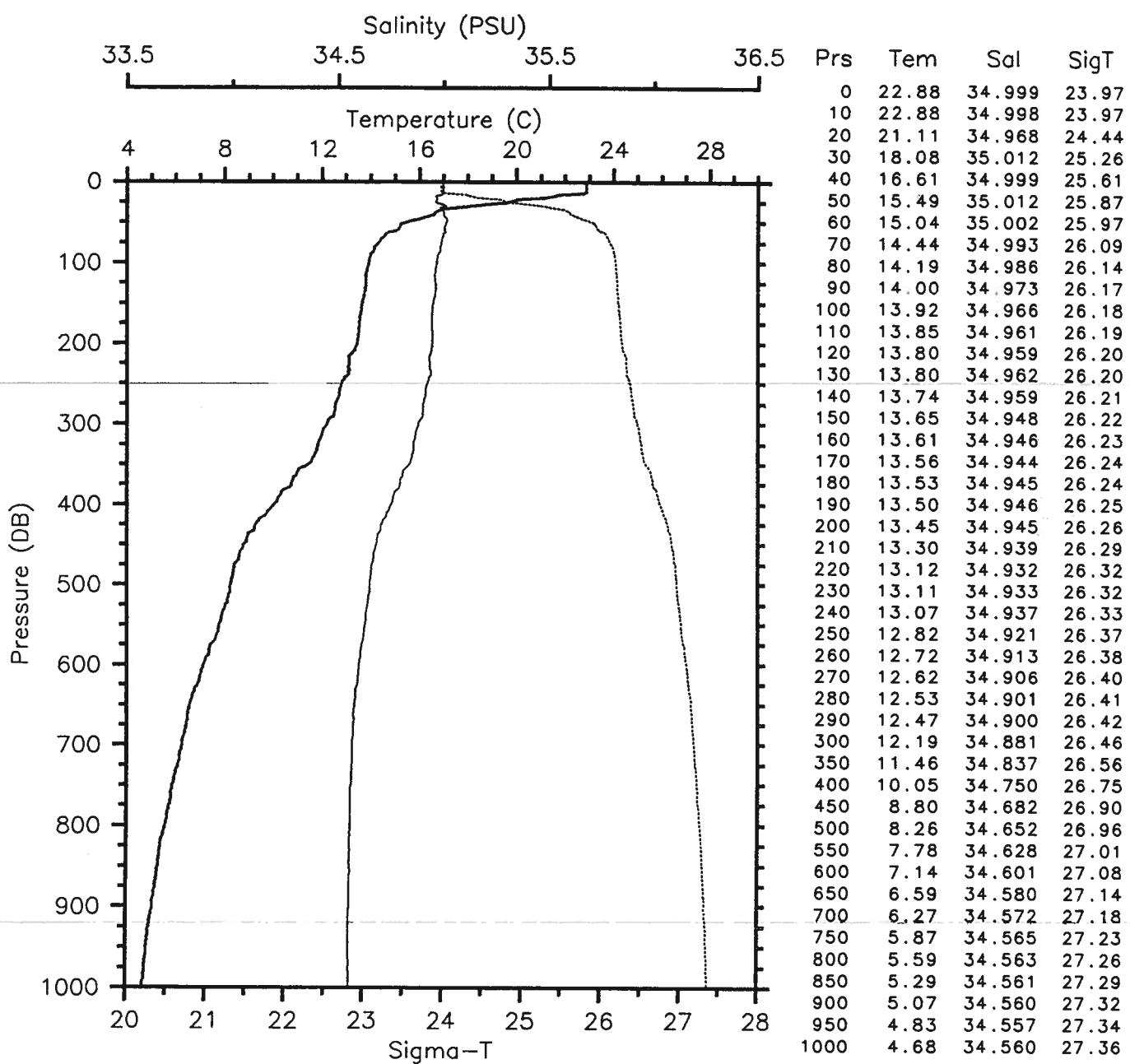


EPOCS EP1-86-OC CTD 81 OCEANOGRAPHER

Date 05 10 86 Latitude 5.015 S

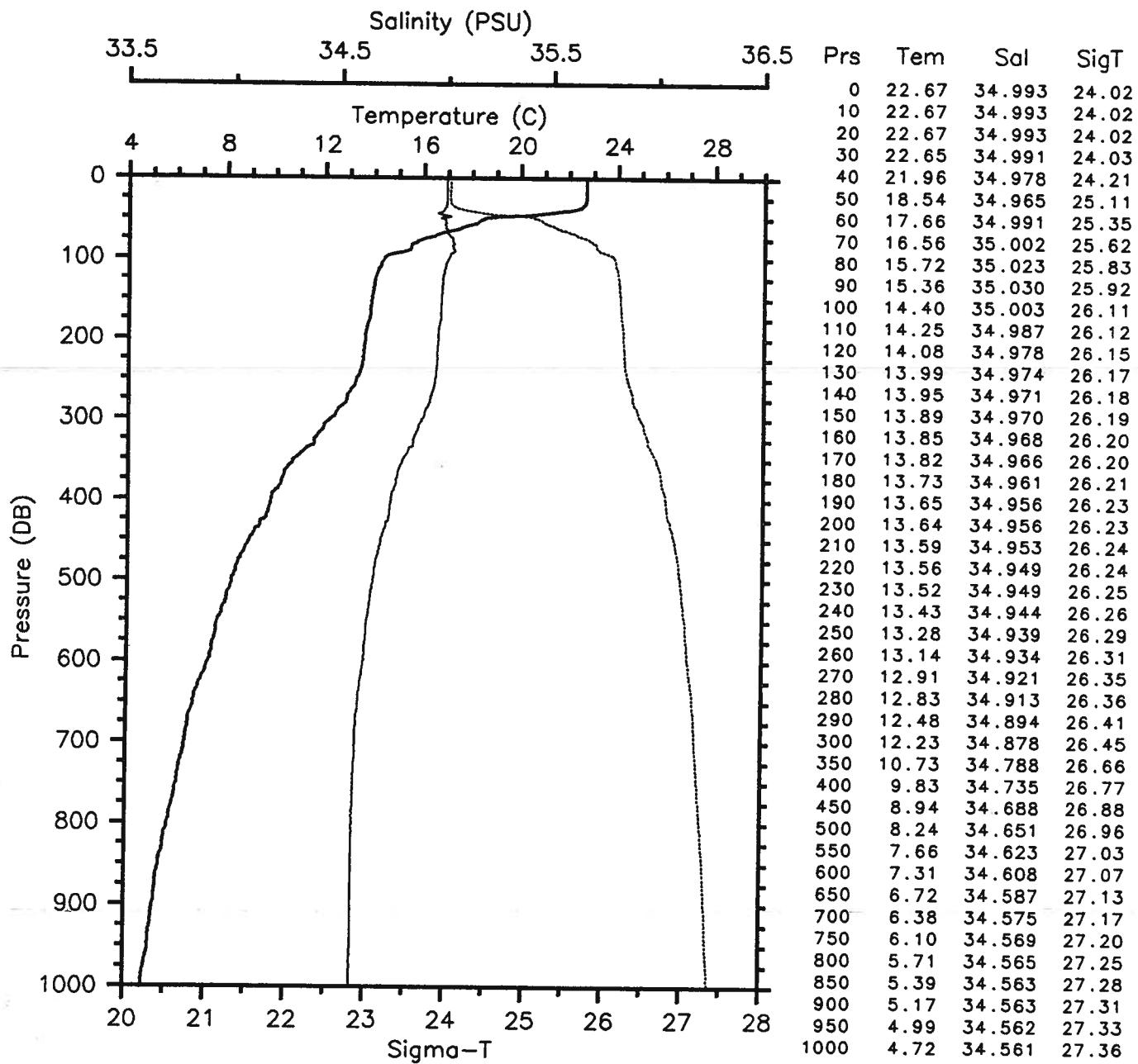
Time 0754 Z Longitude 84.507 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 82 OCEANOGRAPHER
 Date 05 10 86 Latitude 5.015 S
 Time 1110 Z Longitude 84.025 W

— Tem — Sal
 — SigT

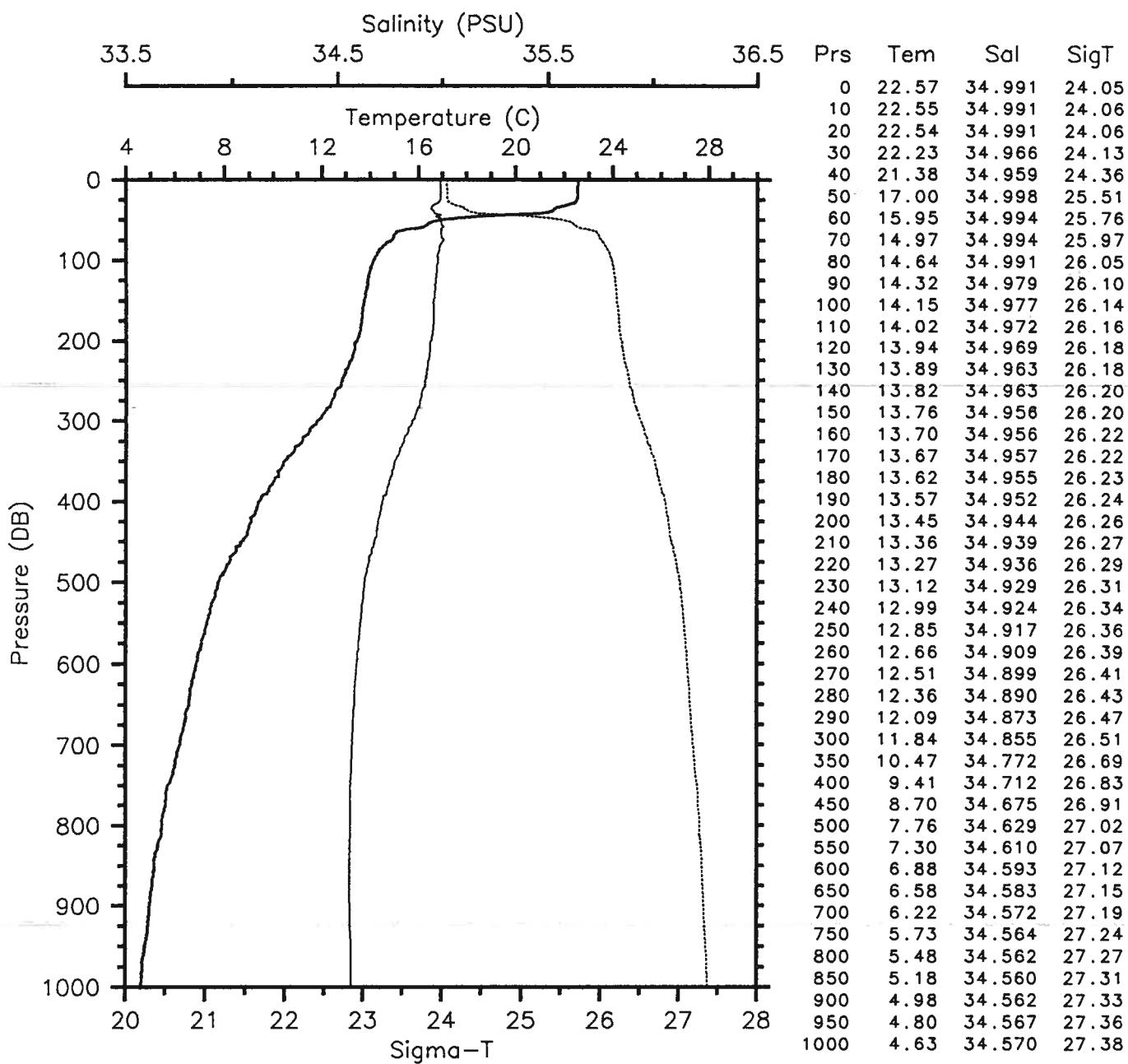


EPOCS EP1-86-OC CTD 83 OCEANOGRAPHER

Date 05 10 86 Latitude 5.008 S

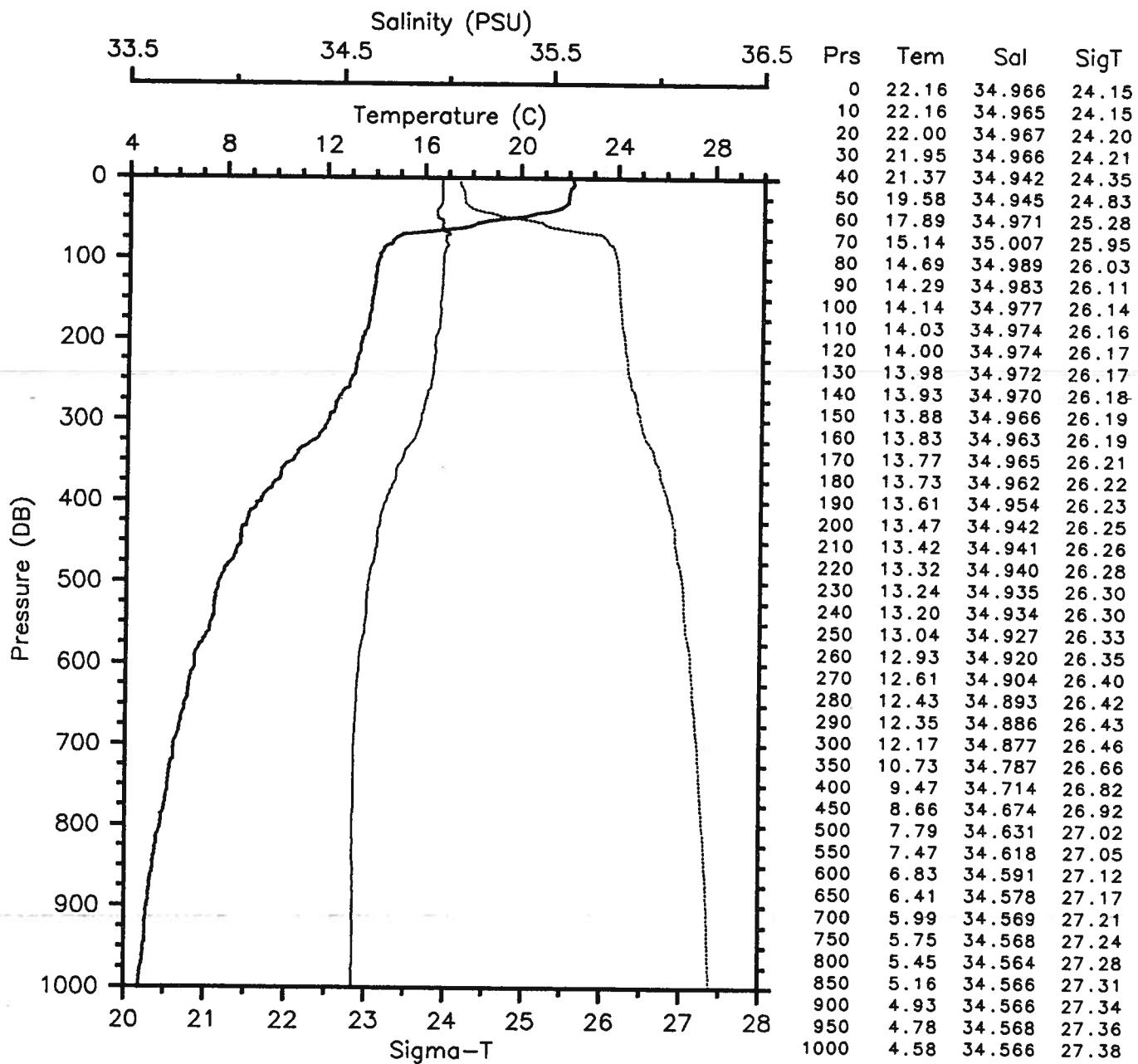
Time 1337 Z Longitude 83.502 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 84 OCEANOGRAPHER
 Date 05 10 86 Latitude 4.992 S
 Time 1748 Z Longitude 83.008 W

— Tem — Sal
 — SigT

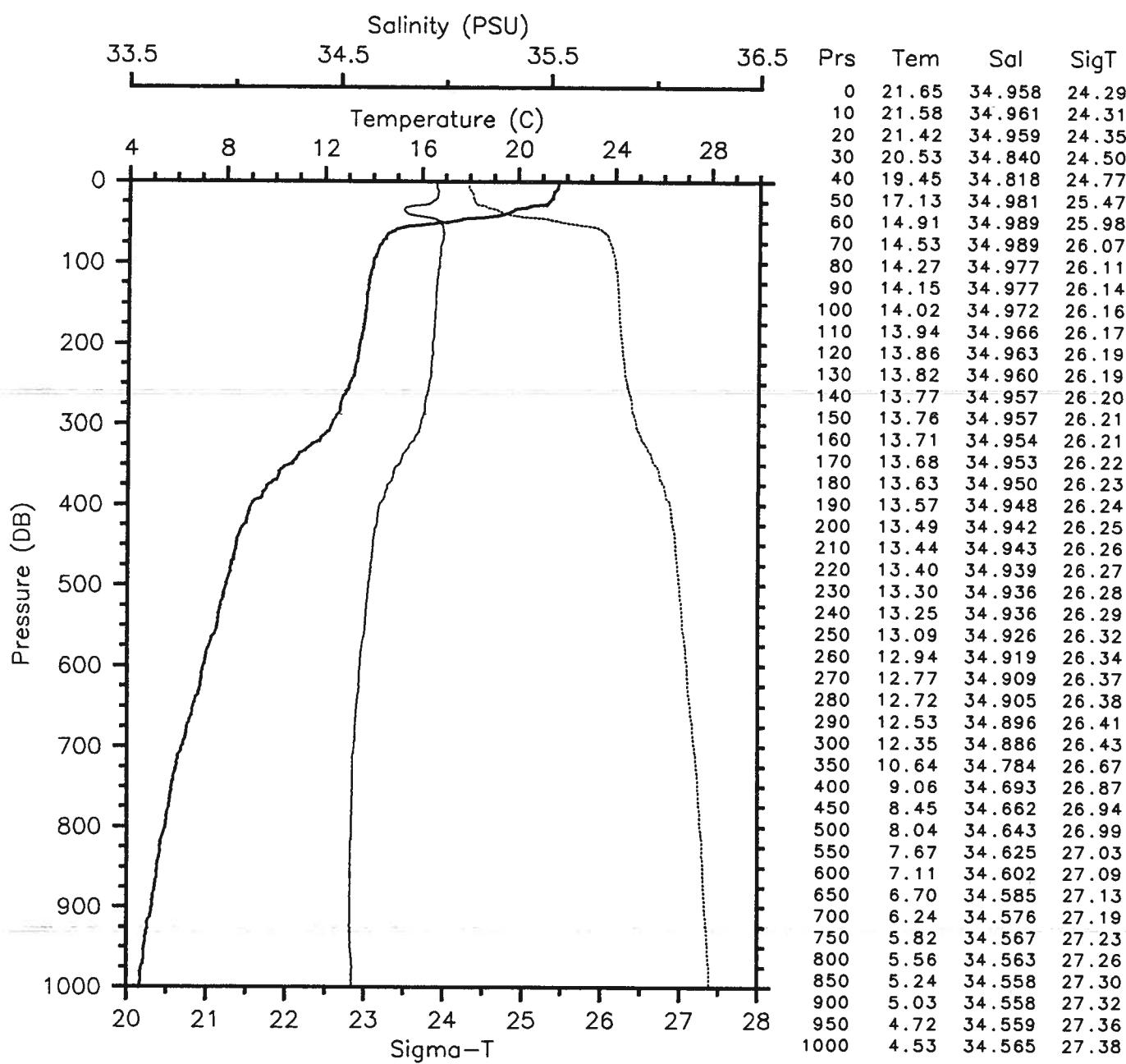


EPOCS EP1-86-OC CTD 85 OCEANOGRAPHER

Date 05 10 86 Latitude 4.993 S

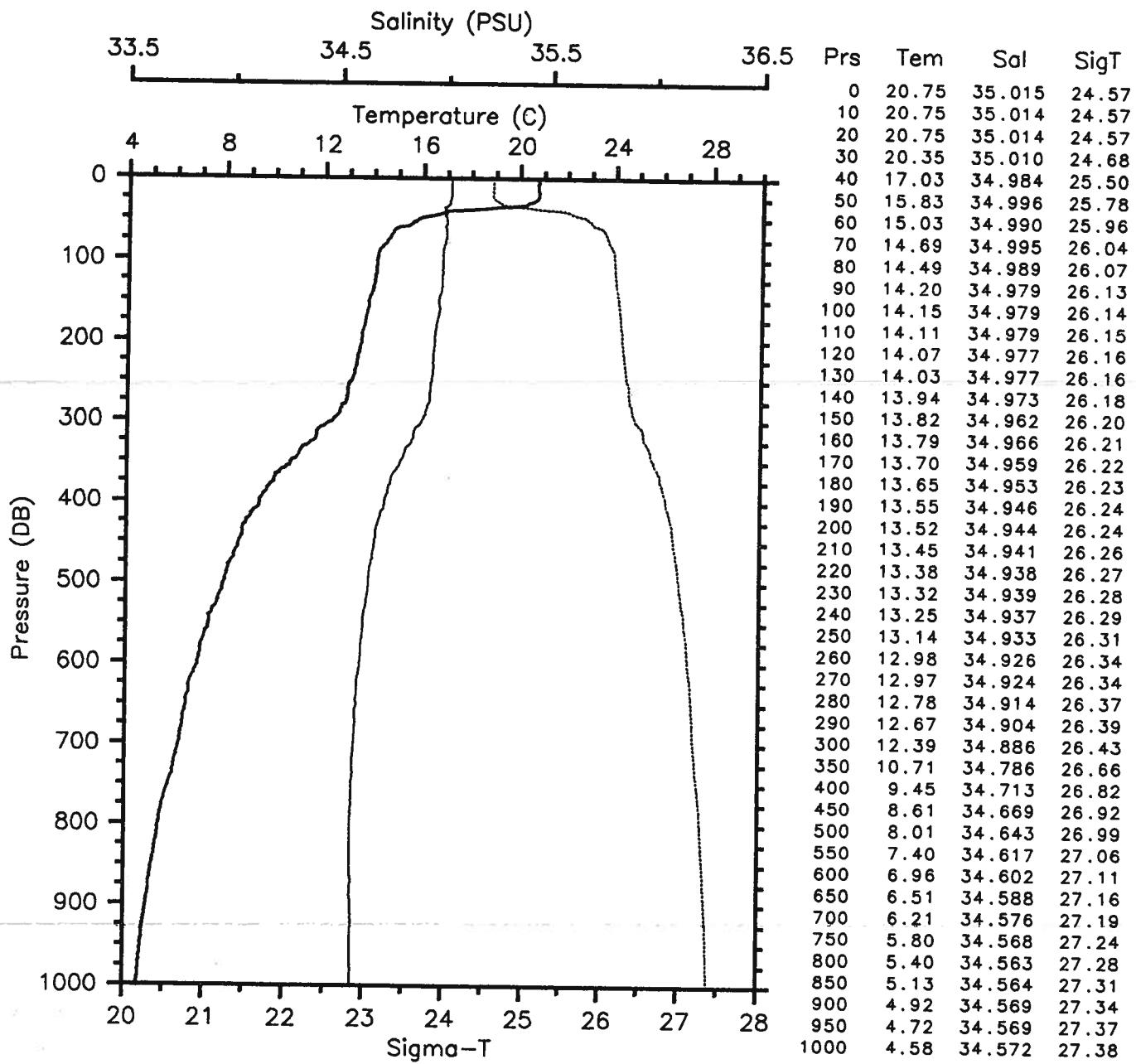
Time 2113 Z Longitude 82.500 W

— Tem	— Sal
--- SigT	



EPOCS EP1-86-OC CTD 86 OCEANOGRAPHER
 Date 05 11 86 Latitude 5.008 S
 Time 0131 Z Longitude 82.007 W

— Tem — Sal
 — SigT

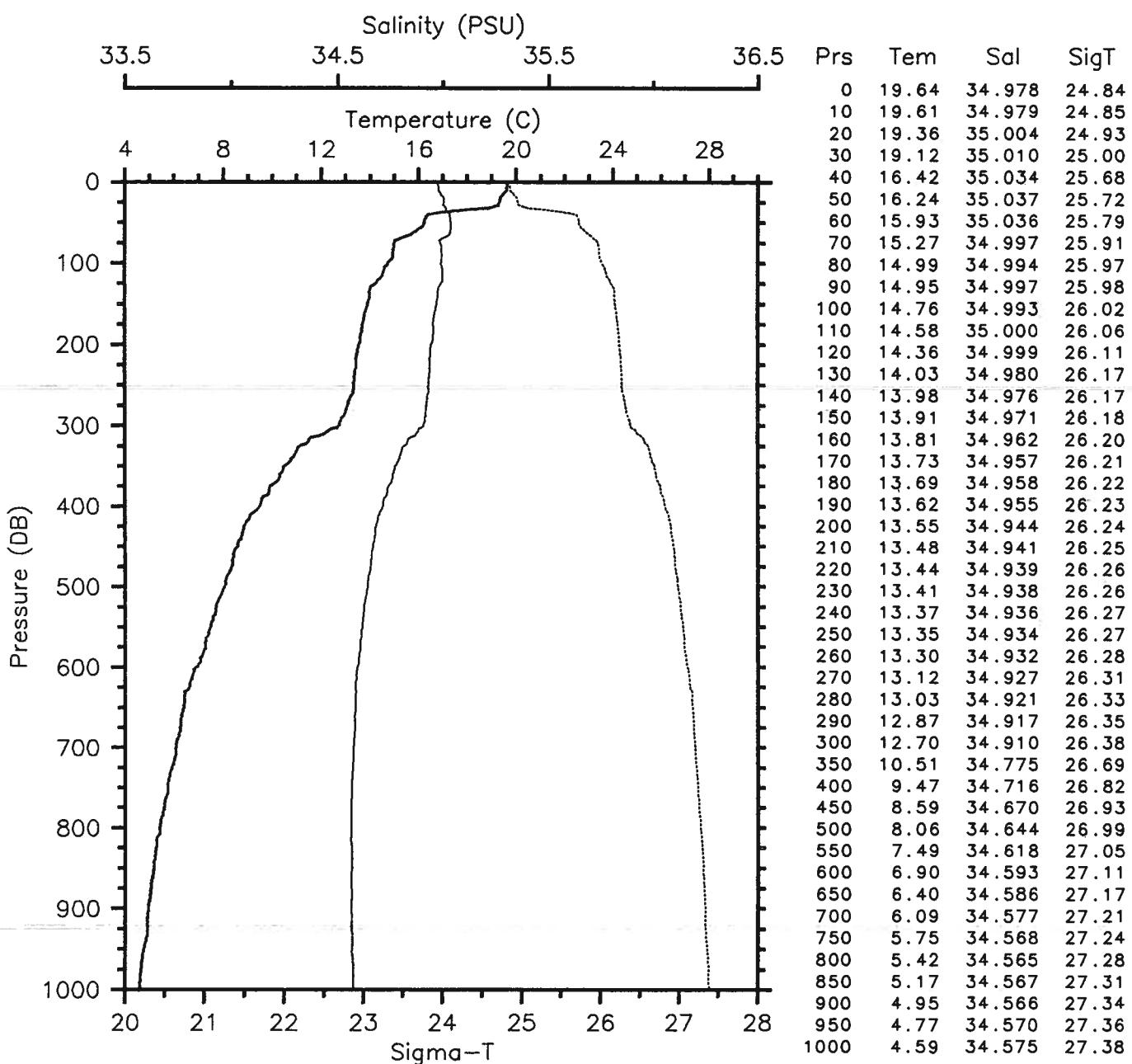


EPOCS EP1-86-OC CTD 87 OCEANOGRAPHER

Date 05 11 86 Latitude 5.022 S

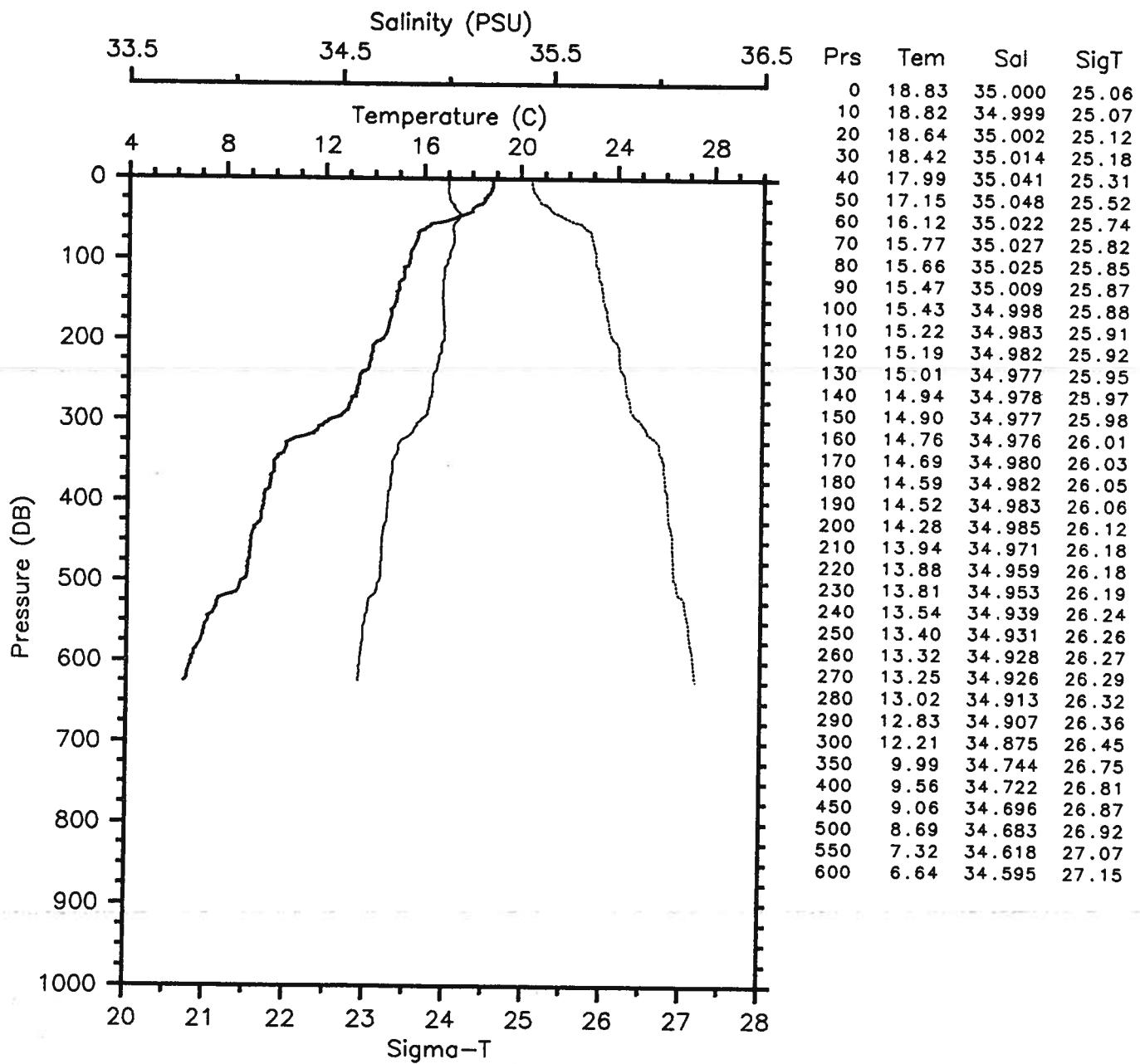
Time 0400 Z Longitude 81.748 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 88 OCEANOGRAPHER
 Date 05 11 86 Latitude 5.008 S
 Time 0636 Z Longitude 81.457 W

— Tem — Sal
 — SigT

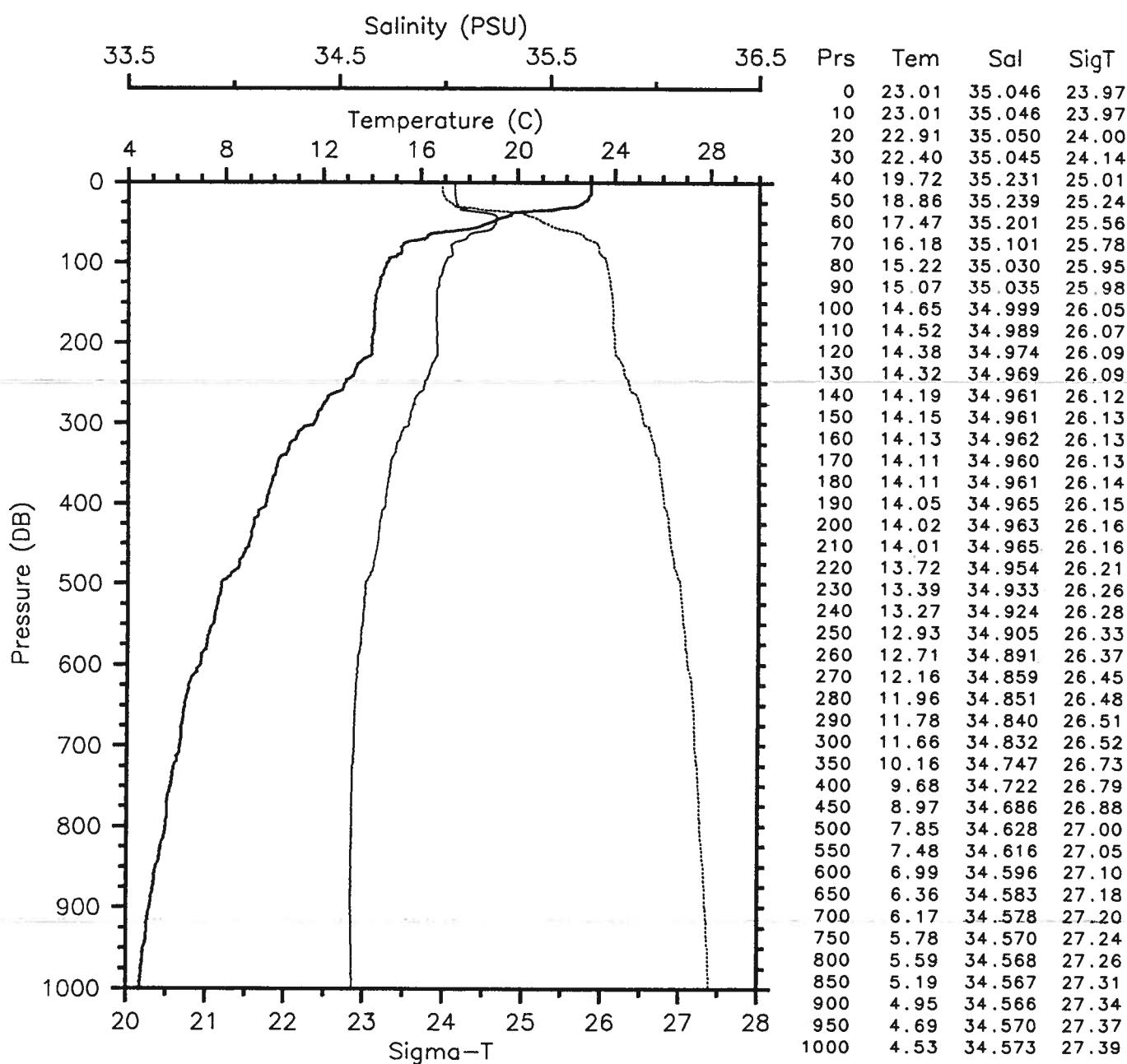


EPOCS EP1-86-OC CTD 90 OCEANOGRAPHER

Date 05 12 86 Latitude 1.528 S

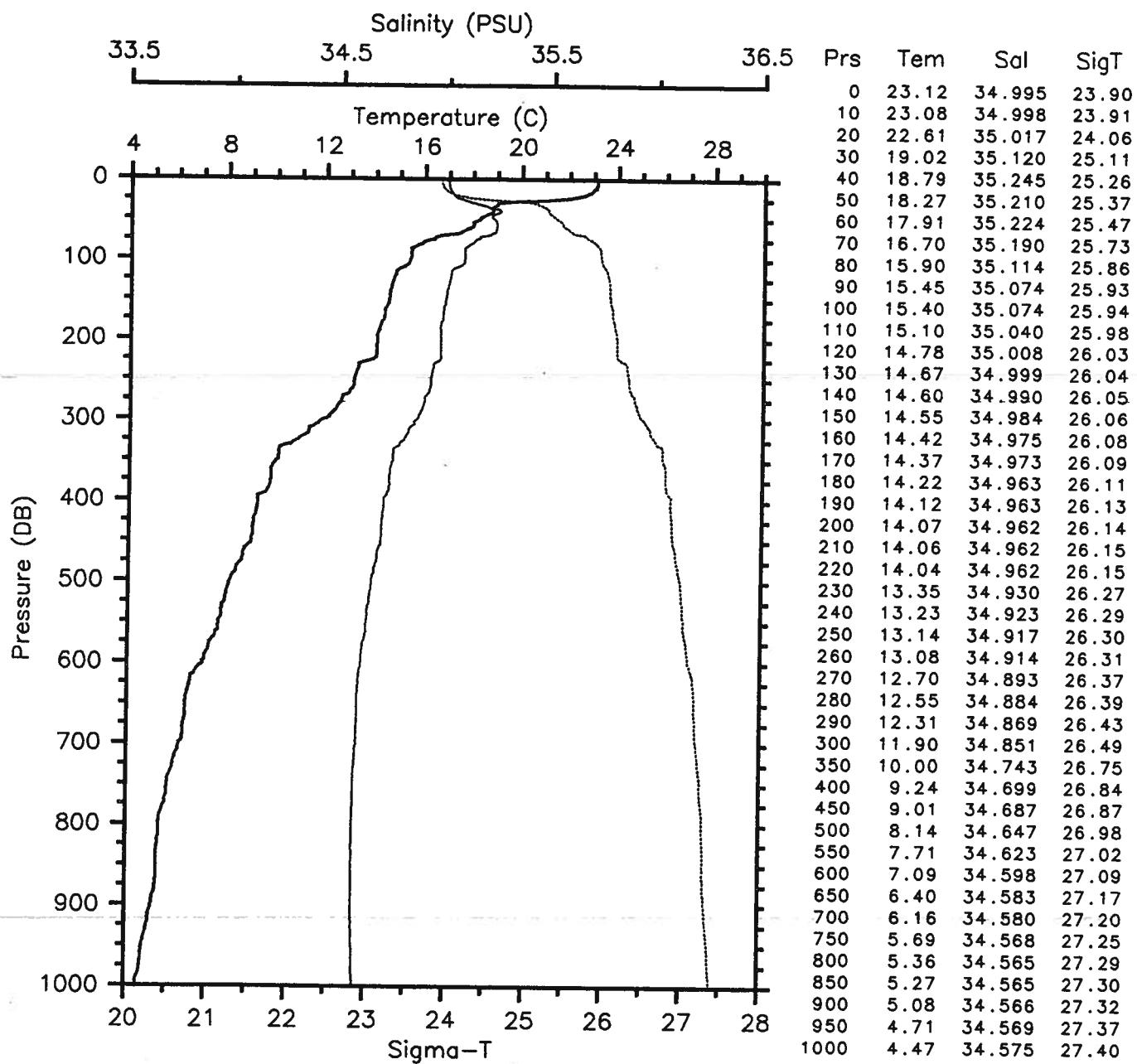
Time 0736 Z Longitude 84.995 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 91 OCEANOGRAPHER
 Date 05 12 86 Latitude 0.988 S
 Time 1257 Z Longitude 85.005 W

— Tem — Sal
 — SigT

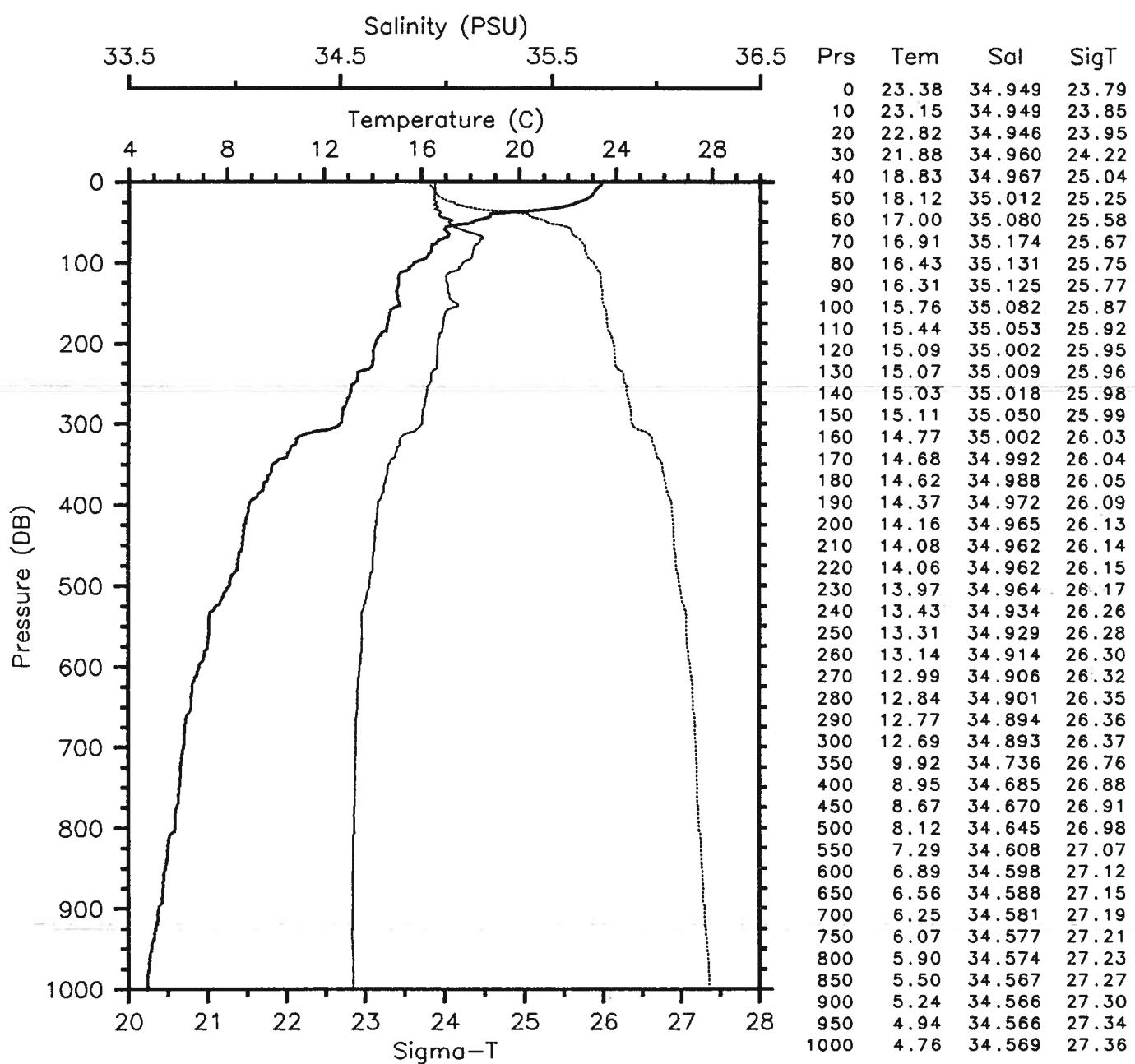


EPOCS EP1-86-OC CTD 92 OCEANOGRAPHER

Date 05 12 86 Latitude 0.528 S

Time 1605 Z Longitude 85.003 W

— Tem — Sal
--- SigT

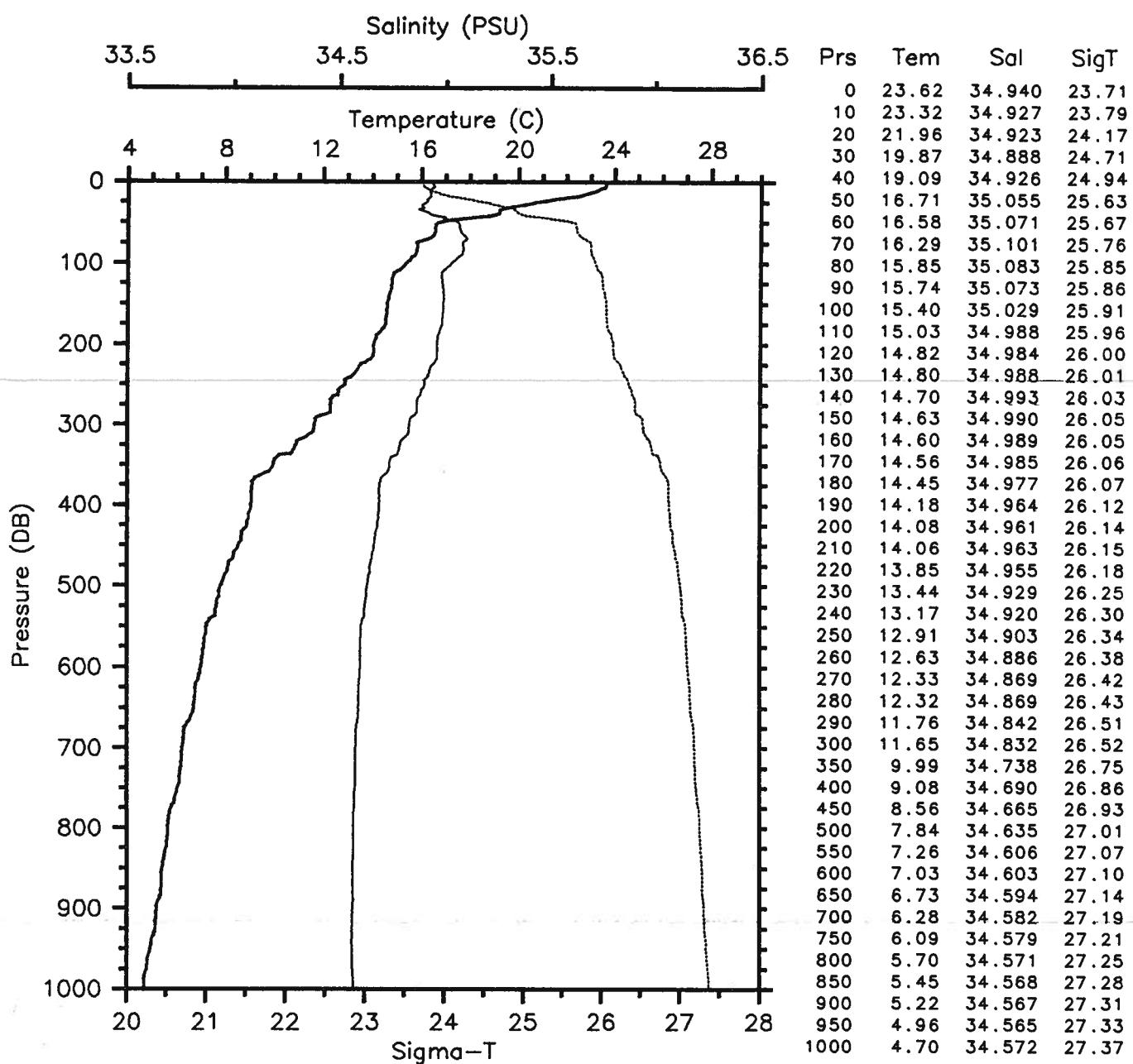


EPOCS EP1-86-OC CTD 93 OCEANOGRAPHER

Date 05 12 86 Latitude 0.002 N

Time 2046 Z Longitude 84.985 W

— Tem — Sal
— SigT

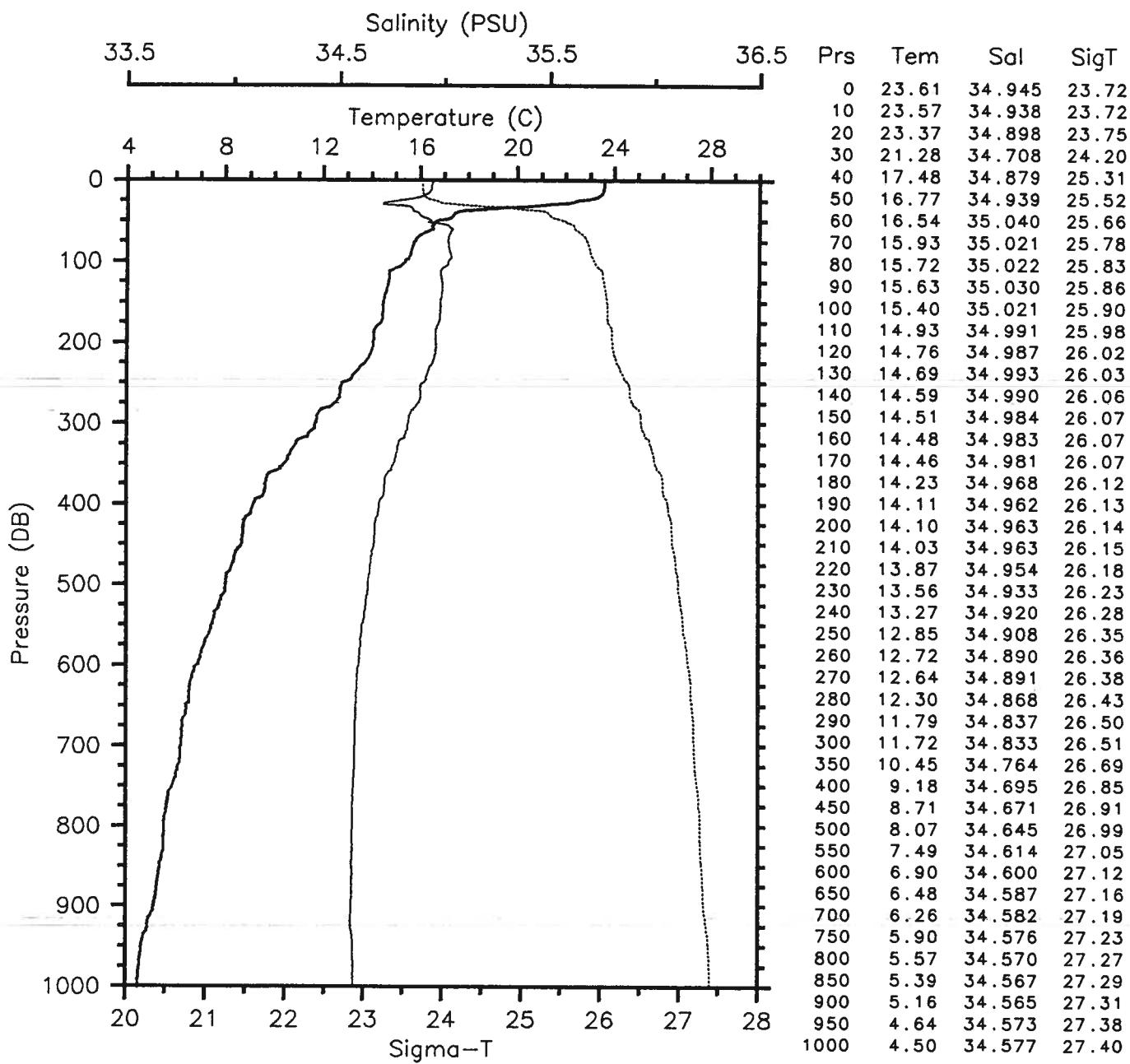


EPOCS EP1-86-OC CTD 94 OCEANOGRAPHER

Date 05 13 86 Latitude 0.502 N

Time 0009 Z Longitude 84.972 W

— Tem — Sal
— SigT

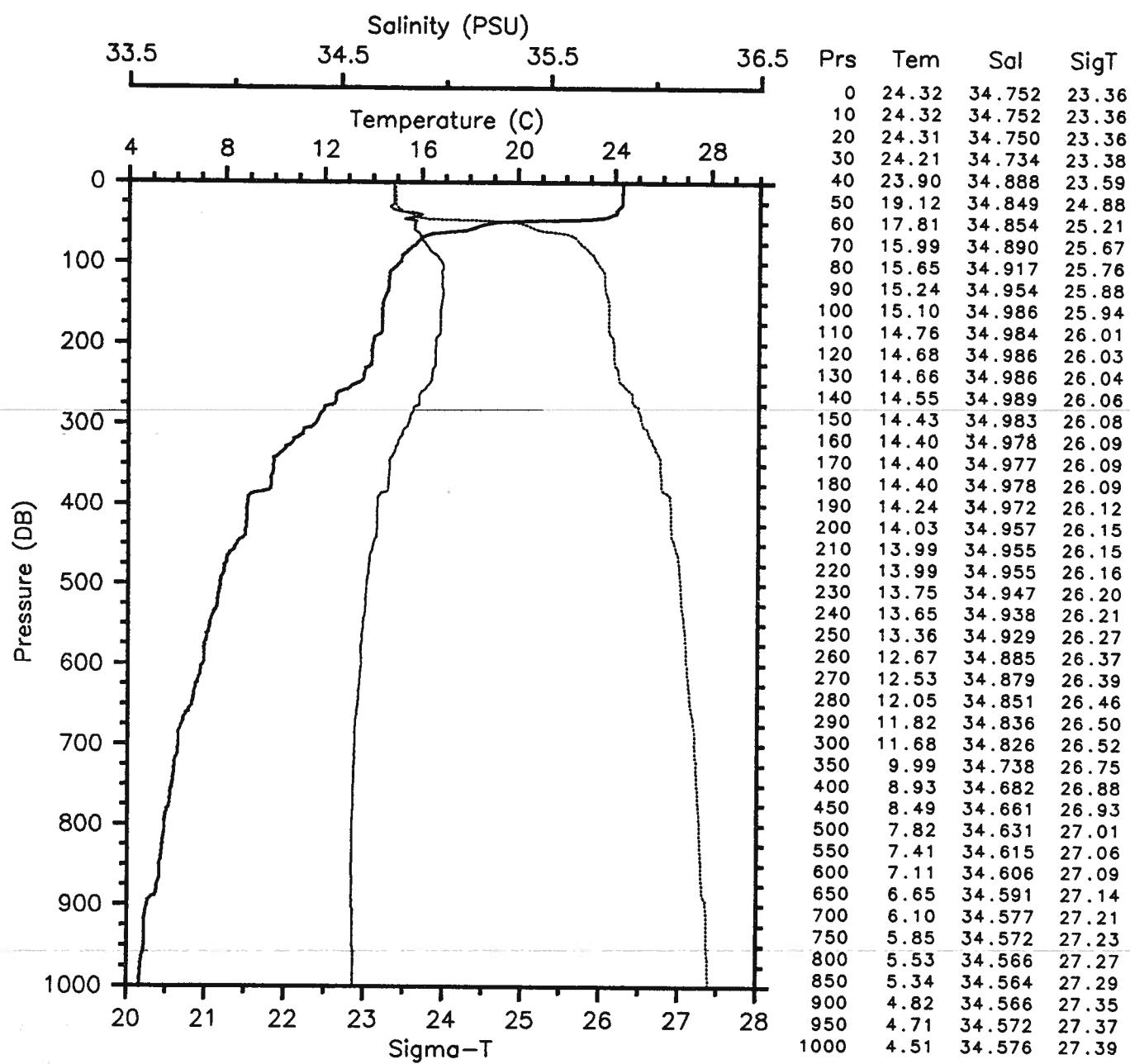


EPOCS EP1-86-OC CTD 95 OCEANOGRAPHER

Date 05 13 86 Latitude 1.000 N

Time 0651 Z Longitude 84.998 W

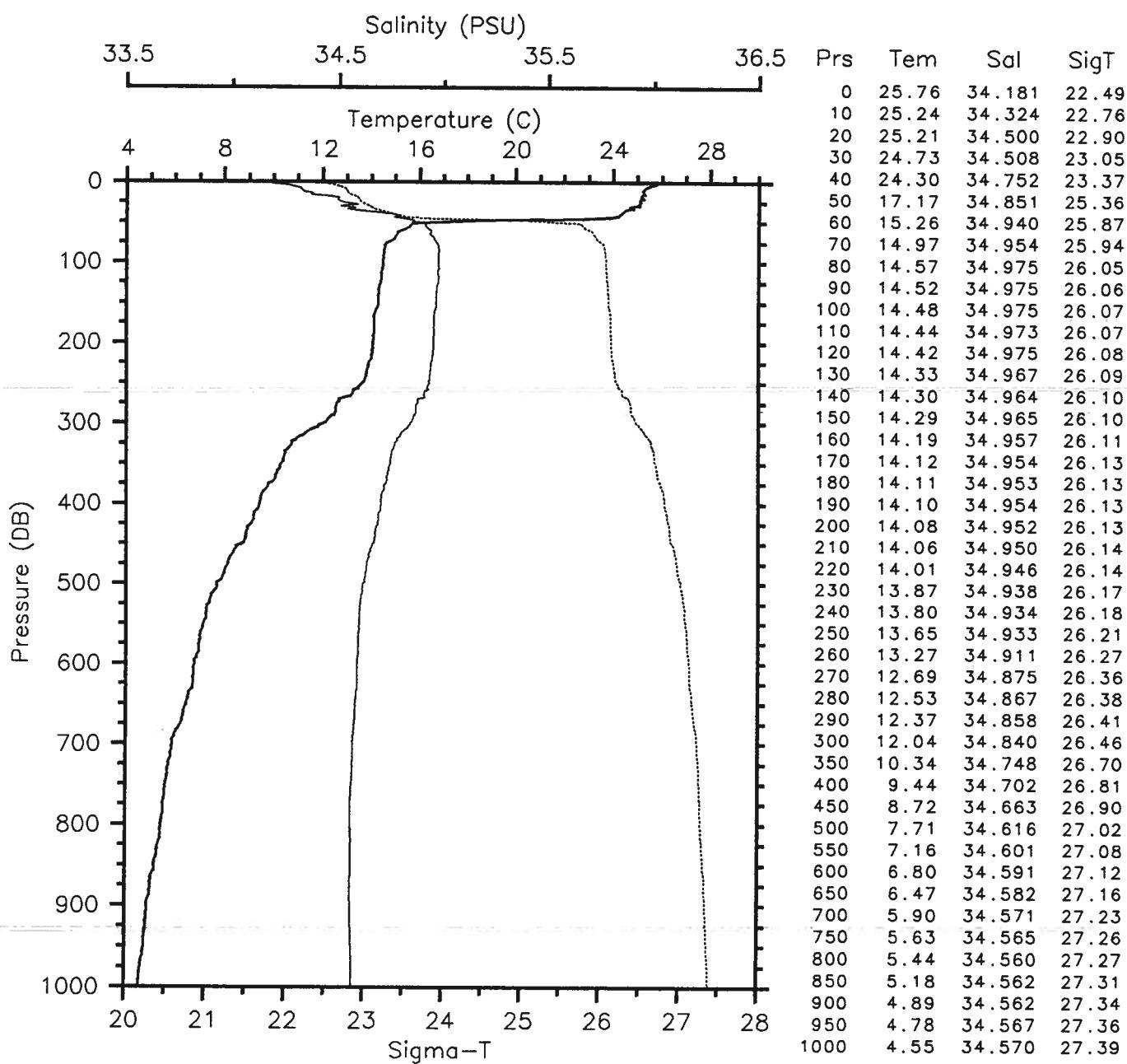
— Tem	— Sal
— SigT	



EPOCS EP1-86-OC CTD 96 OCEANOGRAPHER

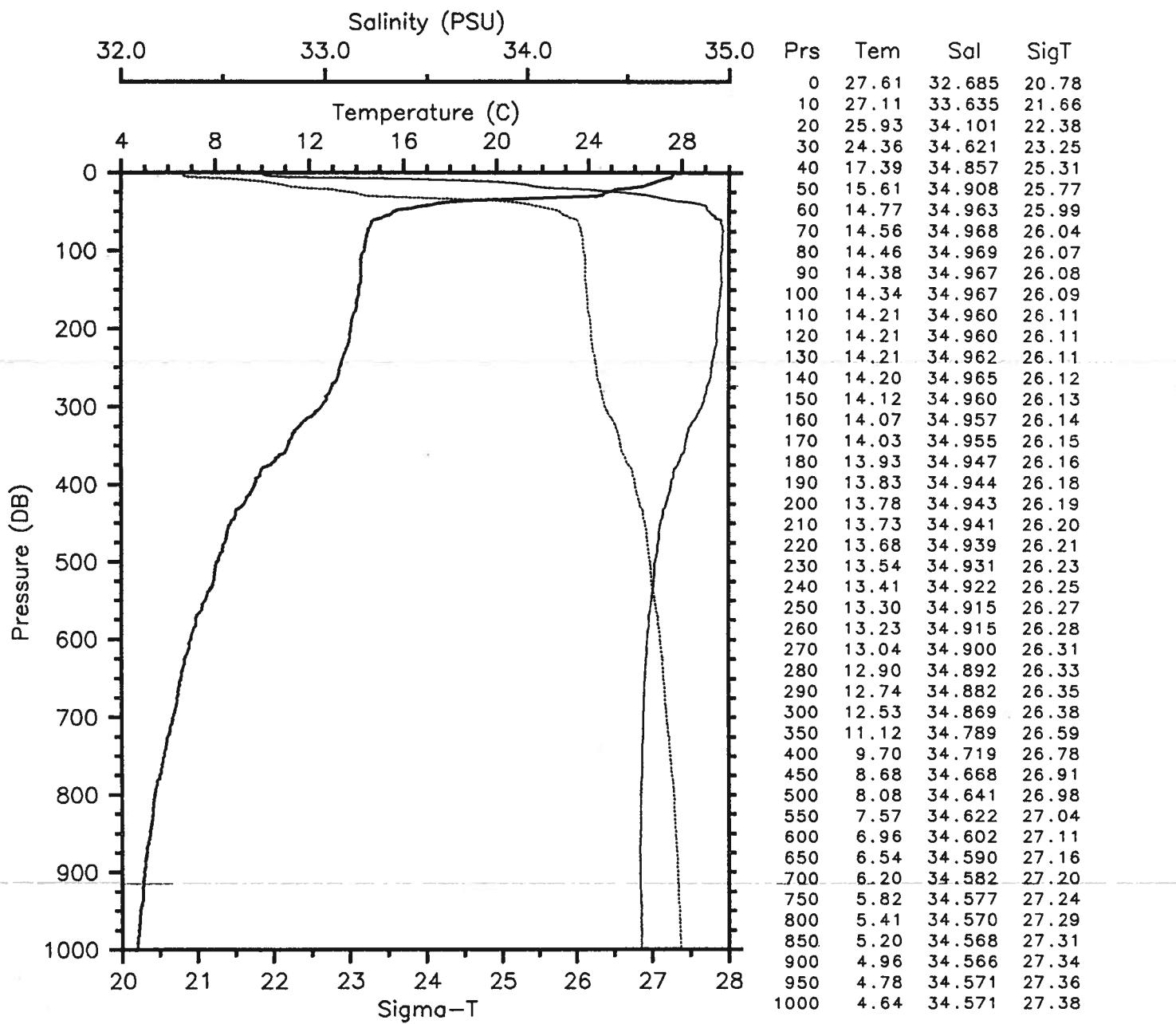
Date 05 13 86 Latitude 1.503 N
 Time 1042 Z Longitude 84.993 W

— Tem — Sal
 --- SigT



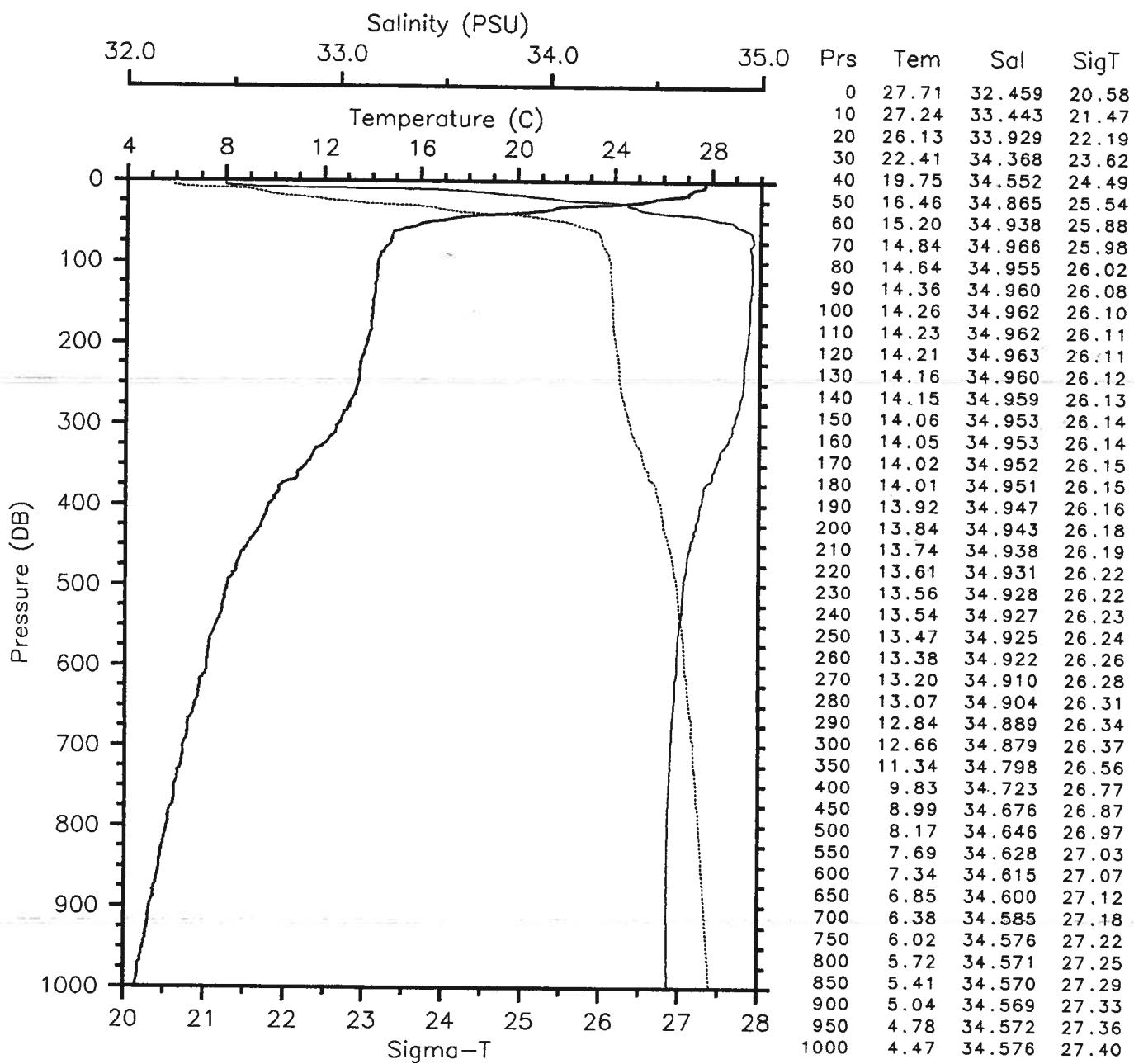
EPOCS EP1-86-OC CTD 97 OCEANOGRAPHER
 Date 05 13 86 Latitude 1.927 N
 Time 1411 Z Longitude 84.998 W

— Tem — Sal
 — SigT



EPOCS EP1-86-OC CTD 98 OCEANOGRAPHER
 Date 05 13 86 Latitude 2.502 N
 Time 1814 Z Longitude 85.000 W

— Tem — Sal
 SigT

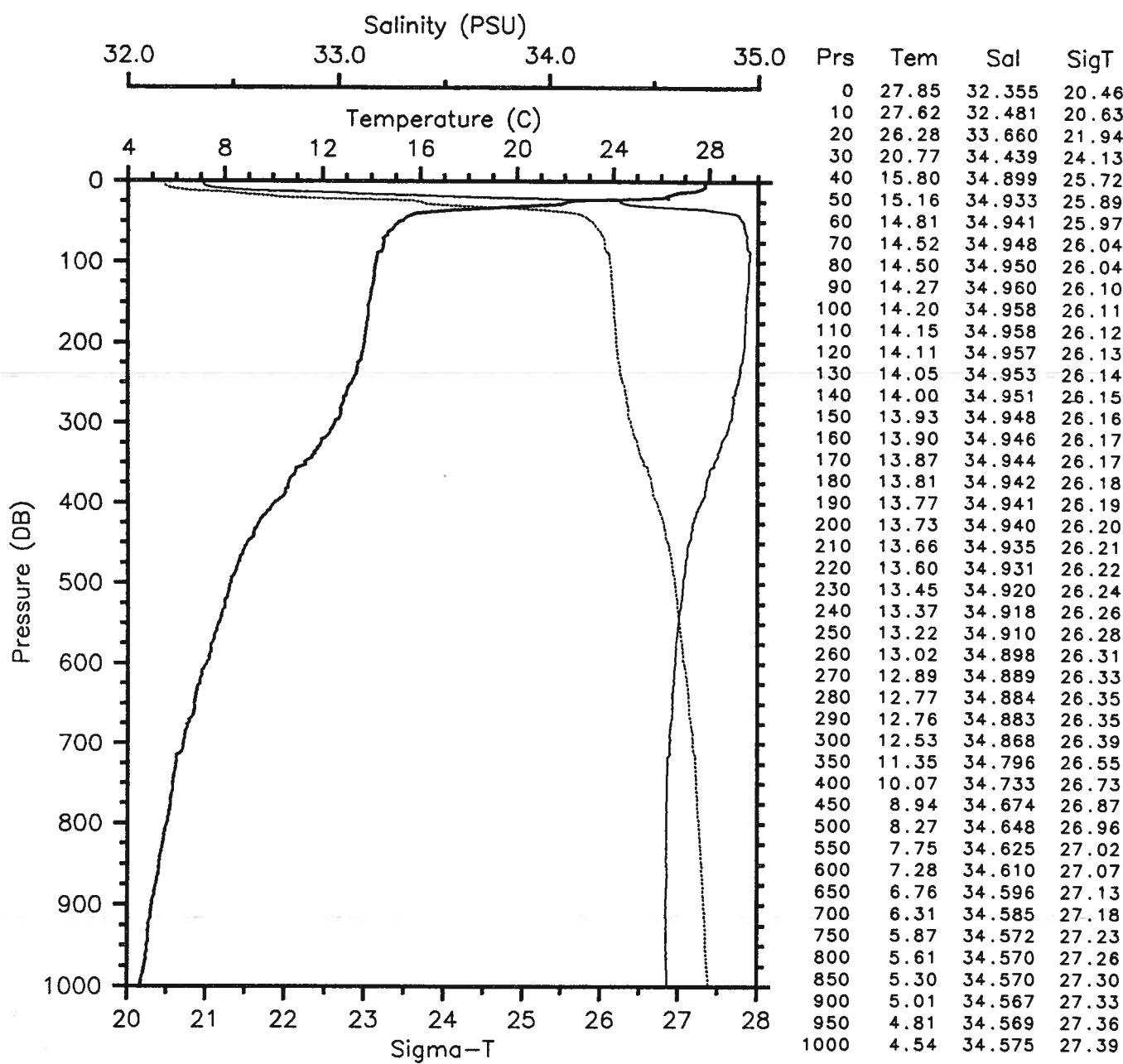


EPOCS EP1-86-OC CTD 99 OCEANOGRAPHER

Date 05 13 86 Latitude 3.002 N

Time 2133 Z Longitude 85.000 W

— Tem — Sal
— SigT

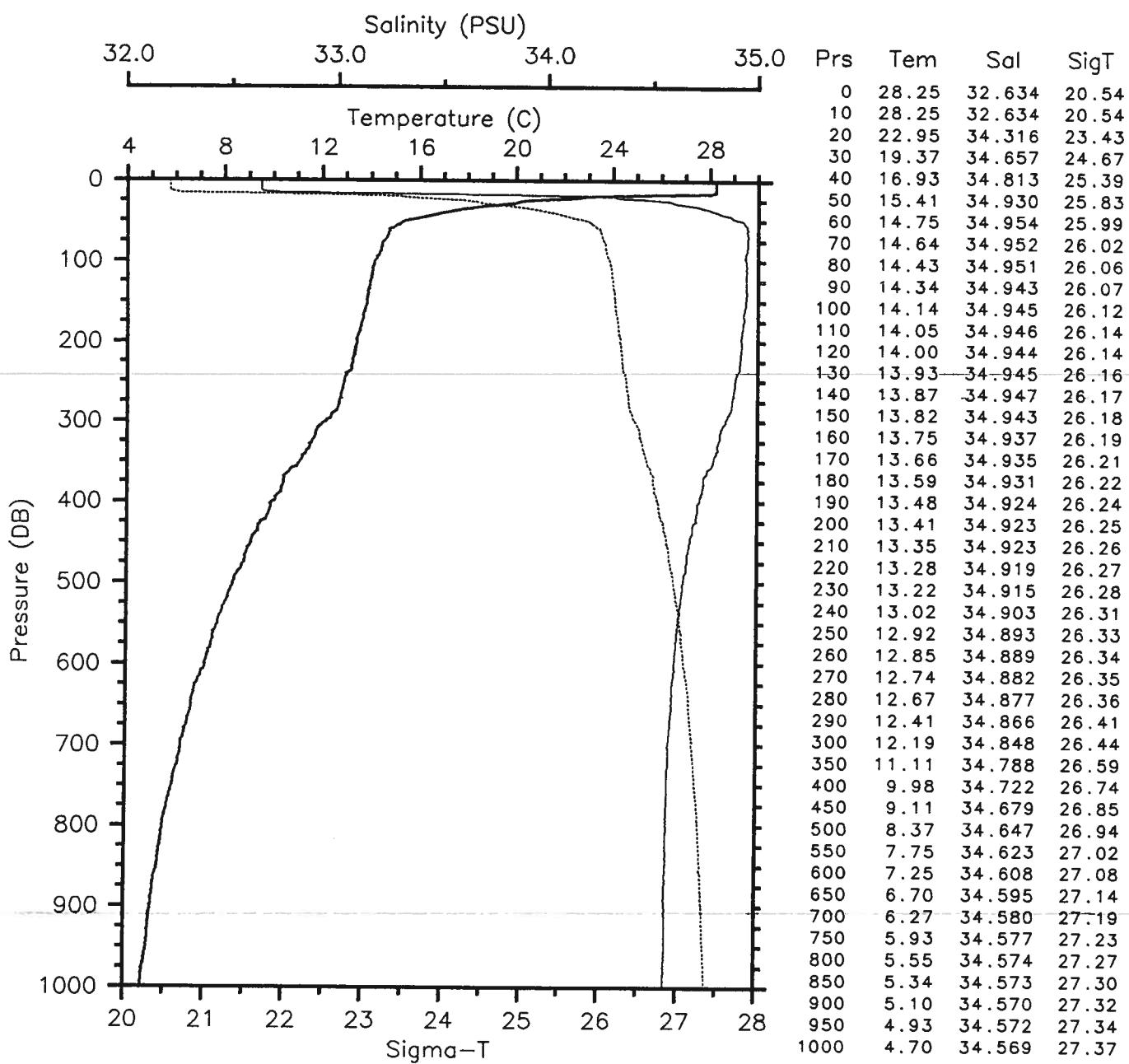


EPOCS EP1-86-OC CTD 100 OCEANOGRAPHER

Date 05 14 86 Latitude 3.485 N

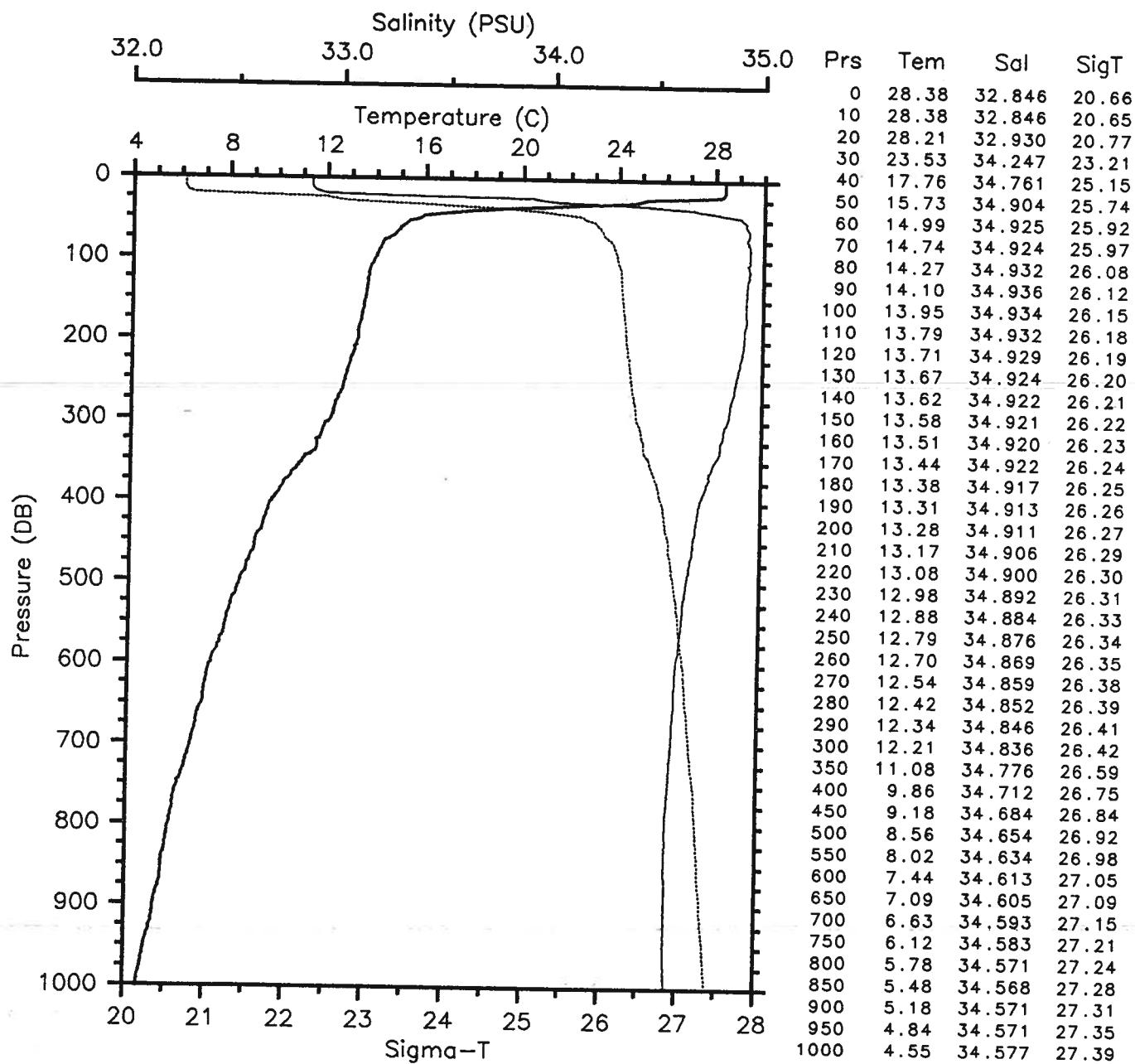
Time 0032 Z Longitude 84.992 W

— Tem — Sal
--- SigT



EPOCS EP1-86-OC CTD 101 OCEANOGRAPHER
 Date 05 14 86 Latitude 3.985 N
 Time 0336 Z Longitude 84.987 W

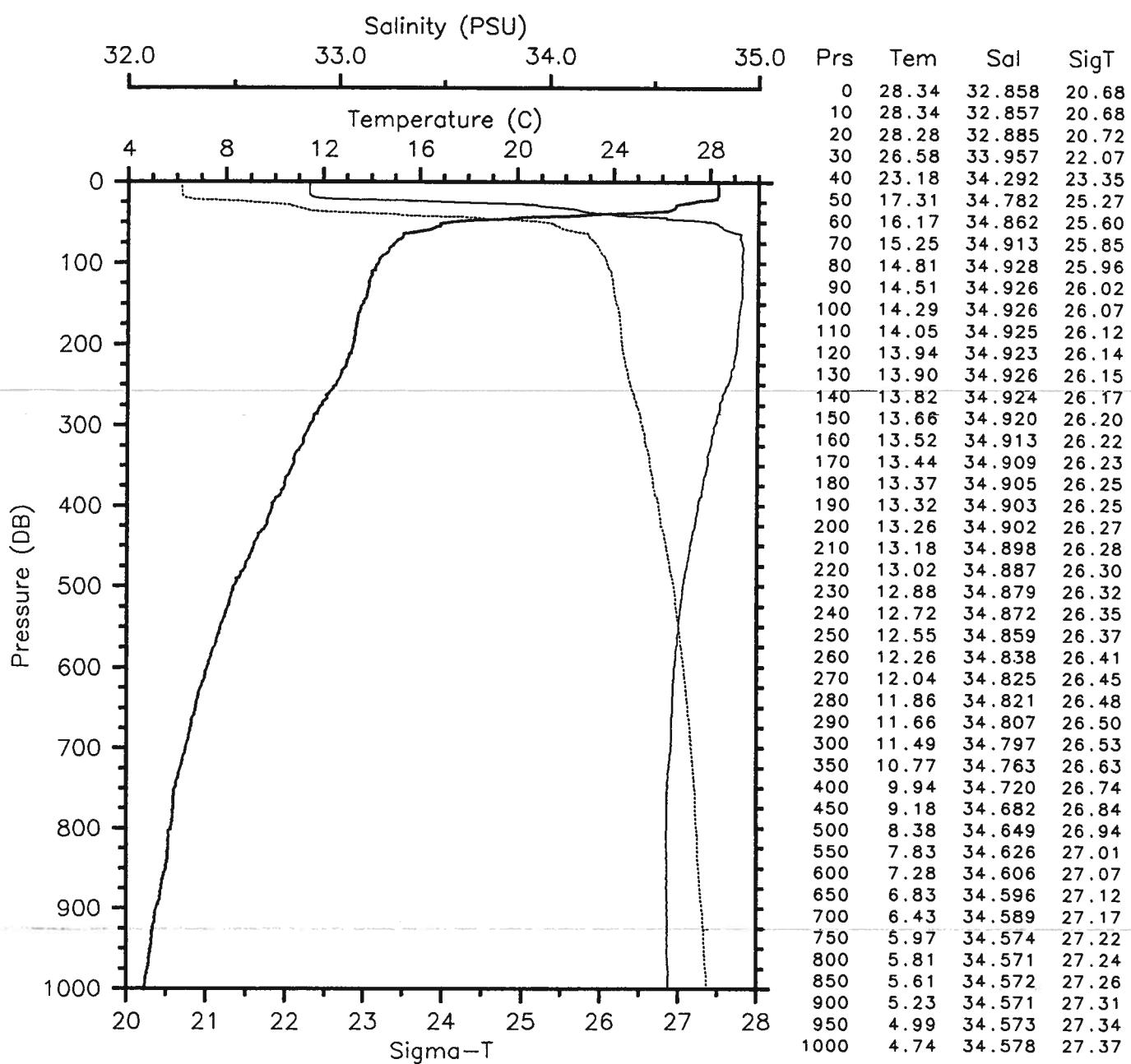
— Tem — Sal
 — SigT



EPOCS EP1-86-OC CTD 102 OCEANOGRAPHER

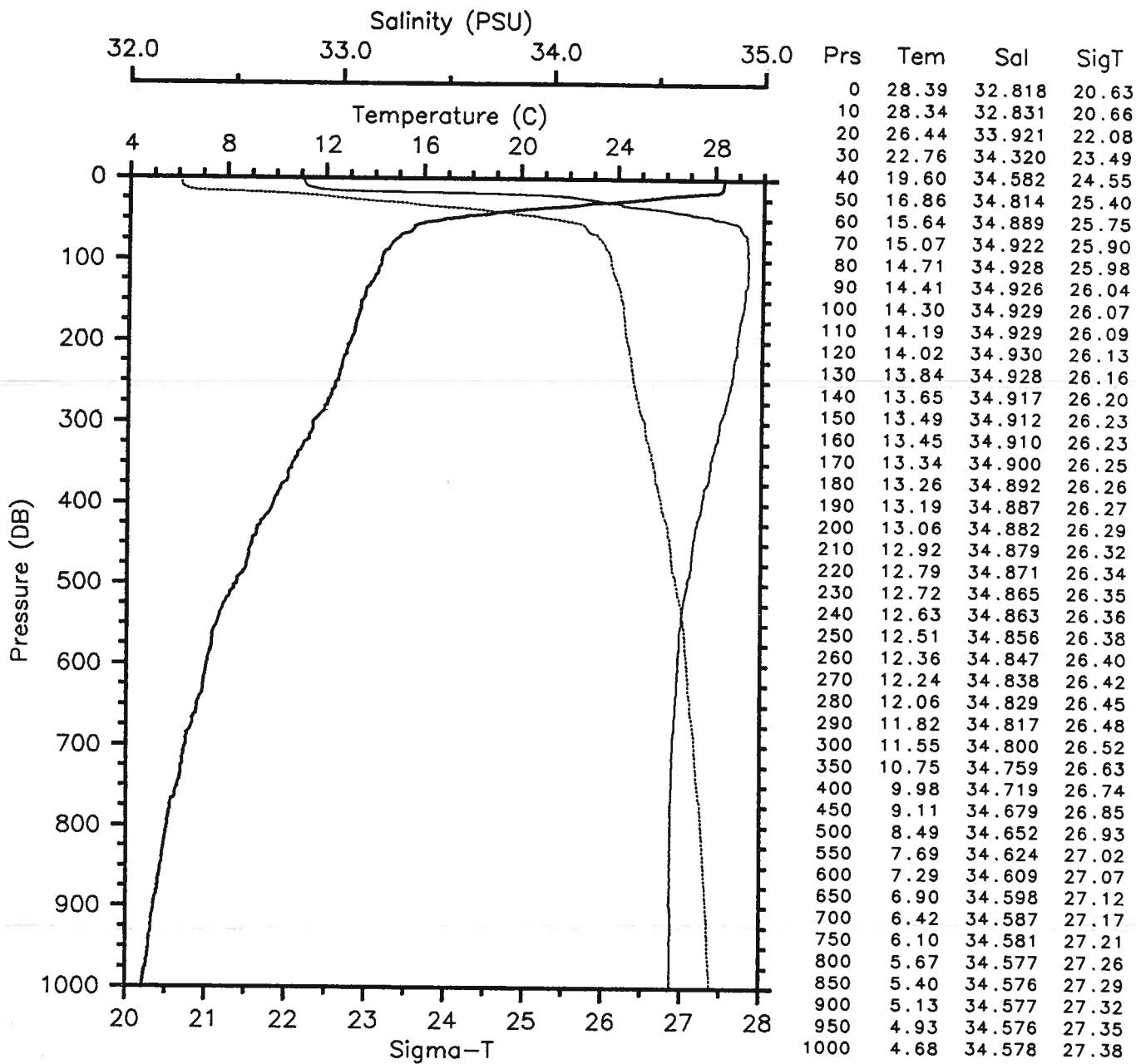
Date 05 14 86 Latitude 4.532 N
Time 1155 Z Longitude 84.987 W

— Tem — Sal
— SigT



EPOCS EP1-86-OC CTD 103 OCEANOGRAPHER
 Date 05 14 86 Latitude 4.963 N
 Time 1337 Z Longitude 84.977 W

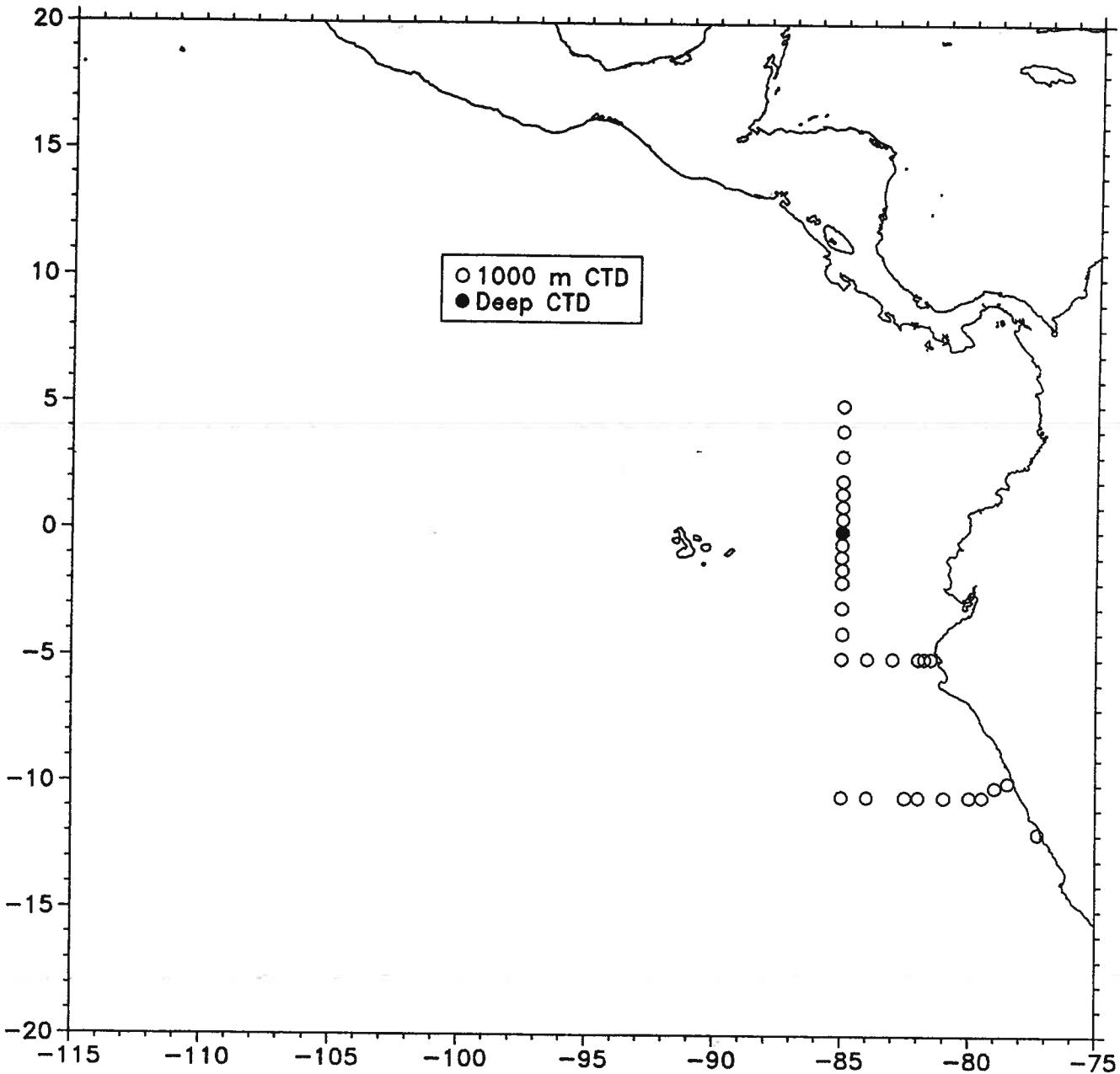
— Tem — Sal
 — SigT



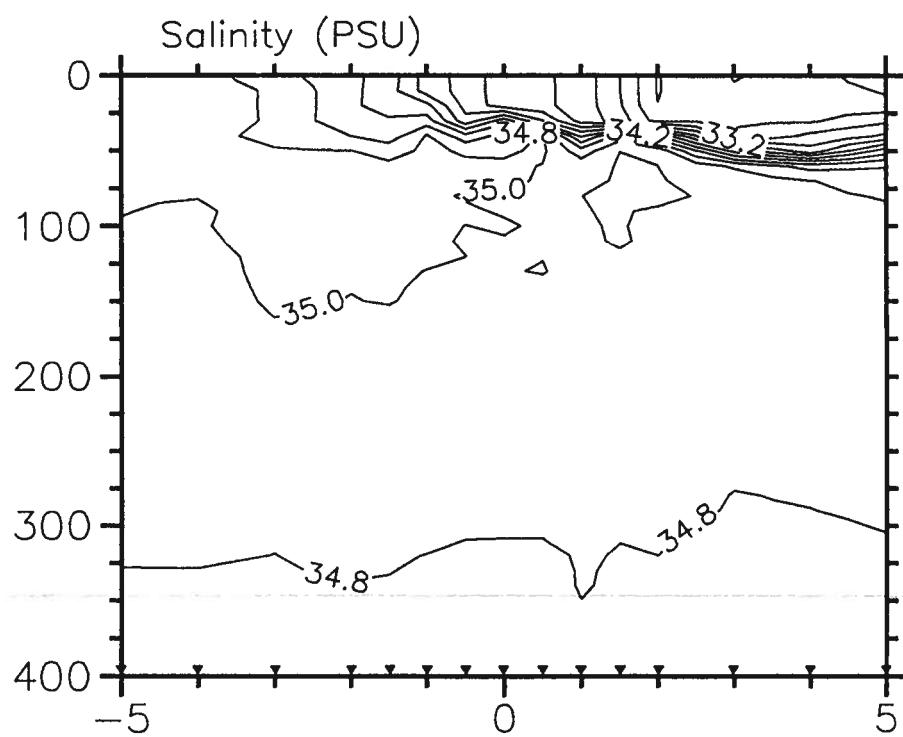
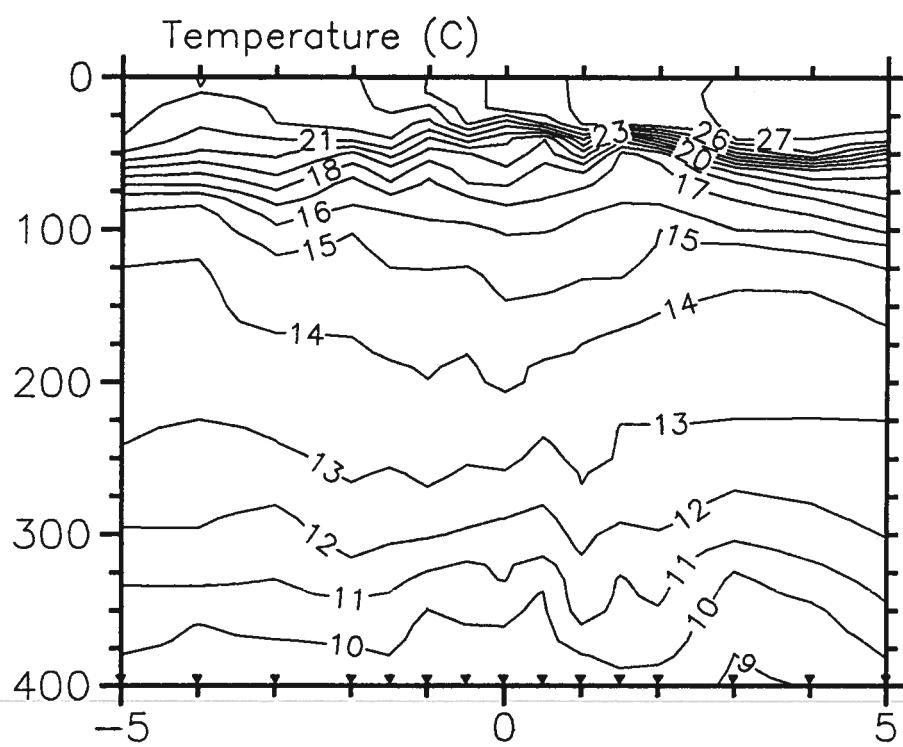
EP5-86-OC

04 December 1986 - 22 December 1986

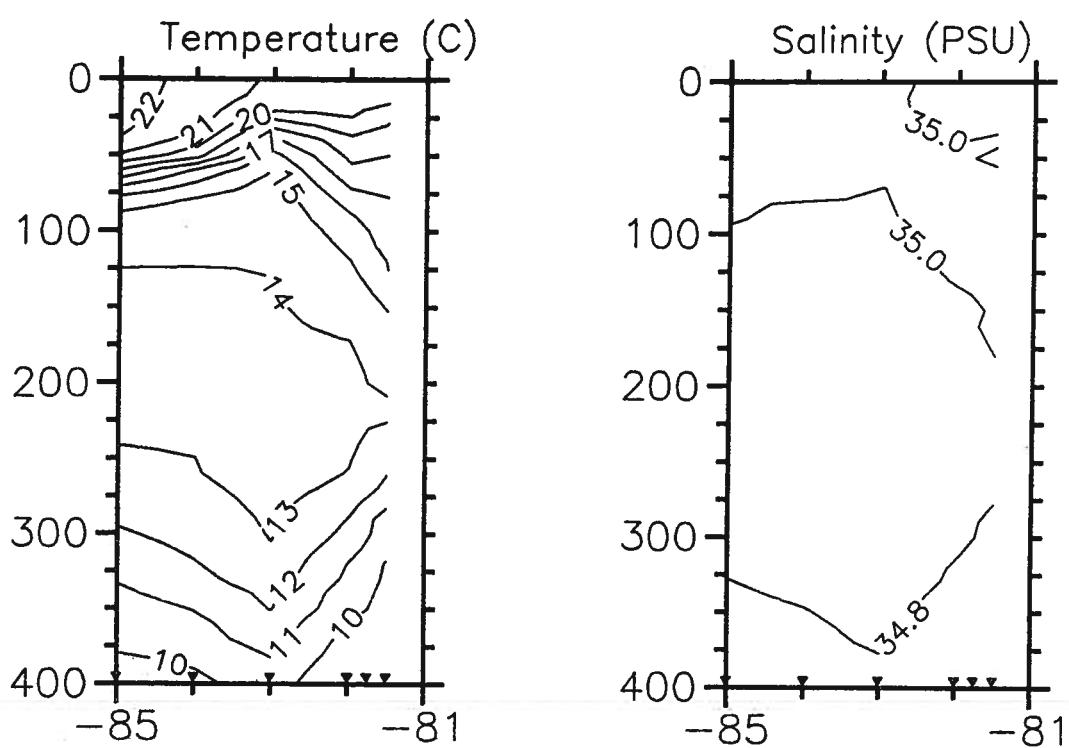
CTD STATIONS
EP5-86-OC 04 Dec 86 - 22 Dec 86



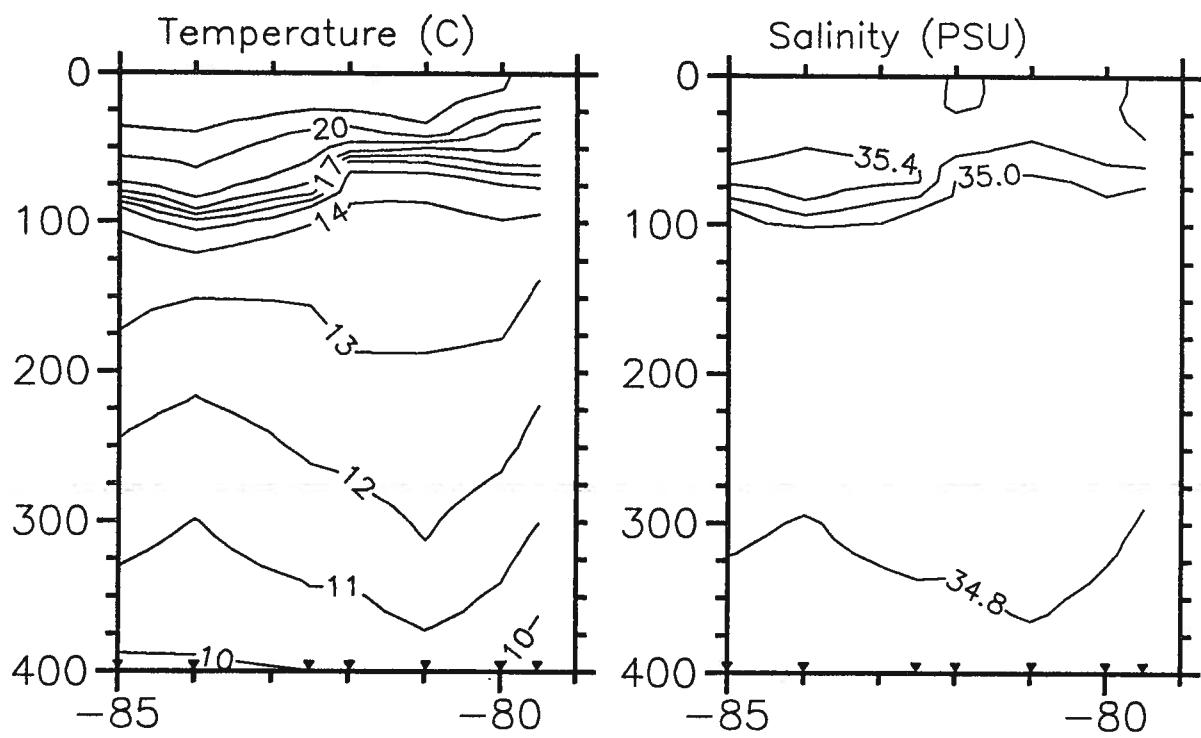
EP5-86-OC 85 West



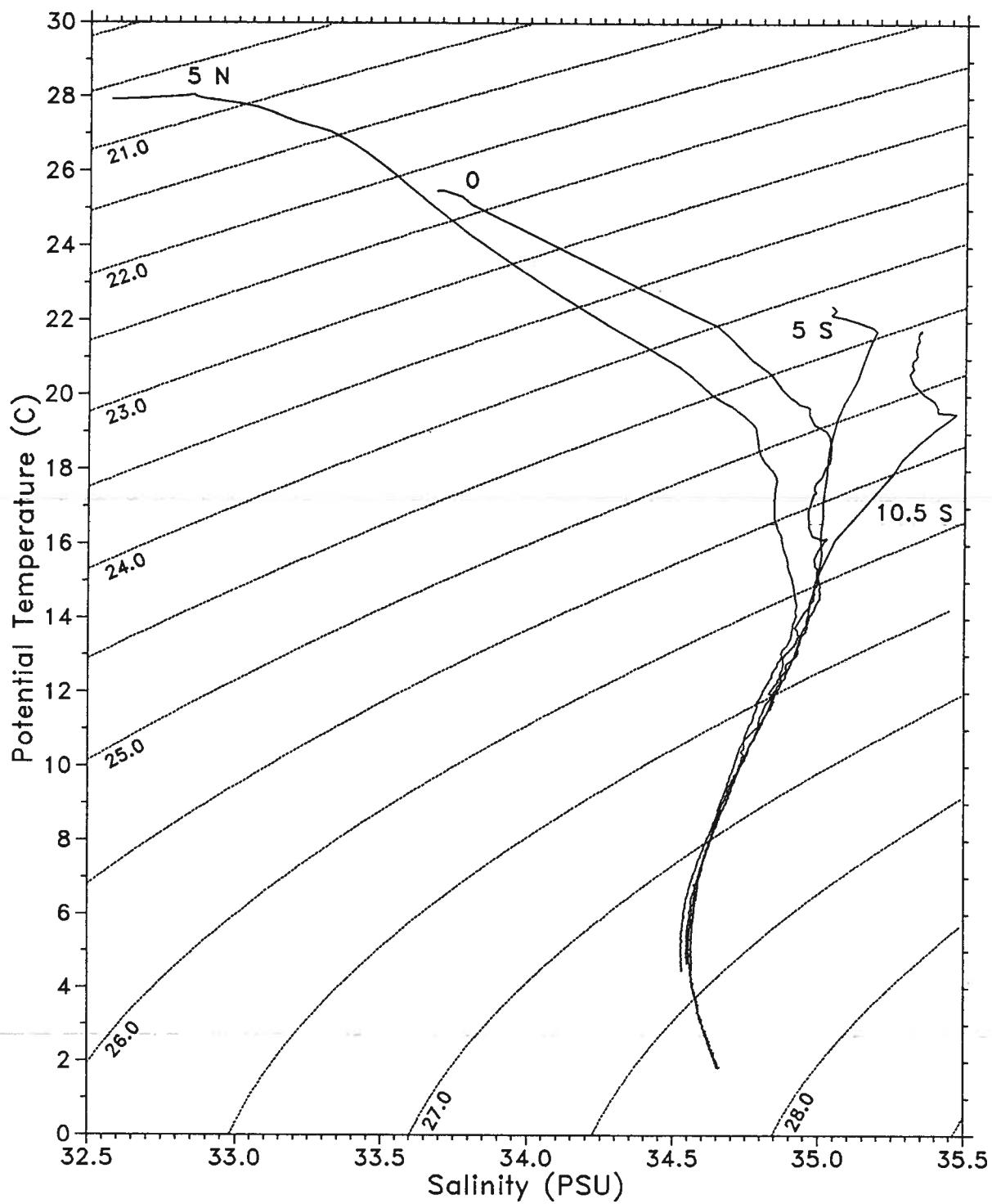
EP5-86-OC 5 South



EP5-86-OC 10.5 South



$\Theta - S$ EP5-86-OC 85 West



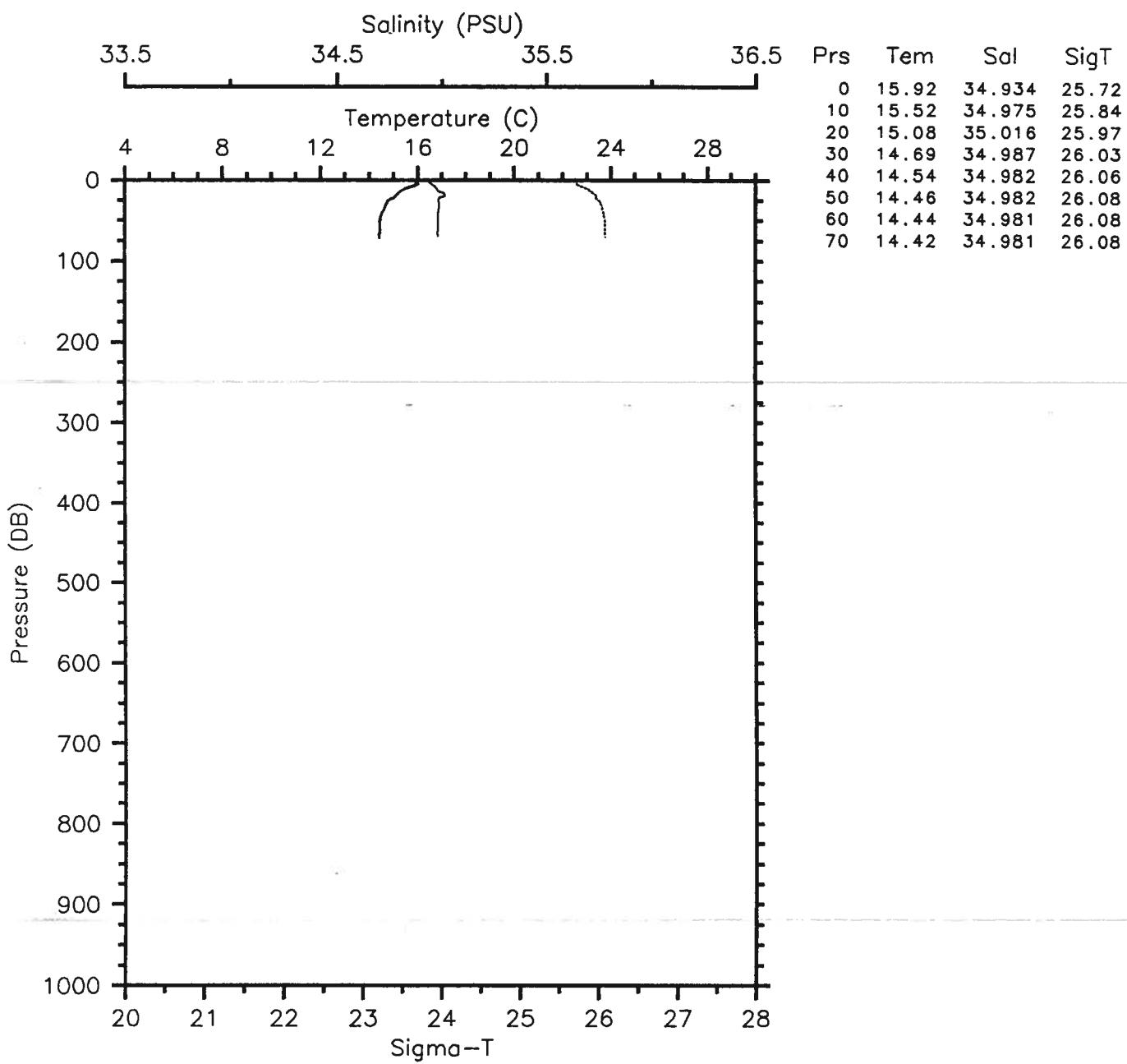
EP5-86-OC

DISSOLVED OXYGEN (ml/l) BOTTLE VALUES

CID #	BOTTLE VALUES									
	1	2	3	4	5	6	7	8	9	10
0	5 3.17	2 4.99	2 5.04	2 5.02	1 6.27	2 4.95	2 5.05	2 5.05	2 4.91	
15	15 1.37	15 4.11	14 4.99	14 5.09	15 5.29	15 5.21				15 4.96
30	31 0.45	31 0.72	30 5.08	30 3.51	29 5.17	30 4.88				
50	50 0.72	50 0.93	50 0.69	49 4.49	50 4.65	49 4.36				
75		76 0.45	75 0.93	74 1.58	75 1.13	74 0.68				
100		101 0.47	99 0.44	103 0.46	100 0.44	101 0.67				
125		120 0.26	124 0.46	124 0.52	124 0.28	126 0.66				
150		138 0.44	149 0.48	149 0.45	149 0.45	149 0.48				
200		200 0.71	201 0.47	199 0.72						
250		249 0.25	249 0.47	250 0.49						
400		400 0.47	400 0.46	399 0.44	399 4.82	400 0.49	401 0.48			
1000		1012 1.11	1011 1.63	1015 1.38	1014 1.15	1014 1.15	1012 0.68	1010 1.17		
CID #	BOTTLE VALUES									
	11	12	13	14	15	16	17	18	19	21
0	1 4.96	2 5.08	2 5.30	2 4.91	2 5.23	2 4.65	1 4.54	2 5.04	3 4.76	2 4.55
15		15 4.97								
400	402 0.27		400 0.11	402 0.20	403 0.71	399 0.24	400 1.16	399 0.45	399 0.23	
1000	1006 2.12	1024 1.04	1011 1.35	1012 1.31	1013 1.40	1011 1.32	1006 1.18	1022 1.44	1011 1.59	1013 1.55
CID #	BOTTLE VALUES									
	23	25	27	28	29	30				
0	0 4.60	1 4.33	2 4.67	1 4.56	1 4.77	2 4.71				
15		15 5.94			15 4.64					
400	401 0.49		400 0.43		401 0.36					
1000	3124 2.27	1006 2.17	1012 1.22	1012 1.36	998 1.13	1015 1.10				

EPOCS EP5-86-OC CTD 1 OCEANOGRAPHER
 Date 12 04 86 Latitude 11.930 S
 Time 2220 Z Longitude 77.288 W

— Tem — Sal
 — SigT

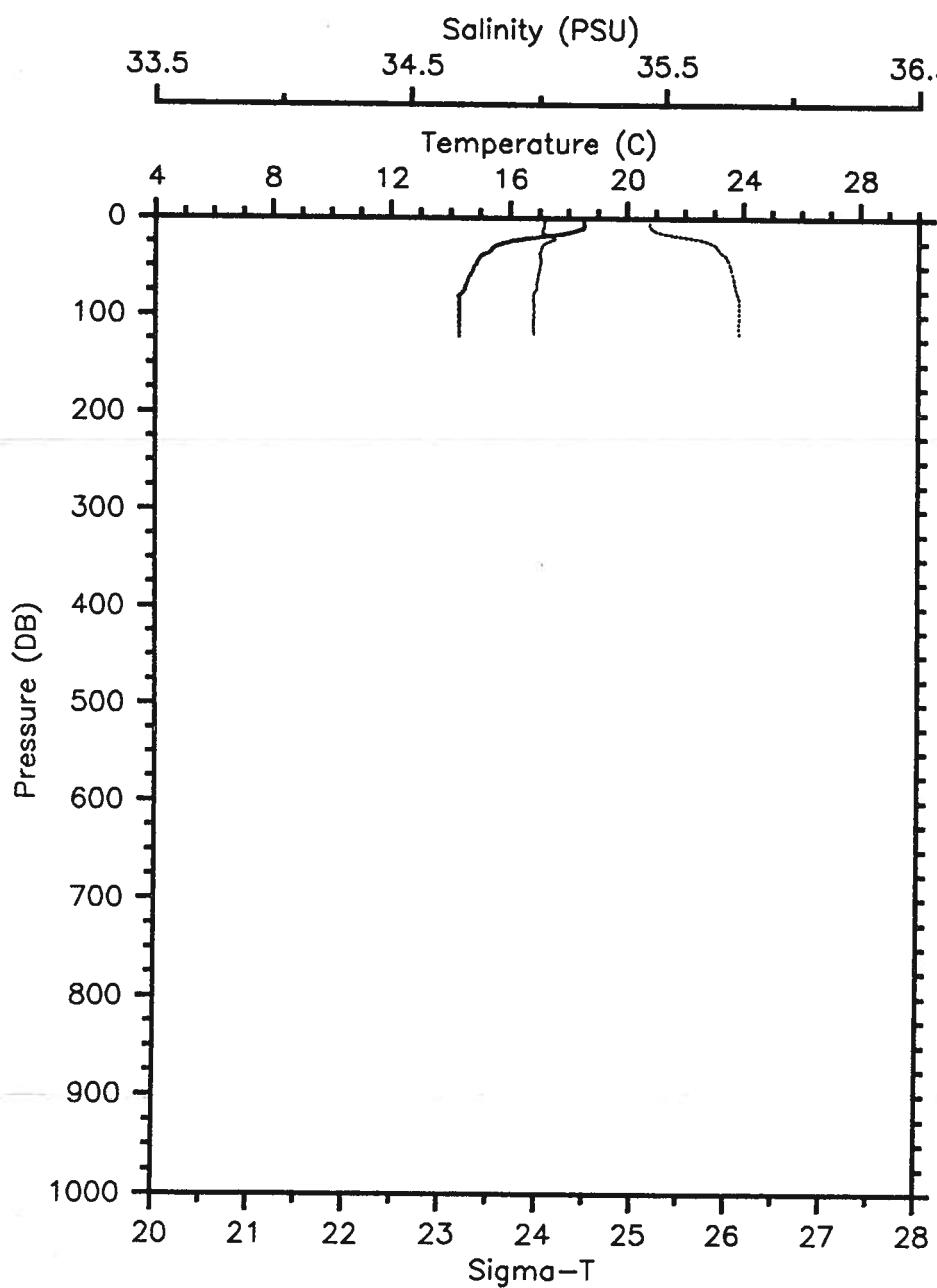


EPOCS EP5-86-OC CTD 2 OCEANOGRAPHER

Date 12 05 86 Latitude 9.925 S

Time 0830 Z Longitude 78.497 W

— Tem — Sal
— SigT



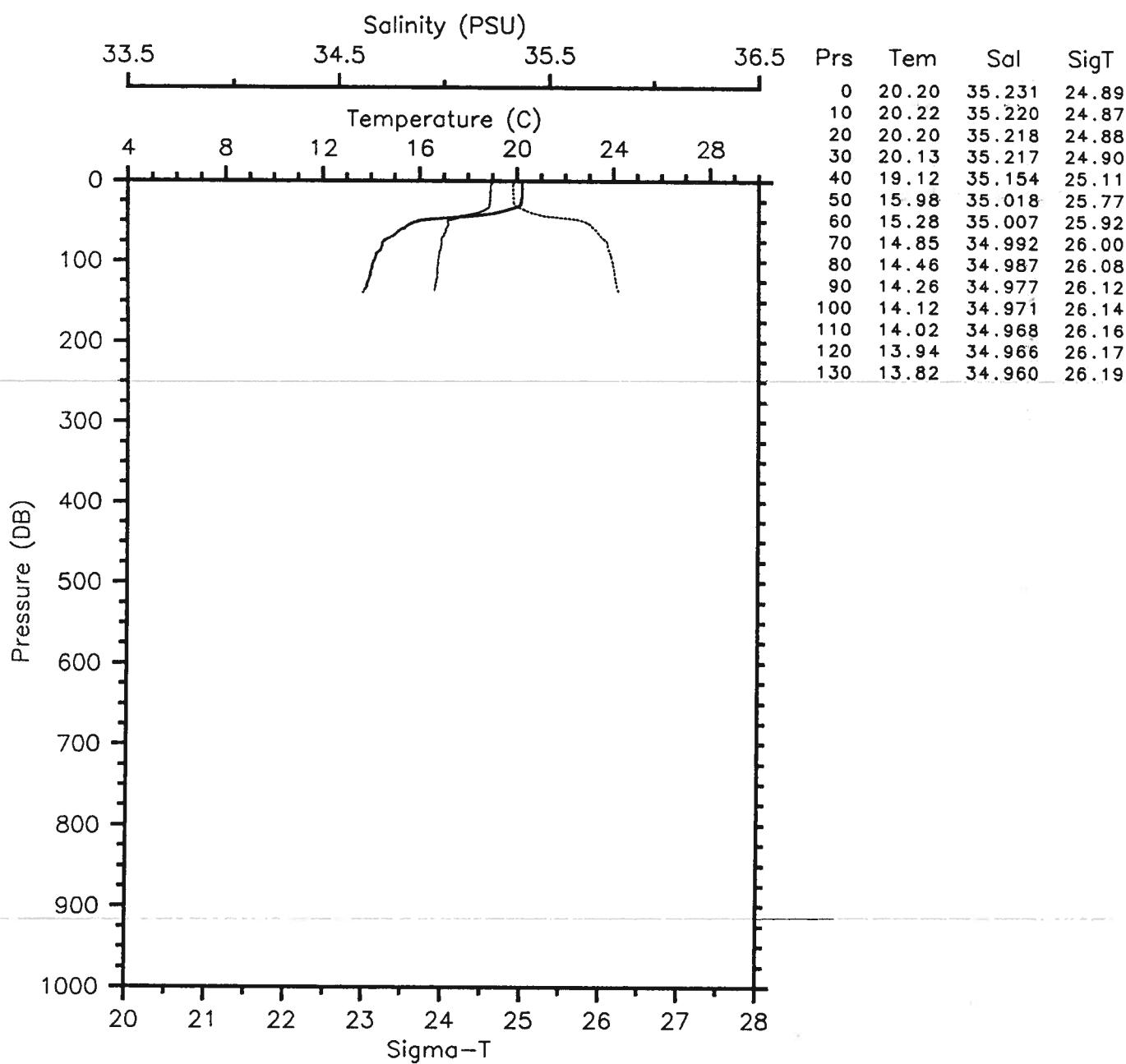
Prs	Tem	Sal	SigT
0	18.51	35.021	25.16
10	18.49	35.015	25.16
20	16.93	35.055	25.57
30	15.44	35.007	25.88
40	15.00	35.002	25.97
50	14.81	35.002	26.02
60	14.62	34.994	26.05
70	14.50	34.989	26.07
80	14.30	34.977	26.11
90	14.28	34.979	26.11
100	14.28	34.978	26.11
110	14.29	34.977	26.11
120	14.29	34.979	26.11

EPOCS EP5-86-OC CTD 3 OCEANOGRAPHER

Date 12 05 86 Latitude 10.122 S

Time 1107 Z Longitude 78.995 W

— Tem — Sal
--- SigT

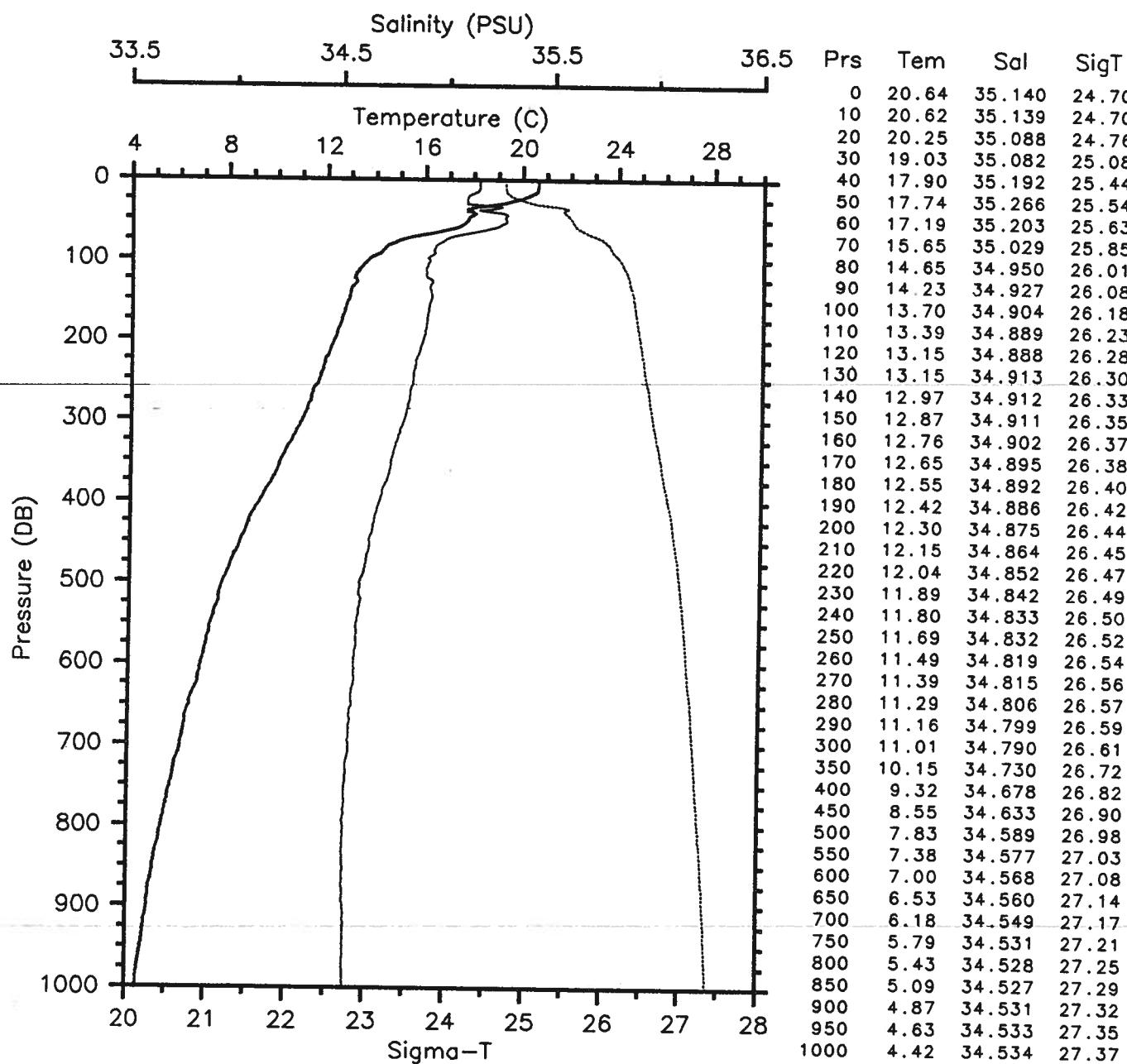


EPOCS EP5-86-OC CTD 4 OCEANOGRAPHER

Date 12 05 86 Latitude 10.503 S

Time 1423 Z Longitude 79.502 W

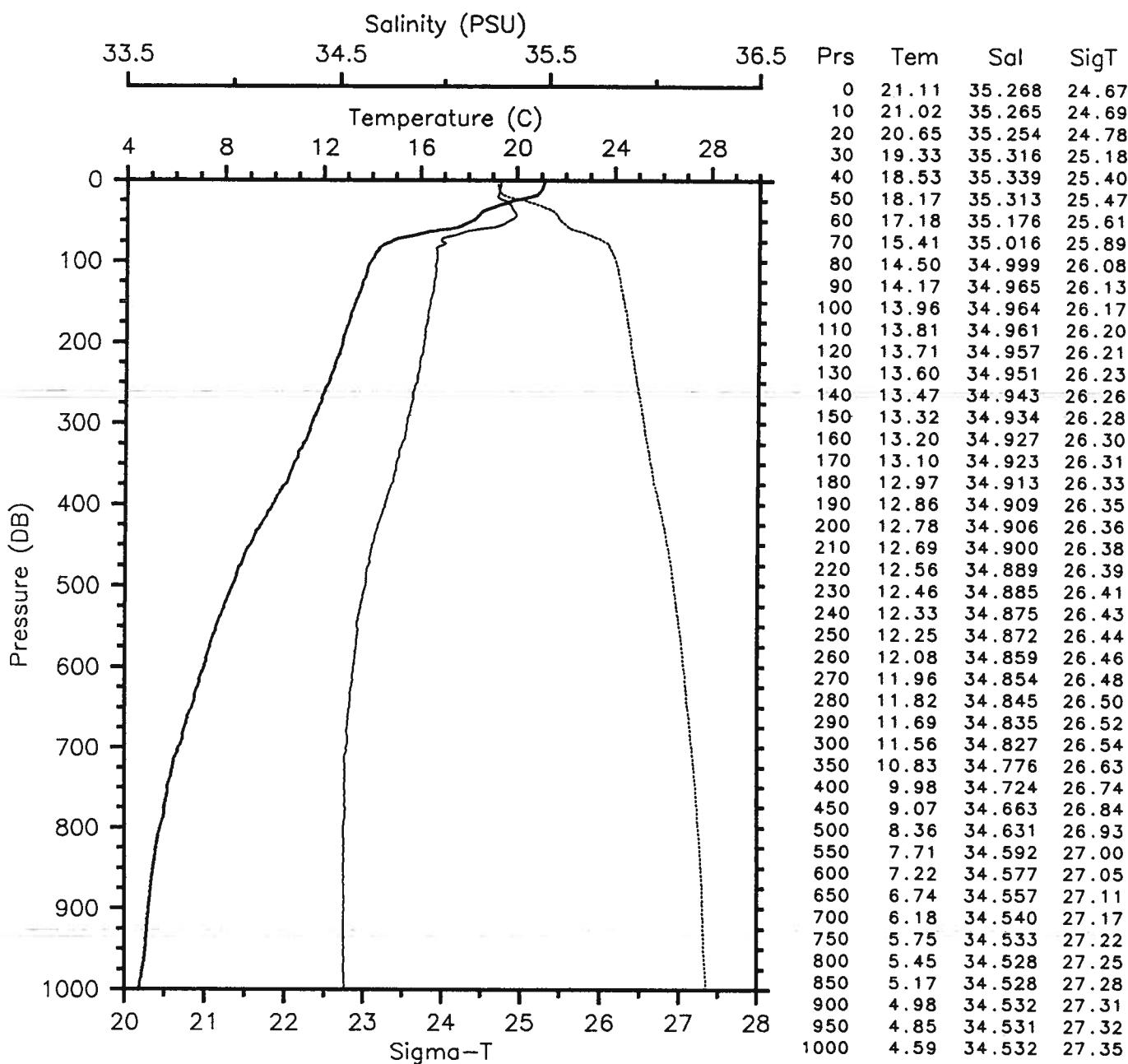
— Tem — Sal
— SigT



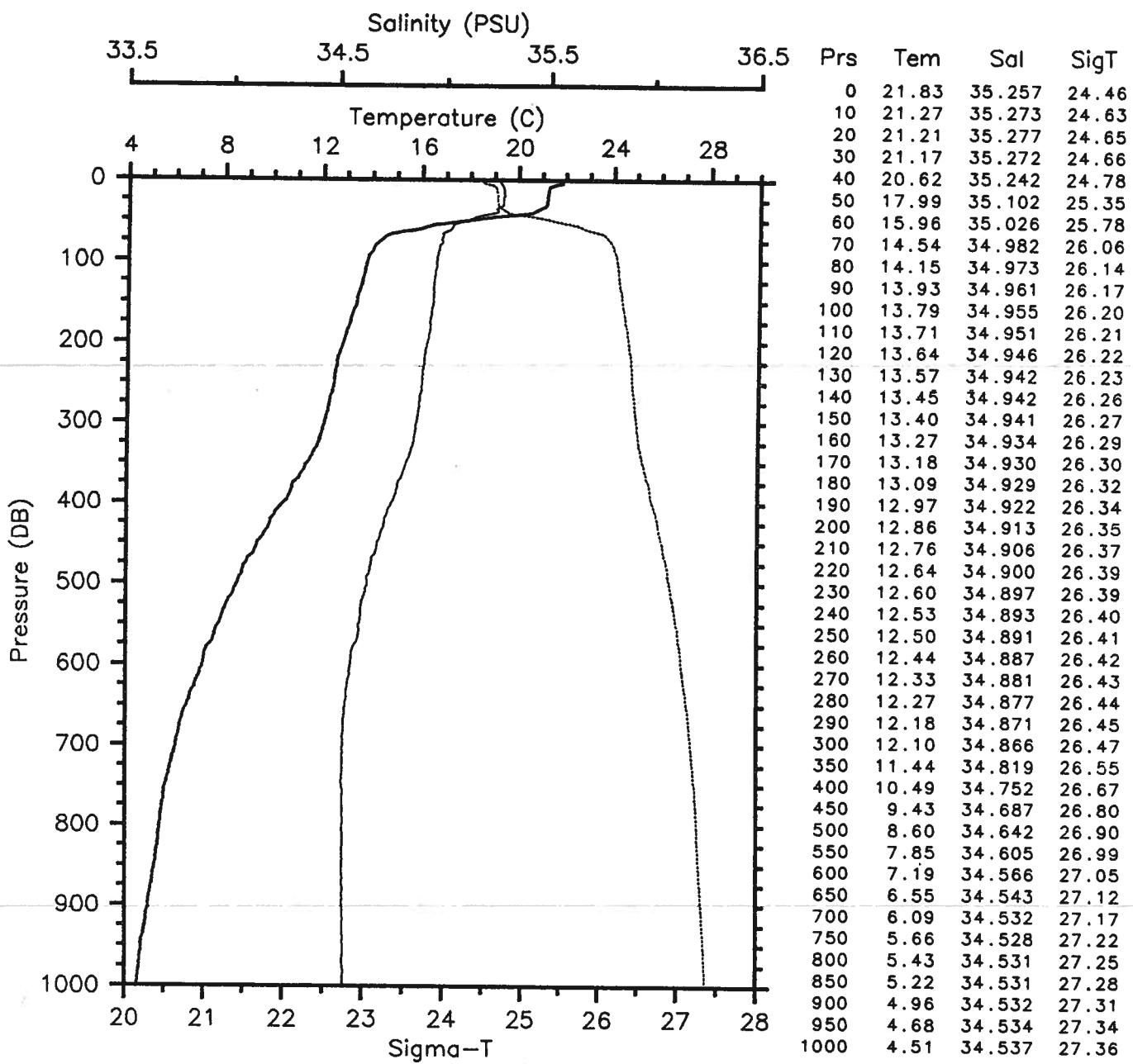
EPOCS EP5-86-OC CTD 5 OCEANOGRAPHER

Date 12 05 86 Latitude 10.503 S
Time 1743 Z Longitude 79.997 W

— Tem — Sal
— SigT



EPOCS EP5-86-OC CTD 6 OCEANOGRAPHER
 Date 12 05 86 Latitude 10.510 S
 Time 2257 Z Longitude 80.983 W

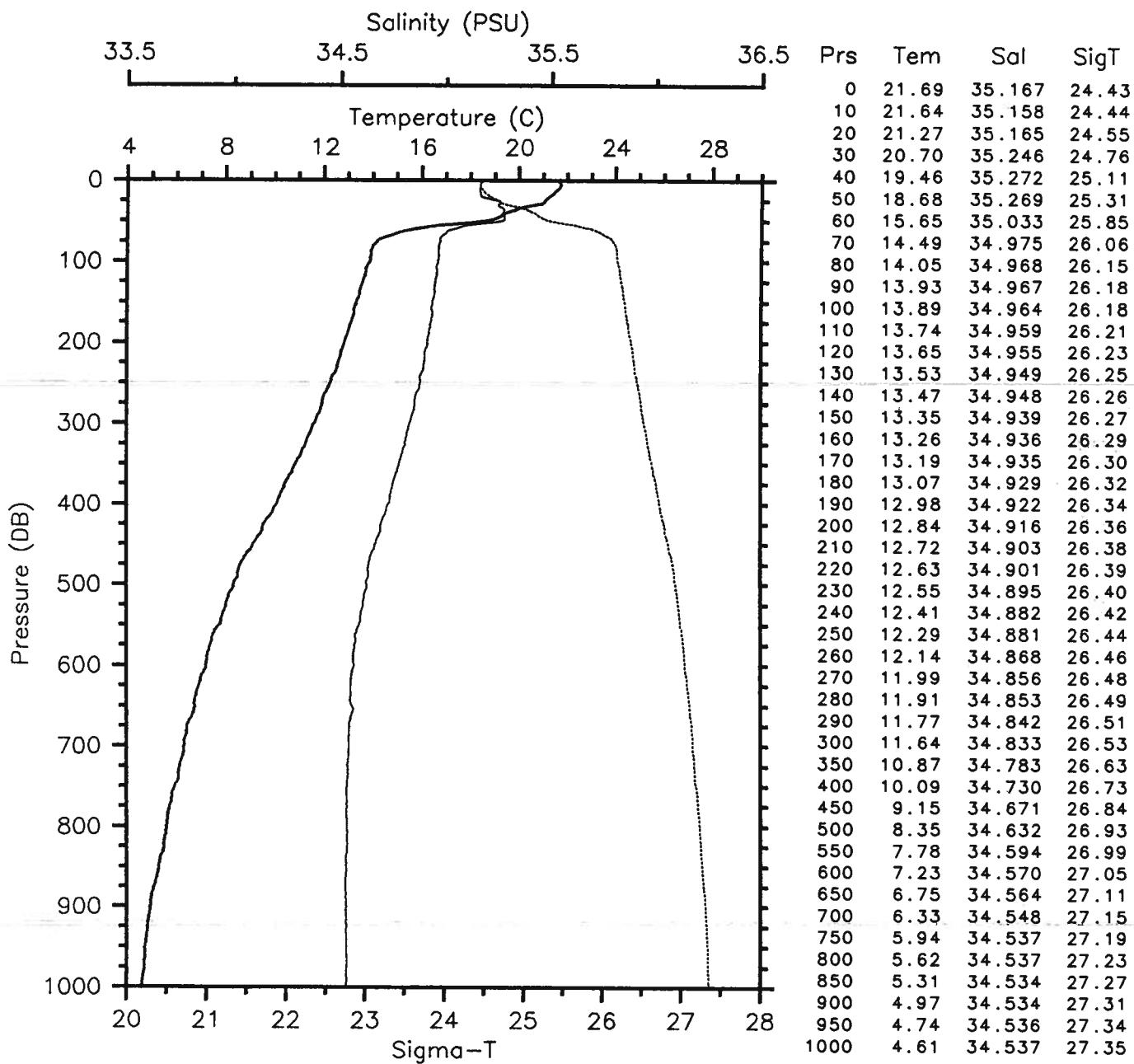


EPOCS EP5-86-OC CTD 7 OCEANOGRAPHER

Date 12 06 86 Latitude 10.507 S

Time 0406 Z Longitude 81.987 W

— Tem — Sal
— SigT

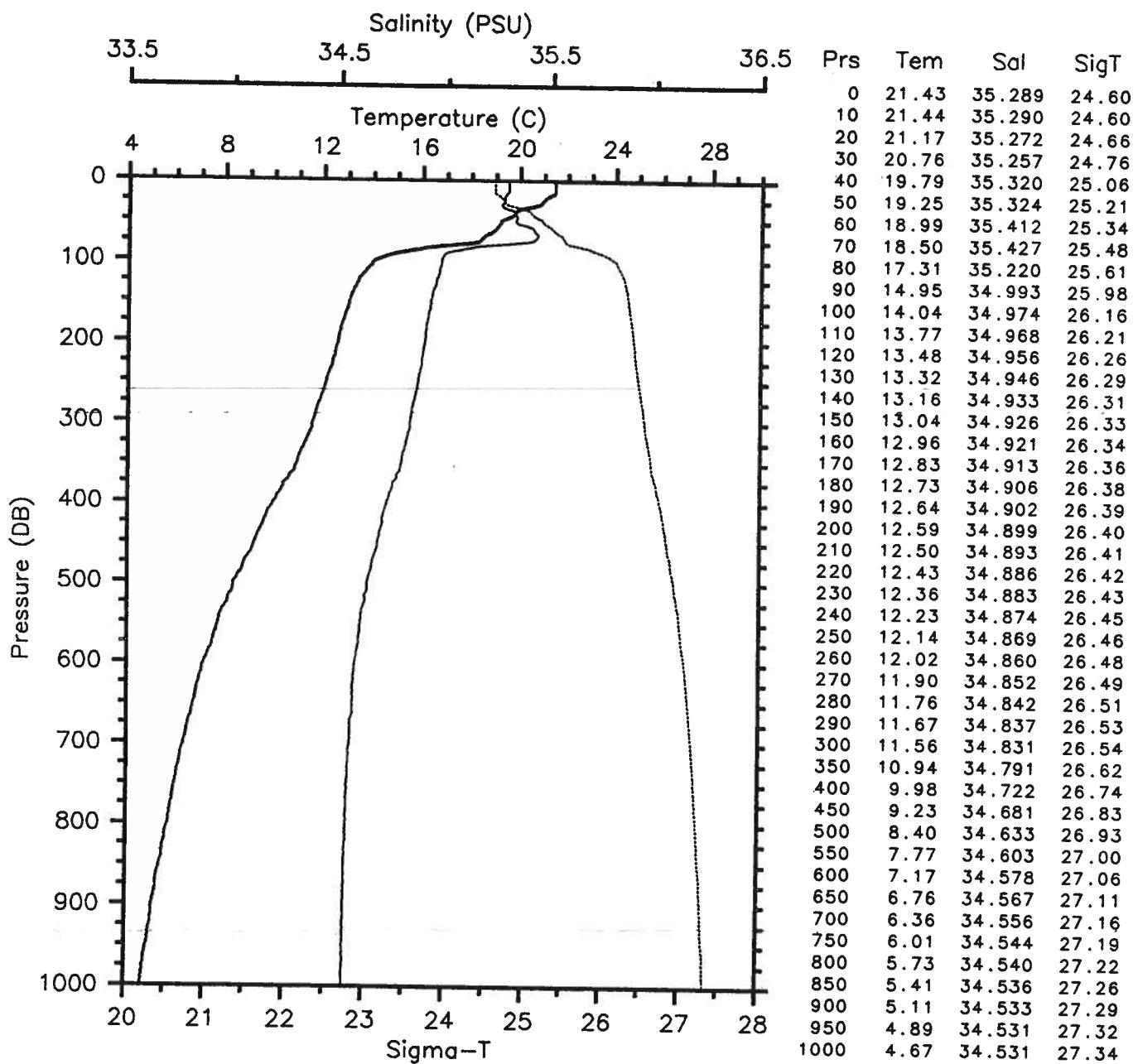


EPOCS EP5-86-OC CTD 8 OCEANOGRAPHER

Date 12 06 86 Latitude 10.510 S

Time 0918 Z Longitude 82.510 W

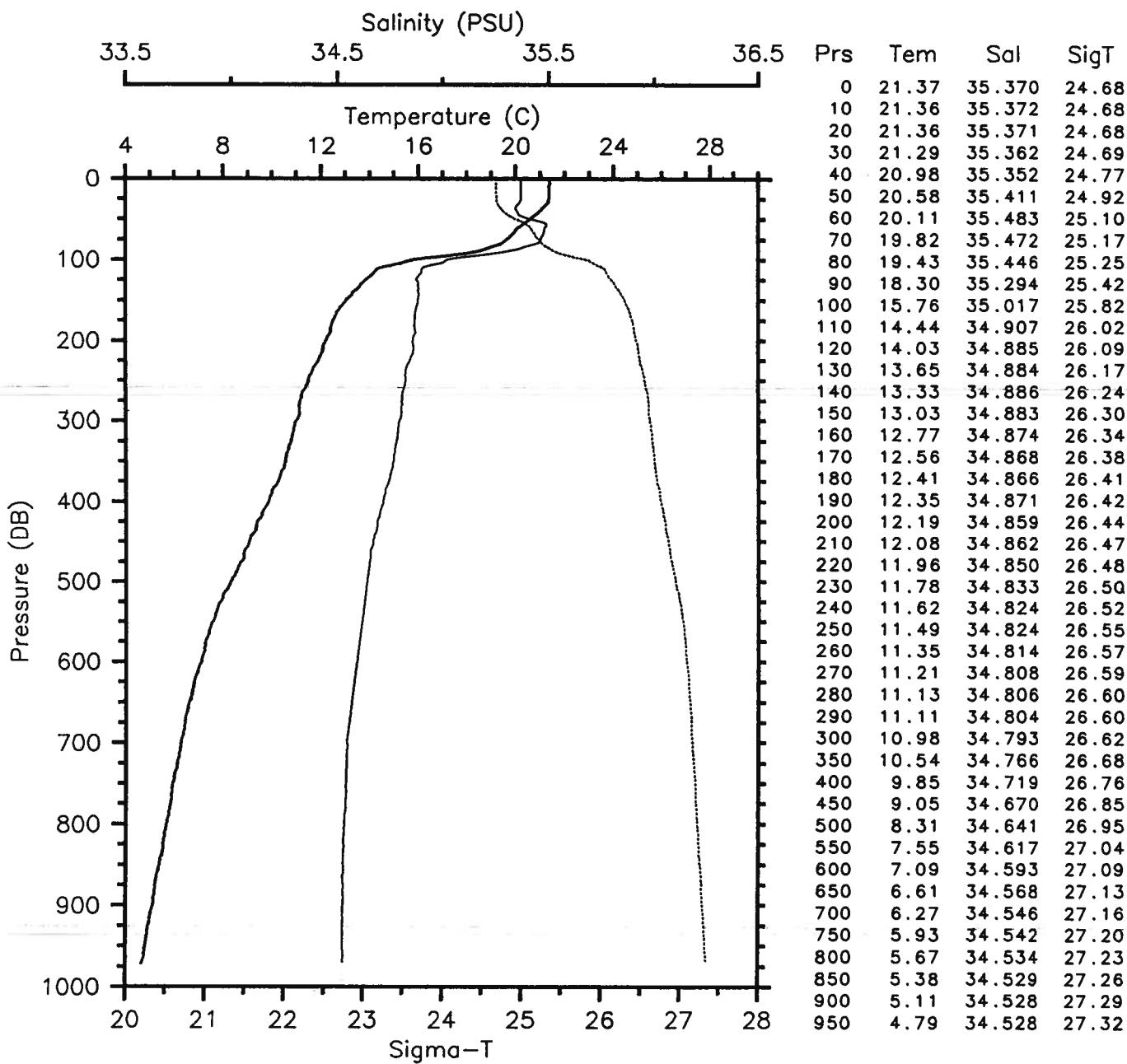
— Tem — Sal
— SigT



EPOCS EP5-86-OC CTD 9 OCEANOGRAPHER

Date 12 06 86 Latitude 10.500 S
Time 1426 Z Longitude 84.000 W

— Tem — Sal
— SigT

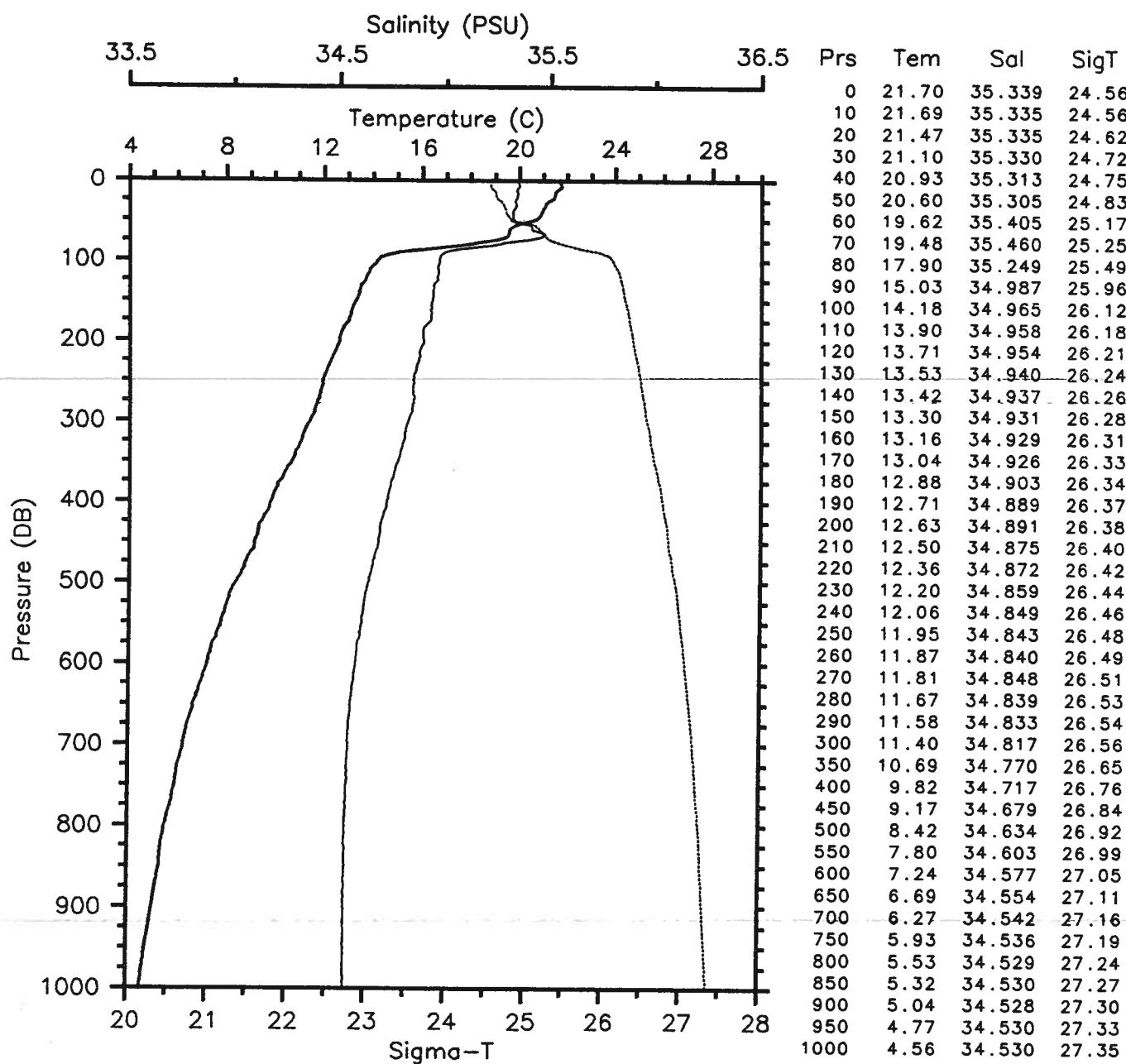


EPOCS EP5-86-OC CTD 10 OCEANOGRAPHER

Date 12 06 86 Latitude 10.503 S

Time 1938 Z Longitude 84.998 W

— Tem — Sal
— SigT

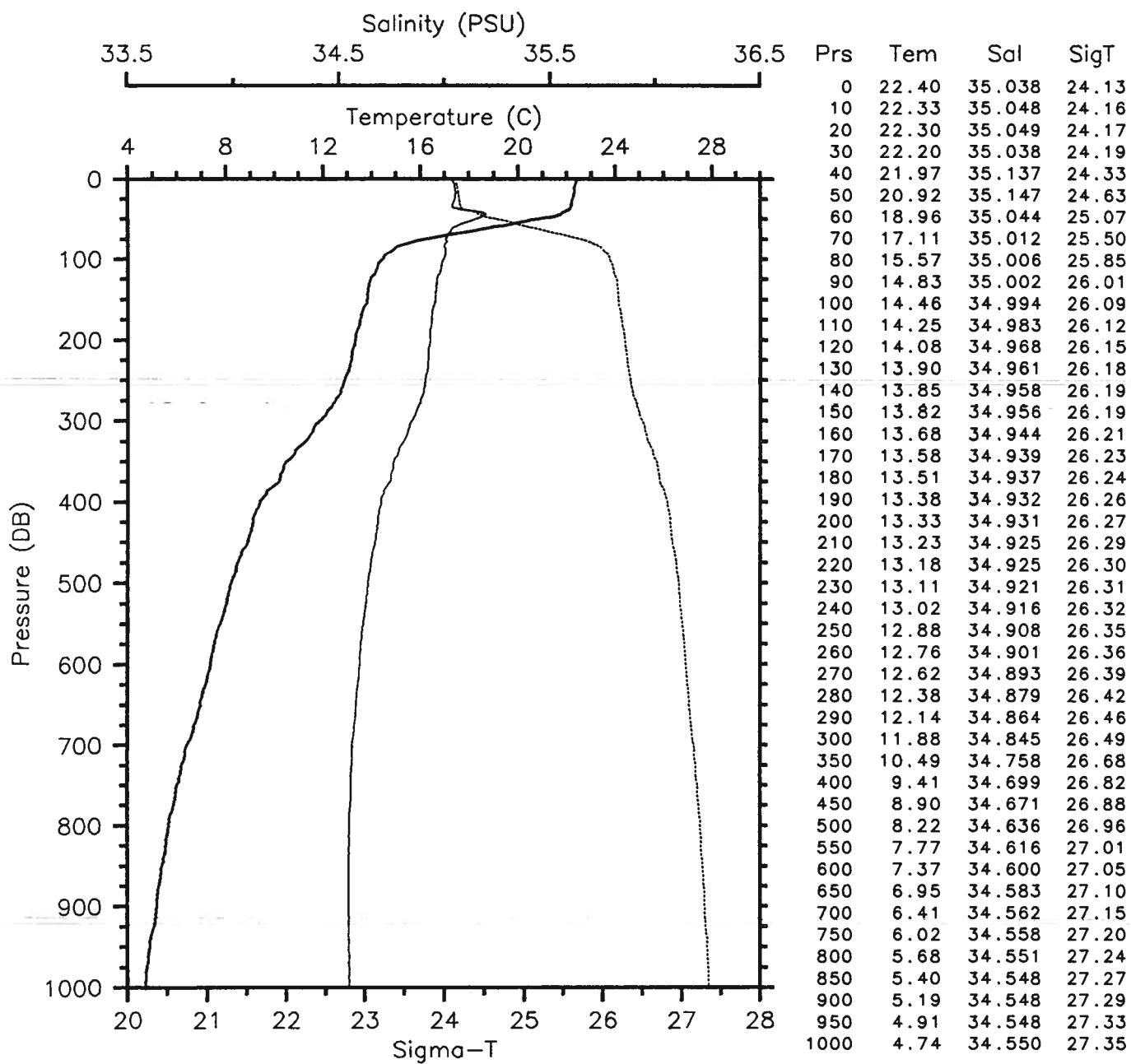


EPOCS EP5-86-OC CTD 11 OCEANOGRAPHER

Date 12 07 86 Latitude 5.003 S

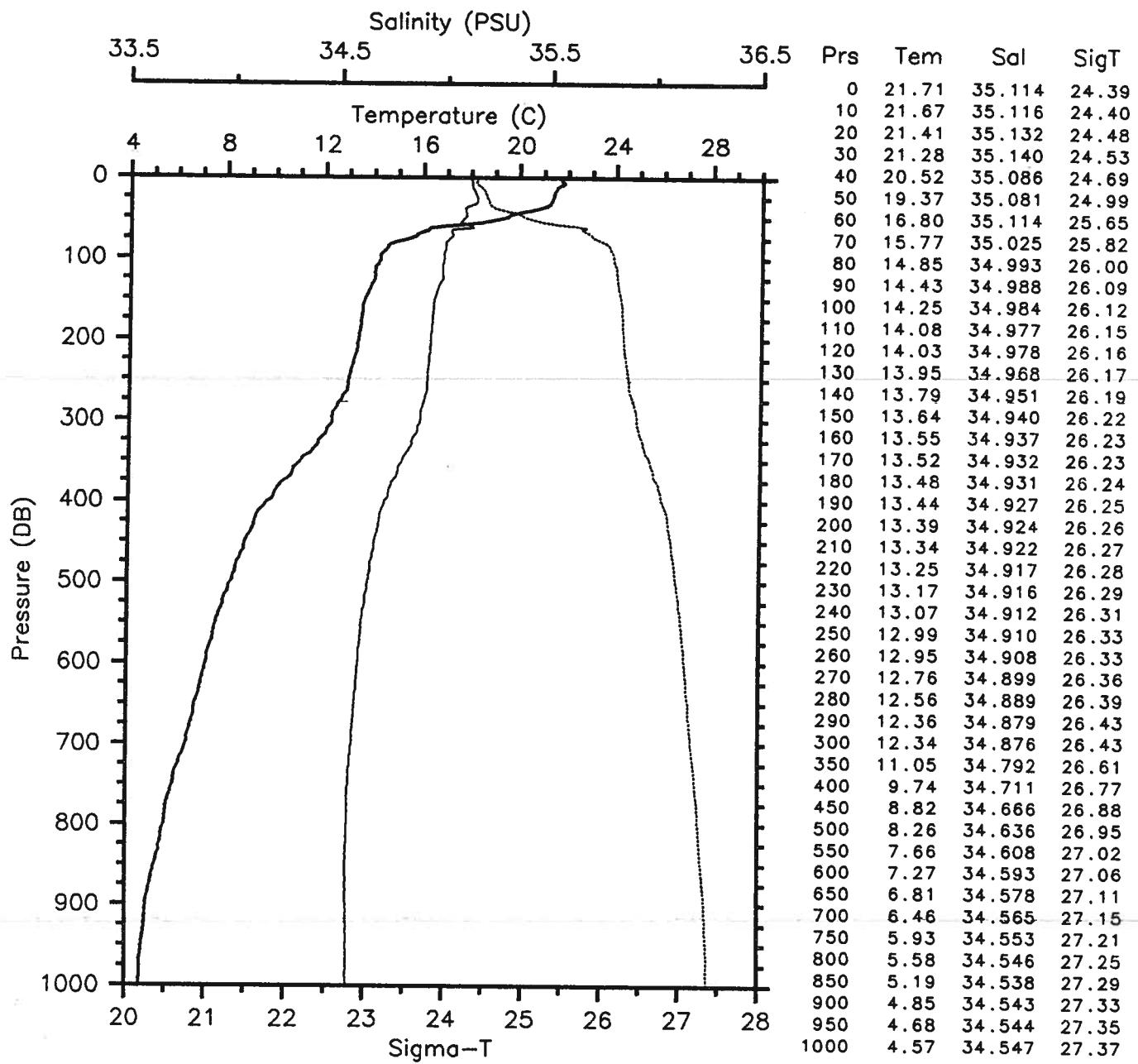
Time 1812 Z Longitude 85.005 W

— Tem — Sal
— SigT



EPOCS EP5-86-OC CTD 12 OCEANOGRAPHER
 Date 12 07 86 Latitude 4.997 S
 Time 2353 Z Longitude 83.997 W

— Tem — Sal
 — SigT

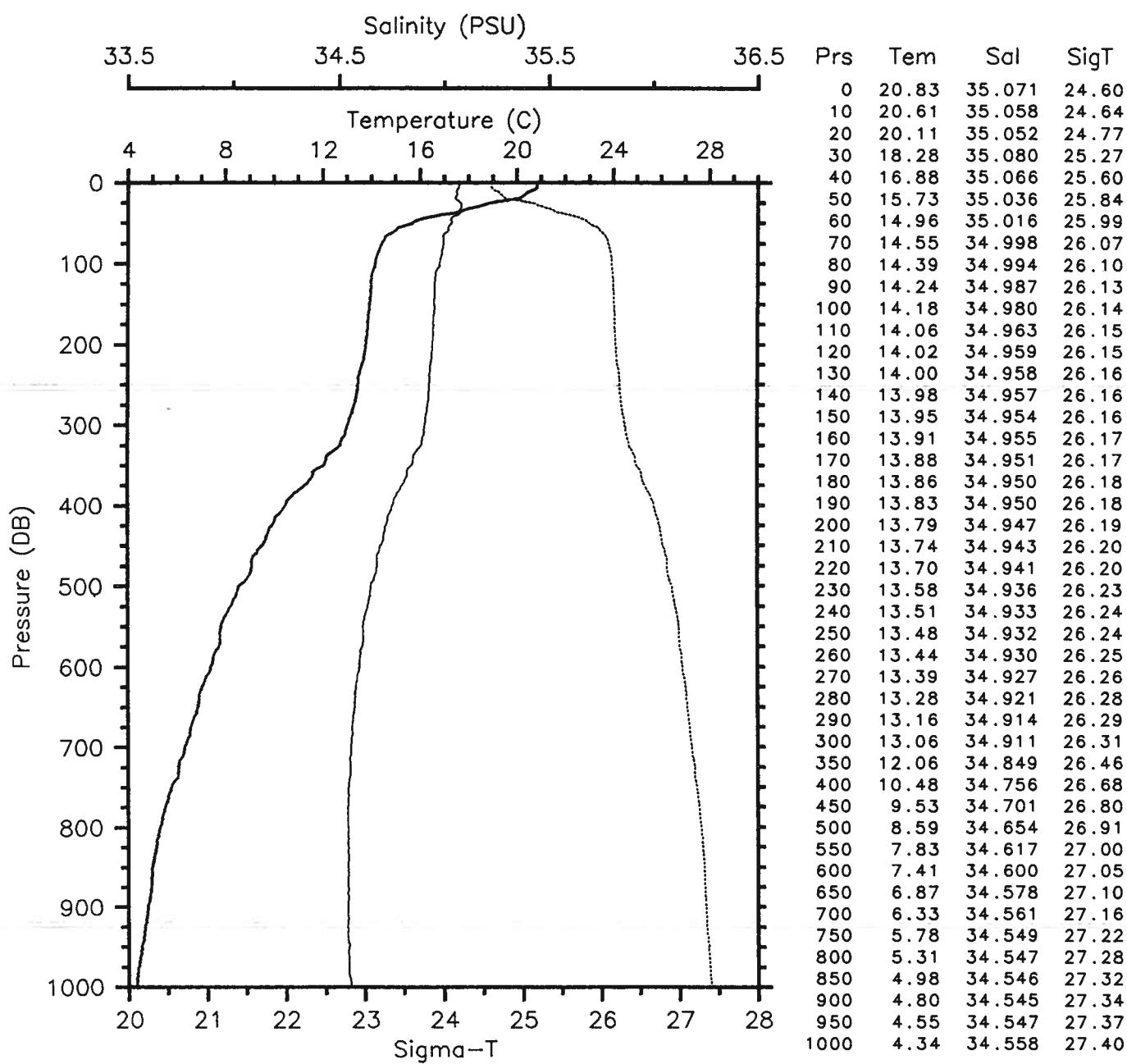


EPOCS EP5-86-OC CTD 13 OCEANOGRAPHER

Date 12 08 86 Latitude 5.003 S

Time 0523 Z Longitude 83.008 W

— Tem	— Sal
— SigT	

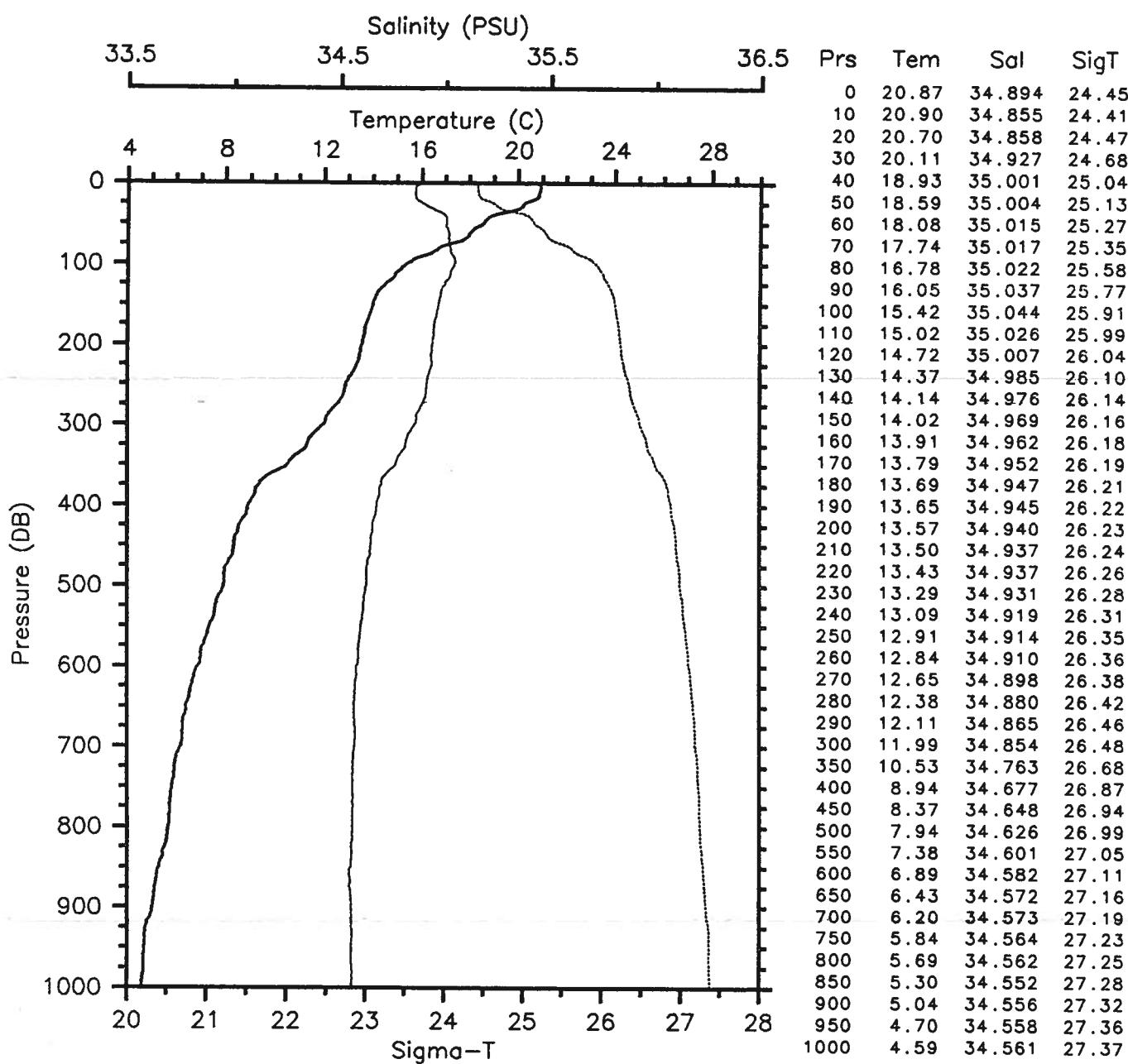


EPOCS EP5-86-OC CTD 14 OCEANOGRAPHER

Date 12 08 86 Latitude 5.005 S

Time 1049 Z Longitude 82.002 W

— Tem — Sal
— SigT

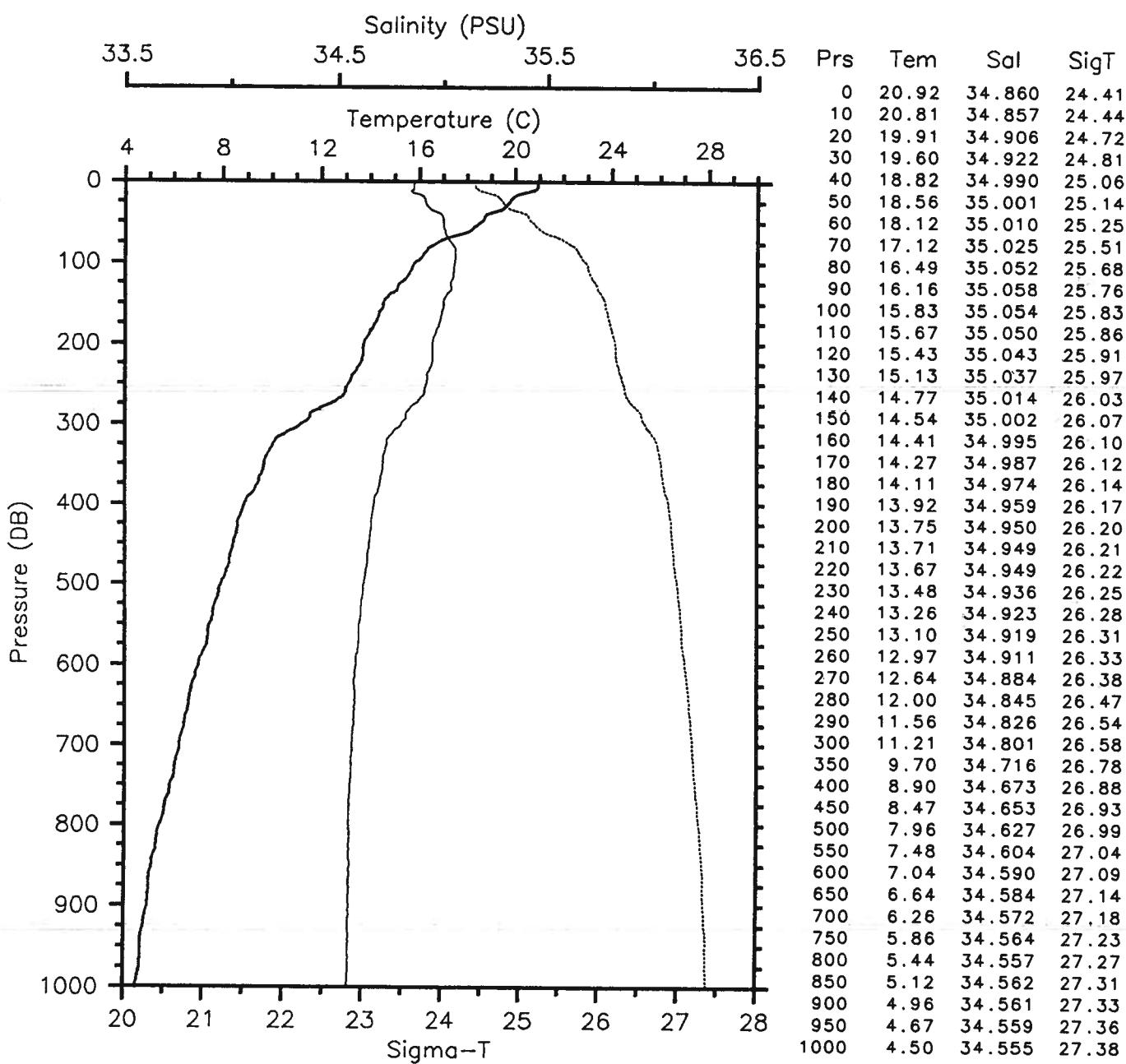


EPOCS EP5-86-OC CTD 15 OCEANOGRAPHER

Date 12 08 86 Latitude 5.002 S

Time 1259 Z Longitude 81.752 W

— Tem	— Sal
— SigT	

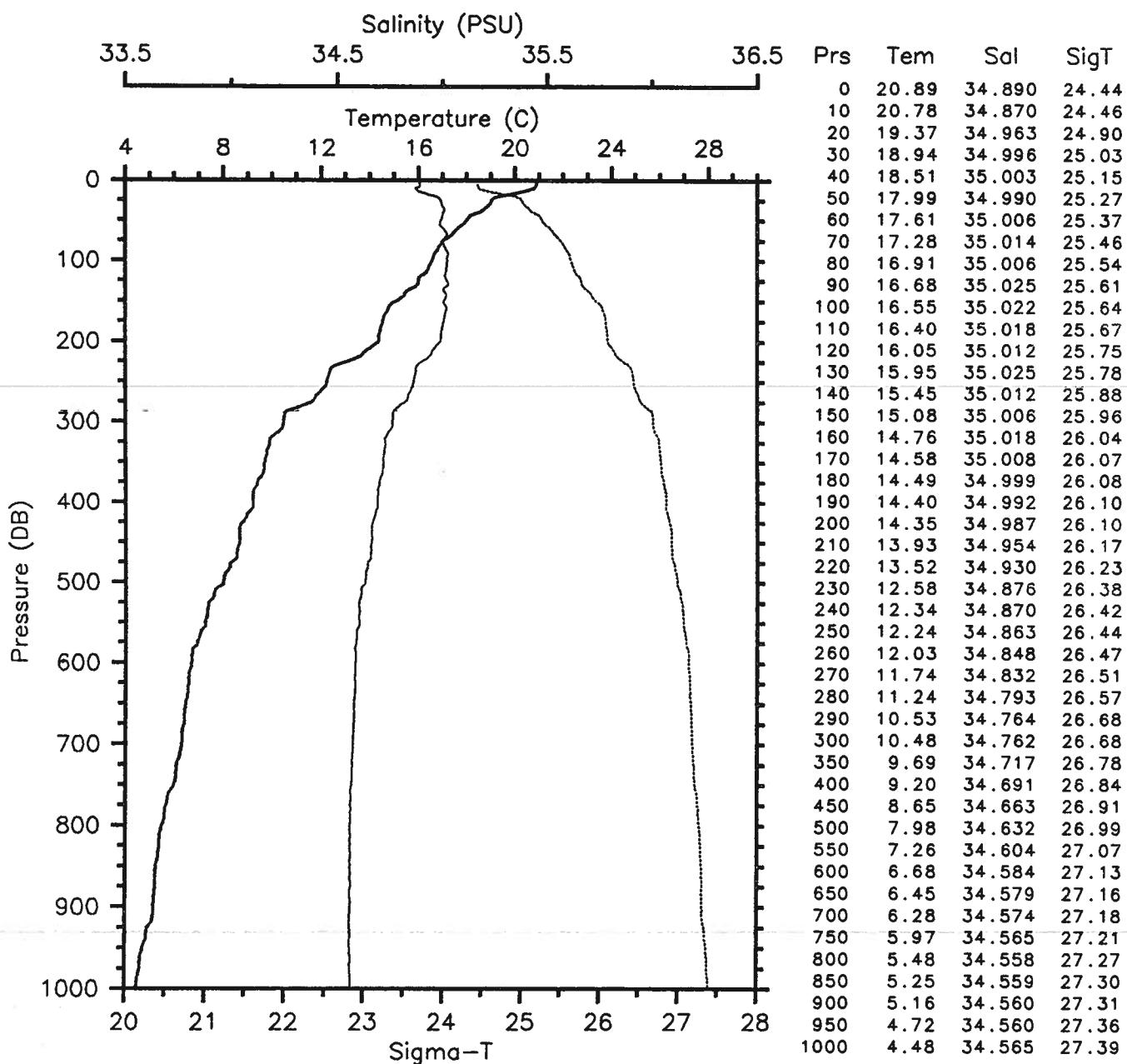


EPOCS EP5-86-OC CTD 16 OCEANOGRAPHER

Date 12 08 86 Latitude 5.003 S

Time 1519 Z Longitude 81.500 W

— Tem	— Sal
— SigT	



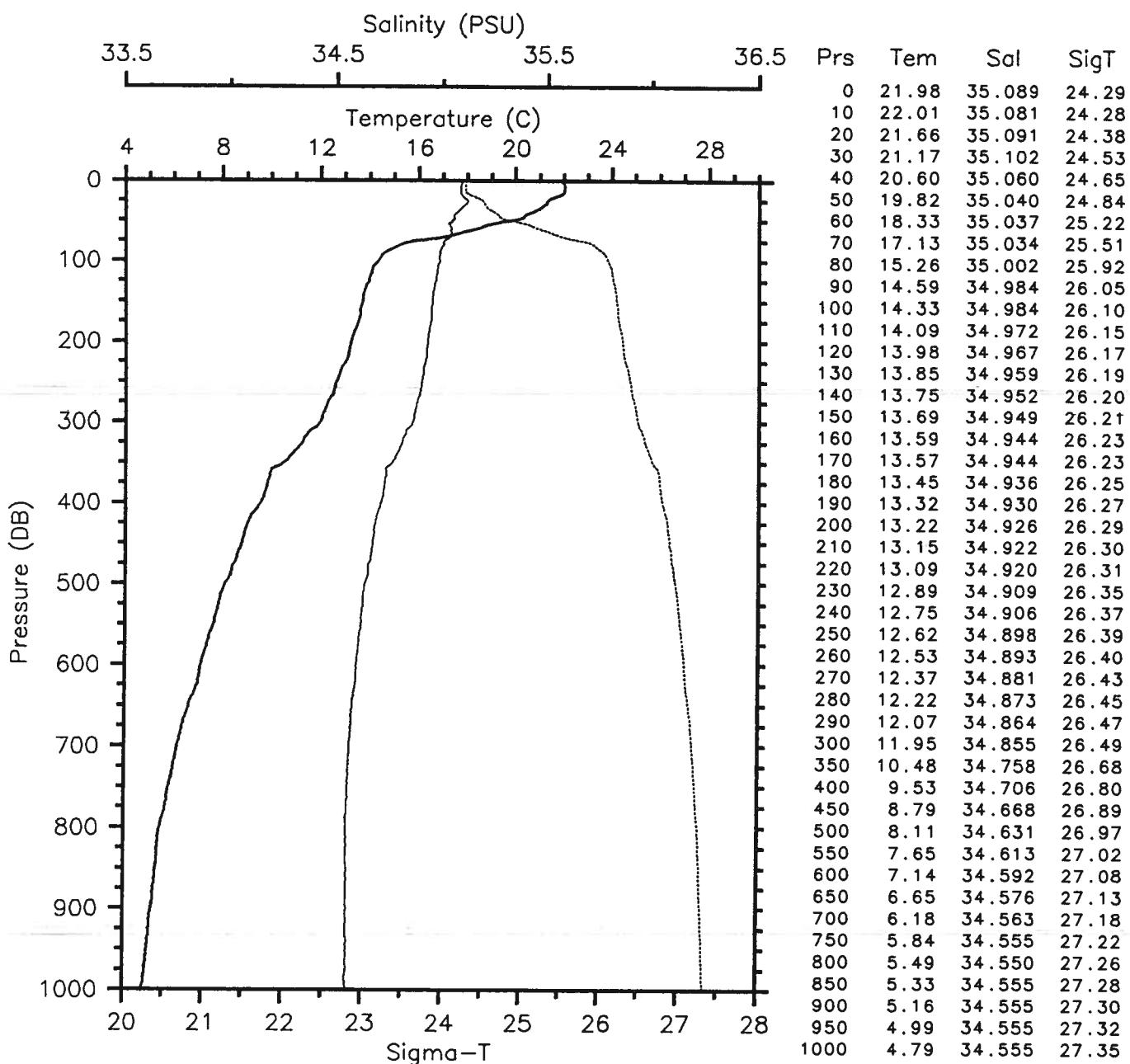
Prs	Tem	Sal	SigT
0	20.89	34.890	24.44
10	20.78	34.870	24.46
20	19.37	34.963	24.90
30	18.94	34.996	25.03
40	18.51	35.003	25.15
50	17.99	34.990	25.27
60	17.61	35.006	25.37
70	17.28	35.014	25.46
80	16.91	35.006	25.54
90	16.68	35.025	25.61
100	16.55	35.022	25.64
110	16.40	35.018	25.67
120	16.05	35.012	25.75
130	15.95	35.025	25.78
140	15.45	35.012	25.88
150	15.08	35.006	25.96
160	14.76	35.018	26.04
170	14.58	35.008	26.07
180	14.49	34.999	26.08
190	14.40	34.992	26.10
200	14.35	34.987	26.10
210	13.93	34.954	26.17
220	13.52	34.930	26.23
230	12.58	34.876	26.38
240	12.34	34.870	26.42
250	12.24	34.863	26.44
260	12.03	34.848	26.47
270	11.74	34.832	26.51
280	11.24	34.793	26.57
290	10.53	34.764	26.68
300	10.48	34.762	26.68
350	9.69	34.717	26.78
400	9.20	34.691	26.84
450	8.65	34.663	26.91
500	7.98	34.632	26.99
550	7.26	34.604	27.07
600	6.68	34.584	27.13
650	6.45	34.579	27.16
700	6.28	34.574	27.18
750	5.97	34.565	27.21
800	5.48	34.558	27.27
850	5.25	34.559	27.30
900	5.16	34.560	27.31
950	4.72	34.560	27.36
1000	4.48	34.565	27.39

EPOCS EP5-86-OC CTD 17 OCEANOGRAPHER

Date 12 09 86 Latitude 4.013 S

Time 1102 Z Longitude 84.977 W

— Tem	— Sal
— SigT	

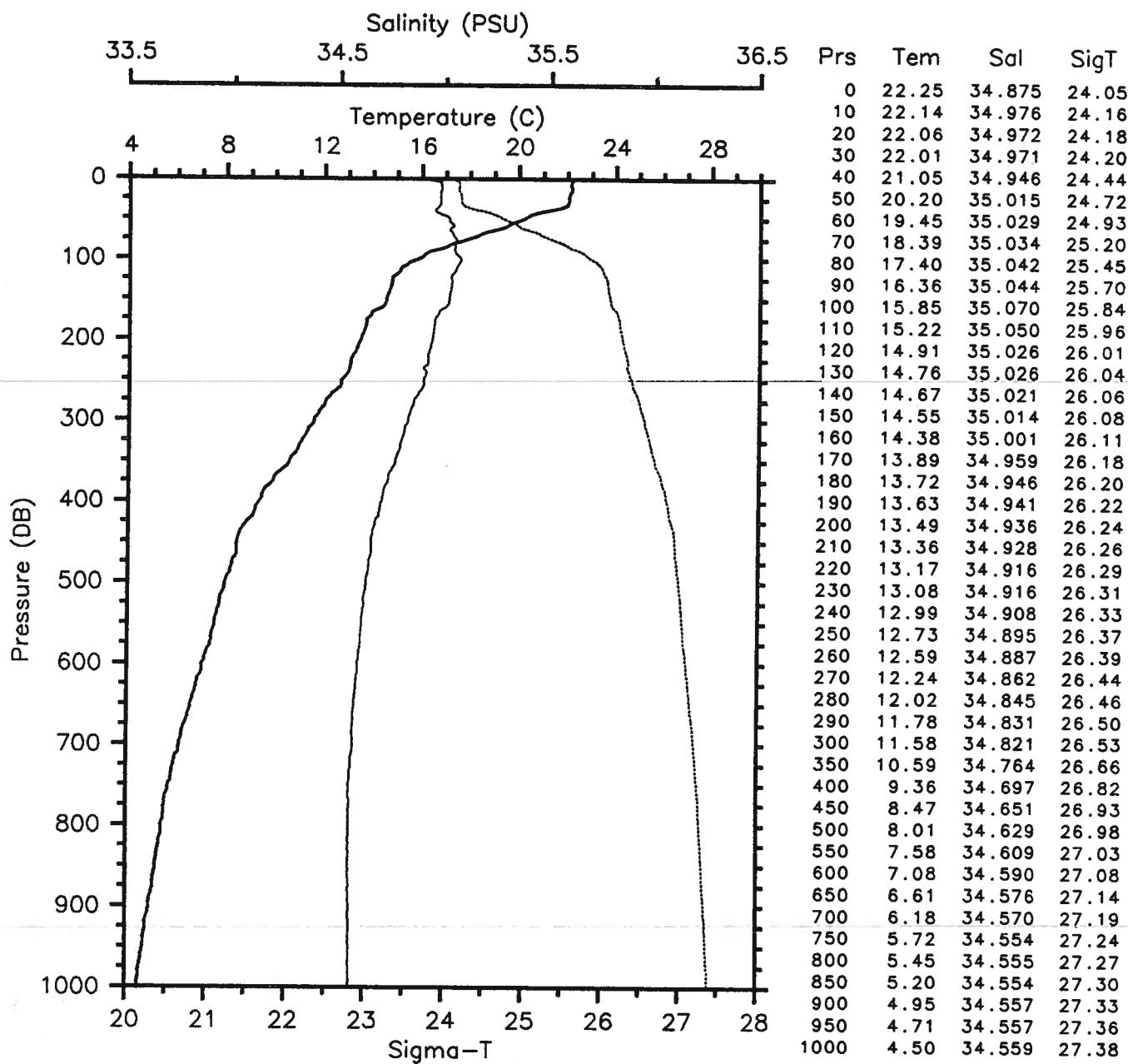


EPOCS EP5-86-OC CTD 18 OCEANOGRAPHER

Date 12 09 86 Latitude 2.998 S

Time 1549 Z Longitude 85.000 W

— Tem — Sal
— SigT

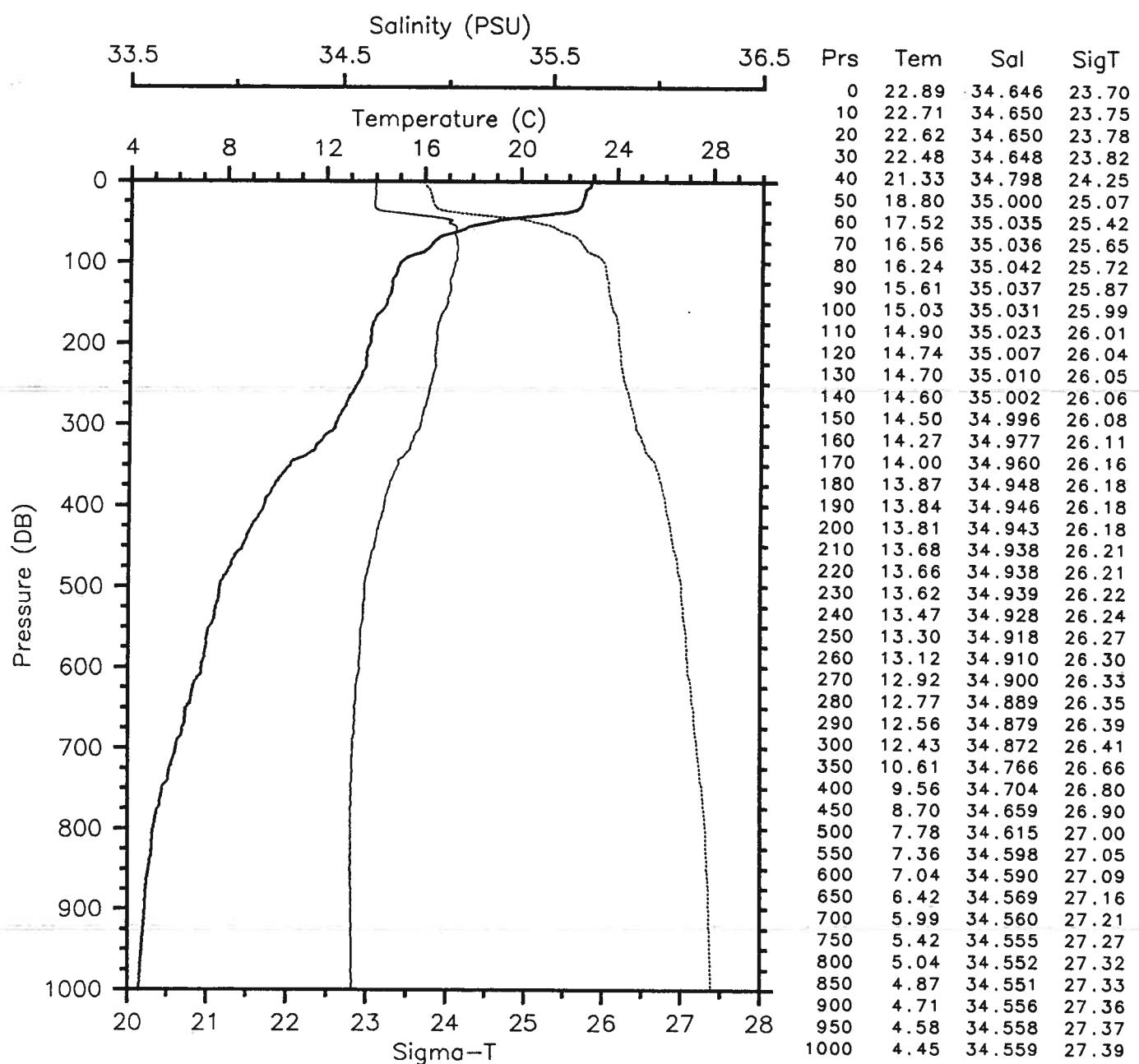


EPOCS EP5-86-OC CTD 19 OCEANOGRAPHER

Date 12 09 86 Latitude 2.002 S

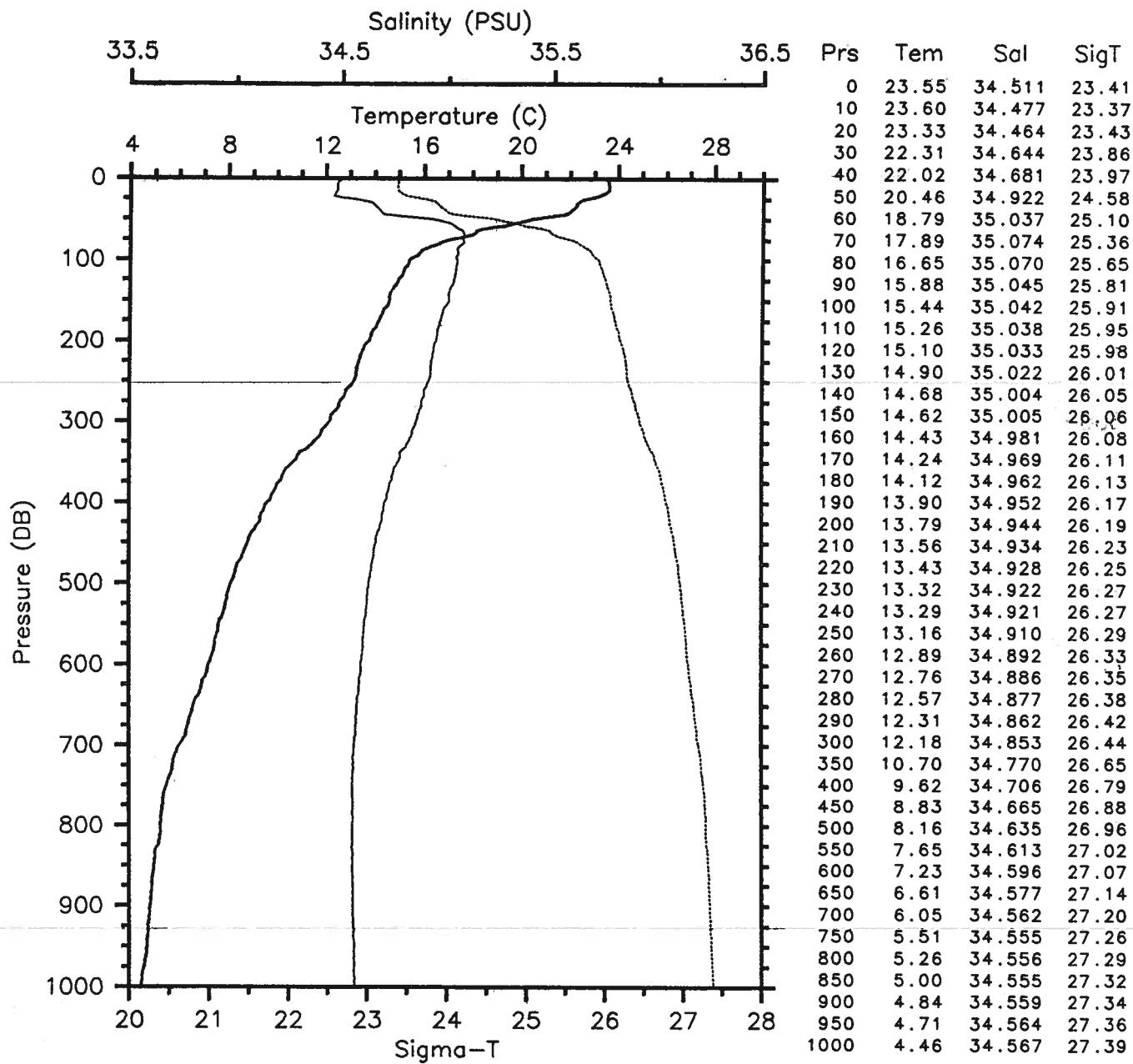
Time 2053 Z Longitude 85.007 W

— Tem — Sal
— SigT



EPOCS EP5-86-OC CTD 20 OCEANOGRAPHER
 Date 12 10 86 Latitude 1.490 S
 Time 0011 Z Longitude 85.002 W

— Tem — Sal
 — SigT

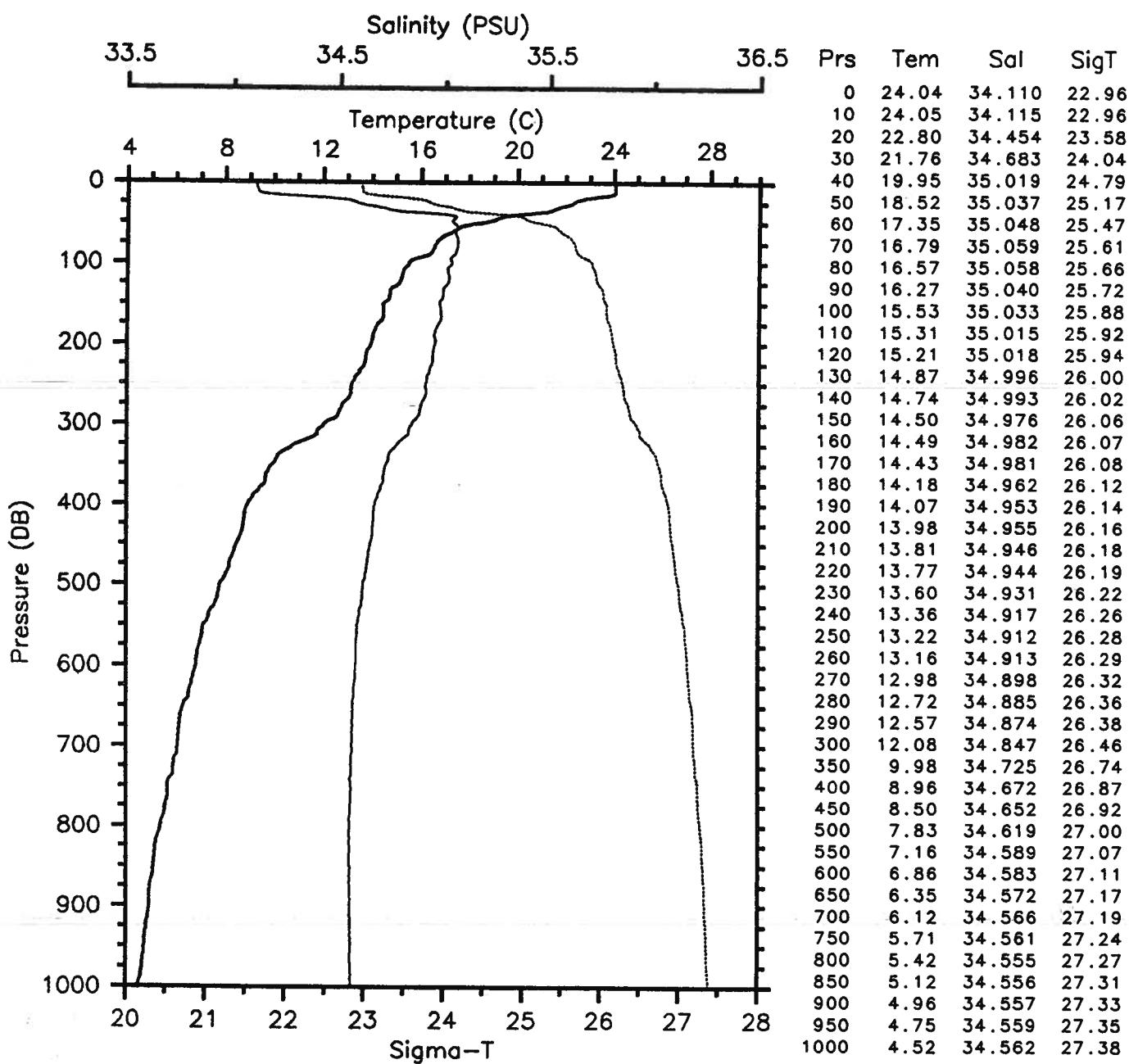


EPOCS EP5-86-OC CTD 21 OCEANOGRAPHER

Date 12 10 86 Latitude 1.000 S

Time 0322 Z Longitude 85.030 W

— Tem — Sal
--- SigT

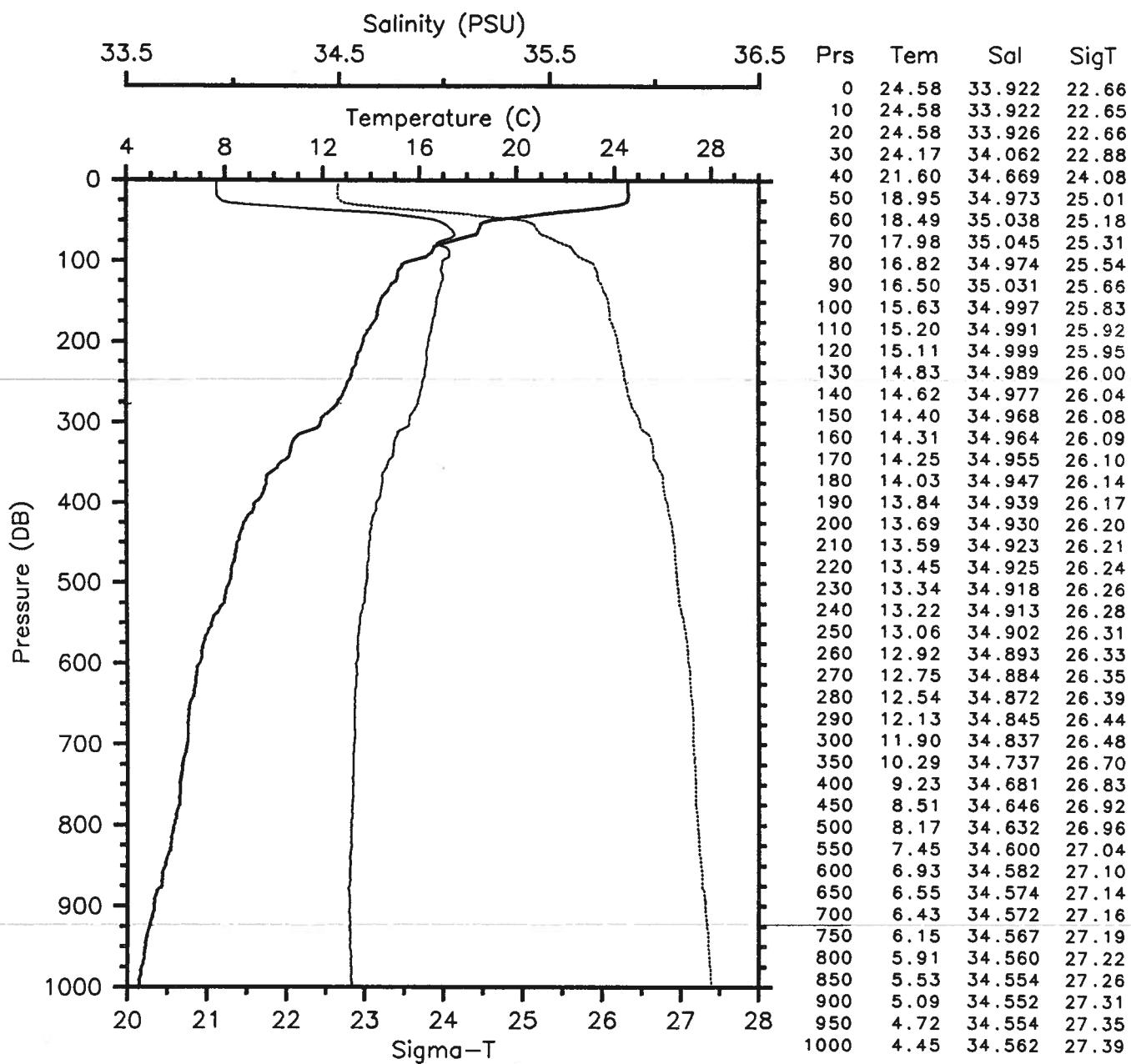


EPOCS EP5-86-OC CTD 22 OCEANOGRAPHER

Date 12 10 86 Latitude 0.498 S

Time 0645 Z Longitude 85.013 W

— Tem — Sal
— SigT

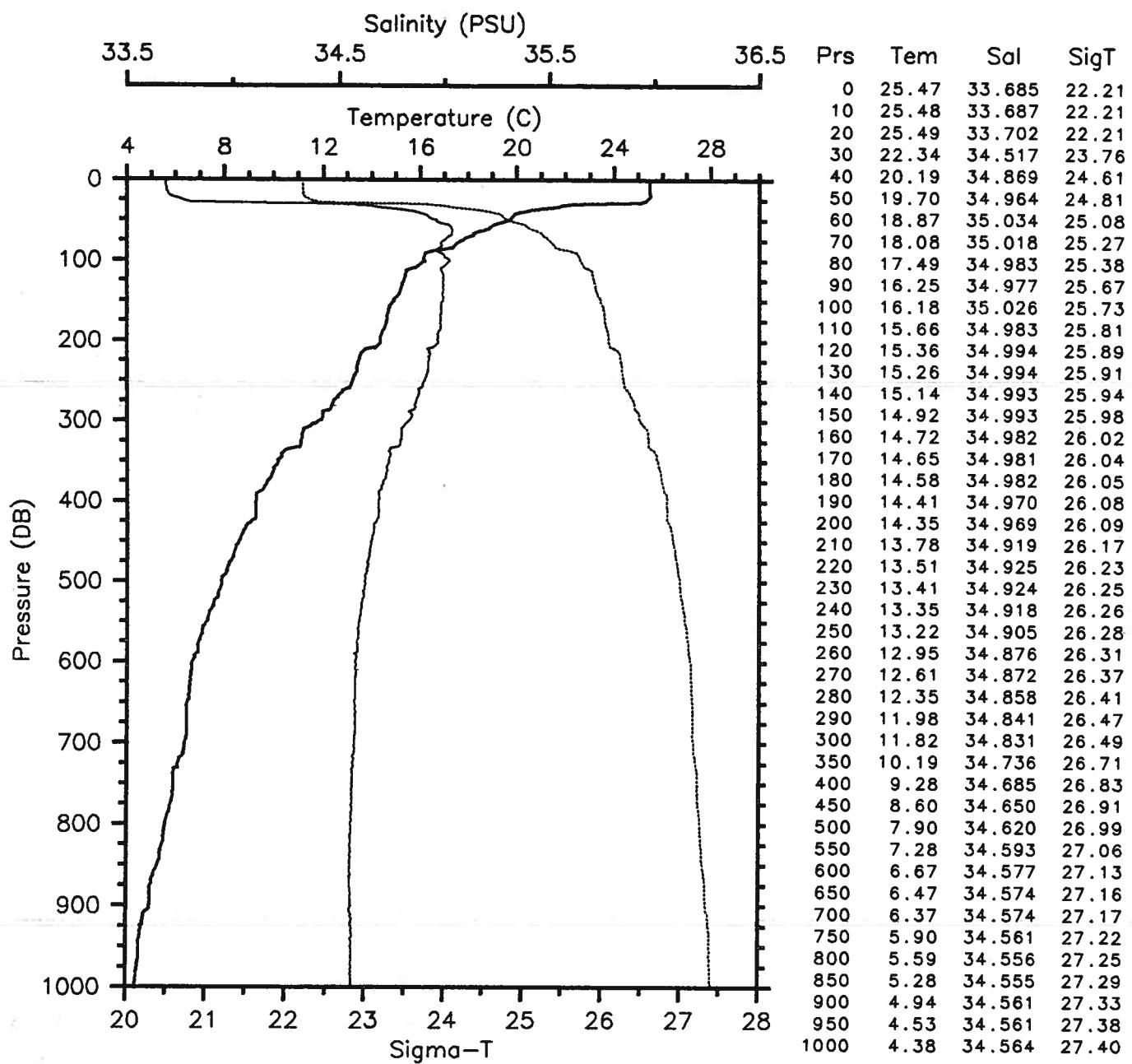


EPOCS EP5-86-OC CTD 23 OCEANOGRAPHER

Date 12 10 86 Latitude 0.007 S

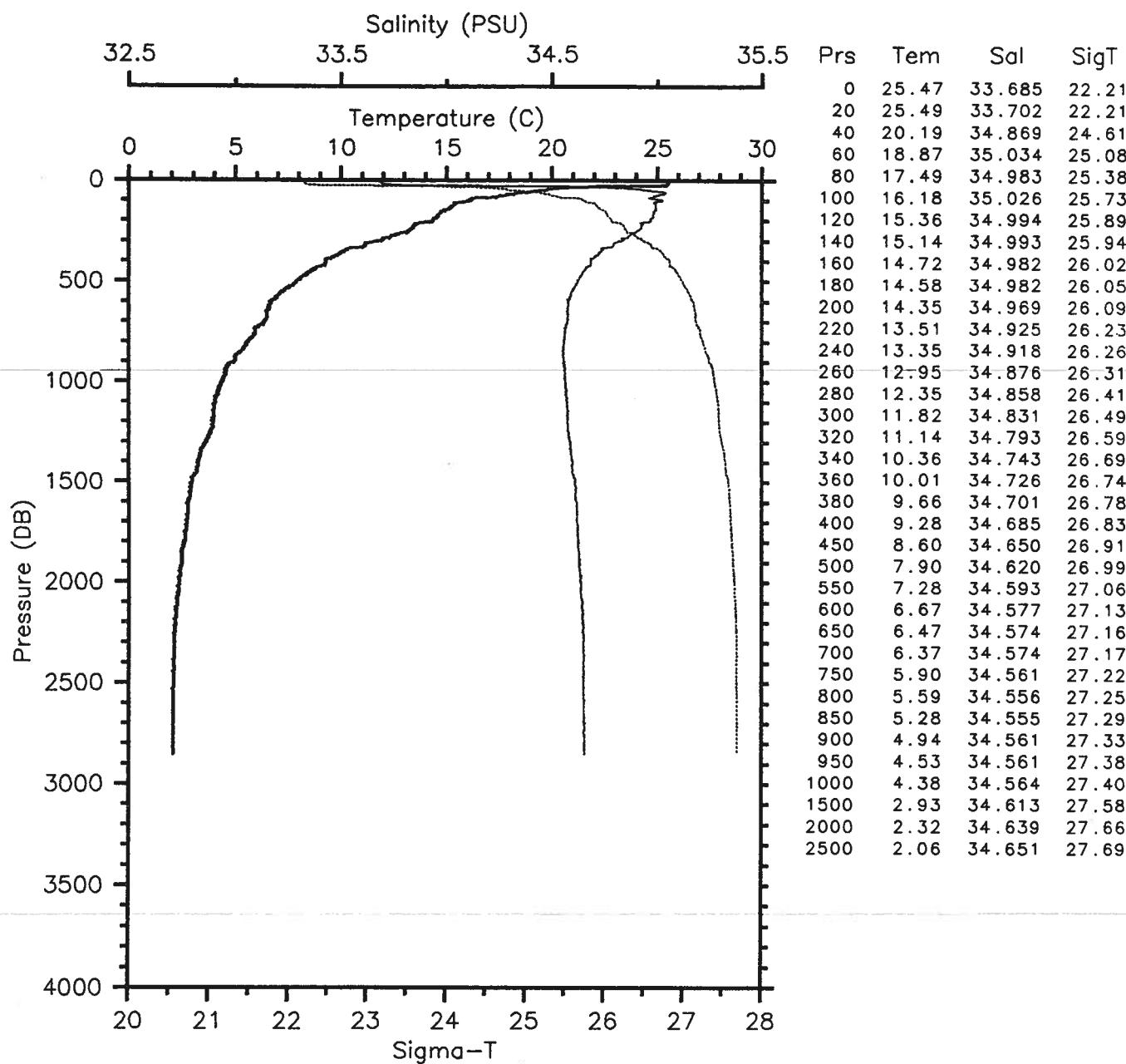
Time 1018 Z Longitude 85.008 W

— Tem — Sal
— SigT



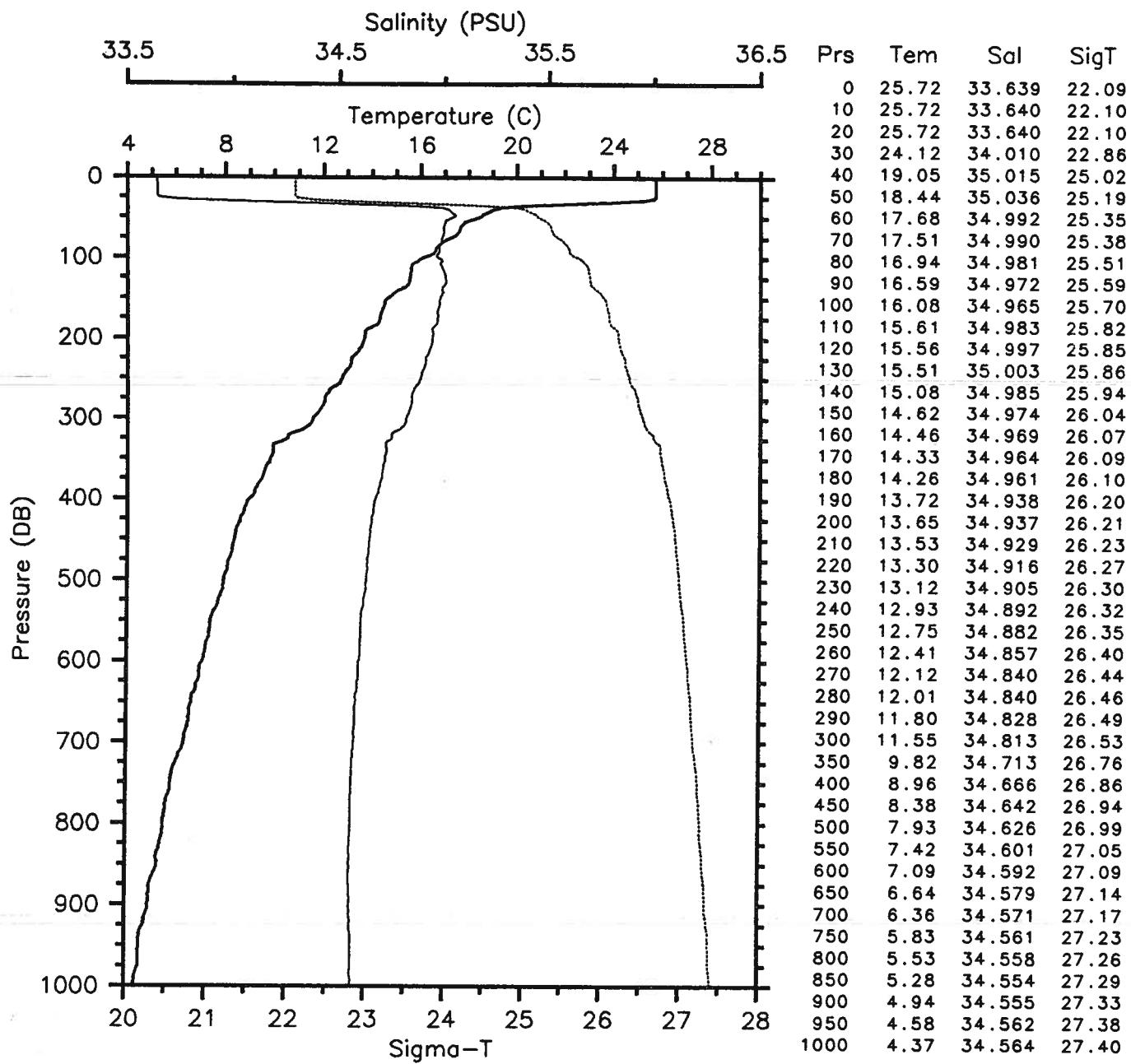
EPOCS EP5-86-OC CTD 23 OCEANOGRAPHER
 Date 12 10 86 Latitude 0.007 S
 Time 1018 Z Longitude 85.008 W

— Tem — Sal
 SigT



EPOCS EP5-86-OC CTD 24 OCEANOGRAPHER
 Date 12 10 86 Latitude 0.500 N
 Time 1506 Z Longitude 84.997 W

— Tem — Sal
 — SigT

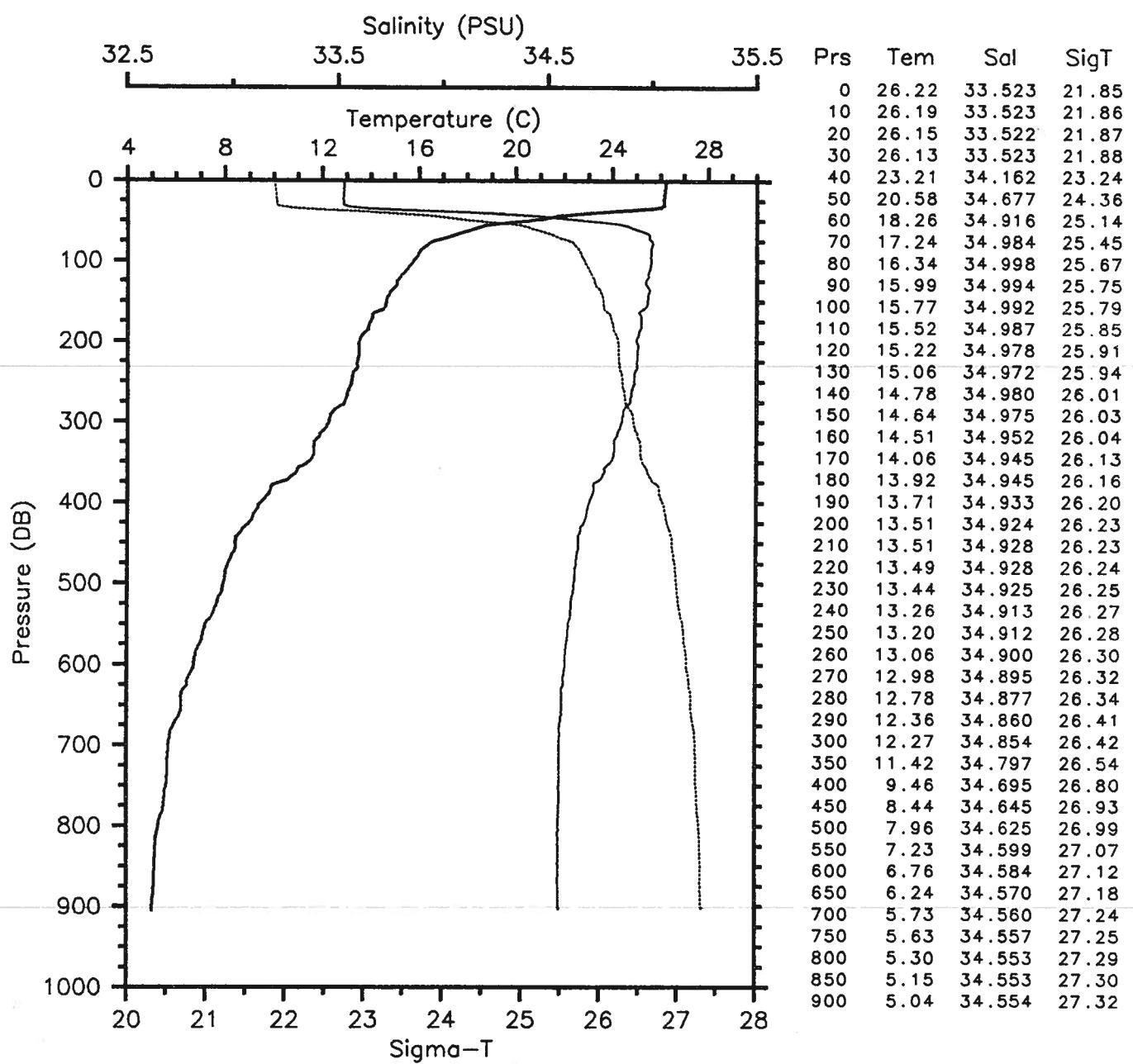


EPOCS EP5-86-OC CTD 25 OCEANOGRAPHER

Date 12 10 86 Latitude 0.995 N

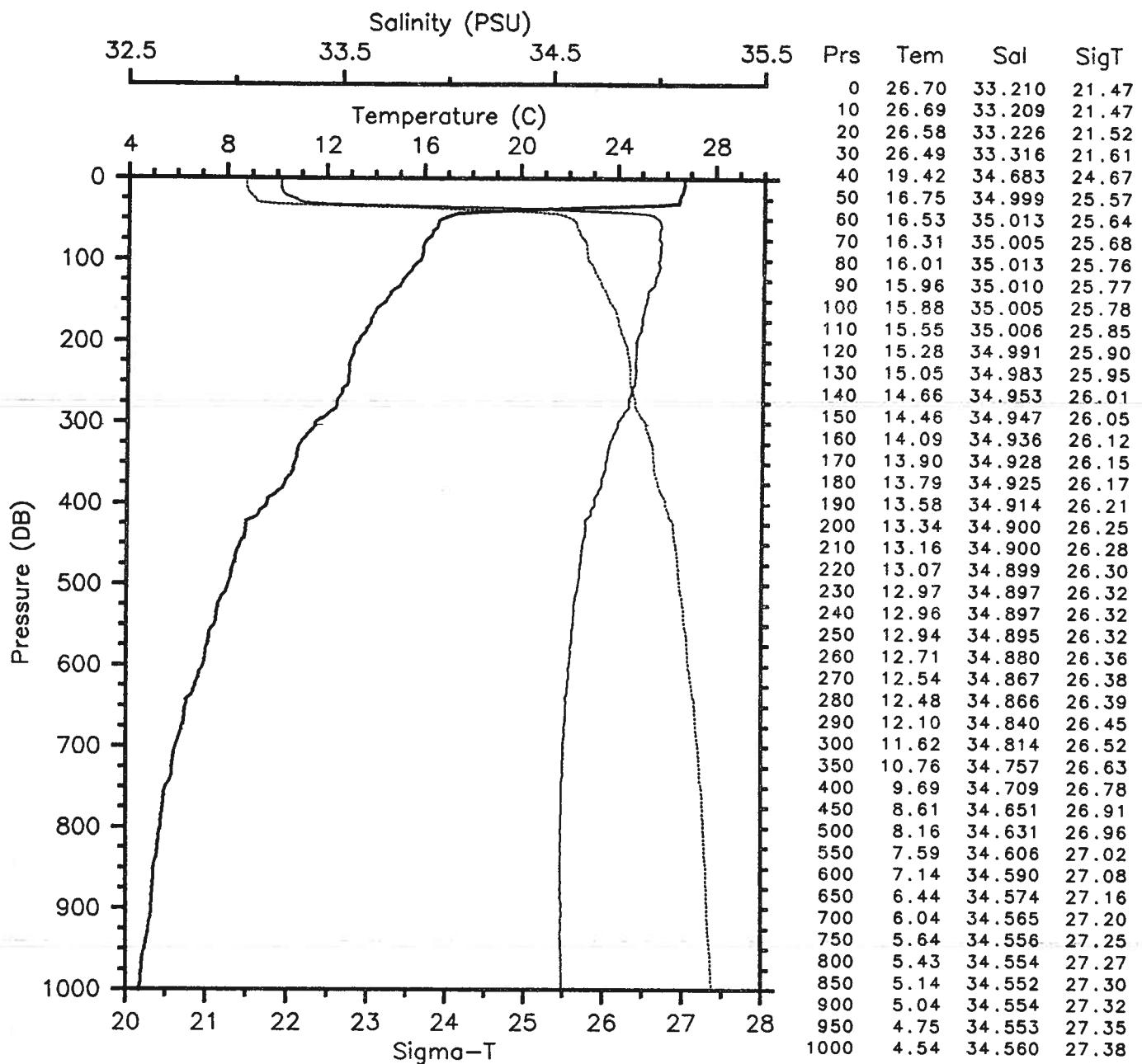
Time 1808 Z Longitude 85.002 W

— Tem — Sal
— SigT



EPOCS EP5-86-OC CTD 26 OCEANOGRAPHER
 Date 12 10 86 Latitude 1.502 N
 Time 2129 Z Longitude 85.008 W

— Tem — Sal
 — SigT

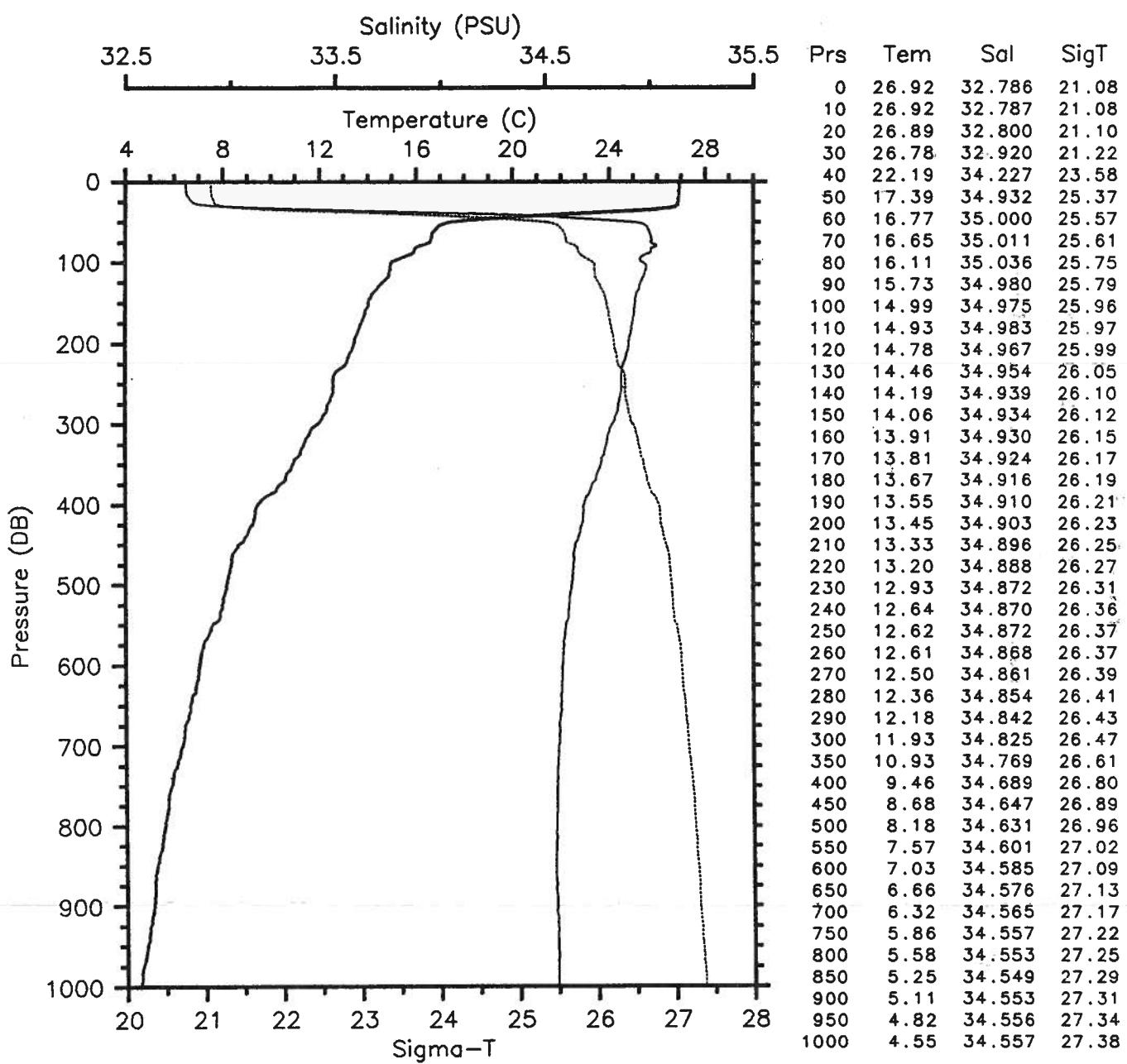


EPOCS EP5-86-OC CTD 27 OCEANOGRAPHER

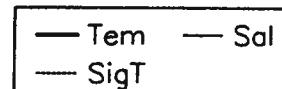
Date 12 11 86 Latitude 2.003 N

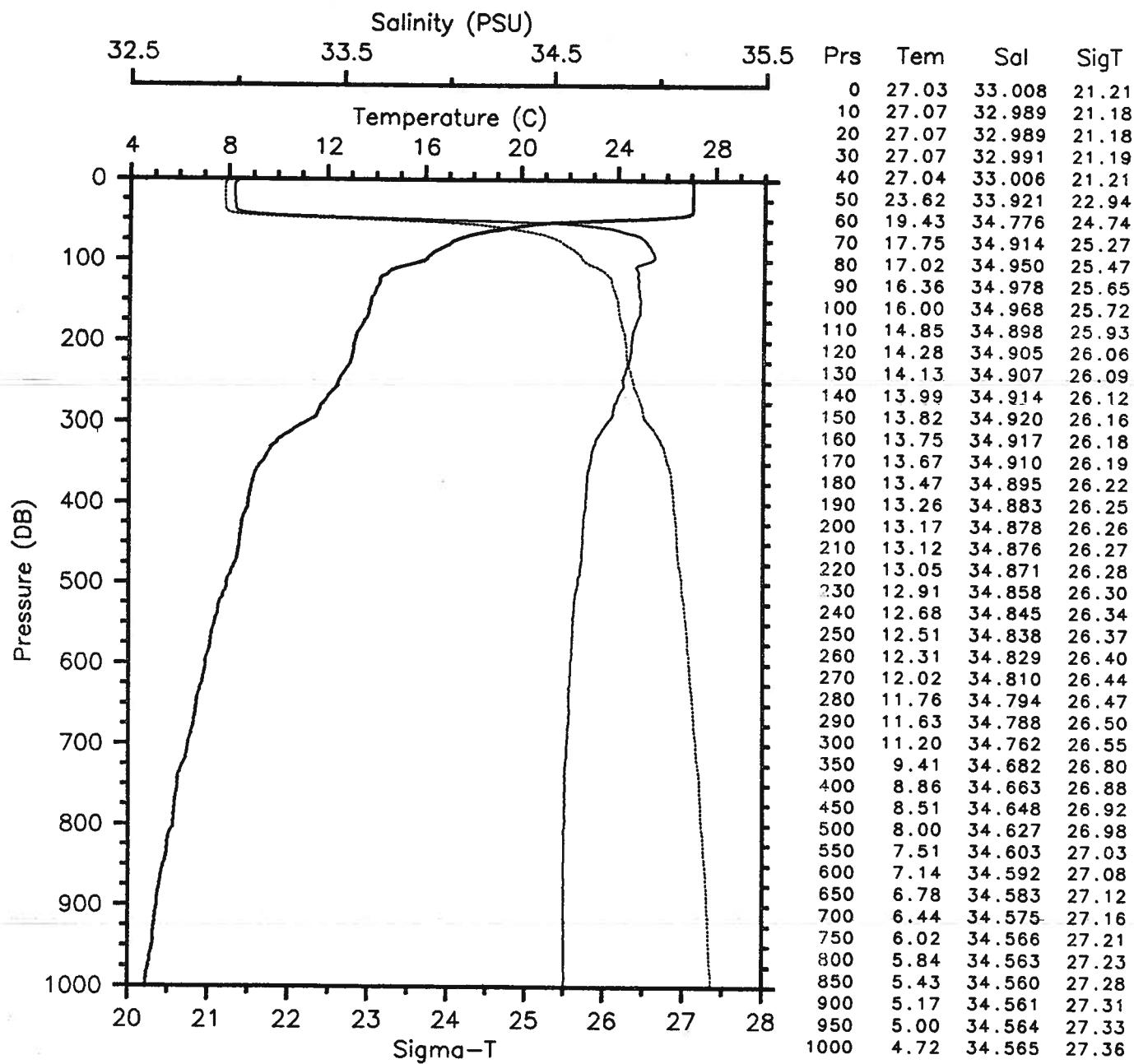
Time 0037 Z Longitude 85.003 W

— Tem — Sal
— SigT



EPOCS EP5-86-OC CTD 28 OCEANOGRAPHER
 Date 12 11 86 Latitude 2.987 N
 Time 0604 Z Longitude 85.010 W



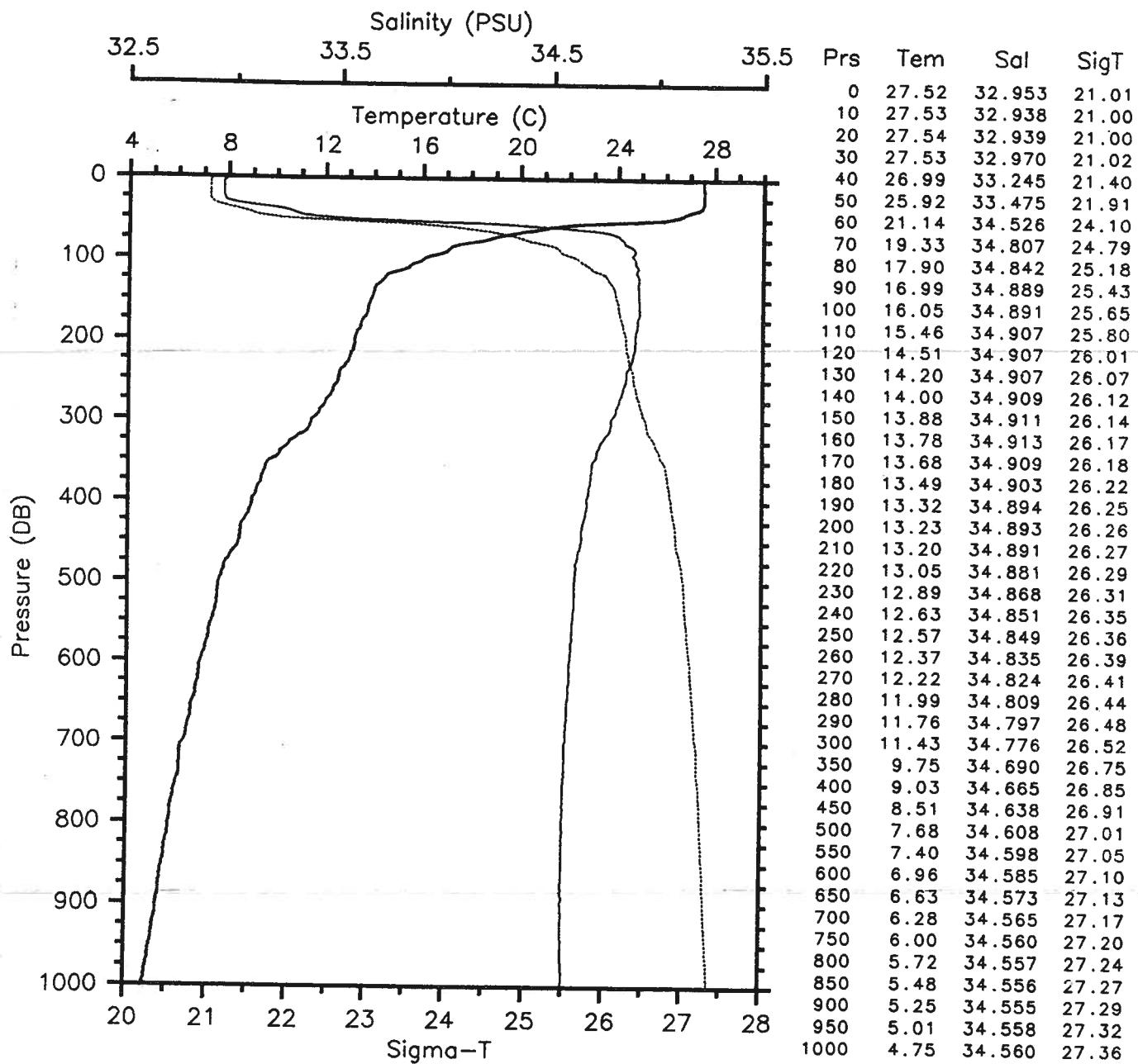


EPOCS EP5-86-OC CTD 29 OCEANOGRAPHER

Date 12 11 86 Latitude 3.993 N

Time 1133 Z Longitude 84.997 W

— Tem	— Sal
— SigT	



EPOCS EP5-86-OC CTD 30 OCEANOGRAPHER

Date 12 11 86 Latitude 4.995 N

Time 1704 Z Longitude 84.998 W

— Tem — Sal
— SigT

