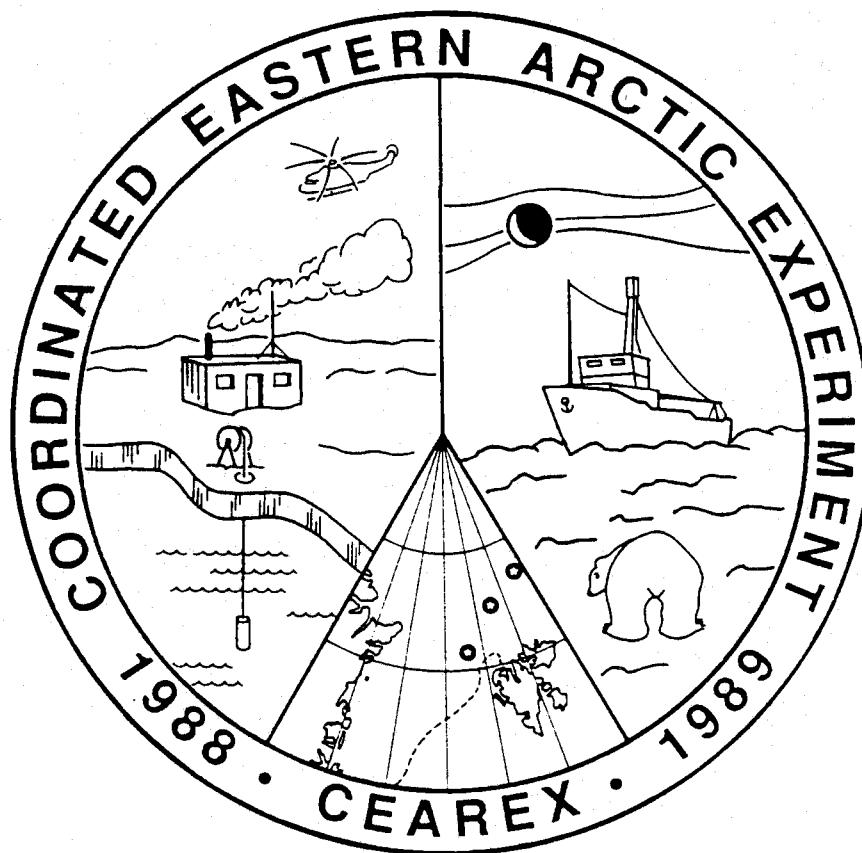


HMSC  
6C  
856.07  
N0. 150  
COP 2

College of

# OCEANOGRAPHY



OREGON STATE UNIVERSITY

MARILYN POTTS GUIN LIBRARY  
HATFIELD MARINE SCIENCE CENTER  
OREGON STATE UNIVERSITY  
MAY 1990 97365

AUG 27 1990

## MICROSTRUCTURE PROFILES DURING CEAREX

by

Laurie Padman  
Thomas M. Dillon

Reference 90-2  
April 1990  
Data Report 150

Office of Naval Research  
N00014-87-K-0009  
N00014-90-J-1042

Reproduction in whole or in part is  
permitted for any purpose of the United  
States Government.

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER 90-2	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Microstructure Profiles During CEAREX		5. TYPE OF REPORT & PERIOD COVERED Data
7. AUTHOR(S) Padman, L. and T.M. Dillon		6. PERFORMING ORG. REPORT NUMBER Data Report #150 N00014-87-K-0009 N00014-90-J-1042
9. PERFORMING ORGANIZATION NAME AND ADDRESS College of Oceanography Oregon State University Corvallis, Oregon 97331		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS NR083-102
11. CONTROLLING OFFICE NAME AND ADDRESS Office of Naval Research Ocean Science & Technology Division Arlington, Virginia 22217		12. REPORT DATE April 1990
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		13. NUMBER OF PAGES 199
		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/ DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)  Approved for public release; distribution unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)  The Coordinated Eastern Arctic Experiment (CEAREX) was a multi-platform geo-physical study covering the period from winter 1988 to spring 1989 in the vicinity of the Yermak Plateau and Fram Strait. The Oceanography ("O") Camp component of CEAREX was designed to study the physical oceanographic conditions from the deep Nansen Basin		

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

north of the Yermak Plateau, then into the shallower water over the Plateau. This area was known from previous experiments (Fram III, Fram IV, MIZEX '83) to be a very energetic region, in which much of the decay of the Atlantic Water flowing into the Arctic Basin occurs. The various programs at "O" Camp obtained data which will improve our understanding of the decay mechanisms, including the role of topographically enhanced diurnal tides, internal waves, and mixing by ice stress at the surface.

Our component of this project was the direct measurement of microscale velocity shear, temperature and salinity, using the Rapid Sampling Vertical Profiler. These data are used to estimate (a) the rate at which turbulent kinetic energy is dissipated, (b) vertical eddy diffusivities, and (c) vertical fluxes of heat, salt, and momentum. More than 1500 profiles were obtained over a depth range of 0-350 m for the period March 30 to April 24, 1989, including 20 days of continuous operation (more than 1 profile per hour), from April 4 to April 24. The data show both the geographic variability associated with the topography, as well as rapid variations due to high frequency internal waves. Good data was obtained both in the surface layer (mixed by surface stress), and in the pycnocline (mixed by shear instabilities). The results confirm the importance of topographic effects on the decay of the Atlantic Water in this region.

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

# **Microstructure Profiles During CEAREX**

## **[Data Report]**

by

**Laurie Padman**

and

**Thomas M. Dillon**

College of Oceanography  
Oregon State University  
Corvallis, OR 97331

Sponsor:  
Office of Naval Research  
Contracts N00014-87-K-0009  
and N00014-90-J-1042

Data Report 150  
Reference 90-2  
April 1990

Approved for Public Release  
Distribution Unlimited

## ABSTRACT

The Coordinated Eastern Arctic Experiment (CEAREX) was a multi-platform geo-physical study covering the period from winter 1988 to spring 1989 in the vicinity of the Yermak Plateau and Fram Strait. The Oceanography ("O") Camp component of CEAREX was designed to study the physical oceanographic conditions from the deep Nansen Basin north of the Yermak Plateau, then into the shallower water over the Plateau. This area was known from previous experiments (Fram III, Fram IV, MIZEX '83) to be a very energetic region, in which much of the decay of the Atlantic Water flowing into the Arctic Basin occurs. The various programs at "O" Camp obtained data which will improve our understanding of the decay mechanisms, including the role of topographically enhanced diurnal tides, internal waves, and mixing by ice stress at the surface.

Our component of this project was the direct measurement of microscale velocity shear, temperature and salinity, using the Rapid Sampling Vertical Profiler. These data are used to estimate (a) the rate at which turbulent kinetic energy is dissipated, (b) vertical eddy diffusivities, and (c) vertical fluxes of heat, salt, and momentum. More than 1500 profiles were obtained over a depth range of 0–350 m for the period March 30 to April 24, 1989, including 20 days of continuous operation (more than 1 profile per hour), from April 4 to April 24. The data show both the geographic variability associated with the topography, as well as rapid variations due to high frequency internal waves. Good data was obtained both in the surface layer (mixed by surface stress), and in the pycnocline (mixed by shear instabilities). The results confirm the importance of topographic effects on the decay of the Atlantic Water in this region.

### **Acknowledgements**

We thank Mike Neeley-Brown for his tireless efforts during the preparation for this experiment, Dennis Barstow for assistance with sensor calibration, Kean Stump for the development of the analysis software, and Jay Simpkins for his dedication to the collection of the microstructure data at "O" Camp. This work was supported by the Office of Naval Research, contracts N00014-87-K-0009 and N00014-90-J-1042.

## TABLE OF CONTENTS

	Page
INTRODUCTION:	
A. Description of the Experiment	1
B. Description of Data	3
C. References	5
Table of Principal Investigators	6
Schematic of Rapid Sampling Vertical Profiler	7
OBSERVATIONS:	
1. Navigation and Bathymetry	8
2. Profile Drop Time Summary	19
3. Profiles of Temperature, Salinity, Density, and Dissipation Rate	36
4. Transects of Temperature, Salinity, Density, and Dissipation Rate for the Entire Experiment	174
5. Transects of Temperature, Salinity, Density, and Dissipation Rate for 5-day Segments	179

## INTRODUCTION

During CEAREX (the Coordinated Eastern Arctic Experiment), more than 1500 profiles of temperature, conductivity, and velocity shear microstructure were obtained from the Oceanography ("O") Camp in March and April, 1989, including a 20-day continuous time series from 5 April to 25 April. The camp was established on the drifting pack ice north of the Yermak Plateau, and was carried from deep water (> 4000 m) onto the northern slope, then around the plateau in about 1700 m of water for several days before heading westward across northern Fram Strait (see Section 1).

### A: The Experiment

CEAREX was a multi-investigator Arctic oceanographic experiment conducted from several platforms, including the "O" Camp from which the data discussed herein were obtained. Other data from "O" Camp include Acoustic Doppler Current Profiler (ADCP) measurements in the upper several hundred meters, and densely sampled CTD data, as well as water depth and meteorological information. Table 1 lists the other Principal Investigators at "O" Camp.

Approximately 1500 microstructure profiles were made with the Rapid-Sampling Vertical Profiler (RSVP) [Caldwell, *et al.*, 1985; Padman and Dillon, 1987] from March 31 to April 25, 1989, between the surface and a typical maximum profiled depth of 340 m. The cycling time between profiles was usually 15–20 minutes, although the sampling interval was reduced to about 10 minutes over a smaller depth range when energetic mixing events or hydrographically interesting features were observed.

The RSVP (Fig. 1) is a tethered, freefall profiler about 1.4 m long, equipped with sensors for measuring pressure,  $P$ , microscale velocity shears,  $u_z (\equiv \partial u / \partial z)$  and  $v_z (\equiv \partial v / \partial z)$ , temperature,  $T$ , and conductivity,  $C$ . The probe length is a compromise between ease of deployment and resolution of low-wavenumber velocity structure. The average fall rate is about  $0.7 \text{ ms}^{-1}$ , constrained by a drag element consisting of an annular brush near the rear of the probe during descent, but able to slide towards the RSVP's nose for improved retrieval dynamics. The raw data sampling rate during CEAREX was 256 Hz for all channels. Temperature was measured with a Thermometrics FP07 thermistor, which projects

forward from the probe nose assembly. This thermistor has an approximately flat frequency response to 20 Hz. Conductivity was measured with a Neil Brown Instrument Systems (NBIS) conductivity cell mounted on the side of the probe, 0.15 m above the probe tip. For salinity determination a second Thermometrics FP07 thermistor was mounted adjacent to the conductivity sensor. The NBIS cell has a response length of  $O(0.1)$  m [Gregg, *et al.*, 1982], so that at the nominal fall rate the time constant of the conductivity cell is 0.14 s. Post-analysis of the conductivity data indicated a small time varying calibration offset voltage: conductivities have therefore been corrected by comparison with CTD data, kindly provided by J. Morison. Vertically averaged salinity,  $S$ , is determined from similarly filtered  $T$  and  $C$ : the spatial separation of the thermistor and conductivity cell is accounted for by lagging the temperature signal by 0.03 s, about 0.02 m, determined by an empirical search for minimized salinity spiking in a region with low dissipation rates. This lag is consistent with the physical separation of the two sensors. With the optimum lag for  $T$  incorporated, the effective resolution for  $S$  and density,  $\sigma_t$ , is about 0.2 m. Least significant bit resolutions of the raw (256 Hz) 16-bit records are about  $1.5 \times 10^{-4}$  °C in temperature, and  $1.5 \times 10^{-5}$  S m $^{-1}$  in conductivity.

Velocity microstructure was measured with two orthogonally mounted airfoil shear sensors on the RSVP's nose. These probes [Osborn and Crawford, 1980] have a spatial resolution of about 0.03 m, sufficient to resolve most of the "universal", or Kolmogorov, shear spectrum for typical oceanic dissipation rates. Estimates of the turbulent kinetic energy dissipation rate,  $\epsilon$ , were made for approximately 1.4 m depth intervals by integrating the velocity shear spectra in the wavenumber range of 2 to 20 cpm. Assuming isotropy of velocity fluctuations in this wavenumber band,

$$\epsilon = \frac{15}{2} \nu \overline{\frac{(u_z^2 + v_z^2)}{2}} \quad (1)$$

where  $\nu$  is the kinematic viscosity of seawater, about  $1.8 \times 10^{-6}$  m $^2$  s $^{-1}$  at these low temperatures. Obvious spikes on the shear channels due to impacts with biota and other particles are edited prior to calculating shear variance: a further check is carried out by comparing the variance, skewness and kurtosis from the two shear probes, and discarding the higher variance if any of the above moments of the shear distribution seem un-realistic.

The noise level based on measured microscale shears in the quietest regions appears to be about  $10^{-9}$  Wkg $^{-1}$ , substantially higher than during AIWEX [Padman and Dillon, 1987]. We believe that this is due to a change in the dynamics of the RSVP, which in CEAREX was an air-filled, pressure-sealed case compared with an oil-filled instrument in AIWEX. The probable result of the latter change, which was compensated for by a reduction in the number and size of drag and buoyancy elements near the instrument's tail, is an increase in motion near the instrumented nose. However, typical dissipation rates in turbulent patches were  $10^{+3}$  times greater than the noise level, so that the mixing processes which contribute most to the time-averaged evolution of the large-scale hydrographic fields are well resolved. The noise level was lowest in regions where the thermal gradients were smallest, notably in the warm, almost isothermal Atlantic layer slab which was sampled at the end of the experiment. This suggests that the shear probes' thermal response, discussed by Osborn and Crawford [1980] and Padman and Dillon [1987], may also contribute to setting the noise level on dissipation rate measurements.

An *upper* limit on fully resolved shear spectra is set by the finite response length scale of the airfoil shear probes. The Kolmogorov shear spectrum contains energy at all scales larger than the Kolmogorov microscale:

$$l_k = (\nu^3 / \epsilon)^{1/4} \quad (2)$$

although the spectral peak occurs at wavelengths of about  $10l_k$ . For  $\epsilon = 1 \times 10^{-6}$  m $^2$ s $^{-3}$ ,  $l_k$  is about 0.01 m, and the peak spectral density lies at wavelengths of about 0.1 m. Some correction can be made for the finite response of the shear probes, however in all the data presented in this report, the correction to  $\epsilon$  is less than 30%, which is less than the potential calibration errors on the probes themselves.

## B: Description of Data

The data shown in this report are divided into 5 sections. Section 1 shows the drift track of "O" camp overlaid on the local bathymetry, and provides a table of hourly interpolated camp positions, derived from approximately hourly satellite fixes. The original data was provided by M. McPhee. The bathymetry is based on a chart from Jackson *et al.*

[1984], updated with along-track bathymetry collected during the "O" Camp drift by D. Farmer and D. Menemenlis (Institute of Ocean Sciences, Sidney, B.C., Canada). Section 2 lists the start time of each microstructure profile.

In the third section, we present profiles of temperature,  $T$ , salinity  $S$ , density,  $\sigma_t$ , and turbulent kinetic energy dissipation rate,  $\epsilon$ , selected at approximately 4-hour intervals throughout the experiment. Basic features common to all profiles are a surface layer which is almost homogeneous in  $T$ ,  $S$  and  $\sigma_t$ , and a temperature maximum near 250 m which represents the extension of the West Spitzbergen Current into the Arctic Basin. The surface layer has a temperature of about  $-1.85^\circ\text{C}$ , which is close to the freezing point for the measured salinity of about 34.1–34.2 psu. The Atlantic layer core has a temperature of above  $2^\circ\text{C}$  in almost all profiles.

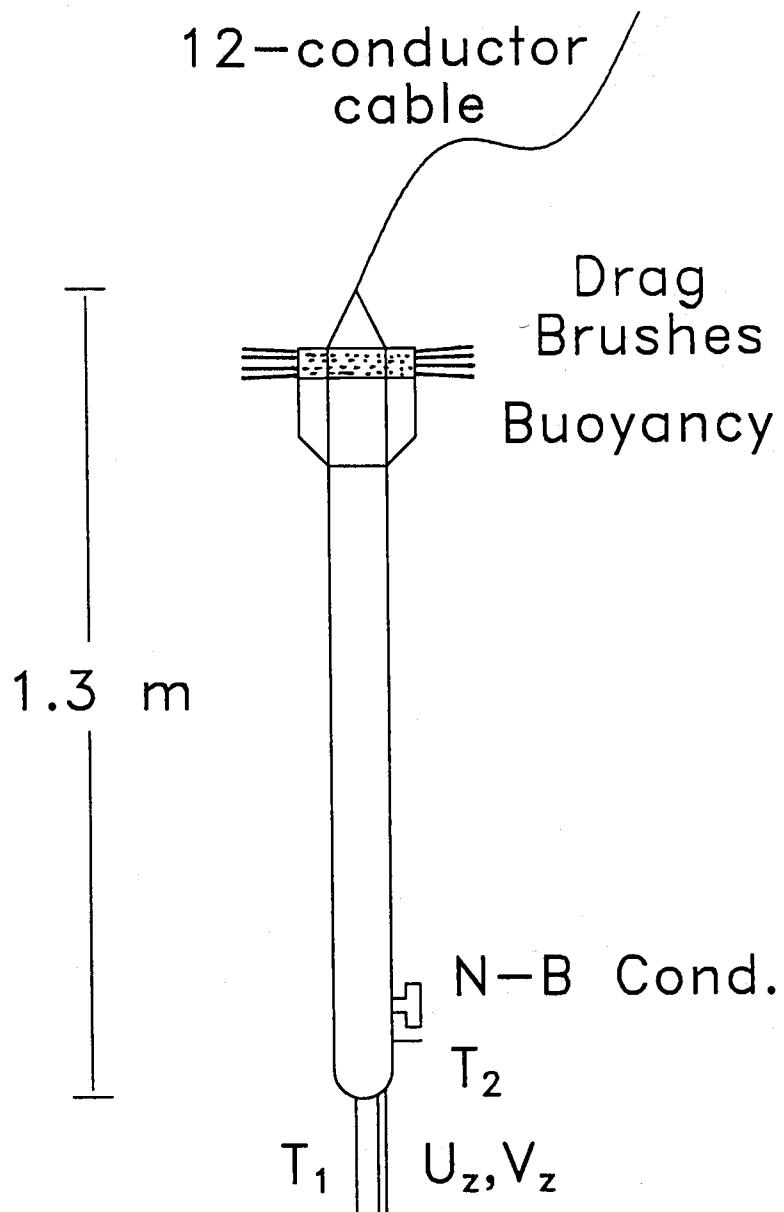
The fourth section presents contour plots of  $T$ ,  $S$ ,  $\sigma_t$  and  $\epsilon$ , with the entire experiment to each page. A 4-hour filter has been applied to this data for plotting clarity. The final section provides the same data at 5 days per page, with a 1-hour temporal filter.

## C: References

- Caldwell, D.R., T.M. Dillon and J.N. Moum, 1985: The Rapid-Sampling Vertical Profiler: an Evaluation. *J. Atmos. Oceanic Technology*, **2**, 615– 625.
- Gregg, M.C., J.C. Shedvin, W.C. Hess and T.B. Meagher, 1982: Dynamic Response Calibration of the Neil Brown Conductivity Cell. *J. Phys. Oceanogr.*, **12**, 720–742.
- Jackson, H.R., G.L. Johnson, E. Sundvor, and A.M. Myhre, 1984: The Yermak Plateau: Formed at a Triple Junction. *J. Geophys. Res.*, **89**, 3223–3232.
- Osborn, T.R. and W.R. Crawford, 1980: An Airfoil Probe for Measuring Turbulent Velocity Fluctuations in Water. In *Air-Sea Interaction: Instruments and Methods*, Plenum Press, New York, 801 pp.
- Padman, L., and T.M. Dillon, 1987: Vertical Heat Fluxes Through the Beaufort Sea Thermohaline Staircase. *J. Geophys. Res.*, **92**, 10799–10806.

**Table 1: "O" Camp Principal Investigators**

<b>Investigator</b>	<b>Measurements</b>
Colony	Under-ice mapping
Dillon/Padman	Microstructure profiling
Farmer	Acoustic scintillation
Levine/Paulson	Current meter array Acoustic Doppler current profiling (T,S) array
McPhee	Mixed layer turbulence Large-scale Helo CTD
Morison	CTD profiling Horizontal (T,S) mapping
Pinkel/Plueddemann	Acoustic Doppler current profiling
Stanton	Acoustic Doppler current profiling Microstructure profiling
Wadhams	Ice strain and tilt

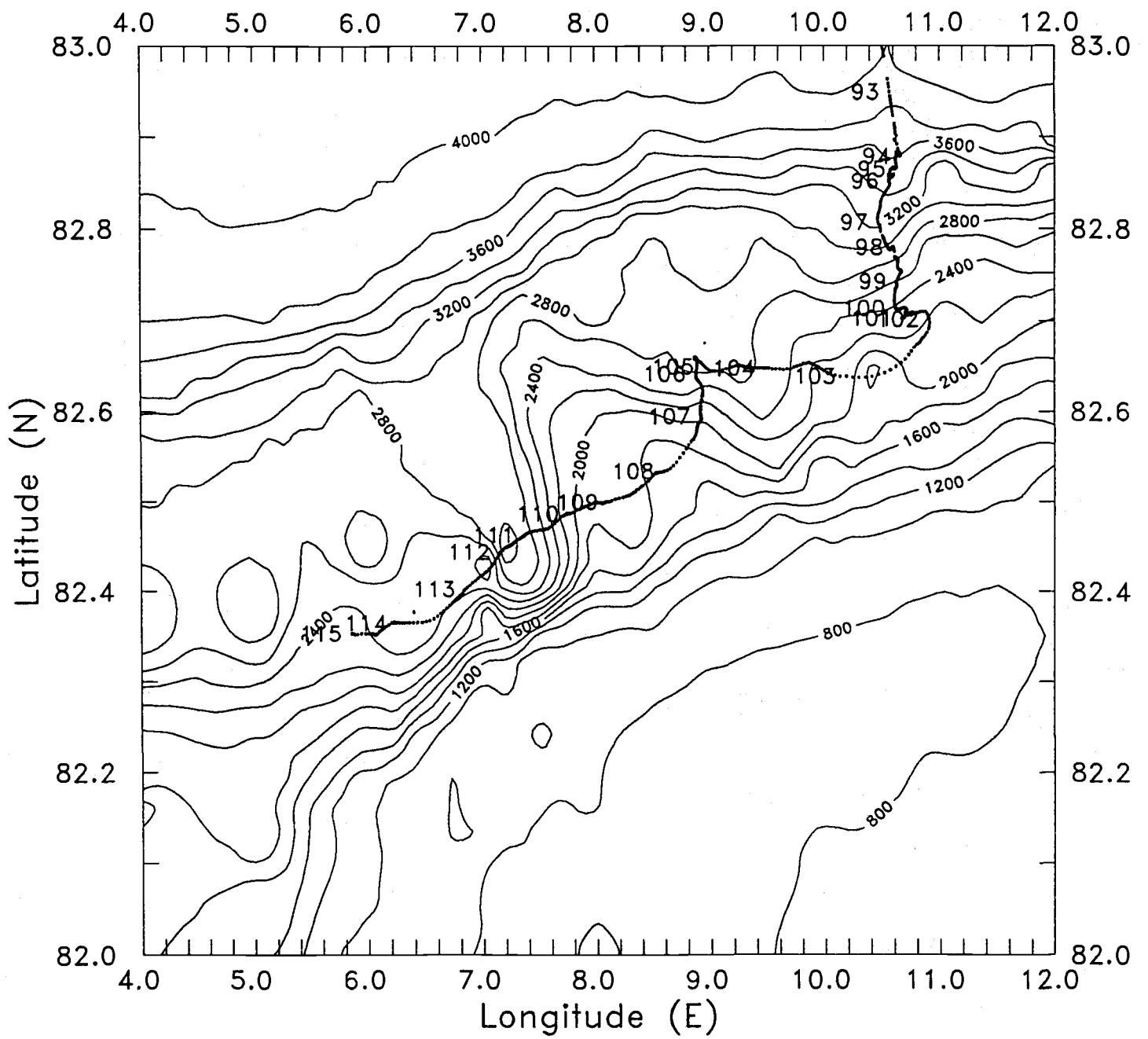


**Fig. 1:** Schematic of the Rapid-Sampling Vertical Profiler (RSVP). Sensors  $T_1$  and  $T_2$  are Thermometrics FP07 thermistors for temperature;  $U_z$  and  $V_z$  measure microscale shear; and  $N - B$  Cond. is a Neil Brown microconductivity cell for salinity determination when used with  $T_2$ . Pressure is also measured near the nose assembly. The RSVP free-falls at about  $0.7 \text{ ms}^{-1}$ , constrained by the drag brushes. The 12-conductor data link is also the recovery tether.

## **Section 1:**

### **Navigation and Local Bathymetry**

Bathymetry is derived from Jackson, *et al.* [1984] updated with along-track depth soundings provided by D. Farmer and D. Menemenlis (Institute of Ocean Sciences, Sidney, B.C., Canada). Camp navigation is obtained from approximately hourly satellite fixes, interpolated to hourly positions.



**Fig. 1.1:** Drift track of CEAREX "O" Camp during April, 1989. Time is given in day-of-year (January 1 = day 1). Depths are in metres, based on Jackson *et al.* [1984], and twice-daily depth soundings during the drift.

Date	Day	hr	Latitude	Longitude	Date	Day	hr	Latitude	Longitude
Mar-26	85	0	-99.000	-99.000	Mar-26	85	1	-99.000	-99.000
Mar-26	85	2	-99.000	-99.000	Mar-26	85	3	-99.000	-99.000
Mar-26	85	4	-99.000	-99.000	Mar-26	85	5	-99.000	-99.000
Mar-26	85	6	-99.000	-99.000	Mar-26	85	7	-99.000	-99.000
Mar-26	85	8	-99.000	-99.000	Mar-26	85	9	83.254	10.278
Mar-26	85	10	83.253	10.276	Mar-26	85	11	83.251	10.274
Mar-26	85	12	83.250	10.272	Mar-26	85	13	83.249	10.269
Mar-26	85	14	83.248	10.267	Mar-26	85	15	83.261	10.270
Mar-26	85	16	83.257	10.267	Mar-26	85	17	83.254	10.264
Mar-26	85	18	83.250	10.261	Mar-26	85	19	83.246	10.257
Mar-26	85	20	83.243	10.254	Mar-26	85	21	83.238	10.249
Mar-26	85	22	83.235	10.247	Mar-26	85	23	83.232	10.245
Mar-27	86	0	83.229	10.243	Mar-27	86	1	83.226	10.240
Mar-27	86	2	83.223	10.238	Mar-27	86	3	83.221	10.237
Mar-27	86	4	83.218	10.235	Mar-27	86	5	83.216	10.234
Mar-27	86	6	83.213	10.232	Mar-27	86	7	83.211	10.231
Mar-27	86	8	83.208	10.229	Mar-27	86	9	83.202	10.224
Mar-27	86	10	83.201	10.221	Mar-27	86	11	83.200	10.218
Mar-27	86	12	83.198	10.214	Mar-27	86	13	83.197	10.211
Mar-27	86	14	83.196	10.208	Mar-27	86	15	83.194	10.211
Mar-27	86	16	83.193	10.208	Mar-27	86	17	83.192	10.204
Mar-27	86	18	83.191	10.201	Mar-27	86	19	83.190	10.197
Mar-27	86	20	83.189	10.194	Mar-27	86	21	83.188	10.192
Mar-27	86	22	83.187	10.188	Mar-27	86	23	83.186	10.184
Mar-28	87	0	83.185	10.180	Mar-28	87	1	83.183	10.176
Mar-28	87	2	83.182	10.172	Mar-28	87	3	83.181	10.165
Mar-28	87	4	83.180	10.166	Mar-28	87	5	83.179	10.166
Mar-28	87	6	83.177	10.166	Mar-28	87	7	83.176	10.166
Mar-28	87	8	83.175	10.166	Mar-28	87	9	83.172	10.179
Mar-28	87	10	83.170	10.184	Mar-28	87	11	83.168	10.188
Mar-28	87	12	83.166	10.192	Mar-28	87	13	83.164	10.197
Mar-28	87	14	83.162	10.201	Mar-28	87	15	-99.000	-99.000
Mar-28	87	16	-99.000	-99.000	Mar-28	87	17	-99.000	-99.000
Mar-28	87	18	-99.000	-99.000	Mar-28	87	19	-99.000	-99.000
Mar-28	87	20	-99.000	-99.000	Mar-28	87	21	83.148	10.224
Mar-28	87	22	83.146	10.219	Mar-28	87	23	83.144	10.215
Mar-29	88	0	83.142	10.210	Mar-29	88	1	83.140	10.205
Mar-29	88	2	83.138	10.200	Mar-29	88	3	83.136	10.195
Mar-29	88	4	83.134	10.190	Mar-29	88	5	83.132	10.186
Mar-29	88	6	83.130	10.181	Mar-29	88	7	83.128	10.176
Mar-29	88	8	83.126	10.171	Mar-29	88	9	83.122	10.173
Mar-29	88	10	83.121	10.165	Mar-29	88	11	83.120	10.157
Mar-29	88	12	83.119	10.150	Mar-29	88	13	83.118	10.142
Mar-29	88	14	83.117	10.134	Mar-29	88	15	83.115	10.122
Mar-29	88	16	83.112	10.108	Mar-29	88	17	83.110	10.094
Mar-29	88	18	83.108	10.079	Mar-29	88	19	83.106	10.065
Mar-29	88	20	83.104	10.051	Mar-29	88	21	83.107	10.072
Mar-29	88	22	83.104	10.052	Mar-29	88	23	83.101	10.032
Mar-30	89	0	83.098	10.012	Mar-30	89	1	83.095	9.992
Mar-30	89	2	83.091	9.972	Mar-30	89	3	83.090	9.986

Date	Day	hr	Latitude	Longitude	Date	Day	hr	Latitude	Longitude
Mar-30	89	4	83.088	9.975	Mar-30	89	5	83.085	9.965
Mar-30	89	6	83.083	9.954	Mar-30	89	7	83.080	9.944
Mar-30	89	8	83.078	9.934	Mar-30	89	9	83.073	9.890
Mar-30	89	10	83.071	9.889	Mar-30	89	11	83.069	9.889
Mar-30	89	12	83.067	9.888	Mar-30	89	13	83.065	9.887
Mar-30	89	14	83.063	9.887	Mar-30	89	15	83.061	9.886
Mar-30	89	16	83.059	9.885	Mar-30	89	17	83.057	9.885
Mar-30	89	18	83.055	9.884	Mar-30	89	19	83.054	9.884
Mar-30	89	20	83.052	9.883	Mar-30	89	21	83.051	9.880
Mar-30	89	22	83.050	9.879	Mar-30	89	23	83.048	9.878
Mar-31	90	0	83.047	9.877	Mar-31	90	1	83.045	9.876
Mar-31	90	2	83.044	9.875	Mar-31	90	3	83.044	9.891
Mar-31	90	4	83.043	9.893	Mar-31	90	5	83.042	9.895
Mar-31	90	6	83.041	9.897	Mar-31	90	7	83.040	9.899
Mar-31	90	8	83.039	9.901	Mar-31	90	9	83.037	9.888
Mar-31	90	10	83.037	9.897	Mar-31	90	11	83.037	9.906
Mar-31	90	12	83.036	9.916	Mar-31	90	13	83.036	9.925
Mar-31	90	14	83.036	9.934	Mar-31	90	15	83.036	9.944
Mar-31	90	16	83.036	9.953	Mar-31	90	17	83.036	9.962
Mar-31	90	18	83.036	9.972	Mar-31	90	19	83.036	9.981
Mar-31	90	20	83.036	9.990	Mar-31	90	21	83.042	9.981
Mar-31	90	22	83.042	9.988	Mar-31	90	23	83.043	9.995
Apr- 1	91	0	83.044	10.002	Apr- 1	91	1	83.044	10.009
Apr- 1	91	2	83.045	10.016	Apr- 1	91	3	-99.000	-99.000
Apr- 1	91	4	-99.000	-99.000	Apr- 1	91	5	-99.000	-99.000
Apr- 1	91	6	-99.000	-99.000	Apr- 1	91	7	-99.000	-99.000
Apr- 1	91	8	-99.000	-99.000	Apr- 1	91	9	-99.000	-99.000
Apr- 1	91	10	-99.000	-99.000	Apr- 1	91	11	-99.000	-99.000
Apr- 1	91	12	-99.000	-99.000	Apr- 1	91	13	-99.000	-99.000
Apr- 1	91	14	-99.000	-99.000	Apr- 1	91	15	-99.000	-99.000
Apr- 1	91	16	-99.000	-99.000	Apr- 1	91	17	-99.000	-99.000
Apr- 1	91	18	-99.000	-99.000	Apr- 1	91	19	-99.000	-99.000
Apr- 1	91	20	-99.000	-99.000	Apr- 1	91	21	-99.000	-99.000
Apr- 1	91	22	-99.000	-99.000	Apr- 1	91	23	-99.000	-99.000
Apr- 2	92	0	-99.000	-99.000	Apr- 2	92	1	-99.000	-99.000
Apr- 2	92	2	-99.000	-99.000	Apr- 2	92	3	-99.000	-99.000
Apr- 2	92	4	-99.000	-99.000	Apr- 2	92	5	-99.000	-99.000
Apr- 2	92	6	-99.000	-99.000	Apr- 2	92	7	-99.000	-99.000
Apr- 2	92	8	-99.000	-99.000	Apr- 2	92	9	83.001	10.504
Apr- 2	92	10	82.999	10.508	Apr- 2	92	11	82.996	10.512
Apr- 2	92	12	82.993	10.516	Apr- 2	92	13	82.990	10.520
Apr- 2	92	14	82.988	10.524	Apr- 2	92	15	-99.000	-99.000
Apr- 2	92	16	-99.000	-99.000	Apr- 2	92	17	-99.000	-99.000
Apr- 2	92	18	-99.000	-99.000	Apr- 2	92	19	-99.000	-99.000
Apr- 2	92	20	-99.000	-99.000	Apr- 2	92	21	82.963	10.556
Apr- 2	92	22	82.958	10.561	Apr- 2	92	23	82.954	10.566
Apr- 3	93	0	82.949	10.571	Apr- 3	93	1	82.944	10.577
Apr- 3	93	2	82.940	10.582	Apr- 3	93	3	82.941	10.582
Apr- 3	93	4	82.937	10.586	Apr- 3	93	5	82.934	10.590
Apr- 3	93	6	82.930	10.594	Apr- 3	93	7	82.927	10.599

Date	Day	hr	Latitude	Longitude	Date	Day	hr	Latitude	Longitude
Apr- 3	93	8	82.923	10.603	Apr- 3	93	9	82.914	10.610
Apr- 3	93	10	82.912	10.612	Apr- 3	93	11	82.910	10.614
Apr- 3	93	12	82.908	10.616	Apr- 3	93	13	82.905	10.618
Apr- 3	93	14	82.903	10.620	Apr- 3	93	15	82.901	10.630
Apr- 3	93	16	82.897	10.616	Apr- 3	93	17	82.896	10.610
Apr- 3	93	18	82.897	10.612	Apr- 3	93	19	82.896	10.621
Apr- 3	93	20	82.892	10.632	Apr- 3	93	21	82.887	10.643
Apr- 3	93	22	82.883	10.655	Apr- 3	93	23	82.881	10.662
Apr- 4	94	0	82.879	10.663	Apr- 4	94	1	82.879	10.659
Apr- 4	94	2	82.879	10.651	Apr- 4	94	3	82.882	10.638
Apr- 4	94	4	82.883	10.631	Apr- 4	94	5	82.883	10.628
Apr- 4	94	6	82.883	10.627	Apr- 4	94	7	82.881	10.628
Apr- 4	94	8	82.880	10.628	Apr- 4	94	9	82.880	10.624
Apr- 4	94	10	82.879	10.625	Apr- 4	94	11	82.878	10.624
Apr- 4	94	12	82.877	10.623	Apr- 4	94	13	82.876	10.621
Apr- 4	94	14	82.875	10.619	Apr- 4	94	15	82.875	10.622
Apr- 4	94	16	82.875	10.620	Apr- 4	94	17	82.875	10.619
Apr- 4	94	18	82.874	10.619	Apr- 4	94	19	82.872	10.620
Apr- 4	94	20	82.871	10.623	Apr- 4	94	21	82.868	10.628
Apr- 4	94	22	82.867	10.629	Apr- 4	94	23	82.866	10.627
Apr- 5	95	0	82.865	10.621	Apr- 5	95	1	82.865	10.612
Apr- 5	95	2	82.865	10.603	Apr- 5	95	3	82.866	10.608
Apr- 5	95	4	82.867	10.601	Apr- 5	95	5	82.866	10.593
Apr- 5	95	6	82.865	10.584	Apr- 5	95	7	82.864	10.576
Apr- 5	95	8	82.861	10.570	Apr- 5	95	9	82.859	10.562
Apr- 5	95	10	82.857	10.562	Apr- 5	95	11	82.856	10.567
Apr- 5	95	12	82.855	10.576	Apr- 5	95	13	82.856	10.588
Apr- 5	95	14	82.857	10.598	Apr- 5	95	15	82.858	10.603
Apr- 5	95	16	82.859	10.607	Apr- 5	95	17	82.859	10.606
Apr- 5	95	18	82.859	10.600	Apr- 5	95	19	82.858	10.591
Apr- 5	95	20	82.857	10.581	Apr- 5	95	21	82.856	10.574
Apr- 5	95	22	82.854	10.568	Apr- 5	95	23	82.853	10.564
Apr- 6	96	0	82.852	10.562	Apr- 6	96	1	82.851	10.563
Apr- 6	96	2	82.850	10.565	Apr- 6	96	3	82.850	10.569
Apr- 6	96	4	82.849	10.571	Apr- 6	96	5	82.848	10.570
Apr- 6	96	6	82.846	10.565	Apr- 6	96	7	82.844	10.556
Apr- 6	96	8	82.842	10.544	Apr- 6	96	9	82.840	10.534
Apr- 6	96	10	82.837	10.522	Apr- 6	96	11	82.835	10.510
Apr- 6	96	12	82.832	10.501	Apr- 6	96	13	82.830	10.495
Apr- 6	96	14	82.829	10.492	Apr- 6	96	15	82.827	10.491
Apr- 6	96	16	82.826	10.491	Apr- 6	96	17	82.824	10.489
Apr- 6	96	18	82.822	10.486	Apr- 6	96	19	82.820	10.481
Apr- 6	96	20	82.817	10.475	Apr- 6	96	21	82.815	10.469
Apr- 6	96	22	82.812	10.466	Apr- 6	96	23	82.810	10.465
Apr- 7	97	0	82.807	10.468	Apr- 7	97	1	82.805	10.474
Apr- 7	97	2	82.804	10.482	Apr- 7	97	3	82.801	10.486
Apr- 7	97	4	82.799	10.490	Apr- 7	97	5	82.798	10.492
Apr- 7	97	6	82.798	10.492	Apr- 7	97	7	82.797	10.491
Apr- 7	97	8	82.797	10.490	Apr- 7	97	9	82.792	10.510
Apr- 7	97	10	82.790	10.515	Apr- 7	97	11	82.789	10.520

Date	Day	hr	Latitude	Longitude	Date	Day	hr	Latitude	Longitude
Apr- 7	97	12	82.787	10.525	Apr- 7	97	13	82.785	10.529
Apr- 7	97	14	82.784	10.534	Apr- 7	97	15	82.783	10.537
Apr- 7	97	16	82.781	10.543	Apr- 7	97	17	82.780	10.550
Apr- 7	97	18	82.779	10.556	Apr- 7	97	19	82.778	10.562
Apr- 7	97	20	82.777	10.568	Apr- 7	97	21	82.777	10.580
Apr- 7	97	22	82.779	10.587	Apr- 7	97	23	82.780	10.594
Apr- 8	98	0	82.780	10.600	Apr- 8	98	1	82.778	10.606
Apr- 8	98	2	82.775	10.612	Apr- 8	98	3	82.769	10.610
Apr- 8	98	4	82.769	10.618	Apr- 8	98	5	82.768	10.626
Apr- 8	98	6	82.768	10.633	Apr- 8	98	7	82.767	10.637
Apr- 8	98	8	82.765	10.640	Apr- 8	98	9	82.764	10.640
Apr- 8	98	10	82.762	10.638	Apr- 8	98	11	82.760	10.636
Apr- 8	98	12	82.759	10.637	Apr- 8	98	13	82.757	10.641
Apr- 8	98	14	82.756	10.647	Apr- 8	98	15	82.755	10.654
Apr- 8	98	16	82.755	10.662	Apr- 8	98	17	82.754	10.669
Apr- 8	98	18	82.754	10.673	Apr- 8	98	19	82.753	10.672
Apr- 8	98	20	82.752	10.667	Apr- 8	98	21	82.750	10.656
Apr- 8	98	22	82.748	10.645	Apr- 8	98	23	82.745	10.636
Apr- 9	99	0	82.743	10.630	Apr- 9	99	1	82.742	10.628
Apr- 9	99	2	82.741	10.628	Apr- 9	99	3	82.740	10.629
Apr- 9	99	4	82.739	10.631	Apr- 9	99	5	82.739	10.633
Apr- 9	99	6	82.738	10.632	Apr- 9	99	7	82.737	10.630
Apr- 9	99	8	82.736	10.626	Apr- 9	99	9	82.734	10.618
Apr- 9	99	10	82.731	10.614	Apr- 9	99	11	82.728	10.611
Apr- 9	99	12	82.725	10.610	Apr- 9	99	13	82.722	10.609
Apr- 9	99	14	82.720	10.610	Apr- 9	99	15	82.718	10.610
Apr- 9	99	16	82.717	10.611	Apr- 9	99	17	82.717	10.613
Apr- 9	99	18	82.717	10.613	Apr- 9	99	19	82.717	10.614
Apr- 9	99	20	82.717	10.615	Apr- 9	99	21	82.717	10.619
Apr- 9	99	22	82.716	10.619	Apr- 9	99	23	82.715	10.619
Apr-10	100	0	82.714	10.620	Apr-10	100	1	82.713	10.623
Apr-10	100	2	82.712	10.630	Apr-10	100	3	82.712	10.639
Apr-10	100	4	82.713	10.650	Apr-10	100	5	82.713	10.664
Apr-10	100	6	82.714	10.680	Apr-10	100	7	82.714	10.696
Apr-10	100	8	82.714	10.709	Apr-10	100	9	82.713	10.718
Apr-10	100	10	82.712	10.720	Apr-10	100	11	82.711	10.719
Apr-10	100	12	82.710	10.715	Apr-10	100	13	82.710	10.710
Apr-10	100	14	82.709	10.706	Apr-10	100	15	82.709	10.704
Apr-10	100	16	82.708	10.703	Apr-10	100	17	82.708	10.704
Apr-10	100	18	82.708	10.707	Apr-10	100	19	82.708	10.710
Apr-10	100	20	82.707	10.711	Apr-10	100	21	82.707	10.711
Apr-10	100	22	82.706	10.707	Apr-10	100	23	82.704	10.700
Apr-11	101	0	82.703	10.691	Apr-11	101	1	82.702	10.682
Apr-11	101	2	82.702	10.676	Apr-11	101	3	82.703	10.675
Apr-11	101	4	82.703	10.681	Apr-11	101	5	82.704	10.692
Apr-11	101	6	82.705	10.705	Apr-11	101	7	82.706	10.718
Apr-11	101	8	82.706	10.730	Apr-11	101	9	82.707	10.737
Apr-11	101	10	82.707	10.745	Apr-11	101	11	82.706	10.751
Apr-11	101	12	82.706	10.754	Apr-11	101	13	82.706	10.756
Apr-11	101	14	82.707	10.760	Apr-11	101	15	82.708	10.768

Date	Day	hr	Latitude	Longitude	Date	Day	hr	Latitude	Longitude
Apr-11	101	16	82.708	10.781	Apr-11	101	17	82.709	10.796
Apr-11	101	18	82.709	10.815	Apr-11	101	19	82.710	10.837
Apr-11	101	20	82.710	10.859	Apr-11	101	21	82.710	10.880
Apr-11	101	22	82.708	10.895	Apr-11	101	23	82.705	10.907
Apr-12	102	0	82.702	10.914	Apr-12	102	1	82.698	10.916
Apr-12	102	2	82.694	10.914	Apr-12	102	3	82.691	10.908
Apr-12	102	4	82.687	10.893	Apr-12	102	5	82.684	10.878
Apr-12	102	6	82.682	10.865	Apr-12	102	7	82.681	10.853
Apr-12	102	8	82.679	10.843	Apr-12	102	9	82.676	10.826
Apr-12	102	10	82.674	10.804	Apr-12	102	11	82.671	10.782
Apr-12	102	12	82.667	10.759	Apr-12	102	13	82.663	10.735
Apr-12	102	14	82.658	10.706	Apr-12	102	15	82.654	10.667
Apr-12	102	16	82.650	10.625	Apr-12	102	17	82.646	10.577
Apr-12	102	18	82.643	10.526	Apr-12	102	19	82.641	10.471
Apr-12	102	20	82.639	10.415	Apr-12	102	21	82.638	10.360
Apr-12	102	22	82.638	10.303	Apr-12	102	23	82.638	10.246
Apr-13	103	0	82.639	10.192	Apr-13	103	1	82.639	10.141
Apr-13	103	2	82.640	10.096	Apr-13	103	3	82.642	10.055
Apr-13	103	4	82.643	10.023	Apr-13	103	5	82.645	9.996
Apr-13	103	6	82.647	9.973	Apr-13	103	7	82.649	9.951
Apr-13	103	8	82.650	9.930	Apr-13	103	9	82.652	9.907
Apr-13	103	10	82.653	9.885	Apr-13	103	11	82.654	9.862
Apr-13	103	12	82.653	9.840	Apr-13	103	13	82.653	9.816
Apr-13	103	14	82.651	9.790	Apr-13	103	15	82.650	9.762
Apr-13	103	16	82.649	9.735	Apr-13	103	17	82.647	9.706
Apr-13	103	18	82.647	9.675	Apr-13	103	19	82.646	9.642
Apr-13	103	20	82.647	9.609	Apr-13	103	21	82.647	9.575
Apr-13	103	22	82.647	9.543	Apr-13	103	23	82.648	9.513
Apr-14	104	0	82.648	9.486	Apr-14	104	1	82.648	9.462
Apr-14	104	2	82.648	9.439	Apr-14	104	3	82.648	9.416
Apr-14	104	4	82.648	9.394	Apr-14	104	5	82.648	9.374
Apr-14	104	6	82.648	9.354	Apr-14	104	7	82.648	9.335
Apr-14	104	8	82.649	9.318	Apr-14	104	9	82.649	9.302
Apr-14	104	10	82.650	9.288	Apr-14	104	11	82.650	9.274
Apr-14	104	12	82.651	9.260	Apr-14	104	13	82.651	9.243
Apr-14	104	14	82.650	9.223	Apr-14	104	15	82.649	9.199
Apr-14	104	16	82.648	9.174	Apr-14	104	17	82.647	9.145
Apr-14	104	18	82.646	9.114	Apr-14	104	19	82.645	9.082
Apr-14	104	20	82.645	9.050	Apr-14	104	21	82.645	9.021
Apr-14	104	22	82.646	8.996	Apr-14	104	23	82.648	8.975
Apr-15	105	0	82.650	8.958	Apr-15	105	1	82.652	8.943
Apr-15	105	2	82.654	8.930	Apr-15	105	3	82.655	8.917
Apr-15	105	4	82.656	8.908	Apr-15	105	5	82.657	8.899
Apr-15	105	6	82.657	8.890	Apr-15	105	7	82.658	8.881
Apr-15	105	8	82.658	8.874	Apr-15	105	9	82.659	8.871
Apr-15	105	10	82.660	8.873	Apr-15	105	11	82.660	8.876
Apr-15	105	12	82.660	8.881	Apr-15	105	13	82.659	8.885
Apr-15	105	14	82.658	8.889	Apr-15	105	15	82.656	8.889
Apr-15	105	16	82.654	8.891	Apr-15	105	17	82.651	8.892
Apr-15	105	18	82.649	8.891	Apr-15	105	19	82.647	8.889

Date	Day	hr	Latitude	Longitude	Date	Day	hr	Latitude	Longitude
Apr-15	105	20	82.645	8.887	Apr-15	105	21	82.644	8.887
Apr-15	105	22	82.643	8.887	Apr-15	105	23	82.643	8.886
Apr-16	106	0	82.642	8.884	Apr-16	106	1	82.642	8.882
Apr-16	106	2	82.641	8.880	Apr-16	106	3	82.641	8.881
Apr-16	106	4	82.640	8.882	Apr-16	106	5	82.639	8.882
Apr-16	106	6	82.638	8.884	Apr-16	106	7	82.637	8.887
Apr-16	106	8	82.636	8.892	Apr-16	106	9	82.635	8.896
Apr-16	106	10	82.634	8.905	Apr-16	106	11	82.632	8.915
Apr-16	106	12	82.630	8.925	Apr-16	106	13	82.628	8.934
Apr-16	106	14	82.625	8.939	Apr-16	106	15	82.623	8.943
Apr-16	106	16	82.620	8.942	Apr-16	106	17	82.617	8.937
Apr-16	106	18	82.613	8.932	Apr-16	106	19	82.610	8.927
Apr-16	106	20	82.606	8.924	Apr-16	106	21	82.603	8.924
Apr-16	106	22	82.600	8.923	Apr-16	106	23	82.597	8.924
Apr-17	107	0	82.595	8.925	Apr-17	107	1	82.594	8.927
Apr-17	107	2	82.592	8.928	Apr-17	107	3	82.591	8.931
Apr-17	107	4	82.589	8.924	Apr-17	107	5	82.588	8.914
Apr-17	107	6	82.586	8.905	Apr-17	107	7	82.584	8.897
Apr-17	107	8	82.582	8.892	Apr-17	107	9	82.580	8.890
Apr-17	107	10	82.578	8.885	Apr-17	107	11	82.576	8.882
Apr-17	107	12	82.574	8.877	Apr-17	107	13	82.572	8.869
Apr-17	107	14	82.569	8.857	Apr-17	107	15	82.567	8.836
Apr-17	107	16	82.563	8.816	Apr-17	107	17	82.559	8.792
Apr-17	107	18	82.554	8.765	Apr-17	107	19	82.549	8.737
Apr-17	107	20	82.544	8.709	Apr-17	107	21	82.540	8.683
Apr-17	107	22	82.537	8.655	Apr-17	107	23	82.535	8.628
Apr-18	108	0	82.534	8.603	Apr-18	108	1	82.533	8.580
Apr-18	108	2	82.533	8.561	Apr-18	108	3	82.532	8.541
Apr-18	108	4	82.532	8.528	Apr-18	108	5	82.531	8.515
Apr-18	108	6	82.529	8.500	Apr-18	108	7	82.526	8.483
Apr-18	108	8	82.523	8.462	Apr-18	108	9	82.521	8.437
Apr-18	108	10	82.518	8.413	Apr-18	108	11	82.516	8.391
Apr-18	108	12	82.514	8.373	Apr-18	108	13	82.513	8.358
Apr-18	108	14	82.511	8.346	Apr-18	108	15	82.510	8.330
Apr-18	108	16	82.509	8.320	Apr-18	108	17	82.508	8.309
Apr-18	108	18	82.507	8.292	Apr-18	108	19	82.506	8.269
Apr-18	108	20	82.505	8.240	Apr-18	108	21	82.504	8.205
Apr-18	108	22	82.503	8.172	Apr-18	108	23	82.501	8.140
Apr-19	109	0	82.500	8.112	Apr-19	109	1	82.500	8.091
Apr-19	109	2	82.499	8.075	Apr-19	109	3	82.499	8.067
Apr-19	109	4	82.498	8.058	Apr-19	109	5	82.499	8.050
Apr-19	109	6	82.499	8.040	Apr-19	109	7	82.499	8.028
Apr-19	109	8	82.499	8.013	Apr-19	109	9	82.500	8.000
Apr-19	109	10	82.499	7.983	Apr-19	109	11	82.498	7.964
Apr-19	109	12	82.497	7.946	Apr-19	109	13	82.496	7.930
Apr-19	109	14	82.495	7.917	Apr-19	109	15	82.495	7.914
Apr-19	109	16	82.495	7.904	Apr-19	109	17	82.494	7.890
Apr-19	109	18	82.493	7.874	Apr-19	109	19	82.492	7.854
Apr-19	109	20	82.491	7.833	Apr-19	109	21	82.489	7.810
Apr-19	109	22	82.488	7.790	Apr-19	109	23	82.487	7.772

Date	Day	hr	Latitude	Longitude	Date	Day	hr	Latitude	Longitude
Apr-20	110	0	82.487	7.760	Apr-20	110	1	82.487	7.752
Apr-20	110	2	82.487	7.748	Apr-20	110	3	82.487	7.744
Apr-20	110	4	82.487	7.738	Apr-20	110	5	82.486	7.730
Apr-20	110	6	82.485	7.717	Apr-20	110	7	82.484	7.701
Apr-20	110	8	82.482	7.681	Apr-20	110	9	82.479	7.659
Apr-20	110	10	82.476	7.635	Apr-20	110	11	82.474	7.613
Apr-20	110	12	82.472	7.592	Apr-20	110	13	82.470	7.573
Apr-20	110	14	82.470	7.556	Apr-20	110	15	82.469	7.539
Apr-20	110	16	82.469	7.522	Apr-20	110	17	82.469	7.503
Apr-20	110	18	82.468	7.482	Apr-20	110	19	82.468	7.460
Apr-20	110	20	82.467	7.437	Apr-20	110	21	82.466	7.412
Apr-20	110	22	82.465	7.393	Apr-20	110	23	82.464	7.379
Apr-21	111	0	82.463	7.371	Apr-21	111	1	82.463	7.366
Apr-21	111	2	82.462	7.364	Apr-21	111	3	82.462	7.360
Apr-21	111	4	82.462	7.356	Apr-21	111	5	82.461	7.349
Apr-21	111	6	82.460	7.339	Apr-21	111	7	82.459	7.325
Apr-21	111	8	82.458	7.310	Apr-21	111	9	82.457	7.295
Apr-21	111	10	82.455	7.281	Apr-21	111	11	82.454	7.269
Apr-21	111	12	82.453	7.259	Apr-21	111	13	82.452	7.252
Apr-21	111	14	82.452	7.246	Apr-21	111	15	82.451	7.240
Apr-21	111	16	82.451	7.234	Apr-21	111	17	82.450	7.226
Apr-21	111	18	82.450	7.215	Apr-21	111	19	82.449	7.203
Apr-21	111	20	82.448	7.189	Apr-21	111	21	82.446	7.178
Apr-21	111	22	82.445	7.167	Apr-21	111	23	82.444	7.158
Apr-22	112	0	82.444	7.153	Apr-22	112	1	82.444	7.151
Apr-22	112	2	82.444	7.152	Apr-22	112	3	82.444	7.155
Apr-22	112	4	82.444	7.155	Apr-22	112	5	82.444	7.153
Apr-22	112	6	82.443	7.149	Apr-22	112	7	82.441	7.142
Apr-22	112	8	82.439	7.133	Apr-22	112	9	82.437	7.123
Apr-22	112	10	82.434	7.109	Apr-22	112	11	82.431	7.096
Apr-22	112	12	82.429	7.082	Apr-22	112	13	82.427	7.069
Apr-22	112	14	82.425	7.055	Apr-22	112	15	82.423	7.039
Apr-22	112	16	82.421	7.021	Apr-22	112	17	82.419	7.001
Apr-22	112	18	82.417	6.979	Apr-22	112	19	82.415	6.956
Apr-22	112	20	82.412	6.933	Apr-22	112	21	82.410	6.908
Apr-22	112	22	82.407	6.885	Apr-22	112	23	82.405	6.864
Apr-23	113	0	82.403	6.847	Apr-23	113	1	82.401	6.833
Apr-23	113	2	82.399	6.822	Apr-23	113	3	82.397	6.811
Apr-23	113	4	82.396	6.797	Apr-23	113	5	82.394	6.782
Apr-23	113	6	82.392	6.766	Apr-23	113	7	82.390	6.749
Apr-23	113	8	82.388	6.729	Apr-23	113	9	82.385	6.707
Apr-23	113	10	82.382	6.683	Apr-23	113	11	82.379	6.657
Apr-23	113	12	82.376	6.630	Apr-23	113	13	82.373	6.600
Apr-23	113	14	82.370	6.569	Apr-23	113	15	82.368	6.535
Apr-23	113	16	82.367	6.501	Apr-23	113	17	82.366	6.466
Apr-23	113	18	82.366	6.429	Apr-23	113	19	82.366	6.393
Apr-23	113	20	82.366	6.357	Apr-23	113	21	82.366	6.323
Apr-23	113	22	82.366	6.294	Apr-23	113	23	82.366	6.271
Apr-24	114	0	82.366	6.255	Apr-24	114	1	82.366	6.244
Apr-24	114	2	82.366	6.236	Apr-24	114	3	82.366	6.232

Date	Day	hr	Latitude	Longitude	Date	Day	hr	Latitude	Longitude
Apr-24	114	4	82.367	6.227	Apr-24	114	5	82.366	6.218
Apr-24	114	6	82.366	6.204	Apr-24	114	7	82.364	6.184
Apr-24	114	8	82.362	6.162	Apr-24	114	9	82.360	6.138
Apr-24	114	10	82.358	6.116	Apr-24	114	11	82.356	6.099
Apr-24	114	12	82.354	6.086	Apr-24	114	13	82.353	6.075
Apr-24	114	14	82.353	6.066	Apr-24	114	15	82.353	6.056
Apr-24	114	16	82.354	6.046	Apr-24	114	17	82.354	6.031
Apr-24	114	18	82.354	6.008	Apr-24	114	19	82.354	5.978
Apr-24	114	20	82.354	5.944	Apr-24	114	21	82.353	5.909
Apr-24	114	22	82.353	5.884	Apr-24	114	23	82.354	5.867
Apr-25	115	0	82.354	5.860	Apr-25	115	1	82.355	5.862
Apr-25	115	2	82.357	5.871	Apr-25	115	3	82.358	5.885
Apr-25	115	4	82.359	5.896	Apr-25	115	5	82.359	5.902
Apr-25	115	6	82.360	5.903	Apr-25	115	7	82.359	5.899
Apr-25	115	8	82.359	5.893	Apr-25	115	9	82.358	5.885
Apr-25	115	10	82.356	5.877	Apr-25	115	11	82.353	5.870
Apr-25	115	12	82.350	5.865	Apr-25	115	13	82.347	5.859
Apr-25	115	14	82.344	5.849	Apr-25	115	15	82.341	5.830
Apr-25	115	16	82.339	5.807	Apr-25	115	17	82.337	5.777
Apr-25	115	18	82.336	5.744	Apr-25	115	19	82.335	5.708
Apr-25	115	20	82.334	5.674	Apr-25	115	21	82.333	5.650
Apr-25	115	22	82.331	5.625	Apr-25	115	23	82.328	5.604
Apr-26	116	0	82.326	5.590	Apr-26	116	1	82.324	5.581
Apr-26	116	2	82.323	5.577	Apr-26	116	3	82.322	5.578
Apr-26	116	4	82.321	5.580	Apr-26	116	5	82.320	5.581
Apr-26	116	6	82.320	5.578	Apr-26	116	7	82.319	5.572
Apr-26	116	8	82.318	5.562	Apr-26	116	9	82.317	5.554
Apr-26	116	10	82.314	5.538	Apr-26	116	11	82.312	5.520
Apr-26	116	12	82.309	5.503	Apr-26	116	13	82.307	5.487
Apr-26	116	14	82.305	5.473	Apr-26	116	15	82.304	5.459
Apr-26	116	16	82.303	5.438	Apr-26	116	17	82.302	5.412
Apr-26	116	18	82.301	5.380	Apr-26	116	19	82.299	5.344
Apr-26	116	20	82.298	5.306	Apr-26	116	21	82.297	5.270
Apr-26	116	22	82.295	5.234	Apr-26	116	23	82.294	5.203
Apr-27	117	0	82.294	5.179	Apr-27	117	1	82.293	5.160
Apr-27	117	2	82.293	5.145	Apr-27	117	3	82.294	5.130
Apr-27	117	4	82.293	5.114	Apr-27	117	5	82.292	5.097
Apr-27	117	6	82.291	5.077	Apr-27	117	7	82.290	5.052
Apr-27	117	8	82.288	5.023	Apr-27	117	9	82.286	4.991
Apr-27	117	10	82.283	4.953	Apr-27	117	11	82.280	4.913
Apr-27	117	12	82.276	4.871	Apr-27	117	13	82.272	4.827
Apr-27	117	14	82.268	4.783	Apr-27	117	15	82.264	4.737
Apr-27	117	16	82.258	4.693	Apr-27	117	17	82.251	4.648
Apr-27	117	18	82.244	4.602	Apr-27	117	19	82.237	4.554
Apr-27	117	20	82.230	4.506	Apr-27	117	21	82.223	4.457
Apr-27	117	22	82.215	4.416	Apr-27	117	23	82.207	4.382
Apr-28	118	0	82.198	4.356	Apr-28	118	1	82.190	4.335
Apr-28	118	2	82.181	4.321	Apr-28	118	3	82.172	4.308
Apr-28	118	4	82.163	4.309	Apr-28	118	5	82.154	4.312
Apr-28	118	6	82.145	4.313	Apr-28	118	7	82.137	4.311

Date	Day	hr	Latitude	Longitude	Date	Day	hr	Latitude	Longitude
Apr-28	118	8	82.128	4.307	Apr-28	118	9	82.119	4.307
Apr-28	118	10	82.112	4.308	Apr-28	118	11	82.104	4.309
Apr-28	118	12	82.096	4.313	Apr-28	118	13	82.087	4.320
Apr-28	118	14	82.078	4.330	Apr-28	118	15	82.070	4.344
Apr-28	118	16	82.063	4.357	Apr-28	118	17	82.056	4.367
Apr-28	118	18	82.050	4.373	Apr-28	118	19	82.045	4.376
Apr-28	118	20	82.041	4.374	Apr-28	118	21	82.040	4.364
Apr-28	118	22	82.039	4.359	Apr-28	118	23	82.037	4.359
Apr-29	119	0	82.035	4.368	Apr-29	119	1	82.032	4.386
Apr-29	119	2	82.029	4.412	Apr-29	119	3	82.050	4.531
Apr-29	119	4	82.051	4.558	Apr-29	119	5	82.053	4.584
Apr-29	119	6	82.054	4.611	Apr-29	119	7	82.055	4.637
Apr-29	119	8	82.057	4.664	Apr-29	119	9	82.054	4.620
Apr-29	119	10	82.057	4.664	Apr-29	119	11	82.059	4.707
Apr-29	119	12	82.061	4.751	Apr-29	119	13	82.064	4.795
Apr-29	119	14	82.066	4.838	Apr-29	119	15	82.069	4.882
Apr-29	119	16	82.071	4.926	Apr-29	119	17	82.073	4.970
Apr-29	119	18	82.076	5.013	Apr-29	119	19	82.078	5.057
Apr-29	119	20	82.080	5.101	Apr-29	119	21	82.080	5.008
Apr-29	119	22	82.081	5.018	Apr-29	119	23	82.083	5.027

## **Section 2:**

### **Start Times for RSVP Profiles**

An asterisk after the file name indicates that the profile should not be used for analyses without being thoroughly checked. It is also used to mark drops which were aborted early through equipment failure. A 'C' after the file name indicates that the conductivity data is unreliable.

drop #	date	day	time (hhmm)	drop #	date	day	time (hhmm)
crx00021	Mar-31	090	1648	crx00022	Mar-31	090	1659
crx00023*	Mar-31	090	1715	crx00024	Mar-31	090	1718
crx00025	Mar-31	090	1737	crx00026	Mar-31	090	1753
crx00027	Mar-31	090	1807	crx00028	Mar-31	090	1819
crx00029	Mar-31	090	1831	crx00030	Mar-31	090	1841
crx00031	Mar-31	090	1906	crx00032*	Mar-31	090	1911
crx00033	Mar-31	090	1922	crx00034*	Mar-31	090	1941
crx00035	Mar-31	090	1948	crx00036	Mar-31	090	2000
crx00037	Mar-31	090	2011	crx00038	Mar-31	090	2024
crx00039	Mar-31	090	2041	crx00040	Mar-31	090	2057
crx00041	Mar-31	090	2107	crx00042	Mar-31	090	2119
crx00043	Mar-31	090	2151	crx00044	Mar-31	090	2203
crx00045	Mar-31	090	2213	crx00046	Mar-31	090	2224
crx00047	Mar-31	090	2237	crx00048	Mar-31	090	2310
crx00049	Apr-01	091	0002	crx00050	Apr-01	091	0013
crx00051	Apr-01	091	0024	crx00052	Apr-01	091	0036
crx00053	Apr-01	091	0047	crx00054	Apr-01	091	0059
crx00055	Apr-01	091	0112	crx00056	Apr-01	091	0123
crx00057	Apr-01	091	0141	crx00058	Apr-01	091	0153
crx00059	Apr-01	091	0205	crx00060	Apr-01	091	0226
crx00061	Apr-01	091	0242	crx00062	Apr-01	091	0253
crx00063	Apr-01	091	0305	crx00064	Apr-01	091	0318
crx00065	Apr-01	091	0330	crx00066	Apr-01	091	0349
crx00067*	Apr-01	091		crx00068	Apr-01	091	0405
crx00069	Apr-01	091	0424	crx00070	Apr-01	091	0439
crx00071	Apr-01	091	0450	crx00072	Apr-01	091	0506
crx00073	Apr-01	091	0524	crx00074	Apr-01	091	0541
crx00075	Apr-01	091	0557	crx00076	Apr-01	091	0611
crx00077	Apr-01	091	0650	crx00078	Apr-01	091	0709
crx00079	Apr-01	091	0752	crx00080	Apr-01	091	0802
crx00081C	Apr-01	091	0909	crx00082	Apr-01	091	0937
crx00083	Apr-01	091	0953	crx00084	Apr-01	091	1007
crx00085*	Apr-01	091		crx00086	Apr-01	091	1024
crx00087	Apr-01	091	1041	crx00088	Apr-01	091	1056
crx00089*	Apr-01	091	1109	crx00090*	Apr-01	091	1116
crx00091	Apr-01	091	1130	crx00092	Apr-01	091	1200
crx00093	Apr-01	091	1225	crx00094	Apr-01	091	1255
crx00095	Apr-01	091	1309	crx00096	Apr-01	091	1322
crx00097	Apr-01	091	1334	crx00098	Apr-01	091	1347
crx00099*	Apr-01	091		crx00100	Apr-01	091	1408
crx00101	Apr-01	091	1426	crx00102	Apr-01	091	1445
crx00103	Apr-01	091	1500	crx00104	Apr-01	091	1517
crx00105	Apr-01	091	1532	crx00106	Apr-01	091	1546
crx00107	Apr-01	091	1559	crx00108	Apr-01	091	1612
crx00109	Apr-01	091	1625	crx00110	Apr-01	091	1638
crx00111	Apr-01	091	1650	crx00112	Apr-01	091	1703
crx00113	Apr-01	091	1716	crx00114	Apr-01	091	1730
crx00115	Apr-01	091	1743	crx00116	Apr-01	091	1845
crx00117*	Apr-01	091	1904	crx00118	Apr-01	091	1917
crx00119	Apr-01	091	1930	crx00120	Apr-01	091	1943

drop #	date	day	time (hhmm)	drop #	date	day	time (hhmm)
crx00121*	Apr-01	091	2001	crx00122	Apr-01	091	2028
crx00123	Apr-01	091	2040	crx00124	Apr-01	091	2053
crx00125	Apr-01	091	2121	crx00126	Apr-01	091	2134
crx00127*	Apr-01	091		crx00128*	Apr-01	091	2338
crx00129*	Apr-02	092	0938	crx00130*	Apr-02	092	1220
crx00131*	Apr-02	092	1229	crx00132	Apr-02	092	1301
crx00133	Apr-02	092	1318	crx00134*	Apr-02	092	1721
crx00135	Apr-02	092	1733	crx00136	Apr-02	092	1821
crx00137	Apr-02	092	1837	crx00138	Apr-02	092	1939
crx00139	Apr-02	092	2003	crx00140	Apr-02	092	2019
crx00141	Apr-02	092	2029	crx00142	Apr-02	092	2040
crx00143	Apr-02	092	2051	crx00144	Apr-02	092	2101
crx00145	Apr-02	092	2114	crx00146	Apr-02	092	2123
crx00147	Apr-02	092	2138	crx00148	Apr-02	092	2150
crx00149	Apr-02	092	2202	crx00150	Apr-02	092	2215
crx00151	Apr-02	092	2223	crx00152	Apr-02	092	2232
crx00153	Apr-02	092	2242	crx00154*	Apr-02	092	2251
crx00155	Apr-02	092	2254	crx00156	Apr-03	093	0829
crx00157	Apr-03	093	0940	crx00158	Apr-03	093	0951
crx00159	Apr-03	093	1002	crx00160	Apr-03	093	1015
crx00161	Apr-03	093	1032	crx00162	Apr-03	093	1048
crx00163	Apr-03	093	1105	crx00164	Apr-03	093	1117
crx00165	Apr-03	093	1128	crx00166	Apr-03	093	1139
crx00167	Apr-03	093	1151	crx00168	Apr-03	093	1202
crx00169	Apr-03	093	1211	crx00170	Apr-03	093	1221
crx00171	Apr-03	093	1233	crx00172	Apr-03	093	1334
crx00173	Apr-03	093	1344	crx00174*	Apr-03	093	1400
crx00175C	Apr-03	093	1402	crx00176	Apr-03	093	1414
crx00177	Apr-03	093	1424	crx00178	Apr-03	093	1435
crx00179	Apr-03	093	1445	crx00180	Apr-03	093	1455
crx00181	Apr-03	093	1506	crx00182	Apr-03	093	1521
crx00183	Apr-03	093	1532	crx00184	Apr-03	093	1543
crx00185	Apr-03	093	1554	crx00186	Apr-03	093	1604
crx00187	Apr-03	093	1615	crx00188	Apr-03	093	1627
crx00189	Apr-03	093	1640	crx00190	Apr-03	093	1651
crx00191	Apr-03	093	1701	crx00192	Apr-03	093	1714
crx00193	Apr-03	093	1736	crx00194	Apr-03	093	1752
crx00195*	Apr-03	093	1812	crx00196C	Apr-03	093	2124
crx00197	Apr-03	093	2145	crx00198C	Apr-04	094	0801
crx00199*	Apr-04	094	1022	crx00200	Apr-04	094	1056
crx00201	Apr-04	094	1102	crx00202	Apr-04	094	1242
crx00203	Apr-04	094	1354	crx00204	Apr-04	094	1409
crx00205	Apr-04	094	1432	crx00206	Apr-04	094	1450
crx00207	Apr-04	094	1514	crx00208	Apr-04	094	1555
crx00209	Apr-04	094	1620	crx00210	Apr-04	094	1642
crx00211	Apr-04	094	1701	crx00212	Apr-04	094	1719
crx00213	Apr-04	094	1743	crx00214	Apr-04	094	1809
crx00215	Apr-04	094	1835	crx00216	Apr-04	094	1853
crx00217	Apr-04	094	1913	crx00218	Apr-04	094	1942
crx00219	Apr-04	094	2004	crx00220	Apr-04	094	2021

drop #	date	day	time (hhmm)
crx00221	Apr-04	094	2038
crx00223	Apr-04	094	2115
crx00225	Apr-04	094	2221
crx00227	Apr-04	094	2258
crx00229	Apr-04	094	2332
crx00231	Apr-05	095	0007
crx00233	Apr-05	095	0100
crx00235	Apr-05	095	0145
crx00237	Apr-05	095	0222
crx00239	Apr-05	095	0315
crx00241	Apr-05	095	0415
crx00243	Apr-05	095	0447
crx00245	Apr-05	095	0530
crx00247	Apr-05	095	0602
crx00249	Apr-05	095	0642
crx00251	Apr-05	095	0825
crx00253	Apr-05	095	0903
crx00255	Apr-05	095	0936
crx00257	Apr-05	095	1017
crx00259	Apr-05	095	1057
crx00261	Apr-05	095	1133
crx00263	Apr-05	095	1207
crx00265	Apr-05	095	1239
crx00267	Apr-05	095	1317
crx00269	Apr-05	095	1343
crx00271	Apr-05	095	1405
crx00273	Apr-05	095	1426
crx00275	Apr-05	095	1456
crx00277	Apr-05	095	1536
crx00279	Apr-05	095	1703
crx00281	Apr-05	095	1730
crx00283	Apr-05	095	1755
crx00285	Apr-05	095	1819
crx00287	Apr-05	095	1904
crx00289	Apr-05	095	1929
crx00291	Apr-05	095	2001
crx00293	Apr-05	095	2025
crx00295	Apr-05	095	2116
crx00297	Apr-05	095	2145
crx00299	Apr-05	095	2209
crx00301	Apr-05	095	2248
crx00303	Apr-05	095	2321
crx00305	Apr-05	095	2358
crx00307*	Apr-06	096	0000
crx00309	Apr-06	096	0205
crx00311	Apr-06	096	0258
crx00313*	Apr-06	096	0000
crx00315	Apr-06	096	0400
crx00317	Apr-06	096	0500
crx00319	Apr-06	096	0540

drop #	date	day	time (hhmm)
crx00222	Apr-04	094	2056
crx00224	Apr-04	094	2203
crx00226	Apr-04	094	2240
crx00228	Apr-04	094	2316
crx00230	Apr-04	094	2350
crx00232	Apr-05	095	0044
crx00234	Apr-05	095	0115
crx00236*	Apr-05	095	0215
crx00238	Apr-05	095	0245
crx00240	Apr-05	095	0345
crx00242	Apr-05	095	0431
crx00244	Apr-05	095	0515
crx00246	Apr-05	095	0545
crx00248	Apr-05	095	0627
crx00250	Apr-05	095	0807
crx00252	Apr-05	095	0840
crx00254	Apr-05	095	0917
crx00256	Apr-05	095	0953
crx00258	Apr-05	095	1033
crx00260	Apr-05	095	1116
crx00262	Apr-05	095	1148
crx00264	Apr-05	095	1224
crx00266	Apr-05	095	1253
crx00268	Apr-05	095	1330
crx00270	Apr-05	095	1354
crx00272	Apr-05	095	1415
crx00274	Apr-05	095	1436
crx00276	Apr-05	095	1521
crx00278	Apr-05	095	1650
crx00280	Apr-05	095	1717
crx00282	Apr-05	095	1742
crx00284	Apr-05	095	1807
crx00286	Apr-05	095	1833
crx00288	Apr-05	095	1917
crx00290	Apr-05	095	1947
crx00292	Apr-05	095	2013
crx00294	Apr-05	095	2103
crx00296	Apr-05	095	2128
crx00298	Apr-05	095	2157
crx00300	Apr-05	095	2234
crx00302	Apr-05	095	2300
crx00304	Apr-05	095	2337
crx00306	Apr-06	096	0028
crx00308*	Apr-06	096	0000
crx00310	Apr-06	096	0243
crx00312	Apr-06	096	0313
crx00314	Apr-06	096	0330
crx00316	Apr-06	096	0428
crx00318*	Apr-06	096	0000
crx00320	Apr-06	096	0559

drop #	date	day	time (hhmm)
crx00321	Apr-06	096	0621
crx00323	Apr-06	096	0705
crx00325	Apr-06	096	0740
crx00327	Apr-06	096	0813
crx00329	Apr-06	096	0844
crx00331	Apr-06	096	0923
crx00333	Apr-06	096	0956
crx00335	Apr-06	096	1028
crx00337	Apr-06	096	1129
crx00339	Apr-06	096	1200
crx00341	Apr-06	096	1231
crx00343	Apr-06	096	1303
crx00345	Apr-06	096	1320
crx00347	Apr-06	096	1414
crx00349	Apr-06	096	1449
crx00351	Apr-06	096	1524
crx00353	Apr-06	096	1558
crx00355C	Apr-06	096	1646
crx00357	Apr-06	096	1723
crx00359	Apr-06	096	1756
crx00361	Apr-06	096	1829
crx00363	Apr-06	096	1950
crx00365	Apr-06	096	2023
crx00367	Apr-06	096	2057
crx00369	Apr-06	096	2130
crx00371	Apr-06	096	2203
crx00373	Apr-06	096	2237
crx00375	Apr-06	096	2330
crx00377	Apr-07	097	0030
crx00379	Apr-07	097	0130
crx00381	Apr-07	097	0200
crx00383	Apr-07	097	0300
crx00385	Apr-07	097	0400
crx00387*	Apr-07	097	0000
crx00389*	Apr-07	097	0000
crx00391	Apr-07	097	0540
crx00393	Apr-07	097	0630
crx00395	Apr-07	097	0713
crx00397	Apr-07	097	0755
crx00399	Apr-07	097	0835
crx00401	Apr-07	097	0914
crx00403	Apr-07	097	1001
crx00405	Apr-07	097	1100
crx00407*	Apr-07	097	0000
crx00409	Apr-07	097	1340
crx00411	Apr-07	097	1417
crx00413	Apr-07	097	1453
crx00415	Apr-07	097	1530
crx00417	Apr-07	097	1633
crx00419	Apr-07	097	1709

drop #	date	day	time (hhmm)
crx00322	Apr-06	096	0638
crx00324	Apr-06	096	0722
crx00326	Apr-06	096	0757
crx00328	Apr-06	096	0829
crx00330	Apr-06	096	0902
crx00332	Apr-06	096	0939
crx00334	Apr-06	096	1011
crx00336	Apr-06	096	1113
crx00338	Apr-06	096	1144
crx00340	Apr-06	096	1216
crx00342	Apr-06	096	1248
crx00344*	Apr-06	096	1318
crx00346	Apr-06	096	1340
crx00348	Apr-06	096	1431
crx00350	Apr-06	096	1507
crx00352	Apr-06	096	1541
crx00354	Apr-06	096	1629
crx00356	Apr-06	096	1706
crx00358	Apr-06	096	1740
crx00360	Apr-06	096	1813
crx00362	Apr-06	096	1932
crx00364	Apr-06	096	2007
crx00366	Apr-06	096	2041
crx00368	Apr-06	096	2114
crx00370	Apr-06	096	2147
crx00372	Apr-06	096	2221
crx00374	Apr-06	096	2256
crx00376	Apr-07	097	0001
crx00378	Apr-07	097	0100
crx00380	Apr-07	097	0146
crx00382	Apr-07	097	0225
crx00384	Apr-07	097	0330
crx00386*	Apr-07	097	0000
crx00388*	Apr-07	097	0000
crx00390	Apr-07	097	0523
crx00392	Apr-07	097	0607
crx00394	Apr-07	097	0650
crx00396C	Apr-07	097	0737
crx00398	Apr-07	097	0816
crx00400	Apr-07	097	0855
crx00402	Apr-07	097	0935
crx00404	Apr-07	097	1029
crx00406*	Apr-07	097	0000
crx00408*	Apr-07	097	1321
crx00410	Apr-07	097	1358
crx00412	Apr-07	097	1435
crx00414	Apr-07	097	1512
crx00416	Apr-07	097	1616
crx00418	Apr-07	097	1651
crx00420	Apr-07	097	1726

drop #	date	day	time (hhmm)	drop #	date	day	time (hhmm)
crx00421	Apr-07	097	1742	crx00422	Apr-07	097	1753
crx00423	Apr-07	097	1759	crx00424	Apr-07	097	1805
crx00425	Apr-07	097	1811	crx00426	Apr-07	097	1818
crx00427	Apr-07	097	1824	crx00428	Apr-07	097	1830
crx00429	Apr-07	097	1837	crx00430	Apr-07	097	1844
crx00431	Apr-07	097	1904	crx00432	Apr-07	097	1907
crx00433	Apr-07	097	1917	crx00434	Apr-07	097	1924
crx00435	Apr-07	097	1931	crx00436	Apr-07	097	1938
crx00437	Apr-07	097	1952	crx00438	Apr-07	097	1958
crx00439	Apr-07	097	2005	crx00440	Apr-07	097	2013
crx00441	Apr-07	097	2024	crx00442	Apr-07	097	2042
crx00443	Apr-07	097	2048	crx00444	Apr-07	097	2055
crx00445	Apr-07	097	2102	crx00446	Apr-07	097	2111
crx00447	Apr-07	097	2126	crx00448	Apr-07	097	2141
crx00449	Apr-07	097	2200	crx00450	Apr-07	097	2211
crx00451	Apr-07	097	2225	crx00452	Apr-07	097	2254
crx00453	Apr-07	097	2314	crx00454	Apr-08	098	0008
crx00455	Apr-08	098	0028	crx00456	Apr-08	098	0045
crx00457	Apr-08	098	0100	crx00458	Apr-08	098	0130
crx00459	Apr-08	098	0200	crx00460	Apr-08	098	0230
crx00461	Apr-08	098	0258	crx00462	Apr-08	098	0332
crx00463	Apr-08	098	0400	crx00464	Apr-08	098	0427
crx00465	Apr-08	098	0459	crx00466	Apr-08	098	0530
crx00467	Apr-08	098	0600	crx00468	Apr-08	098	0625
crx00469	Apr-08	098	0647	crx00470	Apr-08	098	0713
crx00471	Apr-08	098	0736	crx00472	Apr-08	098	0753
crx00473	Apr-08	098	0820	crx00474	Apr-08	098	0841
crx00475	Apr-08	098	0902	crx00476	Apr-08	098	0930
crx00477	Apr-08	098	0955	crx00478	Apr-08	098	1036
crx00479	Apr-08	098	1050	crx00480	Apr-08	098	1058
crx00481	Apr-08	098	1107	crx00482	Apr-08	098	1118
crx00483	Apr-08	098	1136	crx00484	Apr-08	098	1200
crx00485	Apr-08	098	1218	crx00486	Apr-08	098	1231
crx00487	Apr-08	098	1247	crx00488	Apr-08	098	1302
crx00489	Apr-08	098	1322	crx00490	Apr-08	098	1340
crx00491	Apr-08	098	1400	crx00492	Apr-08	098	1420
crx00493	Apr-08	098	1440	crx00494	Apr-08	098	1455
crx00495	Apr-08	098	1505	crx00496	Apr-08	098	1516
crx00497	Apr-08	098	1527	crx00498	Apr-08	098	1550
crx00499	Apr-08	098	1610	crx00500	Apr-08	098	1630
crx00501	Apr-08	098	1650	crx00502	Apr-08	098	1710
crx00503	Apr-08	098	1735	crx00504	Apr-08	098	1821
crx00505	Apr-08	098	1838	crx00506	Apr-08	098	1903
crx00507	Apr-08	098	1919	crx00508	Apr-08	098	1940
crx00509	Apr-08	098	2000	crx00510	Apr-08	098	2030
crx00511	Apr-08	098	2100	crx00512	Apr-08	098	2120
crx00513	Apr-08	098	2140	crx00514	Apr-08	098	2158
crx00515	Apr-08	098	2229	crx00516	Apr-08	098	2300
crx00517	Apr-08	098	2330	crx00518	Apr-09	099	0000
crx00519	Apr-09	099	0030	crx00520	Apr-09	099	0100

drop #	date	day	time (hhmm)	drop #	date	day	time (hhmm)
crx00521	Apr-09	099	0130	crx00522	Apr-09	099	0200
crx00523	Apr-09	099	0230	crx00524	Apr-09	099	0300
crx00525	Apr-09	099	0330	crx00526	Apr-09	099	0400
crx00527	Apr-09	099	0430	crx00528	Apr-09	099	0500
crx00529	Apr-09	099	0530	crx00530C	Apr-09	099	0622
crx00531	Apr-09	099	0644	crx00532	Apr-09	099	0714
crx00533	Apr-09	099	0737	crx00534	Apr-09	099	0800
crx00535	Apr-09	099	0818	crx00536	Apr-09	099	0841
crx00537	Apr-09	099	0900	crx00538*	Apr-09	099	0000
crx00539*	Apr-09	099	0000	crx00540*	Apr-09	099	0000
crx00541*	Apr-09	099	0000	crx00542	Apr-09	099	1021
crx00543	Apr-09	099	1109	crx00544	Apr-09	099	1130
crx00545	Apr-09	099	1200	crx00546	Apr-09	099	1230
crx00547	Apr-09	099	1300	crx00548	Apr-09	099	1320
crx00549	Apr-09	099	1340	crx00550	Apr-09	099	1400
crx00551	Apr-09	099	1430	crx00552	Apr-09	099	1500
crx00553	Apr-09	099	1530	crx00554C	Apr-09	099	1600
crx00555	Apr-09	099	1626	crx00556	Apr-09	099	1711
crx00557	Apr-09	099	1730	crx00558	Apr-09	099	1800
crx00559	Apr-09	099	1830	crx00560	Apr-09	099	1905
crx00561	Apr-09	099	1930	crx00562	Apr-09	099	2000
crx00563	Apr-09	099	2030	crx00564	Apr-09	099	2100
crx00565	Apr-09	099	2130	crx00566	Apr-09	099	2200
crx00567	Apr-09	099	2212	crx00568	Apr-09	099	2230
crx00569	Apr-09	099	2300	crx00570	Apr-09	099	2320
crx00571	Apr-09	099	2335	crx00572	Apr-09	099	2350
crx00573	Apr-10	100	0002	crx00574	Apr-10	100	0030
crx00575	Apr-10	100	0100	crx00576	Apr-10	100	0130
crx00577	Apr-10	100	0200	crx00578	Apr-10	100	0230
crx00579	Apr-10	100	0300	crx00580	Apr-10	100	0330
crx00581	Apr-10	100	0424	crx00582	Apr-10	100	0500
crx00583	Apr-10	100	0530	crx00584	Apr-10	100	0600
crx00585	Apr-10	100	0630	crx00586	Apr-10	100	0705
crx00587	Apr-10	100	0730	crx00588	Apr-10	100	0750
crx00589	Apr-10	100	0810	crx00590	Apr-10	100	0830
crx00591	Apr-10	100	0850	crx00592	Apr-10	100	0905
crx00593	Apr-10	100	0910	crx00594	Apr-10	100	0932
crx00595	Apr-10	100	0950	crx00596	Apr-10	100	1010
crx00597	Apr-10	100	1030	crx00598	Apr-10	100	1050
crx00599	Apr-10	100	1110	crx00600	Apr-10	100	1130
crx00601	Apr-10	100	1200	crx00602	Apr-10	100	1220
crx00603	Apr-10	100	1240	crx00604	Apr-10	100	1300
crx00605	Apr-10	100	1317	crx00606	Apr-10	100	1336
crx00607	Apr-10	100	1420	crx00608	Apr-10	100	1437
crx00609	Apr-10	100	1500	crx00610	Apr-10	100	1520
crx00611	Apr-10	100	1548	crx00612	Apr-10	100	1620
crx00613	Apr-10	100	1641	crx00614	Apr-10	100	1700
crx00615	Apr-10	100	1720	crx00616	Apr-10	100	1740
crx00617	Apr-10	100	1800	crx00618	Apr-10	100	1820
crx00619	Apr-10	100	1840	crx00620	Apr-10	100	1903

drop #	date	day	time (hhmm)	drop #	date	day	time (hhmm)
crx00621	Apr-10	100	1920	crx00622	Apr-10	100	1940
crx00623	Apr-10	100	2000	crx00624	Apr-10	100	2020
crx00625	Apr-10	100	2040	crx00626	Apr-10	100	2100
crx00627	Apr-10	100	2120	crx00628	Apr-10	100	2140
crx00629	Apr-10	100	2200	crx00630	Apr-10	100	2238
crx00631	Apr-10	100	2300	crx00632*	Apr-10	100	2329
crx00633	Apr-10	100	2330	crx00634	Apr-11	101	0000
crx00635	Apr-11	101	0030	crx00636	Apr-11	101	0100
crx00637	Apr-11	101	0130	crx00638	Apr-11	101	0230
crx00639	Apr-11	101	0300	crx00640	Apr-11	101	0330
crx00641	Apr-11	101	0400	crx00642	Apr-11	101	0430
crx00643	Apr-11	101	0500	crx00644	Apr-11	101	0530
crx00645	Apr-11	101	0600	crx00646	Apr-11	101	0620
crx00647	Apr-11	101	0640	crx00648	Apr-11	101	0704
crx00649	Apr-11	101	0723	crx00650	Apr-11	101	0742
crx00651	Apr-11	101	0801	crx00652	Apr-11	101	0829
crx00653	Apr-11	101	0850	crx00654*	Apr-11	101	0912
crx00655	Apr-11	101	0916	crx00656	Apr-11	101	0937
crx00657	Apr-11	101	1018	crx00658	Apr-11	101	1040
crx00659	Apr-11	101	1100	crx00660	Apr-11	101	1122
crx00661	Apr-11	101	1140	crx00662	Apr-11	101	1200
crx00663	Apr-11	101	1230	crx00664	Apr-11	101	1250
crx00665	Apr-11	101	1310	crx00666	Apr-11	101	1330
crx00667	Apr-11	101	1357	crx00668	Apr-11	101	1425
crx00669	Apr-11	101	1440	crx00670	Apr-11	101	1500
crx00671	Apr-11	101	1530	crx00672*	Apr-11	101	0000
crx00673*	Apr-11	101	0000	crx00674*	Apr-11	101	0000
crx00675*	Apr-11	101	0000	crx00676*	Apr-11	101	0000
crx00677	Apr-11	101	1605	crx00678	Apr-11	101	1630
crx00679	Apr-11	101	1700	crx00680	Apr-11	101	1730
crx00681	Apr-11	101	1800	crx00682	Apr-11	101	1830
crx00683	Apr-11	101	1904	crx00684	Apr-11	101	1930
crx00685	Apr-11	101	2000	crx00686	Apr-11	101	2030
crx00687	Apr-11	101	2100	crx00688	Apr-11	101	2141
crx00689*	Apr-11	101	2234	crx00690	Apr-11	101	2300
crx00691	Apr-11	101	2330	crx00692	Apr-12	102	0000
crx00693	Apr-12	102	0030	crx00694	Apr-12	102	0100
crx00695	Apr-12	102	0130	crx00696*	Apr-12	102	0200
crx00697*	Apr-12	102	0000	crx00698*	Apr-12	102	0320
crx00699	Apr-12	102	0400	crx00700	Apr-12	102	0430
crx00701	Apr-12	102	0451	crx00702	Apr-12	102	0506
crx00703	Apr-12	102	0522	crx00704	Apr-12	102	0540
crx00705	Apr-12	102	0600	crx00706	Apr-12	102	0620
crx00707	Apr-12	102	0640	crx00708	Apr-12	102	0704
crx00709	Apr-12	102	0721	crx00710	Apr-12	102	0736
crx00711	Apr-12	102	0751	crx00712	Apr-12	102	0807
crx00713	Apr-12	102	0826	crx00714	Apr-12	102	0909
crx00715	Apr-12	102	0924	crx00716	Apr-12	102	0938
crx00717	Apr-12	102	0952	crx00718	Apr-12	102	1004
crx00719	Apr-12	102	1016	crx00720	Apr-12	102	1032

drop #	date	day	time (hhmm)
crx00721	Apr-12	102	1050
crx00723	Apr-12	102	1121
crx00725	Apr-12	102	1155
crx00727	Apr-12	102	1225
crx00729	Apr-12	102	1257
crx00731	Apr-12	102	1328
crx00733	Apr-12	102	1400
crx00735	Apr-12	102	1440
crx00737	Apr-12	102	1520
crx00739	Apr-12	102	1600
crx00741	Apr-12	102	1700
crx00743	Apr-12	102	1740
crx00745*	Apr-12	102	1815
crx00747	Apr-12	102	1902
crx00749	Apr-12	102	1940
crx00751	Apr-12	102	2020
crx00753	Apr-12	102	2100
crx00755	Apr-12	102	2140
crx00757	Apr-12	102	2230
crx00759	Apr-12	102	2330
crx00761	Apr-13	103	0012
crx00763	Apr-13	103	0045
crx00765	Apr-13	103	0112
crx00767	Apr-13	103	0140
crx00769	Apr-13	103	0240
crx00771	Apr-13	103	0314
crx00773	Apr-13	103	0345
crx00775	Apr-13	103	0413
crx00777	Apr-13	103	0443
crx00779	Apr-13	103	0511
crx00781	Apr-13	103	0541
crx00783	Apr-13	103	0610
crx00785	Apr-13	103	0641
crx00787	Apr-13	103	0723
crx00789	Apr-13	103	0756
crx00791	Apr-13	103	0828
crx00793	Apr-13	103	0859
crx00795	Apr-13	103	0955
crx00797	Apr-13	103	1025
crx00799	Apr-13	103	1056
crx00801	Apr-13	103	1126
crx00803	Apr-13	103	1157
crx00805	Apr-13	103	1227
crx00807	Apr-13	103	1257
crx00809	Apr-13	103	1328
crx00811	Apr-13	103	1358
crx00813	Apr-13	103	1440
crx00815	Apr-13	103	1515
crx00817	Apr-13	103	1545
crx00819	Apr-13	103	1641

drop #	date	day	time (hhmm)
crx00722	Apr-12	102	1106
crx00724	Apr-12	102	1138
crx00726	Apr-12	102	1210
crx00728	Apr-12	102	1241
crx00730	Apr-12	102	1312
crx00732	Apr-12	102	1343
crx00734	Apr-12	102	1420
crx00736	Apr-12	102	1500
crx00738	Apr-12	102	1540
crx00740	Apr-12	102	1640
crx00742	Apr-12	102	1720
crx00744	Apr-12	102	1800
crx00746	Apr-12	102	1832
crx00748	Apr-12	102	1920
crx00750	Apr-12	102	2000
crx00752	Apr-12	102	2040
crx00754	Apr-12	102	2120
crx00756	Apr-12	102	2200
crx00758	Apr-12	102	2300
crx00760	Apr-13	103	0000
crx00762	Apr-13	103	0028
crx00764	Apr-13	103	0057
crx00766	Apr-13	103	0126
crx00768	Apr-13	103	0157
crx00770	Apr-13	103	0257
crx00772	Apr-13	103	0330
crx00774	Apr-13	103	0358
crx00776	Apr-13	103	0428
crx00778	Apr-13	103	0457
crx00780	Apr-13	103	0526
crx00782	Apr-13	103	0555
crx00784	Apr-13	103	0626
crx00786	Apr-13	103	0708
crx00788	Apr-13	103	0740
crx00790	Apr-13	103	0812
crx00792	Apr-13	103	0844
crx00794	Apr-13	103	0940
crx00796	Apr-13	103	1010
crx00798	Apr-13	103	1040
crx00800	Apr-13	103	1111
crx00802	Apr-13	103	1141
crx00804	Apr-13	103	1212
crx00806	Apr-13	103	1242
crx00808	Apr-13	103	1312
crx00810	Apr-13	103	1343
crx00812	Apr-13	103	1420
crx00814	Apr-13	103	1500
crx00816	Apr-13	103	1530
crx00818	Apr-13	103	1600
crx00820	Apr-13	103	1658

drop #	date	day	time (hhmm)	drop #	date	day	time (hhmm)
crx00821	Apr-13	103	1715	crx00822	Apr-13	103	1730
crx00823	Apr-13	103	1745	crx00824	Apr-13	103	1800
crx00825	Apr-13	103	1815	crx00826	Apr-13	103	1830
crx00827	Apr-13	103	1843	crx00828	Apr-13	103	1913
crx00829	Apr-13	103	1928	crx00830	Apr-13	103	1944
crx00831	Apr-13	103	1958	crx00832	Apr-13	103	2014
crx00833	Apr-13	103	2034	crx00834	Apr-13	103	2049
crx00835	Apr-13	103	2104	crx00836	Apr-13	103	2119
crx00837	Apr-13	103	2134	crx00838	Apr-13	103	2149
crx00839	Apr-13	103	2204	crx00840	Apr-13	103	2220
crx00841	Apr-13	103	2240	crx00842	Apr-13	103	2300
crx00843	Apr-13	103	2320	crx00844	Apr-13	103	2340
crx00845	Apr-14	104	0030	crx00846	Apr-14	104	0100
crx00847	Apr-14	104	0120	crx00848	Apr-14	104	0140
crx00849	Apr-14	104	0200	crx00850	Apr-14	104	0220
crx00851	Apr-14	104	0240	crx00852	Apr-14	104	0300
crx00853	Apr-14	104	0330	crx00854	Apr-14	104	0400
crx00855	Apr-14	104	0430	crx00856	Apr-14	104	0510
crx00857	Apr-14	104	0524	crx00858	Apr-14	104	0538
crx00859	Apr-14	104	0552	crx00860	Apr-14	104	0608
crx00861	Apr-14	104	0622	crx00862	Apr-14	104	0638
crx00863	Apr-14	104	0704	crx00864	Apr-14	104	0719
crx00865	Apr-14	104	0734	crx00866	Apr-14	104	0750
crx00867	Apr-14	104	0804	crx00868	Apr-14	104	0819
crx00869	Apr-14	104	0835	crx00870	Apr-14	104	0850
crx00871	Apr-14	104	0930	crx00872	Apr-14	104	0945
crx00873	Apr-14	104	1000	crx00874	Apr-14	104	1014
crx00875	Apr-14	104	1029	crx00876	Apr-14	104	1045
crx00877	Apr-14	104	1100	crx00878	Apr-14	104	1116
crx00879	Apr-14	104	1131	crx00880	Apr-14	104	1145
crx00881	Apr-14	104	1200	crx00882	Apr-14	104	1215
crx00883	Apr-14	104	1230	crx00884	Apr-14	104	1244
crx00885	Apr-14	104	1331	crx00886	Apr-14	104	1346
crx00887	Apr-14	104	1401	crx00888	Apr-14	104	1416
crx00889	Apr-14	104	1431	crx00890	Apr-14	104	1445
crx00891	Apr-14	104	1500	crx00892	Apr-14	104	1516
crx00893	Apr-14	104	1530	crx00894	Apr-14	104	1545
crx00895	Apr-14	104	1600	crx00896	Apr-14	104	1615
crx00897	Apr-14	104	1656	crx00898	Apr-14	104	1711
crx00899	Apr-14	104	1726	crx00900	Apr-14	104	1741
crx00901	Apr-14	104	1759	crx00902	Apr-14	104	1818
crx00903	Apr-14	104	1840	crx00904	Apr-14	104	1905
crx00905	Apr-14	104	1920	crx00906	Apr-14	104	1935
crx00907	Apr-14	104	1950	crx00908	Apr-14	104	2005
crx00909	Apr-14	104	2020	crx00910	Apr-14	104	2036
crx00911	Apr-14	104	2053	crx00912	Apr-14	104	2130
crx00913	Apr-14	104	2145	crx00914	Apr-14	104	2201
crx00915	Apr-14	104	2215	crx00916	Apr-14	104	2230
crx00917	Apr-14	104	2300	crx00918	Apr-14	104	2330
crx00919	Apr-15	105	0000	crx00920	Apr-15	105	0030

drop #	date	day	time (hhmm)
crx00921	Apr-15	105	0100
crx00923	Apr-15	105	0200
crx00925	Apr-15	105	0300
crx00927	Apr-15	105	0345
crx00929	Apr-15	105	0413
crx00931	Apr-15	105	0448
crx00933	Apr-15	105	0519
crx00935	Apr-15	105	0600
crx00937	Apr-15	105	0640
crx00939	Apr-15	105	0719
crx00941	Apr-15	105	0800
crx00943	Apr-15	105	0840
crx00945	Apr-15	105	0920
crx00947	Apr-15	105	1000
crx00949	Apr-15	105	1100
crx00951	Apr-15	105	1140
crx00953	Apr-15	105	1220
crx00955	Apr-15	105	1300
crx00957	Apr-15	105	1403
crx00959	Apr-15	105	1448
crx00961	Apr-15	105	1520
crx00963	Apr-15	105	1600
crx00965	Apr-15	105	1640
crx00967	Apr-15	105	1714
crx00969	Apr-15	105	1737
crx00971C	Apr-15	105	1820
crx00973C	Apr-15	105	1916
crx00975C	Apr-15	105	2200
crx00977	Apr-15	105	2300
crx00979	Apr-16	106	0004
crx00981	Apr-16	106	0050
crx00983*	Apr-16	106	0123
crx00985	Apr-16	106	0140
crx00987	Apr-16	106	0230
crx00989	Apr-16	106	0330
crx00991	Apr-16	106	0400
crx00993	Apr-16	106	0500
crx00995	Apr-16	106	0600
crx00997	Apr-16	106	0640
crx00999	Apr-16	106	0720
crx01001	Apr-16	106	0822
crx01003	Apr-16	106	0900
crx01005	Apr-16	106	0940
crx01007	Apr-16	106	1020
crx01009	Apr-16	106	1049
crx01011	Apr-16	106	1121
crx01013	Apr-16	106	1200
crx01015	Apr-16	106	1234
crx01017	Apr-16	106	1303
crx01019	Apr-16	106	1334

drop #	date	day	time (hhmm)
crx00922	Apr-15	105	0146
crx00924	Apr-15	105	0230
crx00926	Apr-15	105	0330
crx00928	Apr-15	105	0400
crx00930	Apr-15	105	0432
crx00932	Apr-15	105	0505
crx00934	Apr-15	105	0540
crx00936	Apr-15	105	0620
crx00938*	Apr-15	105	0706
crx00940	Apr-15	105	0740
crx00942	Apr-15	105	0820
crx00944	Apr-15	105	0900
crx00946	Apr-15	105	0940
crx00948	Apr-15	105	1042
crx00950	Apr-15	105	1120
crx00952	Apr-15	105	1200
crx00954	Apr-15	105	1240
crx00956	Apr-15	105	1318
crx00958	Apr-15	105	1420
crx00960C	Apr-15	105	1500
crx00962	Apr-15	105	1540
crx00964	Apr-15	105	1620
crx00966	Apr-15	105	1700
crx00968	Apr-15	105	1726
crx00970	Apr-15	105	1800
crx00972C	Apr-15	105	1840
crx00974C	Apr-15	105	2149
crx00976	Apr-15	105	2230
crx00978	Apr-15	105	2330
crx00980	Apr-16	106	0035
crx00982	Apr-16	106	0106
crx00984	Apr-16	106	0124
crx00986	Apr-16	106	0153
crx00988	Apr-16	106	0300
crx00990	Apr-16	106	0344
crx00992	Apr-16	106	0430
crx00994	Apr-16	106	0530
crx00996	Apr-16	106	0620
crx00998	Apr-16	106	0705
crx01000	Apr-16	106	0740
crx01002	Apr-16	106	0840
crx01004	Apr-16	106	0920
crx01006	Apr-16	106	1000
crx01008	Apr-16	106	1034
crx01010	Apr-16	106	1105
crx01012	Apr-16	106	1140
crx01014	Apr-16	106	1220
crx01016	Apr-16	106	1249
crx01018	Apr-16	106	1319
crx01020	Apr-16	106	1348

drop #	date	day	time (hhmm)	drop #	date	day	time (hhmm)
crx01021	Apr-16	106	1404	crx01022	Apr-16	106	1420
crx01023	Apr-16	106	1435	crx01024	Apr-16	106	1449
crx01025	Apr-16	106	1504	crx01026	Apr-16	106	1545
crx01027	Apr-16	106	1559	crx01028	Apr-16	106	1613
crx01029	Apr-16	106	1626	crx01030	Apr-16	106	1640
crx01031	Apr-16	106	1654	crx01032	Apr-16	106	1707
crx01033	Apr-16	106	1722	crx01034	Apr-16	106	1738
crx01035	Apr-16	106	1800	crx01036	Apr-16	106	1821
crx01037	Apr-16	106	1840	crx01038	Apr-16	106	1904
crx01039	Apr-16	106	1920	crx01040	Apr-16	106	2000
crx01041	Apr-16	106	2020	crx01042	Apr-16	106	2040
crx01043	Apr-16	106	2100	crx01044	Apr-16	106	2120
crx01045	Apr-16	106	2140	crx01046	Apr-16	106	2202
crx01047	Apr-16	106	2220	crx01048*	Apr-16	106	0000
crx01049	Apr-16	106	2311	crx01050	Apr-16	106	2331
crx01051	Apr-17	107	0000	crx01052*	Apr-17	107	0045
crx01053	Apr-17	107	0048	crx01054	Apr-17	107	0103
crx01055*	Apr-17	107	0130	crx01056C	Apr-17	107	0200
crx01057	Apr-17	107	0230	crx01058	Apr-17	107	0300
crx01059	Apr-17	107	0330	crx01060	Apr-17	107	0400
crx01061	Apr-17	107	0430	crx01062	Apr-17	107	0500
crx01063	Apr-17	107	0530	crx01064	Apr-17	107	0600
crx01065	Apr-17	107	0620	crx01066	Apr-17	107	0640
crx01067	Apr-17	107	0703	crx01068	Apr-17	107	0720
crx01069	Apr-17	107	0734	crx01070	Apr-17	107	0749
crx01071	Apr-17	107	0804	crx01072	Apr-17	107	0819
crx01073	Apr-17	107	0837	crx01074	Apr-17	107	0854
crx01075	Apr-17	107	0909	crx01076	Apr-17	107	0924
crx01077	Apr-17	107	0939	crx01078	Apr-17	107	0954
crx01079	Apr-17	107	1035	crx01080*	Apr-17	107	1053
crx01081	Apr-17	107	1115	crx01082	Apr-17	107	1129
crx01083	Apr-17	107	1144	crx01084	Apr-17	107	1159
crx01085	Apr-17	107	1214	crx01086	Apr-17	107	1229
crx01087	Apr-17	107	1244	crx01088	Apr-17	107	1259
crx01089	Apr-17	107	1313	crx01090	Apr-17	107	1329
crx01091	Apr-17	107	1344	crx01092	Apr-17	107	1400
crx01093	Apr-17	107	1420	crx01094	Apr-17	107	1440
crx01095	Apr-17	107	1500	crx01096	Apr-17	107	1520
crx01097	Apr-17	107	1540	crx01098	Apr-17	107	1600
crx01099	Apr-17	107	1620	crx01100	Apr-17	107	1641
crx01101	Apr-17	107	1700	crx01102	Apr-17	107	1720
crx01103	Apr-17	107	1740	crx01104	Apr-17	107	1755
crx01105	Apr-17	107	1812	crx01106*	Apr-17	107	1839
crx01107	Apr-17	107	1908	crx01108	Apr-17	107	1924
crx01109	Apr-17	107	1940	crx01110	Apr-17	107	2000
crx01111	Apr-17	107	2020	crx01112	Apr-17	107	2039
crx01113	Apr-17	107	2100	crx01114*	Apr-17	107	2120
crx01115	Apr-17	107	2124	crx01116	Apr-17	107	2140
crx01117	Apr-17	107	2200	crx01118	Apr-17	107	2230
crx01119	Apr-17	107	2300	crx01120	Apr-17	107	2330

drop #	date	day	time (hhmm)
crx01121	Apr-18	108	0000
crx01123	Apr-18	108	0045
crx01125	Apr-18	108	0115
crx01127	Apr-18	108	0147
crx01129	Apr-18	108	0219
crx01131	Apr-18	108	0330
crx01133*	Apr-18	108	0000
crx01135	Apr-18	108	0533
crx01137	Apr-18	108	0606
crx01139	Apr-18	108	0623
crx01141	Apr-18	108	0705
crx01143*	Apr-18	108	0000
crx01145*	Apr-18	108	0824
crx01147	Apr-18	108	0904
crx01149	Apr-18	108	0940
crx01151	Apr-18	108	1011
crx01153	Apr-18	108	1045
crx01155	Apr-18	108	1116
crx01157	Apr-18	108	1147
crx01159	Apr-18	108	1217
crx01161	Apr-18	108	1247
crx01163	Apr-18	108	1342
crx01165	Apr-18	108	1420
crx01167	Apr-18	108	1500
crx01169	Apr-18	108	1540
crx01171	Apr-18	108	1620
crx01173	Apr-18	108	1700
crx01175	Apr-18	108	1740
crx01177	Apr-18	108	1820
crx01179	Apr-18	108	1933
crx01181	Apr-18	108	2020
crx01183	Apr-18	108	2110
crx01185	Apr-18	108	2140
crx01187	Apr-18	108	2238
crx01189	Apr-18	108	2310
crx01191	Apr-18	108	2340
crx01193	Apr-19	109	0009
crx01195	Apr-19	109	0038
crx01197	Apr-19	109	0130
crx01199	Apr-19	109	0230
crx01201	Apr-19	109	0330
crx01203	Apr-19	109	0432
crx01205	Apr-19	109	0530
crx01207	Apr-19	109	0620
crx01209	Apr-19	109	0705
crx01211	Apr-19	109	0740
crx01213	Apr-19	109	0840
crx01215	Apr-19	109	0920
crx01217	Apr-19	109	1000
crx01219	Apr-19	109	1040

drop #	date	day	time (hhmm)
crx01122	Apr-18	108	0030
crx01124	Apr-18	108	0100
crx01126	Apr-18	108	0130
crx01128	Apr-18	108	0205
crx01130	Apr-18	108	0300
crx01132	Apr-18	108	0400
crx01134	Apr-18	108	0518
crx01136	Apr-18	108	0548
crx01138*	Apr-18	108	0621
crx01140	Apr-18	108	0638
crx01142	Apr-18	108	0720
crx01144	Apr-18	108	0810
crx01146	Apr-18	108	0828
crx01148	Apr-18	108	0919
crx01150	Apr-18	108	0955
crx01152	Apr-18	108	1030
crx01154	Apr-18	108	1101
crx01156	Apr-18	108	1131
crx01158	Apr-18	108	1202
crx01160	Apr-18	108	1233
crx01162	Apr-18	108	1327
crx01164	Apr-18	108	1400
crx01166	Apr-18	108	1440
crx01168	Apr-18	108	1520
crx01170	Apr-18	108	1600
crx01172	Apr-18	108	1640
crx01174	Apr-18	108	1720
crx01176	Apr-18	108	1800
crx01178C	Apr-18	108	1919
crx01180	Apr-18	108	2000
crx01182*	Apr-18	108	2048
crx01184	Apr-18	108	2125
crx01186	Apr-18	108	2200
crx01188	Apr-18	108	2255
crx01190	Apr-18	108	2325
crx01192	Apr-18	108	2354
crx01194	Apr-19	109	0023
crx01196	Apr-19	109	0100
crx01198	Apr-19	109	0200
crx01200	Apr-19	109	0300
crx01202	Apr-19	109	0413
crx01204	Apr-19	109	0500
crx01206	Apr-19	109	0600
crx01208	Apr-19	109	0640
crx01210	Apr-19	109	0720
crx01212	Apr-19	109	0820
crx01214	Apr-19	109	0900
crx01216	Apr-19	109	0940
crx01218	Apr-19	109	1020
crx01220	Apr-19	109	1100

drop #	date	day	time (hhmm)	drop #	date	day	time (hhmm)
crx01221	Apr-19	109	1120	crx01222	Apr-19	109	1140
crx01223	Apr-19	109	1200	crx01224	Apr-19	109	1220
crx01225	Apr-19	109	1240	crx01226	Apr-19	109	1300
crx01227	Apr-19	109	1320	crx01228	Apr-19	109	1340
crx01229	Apr-19	109	1400	crx01230	Apr-19	109	1430
crx01231	Apr-19	109	1500	crx01232	Apr-19	109	1530
crx01233	Apr-19	109	1600	crx01234	Apr-19	109	1630
crx01235	Apr-19	109	1700	crx01236*	Apr-19	109	1715
crx01237	Apr-19	109	1743	crx01238	Apr-19	109	1800
crx01239	Apr-19	109	1830	crx01240	Apr-19	109	1903
crx01241	Apr-19	109	1930	crx01242	Apr-19	109	2000
crx01243	Apr-19	109	2050	crx01244	Apr-19	109	2152
crx01245	Apr-19	109	2230	crx01246	Apr-19	109	2300
crx01247	Apr-19	109	2330	crx01248	Apr-20	110	0000
crx01249	Apr-20	110	0030	crx01250	Apr-20	110	0105
crx01251	Apr-20	110	0130	crx01252	Apr-20	110	0200
crx01253	Apr-20	110	0230	crx01254	Apr-20	110	0308
crx01255	Apr-20	110	0330	crx01256	Apr-20	110	0400
crx01257	Apr-20	110	0430	crx01258	Apr-20	110	0508
crx01259	Apr-20	110	0529	crx01260	Apr-20	110	0600
crx01261	Apr-20	110	0640	crx01262	Apr-20	110	0704
crx01263	Apr-20	110	0730	crx01264	Apr-20	110	0745
crx01265	Apr-20	110	0800	crx01266*	Apr-20	110	0815
crx01267	Apr-20	110	0818	crx01268	Apr-20	110	0833
crx01269	Apr-20	110	0850	crx01270	Apr-20	110	0905
crx01271	Apr-20	110	0920	crx01272	Apr-20	110	0940
crx01273	Apr-20	110	1000	crx01274	Apr-20	110	1020
crx01275	Apr-20	110	1040	crx01276	Apr-20	110	1100
crx01277	Apr-20	110	1120	crx01278	Apr-20	110	1141
crx01279	Apr-20	110	1200	crx01280	Apr-20	110	1220
crx01281	Apr-20	110	1240	crx01282	Apr-20	110	1300
crx01283	Apr-20	110	1320	crx01284	Apr-20	110	1340
crx01285	Apr-20	110	1400	crx01286	Apr-20	110	1420
crx01287	Apr-20	110	1500	crx01288	Apr-20	110	1530
crx01289	Apr-20	110	1600	crx01290	Apr-20	110	1630
crx01291	Apr-20	110	1700	crx01292	Apr-20	110	1730
crx01293	Apr-20	110	1800	crx01294	Apr-20	110	1830
crx01295	Apr-20	110	1903	crx01296	Apr-20	110	1930
crx01297	Apr-20	110	2000	crx01298	Apr-20	110	2030
crx01299	Apr-20	110	2100	crx01300	Apr-20	110	2130
crx01301	Apr-20	110	2200	crx01302	Apr-20	110	2230
crx01303	Apr-20	110	2300	crx01304	Apr-20	110	2330
crx01305	Apr-21	111	0001	crx01306	Apr-21	111	0030
crx01307	Apr-21	111	0100	crx01308	Apr-21	111	0130
crx01309	Apr-21	111	0200	crx01310*	Apr-21	111	0000
crx01311*	Apr-21	111	0000	crx01312*	Apr-21	111	0000
crx01313*	Apr-21	111	0000	crx01314	Apr-21	111	0230
crx01315*	Apr-21	111	0000	crx01316	Apr-21	111	0318
crx01317	Apr-21	111	0332	crx01318	Apr-21	111	0400
crx01319	Apr-21	111	0430	crx01320	Apr-21	111	0500

drop #	date	day	time (hhmm)
crx01321	Apr-21	111	0559
crx01323	Apr-21	111	0640
crx01325	Apr-21	111	0721
crx01327	Apr-21	111	0800
crx01329	Apr-21	111	0840
crx01331	Apr-21	111	0920
crx01333	Apr-21	111	1000
crx01335	Apr-21	111	1040
crx01337	Apr-21	111	1120
crx01339	Apr-21	111	1200
crx01341	Apr-21	111	1240
crx01343	Apr-21	111	1345
crx01345	Apr-21	111	1430
crx01347	Apr-21	111	1510
crx01349	Apr-21	111	1550
crx01351	Apr-21	111	1630
crx01353	Apr-21	111	1710
crx01355	Apr-21	111	1800
crx01357	Apr-21	111	1909
crx01359	Apr-21	111	2000
crx01361	Apr-21	111	2100
crx01363	Apr-21	111	2200
crx01365	Apr-21	111	2300
crx01367*	Apr-21	111	2330
crx01369	Apr-22	112	0016
crx01371	Apr-22	112	0046
crx01373	Apr-22	112	0116
crx01375*	Apr-22	112	0146
crx01377*	Apr-22	112	0245
crx01379*	Apr-22	112	0000
crx01381	Apr-22	112	0415
crx01383	Apr-22	112	0443
crx01385	Apr-22	112	0514
crx01387	Apr-22	112	0542
crx01389	Apr-22	112	0612
crx01391	Apr-22	112	0642
crx01393	Apr-22	112	0717
crx01395	Apr-22	112	0812
crx01397	Apr-22	112	0843
crx01399	Apr-22	112	0911
crx01401	Apr-22	112	0944
crx01403	Apr-22	112	1020
crx01405	Apr-22	112	1100
crx01407	Apr-22	112	1140
crx01409	Apr-22	112	1220
crx01411	Apr-22	112	1300
crx01413	Apr-22	112	1340
crx01415	Apr-22	112	1430
crx01417	Apr-22	112	1530
crx01419	Apr-22	112	1600

drop #	date	day	time (hhmm)
crx01322	Apr-21	111	0620
crx01324	Apr-21	111	0706
crx01326	Apr-21	111	0740
crx01328	Apr-21	111	0820
crx01330	Apr-21	111	0900
crx01332	Apr-21	111	0940
crx01334	Apr-21	111	1020
crx01336	Apr-21	111	1100
crx01338	Apr-21	111	1140
crx01340	Apr-21	111	1220
crx01342	Apr-21	111	1330
crx01344	Apr-21	111	1400
crx01346	Apr-21	111	1450
crx01348	Apr-21	111	1530
crx01350	Apr-21	111	1610
crx01352	Apr-21	111	1650
crx01354	Apr-21	111	1730
crx01356	Apr-21	111	1830
crx01358	Apr-21	111	1930
crx01360	Apr-21	111	2030
crx01362	Apr-21	111	2130
crx01364	Apr-21	111	2230
crx01366	Apr-21	111	2315
crx01368	Apr-21	111	2358
crx01370	Apr-22	112	0031
crx01372	Apr-22	112	0101
crx01374	Apr-22	112	0130
crx01376	Apr-22	112	0231
crx01378*	Apr-22	112	0343
crx01380	Apr-22	112	0400
crx01382	Apr-22	112	0430
crx01384	Apr-22	112	0500
crx01386	Apr-22	112	0529
crx01388	Apr-22	112	0557
crx01390	Apr-22	112	0626
crx01392	Apr-22	112	0702
crx01394	Apr-22	112	0732
crx01396	Apr-22	112	0827
crx01398	Apr-22	112	0857
crx01400	Apr-22	112	0928
crx01402	Apr-22	112	1000
crx01404	Apr-22	112	1040
crx01406	Apr-22	112	1120
crx01408	Apr-22	112	1200
crx01410	Apr-22	112	1240
crx01412	Apr-22	112	1320
crx01414	Apr-22	112	1400
crx01416	Apr-22	112	1500
crx01418	Apr-22	112	1545
crx01420	Apr-22	112	1640

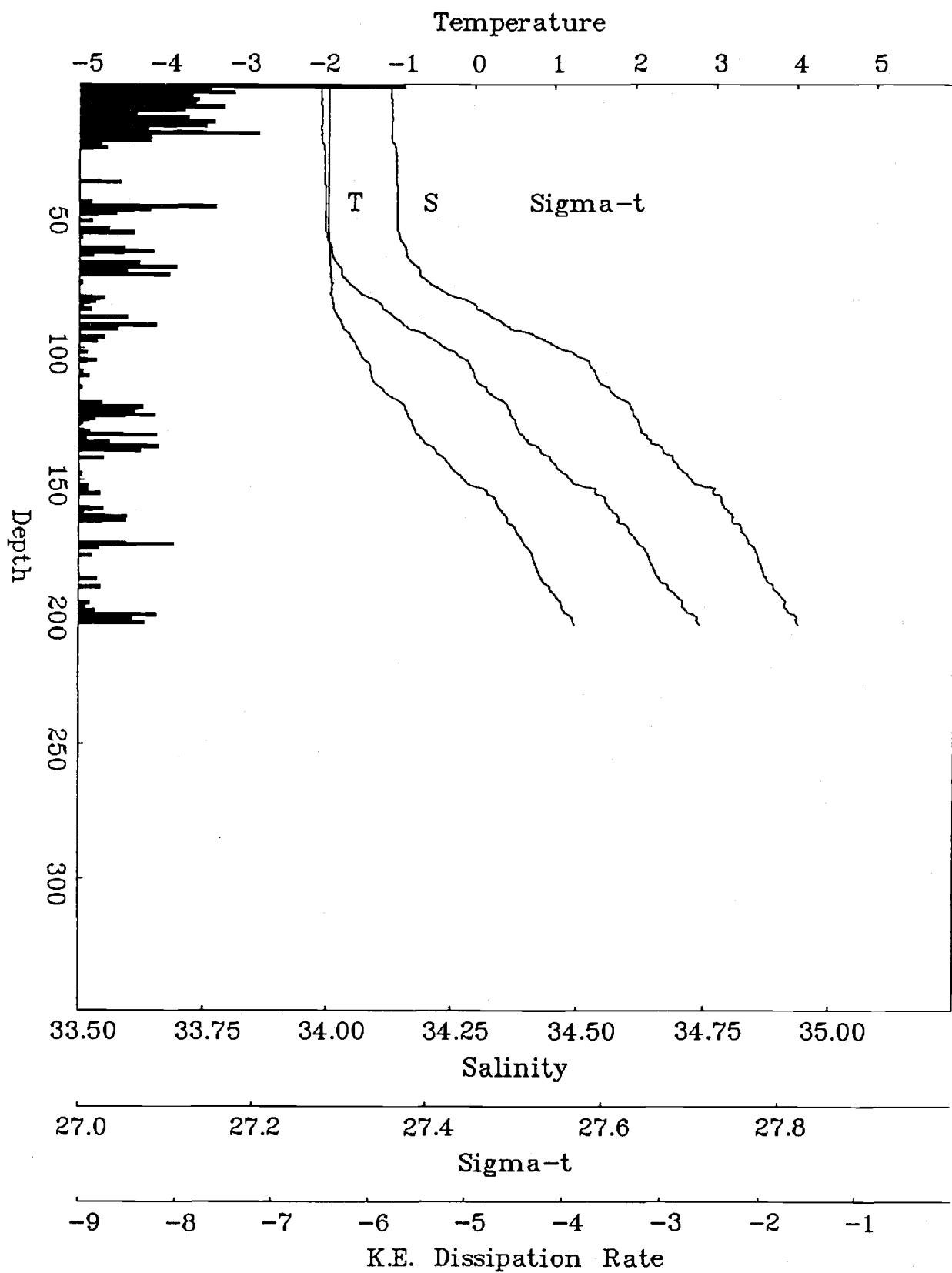
drop #	date	day	time (hhmm)	drop #	date	day	time (hhmm)
crx01421	Apr-22	112	1700	crx01422	Apr-22	112	1730
crx01423	Apr-22	112	1800	crx01424	Apr-22	112	1830
crx01425	Apr-22	112	1903	crx01426	Apr-22	112	1918
crx01427	Apr-22	112	1935	crx01428	Apr-22	112	2000
crx01429	Apr-22	112	2030	crx01430	Apr-22	112	2100
crx01431	Apr-22	112	2130	crx01432	Apr-22	112	2149
crx01433	Apr-22	112	2203	crx01434*	Apr-22	112	2217
crx01435	Apr-22	112	2227	crx01436*	Apr-22	112	2237
crx01437	Apr-22	112	2253	crx01438	Apr-22	112	2308
crx01439	Apr-22	112	2323	crx01440	Apr-22	112	2339
crx01441	Apr-22	112	2355	crx01442	Apr-23	113	0010
crx01443	Apr-23	113	0025	crx01444	Apr-23	113	0040
crx01445*	Apr-23	113	0000	crx01446	Apr-23	113	0125
crx01447	Apr-23	113	0140	crx01448	Apr-23	113	0154
crx01449	Apr-23	113	0208	crx01450	Apr-23	113	0223
crx01451*	Apr-23	113	0238	crx01452	Apr-23	113	0240
crx01453	Apr-23	113	0254	crx01454	Apr-23	113	0309
crx01455	Apr-23	113	0324	crx01456	Apr-23	113	0342
crx01457	Apr-23	113	0400	crx01458	Apr-23	113	0415
crx01459	Apr-23	113	0430	crx01460	Apr-23	113	0445
crx01461	Apr-23	113	0459	crx01462	Apr-23	113	0514
crx01463	Apr-23	113	0528	crx01464	Apr-23	113	0543
crx01465	Apr-23	113	0601	crx01466	Apr-23	113	0617
crx01467	Apr-23	113	0632	crx01468	Apr-23	113	0647
crx01469	Apr-23	113	0709	crx01470	Apr-23	113	0724
crx01471	Apr-23	113	0739	crx01472	Apr-23	113	0821
crx01473	Apr-23	113	0837	crx01474	Apr-23	113	0852
crx01475	Apr-23	113	0907	crx01476	Apr-23	113	0922
crx01477	Apr-23	113	0937	crx01478	Apr-23	113	0952
crx01479	Apr-23	113	1007	crx01480	Apr-23	113	1023
crx01481	Apr-23	113	1038	crx01482	Apr-23	113	1052
crx01483	Apr-23	113	1107	crx01484	Apr-23	113	1137
crx01485	Apr-23	113	1152	crx01486	Apr-23	113	1207
crx01487	Apr-23	113	1222	crx01488	Apr-23	113	1237
crx01489	Apr-23	113	1251	crx01490	Apr-23	113	1303
crx01491	Apr-23	113	1317	crx01492	Apr-23	113	1333
crx01493	Apr-23	113	1347	crx01494	Apr-23	113	1402
crx01495	Apr-23	113	1420	crx01496	Apr-23	113	1436
crx01497	Apr-23	113	1511	crx01498	Apr-23	113	1531
crx01499	Apr-23	113	1546	crx01500	Apr-23	113	1602
crx01501	Apr-23	113	1617	crx01502	Apr-23	113	1631
crx01503	Apr-23	113	1646	crx01504	Apr-23	113	1701
crx01505	Apr-23	113	1715	crx01506	Apr-23	113	1740
crx01507	Apr-23	113	1800	crx01508	Apr-23	113	1820
crx01509	Apr-23	113	1840	crx01510	Apr-23	113	1903
crx01511	Apr-23	113	1920	crx01512	Apr-23	113	1934
crx01513*	Apr-23	113	0000	crx01514*	Apr-23	113	0000
crx01515*	Apr-23	113	0000	crx01516*	Apr-23	113	0000
crx01517*	Apr-23	113	0000	crx01518	Apr-23	113	2130
crx01519	Apr-23	113	2145	crx01520	Apr-23	113	2200

drop #	date	day	time (hhmm)	drop #	date	day	time (hhmm)
crx01521	Apr-23	113	2216	crx01522	Apr-23	113	2308
crx01523	Apr-23	113	2322	crx01524	Apr-23	113	2339
crx01525	Apr-23	113	2353	crx01526	Apr-24	114	0008
crx01527	Apr-24	114	0022	crx01528	Apr-24	114	0038
crx01529	Apr-24	114	0053	crx01530	Apr-24	114	0126
crx01531	Apr-24	114	0200	crx01532	Apr-24	114	0230
crx01533	Apr-24	114	0300	crx01534	Apr-24	114	0330
crx01535	Apr-24	114	0400	crx01536	Apr-24	114	0430
crx01537*	Apr-24	114	0445	crx01538	Apr-24	114	0501
crx01539	Apr-24	114	0530	crx01540	Apr-24	114	0600
crx01541	Apr-24	114	0620	crx01542	Apr-24	114	0640
crx01543	Apr-24	114	0704	crx01544	Apr-24	114	0720
crx01545	Apr-24	114	0740	crx01546	Apr-24	114	0800

**Section 3:**

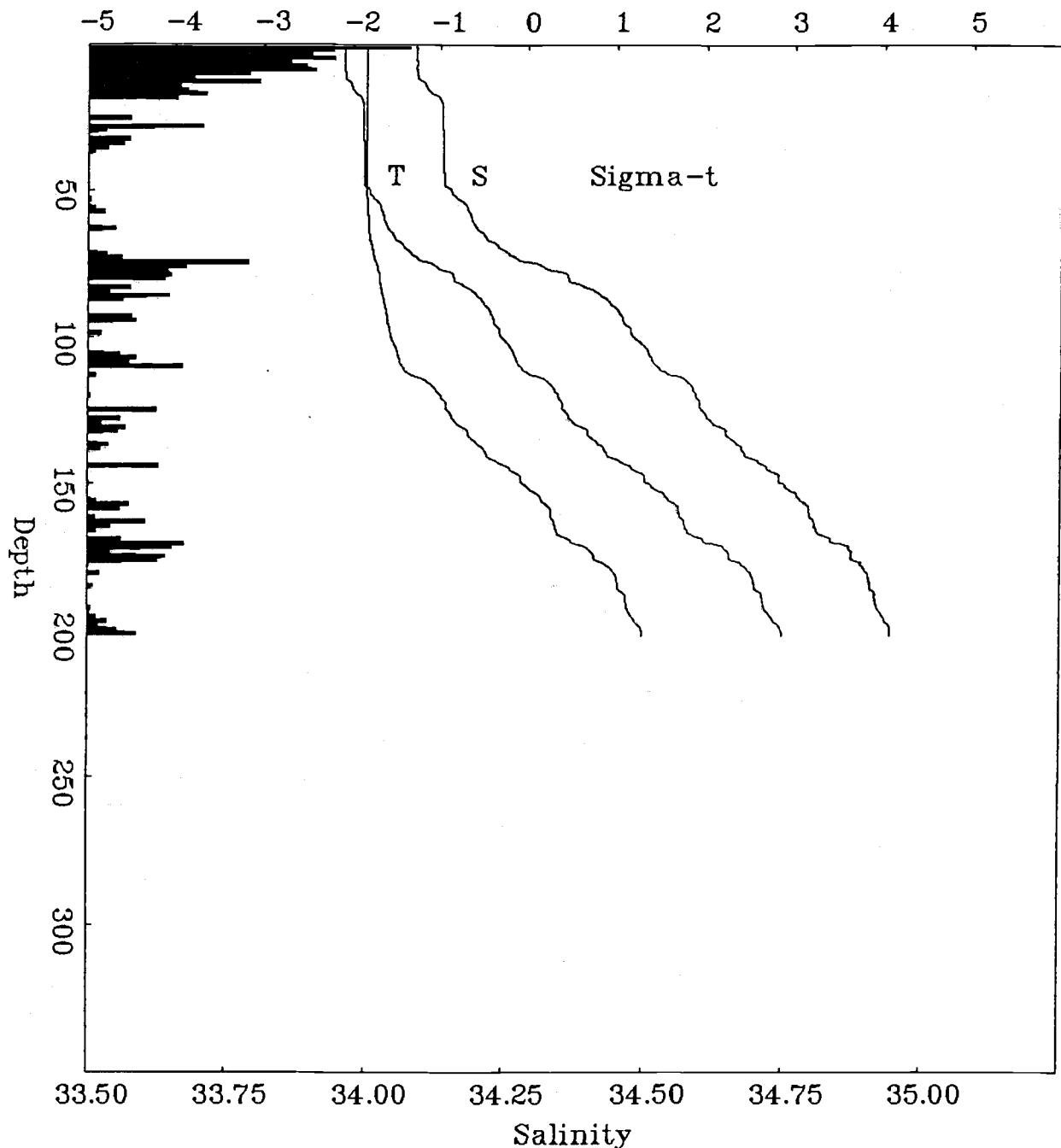
**Example Profiles of Temperature, Salinity,  
Density, and Dissipation Rate**

CEAREX Cast 20, JD 90.6619, 15:48, 83.04N, 9.95E

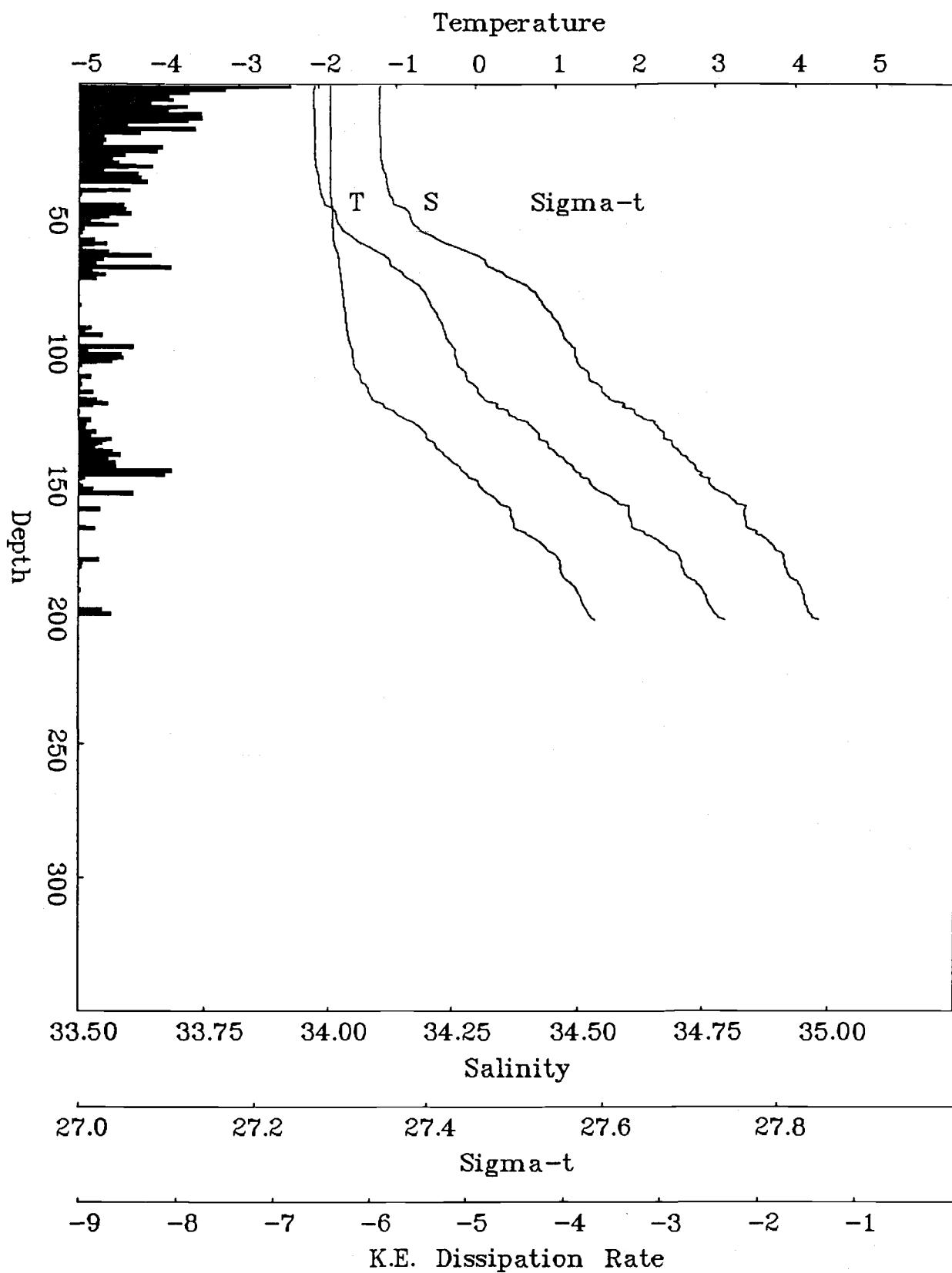


CEAREX Cast 36, JD 90.8359, 19:59, 83.04N, 9.99E

Temperature

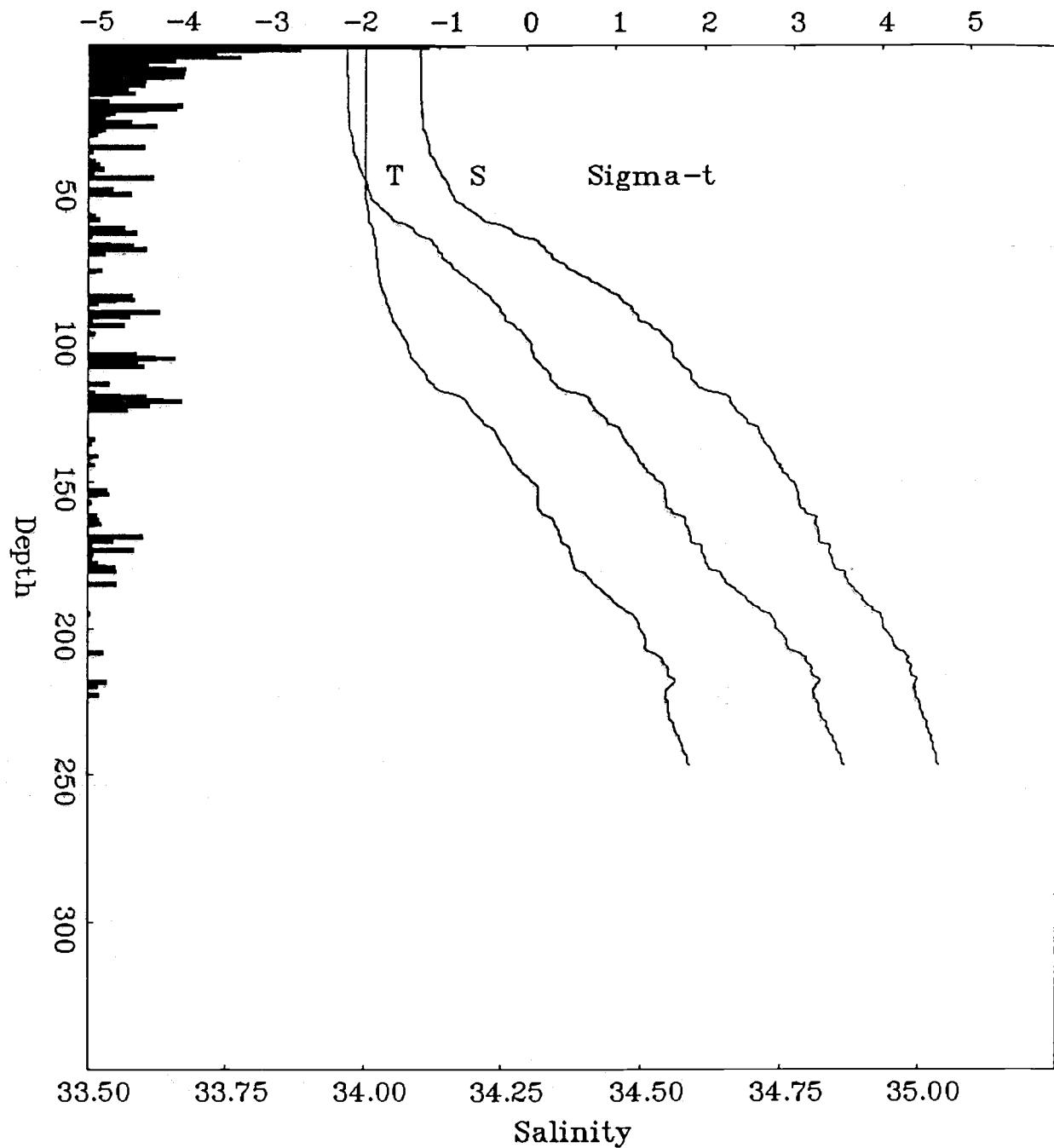


CEAREX Cast 49, JD 91.0041, 00:01, 83.04N, 10.00E

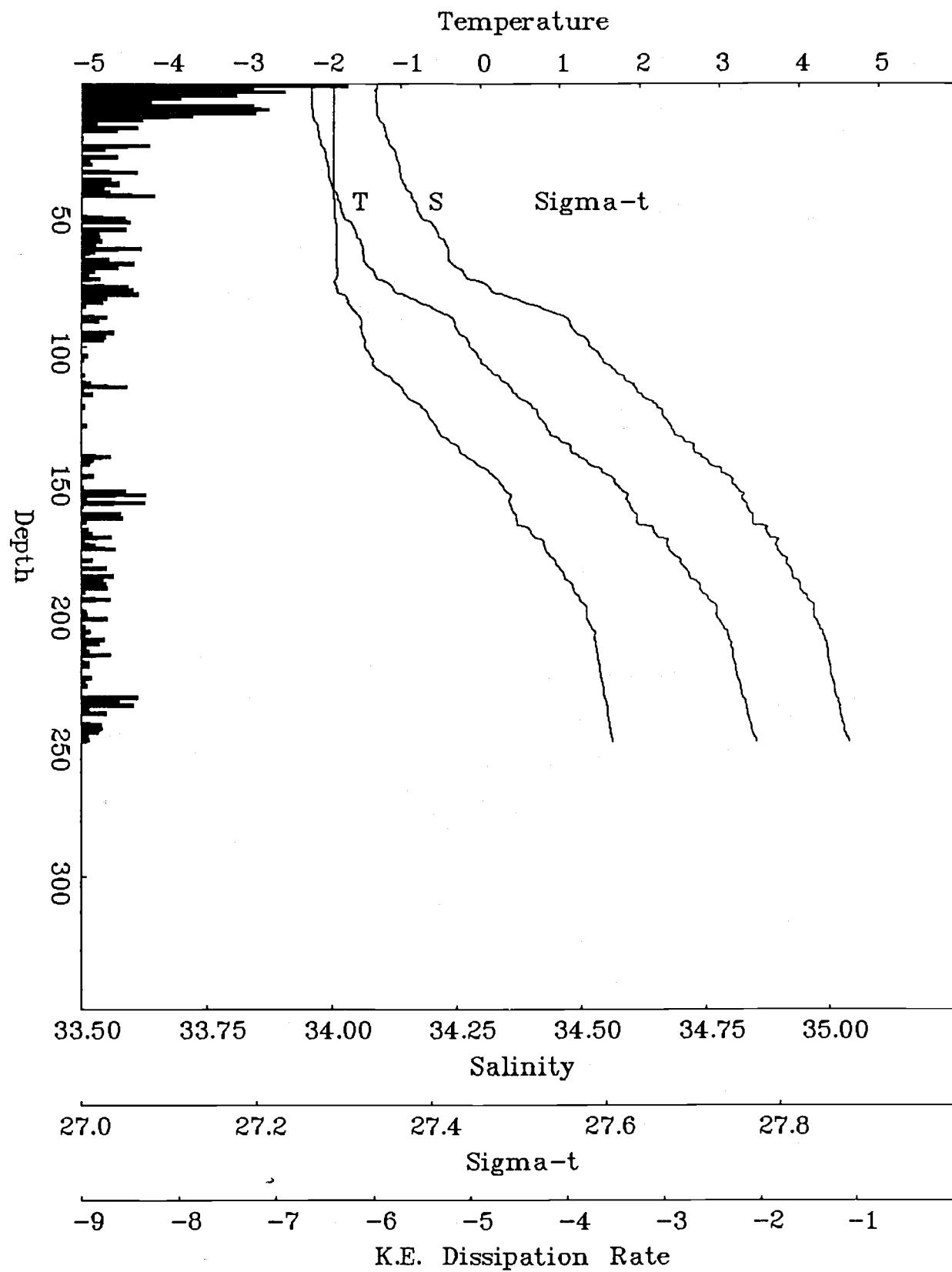


CEAREX Cast 68, JD 91.1745, 04:05, \*\*\*\*\*N, \*\*\*\*\*E

Temperature

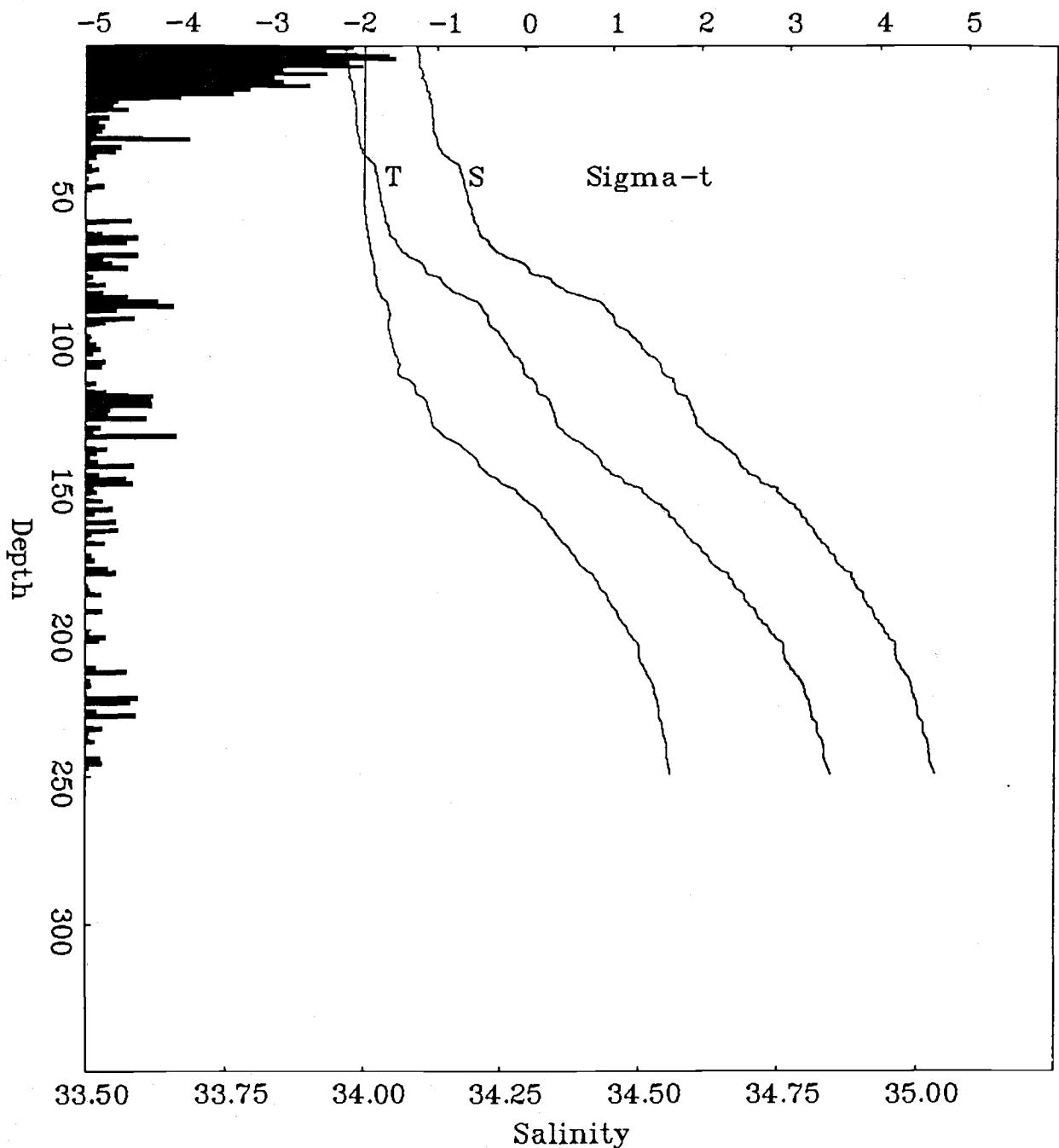


CEAREX Cast 80, JD 91.3383, 08:01, \*\*\*\*\*N, \*\*\*\*\*E



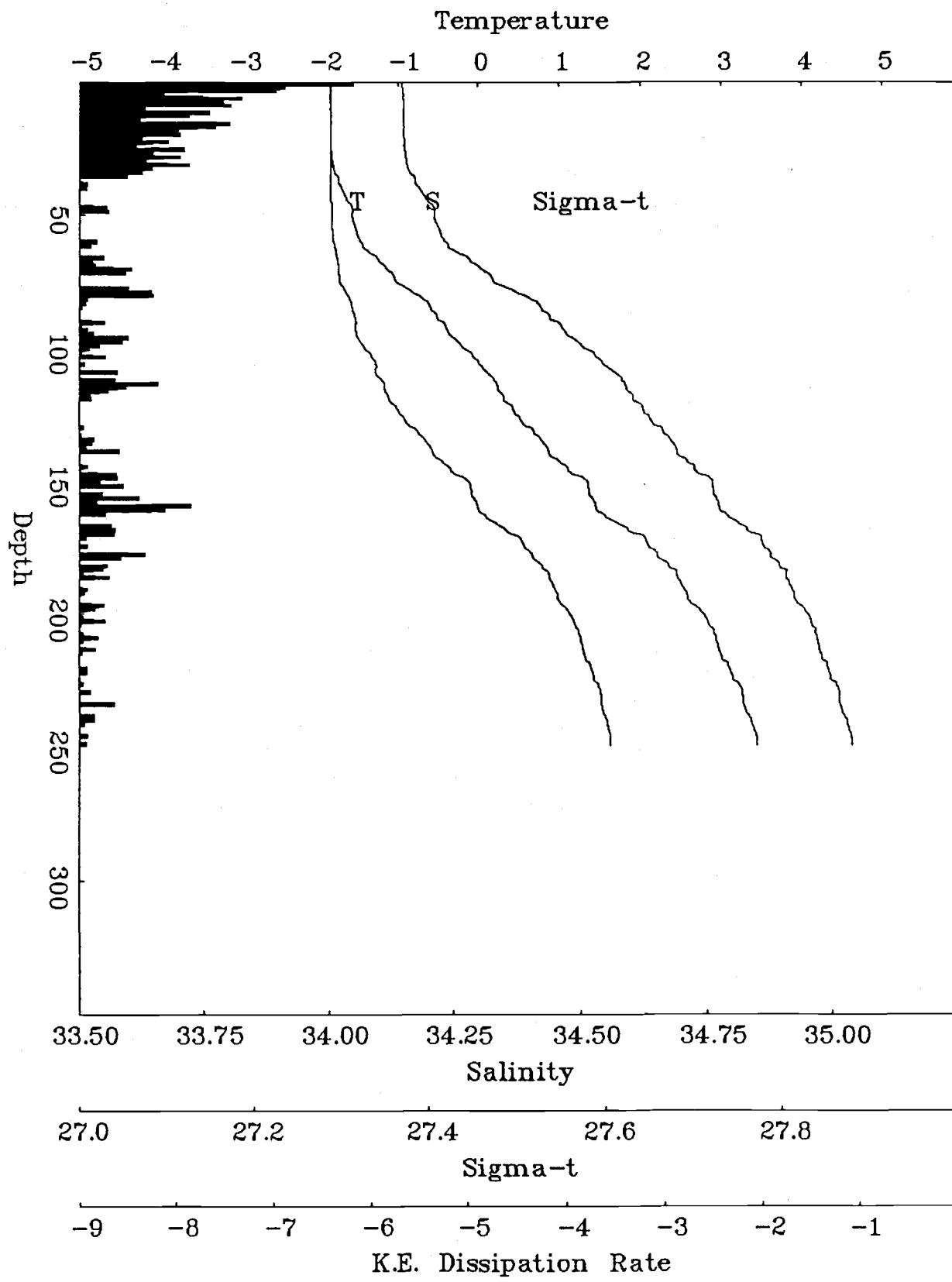
CEAREX Cast 92, JD 91.5035, 11:59, \*\*\*\*\*N, \*\*\*\*\*E

Temperature



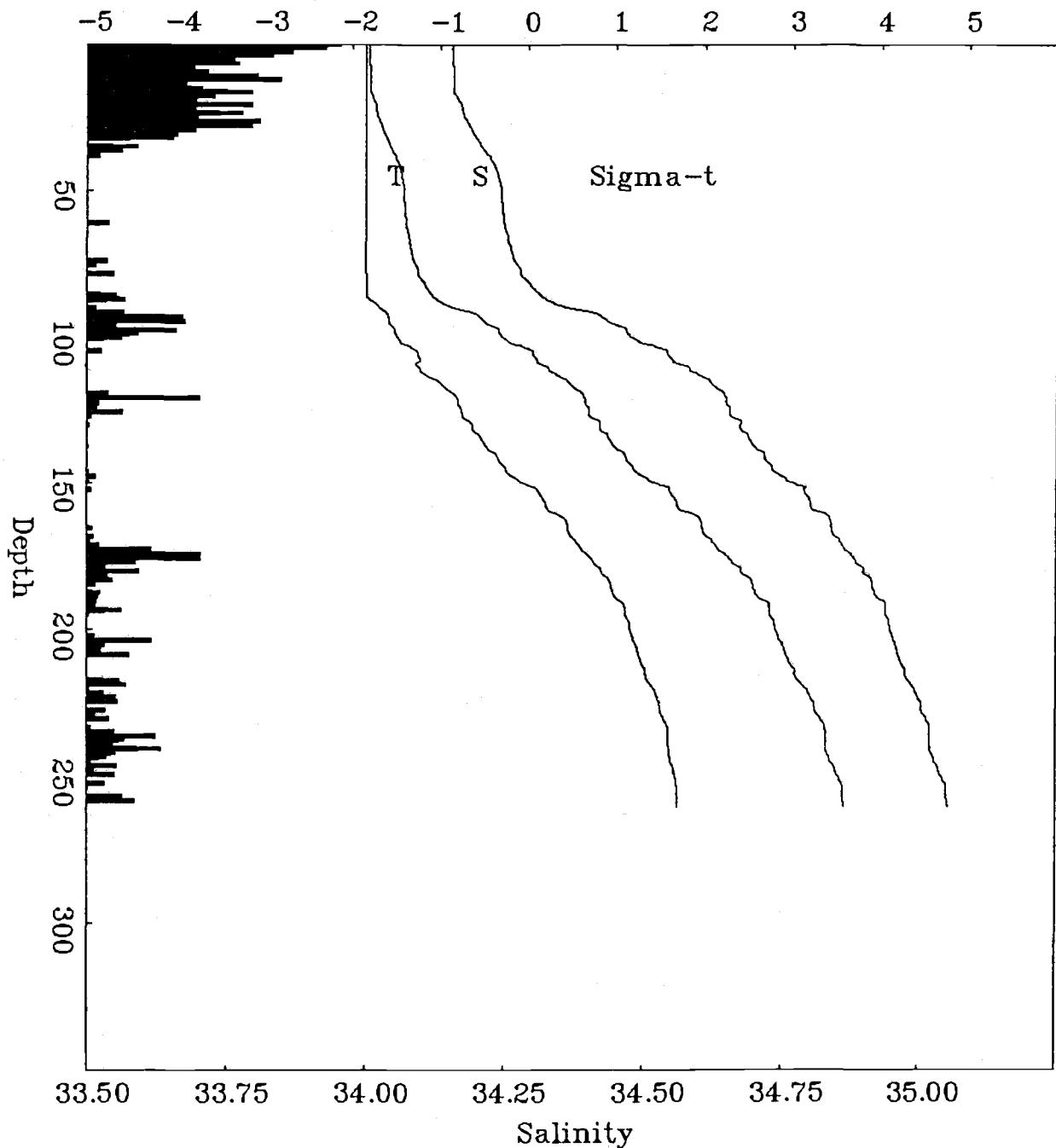
K.E. Dissipation Rate

CEAREX Cast 107, JD 91.6703, 15:59, \*\*\*\*\*N, \*\*\*\*\*E



CEAREX Cast 120, JD 91.8258, 19:43, \*\*\*\*\*N, \*\*\*\*\*E

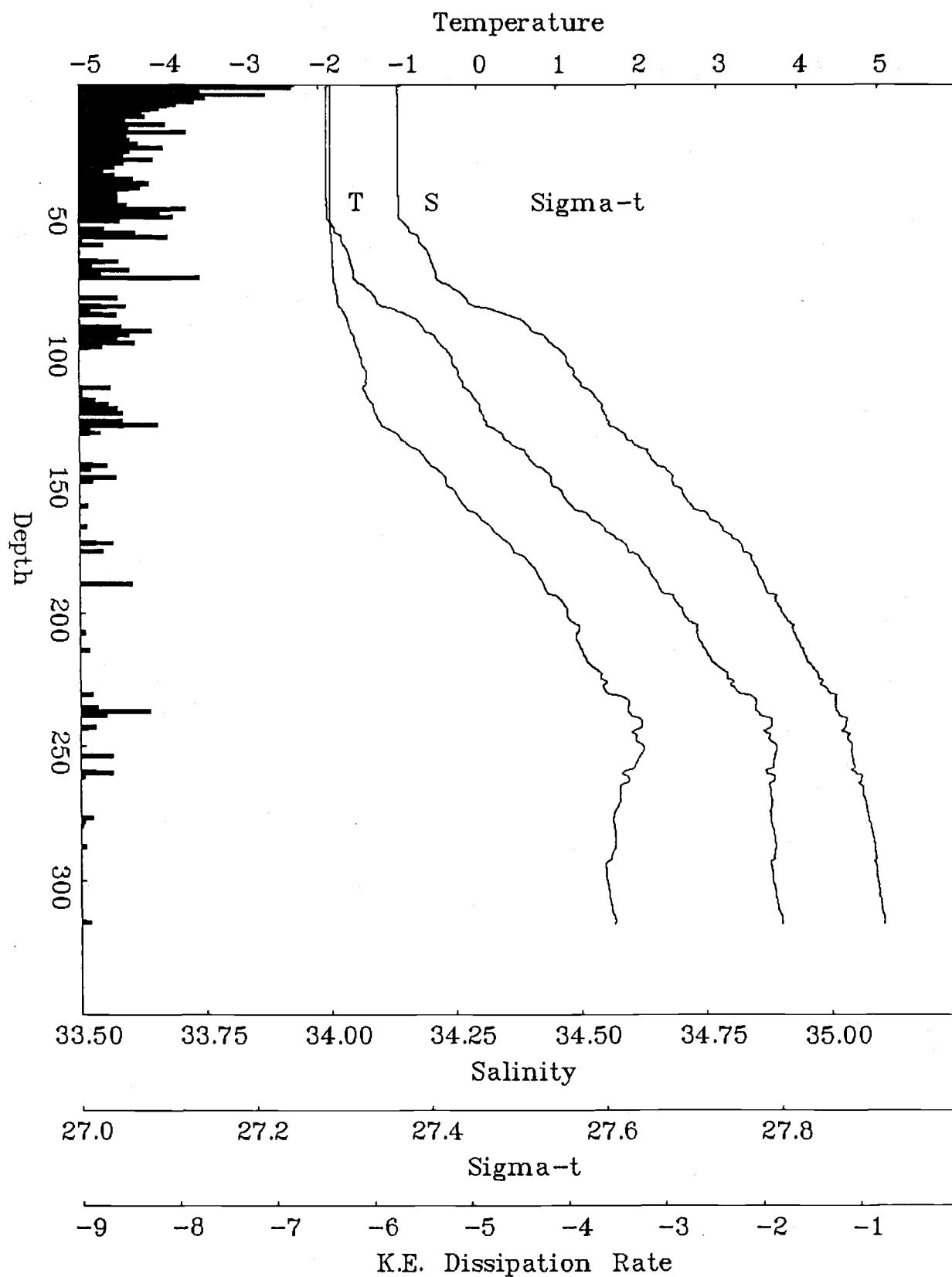
Temperature



Sigma-t

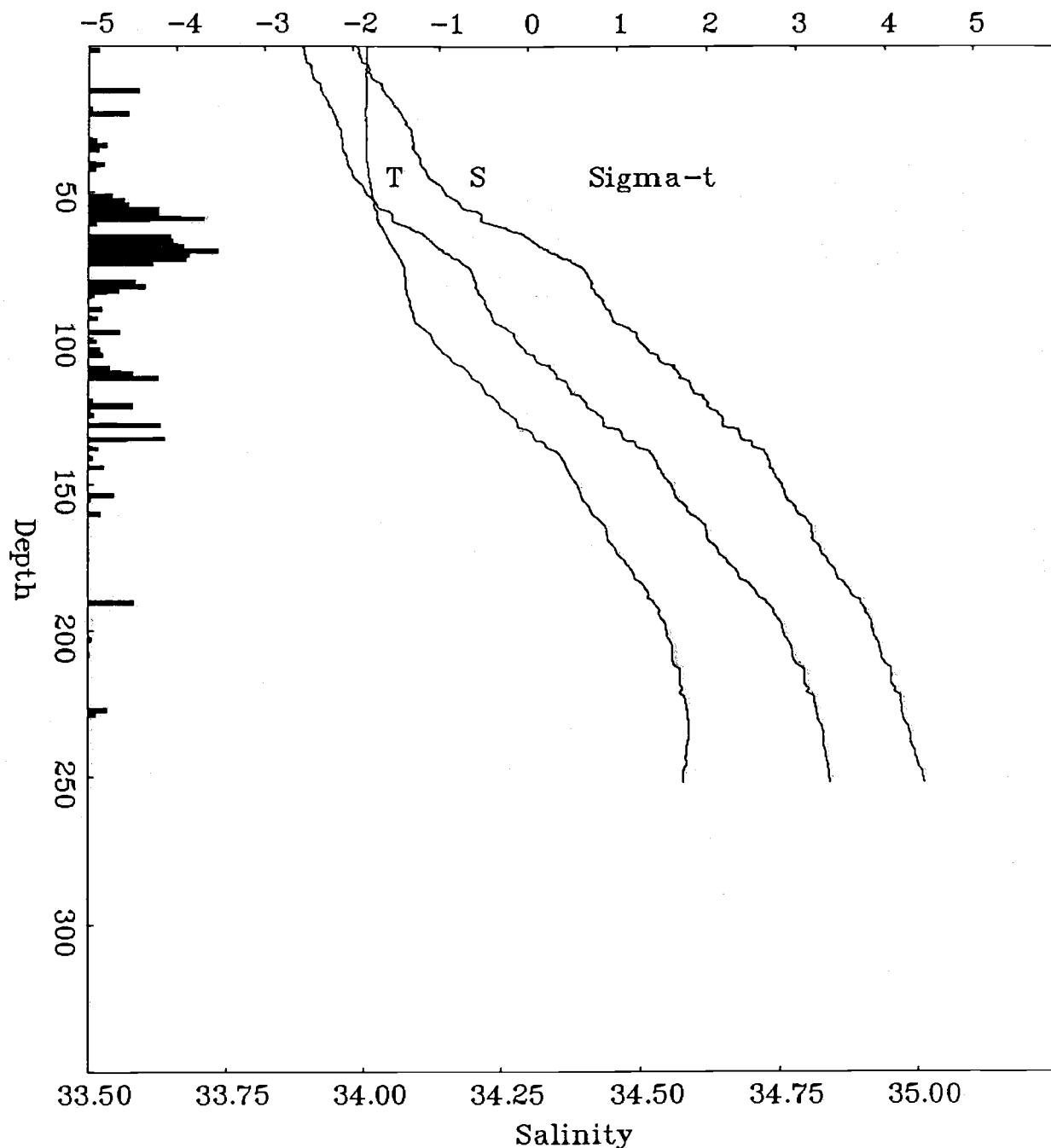
K.E. Dissipation Rate

CEAREX Cast 132, JD 92.5471, 13:00, 82.99N, 10.52E

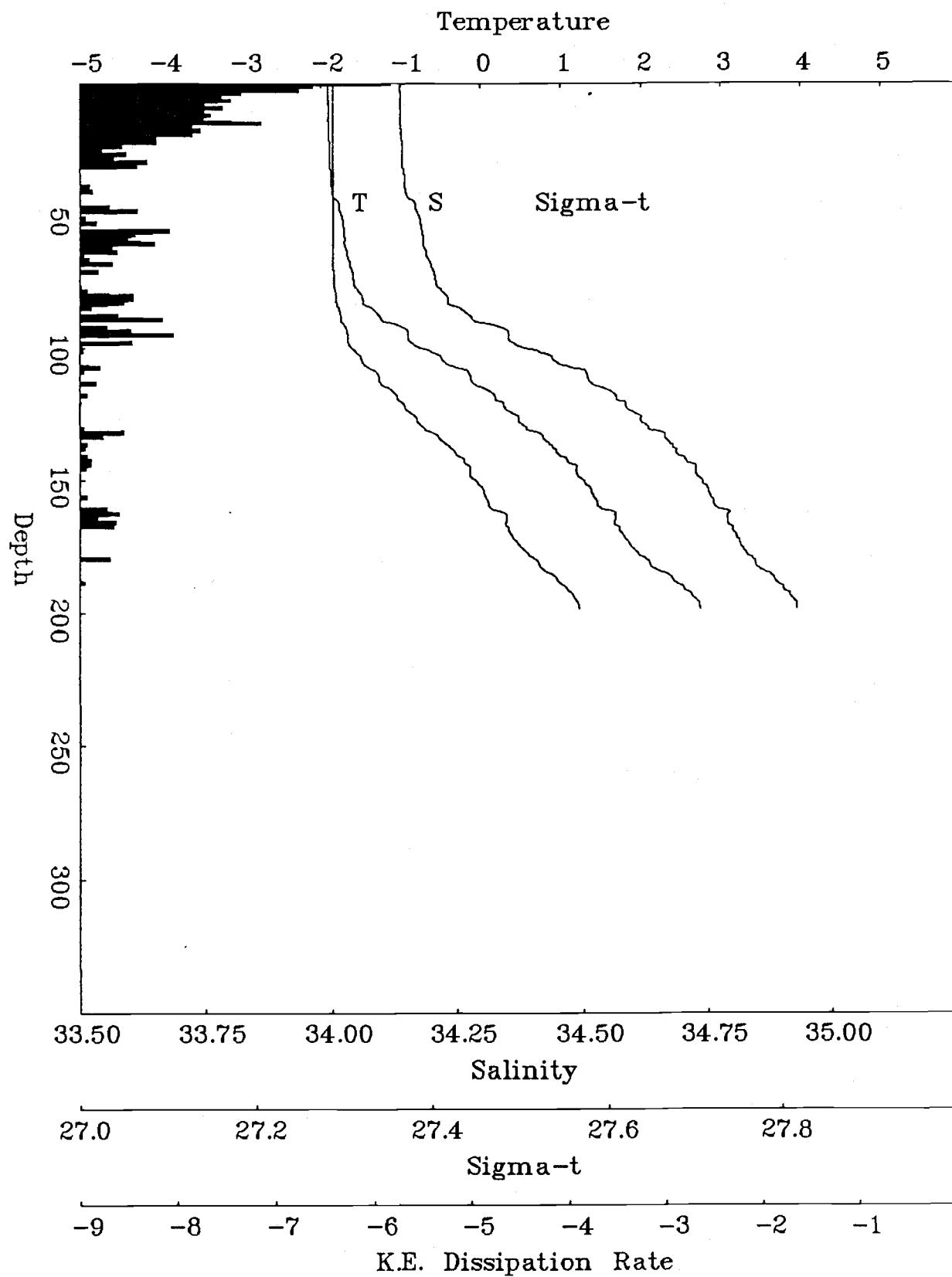


CEAREX Cast 134, JD 92.7264, 17:20, \*\*\*\*\*N, \*\*\*\*\*E

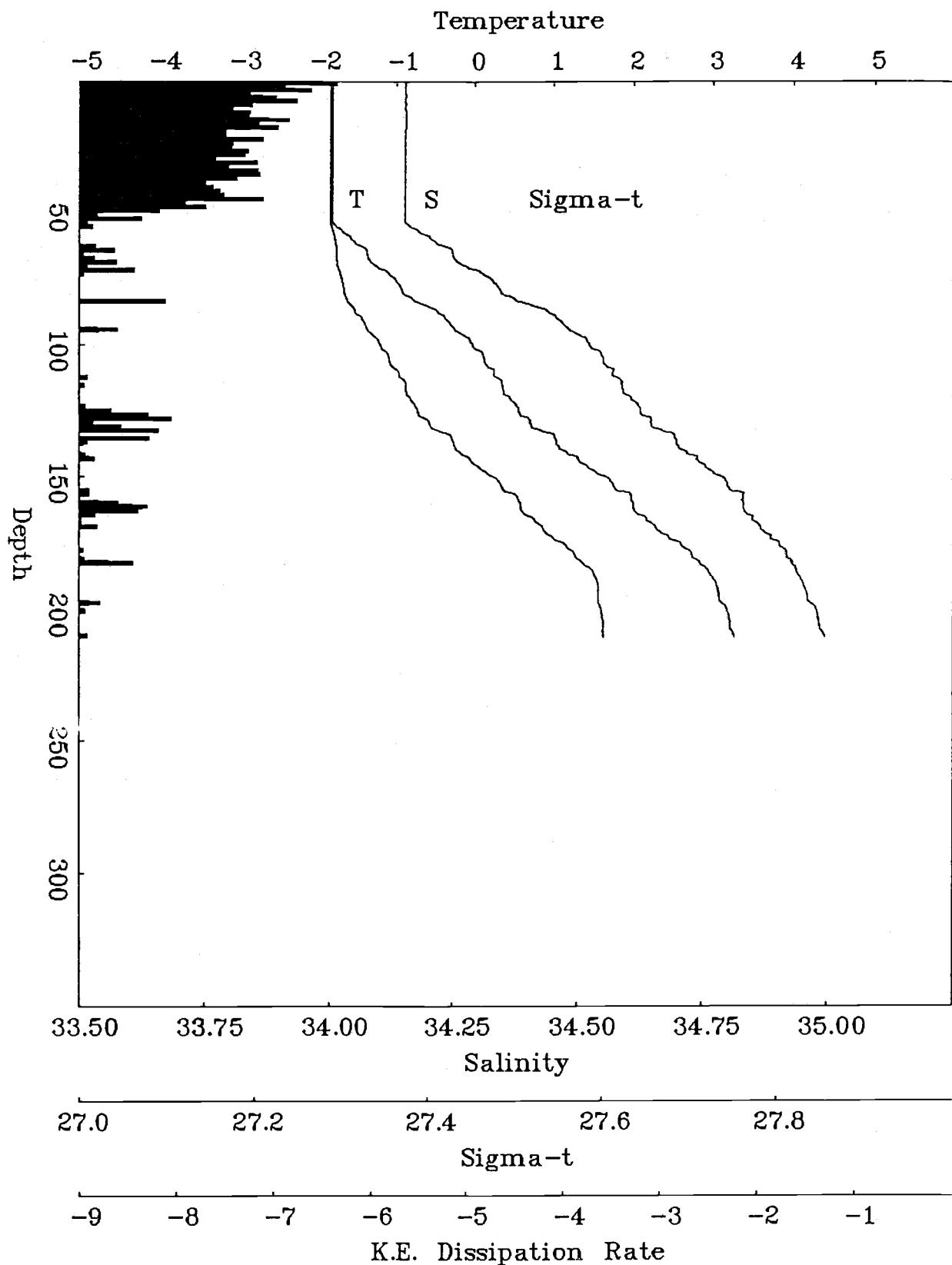
Temperature



CEAREX Cast 139, JD 92.8387, 20:03, \*\*\*\*\*N, -7.82E

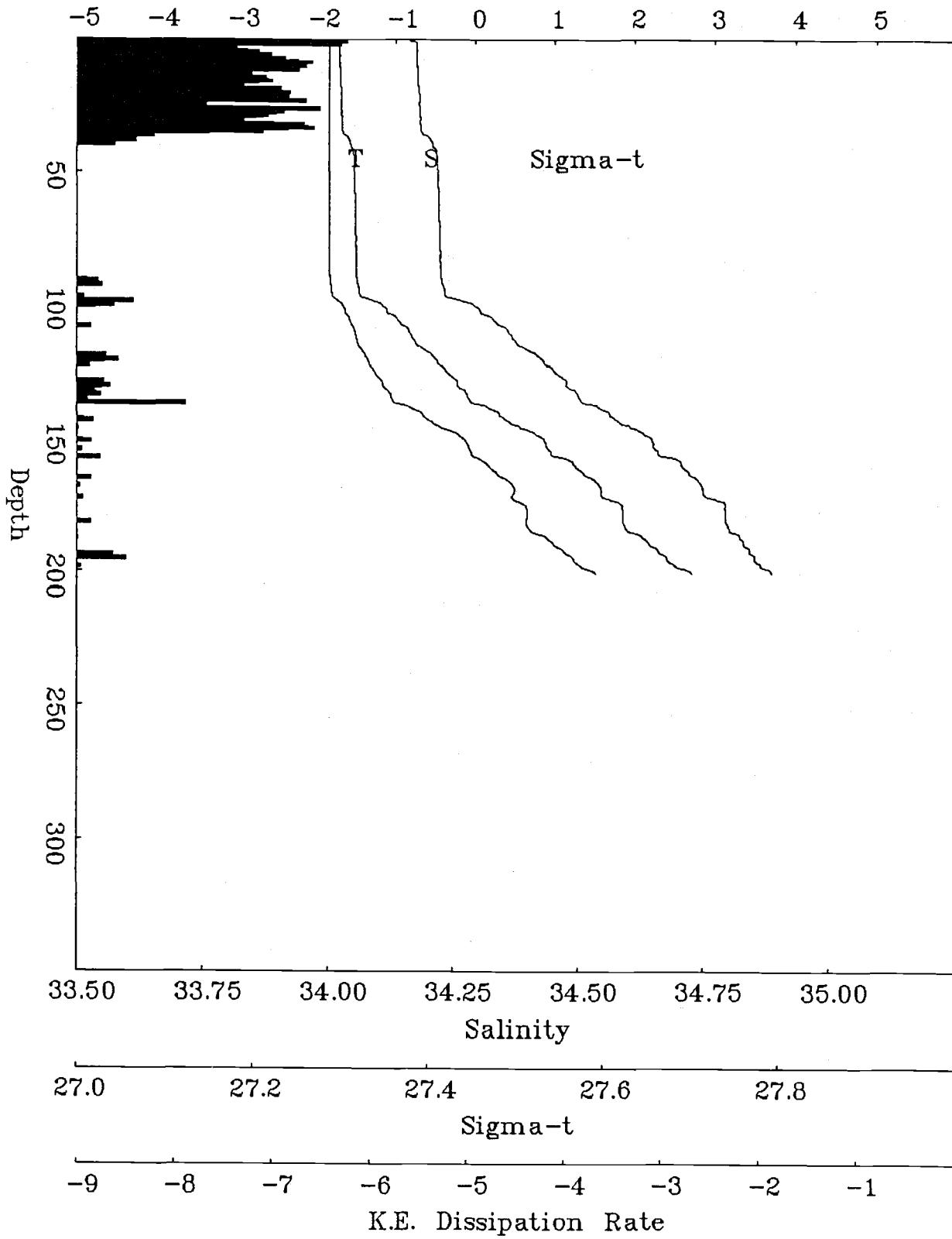


CEAREX Cast 155, JD 92.9575, 22:54, 82.95N, 10.57E



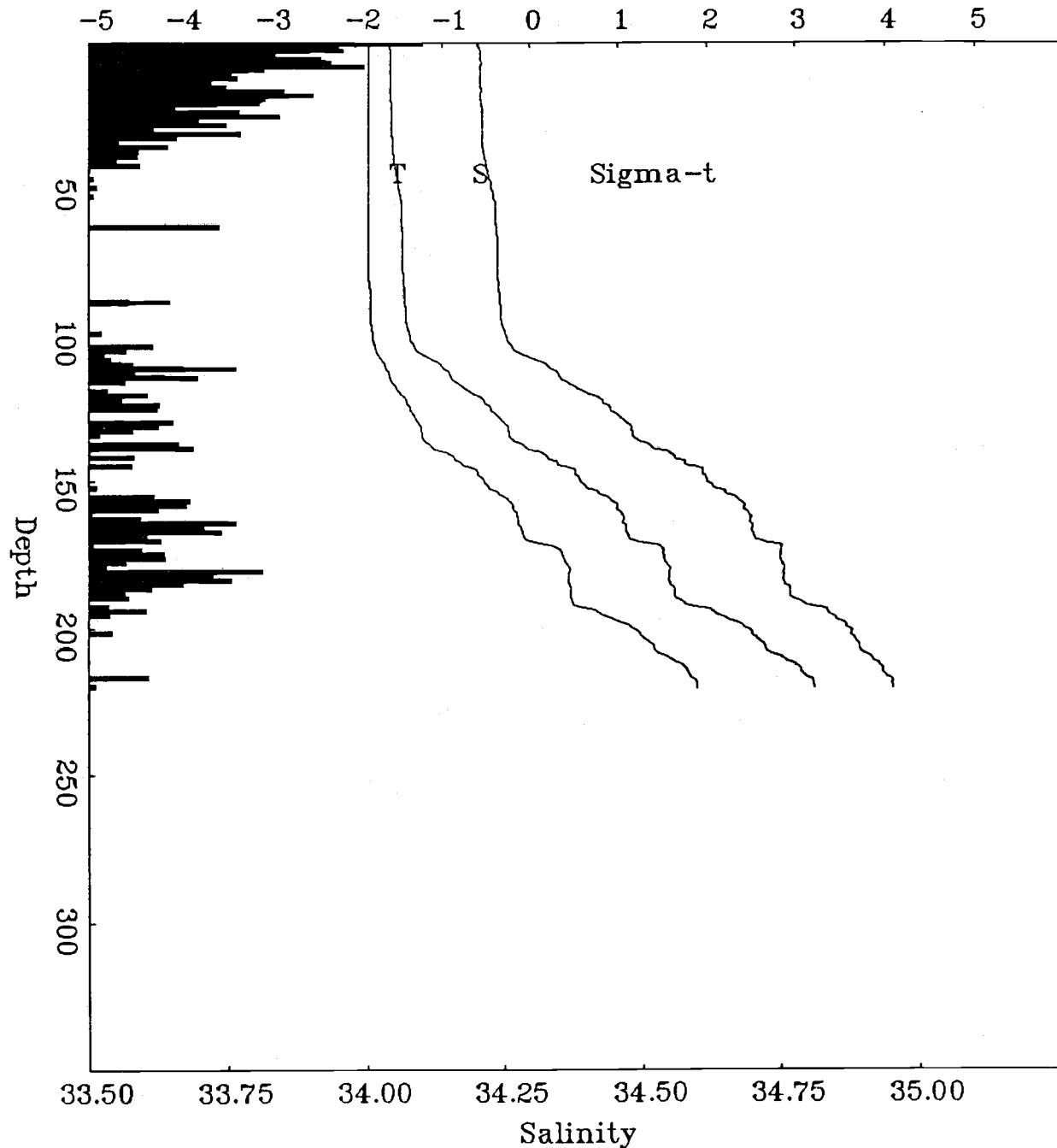
CEAREX Cast 157, JD 93.4051, 09:38, 82.91N, 10.61E

Temperature



CEAREX Cast 168, JD 93.5041, 12:00, 82.91N, 10.62E

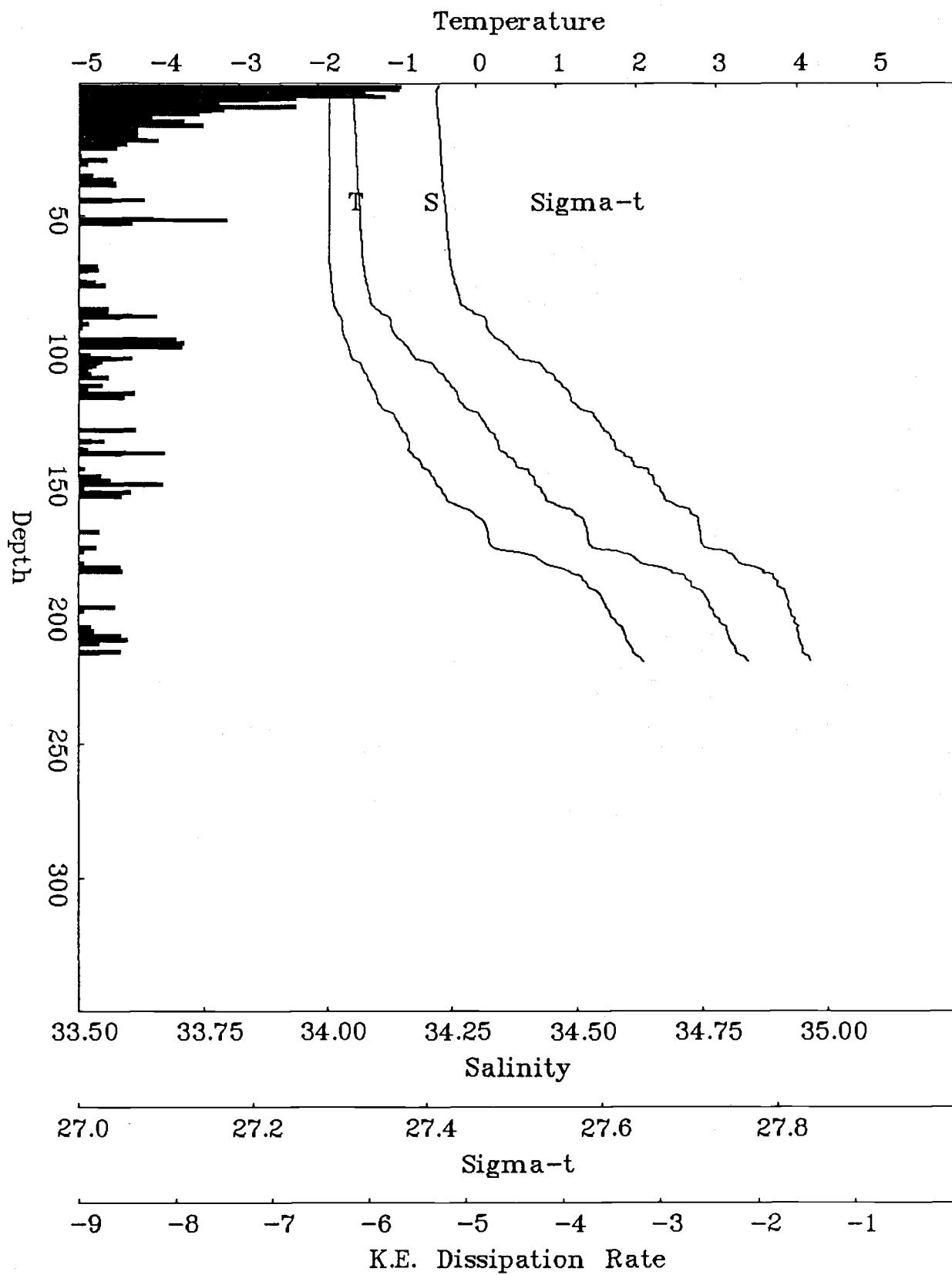
Temperature



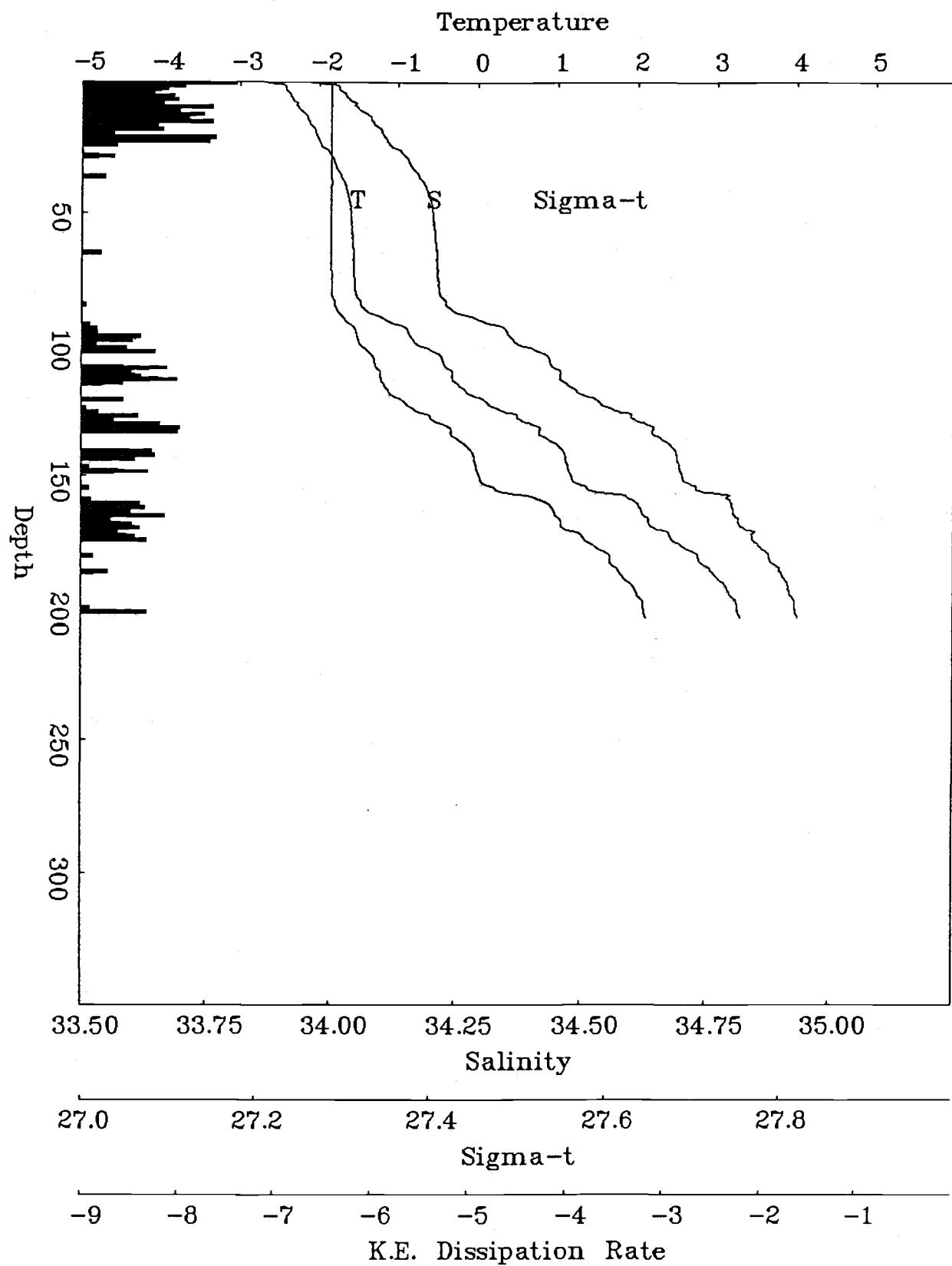
Sigma-t

K.E. Dissipation Rate

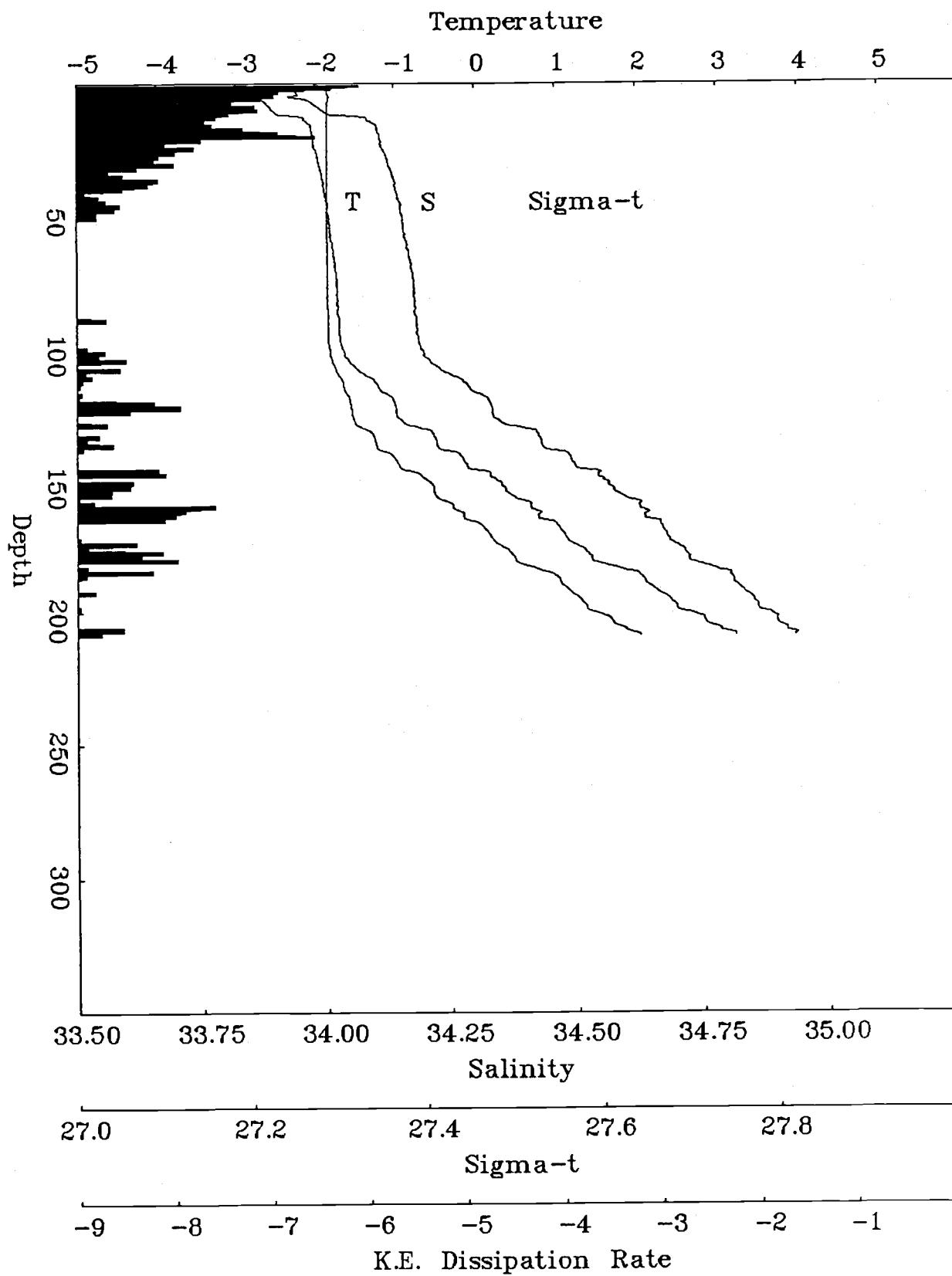
CEAREX Cast 186, JD 93.6734, 16:04, 82.90N, 10.61E



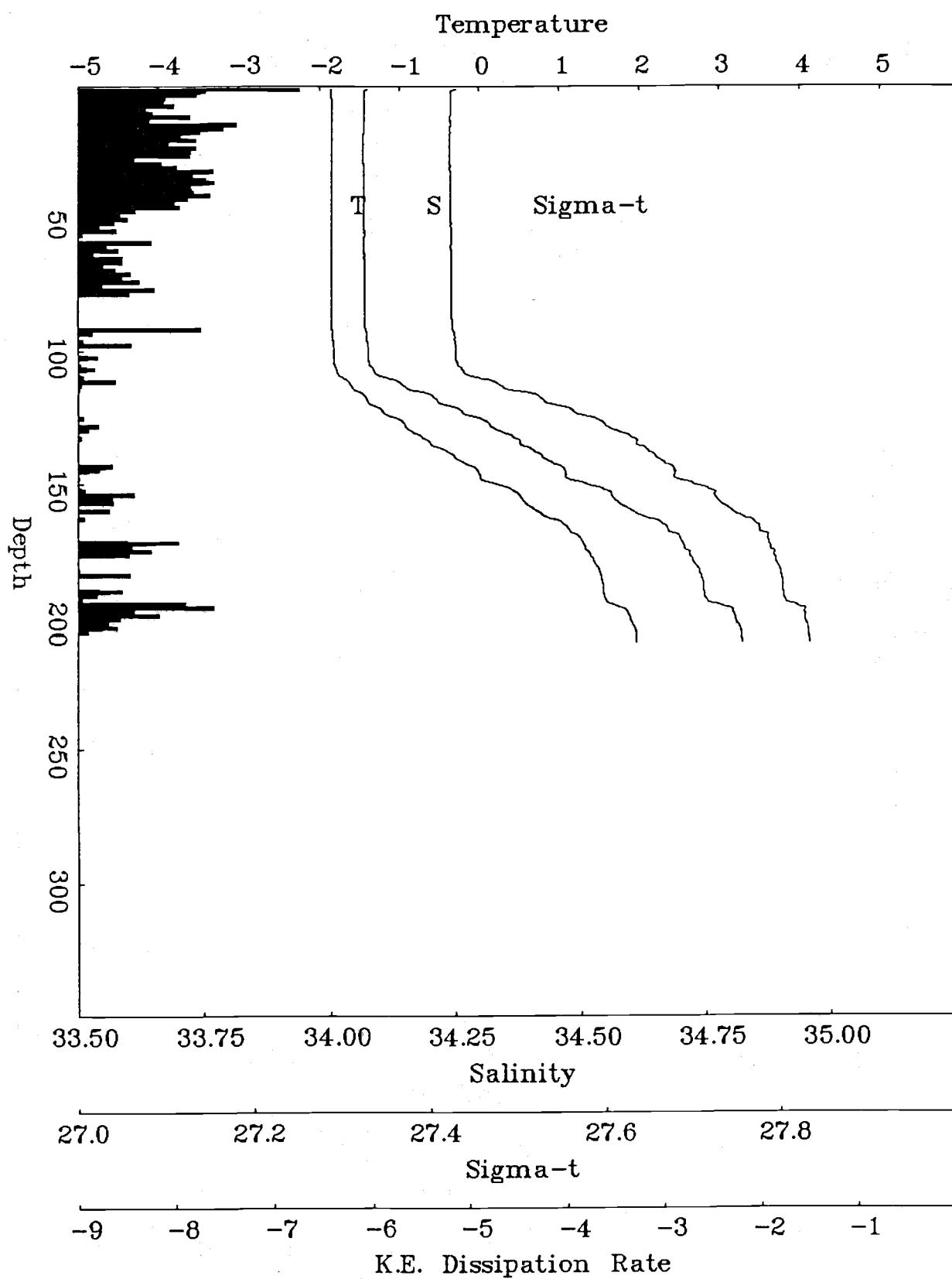
CEAREX Cast 196, JD 93.8947, 21:23, 82.89N, 10.65E



CEAREX Cast 198, JD 94.3371, 08:00, 82.88N, 10.63E

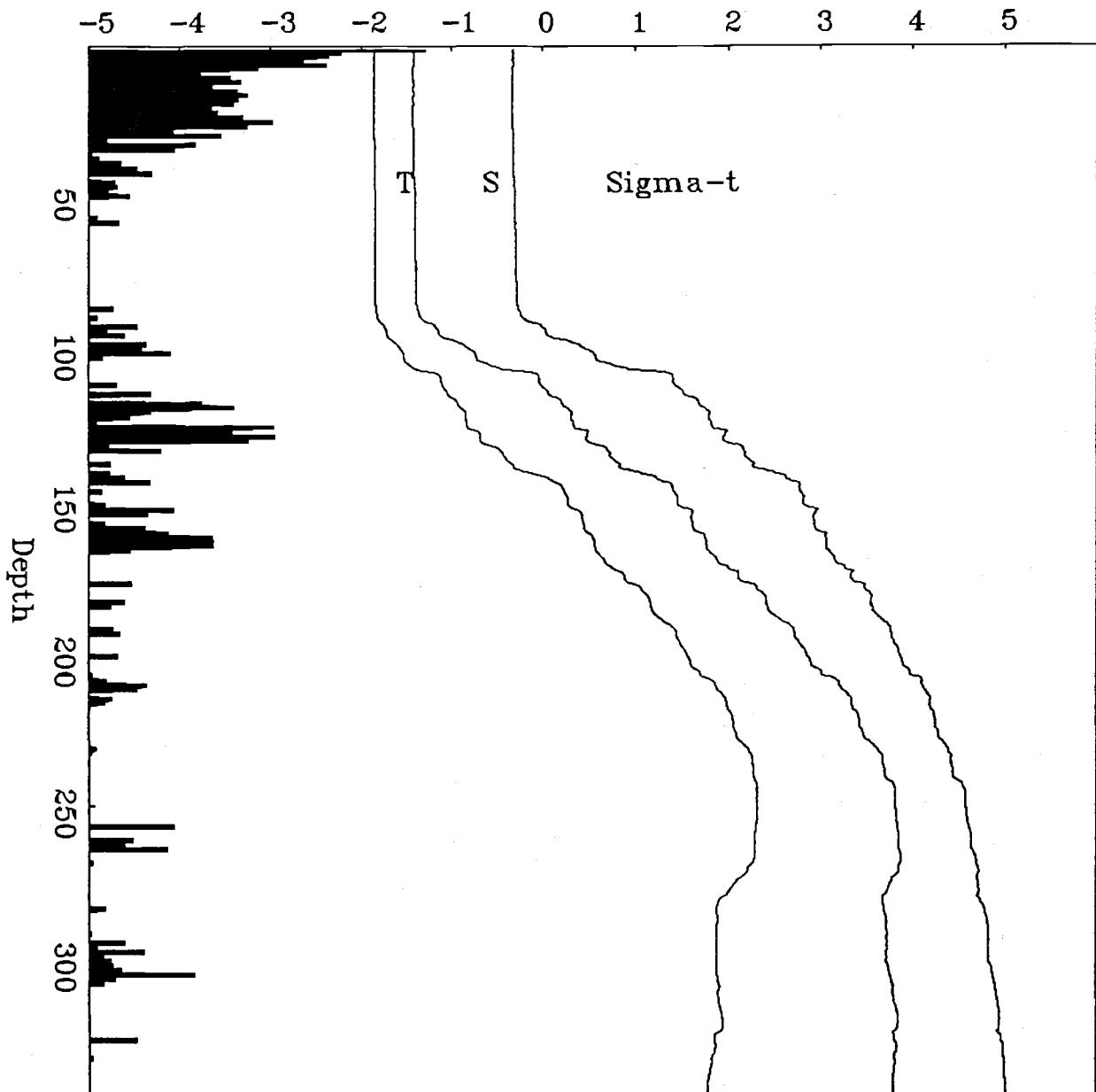


CEAREX Cast 202, JD 94.5318, 12:41, 82.88N, 10.62E

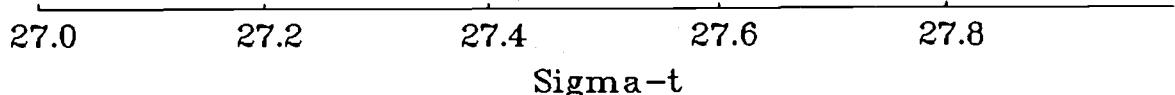


CEAREX Cast 208, JD 94.6687, 15:55, 82.88N, 10.62E

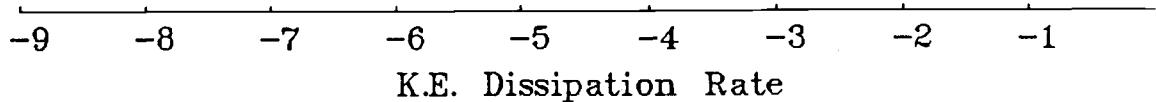
Temperature



Salinity



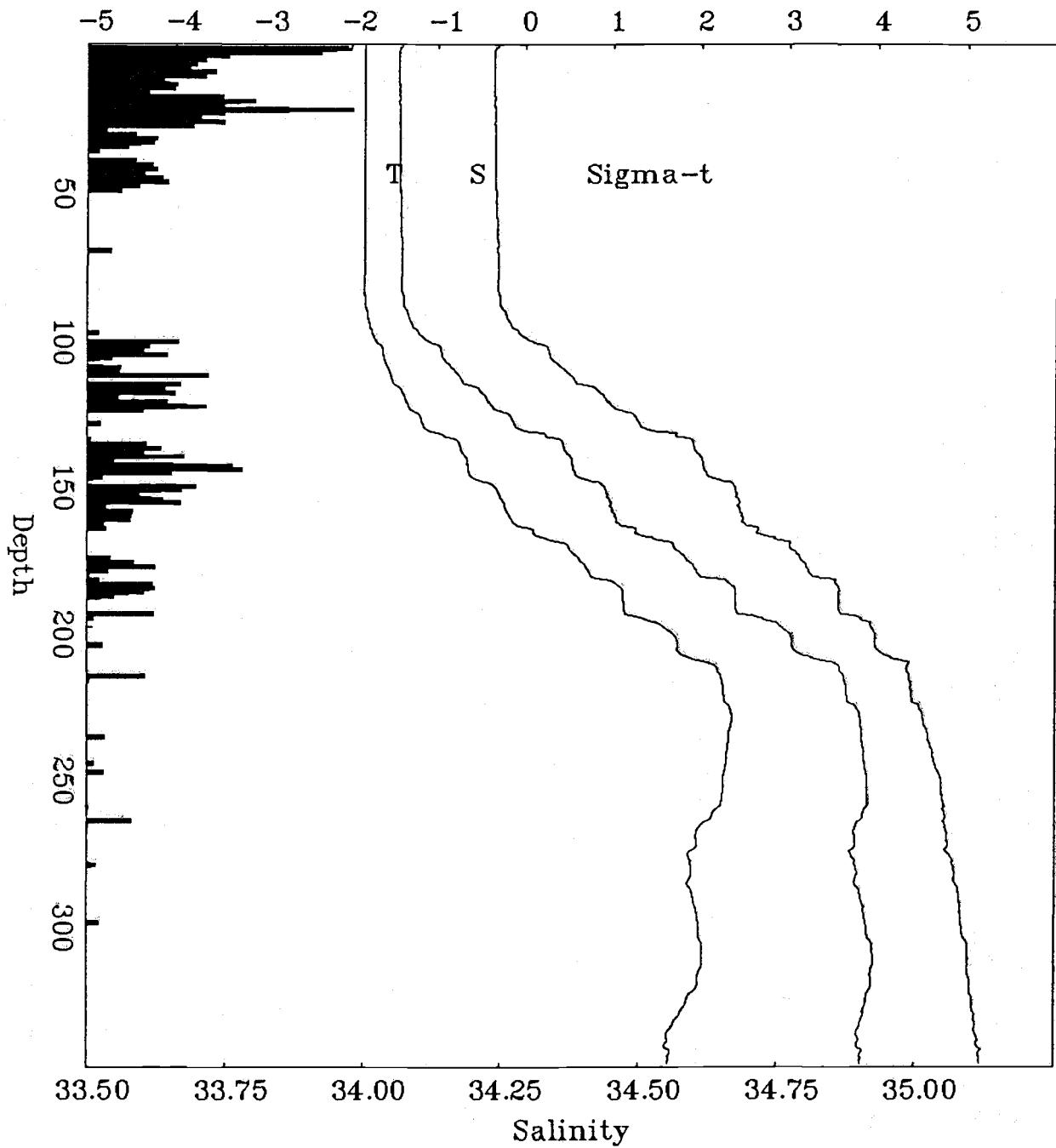
Sigma-t



K.E. Dissipation Rate

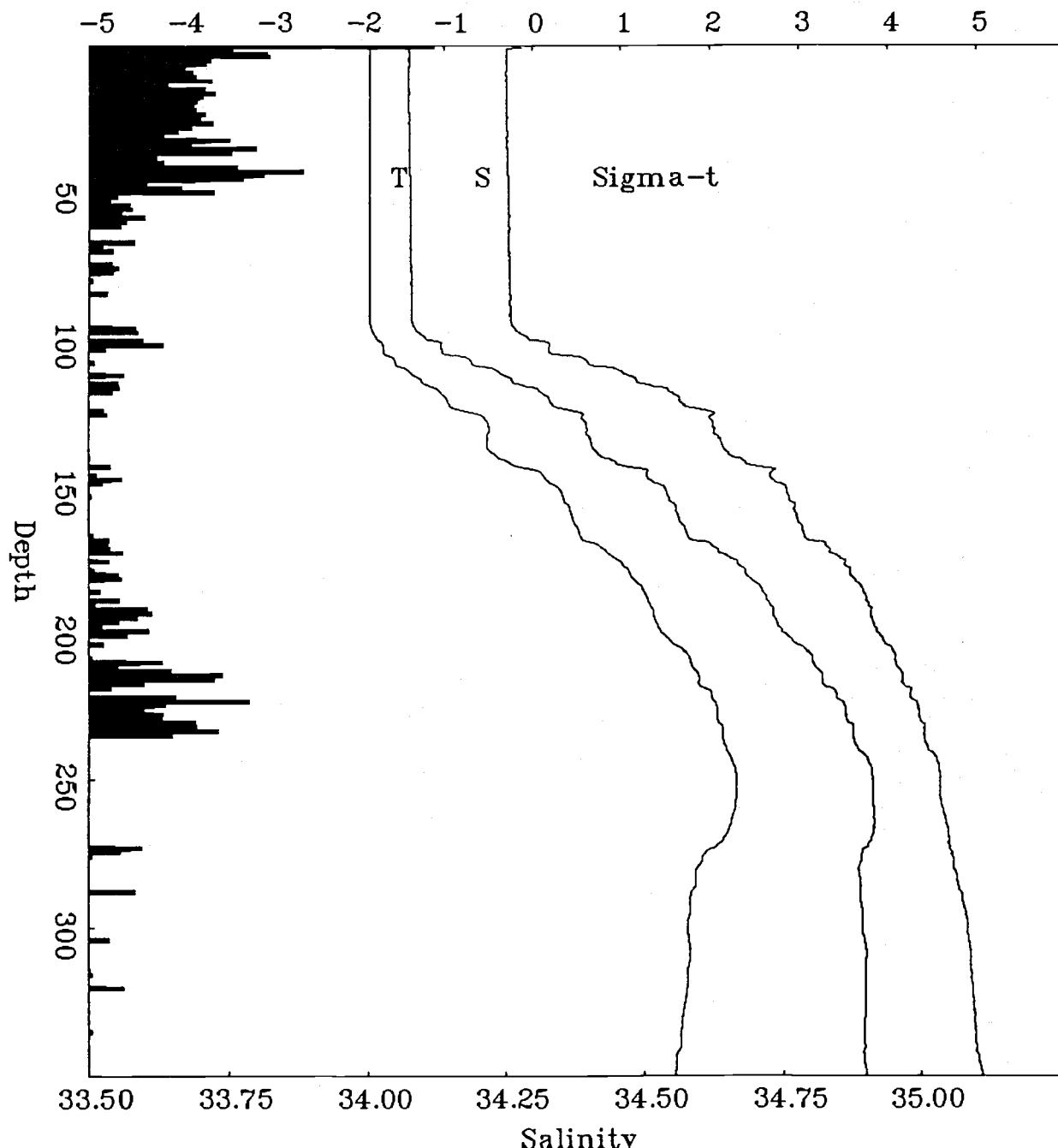
CEAREX Cast 219, JD 94.8408, 20:02, 82.87N, 10.62E

Temperature

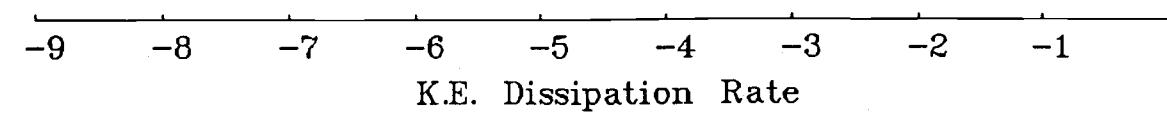


CEAREX Cast 231, JD 95.0111, 00:08, 82.86N, 10.62E

Temperature

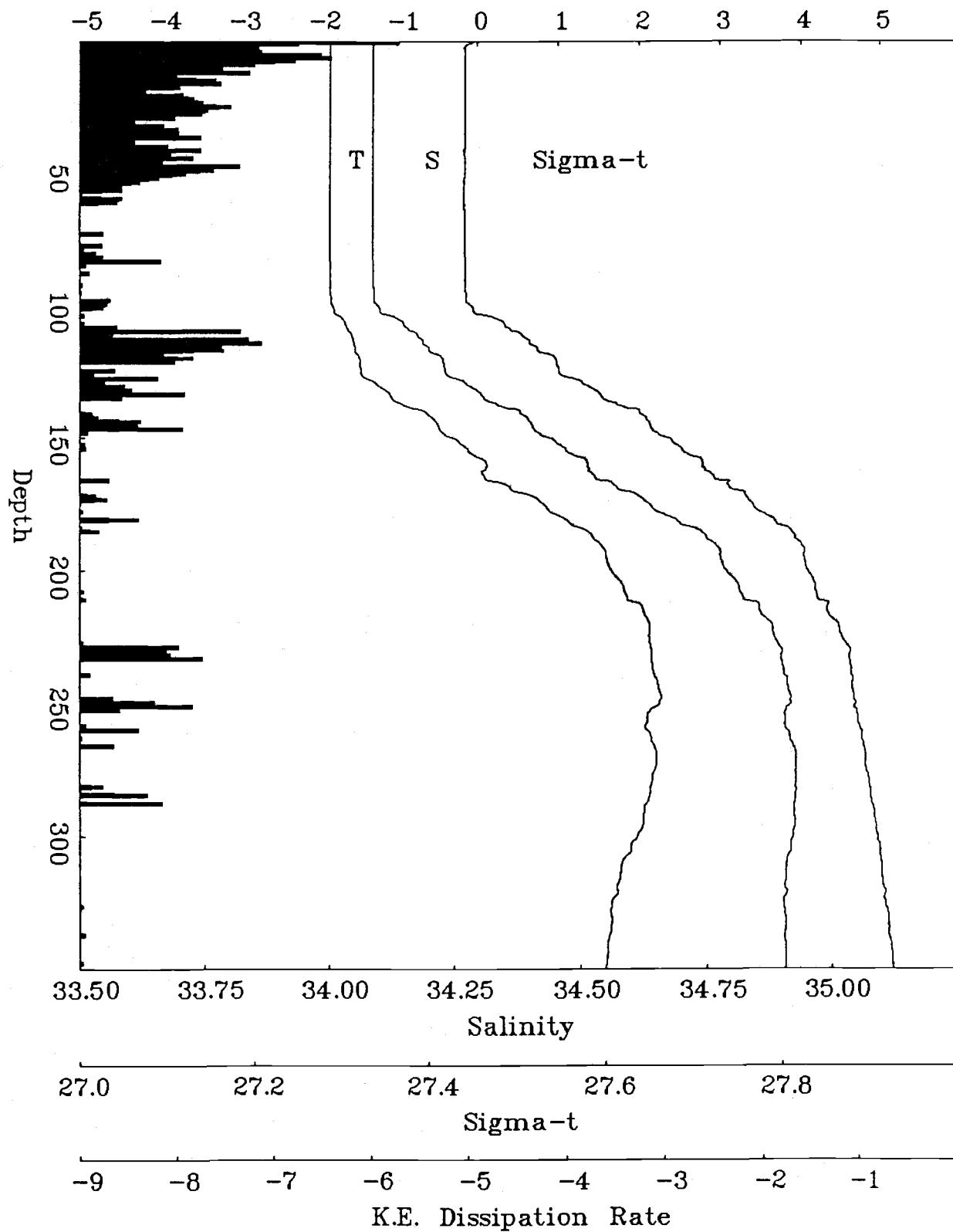


Sigma-t

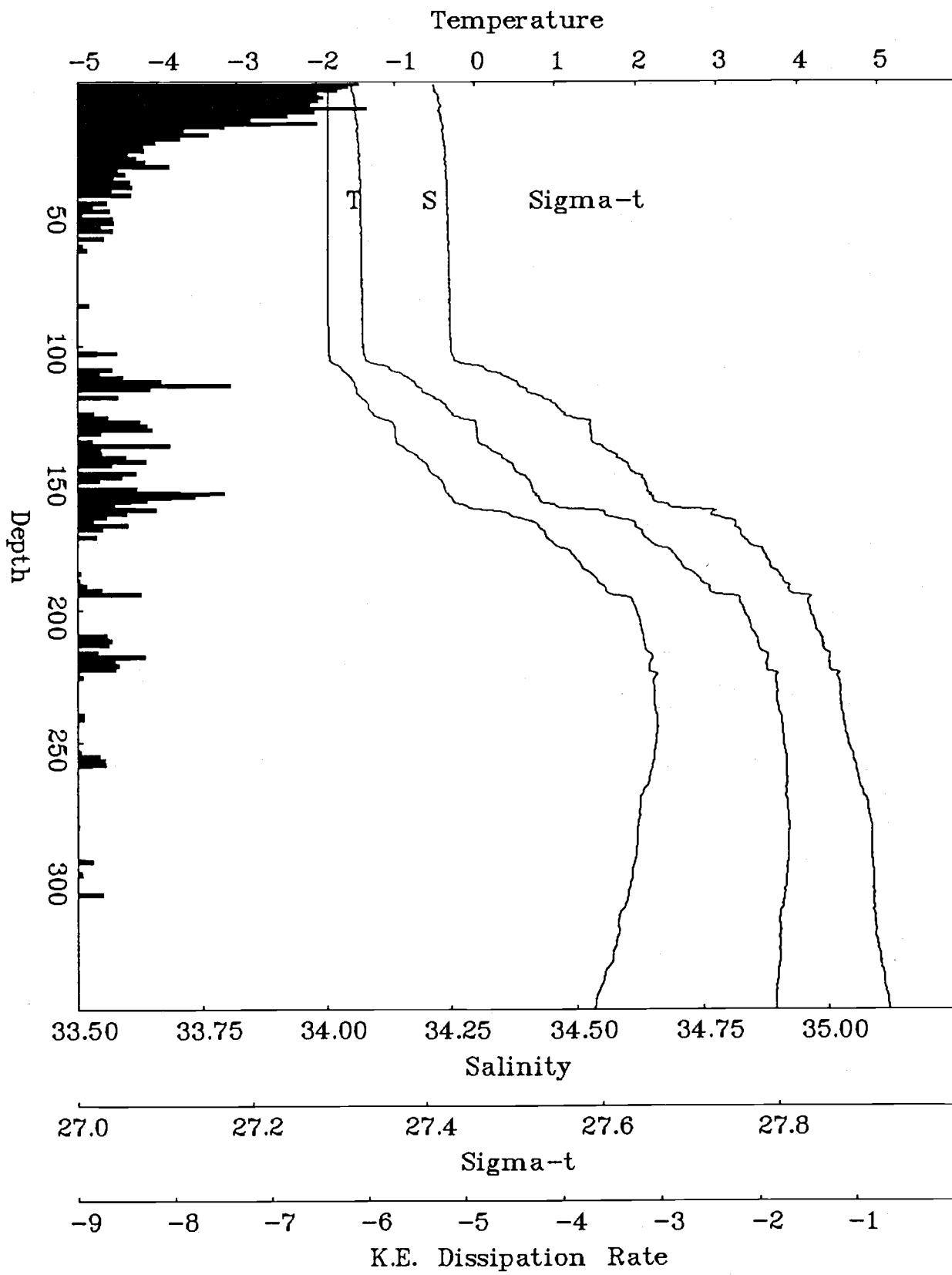


CEAREX Cast 241, JD 95.1824, 04:14, 82.87N, 10.60E

Temperature

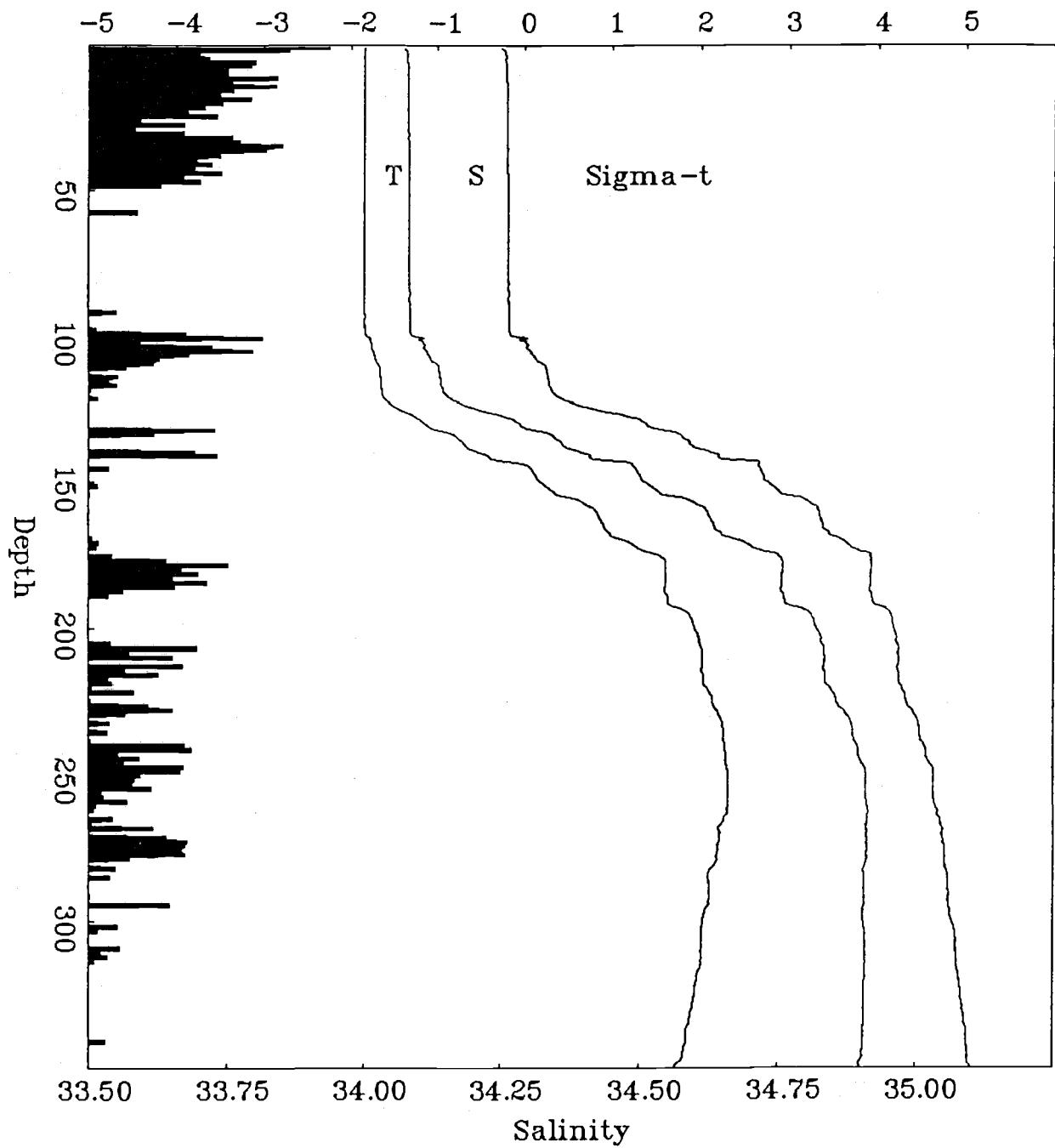


CEAREX Cast 250, JD 95.3434, 08:06, 82.86N, 10.57E



CEAREX Cast 263, JD 95.5100, 12:06, 82.86N, 10.58E

Temperature

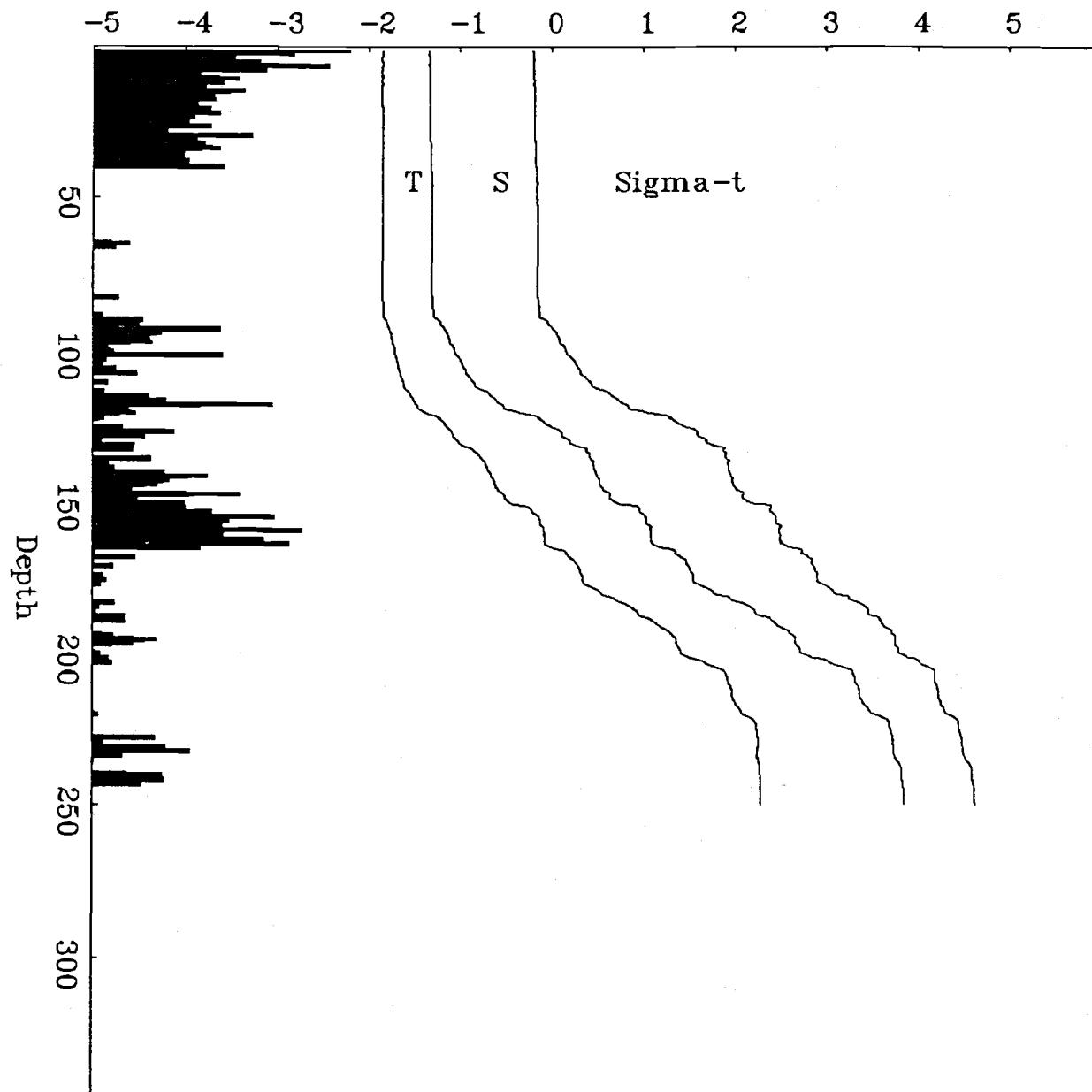


Sigma-t

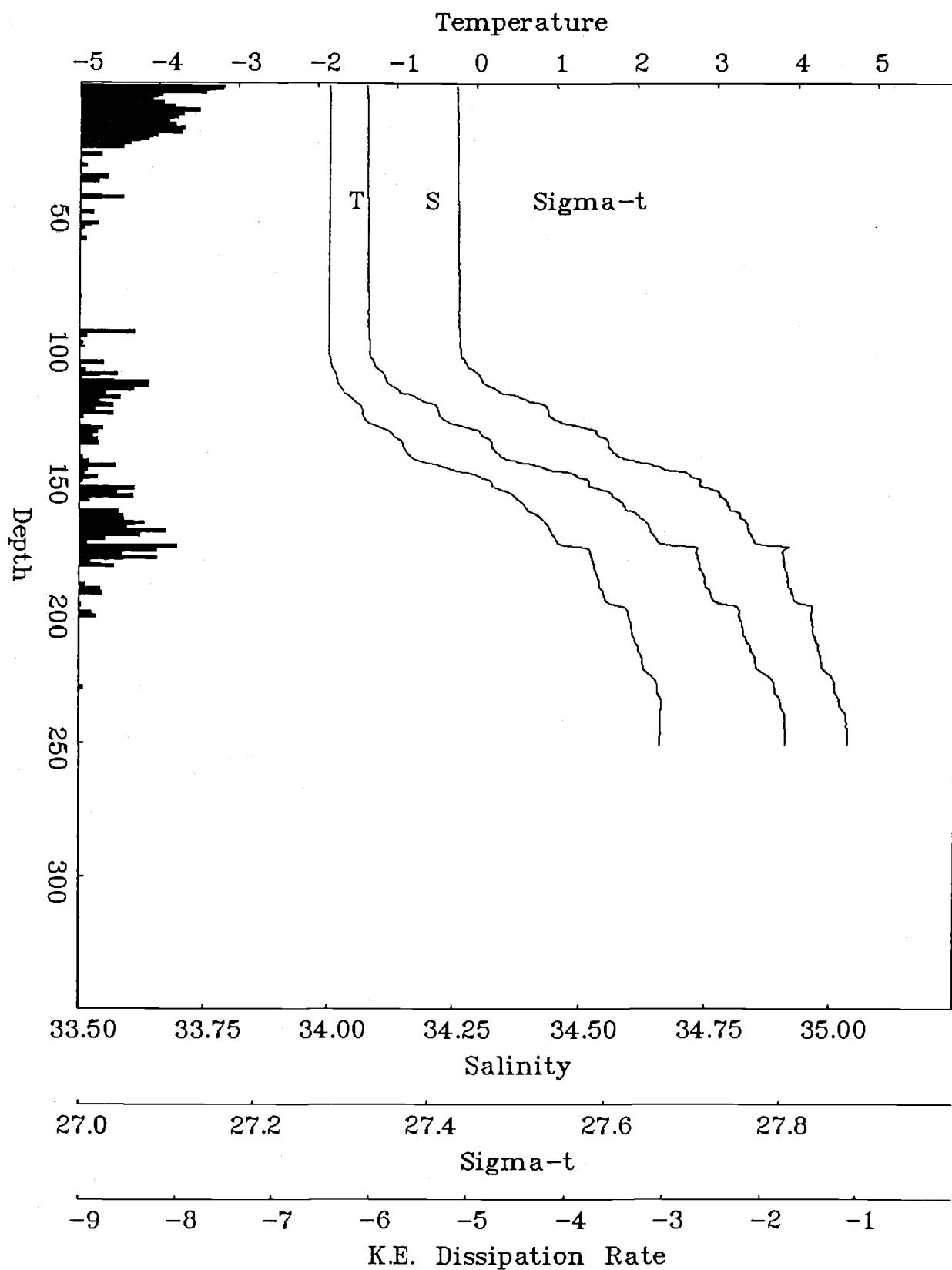
K.E. Dissipation Rate

CEAREX Cast 277, JD 95.6533, 15:35, 82.86N, 10.61E

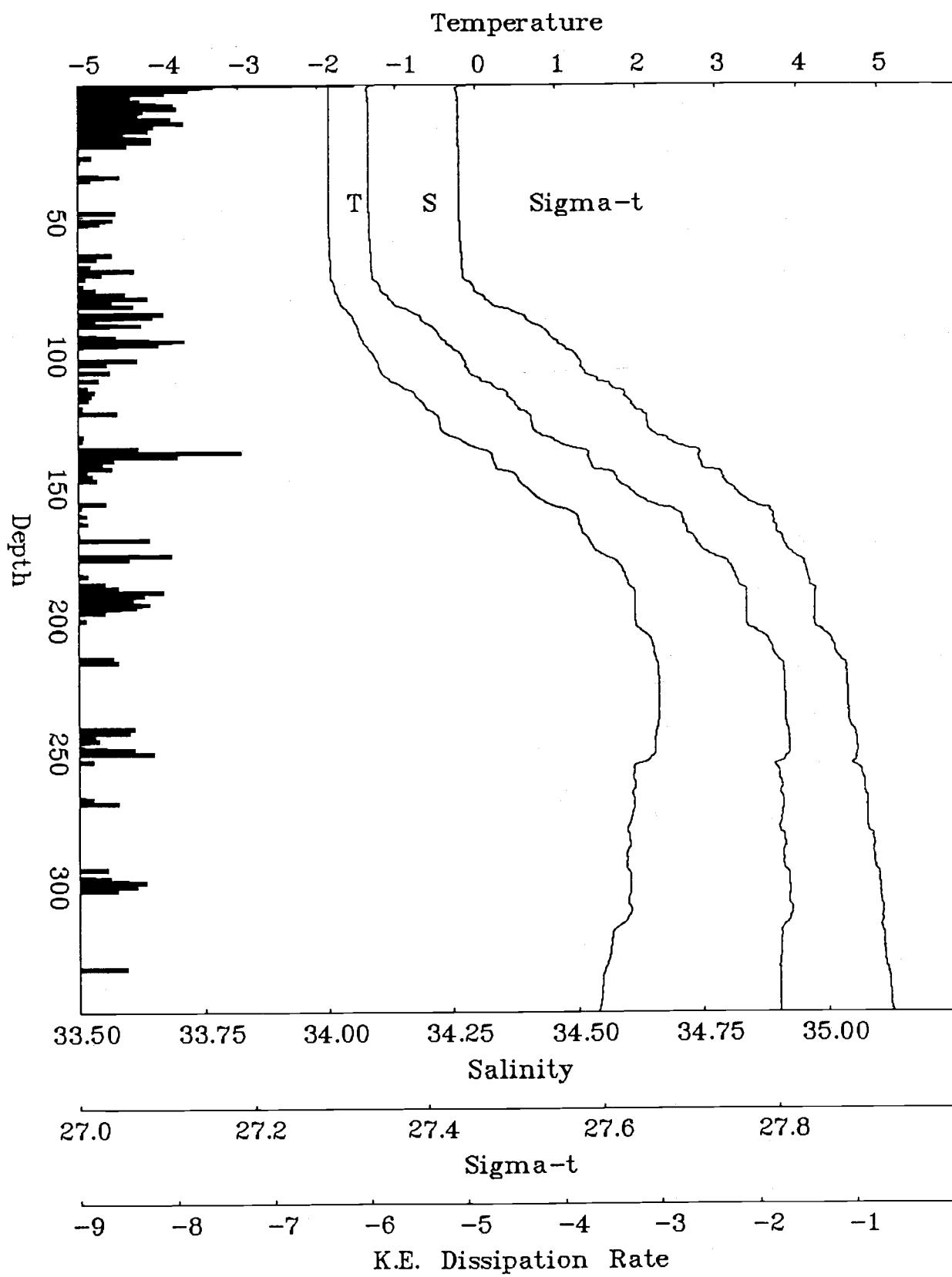
Temperature



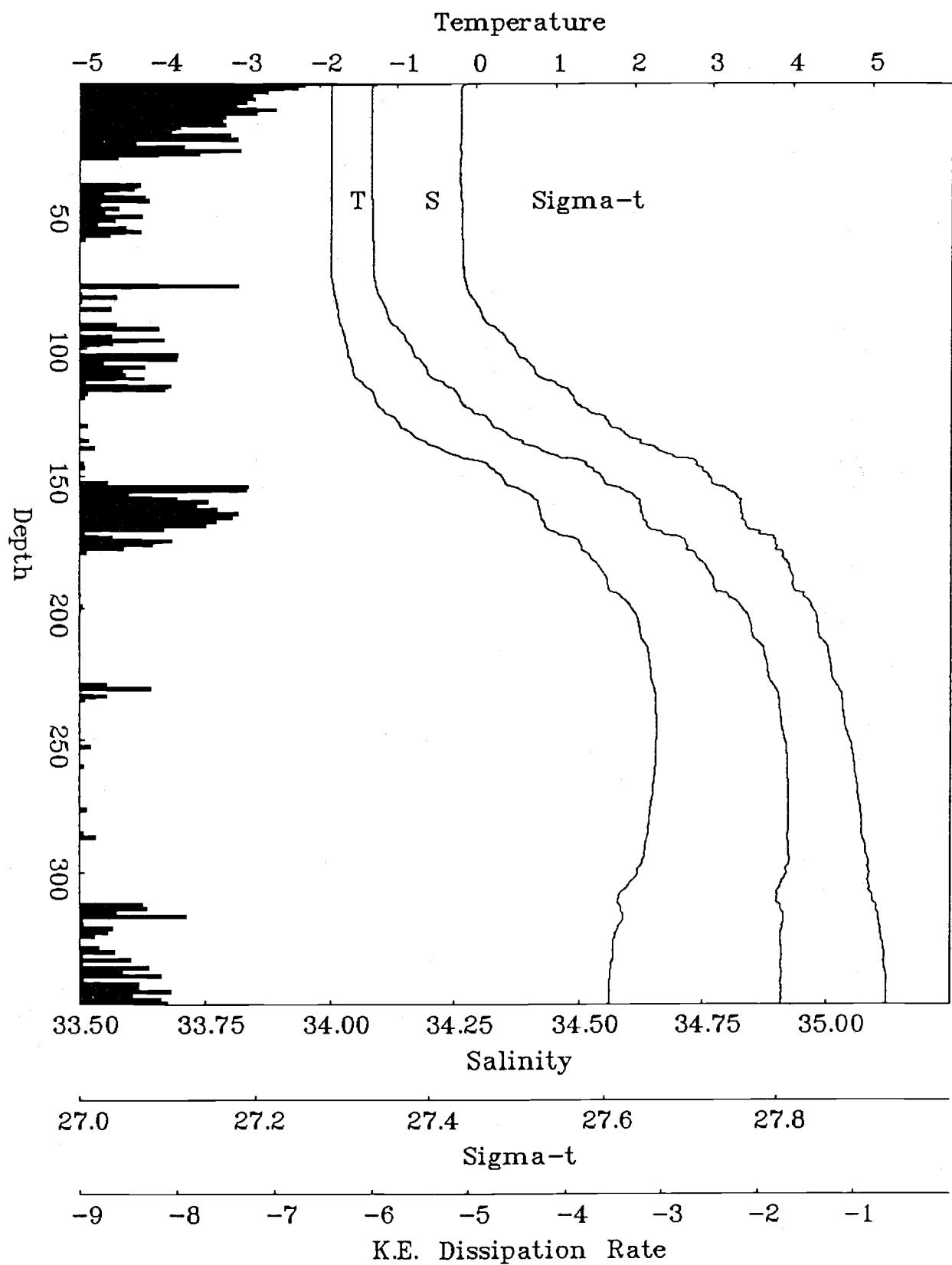
CEAREX Cast 291, JD 95.8373, 19:59, 82.86N, 10.58E



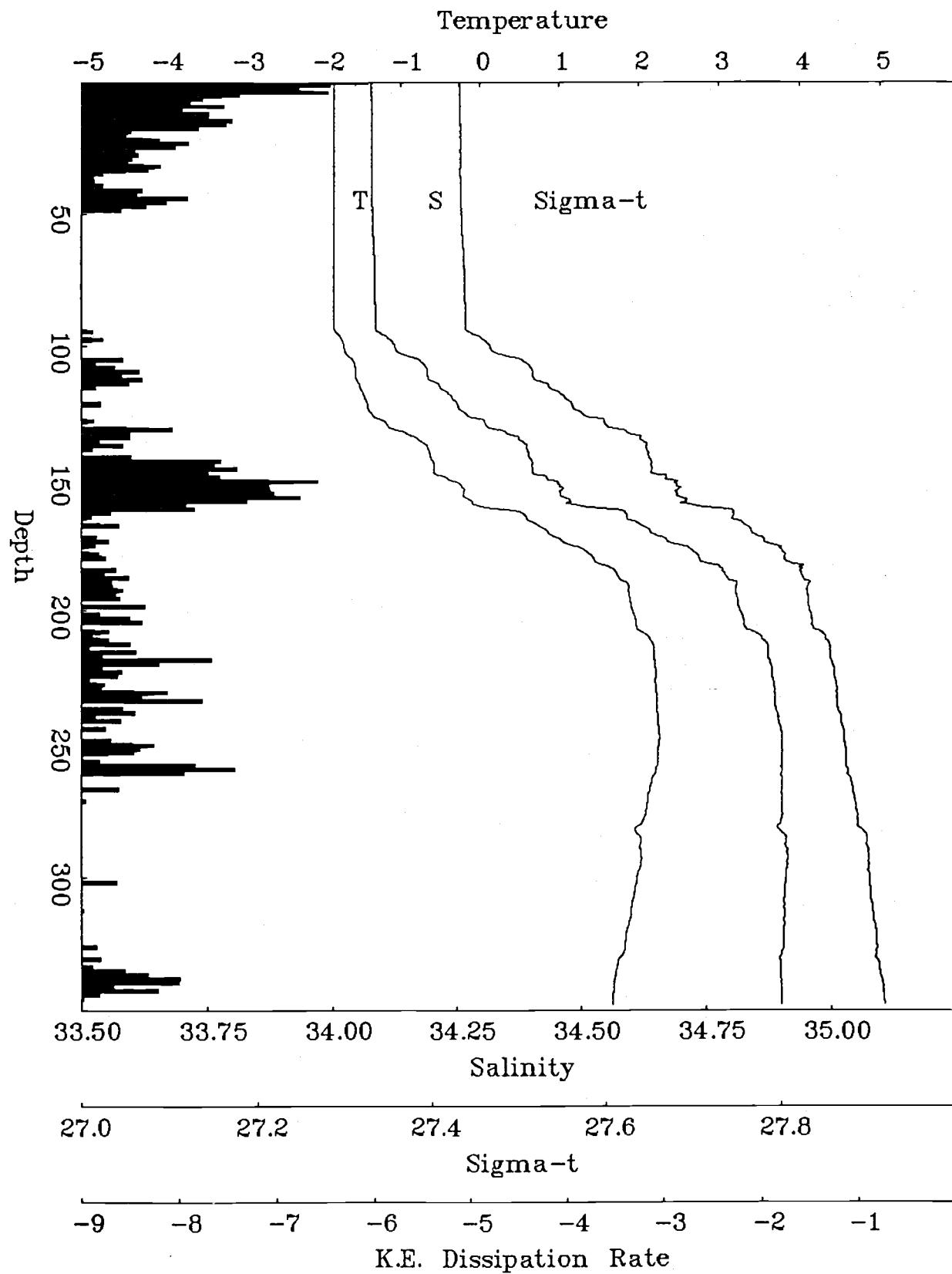
CEAREX Cast 305, JD 96.0041, 23:57, 82.85N, 10.56E



CEAREX Cast 315, JD 96.1721, 03:59, 82.85N, 10.57E

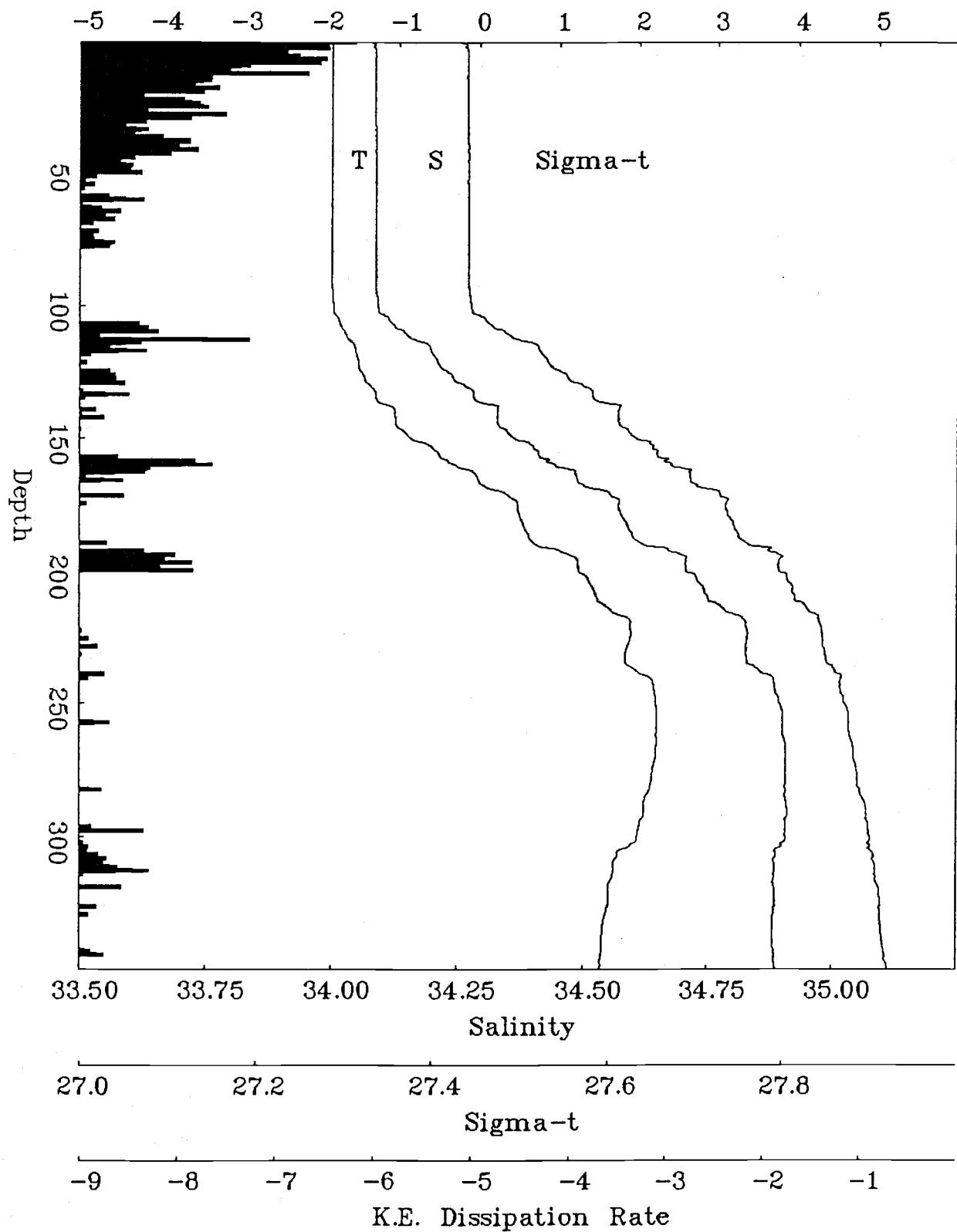


CEAREX Cast 326, JD 96.3367, 07:57, 82.84N, 10.54E



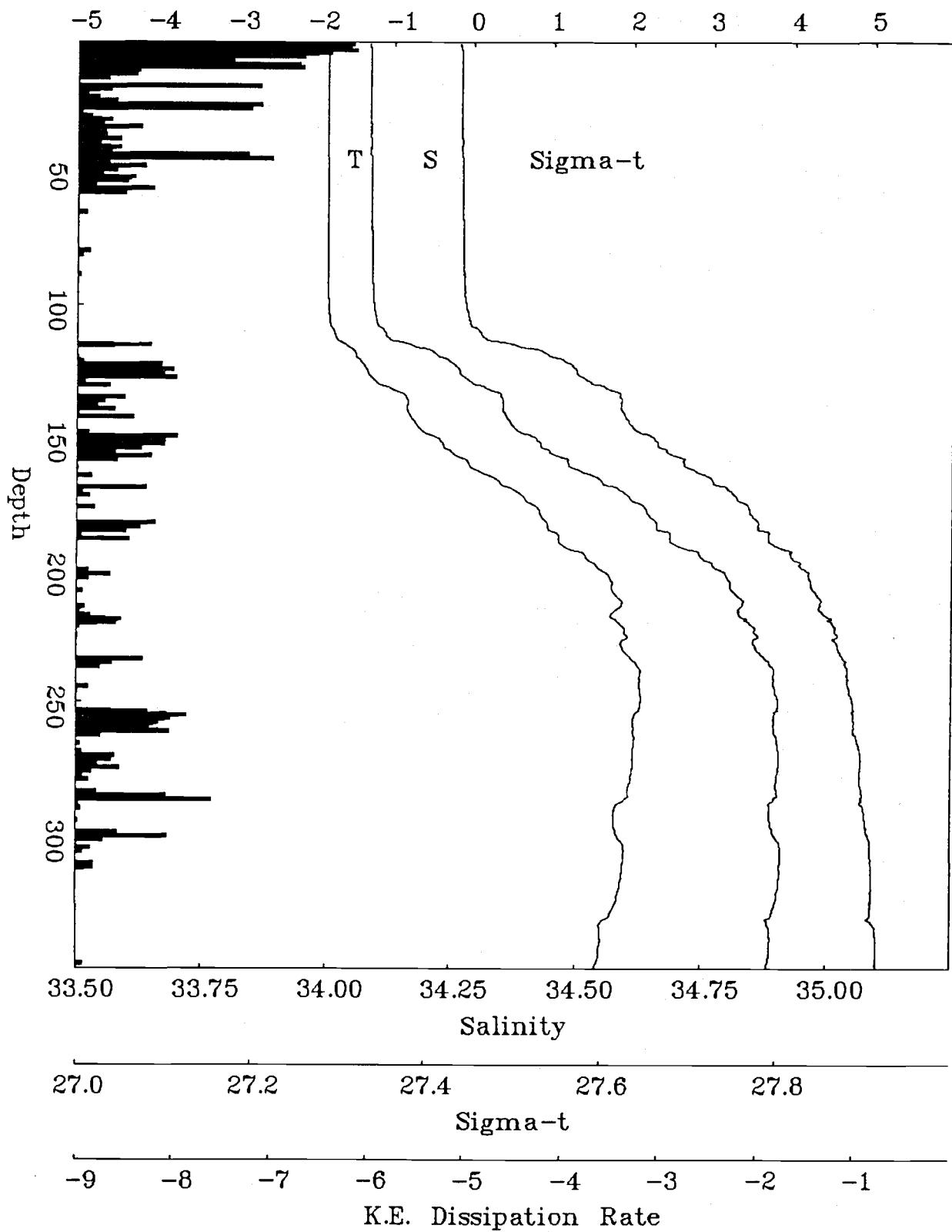
CEAREX Cast 339, JD 96.5051, 11:59, 82.83N, 10.50E

Temperature



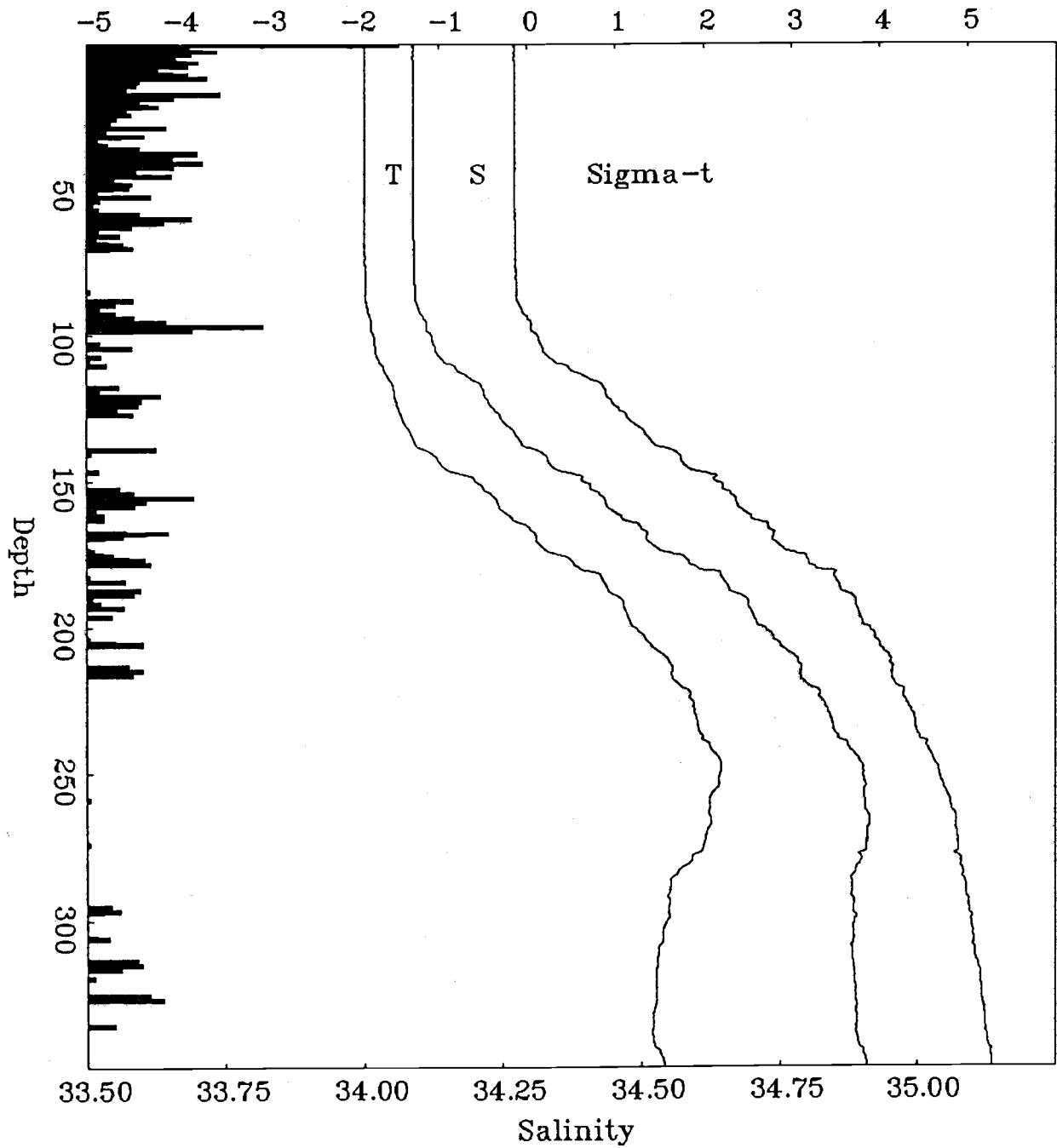
CEAREX Cast 353, JD 96.6704, 15:57, 82.83N, 10.49E

Temperature



CEAREX Cast 364, JD 96.8429, 20:05, 82.82N, 10.47E

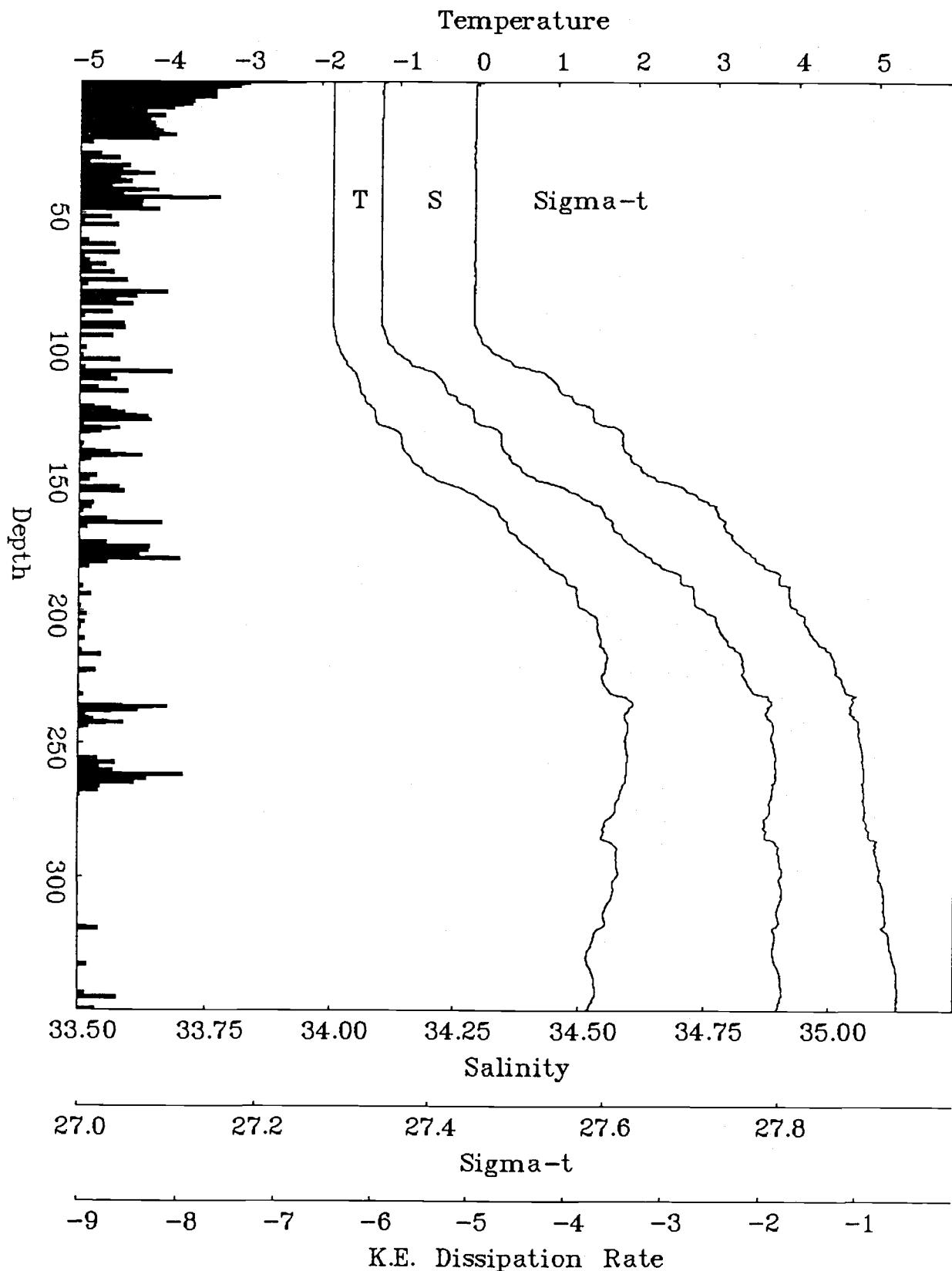
Temperature



Sigma-t

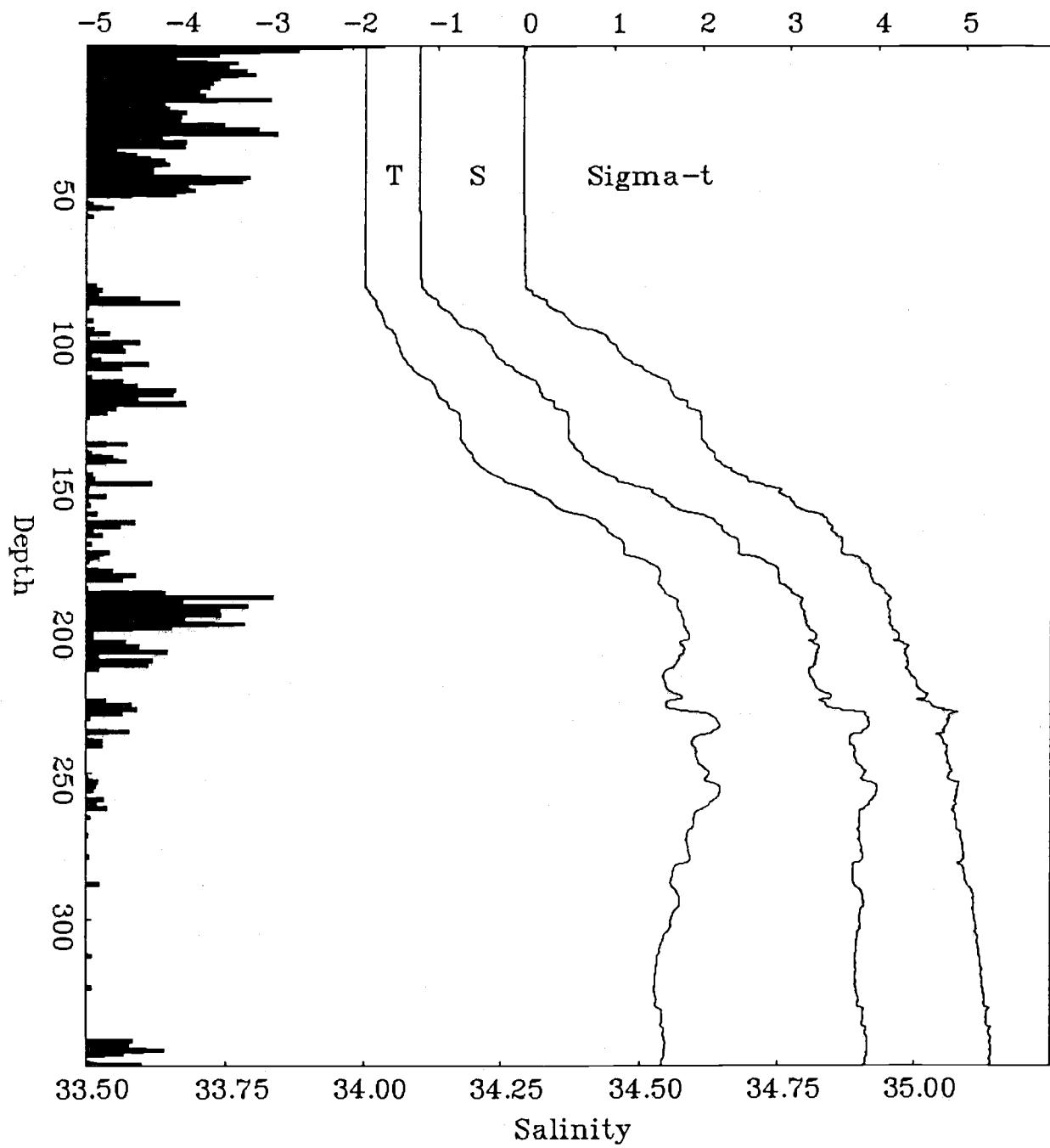
K.E. Dissipation Rate

CEAREX Cast 376, JD 97.0062, 00:01, 82.81N, 10.47E



CEAREX Cast 385, JD 97.1717, 03:59, 82.80N, 10.49E

Temperature

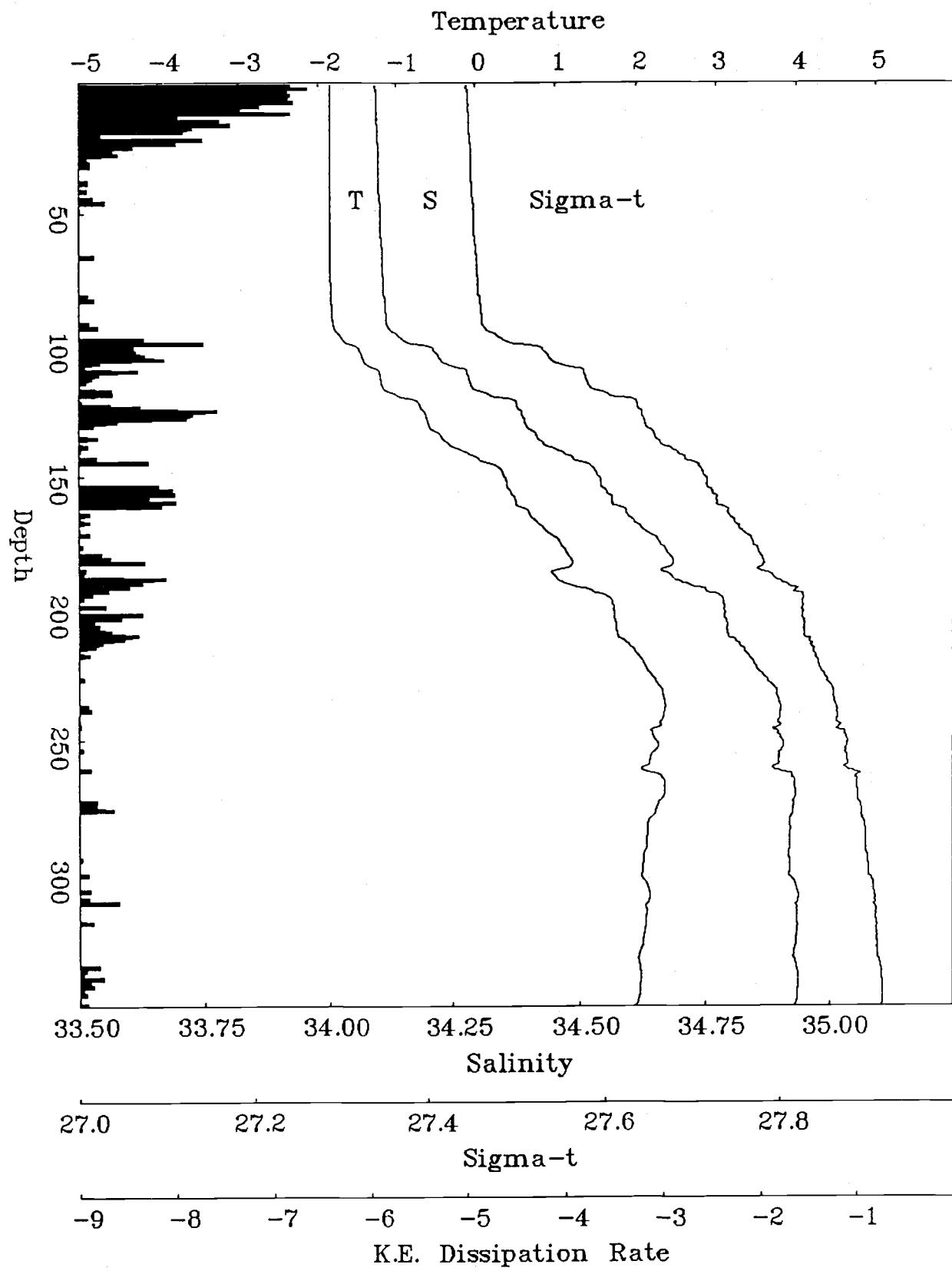


Salinity

Sigma-t

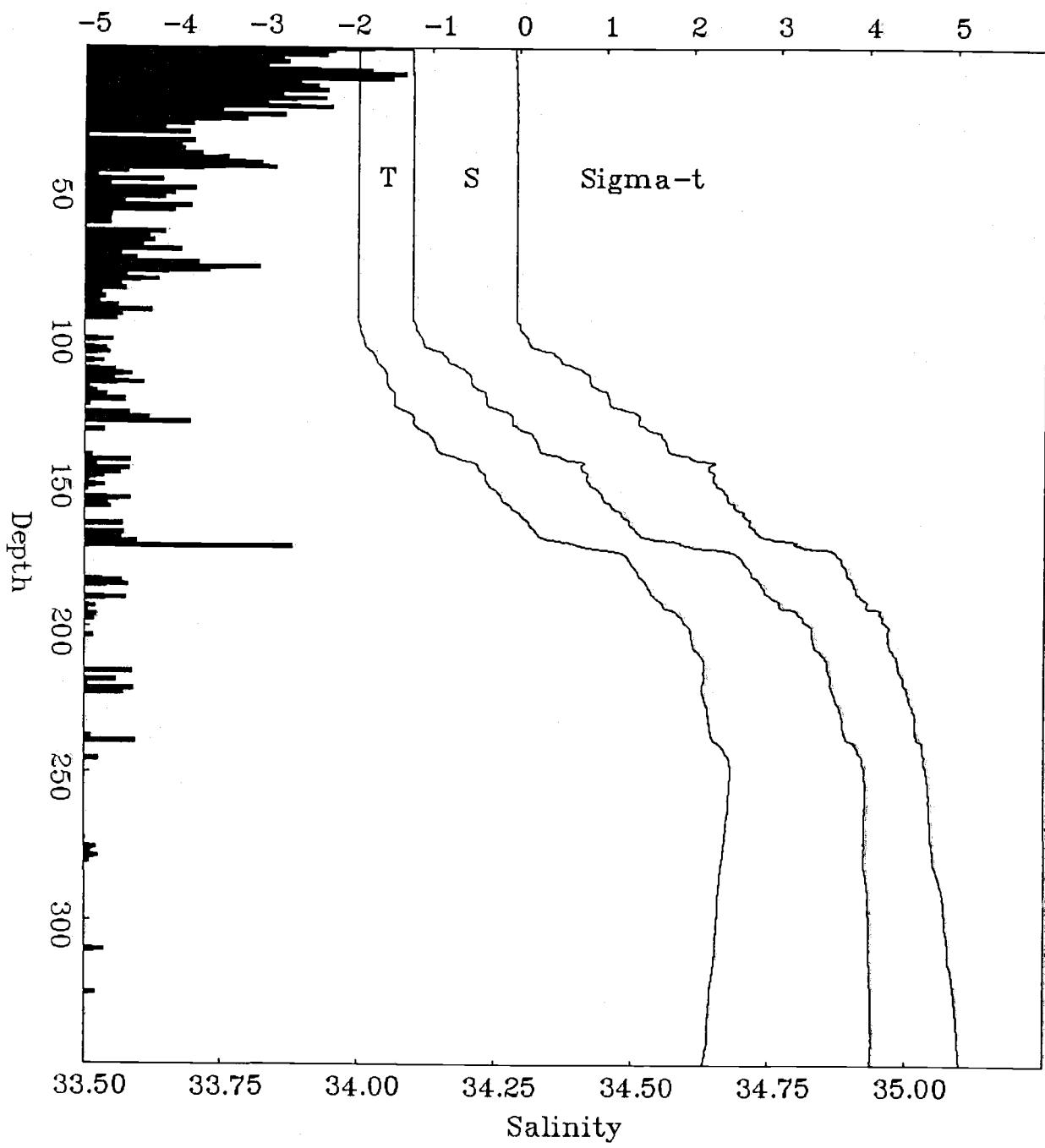
K.E. Dissipation Rate

CEAREX Cast 397, JD 97.3351, 07:54, 82.80N, 10.49E



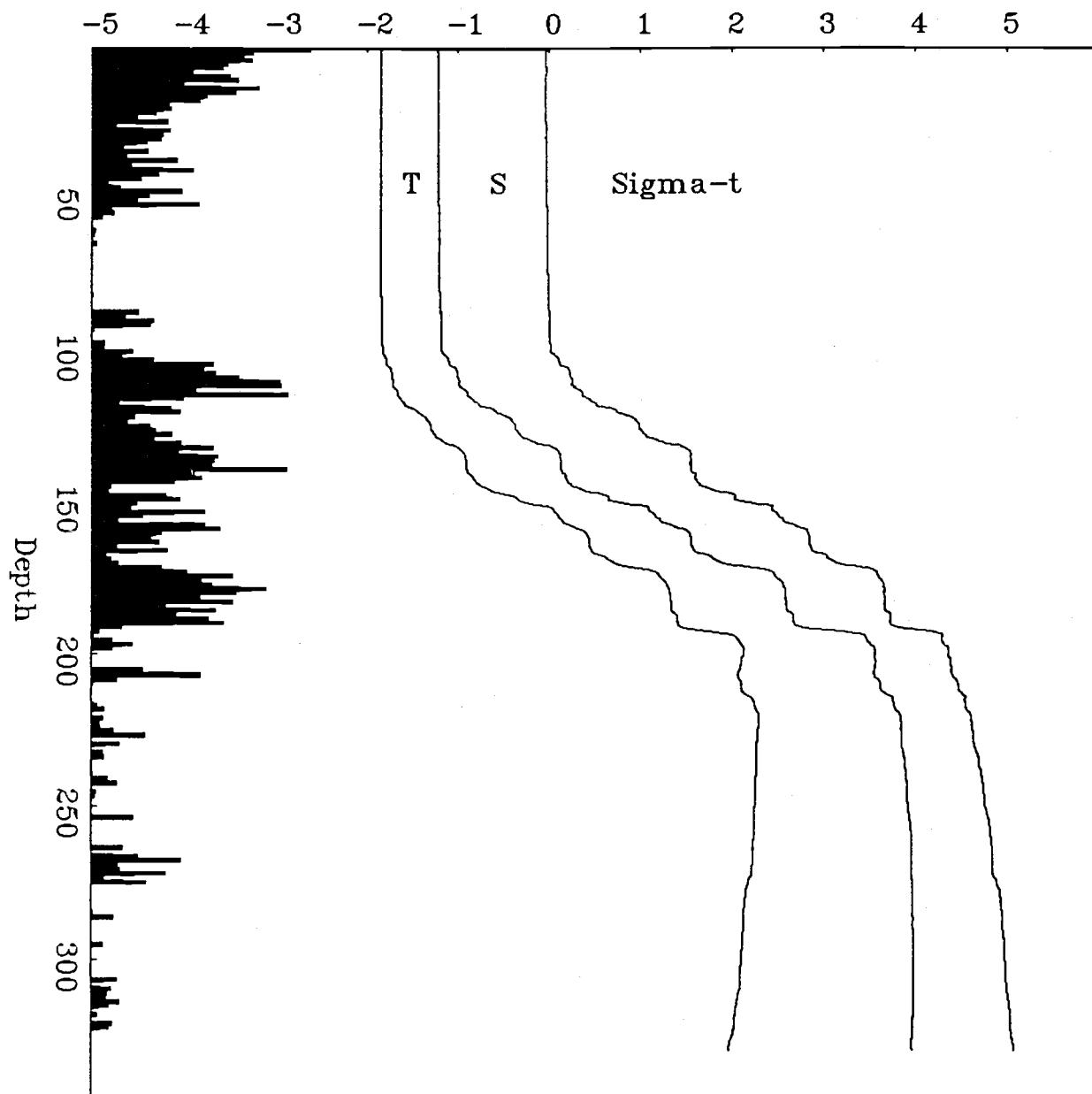
CEAREX Cast 405, JD 97.4637, 10:59, 82.79N, 10.52E

Temperature



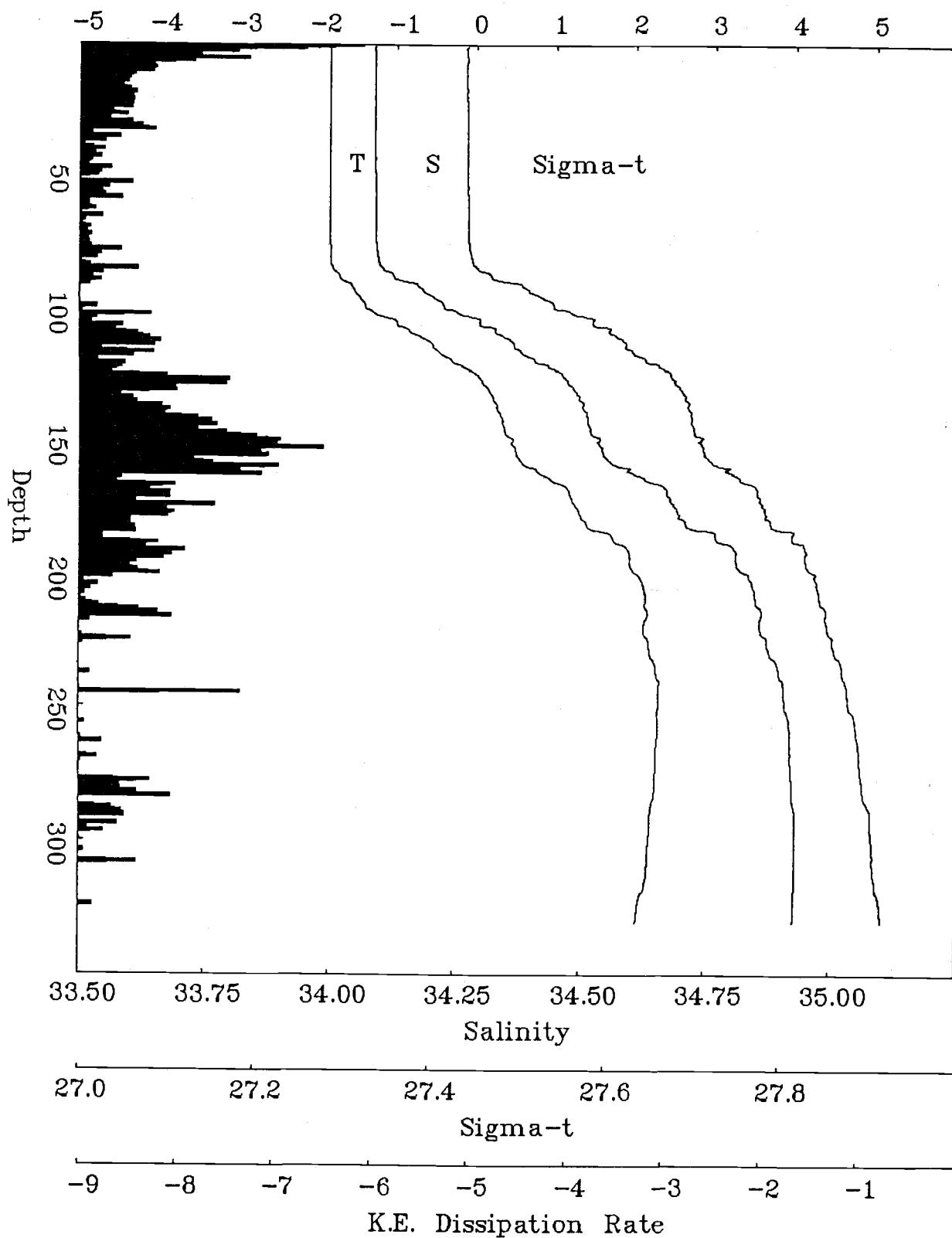
CEAREX Cast 416, JD 97.6826, 16:14, 82.78N, 10.55E

Temperature

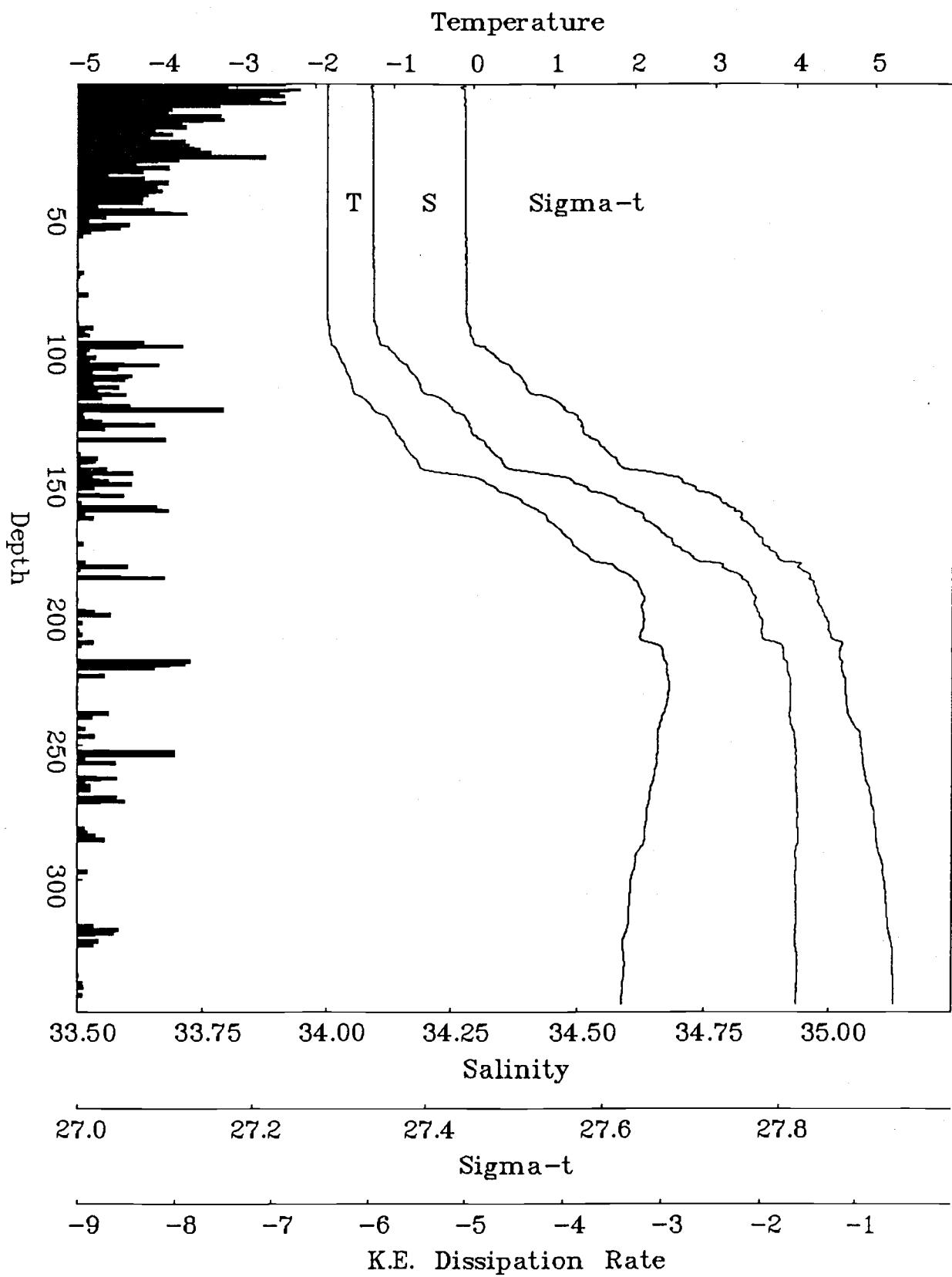


CEAREX Cast 441, JD 97.8549, 20:23, 82.78N, 10.57E

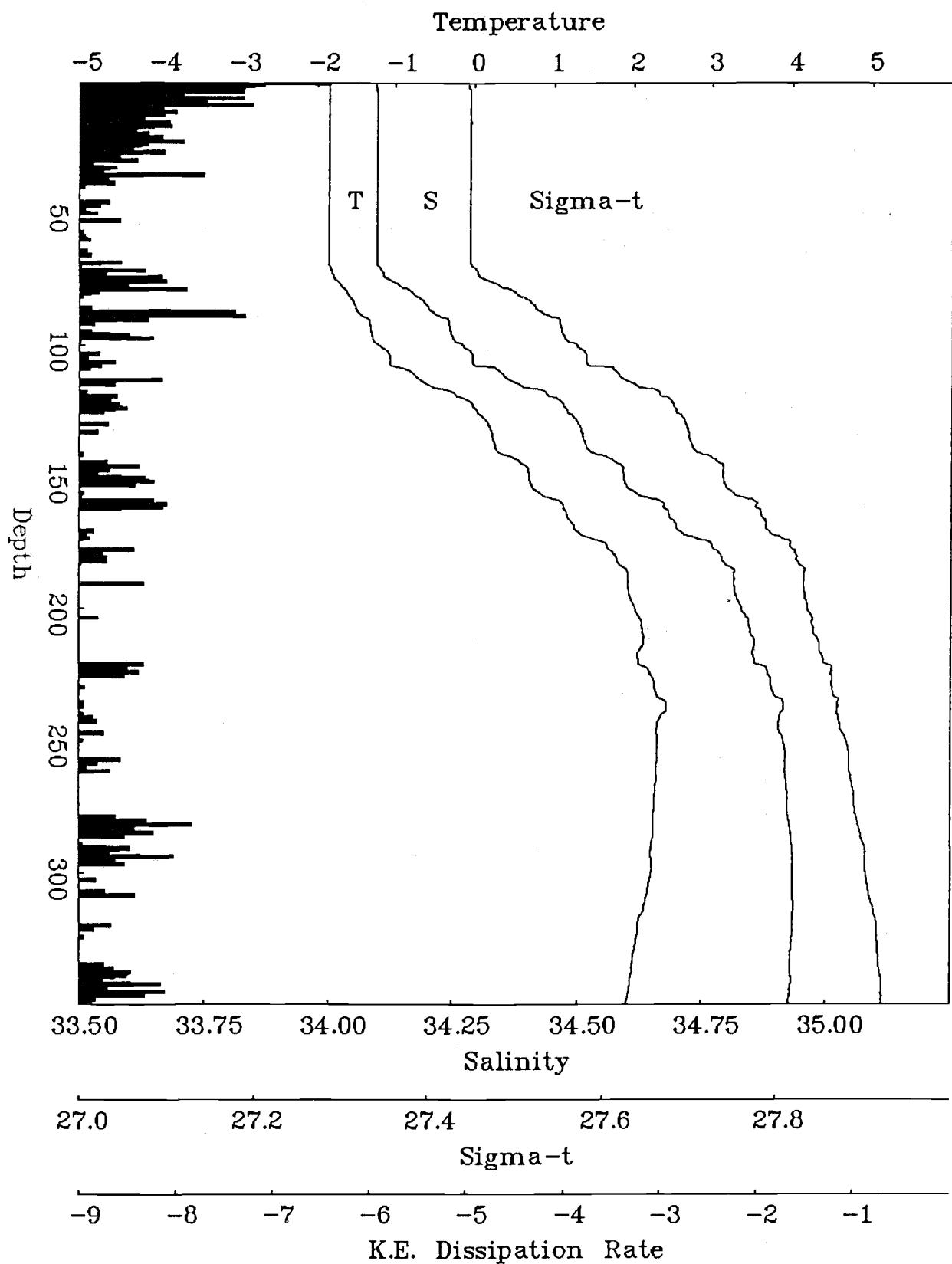
Temperature



CEAREX Cast 455, JD 98.0247, 00:27, 82.78N, 10.60E

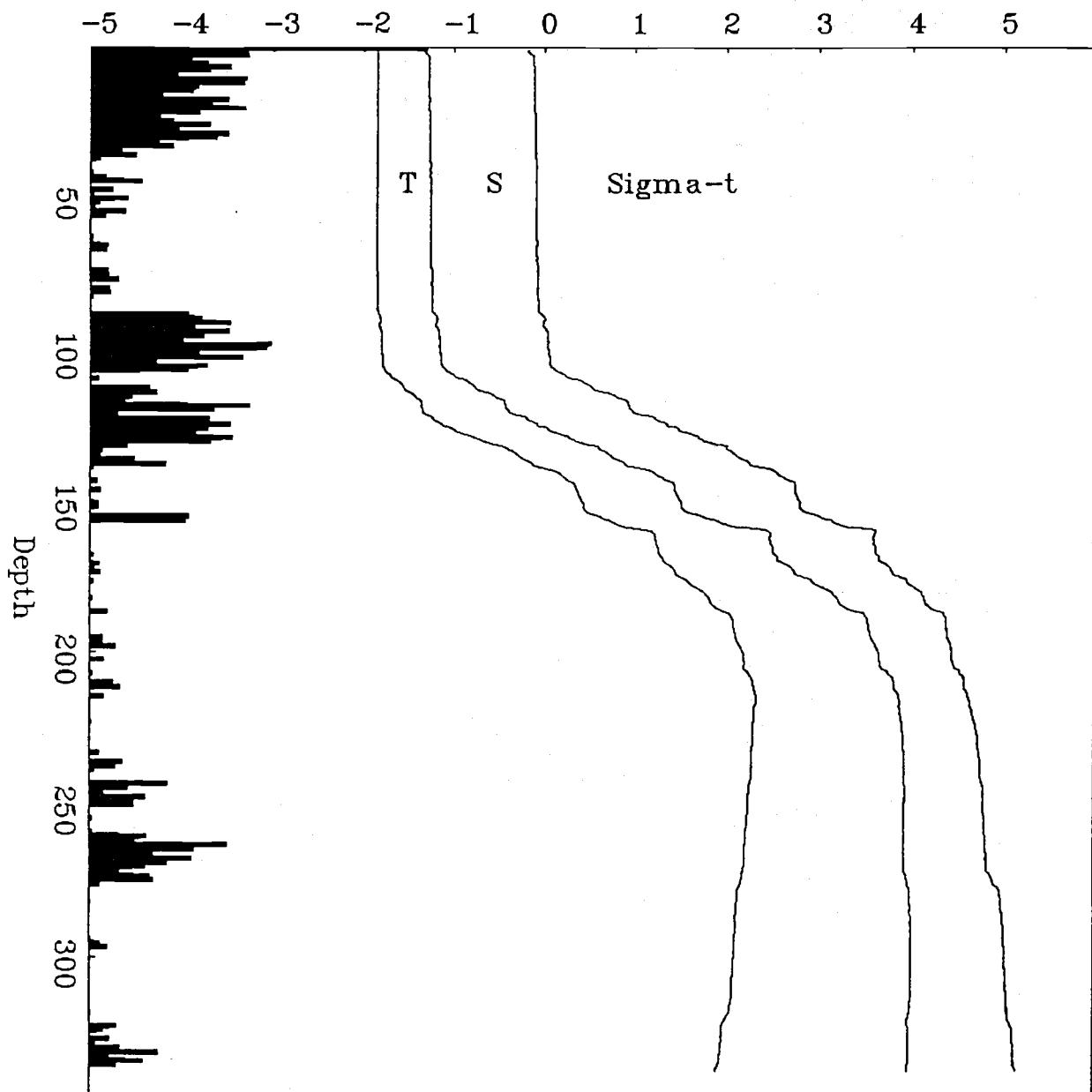


CEAREX Cast 463, JD 98.1724, 04:00, 82.77N, 10.62E

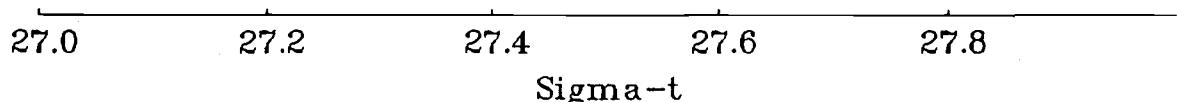


CEAREX Cast 472, JD 98.3339, 07:53, 82.76N, 10.64E

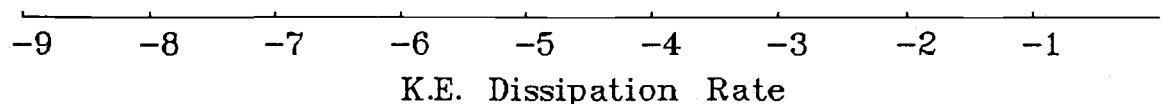
Temperature



Salinity



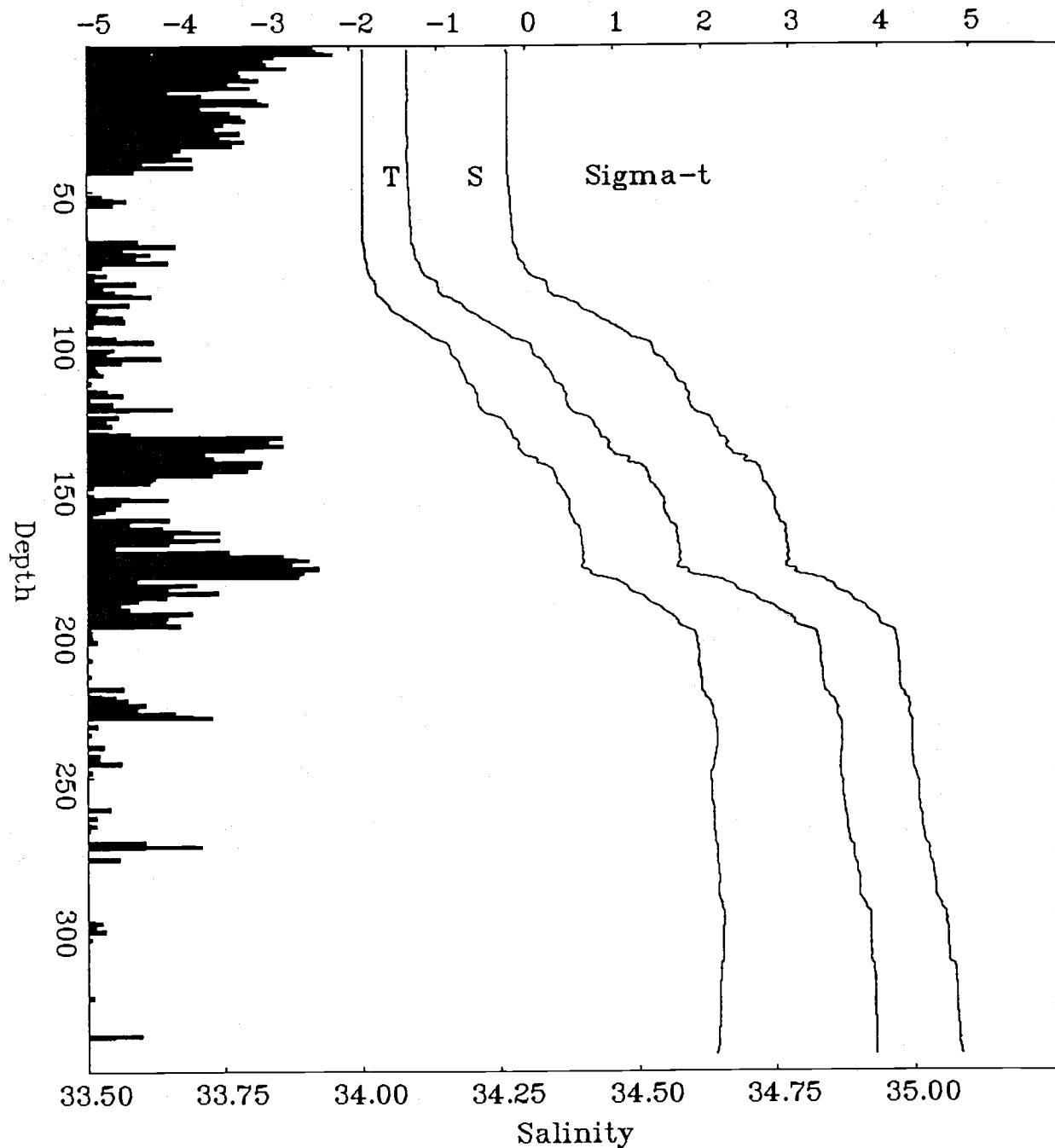
Sigma-t



K.E. Dissipation Rate

CEAREX Cast 484, JD 98.5048, 11:58, 82.76N, 10.64E

Temperature

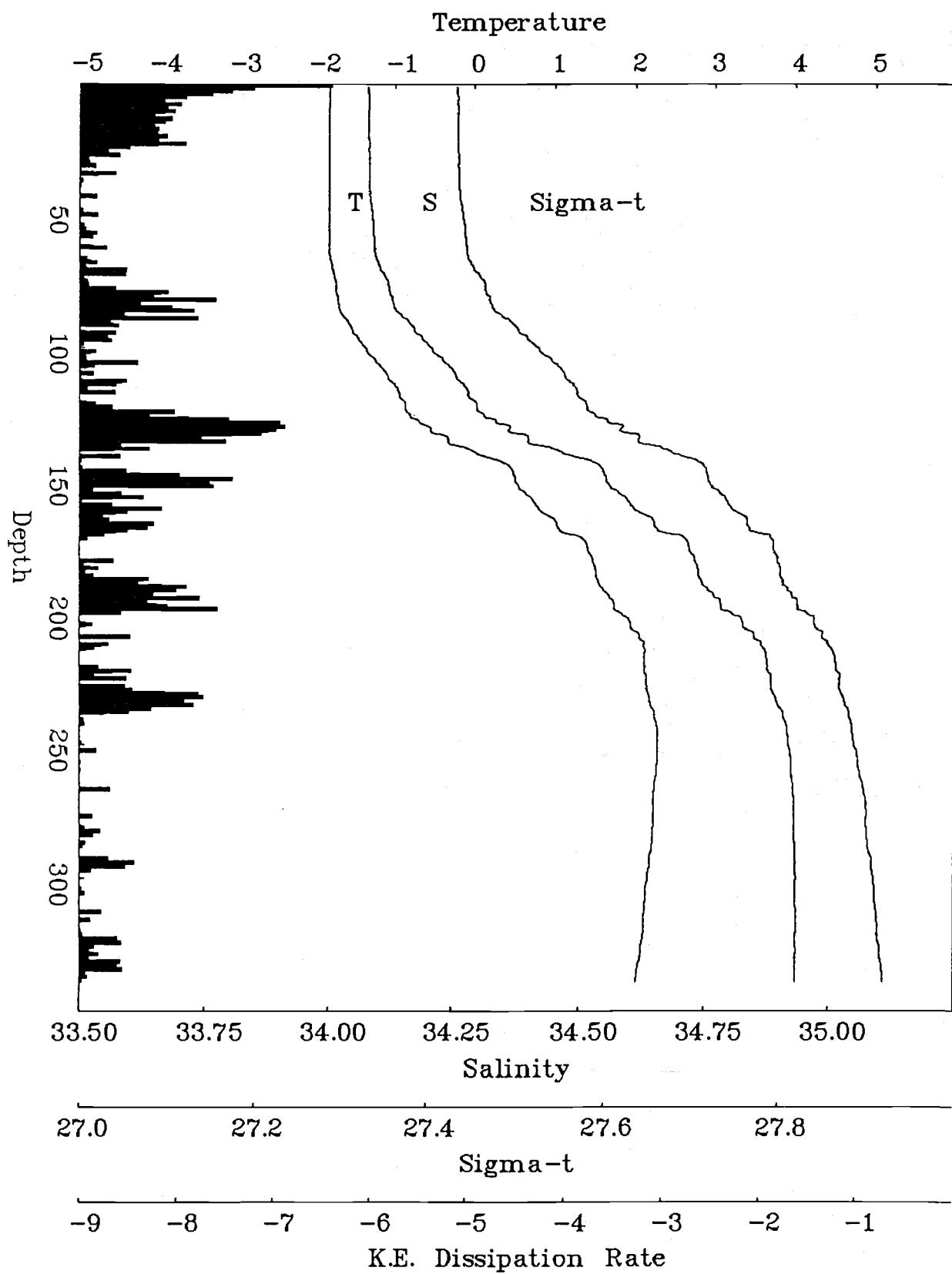


Salinity

Sigma-t

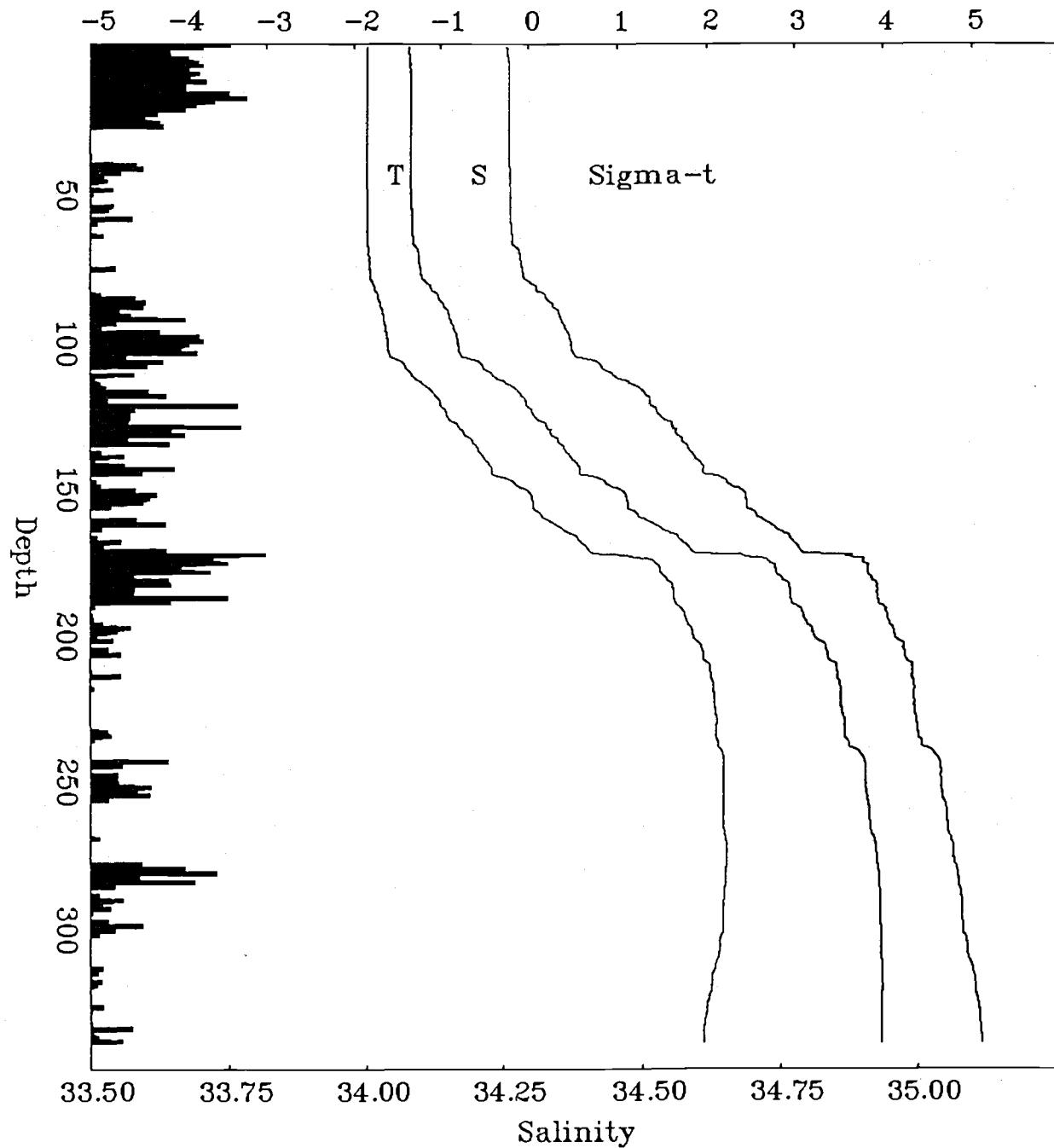
K.E. Dissipation Rate

CEAREX Cast 499, JD 98.6787, 16:09, 82.75N, 10.66E



CEAREX Cast 509, JD 98.8383, 19:59, 82.75N, 10.67E

Temperature

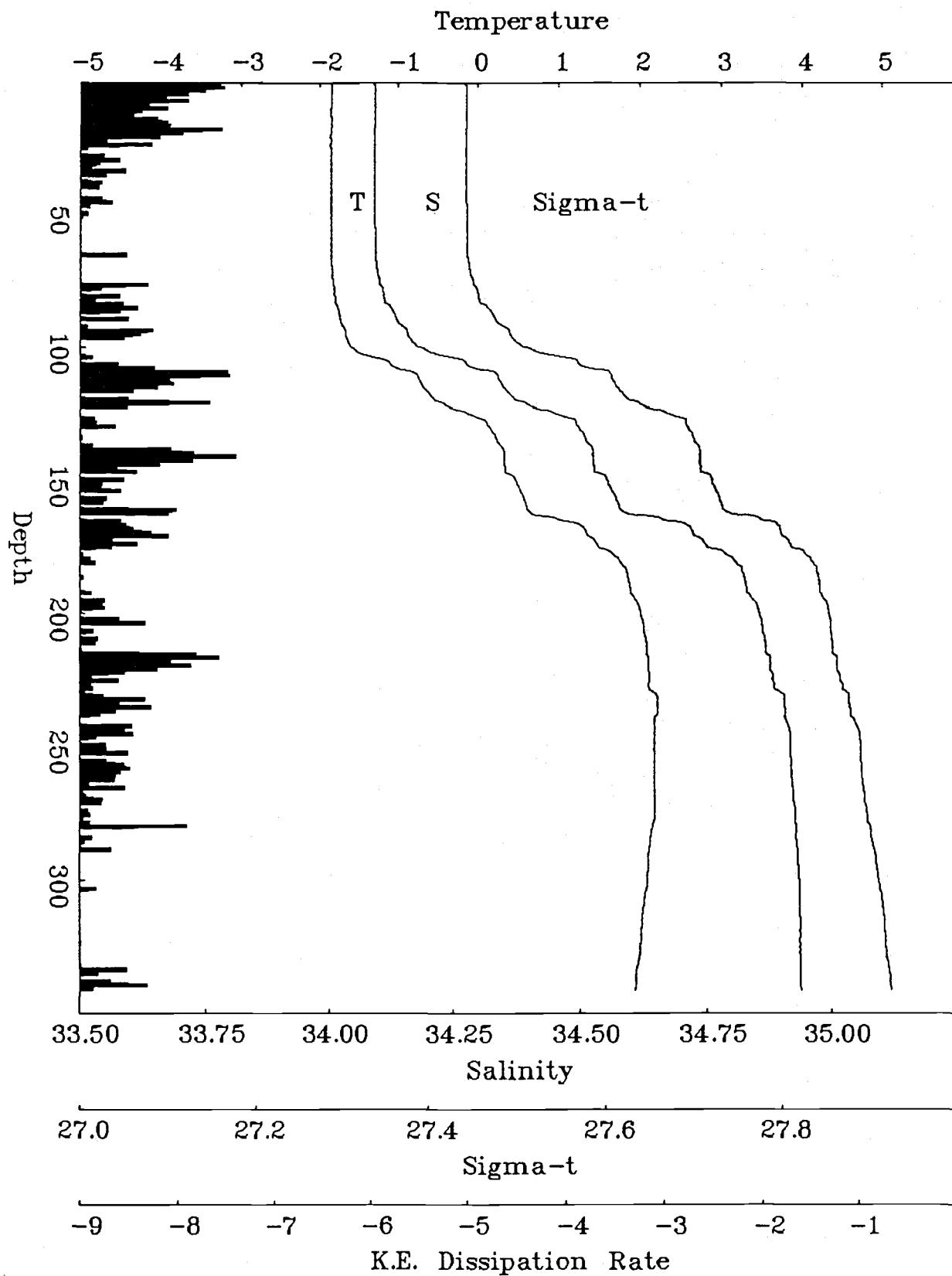


Salinity

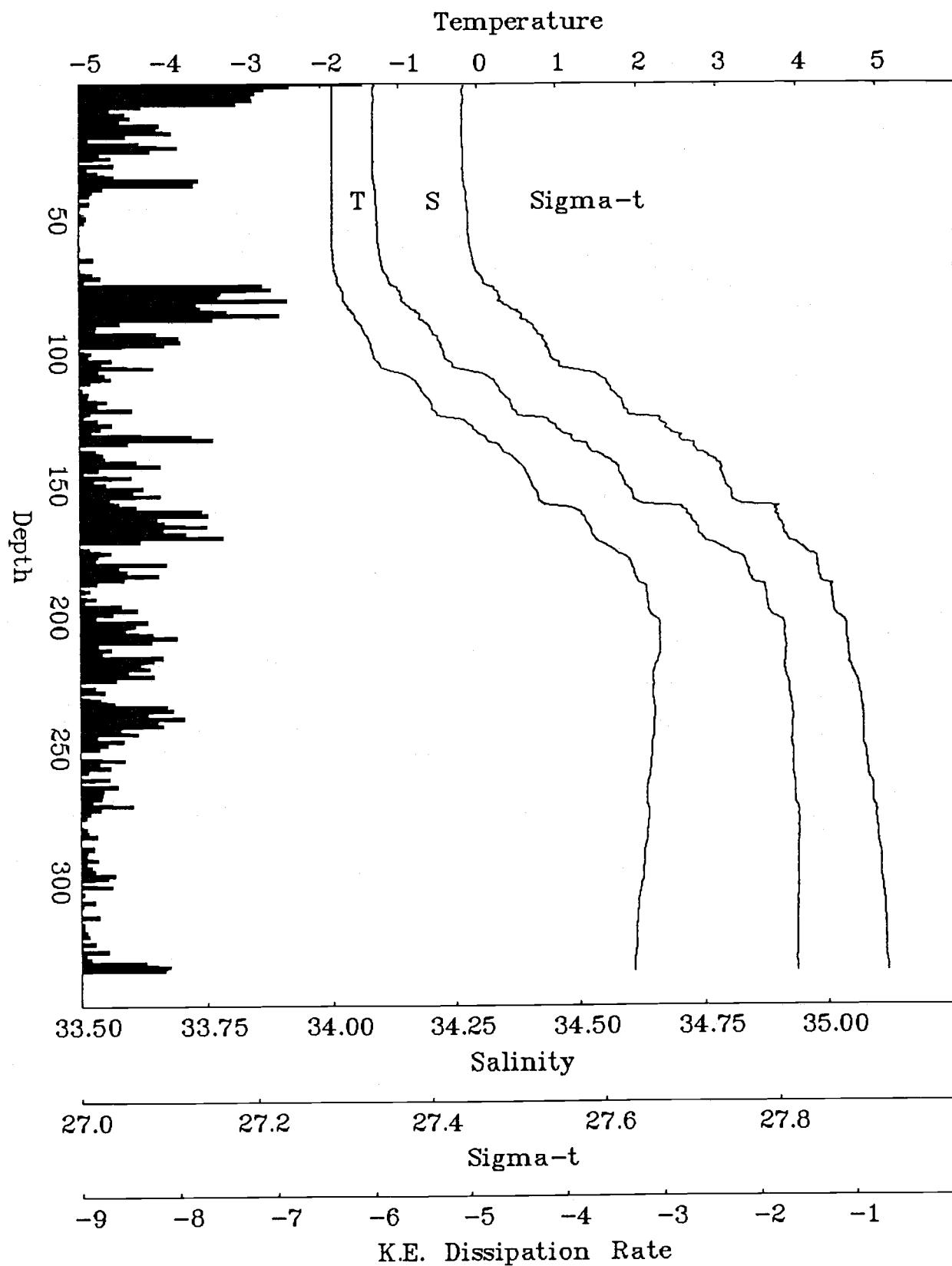
Sigma-t

K.E. Dissipation Rate

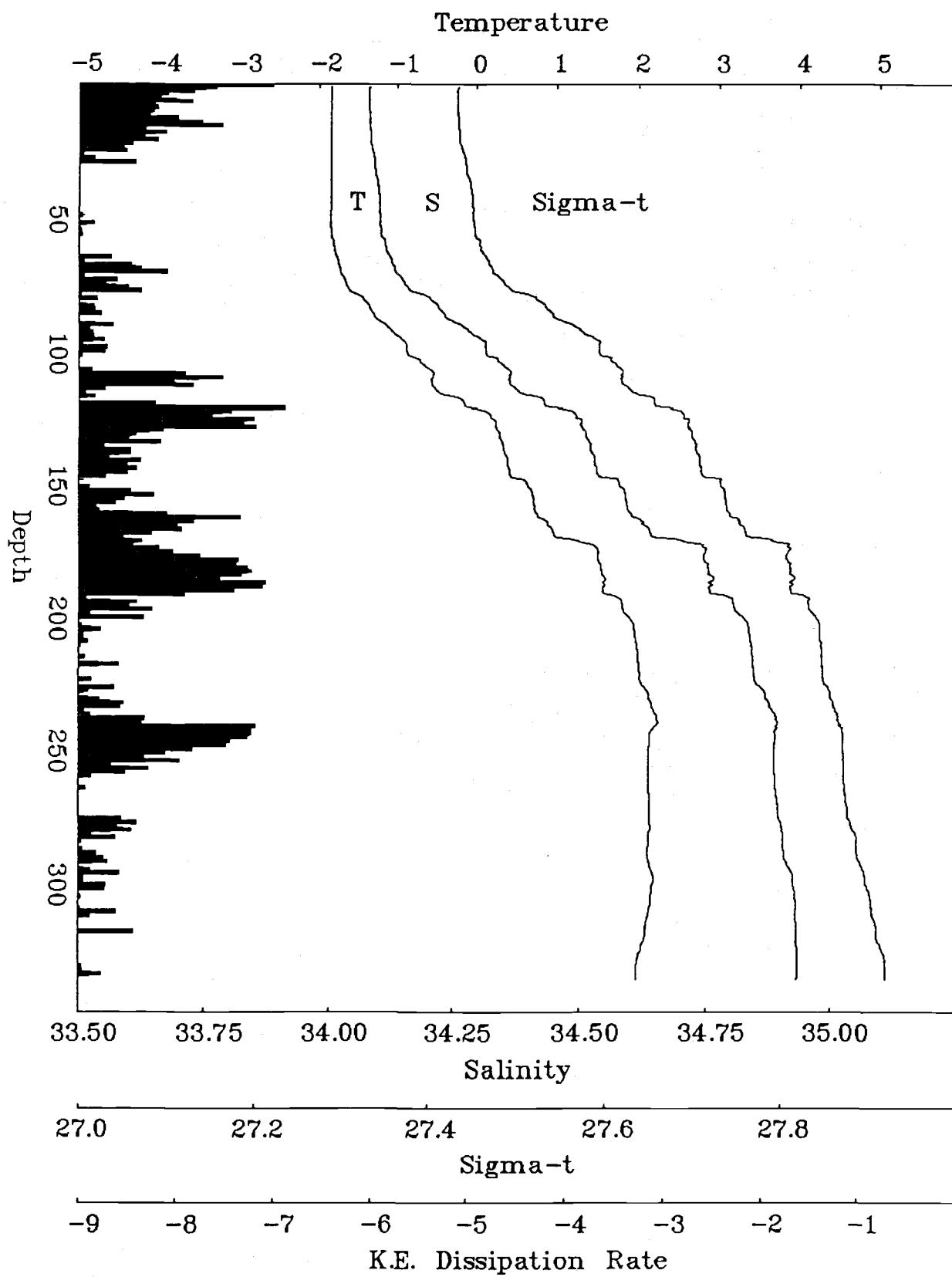
CEAREX Cast 518, JD 99.0056, 00:00, 82.74N, 10.63E



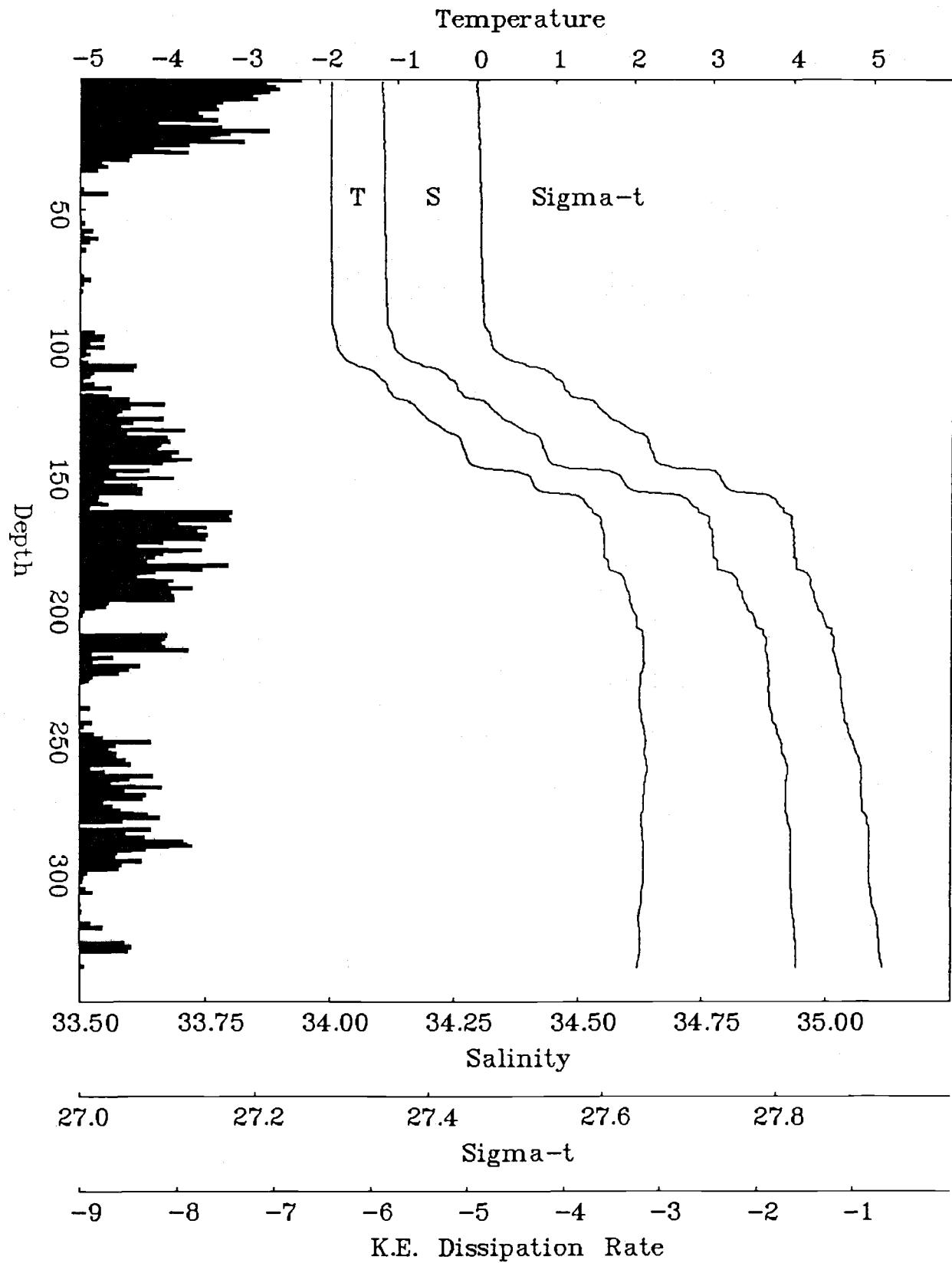
CEAREX Cast 526, JD 99.1722, 04:00, 82.74N, 10.63E



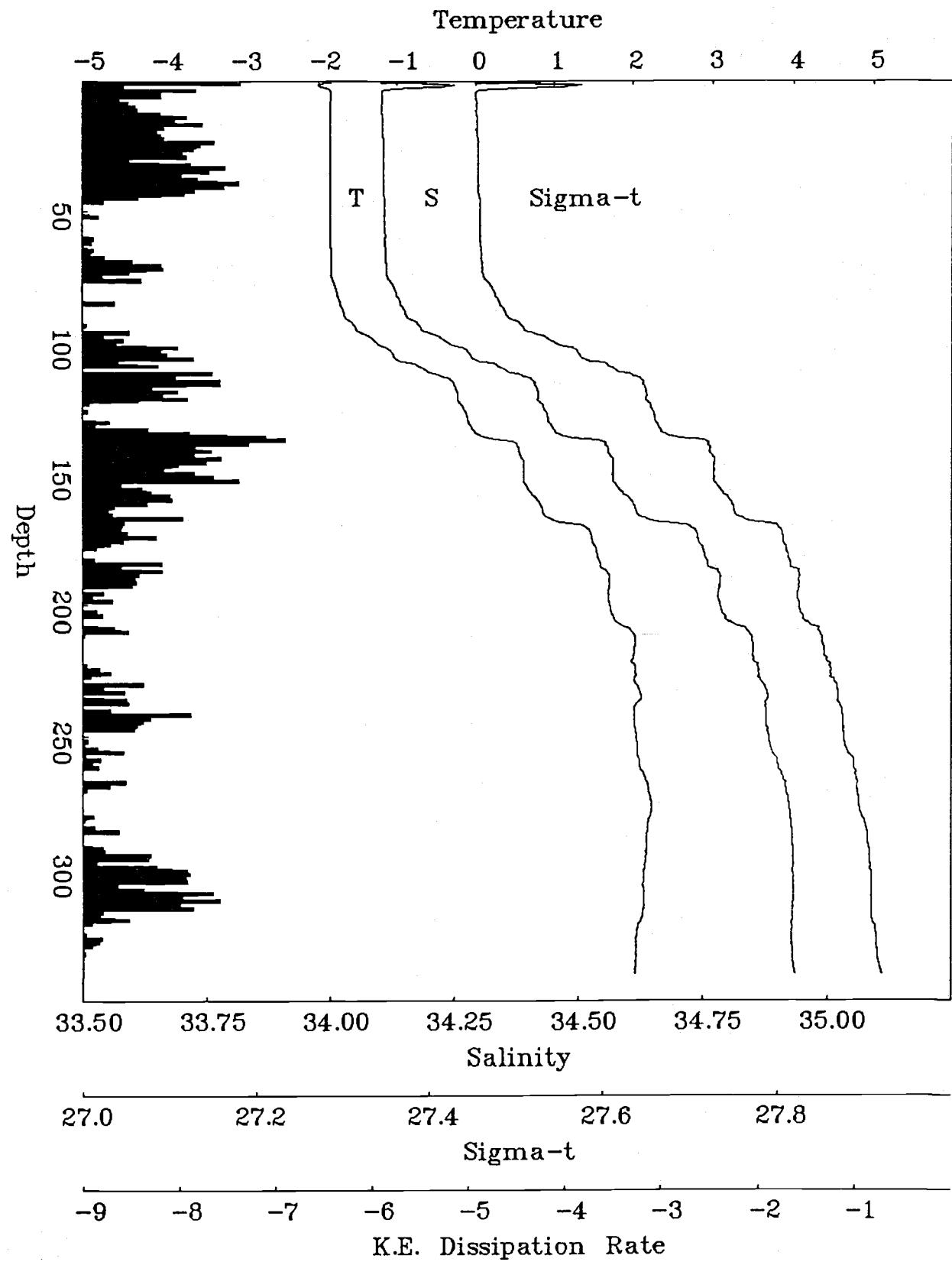
CEAREX Cast 534, JD 99.3383, 07:59, 82.74N, 10.63E



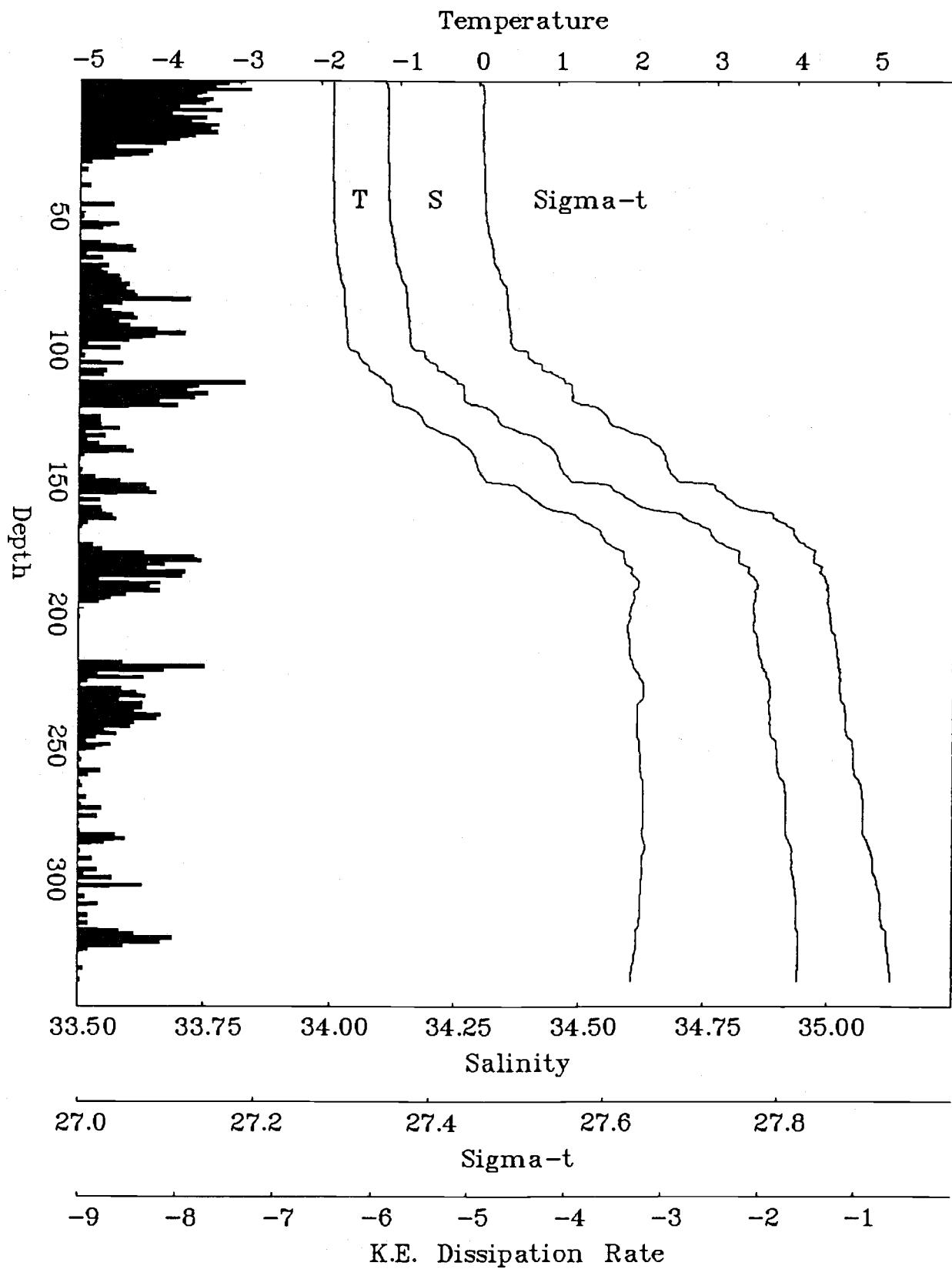
CEAREX Cast 545, JD 99.5050, 11:59, 82.72N, 10.61E



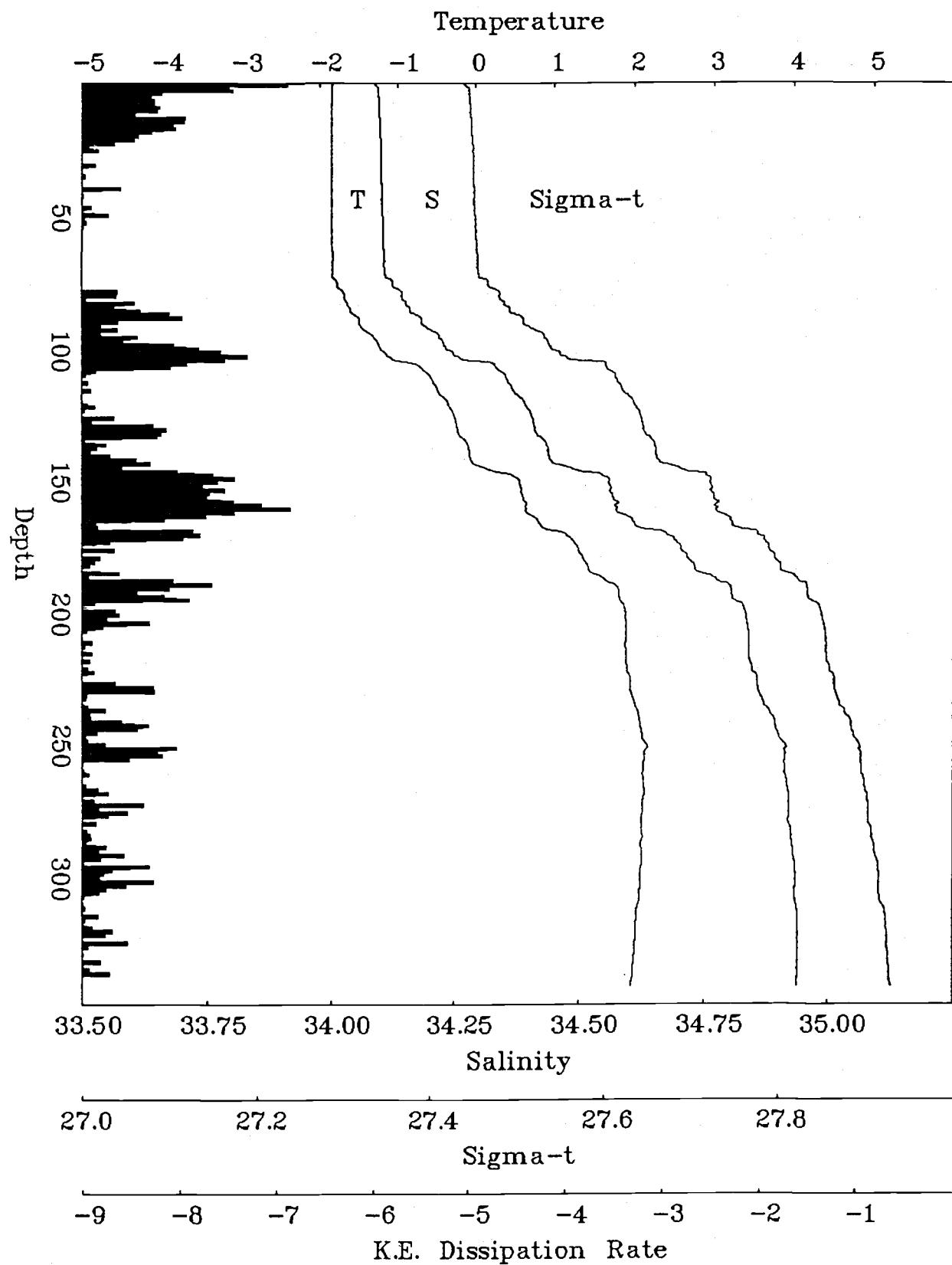
CEAREX Cast 554, JD 99.6717, 15:59, 82.72N, 10.61E



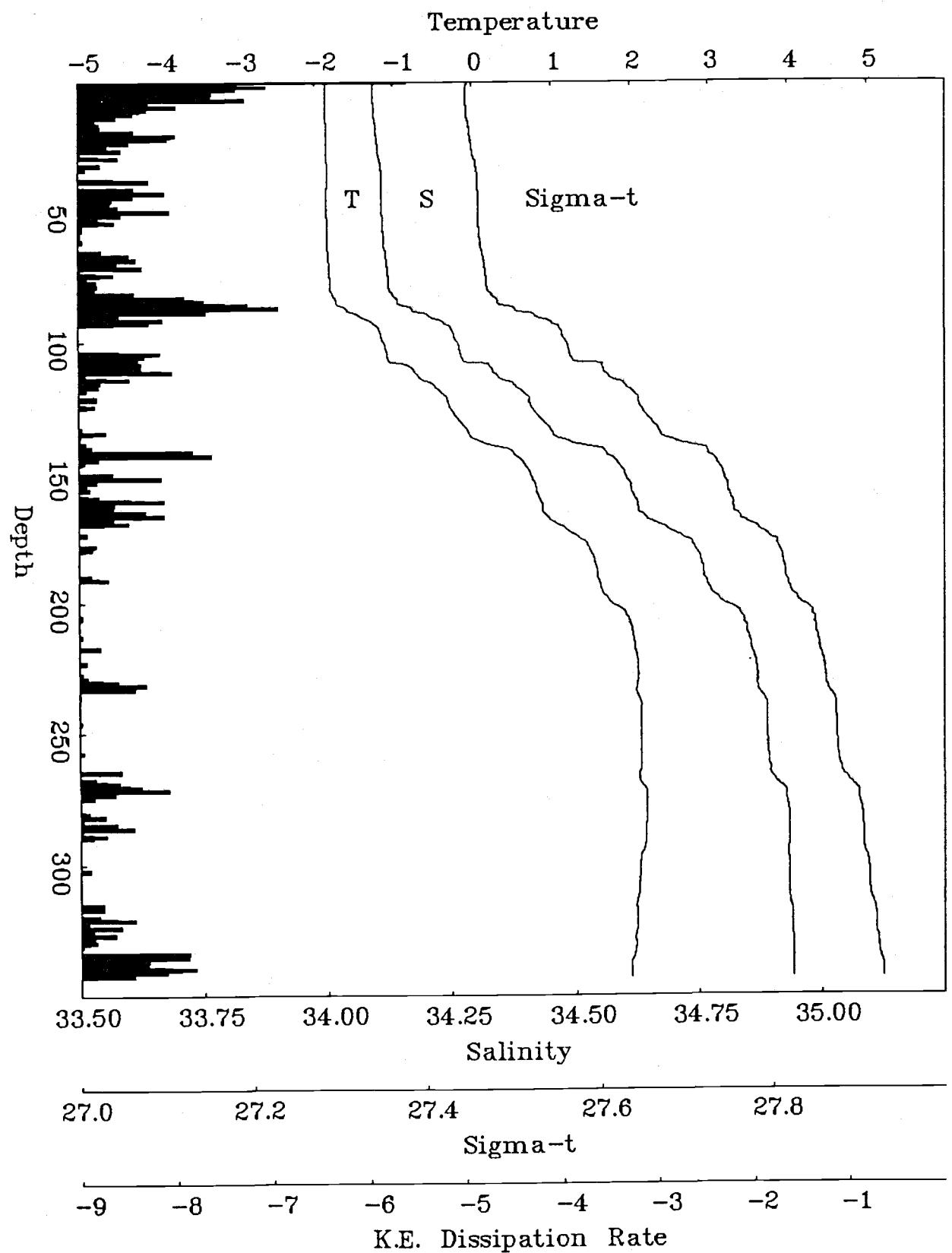
CEAREX Cast 562, JD 99.8384, 19:59, 82.72N, 10.62E



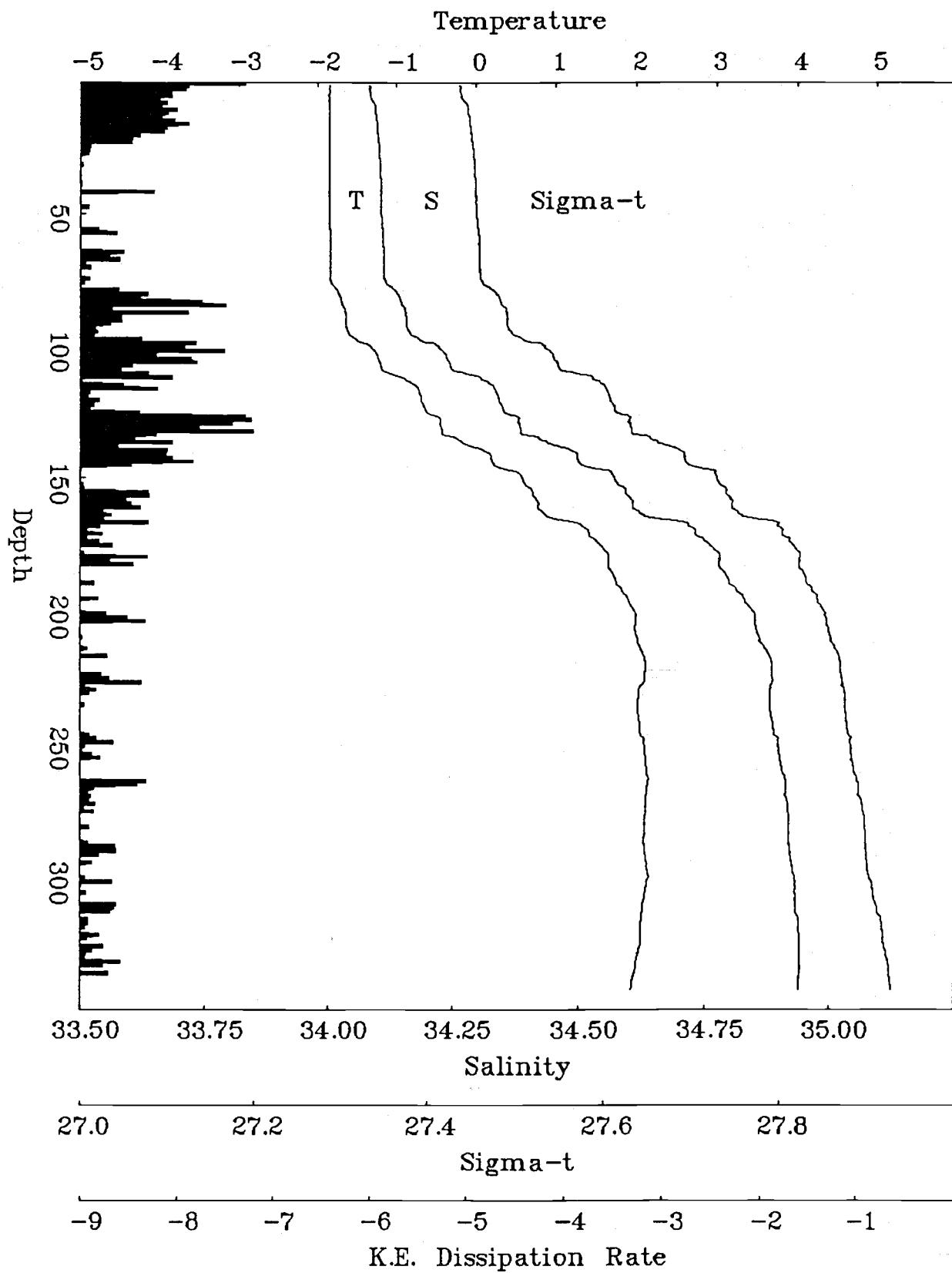
CEAREX Cast 573, JD 100.0083, 00:03, 82.71N, 10.62E



CEAREX Cast 581, JD 100.1888, 04:23, 82.71N, 10.66E

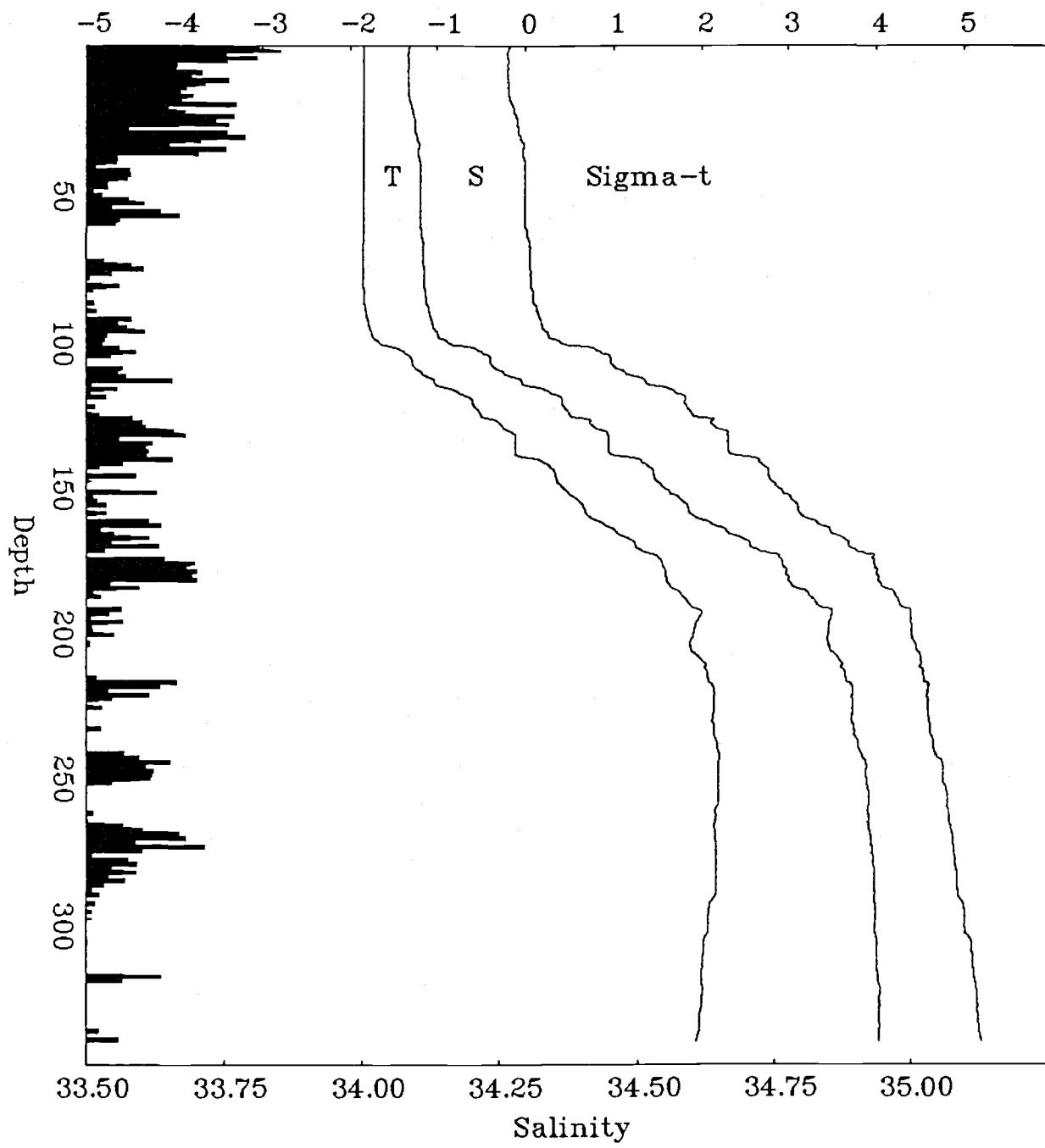


CEAREX Cast 589, JD 100.3455, 08:09, 82.71N, 10.71E



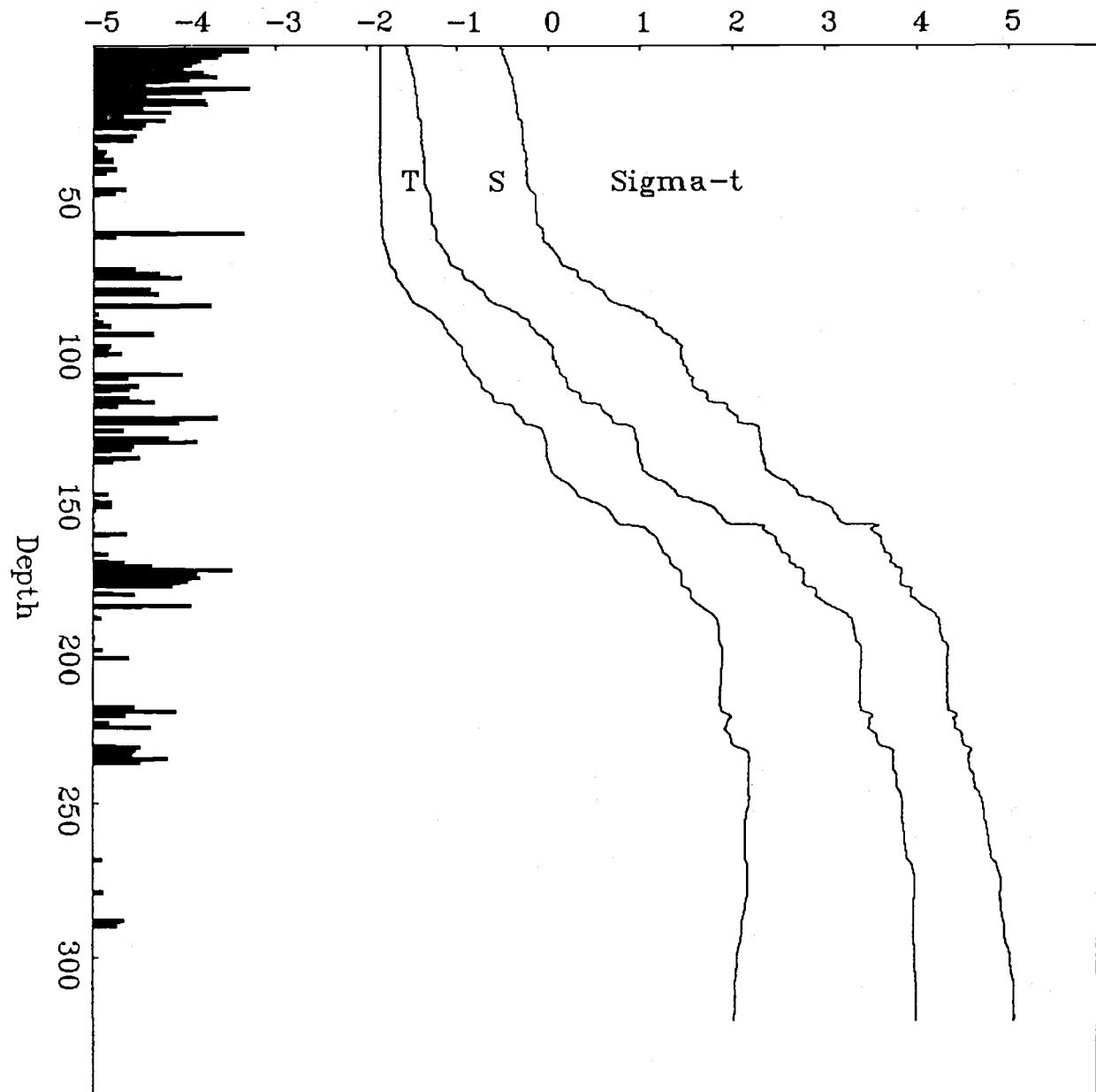
CEAREX Cast 601, JD 100.5058, 12:00, 82.71N, 10.71E

Temperature



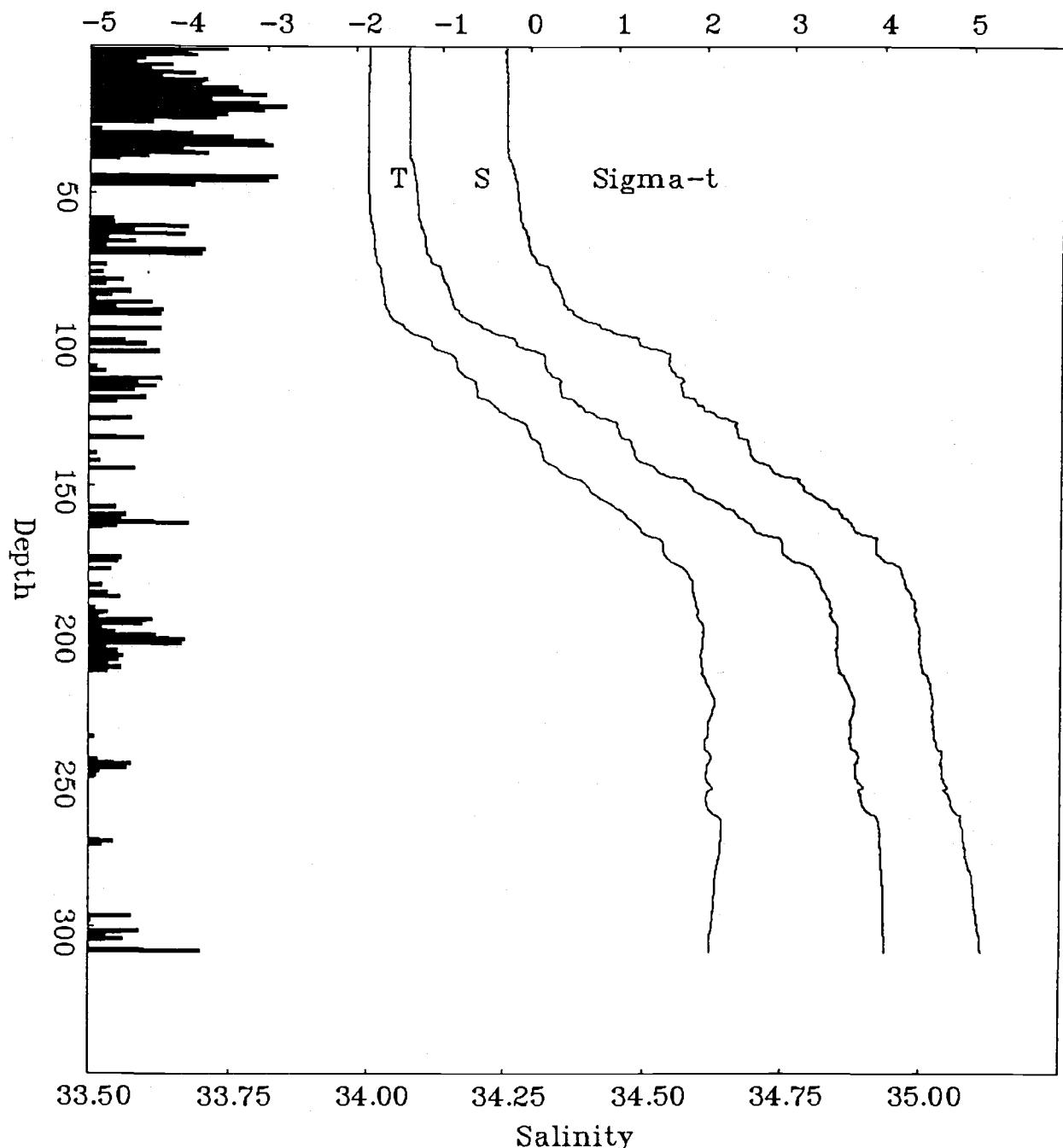
CEAREX Cast 611, JD 100.6634, 15:47, 82.71N, 10.70E

Temperature



CEAREX Cast 623, JD 100.8383, 19:59, 82.71N, 10.71E

Temperature

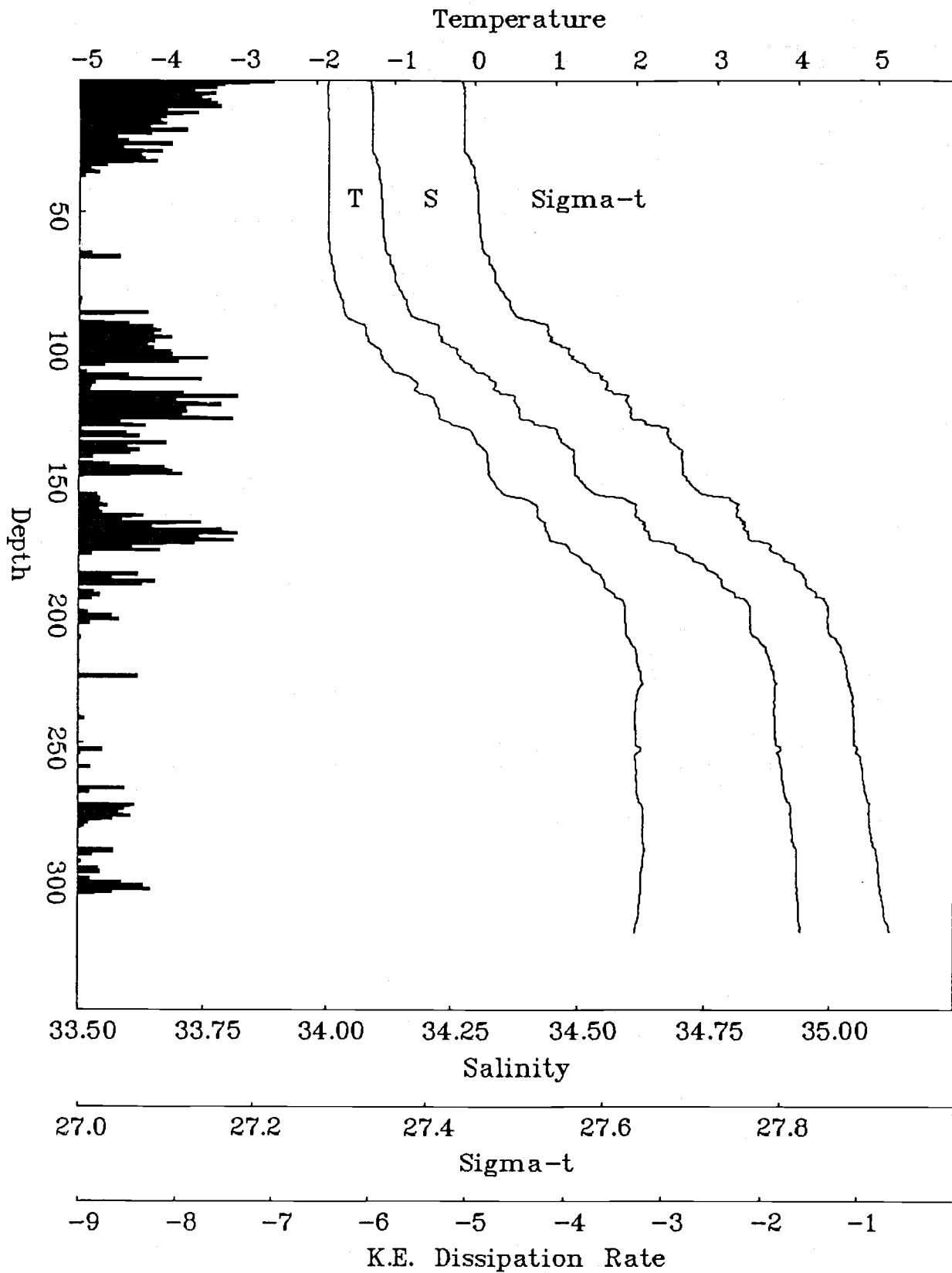


Salinity

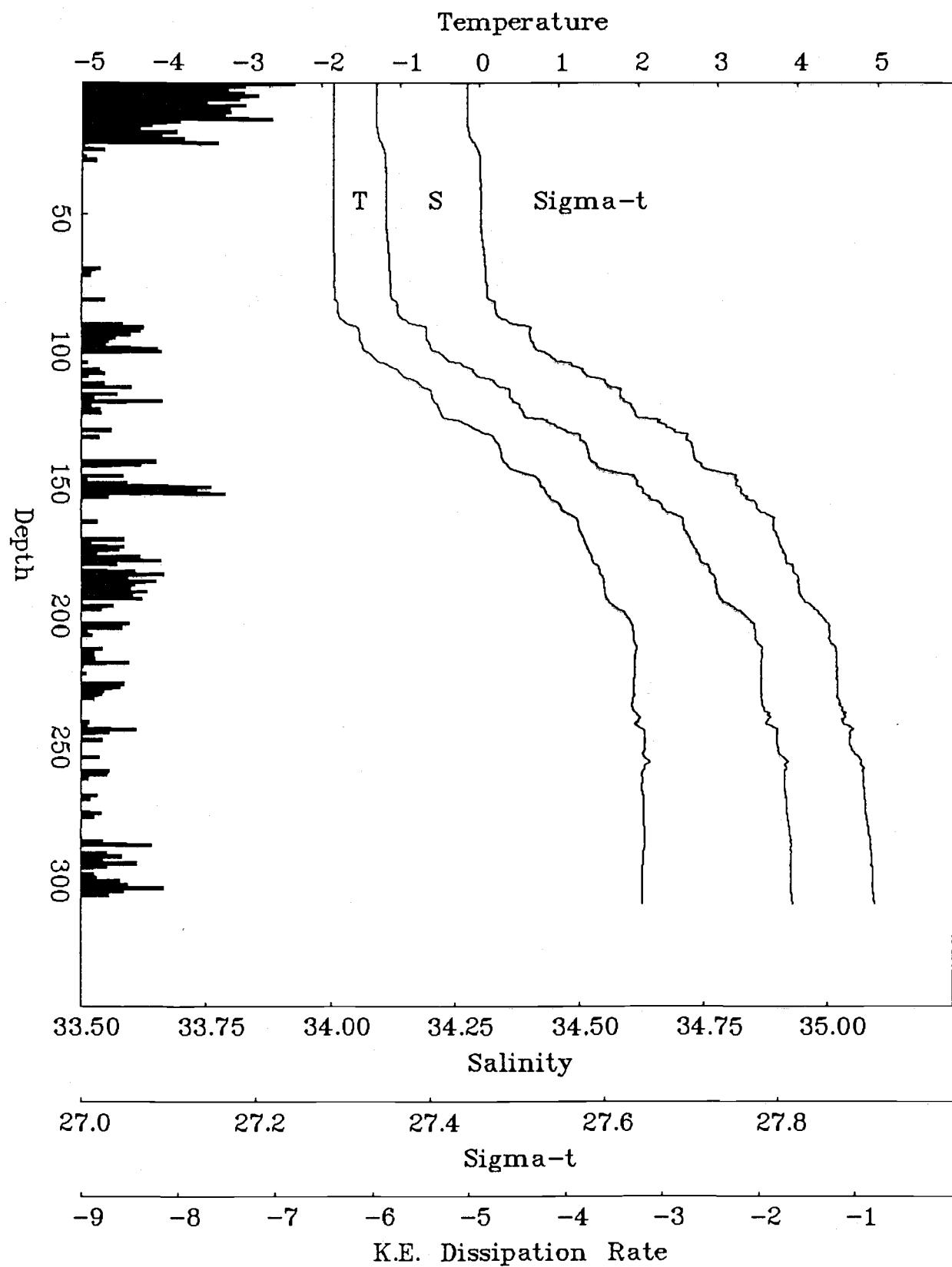
Sigma-t

K.E. Dissipation Rate

CEAREX Cast 635, JD 101.0271, 00:30, 82.70N, 10.69E

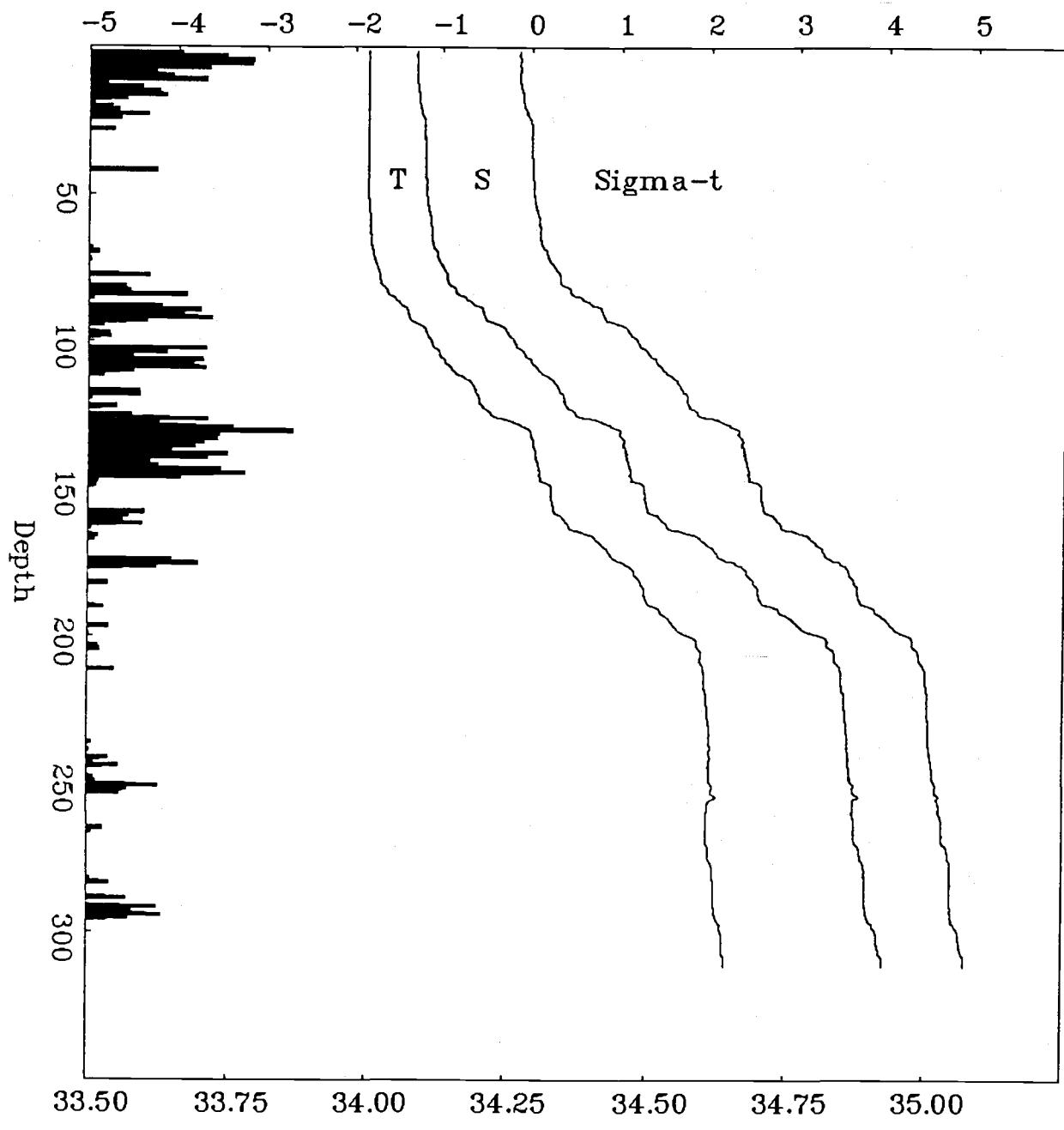


CEAREX Cast 641, JD 101.1725, 04:00, 82.70N, 10.68E

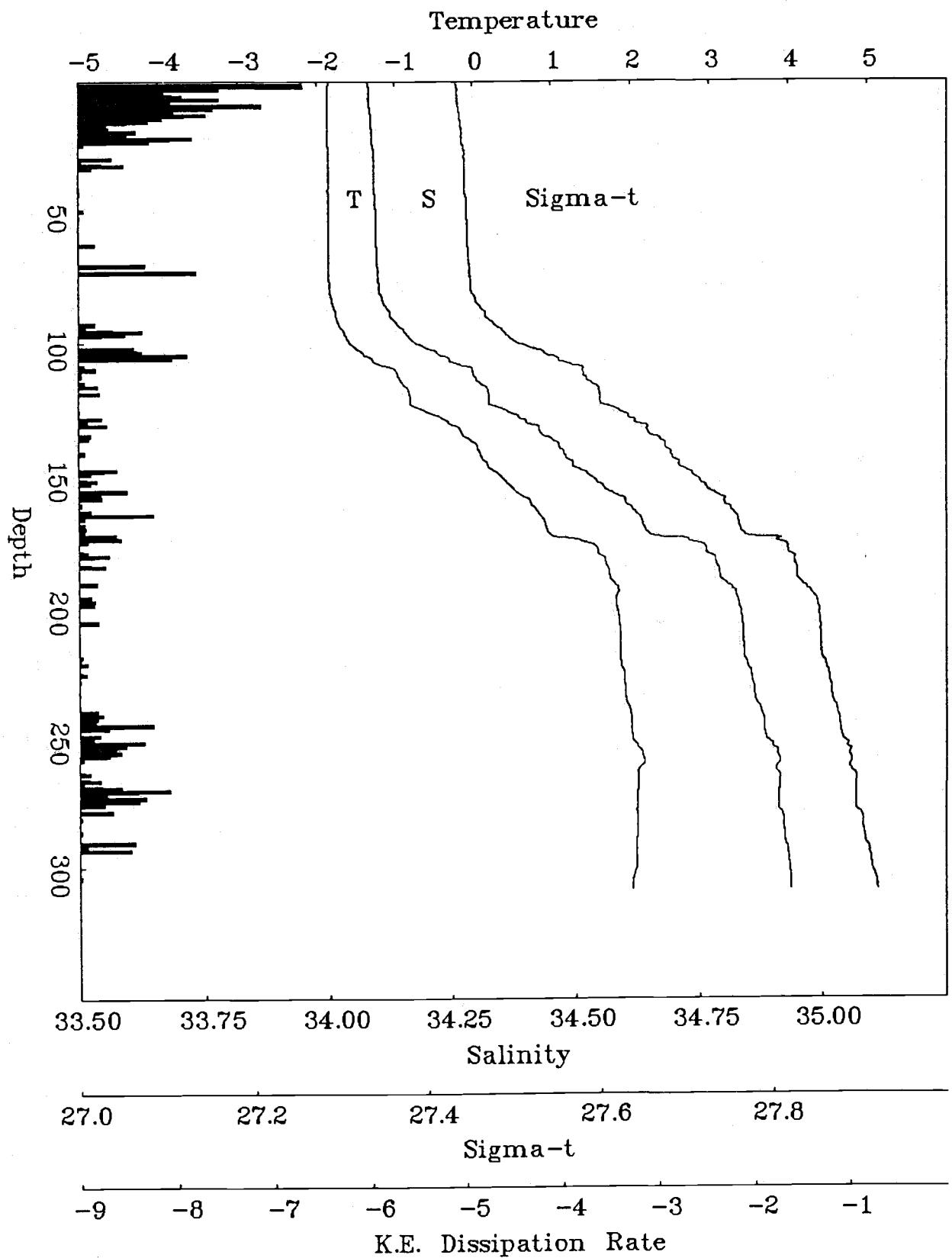


CEAREX Cast 651, JD 101.3388, 08:00, 82.71N, 10.73E

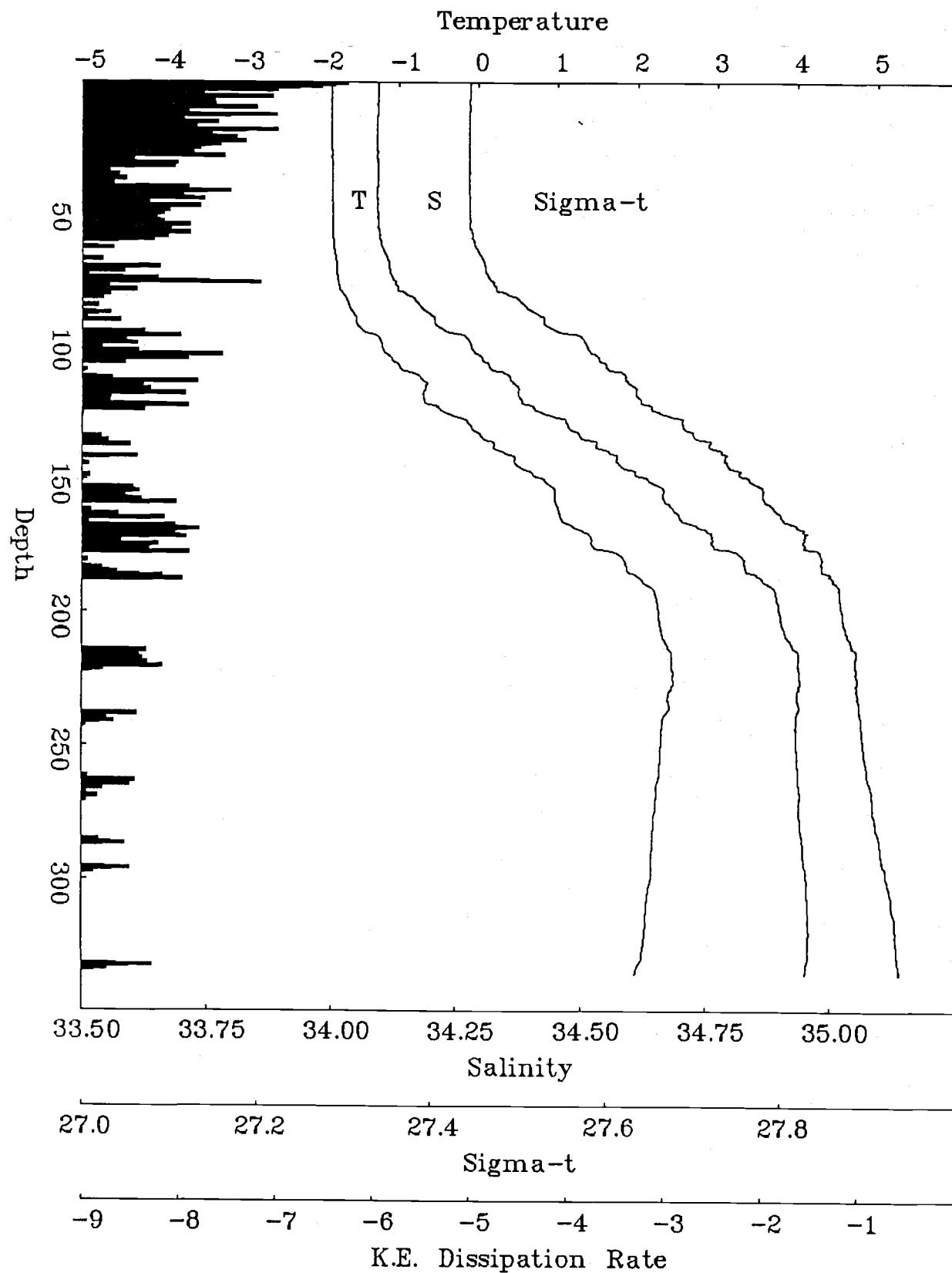
Temperature



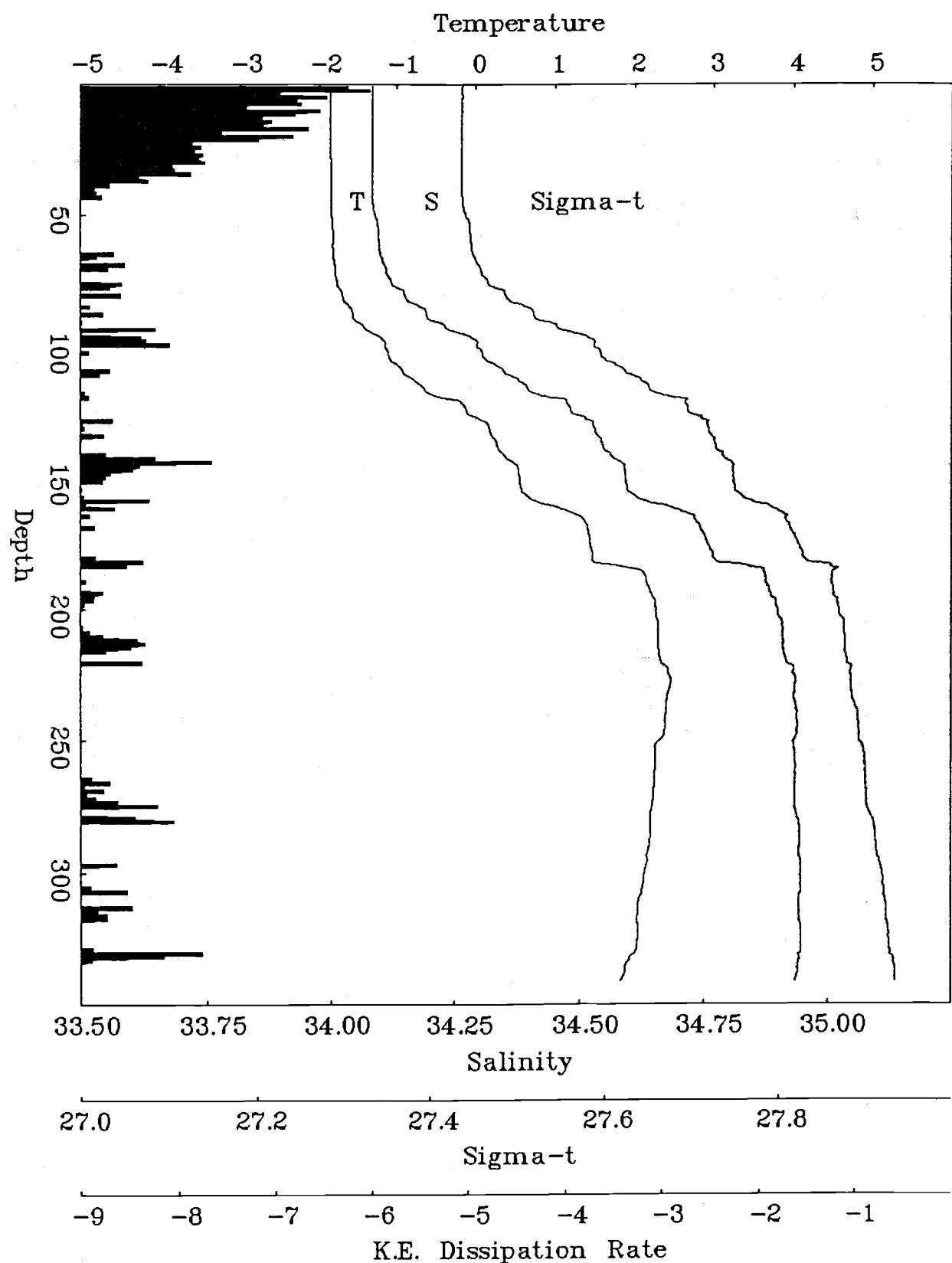
CEAREX Cast 662, JD 101.5050, 11:59, 82.71N, 10.75E



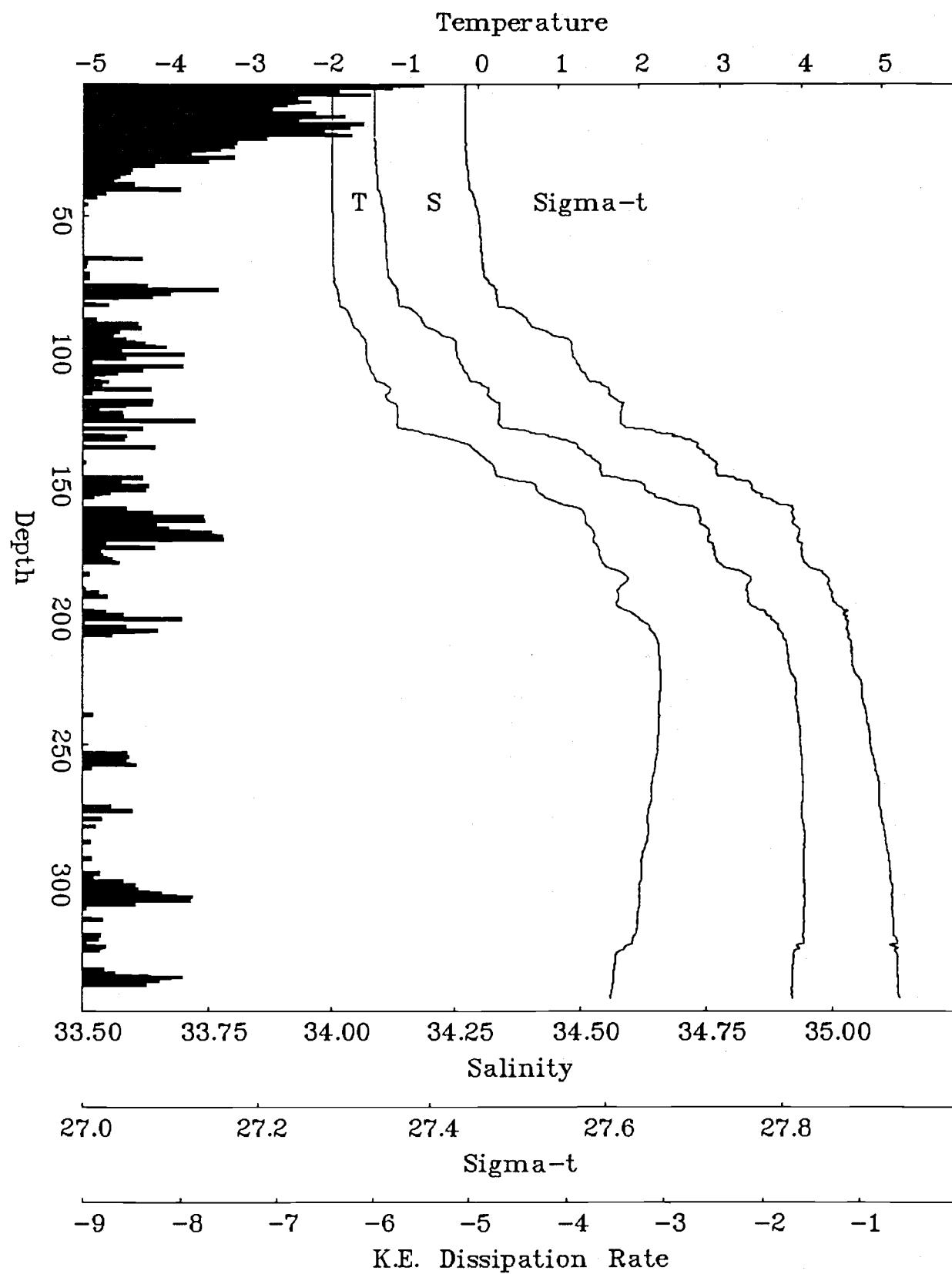
CEAREX Cast 677, JD 101.6754, 16:04, 82.71N, 10.78E



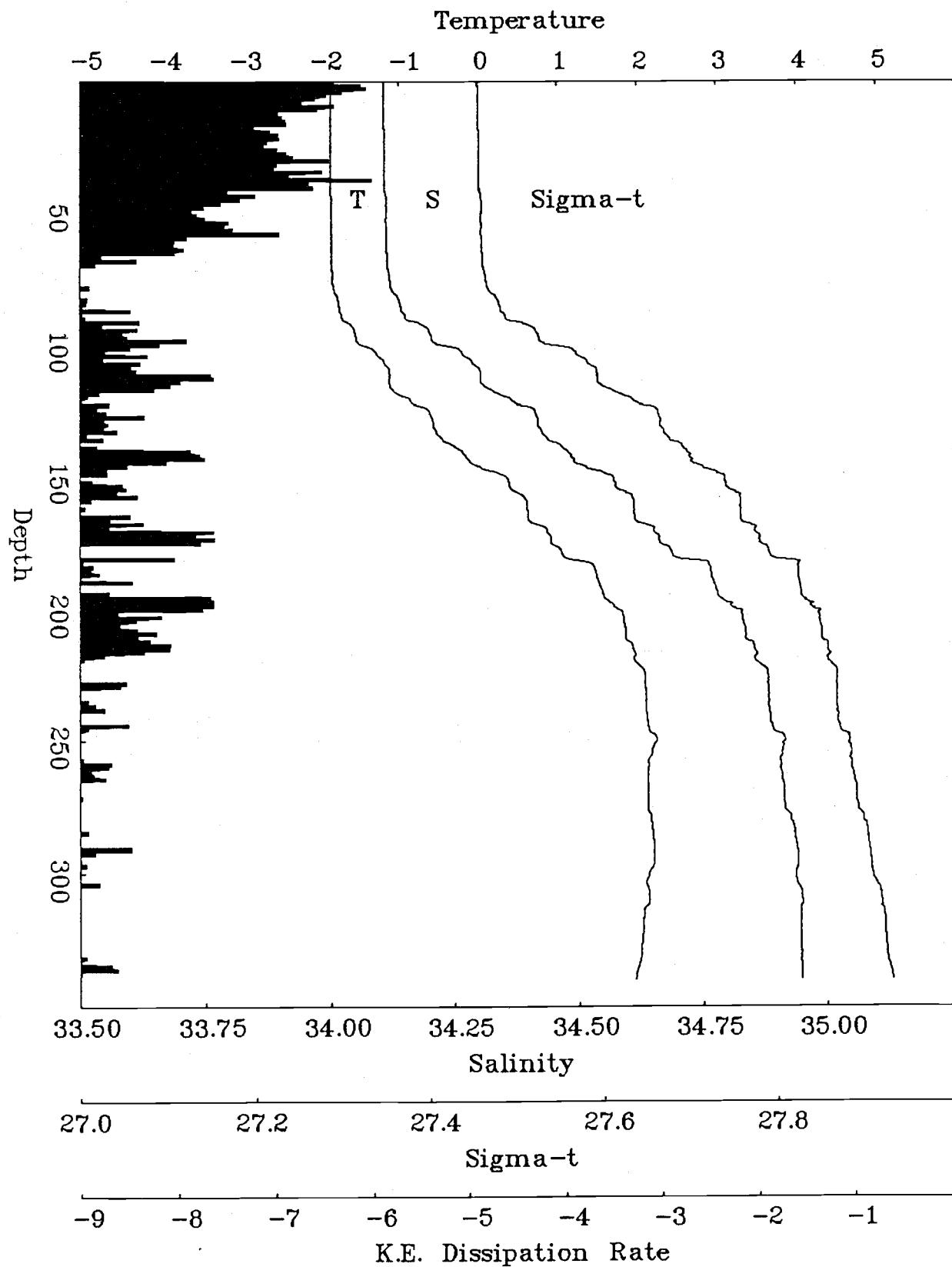
CEAREX Cast 685, JD 101.8383, 19:59, 82.71N, 10.86E



CEAREX Cast 692, JD 102.0053, 23:59, 82.70N, 10.91E

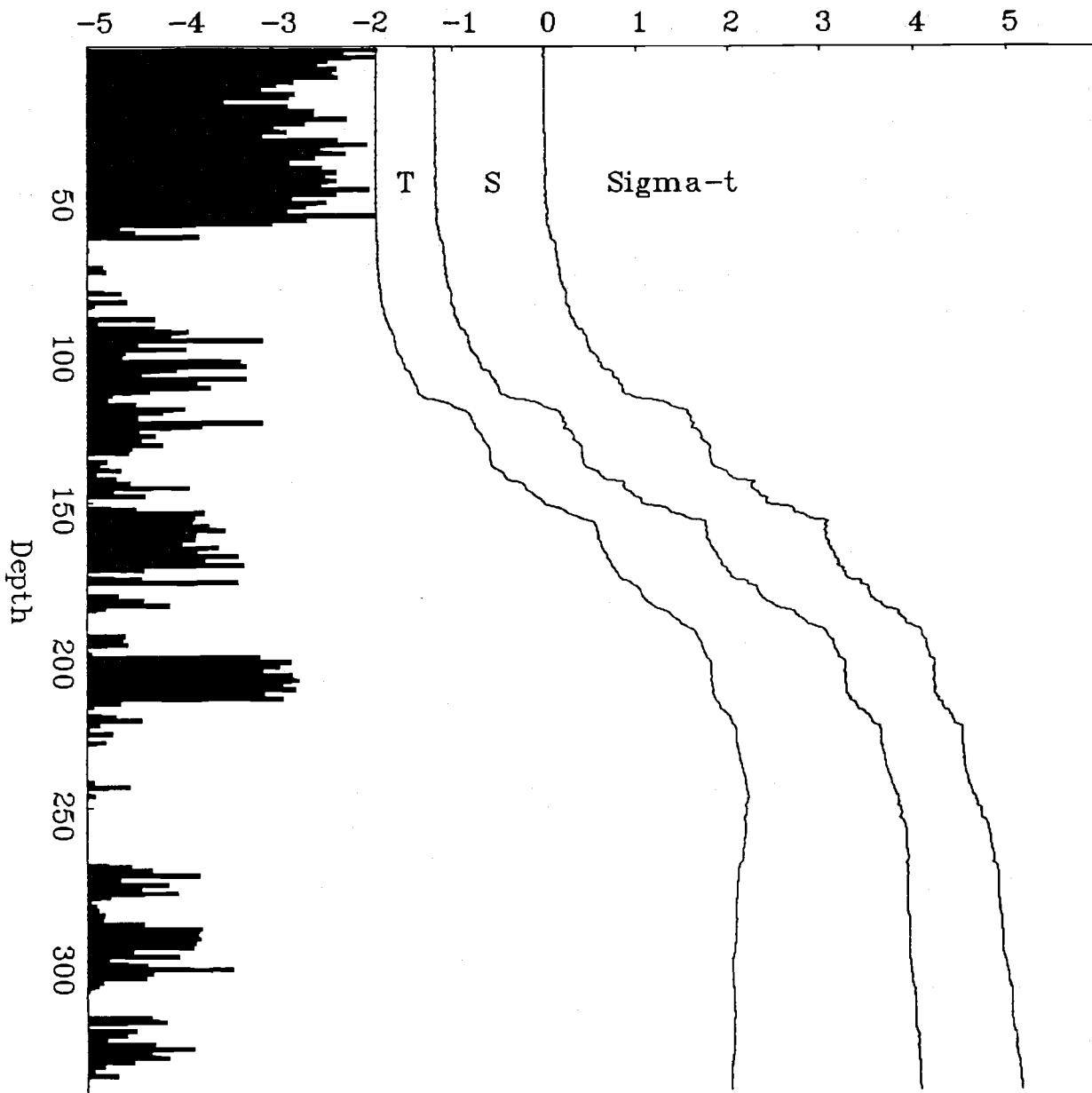


CEAREX Cast 699, JD 102.1724, 04:00, 82.69N, 10.89E



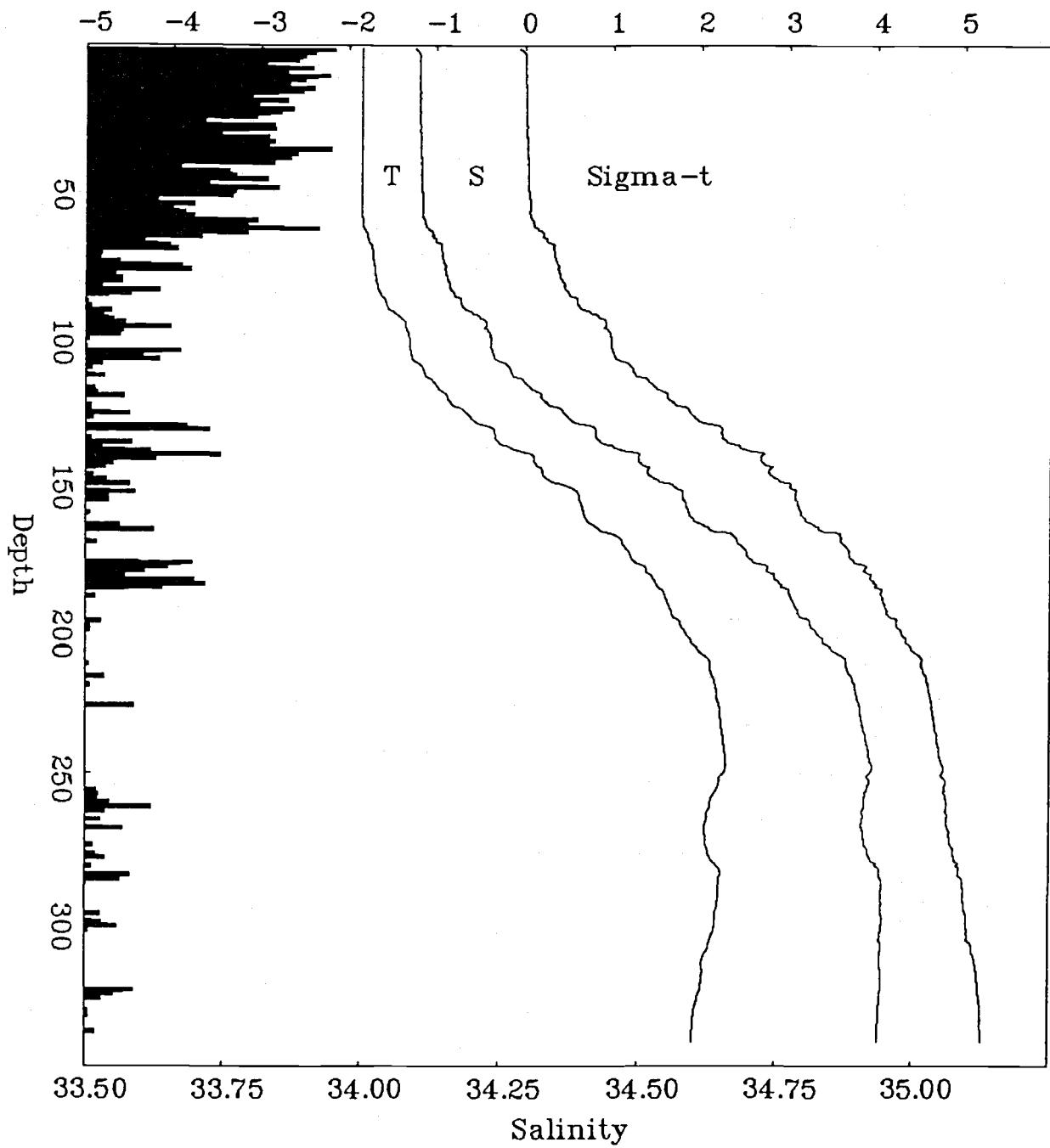
CEAREX Cast 712, JD 102.3440, 08:07, 82.68N, 10.84E

Temperature



CEAREX Cast 725, JD 102.5016, 11:54, 82.67N, 10.76E

Temperature

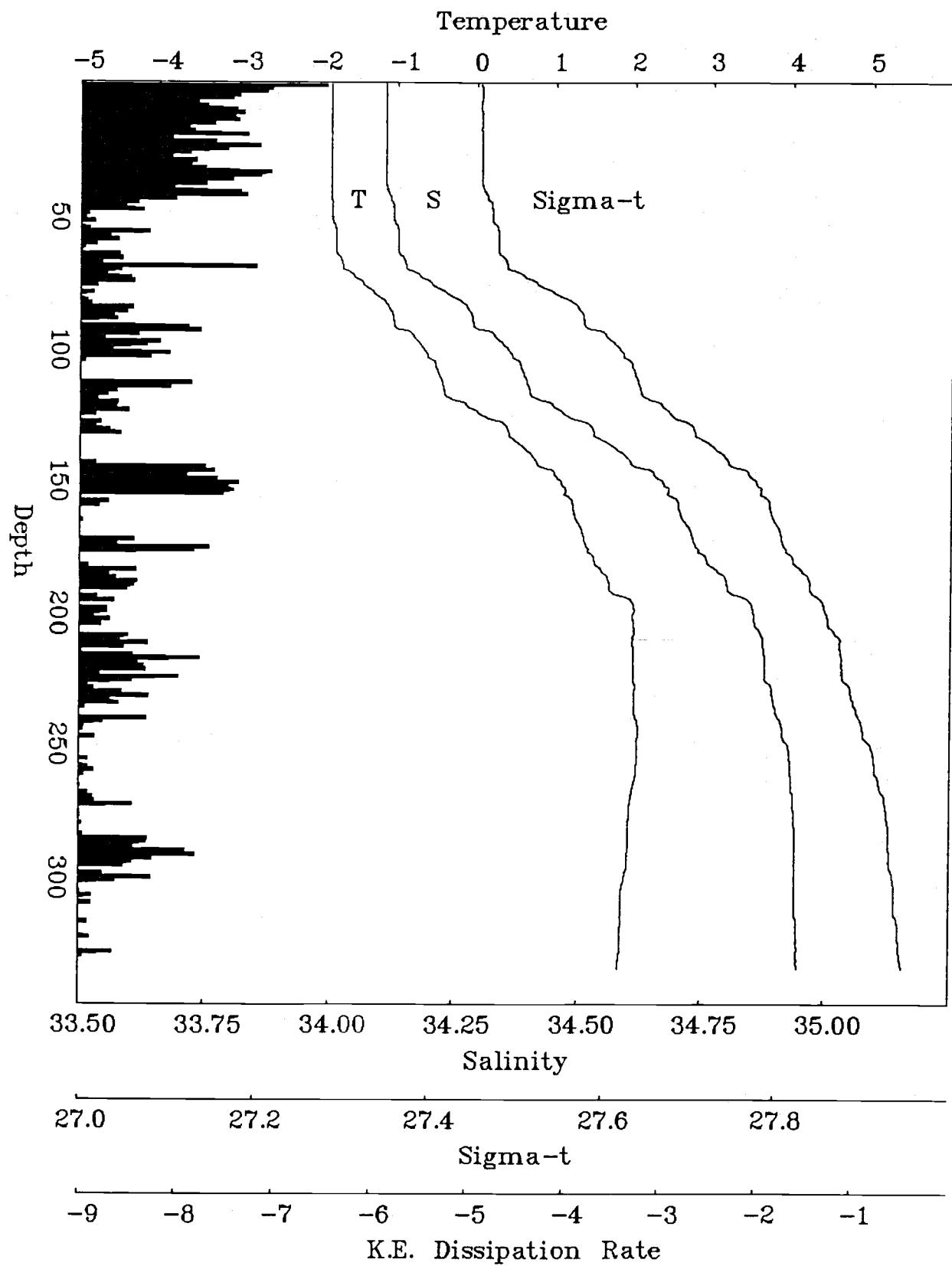


Salinity

Sigma-t

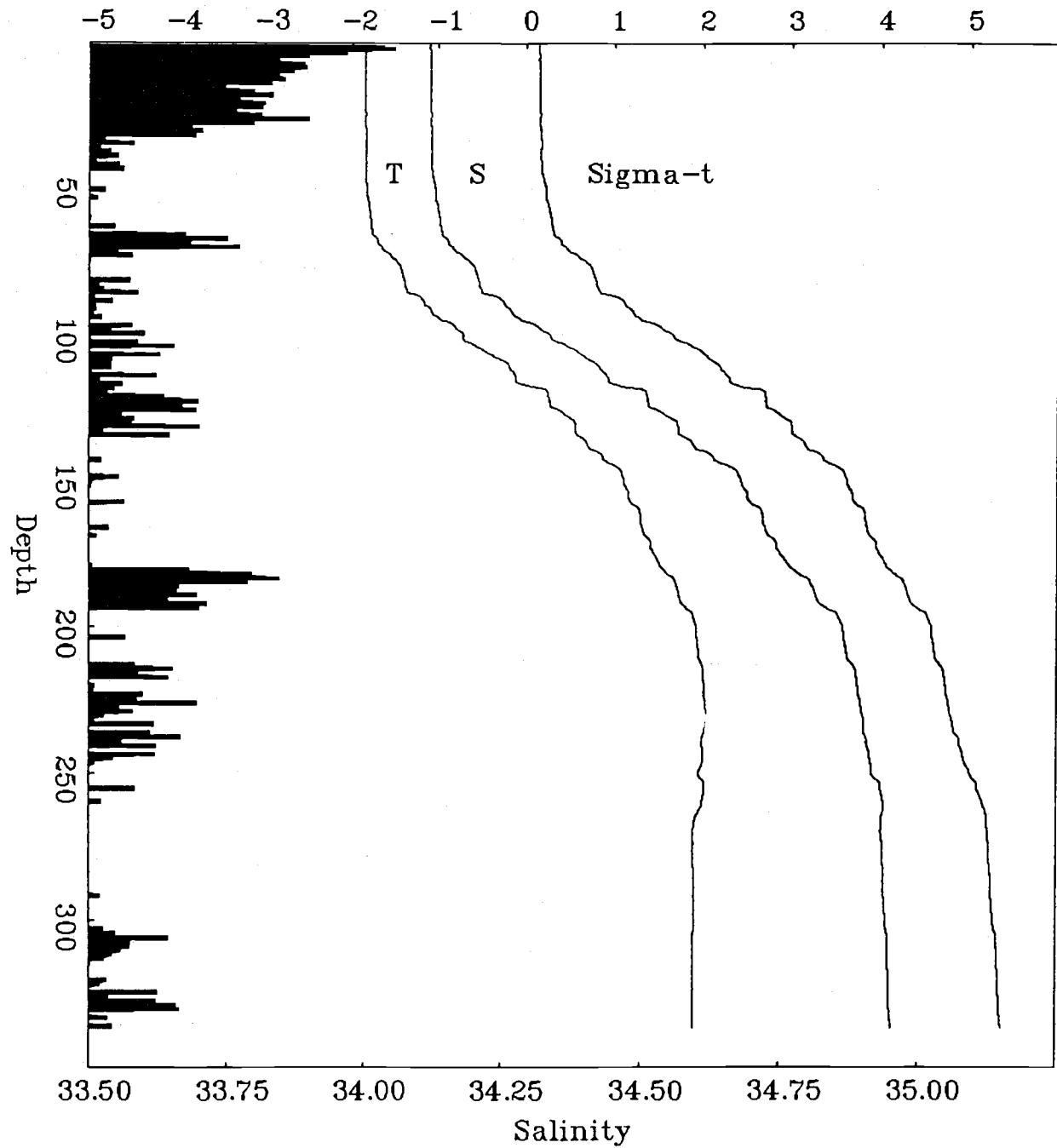
K.E. Dissipation Rate

CEAREX Cast 739, JD 102.6716, 15:59, 82.65N, 10.62E



CEAREX Cast 750, JD 102.8383, 19:59, 82.64N, 10.41E

Temperature



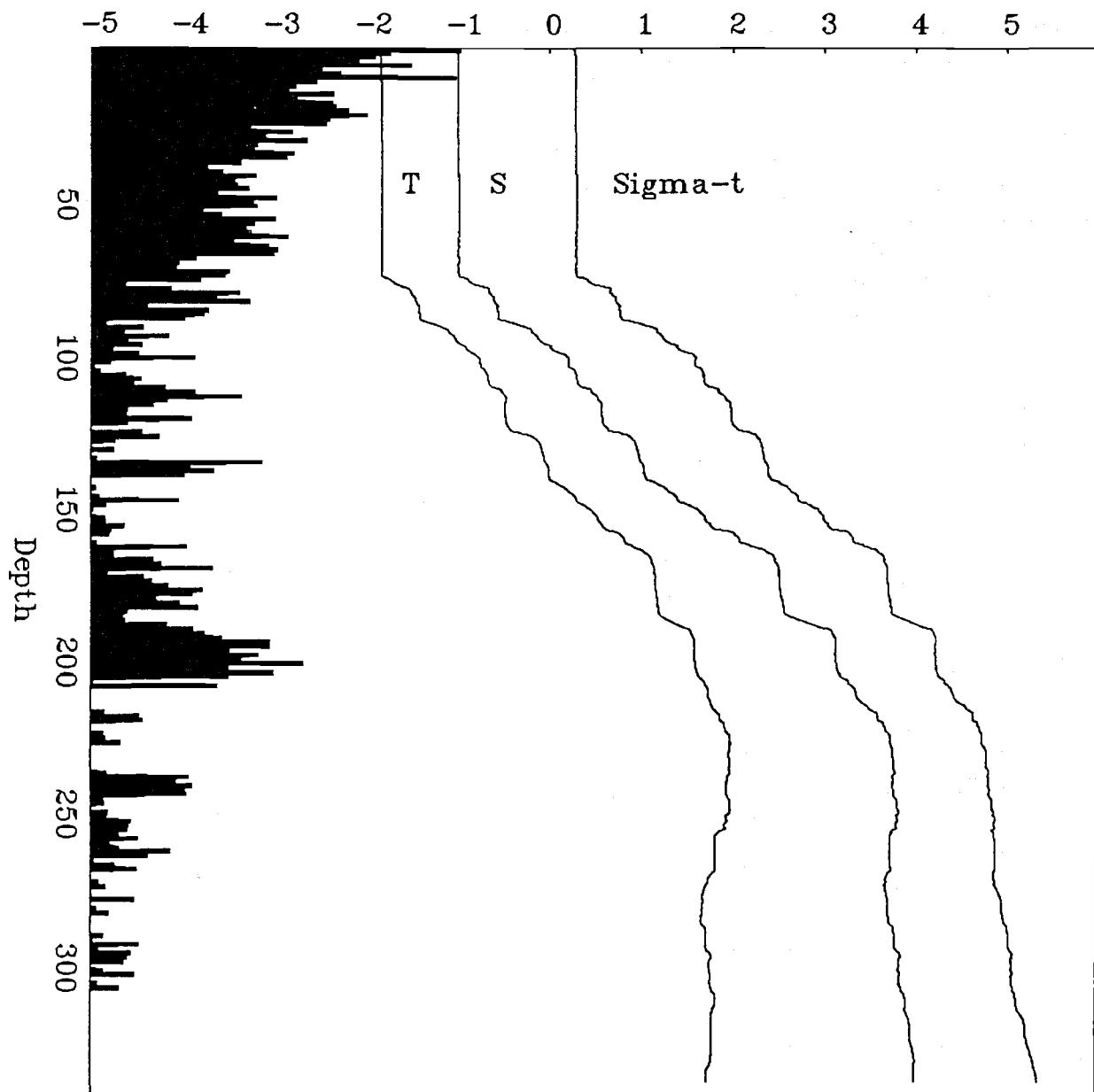
Salinity

Sigma-t

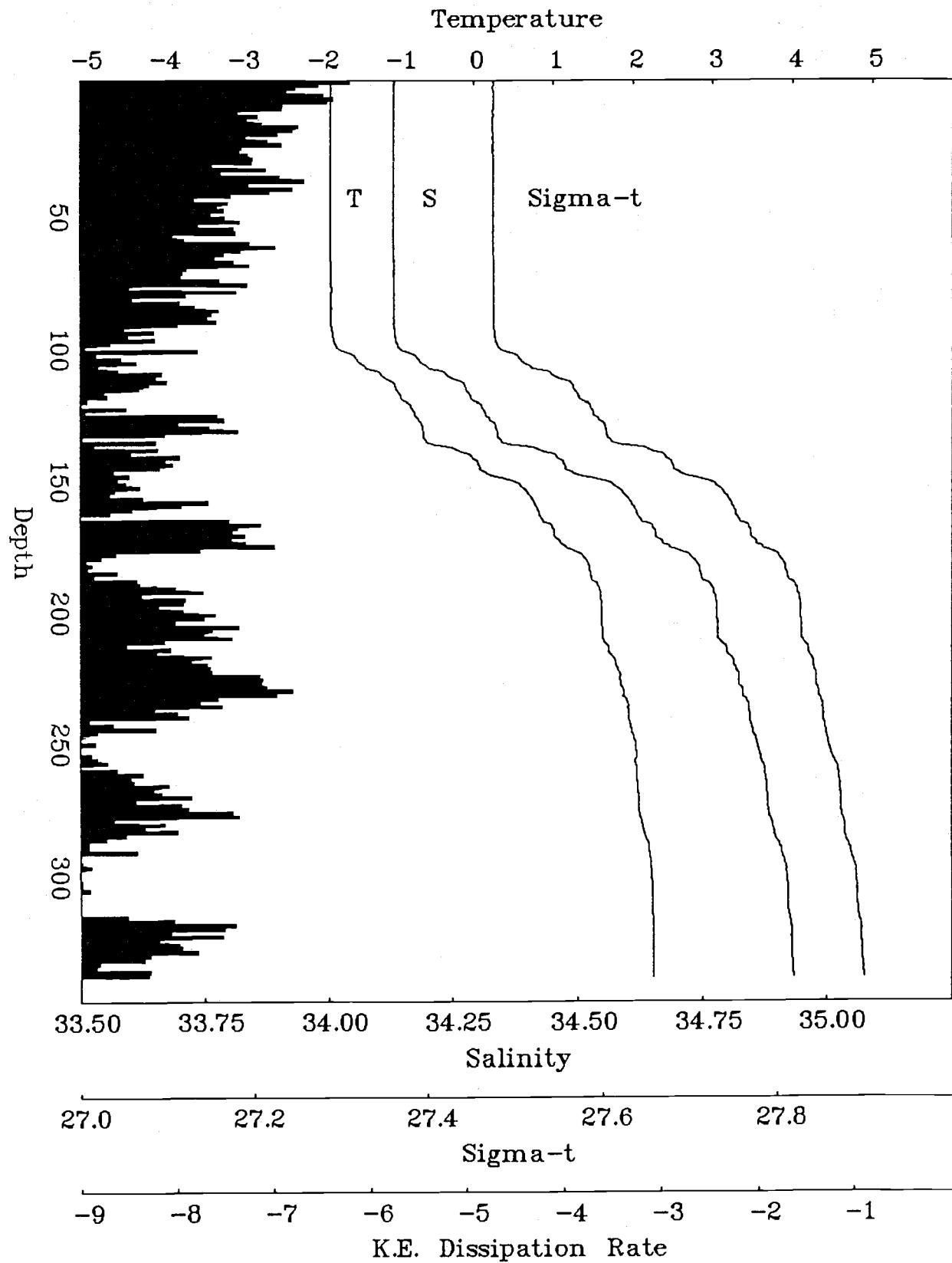
K.E. Dissipation Rate

CEAREX Cast 760, JD 103.0041, 23:57, 82.64N, 10.19E

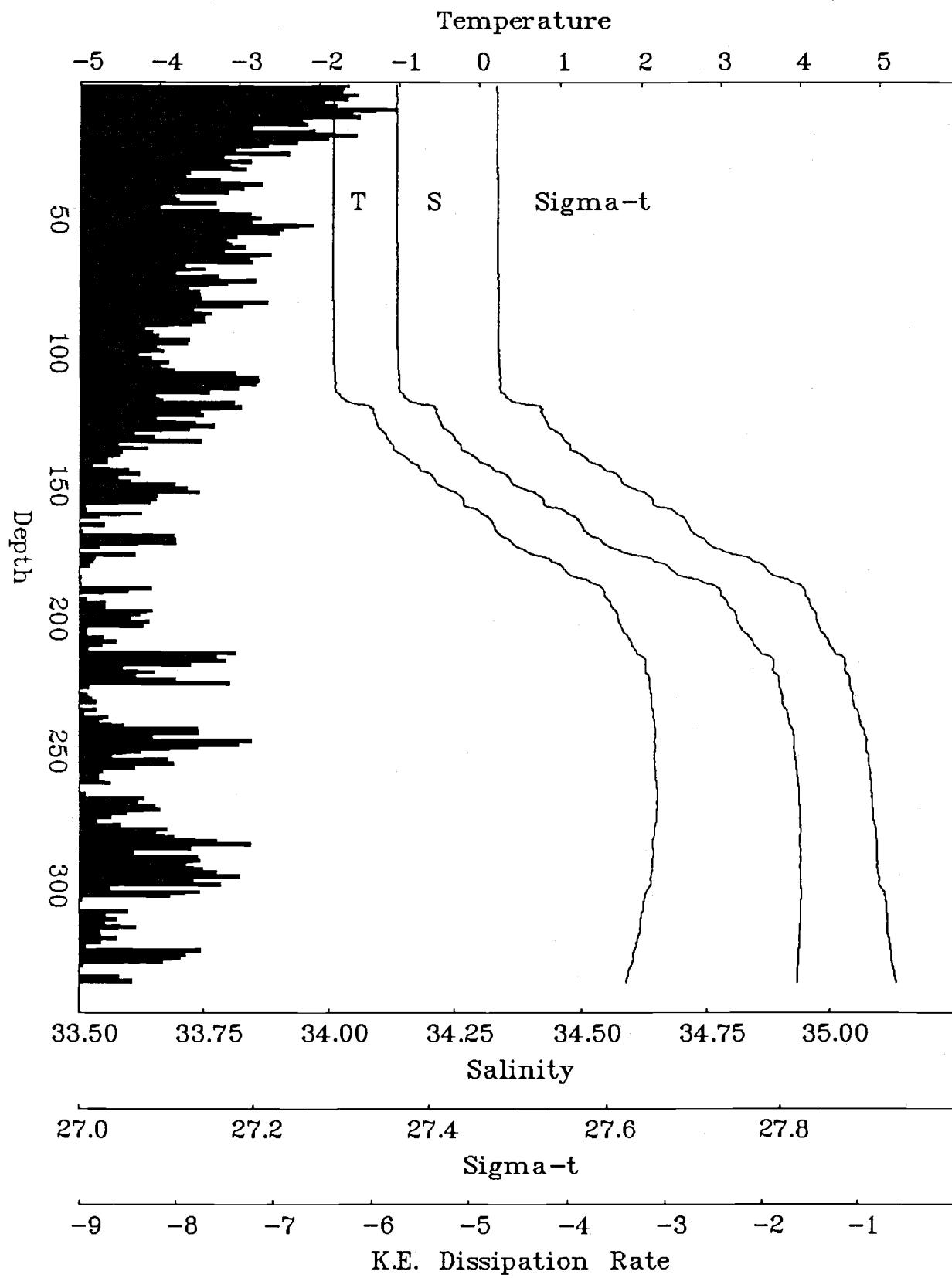
Temperature



CEAREX Cast 774, JD 103.1710, 03:58, 82.64N, 10.02E

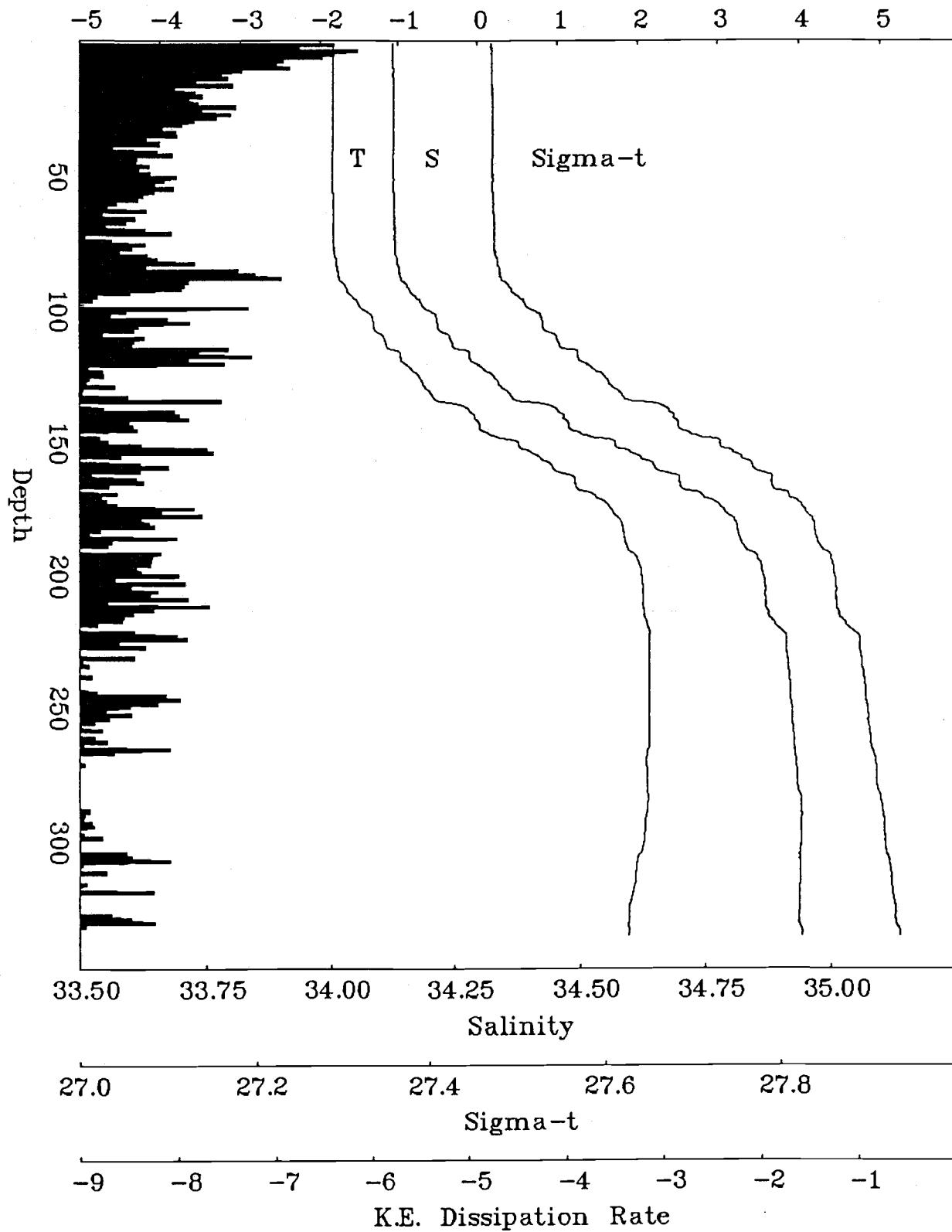


CEAREX Cast 789, JD 103.3357, 07:55, 82.65N, 9.93E



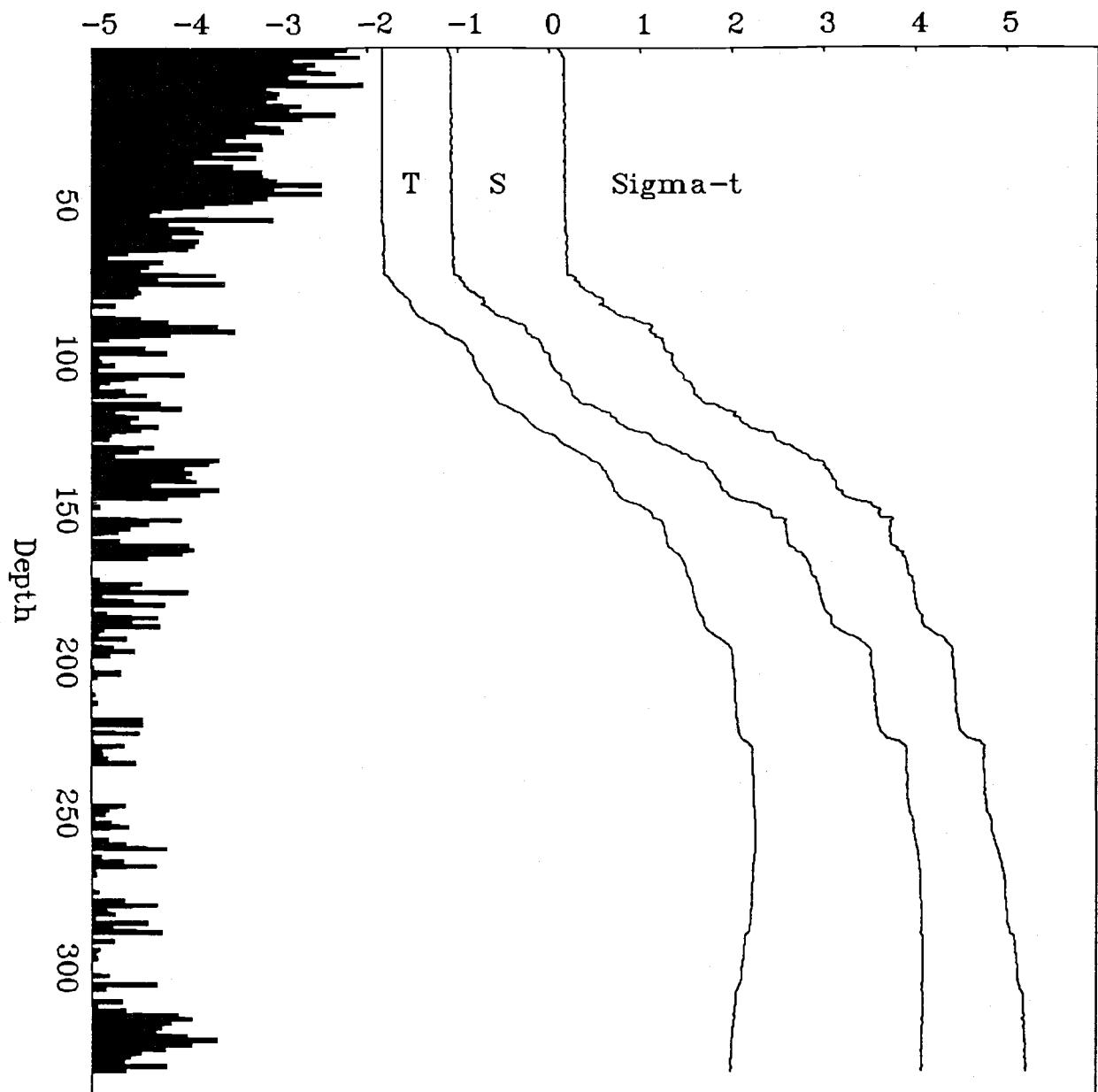
CEAREX Cast 803, JD 103.5029, 11:56, 82.65N, 9.84E

Temperature

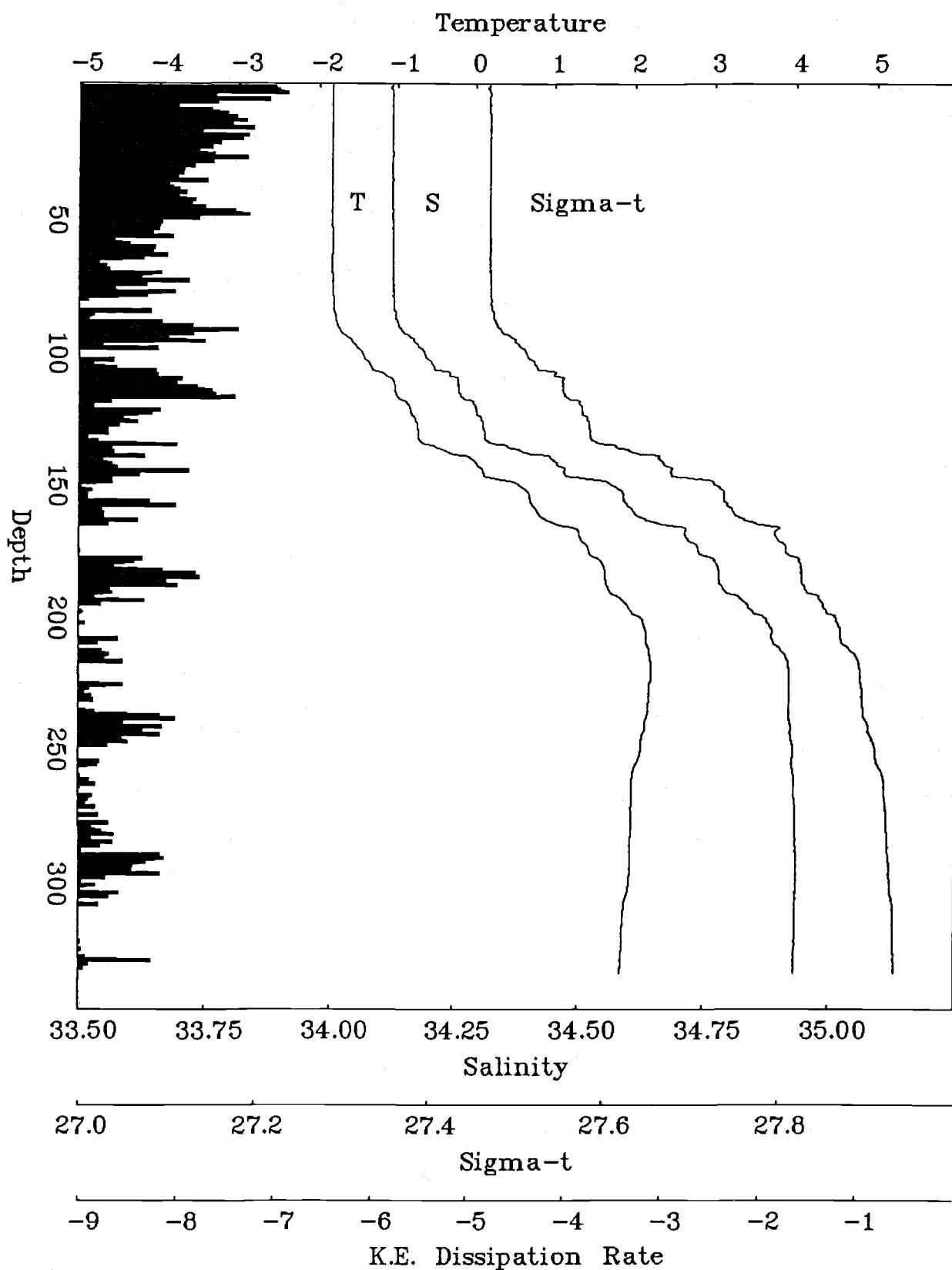


CEAREX Cast 818, JD 103.6717, 15:59, 82.65N, 9.73E

Temperature

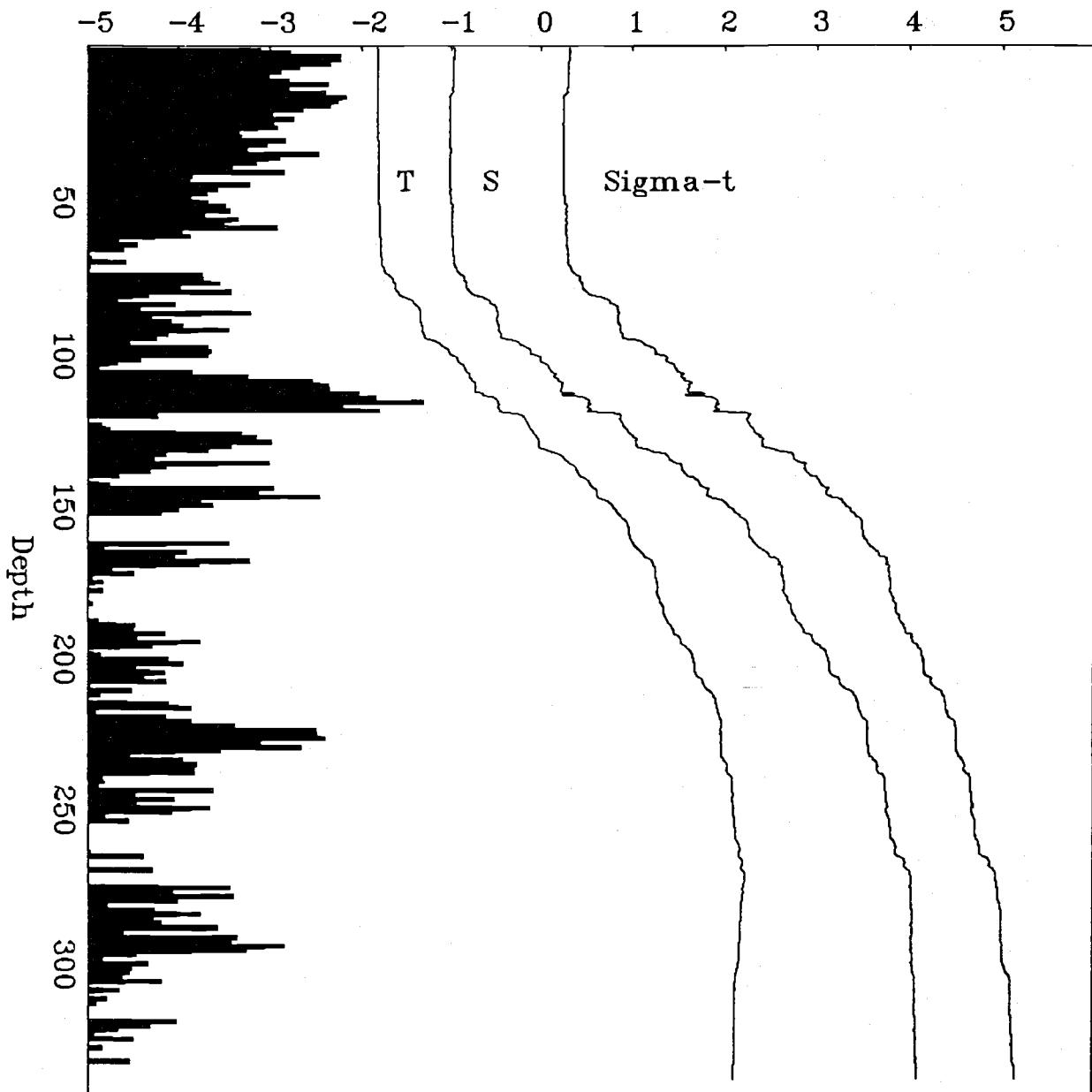


CEAREX Cast 831, JD 103.8372, 19:57, 82.65N, 9.61E



CEAREX Cast 845, JD 104.0268, 00:30, 82.65N, 9.47E

Temperature



Salinity



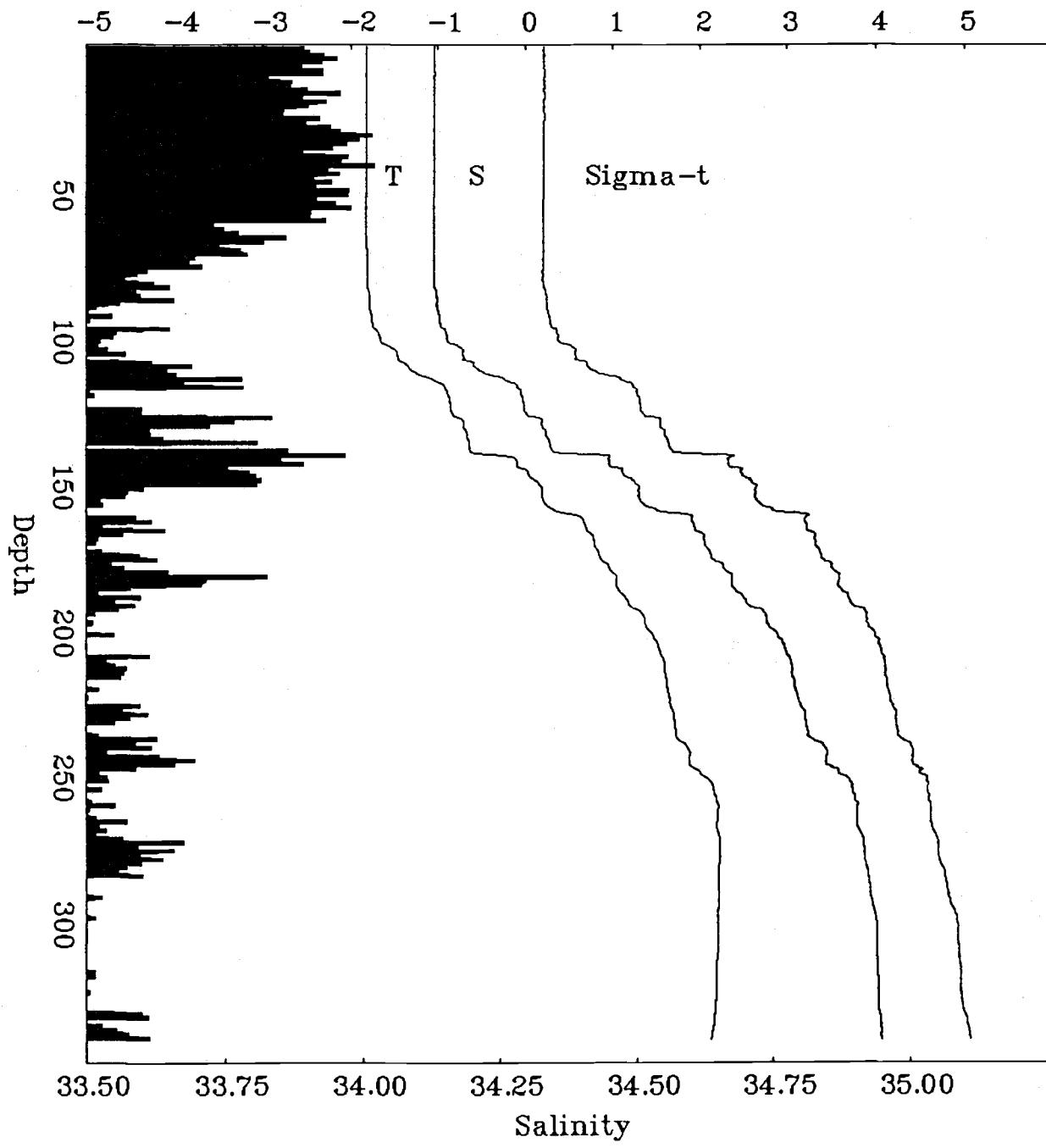
Sigma-t



K.E. Dissipation Rate

CEAREX Cast 854, JD 104.1726, 04:00, 82.65N, 9.39E

Temperature

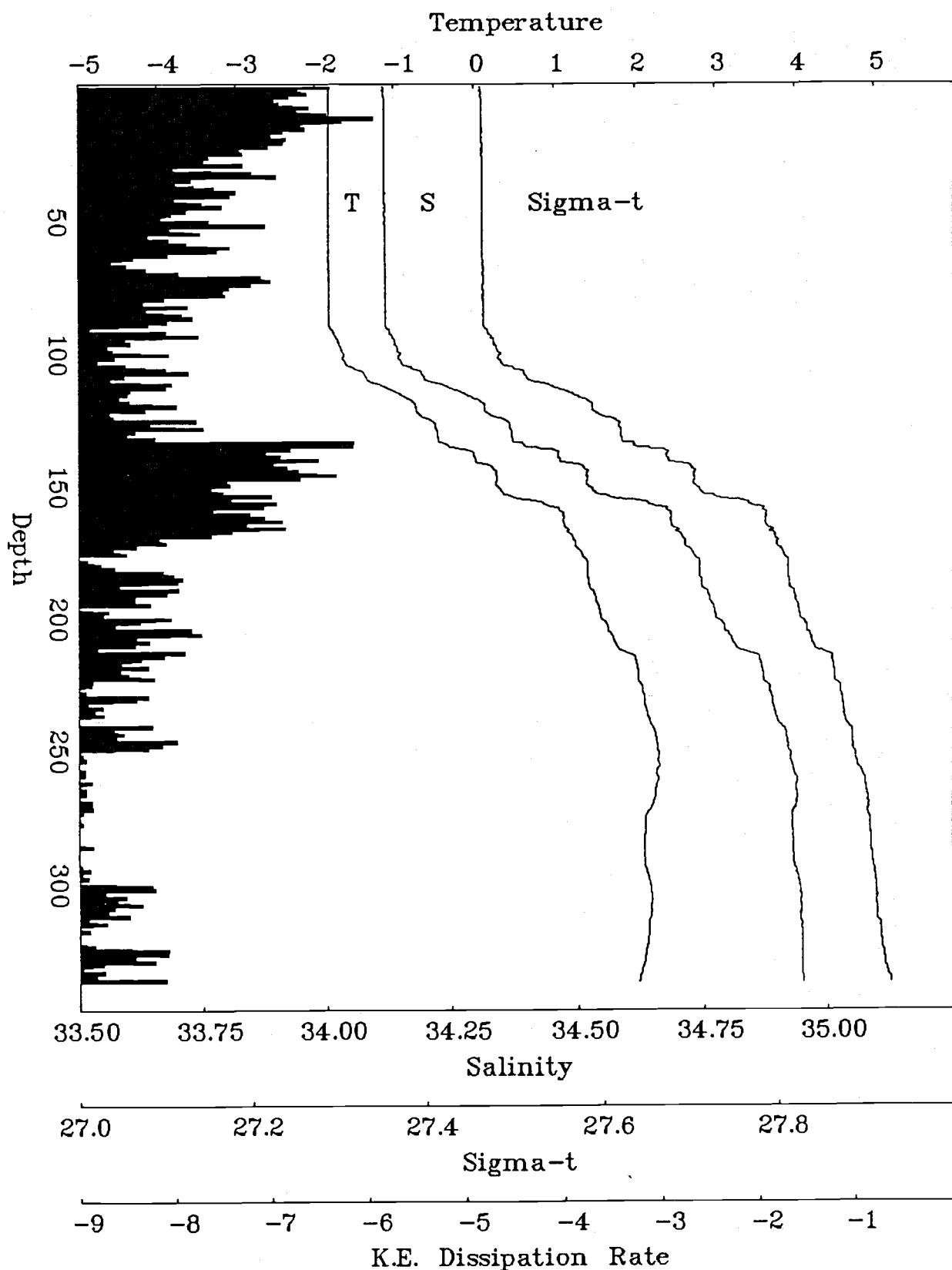


Salinity

Sigma-t

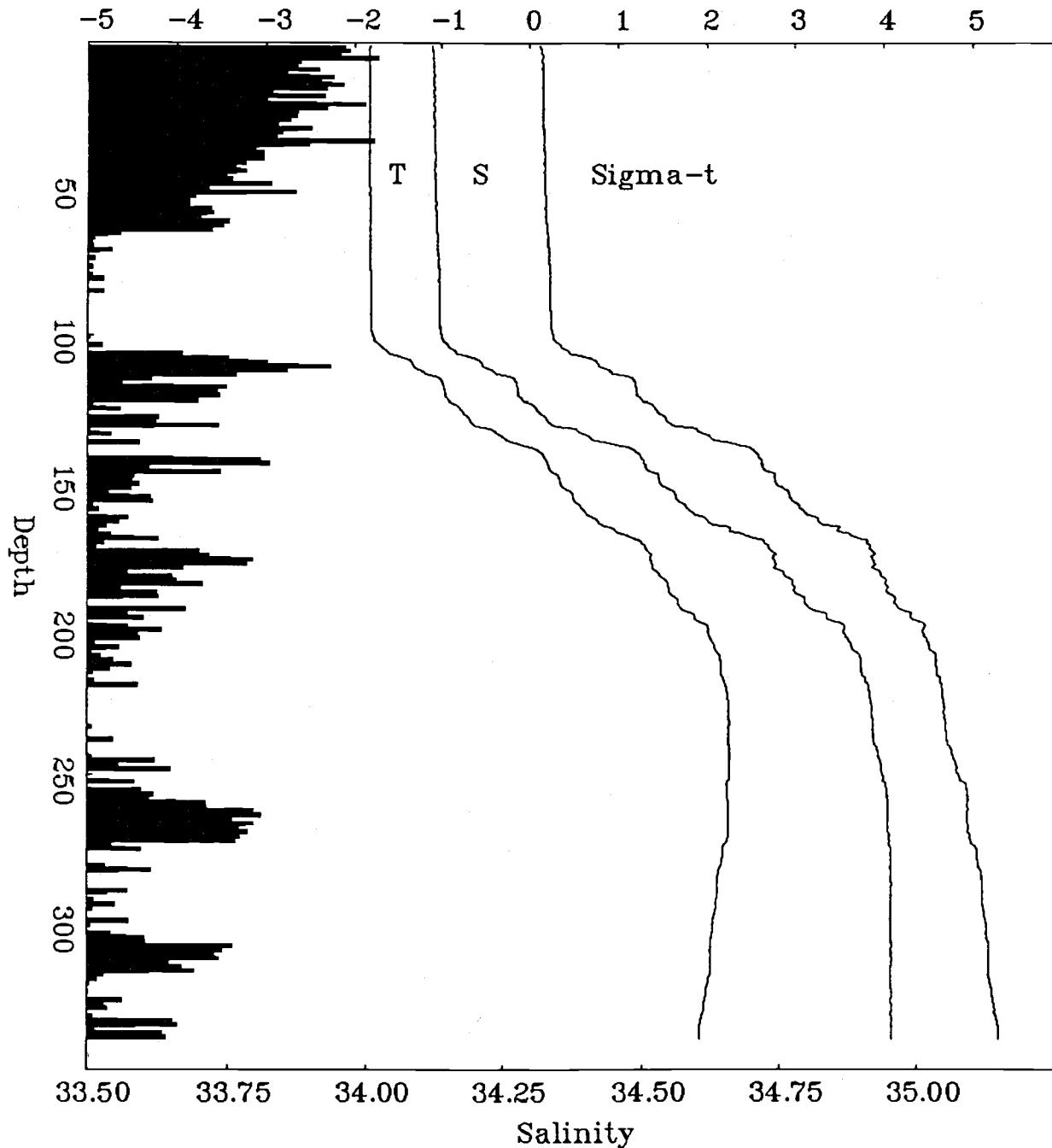
K.E. Dissipation Rate

CEAREX Cast 867, JD 104.3419, 08:04, 82.65N, 9.31E



CEAREX Cast 881, JD 104.5054, 11:59, 82.65N, 9.26E

Temperature

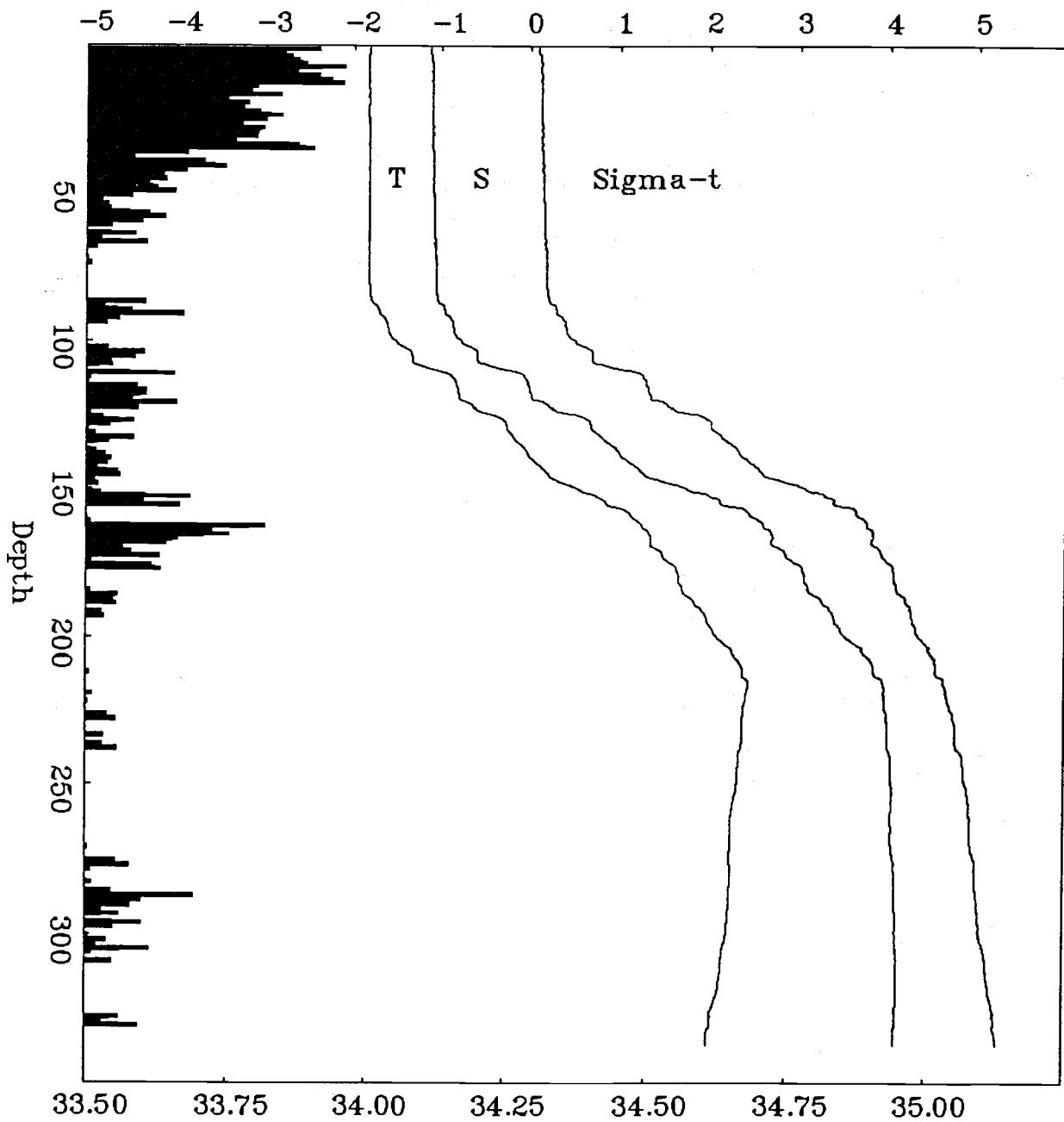


Sigma-t

K.E. Dissipation Rate

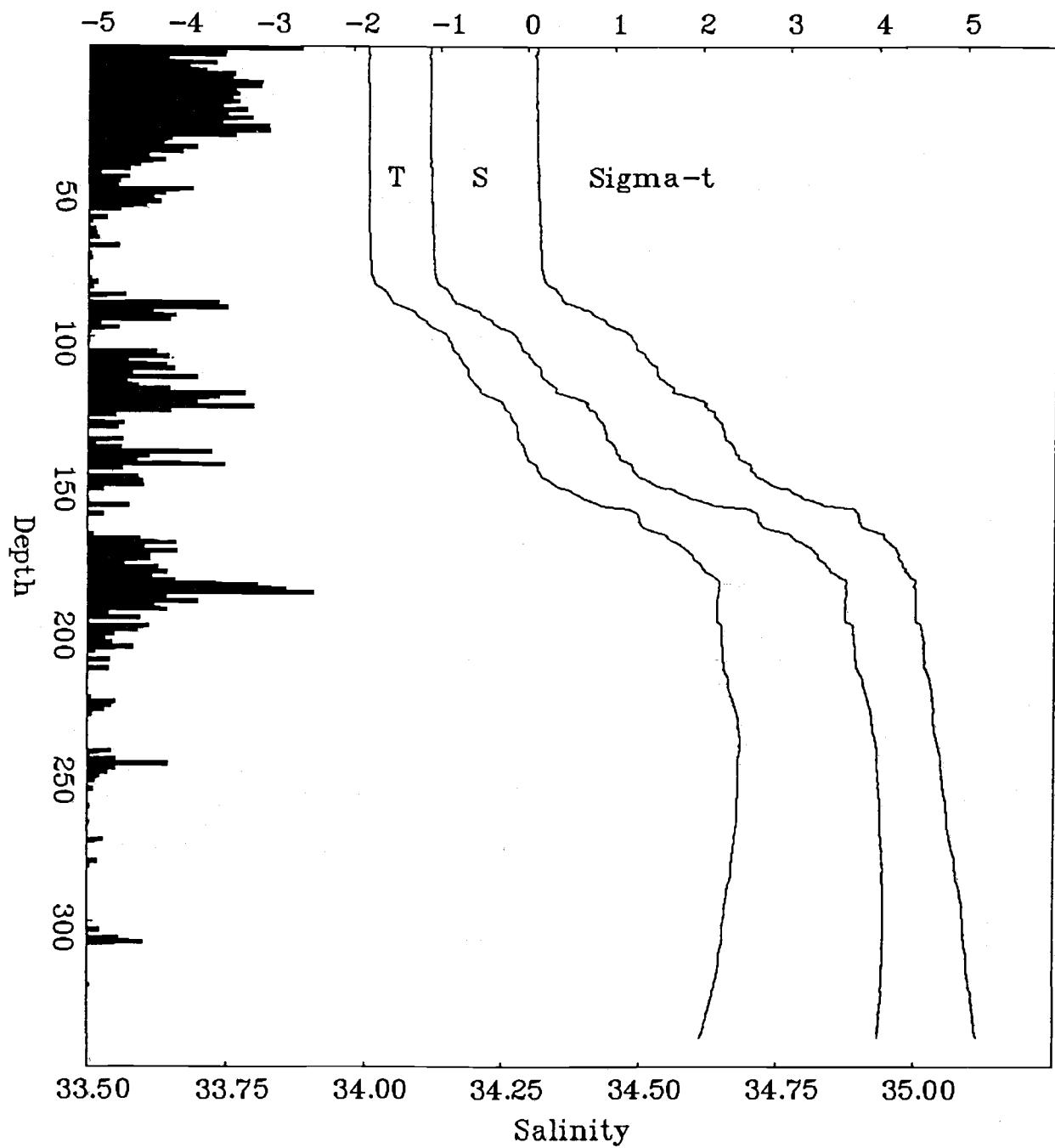
CEAREX Cast 895, JD 104.6717, 15:59, 82.65N, 9.17E

Temperature



CEAREX Cast 908, JD 104.8417, 20:04, 82.64N, 9.04E

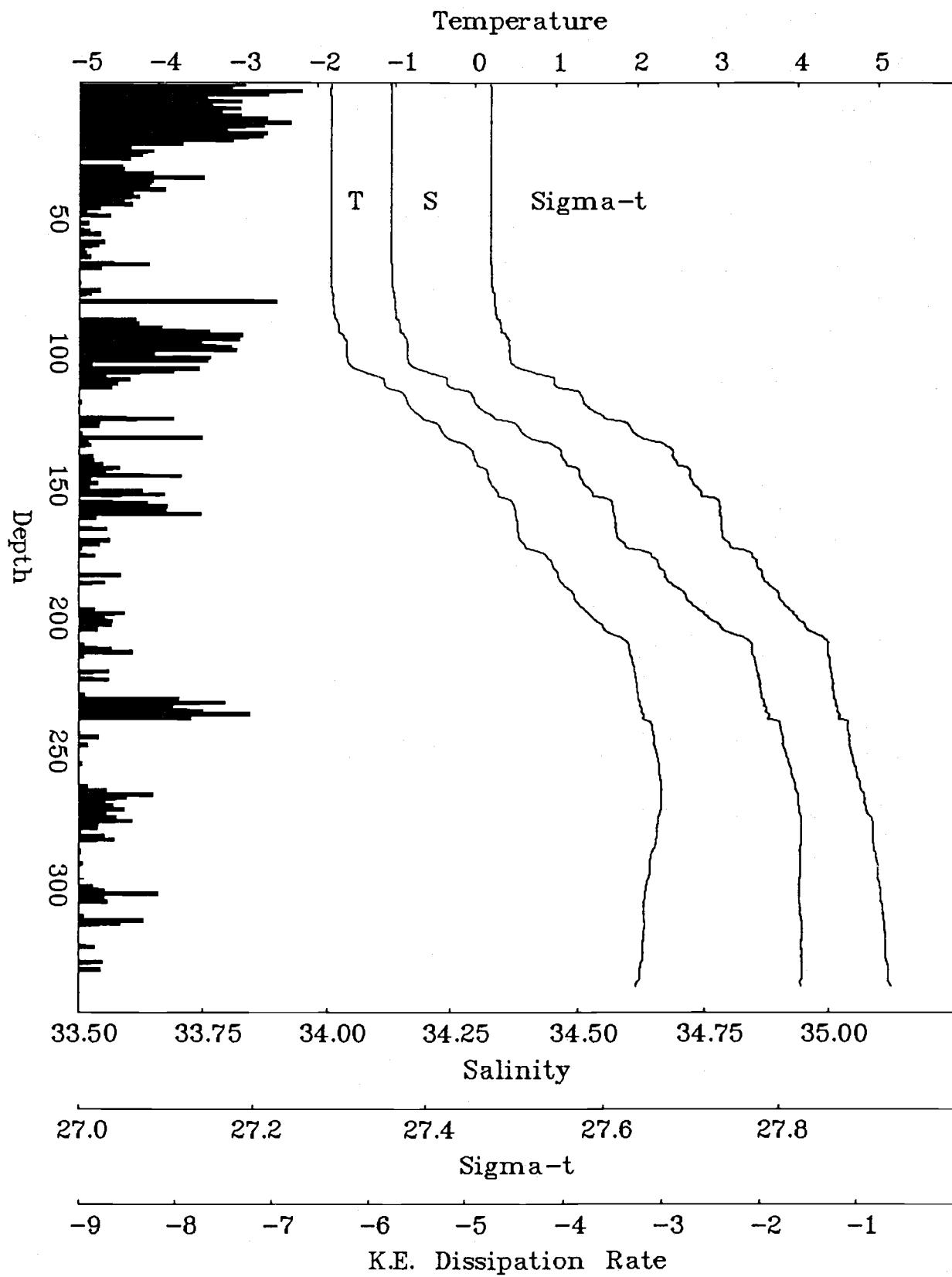
Temperature



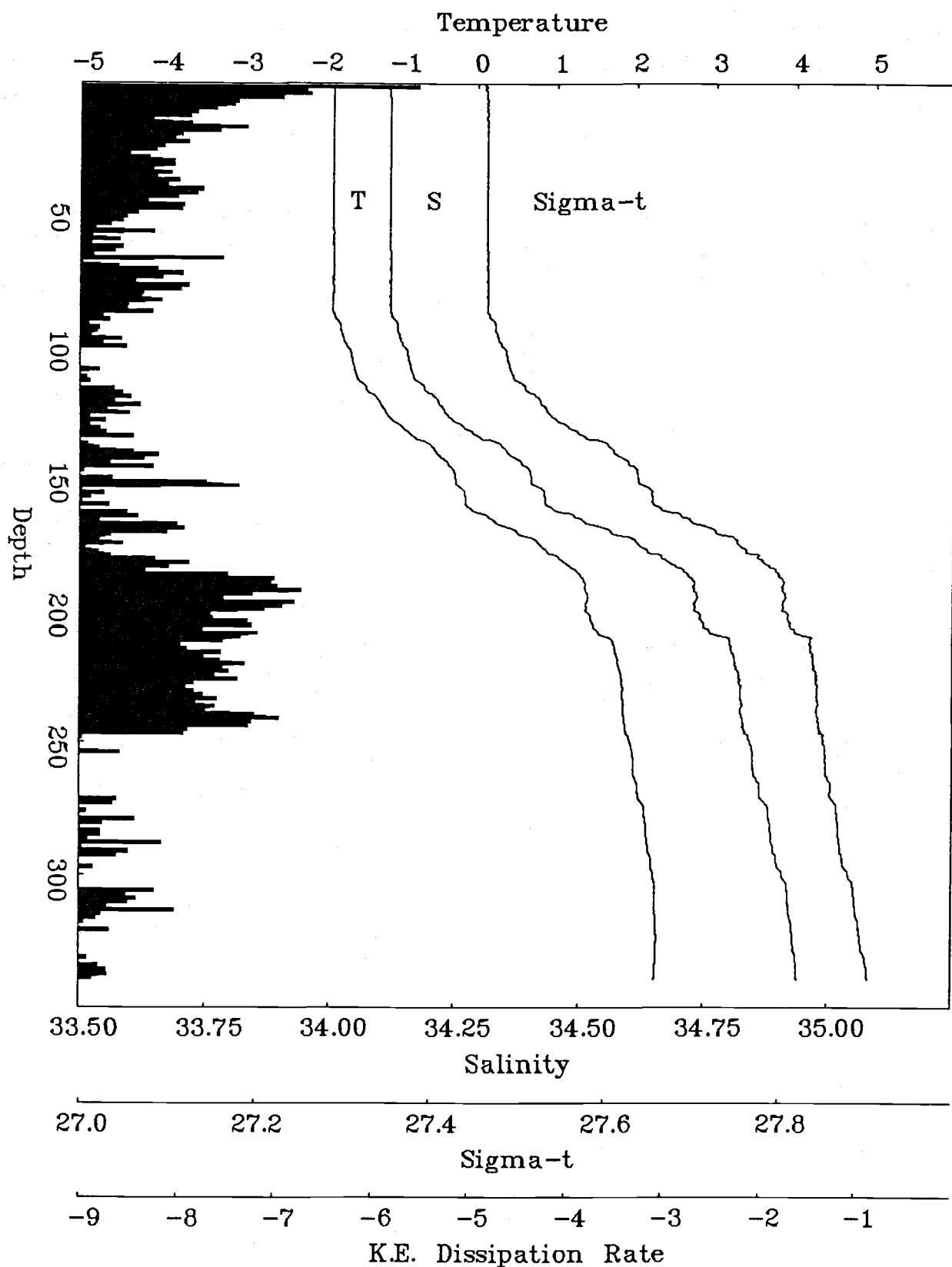
Sigma-t

K.E. Dissipation Rate

CEAREX Cast 919, JD 105.0058, 00:00, 82.65N, 8.96E

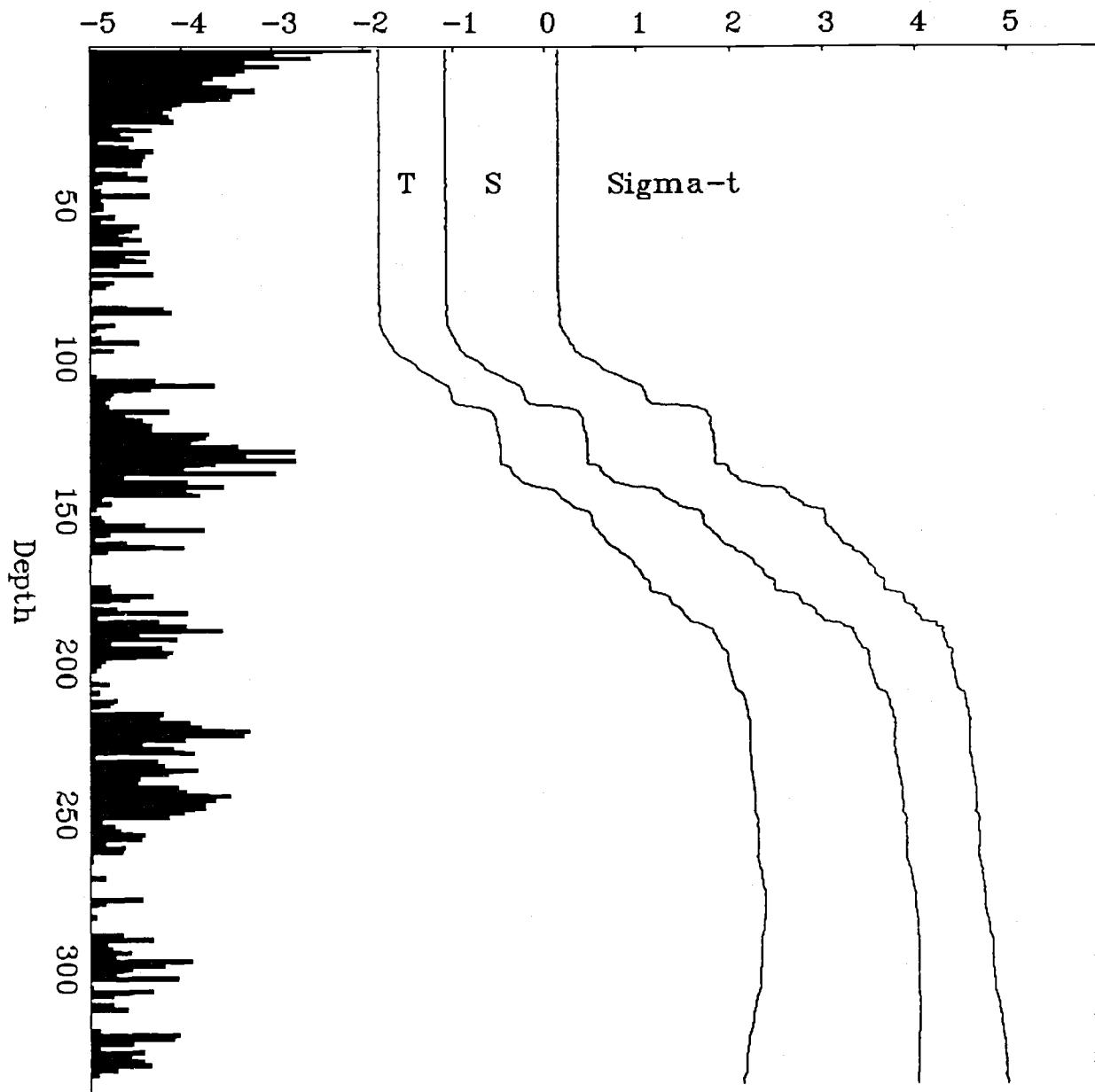


CEAREX Cast 928, JD 105.1717, 03:59, 82.66N, 8.91E



CEAREX Cast 941, JD 105.3384, 07:59, 82.66N, 8.87E

Temperature

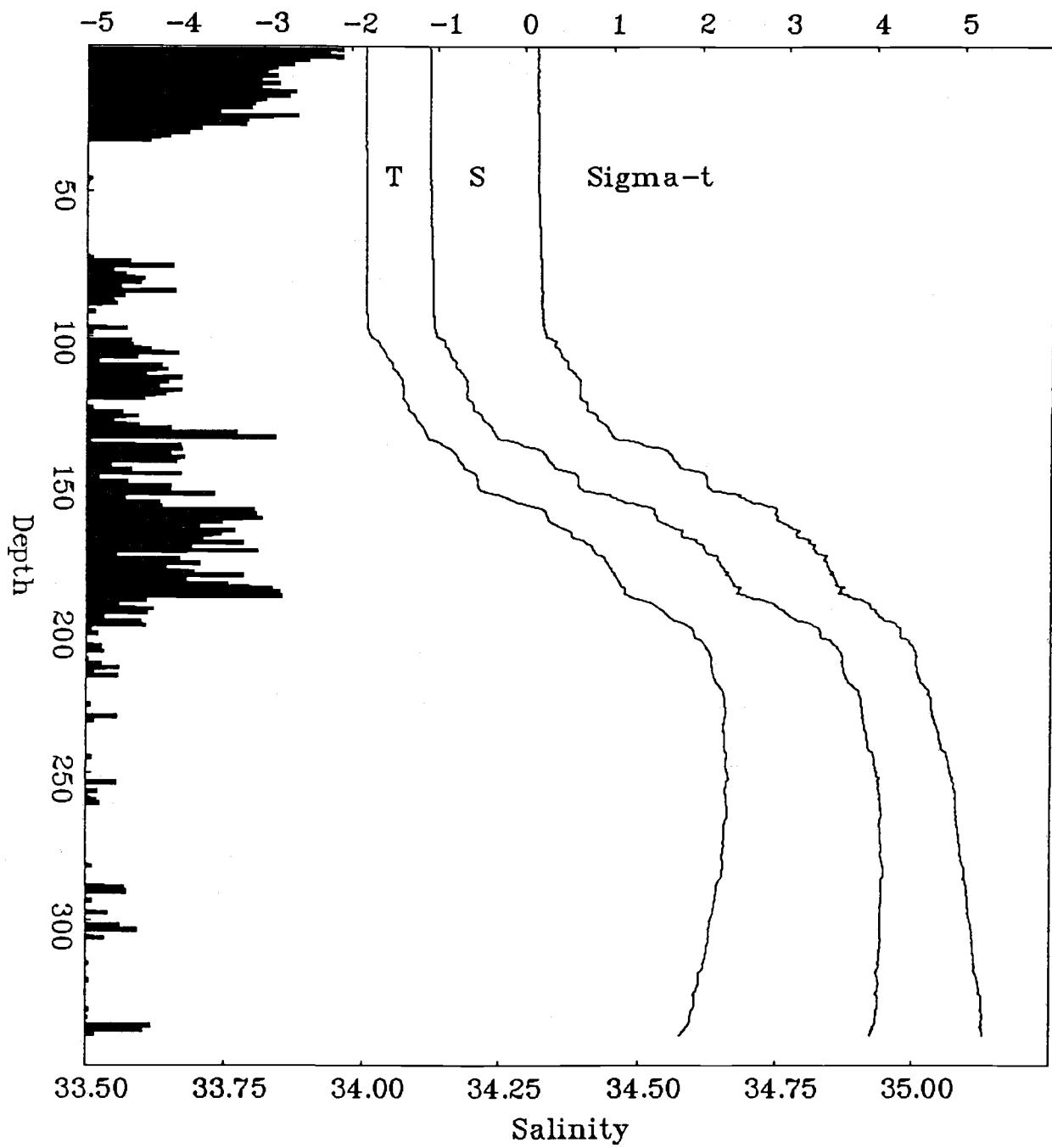


Sigma-t

K.E. Dissipation Rate

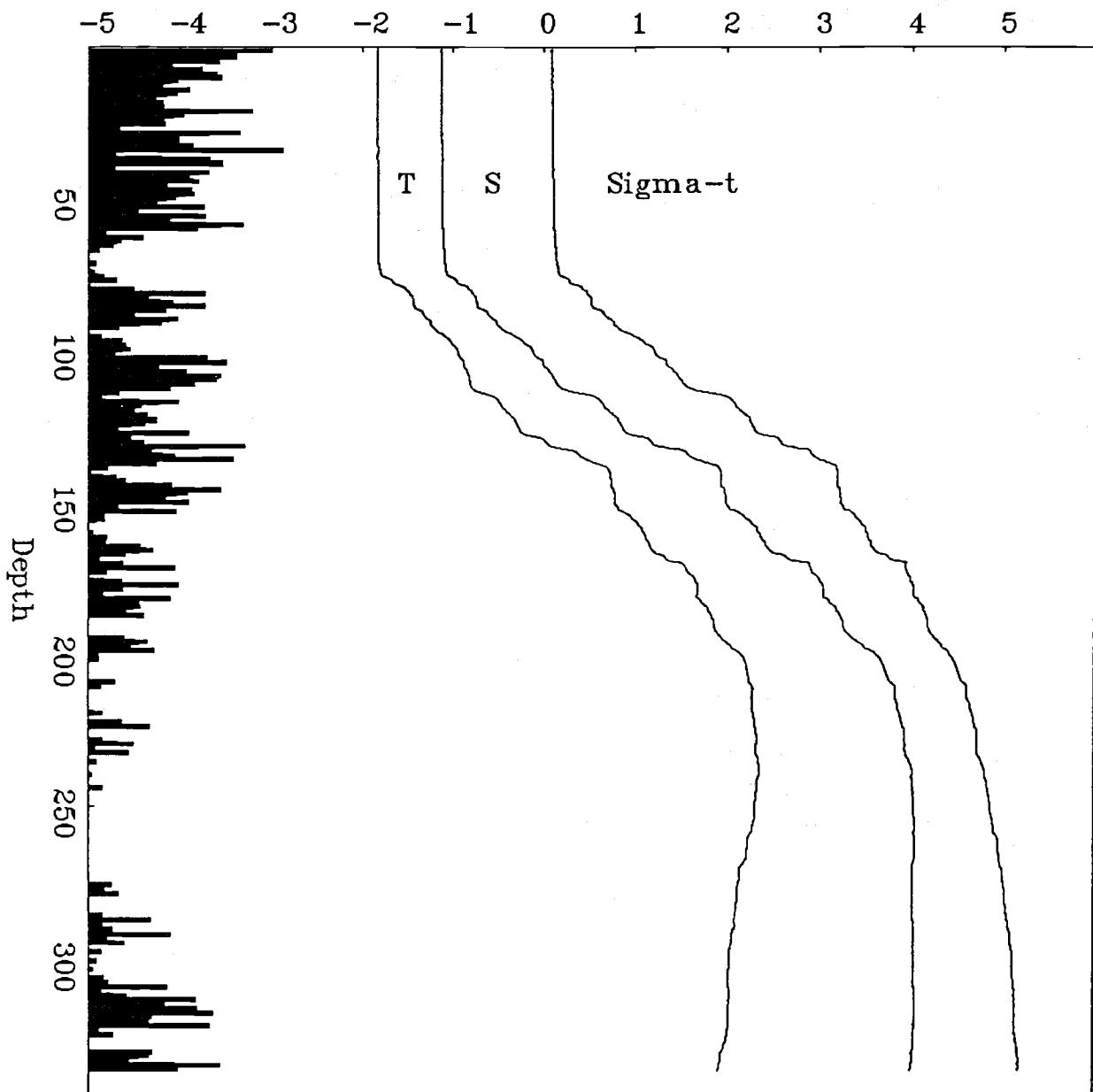
CEAREX Cast 952, JD 105.5052, 11:59, 82.66N, 8.88E

Temperature



CEAREX Cast 963, JD 105.6716, 15:59, 82.65N, 8.89E

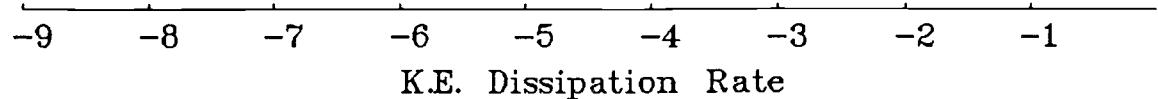
Temperature



Salinity



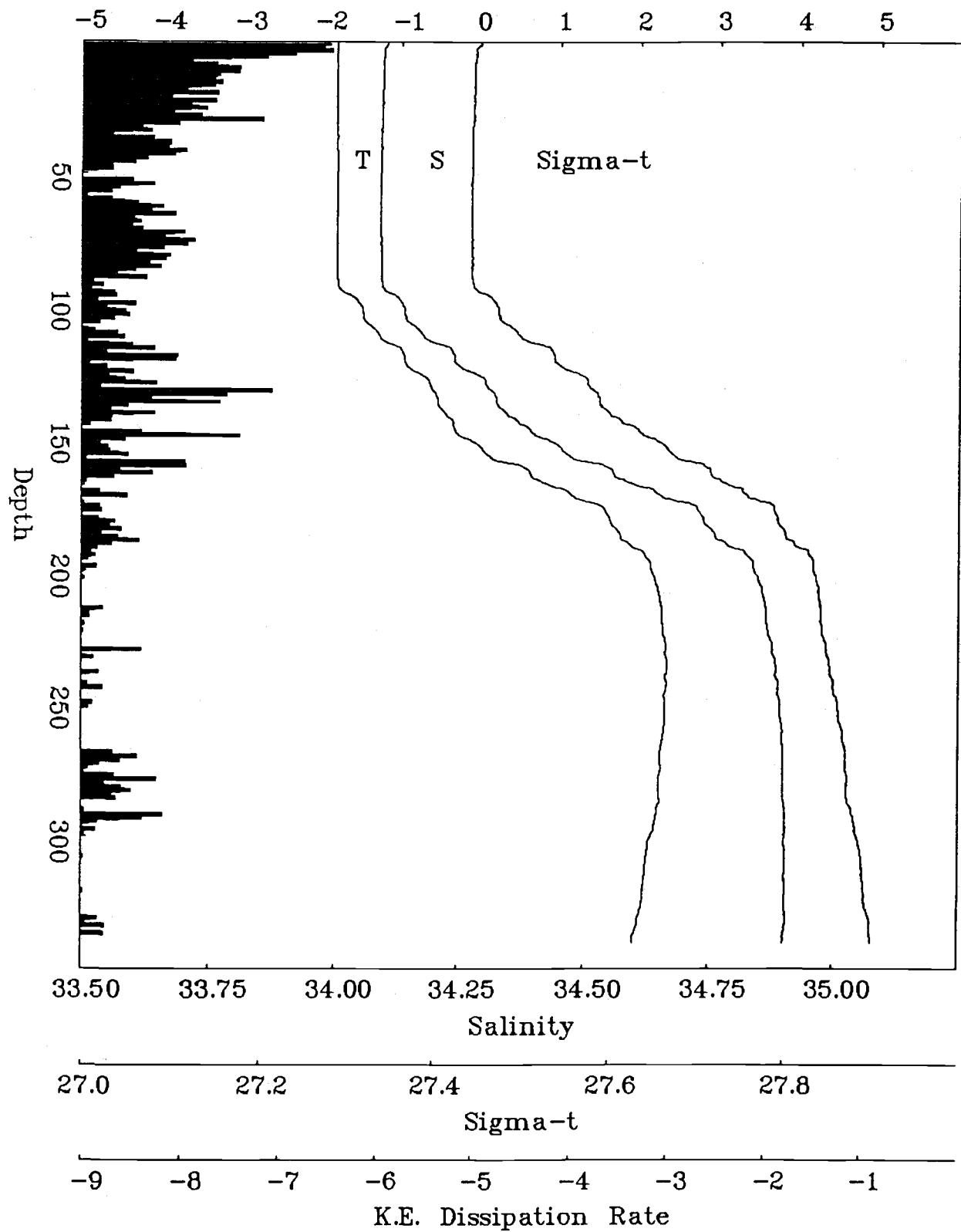
Sigma-t



K.E. Dissipation Rate

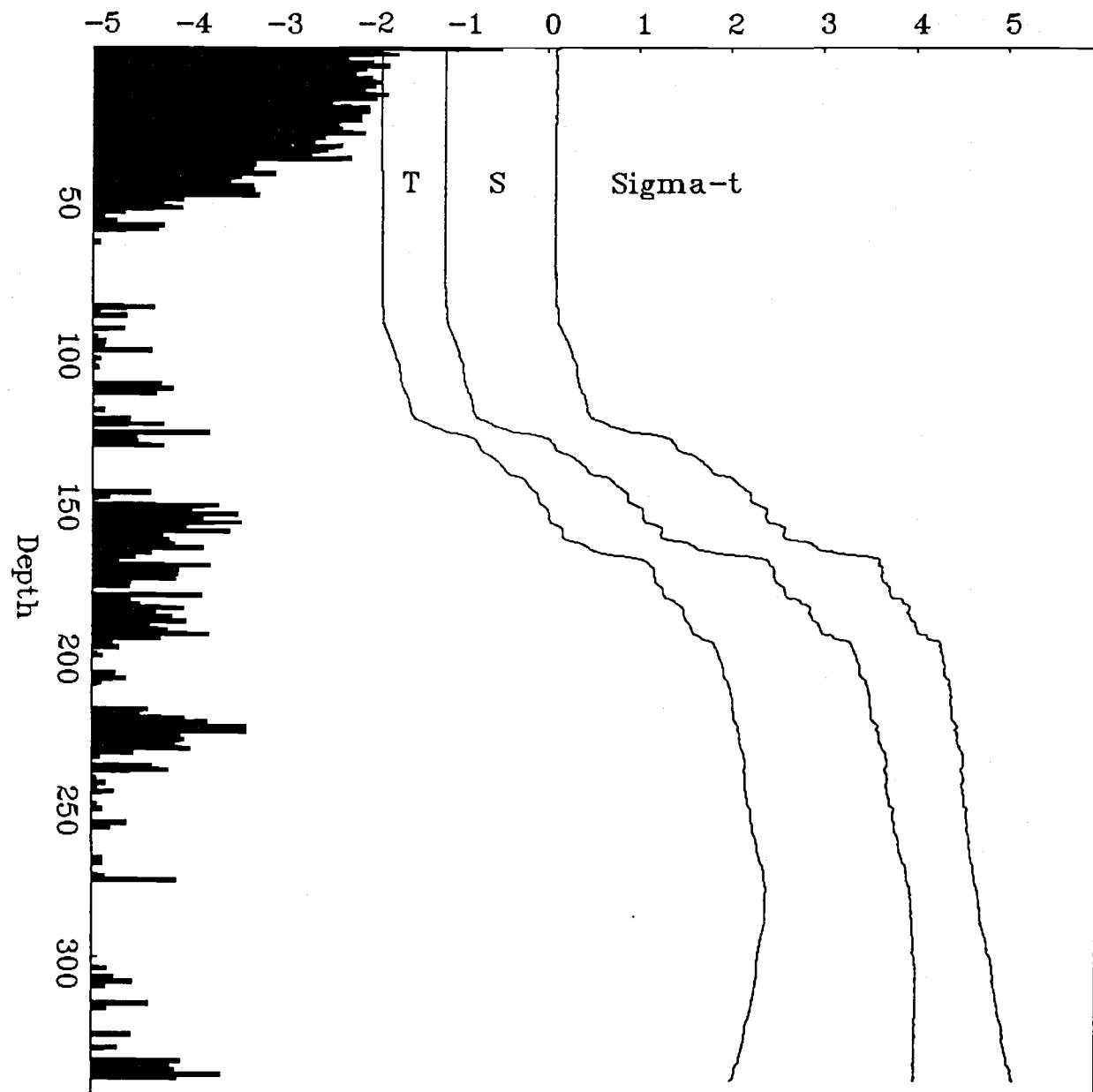
CEAREX Cast 973, JD 105.8082, 19:15, 82.65N, 8.89E

Temperature



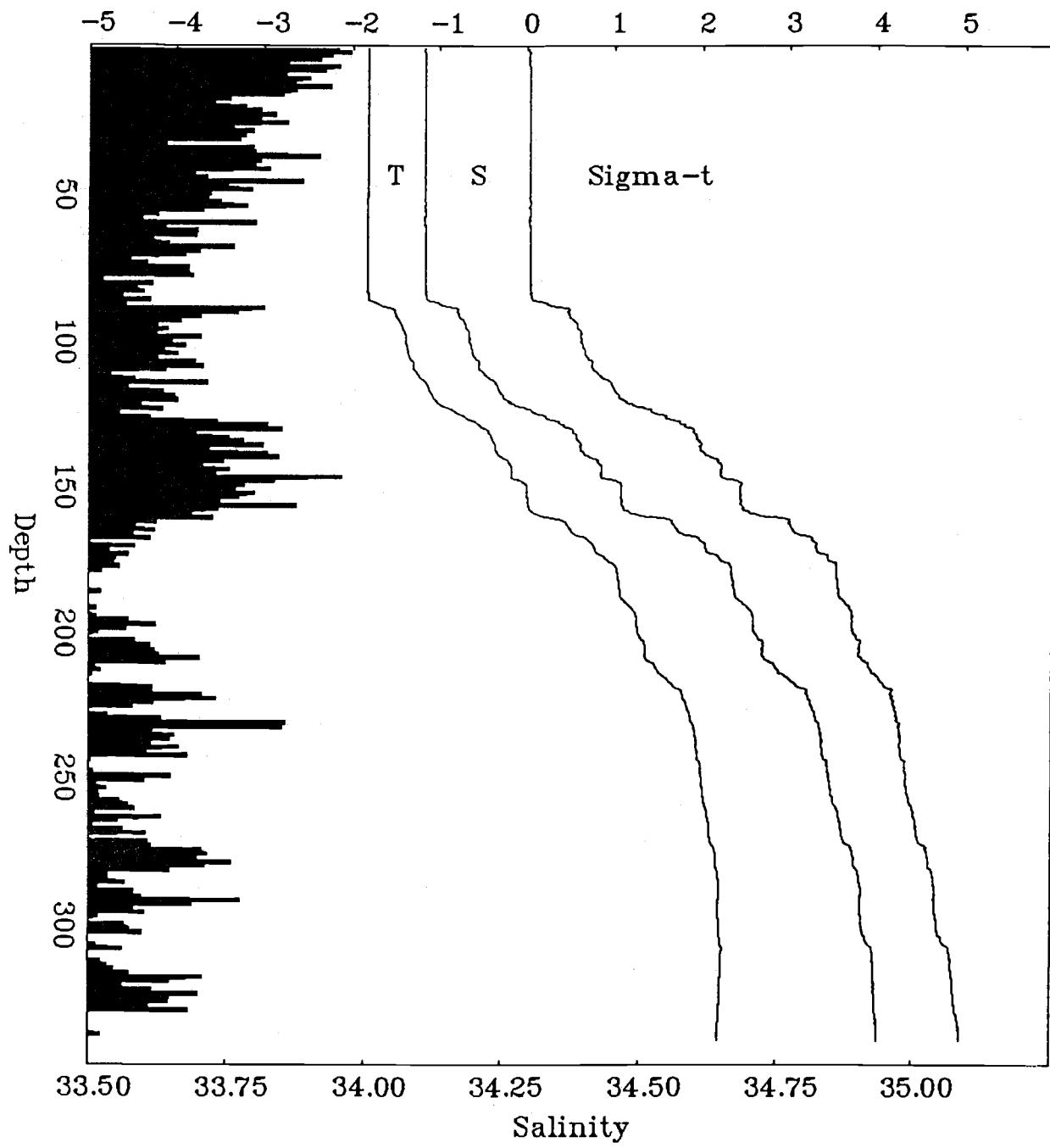
CEAREX Cast 979, JD 106.0079, 00:03, 82.64N, 8.88E

Temperature



CEAREX Cast 991, JD 106.1714, 03:58, 82.64N, 8.88E

Temperature

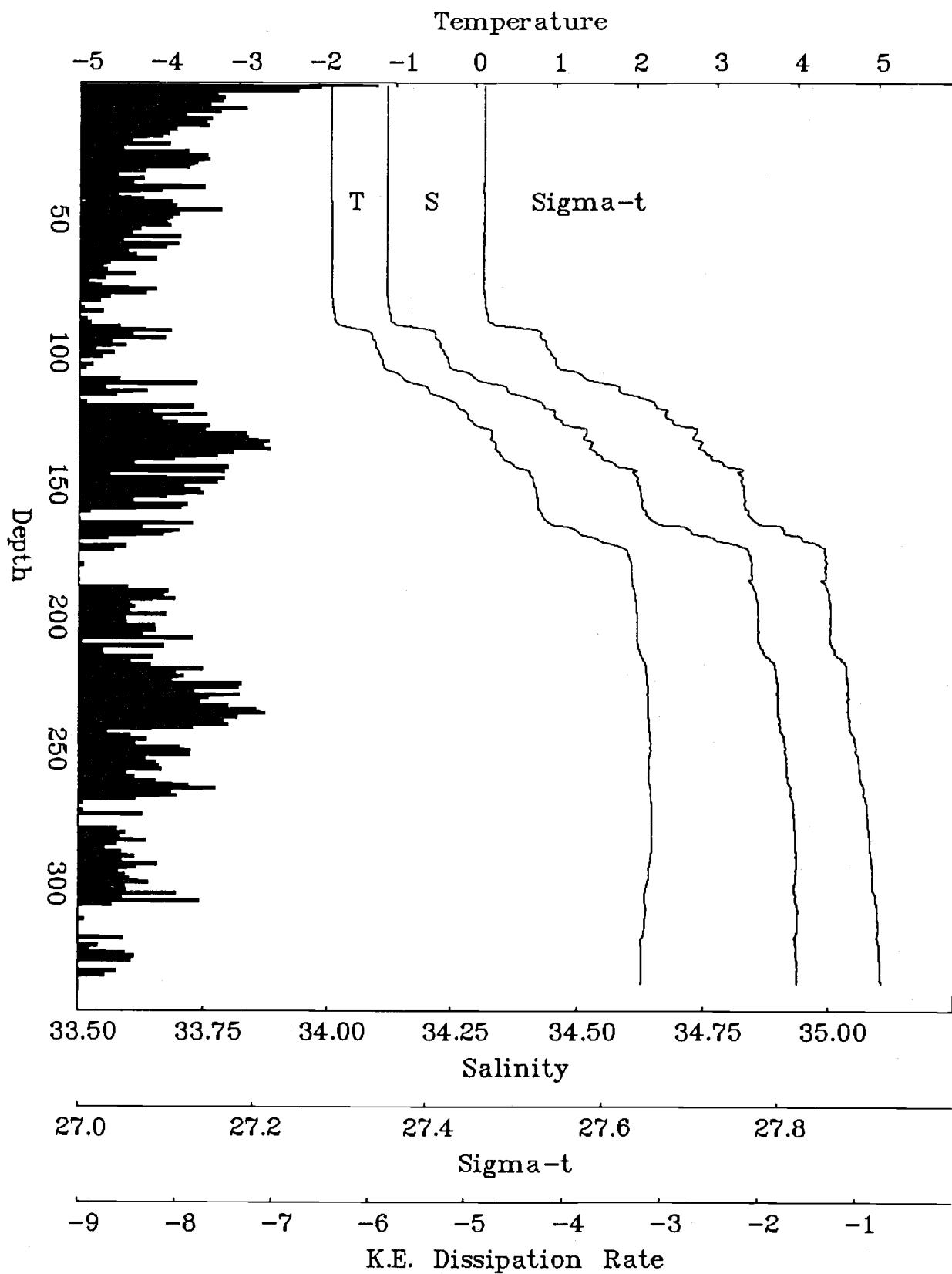


Salinity

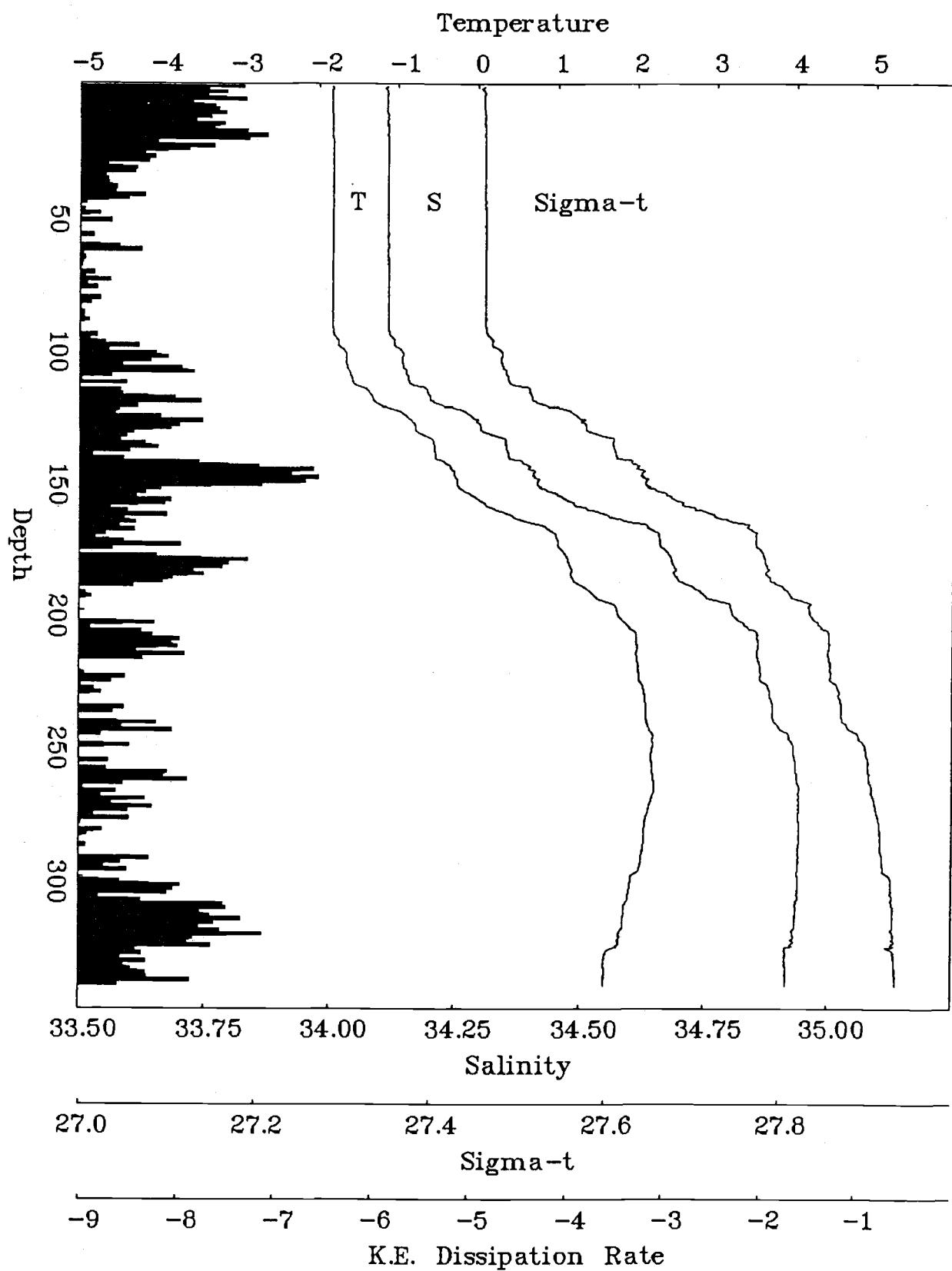
Sigma-t

K.E. Dissipation Rate

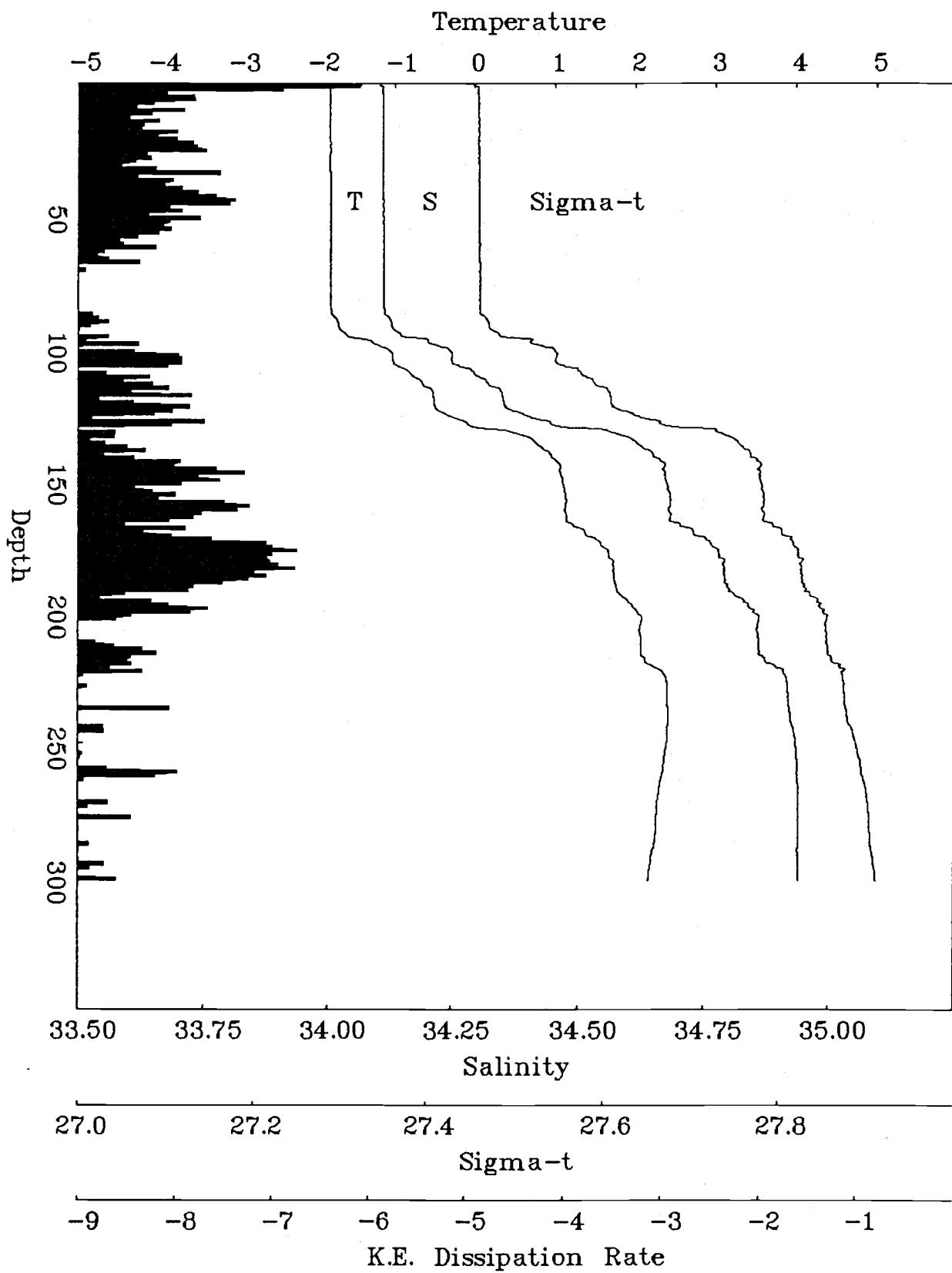
CEAREX Cast 1001, JD 106.3535, 08:21, 82.64N, 8.89E



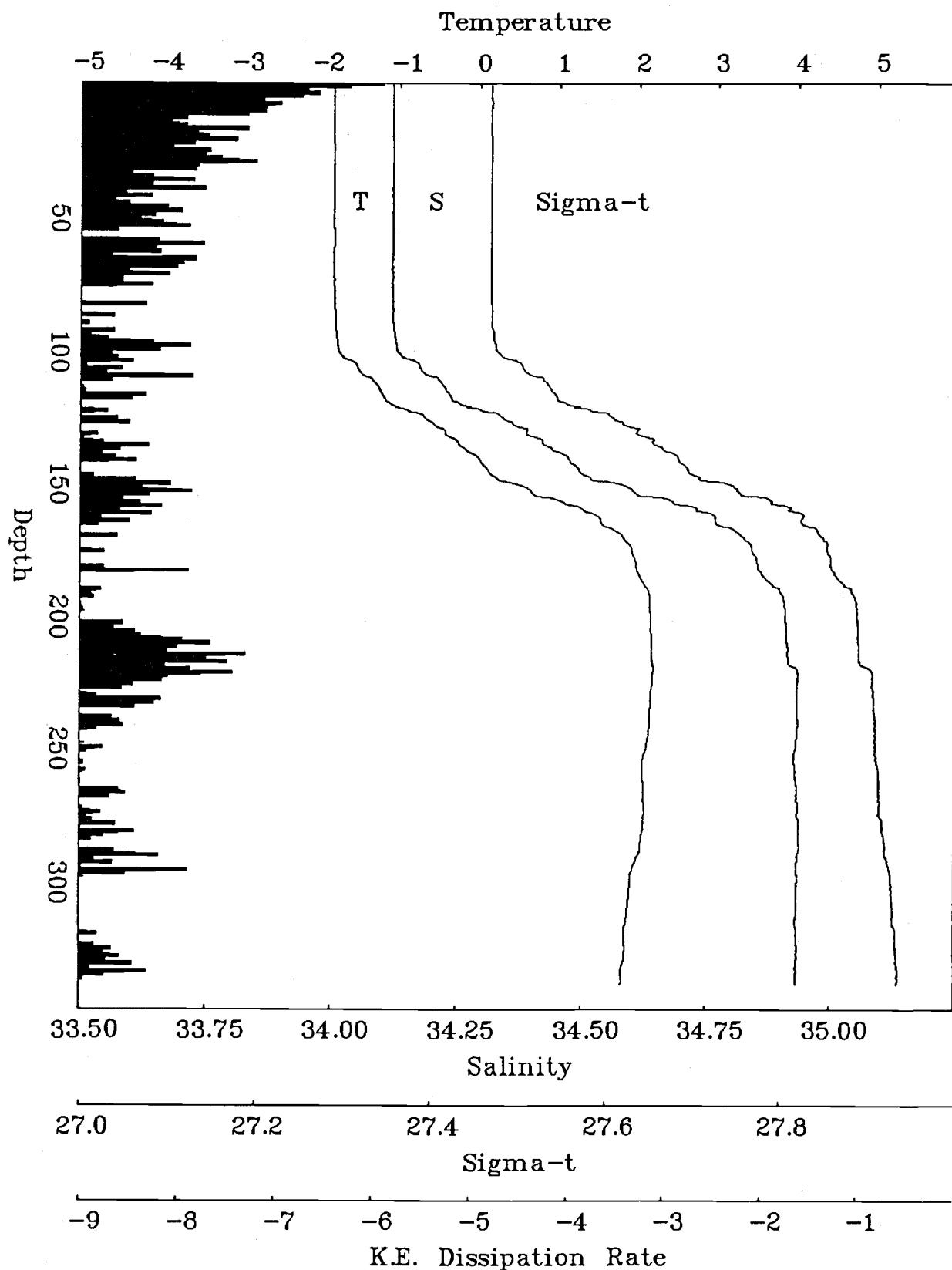
CEAREX Cast 1013, JD 106.5052, 11:59, 82.63N, 8.93E



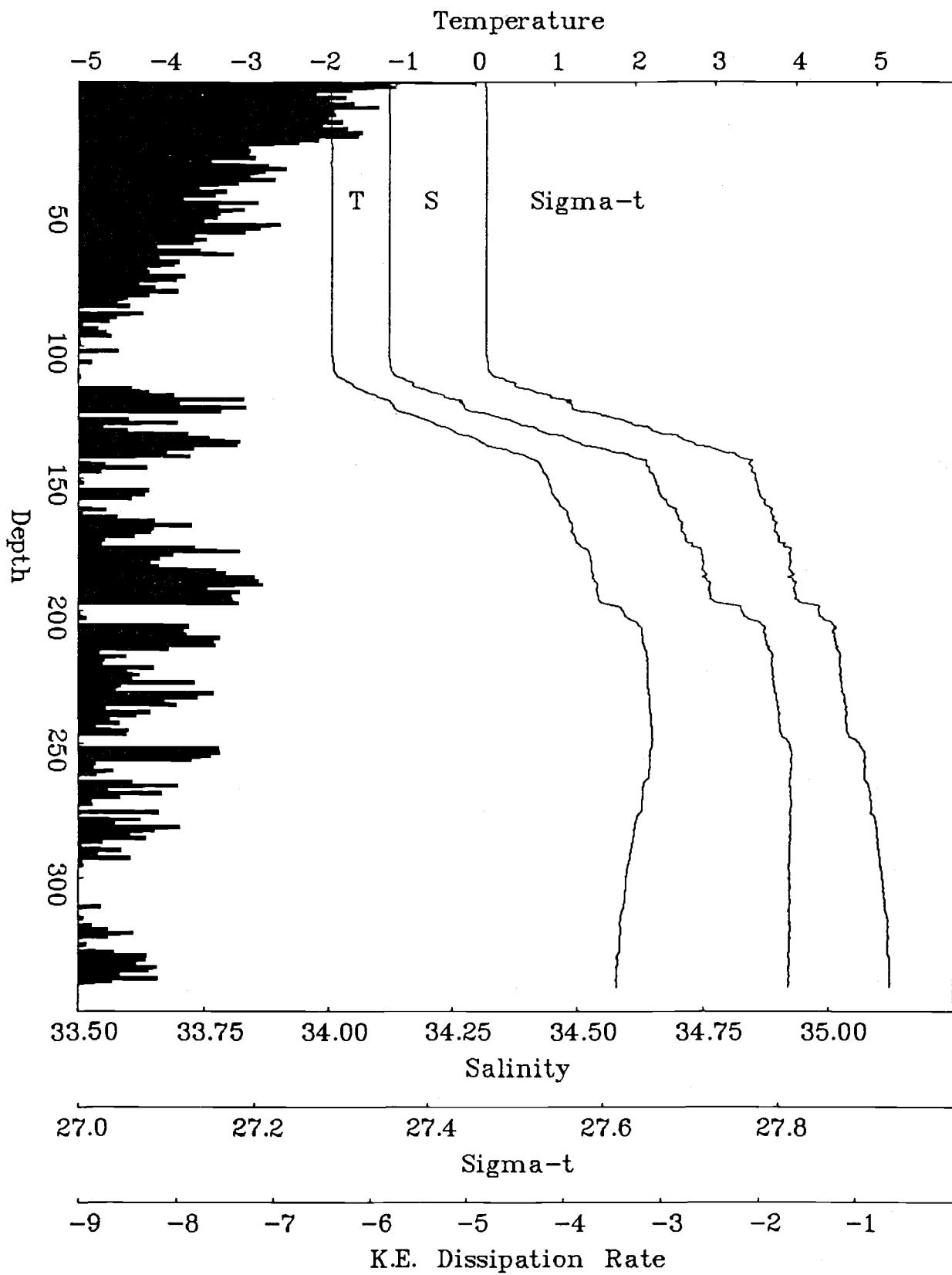
CEAREX Cast 1027, JD 106.6708, 15:58, 82.62N, 8.94E



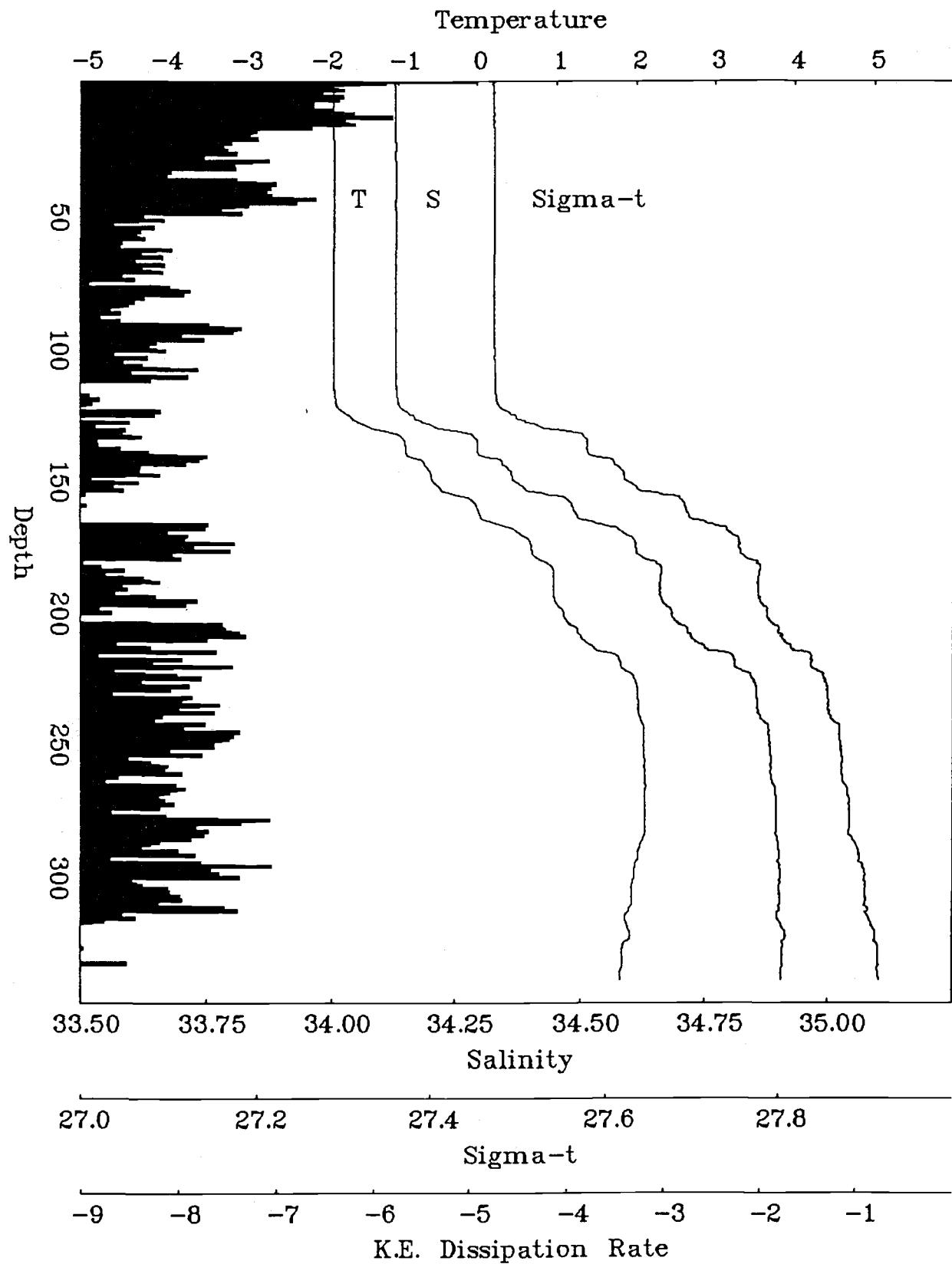
CEAREX Cast 1040, JD 106.8384, 19:59, 82.61N, 8.92E



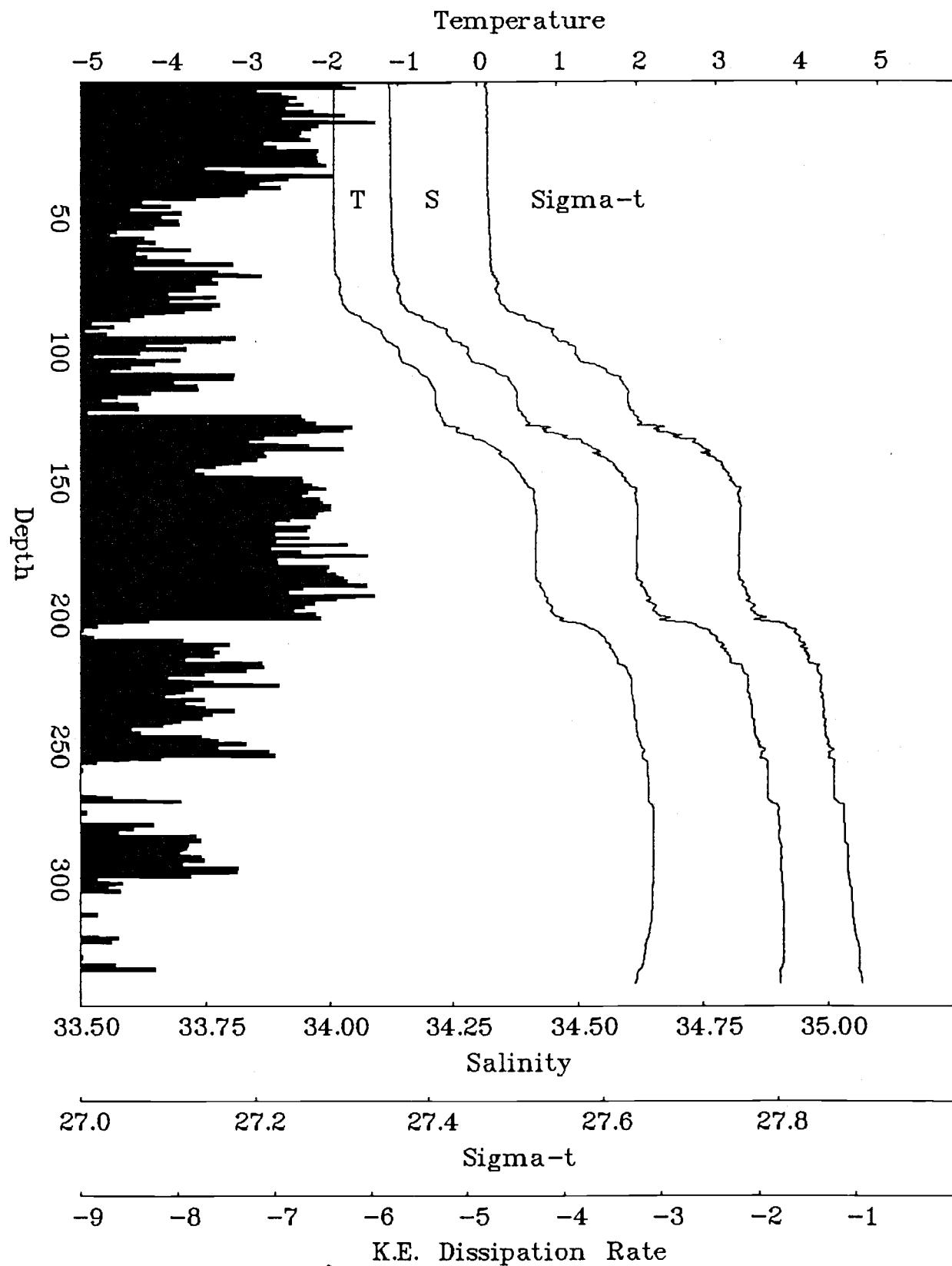
CEAREX Cast 1051, JD 107.0052, 23:59, 82.59N, 8.93E



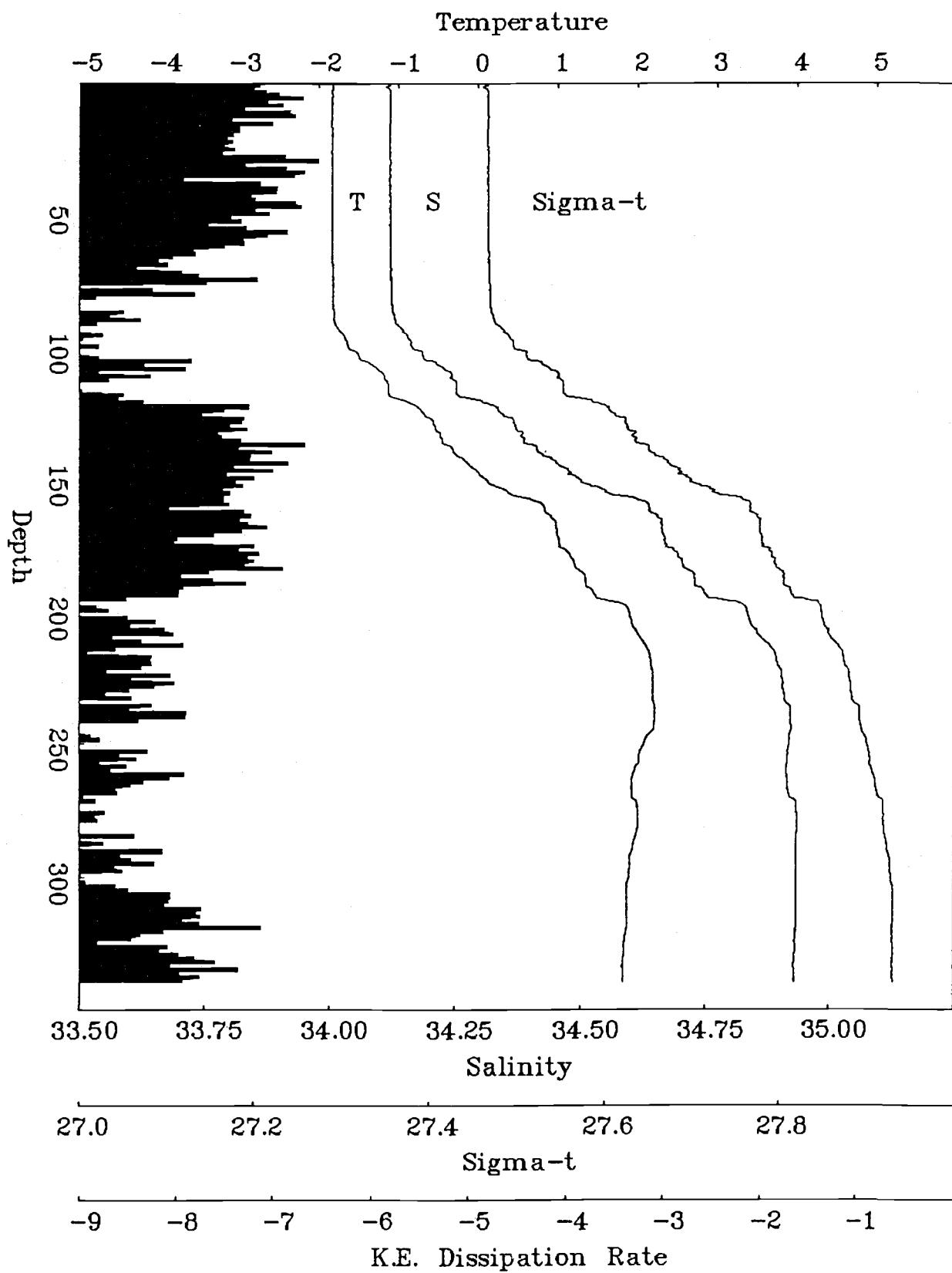
CEAREX Cast 1060, JD 107.1707, 03:57, 82.59N, 8.92E



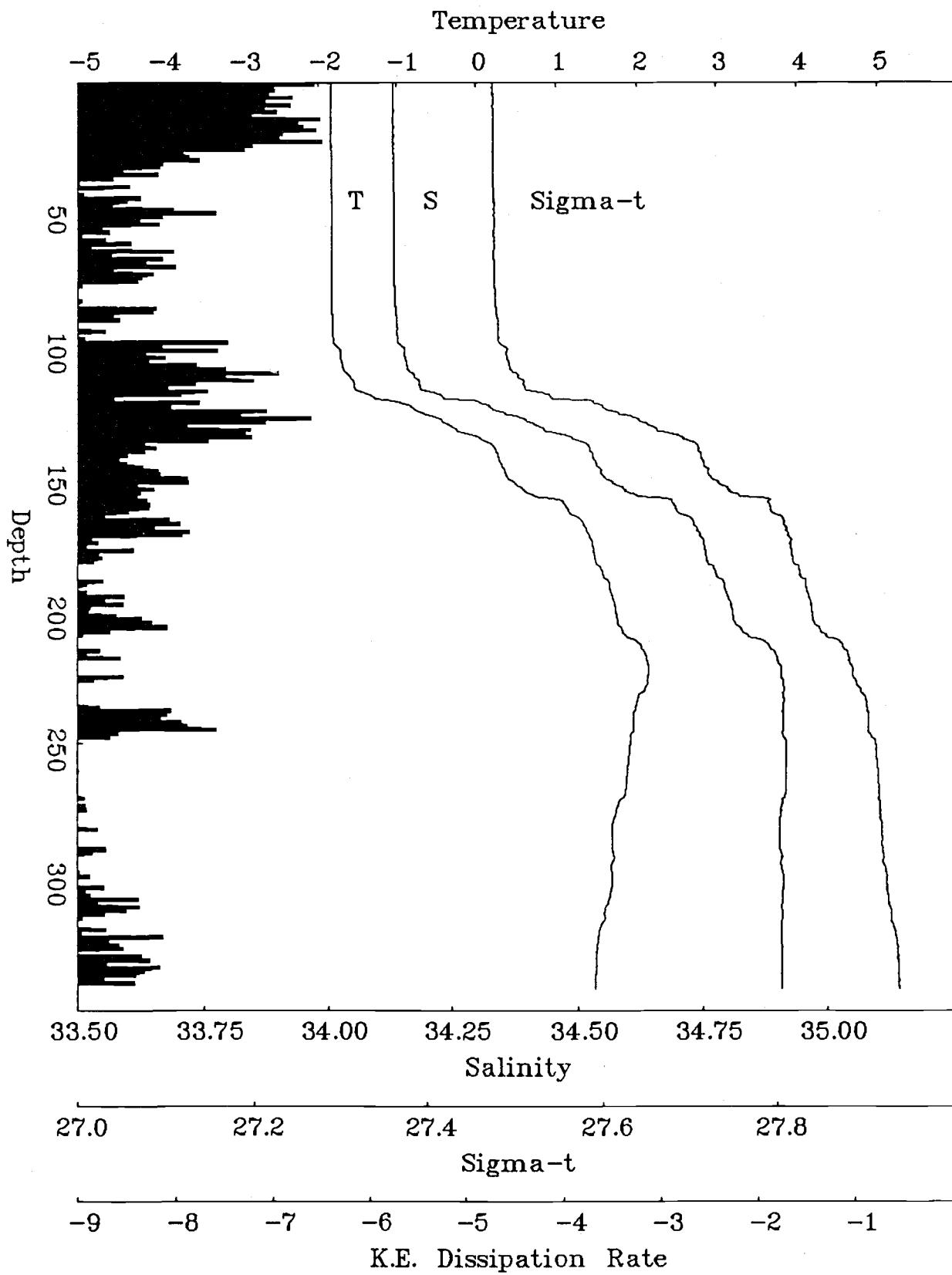
CEAREX Cast 1071, JD 107.3416, 08:03, 82.58N, 8.89E



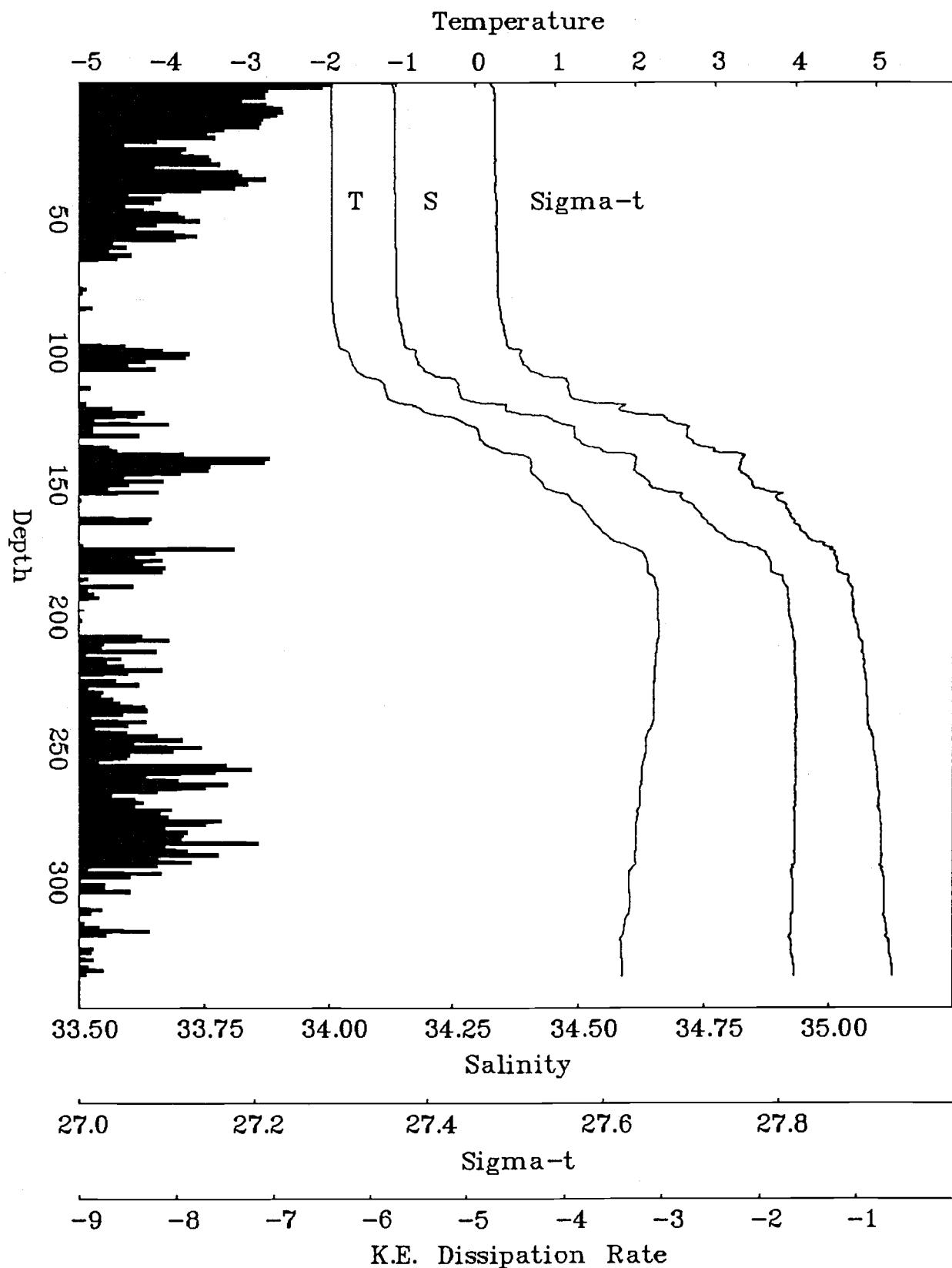
CEAREX Cast 1084, JD 107.5049, 11:58, 82.57N, 8.88E



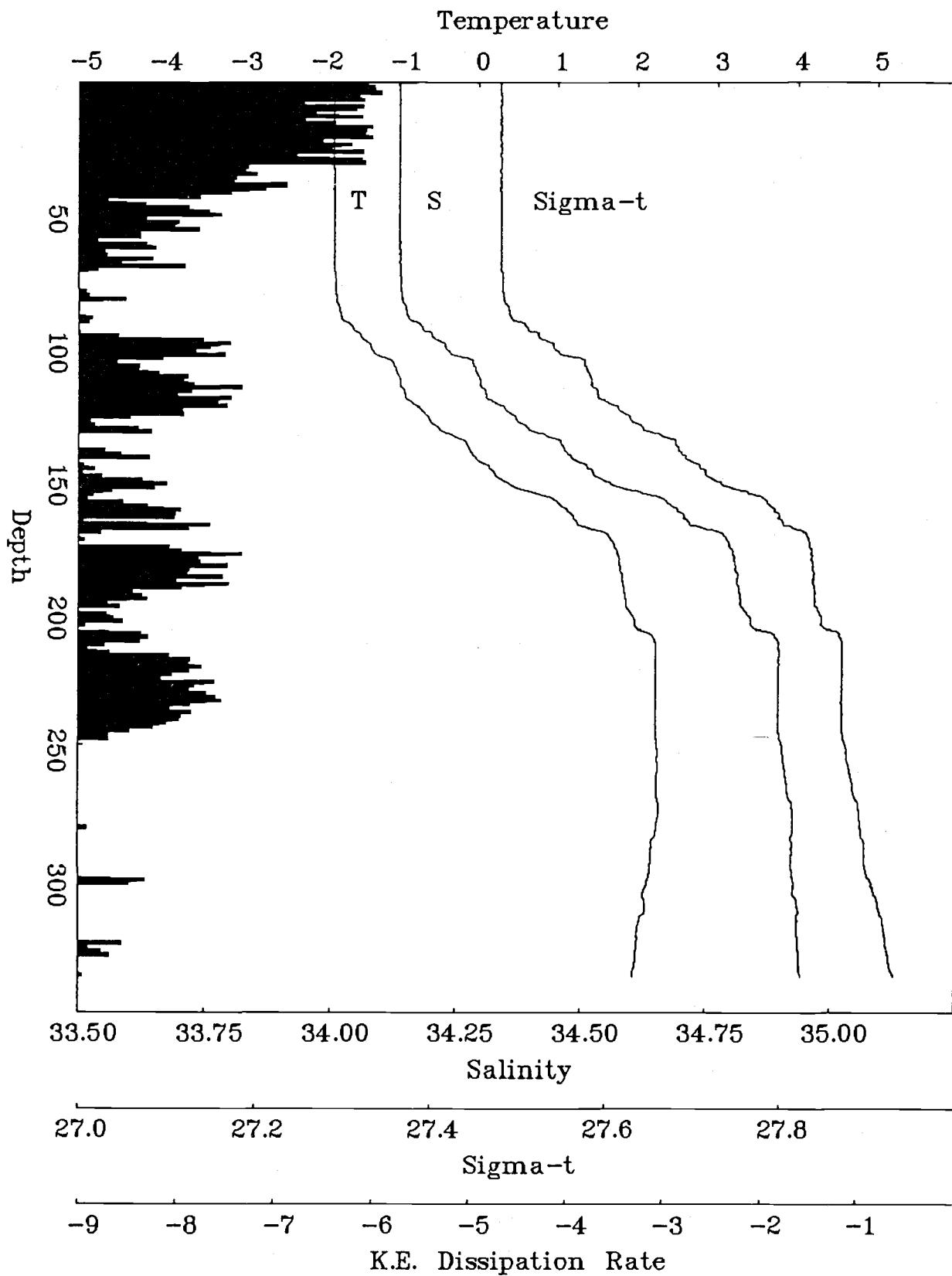
CEAREX Cast 1098, JD 107.6717, 15:59, 82.56N, 8.81E



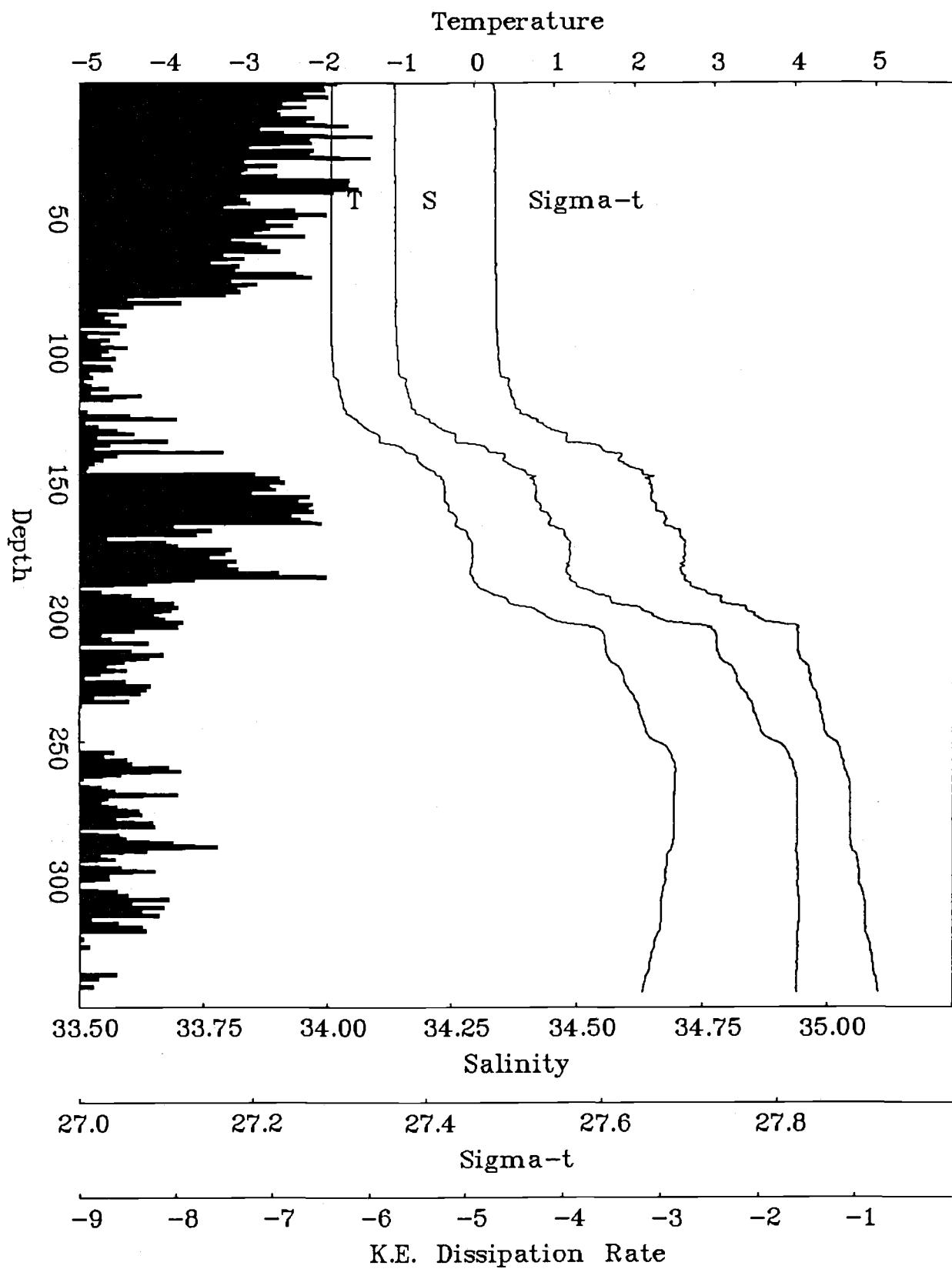
CEAREX Cast 1110, JD 107.8384, 19:59, 82.54N, 8.71E



CEAREX Cast 1121, JD 108.0055, 23:59, 82.53N, 8.60E

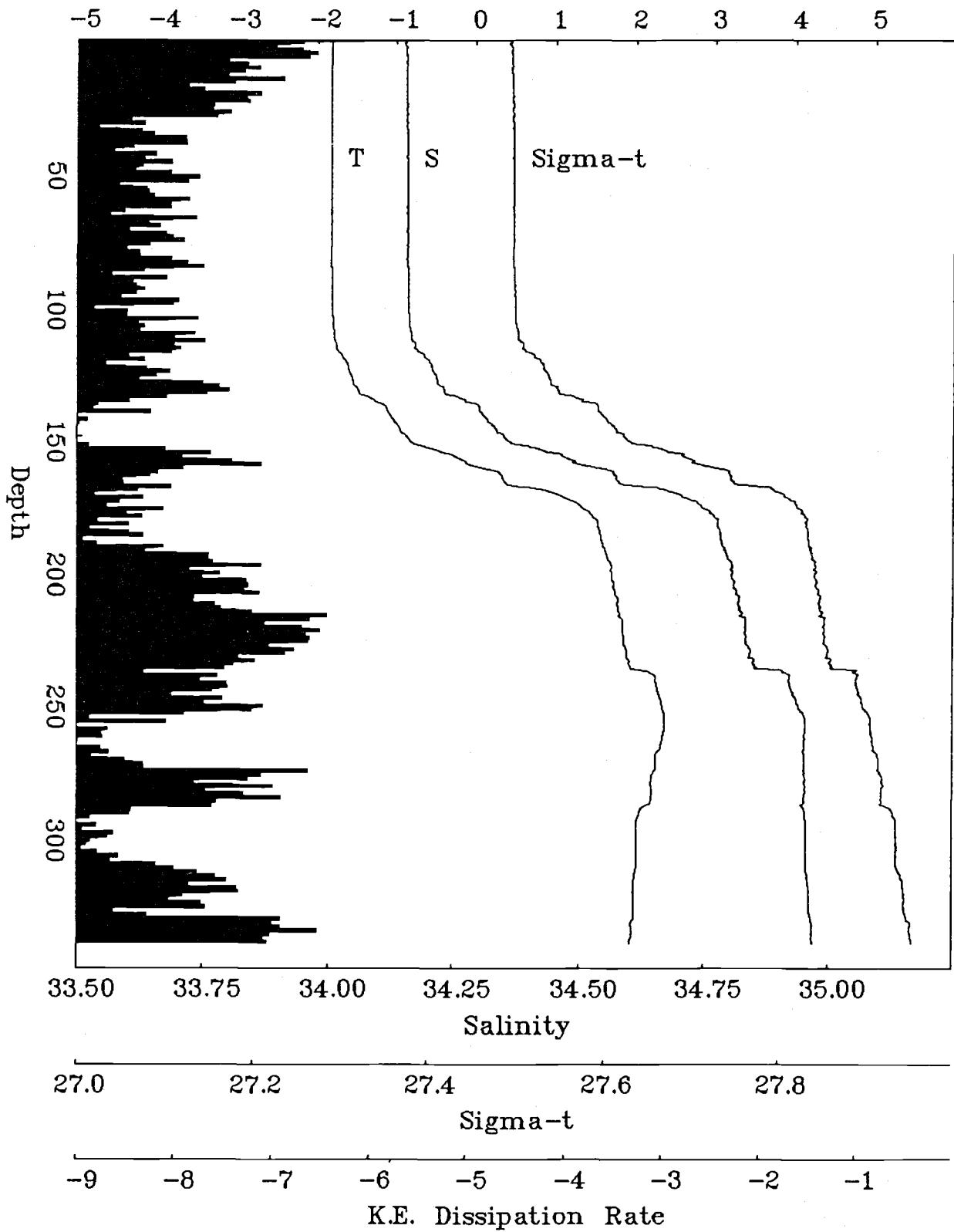


CEAREX Cast 1132, JD 108.1726, 04:00, 82.53N, 8.53E

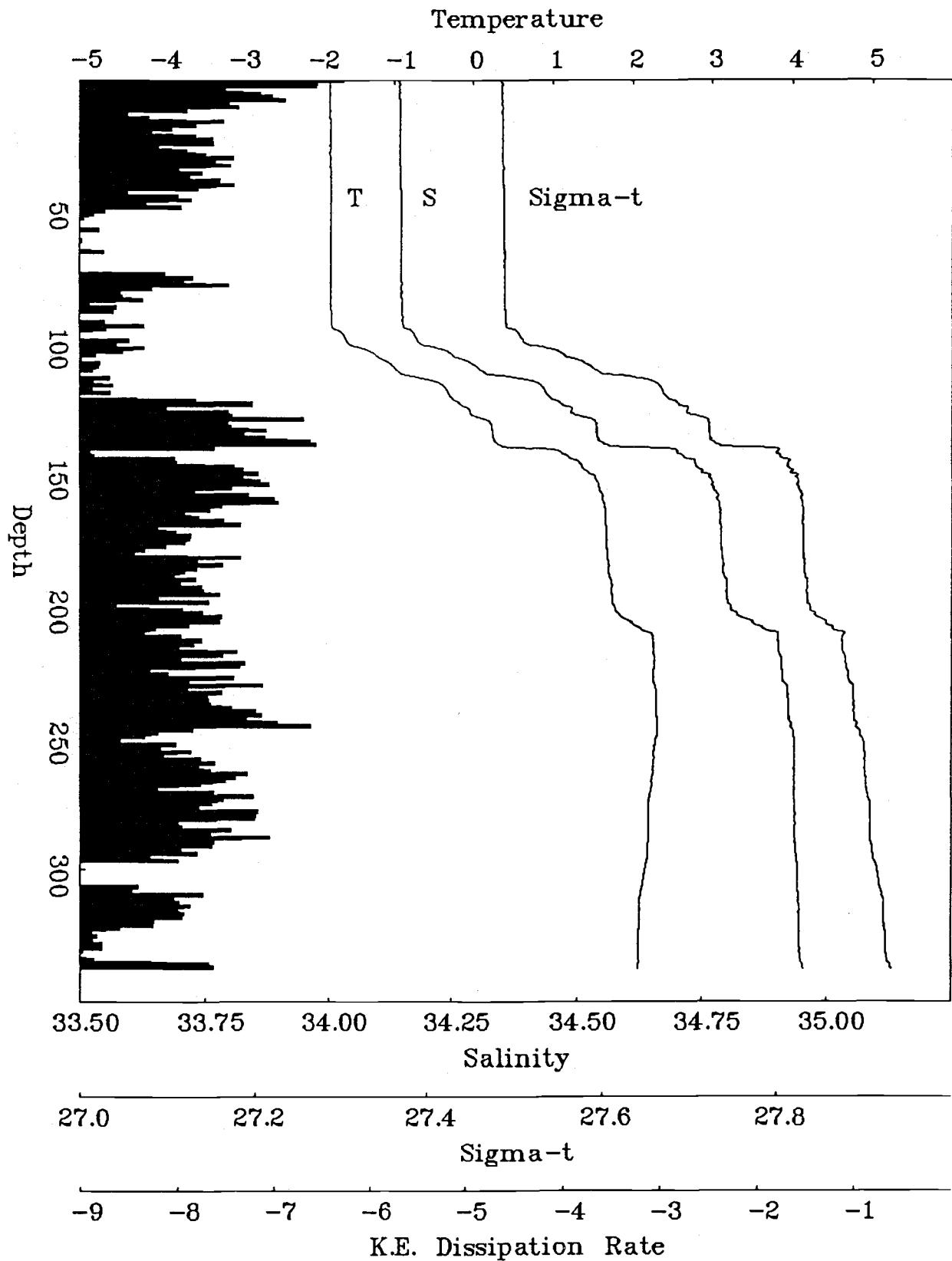


CEAREX Cast 1144, JD 108.3452, 08:09, 82.52N, 8.45E

Temperature

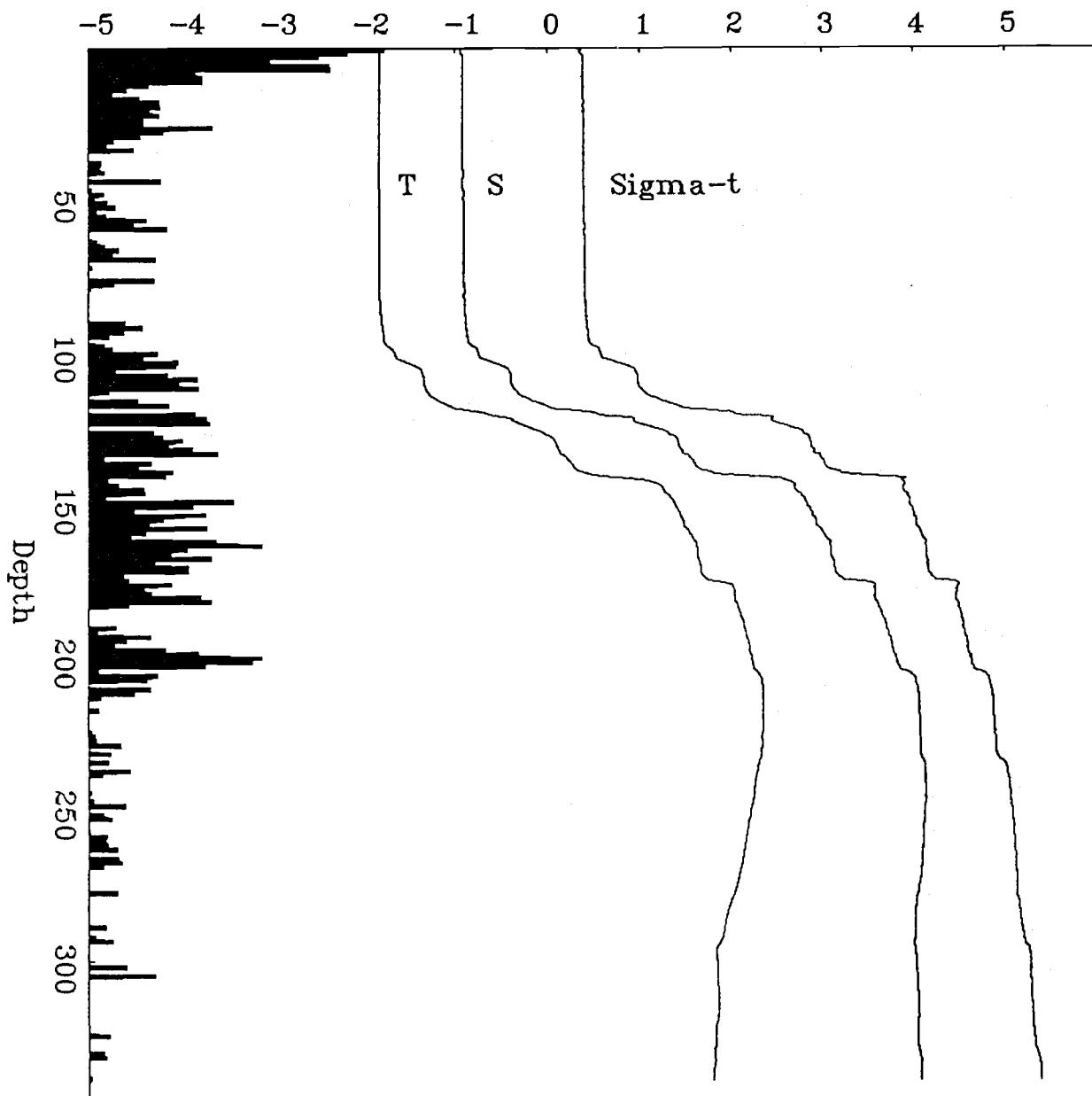


CEAREX Cast 1158, JD 108.5062, 12:00, 82.51N, 8.37E



CEAREX Cast 1170, JD 108.6716, 15:59, 82.51N, 8.32E

Temperature



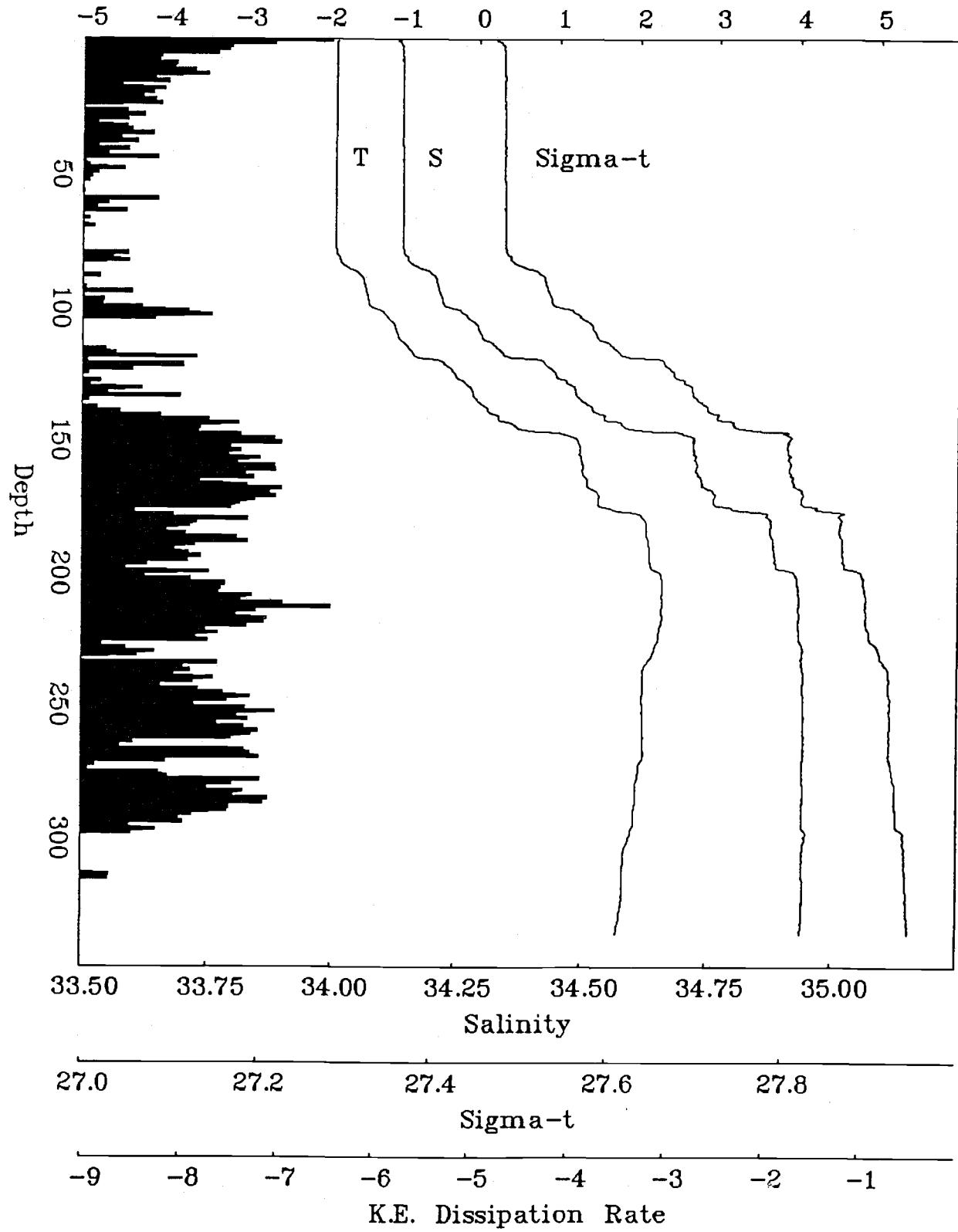
Salinity

Sigma-t

K.E. Dissipation Rate

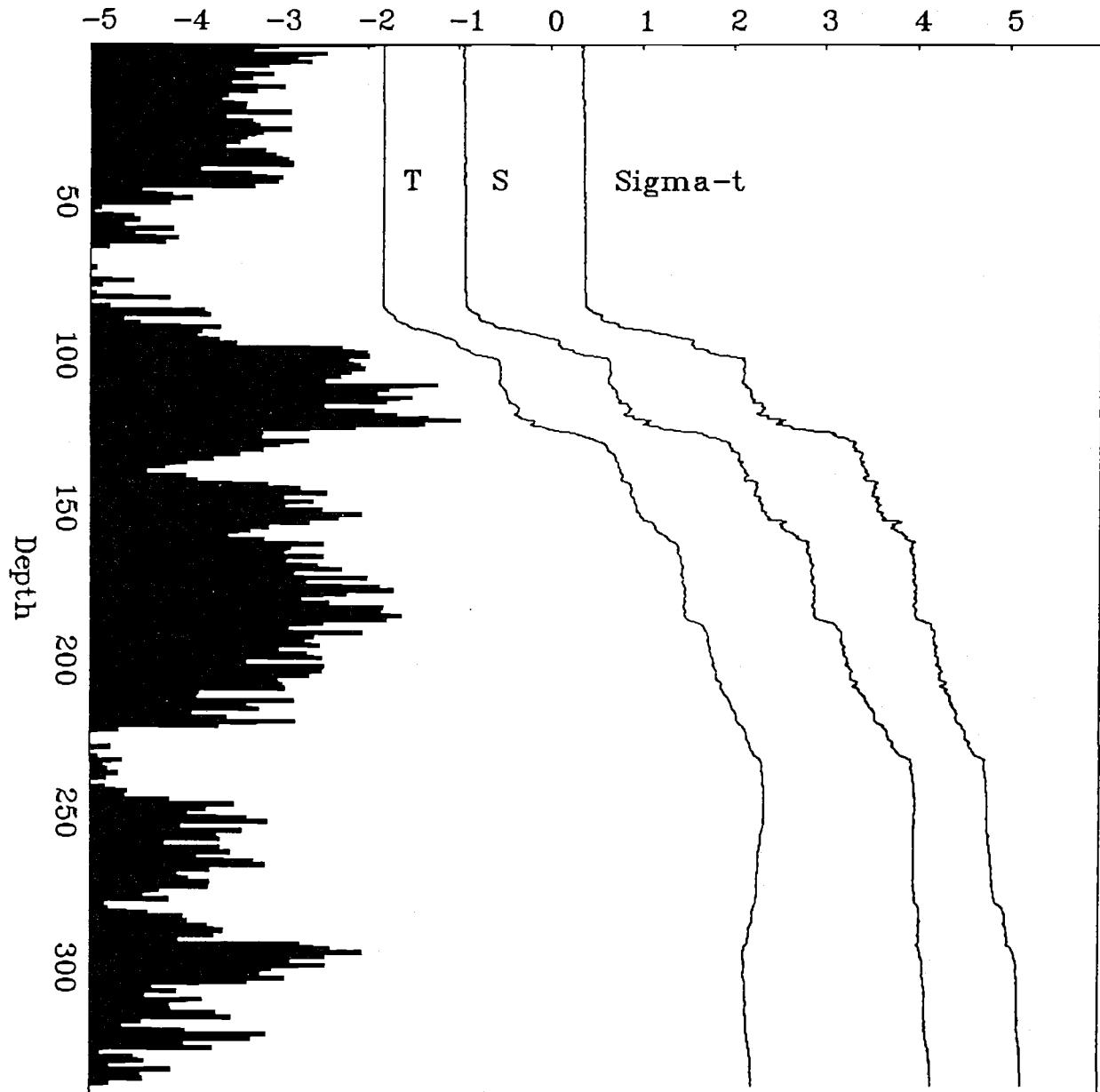
CEAREX Cast 1180, JD 108.8385, 19:59, 82.50N, 8.24E

Temperature

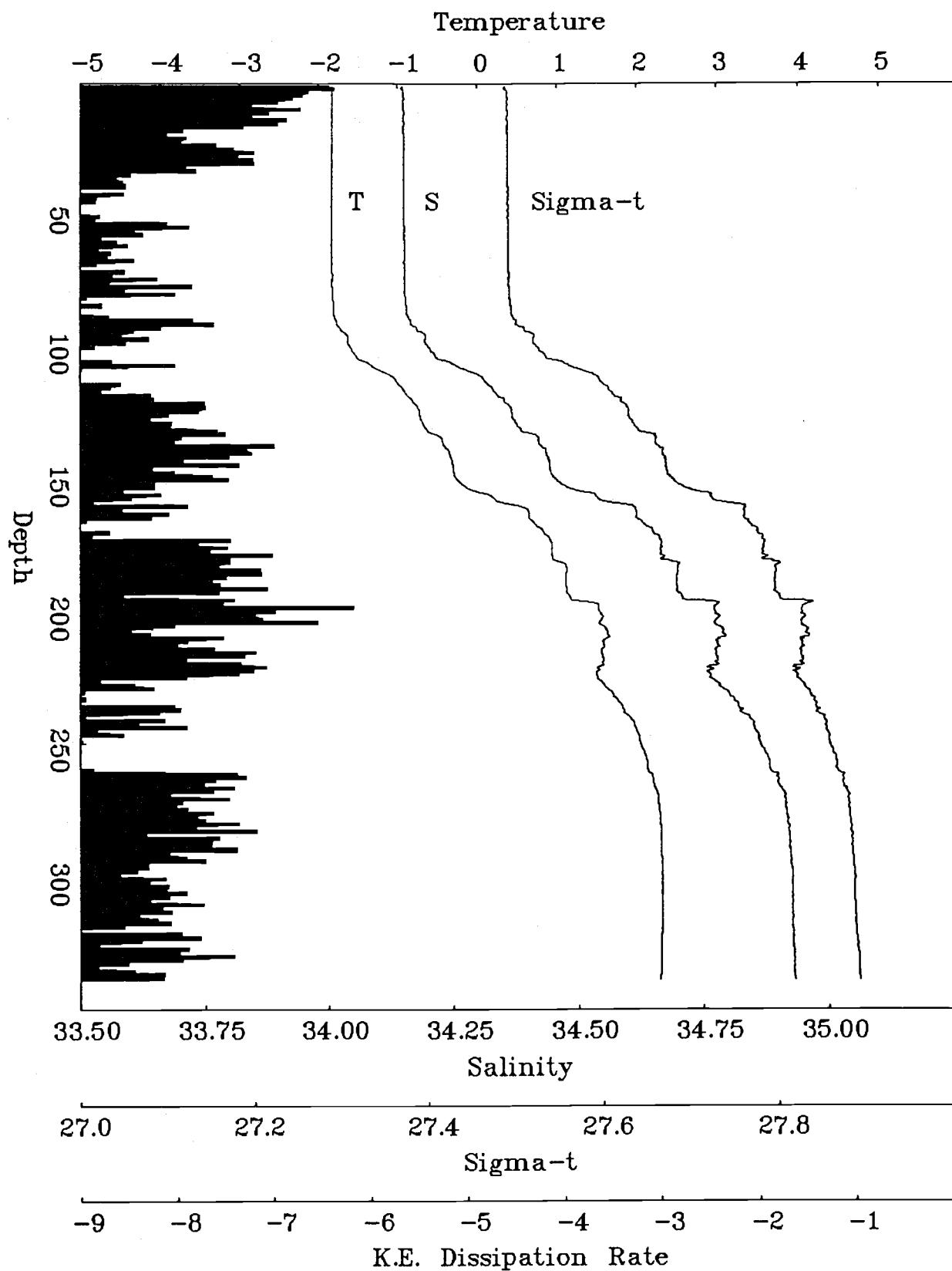


CEAREX Cast 1192, JD 109.0015, 23:54, 82.50N, 8.11E

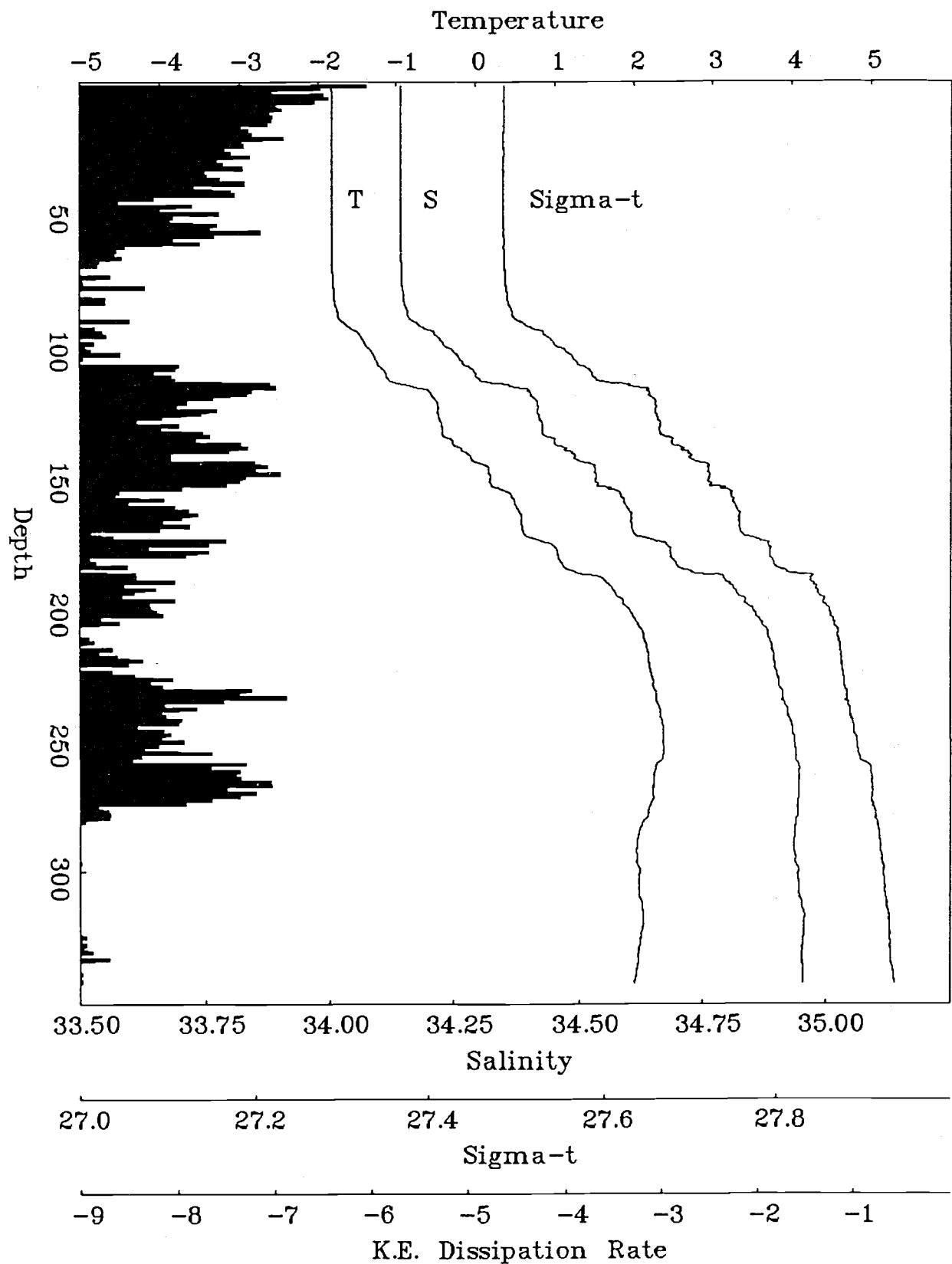
Temperature



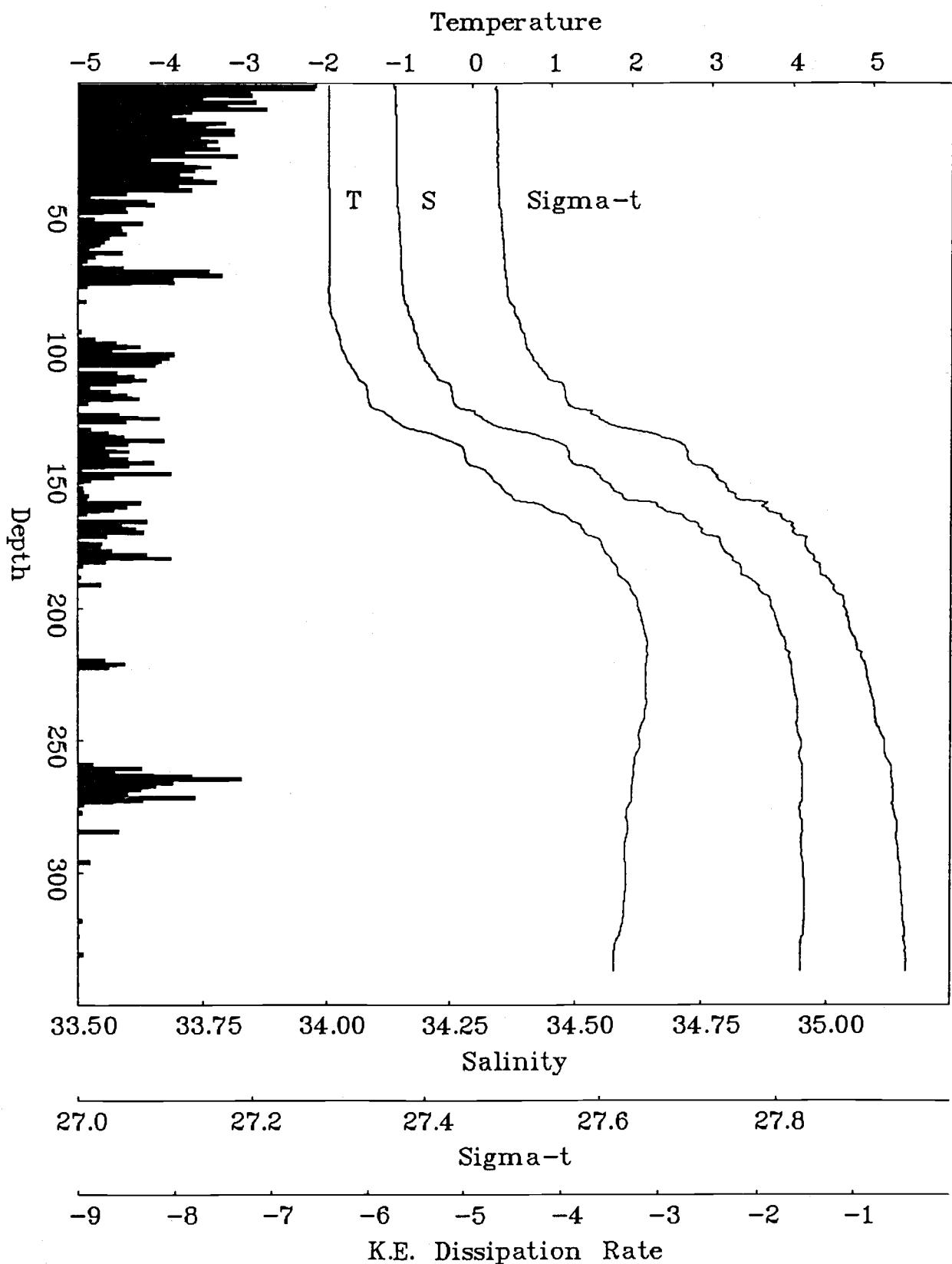
CEAREX Cast 1202, JD 109.1809, 04:12, 82.50N, 8.06E



CEAREX Cast 1212, JD 109.3526, 08:19, 82.50N, 8.01E

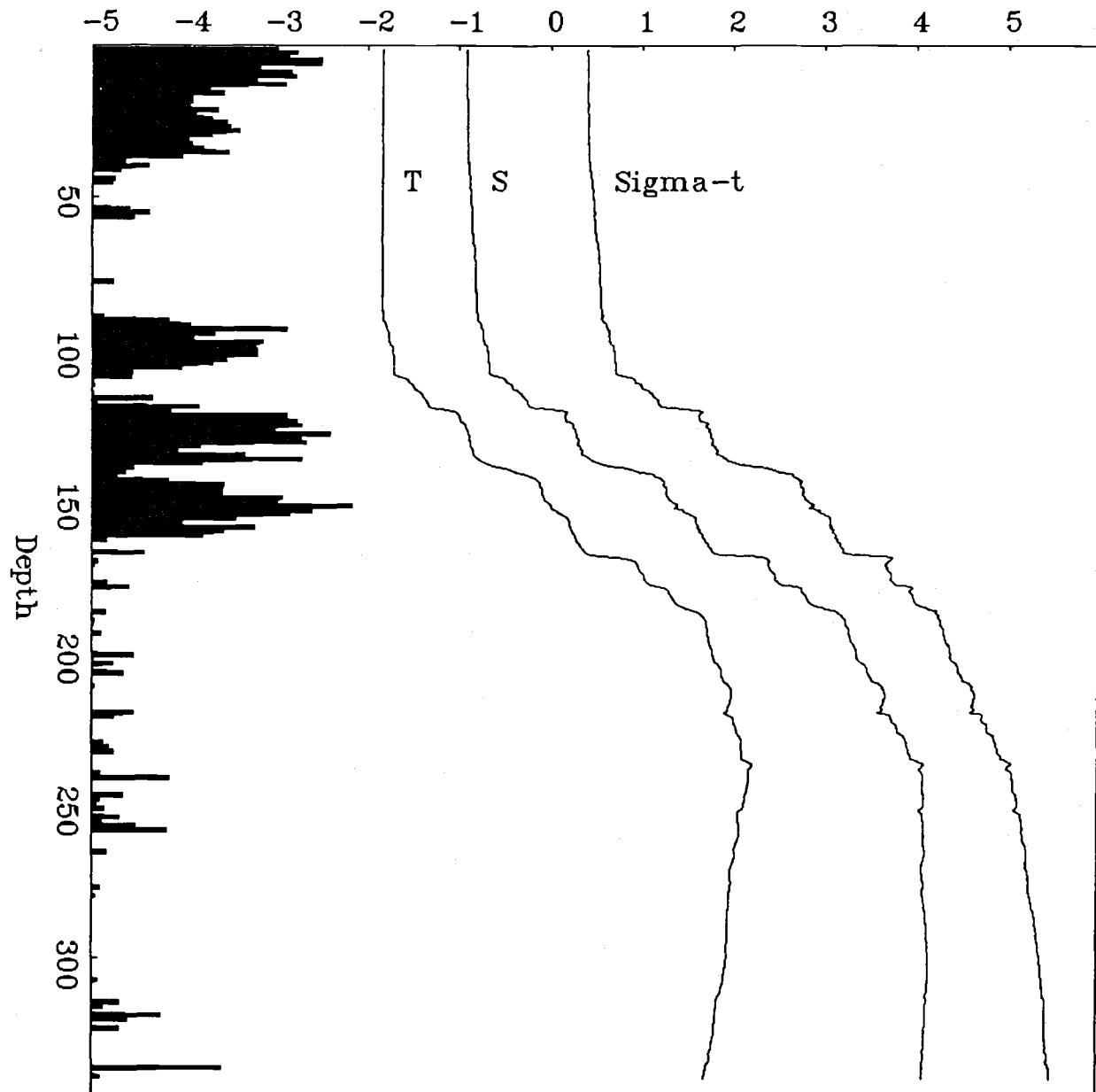


CEAREX Cast 1223, JD 109.5051, 11:59, 82.50N, 7.94E

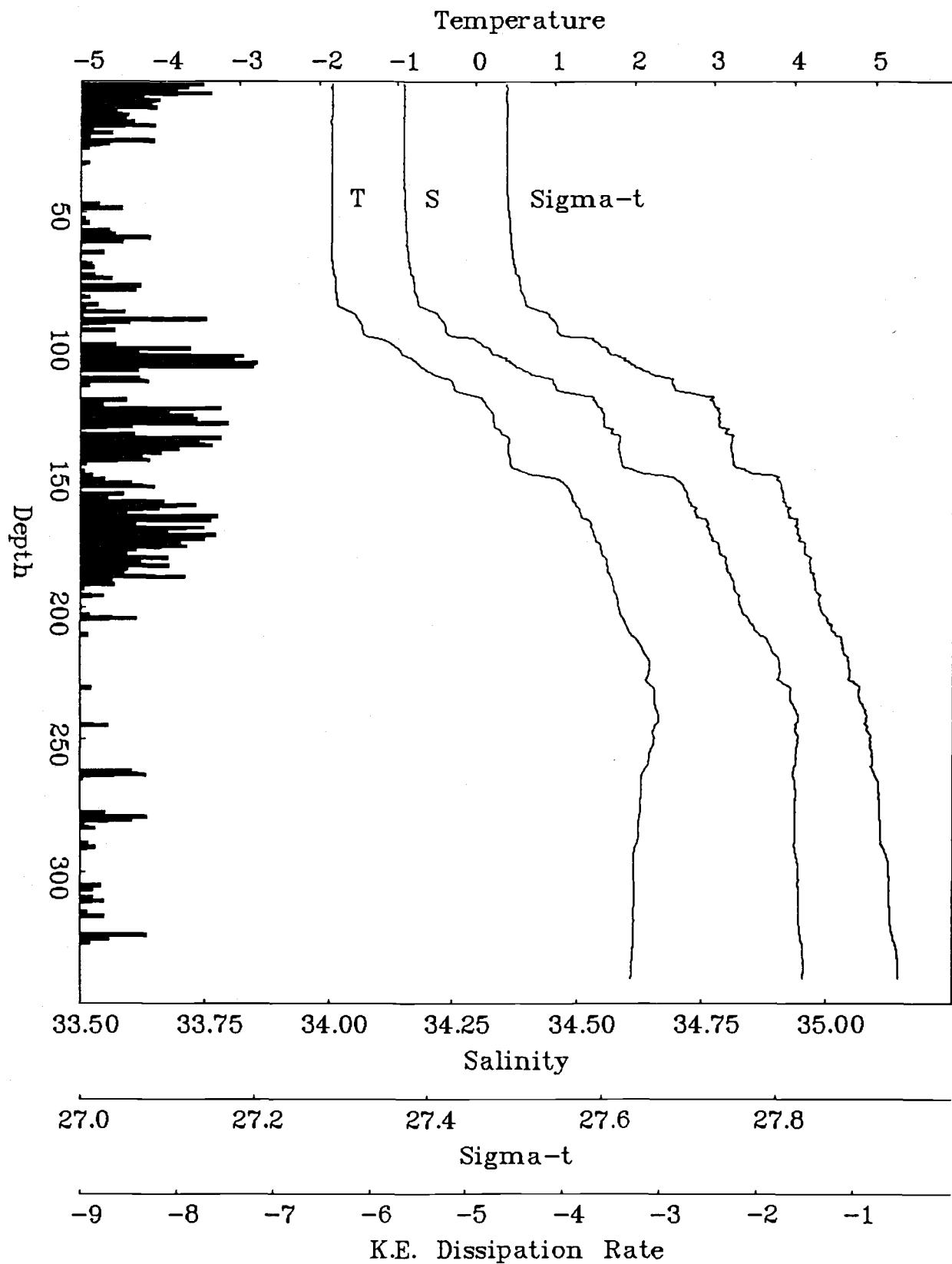


CEAREX Cast 1233, JD 109.6718, 15:59, 82.49N, 7.90E

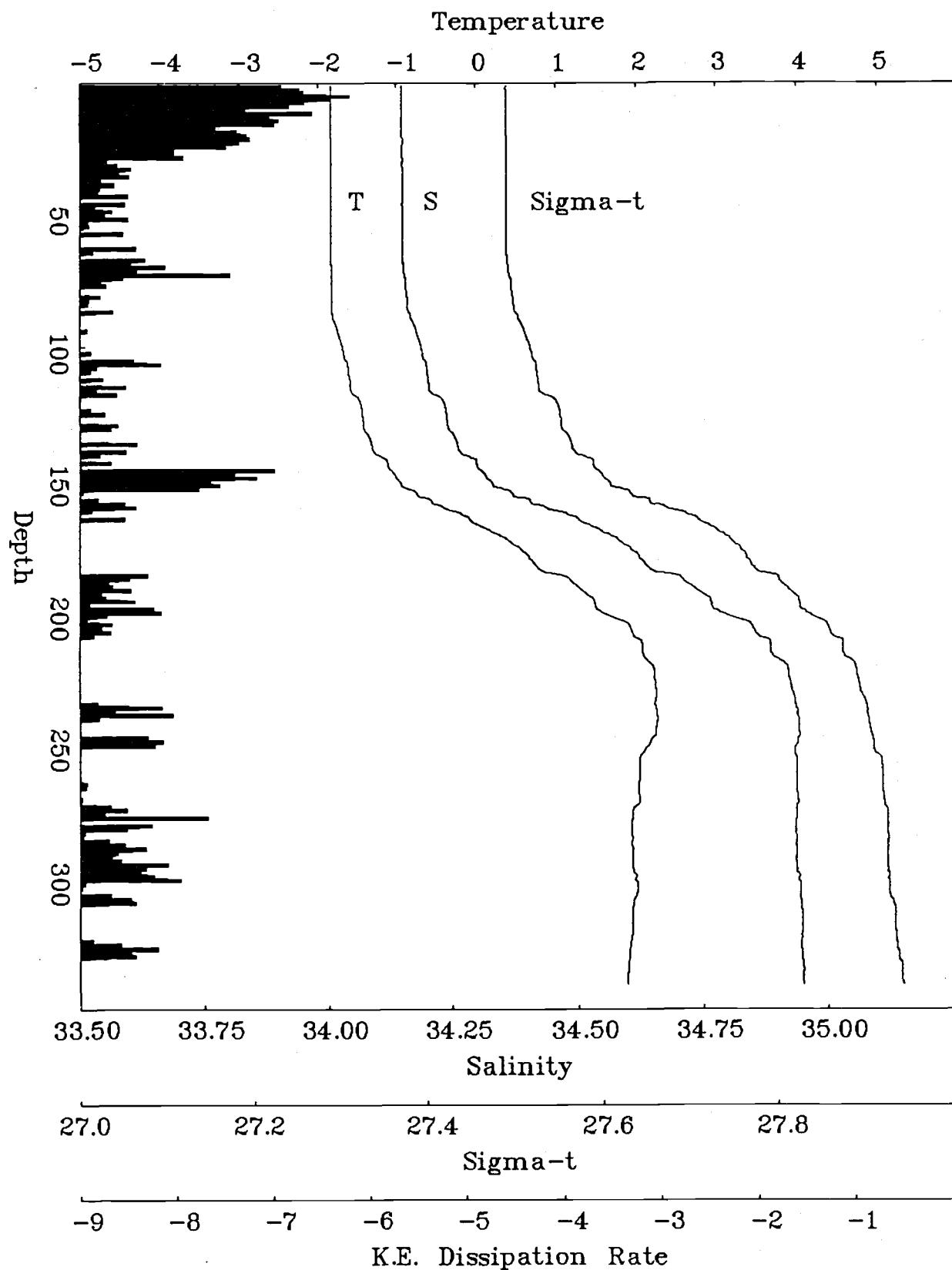
Temperature



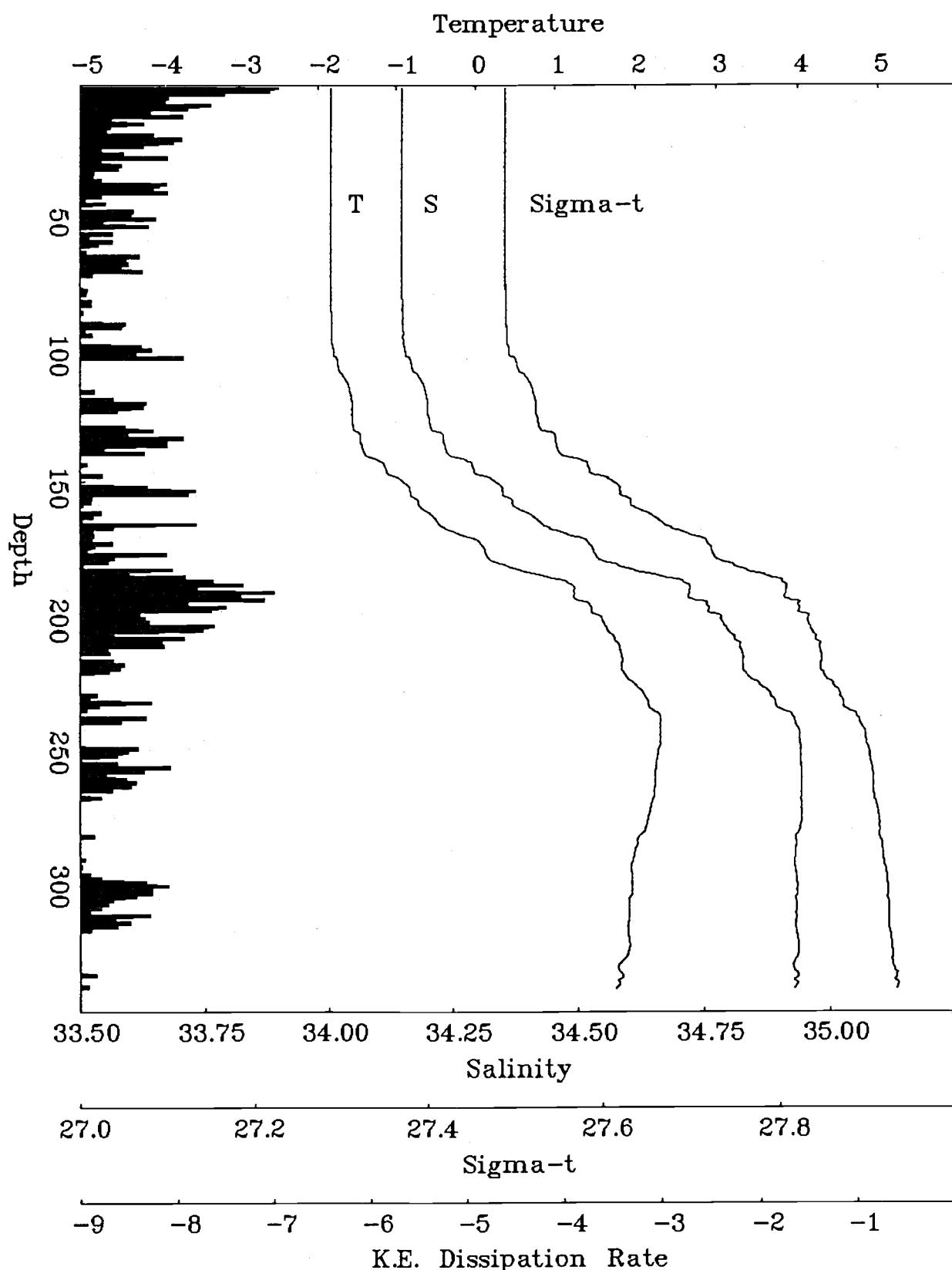
CEAREX Cast 1242, JD 109.8384, 19:59, 82.49N, 7.83E



CEAREX Cast 1248, JD 110.0056, 00:00, 82.49N, 7.76E

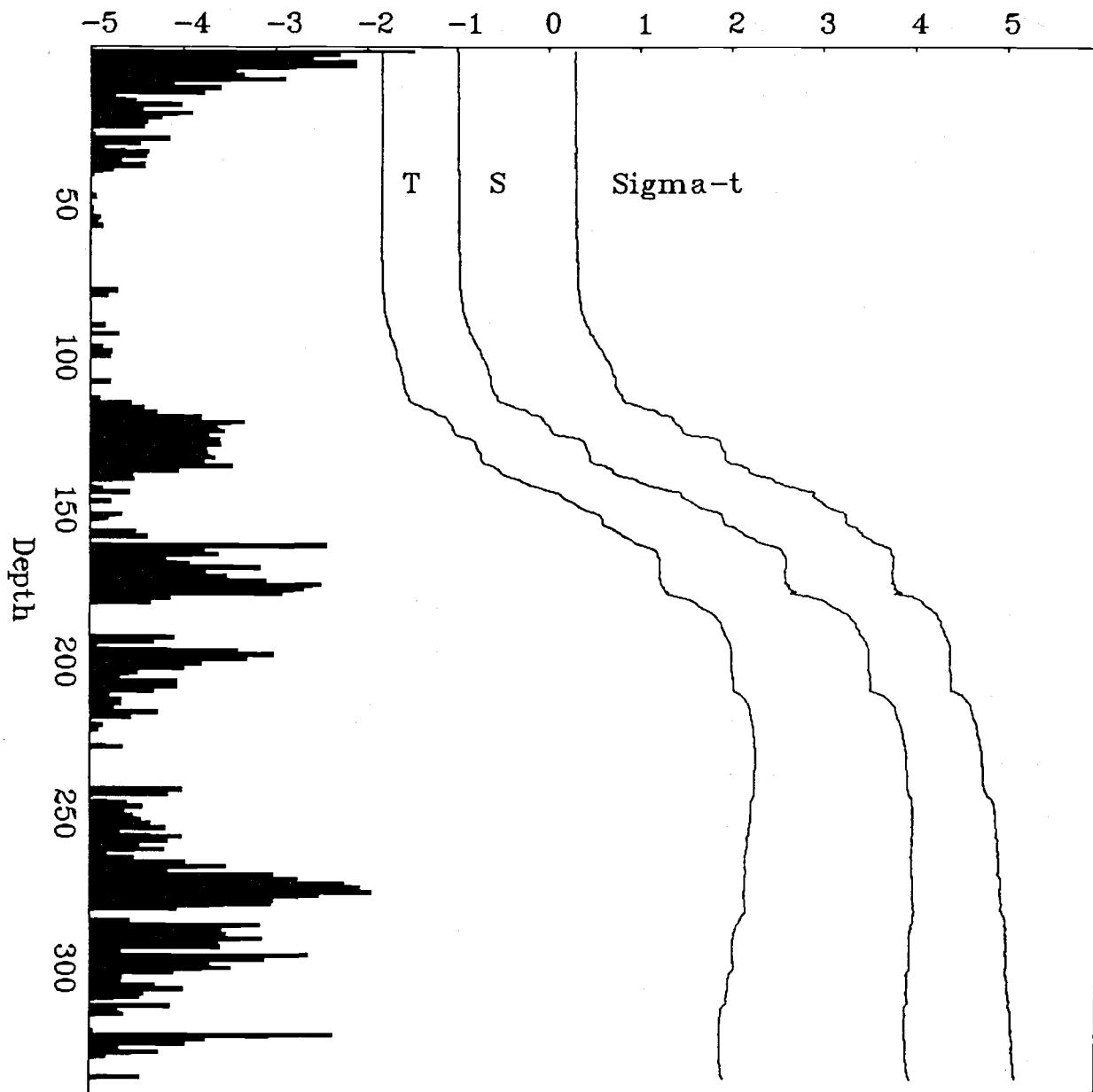


CEAREX Cast 1256, JD 110.1721, 03:59, 82.49N, 7.74E

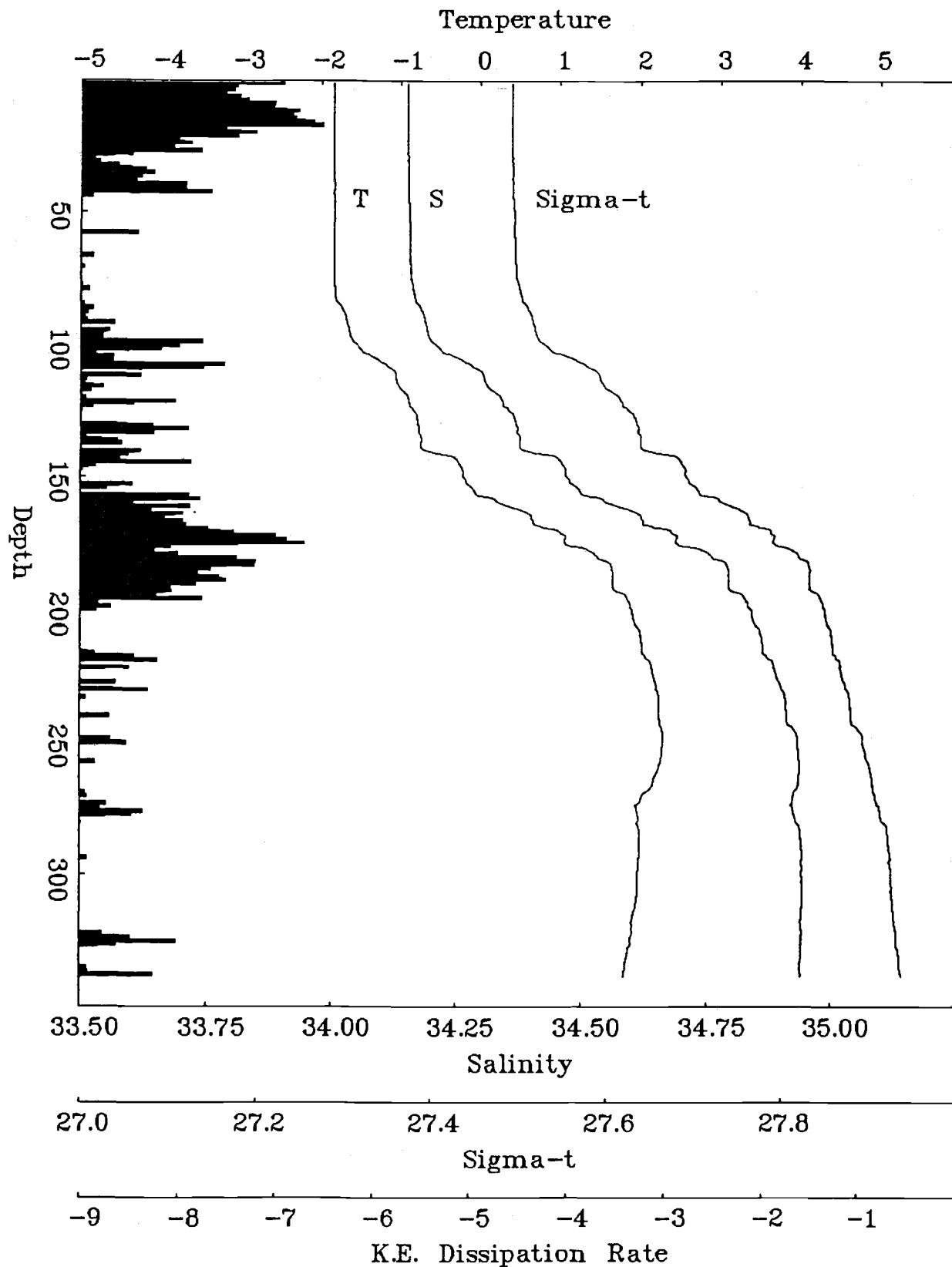


CEAREX Cast 1265, JD 110.3393, 08:00, 82.48N, 7.68E

Temperature

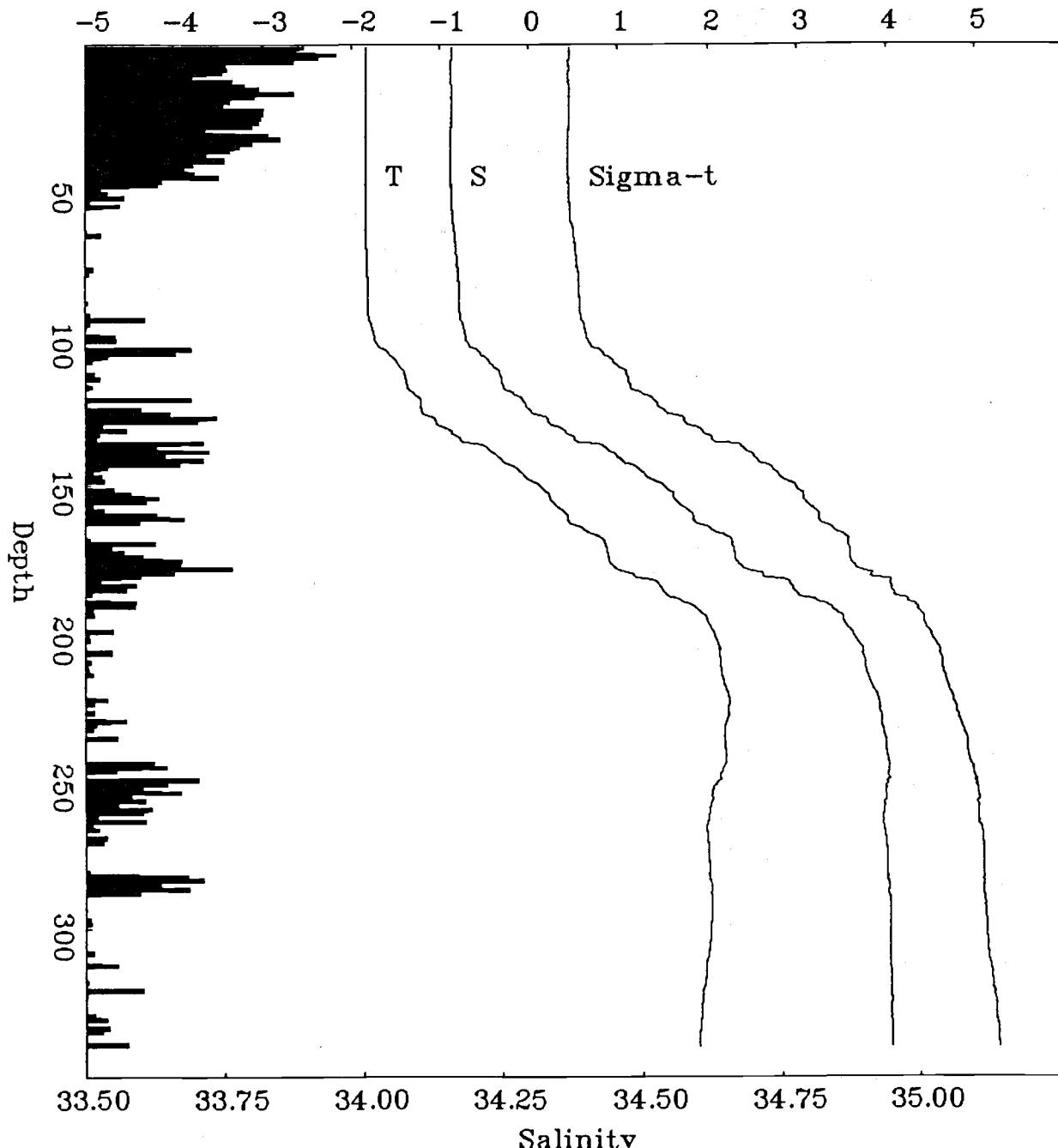


CEAREX Cast 1279, JD 110.5049, 11:59, 82.47N, 7.59E



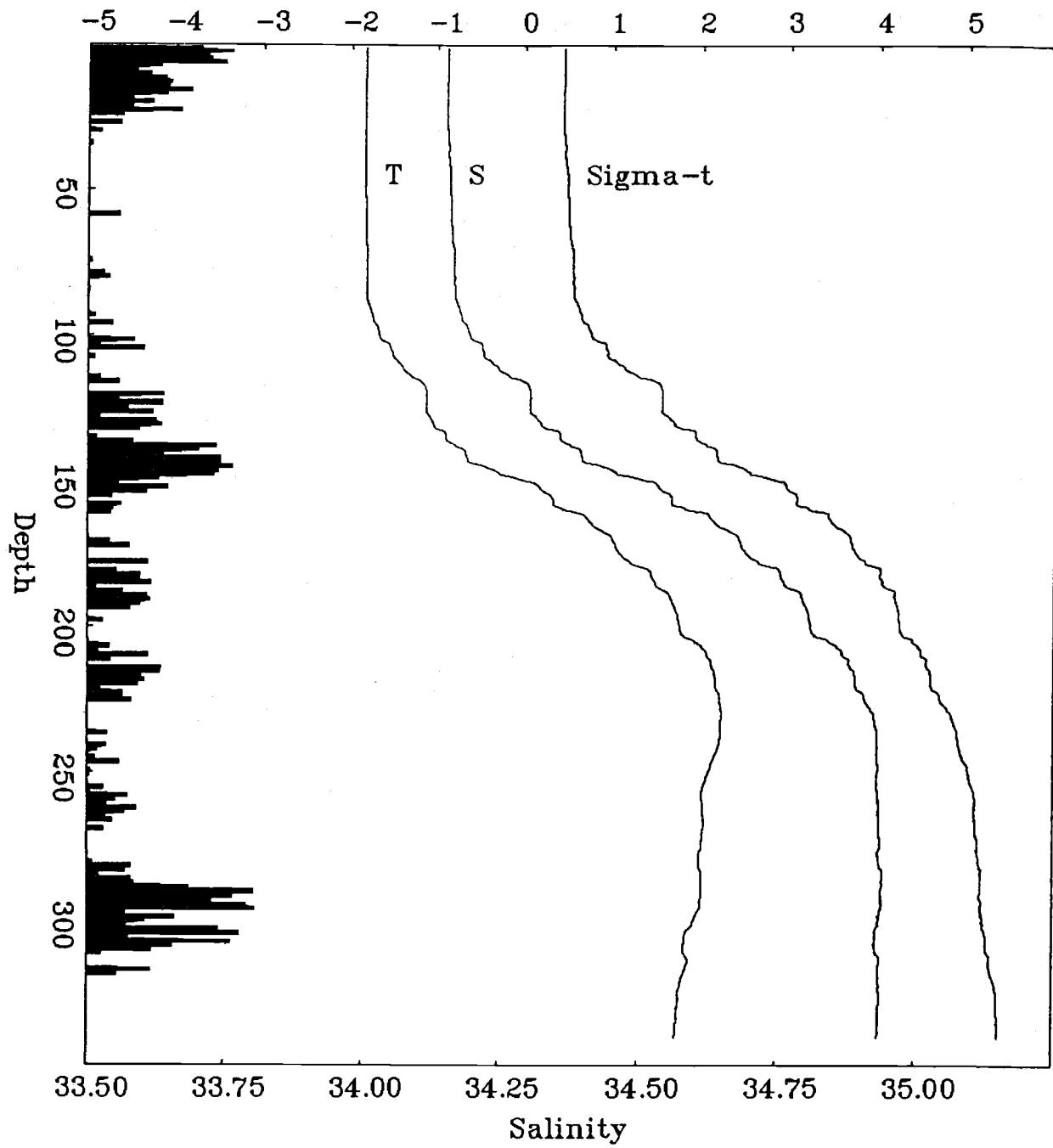
CEAREX Cast 1289, JD 110.6716, 15:59, 82.47N, 7.52E

Temperature



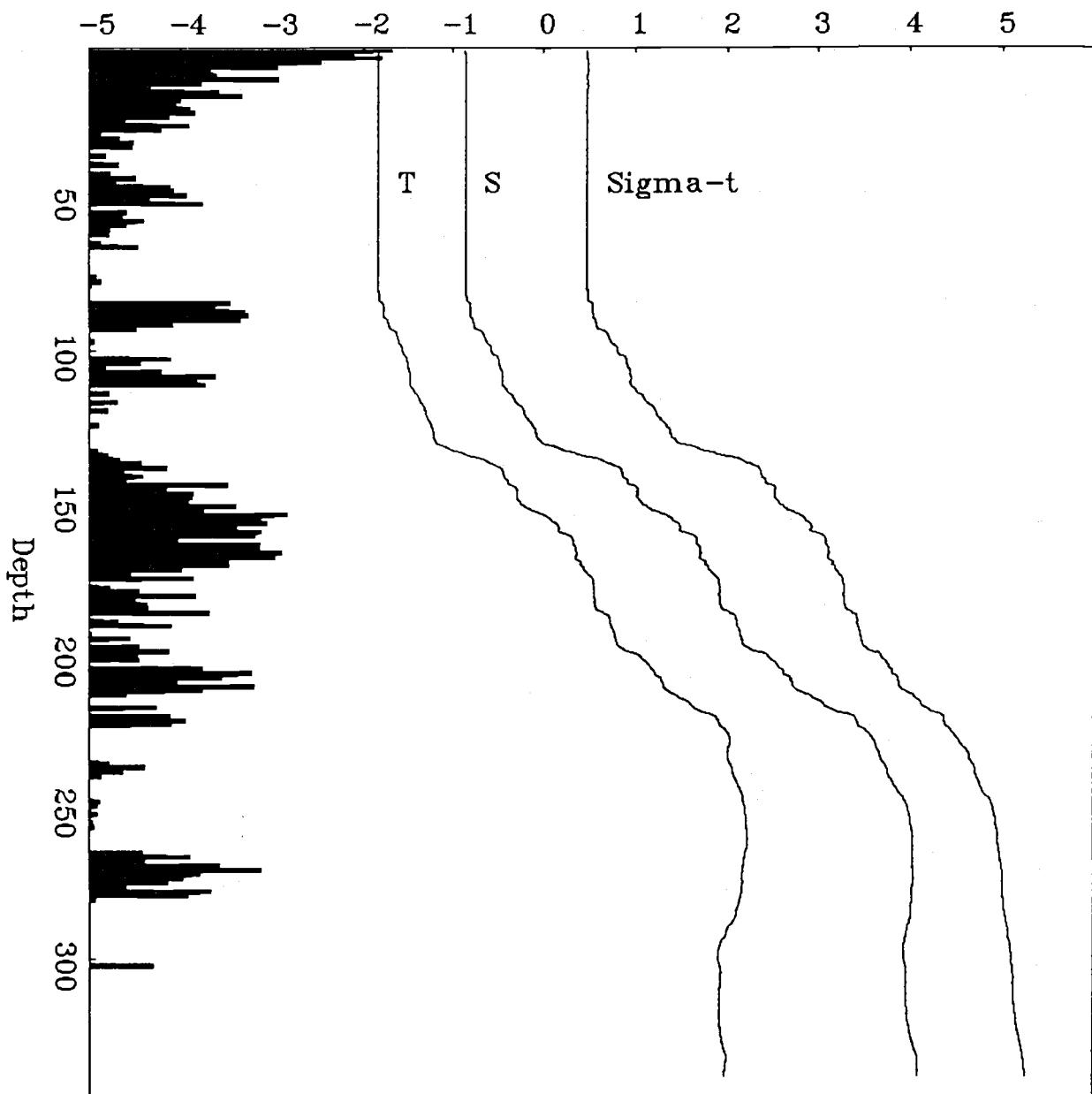
CEAREX Cast 1297, JD 110.8383, 19:59, 82.47N, 7.43E

Temperature

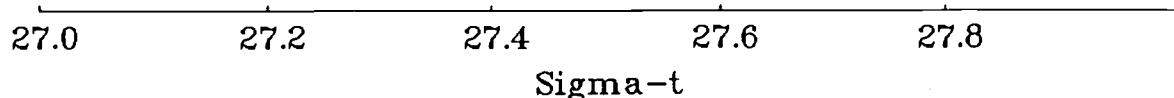


CEAREX Cast 1305, JD 111.0054, 23:59, 82.46N, 7.37E

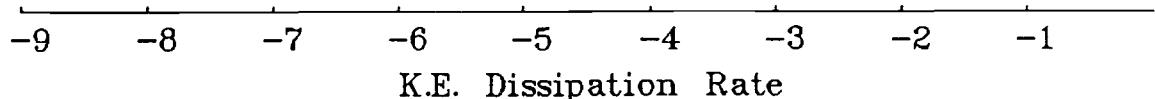
Temperature



Salinity



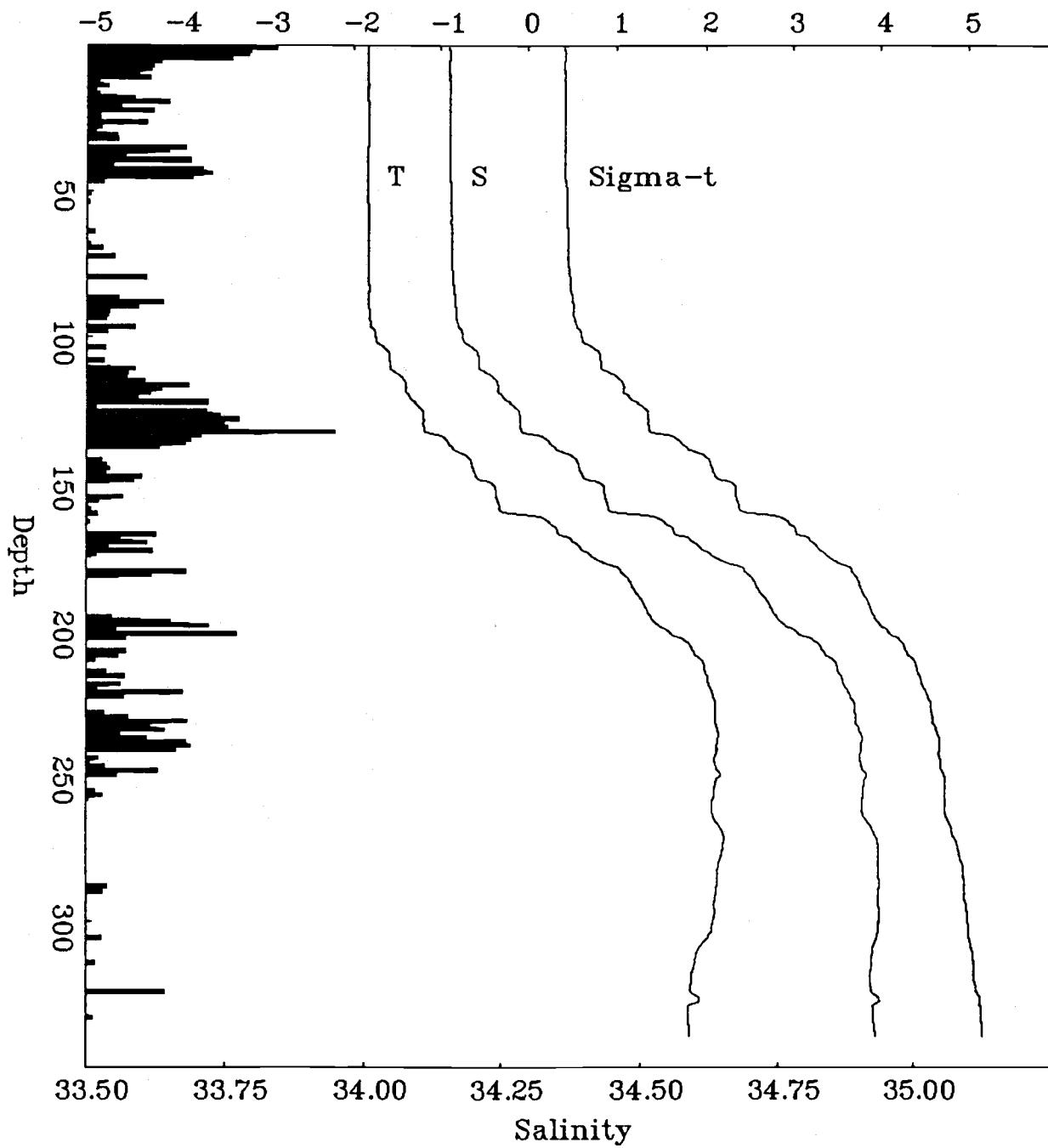
Sigma-t



K.E. Dissipation Rate

CEAREX Cast 1318, JD 111.1719, 03:59, 82.46N, 7.36E

Temperature

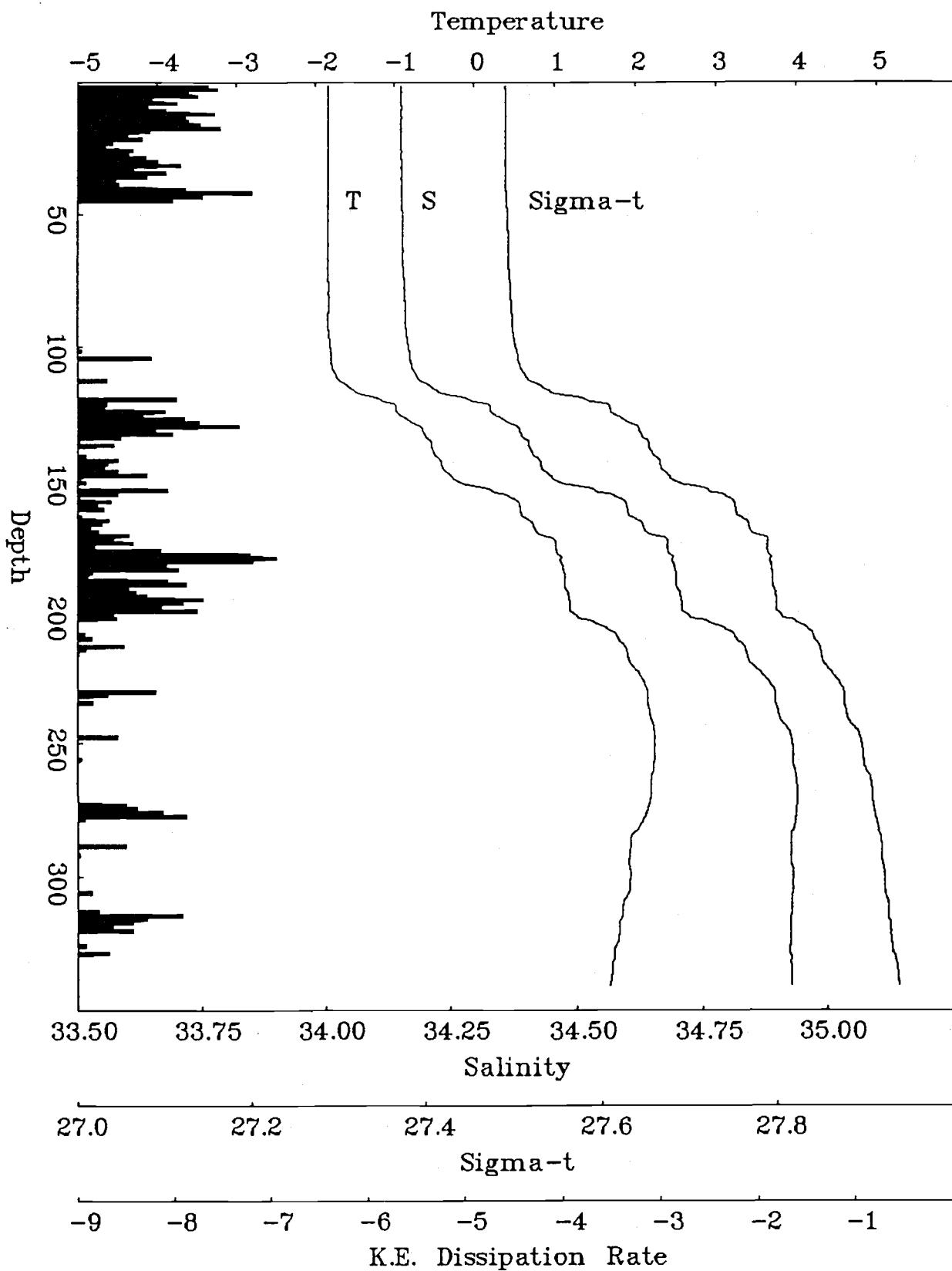


Salinity

Sigma-t

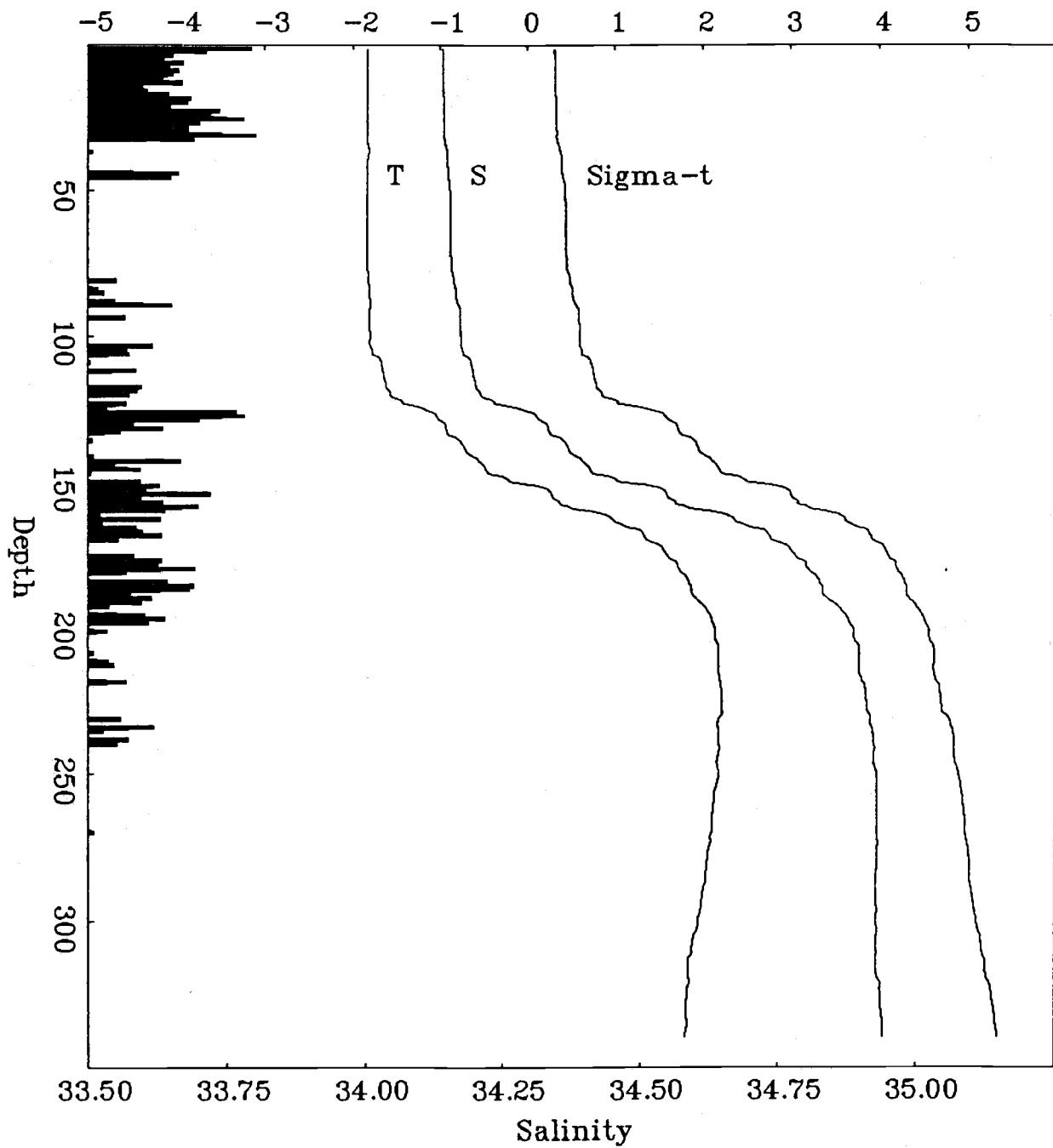
K.E. Dissipation Rate

CEAREX Cast 1327, JD 111.3390, 08:00, 82.46N, 7.31E

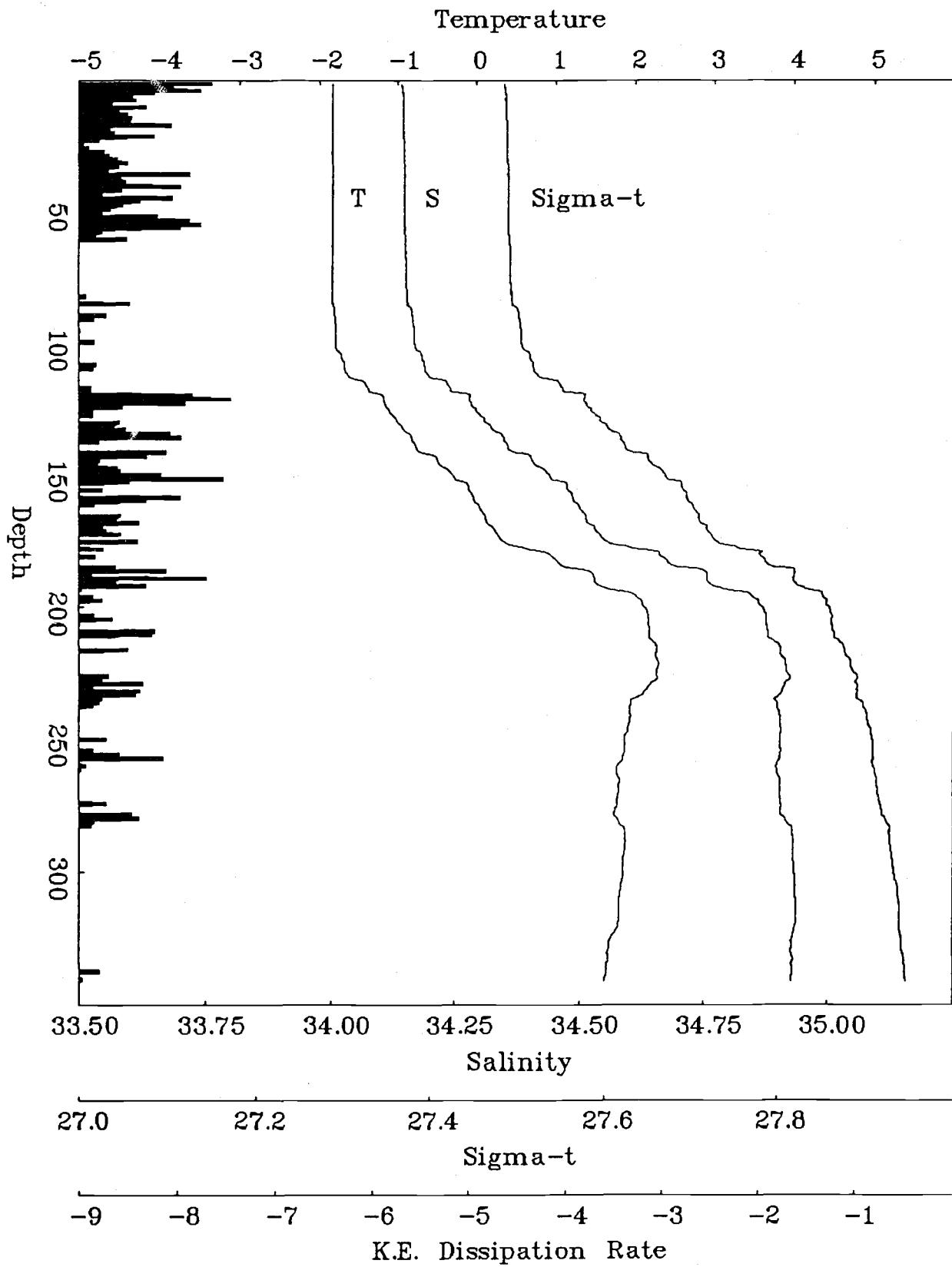


CEAREX Cast 1339, JD 111.5053, 11:59, 82.45N, 7.26E

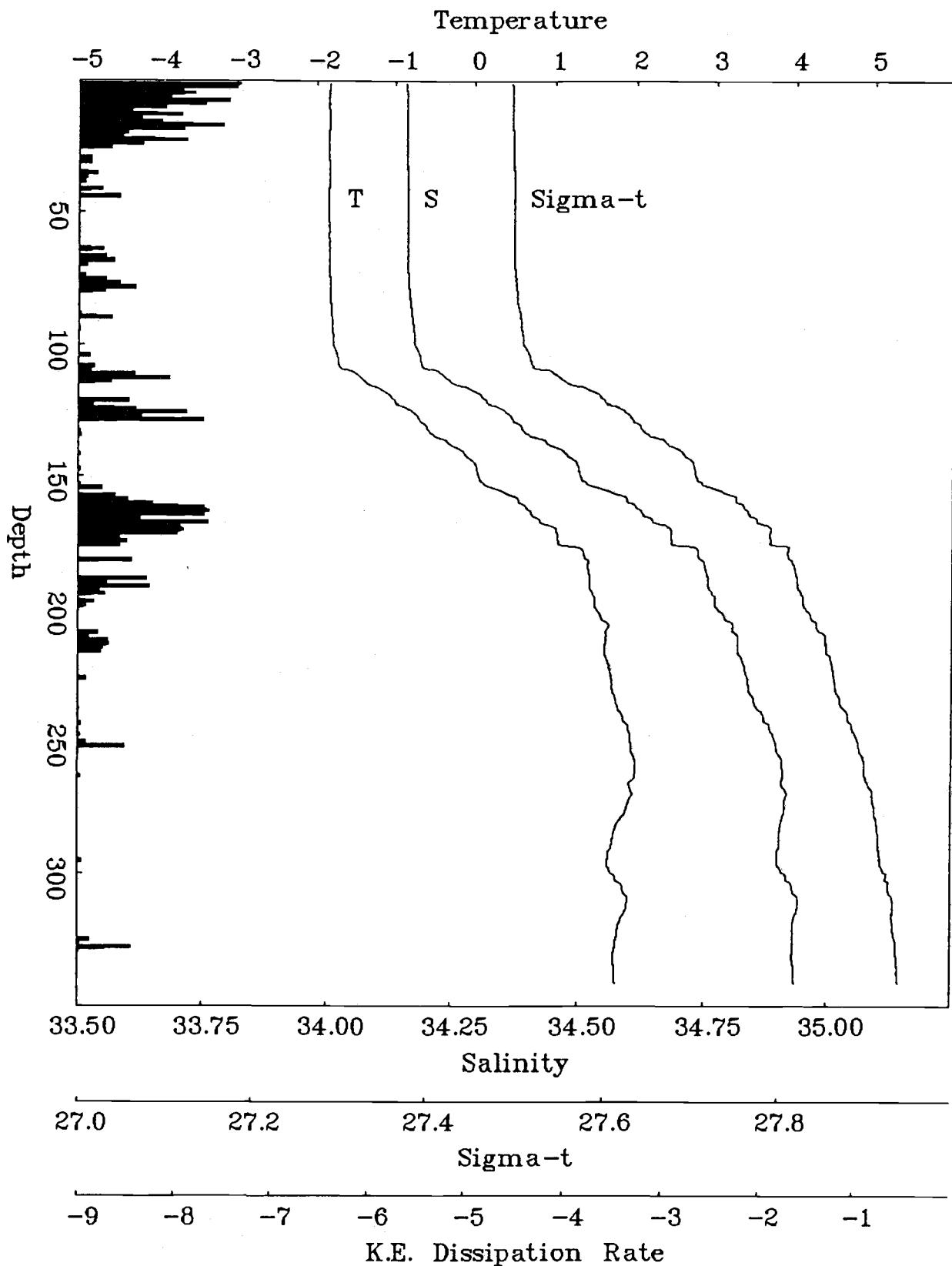
Temperature



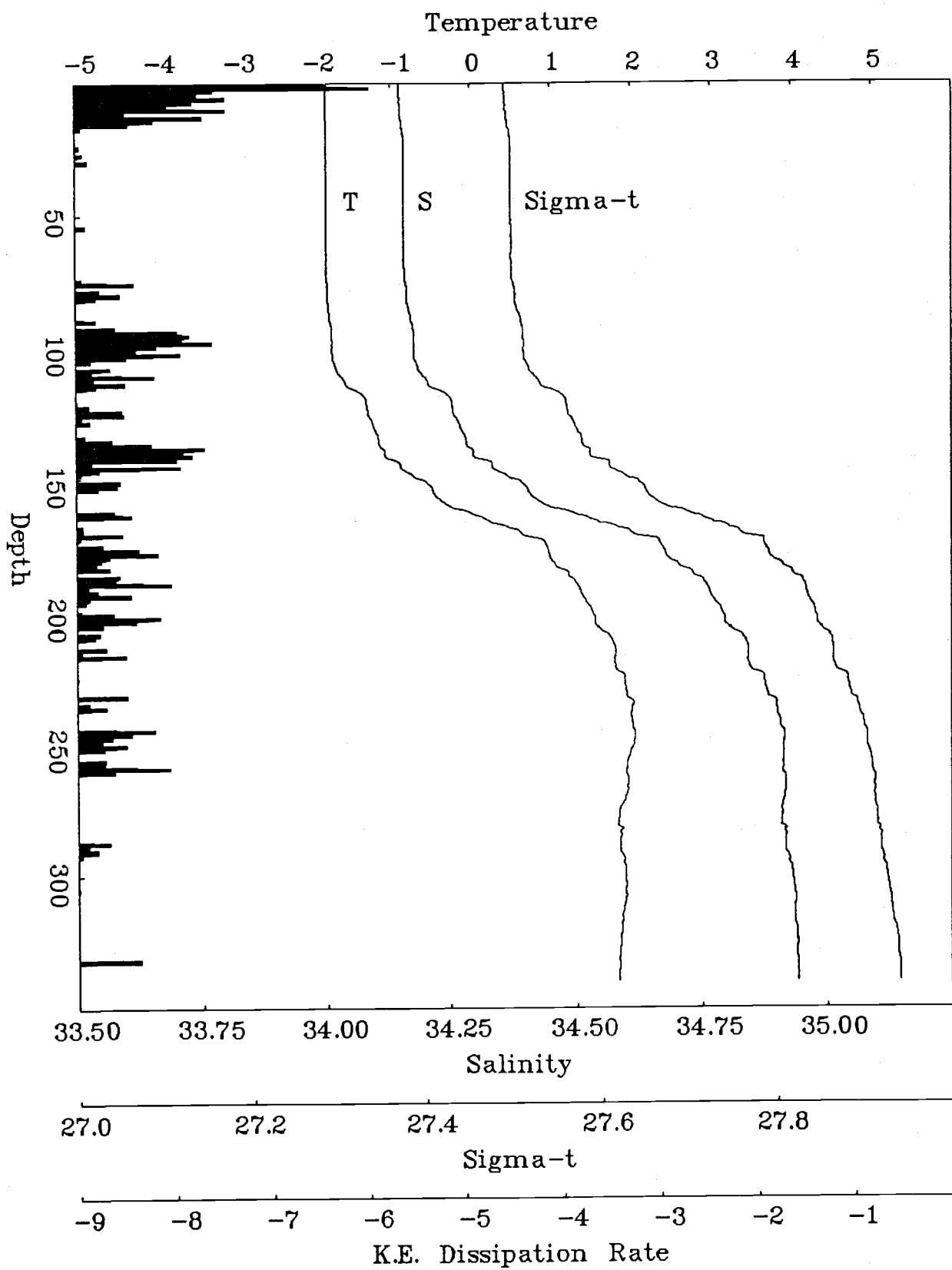
CEAREX Cast 1350, JD 111.6796, 16:10, 82.45N, 7.23E



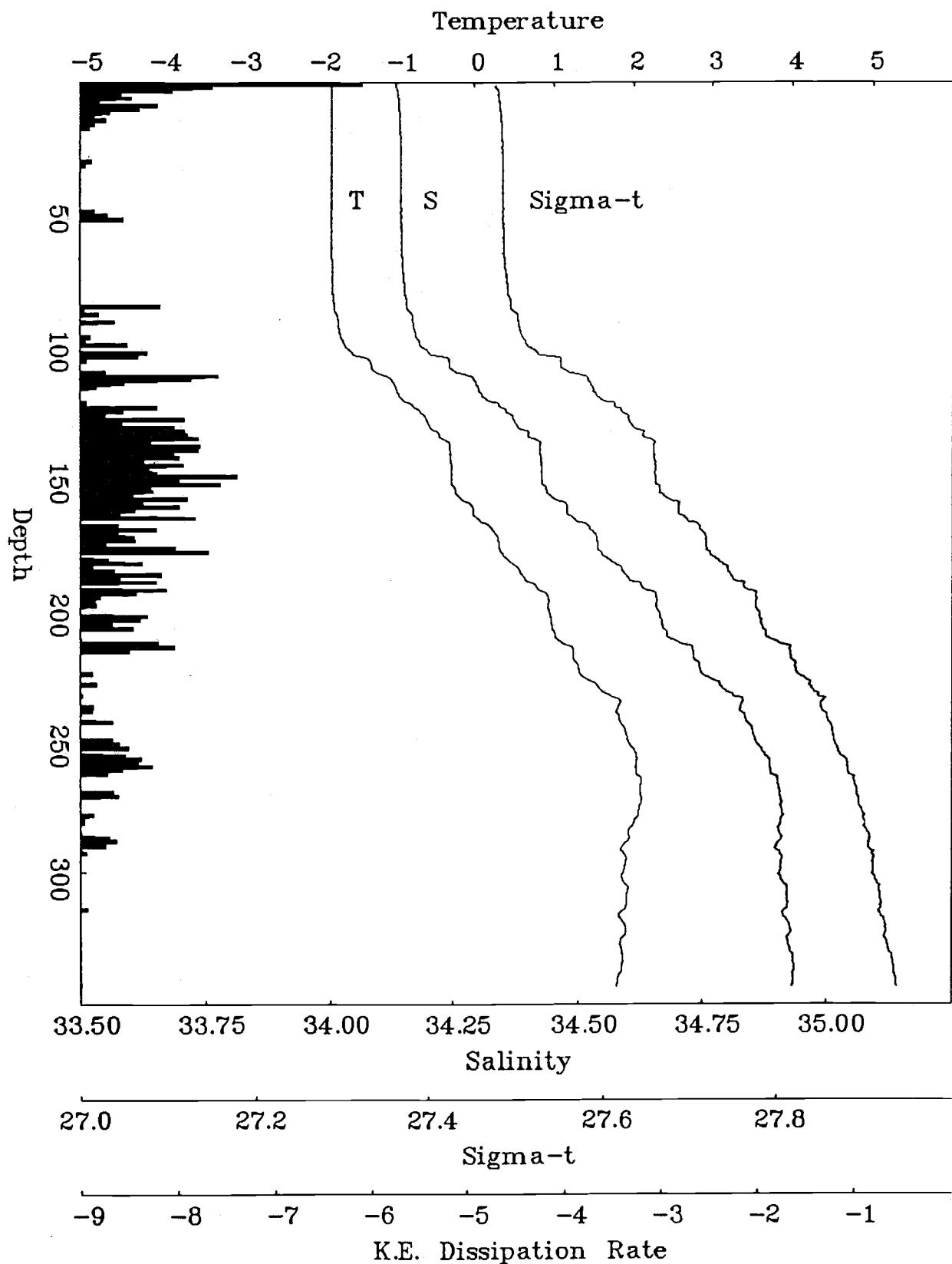
CEAREX Cast 1359, JD 111.8384, 19:59, 82.45N, 7.19E



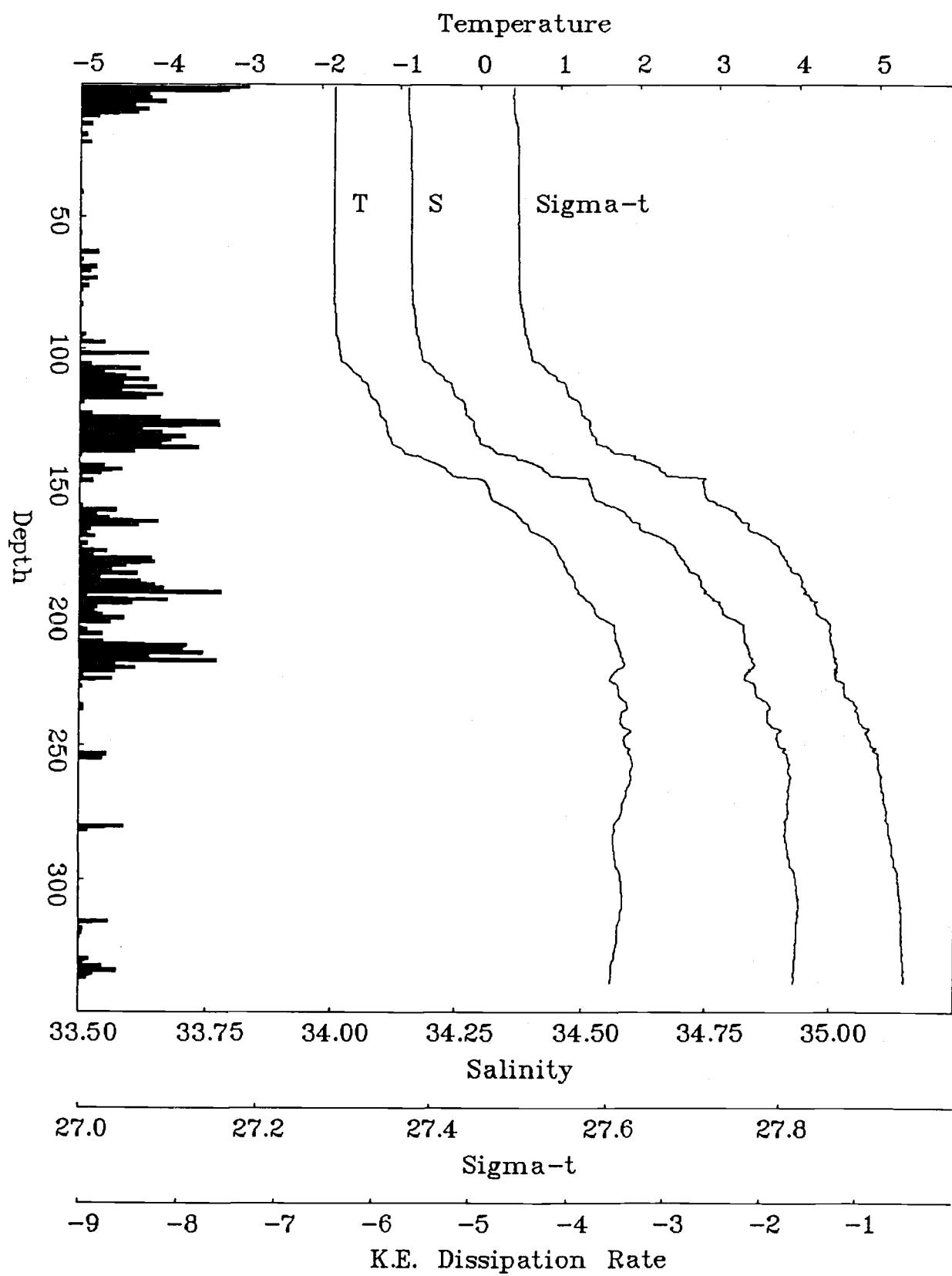
CEAREX Cast 1368, JD 112.0041, 23:57, 82.44N, 7.15E



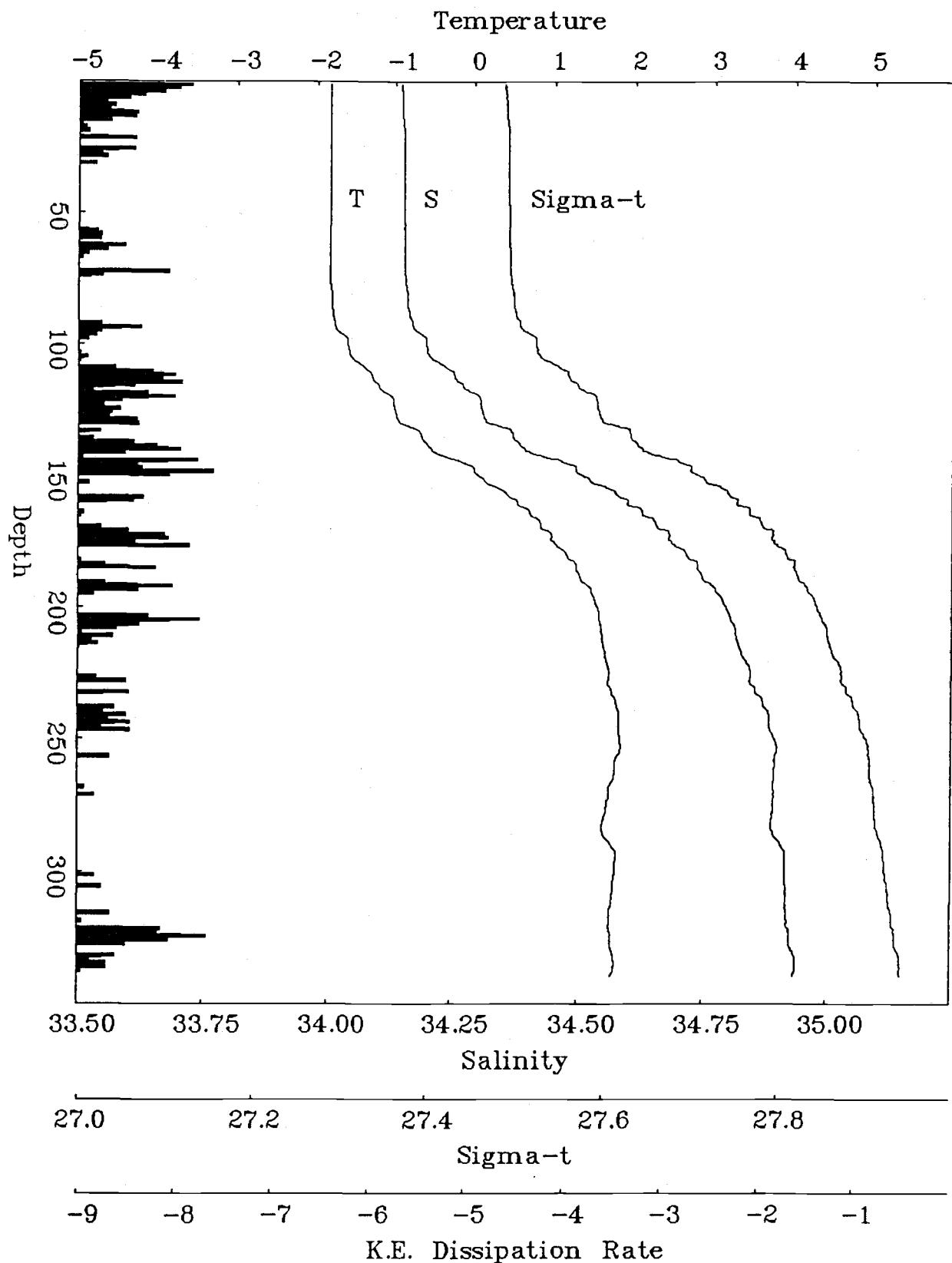
CEAREX Cast 1380, JD 112.1722, 03:59, 82.44N, 7.15E



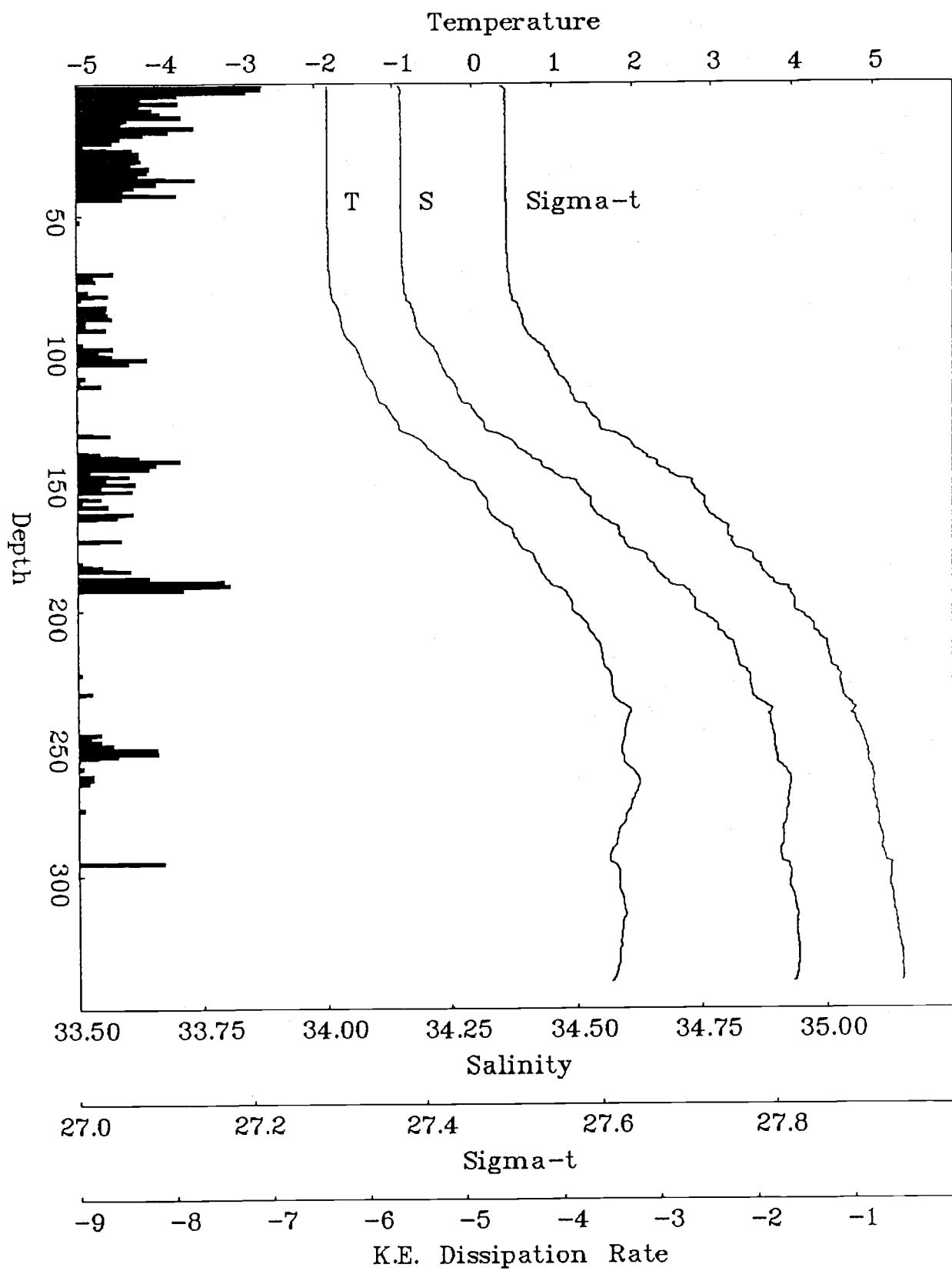
CEAREX Cast 1395, JD 112.3471, 08:11, 82.44N, 7.13E



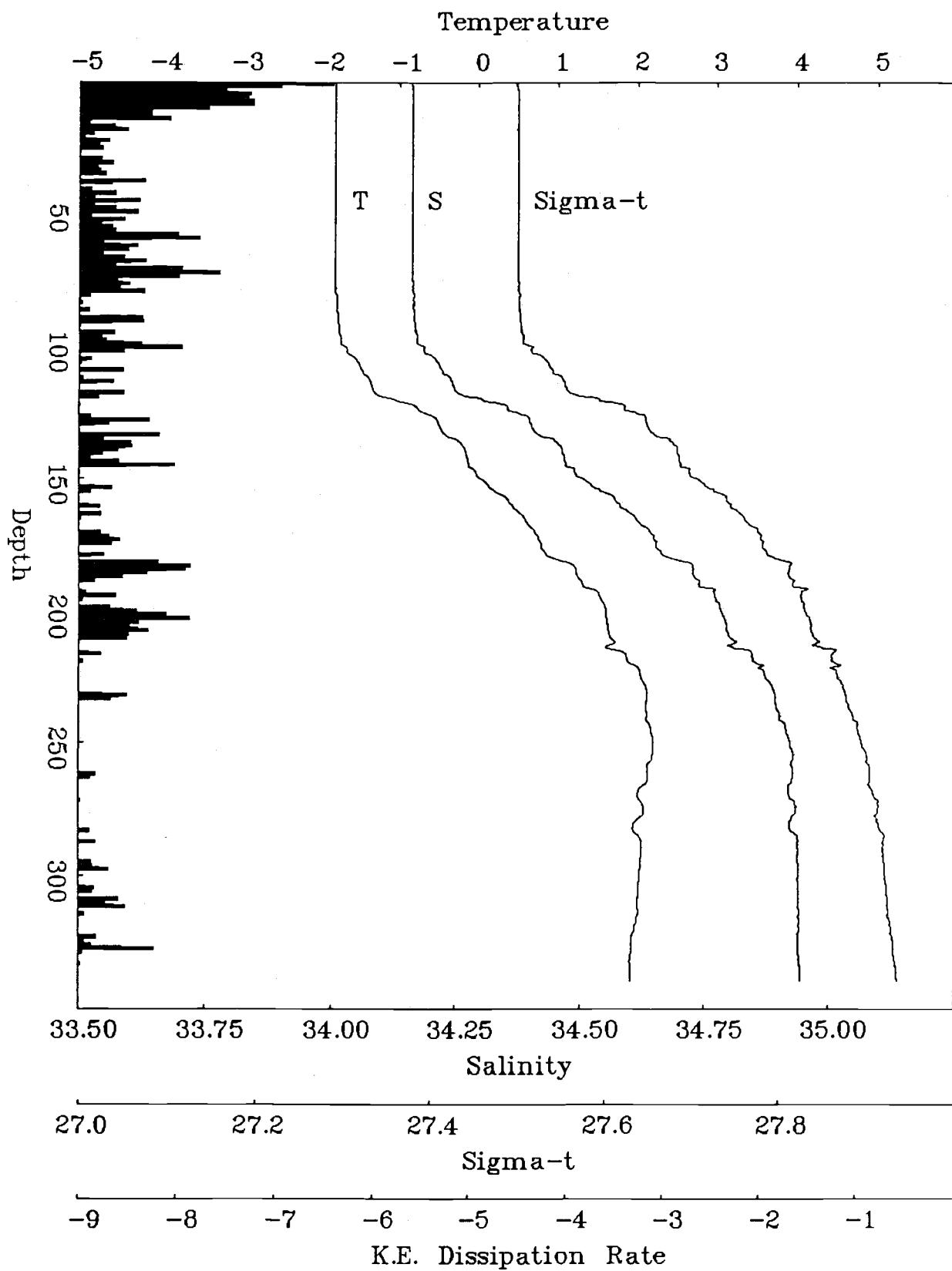
CEAREX Cast 1408, JD 112.5050, 11:59, 82.43N, 7.08E



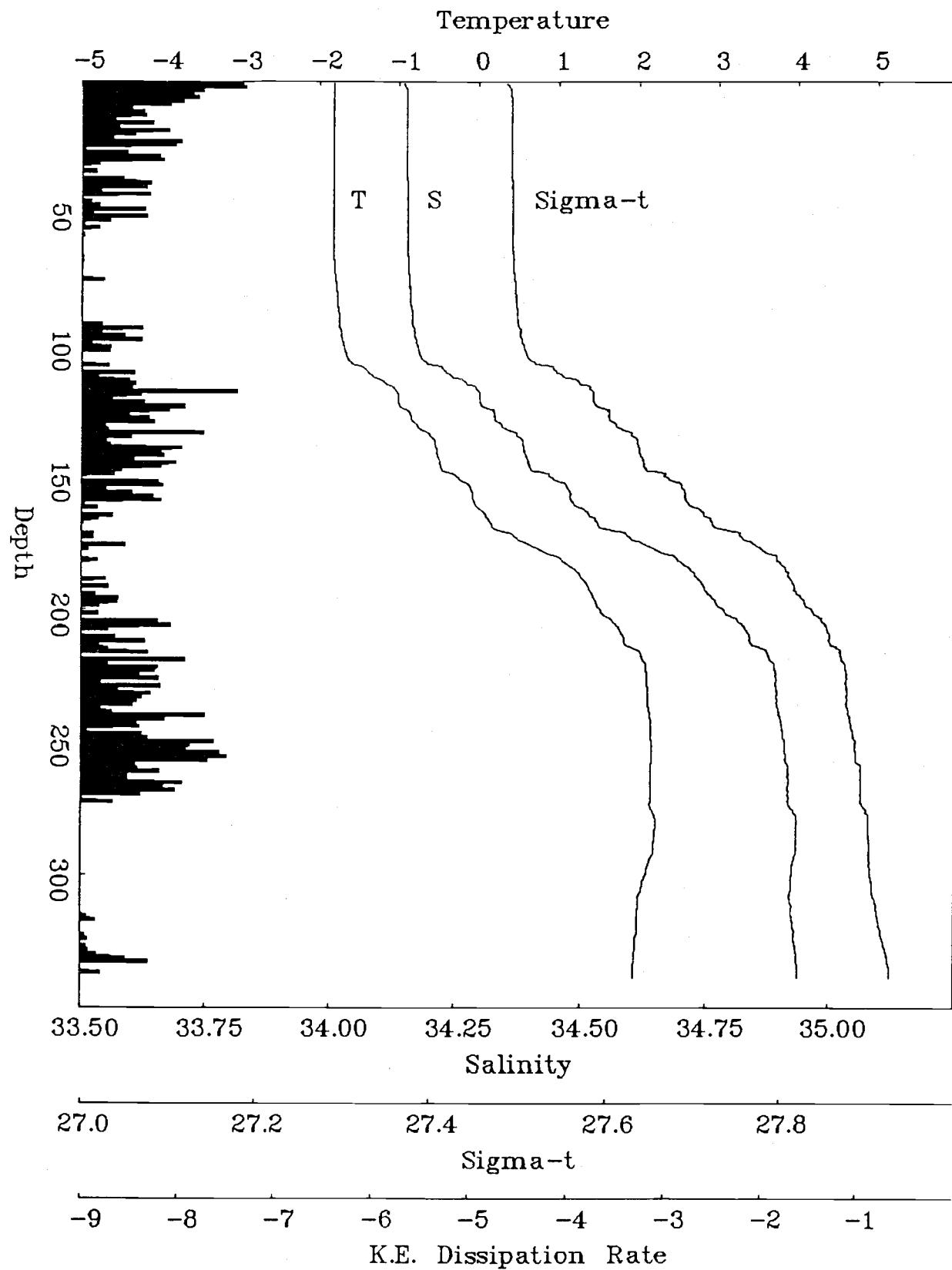
CEAREX Cast 1419, JD 112.6719, 15:59, 82.42N, 7.02E



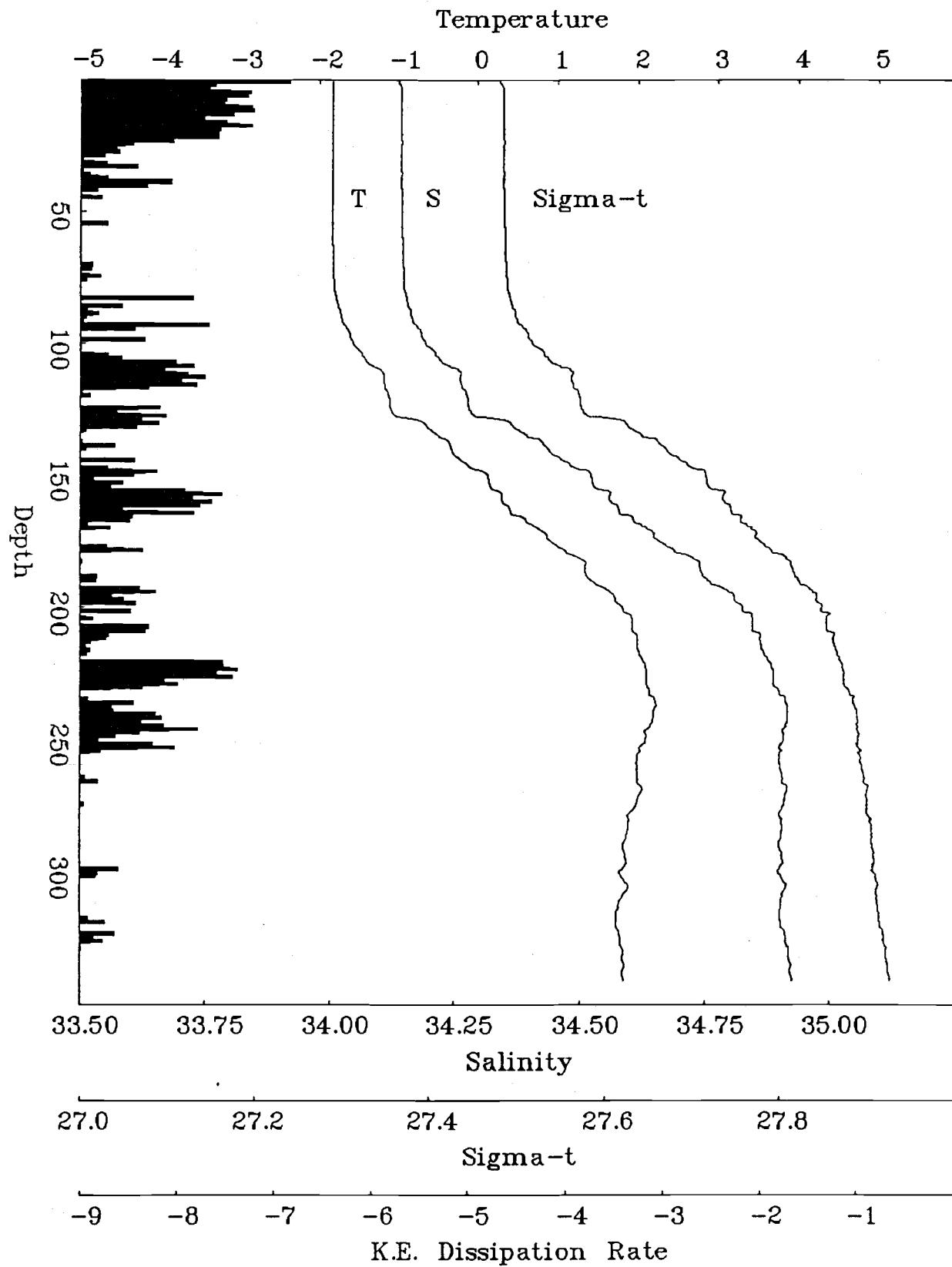
CEAREX Cast 1428, JD 112.8383, 19:59, 82.41N, 6.93E



CEAREX Cast 1441, JD 113.0014, 23:54, 82.40N, 6.85E

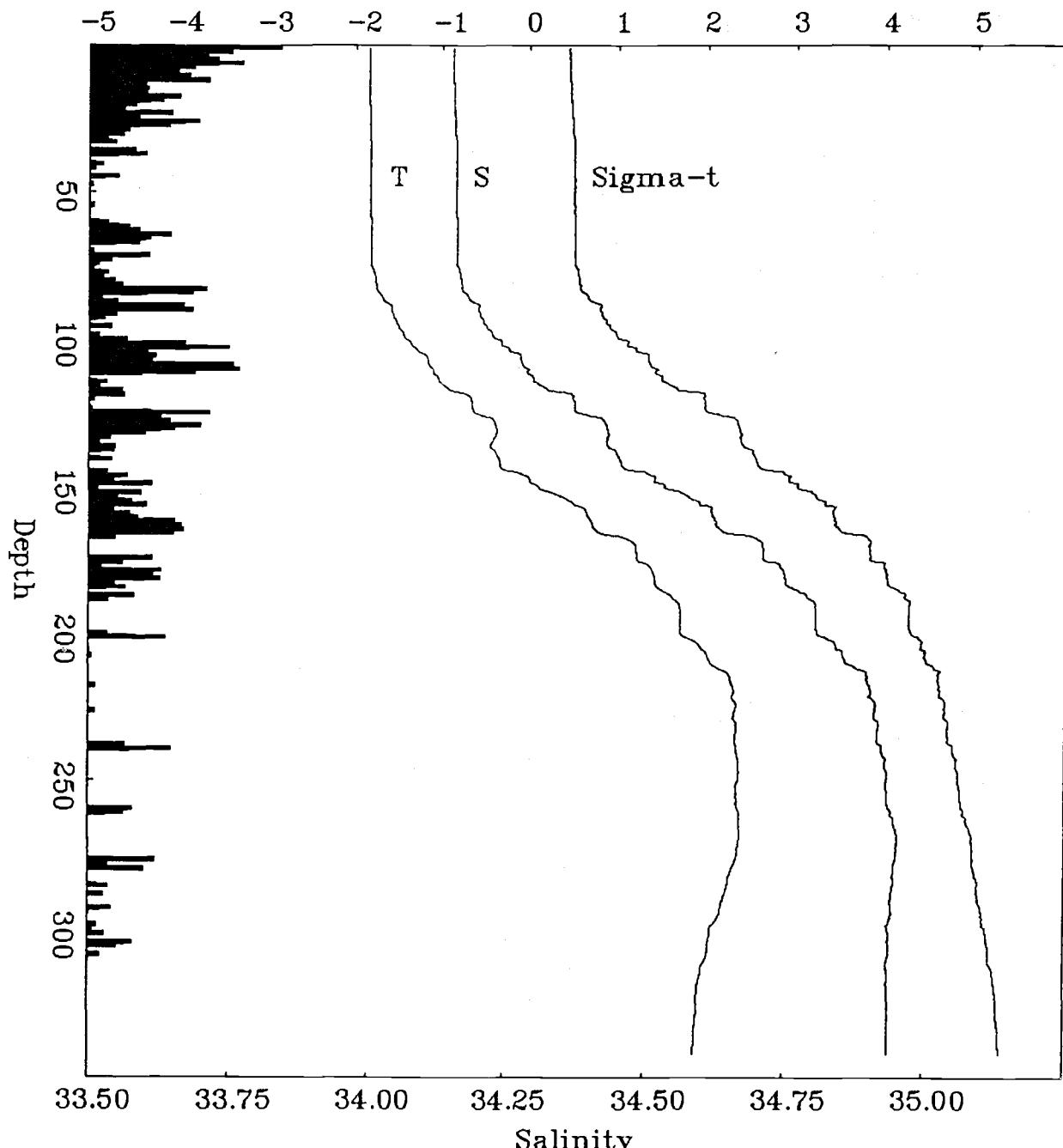


CEAREX Cast 1457, JD 113.1723, 04:00, 82.40N, 6.80E

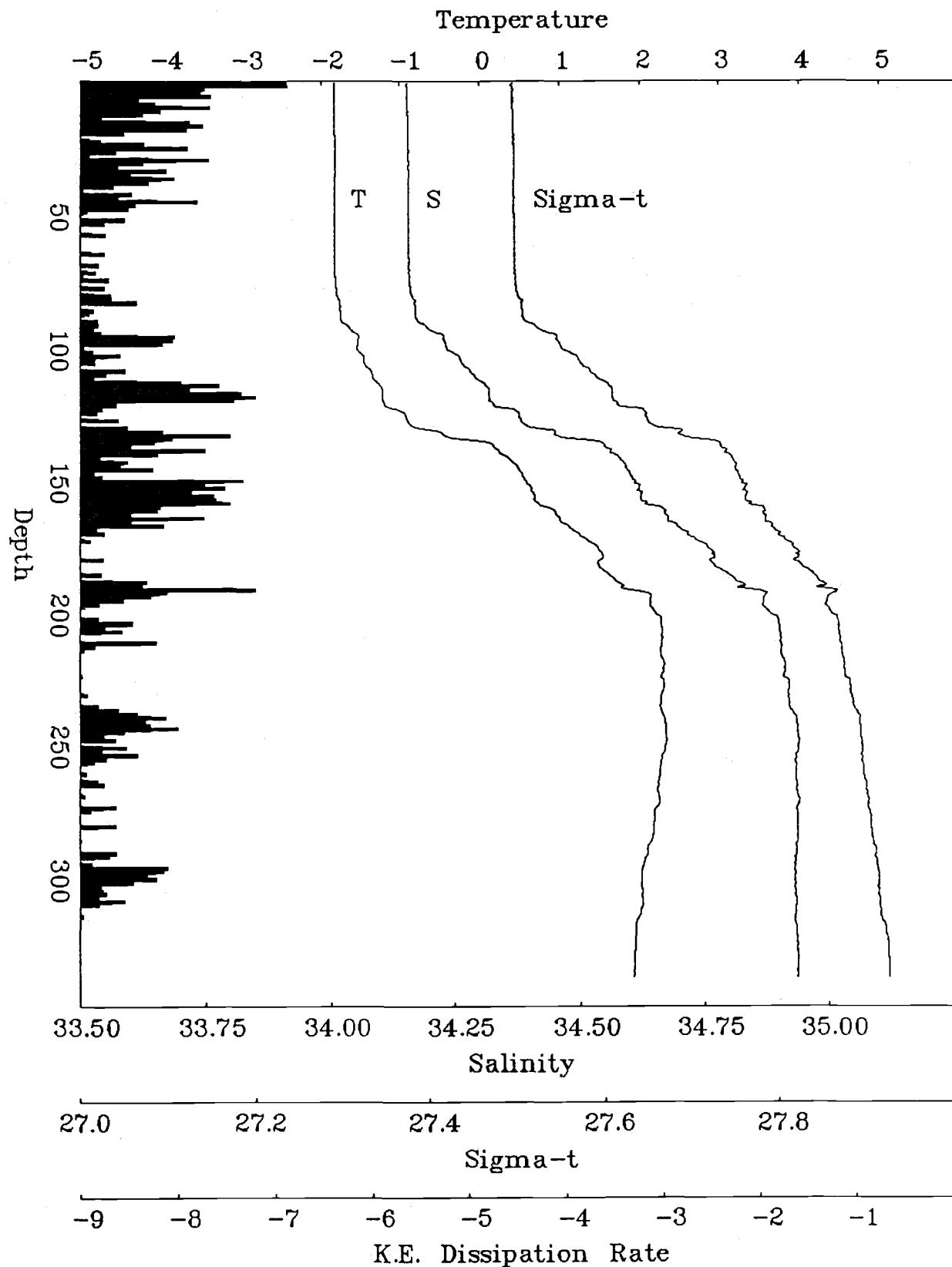


CEAREX Cast 1472, JD 113.3539, 08:21, 82.39N, 6.72E

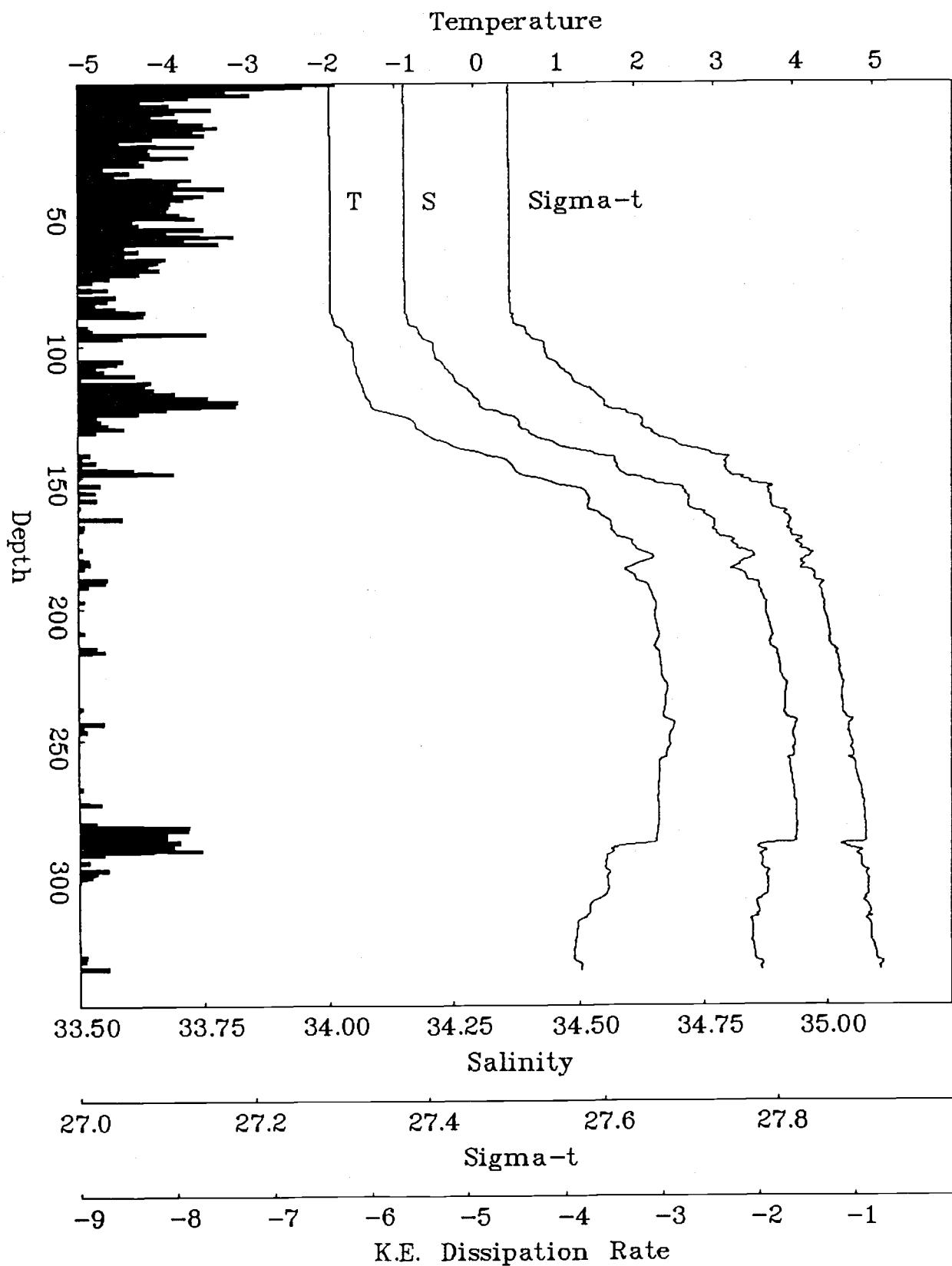
Temperature



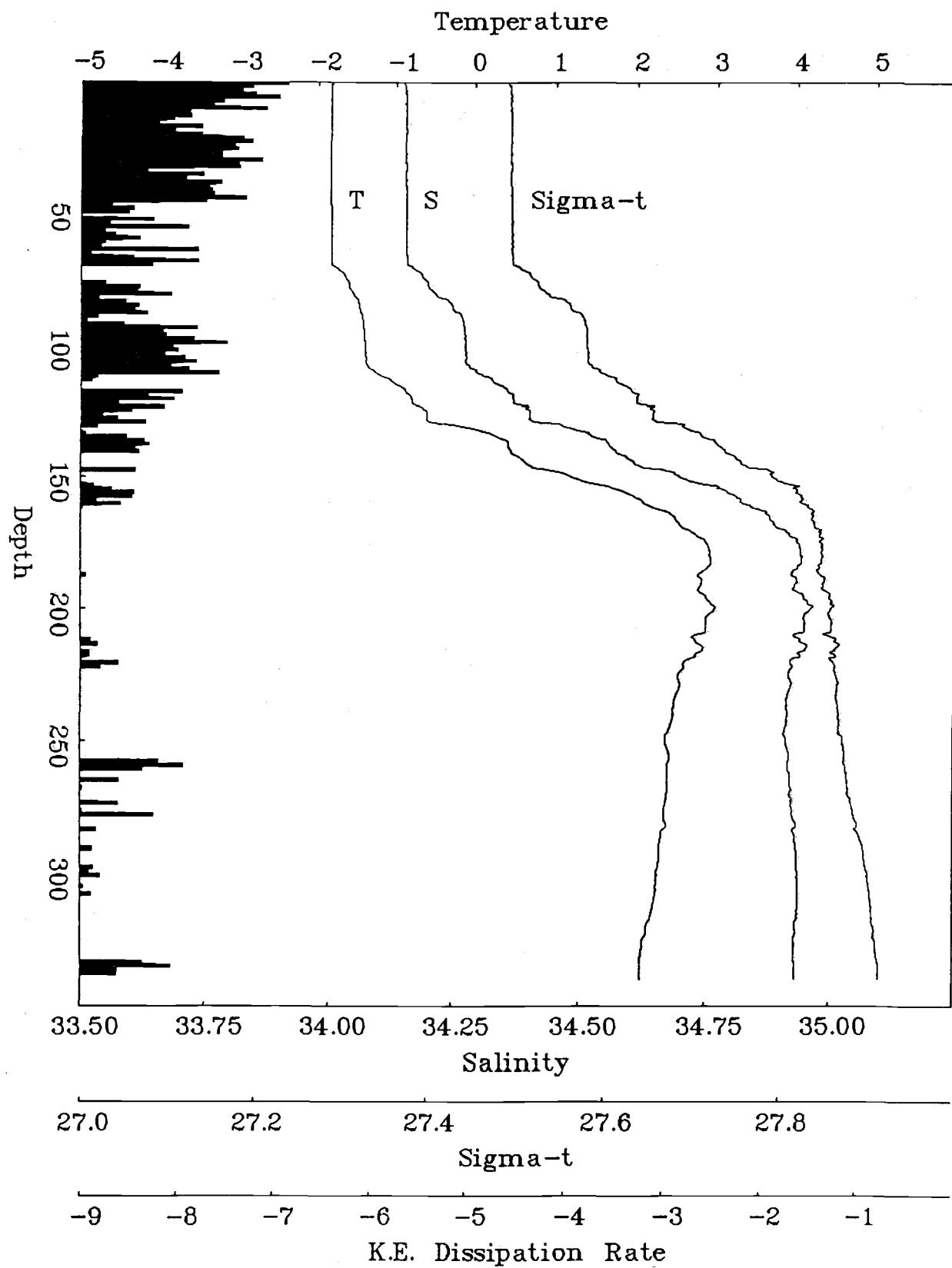
CEAREX Cast 1486, JD 113.5106, 12:07, 82.38N, 6.62E



CEAREX Cast 1500, JD 113.6730, 16:01, 82.37N, 6.50E

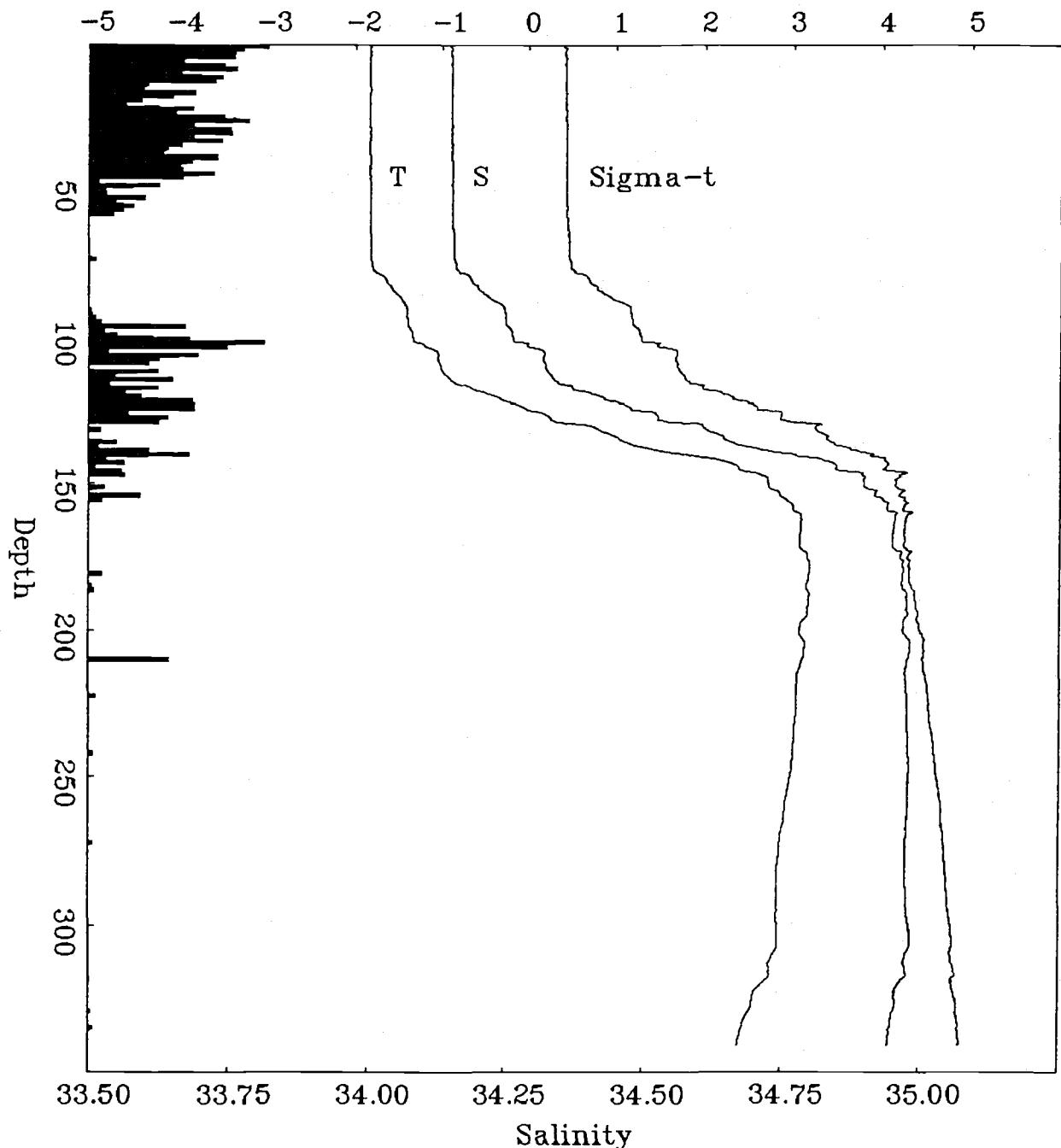


CEAREX Cast 1512, JD 113.8209, 19:34, 82.37N, 6.37E

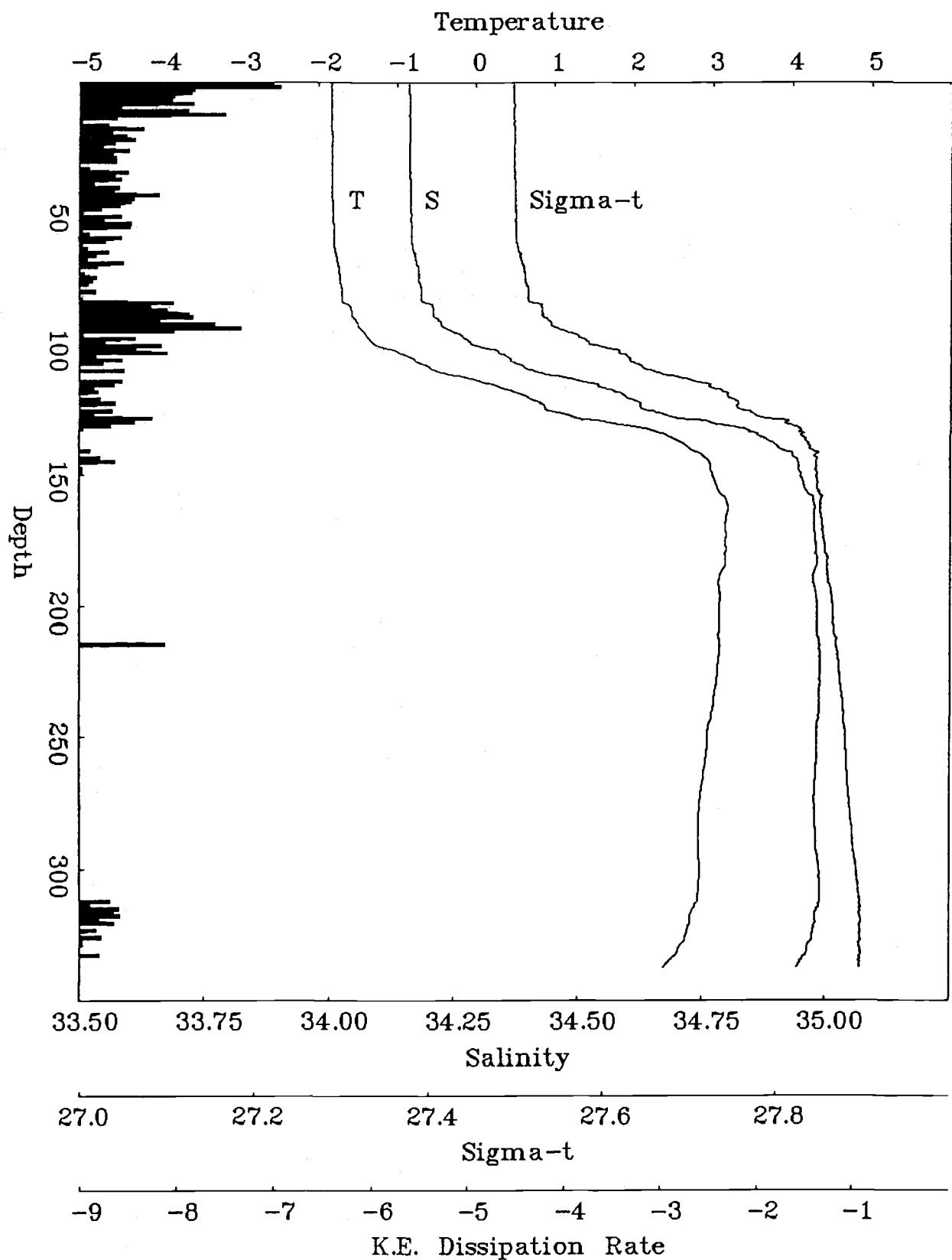


CEAREX Cast 1526, JD 114.0109, 00:07, 82.37N, 6.25E

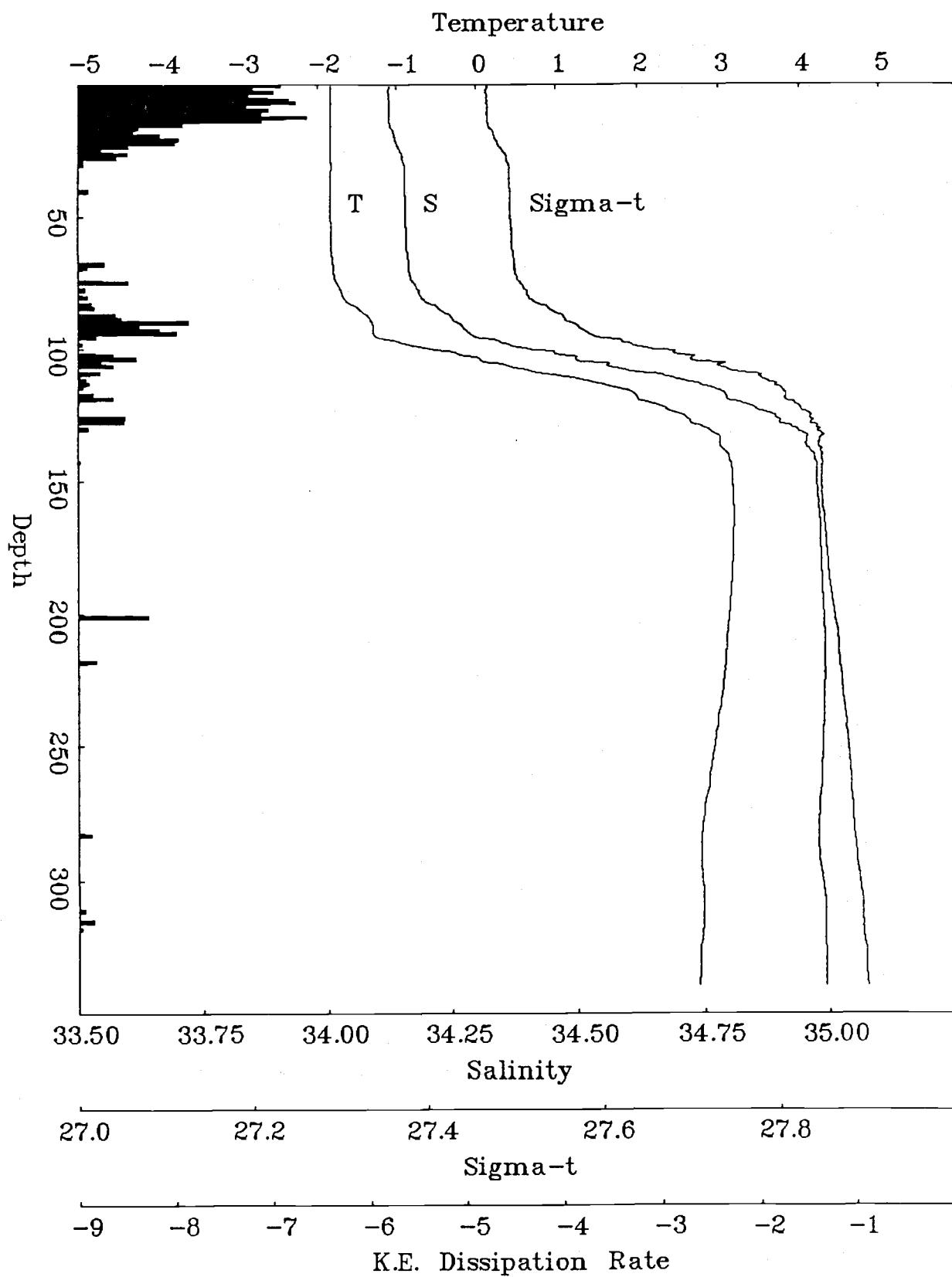
Temperature



CEAREX Cast 1535, JD 114.1724, 04:00, 82.37N, 6.23E



CEAREX Cast 1545, JD 114.3246, 07:39, 82.36N, 6.17E



**Section 4:**

**Transects of Temperature, Salinity, Density, and**

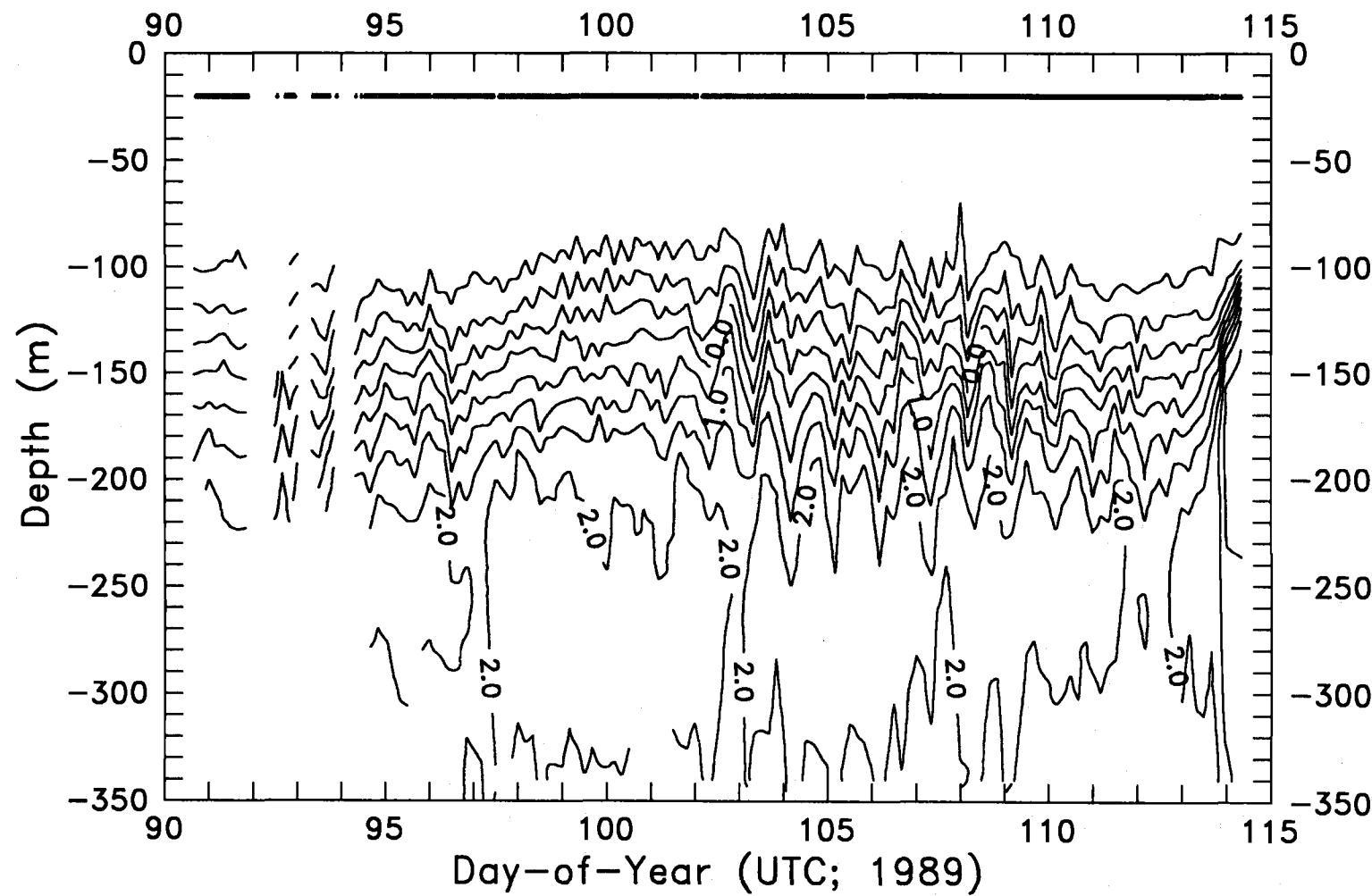
**Dissipation Rate for Entire Experiment**

**(4-hour filter)**

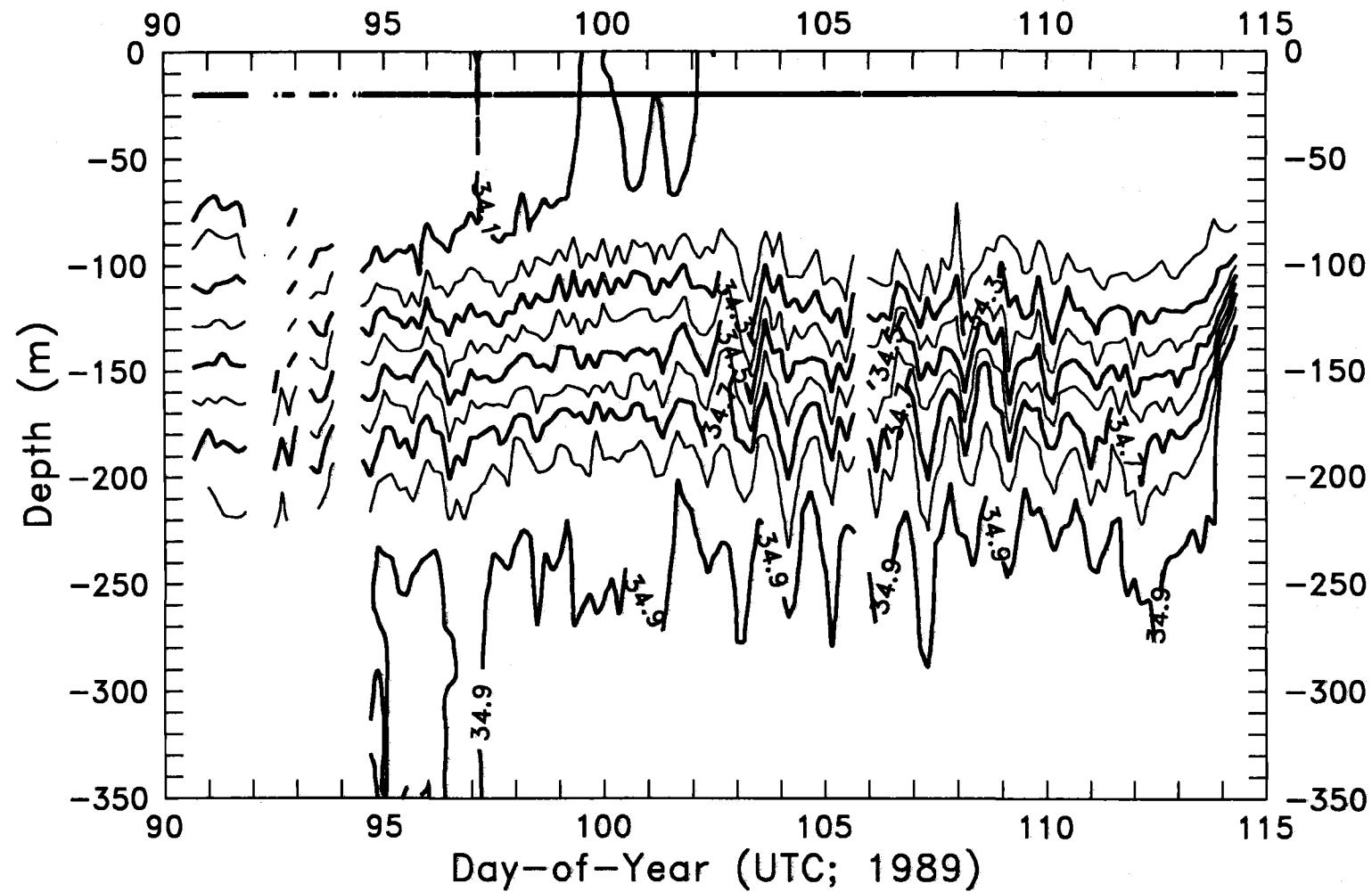
Contour intervals for  $T$ ,  $S$  and  $\sigma_t$  are  $0.5^\circ \text{ C}$ ,  $0.1 \text{ psu}$ , and  $0.05 \text{ kg m}^{-3}$  respectively. The location of each RSVP profile is shown by an arrow along  $z = -20 \text{ m}$ . Dissipation rate,  $\epsilon$ , is shown as contours of  $\log_{10}\epsilon$ , in steps of half a decade.

## Temperatures (CEAREX)

175

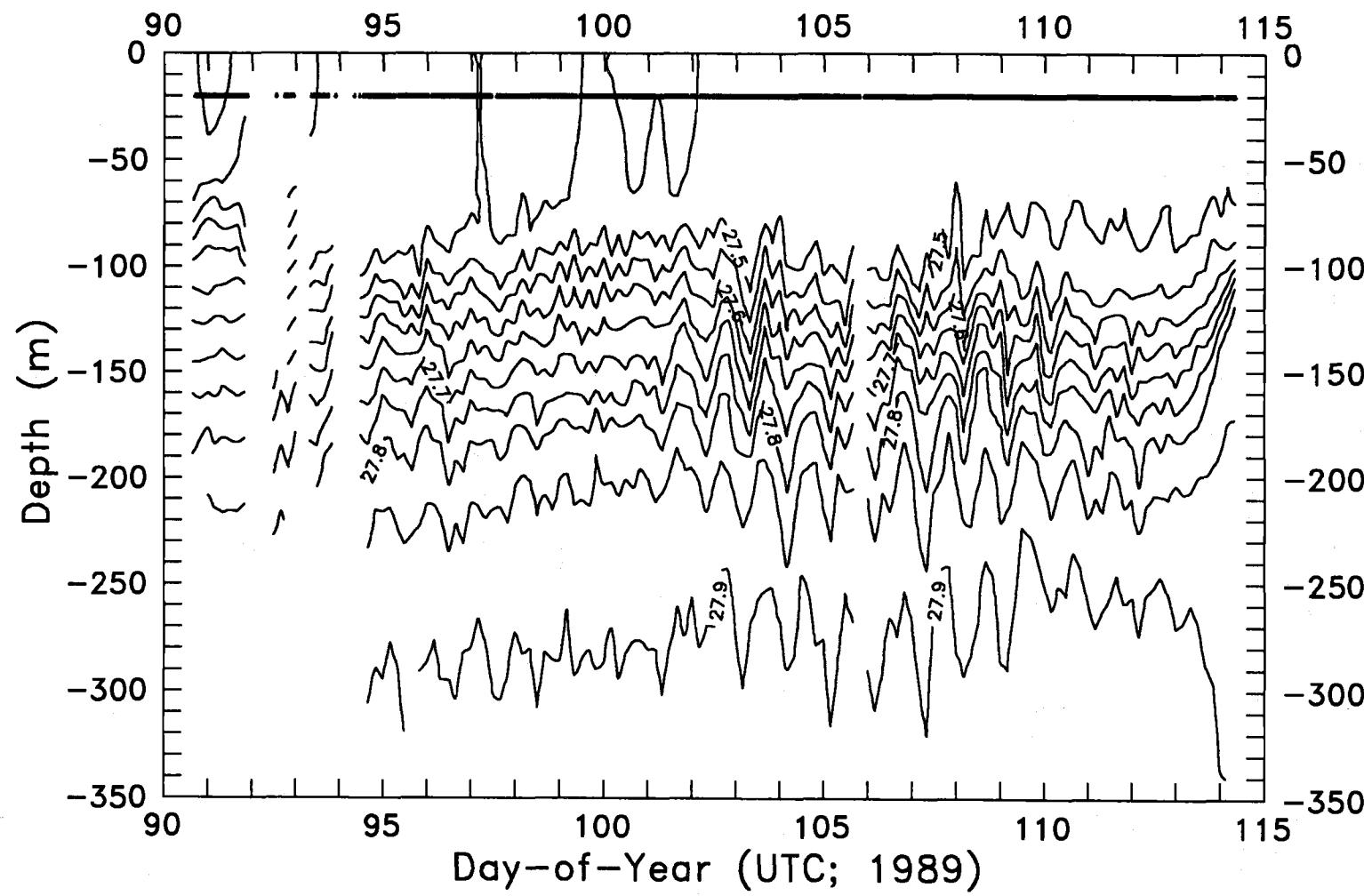


## Salinity (CEAREX)

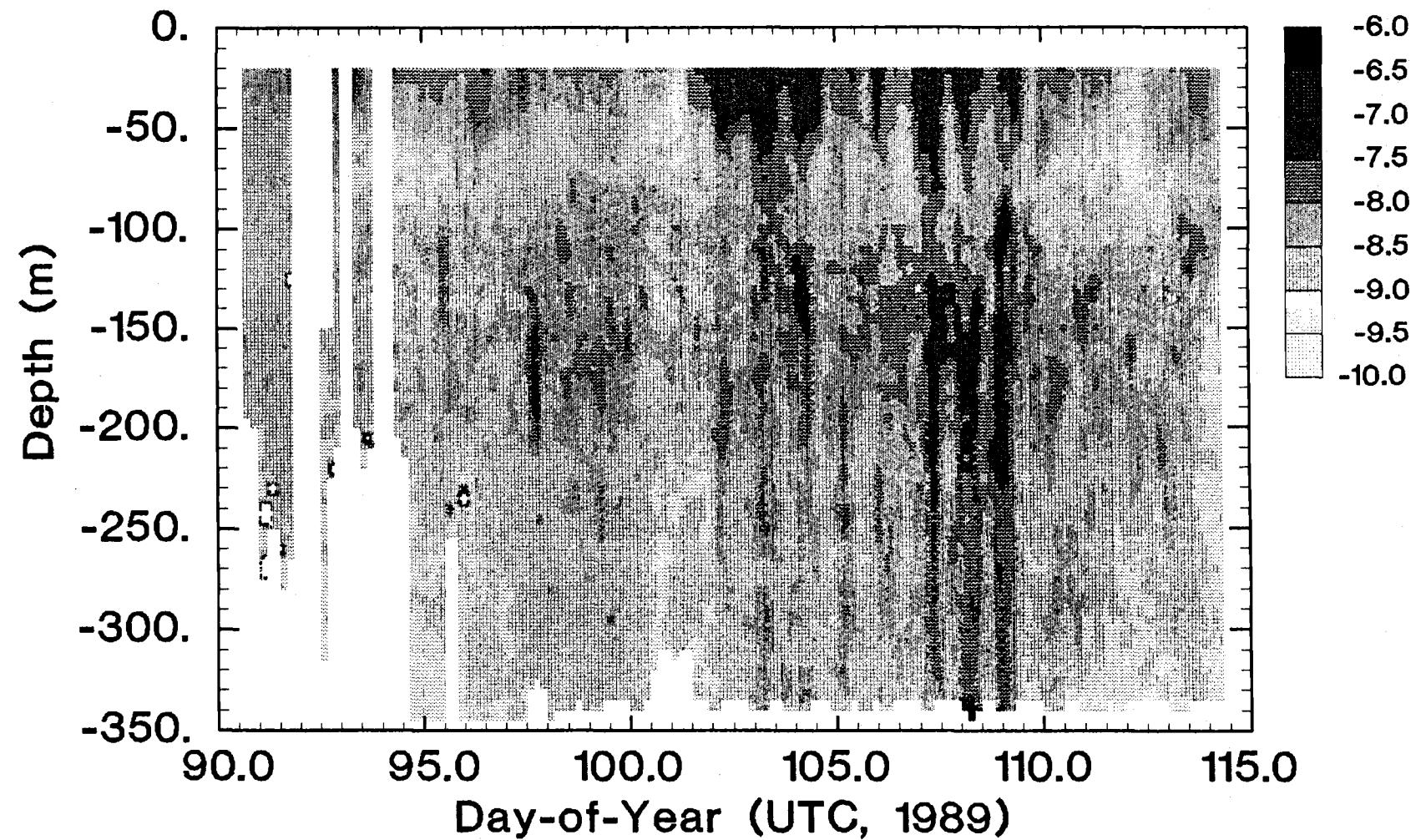


## Sigma-t (CEAREX)

L1



## Dissipation Rate (CEAREX)



**Section 5:**

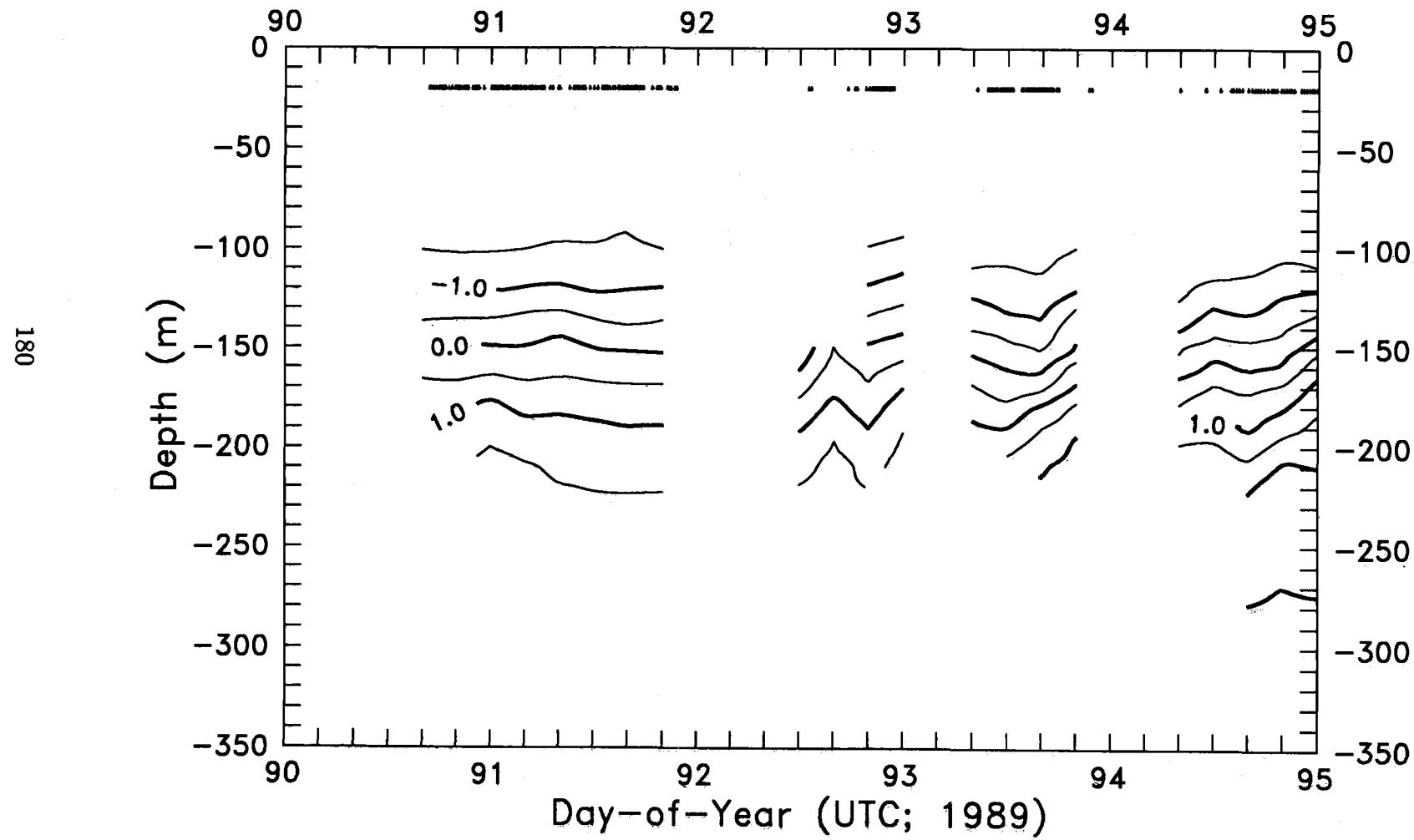
**Transects of Temperature, Salinity, Density, and**

**Dissipation Rate for 5-day Segments**

**(1-hour filter)**

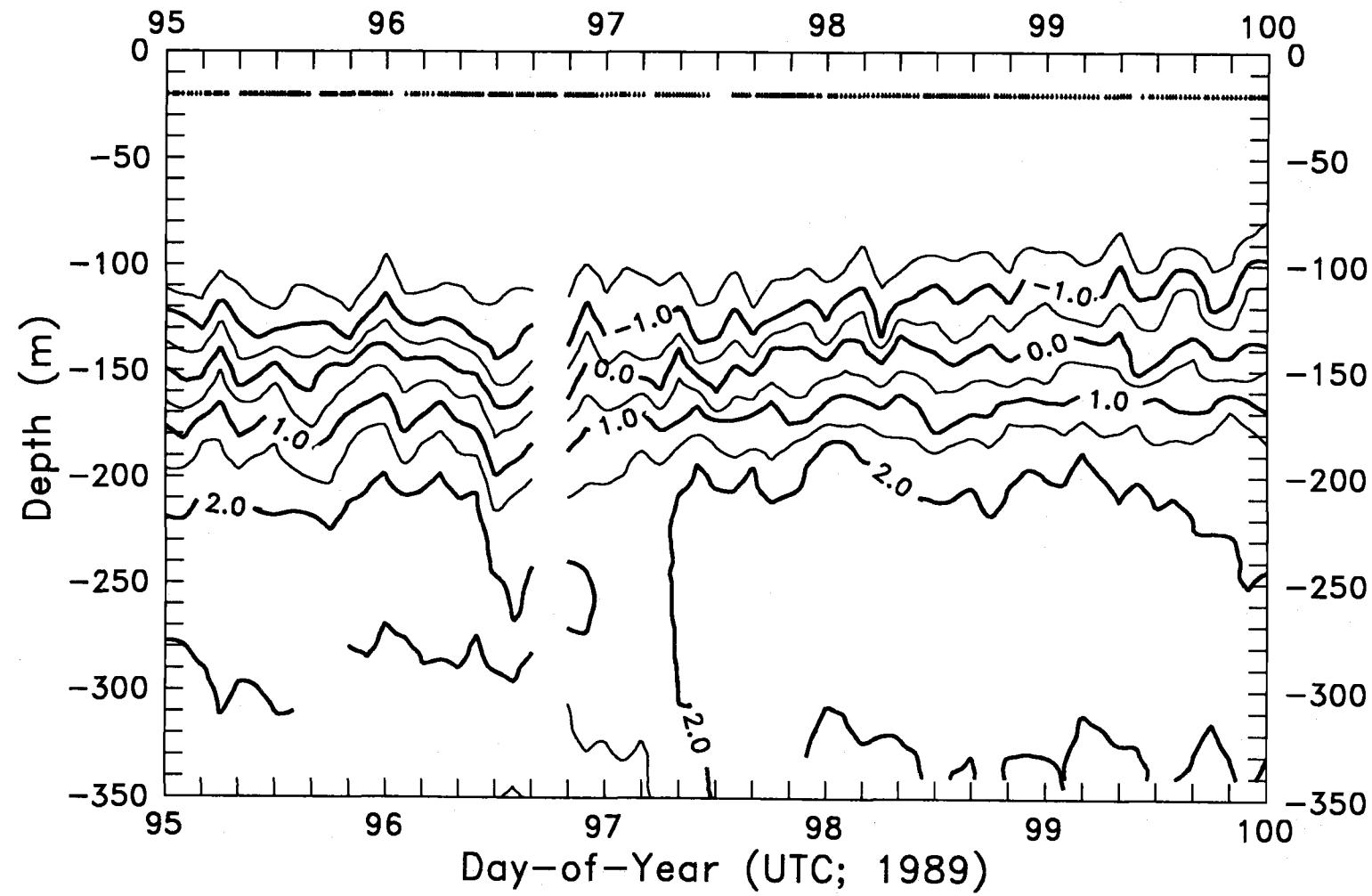
Contour intervals for  $T$ ,  $S$  and  $\sigma_t$  are  $0.5^\circ \text{ C}$ ,  $0.1 \text{ psu}$ , and  $0.05 \text{ kg m}^{-3}$  respectively. The location of each RSVP profile is shown by an arrow along  $z = -20 \text{ m}$ . Dissipation rate,  $\epsilon$ , is shown as contours of  $\log_{10}\epsilon$ , in steps of half a decade.

## Temperatures (CEAREX)



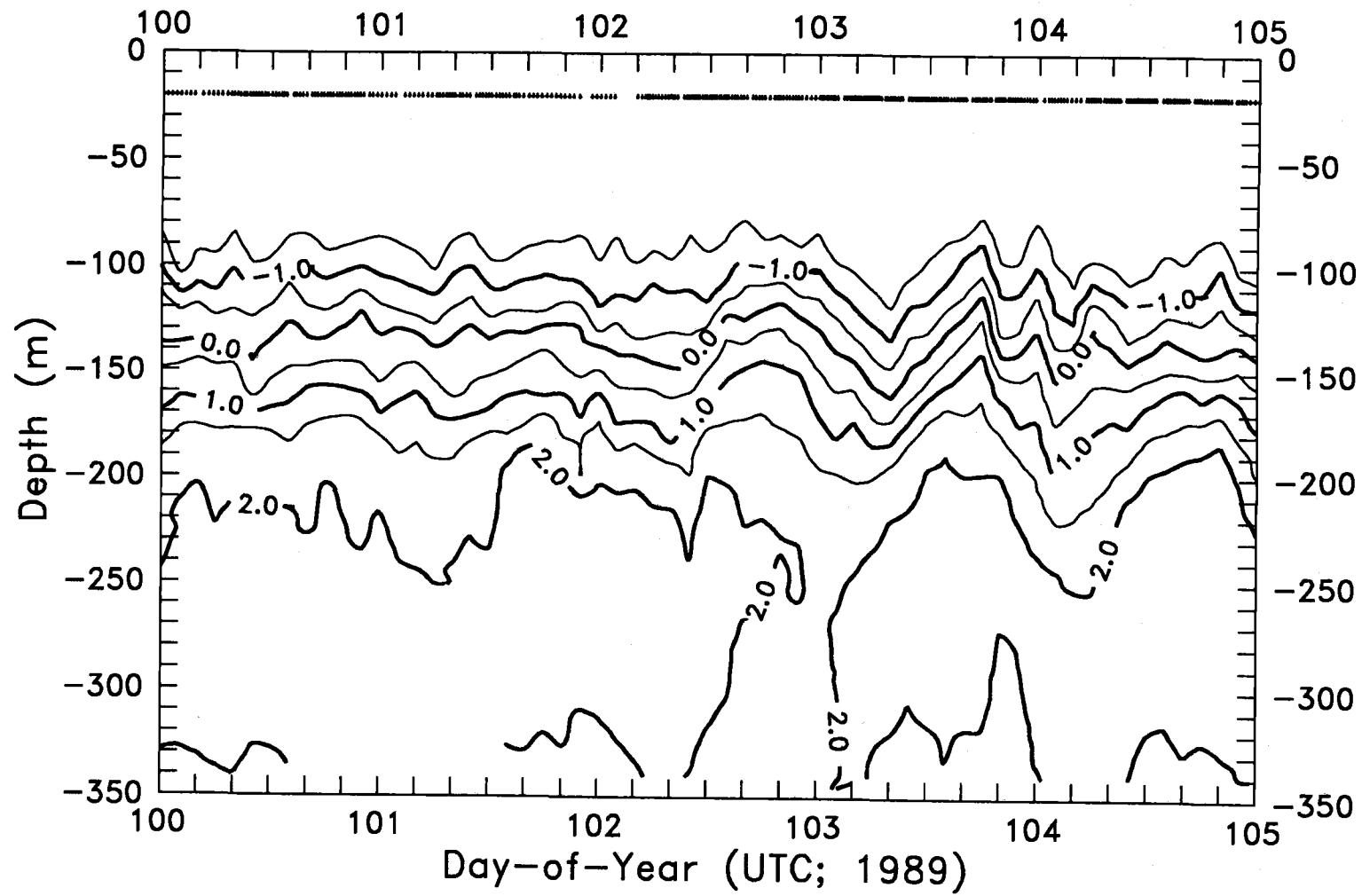
## Temperatures (CEAREX)

181



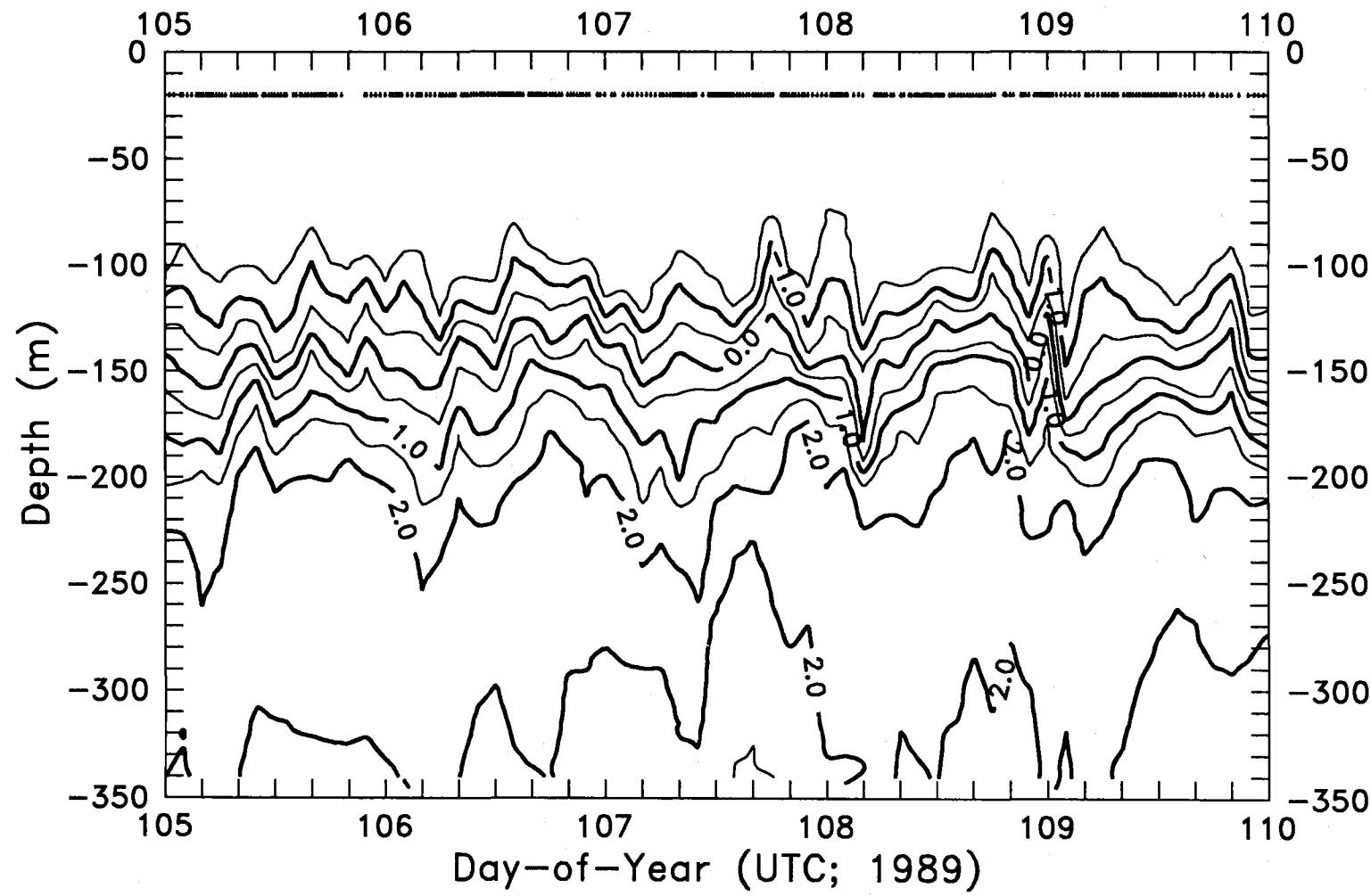
182

## Temperatures (CEAREX)

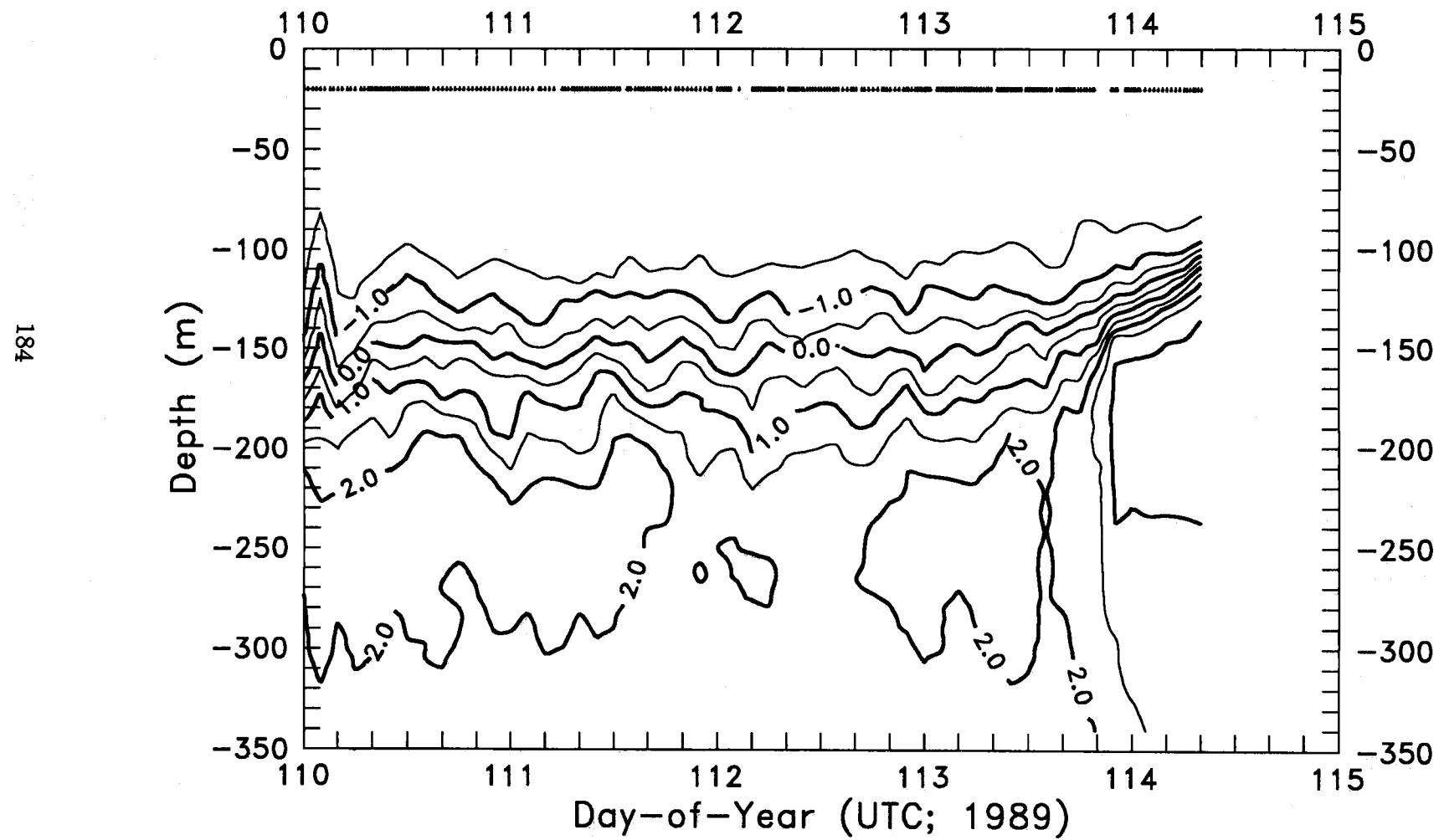


## Temperatures (CEAREX)

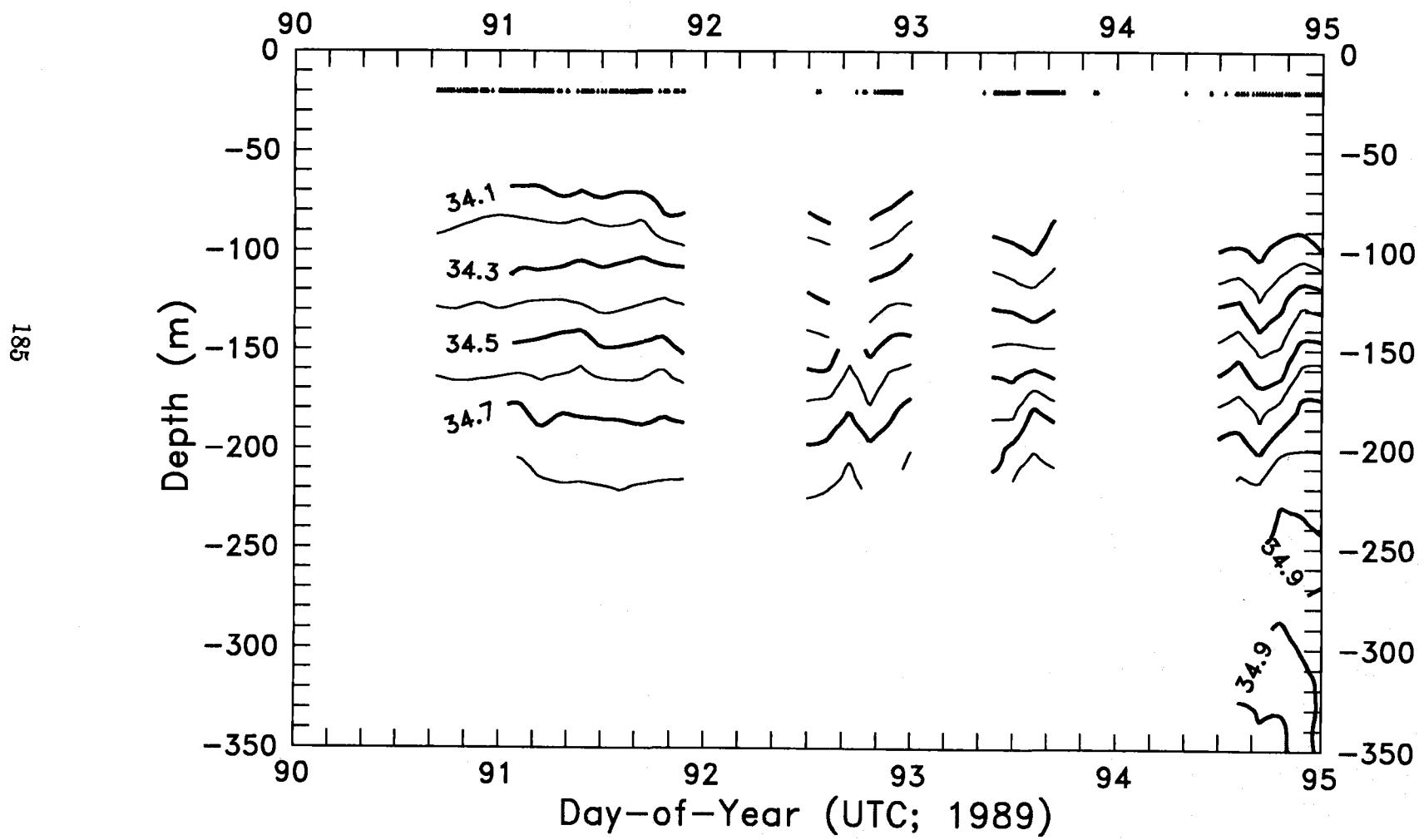
183

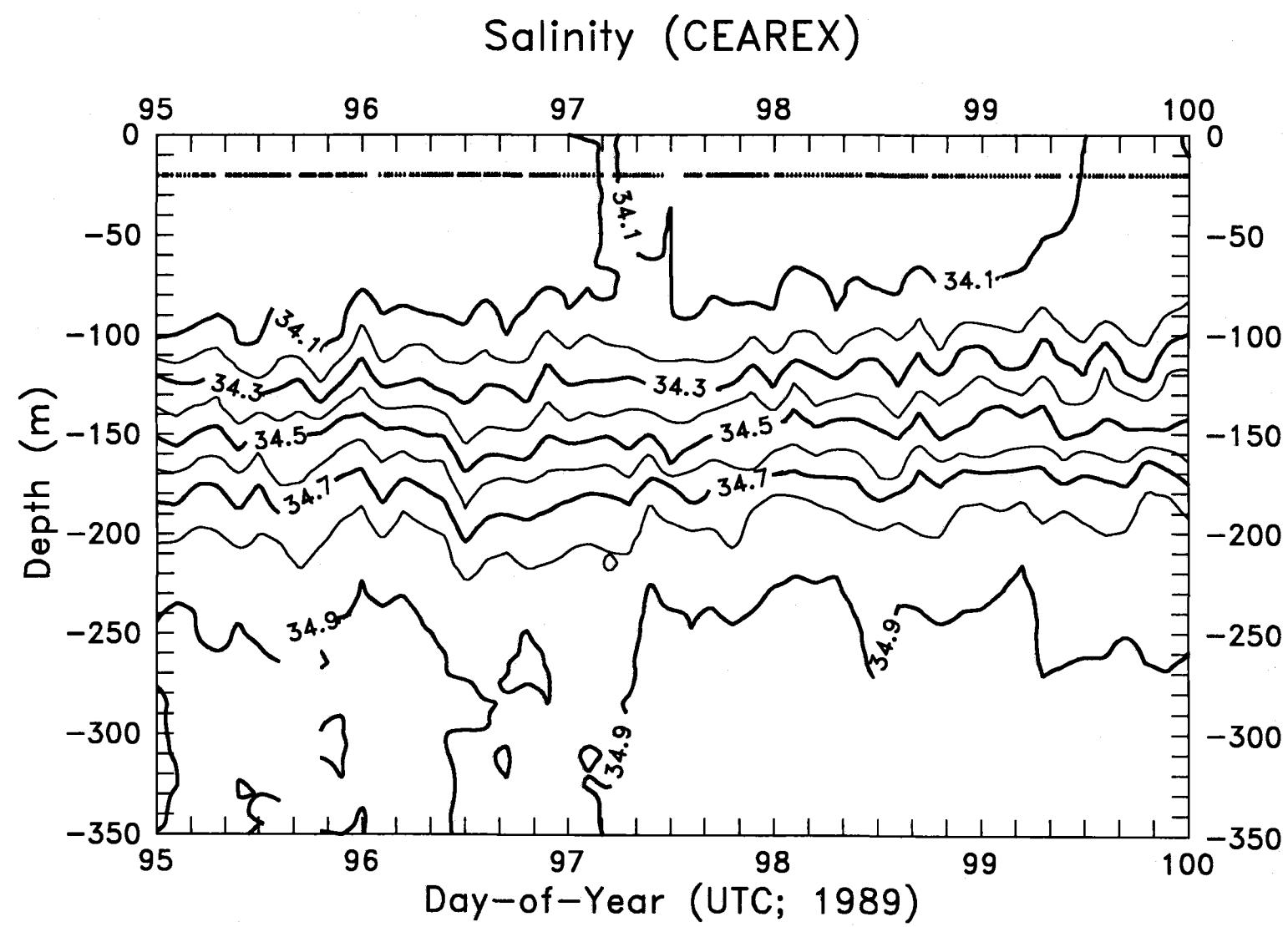


## Temperatures (CEAREX)



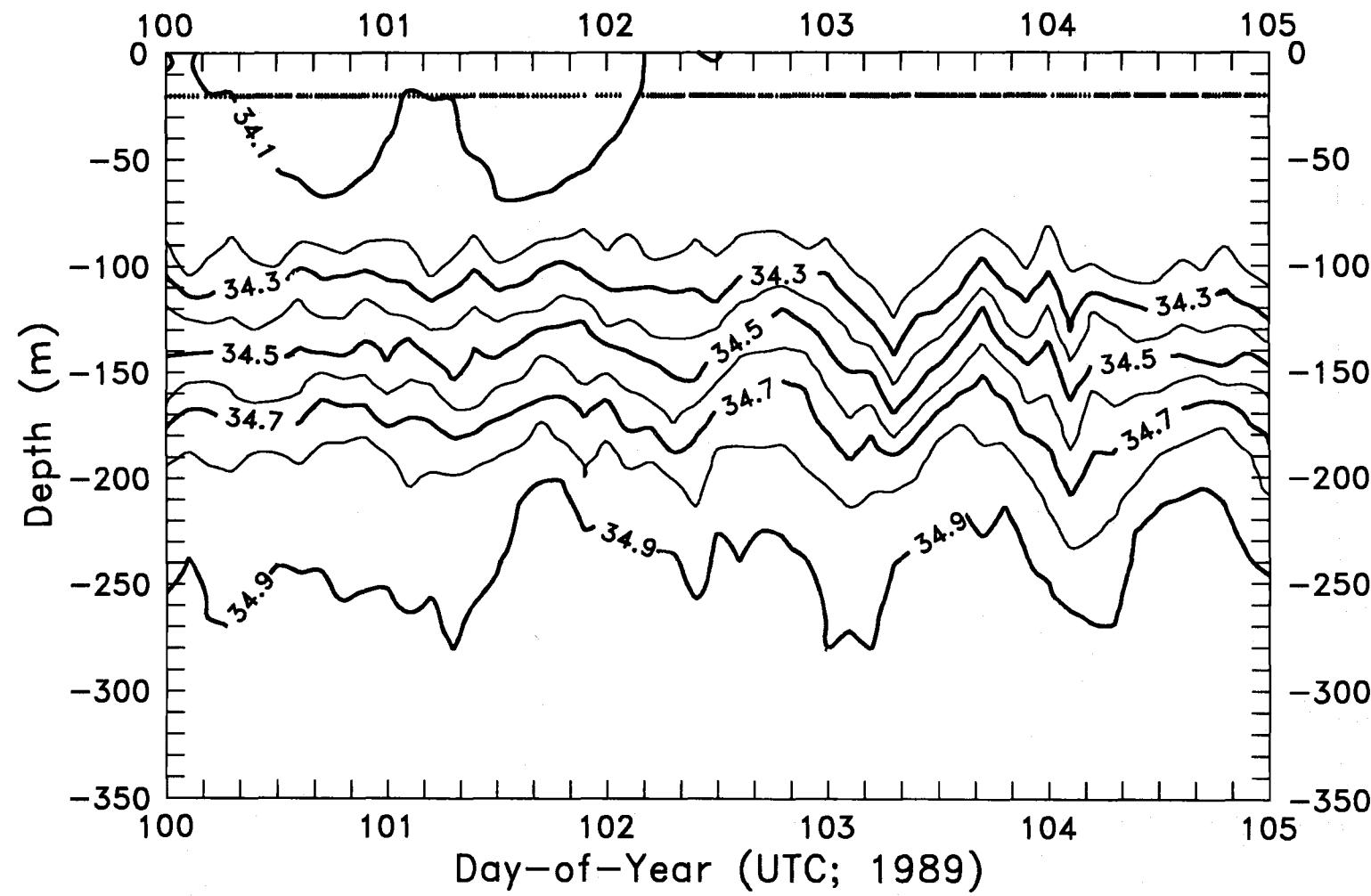
## Salinity (CEAREX)



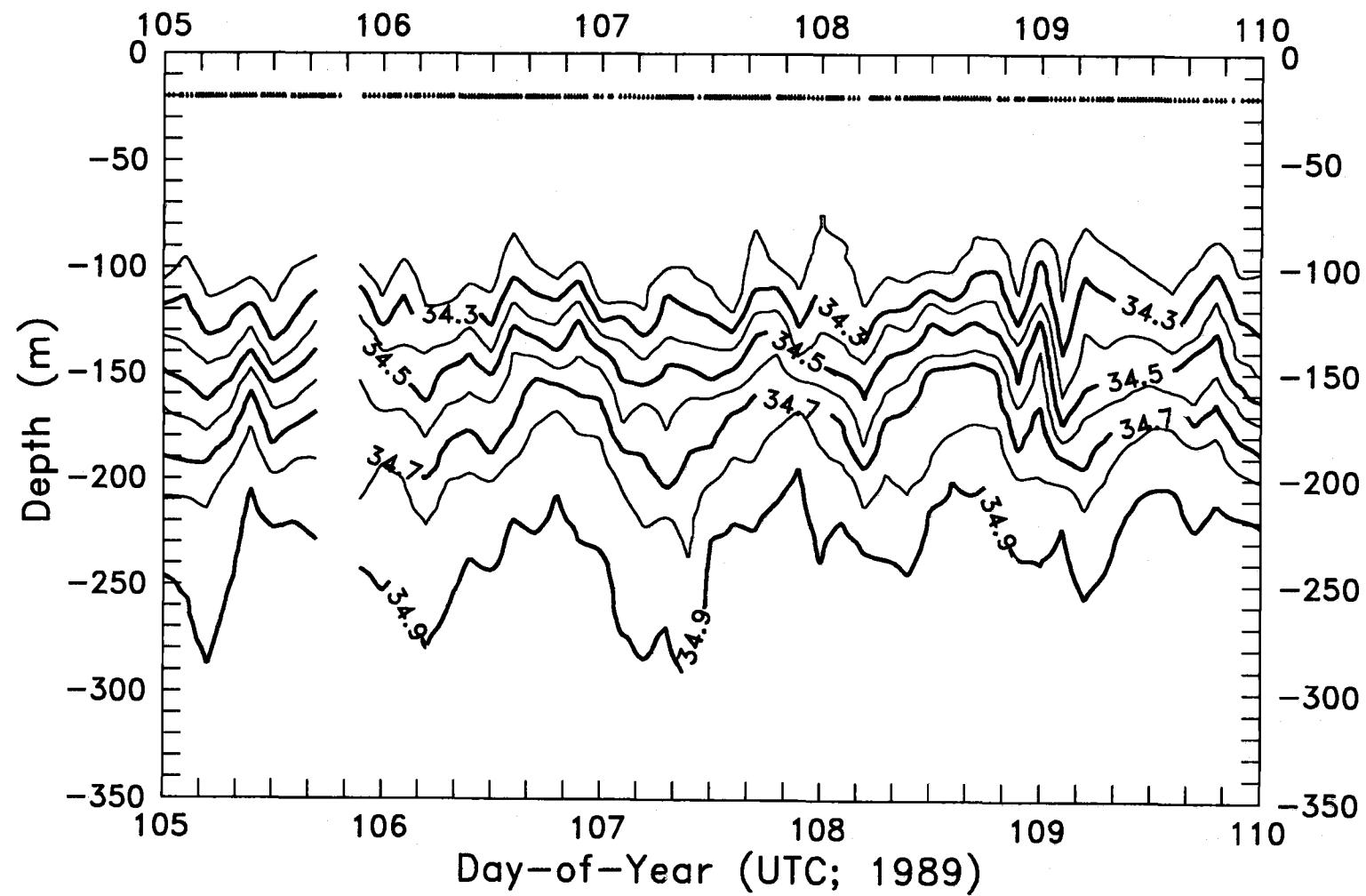


## Salinity (CEAREX)

187

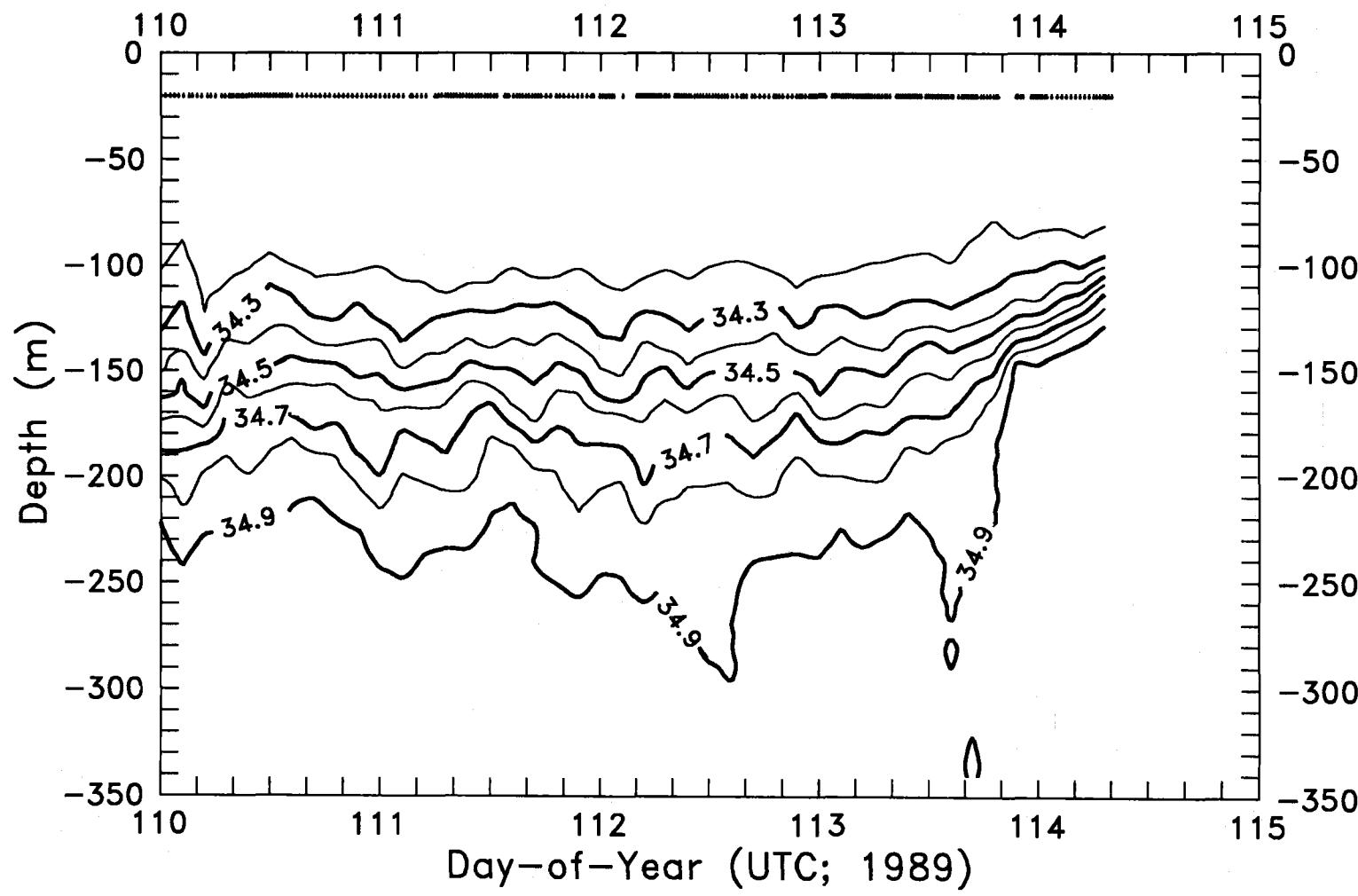


## Salinity (CEAREX)

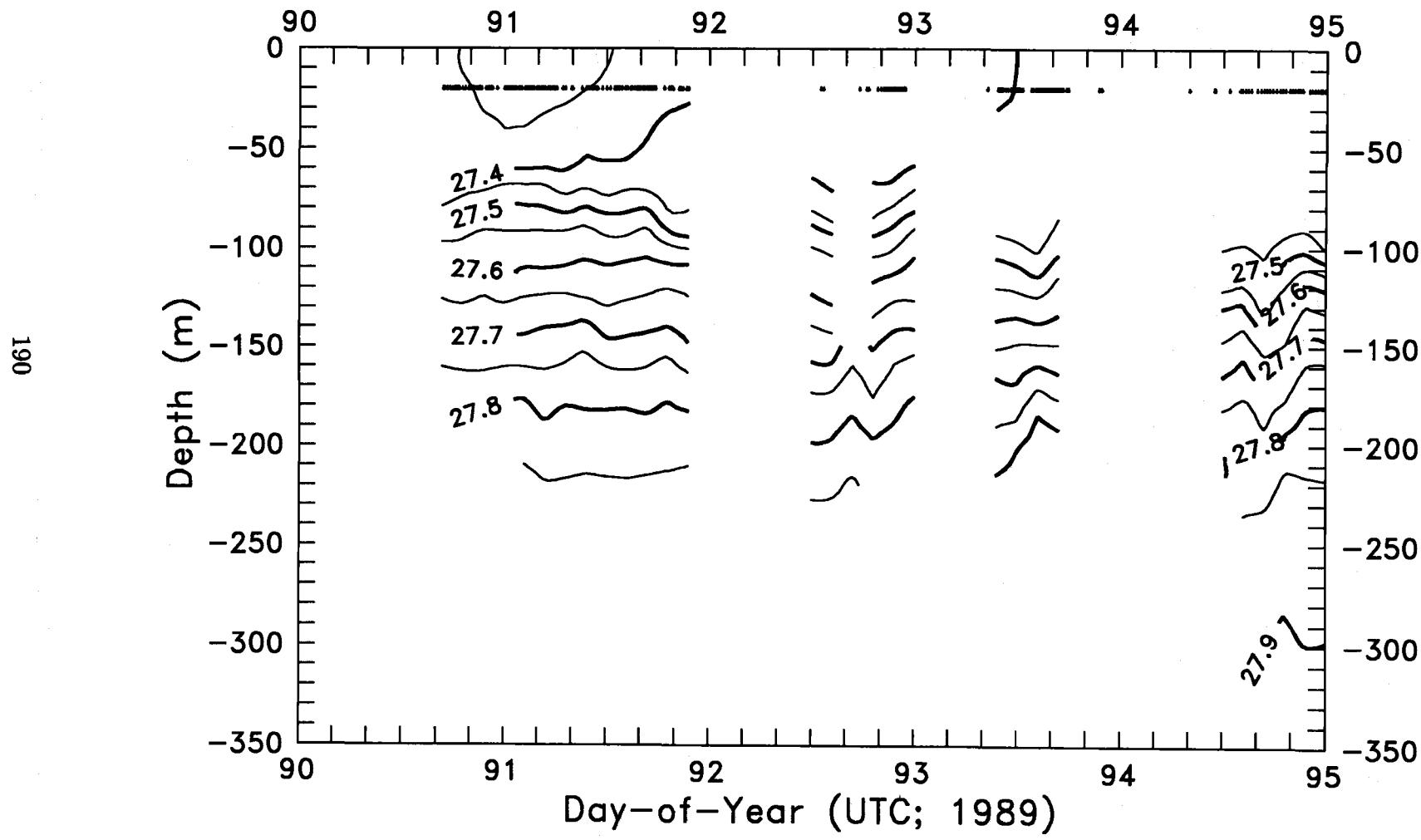


681

## Salinity (CEAREX)

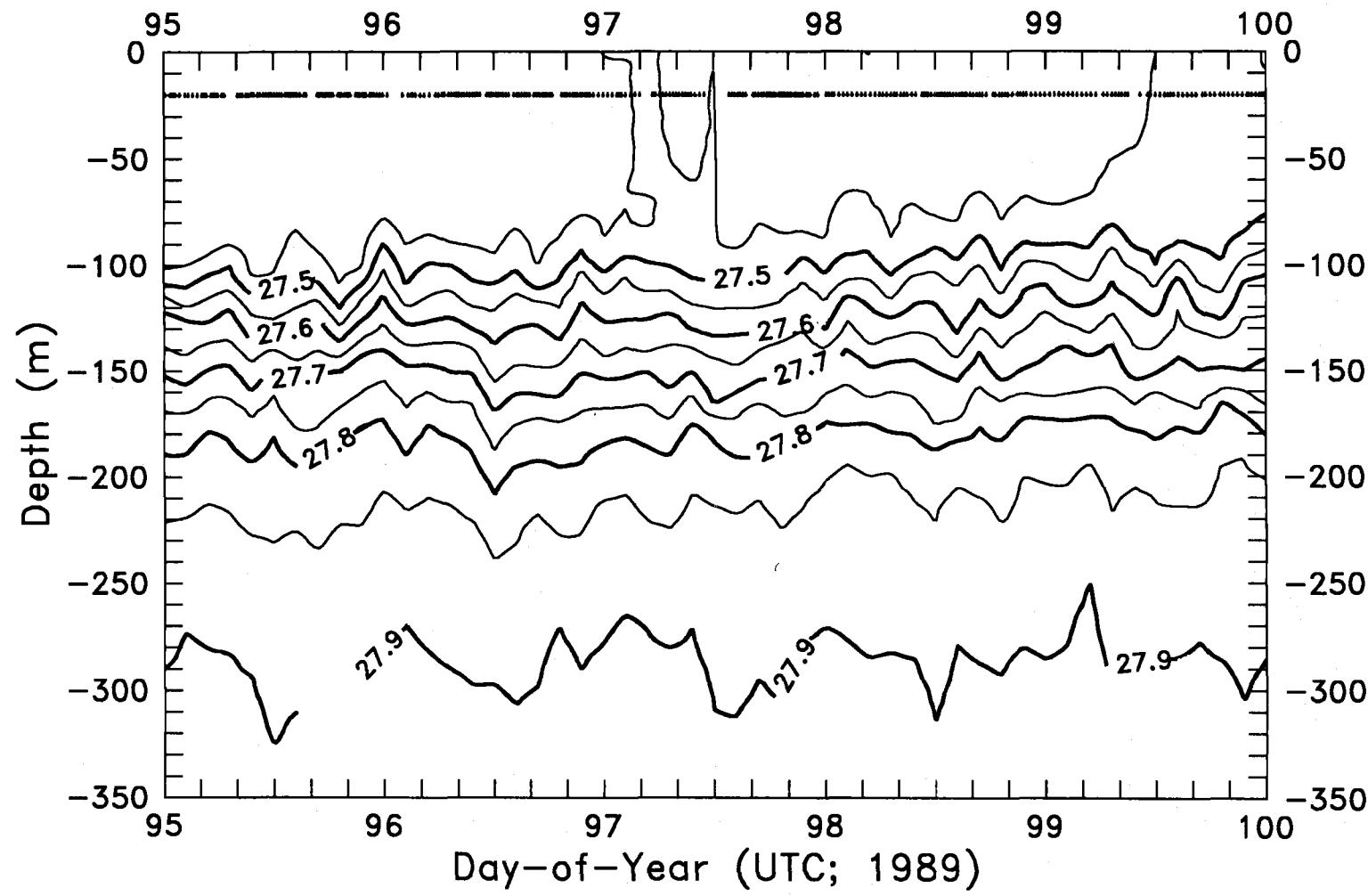


## Sigma-t (CEAREX)

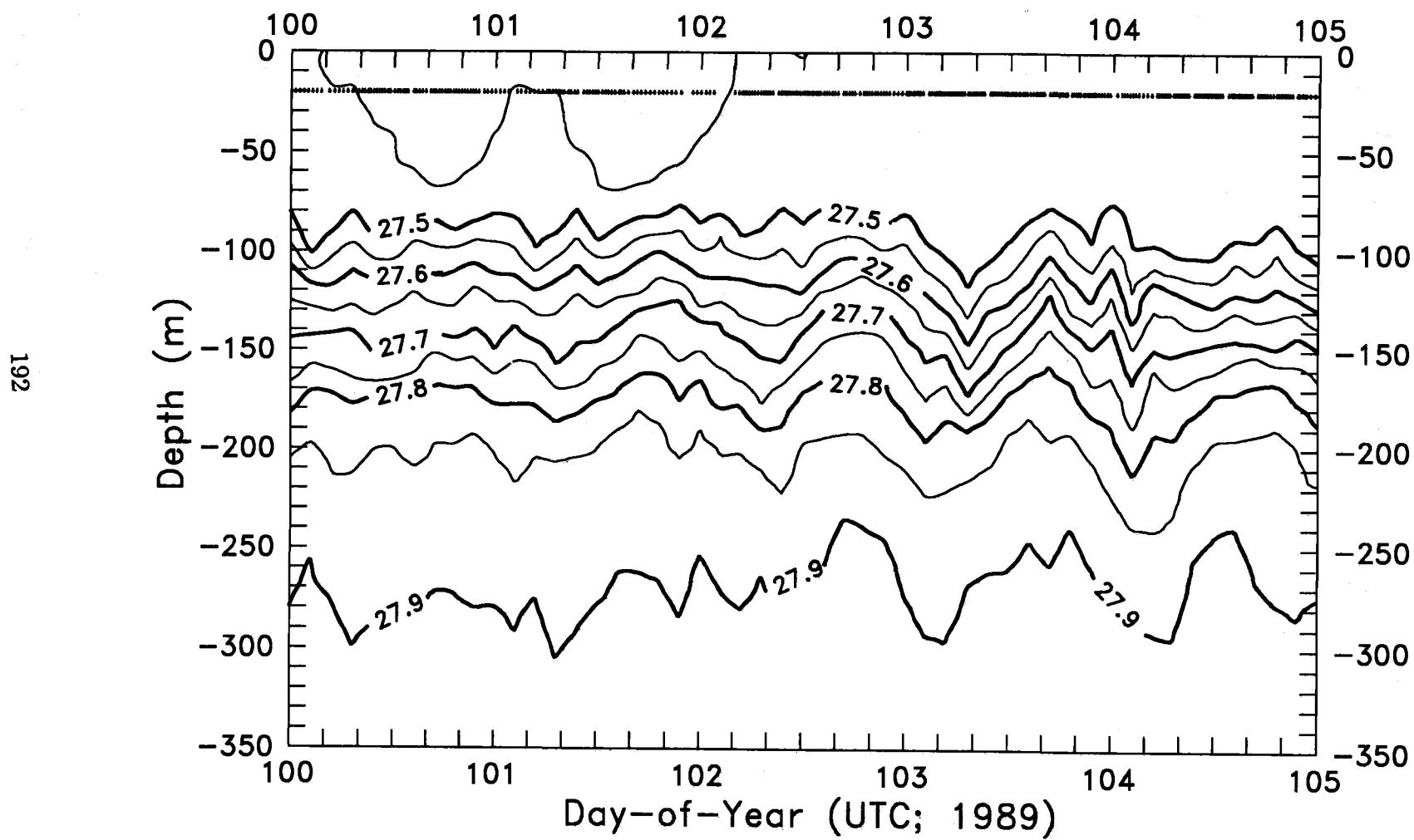


161

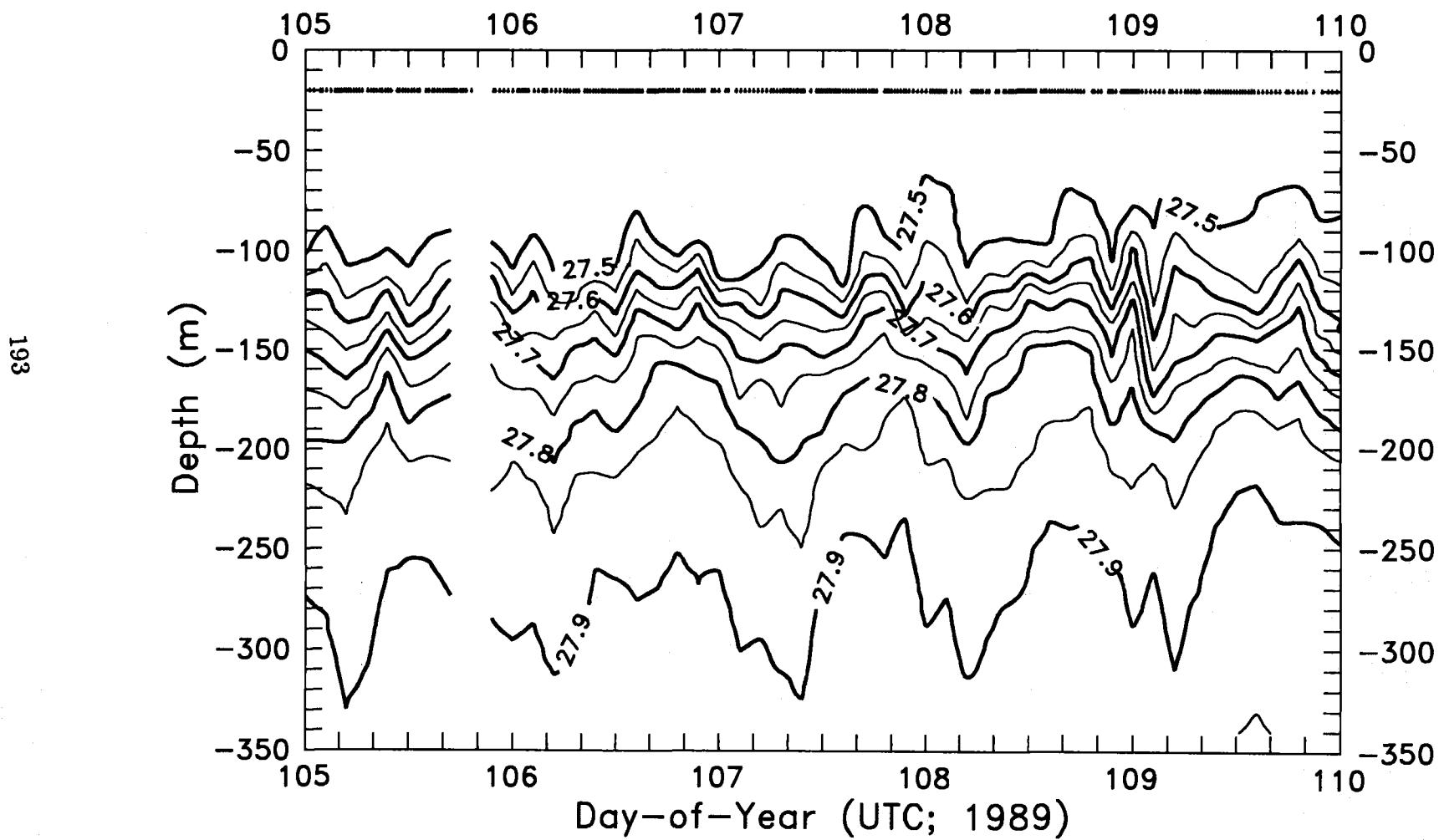
### Sigma-t (CEAREX)



## Sigma-t (CEAREX)

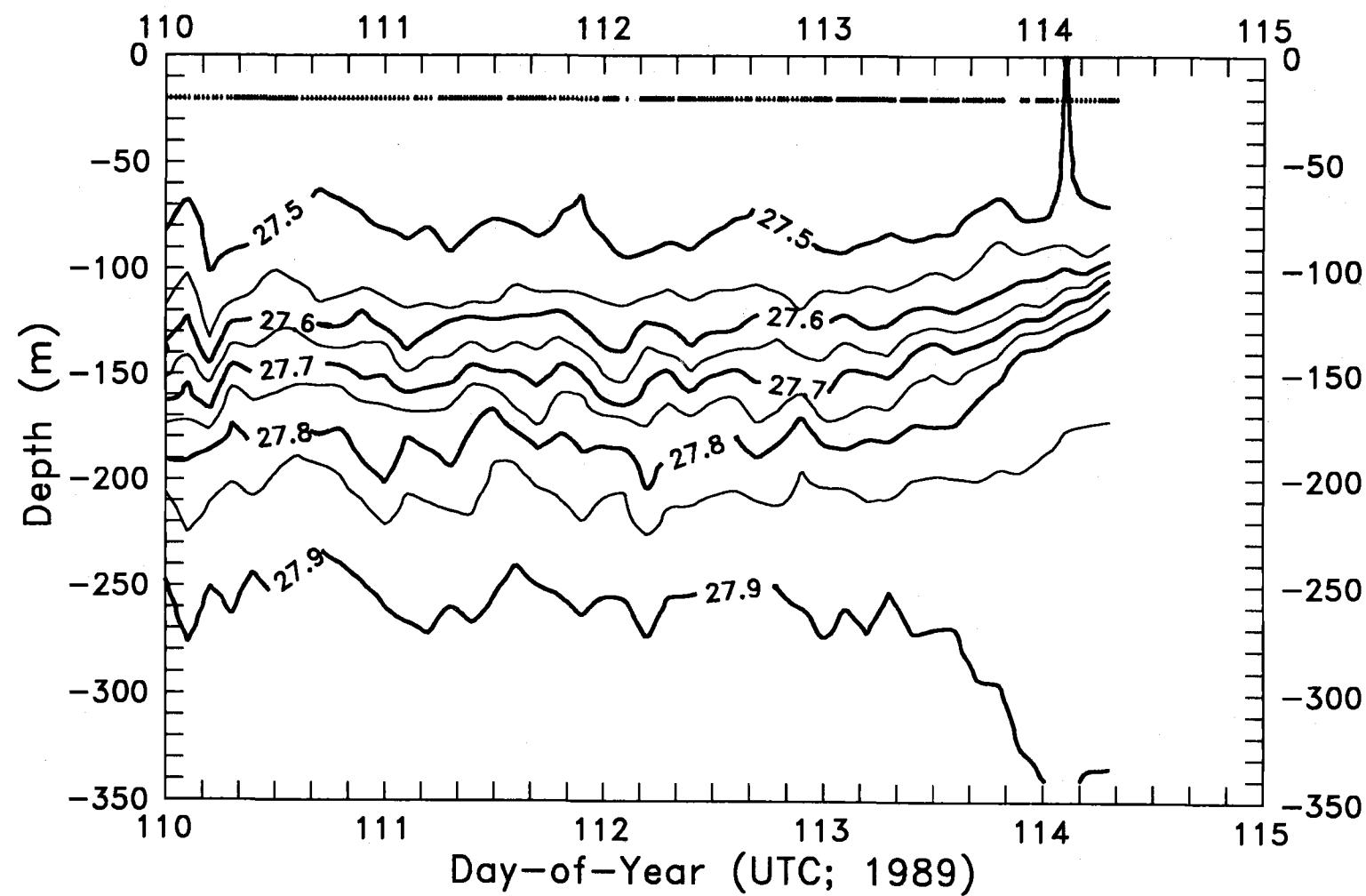


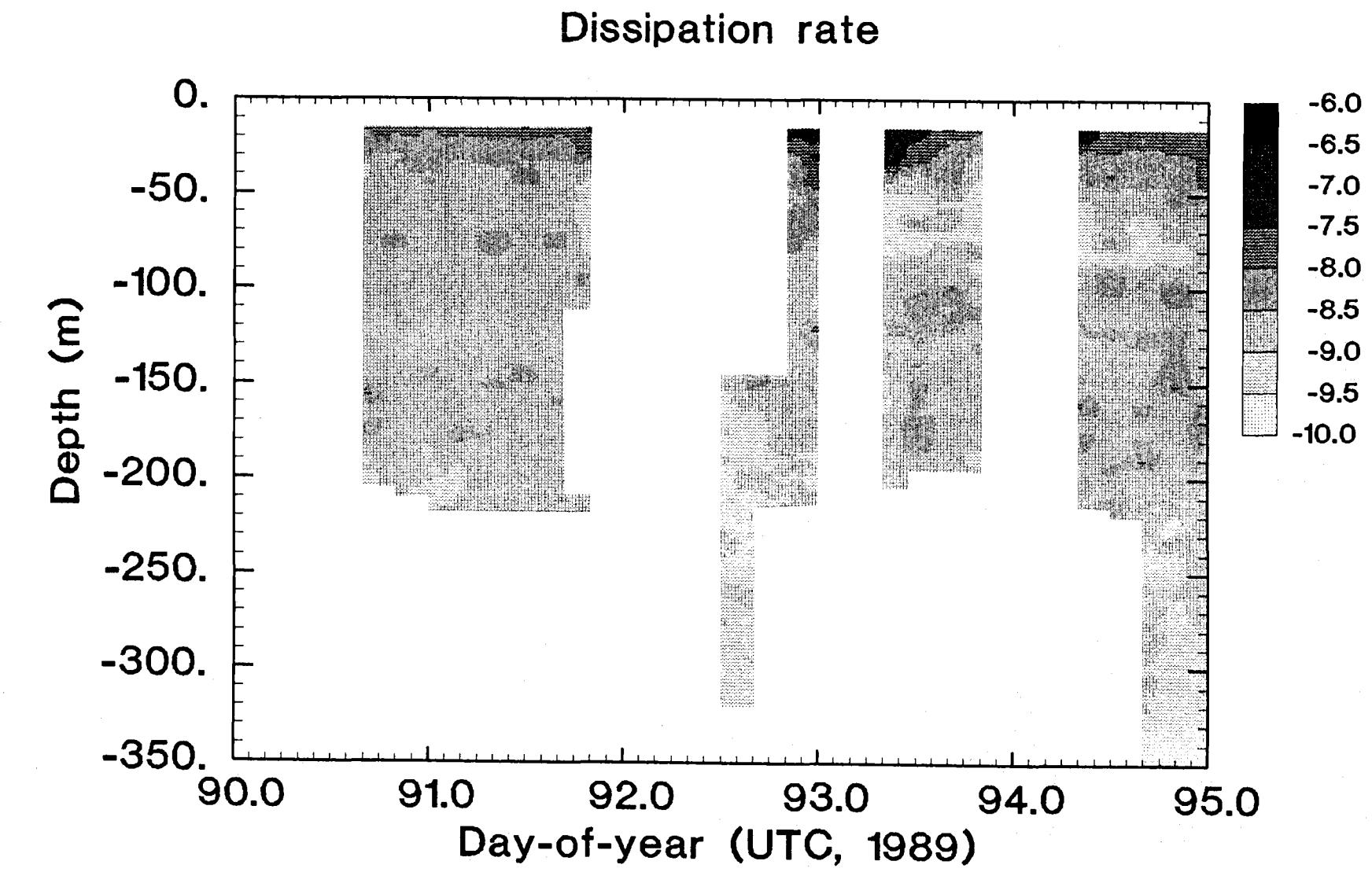
### Sigma-t (CEAREX)



## Sigma-t (CEAREX)

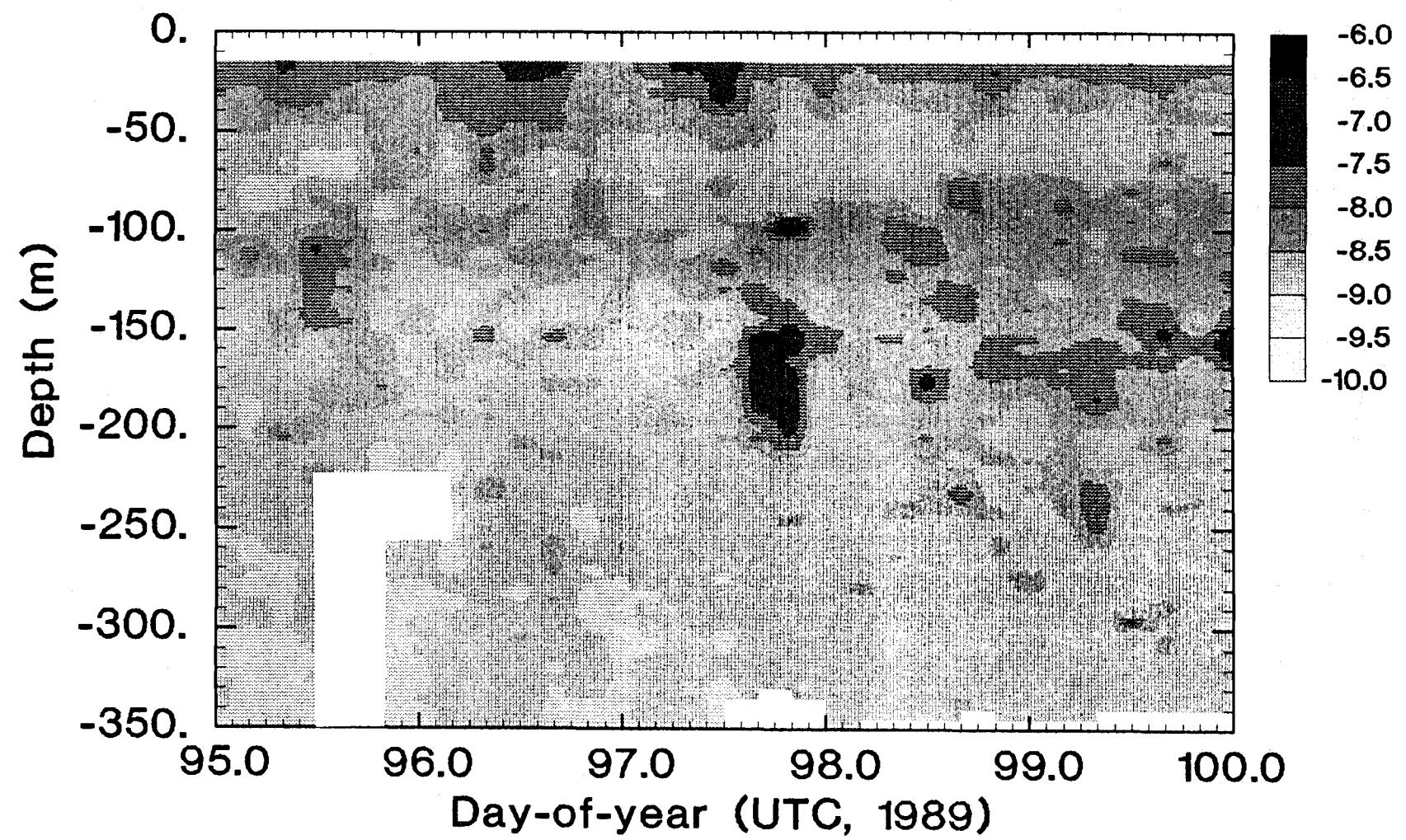
194





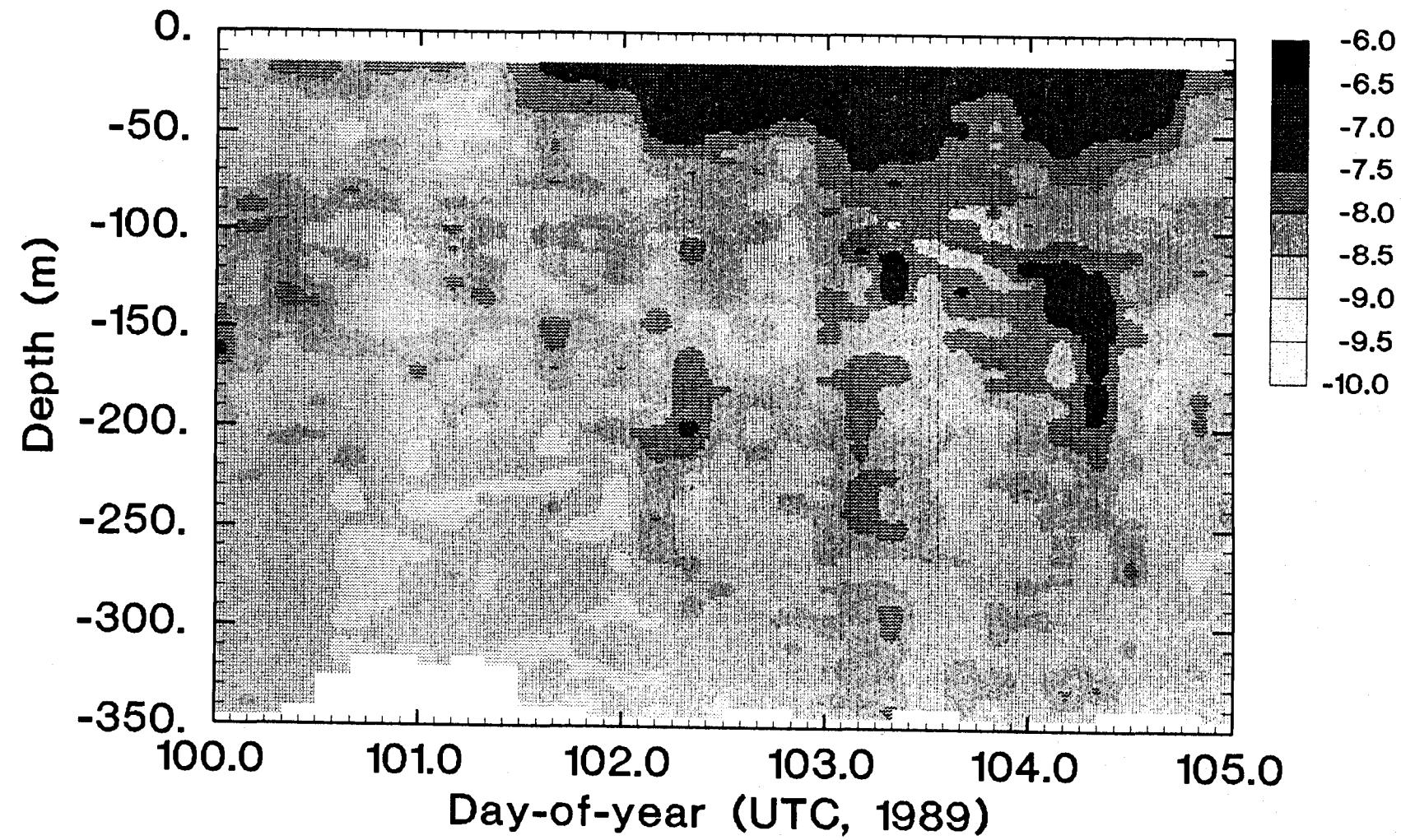
## Dissipation rate

1996

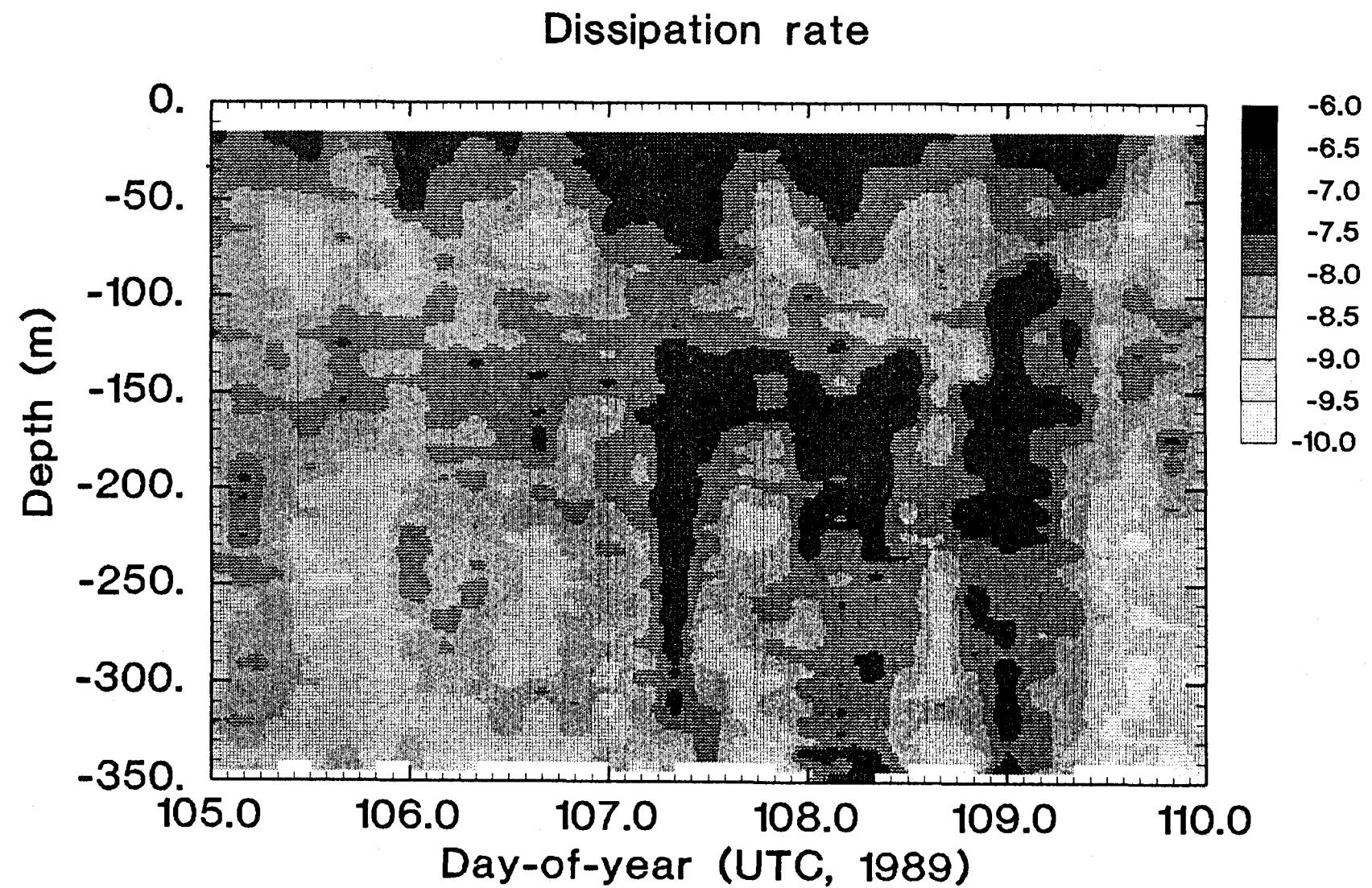


## Dissipation rate

197



198



## Dissipation rate

