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**MICROSTRUCTURE CASTS DURING  
AIWEX: A SUMMARY**

by

Thomas M. Dillon  
Michael D. Brown  
Holly C. Garrow

Reference 86.7  
Data Report 122

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19. KEY WORDS (Continue on reverse side if necessary and identify by block number) <i>Staircase temperature profiles.</i>		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The Arctic Internal Wave Experiment (AIWEX) was designed to study the internal wave and microstructure fields in the Beaufort Sea in the early spring. A major goal of the experiment was to verify the hypothesis that the internal wave and microstructure fields beneath the ice are far less energetic than in temperate oceans. Major goals of the microstructure measurements were: to characterize the double-diffusive staircase region in the depth range 300-450m; to estimate the heat flux from the deep Atlantic water into shallower depth zones; and to assess the influence of mesoscale and sub-mesoscale eddies on turbulence beneath the ice.		

An ice camp was established in mid March 1985 to accomplish these goals. The camp was occupied until the first week of May, and microstructure casts were made beginning March 20 (Julian Day 79). Microstructure profiling continued until April 26; no profiles were obtained from April 4 through April 16 because of a malfunction in the data acquisition system. Over 700 casts were made spanning the range 0 to 500 m. The time between profiles averaged 20 minutes for a full-range profile. Not all casts covered the full depth range; some yo-yo casts through selected depth ranges were made to obtain detailed information on a shorter time scale. The ice camp drifted with a typical speed of 5 to 10 cm/s, although there were periods when the speed was as slow as 1 cm/s.

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Corvallis, Oregon 97331

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## TABLE OF CONTENTS

### INTRODUCTION

- A. INSTRUMENT DESCRIPTION
- B. DESCRIPTION OF OBSERVATIONS
- C. CAMP POSITION MAP
- D. DROP TIME TABLE
- E. REFERENCES

### OBSERVATIONS

- A. TEMPERATURE, SALINITY, AND SIGMA-T
- B. T-S DIAGRAMS
- C. TEMPERATURE PROFILES
- D. STAIRCASE TEMPERATURE PROFILE DETAIL
- E. DISSIPATION RATES



## INTRODUCTION

The Arctic Internal Wave Experiment (AIWEX) was designed to study the internal wave and microstructure fields in the Beaufort Sea in the early spring. A major goal of the experiment was to verify the hypothesis that the internal wave and microstructure fields beneath the ice are far less energetic than in temperate oceans. Major goals of the microstructure measurements were to characterize the double-diffusive staircase region in the depth range 300-450 m, to estimate the heat flux from the deep Atlantic water into shallower depth zones, and to assess the influence of mesoscale and sub-mesoscale eddies on turbulence beneath the ice.

An ice camp was established in mid March 1985 to accomplish these goals. The camp was occupied until the first week of May, and microstructure casts were made beginning March 20 (Julian Day 79). Microstructure profiling continued until April 26; no profiles were obtained from April 4 through April 16 because of a malfunction in the data acquisition system. Over 700 casts were made spanning the range 0 to 500 m. The time between profiles averaged 20 minutes for a full-range profile. Not all casts covered the full depth range; some yo-yo casts through selected depth ranges were made to obtain detailed information on a shorter time scale. The ice camp drifted with a typical speed of 5 to 10 cm/s, although there were periods when the speed was as slow as 1 cm/s.

### A. INSTRUMENTS

Microstructure casts were made through 2 meters of ice from a hydrohole positioned inside a small hut. The instrument used was the WAZP II, a vertical profiler that carries temperature, conductivity, pressure, and airfoil shear sensors (Crawford and Osborn, 1980). The WAZP resembles the RSVP (Caldwell, Dillon and Moun, 1985) in internal details, differing mainly in the method of sensor mounting, and method of achieving drag. The RSVP has temperature and conductivity sensors carefully shielded to prevent breakage, while the WAZP mounting is more exposed to the flow; the RSVP achieve drag with wing flaps, while the WAZP uses annular fiber brushes.

The temperature sensor was an FP07 thermistor. Two types of WAZP were used, the difference being the type of conductivity sensor. A Neil-Brown sensor (NBS) was used on instruments WA01 and WA02, while a microconductivity sensor (MCS); manufactured by Precision Measurement Engineering and described by Head [1983]) was used on instruments WA03 and WA04. The MCS has a much finer spatial resolution than the NBS, but suffers from severe calibration drifts. The NBS also showed some drift with time, but was much more reliable than the MCS. WA01 and WA02 had shear sensors on stings protruding 10 cm beyond the WAZP nose cone front; the NBS was mounted on the side of the nose cone about 5 cm from the nose cone front, and the thermistor was mounted at the leading edge of the NBS. WA03 and WA04 had an MCS, thermistor, and shear sensors all mounted on a stings protruding 10 cm in front of the nose cone.

Voltage signals were sent up the data line, amplified, filtered, and digitized with a 12-bit analog to digital converter controlled by an LSI 11/23 computer system. Resolution was increased by amplifying temperature and conductivity each on two independent channels. On one channel (the "low gain" channel), amplifier gain and offset was kept constant, but on the second channel (the "high gain" channel), the operator periodically adjusted the voltage offset (using digital switches) to maximize the resolution. Typically, the voltage offset for conductivity was adjusted 3 or 4 times during a drop, increasing the effective dynamic range from 12 bits to 13 or 14 bits.

Temperature and conductivity were filtered at 40 Hz, and sampled at a rate of 130 times per second. Pressure was filtered at 1 Hz and sampled 130/s, while shear sensors were filtered at 80 Hz, and sampled at 260/s.

## B. DESCRIPTION OF OBSERVATIONS

The microstructure observations recorded here are composed of five sections. The first is a collection of "deep" temperature, salinity, and  $\sigma_t$  plots spanning the time of the experiment. These plots extend from the surface to 350, 400, or 450 meters, depending on the length of the cast. They illustrate the structure of the upper Beaufort sea, and how structures changes in time and space. Averaging for these plots corresponds to about a 0.4 meter averaging length (64 point average of a signal sampled at a rate of 130/s, with approximately 80 cm/s fall speed). Salinities were calculated using the low-gain temperature and conductivity channels.

The second section is a series of T-S diagrams taken from the same 64 point average data described above.

The third section is a series of temperature plots of nearly all the casts, with more than one profile on each cast. These are drawn together, often on expanded depth and temperature scales, to illustrate the variability (at times, the lack of variability!) of structures in the upper waters of the Beaufort Sea. Plots on expanded scales typically are 16 point averages, that is, approximately a 10 cm resolution.

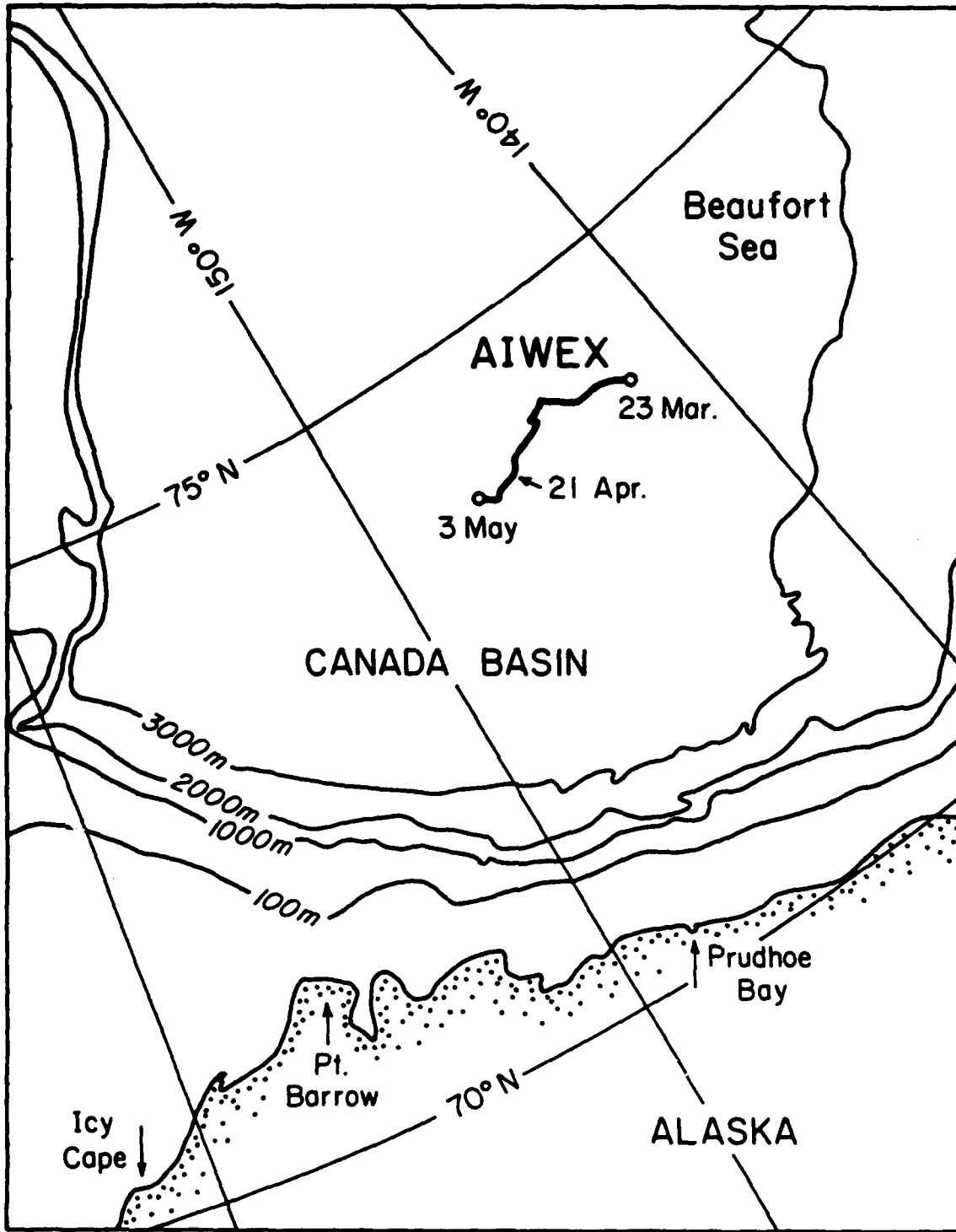
The fourth section is a detail of temperature profiles in the thermohaline staircase region between 340 and 380 m. These are a subset of a 37 hour time-series of drops taken closely in time with the instrument WA02. Individual steps are traceable from profile to profile in this series, and the vertical oscillation of internal waves can be clearly seen. The time between profiles (typically 10 to 20 minutes) is usually short enough to avoid aliasing, because the buoyancy frequency here is of order 1 cycle per hour.

The fifth section is a collection of kinetic energy dissipation rate profiles plotted beside buoyancy frequency. Dissipation rates were calculated by integrating the spectrum from the shear sensors over a band dependent on the spectral energy (a method similar to that of Shay and Gregg [1986] was used to determine the upper cut-off frequency). The

averaging interval used was typically 2 meters. Dissipation rates from a three-day period beginning on March 24 (J.D. 114) are included. The March 24 dissipation rates are typical of most other days of the experiment: little if any significant turbulence was seen outside of the surface mixed layer. Usually, the calculated dissipation rate is far below  $30 \nu N^2$ , the lowest value expected for overturning turbulence. On March 25 (J.D. 115), the ice camp passed through a small mesoscale eddy, and significant but intermittent dissipation rates were seen in the upper 200 m. On March 26 (J.D. 116), few mixing events were observed.

Several investigators made measurements that compliment the microstructure observations. M. Levine used an ice-moored array of Seabird sensors to make a time series of temperature, depth, and conductivity. J. Morison used a Seabird CTD system along with propeller triplet current meter to make vertical profiles of temperature, conductivity, and velocity. C. Paulson deployed an array of S4 and VMCM current meters. R. Pinkel and J. Morrison monitored currents with tow acoustic doppler current meters. E. D'Asaro measured vertical profiles of current a distances far removed from the camp using XCPs. J. Swift measured deep profiles of various chemical species with bottle casts. M. McPhee measured turbulent velocity fluctuations in the boundary layer beneath the ice. The Polar Science Center logistics group monitored the ice camp position using a satellite navigation system, and measured the surface winds.

C. CAMP POSITION MAP



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

D. CAMP POSITION TABLE

J.	Day	hour	long	lat	J.	Day	hour	long	lat
82	8		74.02624	-142.88832	82	9	74.02626	-142.89253	
82	10		74.02622	-142.89667	82	11	74.02621	-142.90036	
82	12		74.02614	-142.90373	82	13	74.02599	-142.90685	
82	14		74.02581	-142.91043	82	15	74.02553	-142.91566	
82	16		74.02532	-142.92162	82	17	74.02518	-142.92836	
82	18		74.02518	-142.93726	82	19	74.02523	-142.94635	
82	20		74.02533	-142.95724	82	21	74.02543	-142.96899	
82	22		74.02555	-142.98195	82	23	74.02563	-142.99475	
83	0		74.02570	-143.00874	83	1	74.02576	-143.02255	
83	2		74.02581	-143.03613	83	3	74.02604	-143.05013	
83	4		74.02625	-143.06357	83	5	74.02647	-143.07674	
83	6		74.02679	-143.08951	83	7	74.02720	-143.10202	
83	8		74.02768	-143.11507	83	9	74.02806	-143.12868	
83	10		74.02833	-143.14279	83	11	74.02865	-143.15866	
83	12		74.02897	-143.17563	83	13	74.02918	-143.19455	
83	14		74.02969	-143.21449	83	15	74.03031	-143.23454	
83	16		74.03101	-143.25464	83	17	74.03204	-143.27399	
83	18		74.03314	-143.29303	83	19	74.03461	-143.31160	
83	20		74.03635	-143.33038	83	21	74.03862	-143.34958	
83	22		74.04109	-143.36909	83	23	74.04410	-143.38914	
84	0		74.04721	-143.40878	84	1	74.05048	-143.42844	
84	2		74.05408	-143.44717	84	3	74.05766	-143.46368	
84	4		74.06120	-143.48050	84	5	74.06468	-143.49695	
84	6		74.06837	-143.51170	84	7	74.07211	-143.52670	
84	8		74.07597	-143.54053	84	9	74.07986	-143.55444	
84	10		74.08412	-143.56796	84	11	74.08838	-143.58266	
84	12		74.09267	-143.59764	84	13	74.09702	-143.61400	
84	14		74.10147	-143.63069	84	15	74.10603	-143.64848	
84	16		74.11073	-143.66730	84	17	74.11562	-143.68671	
84	18		74.12078	-143.70602	84	19	74.12620	-143.72583	
84	20		74.13178	-143.74335	84	21	74.13755	-143.75880	
84	22		74.14327	-143.77216	84	23	74.14880	-143.78308	
85	0		74.15408	-143.79291	85	1	74.15914	-143.80205	
85	2		74.16399	-143.81221	85	3	74.16872	-143.82286	
85	4		74.17348	-143.83440	85	5	74.17844	-143.84636	
85	6		74.18377	-143.85907	85	7	74.18921	-143.87099	
85	8		74.19518	-143.88055	85	9	74.20122	-143.88673	
85	10		74.20734	-143.89018	85	11	74.21320	-143.89088	
85	12		74.21911	-143.89227	85	13	74.22446	-143.89432	
85	14		74.22922	-143.89781	85	15	74.23353	-143.90399	
85	16		74.23719	-143.91168	85	17	74.24055	-143.92175	
85	18		74.24391	-143.93295	85	19	74.24671	-143.94122	
85	20		74.24923	-143.94878	85	21	74.25144	-143.95380	
85	22		74.25287	-143.95587	85	23	74.25400	-143.95604	

J.	Day	hour	long	lat	J.	Day	hour	long	lat
86	0		74.25465	-143.95468	86	1		74.25493	-143.95323
86	2		74.25452	-143.95279	86	3		74.25379	-143.95326
86	4		74.25330	-143.95702	86	5		74.25243	-143.95801
86	6		74.25163	-143.95856	86	7		74.25111	-143.95886
86	8		74.25053	-143.95772	86	9		74.24988	-143.95593
86	10		74.24919	-143.95361	86	11		74.24850	-143.95128
86	12		74.24763	-143.94849	86	13		74.24673	-143.94588
86	14		74.24577	-143.94400	86	15		74.24485	-143.94191
86	16		74.24394	-143.94029	86	17		74.24311	-143.93797
86	18		74.24232	-143.93486	86	19		74.24157	-143.93109
86	20		74.24075	-143.92642	86	21		74.23988	-143.92104
86	22		74.23893	-143.91528	86	23		74.23798	-143.90953
87	0		74.23706	-143.90370	87	1		74.23627	-143.89870
87	2		74.23566	-143.89412	87	3		74.23524	-143.89104
87	4		74.23505	-143.88890	87	5		74.23506	-143.88760
87	6		74.23526	-143.88768	87	7		74.23549	-143.88840
87	8		74.23573	-143.88751	87	9		74.23592	-143.88687
87	10		74.23593	-143.88535	87	11		74.23598	-143.88371
87	12		74.23581	-143.88155	87	13		74.23566	-143.87962
87	14		74.23559	-143.87834	87	15		74.23548	-143.87717
87	16		74.23547	-143.87711	87	17		74.23553	-143.87796
87	18		74.23569	-143.87903	87	19		74.23586	-143.87990
87	20		74.23602	-143.88048	87	21		74.23621	-143.88016
87	22		74.23640	-143.88013	87	23		74.23653	-143.87938
88	0		74.23658	-143.87869	88	1		74.23650	-143.87785
88	2		74.23632	-143.87750	88	3		74.23601	-143.87727
88	4		74.23560	-143.87758	88	5		74.23507	-143.87787
88	6		74.23451	-143.87837	88	7		74.23386	-143.87825
88	8		74.23316	-143.87817	88	9		74.23243	-143.87746
88	10		74.23155	-143.87636	88	11		74.23064	-143.87465
88	12		74.22964	-143.87273	88	13		74.22858	-143.87054
88	14		74.22753	-143.86832	88	15		74.22646	-143.86667
88	16		74.22543	-143.86513	88	17		74.22448	-143.86400
88	18		74.22356	-143.86378	88	19		74.22264	-143.86464
88	20		74.22179	-143.86563	88	21		74.22097	-143.86771
88	22		74.22022	-143.86913	88	23		74.21953	-143.87007
89	0		74.21894	-143.87111	89	1		74.21840	-143.87195
89	2		74.21786	-143.87271	89	3		74.21731	-143.87334
89	4		74.21668	-143.87447	89	5		74.21606	-143.87567
89	6		74.21538	-143.87724	89	7		74.21465	-143.87901
89	8		74.21388	-143.88055	89	9		74.21323	-143.88226
89	10		74.21261	-143.88330	89	11		74.21210	-143.88397
89	12		74.21157	-143.88379	89	13		74.21104	-143.88338
89	14		74.21046	-143.88260	89	15		74.20974	-143.88196
89	16		74.20885	-143.88190	89	17		74.20794	-143.88245
89	18		74.20691	-143.88409	89	19		74.20589	-143.88622
89	20		74.20489	-143.88889	89	21		74.20404	-143.89149
89	22		74.20330	-143.89394	89	23		74.20262	-143.89587



J.	Day	hour	long	lat	J.	Day	hour	long	lat
90	0		74.20197	-143.89702	90	1	74.20126	-143.89731	
90	2		74.20052	-143.89687	90	3	74.19976	-143.89565	
90	4		74.19898	-143.89400	90	5	74.19835	-143.89259	
90	6		74.19783	-143.89143	90	7	74.19746	-143.89058	
90	8		74.19723	-143.89021	90	9	74.19712	-143.89001	
90	10		74.19714	-143.89008	90	11	74.19720	-143.89011	
90	12		74.19726	-143.89020	90	13	74.19724	-143.88992	
90	14		74.19710	-143.88937	90	15	74.19683	-143.88873	
90	16		74.19647	-143.88794	90	17	74.19608	-143.88734	
90	18		74.19560	-143.88673	90	19	74.19518	-143.88635	
90	20		74.19474	-143.88608	90	21	74.19436	-143.88577	
90	22		74.19402	-143.88539	90	23	74.19369	-143.88490	
91	0		74.19340	-143.88414	91	1	74.19314	-143.88318	
91	2		74.19289	-143.88213	91	3	74.19267	-143.88089	
91	4		74.19250	-143.87961	91	5	74.19237	-143.87914	
91	6		74.19218	-143.87854	91	7	74.19202	-143.87817	
91	8		74.19189	-143.87827	91	9	74.19180	-143.87859	
91	10		74.19169	-143.87901	91	11	74.19160	-143.87907	
91	12		74.19160	-143.87907	91	13	74.19160	-143.87868	
91	14		74.19168	-143.87833	91	15	74.19179	-143.87778	
91	16		74.19186	-143.87743	91	17	74.19186	-143.87720	
91	18		74.19173	-143.87755	91	19	74.19154	-143.87816	
91	20		74.19118	-143.87938	91	21	74.19075	-143.88092	
91	22		74.19032	-143.88268	91	23	74.18987	-143.88446	
92	0		74.18949	-143.88626	92	1	74.18916	-143.88786	
92	2		74.18893	-143.88930	92	3	74.18866	-143.89091	
92	4		74.18848	-143.89252	92	5	74.18828	-143.89365	
92	6		74.18803	-143.89540	92	7	74.18772	-143.89716	
92	8		74.18735	-143.89861	92	9	74.18701	-143.90021	
92	10		74.18672	-143.90112	92	11	74.18641	-143.90288	
92	12		74.18623	-143.90369	92	13	74.18607	-143.90543	
92	14		74.18597	-143.90657	92	15	74.18586	-143.90944	
92	16		74.18575	-143.91272	92	17	74.18558	-143.91774	
92	18		74.18532	-143.92319	92	19	74.18495	-143.92986	
92	20		74.18445	-143.93678	92	21	74.18383	-143.94475	
92	22		74.18312	-143.95322	92	23	74.18237	-143.96300	
93	0		74.18163	-143.97281	93	1	74.18098	-143.98402	
93	2		74.18041	-143.99602	93	3	74.18006	-144.00793	
93	4		74.17981	-144.02010	93	5	74.17972	-144.03148	
93	6		74.17977	-144.04208	93	7	74.17986	-144.05194	
93	8		74.18003	-144.06084	93	9	74.18011	-144.06927	
93	10		74.18008	-144.07736	93	11	74.17989	-144.08546	
93	12		74.17949	-144.09389	93	13	74.17887	-144.10295	
93	14		74.17814	-144.11292	93	15	74.17726	-144.12376	
93	16		74.17640	-144.13545	93	17	74.17558	-144.14737	
93	18		74.17484	-144.15976	93	19	74.17427	-144.17244	
93	20		74.17381	-144.18544	93	21	74.17350	-144.19833	
93	22		74.17324	-144.21121	93	23	74.17293	-144.22409	

J. Day	hour	long	lat	J. Day	hour	long	lat
94	0	74.17259	-144.23700	94	1	74.17212	-144.24976
94	2	74.17155	-144.26234	94	3	74.17088	-144.27464
94	4	74.17013	-144.28629	94	5	74.16943	-144.29741
94	6	74.16878	-144.30777	94	7	74.16821	-144.31744
94	8	74.16764	-144.32666	94	9	74.16713	-144.33521
94	10	74.16659	-144.34357	94	11	74.16597	-144.35164
94	12	74.16518	-144.35934	94	13	74.16434	-144.36754
94	14	74.16334	-144.37593	94	15	74.16235	-144.38499
94	16	74.16135	-144.39441	94	17	74.16040	-144.40439
94	18	74.15962	-144.41489	94	19	74.15899	-144.42601
94	20	74.15858	-144.43752	94	21	74.15832	-144.44983
94	22	74.15816	-144.46185	94	23	74.15797	-144.47401
95	0	74.15766	-144.48515	95	1	74.15721	-144.49638
95	2	74.15664	-144.50687	95	3	74.15583	-144.51683
95	4	74.15487	-144.52614	95	5	74.15408	-144.53389
95	6	74.15300	-144.54004	95	7	74.15202	-144.54604
95	8	74.15112	-144.55090	95	9	74.15042	-144.55638
95	10	74.14986	-144.55931	95	11	74.14951	-144.56166
95	12	74.14932	-144.56404	95	13	74.14917	-144.56516
95	14	74.14913	-144.56598	95	15	74.14905	-144.56589
95	16	74.14904	-144.56544	95	17	74.14886	-144.56622
95	18	74.14883	-144.56577	95	19	74.14870	-144.56610
95	20	74.14841	-144.56798	95	21	74.14801	-144.57060
95	22	74.14746	-144.57501	95	23	74.14696	-144.58038
96	0	74.14647	-144.58624	96	1	74.14606	-144.59152
96	2	74.14574	-144.59639	96	3	74.14555	-144.59892
96	4	74.14547	-144.60010	96	5	74.14551	-144.59857
96	6	74.14561	-144.59784	96	7	74.14570	-144.59608
96	8	74.14577	-144.59392	96	9	74.14579	-144.59161
96	10	74.14576	-144.59064	96	11	74.14574	-144.59084
96	12	74.14571	-144.59157	96	13	74.14575	-144.59267
96	14	74.14587	-144.59367	96	15	74.14600	-144.59439
96	16	74.14617	-144.59459	96	17	74.14635	-144.59410
96	18	74.14649	-144.59351	96	19	74.14657	-144.59290
96	20	74.14658	-144.59207	96	21	74.14655	-144.59181
96	22	74.14644	-144.59209	96	23	74.14633	-144.59280
97	0	74.14622	-144.59373	97	1	74.14620	-144.59471
97	2	74.14622	-144.59547	97	3	74.14629	-144.59583
97	4	74.14632	-144.59608	97	5	74.14639	-144.59634
97	6	74.14636	-144.59650	97	7	74.14642	-144.59698
97	8	74.14649	-144.59743	97	9	74.14652	-144.59819
97	10	74.14651	-144.59914	97	11	74.14649	-144.59993
97	12	74.14647	-144.60046	97	13	74.14643	-144.60101
97	14	74.14645	-144.60123	97	15	74.14649	-144.60168
97	16	74.14658	-144.60178	97	17	74.14678	-144.60173
97	18	74.14703	-144.60219	97	19	74.14734	-144.60332
97	20	74.14771	-144.60535	97	21	74.14807	-144.60863
97	22	74.14840	-144.61295	97	23	74.14867	-144.61821

J.	Day	hour	long	lat	J.	Day	hour	long	lat
98	0		74.14884	-144.62416	98	1	74.14889	-144.63037	
98	2		74.14882	-144.63646	98	3	74.14867	-144.64185	
98	4		74.14851	-144.64651	98	5	74.14834	-144.65001	
98	6		74.14821	-144.65240	98	7	74.14806	-144.65375	
98	8		74.14789	-144.65465	98	9	74.14775	-144.65503	
98	10		74.14761	-144.65511	98	11	74.14743	-144.65527	
98	12		74.14719	-144.65573	98	13	74.14692	-144.65631	
98	14		74.14651	-144.65712	98	15	74.14601	-144.65808	
98	16		74.14539	-144.65962	98	17	74.14466	-144.66173	
98	18		74.14388	-144.66475	98	19	74.14310	-144.66885	
98	20		74.14234	-144.67403	98	21	74.14162	-144.68054	
98	22		74.14091	-144.68781	98	23	74.14025	-144.69548	
99	0		74.13957	-144.70317	99	1	74.13890	-144.71040	
99	2		74.13817	-144.71651	99	3	74.13742	-144.72131	
99	4		74.13671	-144.72437	99	5	74.13602	-144.72615	
99	6		74.13553	-144.72618	99	7	74.13511	-144.72539	
99	8		74.13483	-144.72371	99	9	74.13467	-144.72215	
99	10		74.13462	-144.71964	99	11	74.13451	-144.71777	
99	12		74.13441	-144.71658	99	13	74.13415	-144.71593	
99	14		74.13384	-144.71500	99	15	74.13348	-144.71347	
99	16		74.13306	-144.71233	99	17	74.13265	-144.71054	
99	18		74.13226	-144.70840	99	19	74.13182	-144.70575	
99	20		74.13131	-144.70288	99	21	74.13073	-144.69925	
99	22		74.13015	-144.69562	99	23	74.12952	-144.69218	
100	0		74.12885	-144.68877	100	1	74.12817	-144.68504	
100	2		74.12758	-144.68143	100	3	74.12704	-144.67781	
100	4		74.12660	-144.67441	100	5	74.12625	-144.67099	
100	6		74.12591	-144.66766	100	7	74.12566	-144.66438	
100	8		74.12540	-144.66109	100	9	74.12502	-144.65761	
100	10		74.12455	-144.65401	100	11	74.12399	-144.65013	
100	12		74.12334	-144.64607	100	13	74.12261	-144.64134	
100	14		74.12188	-144.63673	100	15	74.12113	-144.63181	
100	16		74.12039	-144.62680	100	17	74.11972	-144.62138	
100	18		74.11891	-144.61554	100	19	74.11798	-144.60919	
100	20		74.11690	-144.60185	100	21	74.11566	-144.59372	
100	22		74.11426	-144.58444	100	23	74.11288	-144.57483	
101	0		74.11157	-144.56453	101	1	74.11043	-144.55406	
101	2		74.10942	-144.54385	101	3	74.10857	-144.53365	
101	4		74.10778	-144.52338	101	5	74.10715	-144.51309	
101	6		74.10648	-144.50249	101	7	74.10564	-144.49159	
101	8		74.10474	-144.48068	101	9	74.10360	-144.46930	
101	10		74.10237	-144.45793	101	11	74.10110	-144.44658	
101	12		74.09985	-144.43576	101	13	74.09850	-144.42567	
101	14		74.09729	-144.41594	101	15	74.09598	-144.40657	
101	16		74.09460	-144.39824	101	17	74.09297	-144.38896	
101	18		74.09111	-144.37959	101	19	74.08881	-144.36972	
101	20		74.08626	-144.36047	101	21	74.08348	-144.35226	
101	22		74.08064	-144.34511	101	23	74.07789	-144.33955	

J.	Day	hour	long	lat	J.	Day	hour	long	lat
102	0		74.07531	-144.33418	102	1	74.07299	-144.33041	
102	2		74.07115	-144.32817	102	3	74.06996	-144.32812	
102	4		74.06917	-144.32870	102	5	74.06882	-144.33022	
102	6		74.06868	-144.33159	102	7	74.06867	-144.33359	
102	8		74.06859	-144.33507	102	9	74.06845	-144.33653	
102	10		74.06797	-144.33664	102	11	74.06760	-144.33806	
102	12		74.06712	-144.33934	102	13	74.06653	-144.34103	
102	14		74.06601	-144.34273	102	15	74.06553	-144.34476	
102	16		74.06516	-144.34659	102	17	74.06474	-144.34949	
102	18		74.06432	-144.35266	102	19	74.06393	-144.35666	
102	20		74.06355	-144.36064	102	21	74.06320	-144.36522	
102	22		74.06284	-144.37015	102	23	74.06248	-144.37497	
103	0		74.06218	-144.38065	103	1	74.06190	-144.38579	
103	2		74.06165	-144.39066	103	3	74.06146	-144.39491	
103	4		74.06124	-144.39838	103	5	74.06112	-144.40094	
103	6		74.06101	-144.40239	103	7	74.06094	-144.40221	
103	8		74.06085	-144.40314	103	9	74.06075	-144.40370	
103	10		74.06063	-144.40468	103	11	74.06055	-144.40604	
103	12		74.06049	-144.40782	103	13	74.06046	-144.40901	
103	14		74.06044	-144.41037	103	15	74.06042	-144.41081	
103	16		74.06041	-144.41100	103	17	74.06039	-144.41069	
103	18		74.06034	-144.40974	103	19	74.06023	-144.40999	
103	20		74.06003	-144.41377	103	21	74.05975	-144.41745	
103	22		74.05938	-144.42264	103	23	74.05895	-144.42958	
104	0		74.05850	-144.43729	104	1	74.05806	-144.44551	
104	2		74.05769	-144.45291	104	3	74.05740	-144.45894	
104	4		74.05714	-144.46405	104	5	74.05691	-144.46655	
104	6		74.05678	-144.46826	104	7	74.05673	-144.47052	
104	8		74.05670	-144.47112	104	9	74.05666	-144.47223	
104	10		74.05664	-144.47372	104	11	74.05666	-144.47530	
104	12		74.05663	-144.47684	104	13	74.05663	-144.47830	
104	14		74.05659	-144.47960	104	15	74.05652	-144.48096	
104	16		74.05638	-144.48409	104	17	74.05614	-144.48526	
104	18		74.05586	-144.48839	104	19	74.05553	-144.49353	
104	20		74.05521	-144.50050	104	21	74.05490	-144.50990	
104	22		74.05464	-144.52057	104	23	74.05446	-144.53198	
105	0		74.05442	-144.54338	105	1	74.05447	-144.55373	
105	2		74.05462	-144.56303	105	3	74.05485	-144.57141	
105	4		74.05506	-144.57849	105	5	74.05526	-144.58427	
105	6		74.05532	-144.58763	105	7	74.05534	-144.59196	
105	8		74.05535	-144.59665	105	9	74.05522	-144.60156	
105	10		74.05508	-144.60645	105	11	74.05495	-144.61134	
105	12		74.05482	-144.61534	105	13	74.05466	-144.61848	
105	14		74.05453	-144.62007	105	15	74.05434	-144.62144	
105	16		74.05414	-144.62364	105	17	74.05370	-144.62537	
105	18		74.05315	-144.62808	105	19	74.05248	-144.63280	
105	20		74.05167	-144.63957	105	21	74.05077	-144.64944	
105	22		74.04980	-144.66058	105	23	74.04887	-144.67316	

J.	Day	hour	long	lat	J.	Day	hour	long	lat
106	0		74.04797	-144.68581	106	1	74.04717	-144.69812	
106	2		74.04648	-144.70891	106	3	74.04586	-144.71831	
106	4		74.04534	-144.72542	106	5	74.04490	-144.73236	
106	6		74.04436	-144.73903	106	7	74.04394	-144.74500	
106	8		74.04334	-144.75171	106	9	74.04269	-144.75908	
106	10		74.04198	-144.76707	106	11	74.04111	-144.77563	
106	12		74.04022	-144.78470	106	13	74.03925	-144.79433	
106	14		74.03814	-144.80434	106	15	74.03699	-144.81548	
106	16		74.03596	-144.82616	106	17	74.03497	-144.83803	
106	18		74.03393	-144.85242	106	19	74.03280	-144.86739	
106	20		74.03167	-144.88367	106	21	74.03053	-144.90068	
106	22		74.02944	-144.91902	106	23	74.02824	-144.93697	
107	0		74.02708	-144.95496	107	1	74.02576	-144.97229	
107	2		74.02448	-144.98892	107	3	74.02325	-145.00397	
107	4		74.02194	-145.01860	107	5	74.02066	-145.03206	
107	6		74.01942	-145.04469	107	7	74.01807	-145.05643	
107	8		74.01675	-145.06775	107	9	74.01527	-145.07866	
107	10		74.01380	-145.08975	107	11	74.01214	-145.10036	
107	12		74.01044	-145.11118	107	13	74.00861	-145.12160	
107	14		74.00676	-145.13208	107	15	74.00468	-145.14240	
107	16		74.00250	-145.15311	107	17	74.00011	-145.16400	
107	18		73.99750	-145.17543	107	19	73.99454	-145.18790	
107	20		73.99142	-145.20132	107	21	73.98811	-145.21593	
107	22		73.98466	-145.23163	107	23	73.98129	-145.24826	
108	0		73.97804	-145.26581	108	1	73.97514	-145.28362	
108	2		73.97260	-145.30104	108	3	73.97052	-145.31741	
108	4		73.96870	-145.33287	108	5	73.96709	-145.34654	
108	6		73.96566	-145.35811	108	7	73.96424	-145.36807	
108	8		73.96274	-145.37640	108	9	73.96116	-145.38293	
108	10		73.95960	-145.38800	108	11	73.95774	-145.39288	
108	12		73.95583	-145.39749	108	13	73.95380	-145.40331	
108	14		73.95189	-145.41011	108	15	73.95013	-145.41873	
108	16		73.94849	-145.42899	108	17	73.94716	-145.44043	
108	18		73.94613	-145.45309	108	19	73.94530	-145.46631	
108	20		73.94480	-145.48013	108	21	73.94440	-145.49260	
108	22		73.94407	-145.50468	108	23	73.94377	-145.51697	
109	0		73.94352	-145.52864	109	1	73.94324	-145.54138	
109	2		73.94283	-145.55380	109	3	73.94238	-145.56696	
109	4		73.94191	-145.57953	109	5	73.94146	-145.59186	
109	6		73.94098	-145.60300	109	7	73.94053	-145.61230	
109	8		73.93993	-145.61928	109	9	73.93919	-145.62247	
109	10		73.93832	-145.62408	109	11	73.93730	-145.62343	
109	12		73.93633	-145.62247	109	13	73.93538	-145.62099	
109	14		73.93454	-145.62022	109	15	73.93381	-145.62019	
109	16		73.93314	-145.61946	109	17	73.93251	-145.62018	
109	18		73.93176	-145.62022	109	19	73.93095	-145.61935	
109	20		73.93004	-145.61774	109	21	73.92902	-145.61592	
109	22		73.92780	-145.61394	109	23	73.92638	-145.61200	

J. Day	hour	long	lat	J. Day	hour	long	lat
110	0	73.92480	-145.61041	110	1	73.92316	-145.60966
110	2	73.92158	-145.60970	110	3	73.92014	-145.61006
110	4	73.91892	-145.61137	110	5	73.91776	-145.61244
110	6	73.91671	-145.61298	110	7	73.91572	-145.61299
110	8	73.91487	-145.61157	110	9	73.91394	-145.60963
110	10	73.91299	-145.60626	110	11	73.91180	-145.60287
110	12	73.91039	-145.59926	110	13	73.90888	-145.59668
110	14	73.90719	-145.59444	110	15	73.90557	-145.59273
110	16	73.90415	-145.59157	110	17	73.90306	-145.58937
110	18	73.90232	-145.58574	110	19	73.90186	-145.58017
110	20	73.90154	-145.57262	110	21	73.90113	-145.56242
110	22	73.90048	-145.55020	110	23	73.89948	-145.53752
111	0	73.89809	-145.52495	111	1	73.89649	-145.51413
111	2	73.89465	-145.50470	111	3	73.89301	-145.49786
111	4	73.89149	-145.49323	111	5	73.89041	-145.49059
111	6	73.88991	-145.48883	111	7	73.88972	-145.48839
111	8	73.88989	-145.48792	111	9	73.89020	-145.48795
111	10	73.89051	-145.48788	111	11	73.89079	-145.48807
111	12	73.89083	-145.48682	111	13	73.89079	-145.48639
111	14	73.89073	-145.48618	111	15	73.89059	-145.48593
111	16	73.89045	-145.48538	111	17	73.89040	-145.48526
111	18	73.89040	-145.48543	111	19	73.89038	-145.48582
111	20	73.89035	-145.48567	111	21	73.89037	-145.48538
111	22	73.89050	-145.48517	111	23	73.89059	-145.48512
112	0	73.89071	-145.48584	112	1	73.89072	-145.48715
112	2	73.89071	-145.49089	112	3	73.89052	-145.49017
112	4	73.89019	-145.49106	112	5	73.88972	-145.49037
112	6	73.88927	-145.48972	112	7	73.88879	-145.48878
112	8	73.88847	-145.48923	112	9	73.88818	-145.48935
112	10	73.88804	-145.49046	112	11	73.88799	-145.49307
112	12	73.88803	-145.49599	112	13	73.88811	-145.49966
112	14	73.88822	-145.50101	112	15	73.88824	-145.50278
112	16	73.88825	-145.50243	112	17	73.88840	-145.49265
112	18	73.88850	-145.49222	112	19	73.88887	-145.48999
112	20	73.88931	-145.49600	112	21	73.88980	-145.50391
112	22	73.89026	-145.51358	112	23	73.89069	-145.52492
113	0	73.89091	-145.53581	113	1	73.89095	-145.54535
113	2	73.89074	-145.54808	113	3	73.89023	-145.54492
113	4	73.88975	-145.55046	113	5	73.88885	-145.55057
113	6	73.88806	-145.55125	113	7	73.88705	-145.55658
113	8	73.88631	-145.56100	113	9	73.88551	-145.57294
113	10	73.88491	-145.58351	113	11	73.88432	-145.59215
113	12	73.88371	-145.60002	113	13	73.88298	-145.60519
113	14	73.88198	-145.60966	113	15	73.88070	-145.60866
113	16	73.87901	-145.61292	113	17	73.87707	-145.61981
113	18	73.87502	-145.62578	113	19	73.87289	-145.63528
113	20	73.87087	-145.64836	113	21	73.86904	-145.66412
113	22	73.86755	-145.68030	113	23	73.86632	-145.69673

J.	Day	hour	long	lat	J.	Day	hour	long	lat
114	0	73.86536	-145.71043	114	1	73.86455	-145.72086		
114	2	73.86377	-145.73006	114	3	73.86292	-145.73746		
114	4	73.86185	-145.74113	114	5	73.86066	-145.74055		
114	6	73.85937	-145.74490	114	7	73.85796	-145.75252		
114	8	73.85657	-145.75664	114	9	73.85515	-145.76433		
114	10	73.85375	-145.77046	114	11	73.85249	-145.77646		
114	12	73.85118	-145.77870	114	13	73.84986	-145.78108		
114	14	73.84846	-145.78069	114	15	73.84698	-145.77722		
114	16	73.84540	-145.77361	114	17	73.84361	-145.77368		
114	18	73.84165	-145.77814	114	19	73.83968	-145.78534		
114	20	73.83766	-145.79526	114	21	73.83585	-145.80681		
114	22	73.83401	-145.81964	114	23	73.83231	-145.83182		
115	0	73.83065	-145.84290	115	1	73.82915	-145.85114		
115	2	73.82782	-145.85666	115	3	73.82663	-145.85966		
115	4	73.82565	-145.86241	115	5	73.82499	-145.86586		
115	6	73.82455	-145.86728	115	7	73.82430	-145.86749		
115	8	73.82419	-145.86726	115	9	73.82421	-145.86771		
115	10	73.82427	-145.86848	115	11	73.82452	-145.86972		
115	12	73.82467	-145.87094	115	13	73.82475	-145.87239		
115	14	73.82484	-145.87323	115	15	73.82458	-145.87607		
115	16	73.82430	-145.87981	115	17	73.82376	-145.88527		
115	18	73.82323	-145.89061	115	19	73.82275	-145.89911		
115	20	73.82217	-145.91032	115	21	73.82182	-145.92355		
115	22	73.82172	-145.93826	115	23	73.82187	-145.95393		
116	0	73.82234	-145.97006	116	1	73.82293	-145.98598		
116	2	73.82358	-146.00124	116	3	73.82404	-146.01492		
116	4	73.82421	-146.02666	116	5	73.82407	-146.03674		
116	6	73.82361	-146.04585	116	7	73.82285	-146.05507		
116	8	73.82201	-146.06480	116	9	73.82112	-146.07561		
116	10	73.82044	-146.08728	116	11	73.81982	-146.09944		
116	12	73.81934	-146.11221	116	13	73.81885	-146.12462		
116	14	73.81825	-146.13637	116	15	73.81764	-146.14755		
116	16	73.81676	-146.15837	116	17	73.81570	-146.16911		
116	18	73.81451	-146.18028	116	19	73.81322	-146.19238		
116	20	73.81194	-146.20560	116	21	73.81068	-146.22009		
116	22	73.80967	-146.23616	116	23	73.80878	-146.25325		
117	0	73.80795	-146.27068	117	1	73.80725	-146.28769		
117	2	73.80656	-146.30470	117	3	73.80586	-146.32045		
117	4	73.80505	-146.33607	117	5	73.80409	-146.35071		
117	6	73.80302	-146.36441	117	7	73.80183	-146.37819		
117	8	73.80056	-146.39038	117	9	73.79931	-146.40213		
117	10	73.79794	-146.41214	117	11	73.79664	-146.42046		
117	12	73.79524	-146.42624	117	13	73.79389	-146.43021		
117	14	73.79245	-146.43324	117	15	73.79090	-146.43338		
117	16	73.78935	-146.43423	117	17	73.78770	-146.43410		
117	18	73.78601	-146.43384	117	19	73.78430	-146.43332		
117	20	73.78255	-146.43434	117	21	73.78076	-146.43561		
117	22	73.77904	-146.43639	117	23	73.77732	-146.43721		

J. Day	hour	long	lat	J. Day	hour	long	lat
118	0	73.77573	-146.43660	118	1	73.77423	-146.43457
118	2	73.77293	-146.43253	118	3	73.77173	-146.42975
118	4	73.77071	-146.42670	118	5	73.77009	-146.42584
118	6	73.76948	-146.42366	118	7	73.76908	-146.42076
118	8	73.76882	-146.41917	118	9	73.76869	-146.41727
118	10	73.76853	-146.41661	118	11	73.76836	-146.41629
118	12	73.76824	-146.41661	118	13	73.76801	-146.41728
118	14	73.76774	-146.41780	118	15	73.76743	-146.41747
118	16	73.76699	-146.41711	118	17	73.76642	-146.41656
118	18	73.76575	-146.41435	118	19	73.76479	-146.41159
118	20	73.76420	-146.40718	118	21	73.76349	-146.40263
118	22	73.76286	-146.39859	118	23	73.76225	-146.39328
119	0	73.76179	-146.38963	119	1	73.76145	-146.38864
119	2	73.76122	-146.38913	119	3	73.76107	-146.38908
119	4	73.76103	-146.38953	119	5	73.76102	-146.39012
119	6	73.76113	-146.39221	119	7	73.76118	-146.39313
119	8	73.76125	-146.39413	119	9	73.76125	-146.39400
119	10	73.76131	-146.39388	119	11	73.76136	-146.39296
119	12	73.76138	-146.39163	119	13	73.76143	-146.38992
119	14	73.76148	-146.38896	119	15	73.76154	-146.38878
119	16	73.76170	-146.39021	119	17	73.76193	-146.39302
119	18	73.76229	-146.39697	119	19	73.76284	-146.40236
119	20	73.76351	-146.40819	119	21	73.76433	-146.41447
119	22	73.76525	-146.42070	119	23	73.76628	-146.42656
120	0	73.76729	-146.43164	120	1	73.76817	-146.43579
120	2	73.76892	-146.43909	120	3	73.76949	-146.44144
120	4	73.76992	-146.44373	120	5	73.77010	-146.44487
120	6	73.77013	-146.44458	120	7	73.77011	-146.44511
120	8	73.77006	-146.44460	120	9	73.76998	-146.44374
120	10	73.76999	-146.44337	120	11	73.77003	-146.44318
120	12	73.77010	-146.44312	120	13	73.77016	-146.44295
120	14	73.77023	-146.44324	120	15	73.77023	-146.44365
120	16	73.77023	-146.44397	120	17	73.77019	-146.44485
120	18	73.77027	-146.44591	120	19	73.77053	-146.44696
120	20	73.77097	-146.44827	120	21	73.77158	-146.44954
120	22	73.77235	-146.45100	120	23	73.77326	-146.45250
121	0	73.77426	-146.45425	121	1	73.77525	-146.45613
121	2	73.77617	-146.45798	121	3	73.77702	-146.45990
121	4	73.77761	-146.46136	121	5	73.77812	-146.46265
121	6	73.77843	-146.46355	121	7	73.77885	-146.46481
121	8	73.77926	-146.46587	121	9	73.77959	-146.46638
121	10	73.77986	-146.46658	121	11	73.78015	-146.46666
121	12	73.78036	-146.46664	121	13	73.78062	-146.46735
121	14	73.78072	-146.46806	121	15	73.78111	-146.47002
121	16	73.78164	-146.47293	121	17	73.78246	-146.47711
121	18	73.78392	-146.48334	121	19	73.78562	-146.49022
121	20	73.78787	-146.49821	121	21	73.79057	-146.50702
121	22	73.79369	-146.51617	121	23	73.79713	-146.52589



J. Day	hour	long	lat	J. Day	hour	long	lat
122	0	73.80083	-146.53557	122	1	73.80459	-146.54530
122	2	73.80834	-146.55499	122	3	73.81194	-146.56438
122	4	73.81525	-146.57333	122	5	73.81831	-146.58165
122	6	73.82107	-146.58913	122	7	73.82350	-146.59555
122	8	73.82557	-146.60051	122	9	73.82730	-146.60442
122	10	73.82867	-146.60690	122	11	73.82978	-146.60905
122	12	73.83064	-146.61057	122	13	73.83145	-146.61240
122	14	73.83229	-146.61452	122	15	73.83353	-146.61743
122	16	73.83475	-146.62022	122	17	73.83624	-146.62305
122	18	73.83806	-146.62602	122	19	73.84019	-146.62907
122	20	73.84243	-146.63197	122	21	73.84483	-146.63467
122	22	73.84721	-146.63741	122	23	73.84940	-146.63986
123	0	73.85133	-146.64246	123	1	73.85298	-146.64488
123	2	73.85425	-146.64729	123	3	73.85519	-146.64943
123	4	73.85577	-146.65146	123	5	73.85601	-146.65331

E. DROP TIME TABLE

drop number	unit	time GMT	Cal date	Julian day	drop number	unit	time GMT	Cal date	Julian day
A320A.001	NB	0559	3-20	79	A320A.002	NB	0622	3-20	79
A320A.003	NB	0648	3-20	79	A321A.001	NB	0200	3-21	80
A321A.002	NB	0219	3-21	80	A321A.003	NB	0237	3-21	80
A321A.004	NB	0300	3-21	80	A321A.005	NB	0458	3-21	80
A321A.006	NB	0519	3-21	80	A322A.001	NB	2019	3-22	81
A322A.002	NB	2036	3-22	81	A323A.001	NB	1938	3-23	82
A323A.002	NB	2010	3-23	82	A323A.003	NB	2034	3-23	82
A323A.004	NB	2056	3-23	82	A323A.005	NB	2117	3-23	82
A323A.006	NB	2138	3-23	82	A323A.007	NB	2205	3-23	82
A323B.001	NB	2235	3-23	82	A323B.002	NB	0003	3-24	83
A323B.003	NB	0024	3-24	83	A323B.004	NB	0045	3-24	83
A323B.005	NB	0104	3-24	83	A323B.006	NB	0123	3-24	83
A323B.007	NB	0142	3-24	83	A323C.001	NB	0203	3-24	83
A323C.002	NB	0227	3-24	83	A323C.003	NB	0235	3-24	83
A323C.004	NB	0243	3-24	83	A323C.005	NB	0246	3-24	83
A323C.006	NB	0250	3-24	83	A323C.007	NB	0254	3-24	83
A323C.008	NB	0258	3-24	83	A323C.009	NB	0302	3-24	83
A323C.010	NB	0306	3-24	83	A324A.001	NB	1922	3-24	83
A324A.002	NB	1934	3-24	83	A324A.003	NB	1951	3-24	83
A324A.004	NB	2003	3-24	83	A324A.005	NB	2015	3-24	83
A324A.006	NB	2027	3-24	83	A324A.007	NB	2043	3-24	83
A324A.008	NB	2045	3-24	83	A324A.009	NB	2100	3-24	83
A324A.010	NB	2118	3-24	83	A324A.011	NB	2130	3-24	83
A324A.012	NB	2141	3-24	83	A324A.013	NB	2150	3-24	83
A324A.014	NB	2201	3-24	83	A324A.015	NB	2211	3-24	83
A324B.001	NB	2230	3-24	83	A324B.002	NB	2240	3-24	83
A324B.003	NB	2328	3-24	83	A324B.004	NB	2338	3-24	83
A324B.005	NB	2350	3-24	83	A324B.006	NB	0012	3-25	84
A324B.007	NB	0031	3-25	84	A324B.008	NB	0053	3-25	84
A325A.009	NB	0045	3-26	85	A325A.010	NB	0055	3-26	85
A326A.001	NB	1952	3-26	85	A326A.002	NB	2028	3-26	85
A326A.003	NB	2059	3-26	85	A326A.004	NB	2218	3-26	85
A326A.005	NB	2255	3-26	85	A326A.006	NB	2358	3-26	85
A326B.001	NB	0453	3-27	86	A326B.002	NB	0521	3-27	86
A326B.003	NB	0544	3-27	86	A326B.004	NB	0602	3-27	86
A326B.005	NB	0623	3-27	86	A326B.006	NB	0644	3-27	86
A326C.001	NB	0707	3-27	86	A326C.002	NB	0727	3-27	86
A326C.003	NB	0747	3-27	86	A327A.001	NB	1815	3-27	86
A327A.002	NB	1836	3-27	86	A327A.003	NB	1855	3-27	86
A327A.004	NB	1914	3-27	86	A327A.005	NB	1932	3-27	86
A327A.006	NB	1951	3-27	86	A327B.001	NB	0220	3-28	87
A327B.002	NB	0242	3-28	87	A327B.003	NB	0454	3-28	87
A327B.004	NB	0512	3-28	87	A327B.005	NB	0532	3-28	87
A327B.006	NB	0552	3-28	87	A328A.001	NB	1754	3-28	87
A328A.002	NB	1812	3-28	87	A328A.003	NB	1836	3-28	87
A328A.004	NB	1846	3-28	87	A328A.005	NB	1852	3-28	87
A328A.006	NB	1901	3-28	87	A328A.008	NB	1918	3-28	87
A328A.009	NB	1941	3-28	87	A328A.010	NB	1958	3-28	87
A328A.011	NB	2015	3-28	87	A328A.012	NB	2034	3-28	87
A328A.013	NB	2243	3-28	87	A328A.014	NB	2302	3-28	87

drop number	unit	time GMT	Cal date	Julian day	drop number	unit	time GMT	Cal date	Julian day
A328A.015	NB	2328	3-28	87	A328A.016	NB	0011	3-29	88
A328A.017	NB	0034	3-29	88	A328A.018	NB	0057	3-29	88
A328A.019	NB	0120	3-29	88	A328A.020	NB	0139	3-29	88
A328A.021	NB	0205	3-29	88	A328A.022	NB	0236	3-29	88
A329A.001	MC	2237	3-29	88	A329A.002	MC	2302	3-29	88
A329A.003	MC	2324	3-29	88	A329A.004	MC	0014	3-30	89
A329A.005	MC	0041	3-30	89	A329A.006	MC	0105	3-30	89
A329A.007	MC	0128	3-30	89	A329B.001	MC	0150	3-30	89
A329B.002	MC	0213	3-30	89	A329B.003	MC	0232	3-30	89
A329B.004	MC	0401	3-30	89	A329B.005	MC	0424	3-30	89
A329B.006	MC	0448	3-30	89	A329C.001	NB	0607	3-30	89
A329C.002	NB	0627	3-30	89	A330A.001	MC	1803	3-30	89
A330A.002	MC	1850	3-30	89	A330A.003	MC	1900	3-30	89
A330A.004	MC	1950	3-30	89	A330A.005	MC	2021	3-30	89
A330A.006	MC	2027	3-30	89	A330B.001	MC	2209	3-30	89
A330B.002	MC	2230	3-30	89	A330B.003	MC	2255	3-30	89
A330B.004	MC	2317	3-30	89	A330B.005	MC	2340	3-30	89
A330B.006	MC	2359	3-30	89	A330C.001	NB	0143	3-31	90
A330C.002	NB	0258	3-31	90	A331A.001	MC	0304	4-01	91
A331A.002	MC	0429	4-01	91	A331A.003	MC	0456	4-01	91
A331A.004	MC	0525	4-01	91	A331A.005	MC	0545	4-01	91
A331A.006	MC	0616	4-01	91	A401A.001	NB	2014	4-01	91
A401A.002	NB	2035	4-01	91	A401A.003	MC	2053	4-01	91
A401A.004	NB	2230	4-01	91	A401A.005	NB	2252	4-01	91
A401A.006	NB	2311	4-01	91	A401B.001	NB	0009	4-02	92
A401B.002	NB	0028	4-02	92	A401B.003	MC	0227	4-02	92
A401B.004	MC	0244	4-02	92	A401B.005	MC	0300	4-02	92
A401B.006	MC	0402	4-02	92	A401B.007	MC	0419	4-02	92
A401B.008	MC	0437	4-02	92	A401B.009	MC	0452	4-02	92
A401B.010	MC	0506	4-02	92	A401B.011	MC	0521	4-02	92
A401B.012	MC	0540	4-02	92	A401C.001	MC	0559	4-02	92
A401C.002	MC	0623	4-02	92	A401C.003	MC	0645	4-02	92
A401C.004	MC	0706	4-02	92	A402A.001	NB	1910	4-02	92
A402A.002	NB	1944	4-02	92	A402A.003	NB	2007	4-02	92
A402A.004	NB	2235	4-02	92	A402A.005	NB	2313	4-02	92
A402A.006	NB	2323	4-02	92	A402A.007	NB	2343	4-02	92
A402B.001	MC	0152	4-03	93	A402B.002	MC	0206	4-03	93
A402B.003	MC	0220	4-03	93	A402B.004	MC	0252	4-03	93
A402B.006	MC	0425	4-03	93	A402B.007	MC	0440	4-03	93
A403A.001	MC	2011	4-03	93	A403A.002	MC	2027	4-03	93
A403A.003	MC	2048	4-03	93	A403A.004	MC	2217	4-03	93
A403A.005	MC	2229	4-03	93	A403A.006	MC	2238	4-03	93
A403A.007	MC	2307	4-03	93	A403A.008	MC	2315	4-03	93
A403A.009	MC	2323	4-03	93	A403A.010	MC	2331	4-03	93
A403A.011	MC	2345	4-03	93	A403A.012	MC	2353	4-03	93
A403A.013	MC	0001	4-04	94	A403A.014	MC	0009	4-04	94
A403A.015	MC	0018	4-04	94	A403A.016	MC	0025	4-04	94
A403A.017	MC	0033	4-04	94	A403A.018	MC	0041	4-04	94
A403A.019	MC	0051	4-04	94	A403A.020	MC	0058	4-04	94
A403A.021	MC	0106	4-04	94	A403A.022	MC	0113	4-04	94

drop number	unit	time GMT	Cal date	Julian day	drop number	unit	time GMT	Cal date	Julian day
A417A.001	NB	1837	4-17	107	A417A.002	NB	1849	4-17	107
A417A.003	NB	1909	4-17	107	A417A.004	NB	1915	4-17	107
A417A.005	NB	1922	4-17	107	A417A.006	NB	1929	4-17	107
A417A.007	NB	1937	4-17	107	A417A.008	NB	1944	4-17	107
A417A.009	NB	1952	4-17	107	A417A.010	NB	1959	4-17	107
A417A.011	NB	2006	4-17	107	A417A.012	NB	2014	4-17	107
A417A.013	NB	2028	4-17	107	A417B.001	NB	2056	4-17	107
A417B.002	NB	2114	4-17	107	A417B.003	NB	2125	4-17	107
A417B.004	NB	2135	4-17	107	A417B.005	NB	2144	4-17	107
A417B.006	NB	2154	4-17	107	A417B.007	NB	2203	4-17	107
A417B.008	NB	2212	4-17	107	A417B.009	NB	2220	4-17	107
A417B.010	NB	2229	4-17	107	A417B.011	NB	2237	4-17	107
A417B.012	NB	2246	4-17	107	A417B.013	NB	2254	4-17	107
A417C.001	NB	2324	4-17	107	A417C.002	NB	2343	4-17	107
A417C.003	NB	2352	4-17	107	A417C.004	NB	0000	4-18	108
A417C.005	NB	0009	4-18	108	A417C.006	NB	0018	4-18	108
A417C.007	NB	0027	4-18	108	A417C.008	NB	0036	4-18	108
A417C.009	NB	0045	4-18	108	A417C.010	NB	0055	4-18	108
A417C.011	NB	0104	4-18	108	A417C.012	NB	0121	4-18	108
A417C.013	NB	0136	4-18	108	A417D.001	NB	0209	4-18	108
A417D.002	NB	0231	4-18	108	A417D.003	NB	0245	4-18	108
A417D.004	NB	0255	4-18	108	A417D.005	NB	0304	4-18	108
A417D.006	NB	0315	4-18	108	A417D.007	NB	0327	4-18	108
A417D.008	NB	0342	4-18	108	A417D.009	NB	0417	4-18	108
A417D.010	NB	0429	4-18	108	A417D.011	NB	0340	4-18	108
A417D.012	NB	0451	4-18	108	A417D.013	NB	0502	4-18	108
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A417F.013	NB	0926	4-18	108	A417F.014	NB	0932	4-18	108
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A418A.005	NB	1916	4-18	108	A418A.006	NB	1926	4-18	108

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A419C.011	NB	0252	4-20	110	A419C.012	NB	0259	4-20	110
A419C.013	NB	0306	4-20	110	A419C.014	NB	0313	4-20	110
A419C.015	NB	0320	4-20	110	A419C.016	NB	0327	4-20	110
A419C.017	NB	0334	4-20	110	A419C.018	NB	0343	4-20	110
A419D.001	NB	0424	4-20	110	A419D.002	NB	0446	4-20	110
A419D.003	NB	0455	4-20	110	A419D.004	NB	0502	4-20	110
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A419D.011	NB	0604	4-20	110	A419D.012	NB	0613	4-20	110
A419D.013	NB	0620	4-20	110	A419D.014	NB	0630	4-20	110

drop number	unit	time GMT	Cal date	Julian day	drop number	unit	time GMT	Cal date	Julian day
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A419D.019	NB	0725	4-20	110	A419E.001	NB	0740	4-20	110
A419E.002	NB	0801	4-20	110	A419E.003	NB	0809	4-20	110
A419E.004	NB	0816	4-20	110	A419E.005	NB	0825	4-20	110
A419E.006	NB	0832	4-20	110	A419E.007	NB	0839	4-20	110
A419E.008	NB	0846	4-20	110	A419E.009	NB	0853	4-20	110
A419E.010	NB	0900	4-20	110	A419E.011	NB	0908	4-20	110
A419E.012	NB	0916	4-20	110	A419E.013	NB	0923	4-20	110
A419E.014	NB	0930	4-20	110	A419E.015	NB	0937	4-20	110
A419E.016	NB	0945	4-20	110	A419E.017	NB	0952	4-20	110
A419E.018	NB	1000	4-20	110	A419E.019	NB	1008	4-20	110
A419E.020	NB	1017	4-20	110	A420A.001	MC	1834	4-20	110
A420A.002	MC	1854	4-20	110	A420A.003	MC	1904	4-20	110
A420A.004	MC	1913	4-20	110	A420A.005	MC	1922	4-20	110
A420A.006	MC	1931	4-20	110	A420A.007	MC	1940	4-20	110
A420A.008	MC	1949	4-20	110	A420A.009	MC	1958	4-20	110
A420A.010	MC	2018	4-20	110	A420B.001	MC	2055	4-20	110
A420B.002	MC	2140	4-20	110	A420C.001	MC	2218	4-20	110
A420C.002	NB	0316	4-21	111	A421A.001	NB	2029	4-21	111
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A421B.004	NB	0211	4-22	112	A421B.005	NB	0223	4-22	112
A421B.006	NB	0235	4-22	112	A421B.007	NB	0245	4-22	112
A421B.008	NB	0254	4-22	112	A421B.009	NB	0358	4-22	112
A421C.001	NB	0437	4-22	112	A421C.002	NB	0504	4-22	112
A421C.003	NB	0516	4-22	112	A421C.004	NB	0526	4-22	112
A421C.005	NB	0541	4-22	112	A421C.006	NB	0551	4-22	112
A421C.007	NB	0601	4-22	112	A421C.008	NB	0610	4-22	112
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A421C.011	NB	0640	4-22	112	A421C.012	NB	0650	4-22	112
A421C.013	NB	0659	4-22	112	A421D.001	NB	0728	4-22	112
A421D.002	NB	0744	4-22	112	A421D.003	NB	0753	4-22	112
A421D.004	NB	0803	4-22	112	A421D.005	NB	0812	4-22	112
A421D.006	NB	0822	4-22	112	A421D.007	NB	0832	4-22	112
A421D.008	NB	0841	4-22	112	A421D.009	NB	0852	4-22	112
A421D.010	NB	0902	4-22	112	A421D.011	NB	0912	4-22	112
A421D.012	NB	0922	4-22	112	A421D.013	NB	0932	4-22	112
A422A.001	NB	0951	4-22	112	A422A.002	NB	1009	4-22	112
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A422A.005	NB	1042	4-22	112	A422A.006	NB	1052	4-22	112
A422A.007	NB	1111	4-22	112	A422A.008	NB	1123	4-22	112
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A422A.013	NB	1208	4-22	112	A422A.014	NB	1217	4-22	112
A422B.001	NB	1249	4-22	112	A422B.002	NB	1310	4-22	112
A422B.003	NB	1319	4-22	112	A422B.004	NB	1329	4-22	112
A422B.005	NB	1338	4-22	112	A422B.006	NB	1346	4-22	112
A422B.007	NB	1355	4-22	112	A422B.008	NB	1404	4-22	112

drop number	unit	time GMT	Cal date	Julian day	drop number	unit	time GMT	Cal date	Julian day
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A422B.013	NB	1448	4-22	112	A422B.014	NB	1457	4-22	112
A422B.015	NB	1506	4-22	112	A422C.001	NB	1532	4-22	112
A422C.002	NB	1542	4-22	112	A422C.003	NB	1615	4-22	112
A422C.004	NB	1621	4-22	112	A422C.005	NB	1626	4-22	112
A422C.006	NB	1633	4-22	112	A422C.007	NB	1640	4-22	112
A422C.008	NB	1657	4-22	112	A422C.009	NB	1712	4-22	112
A422C.010	NB	1719	4-22	112	A422C.011	NB	1726	4-22	112
A422C.012	NB	1733	4-22	112	A422C.013	NB	1742	4-22	112
A422C.014	NB	1748	4-22	112	A422C.015	NB	1755	4-22	112
A422C.016	NB	1803	4-22	112	A422C.017	NB	1810	4-22	112
A422C.018	NB	1817	4-22	112	A422C.019	NB	1825	4-22	112
A422C.020	NB	1837	4-22	112	A422D.001	NB	1911	4-22	112
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A422D.004	NB	1950	4-22	112	A422D.005	NB	1957	4-22	112
A422D.006	NB	2004	4-22	112	A422D.007	NB	2011	4-22	112
A422D.008	NB	2018	4-22	112	A422D.009	NB	2025	4-22	112
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A422D.012	NB	2046	4-22	112	A422D.013	NB	2052	4-22	112
A422D.014	NB	2059	4-22	112	A422D.015	NB	2105	4-22	112
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A422E.005	MC	2231	4-22	112	A422E.006	MC	2324	4-22	112
A422E.007	MC	2332	4-22	112	A422F.001	MC	2353	4-22	112
A422F.002	MC	0005	4-23	113	A422F.003	MC	0012	4-23	113
A422F.004	MC	0020	4-23	113	A422F.005	MC	0031	4-23	113
A422F.006	MC	0112	4-23	113	A422G.001	MC	0145	4-23	113
A422G.002	MC	0200	4-23	113	A422G.003	MC	0207	4-23	113
A422G.004	MC	0214	4-23	113	A422G.005	MC	0221	4-23	113
A422G.006	MC	0228	4-23	113	A422G.007	MC	0235	4-23	113
A422G.008	MC	0243	4-23	113	A422G.009	MC	0309	4-23	113
A422G.010	MC	0316	4-23	113	A422G.011	MC	0322	4-23	113
A422G.012	MC	0328	4-23	113	A422G.013	MC	0336	4-23	113
A422G.014	MC	0343	4-23	113	A422H.001	MC	0428	4-23	113
A422H.002	MC	0450	4-23	113	A422H.003	MC	0516	4-23	113
A422H.004	MC	0528	4-23	113	A422H.005	MC	0553	4-23	113
A422H.006	MC	0602	4-23	113	A422I.001	MC	0622	4-23	113
A422I.002	MC	0637	4-23	113	A422I.003	MC	0704	4-23	113
A422I.004	MC	0711	4-23	113	A422I.005	MC	0720	4-23	113
A422I.006	MC	0748	4-23	113	A422I.007	MC	0758	4-23	113
A422J.001	MC	0843	4-23	113	A422J.002	MC	0911	4-23	113
A422J.003	MC	0938	4-23	113	A422J.004	NB	0958	4-23	113
A422J.005	NB	1013	4-23	113	A422J.006	NB	1021	4-23	113
A422J.007	NB	1030	4-23	113	A423A.001	NB	2240	4-23	113
A423A.002	NB	2247	4-23	113	A423A.003	NB	2342	4-23	113
A423A.004	NB	0016	4-24	114	A423A.005	NB	0022	4-24	114
A423A.006	NB	0028	4-24	114	A423A.007	MC	0136	4-24	114
A423A.008	MC	0151	4-24	114	A423B.001	MC	0240	4-24	114
A423B.002	MC	0303	4-24	114	A423B.003	MC	0337	4-24	114



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A423C.005	MC	0610	4-24	114	A423C.006	MC	0625	4-24	114
A423C.007	MC	0637	4-24	114	A423D.001	MC	0703	4-24	114
A423D.002	MC	0727	4-24	114	A423D.003	MC	0753	4-24	114
A423E.001	MC	0845	4-24	114	A423E.002	MC	0847	4-24	114
A423E.003	NB	0900	4-24	114	A424A.001	NB	1829	4-24	114
A424A.002	NB	1845	4-24	114	A424A.003	NB	1901	4-24	114
A424A.004	NB	1916	4-24	114	A424A.005	NB	1938	4-24	114
A424A.006	NB	1956	4-24	114	A424A.007	NB	2015	4-24	114
A424B.001	MC	2105	4-24	114	A424B.002	MC	2122	4-24	114
A424B.003	MC	2140	4-24	114	A424B.004	MC	2155	4-24	114
A424B.005	MC	2226	4-24	114	A424B.006	MC	2243	4-24	114
A424C.001	MC	2301	4-24	114	A424C.002	MC	2327	4-24	114
A424C.003	MC	2354	4-24	114	A424D.001	MC	0024	4-25	115
A424D.002	MC	0052	4-25	115	A424D.003	MC	0059	4-25	115
A424D.004	MC	0128	4-25	115	A424E.001	MC	0155	4-25	115
A424E.002	MC	0207	4-25	115	A424E.003	MC	0231	4-25	115
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A424F.002	MC	0349	4-25	115	A424F.003	MC	0357	4-25	115
A424F.004	MC	0413	4-25	115	A424F.005	MC	0438	4-25	115
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A425A.002	NB	1748	4-25	115	A425A.003	NB	1807	4-25	115
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A425B.007	NB	2133	4-25	115	A425B.008	NB	2149	4-25	115
A425B.009	NB	2205	4-25	115	A425C.001	NB	0001	4-26	116
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A425C.004	NB	0101	4-26	116	A425C.005	NB	0118	4-26	116
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A425D.001	NB	0222	4-26	116	A425D.002	NB	0238	4-26	116
A425D.003	NB	0255	4-26	116	A425D.004	NB	0312	4-26	116
A425D.005	NB	0328	4-26	116	A425D.006	NB	0345	4-26	116
A425D.007	NB	0422	4-26	116	A425E.001	NB	0441	4-26	116
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A425F.007	NB	0825	4-26	116	A425G.001	NB	0848	4-26	116
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A425G.004	NB	0935	4-26	116	A425G.005	NB	0954	4-26	116
A425G.006	NB	1011	4-26	116	A425G.007	NB	1027	4-26	116
A426A.001	NB	1703	4-26	116	A426A.002	NB	1721	4-26	116
A426A.003	NB	1736	4-26	116	A426A.004	NB	1754	4-26	116
A426A.005	NB	1810	4-26	116	A426A.006	NB	1827	4-26	116

## F. REFERENCES

- Caldwell, D. R., T. M. Dillon, and J. N. Moum (1986): The Rapid-Sampling Vertical Profiler: An Evaluation. J. of Atmos. and Oceanic. Tech. 2(4), 615-625.
- Head, M. J. (1983): The use of miniature four-electrode conductivity probes for high resolution measurement of turbulent density or temperature variations in salt-stratified water flows. PhD thesis, University of California, San Diego, 211 pp.
- Osborn, T. R. and W. R. Crawford (1980): An airfoil probe for measuring turbulent velocity fluctuations in water. in Air-Sea Interactions, pp 369-386, Dobson, Hasse, and Davis, Ed., Plenum Press, 801pp.
- Shay, T. J. and M. C. Gregg (1986): Convectively driven turbulent mixing in the upper ocean. J. Phys. Oceanogr. 16(6), 1777-1798.

OBSERVATIONS:

A. TEMPERATURE, SALINITY, AND SIGMA-T

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A323A.001

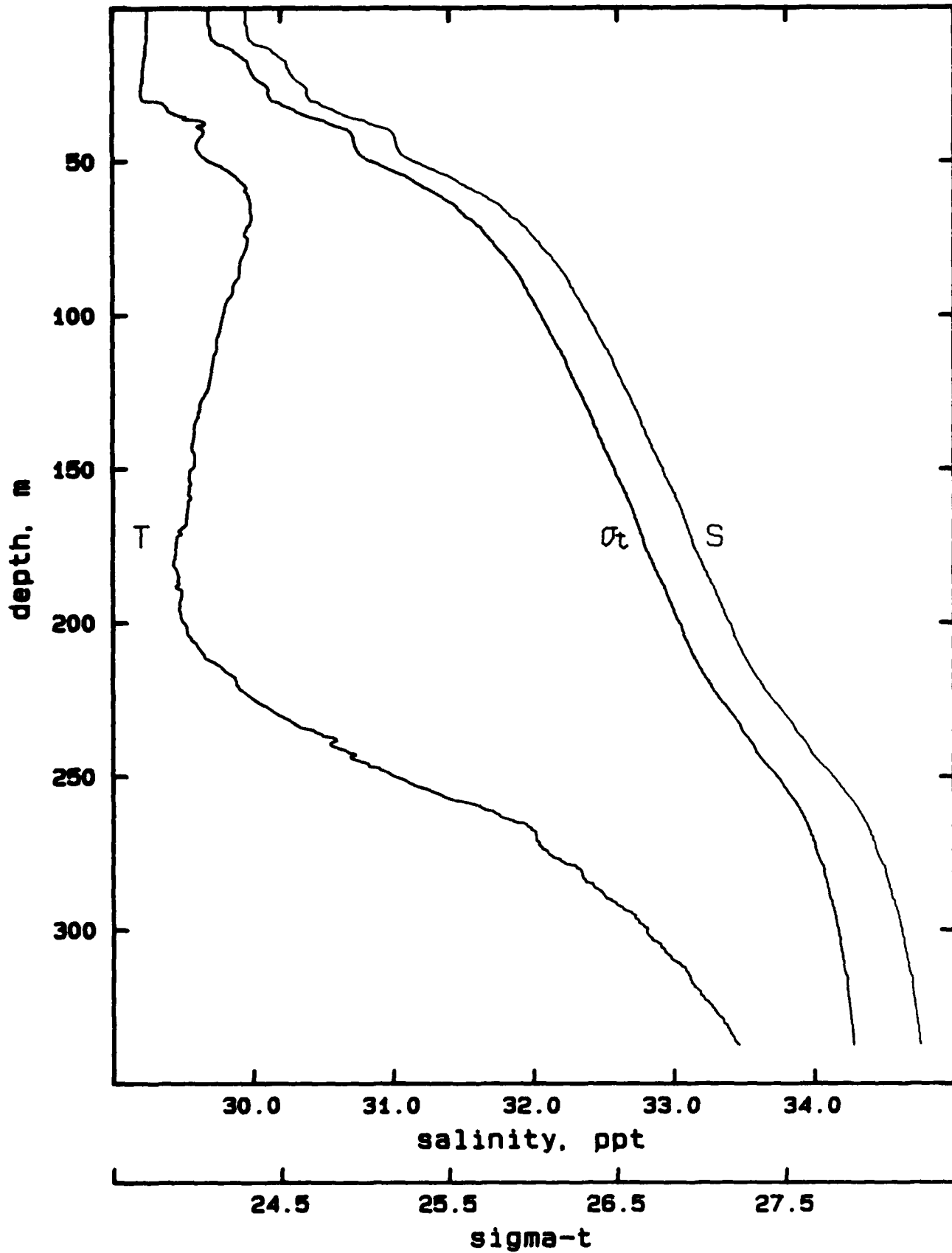
temperature

-1.25

-0.75

-0.25

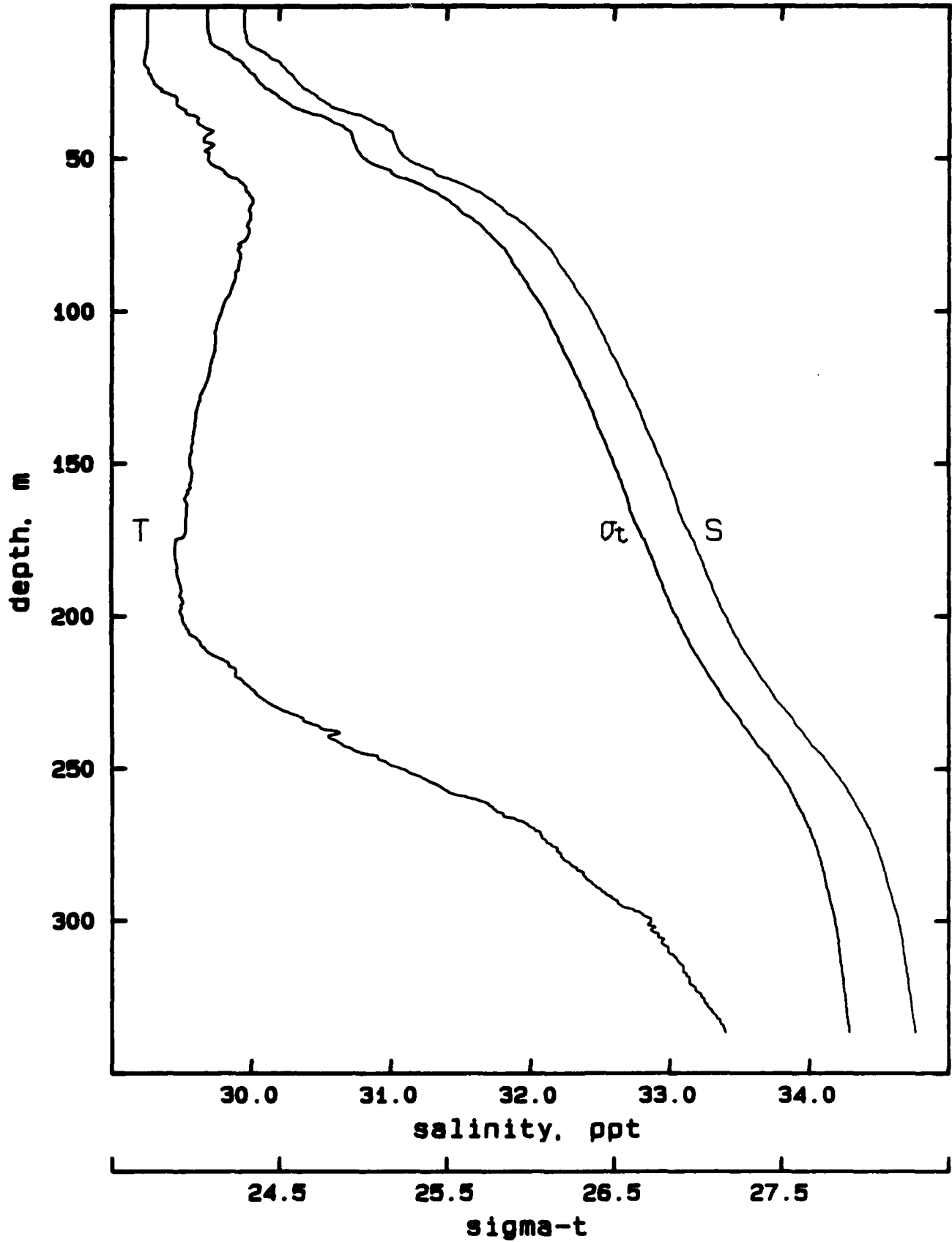
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A323B.001

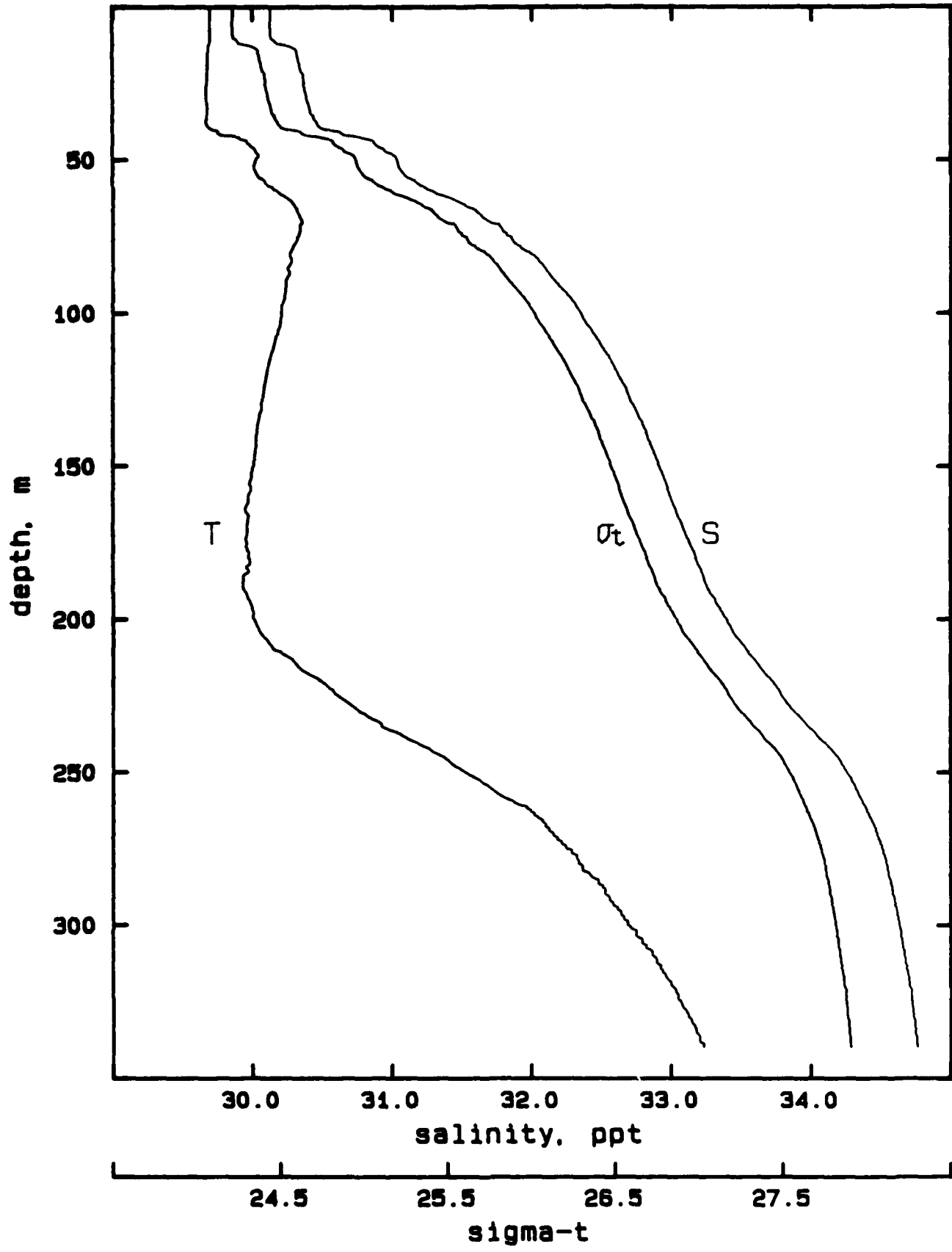
temperature

-1.25      -0.75      -0.25      0.25



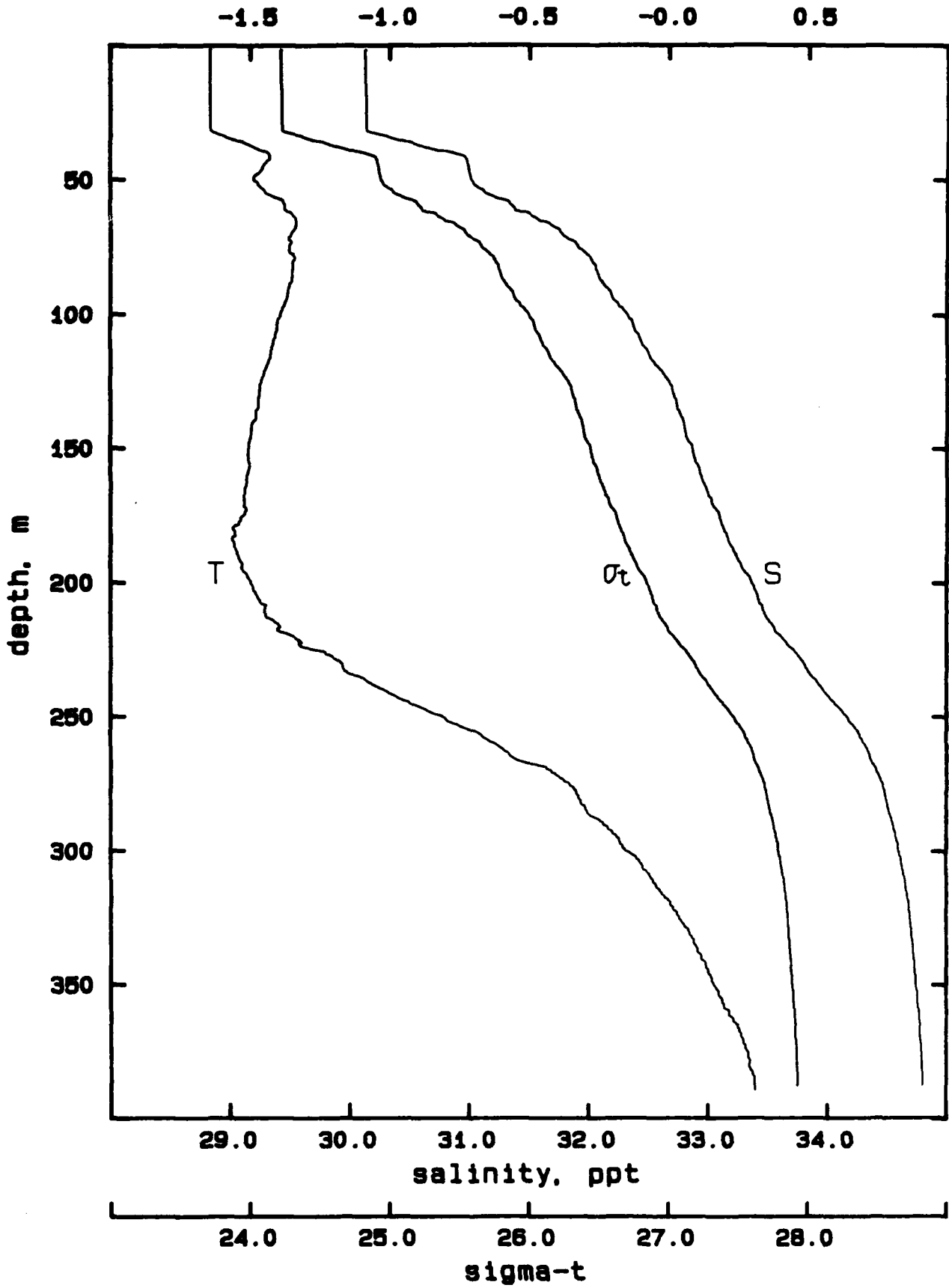
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A324B.005  
temperature

-1.5      -1.0      -0.5      -0.0      0.5



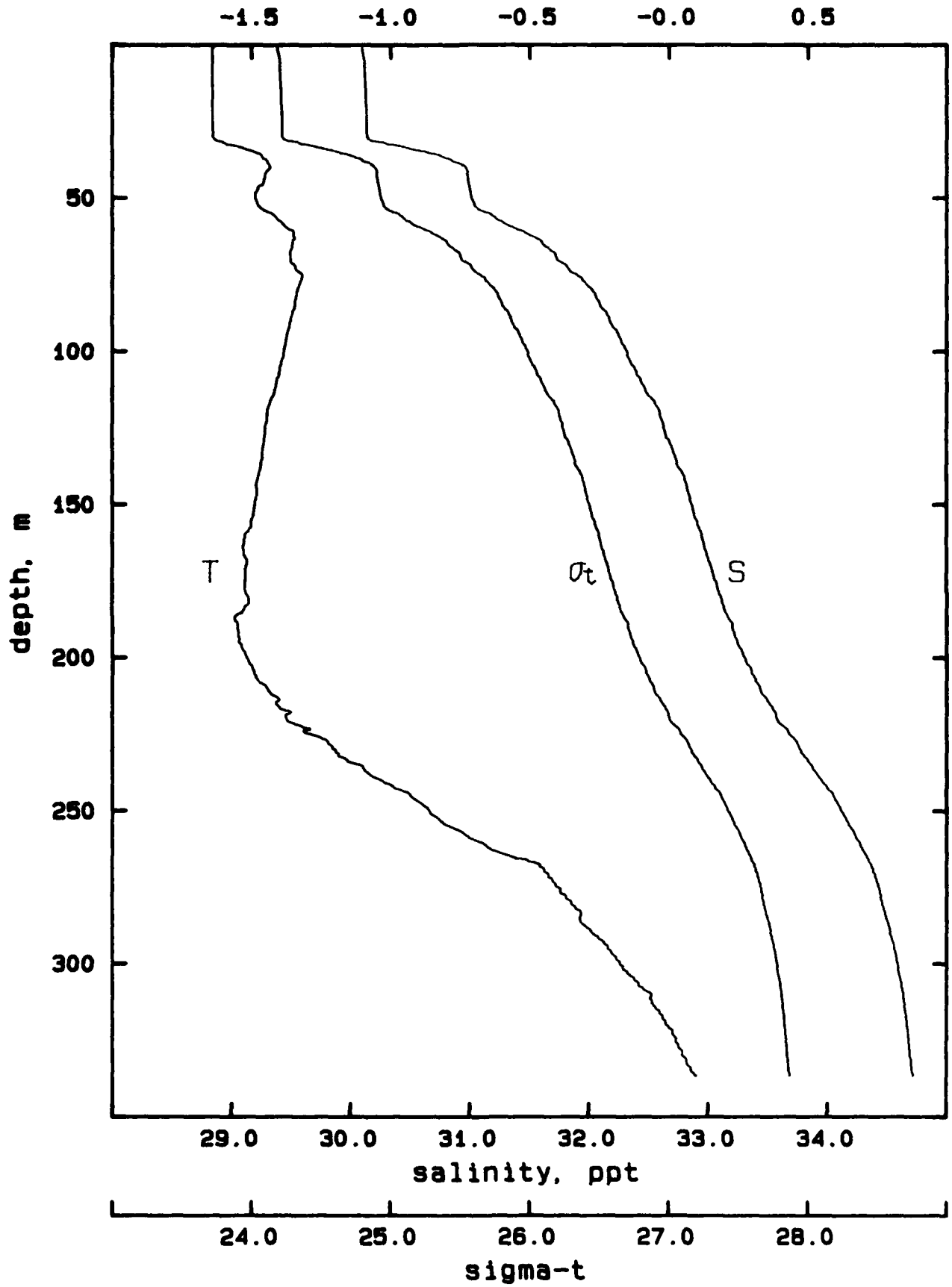
A326A.001

temperature



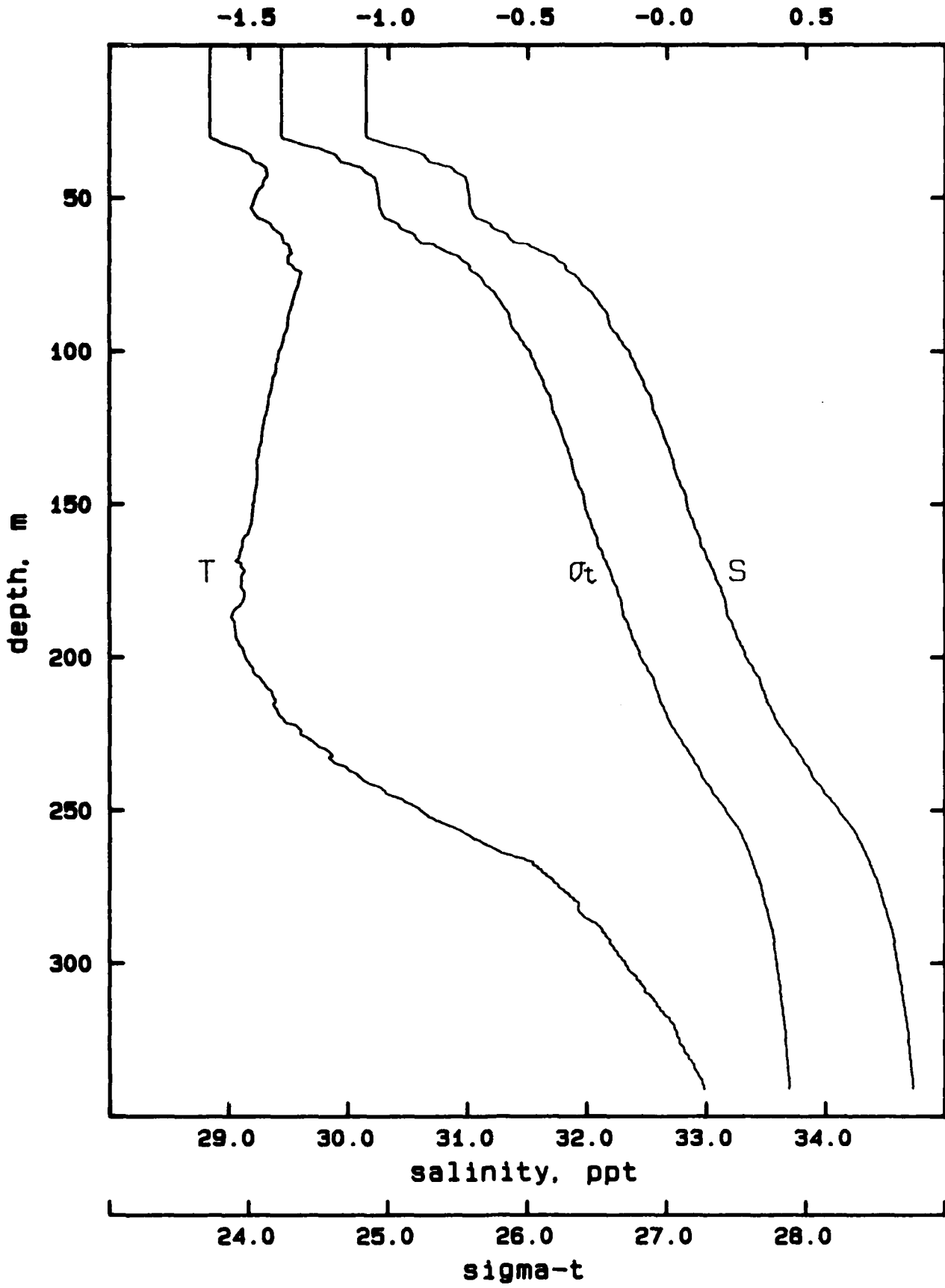
Vertical text on the right edge of the page, possibly a scan artifact or reference number.

A326B.001  
temperature





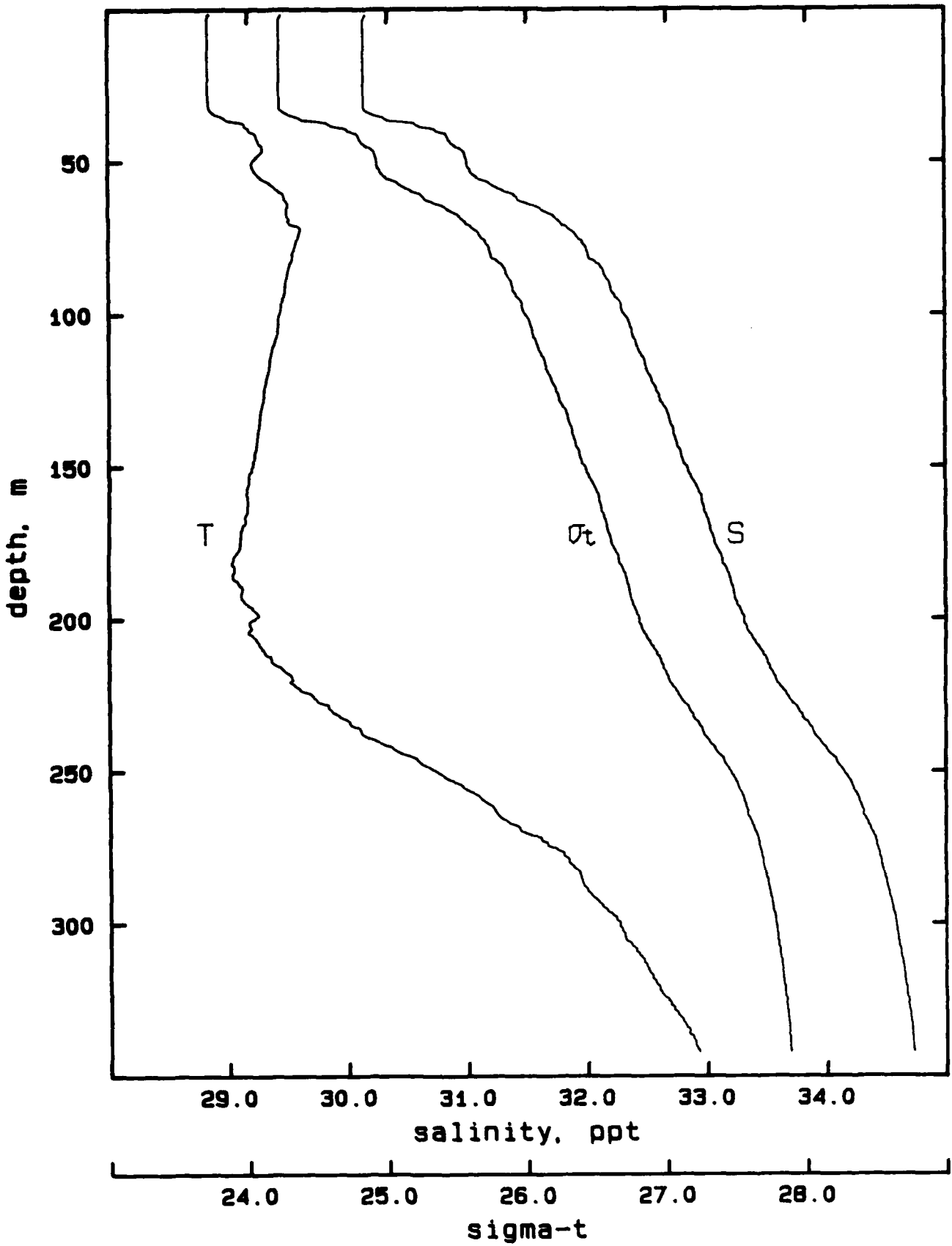
A326C.001  
temperature



A327A.001

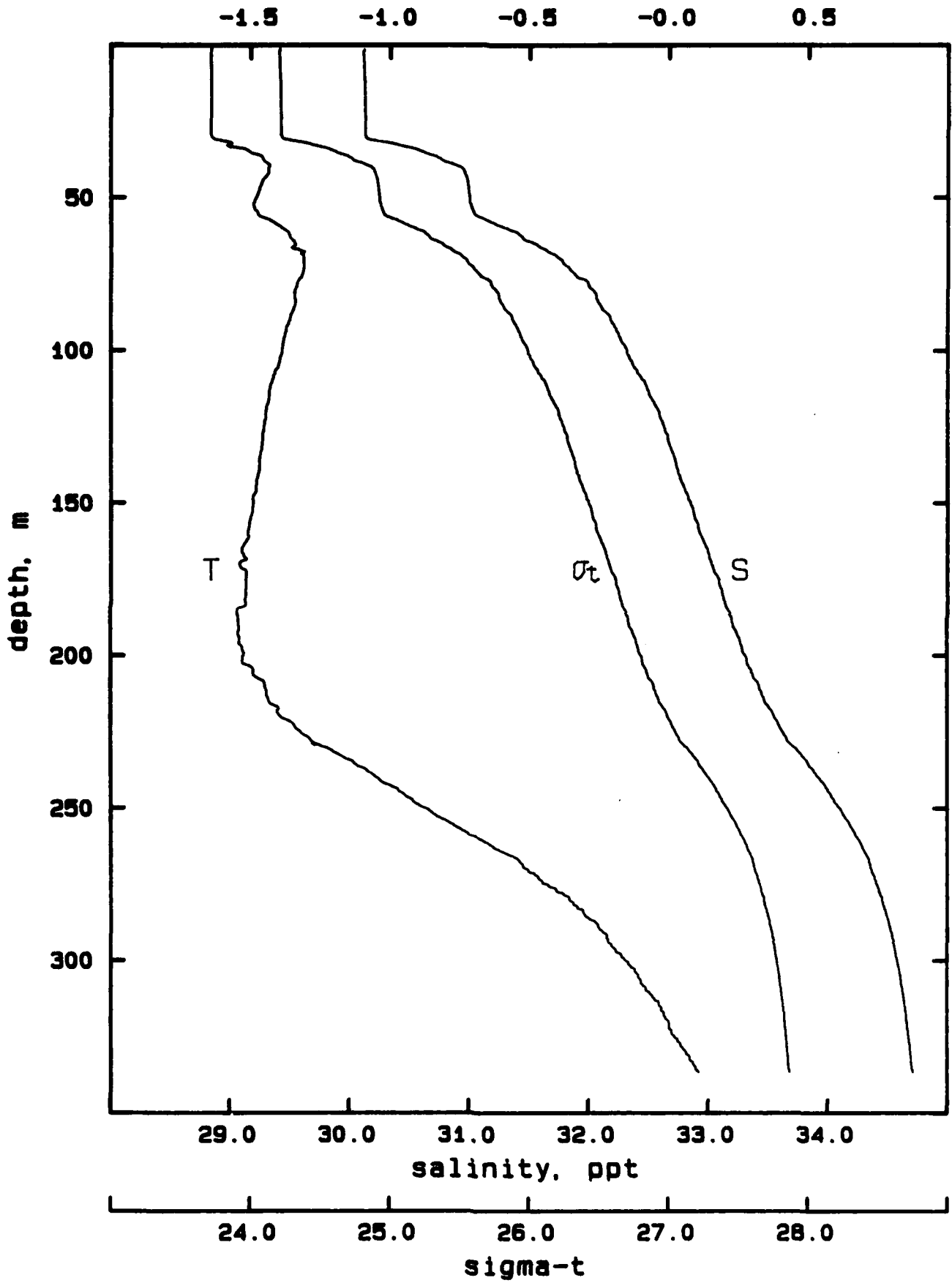
temperature

-1.5      -1.0      -0.5      -0.0      0.5



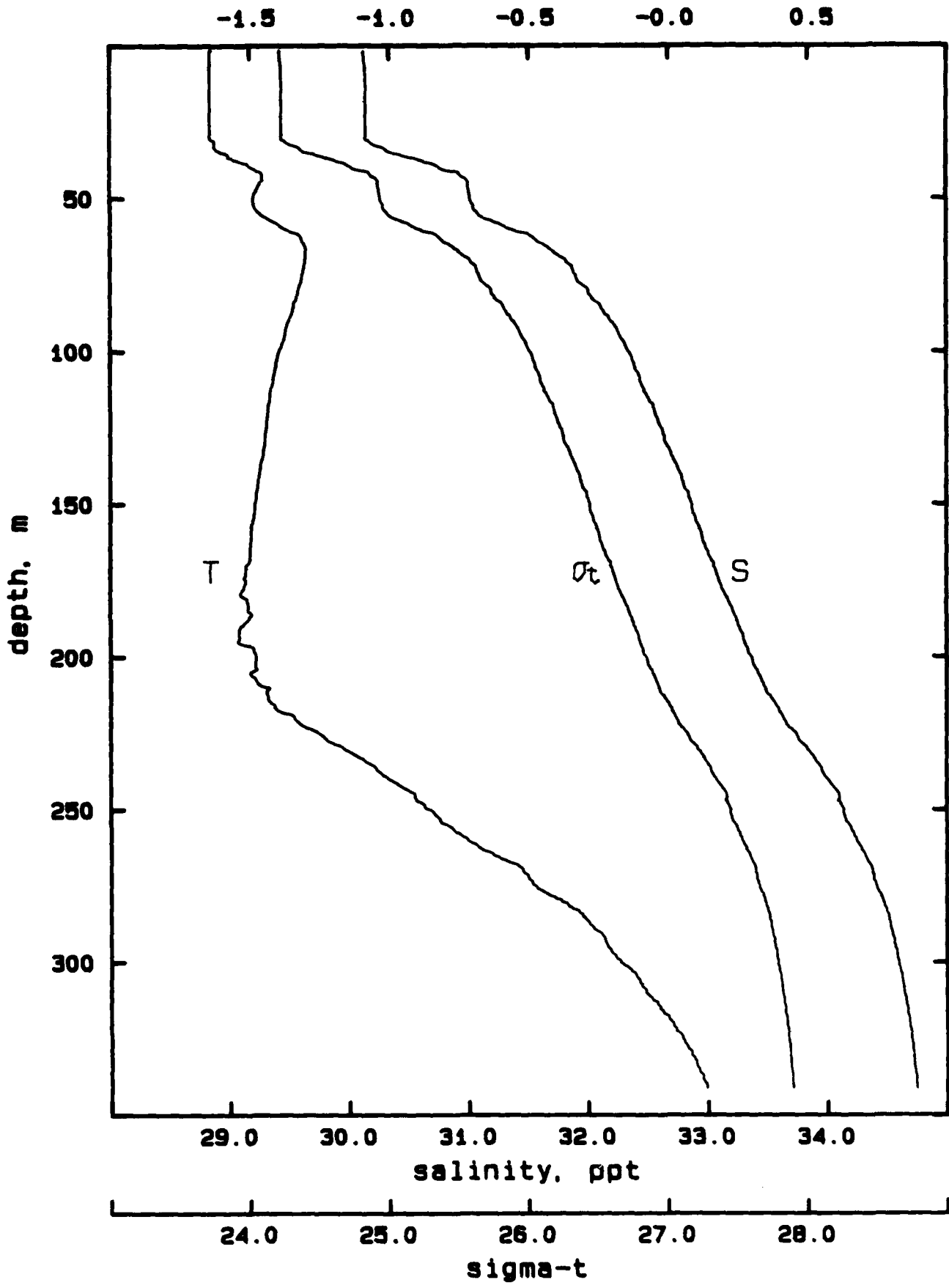
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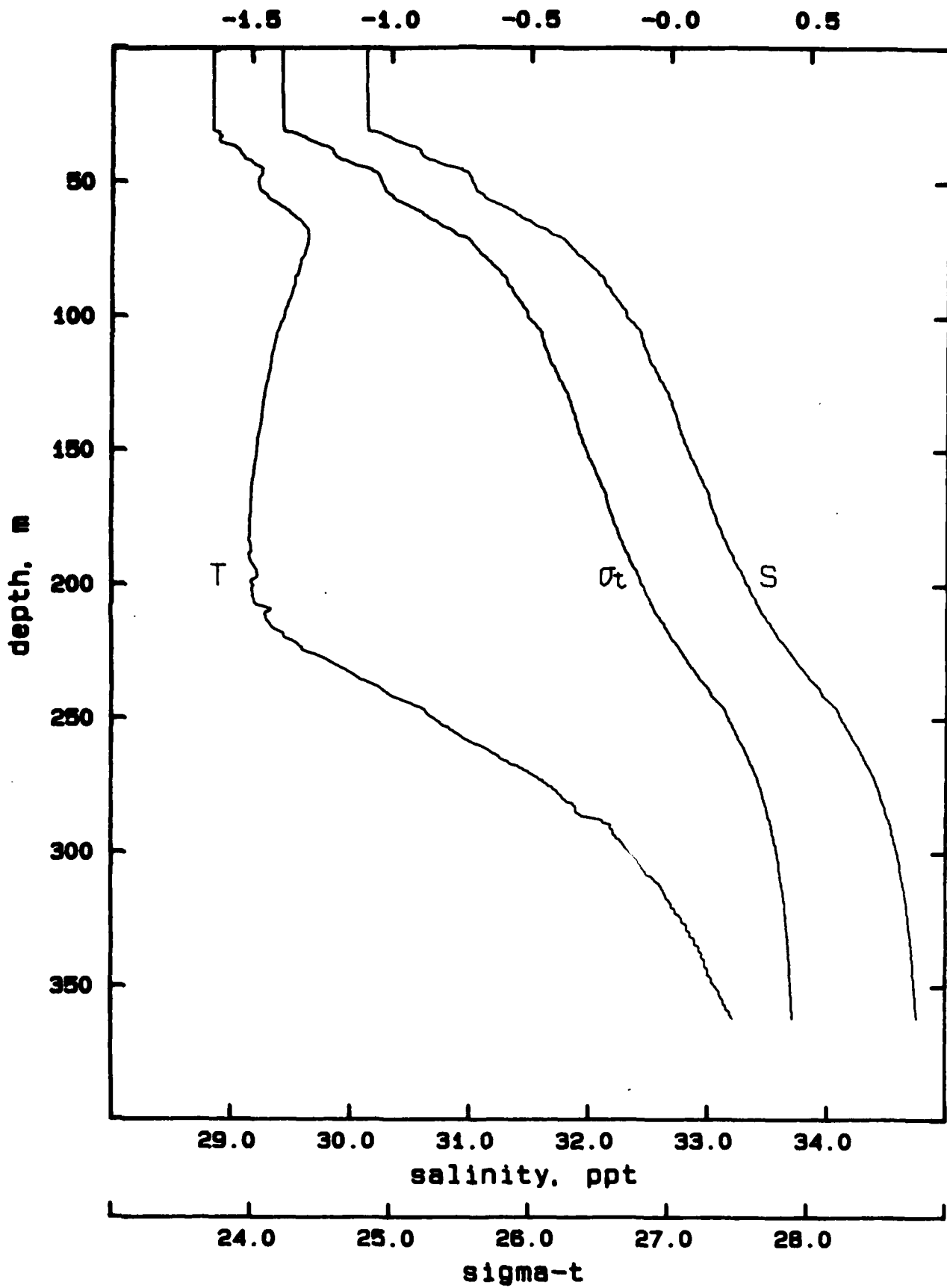


A328A.001

temperature

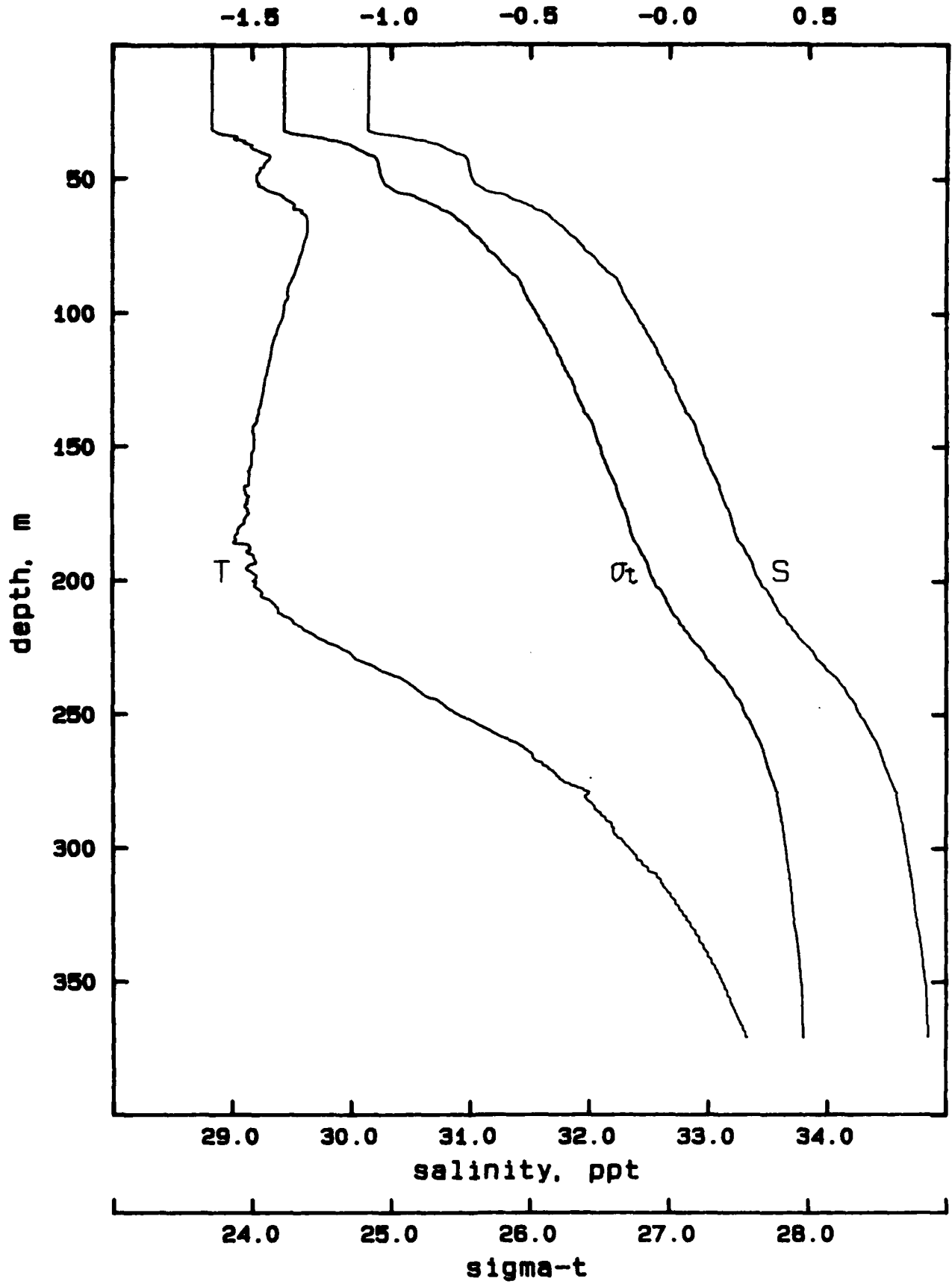


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temperature

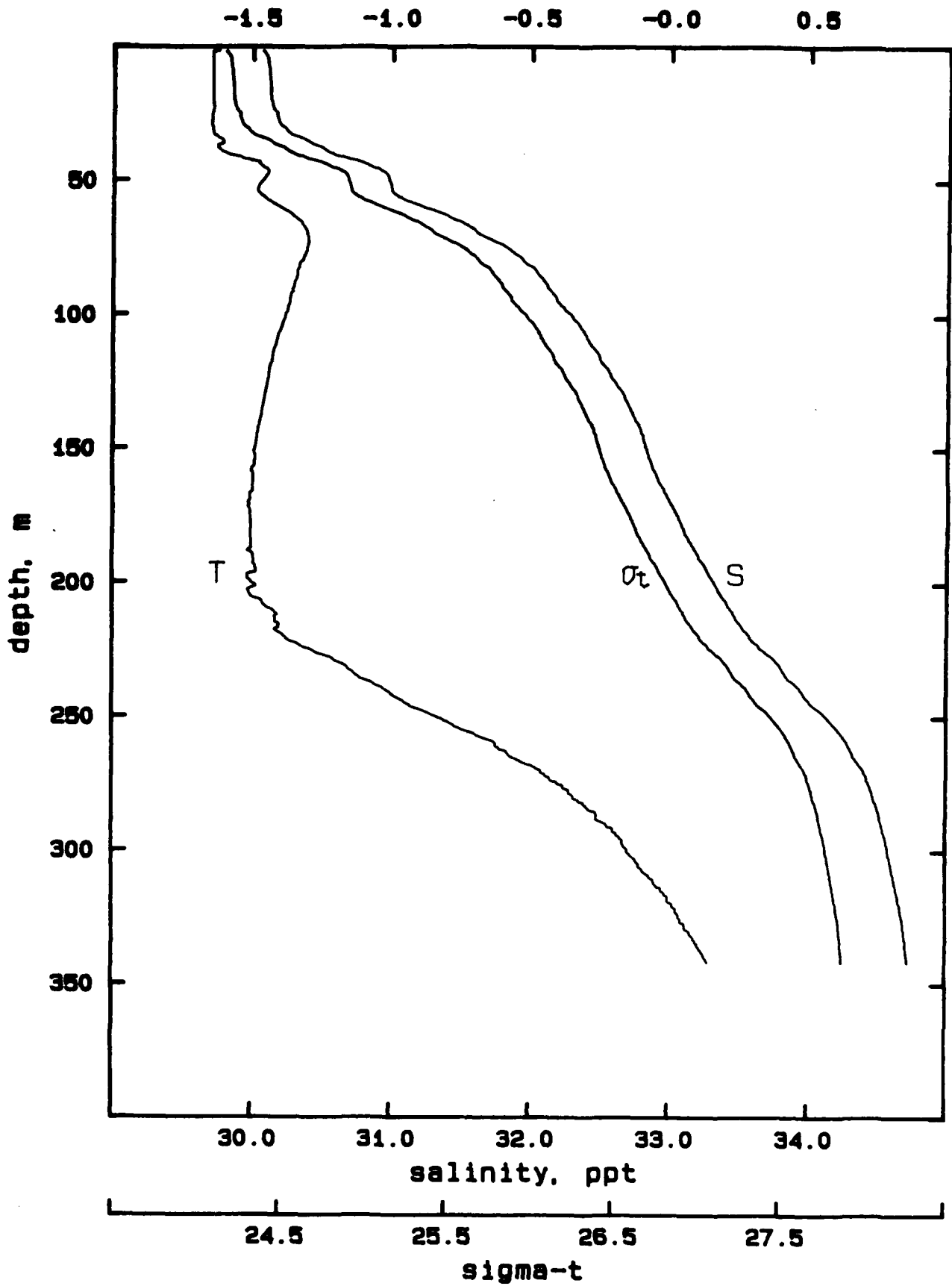


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A330C.001  
temperature



A401A.001  
temperature



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A402A.001

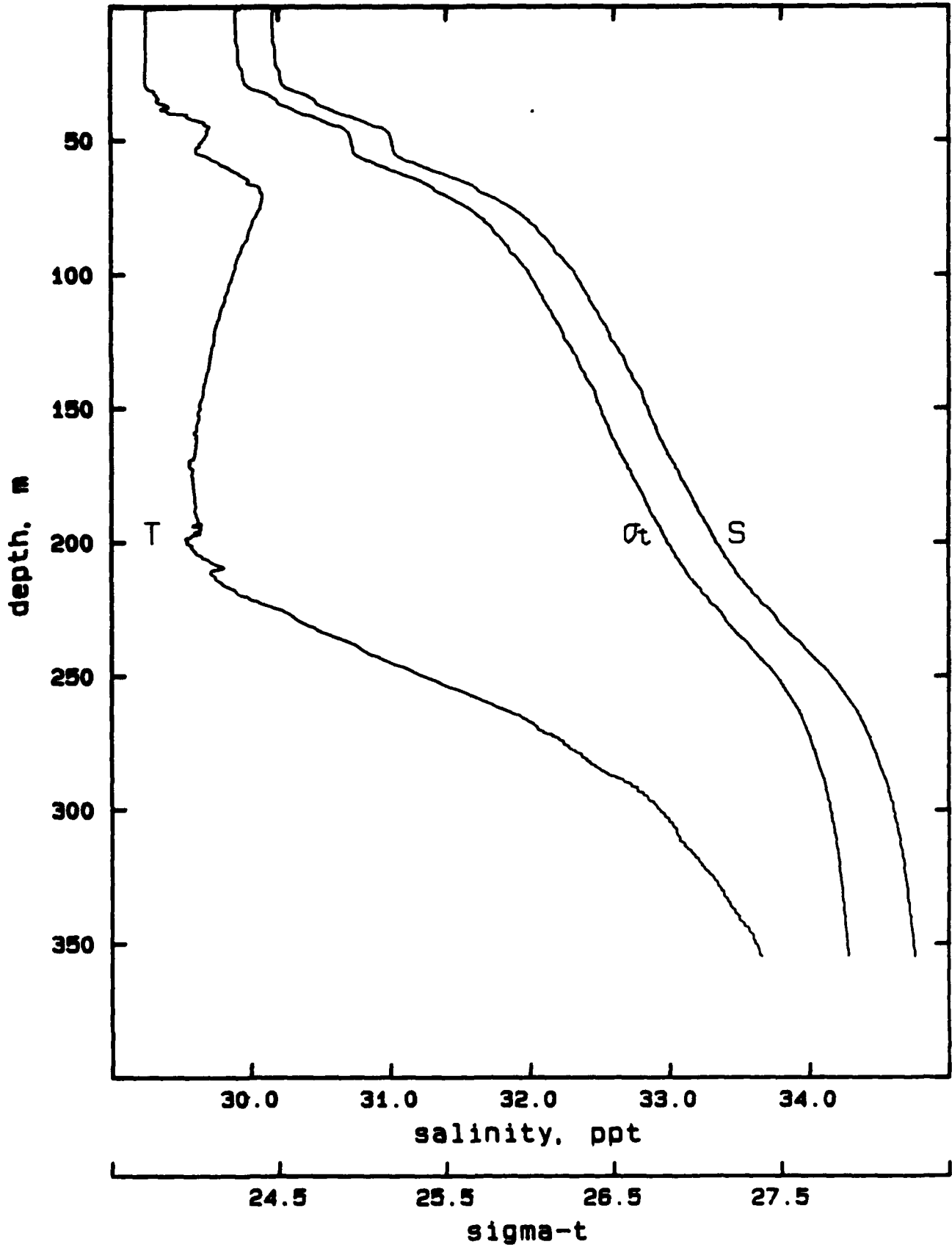
temperature

-1.25

-0.75

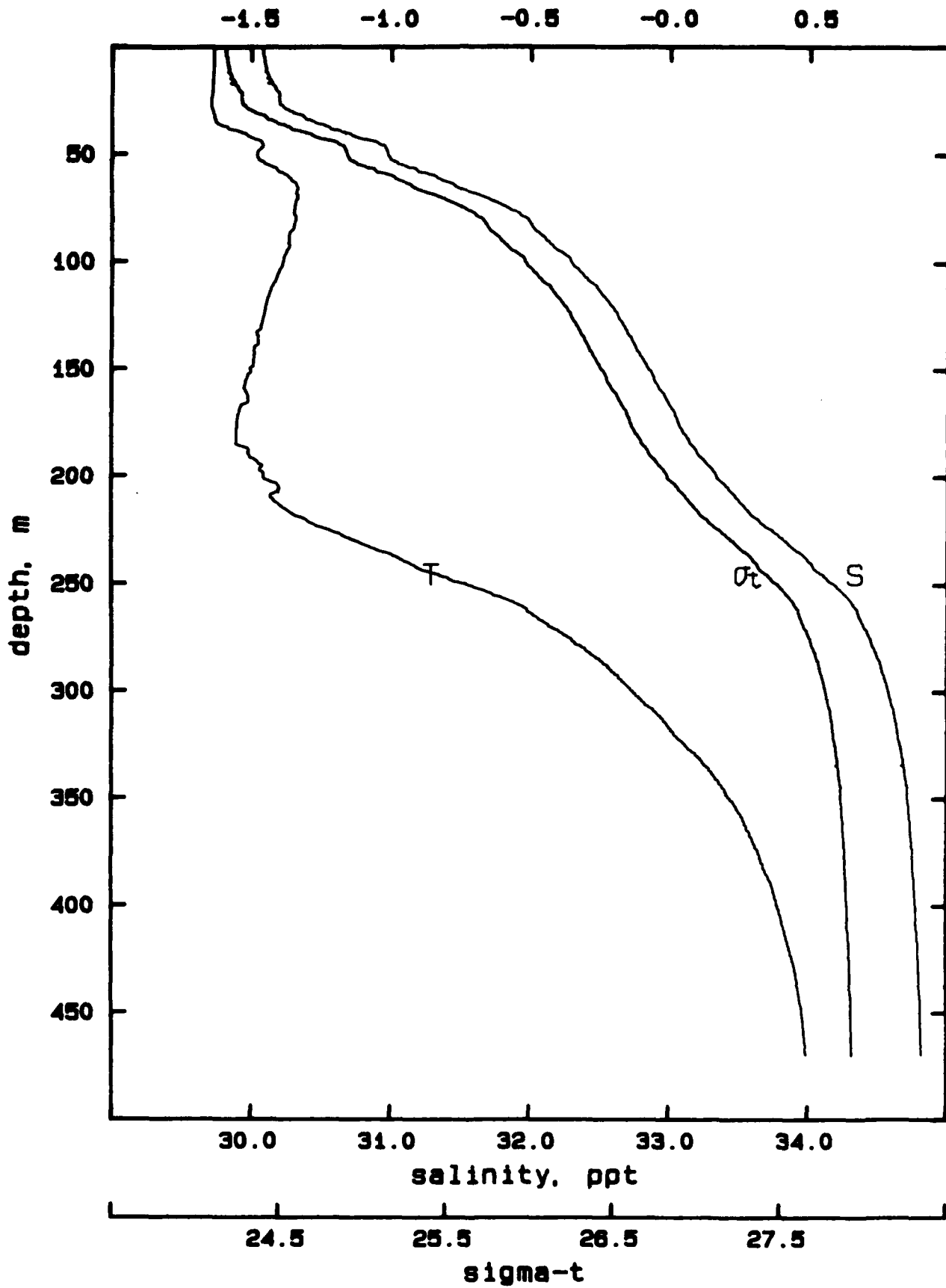
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0.25



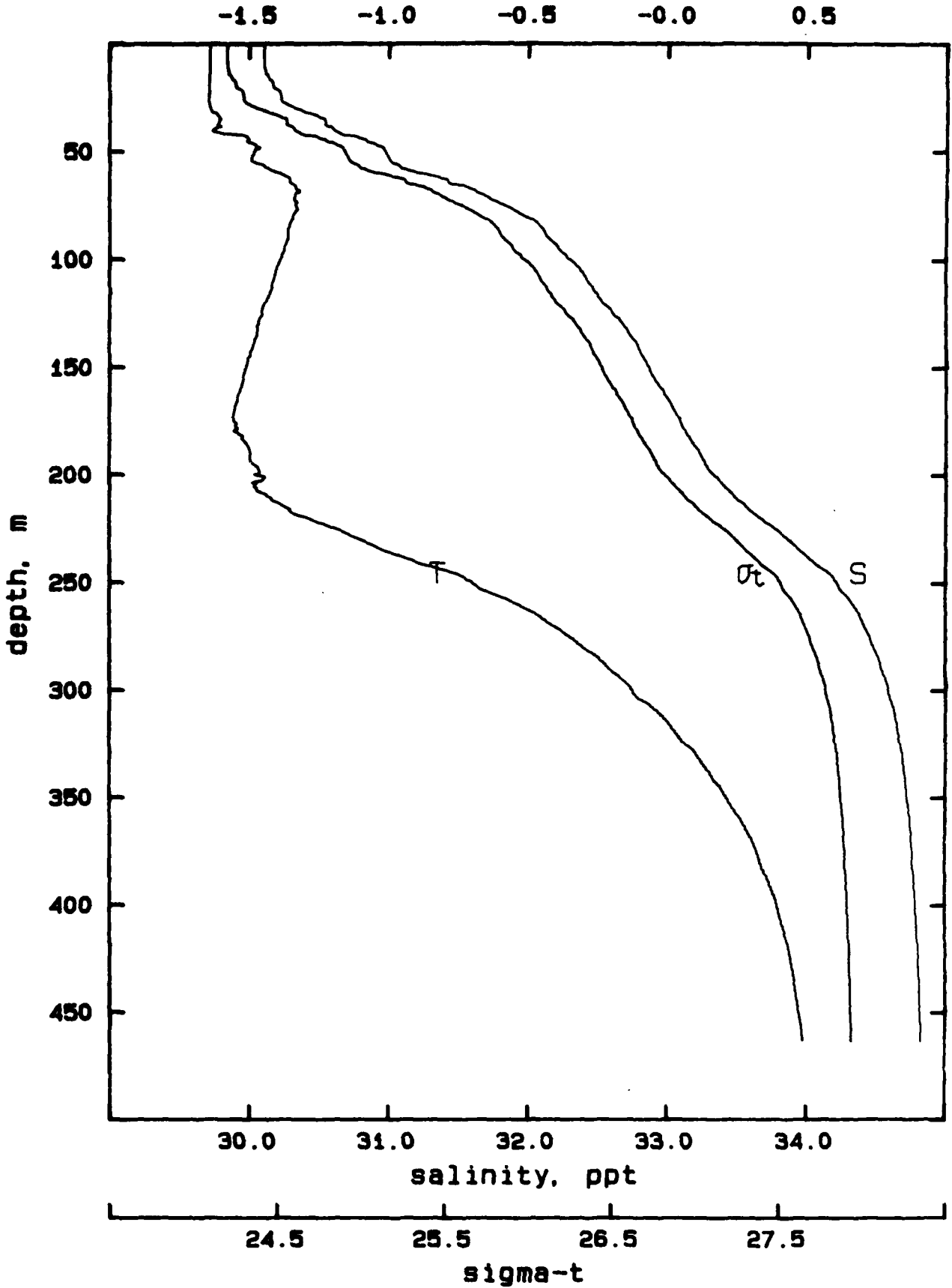


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temperature

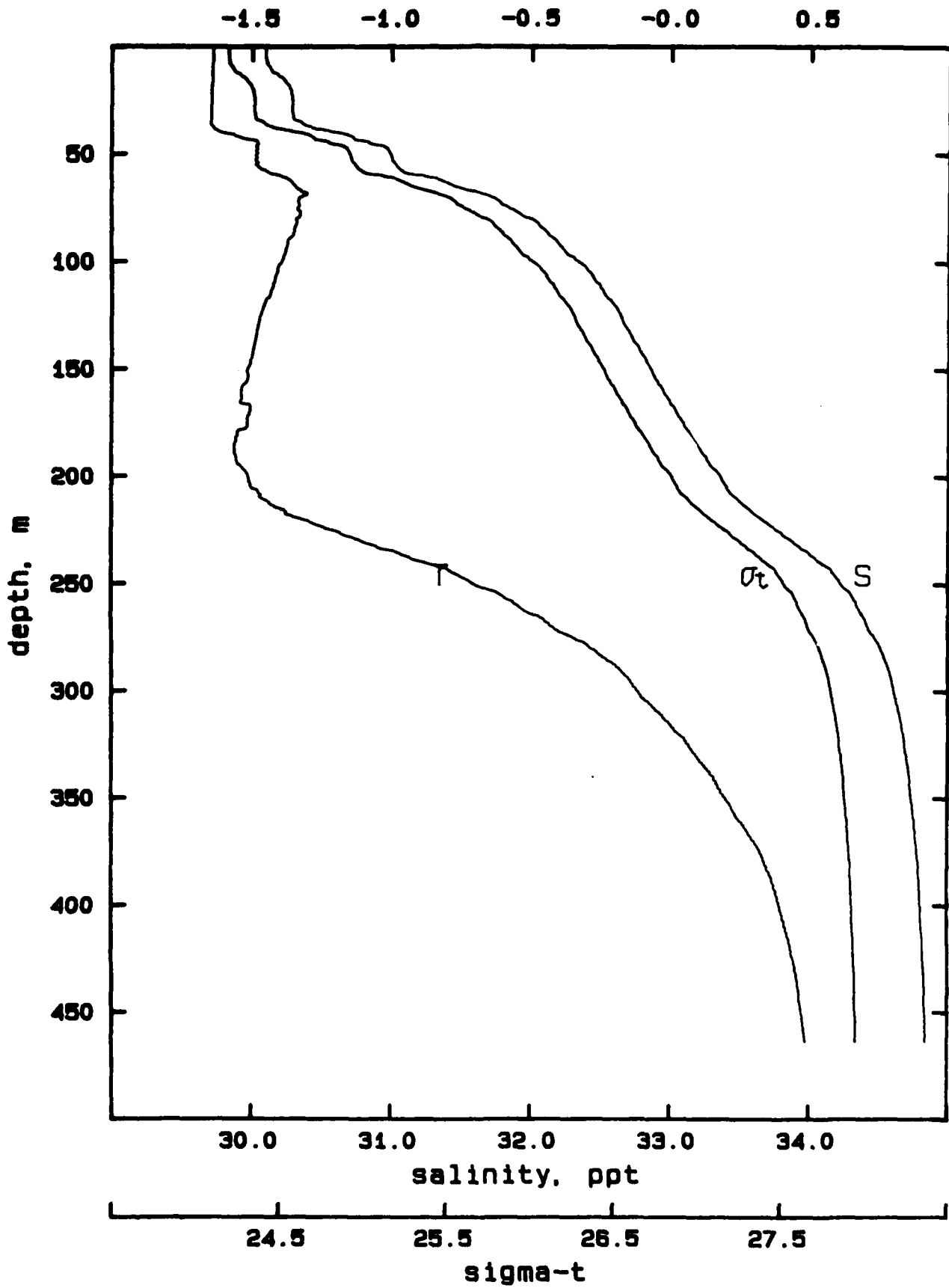


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A417B.001  
temperature



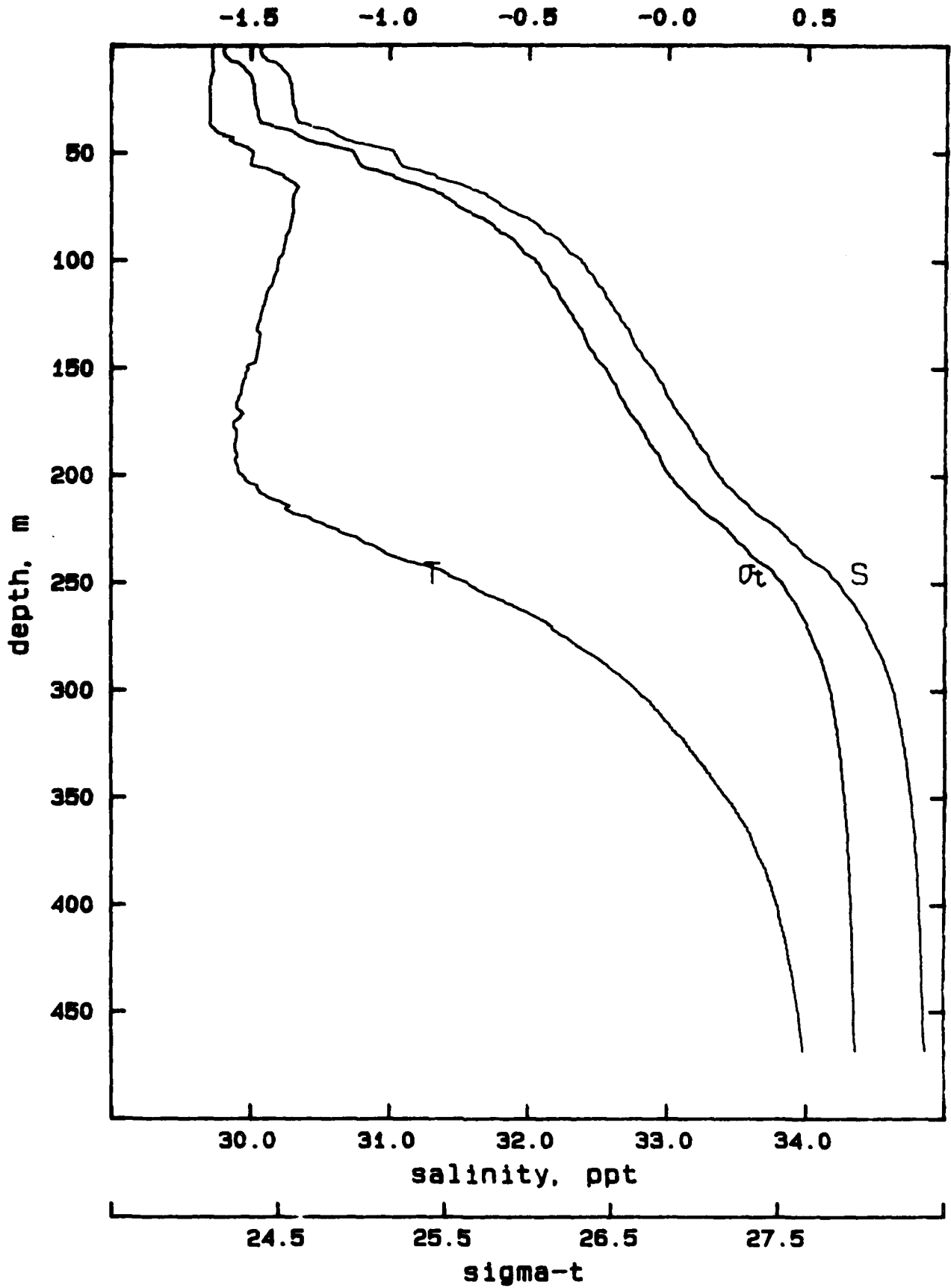
A417C.001  
temperature



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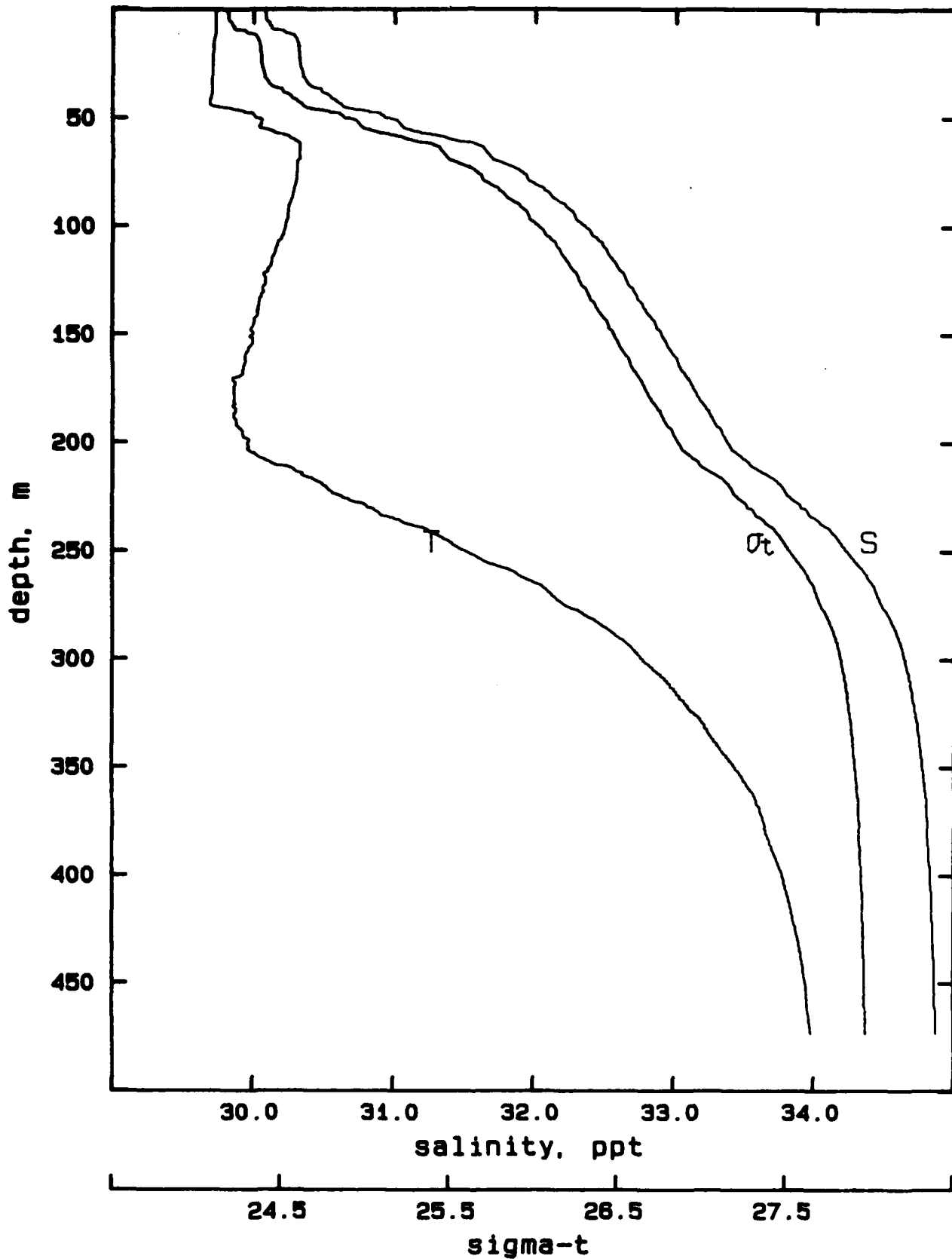
A417D.001

temperature



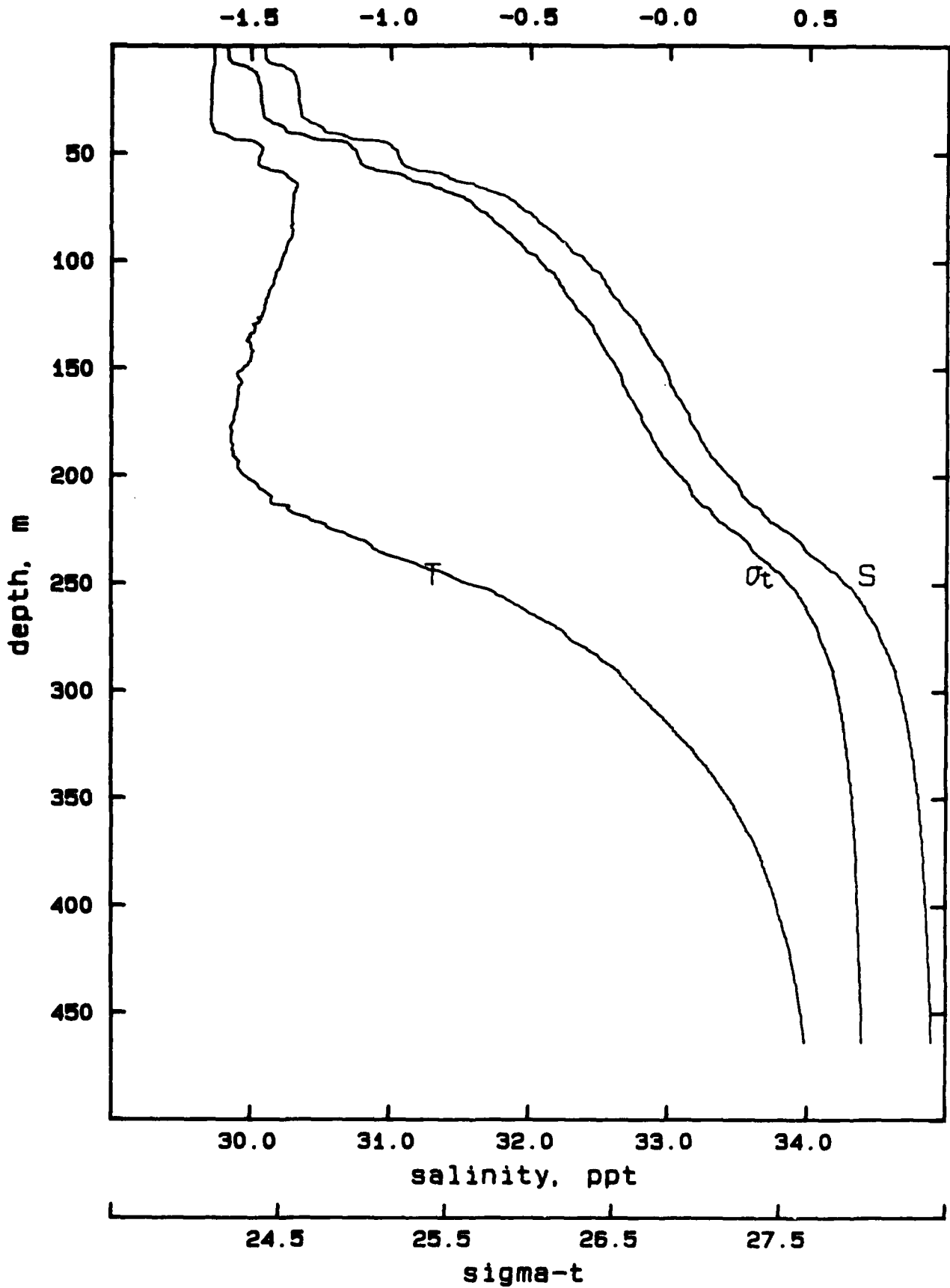
A417E.001  
temperature

-1.5     -1.0     -0.5     -0.0     0.5



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A417F.001  
temperature



temperature

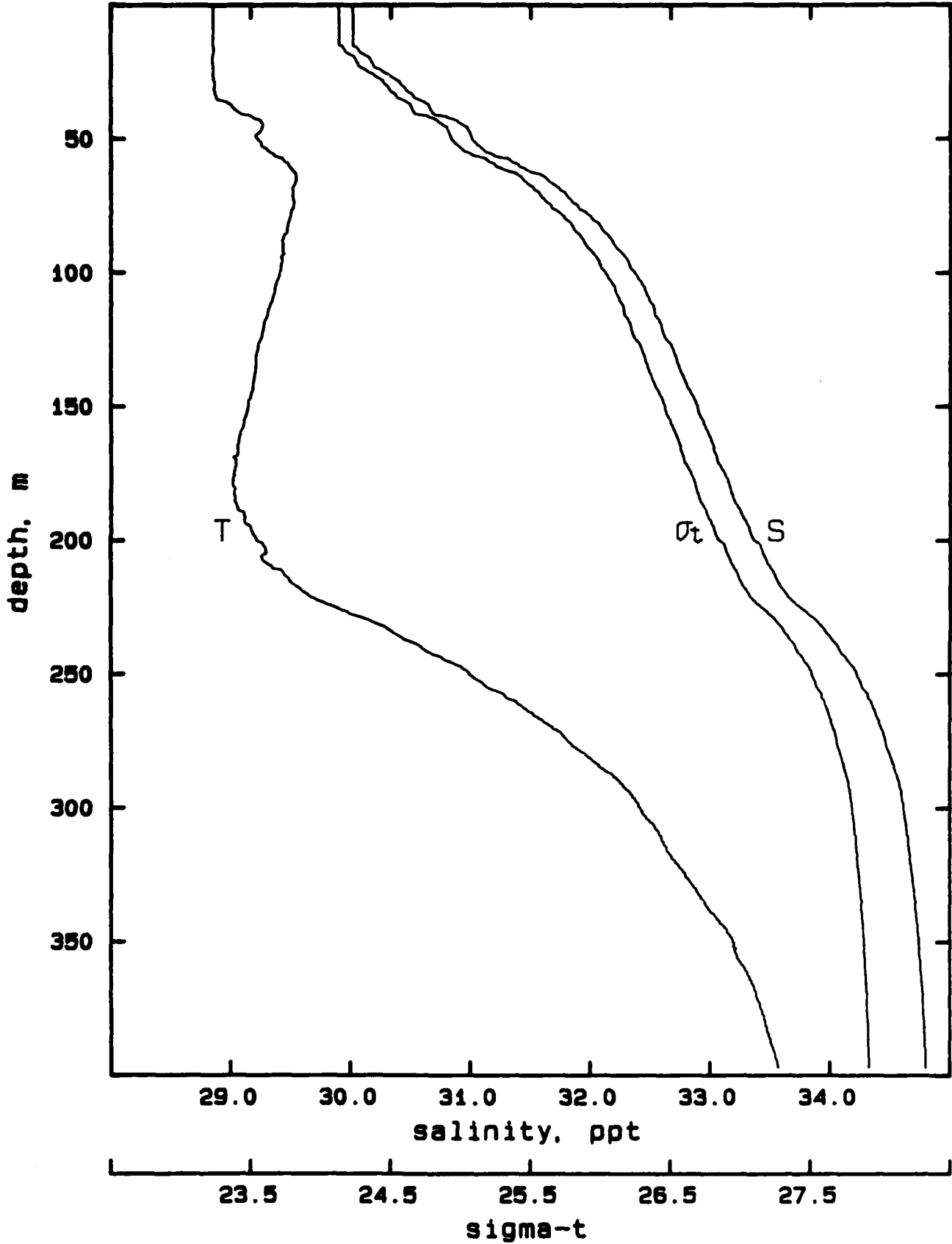
-1.5

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48

A418B.001

temperature

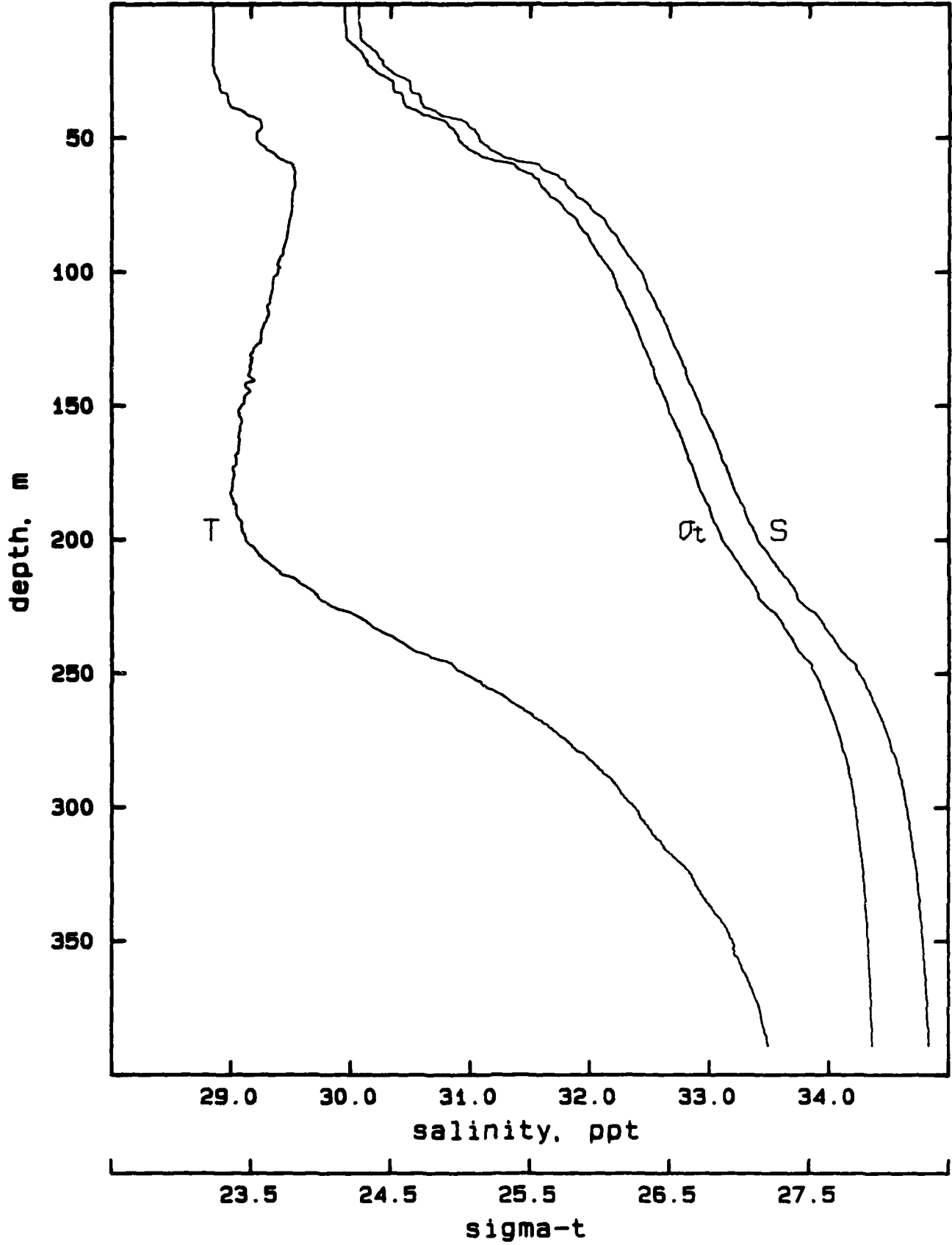
-1.5

-1.0

-0.5

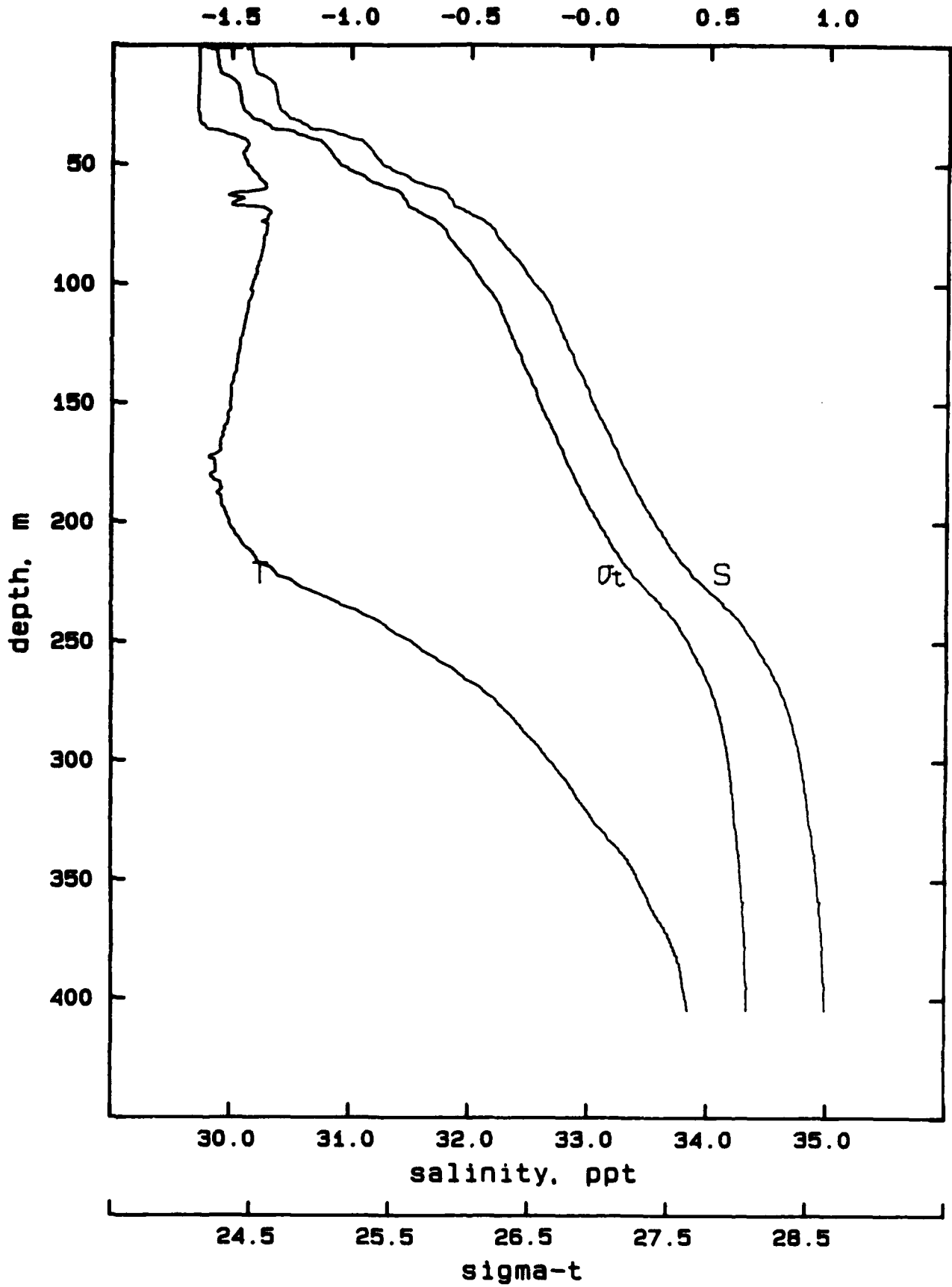
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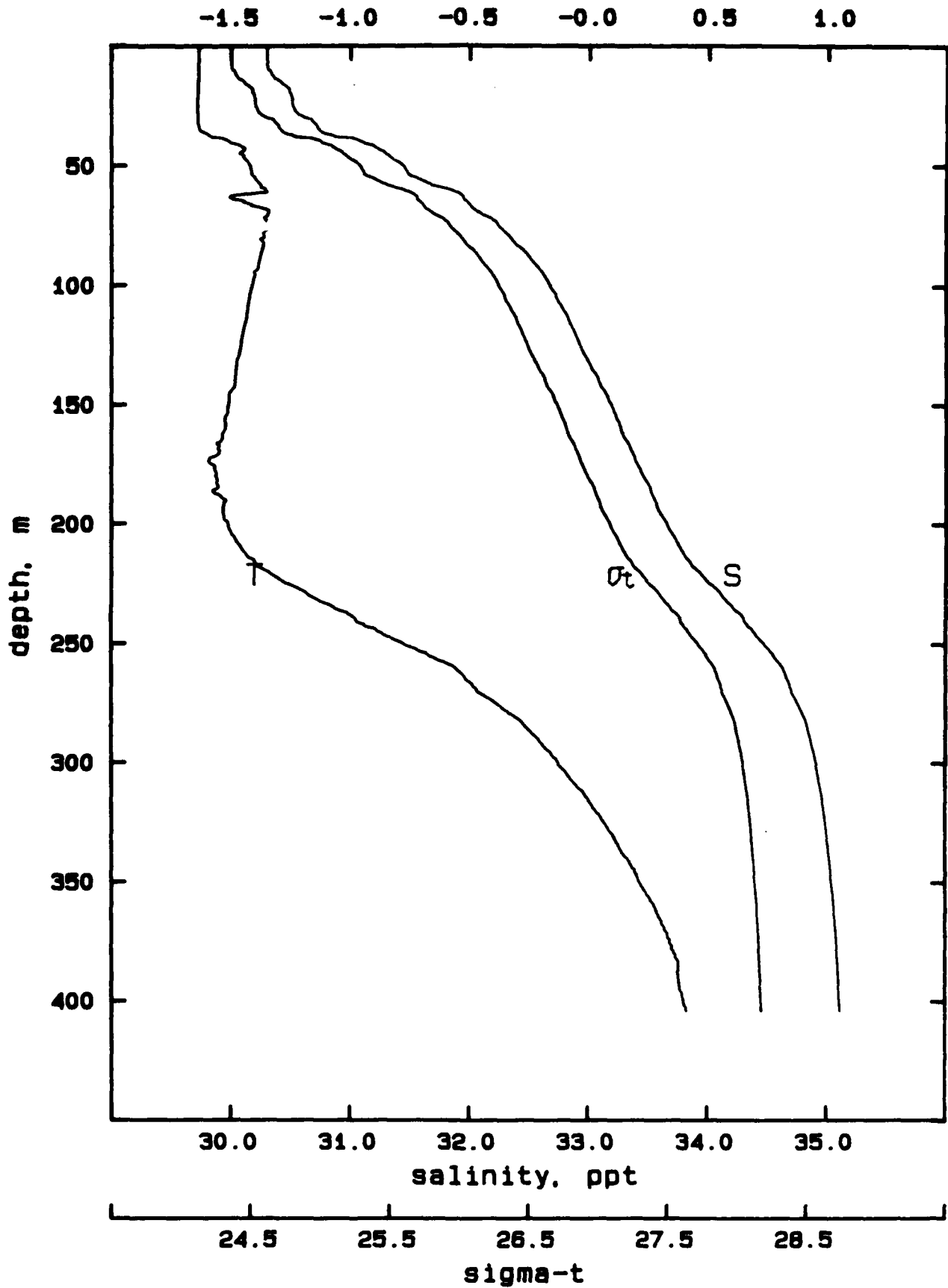




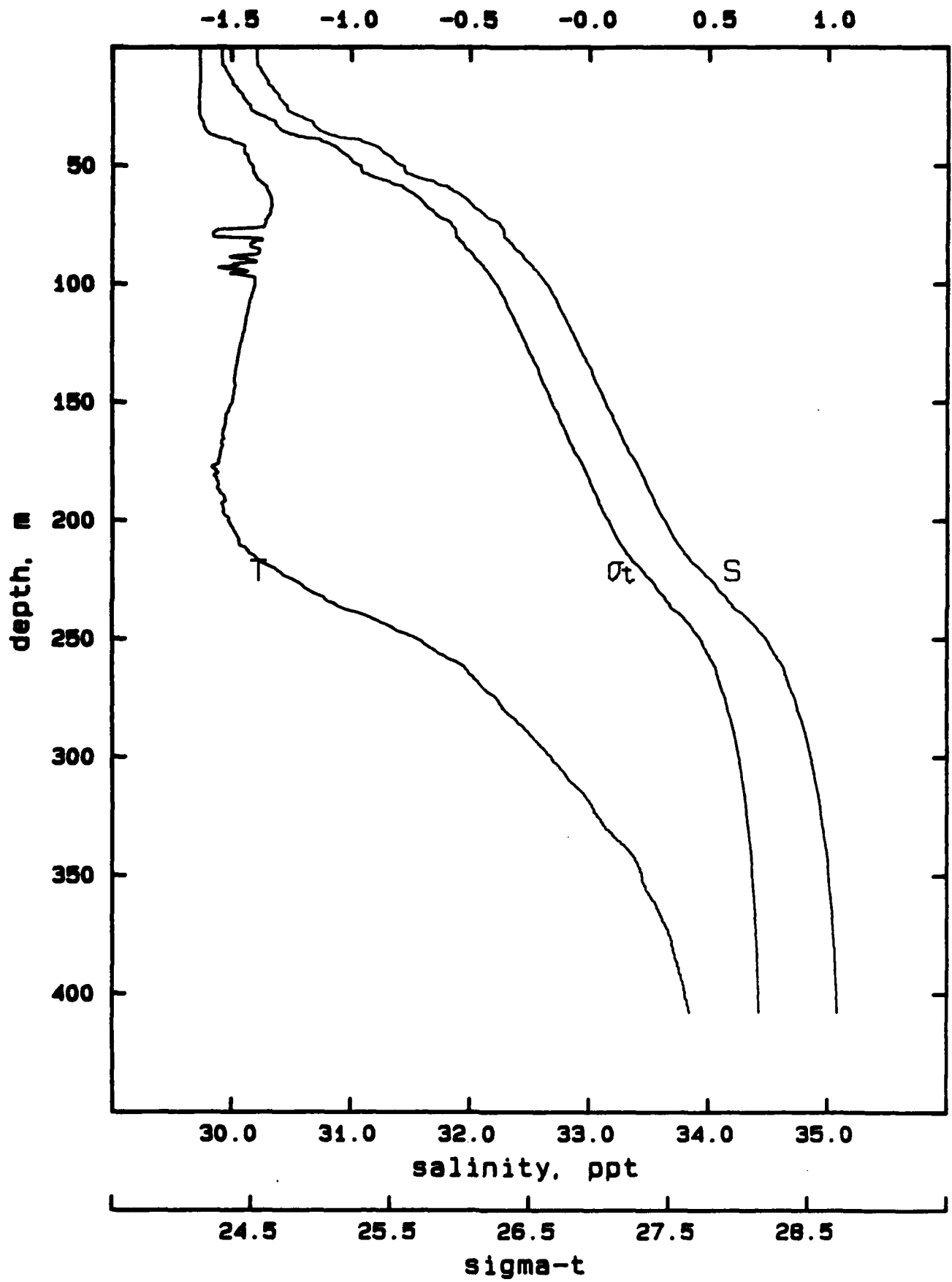
A419A.001  
temperature



A419B.001  
temperature



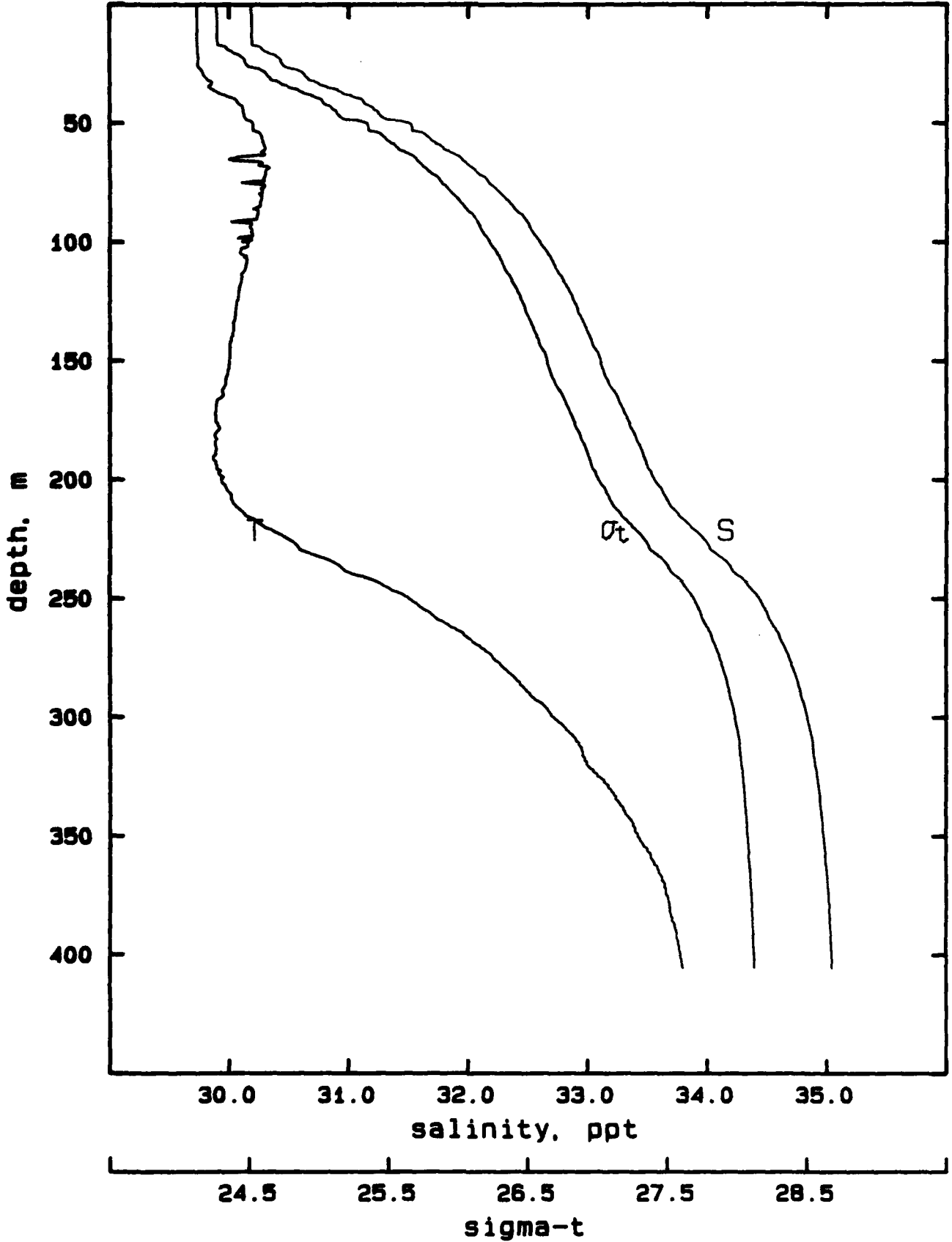
A419C.001  
temperature



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A419D.001  
temperature

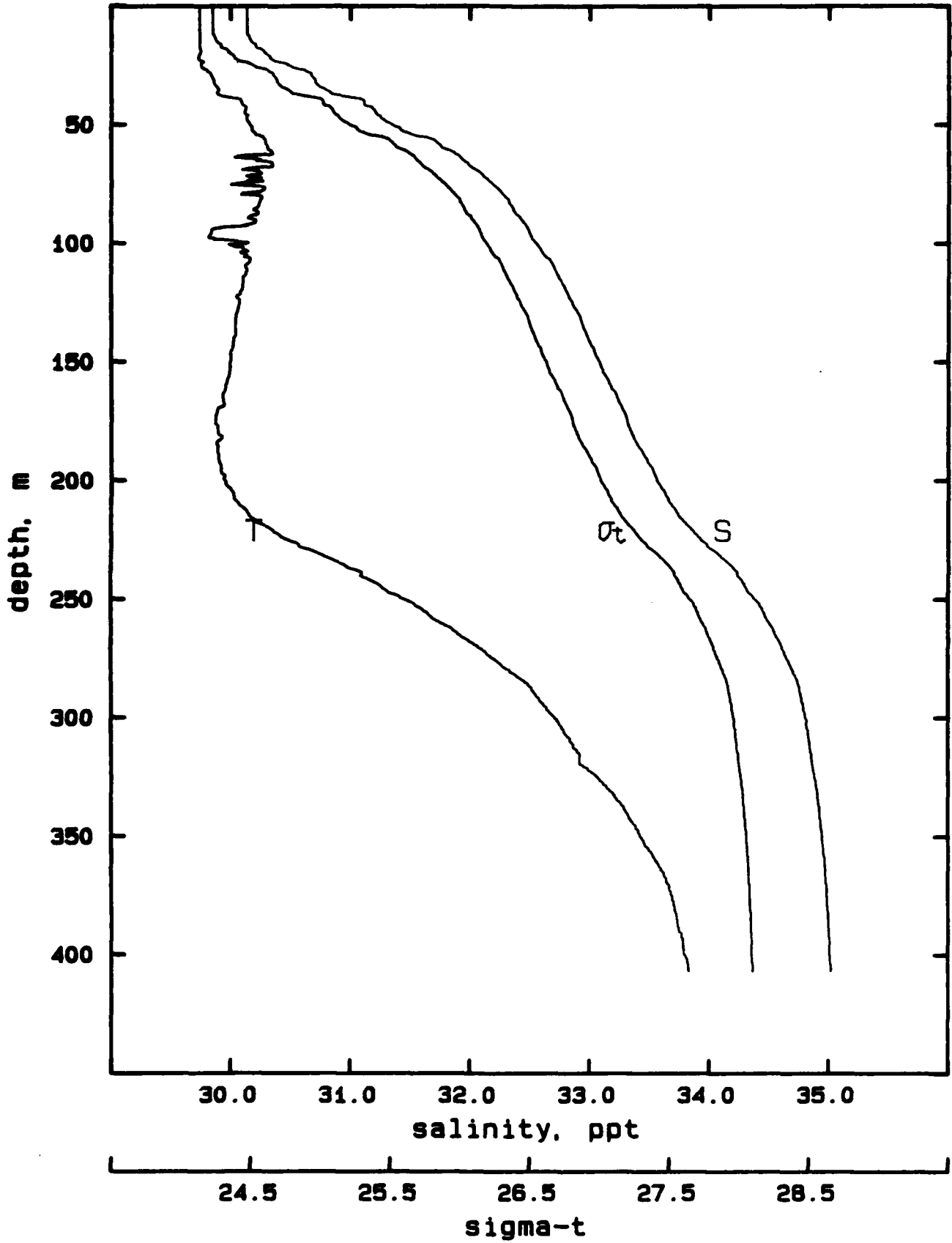
-1.5    -1.0    -0.5    -0.0    0.5    1.0



A419E.001

temperature

-1.5    -1.0    -0.5    -0.0    0.5    1.0



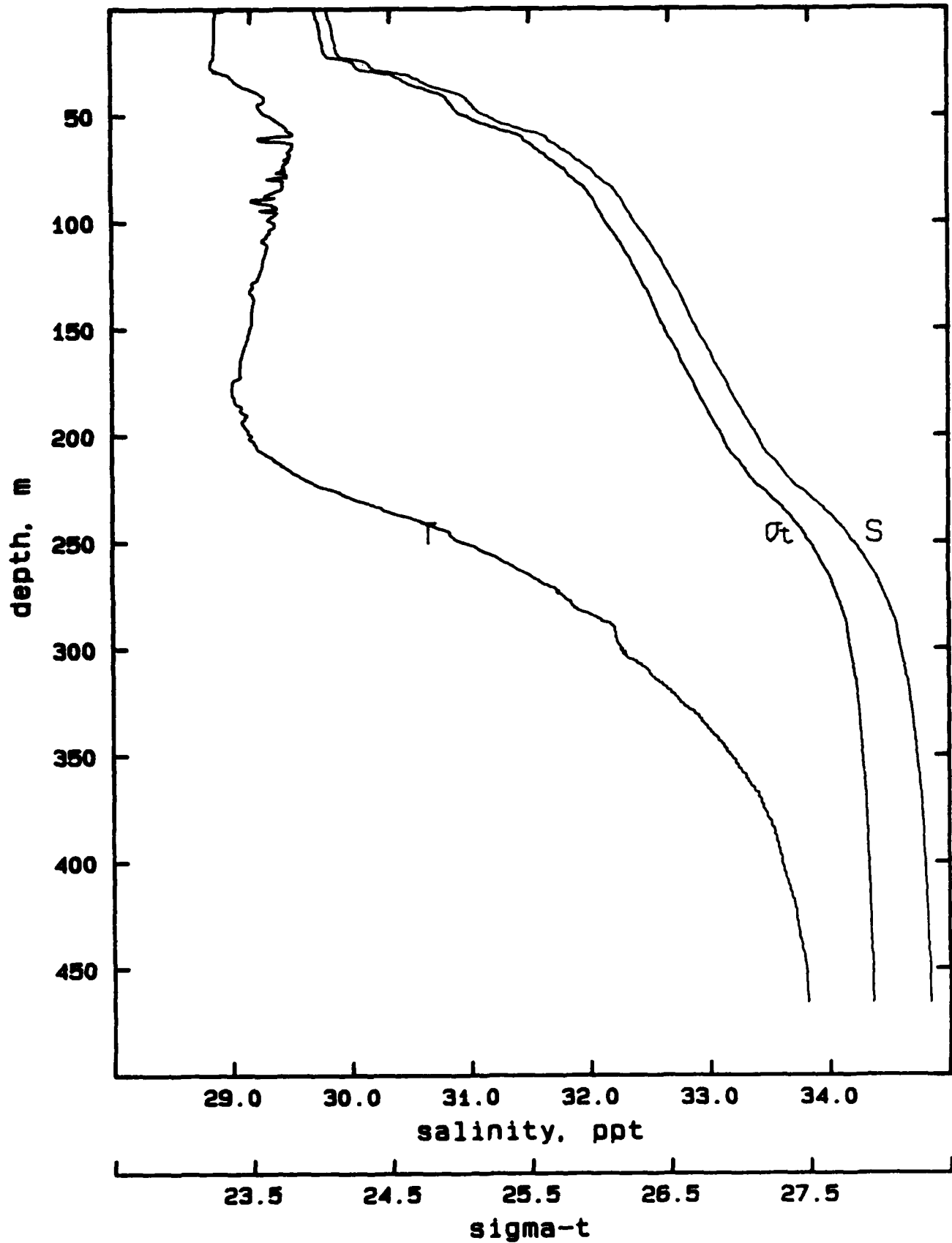
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54

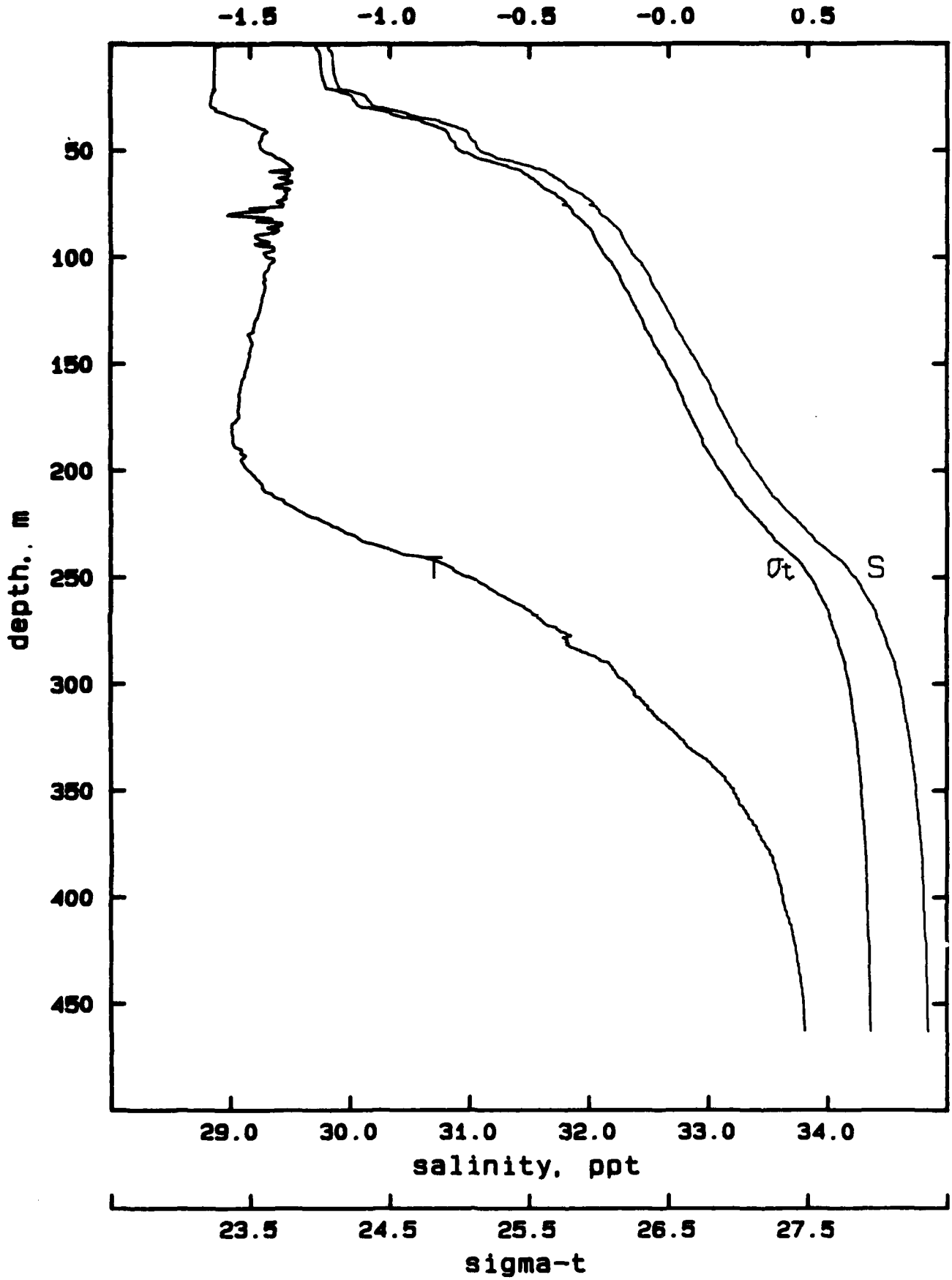
A421A.003

temperature

-1.5      -1.0      -0.5      -0.0      0.5



A421B.002  
temperature



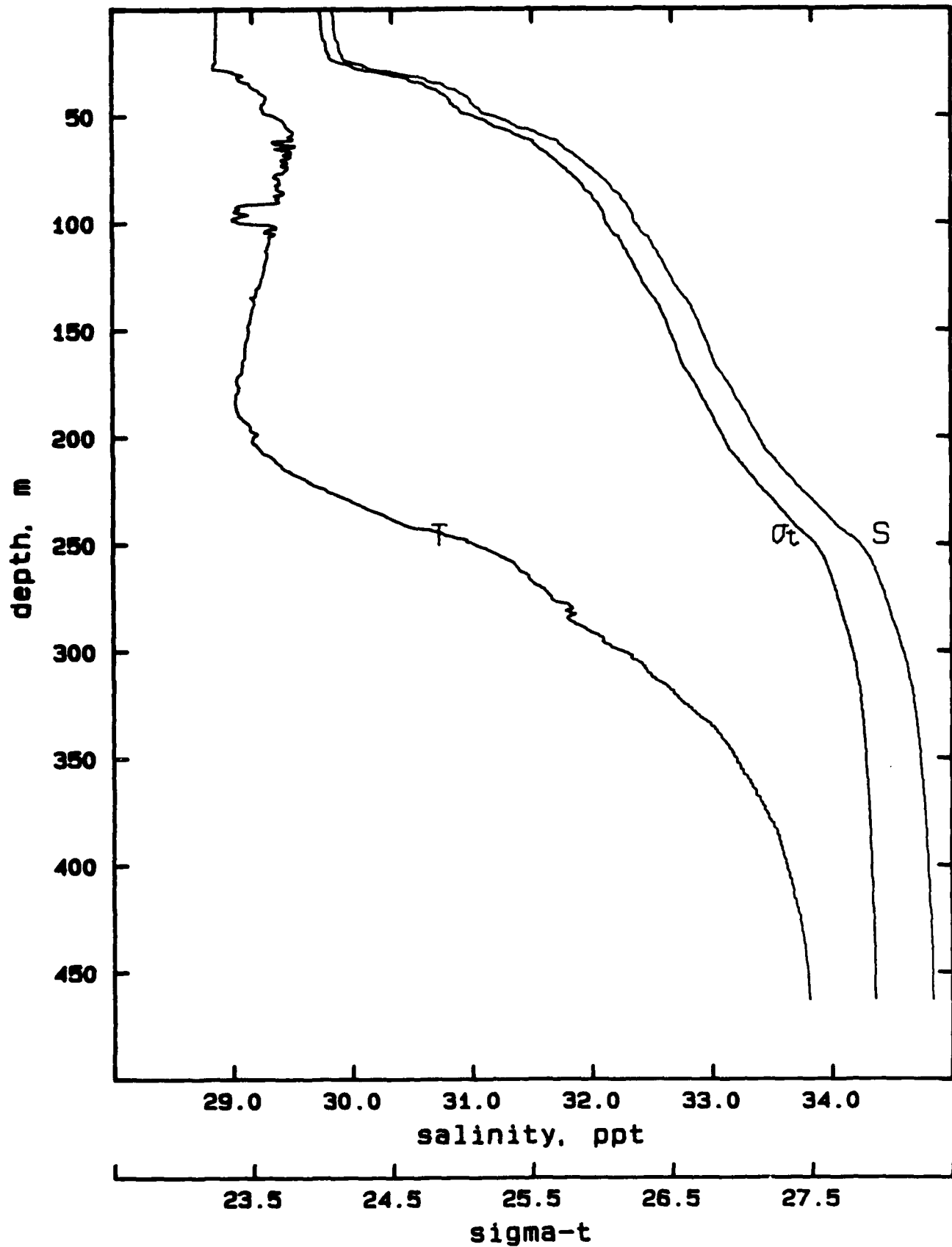
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56

A421C.001

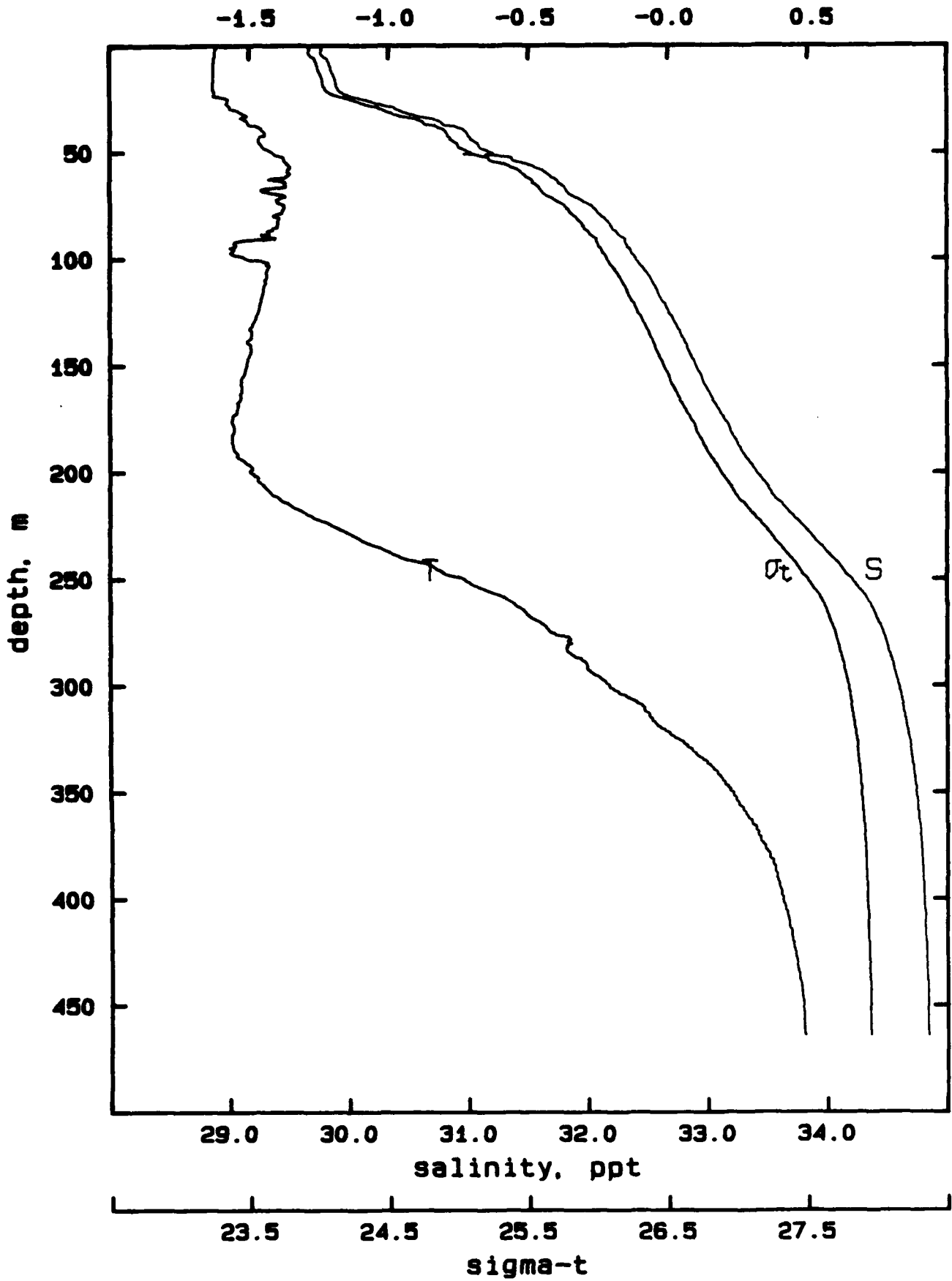
temperature

-1.5      -1.0      -0.5      -0.0      0.5





57  
A421D.001  
temperature



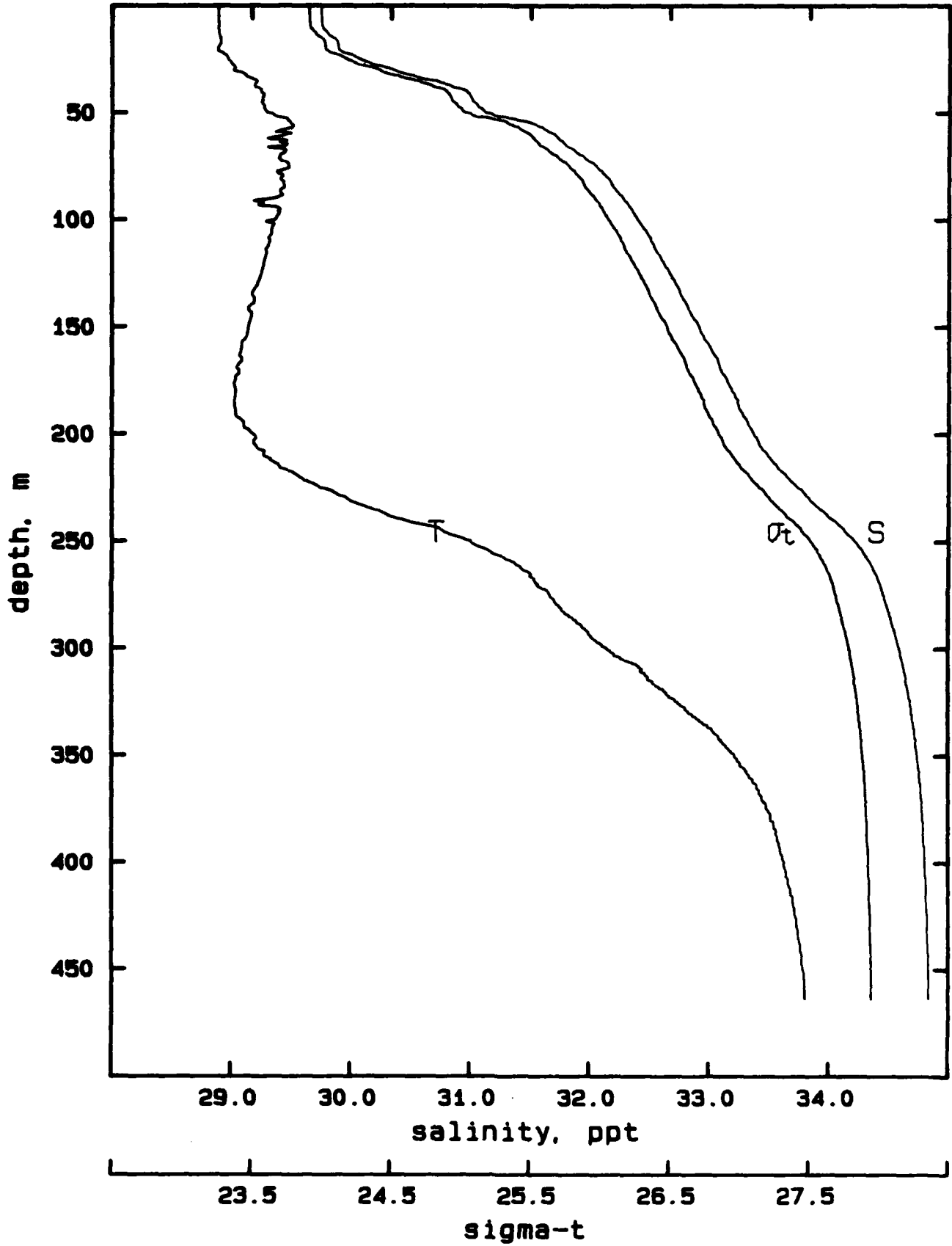
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A422A.001

temperature

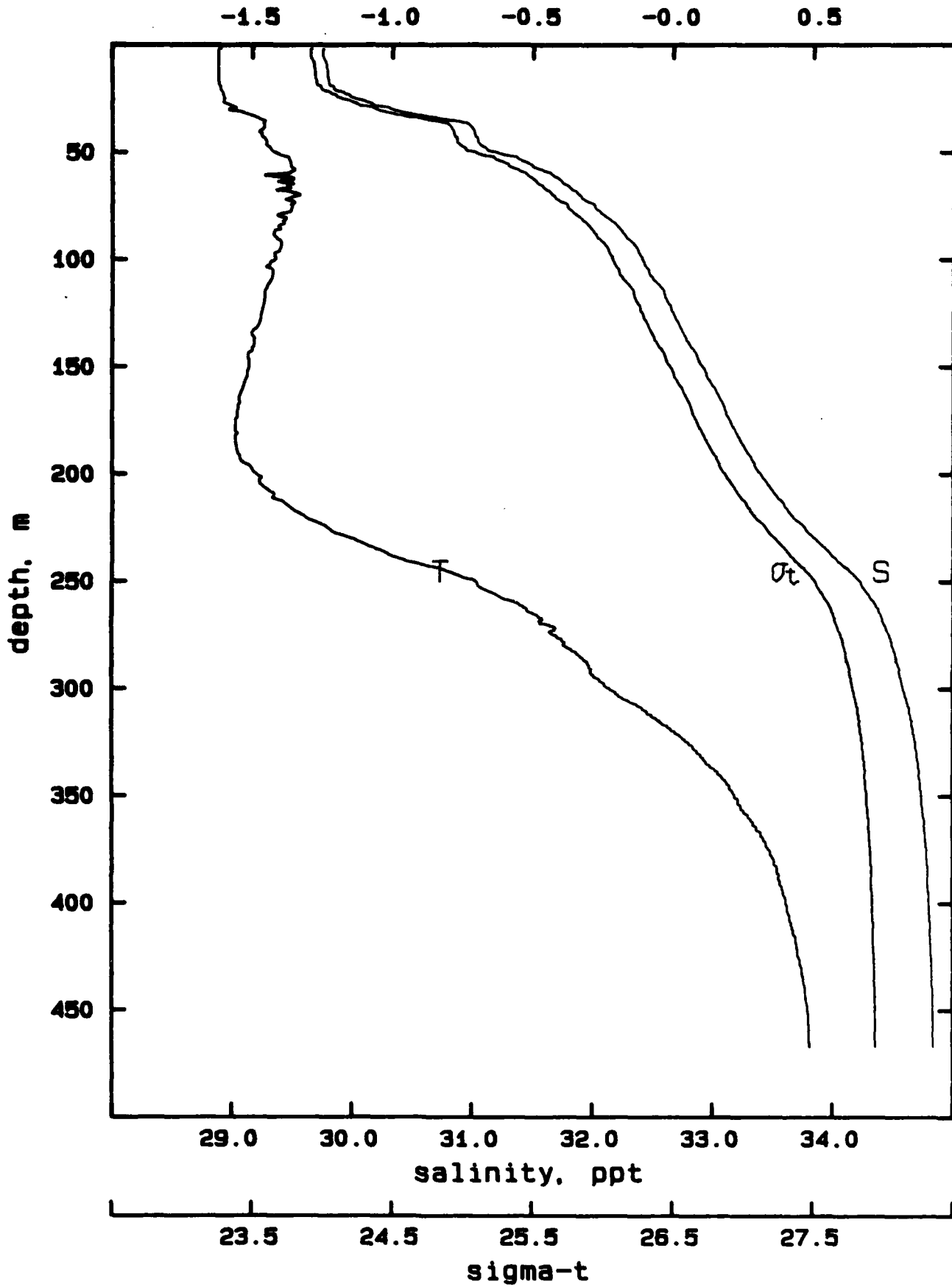
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A422B.001

temperature



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60

A422C.001

temperature

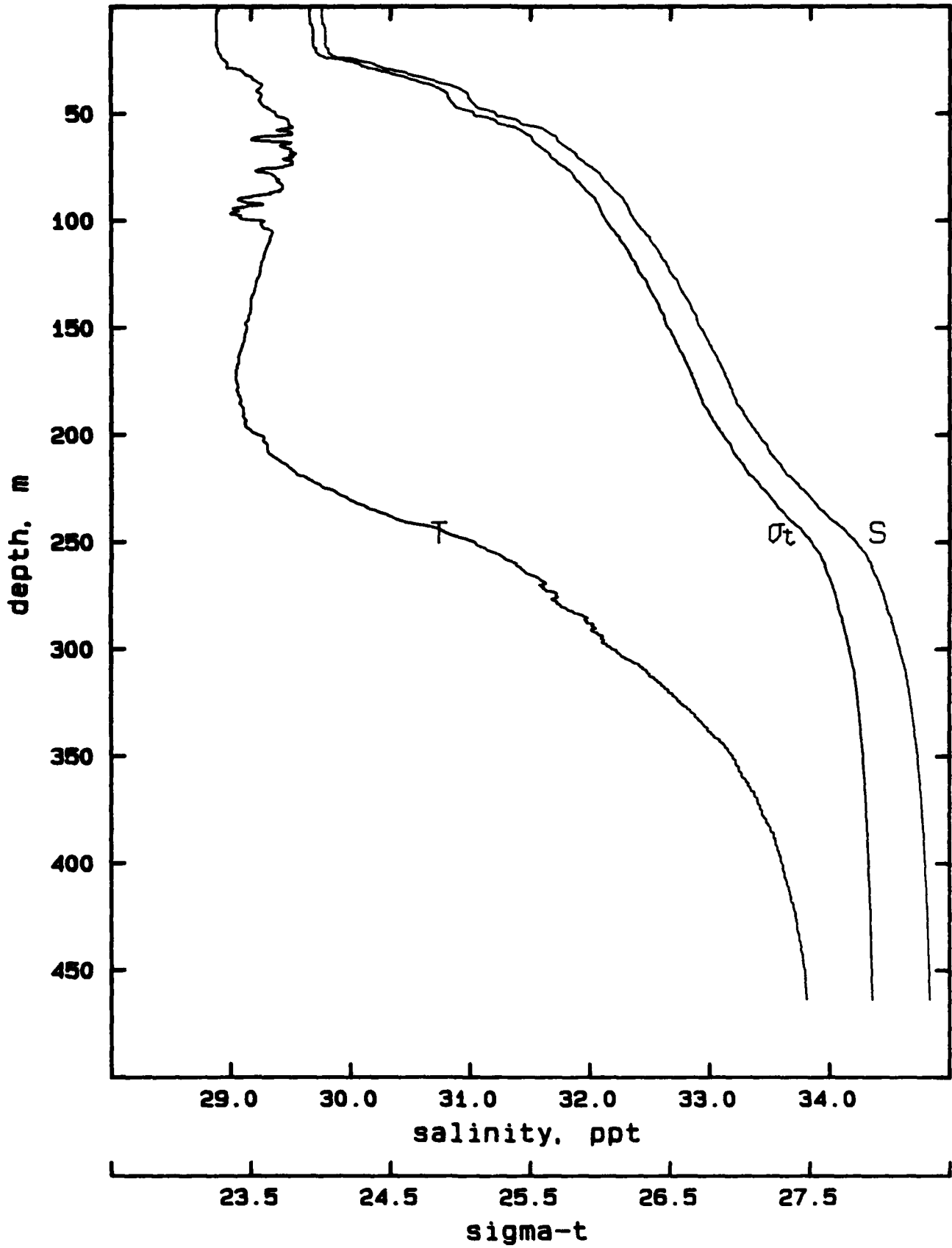
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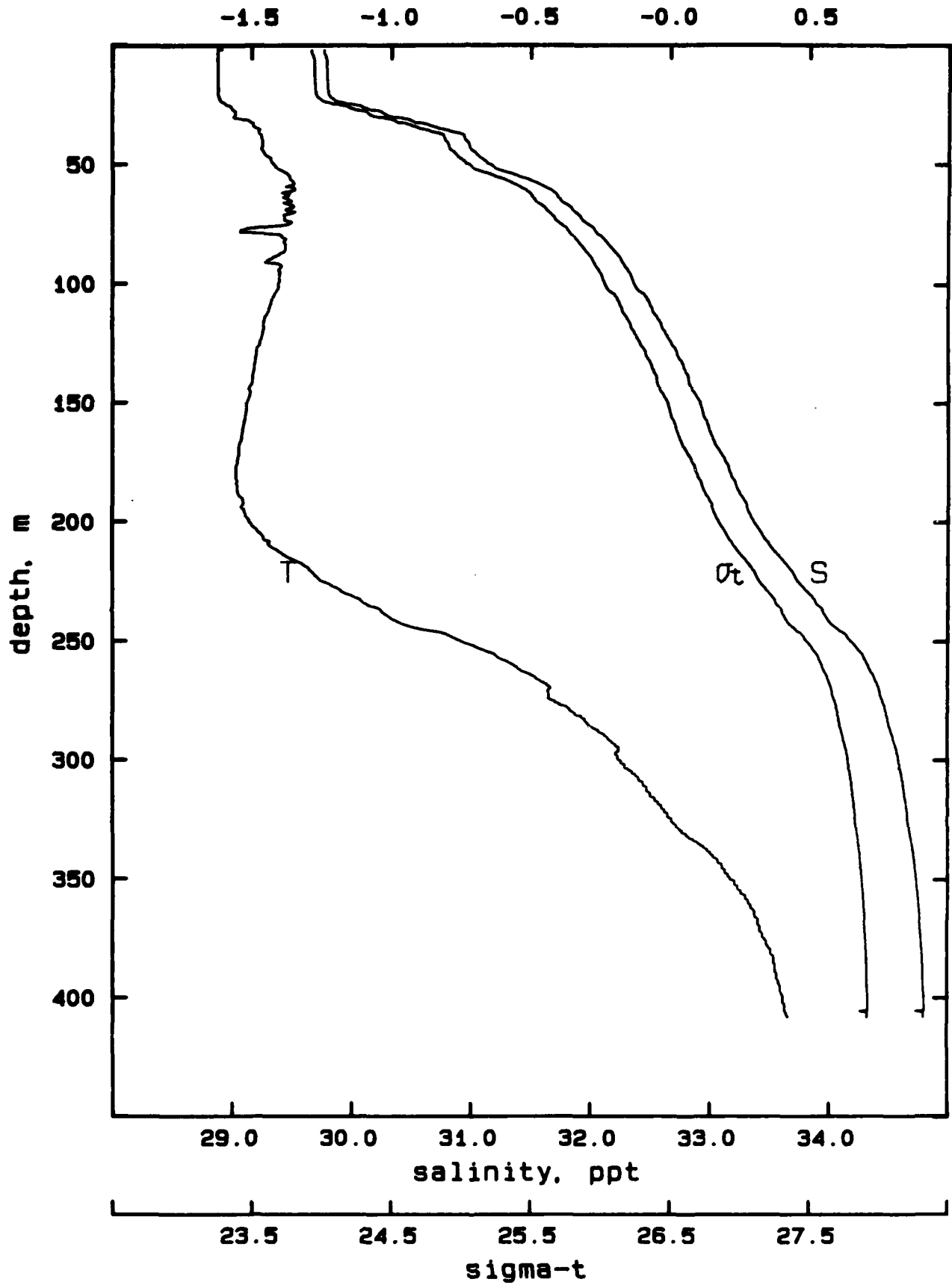
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A422D.001  
temperature

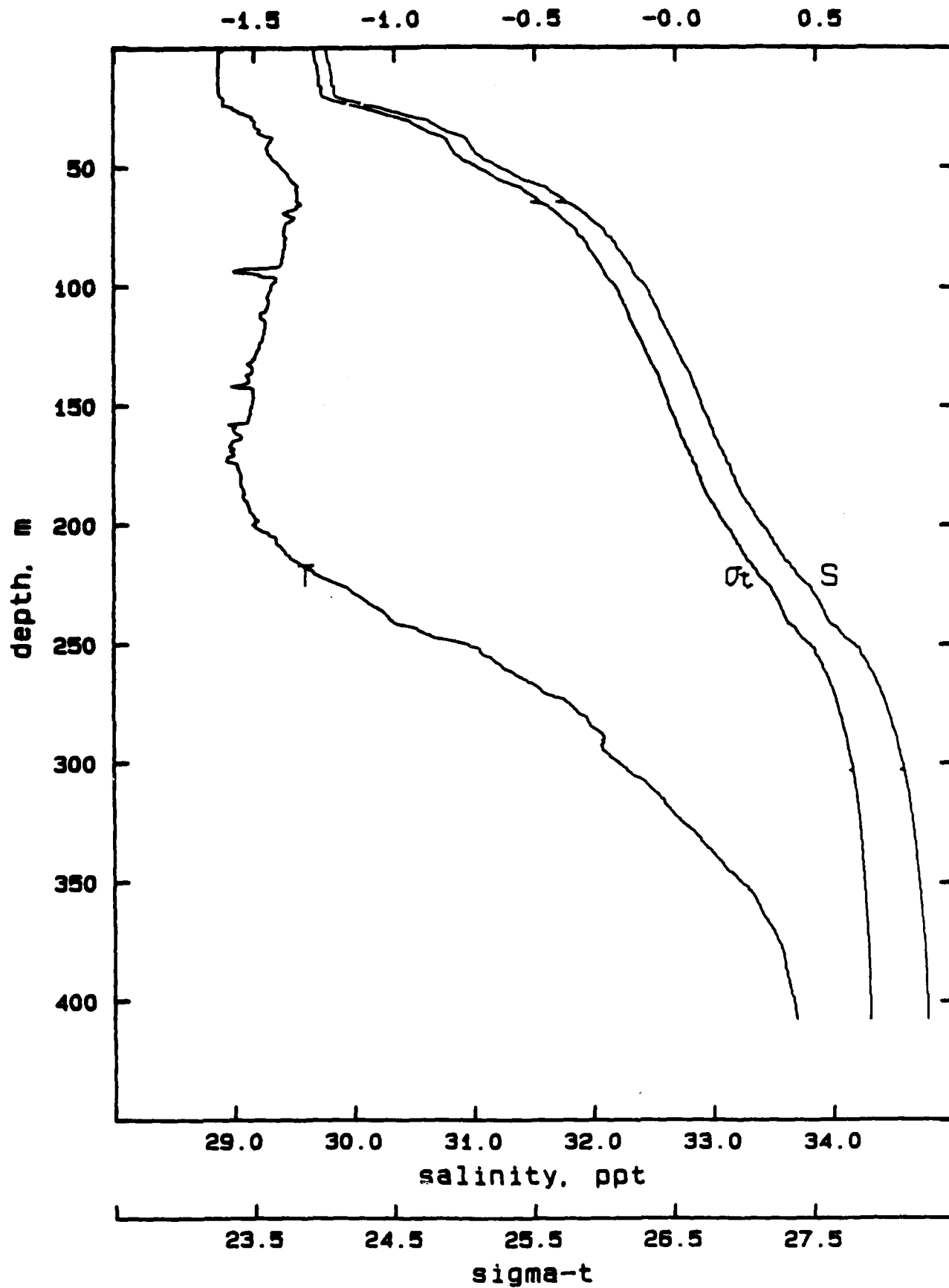


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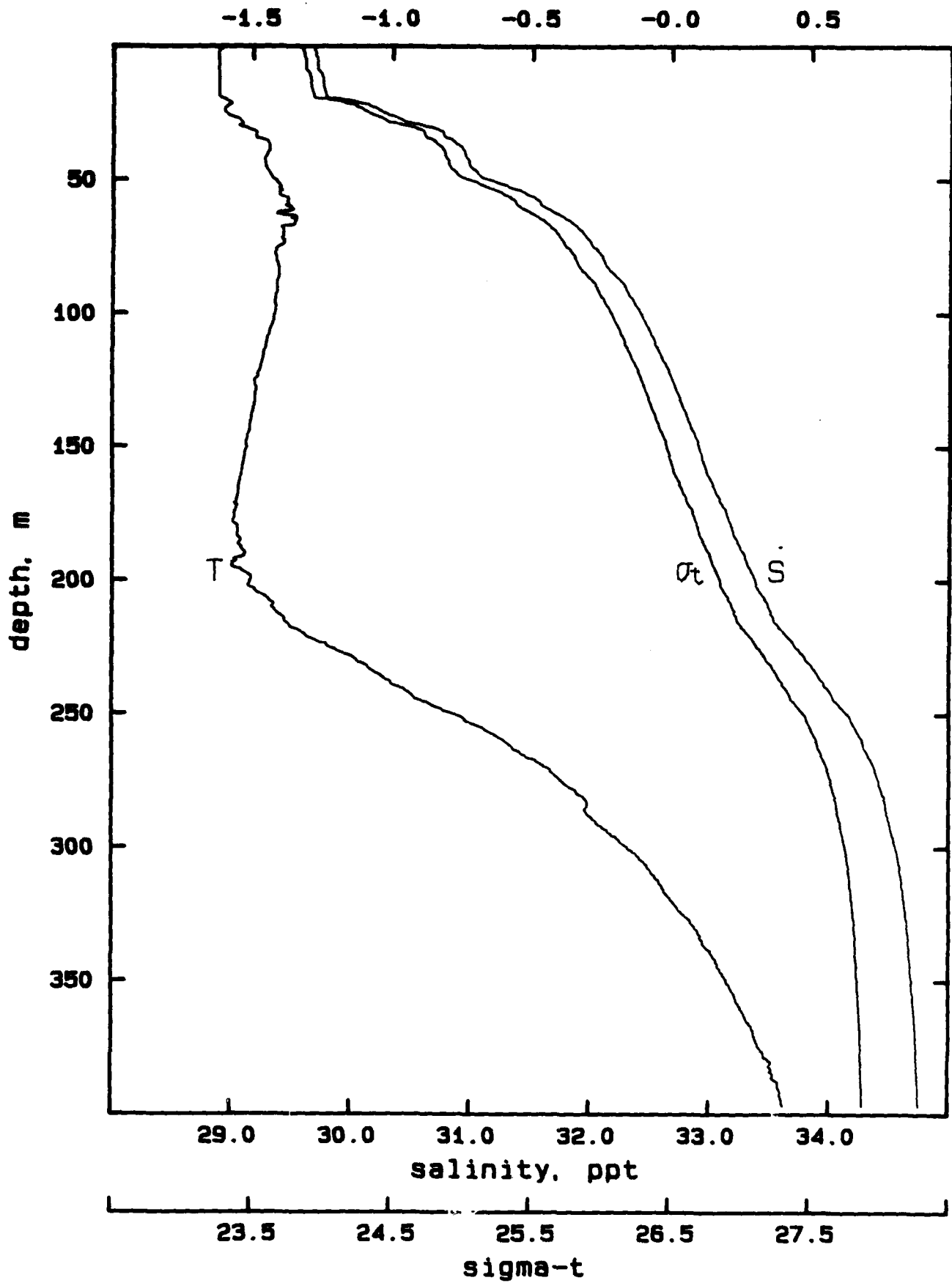
A422J.004

temperature



A423A.002

temperature



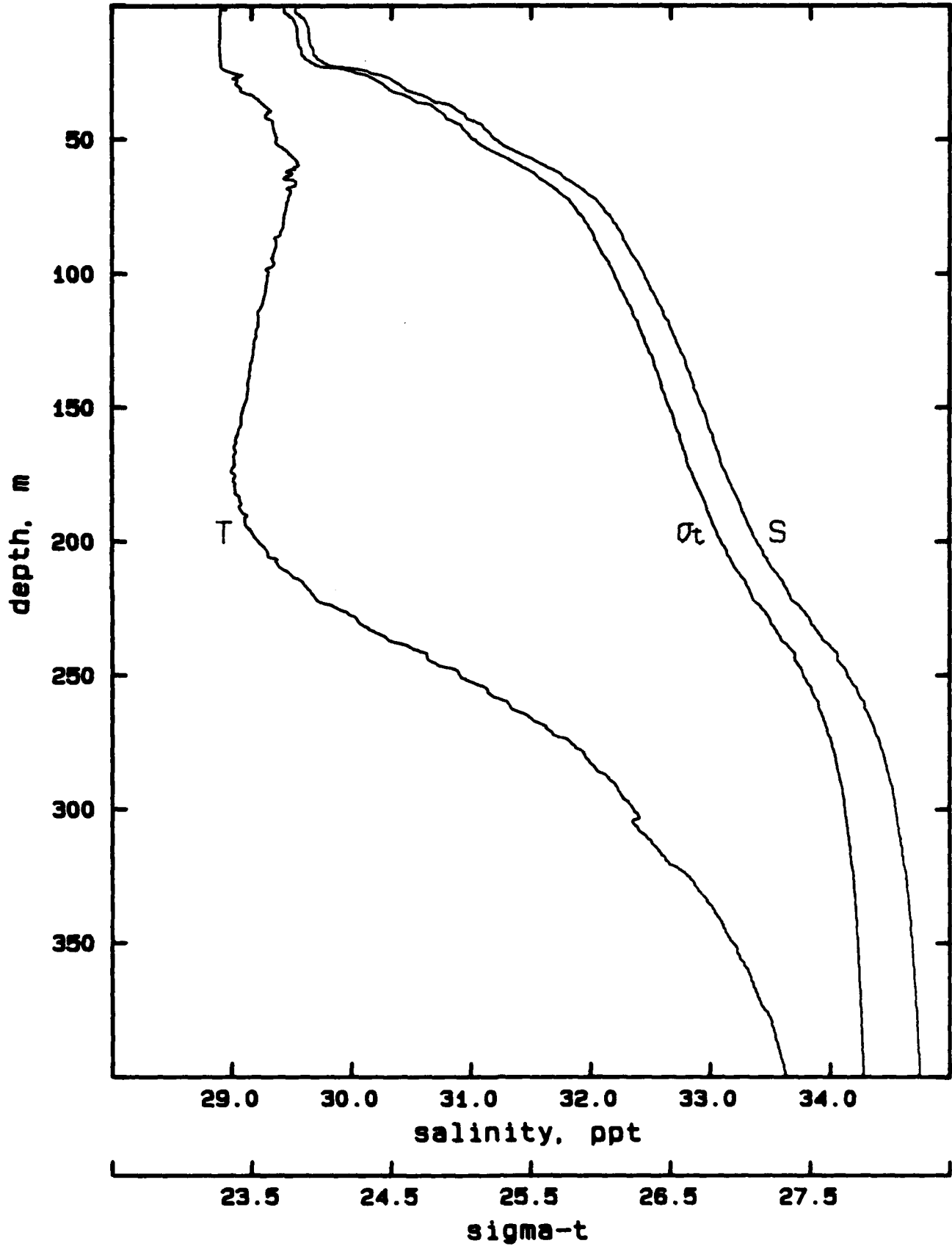
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64

A423E.003

temperature

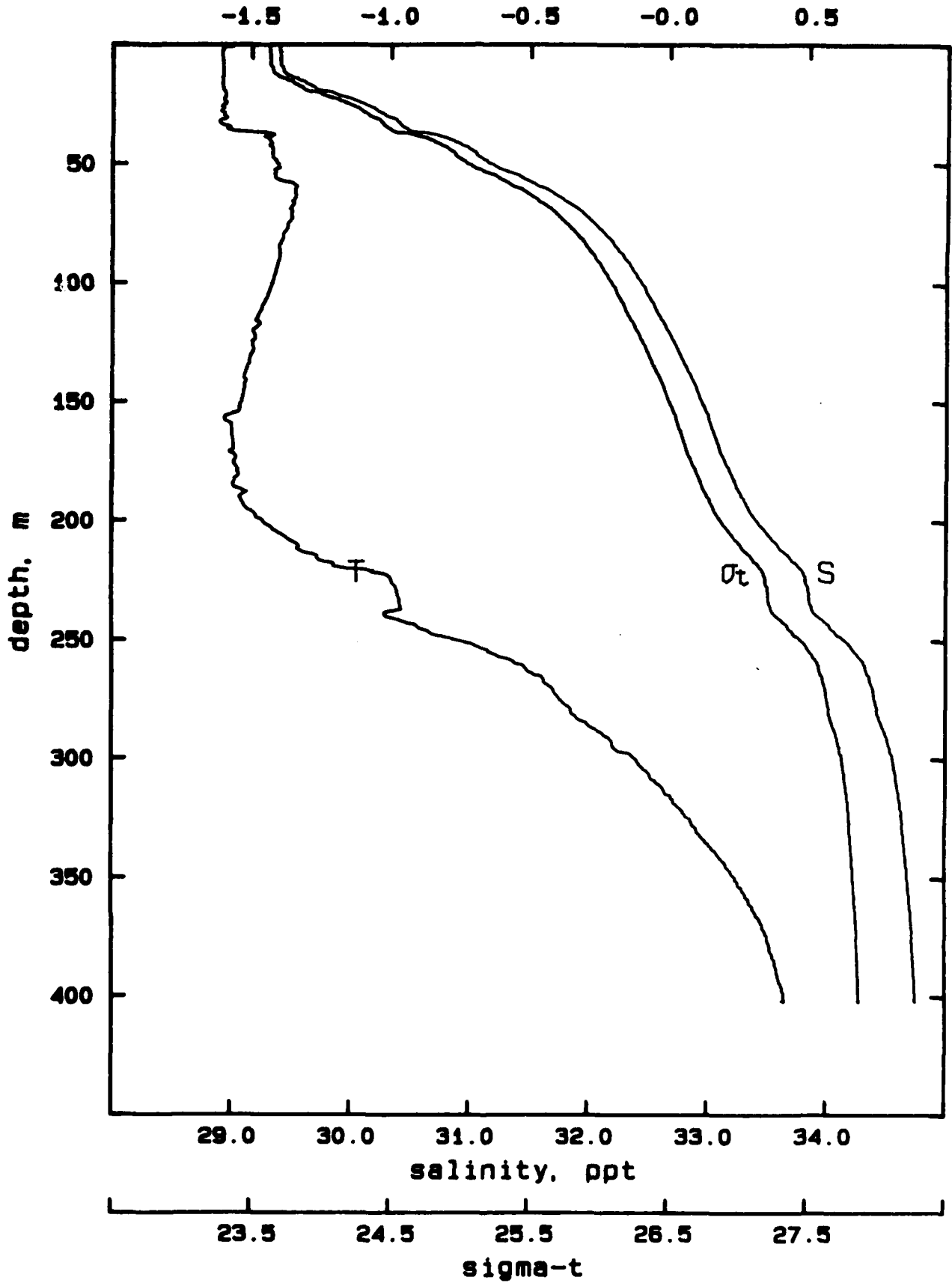
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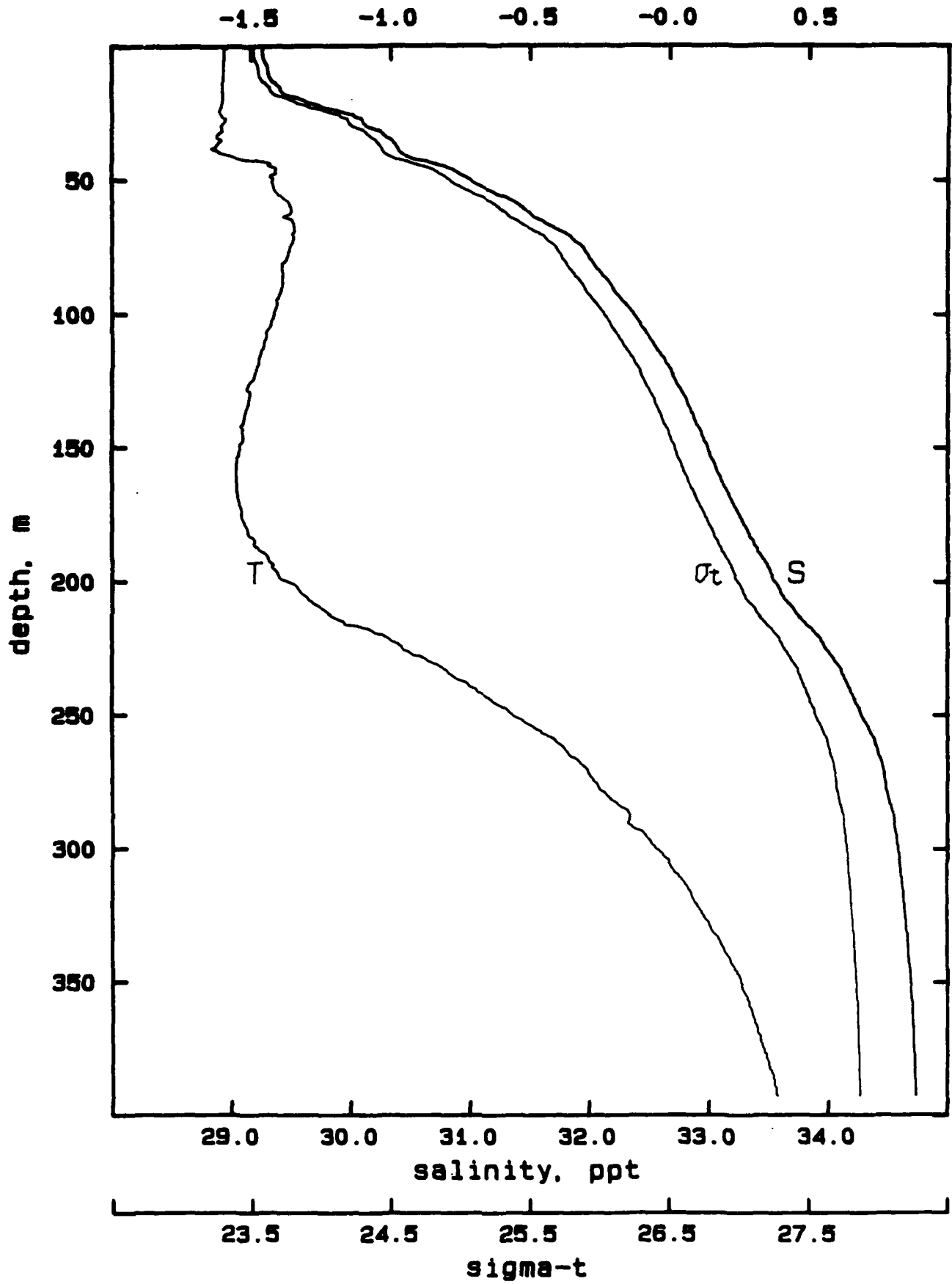


65

A424A.001  
temperature

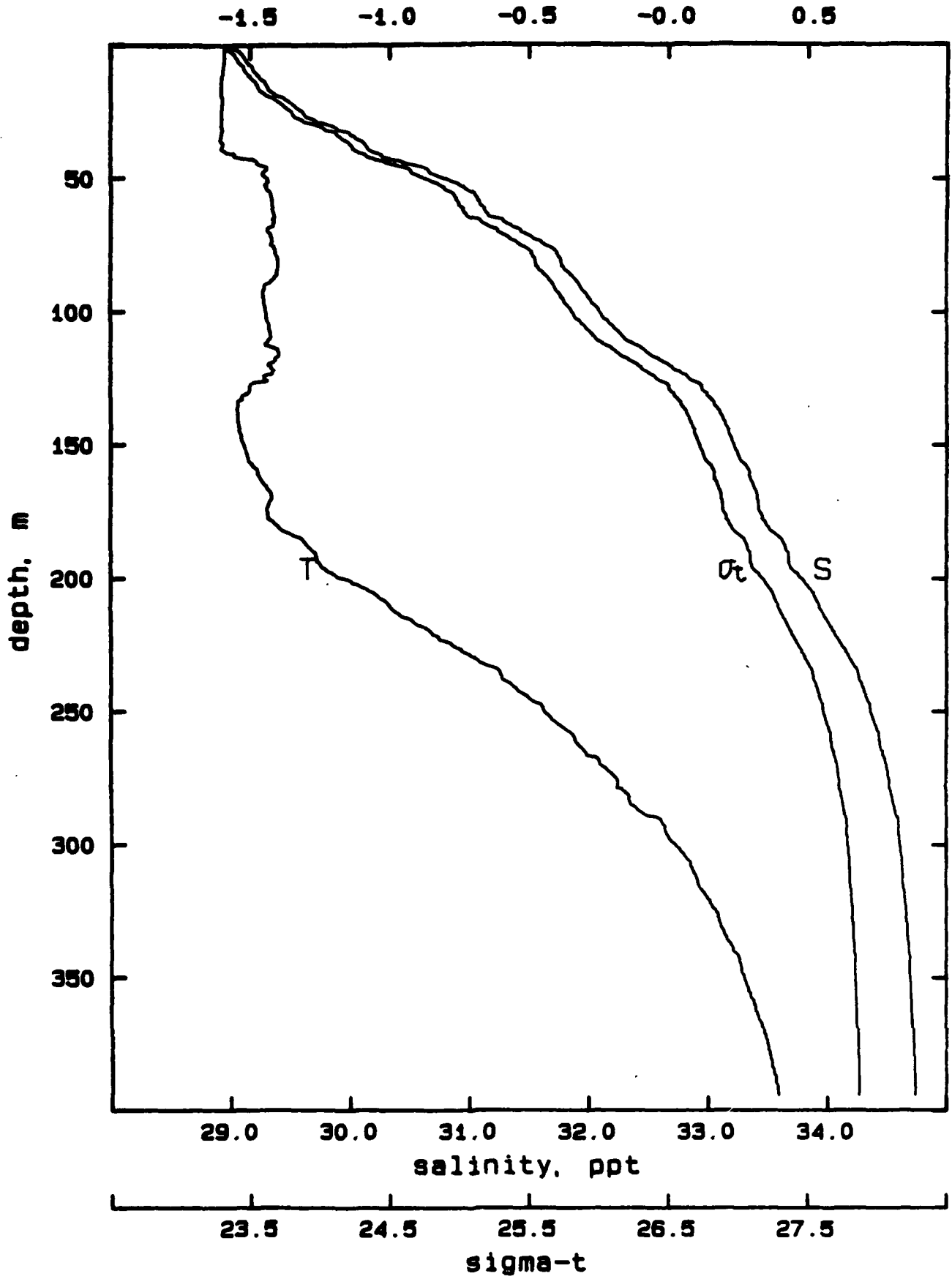


A424G.001  
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A425A.001

temperature



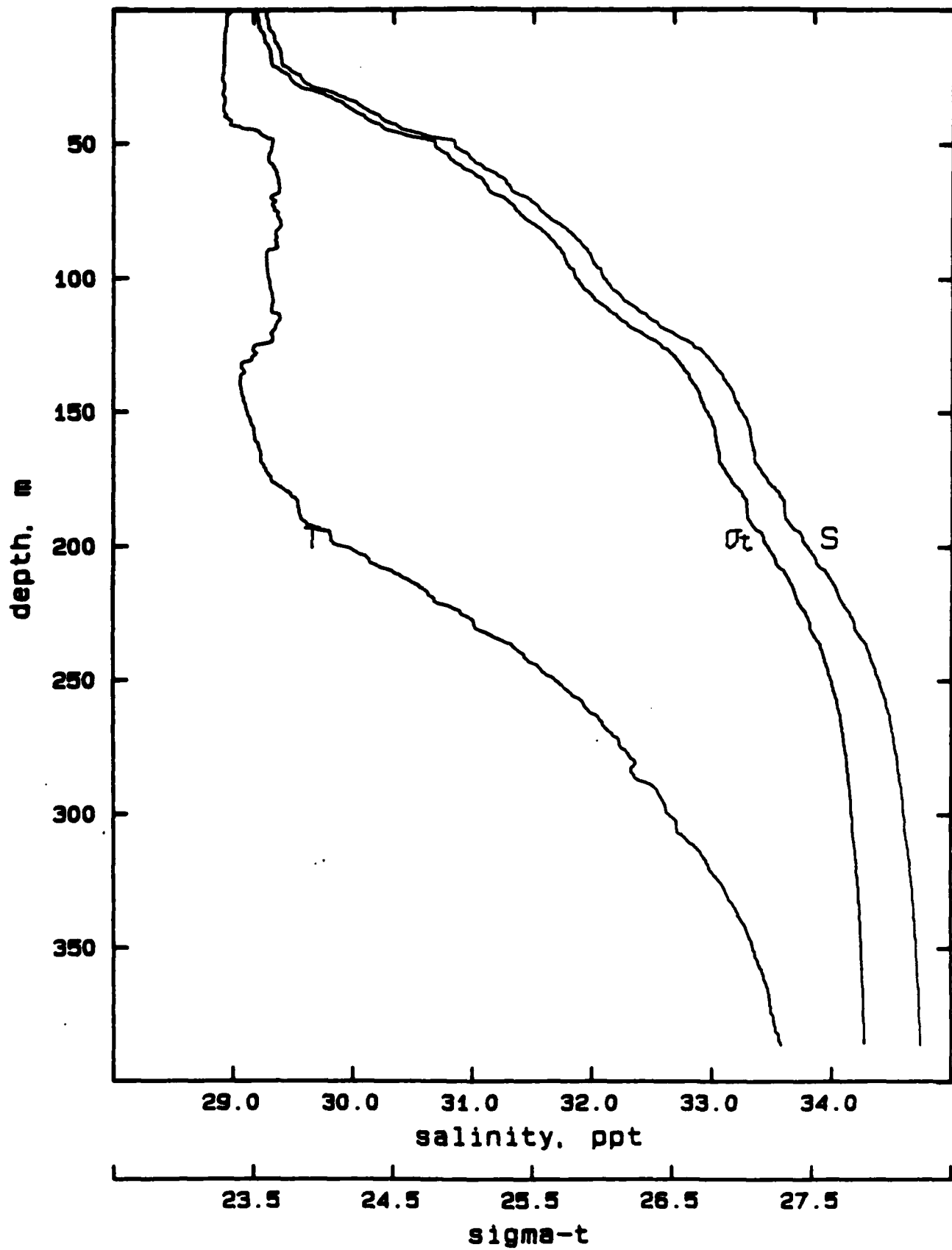
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A425B.001

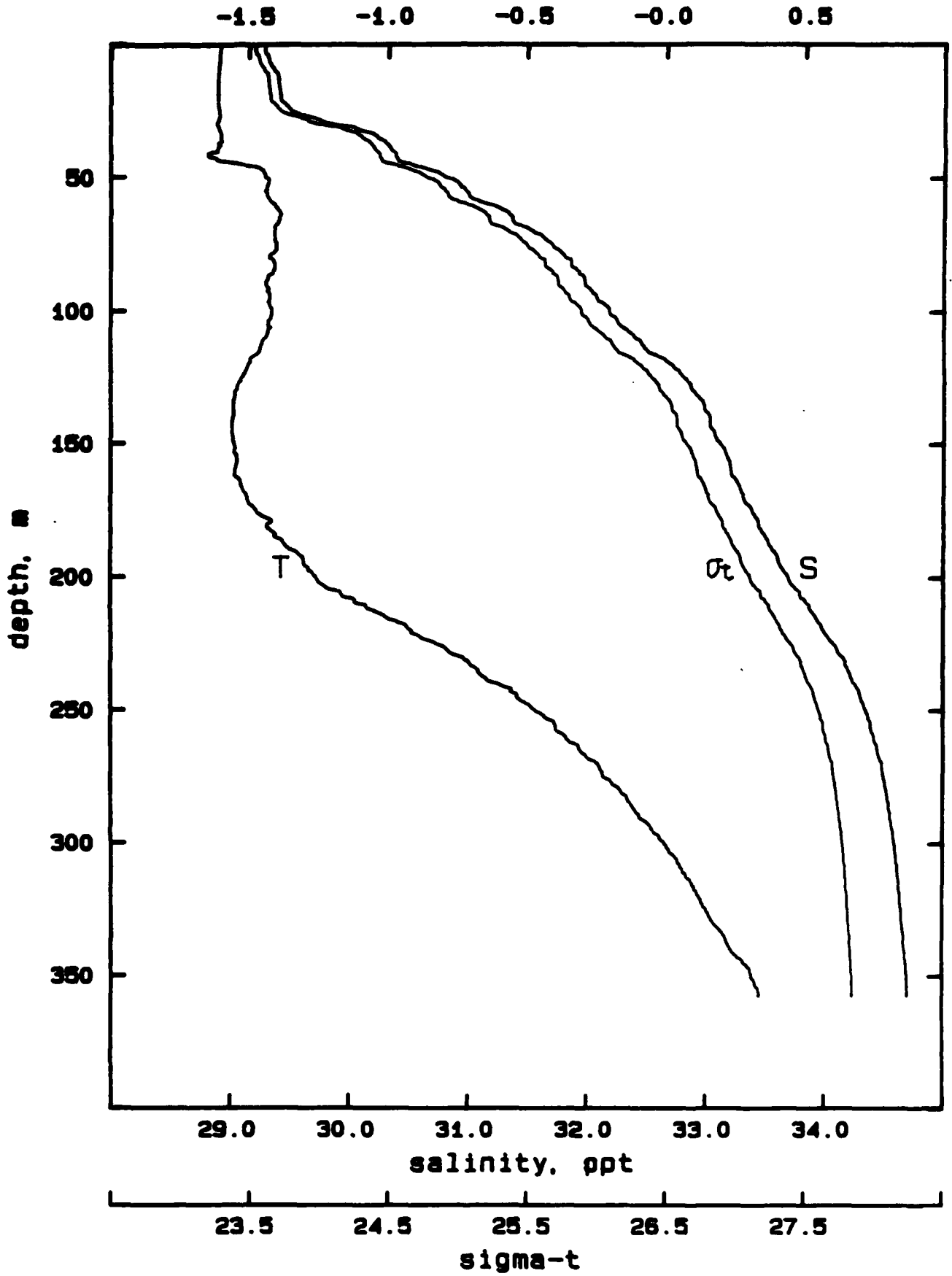
temperature

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A425C.001

temperature

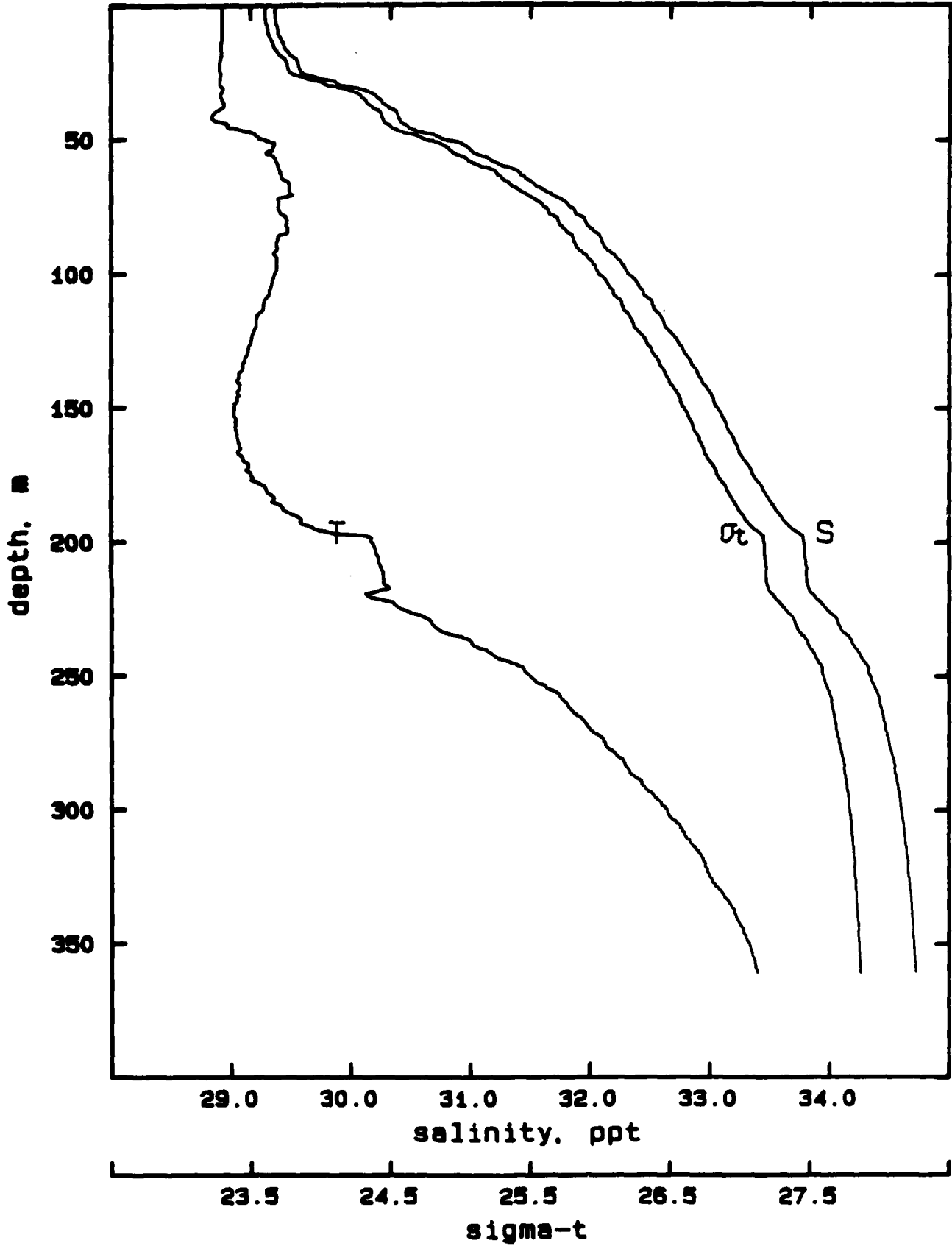


70

A425D.001

temperature

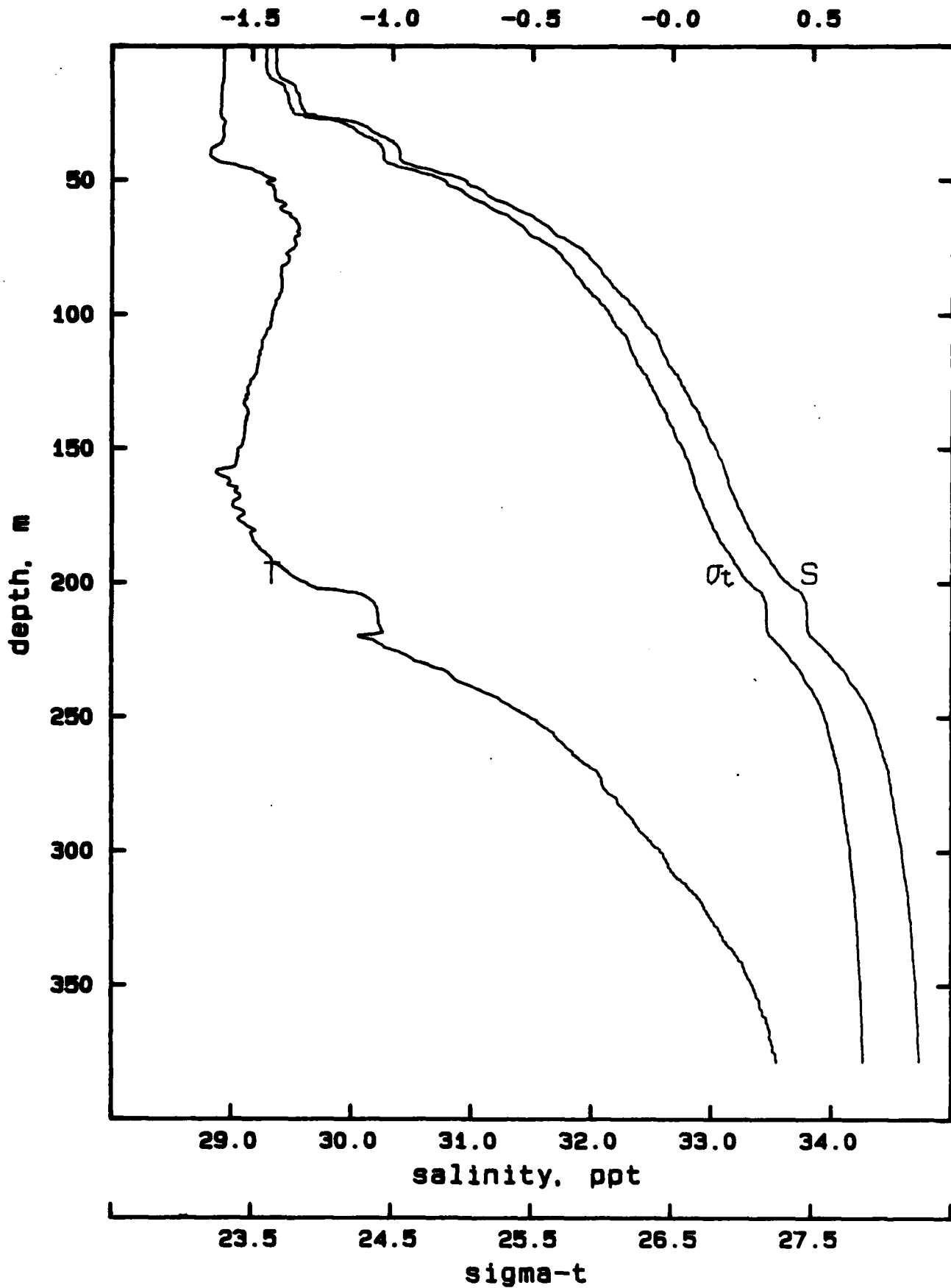
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A425E.001

temperature

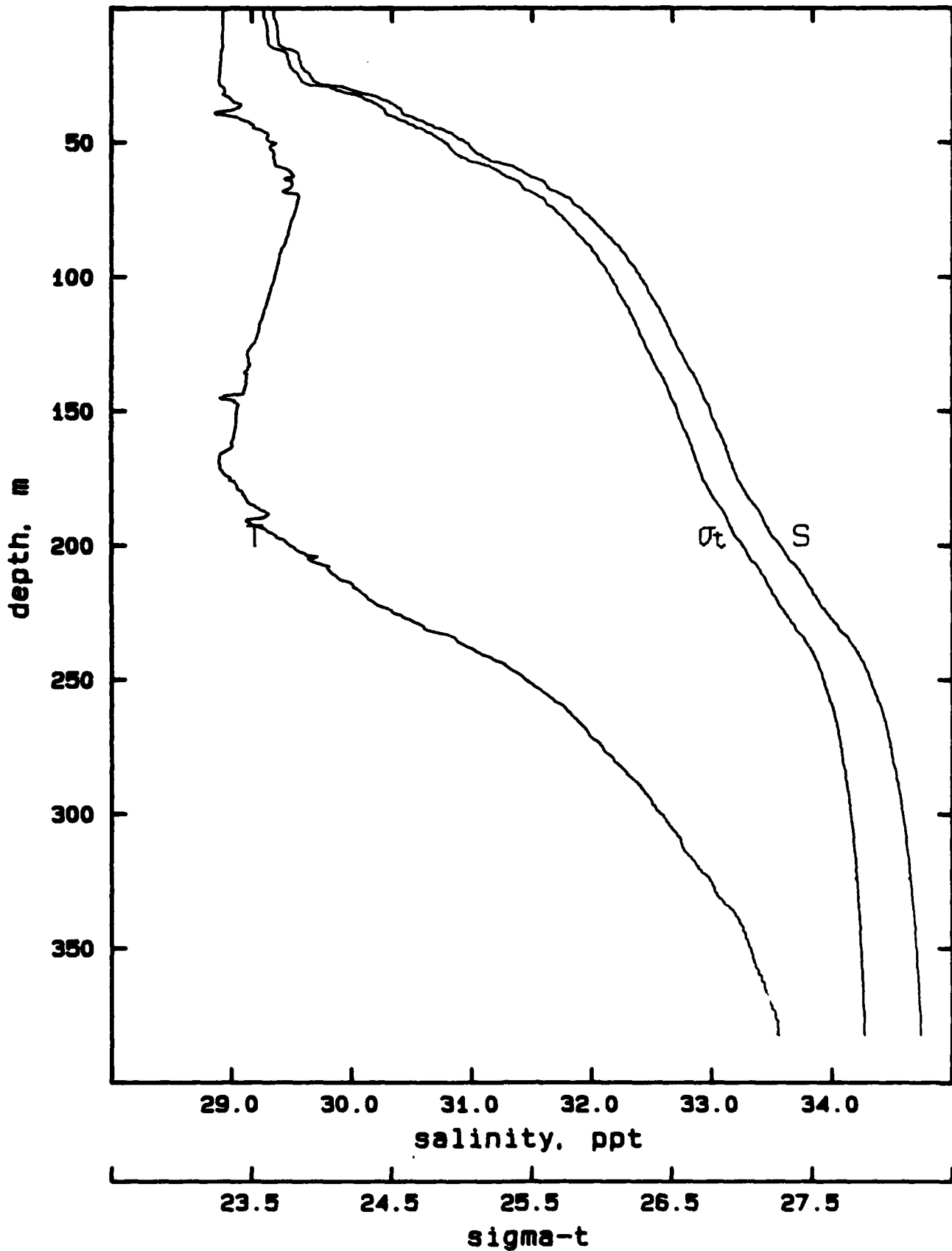


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A425F.001

temperature

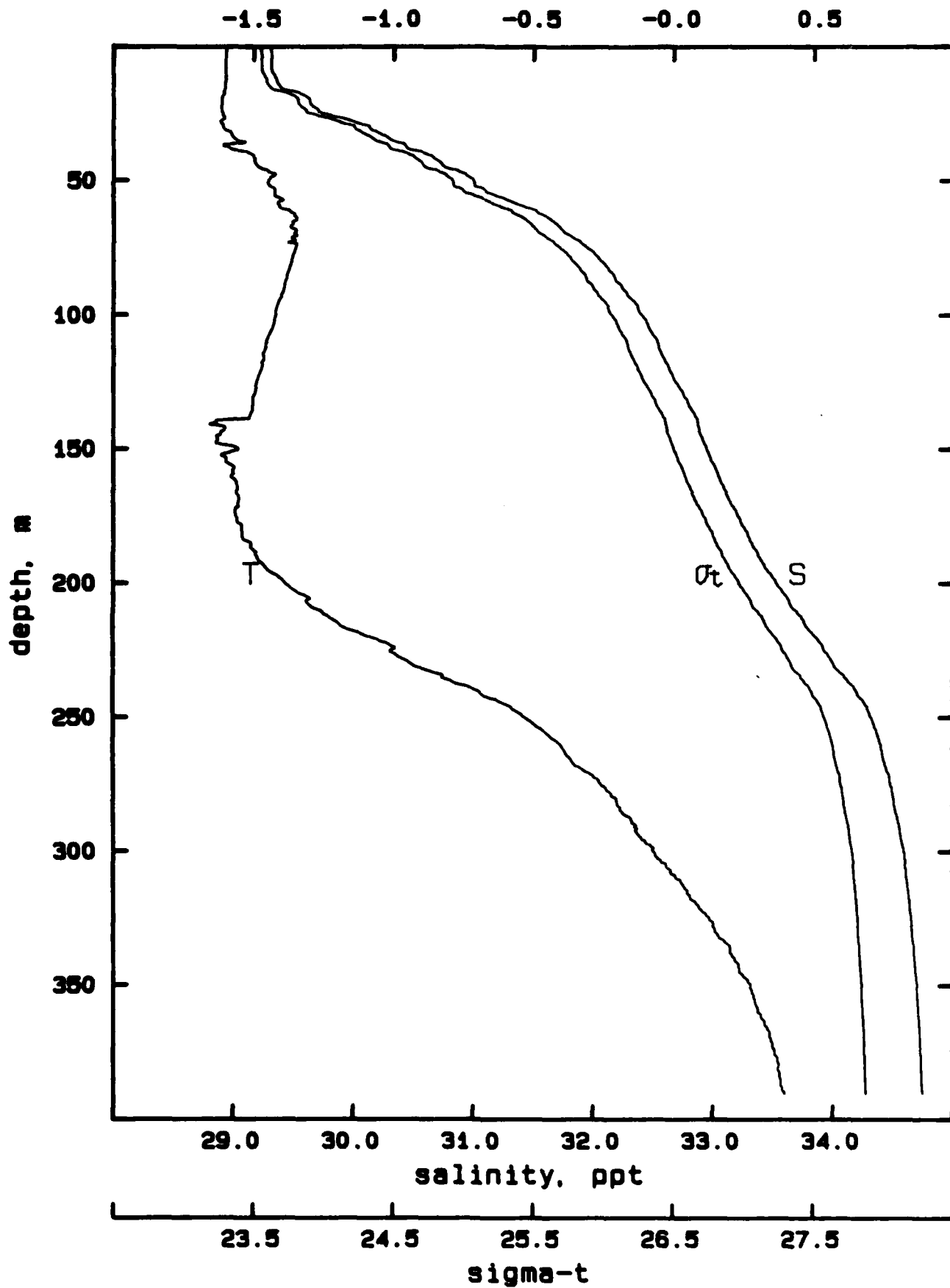
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A4256.001

temperature



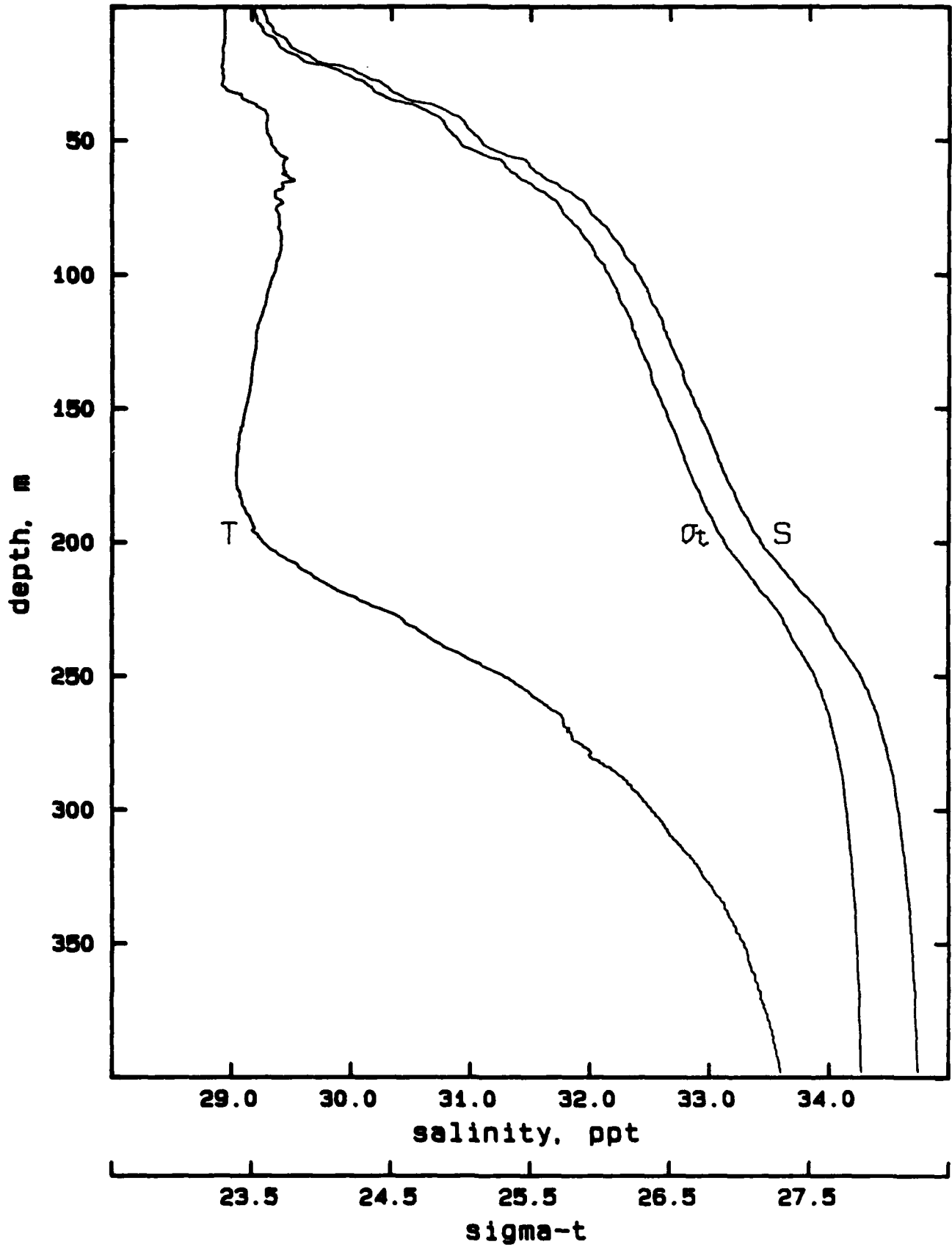
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A426A.001

temperature

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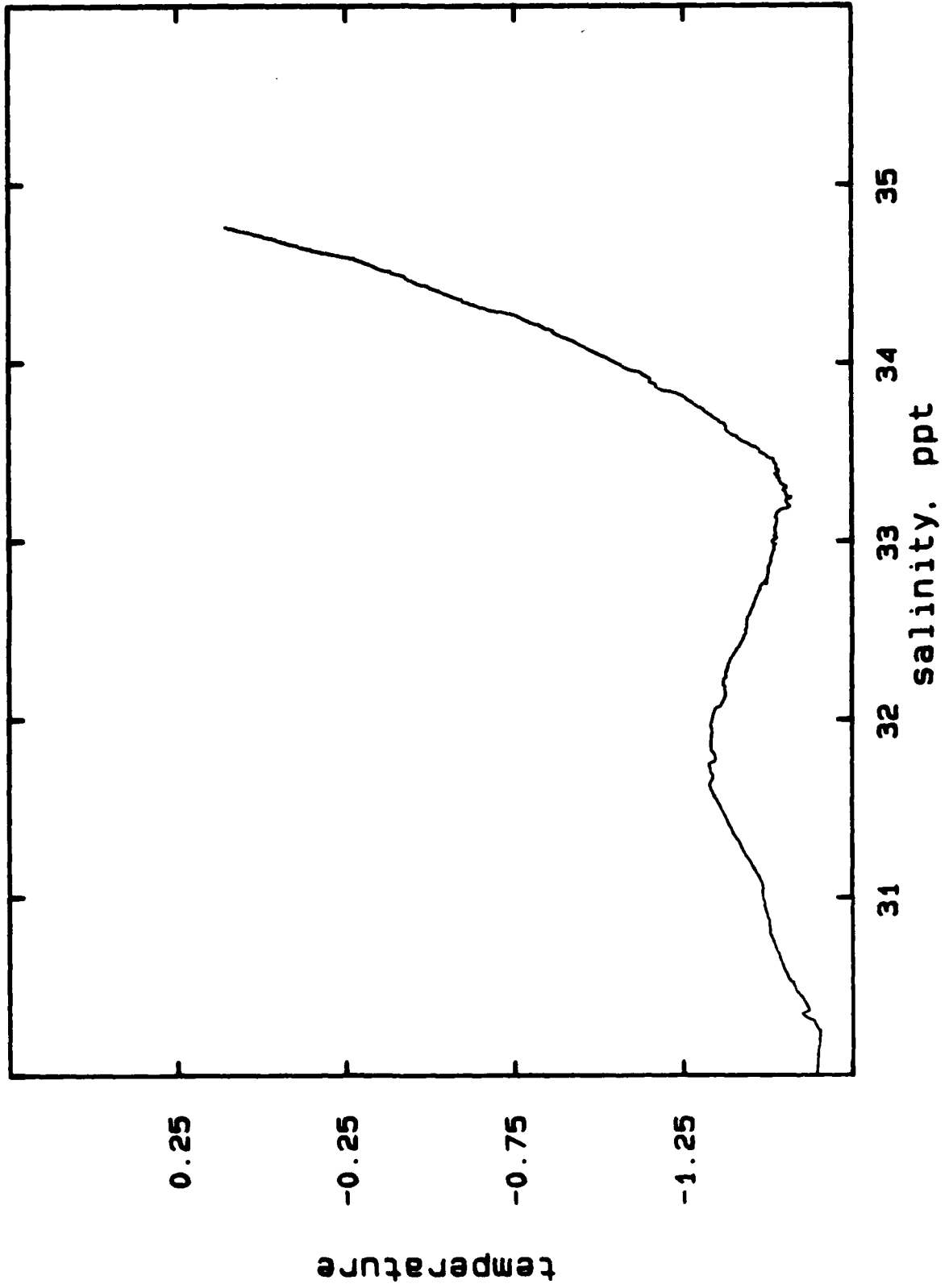


OBSERVATIONS:

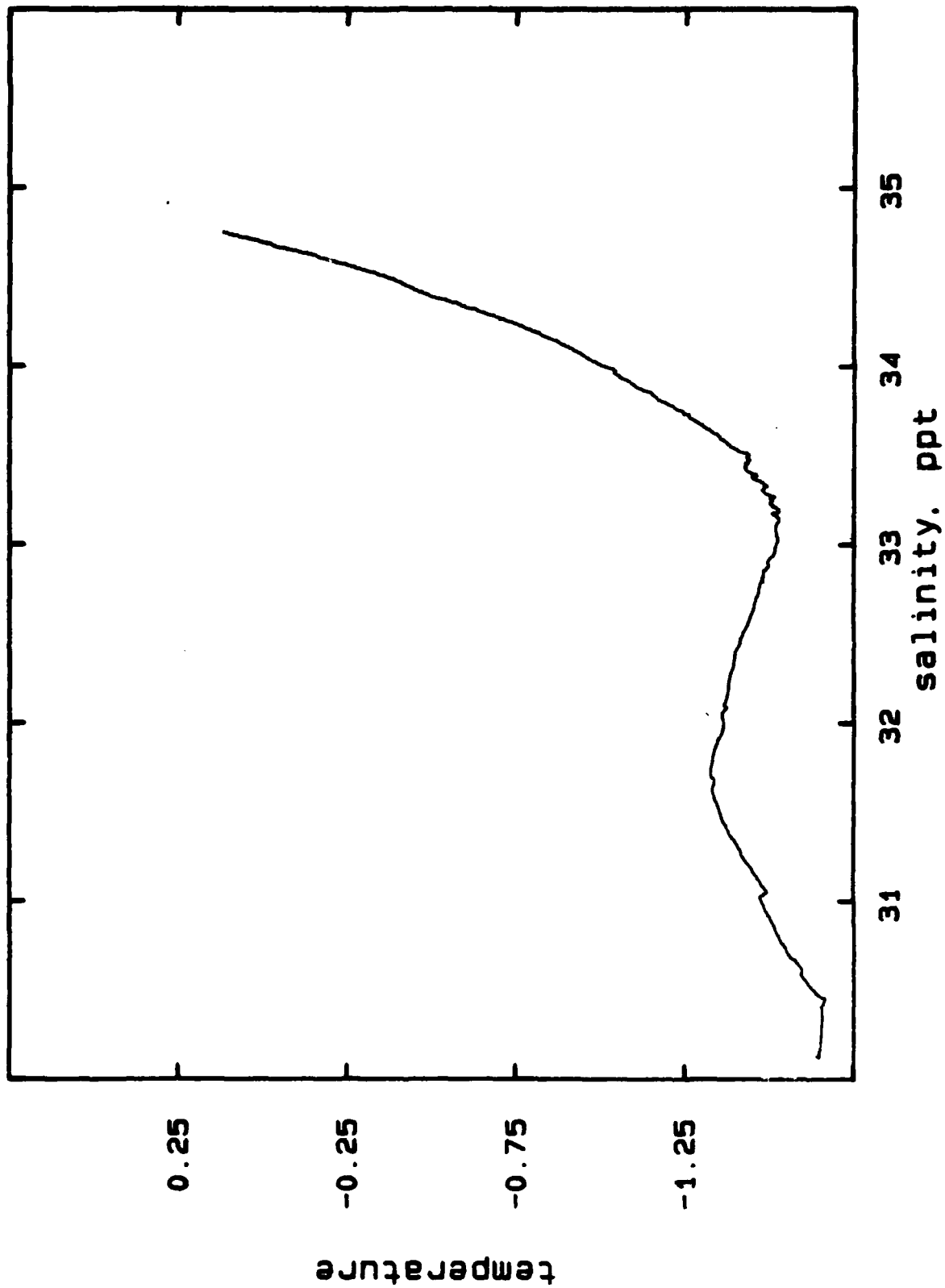
B. T-S DIAGRAMS

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A323B DROP 3

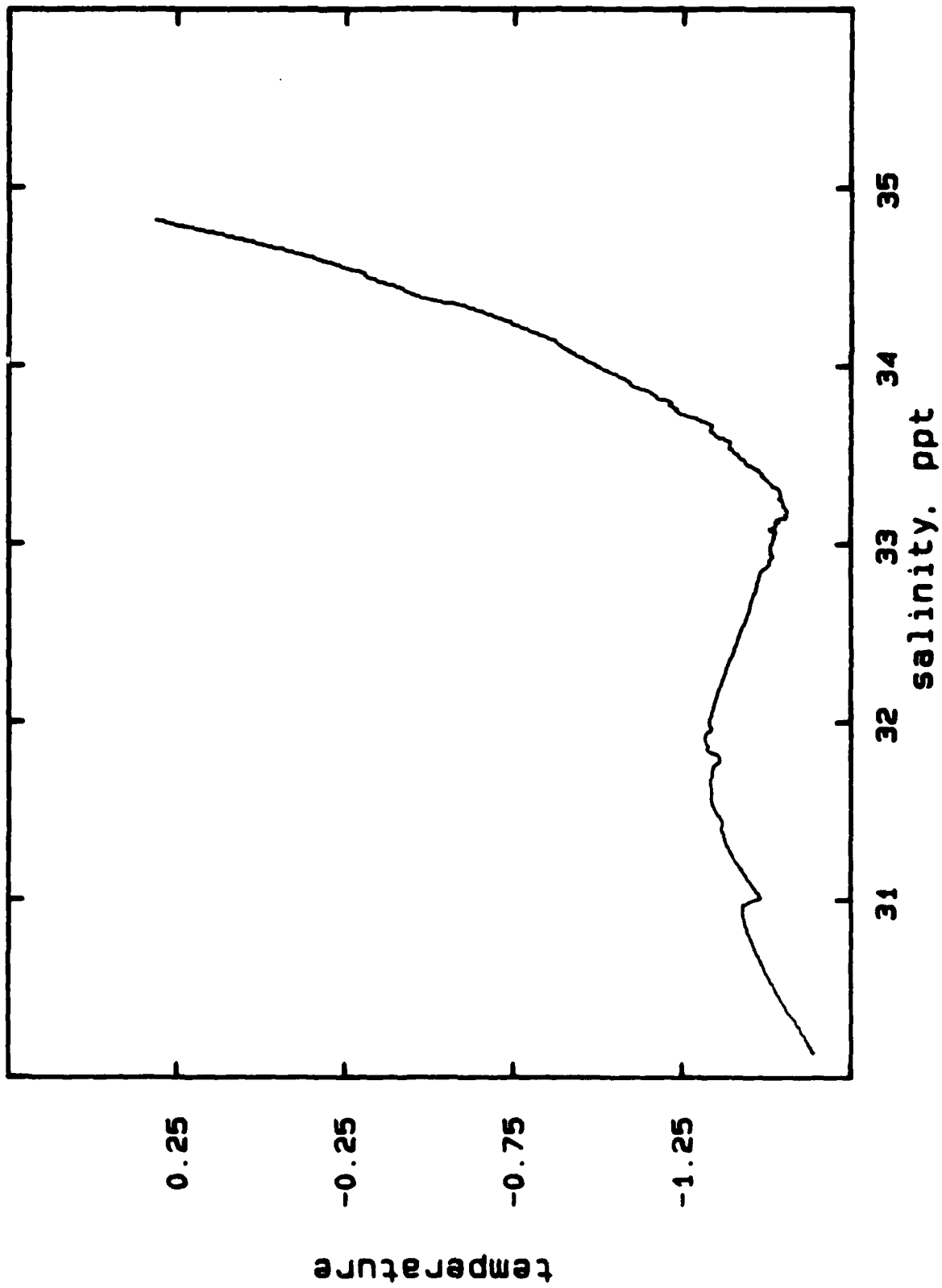


A324B DROP 6



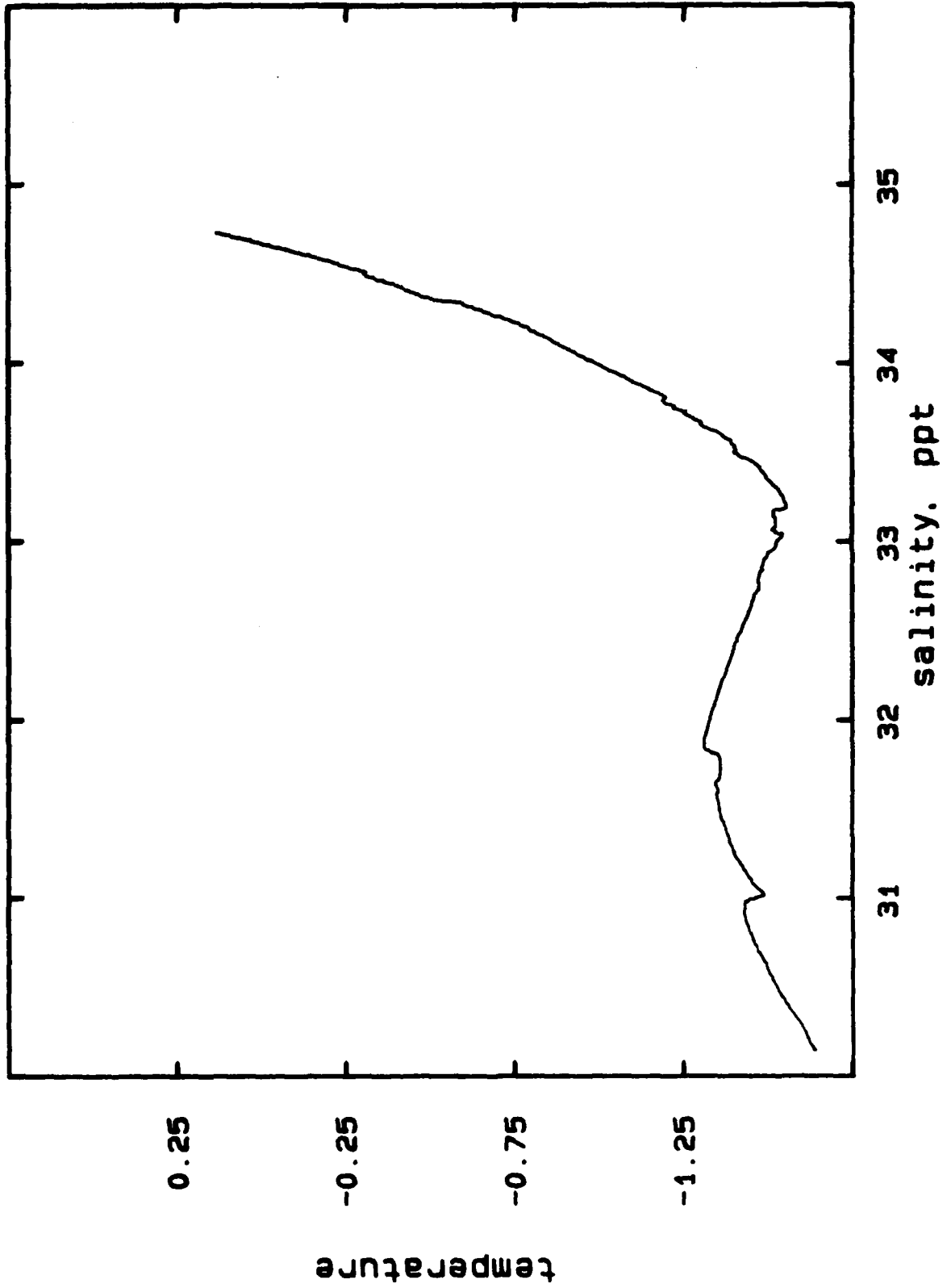
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A326A DROP 5





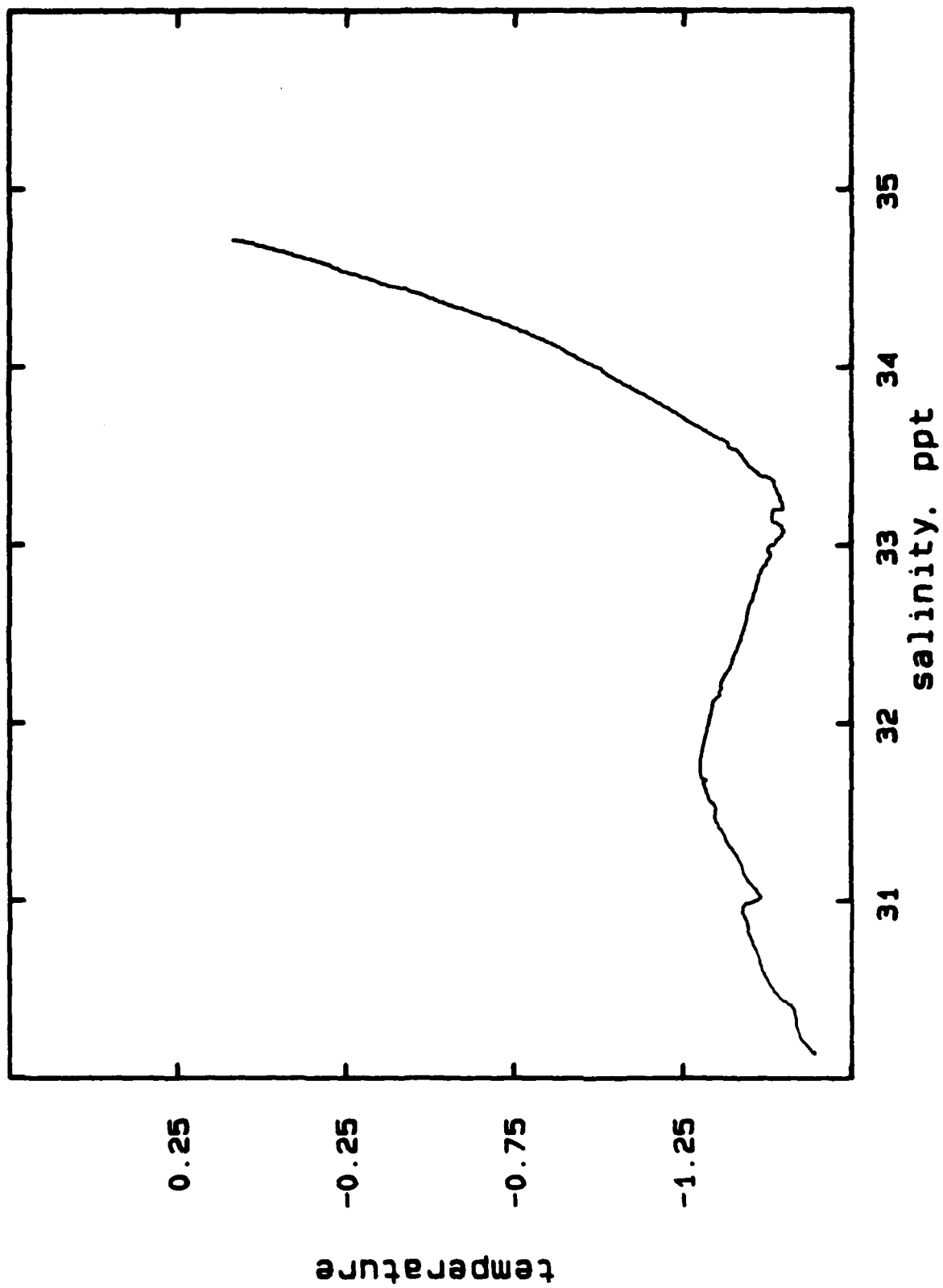
A326C DROP 3



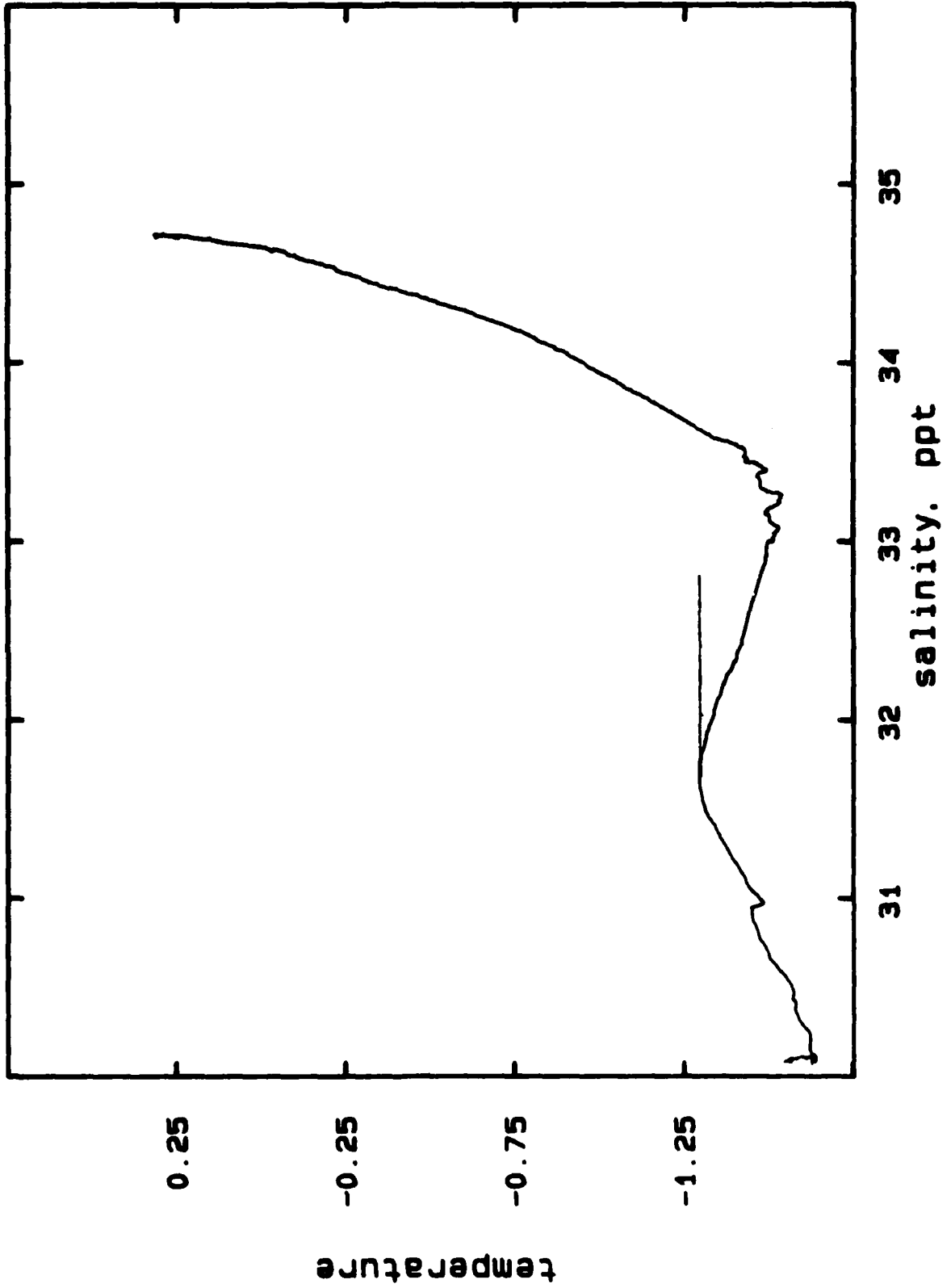




## A327B DROP 3

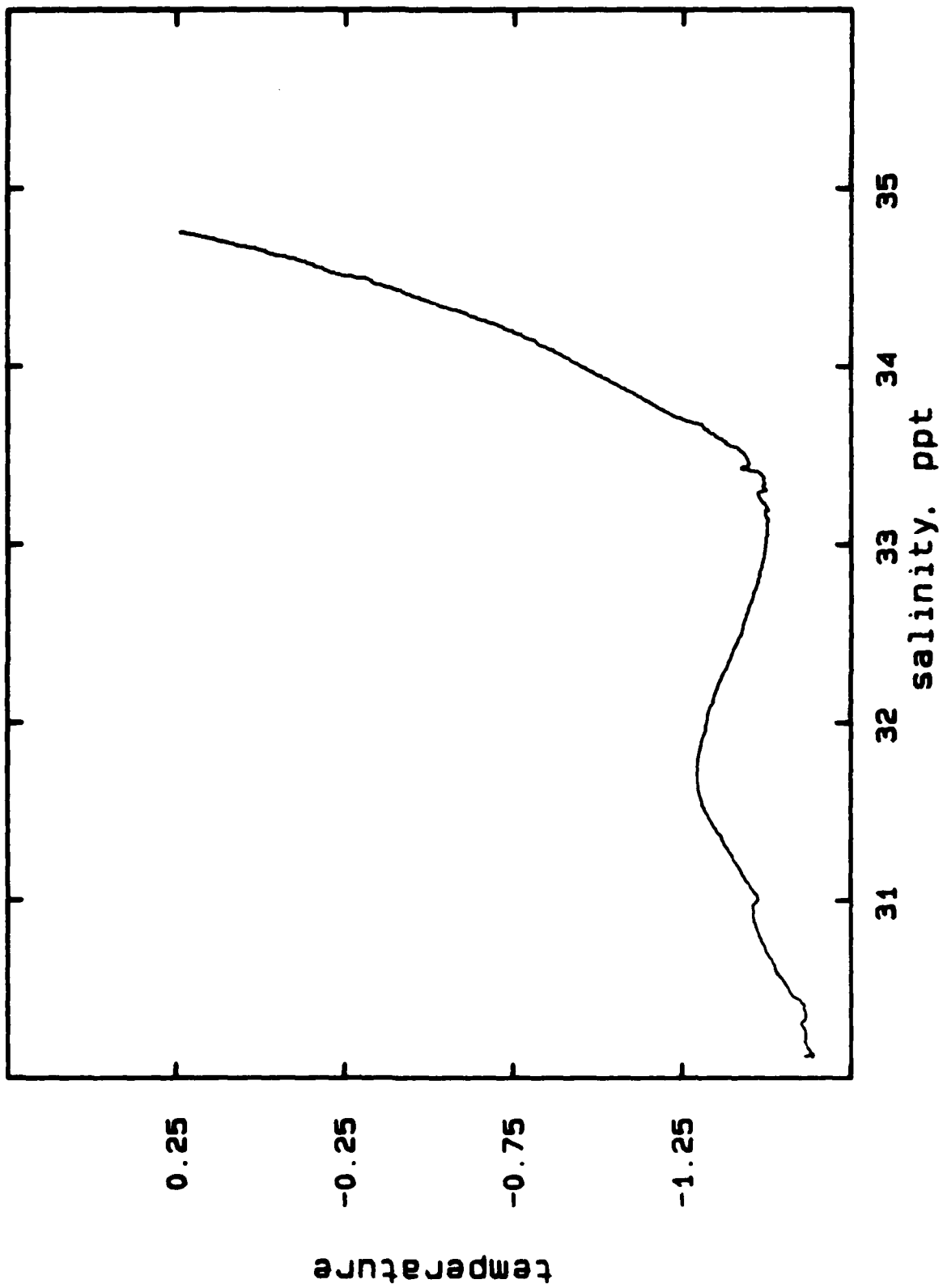


A328A DROP 2

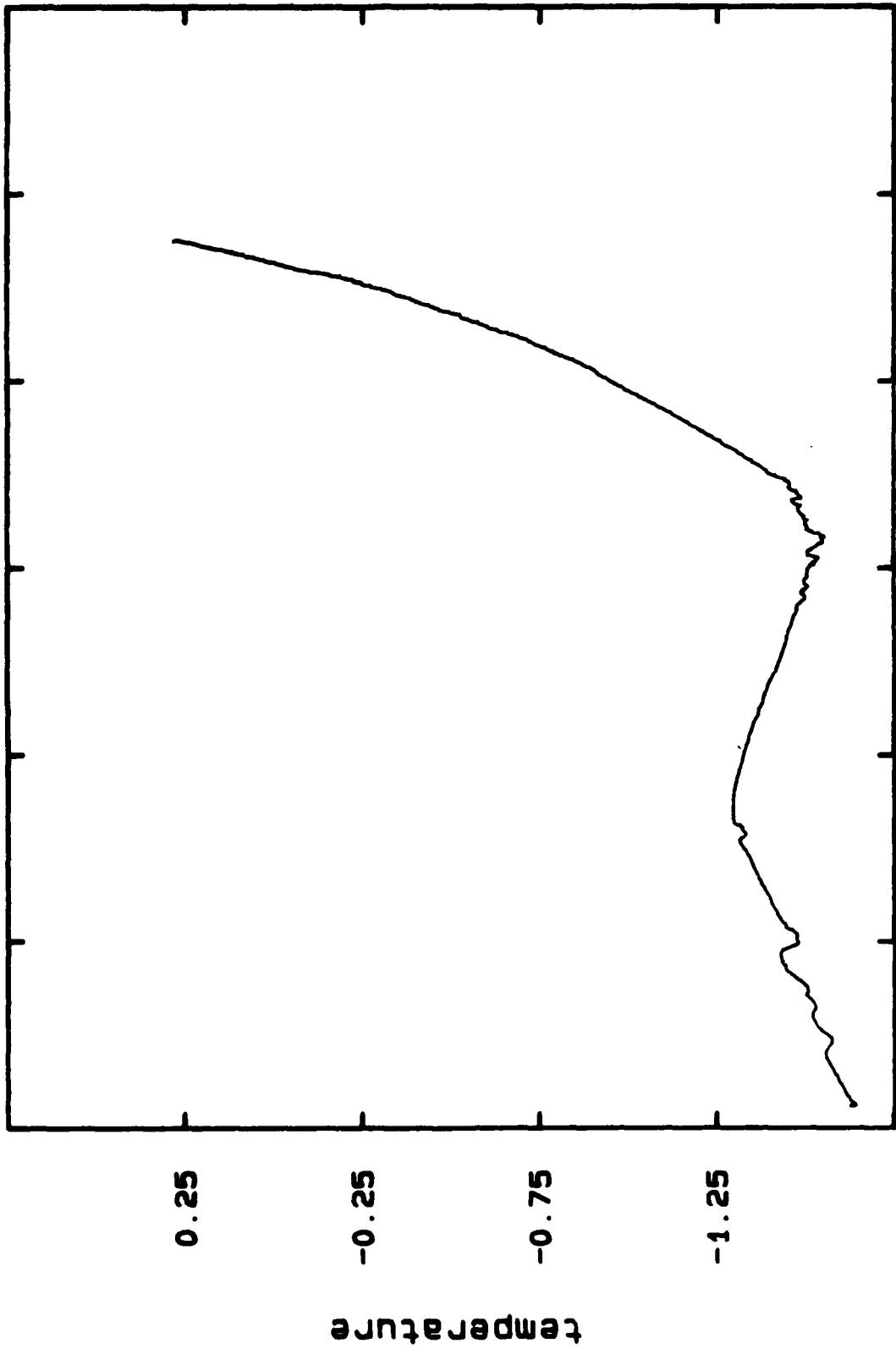


91 525 1 2 300 180 100 200 220 240 260 280 300 320 340 360 380 400 420 440 460 480 500 520 540 560 580 600 620 640 660 680 700 720 740 760 780 800 820 840 860 880 900 920 940 960 980 1000

A329C DROP 1



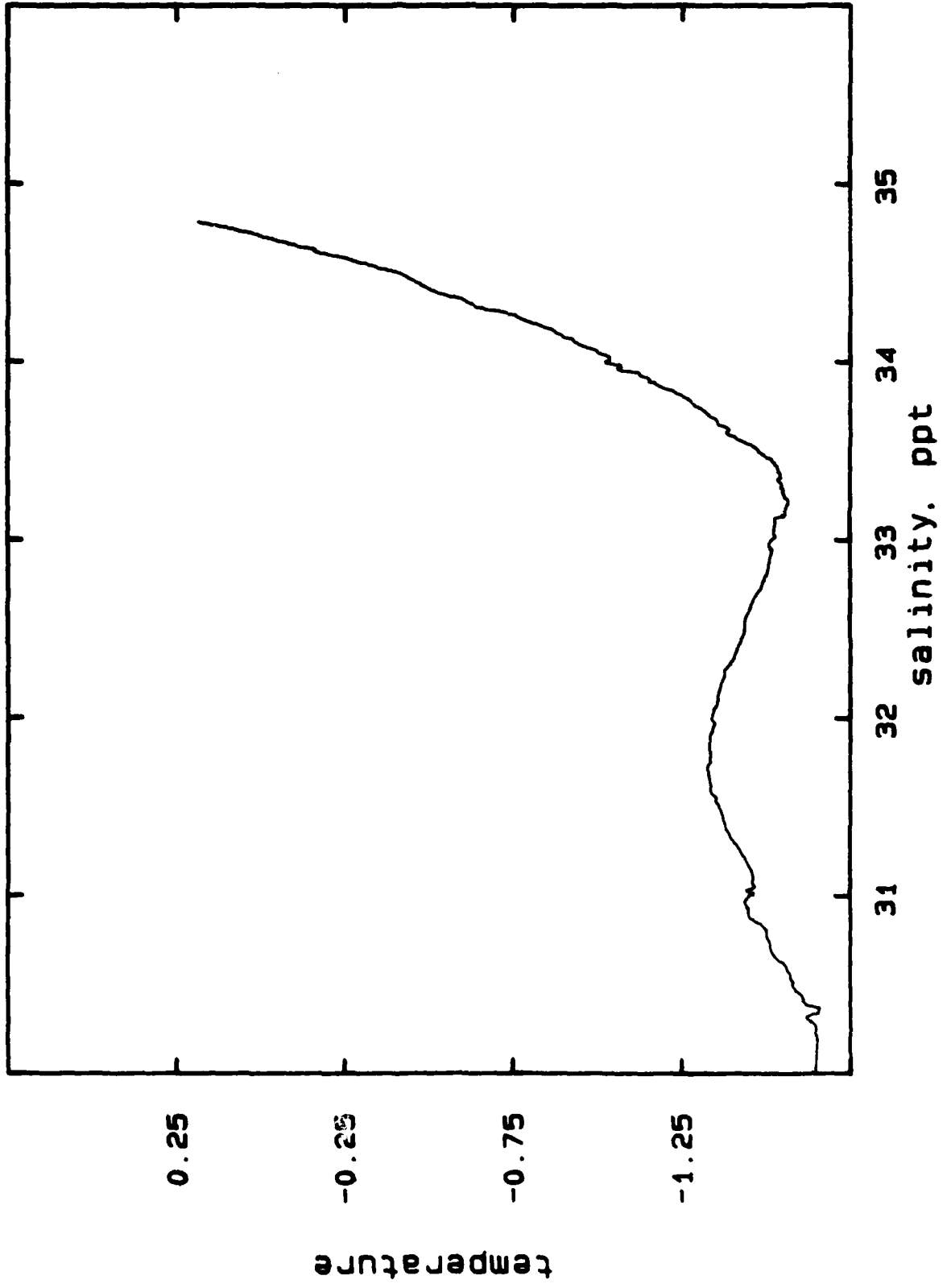
A330C DROP 2



31 32 33 34 35  
salinity. ppt

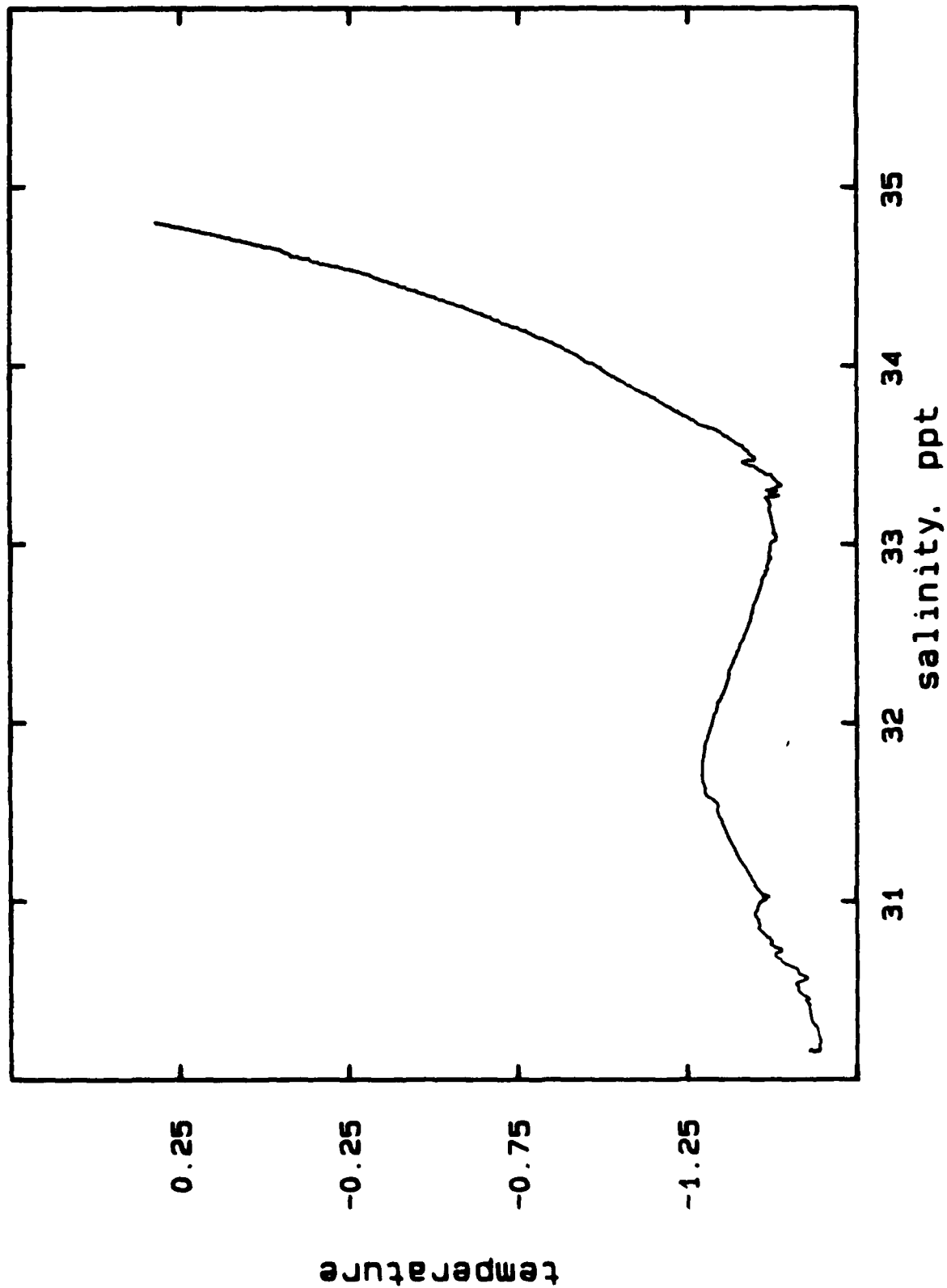
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

A323A DROP 6



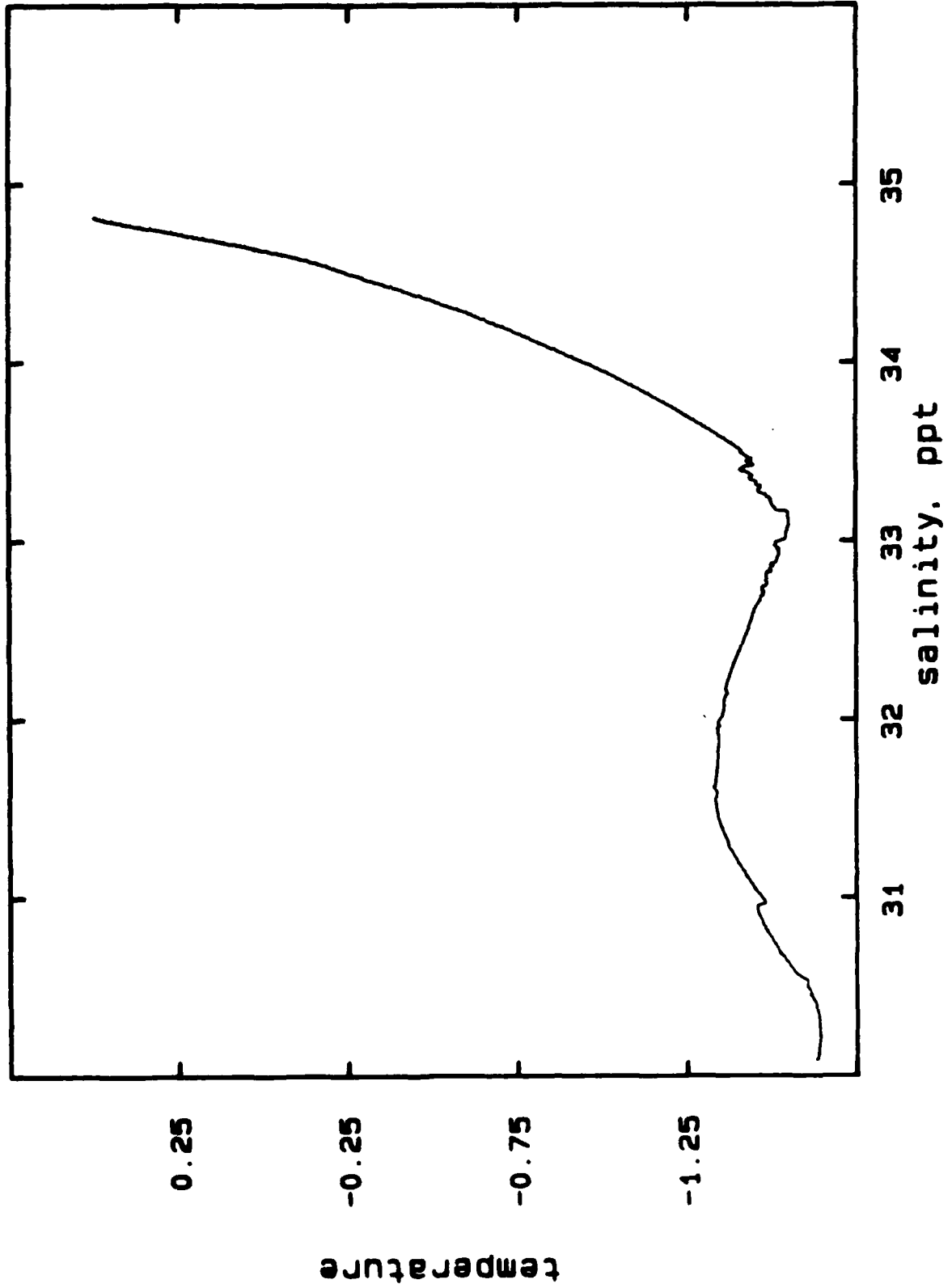


A402A DROP 2



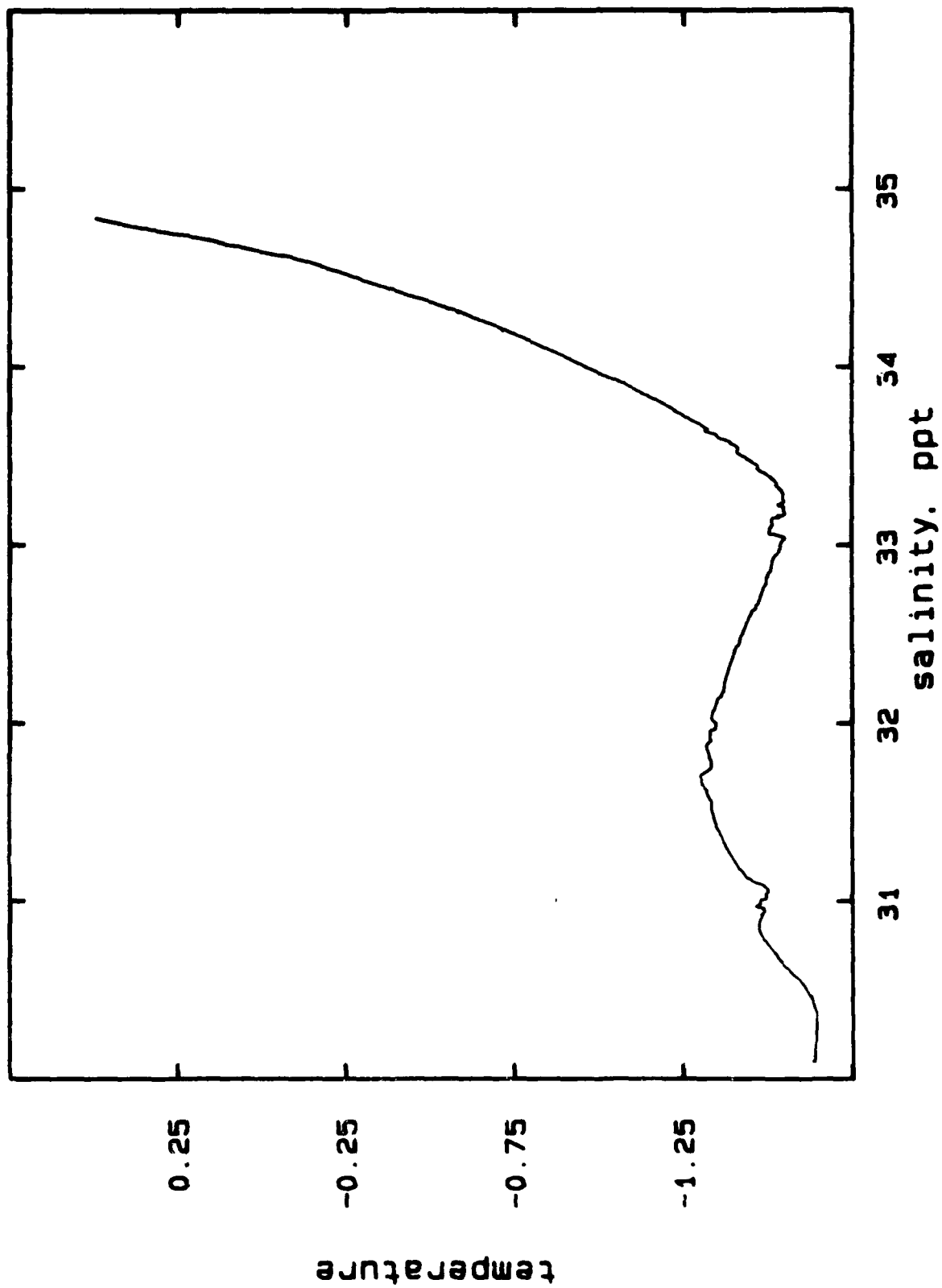


A417A DROP 2

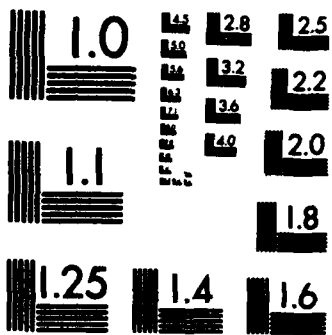


04 000 4 2 500 1 50 000 200 300 400 500 600 700 800 900 1000

A417B DROP 13

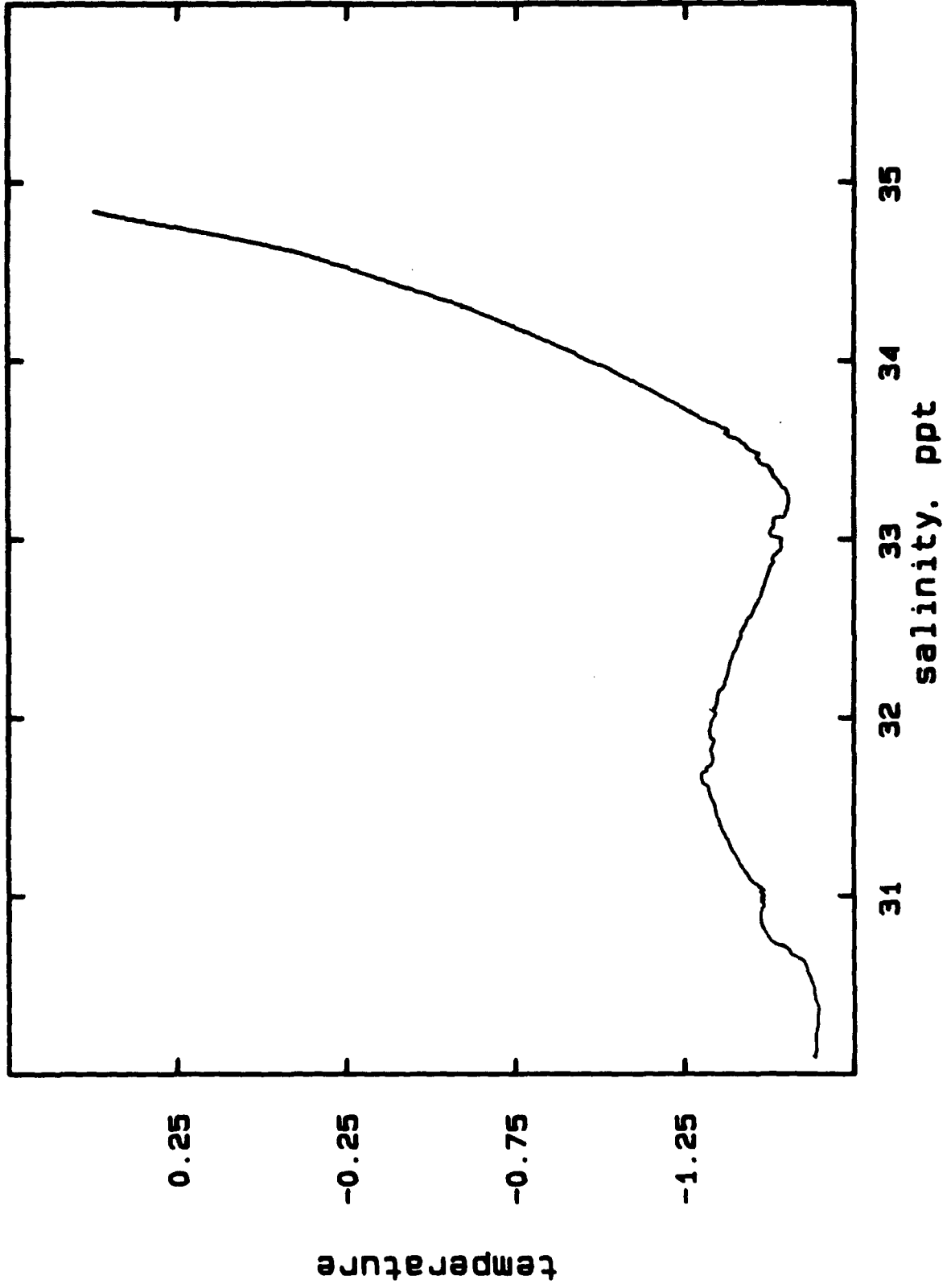






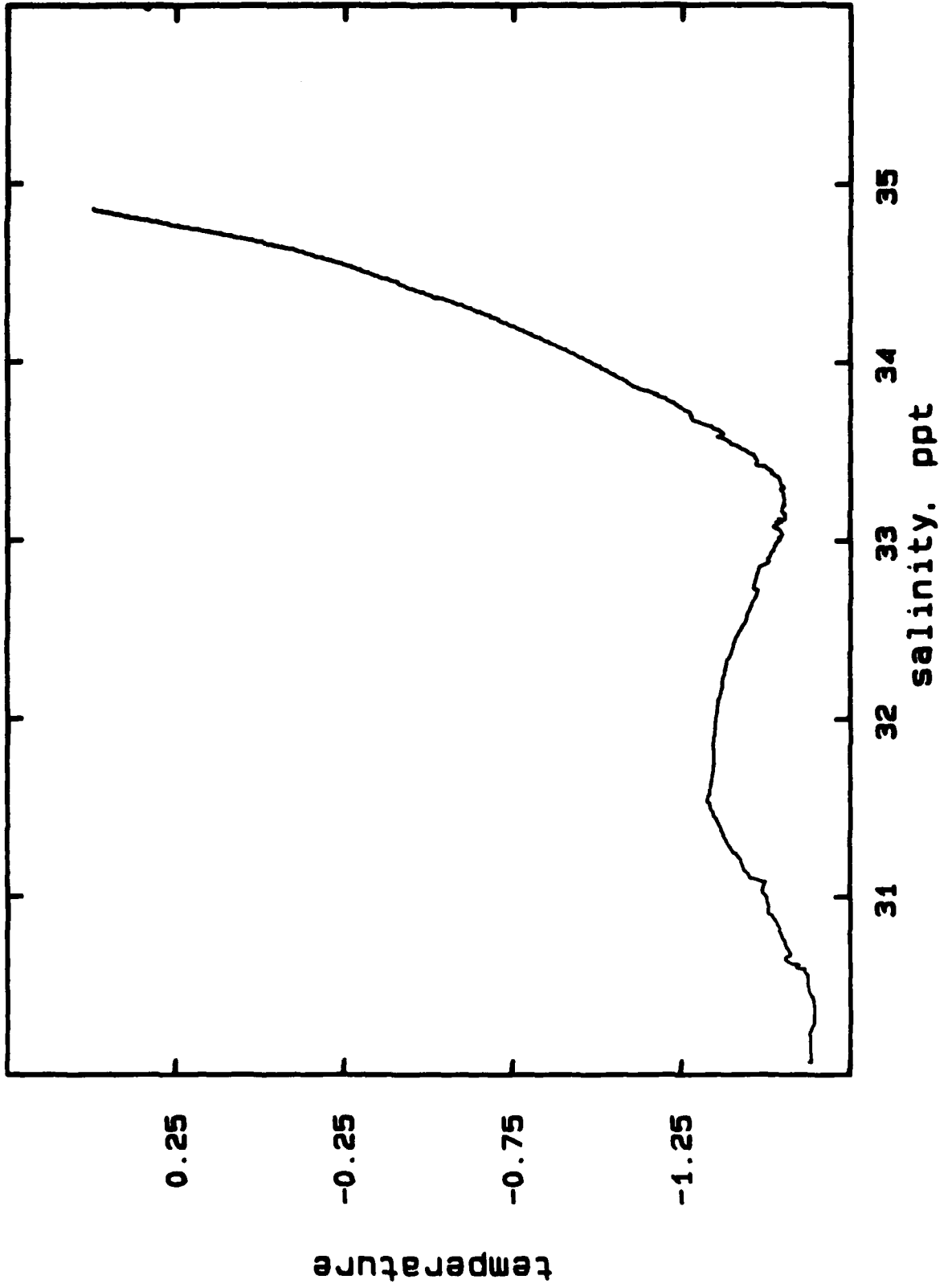
MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

A417C DROP 1

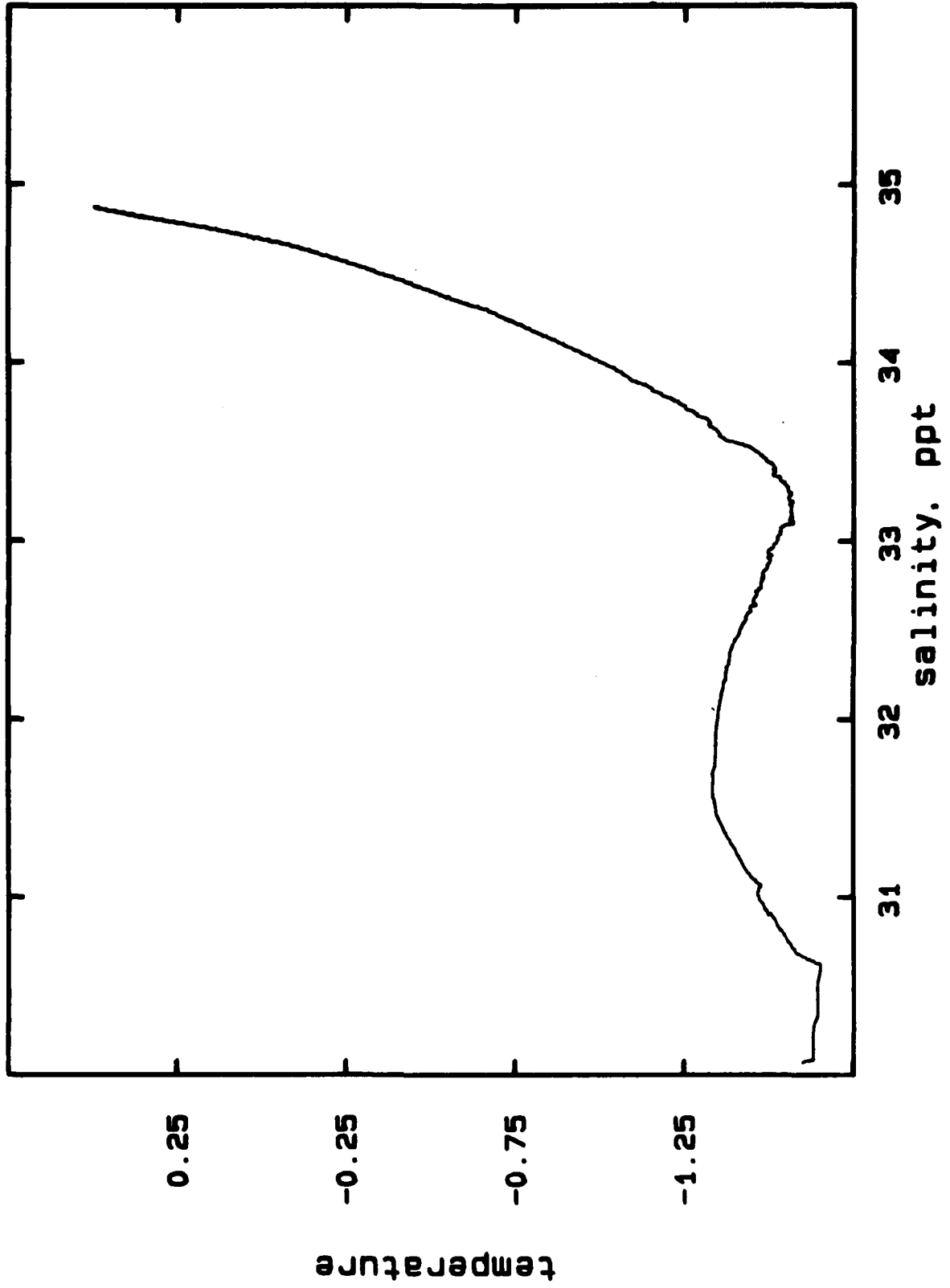


31 32 33 34 35  
salinity. ppt

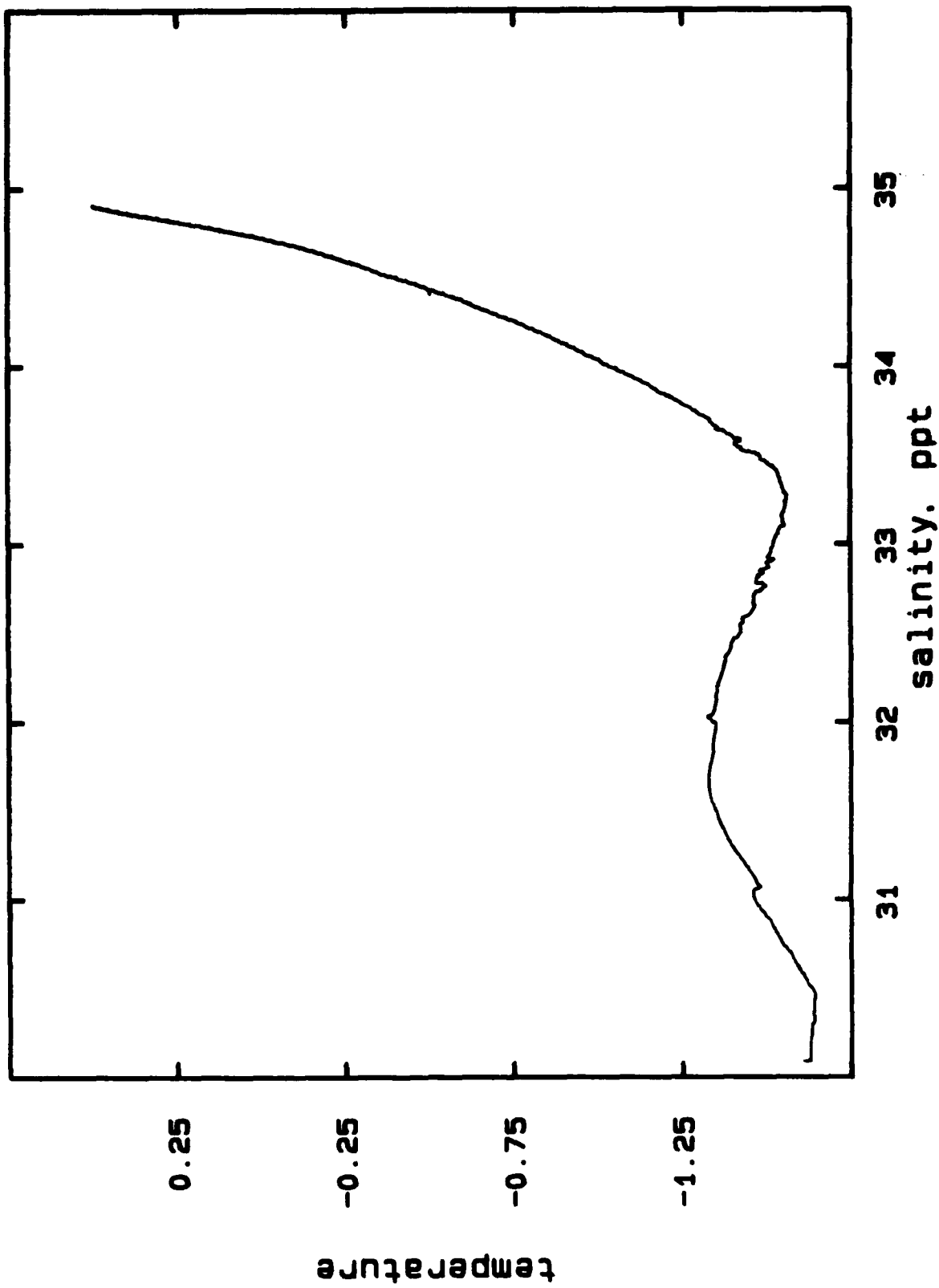
A417D DROP 1



A417E DROP 1

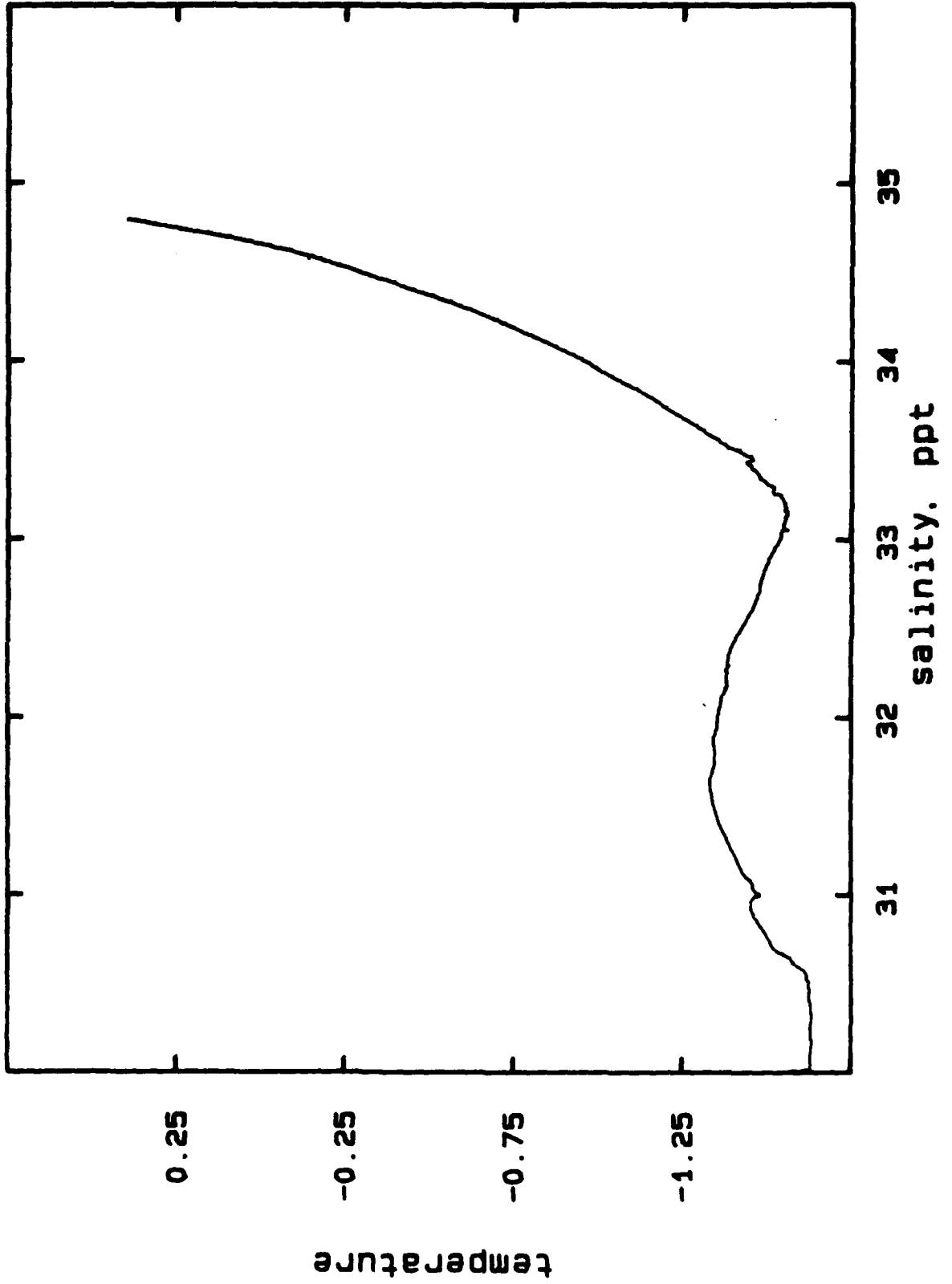


A417F DROP 18



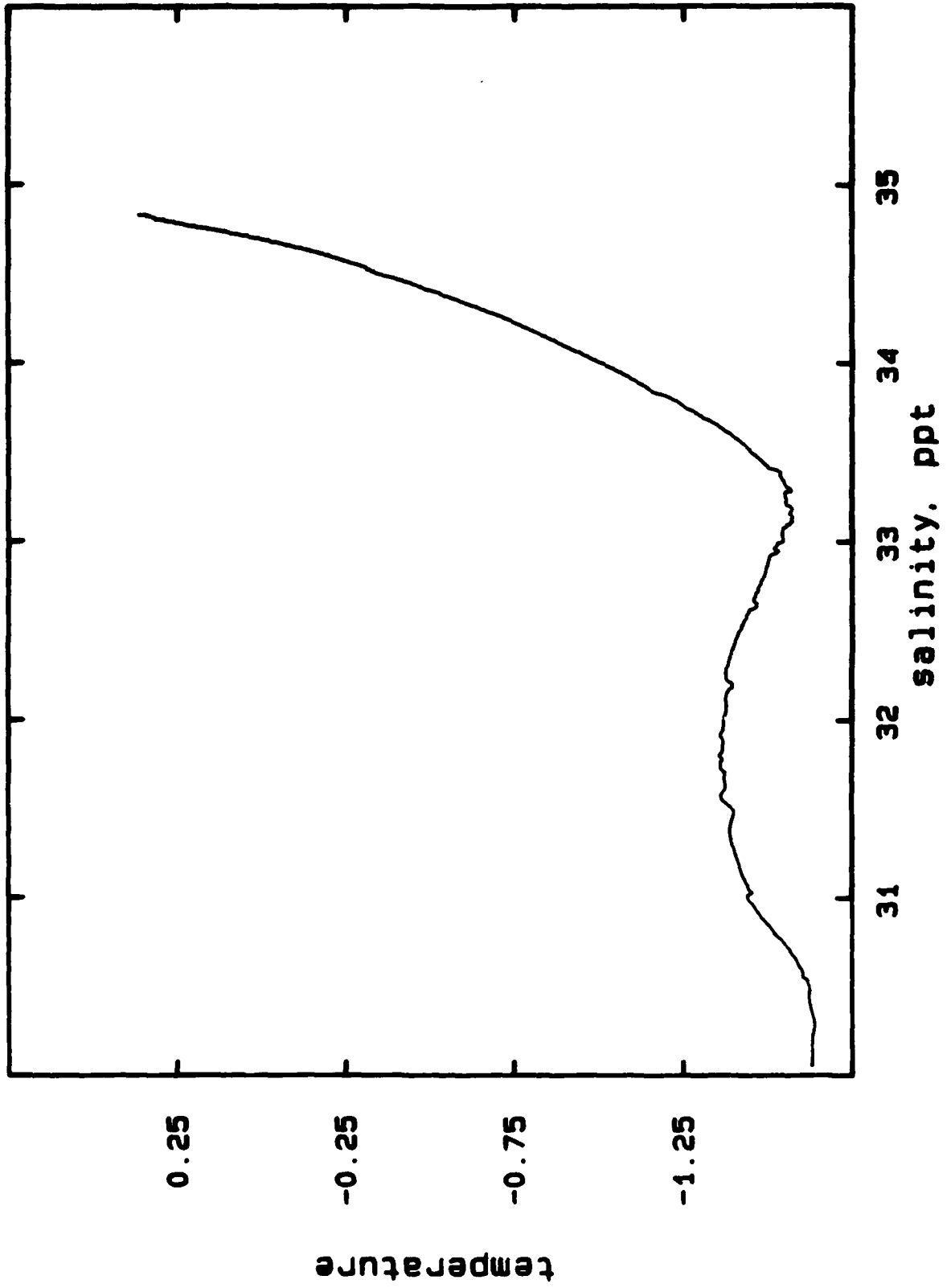


A418A DROP 3

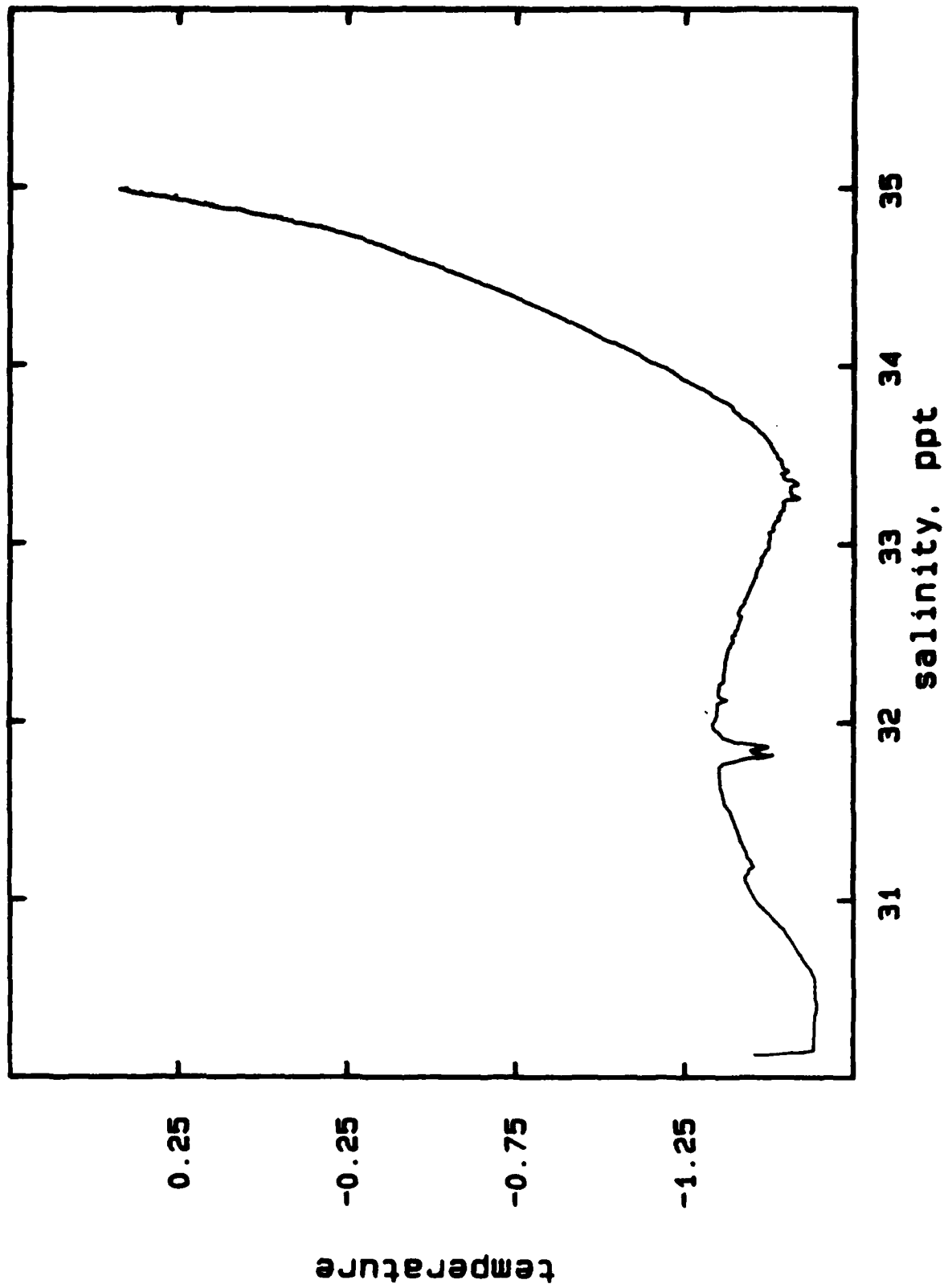


21 222 1.54 1.05 228 231 234 237 240 243 246 249 252 255 258 261 264 267 270 273 276 279 282 285 288 291 294 297 300 303 306 309 312 315 318 321 324 327 330 333 336 339 342 345 348 351 354 357 360 363 366 369 372 375 378 381 384 387 390 393 396 399 402 405 408 411 414 417 420 423 426 429 432 435 438 441 444 447 450 453 456 459 462 465 468 471 474 477 480 483 486 489 492 495 498 501 504 507 510 513 516 519 522 525 528 531 534 537 540 543 546 549 552 555 558 561 564 567 570 573 576 579 582 585 588 591 594 597 600 603 606 609 612 615 618 621 624 627 630 633 636 639 642 645 648 651 654 657 660 663 666 669 672 675 678 681 684 687 690 693 696 699 702 705 708 711 714 717 720 723 726 729 732 735 738 741 744 747 750 753 756 759 762 765 768 771 774 777 780 783 786 789 792 795 798 801 804 807 810 813 816 819 822 825 828 831 834 837 840 843 846 849 852 855 858 861 864 867 870 873 876 879 882 885 888 891 894 897 900 903 906 909 912 915 918 921 924 927 930 933 936 939 942 945 948 951 954 957 960 963 966 969 972 975 978 981 984 987 990 993 996 999

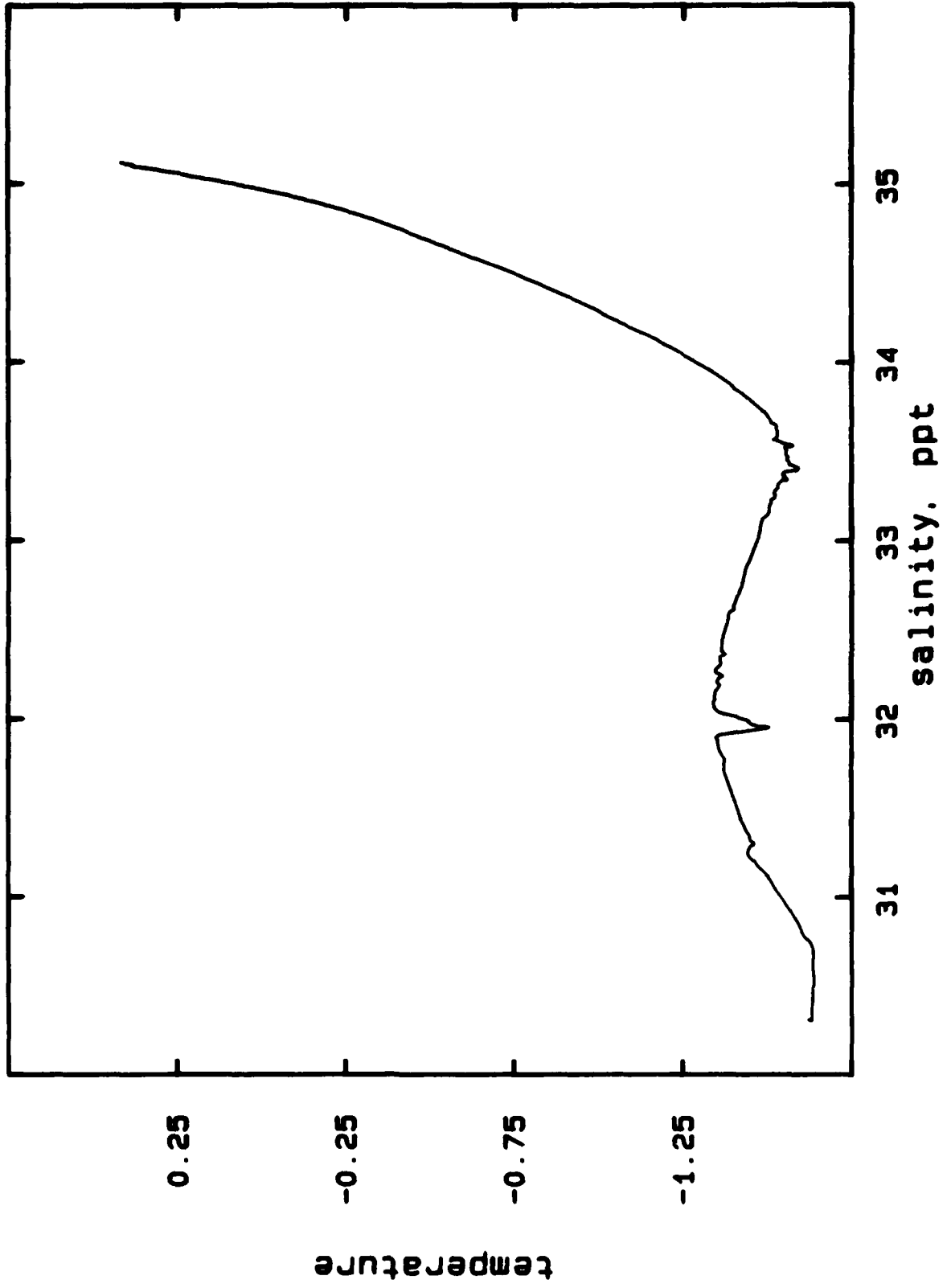
## A418B DROP 7



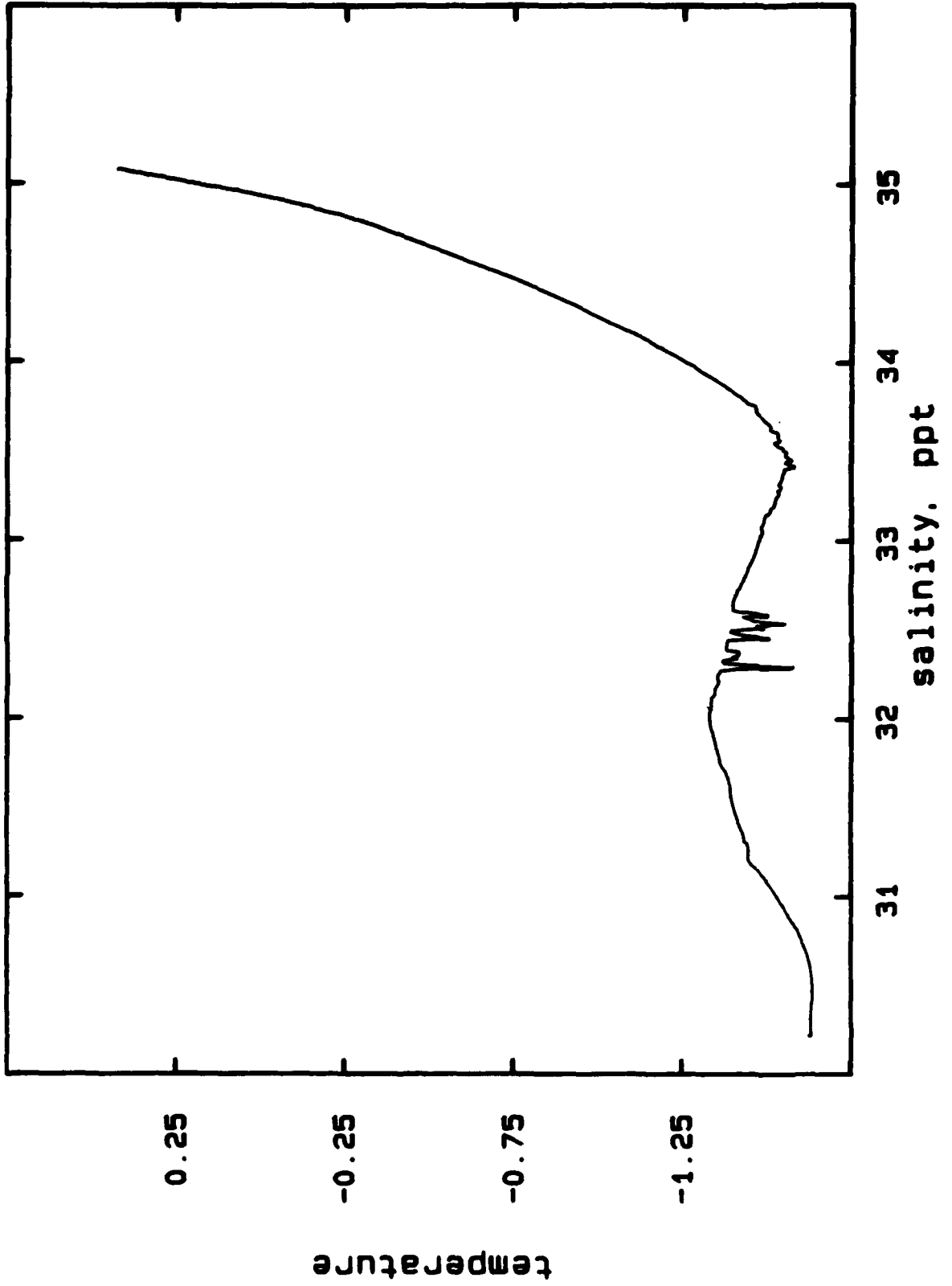
## A419A DROP 1



A419B DROP 1

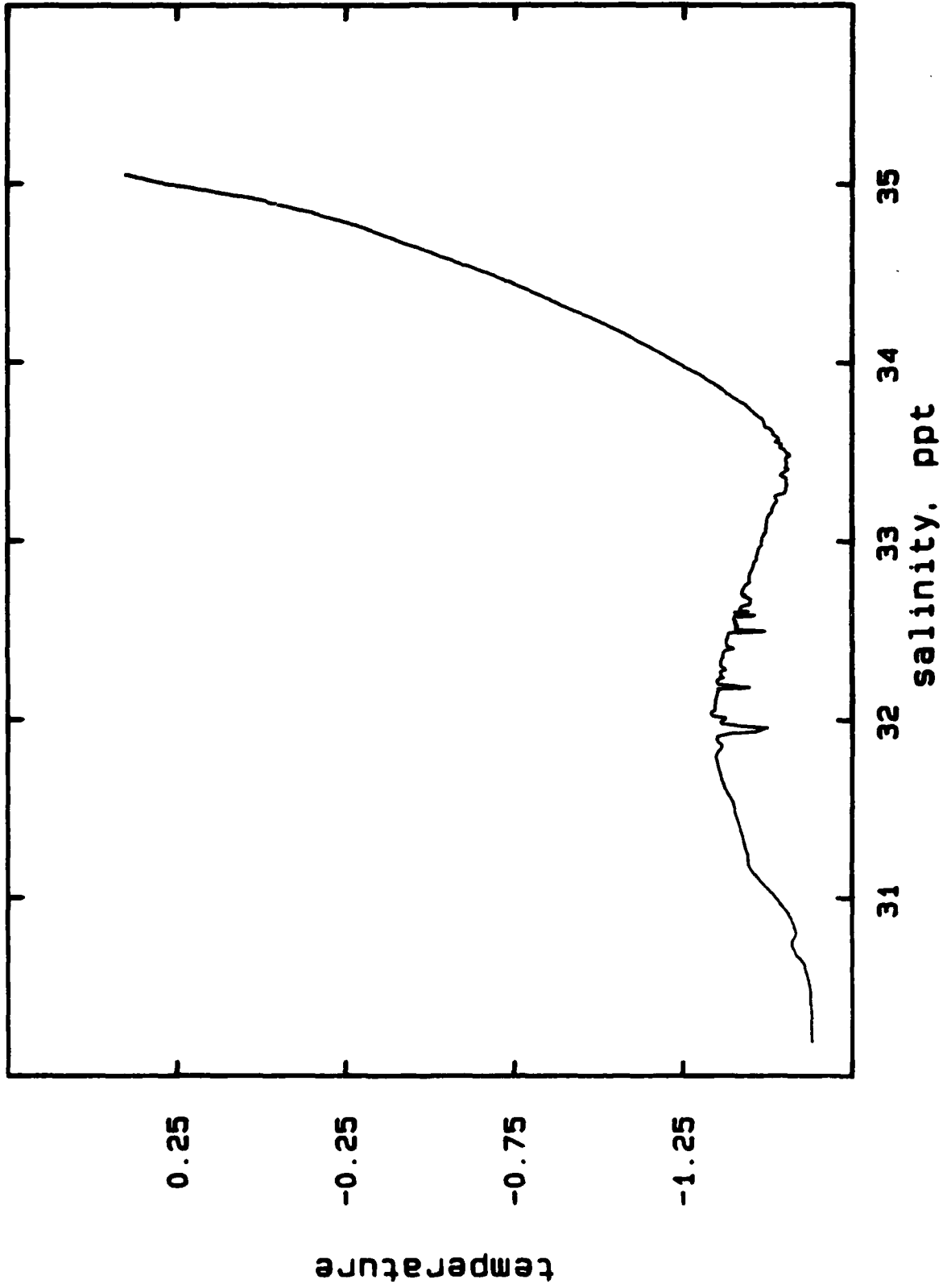


A419C DRDP 1

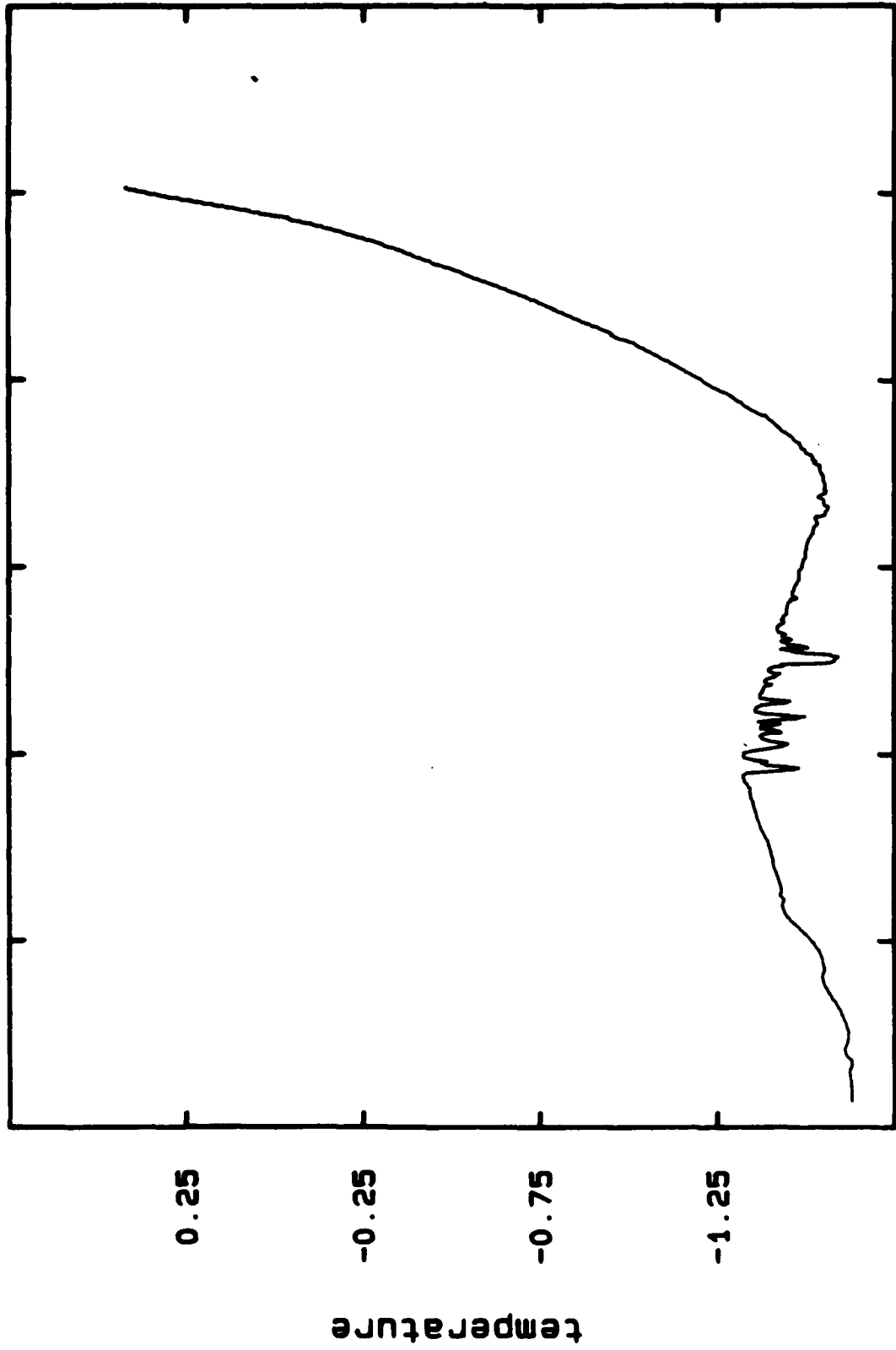


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

A4190 DROP 1



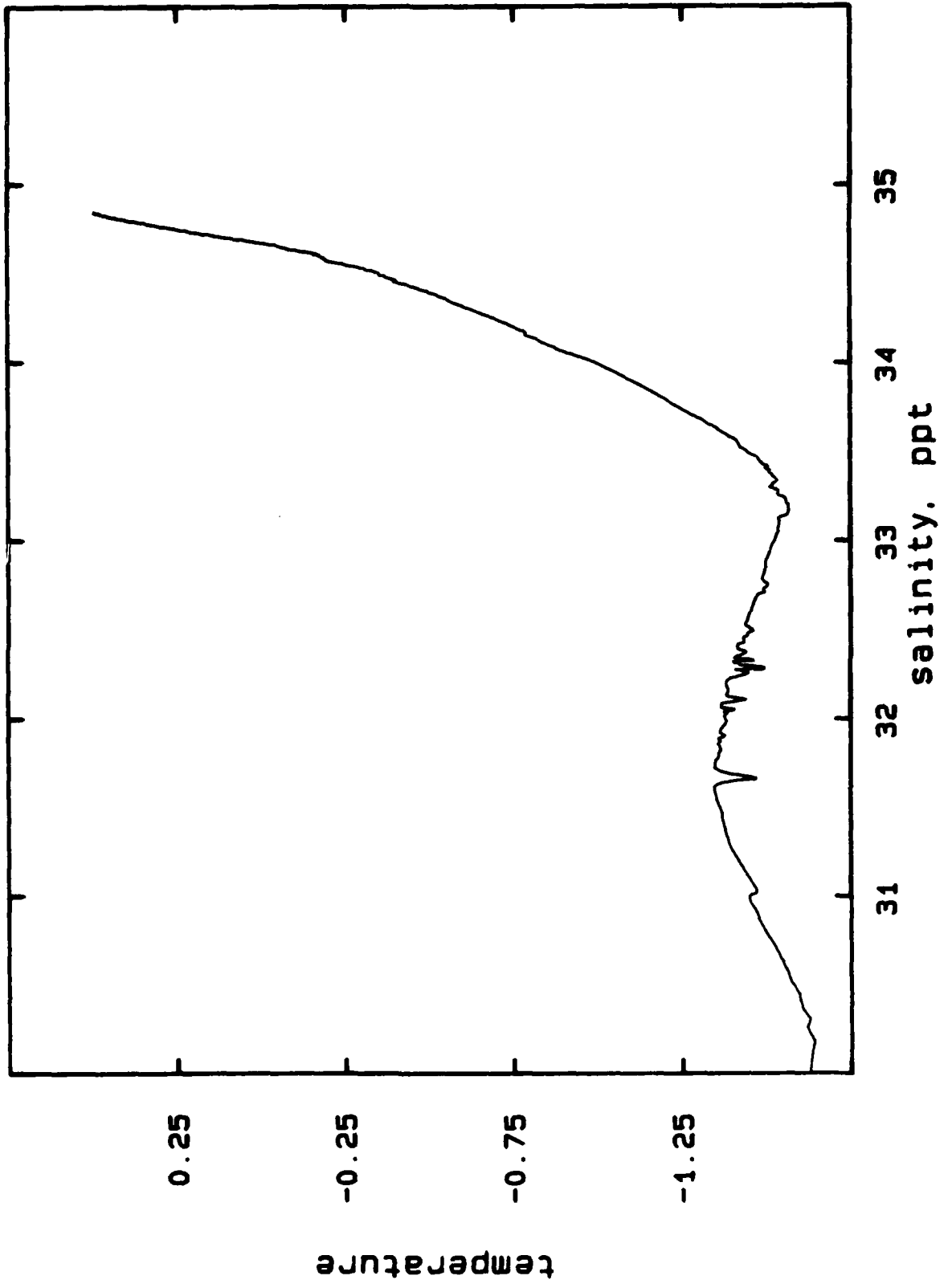
A419E DROP 1



31 32 33 34 35  
salinity, ppt

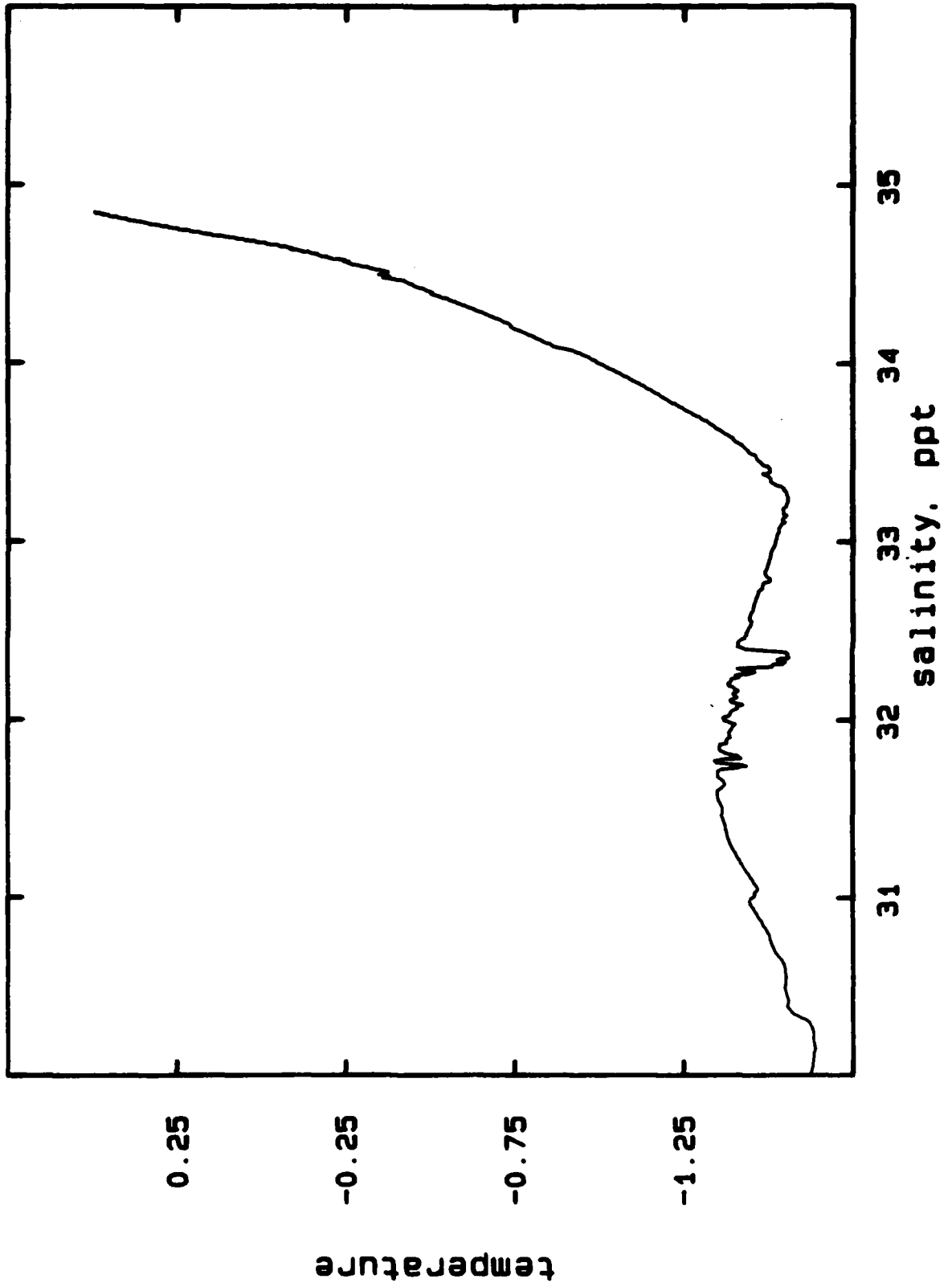
29 200 1 2 300 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 11000 12000 13000 14000 15000 16000 17000 18000 19000 20000 21000 22000 23000 24000 25000 26000 27000 28000 29000 30000 31000 32000 33000 34000 35000 36000 37000 38000 39000 40000 41000 42000 43000 44000 45000 46000 47000 48000 49000 50000 51000 52000 53000 54000 55000 56000 57000 58000 59000 60000 61000 62000 63000 64000 65000 66000 67000 68000 69000 70000 71000 72000 73000 74000 75000 76000 77000 78000 79000 80000 81000 82000 83000 84000 85000 86000 87000 88000 89000 90000 91000 92000 93000 94000 95000 96000 97000 98000 99000 100000

A421A DROP 3



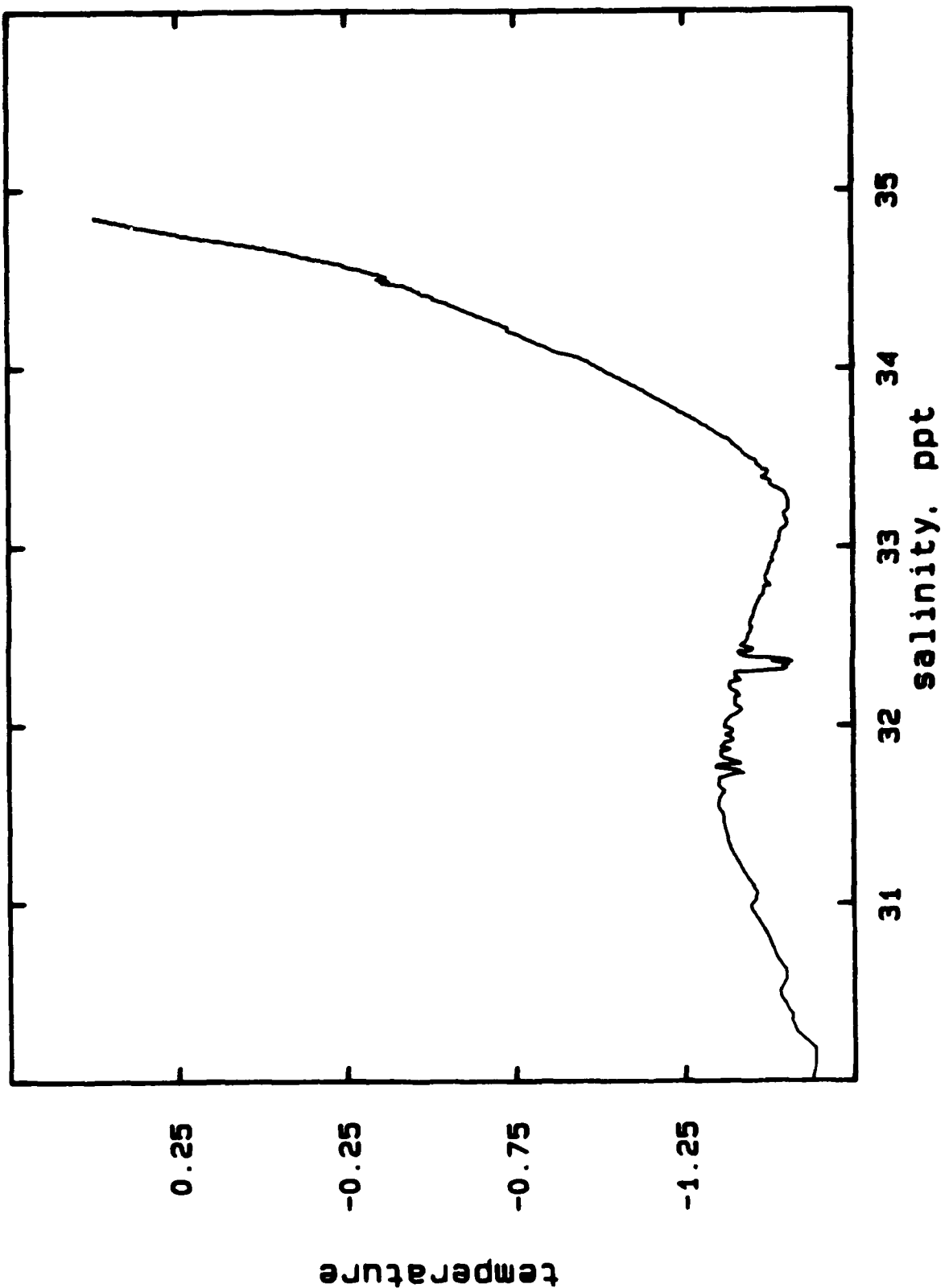


A421B DROP 9



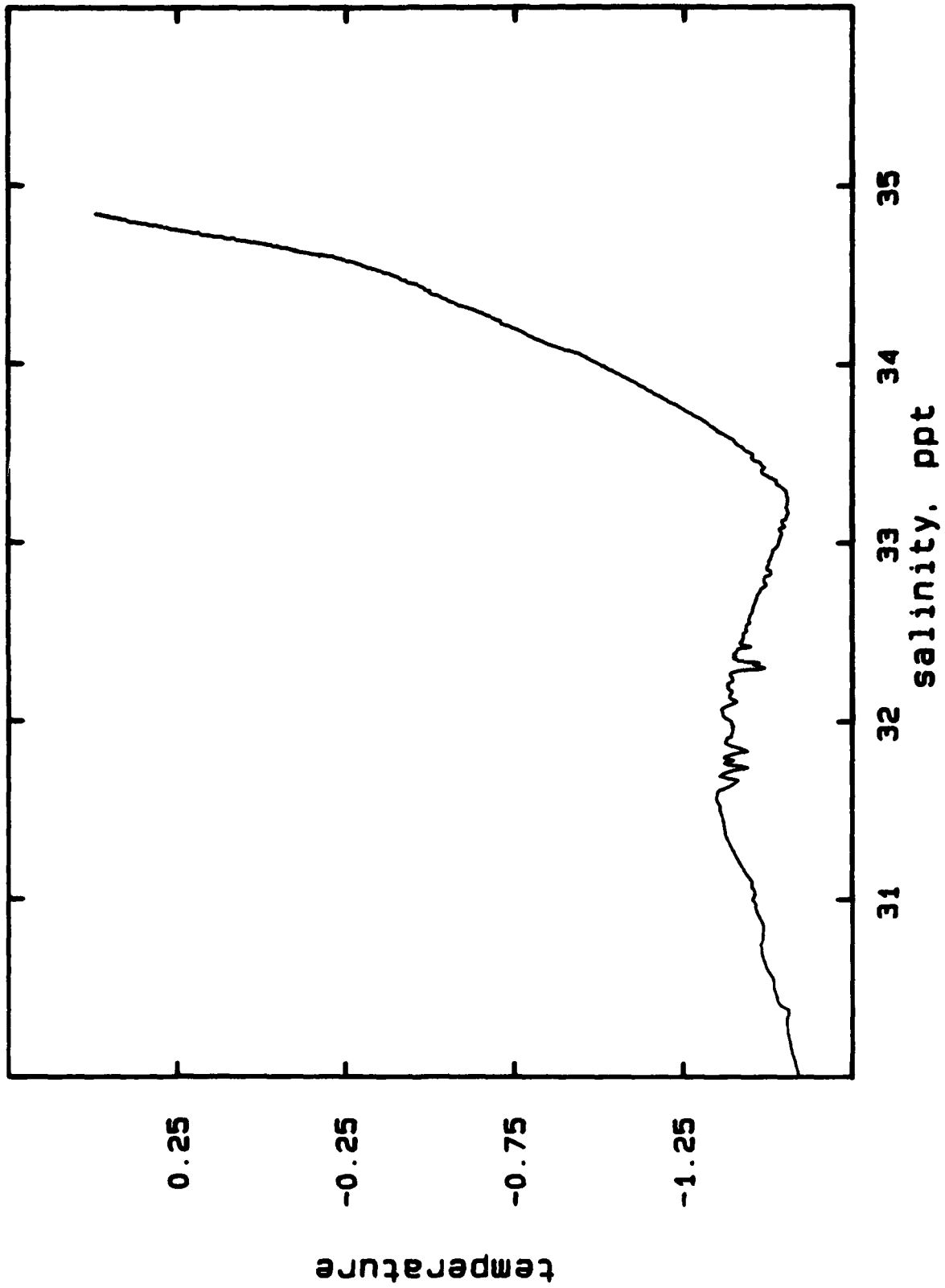
21. 022 1 10 022 1 02 022 005 021 001 1 1 001 1 00 1 00 1 00 1 00 1 00 1 00 1 00 1 00 1 00 1 00

A421C DROP 1



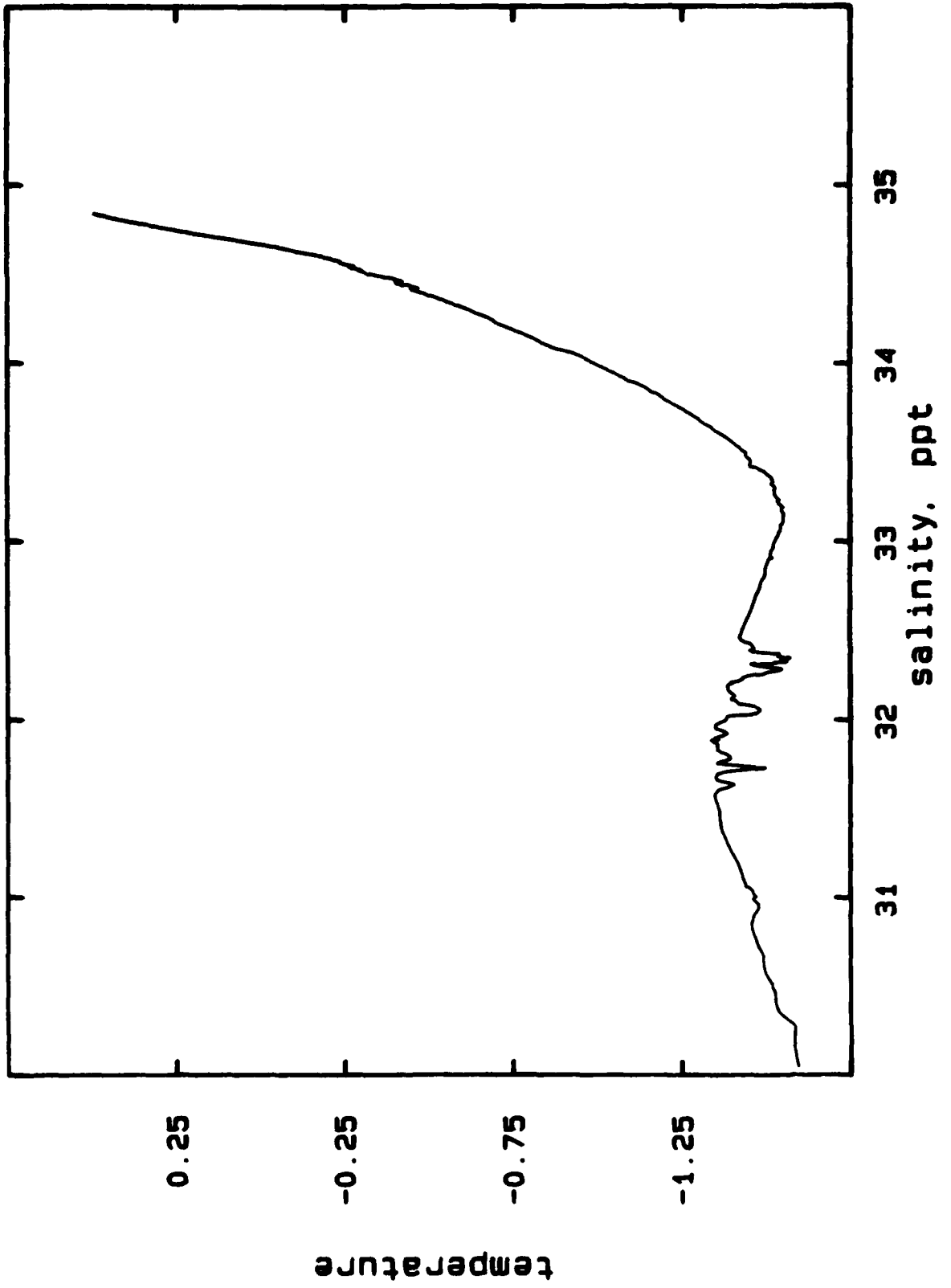


A422A DROP 1

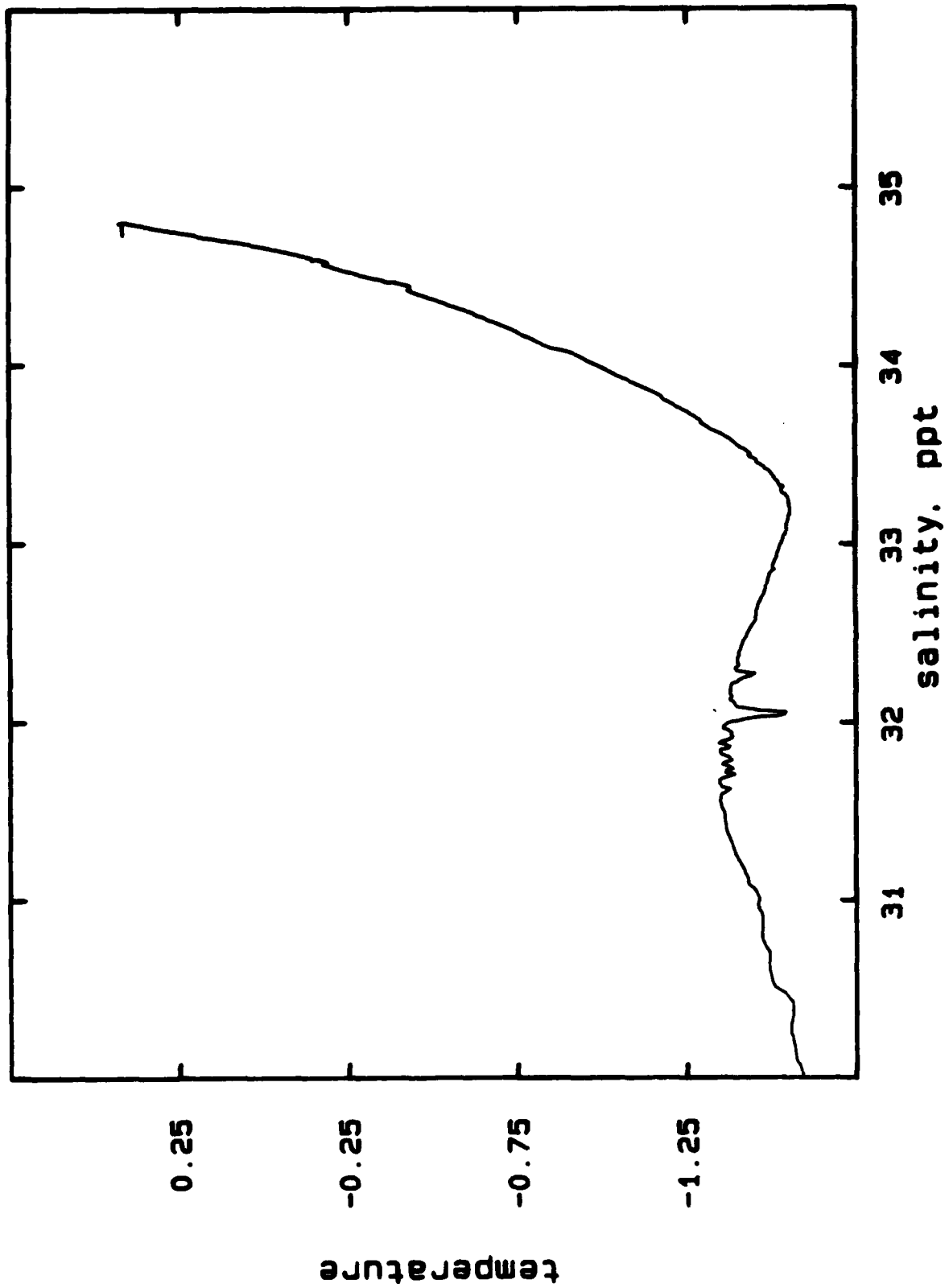




A422C DROP 1

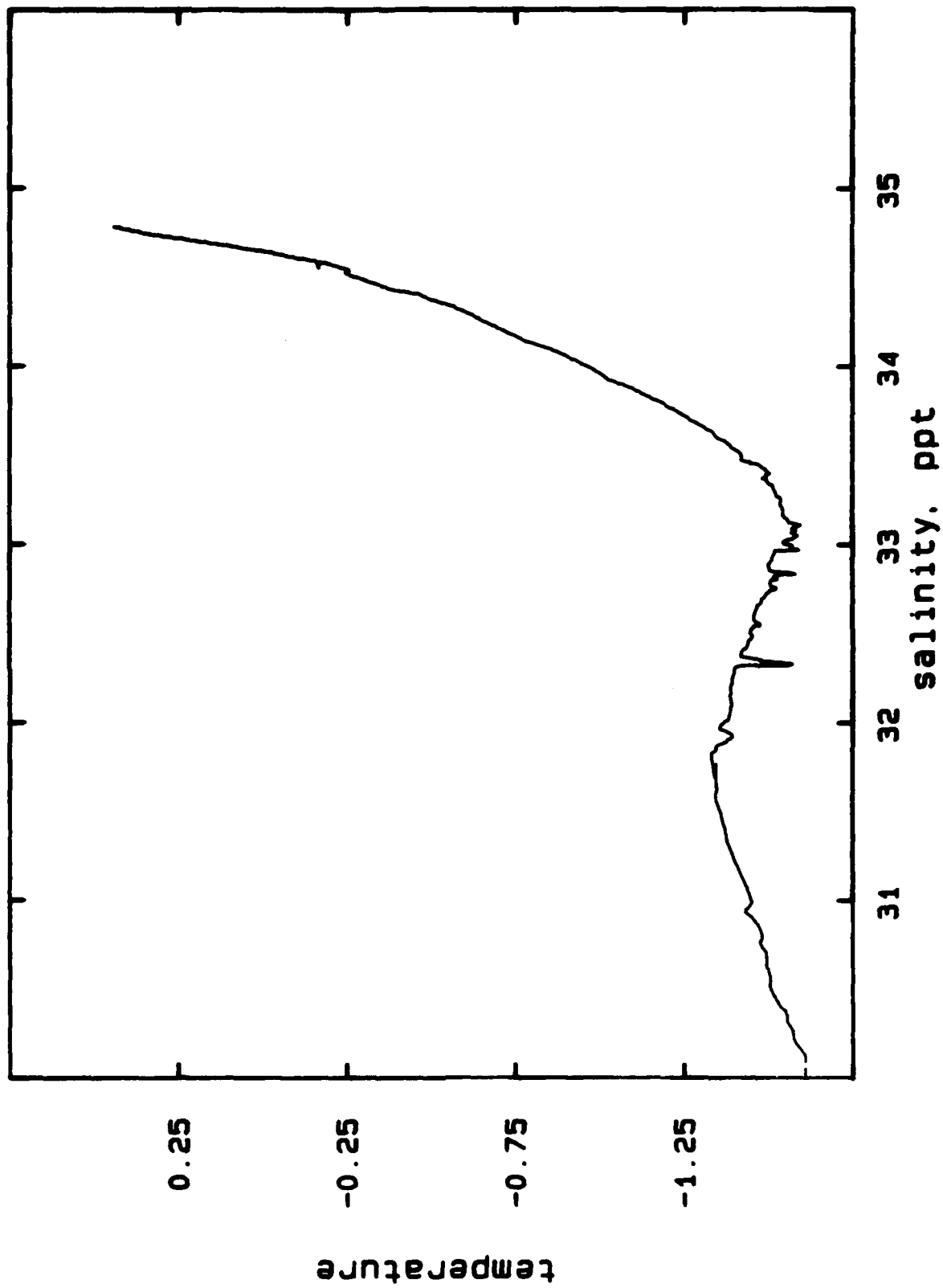


A422D DROP 1



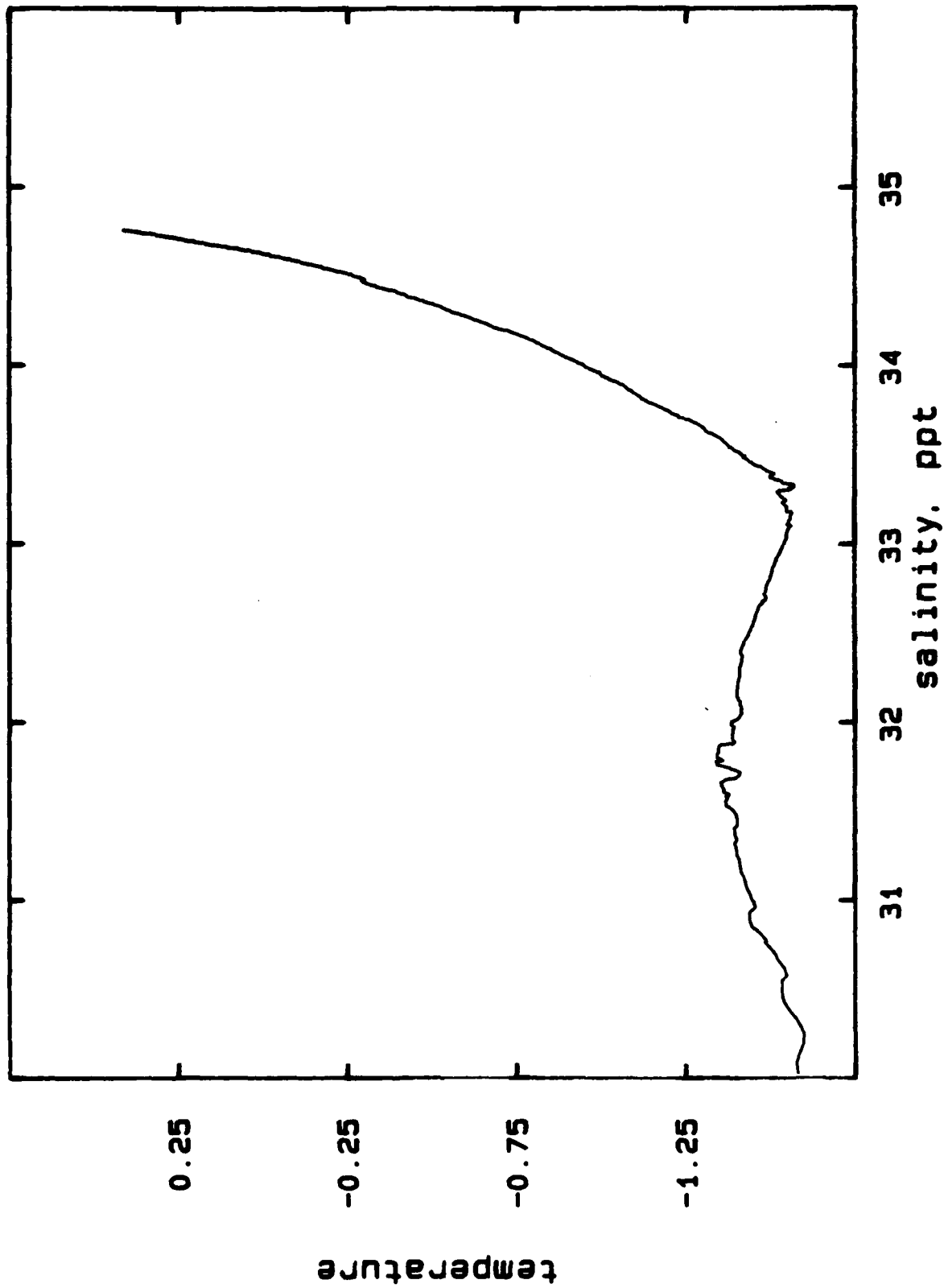
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

A422J DROP 4



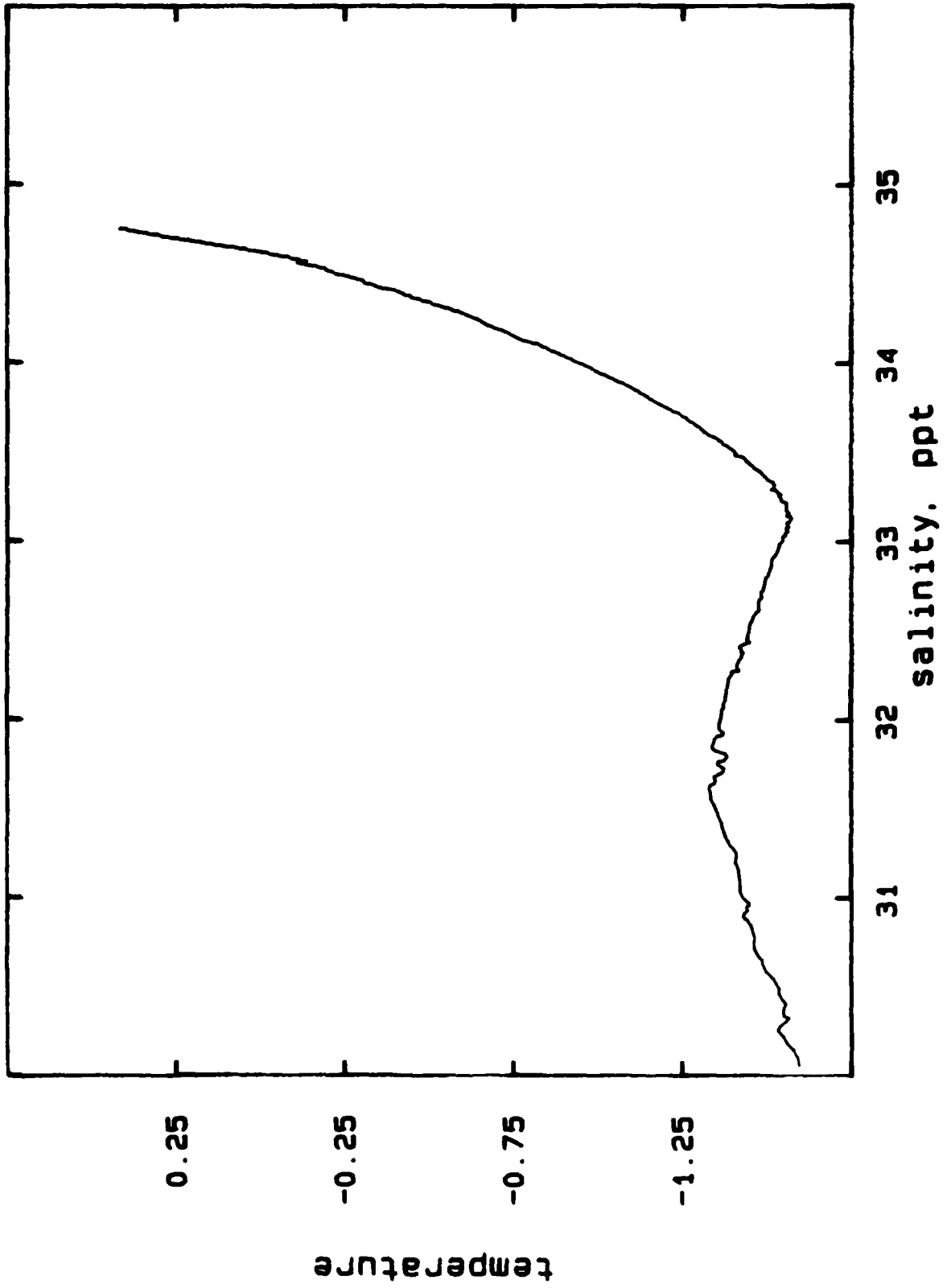


A423A DROP 2

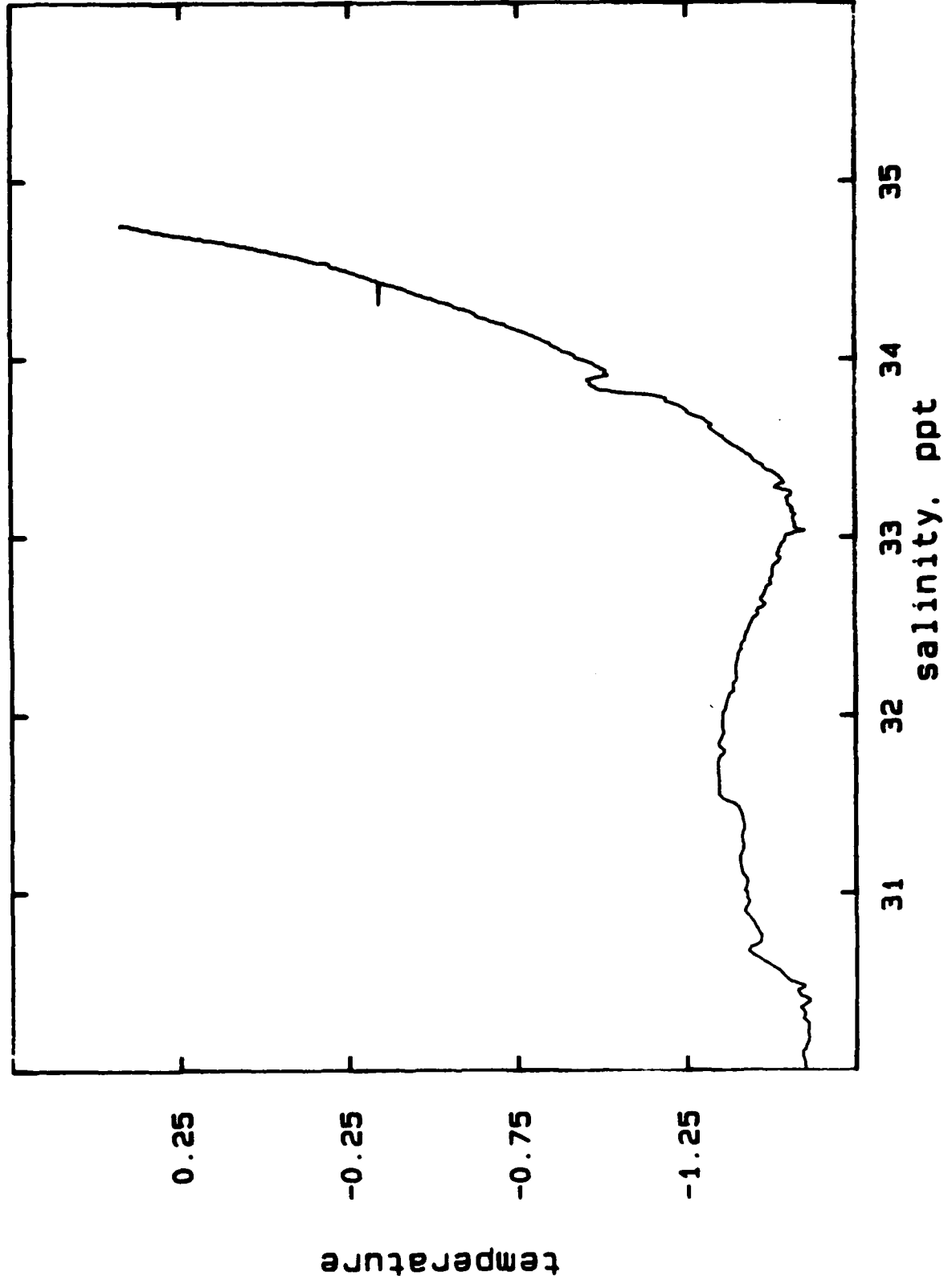


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

A423E DROP 3

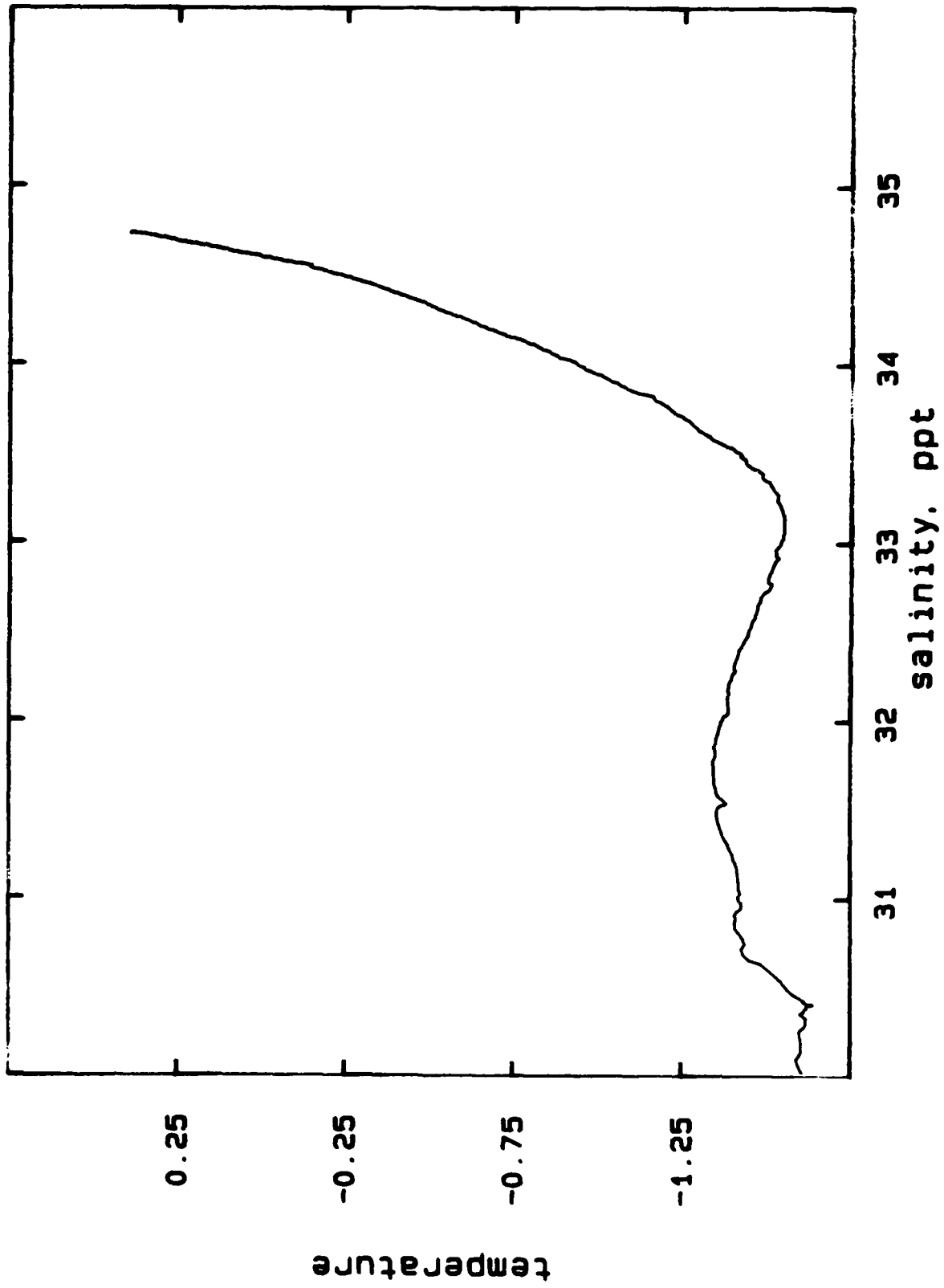


A424A DROP 3



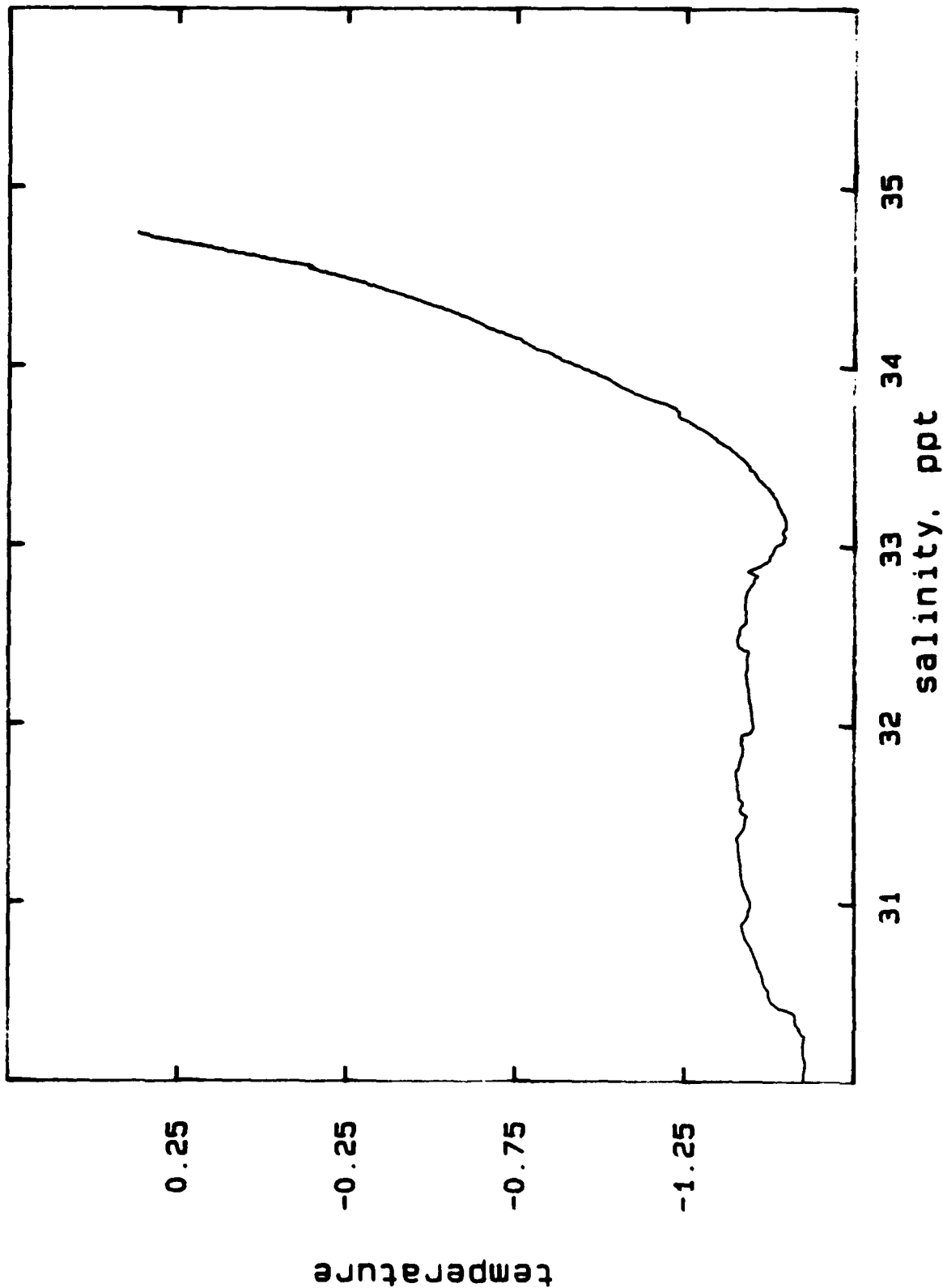
1 000 1 2 000 002 004 006 008 010 012 014 016 018 020 022 024 026 028 030 032 034 036 038 040 042 044 046 048 050 052 054 056 058 060 062 064 066 068 070 072 074 076 078 080 082 084 086 088 090 092 094 096 098 1.00

## A424G DROP 1



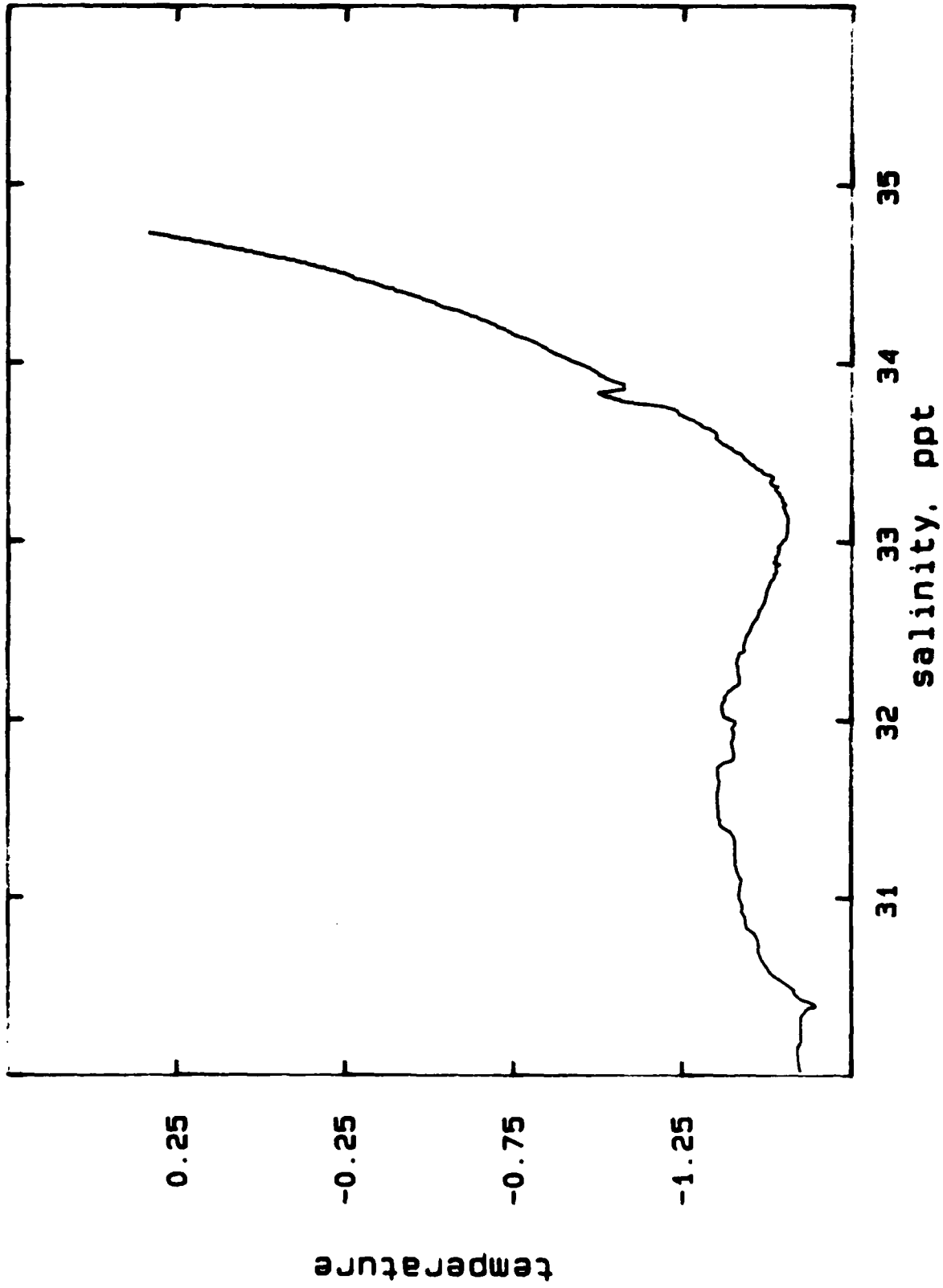


A425B DROP 3



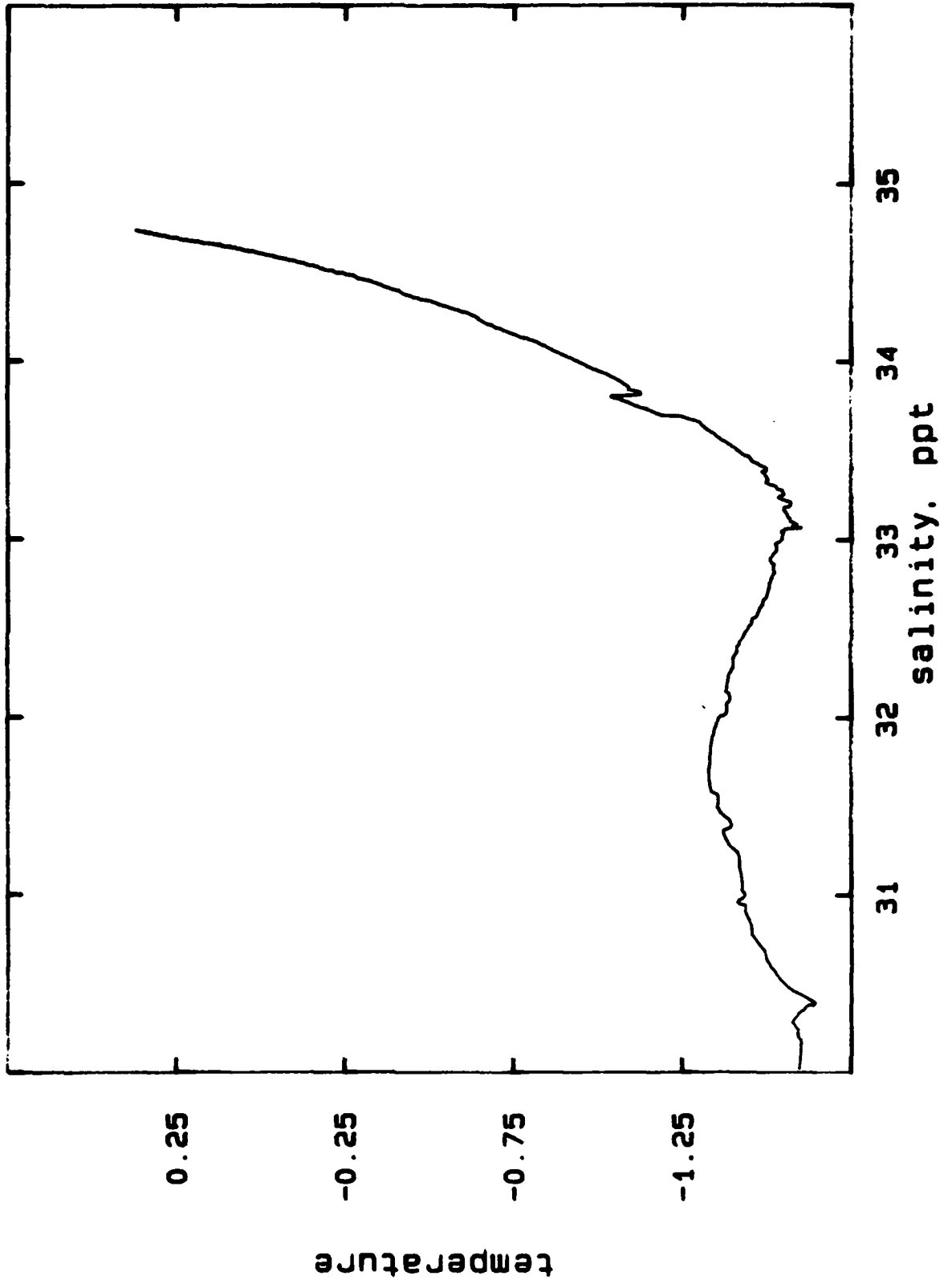


A425D DROP 3



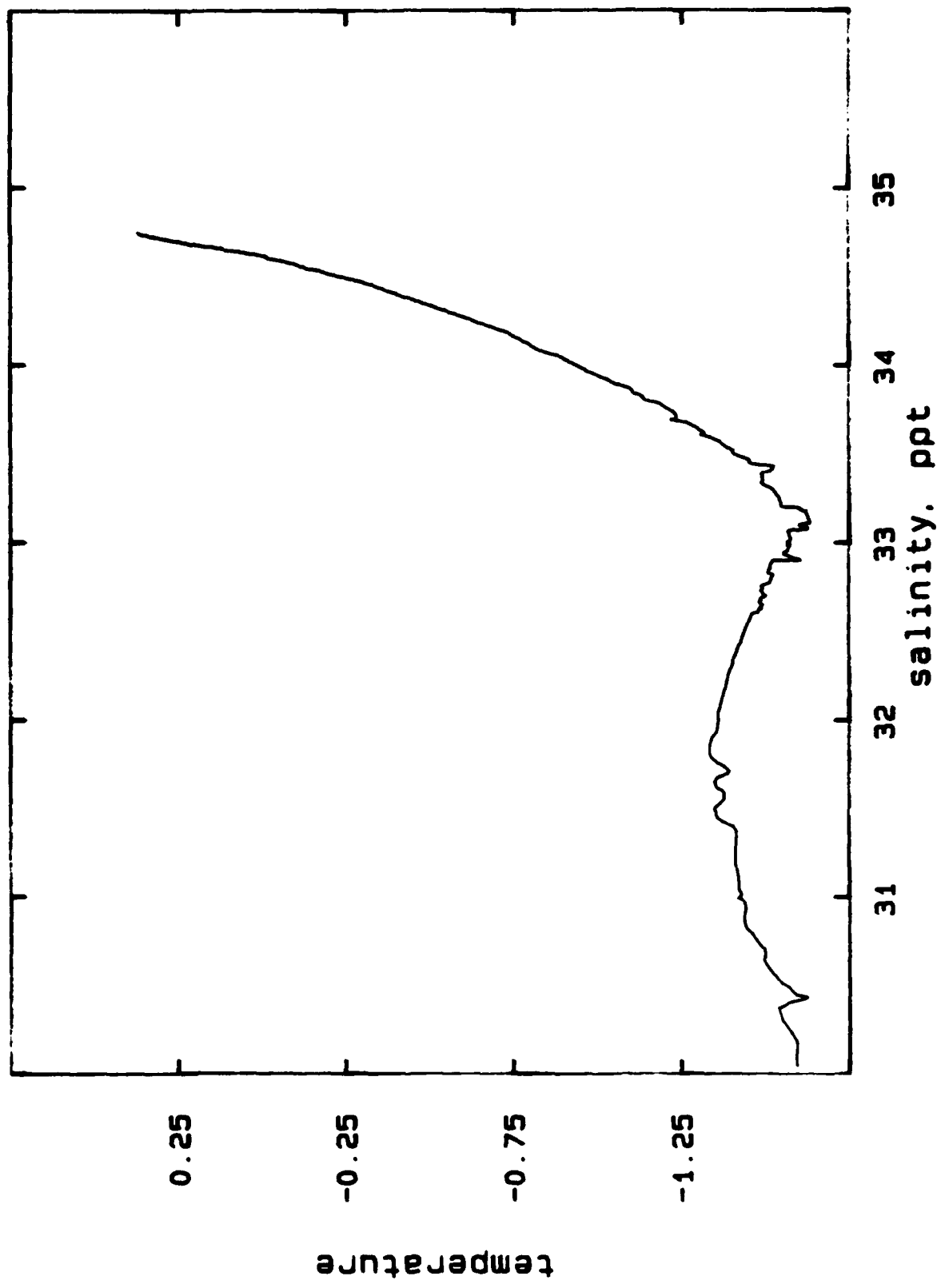


A425E DROP 3



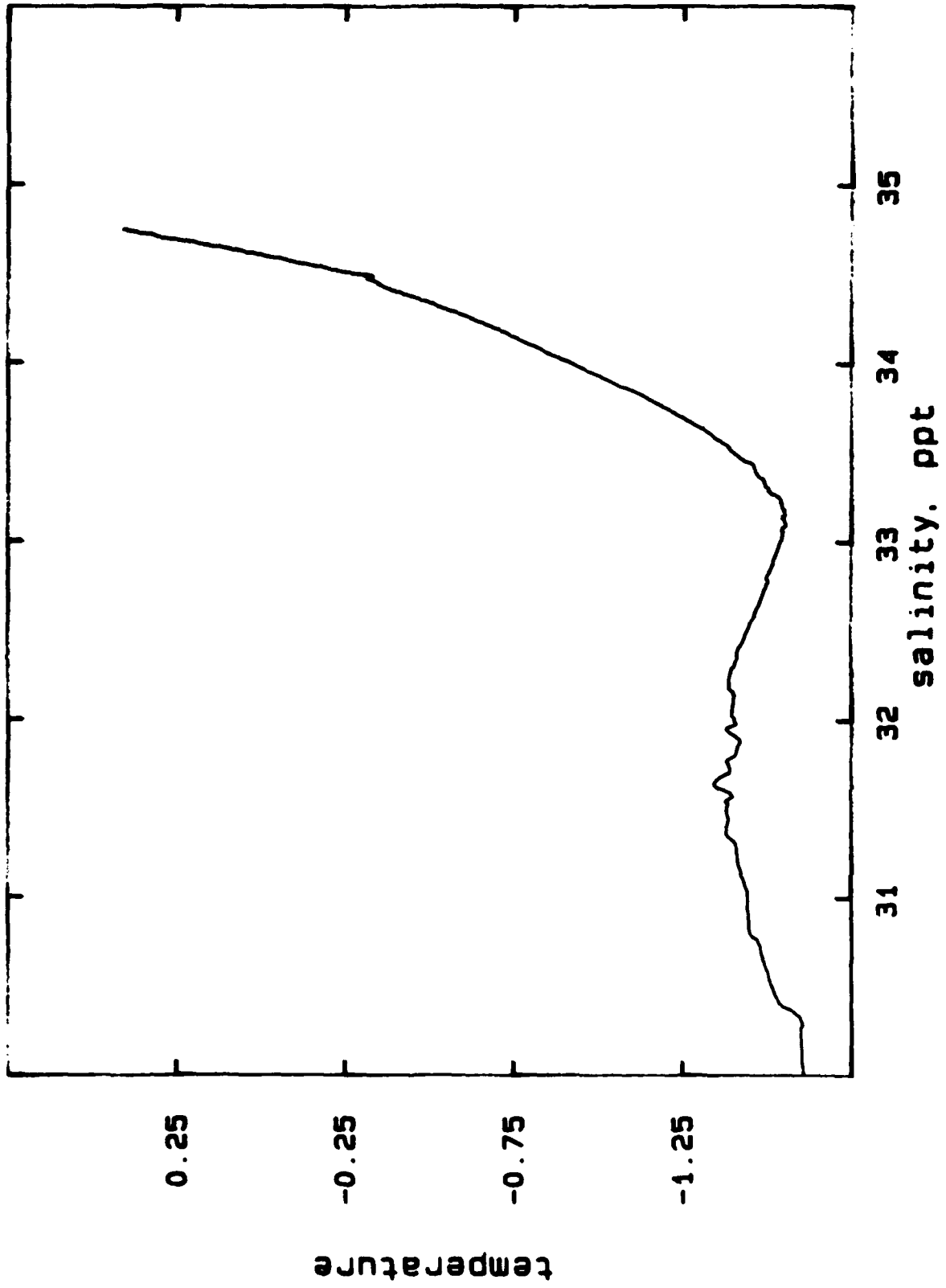
SI 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

A425F DROP 3





A426A DROP 3

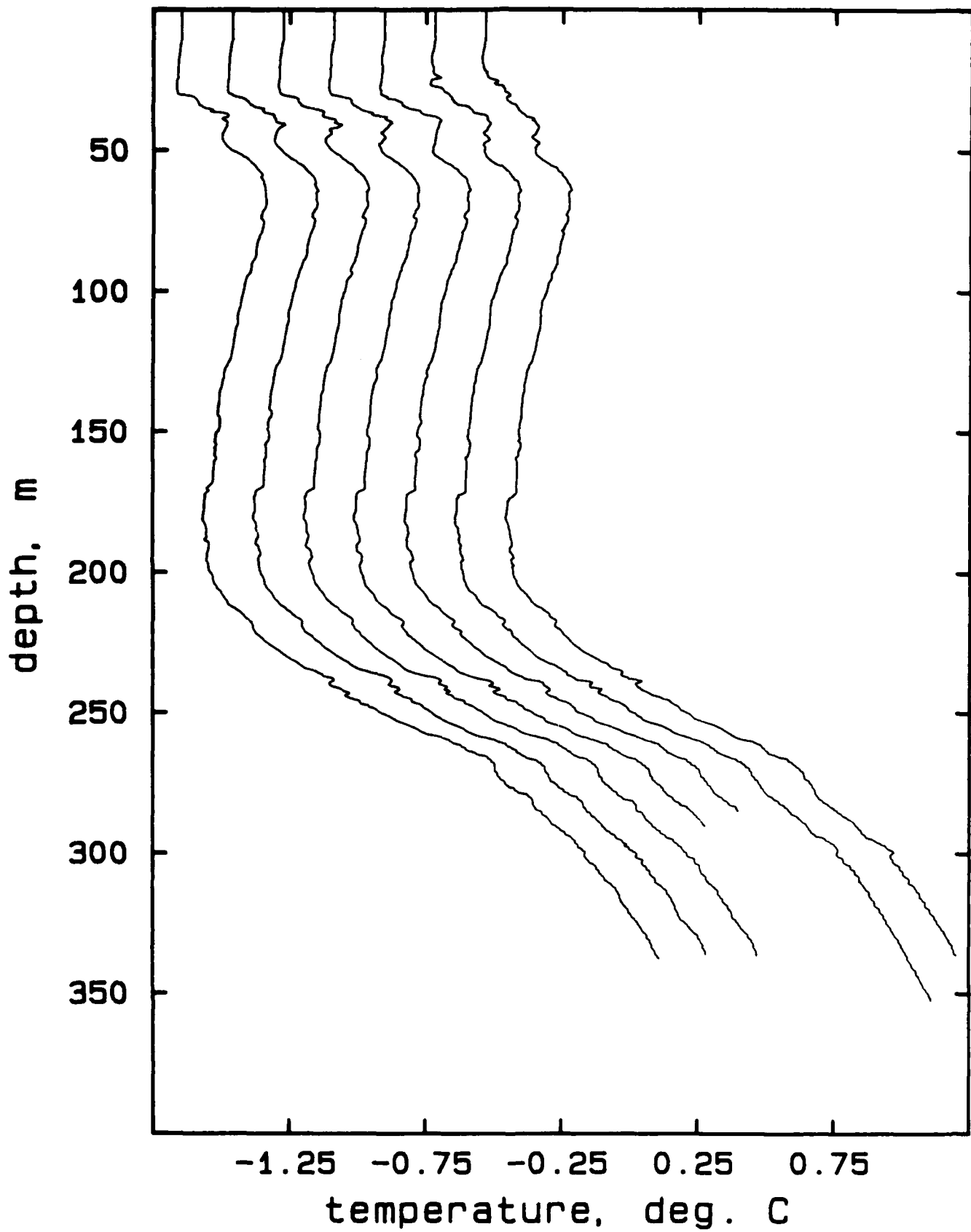


OBSERVATIONS:

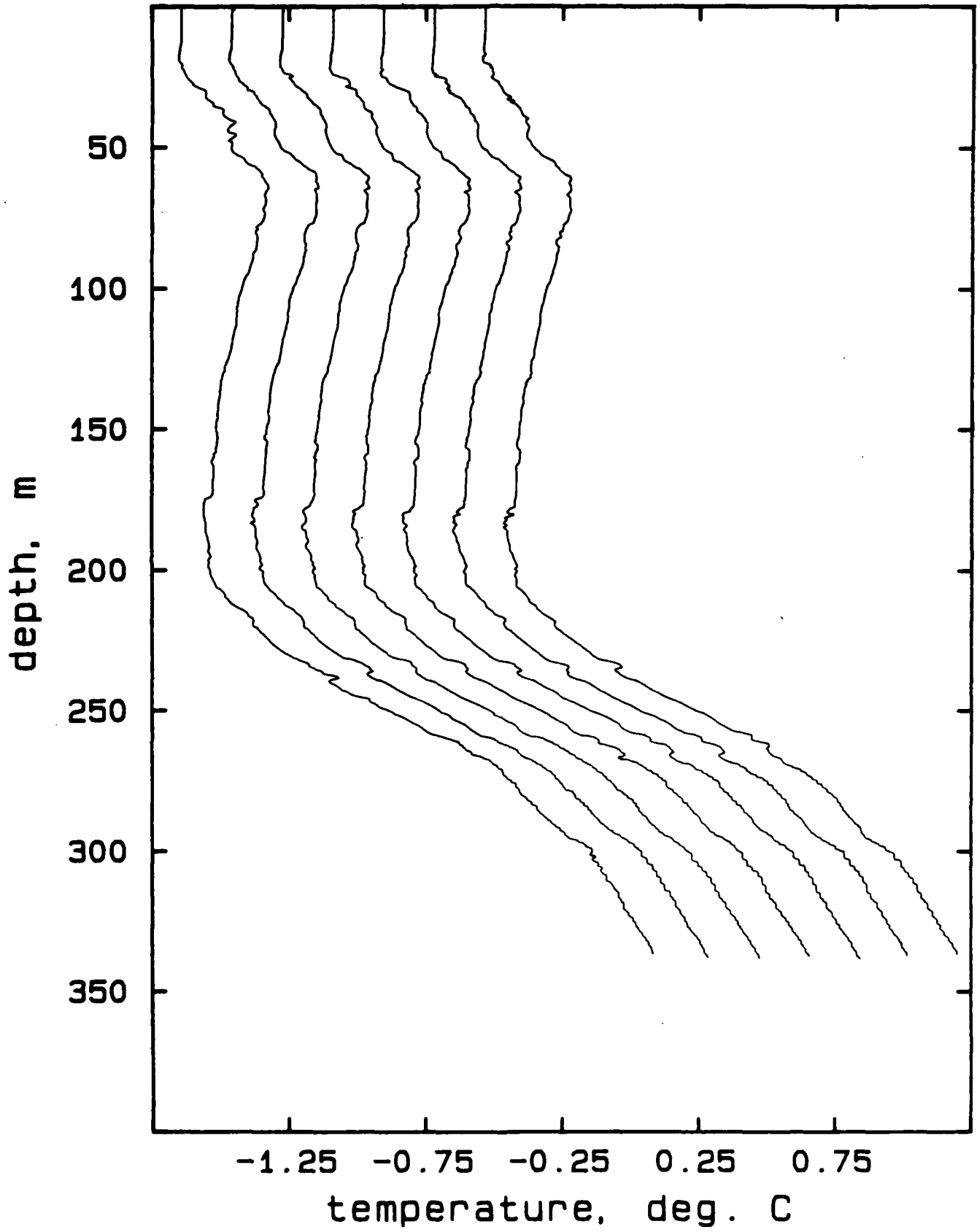
C. TEMPERATURE PROFILES

121 024 1.2 025 1.2 026 1.2 027 1.2 028 1.2 029 1.2 030 1.2 031 1.2 032 1.2 033 1.2 034 1.2 035 1.2 036 1.2 037 1.2 038 1.2 039 1.2 040 1.2 041 1.2 042 1.2 043 1.2 044 1.2 045 1.2 046 1.2 047 1.2 048 1.2 049 1.2 050 1.2 051 1.2 052 1.2 053 1.2 054 1.2 055 1.2 056 1.2 057 1.2 058 1.2 059 1.2 060 1.2 061 1.2 062 1.2 063 1.2 064 1.2 065 1.2 066 1.2 067 1.2 068 1.2 069 1.2 070 1.2 071 1.2 072 1.2 073 1.2 074 1.2 075 1.2 076 1.2 077 1.2 078 1.2 079 1.2 080 1.2 081 1.2 082 1.2 083 1.2 084 1.2 085 1.2 086 1.2 087 1.2 088 1.2 089 1.2 090 1.2 091 1.2 092 1.2 093 1.2 094 1.2 095 1.2 096 1.2 097 1.2 098 1.2 099 1.2 100 1.2

## AR323A, drops 1-7

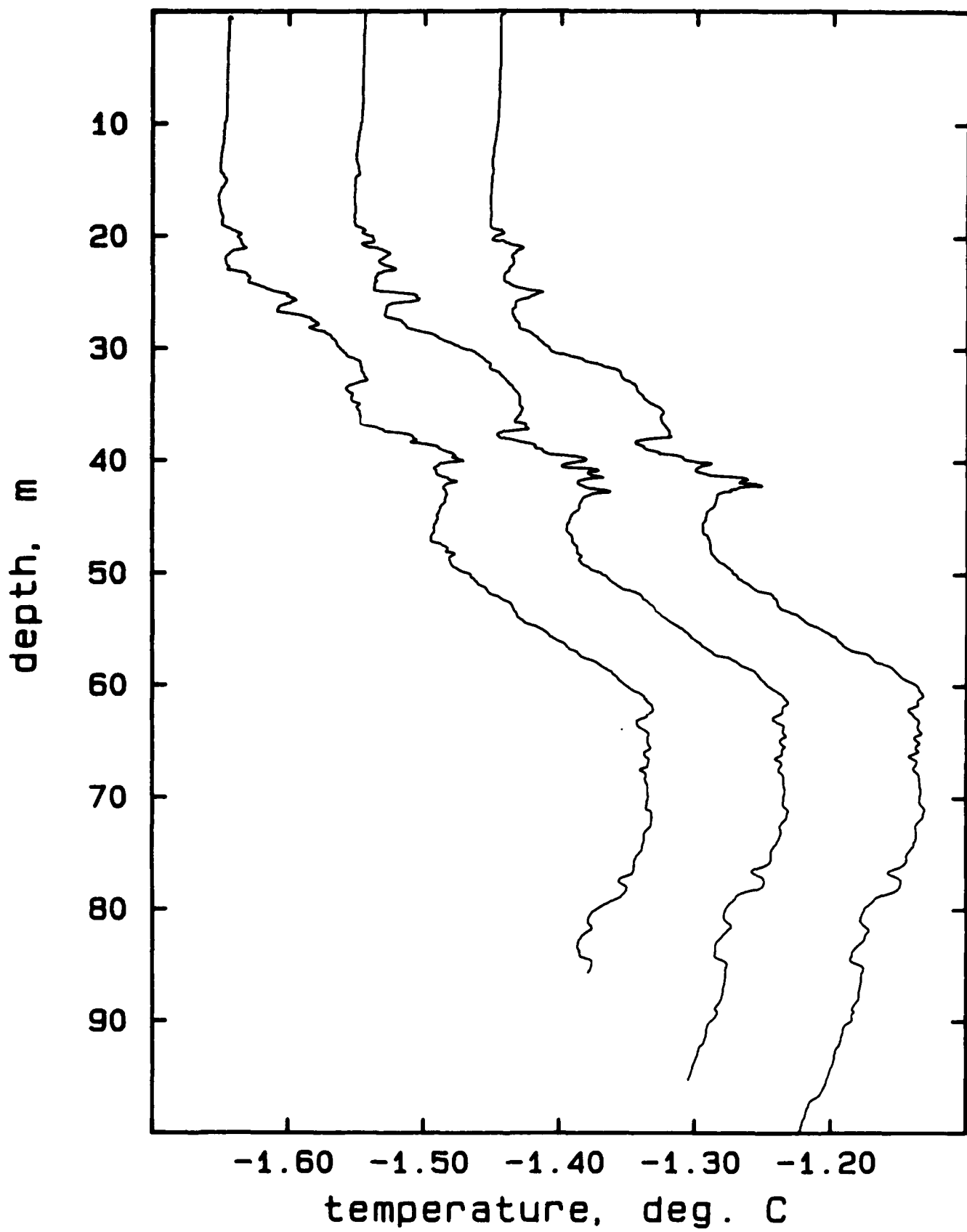


AR323B, drops 1-7



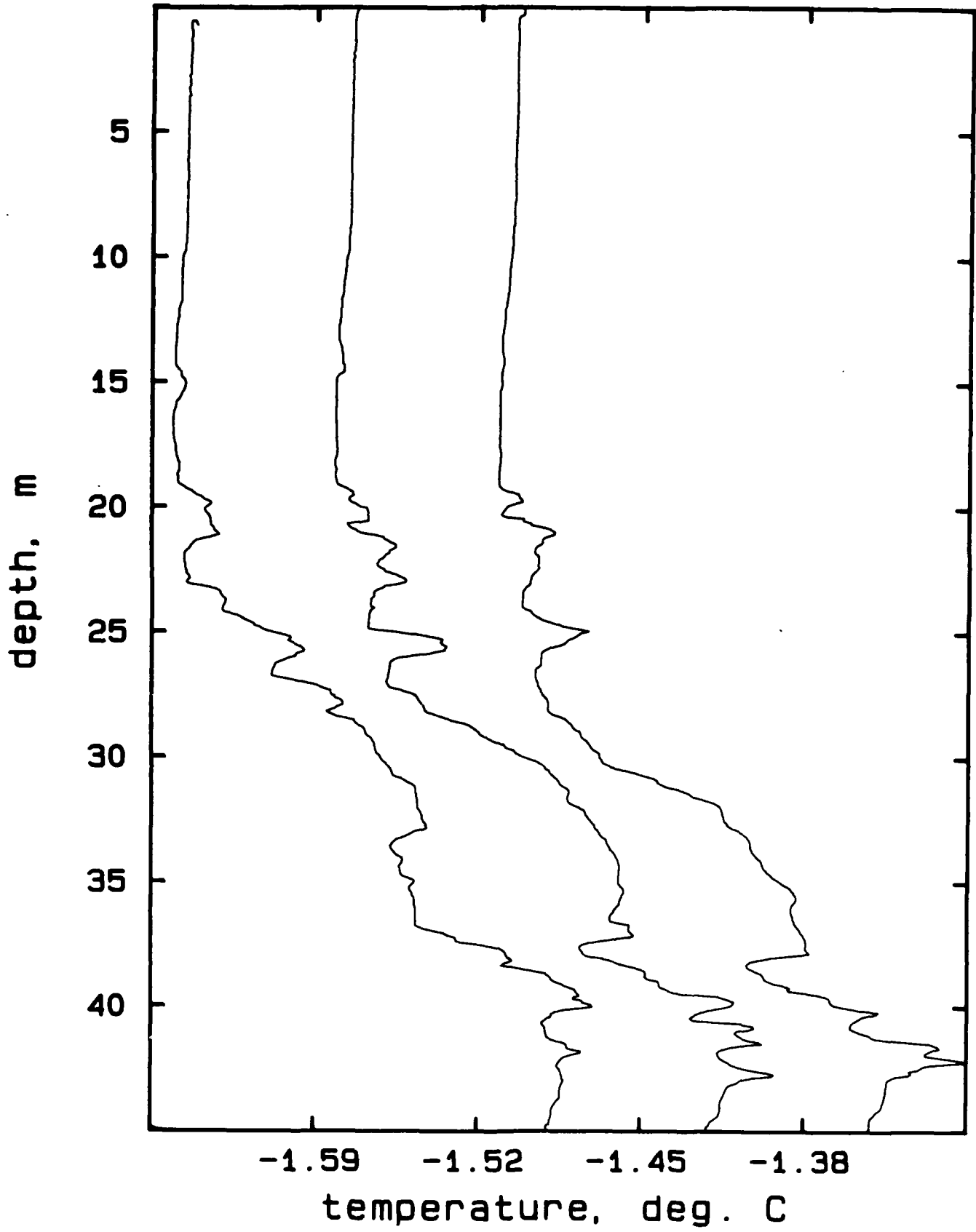
AR323B, drops 1-7

### AR323C, drops 1-3



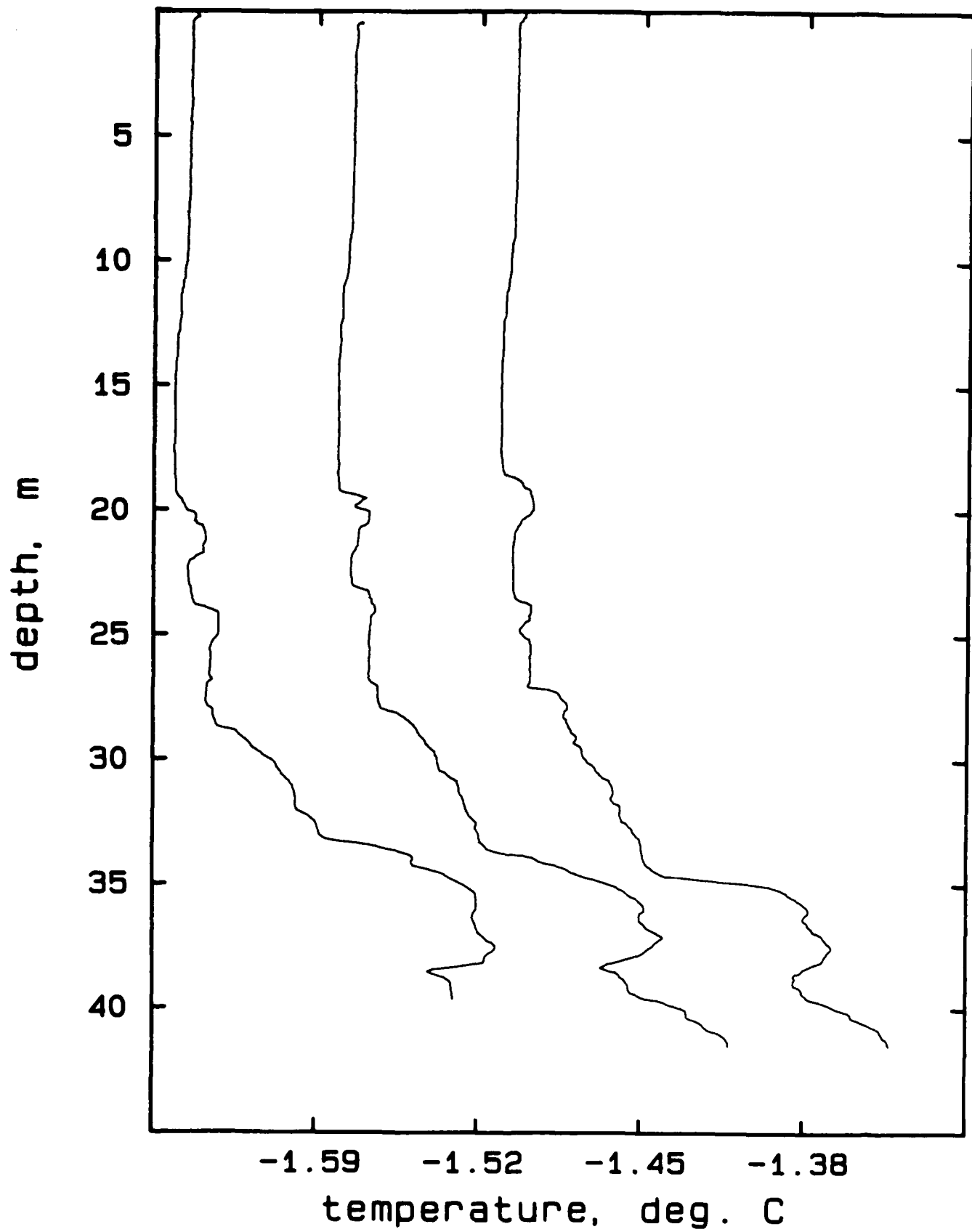


AR323C, drops 1-3

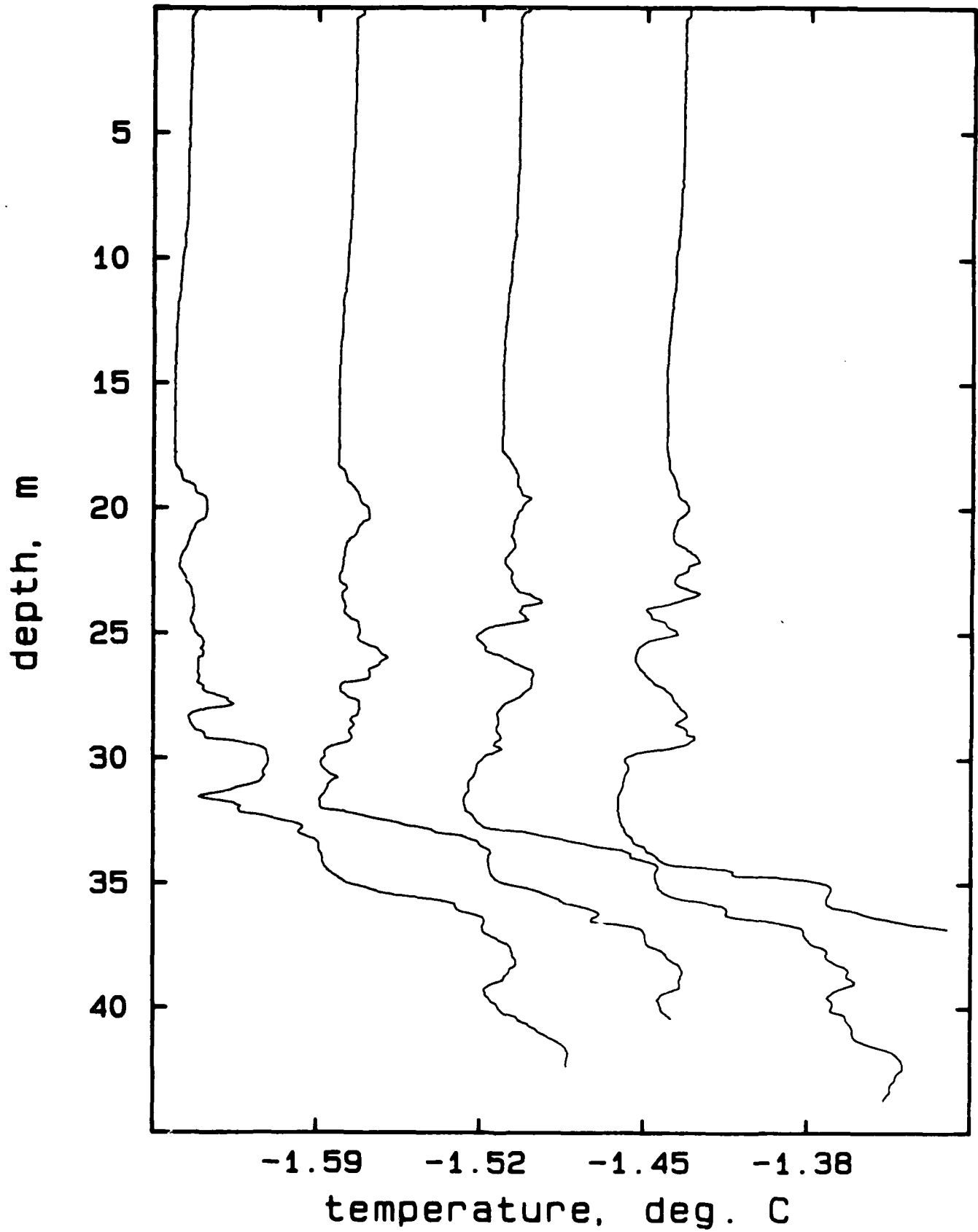


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

## AR323C, drops 4-6

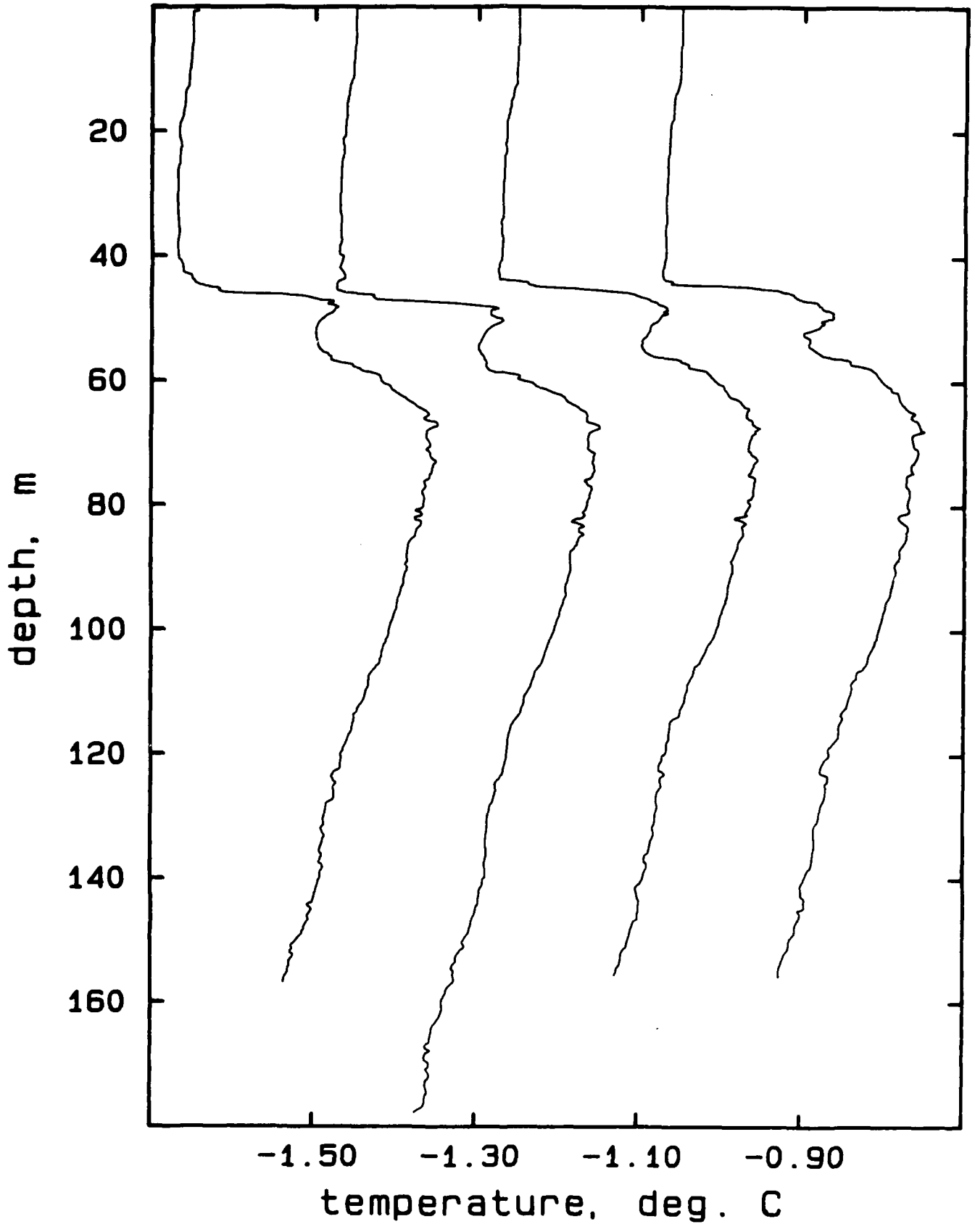


AR323C, drops 7-10

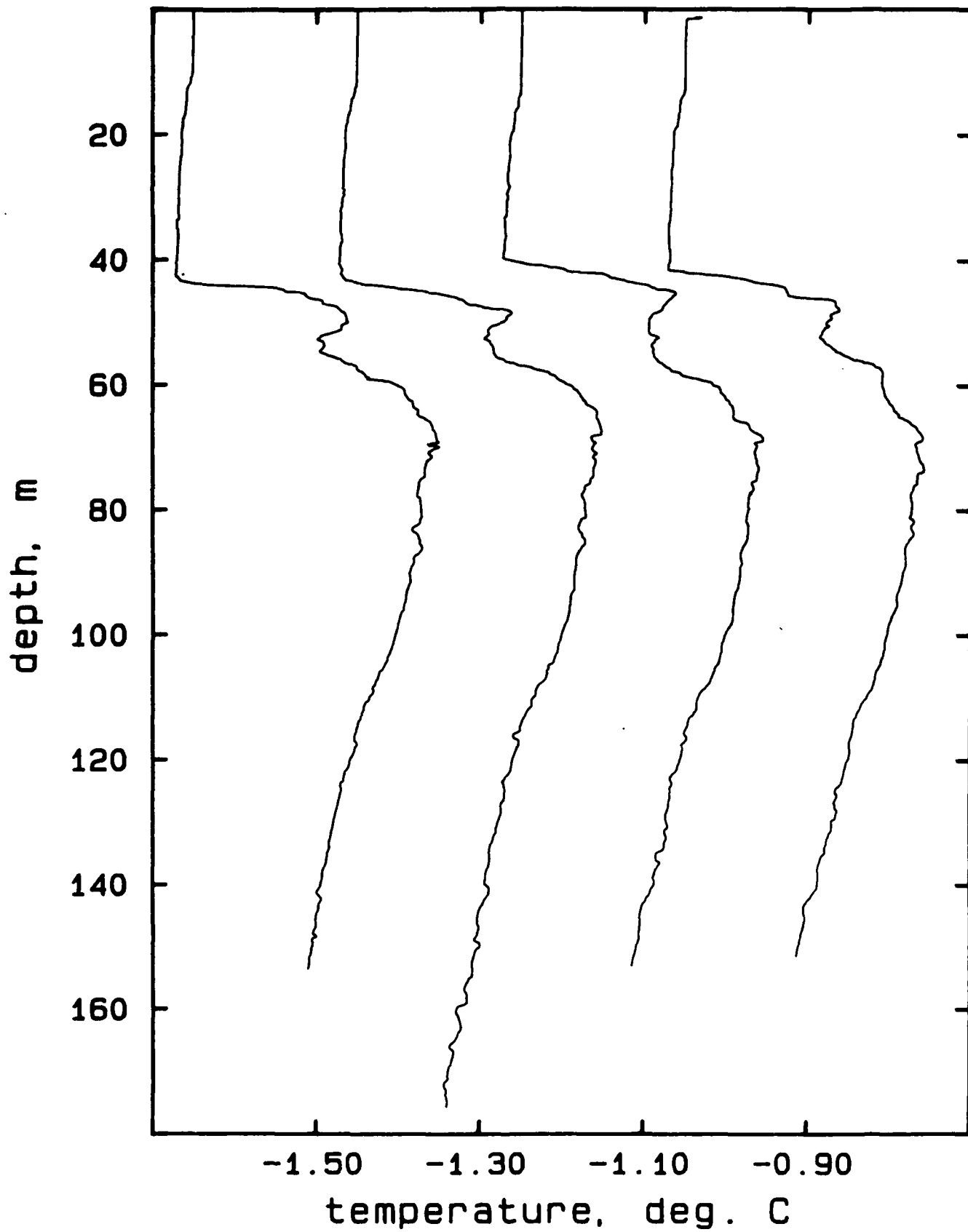


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AR324A, drops 1-4

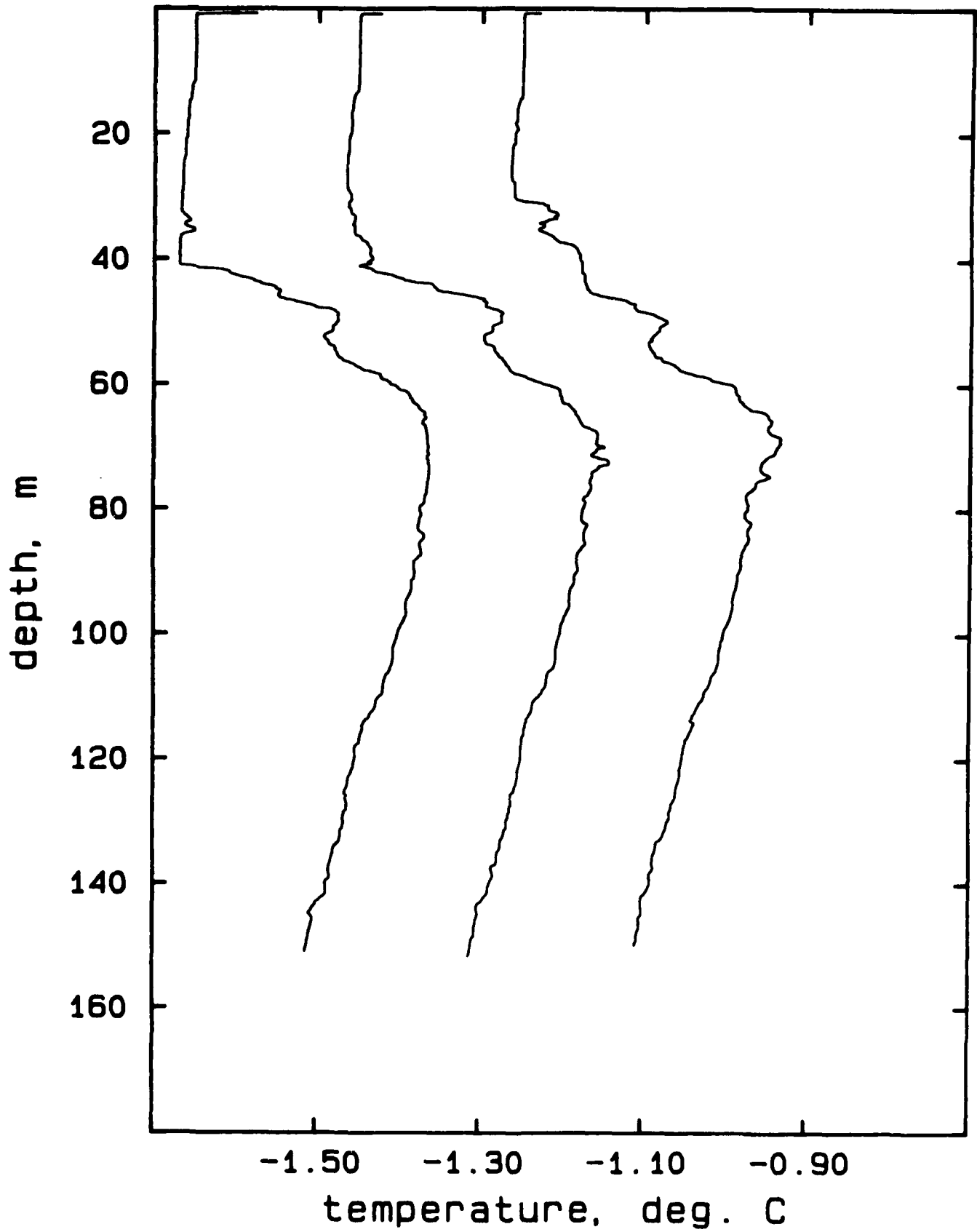


AR324A, drops 5, 6, 8, 9

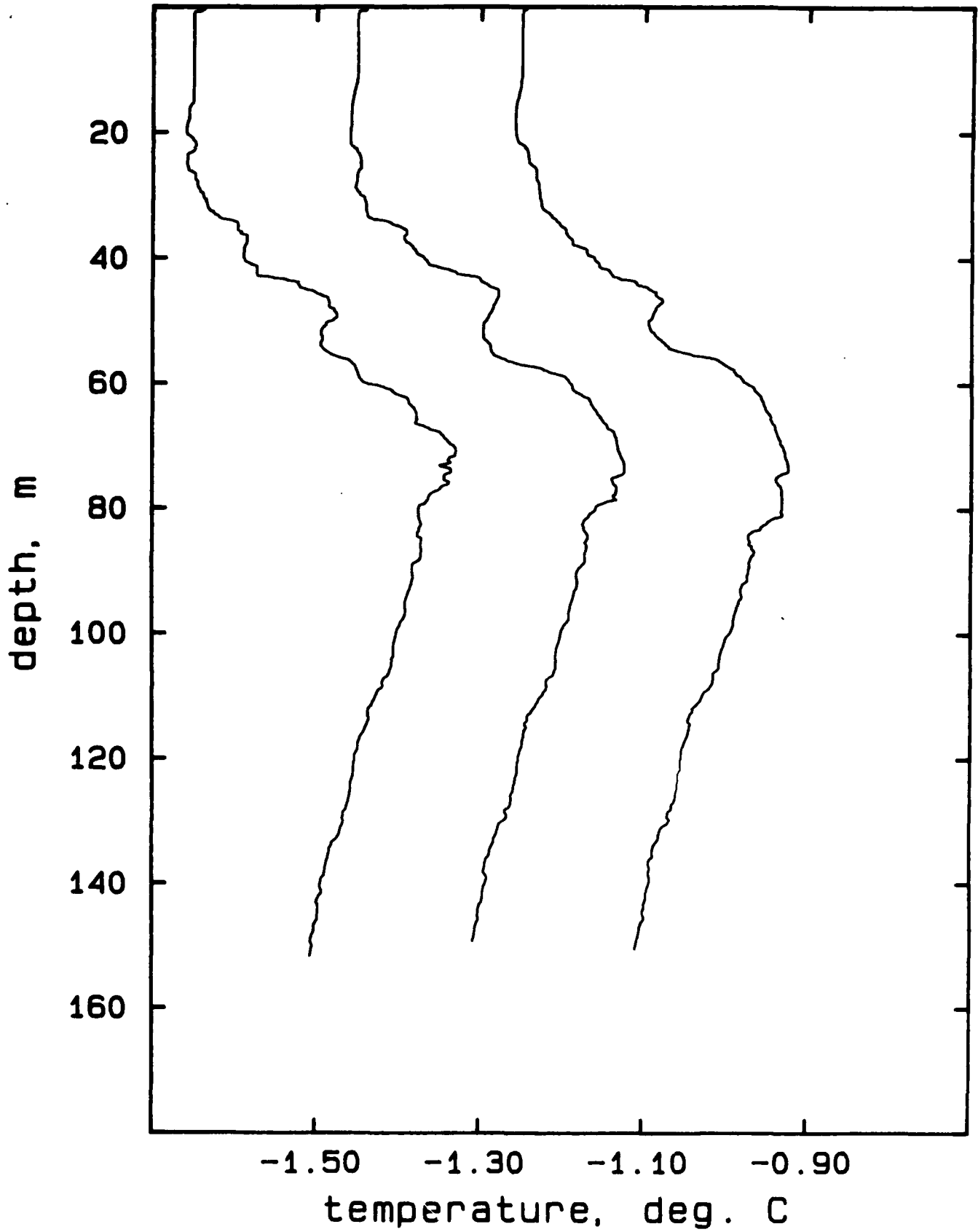


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## AR324A, drops 10-12

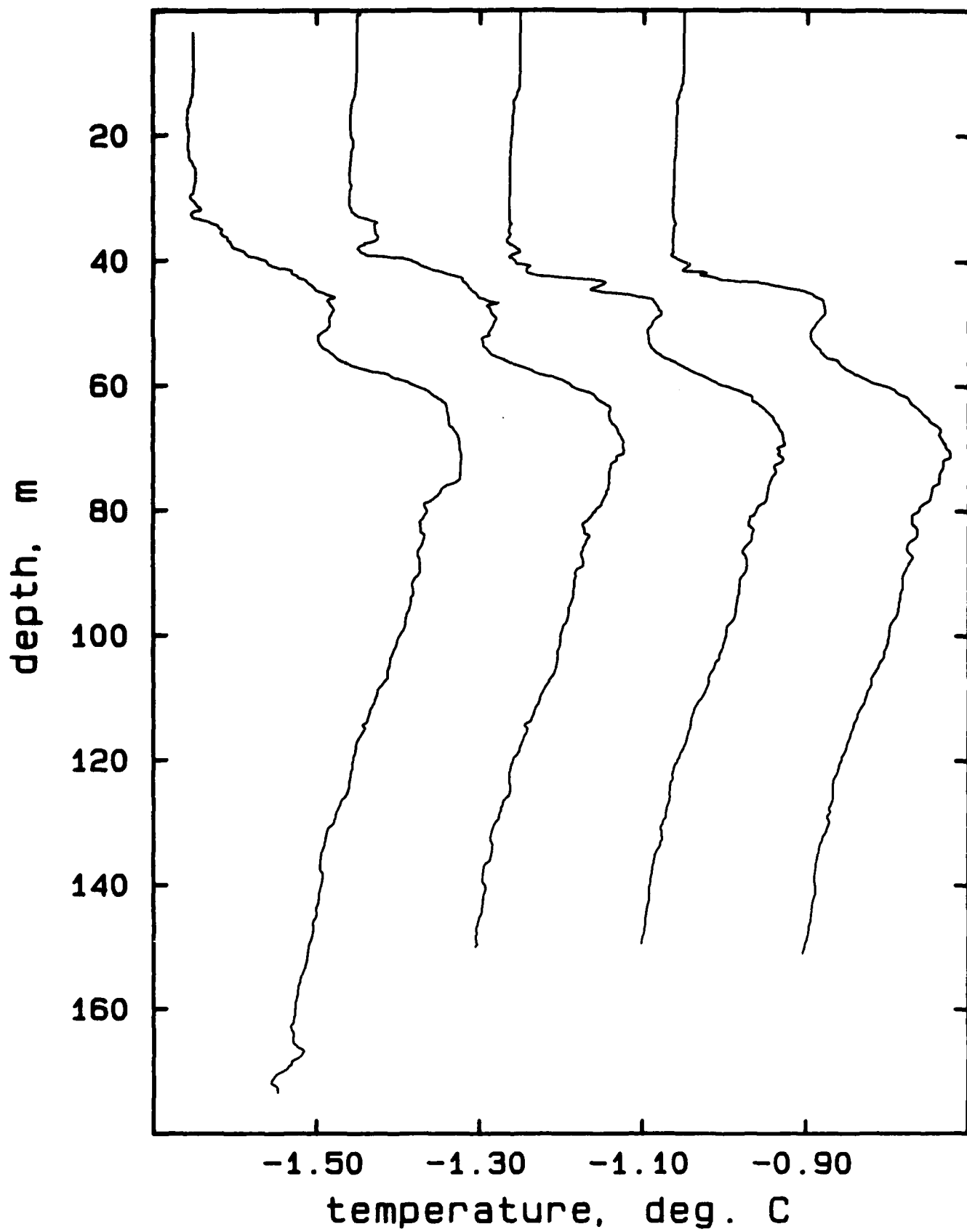


AR324A, drops 13-15



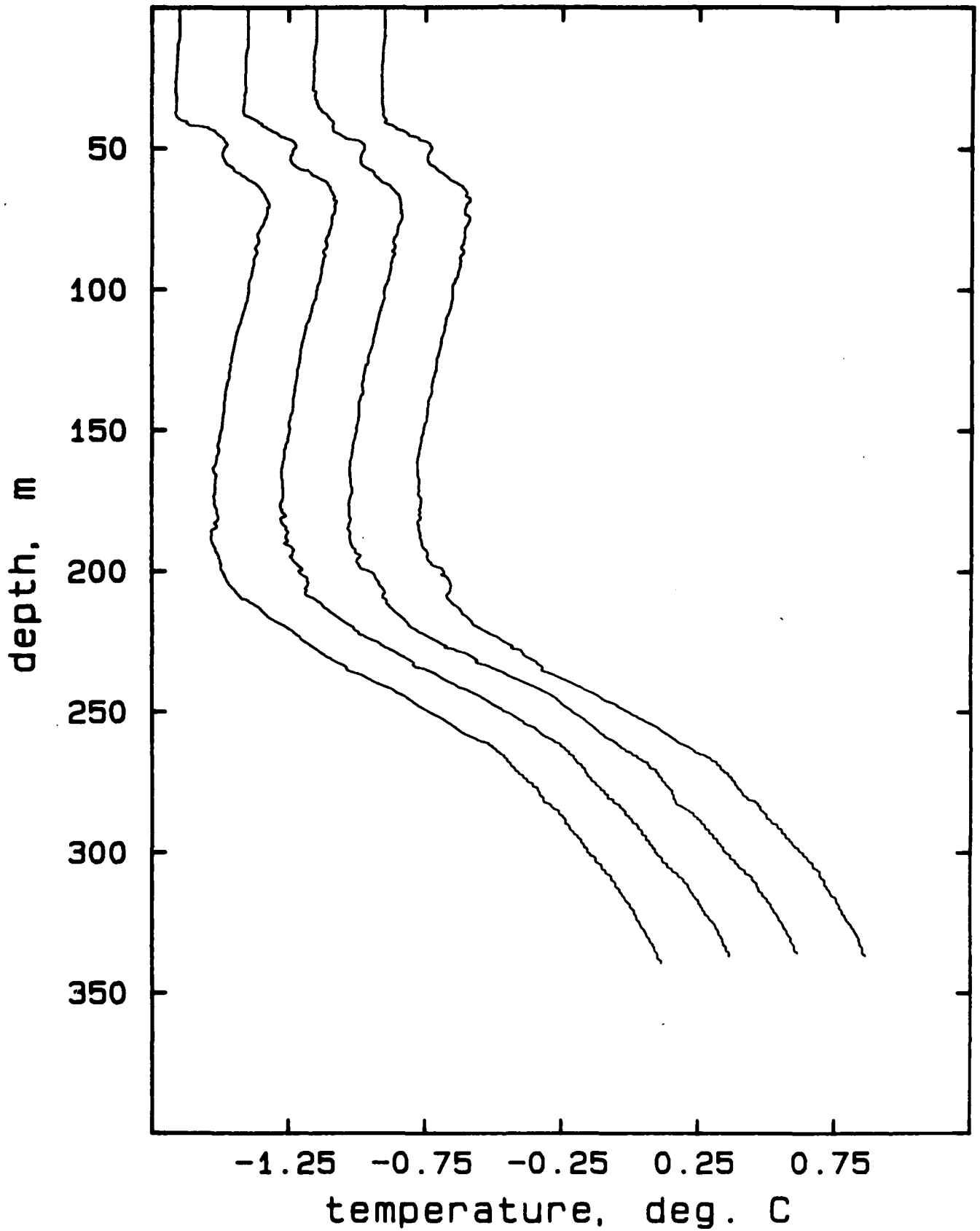
AR324A, drops 13-15

## AR324B, drops 1-4



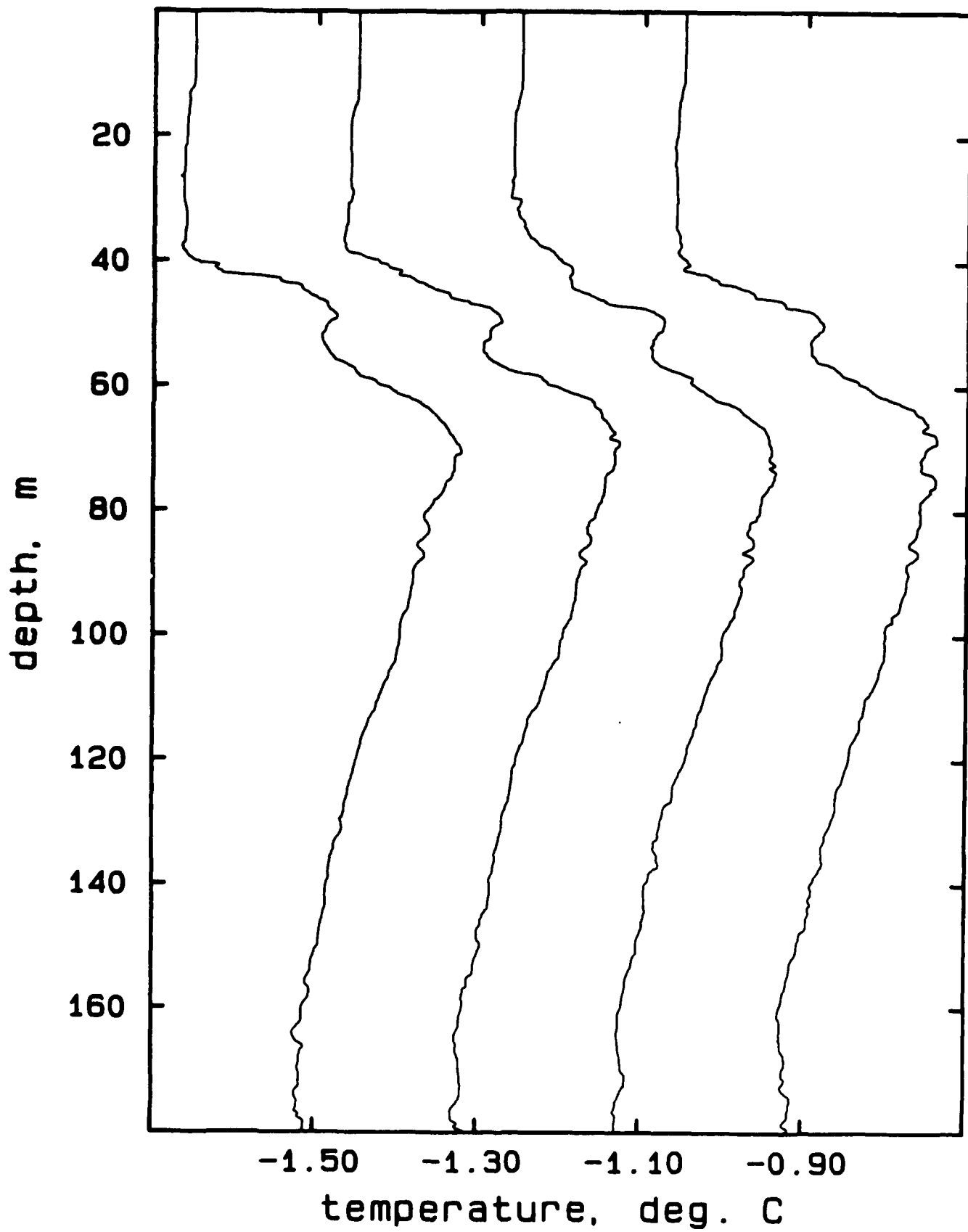


AR324B, drops 5-8

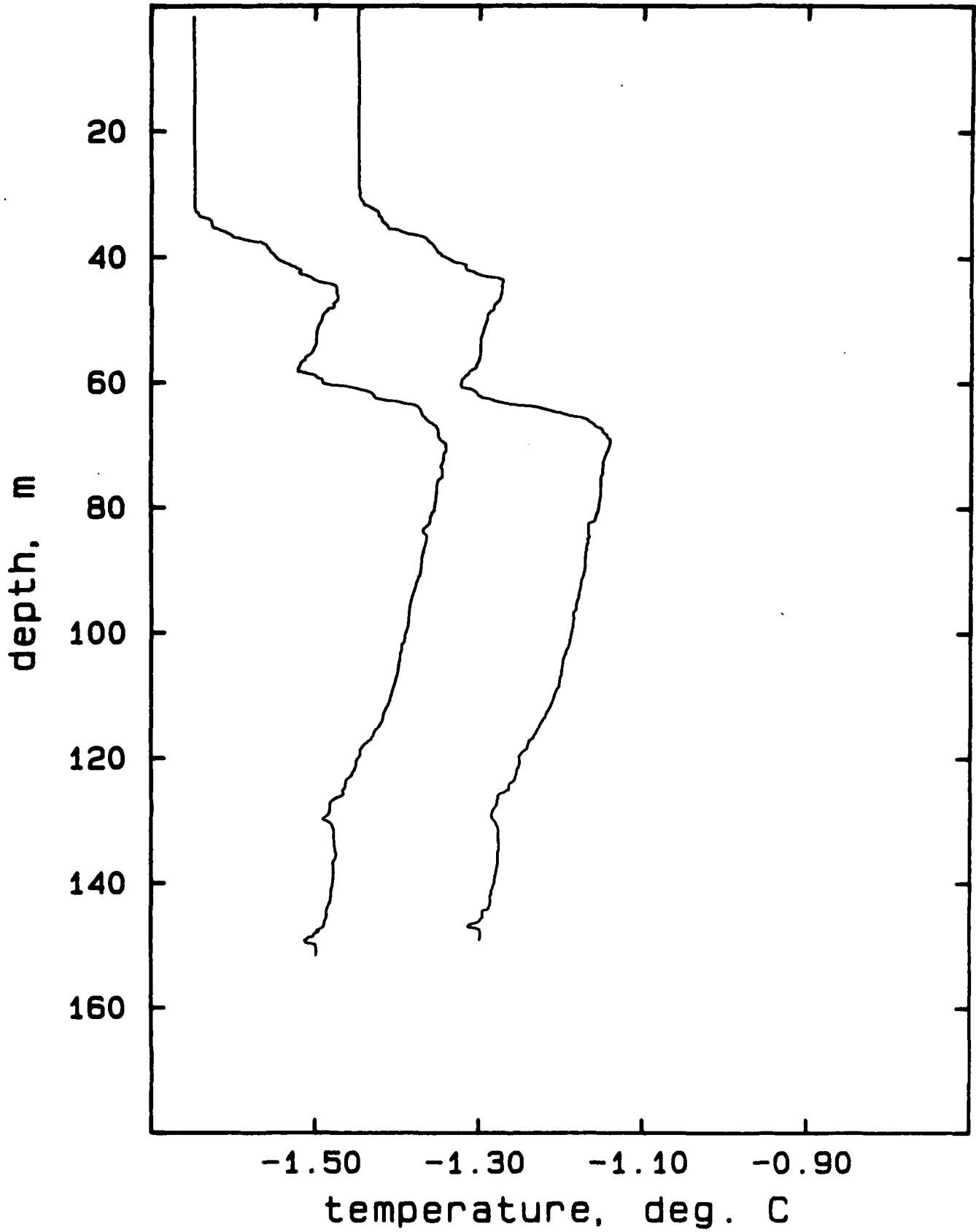


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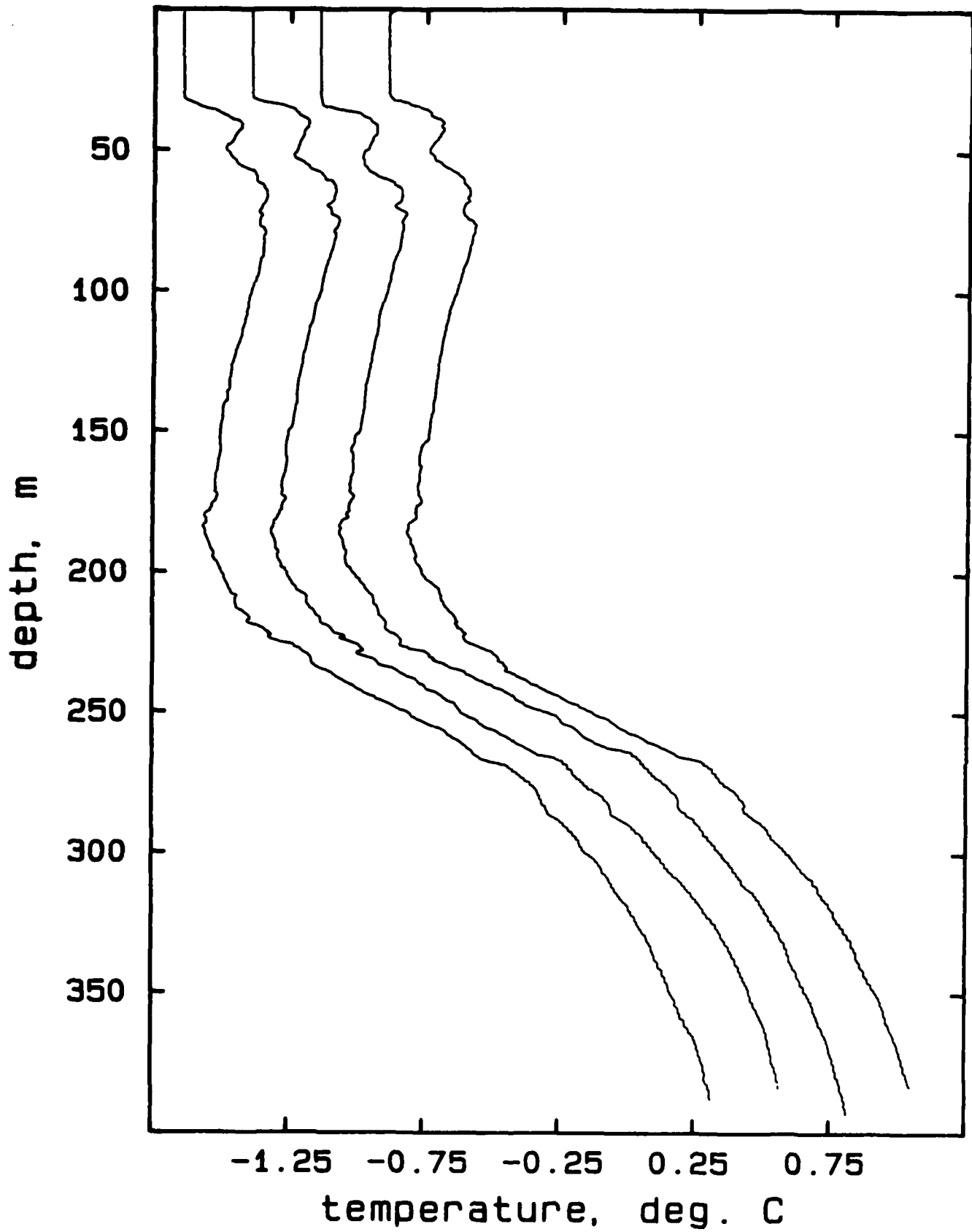
AR324B, drops 5-8



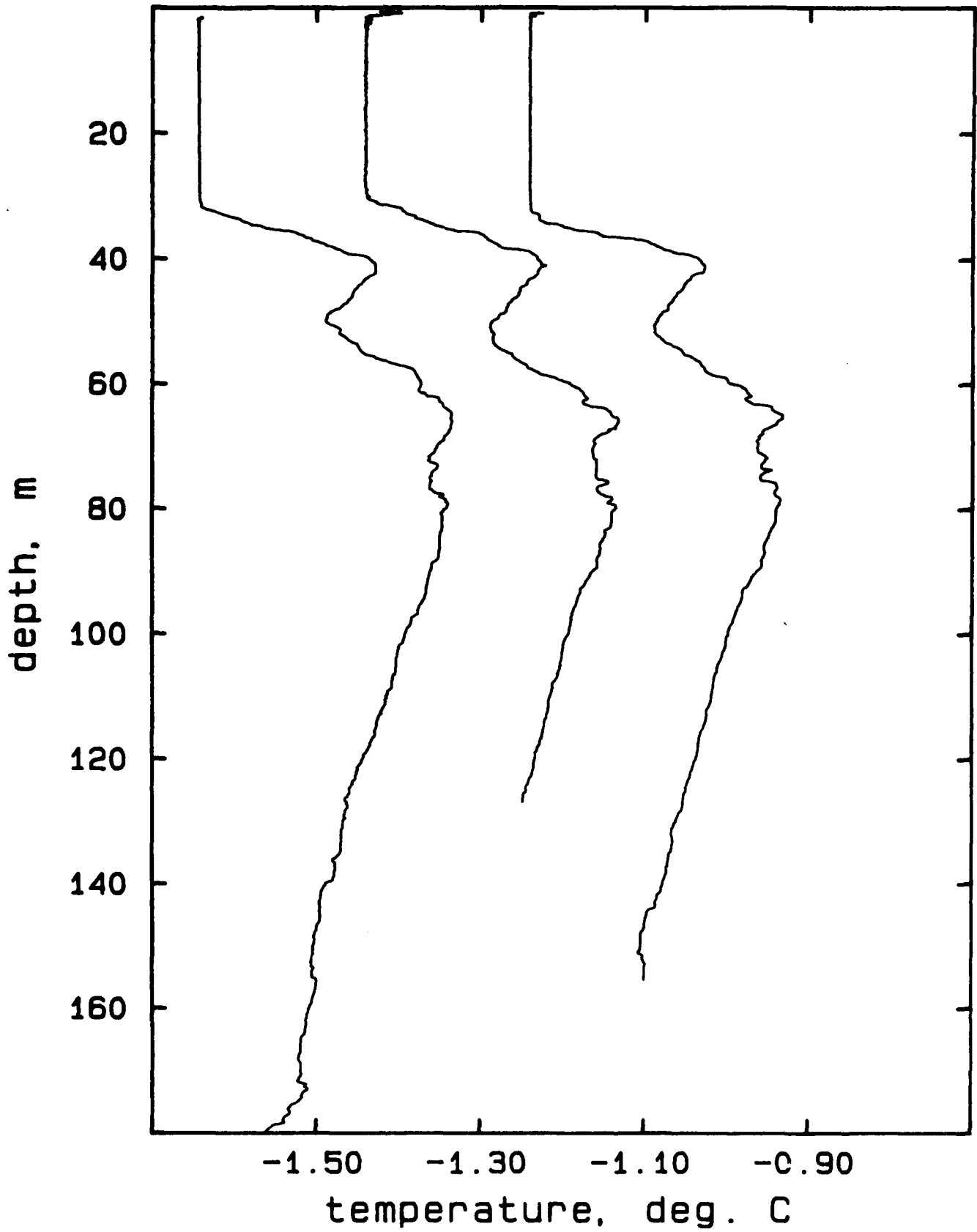
## AR325A, drops 9-10

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## AR326A, drops 1, 4-6

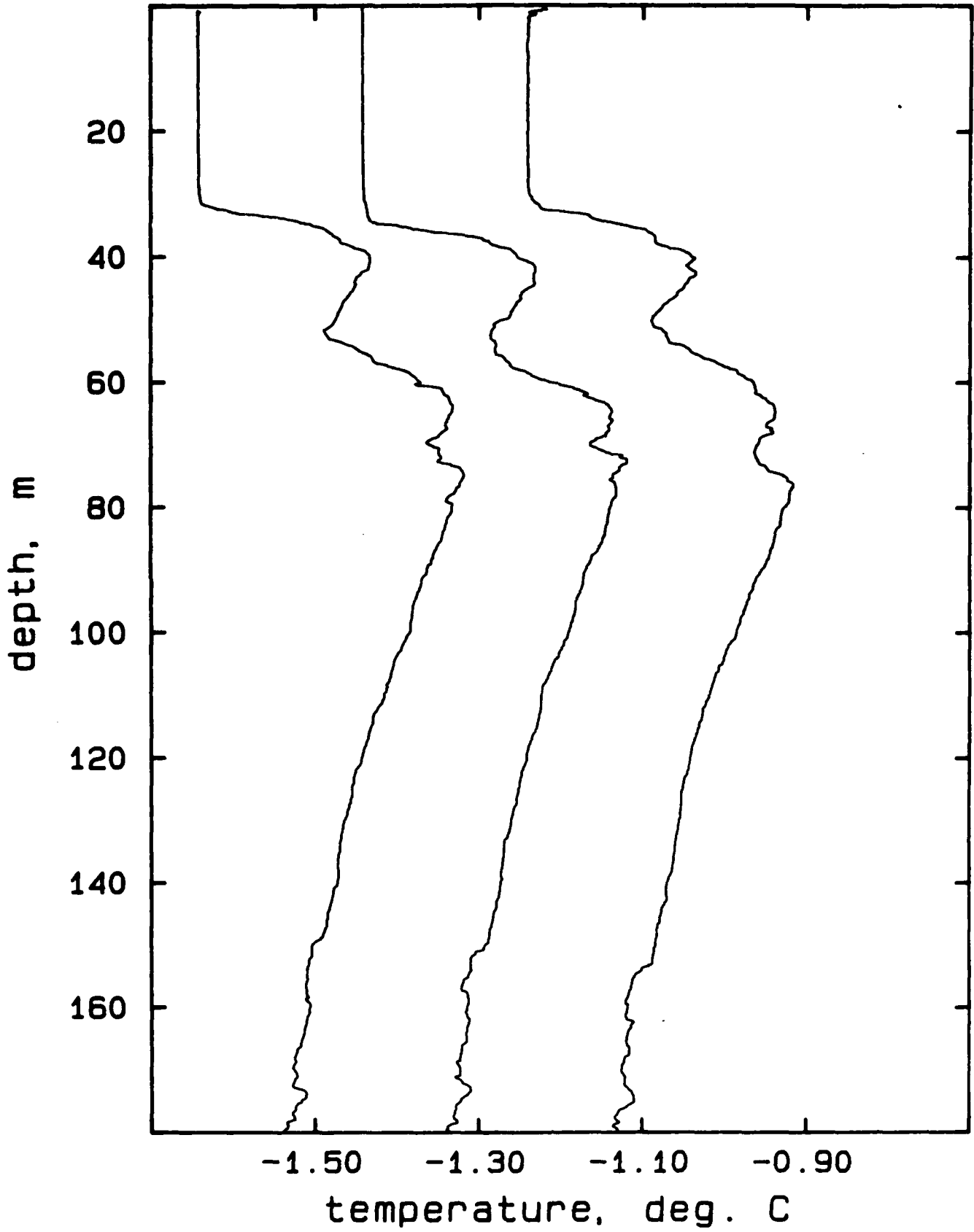


AR326A, drops 1-3

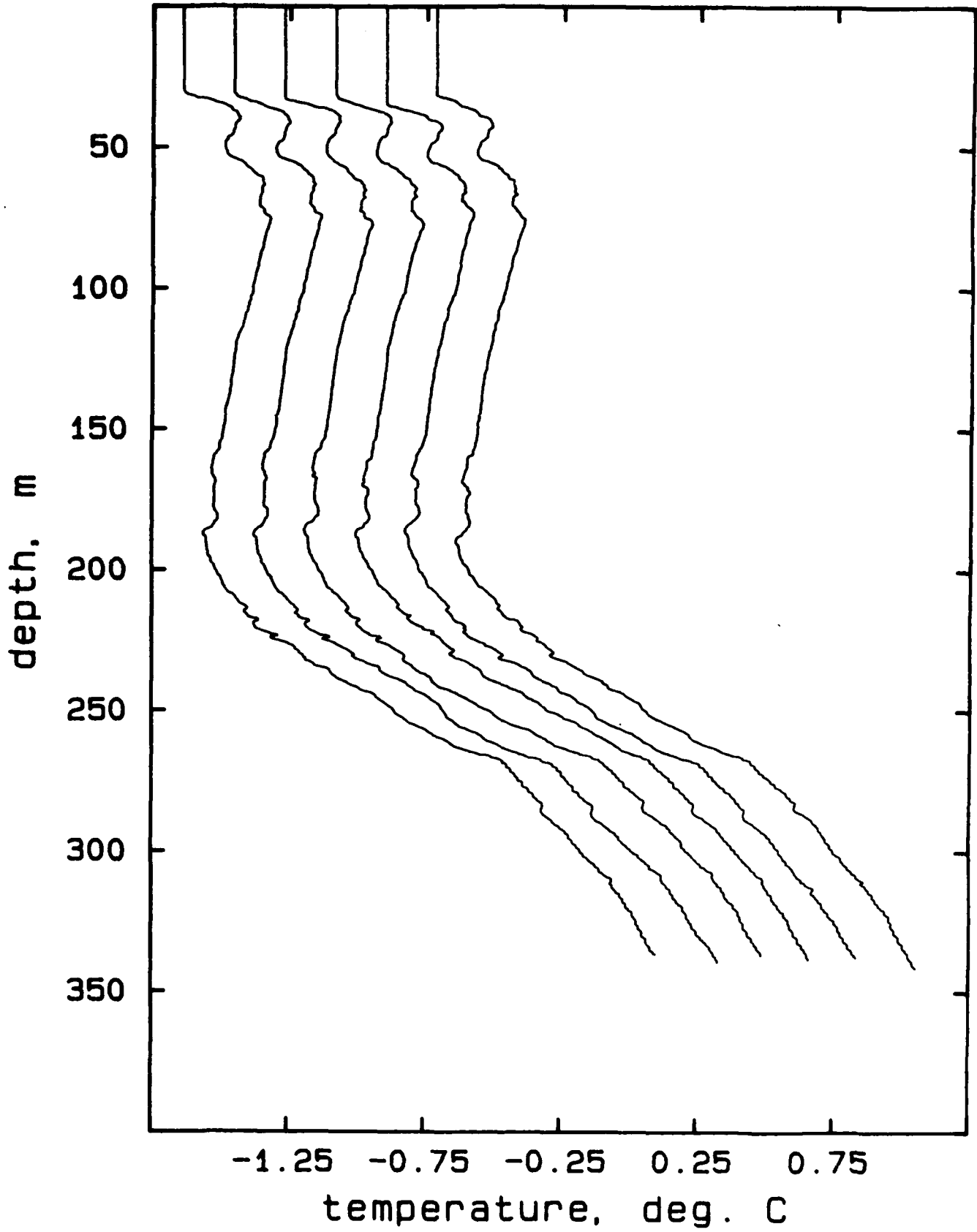


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AR326A, drops 4-6

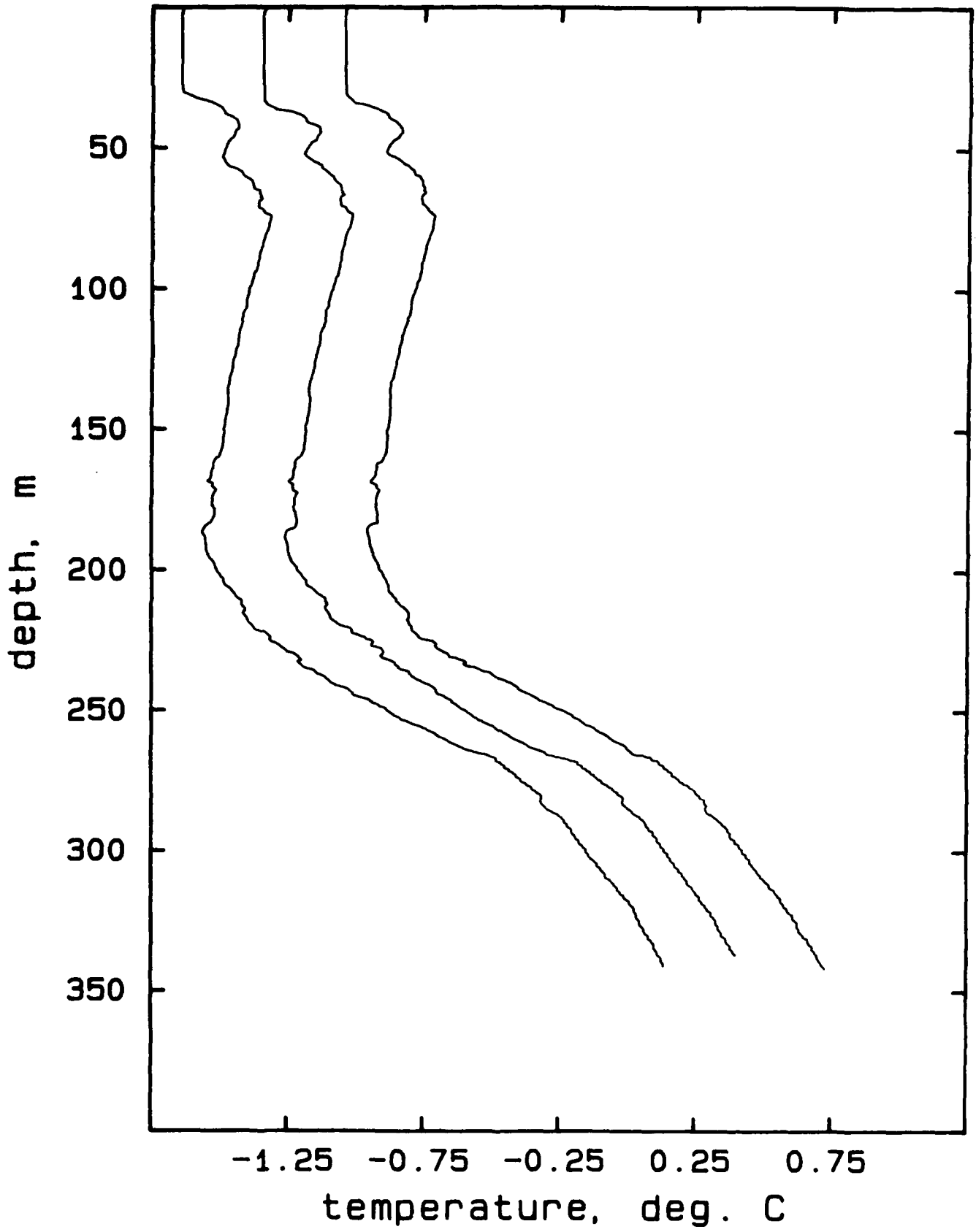


AR326B, drops 1-6



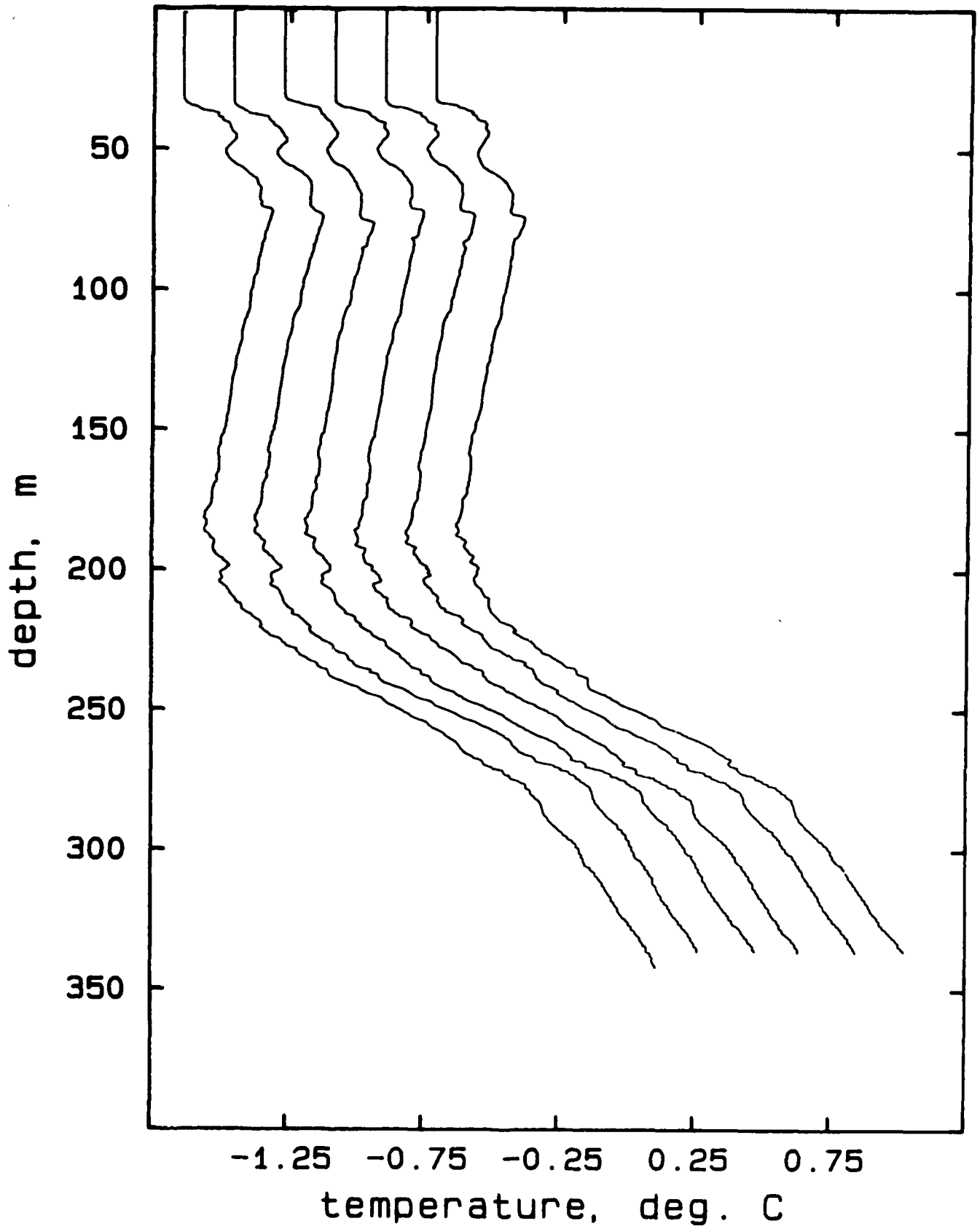
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

AR326C, drops 1-3



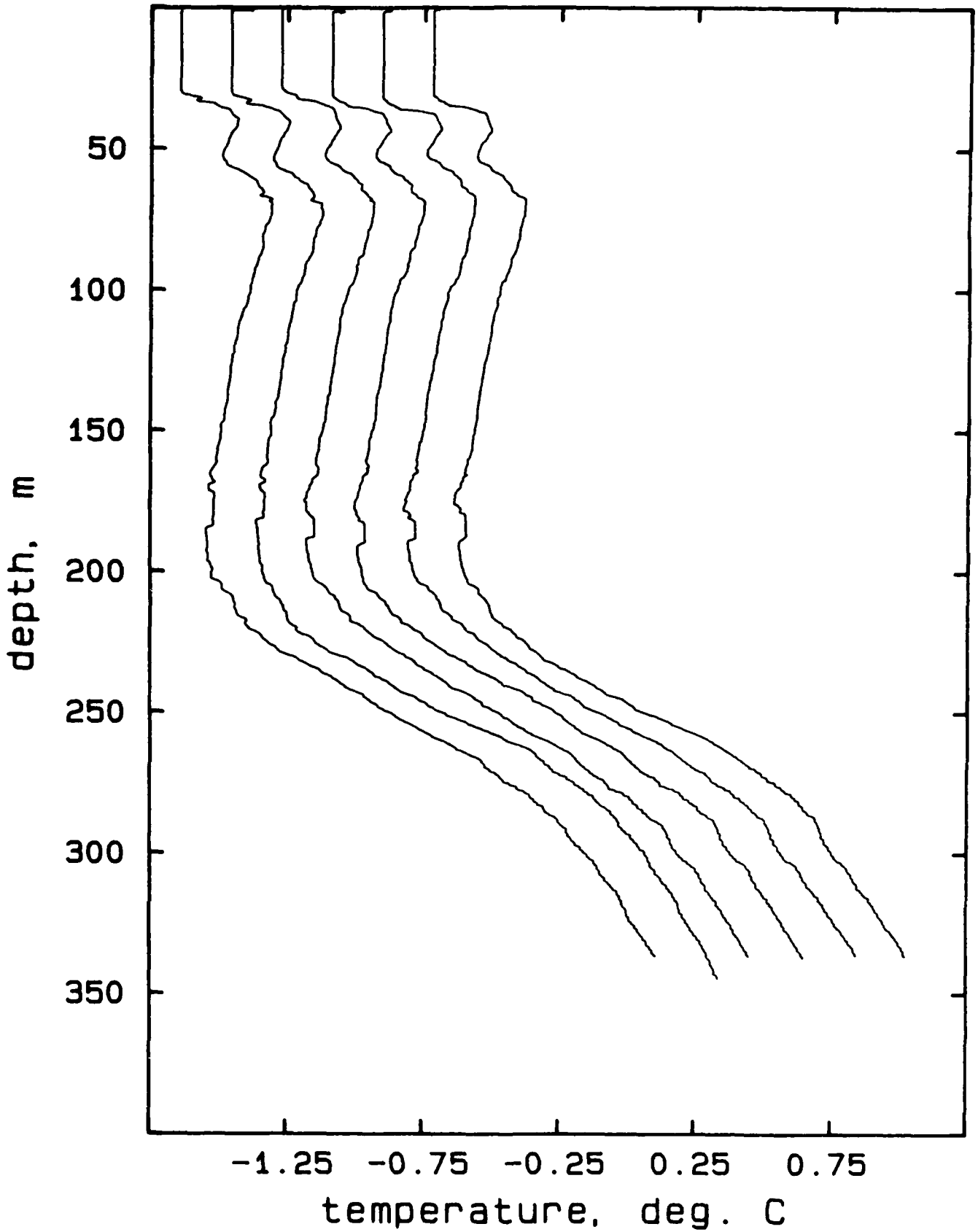


AR327A, drops 1-6

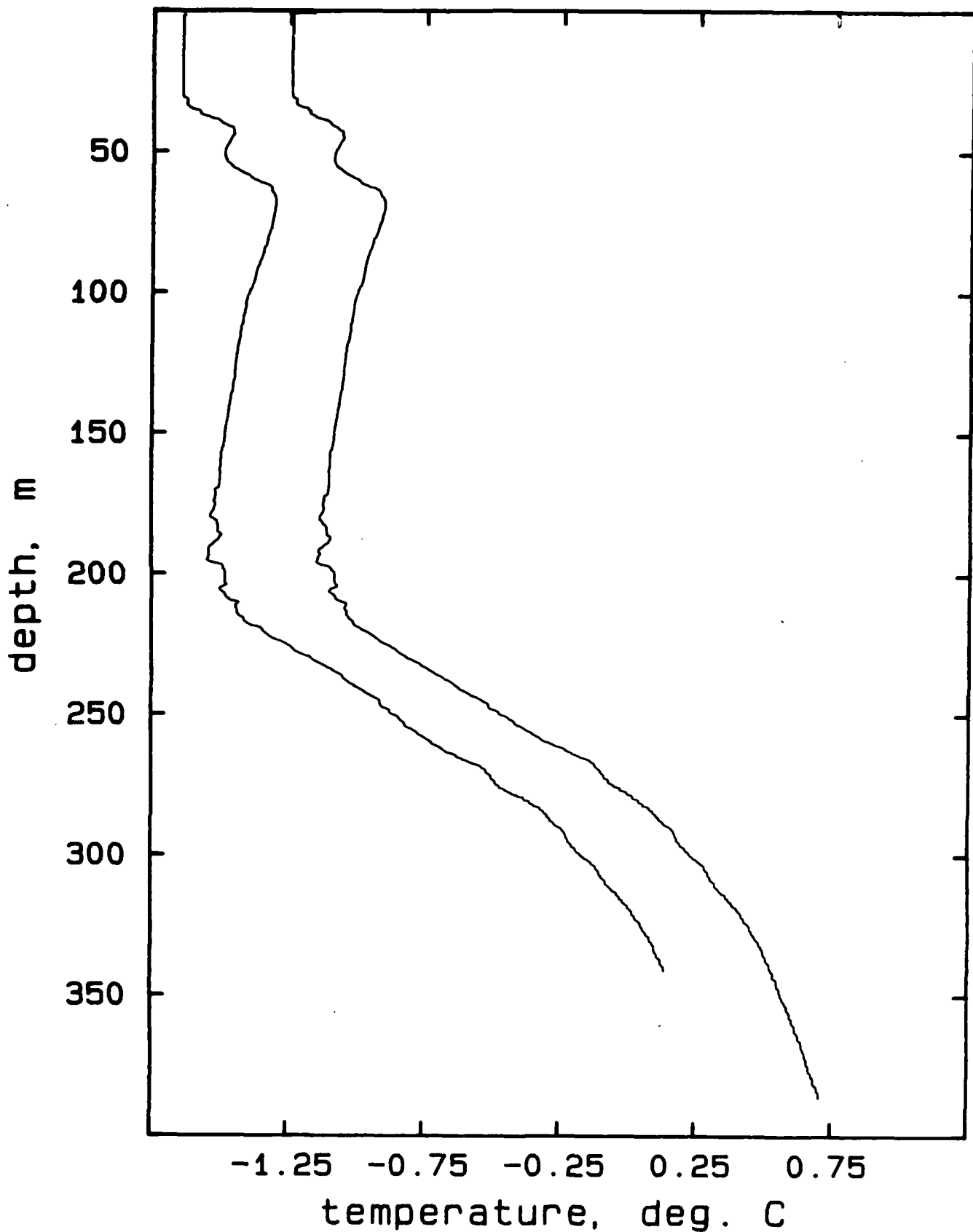


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AR327B, drops 1-6

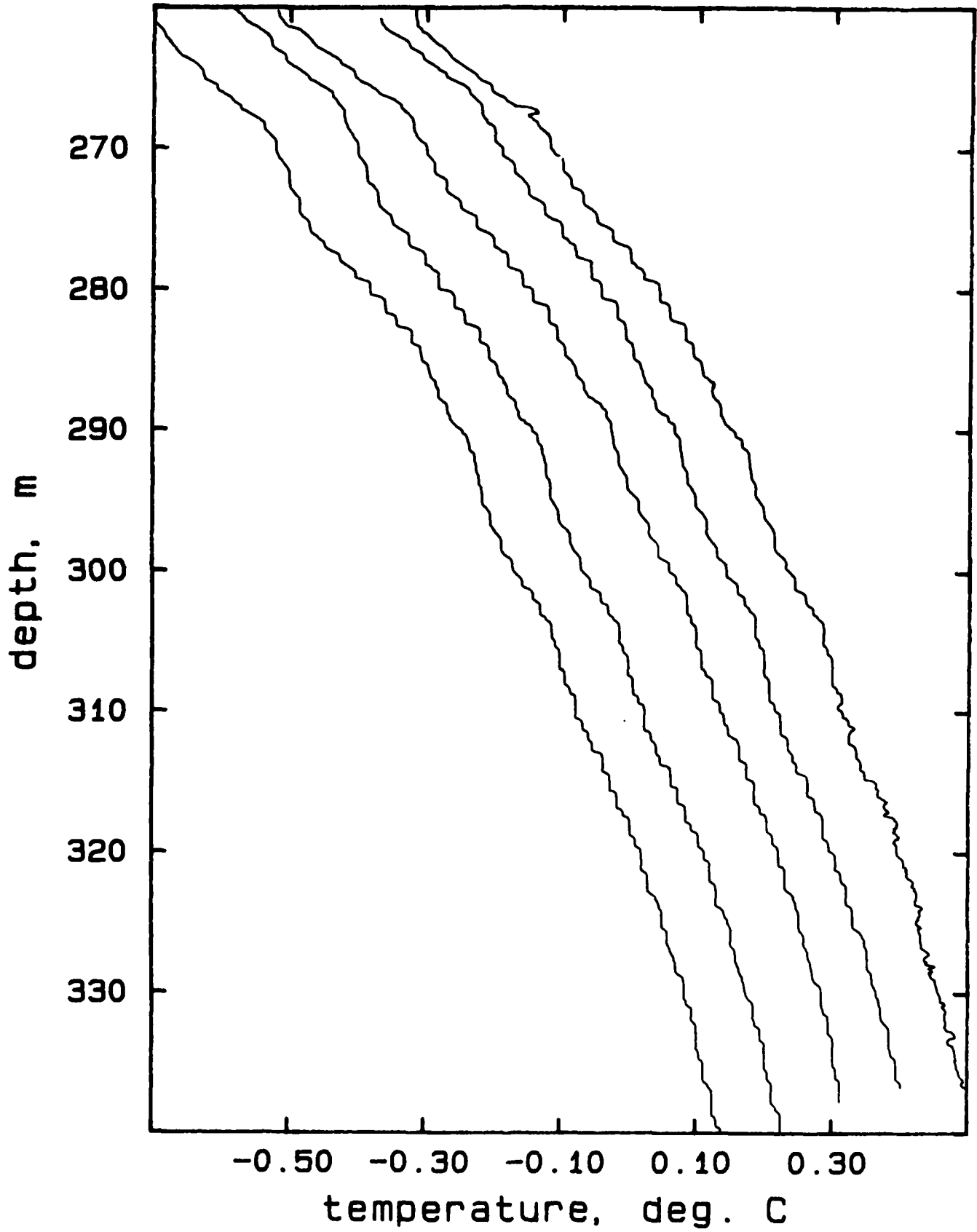


AR328A, drops 1, 2

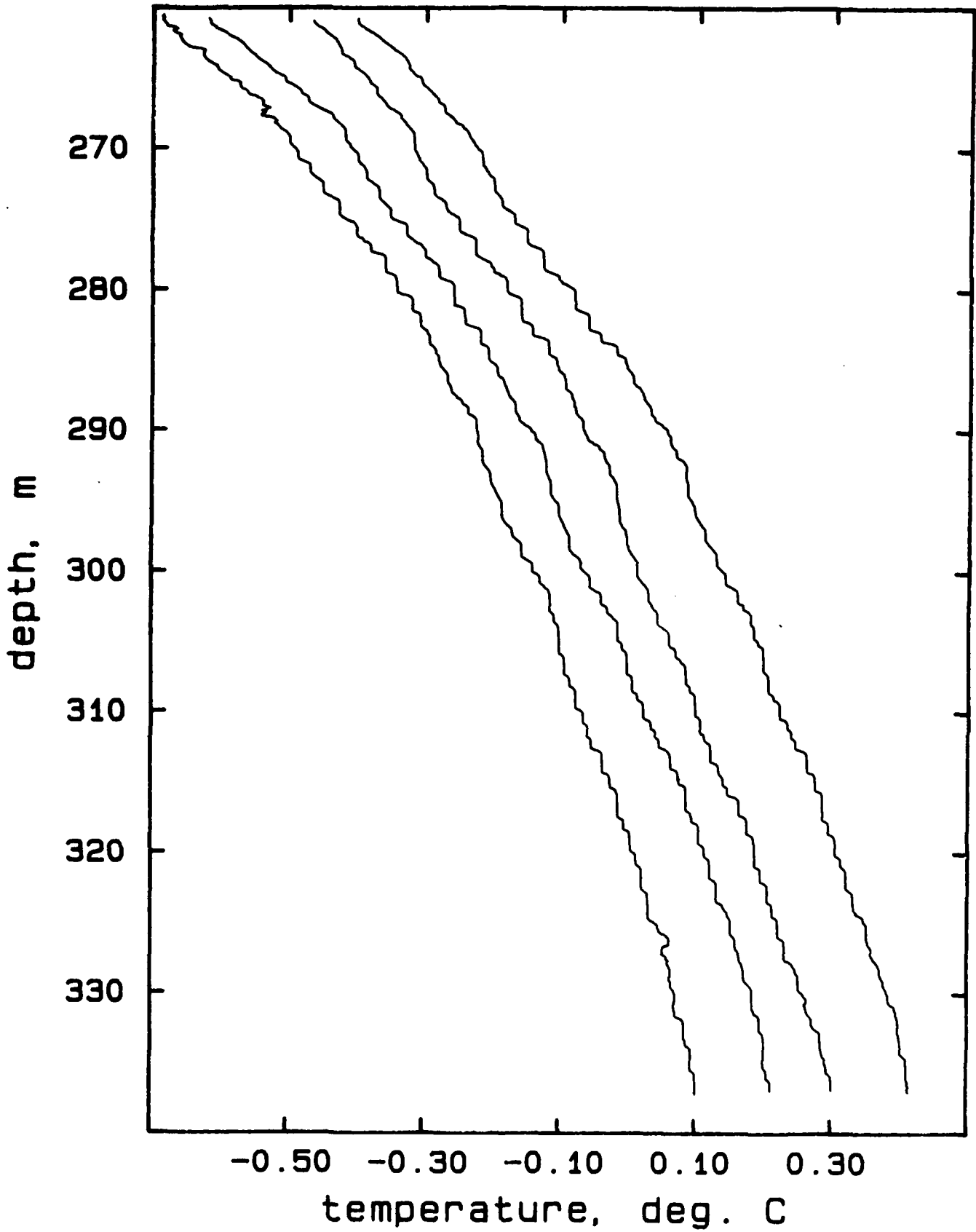


AR328A, drops 1, 2

AR328A, drops 1-5

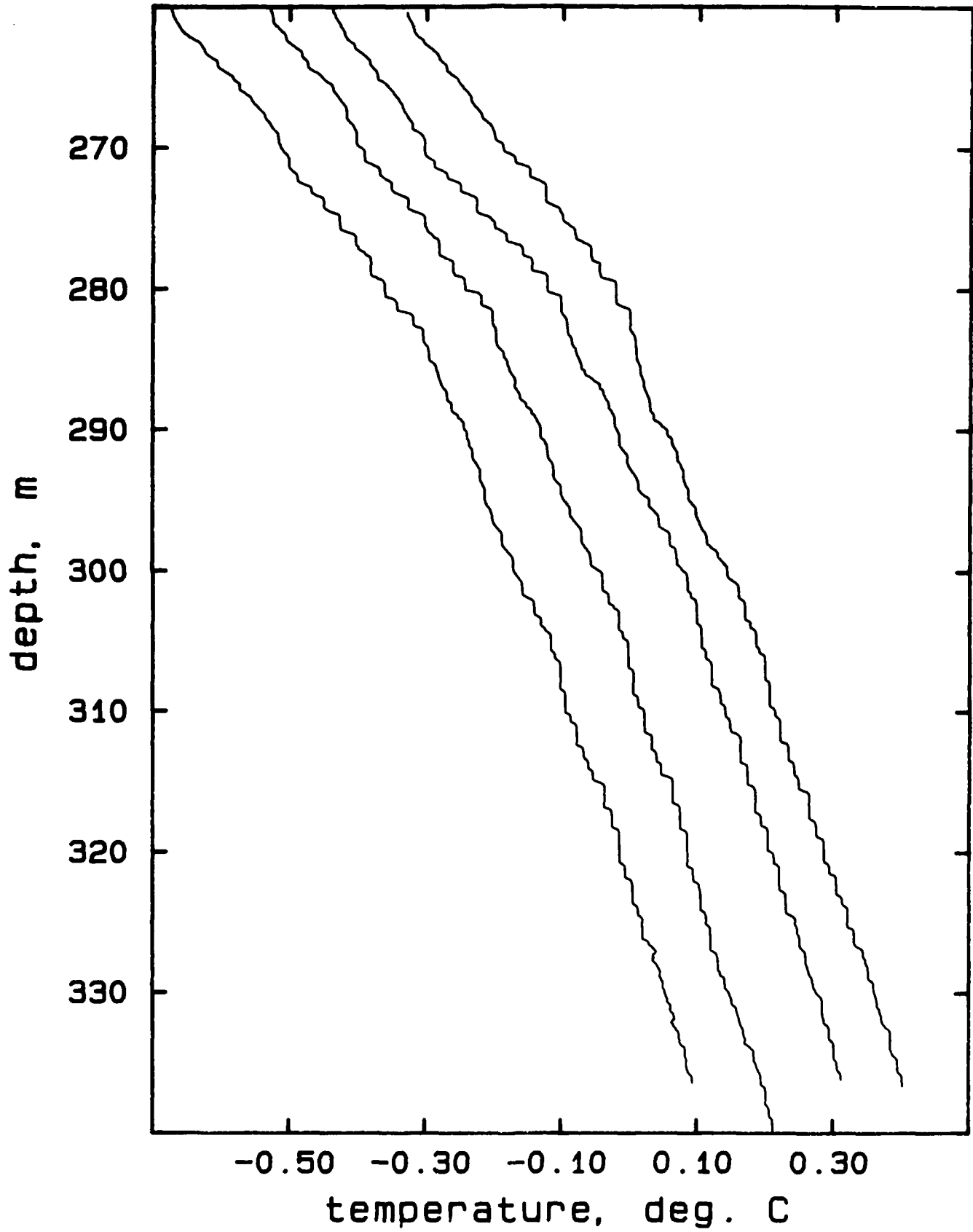


AR328A, drops 6, 8-10

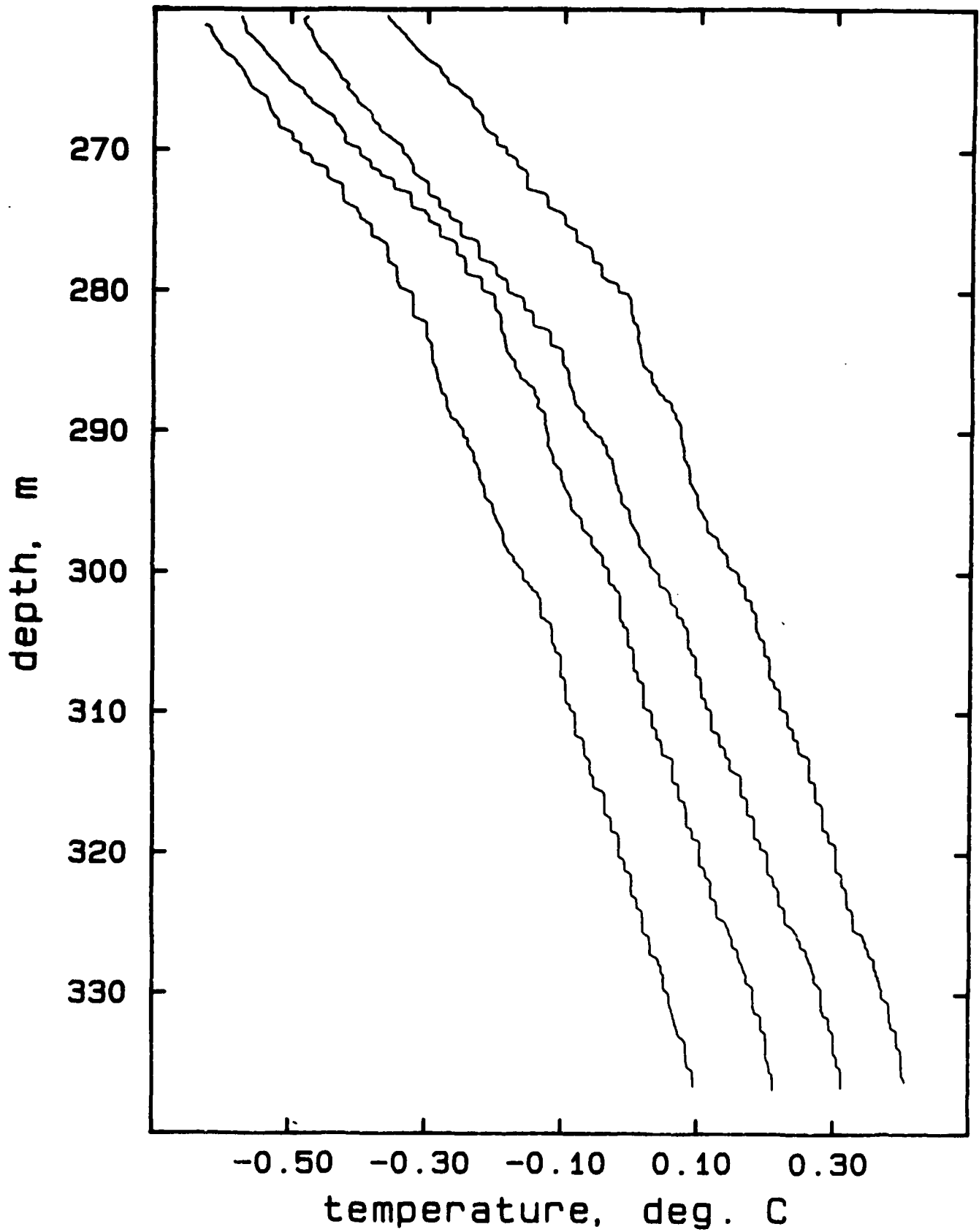


147  
AR328A, drops 6, 8-10  
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temperature, deg. C

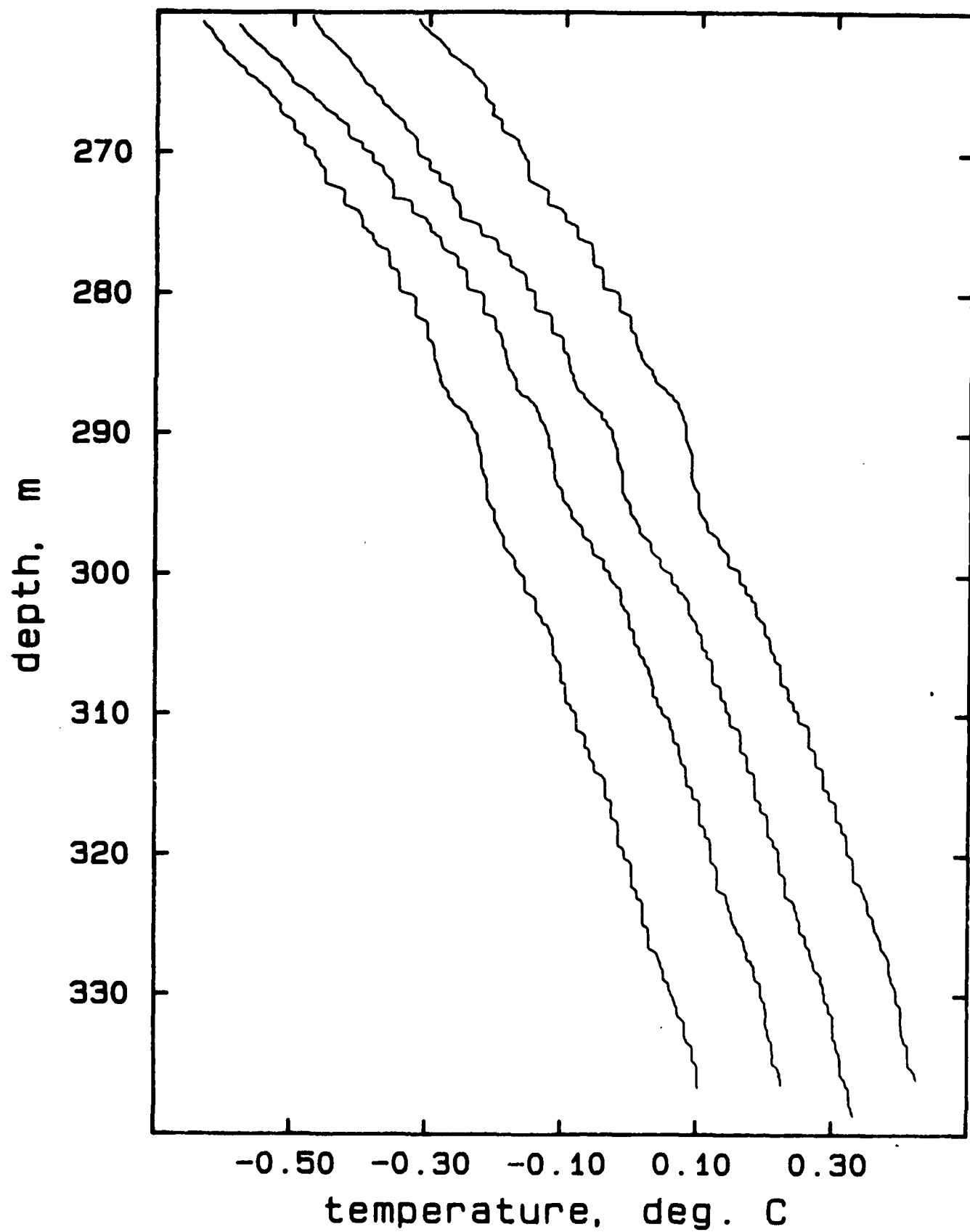
## AR328A, drops 11-14



## AR328A, drops 15-18

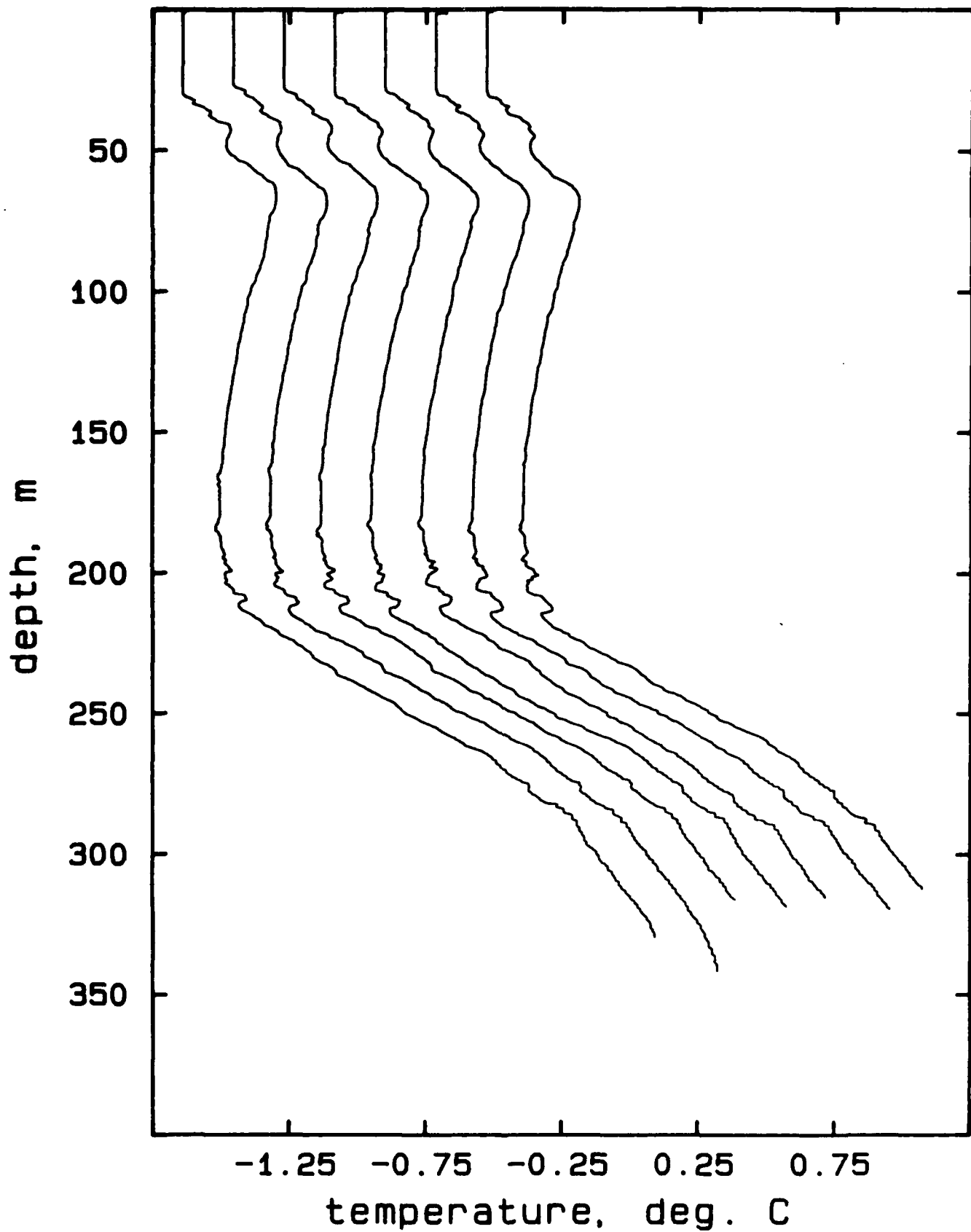
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## AR328A, drops 19-22



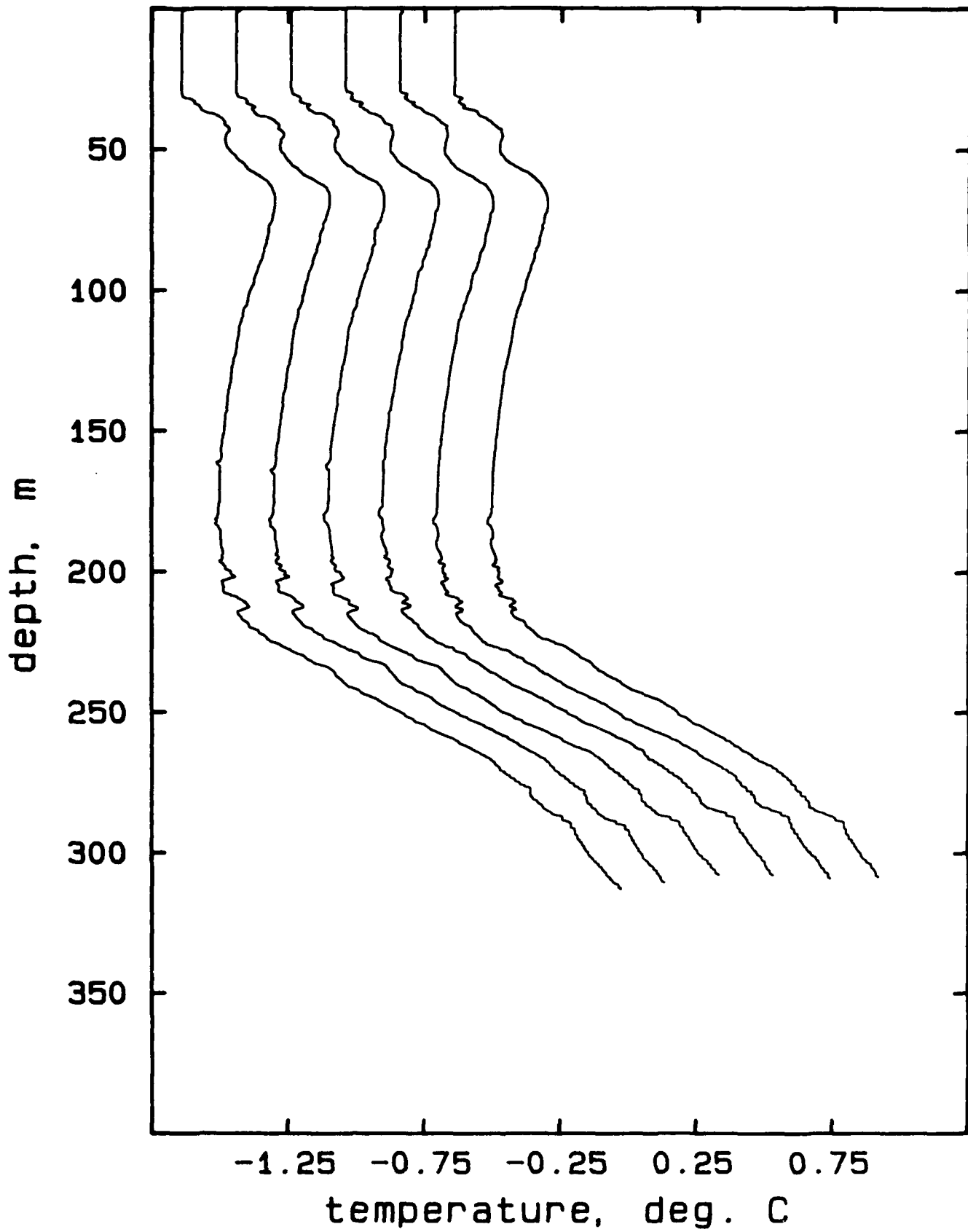


### AR329A, drops 1-7

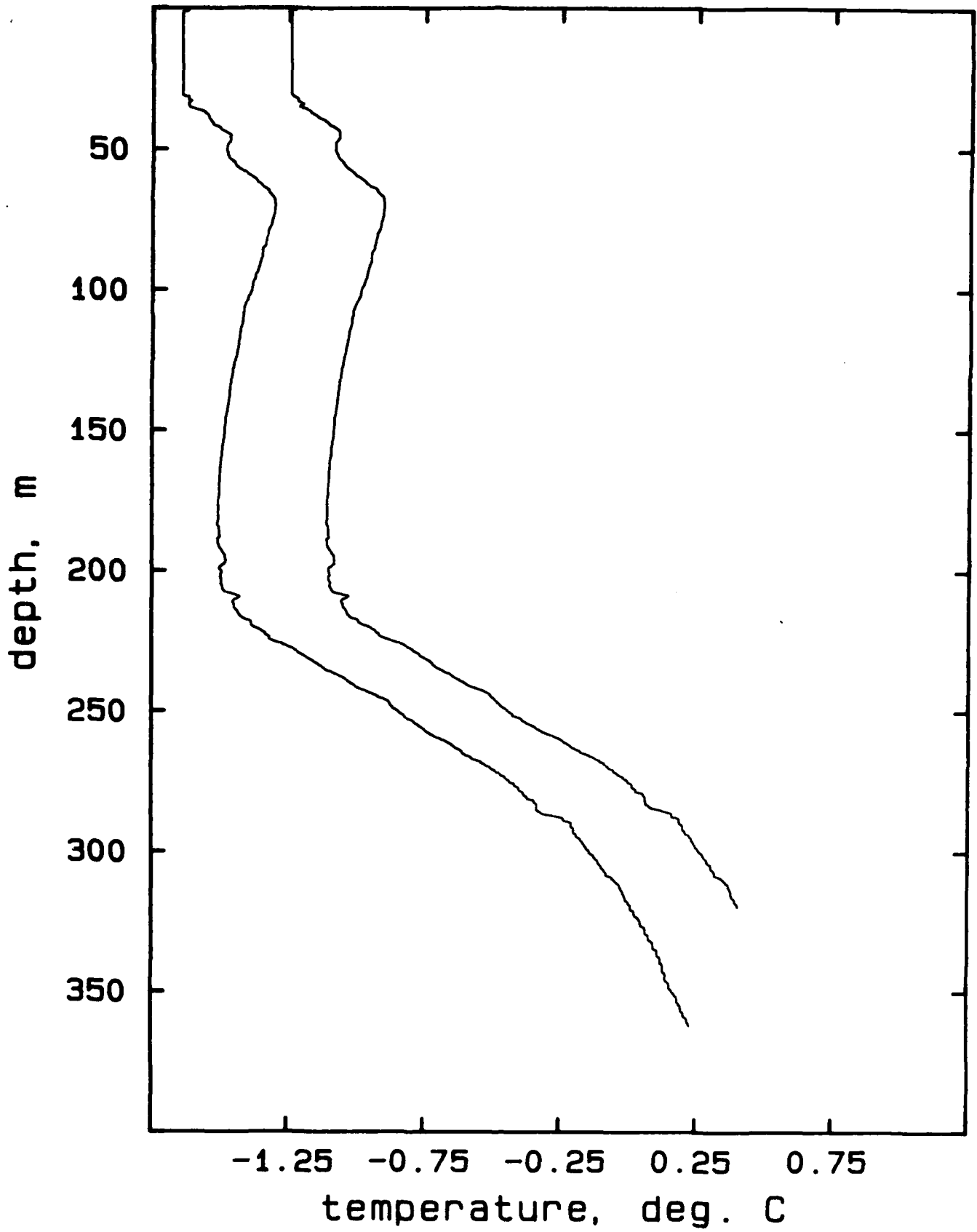


AR329A, drops 1-7

AR329B, drops 1-6

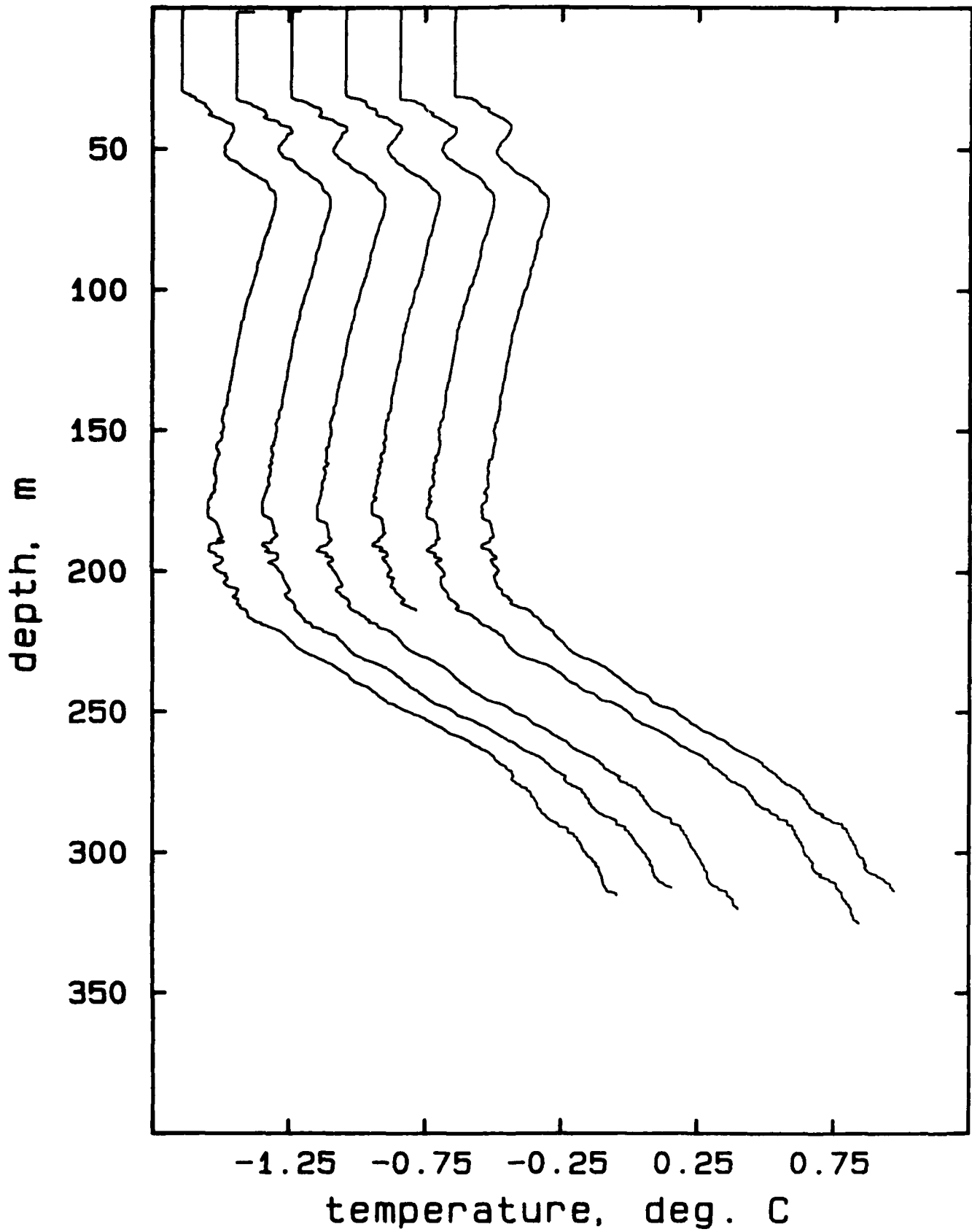


AR329C, drops 1, 2

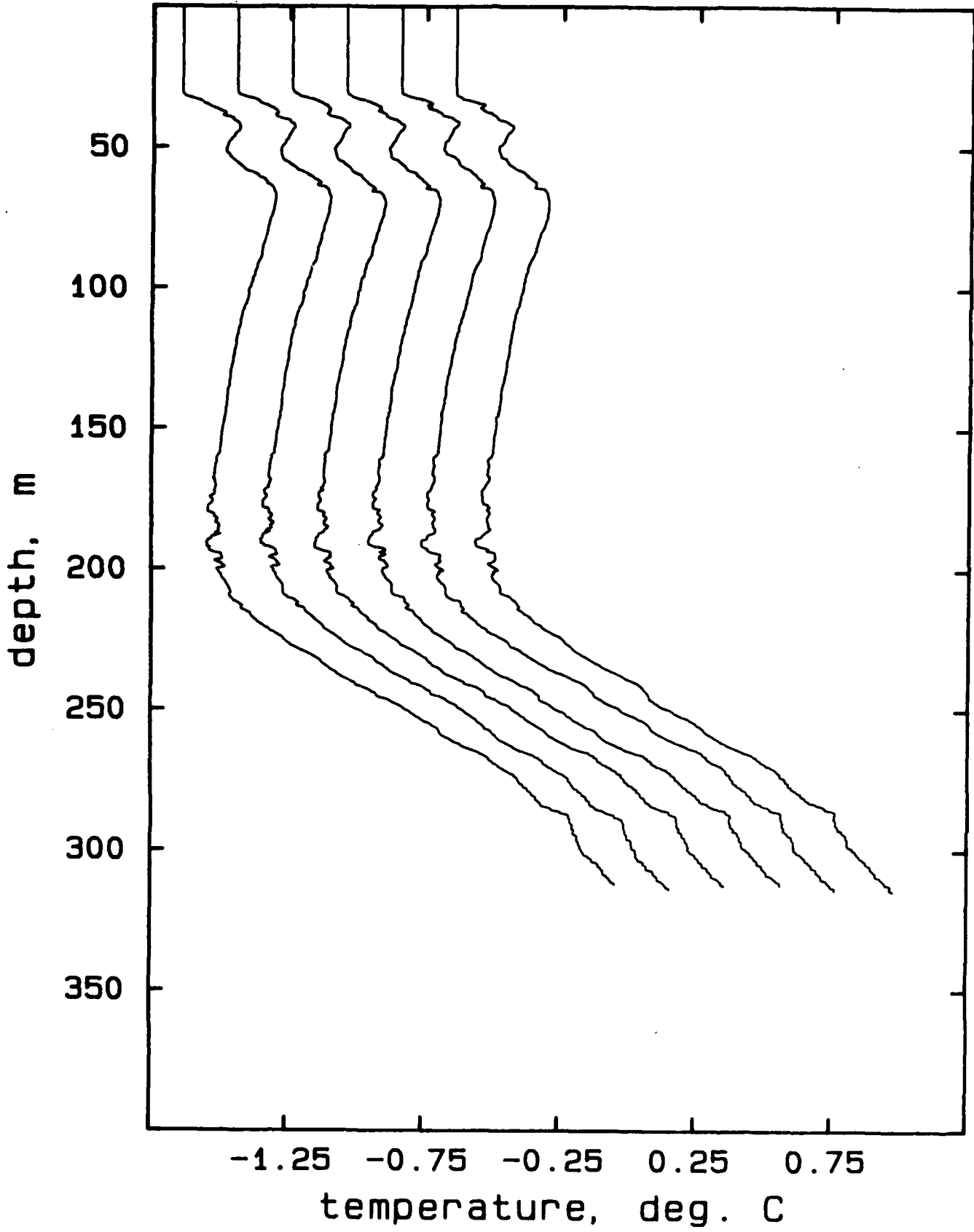


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

## AR330A, drops 1-6

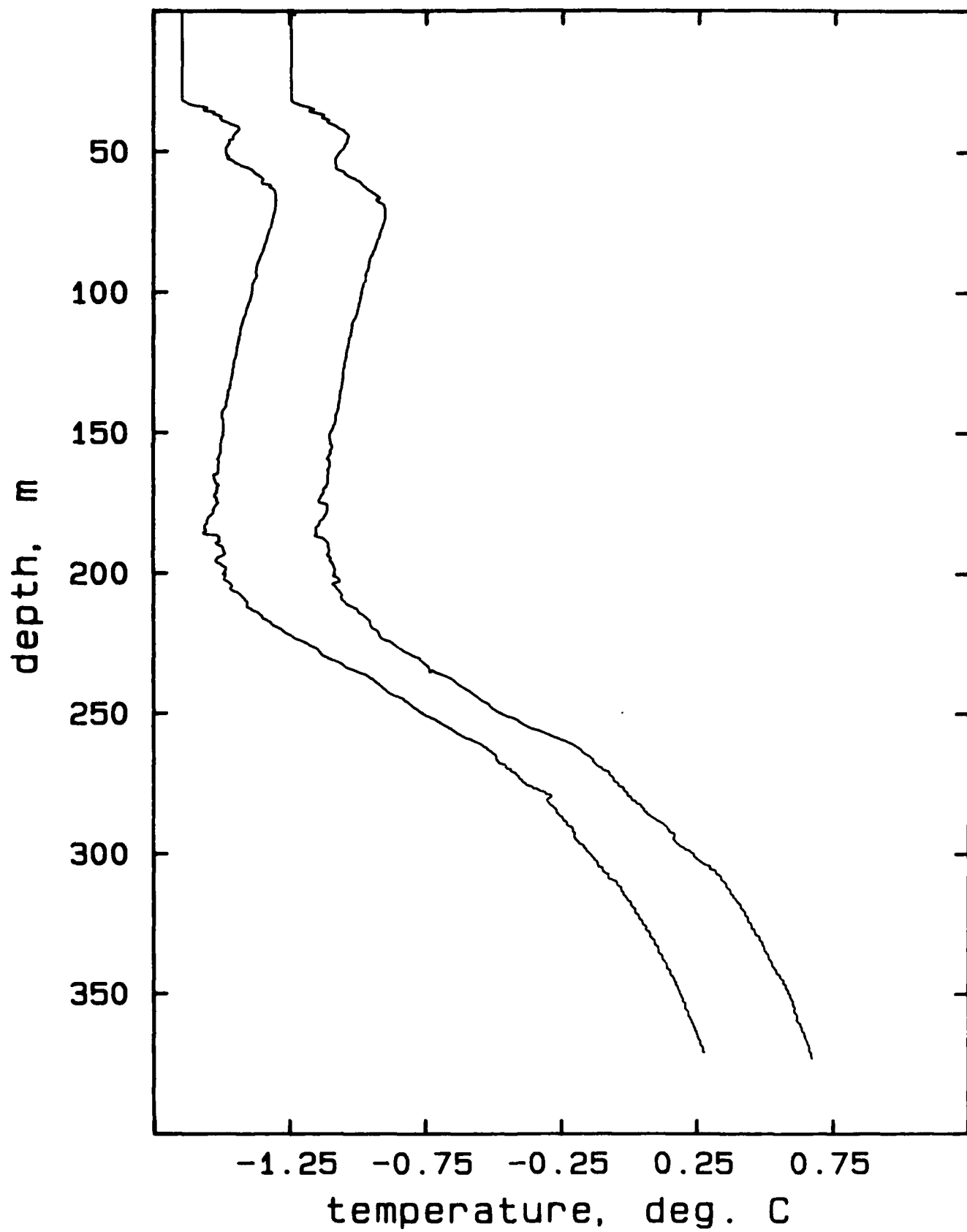


### AR330B, drops 1-6

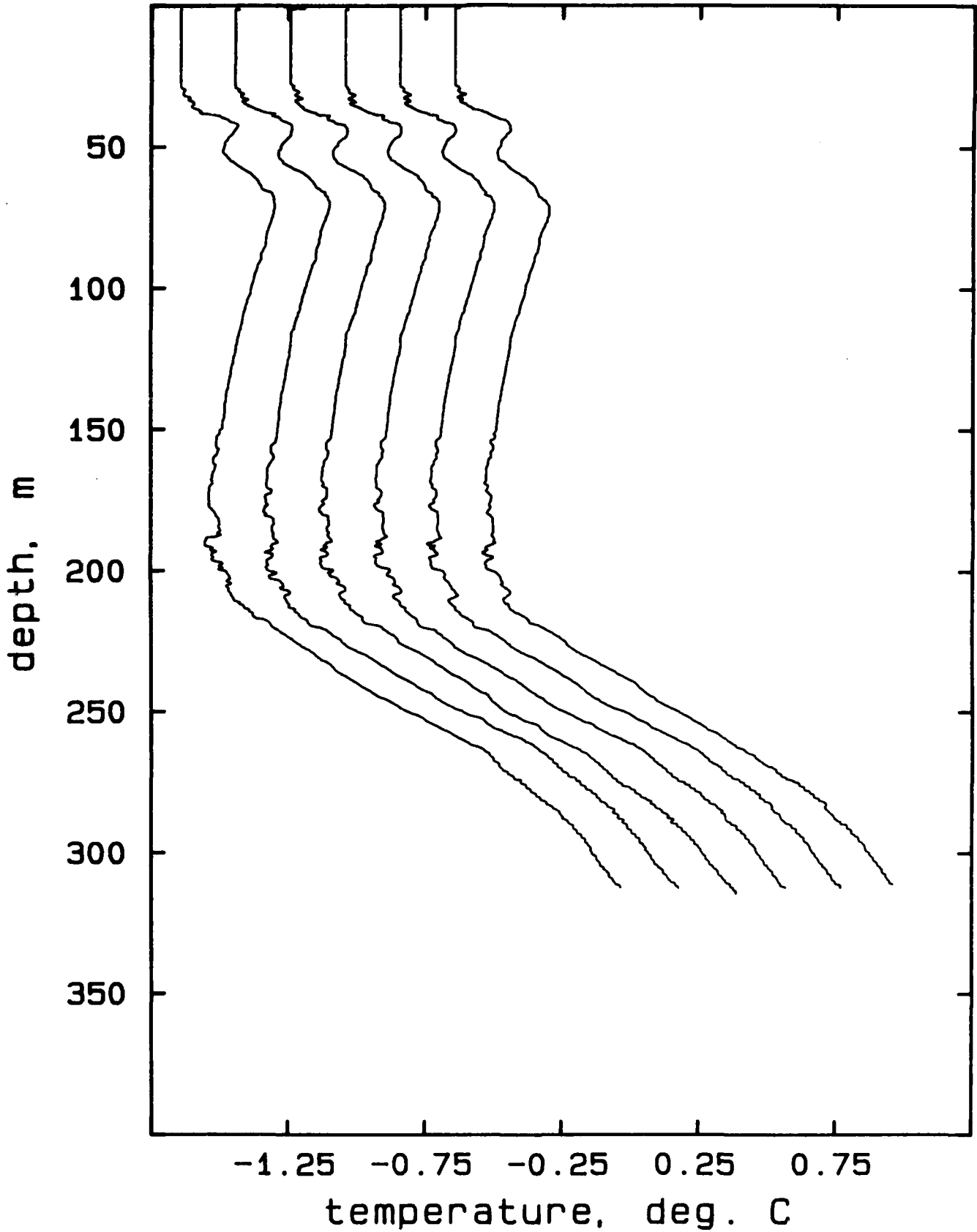


AR330B, drops 1-6

## AR330C, drops 1, 2

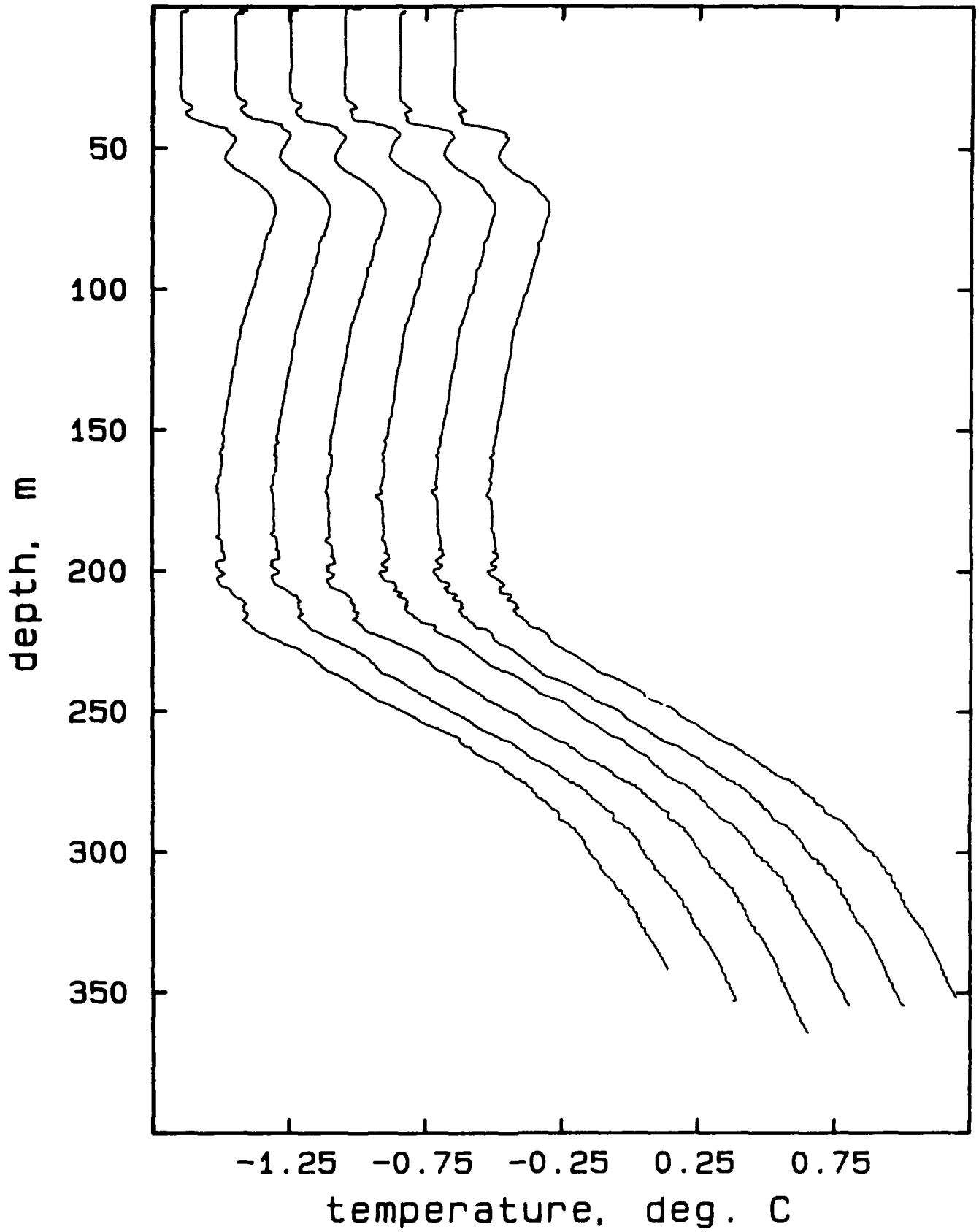


AR331A, drops 1-6



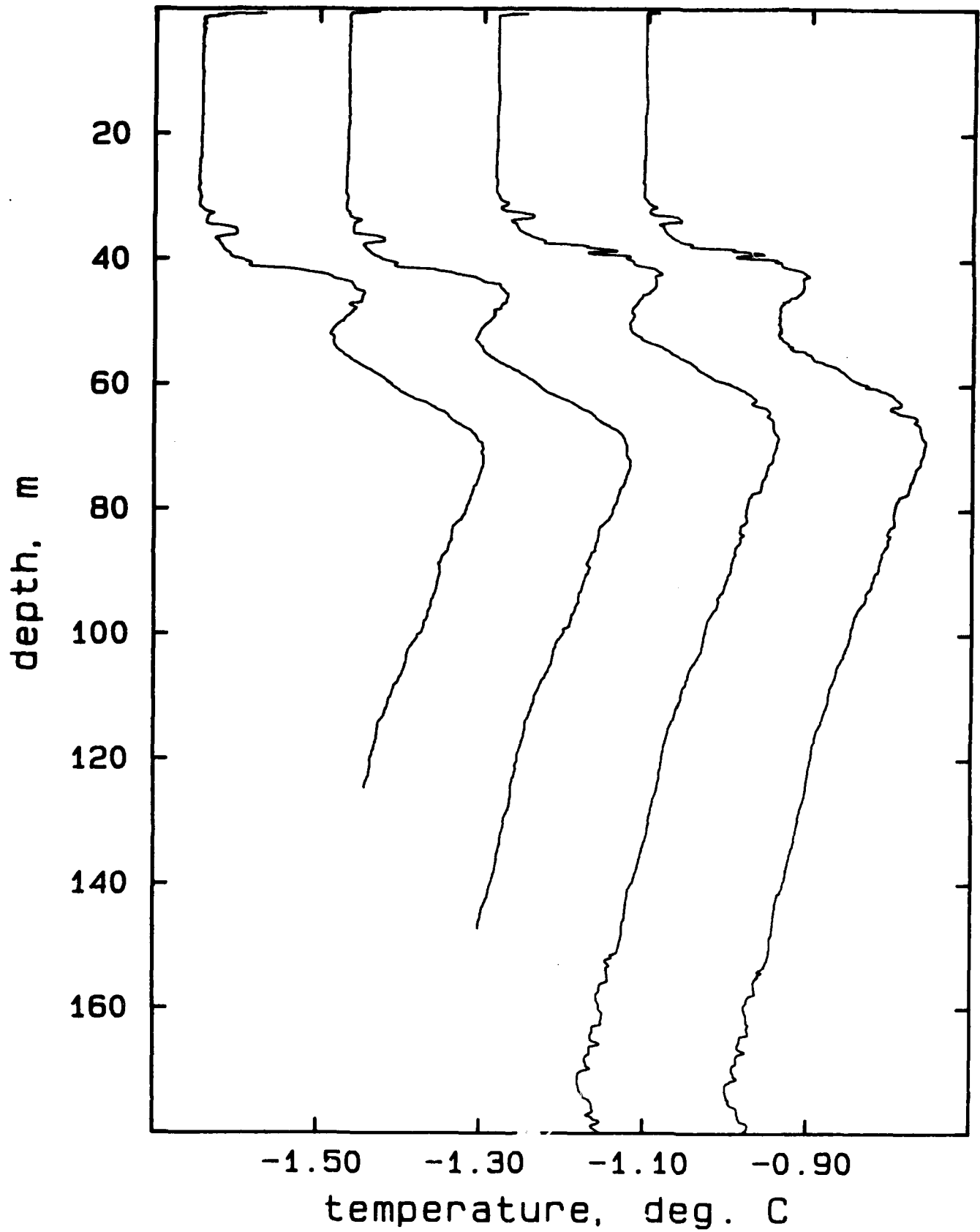
AR331A, drops 1-6

AR401A, drops 1-6

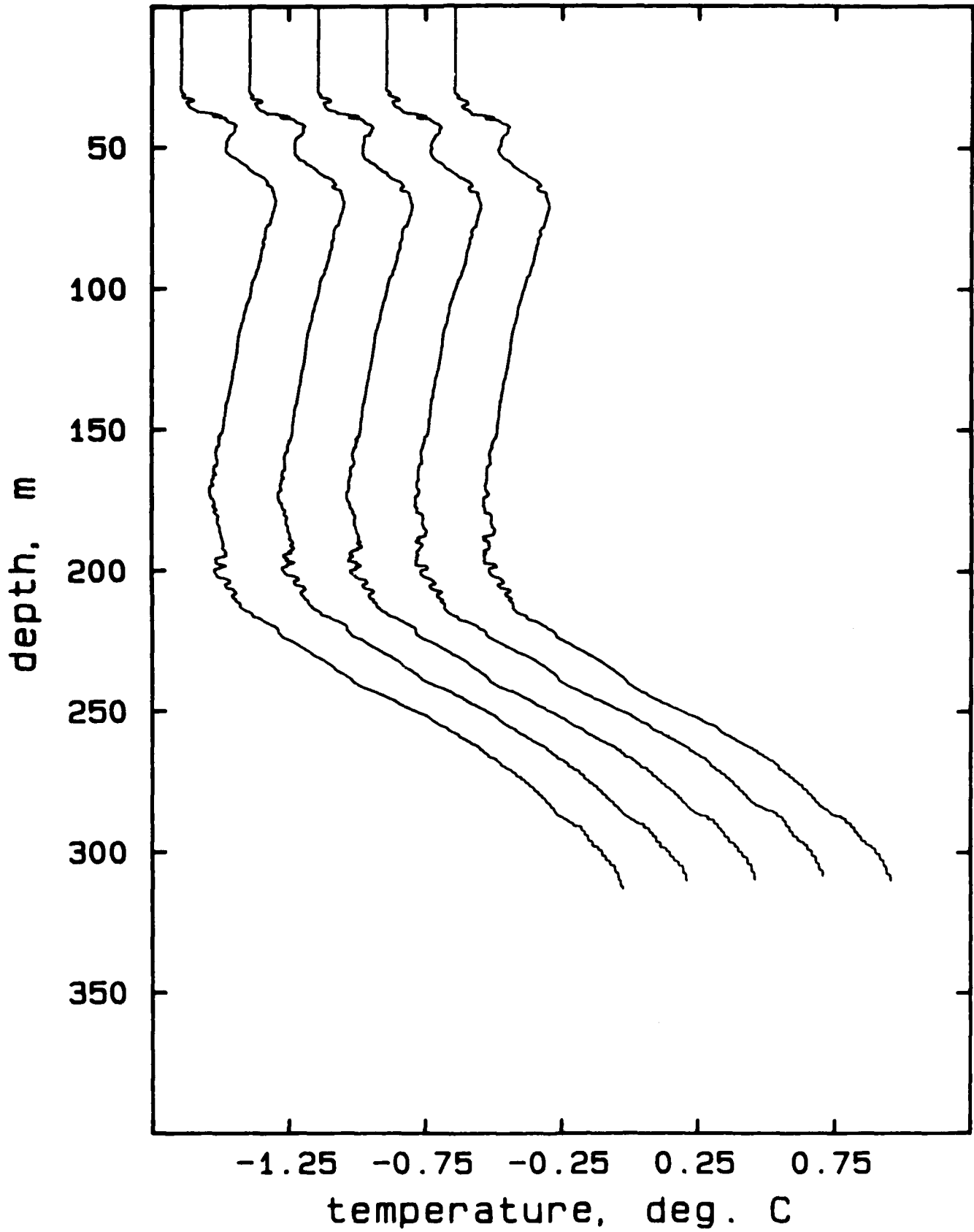




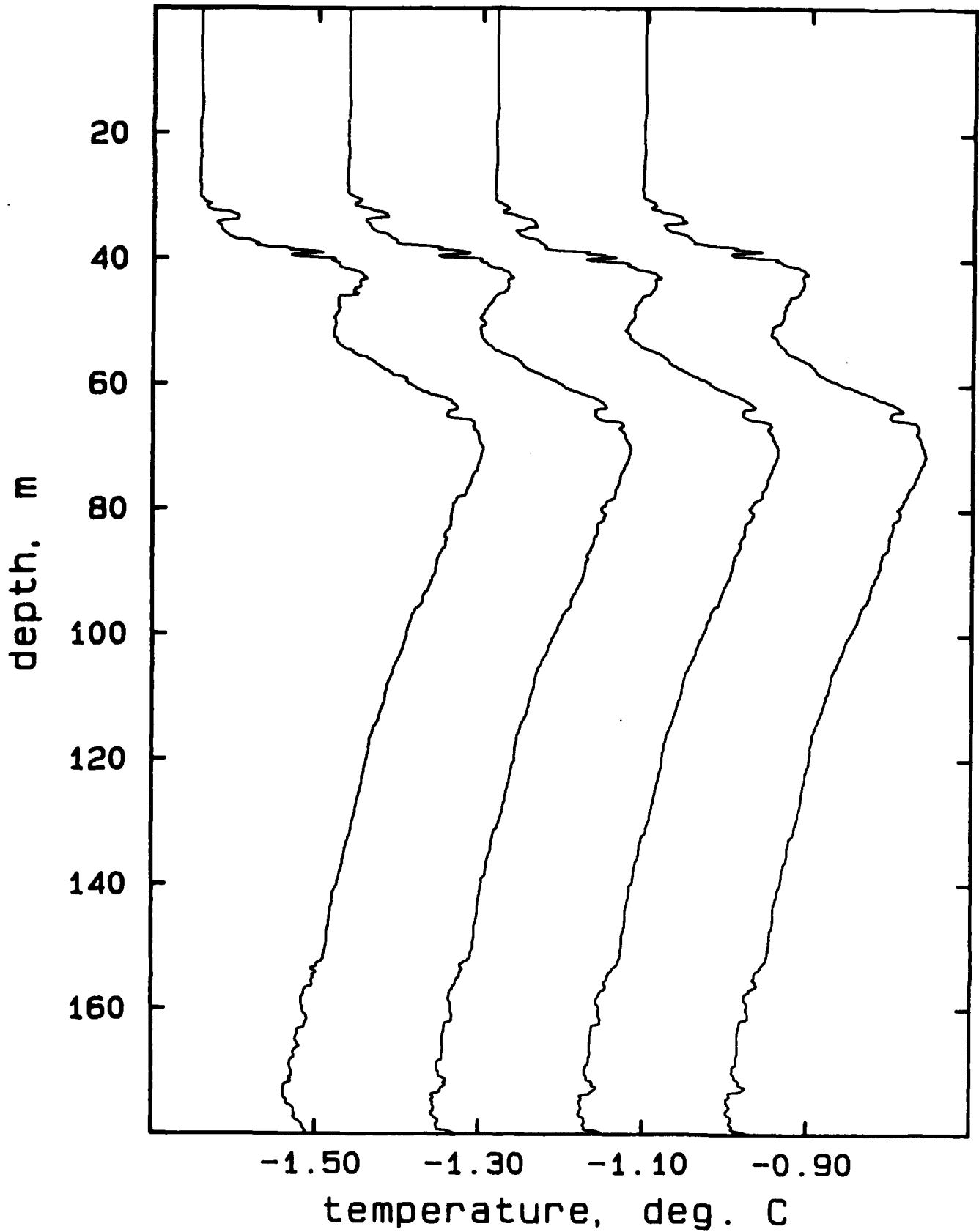
## AR401B, drops 1-4



## AR401B, drops 3-7

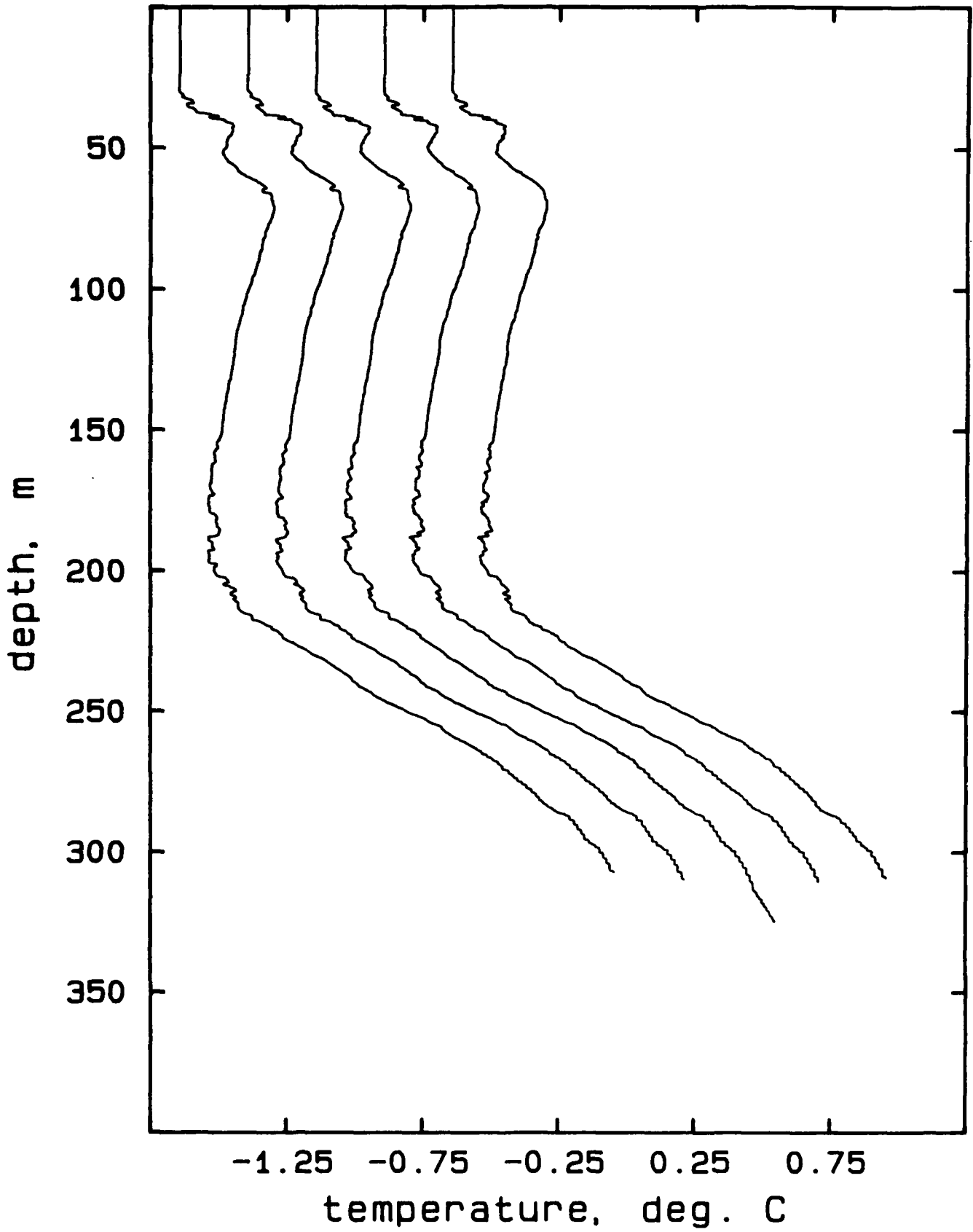


AR401B, drops 5-8

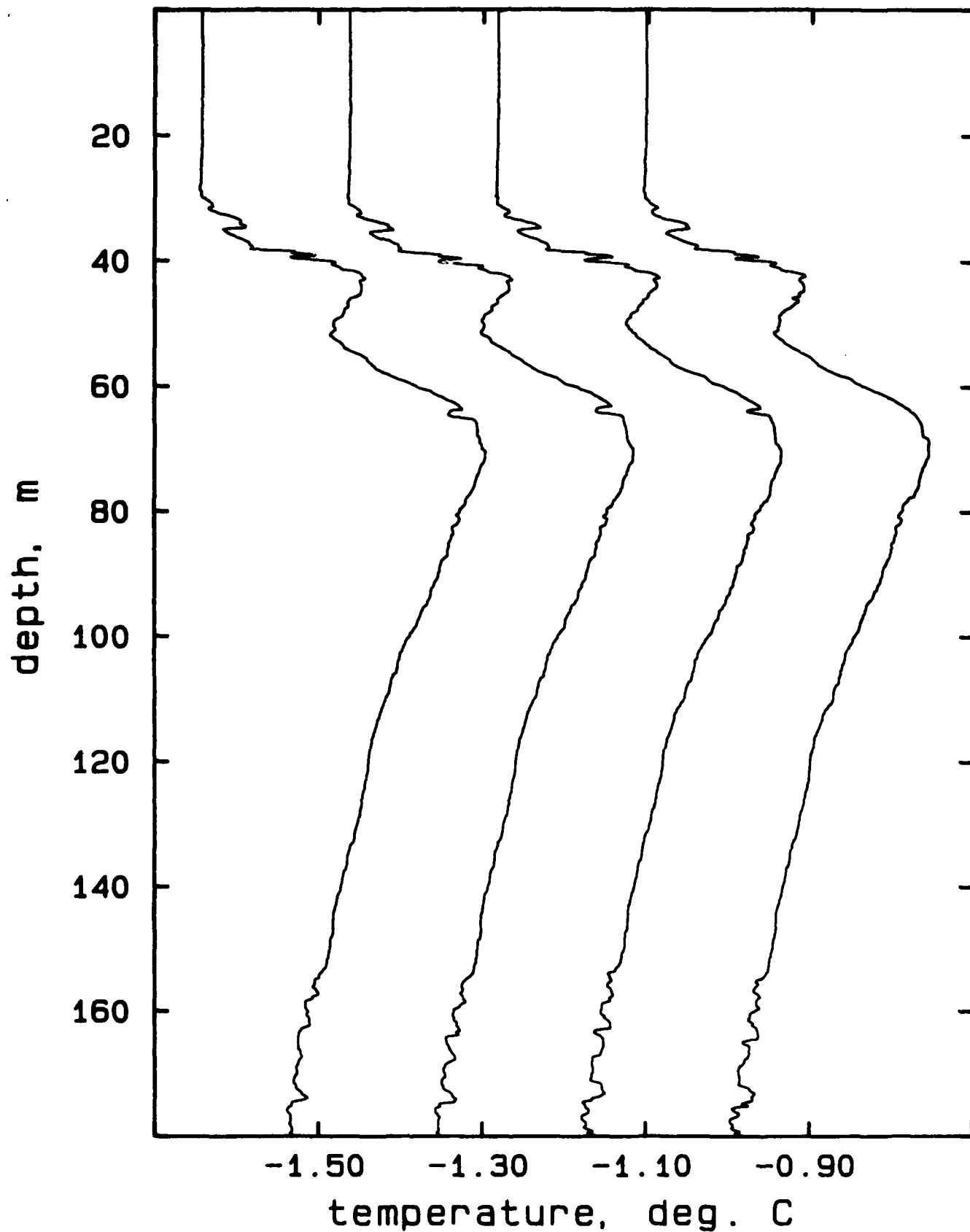


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AR401B, drops 8-12

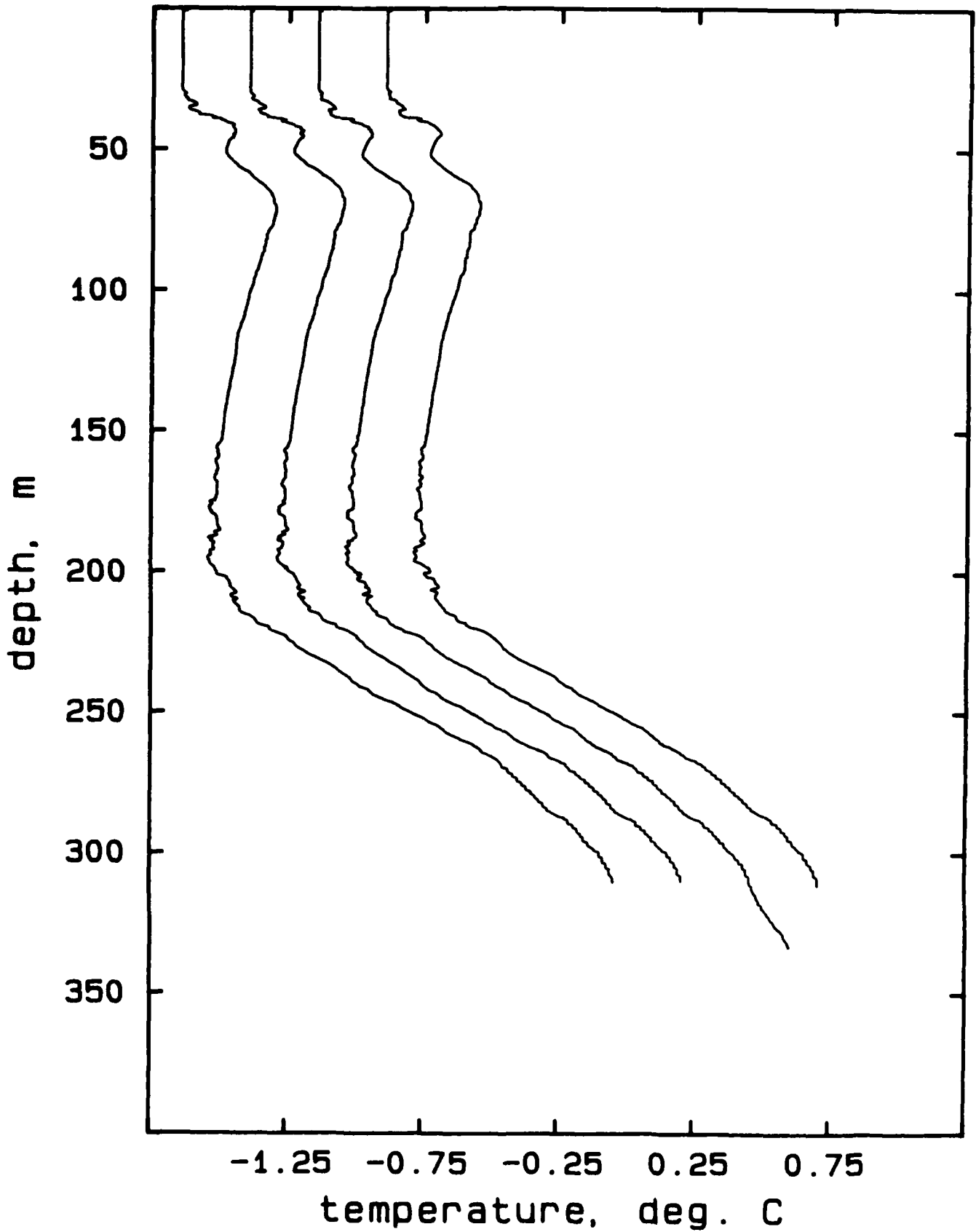


AR401B, drops 9-12

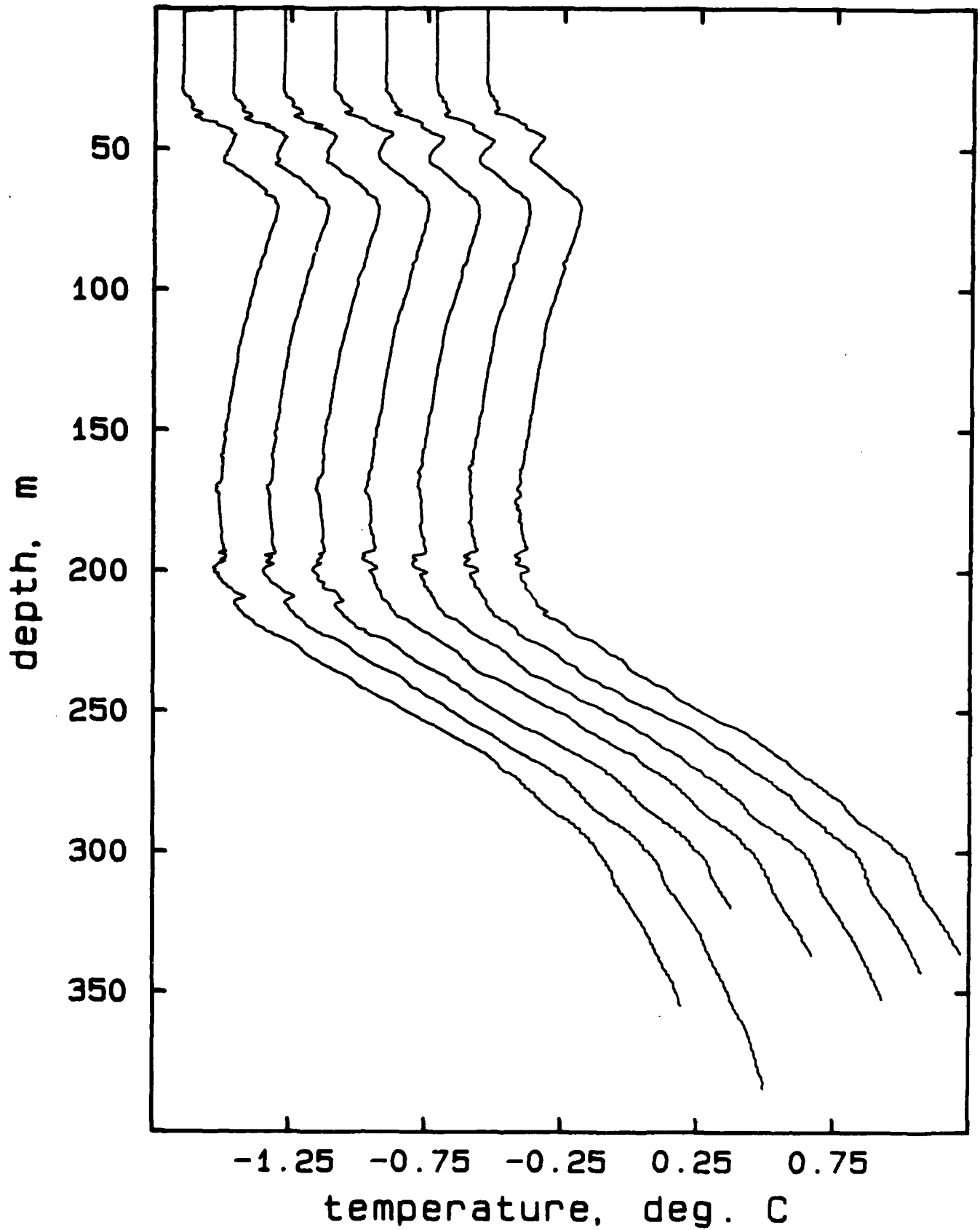


AR401B, drops 9-12

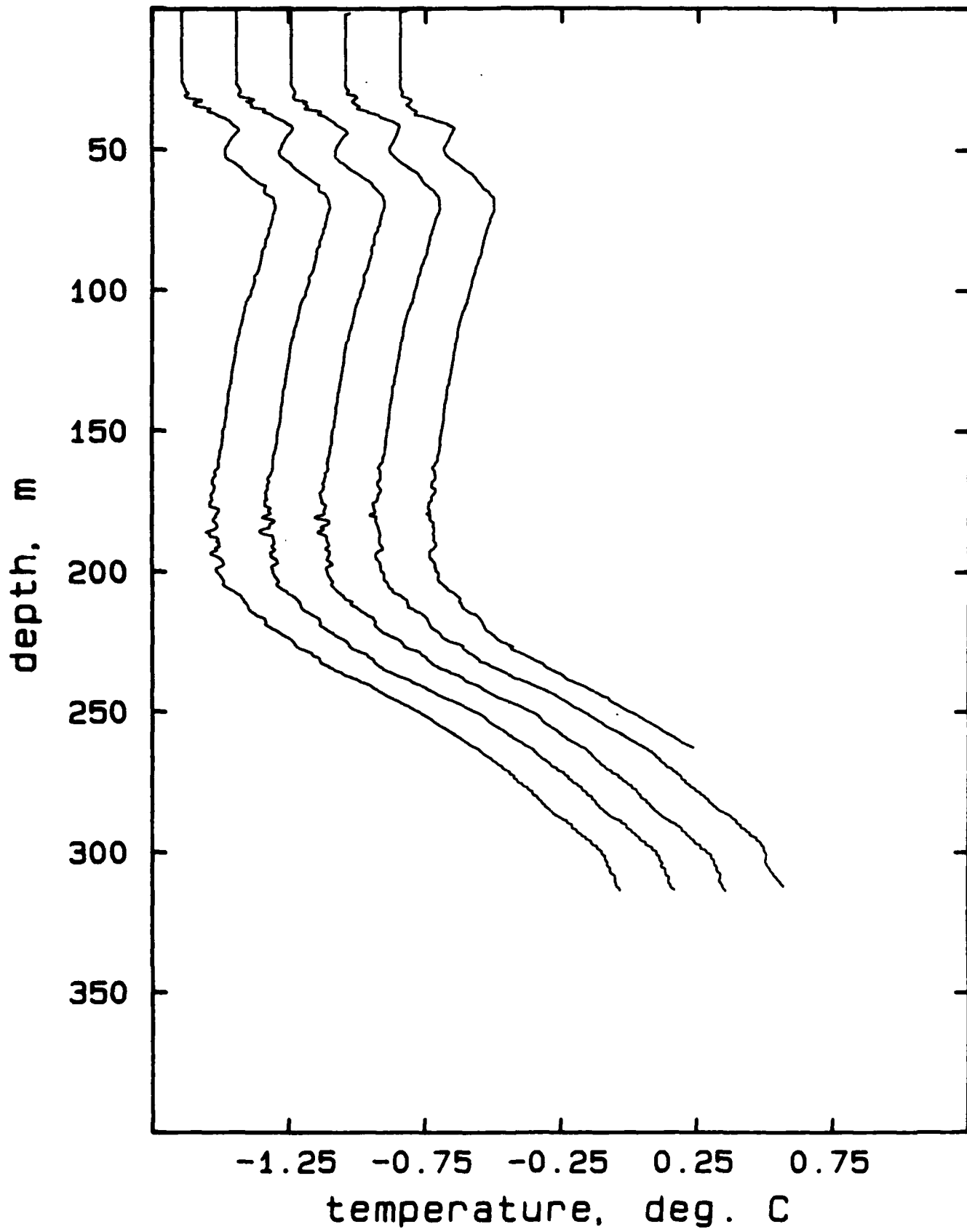
## AR401C, drops 1-4



AR402A, drops 1-7

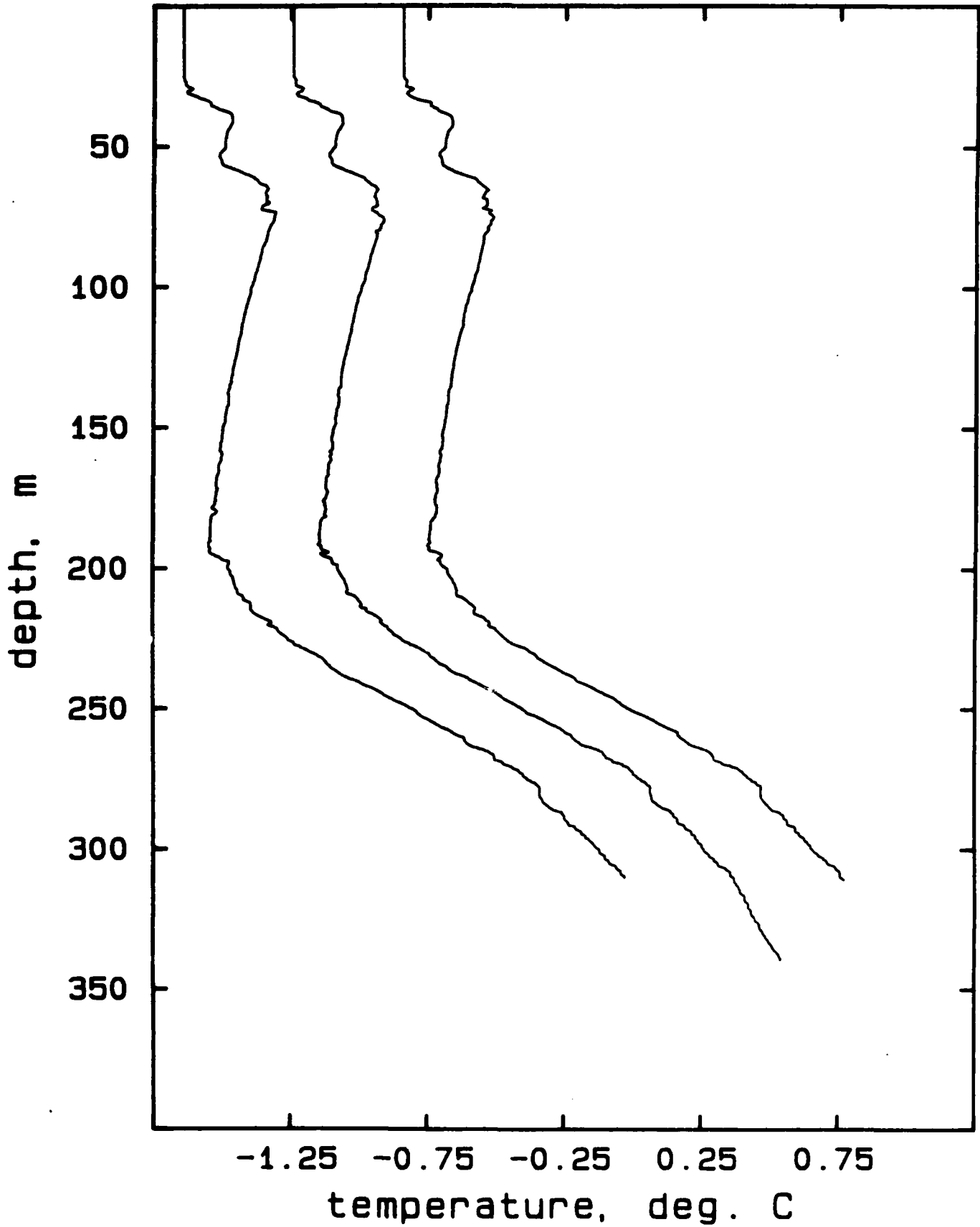


AR402B, drops 1-3, 6, 7



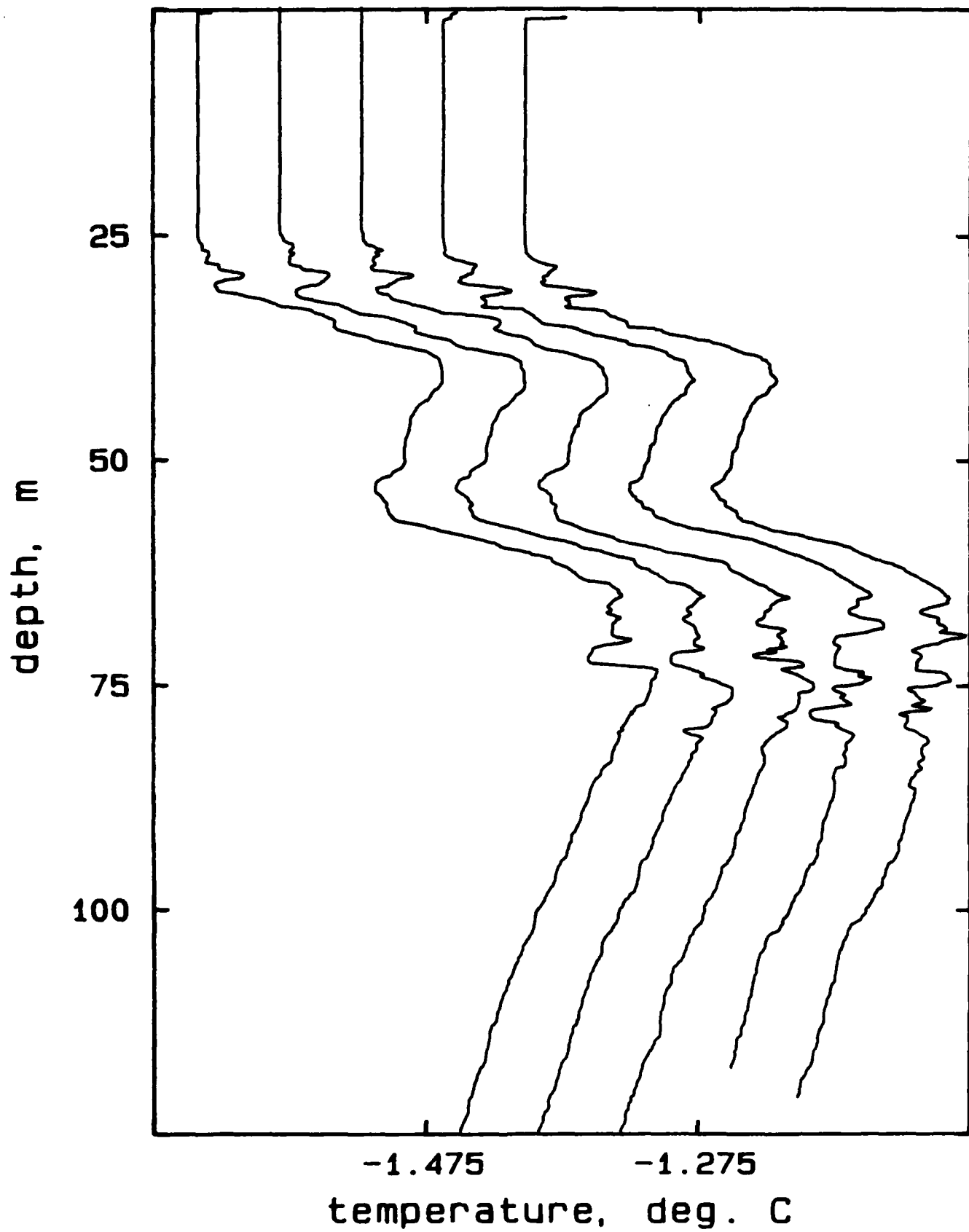


AR403A, drops 1-3

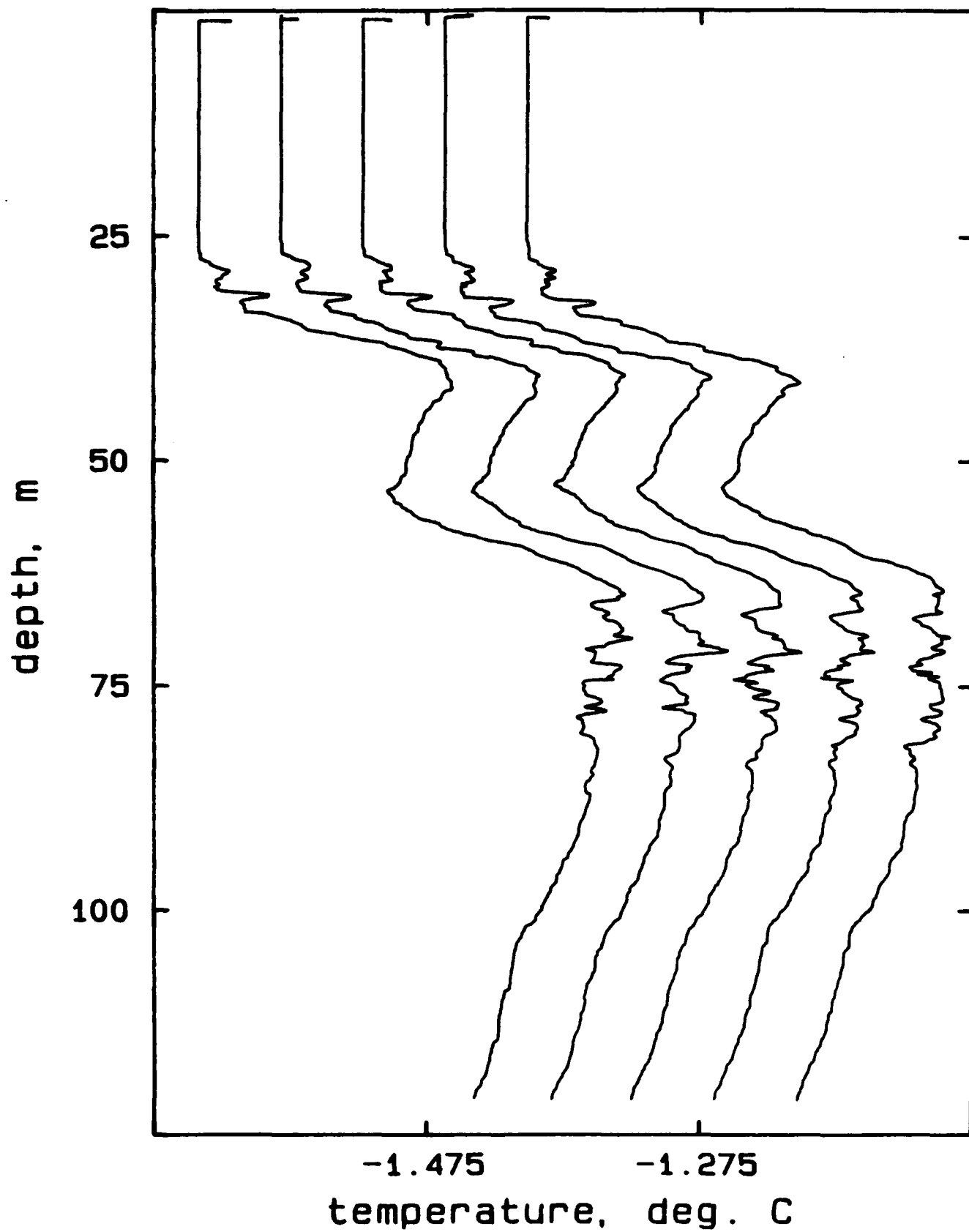


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AR403A, drops 1-3  
depth, m  
temperature, deg. C

AR403A, drops 1-5

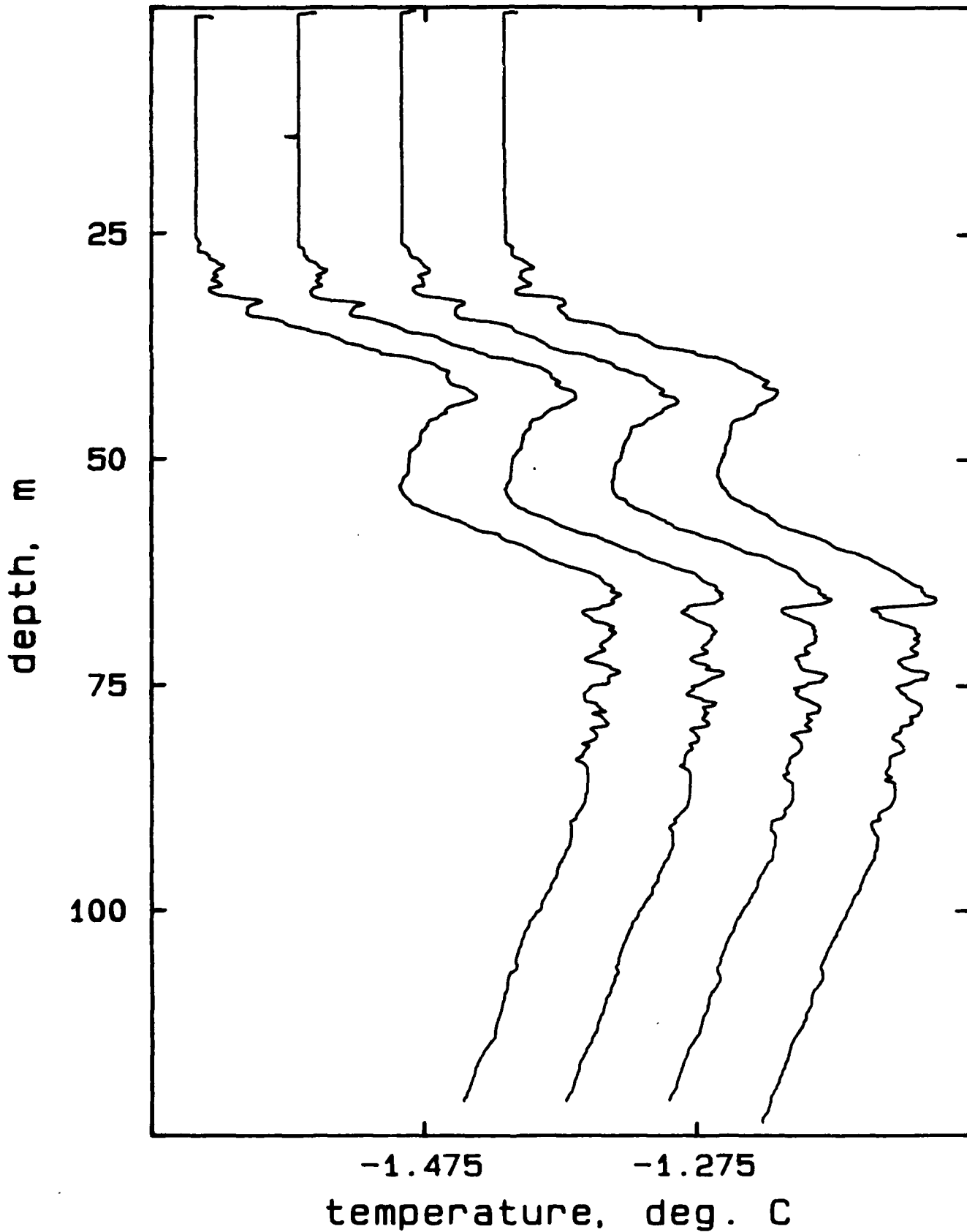


AR403A, drops 6-10

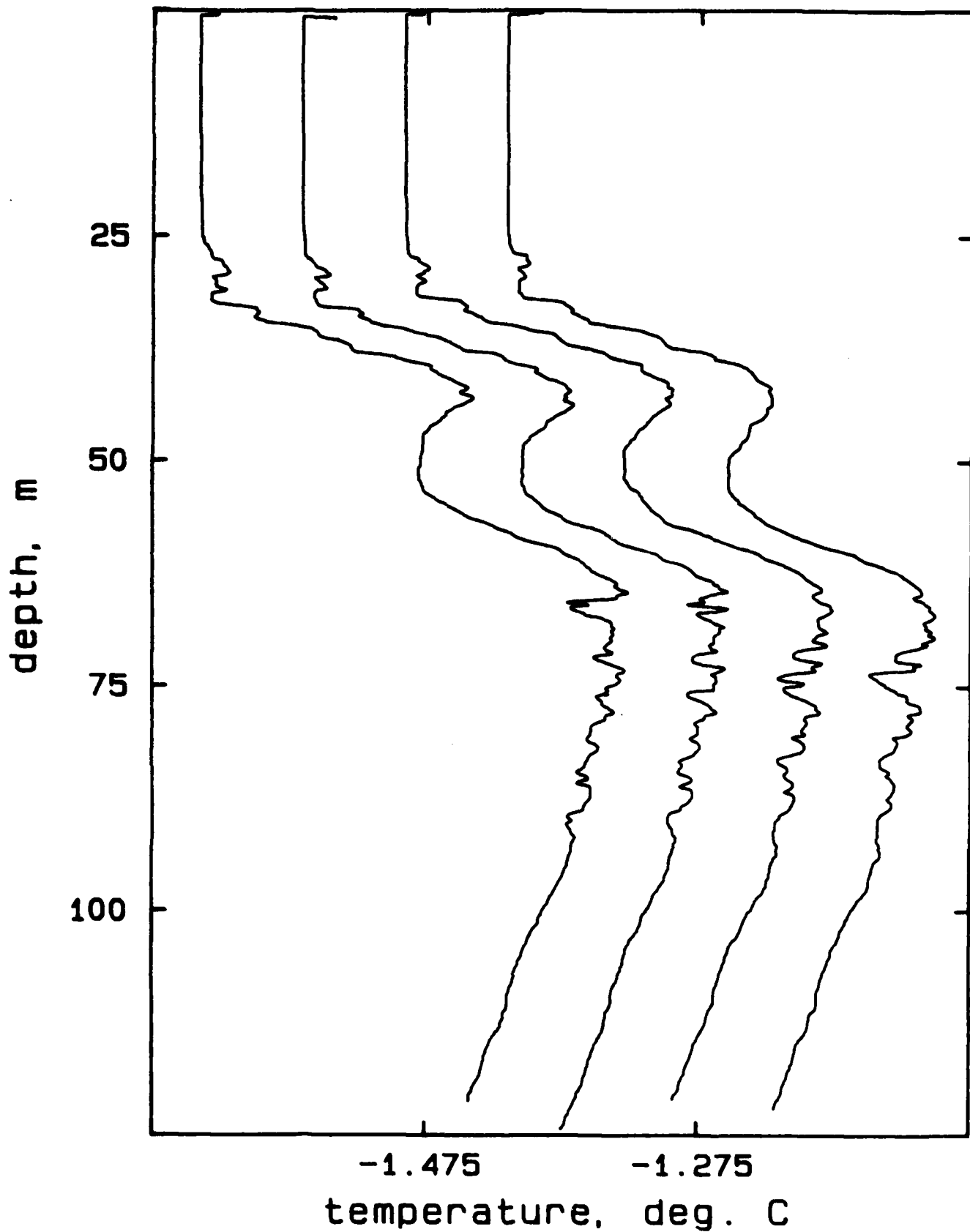


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AR403A, drops 11-14

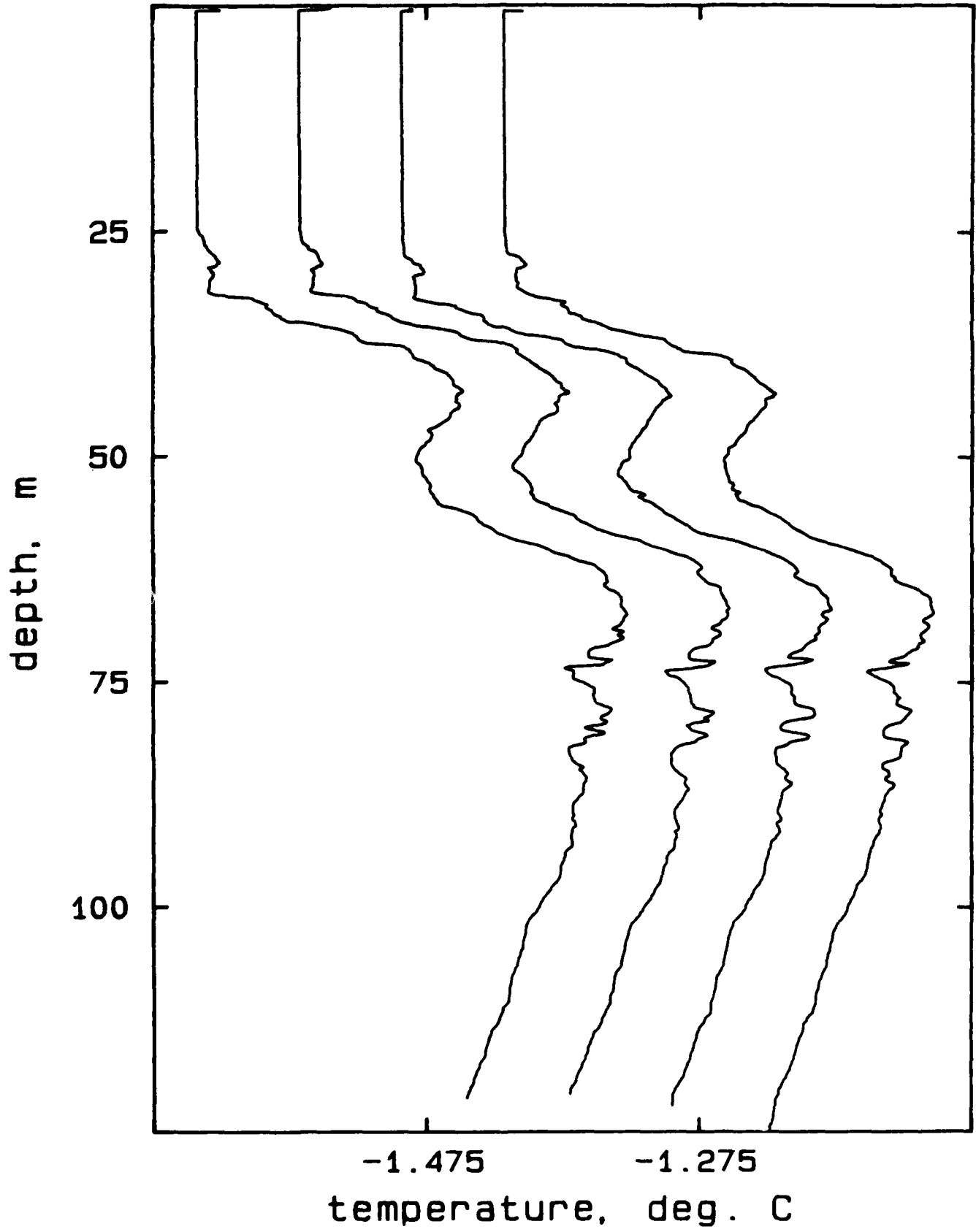


AR403A, drops 15-18

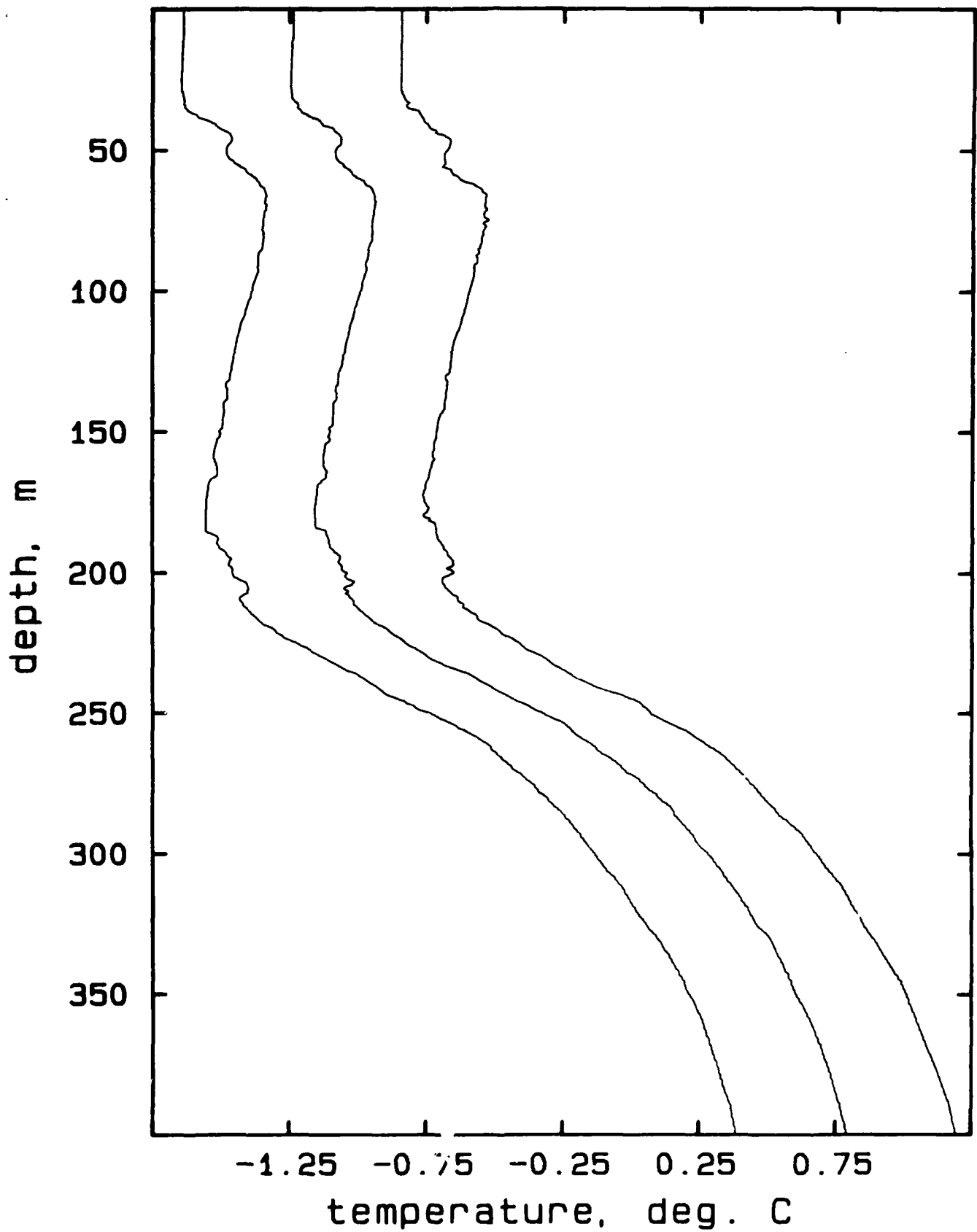


AR403A, drops 15-18

## AR403A, drops 19-22

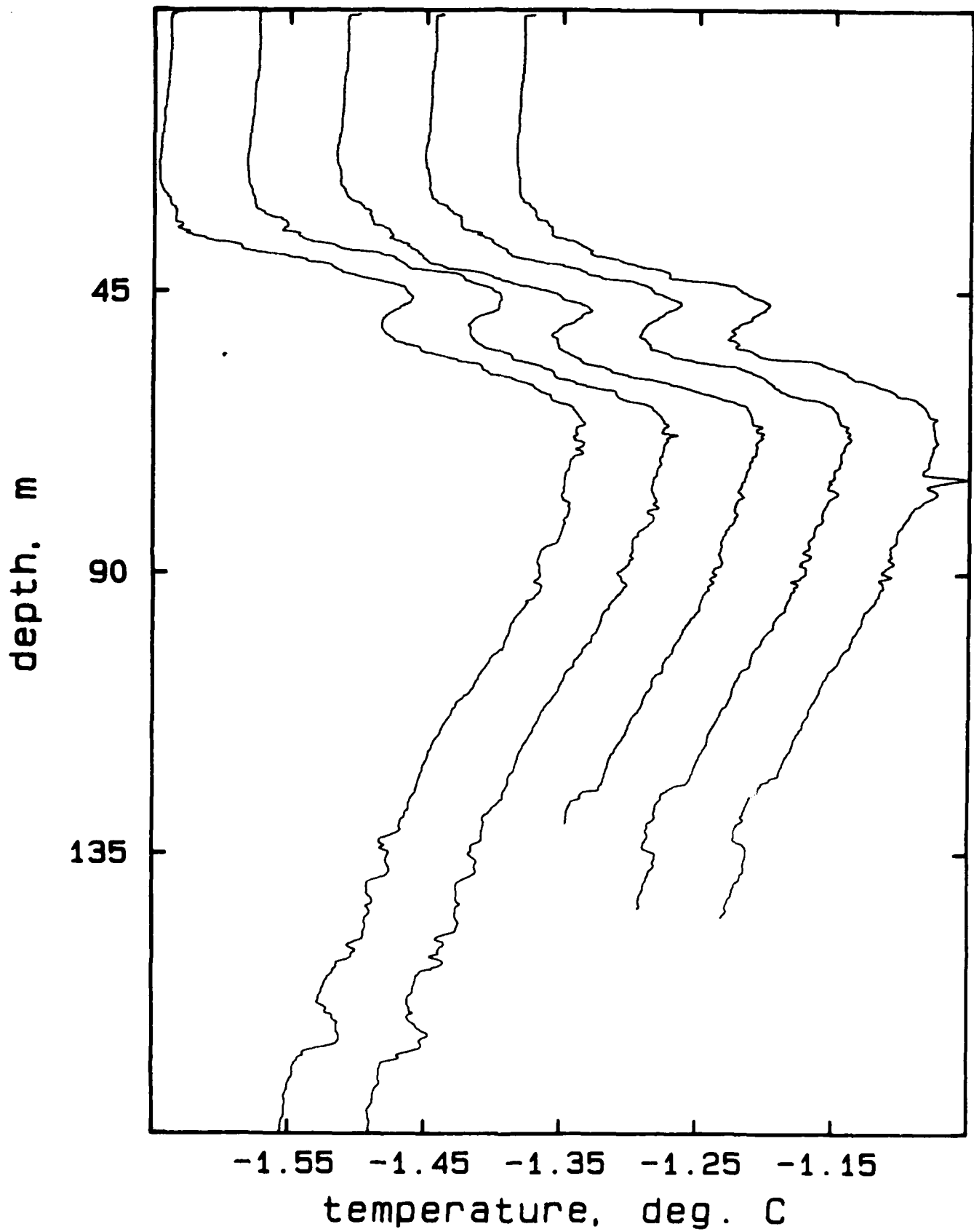


AR417A, drops 1, 2, 13



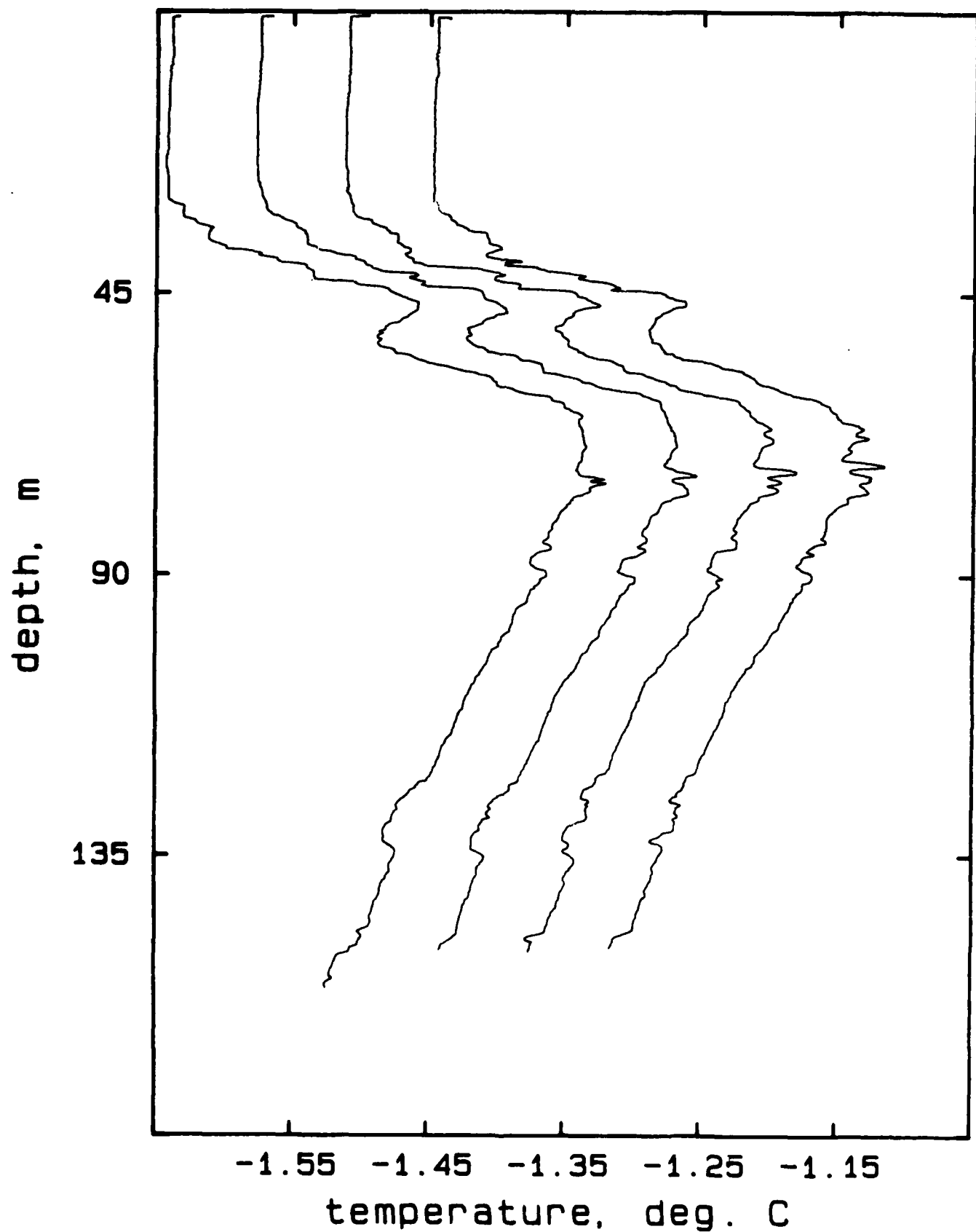
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## AR417A, drops 1-5



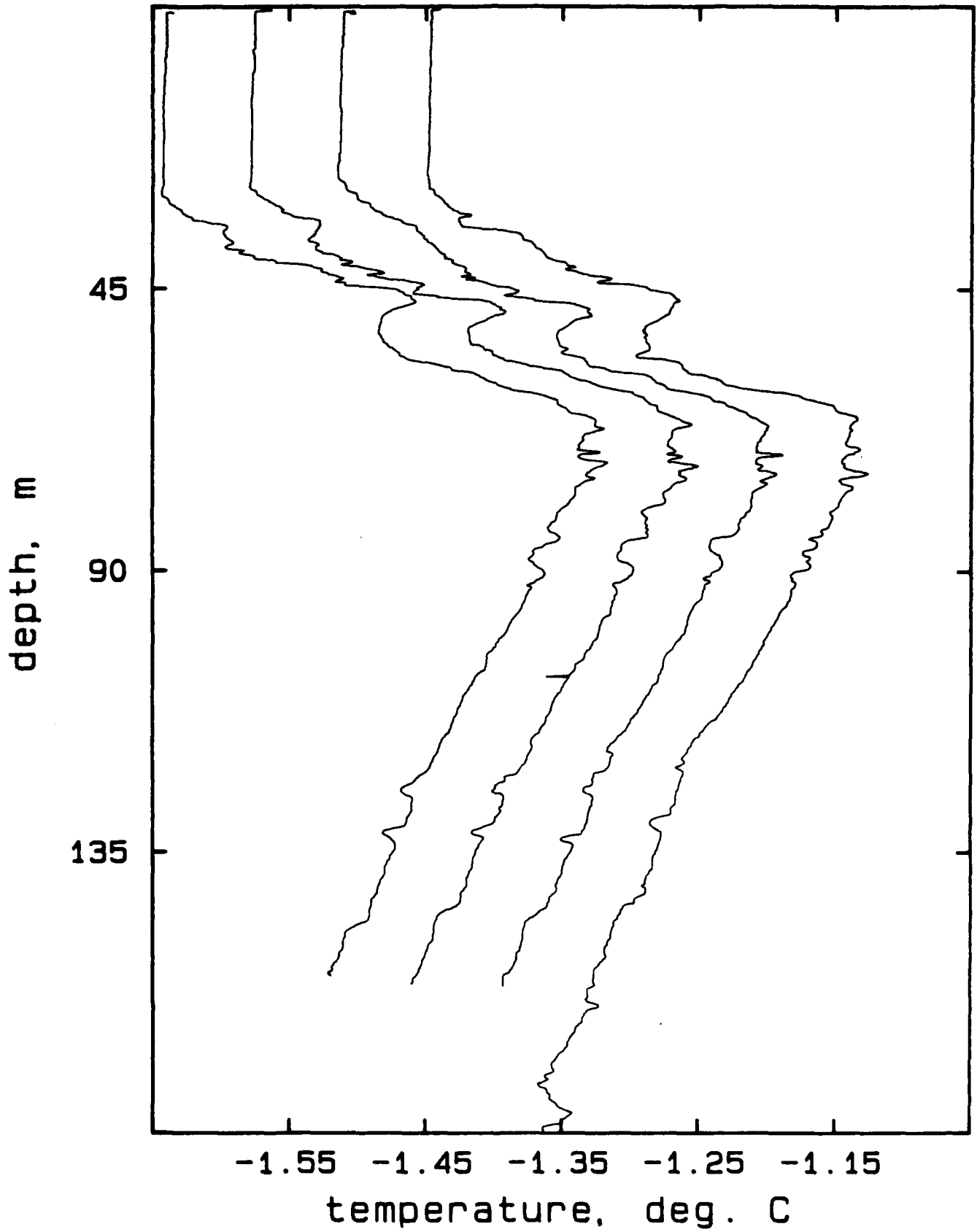


AR417A, drops 6-9

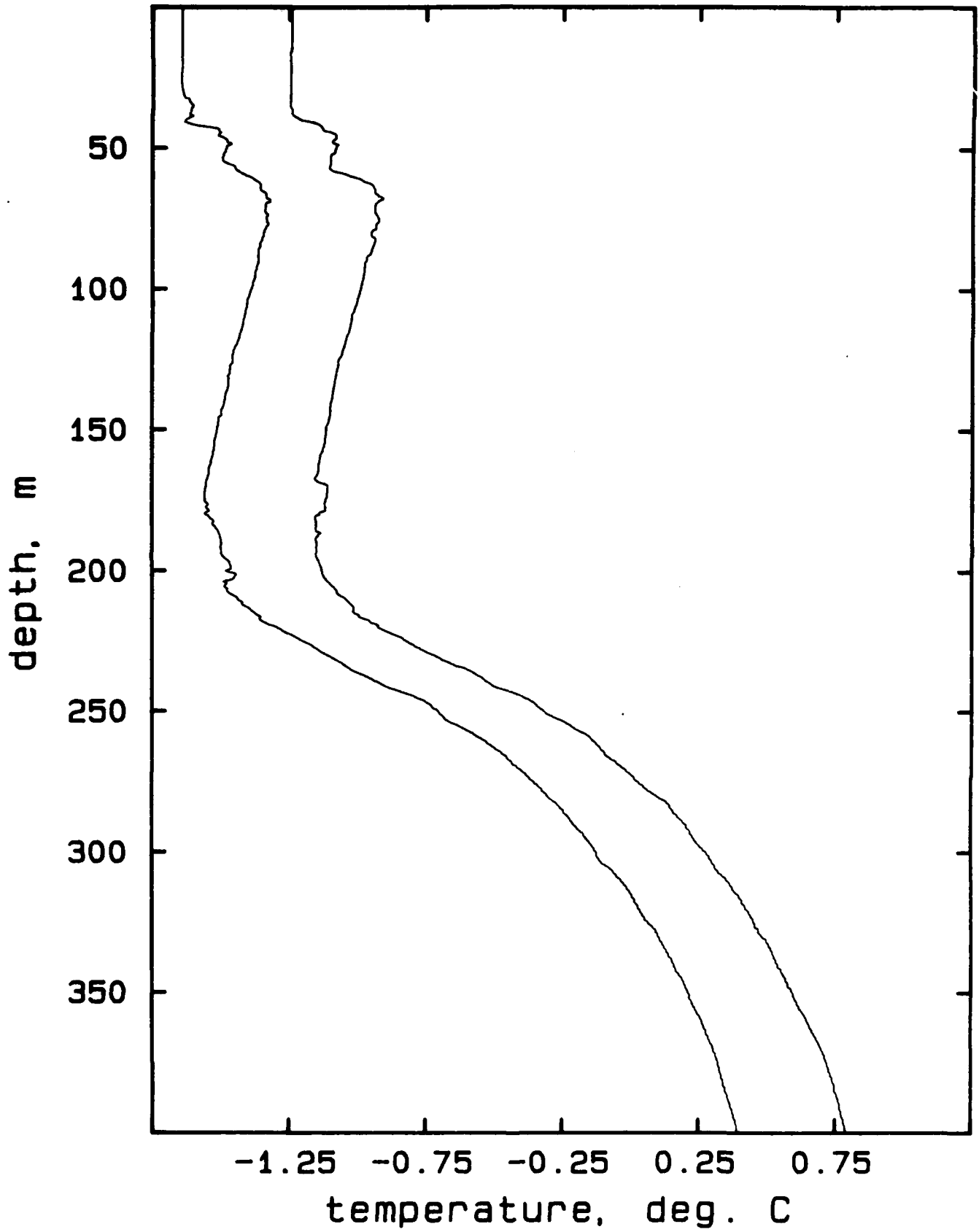


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AR417A, drops 10-13

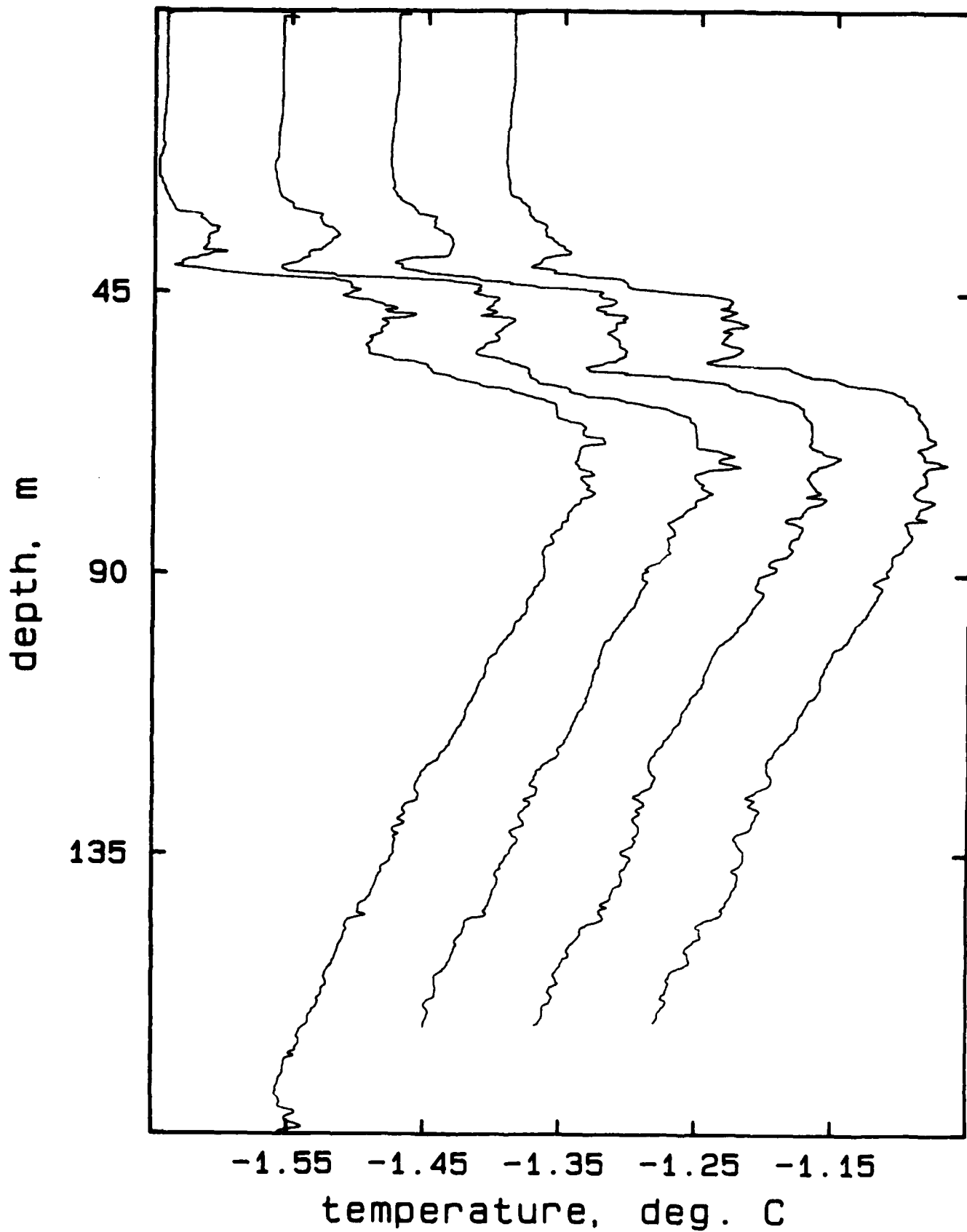


AR417B, drops 1, 13

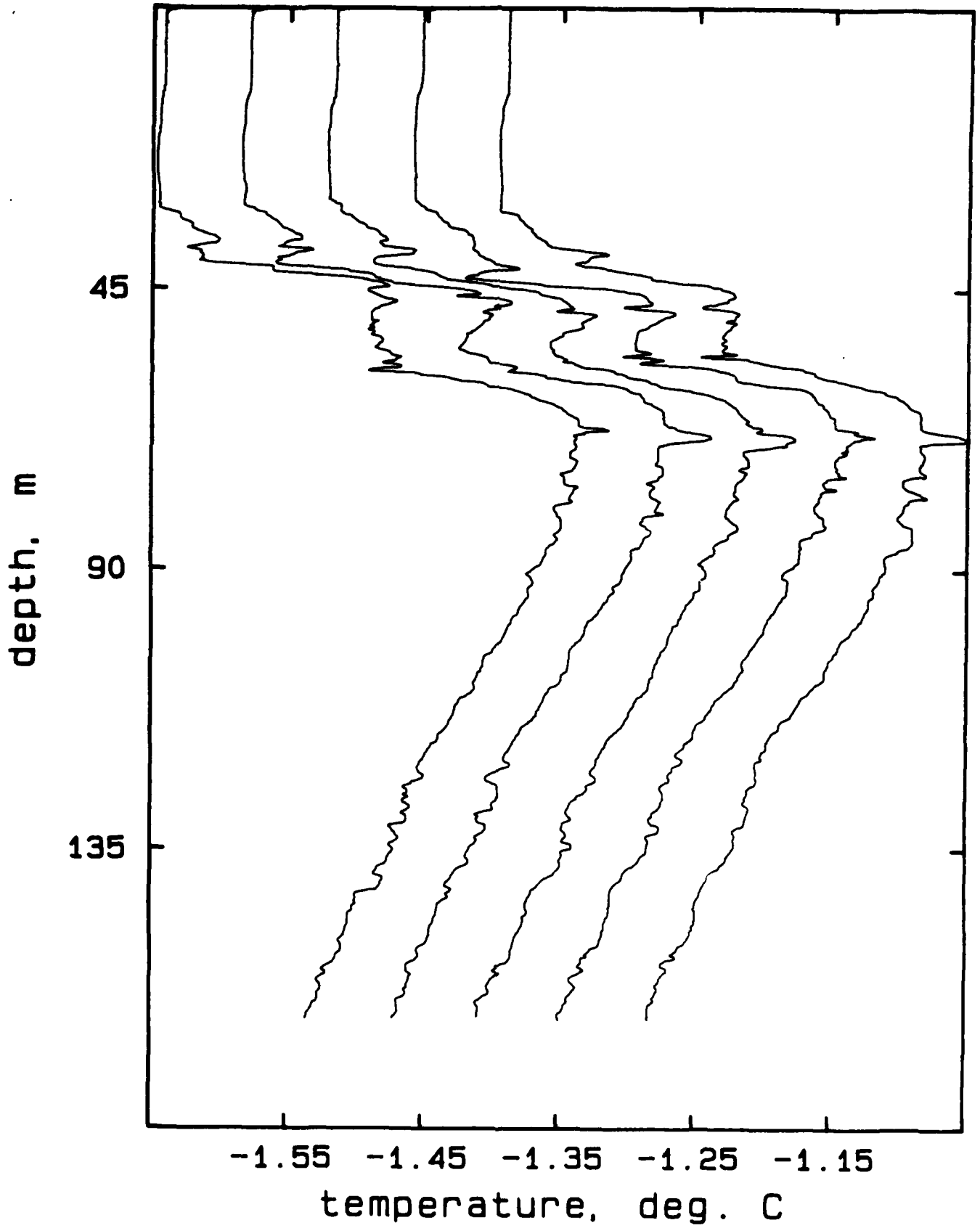


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## AR417B, drops 1-4

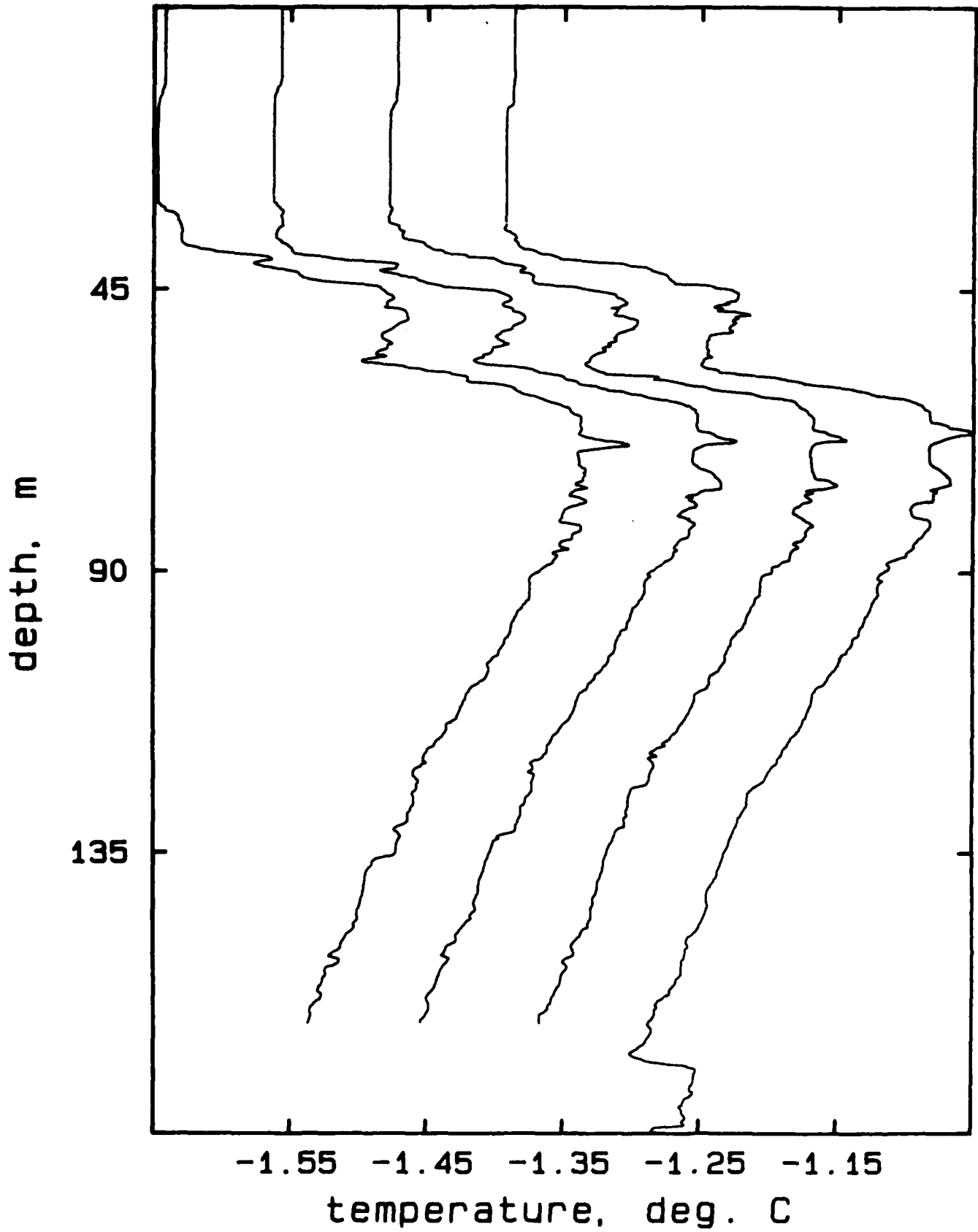


AR417B, drops 5-9

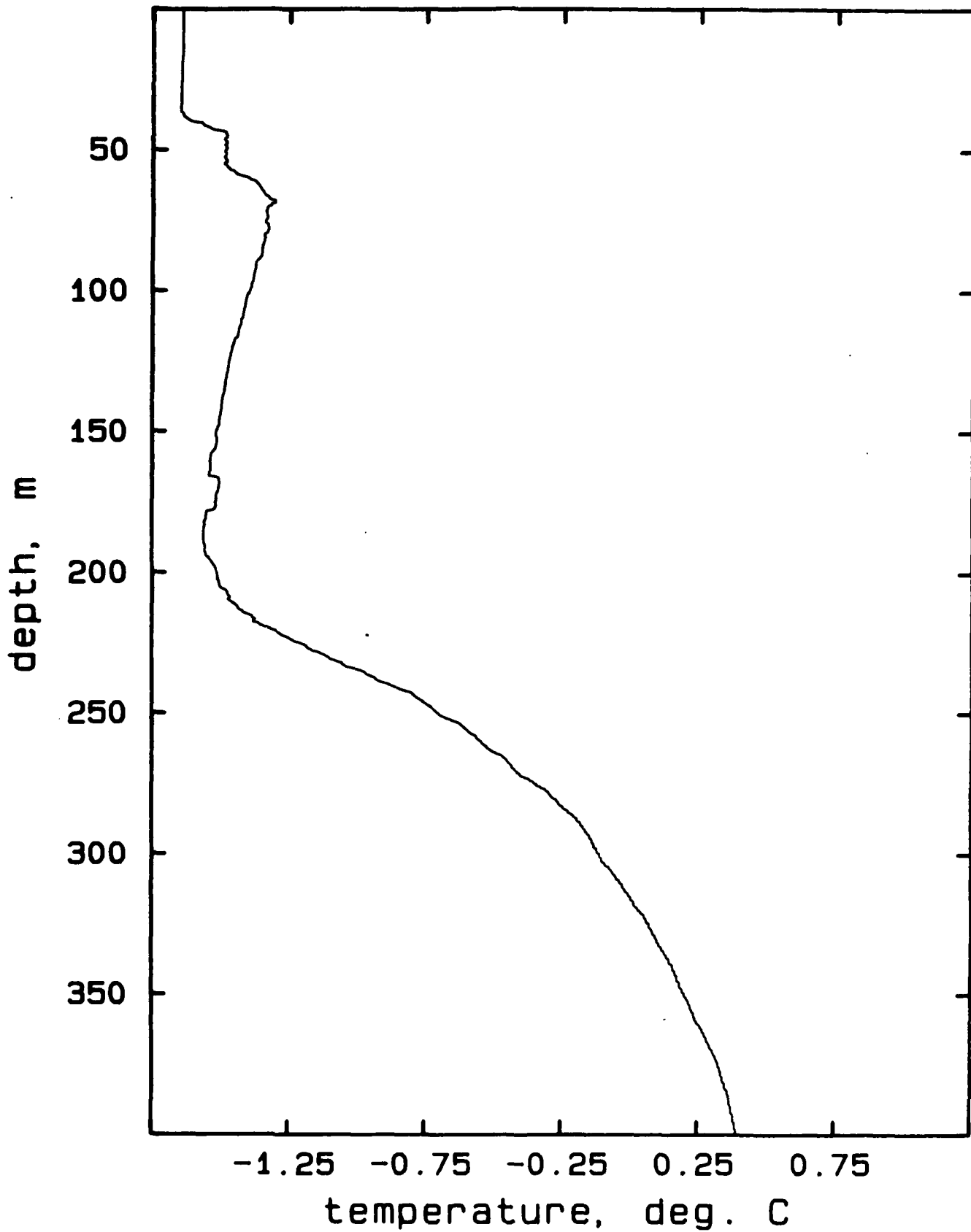


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

AR417B, drops 10-13

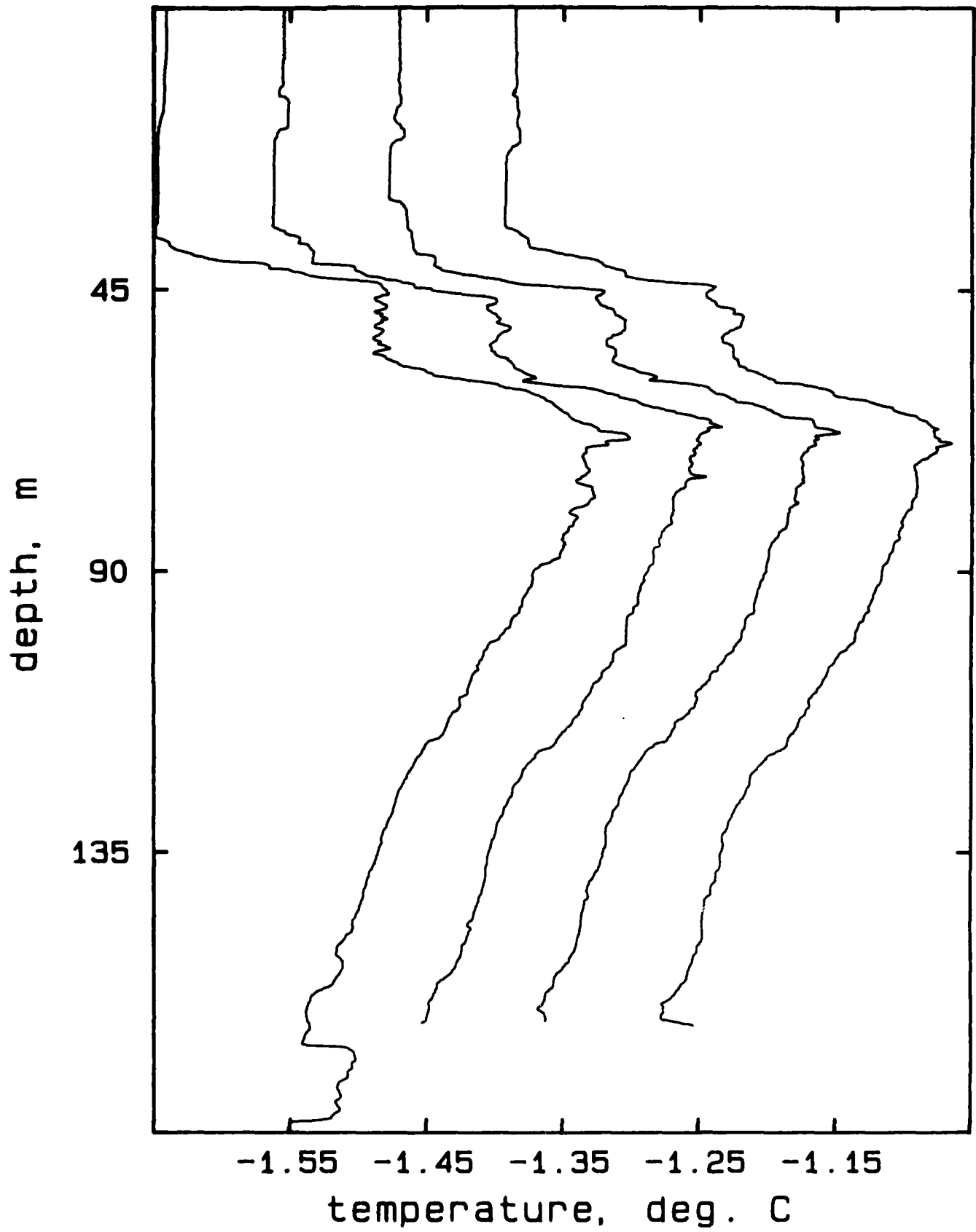


AR417C, drop 1



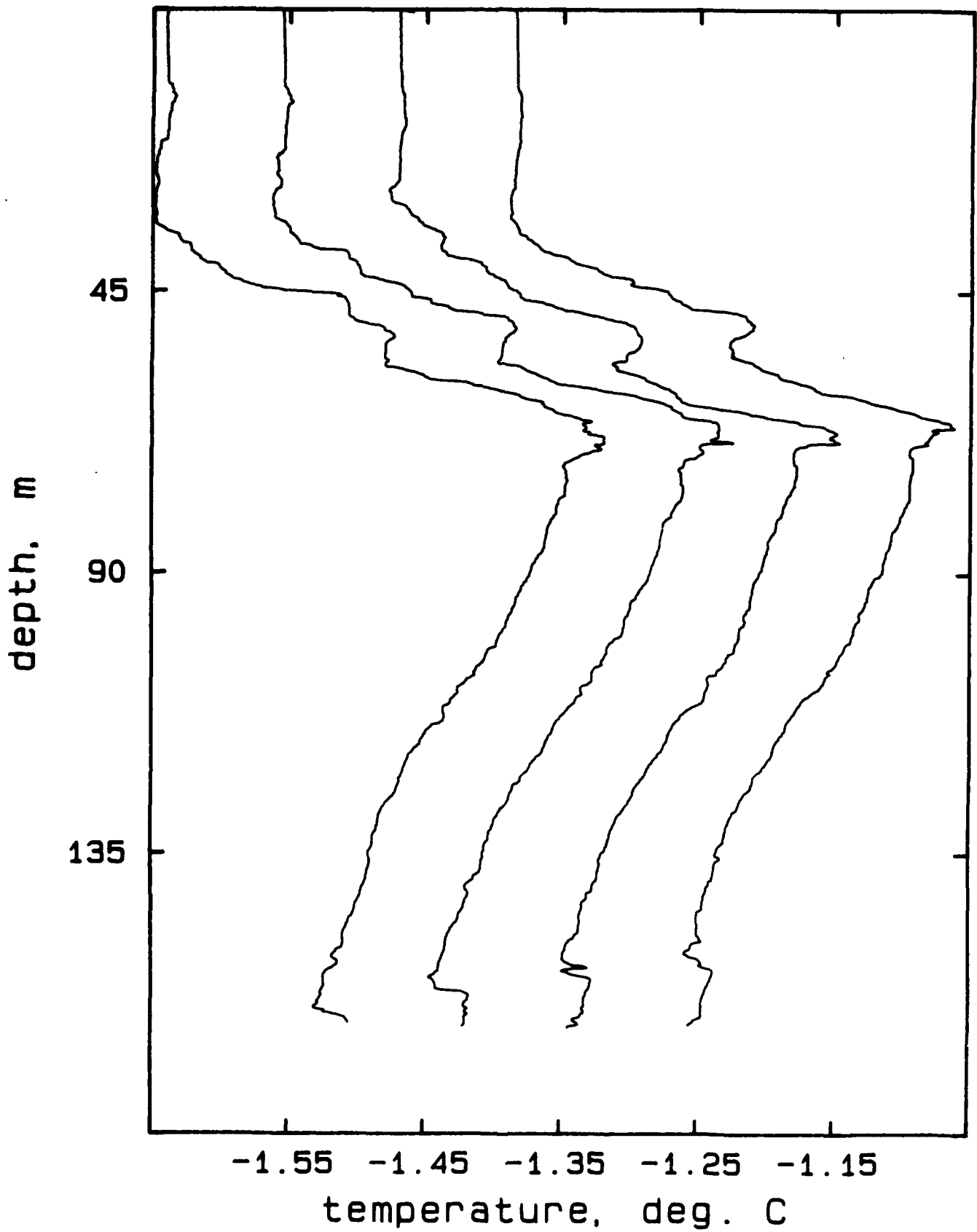
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## AR417C, drops 1-4

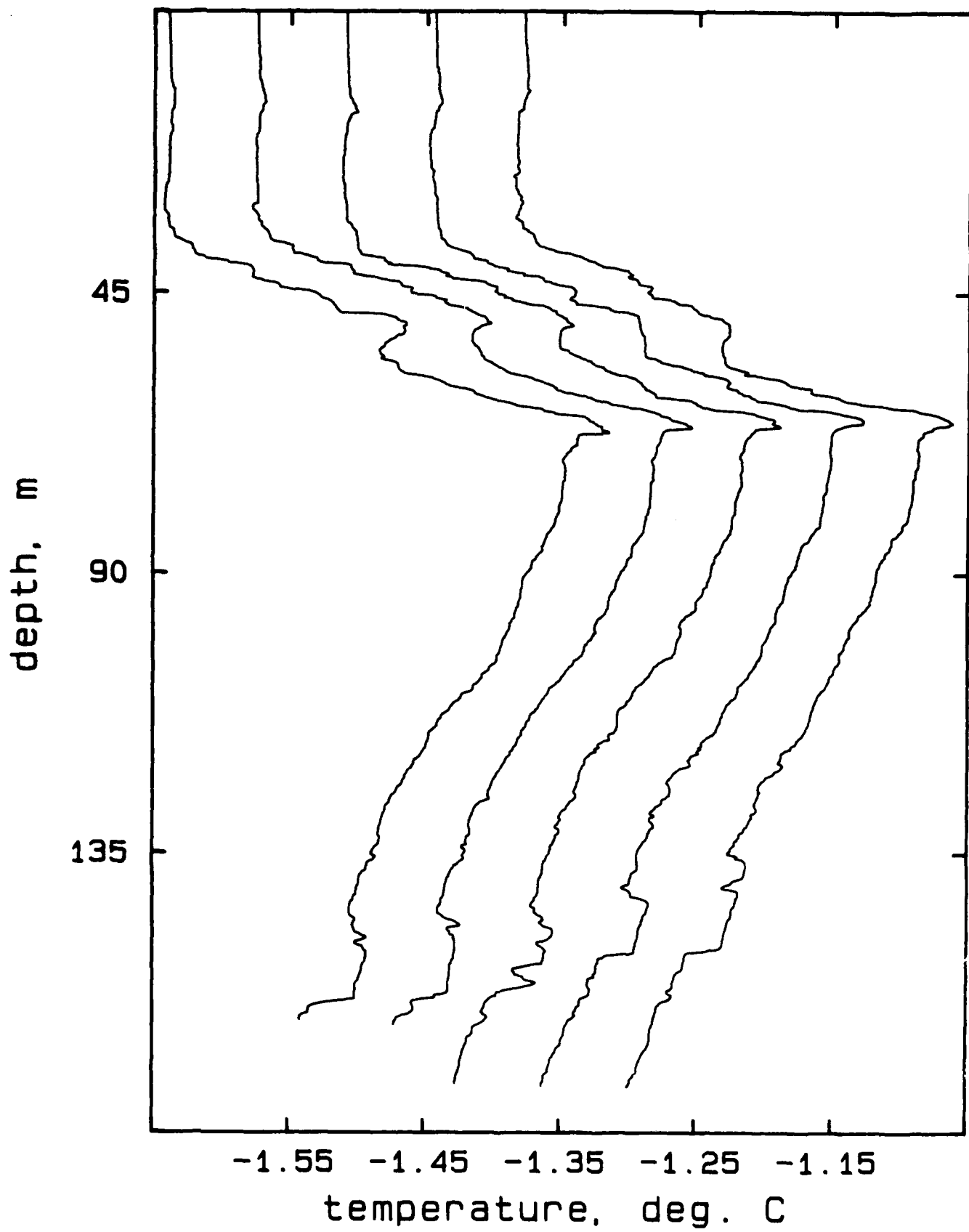




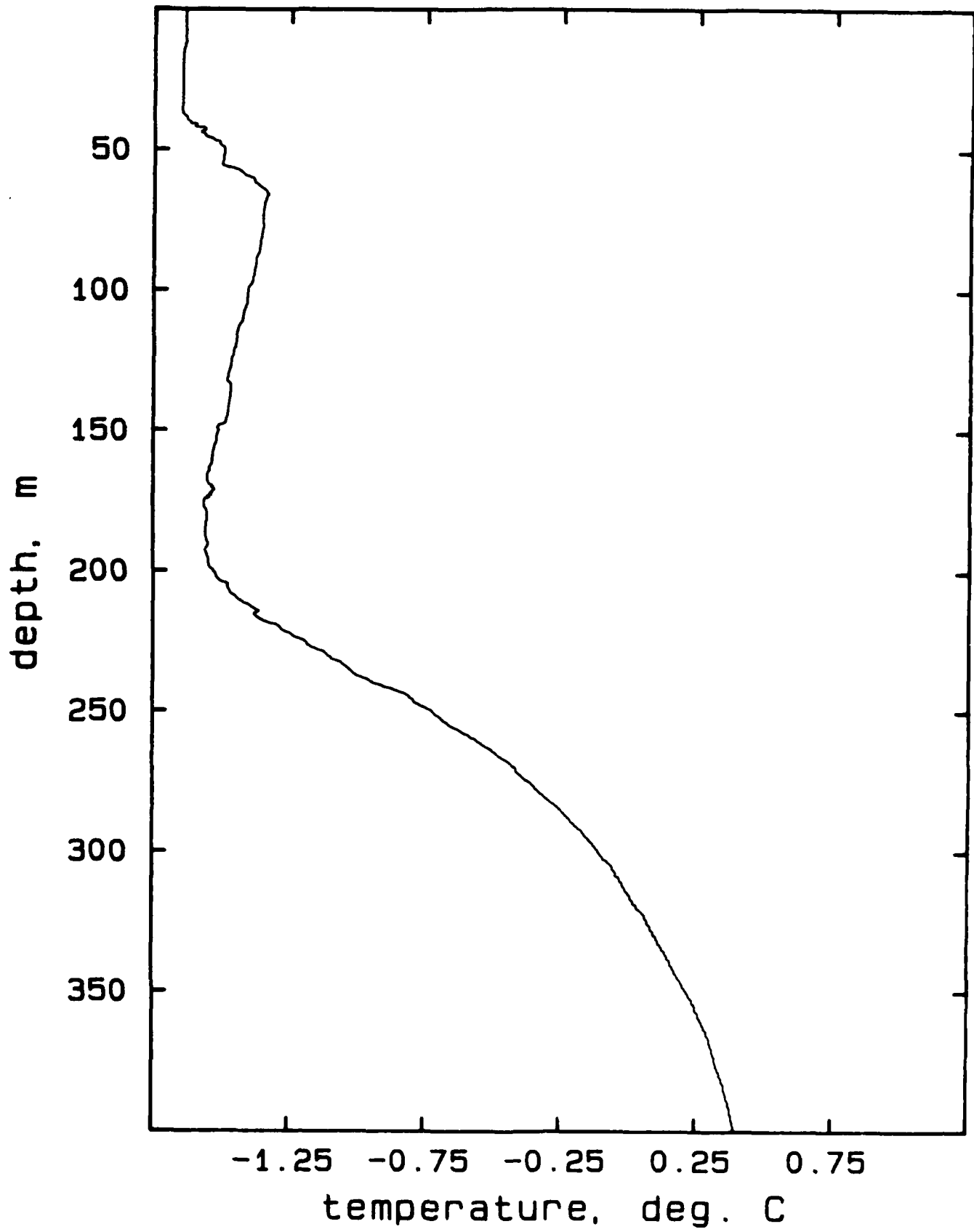
## AR417C, drops 5-8

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AR417C, drops 9-13

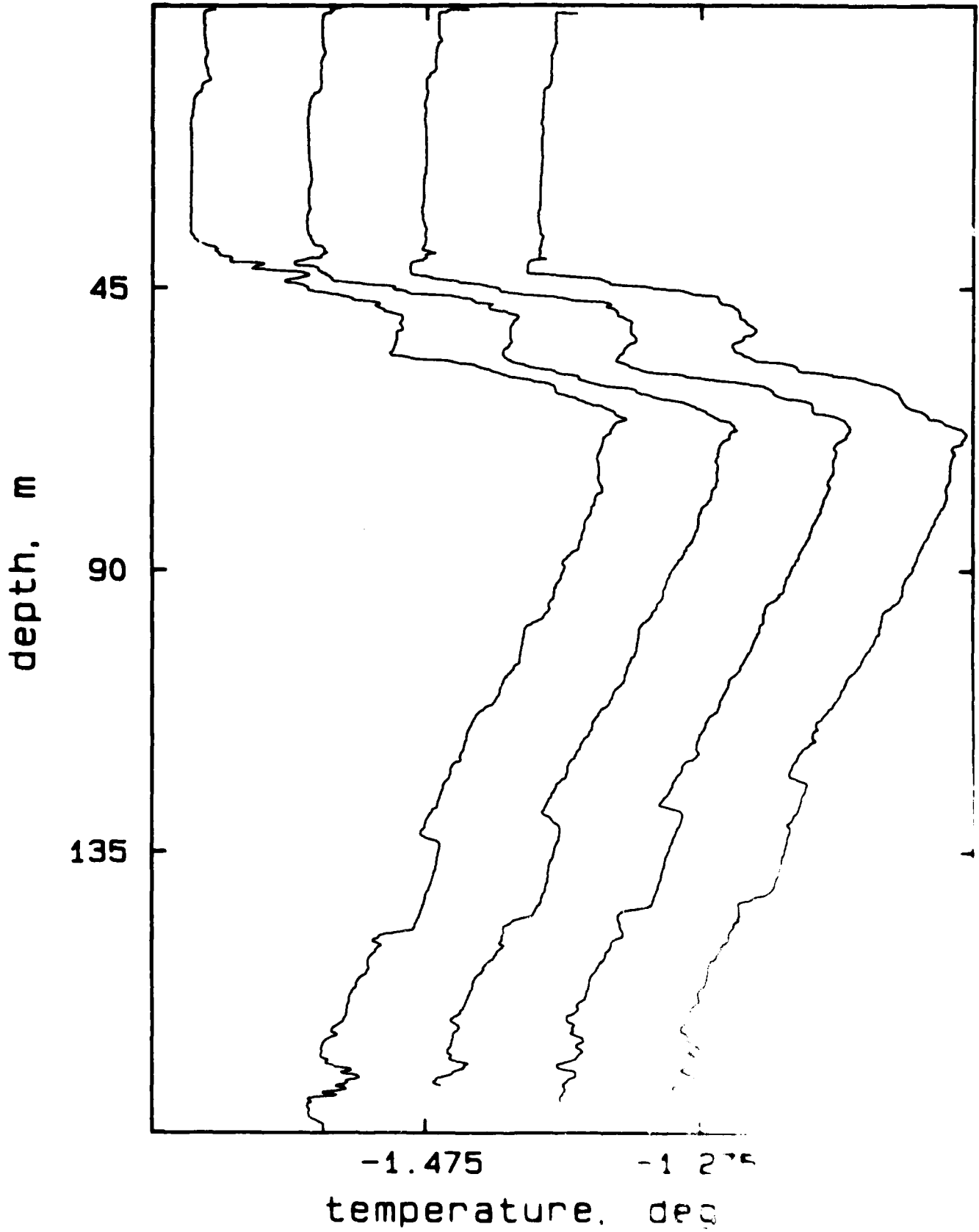


## AR417D, drop 1

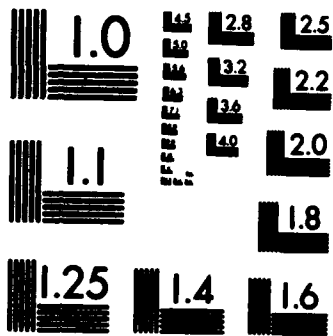


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AR417D, drops 1-4

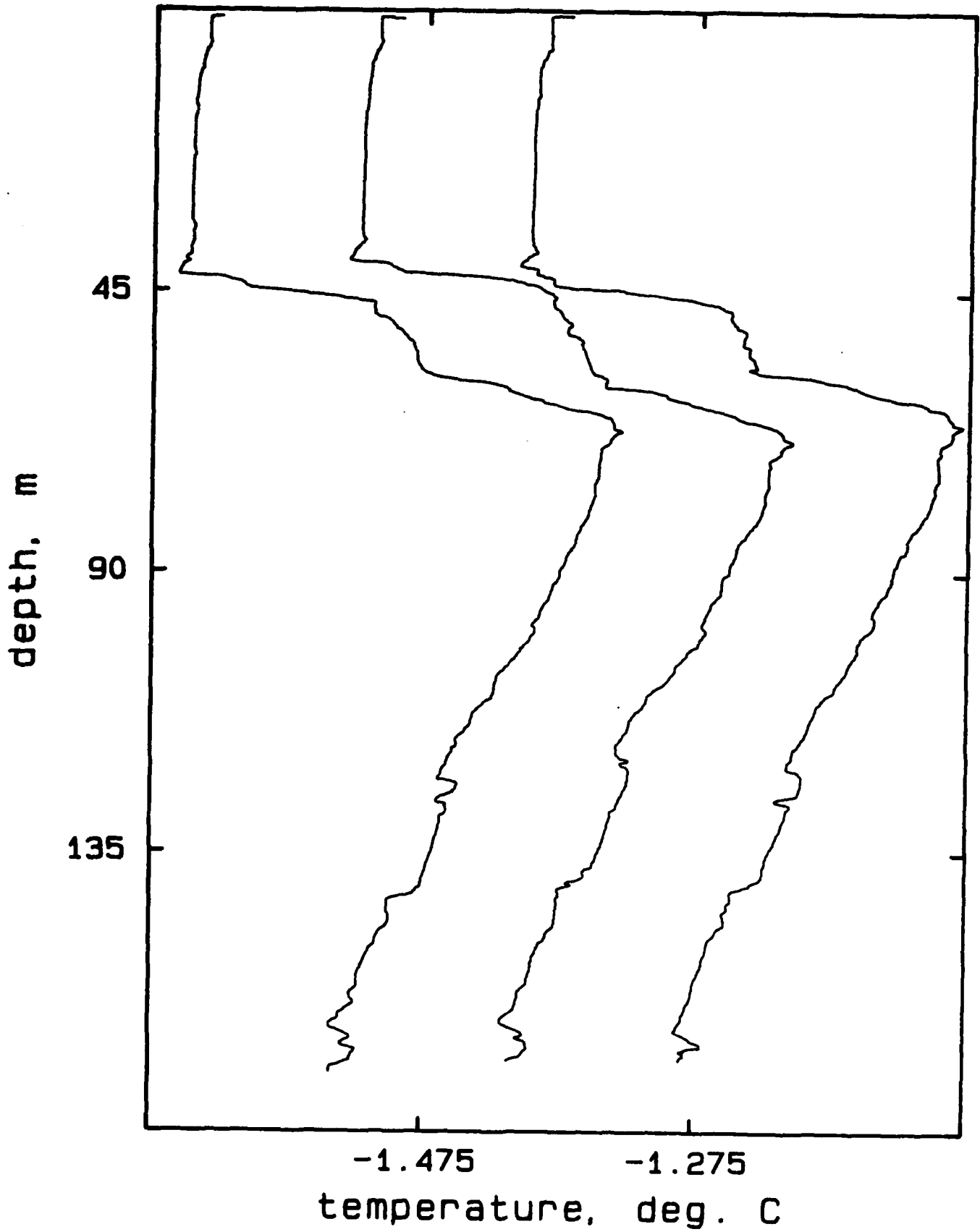




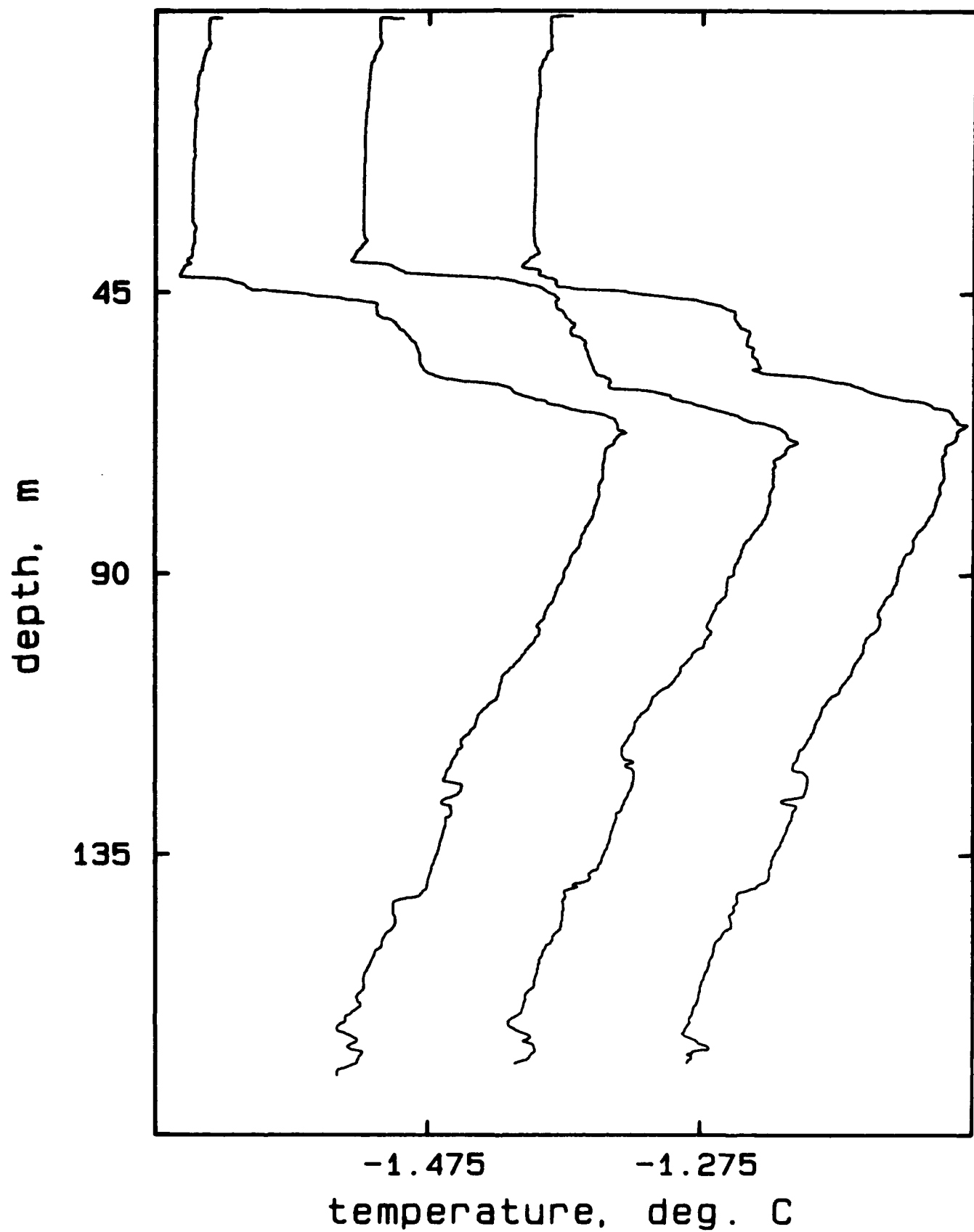


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AR417D, drops 5-7

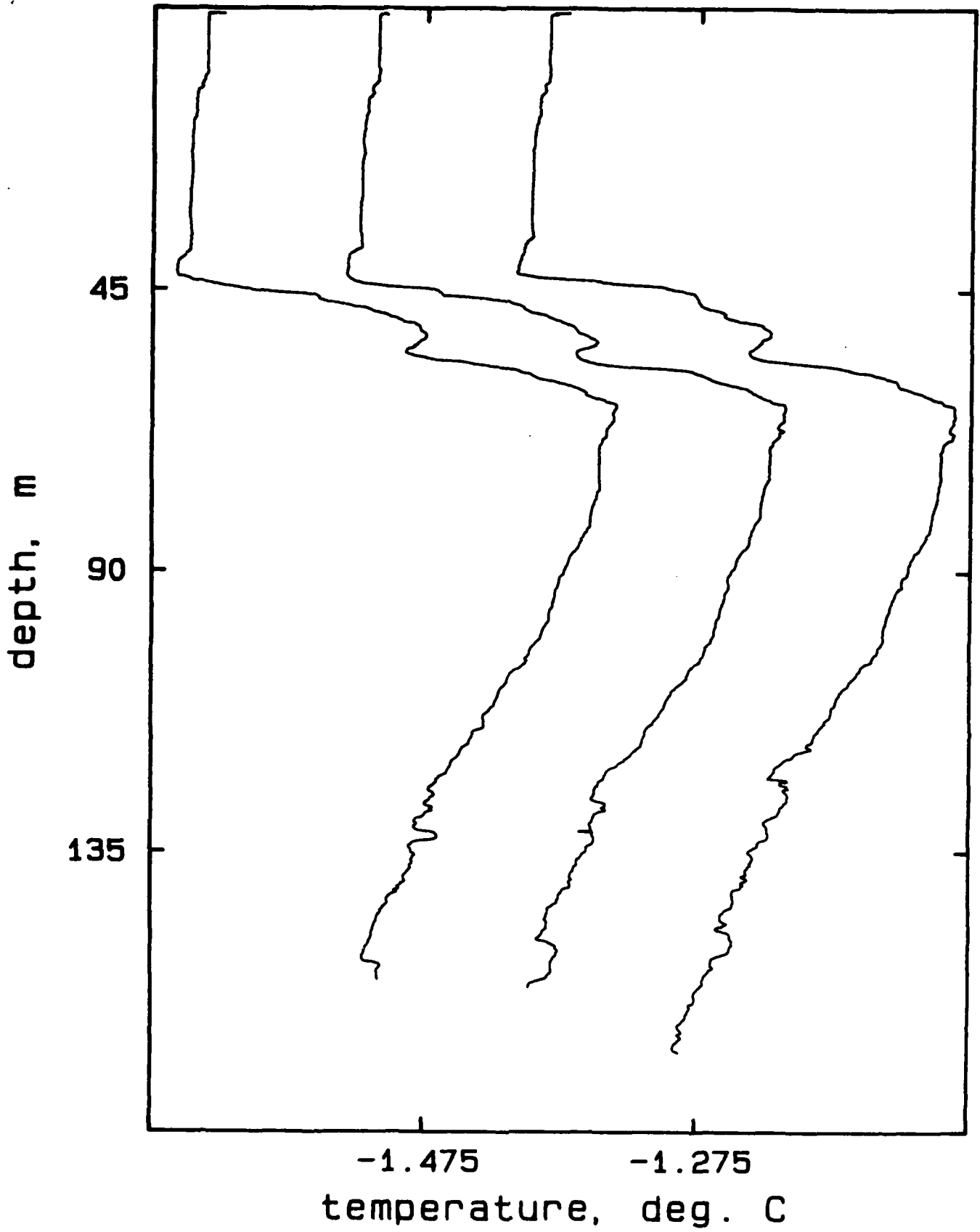


## AR417D, drops 8-10



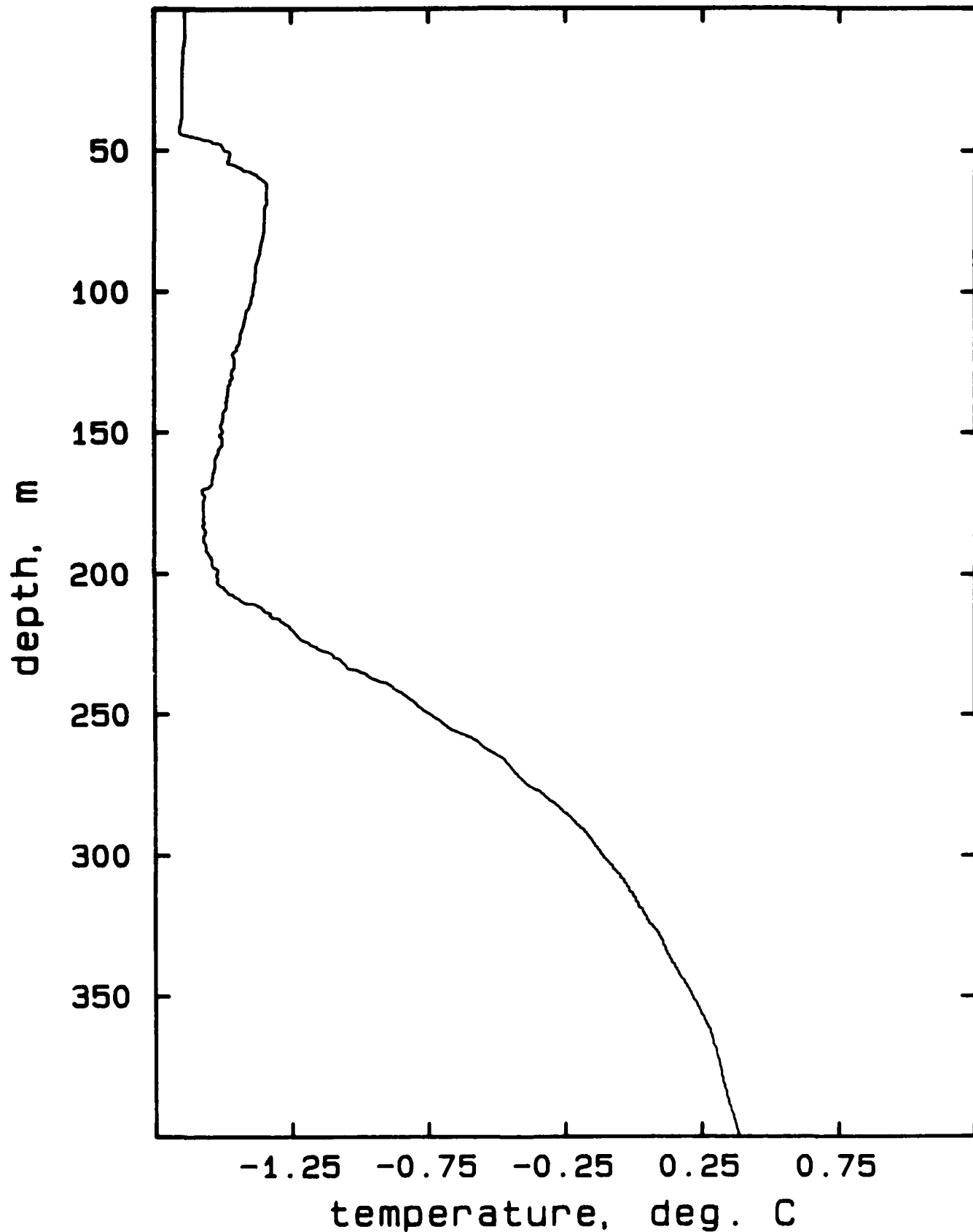


AR417D, drops 11-13

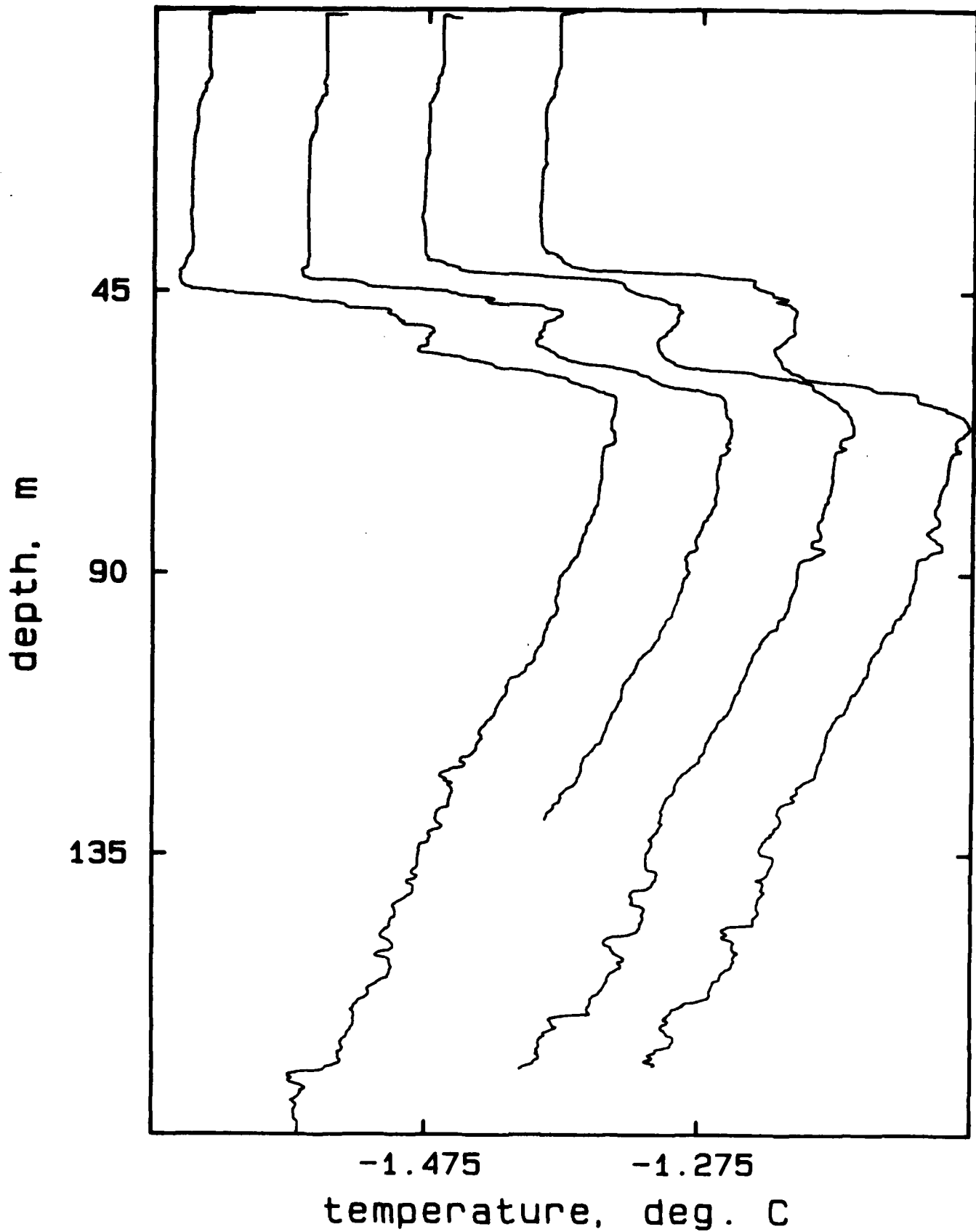


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AR417E, drop 1

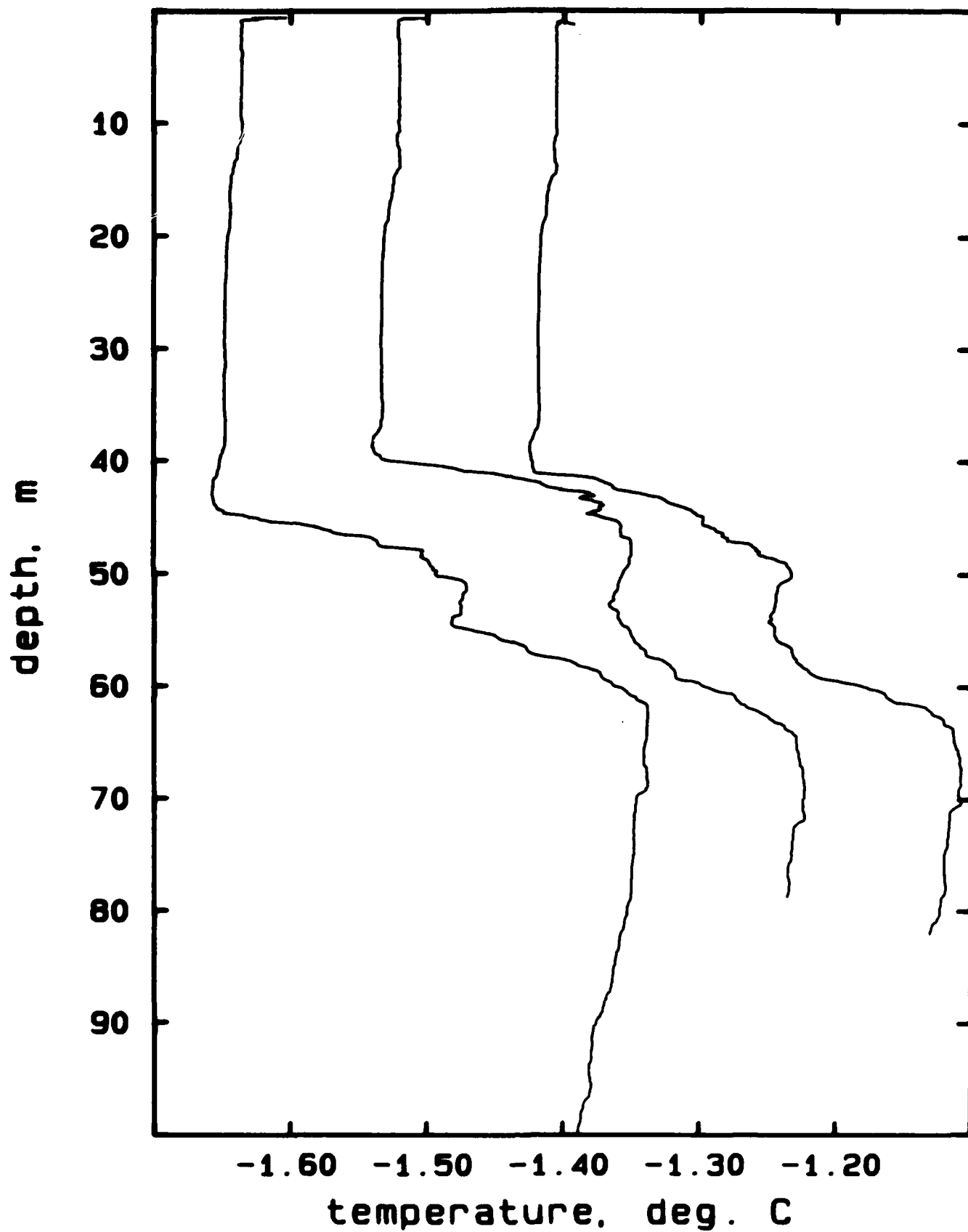


AR417E, drops 1, 5, 12, 13

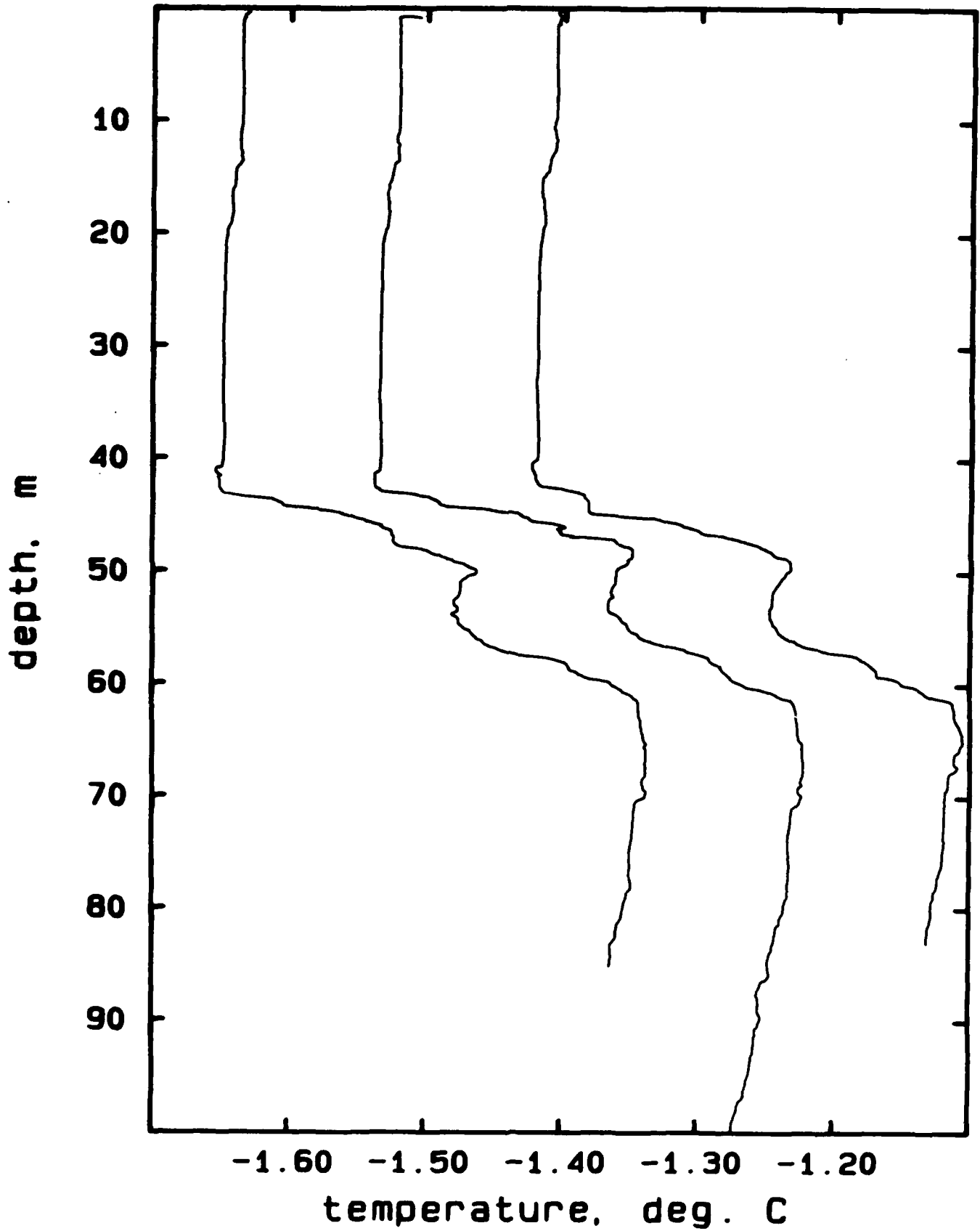


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## AR417E, drops 1-3

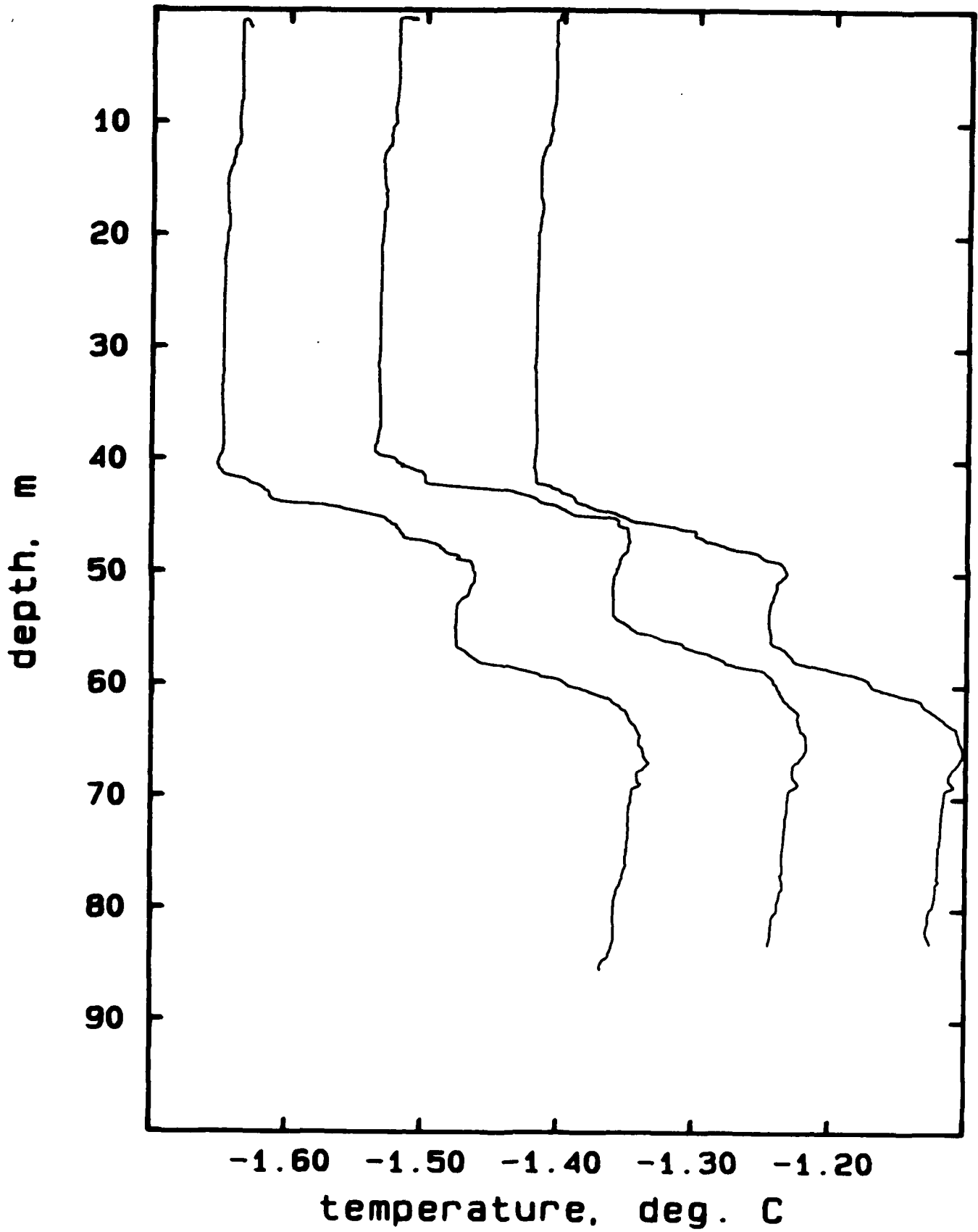


### AR417E, drops 4-6

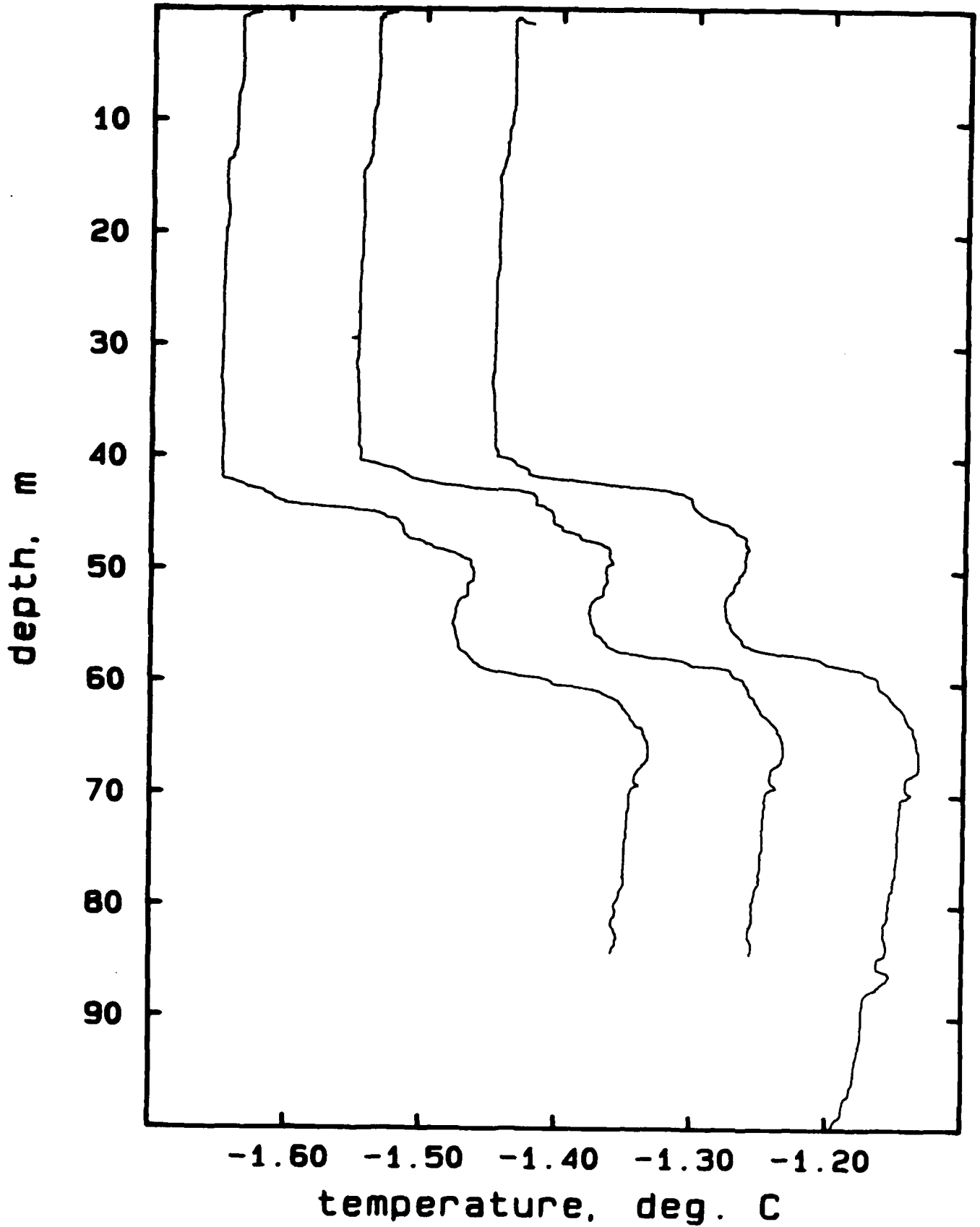


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## AR417E, drops 7-9

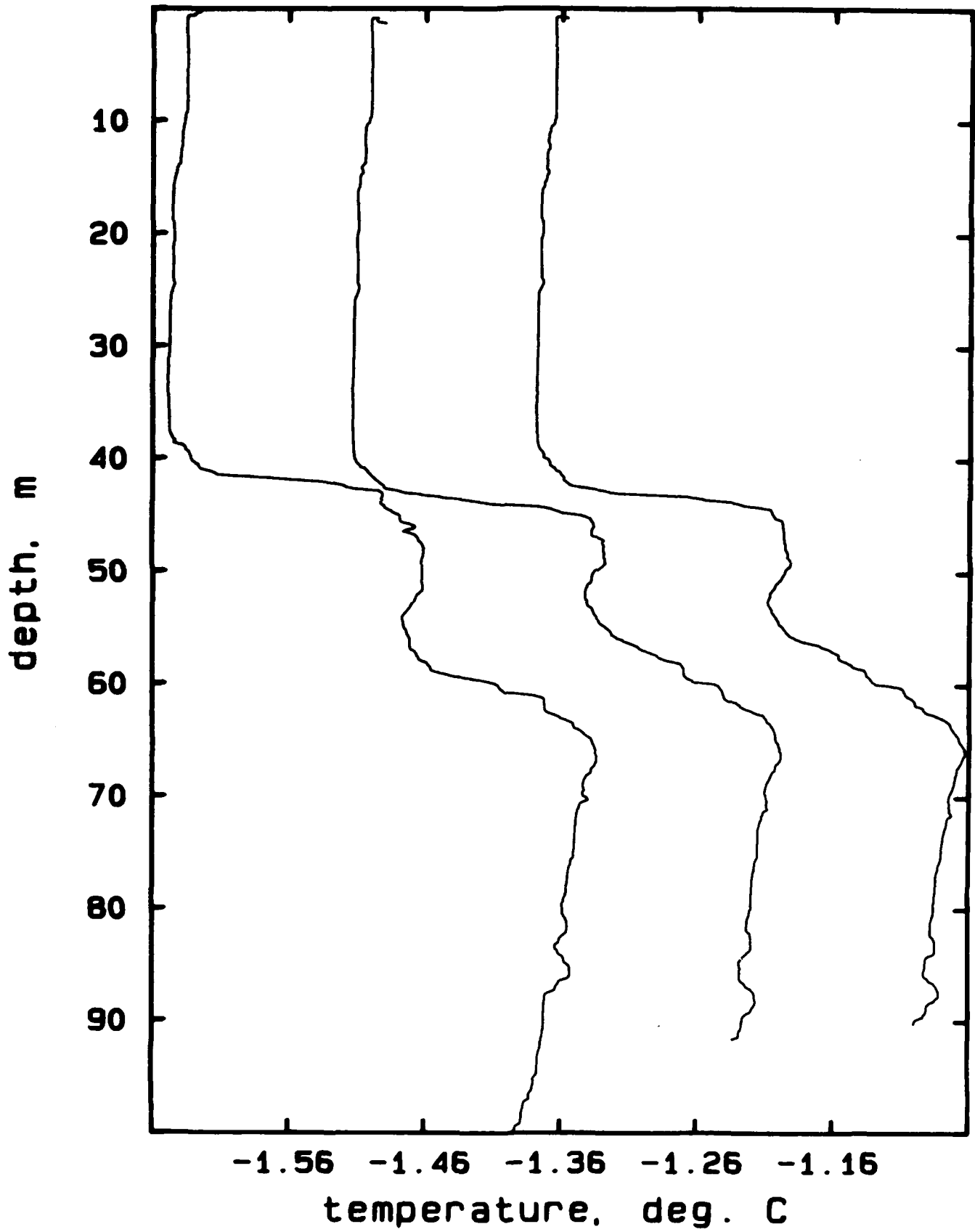


AR417E, drops 10-12



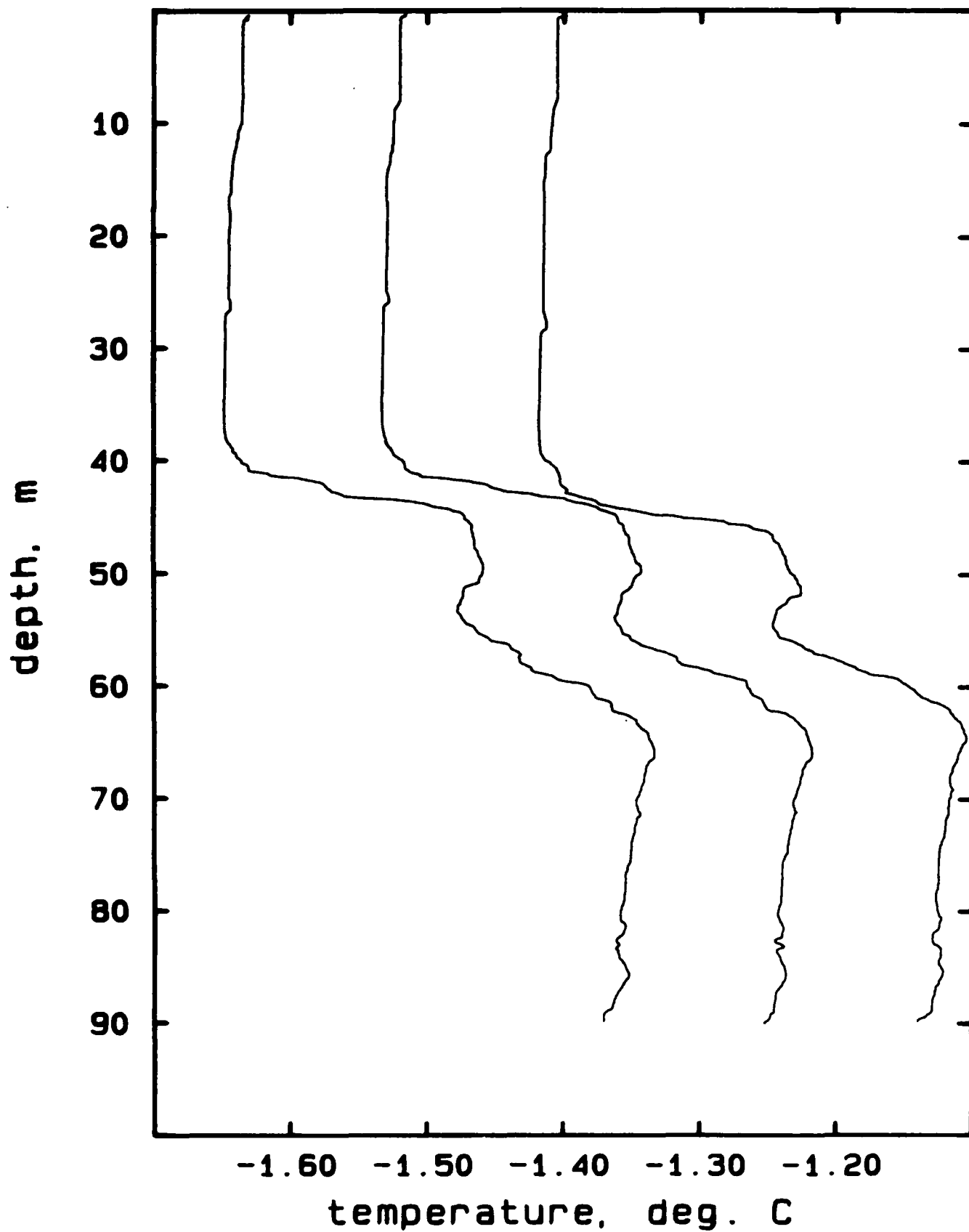
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## AR417E, drops 13-15

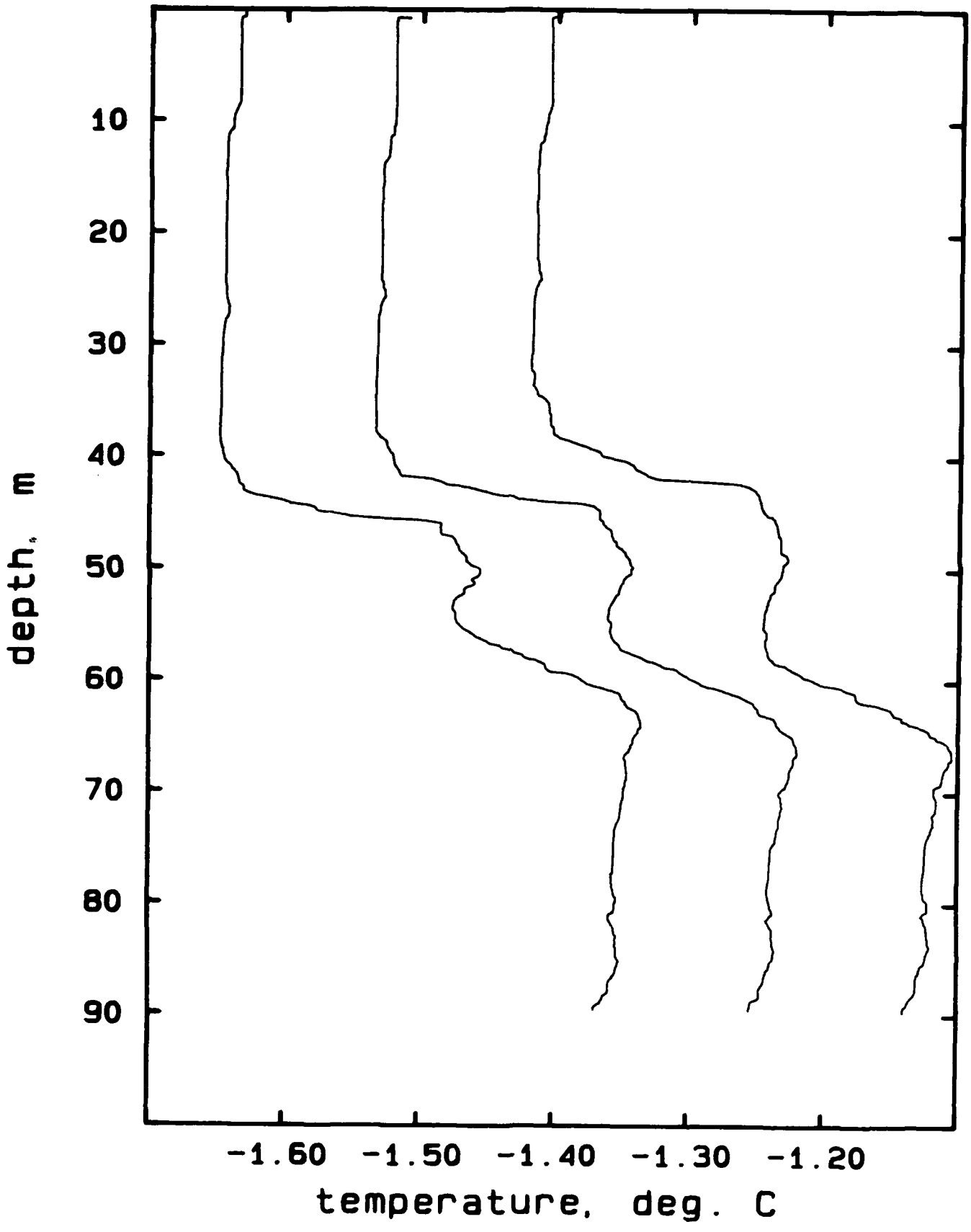




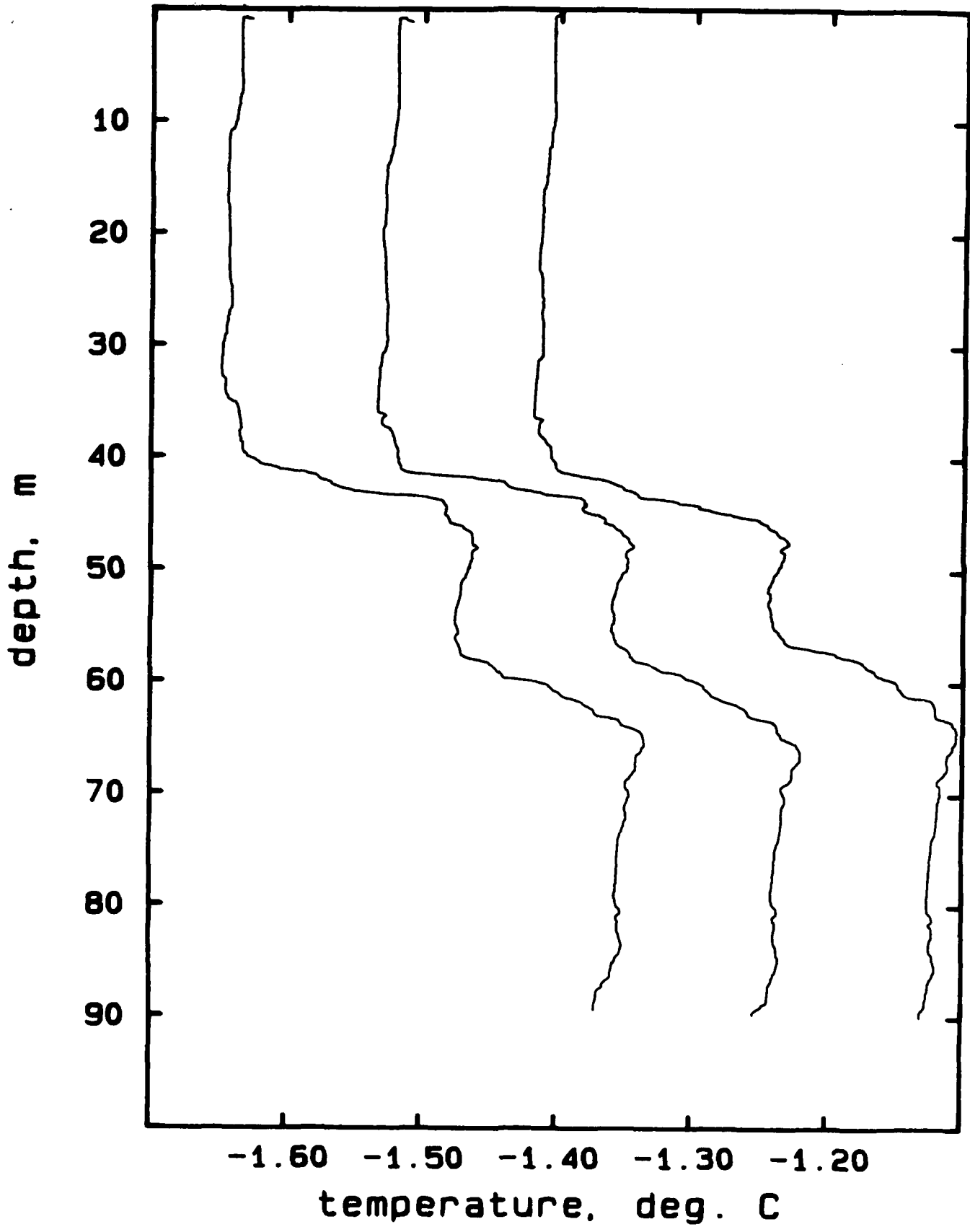
## AR417E, drops 16-18



AR417E, drops 19-21

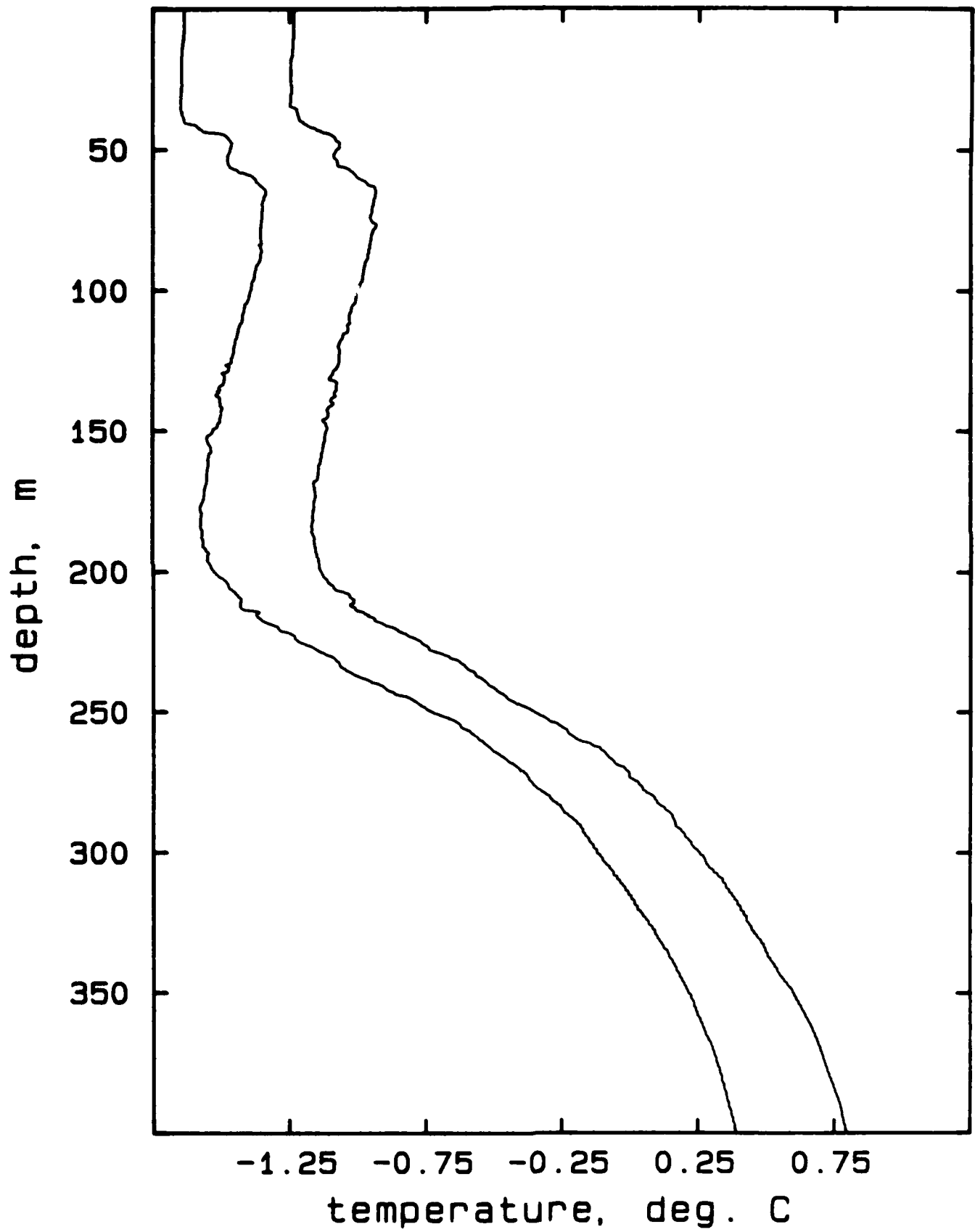


AR417E, drops 22-24

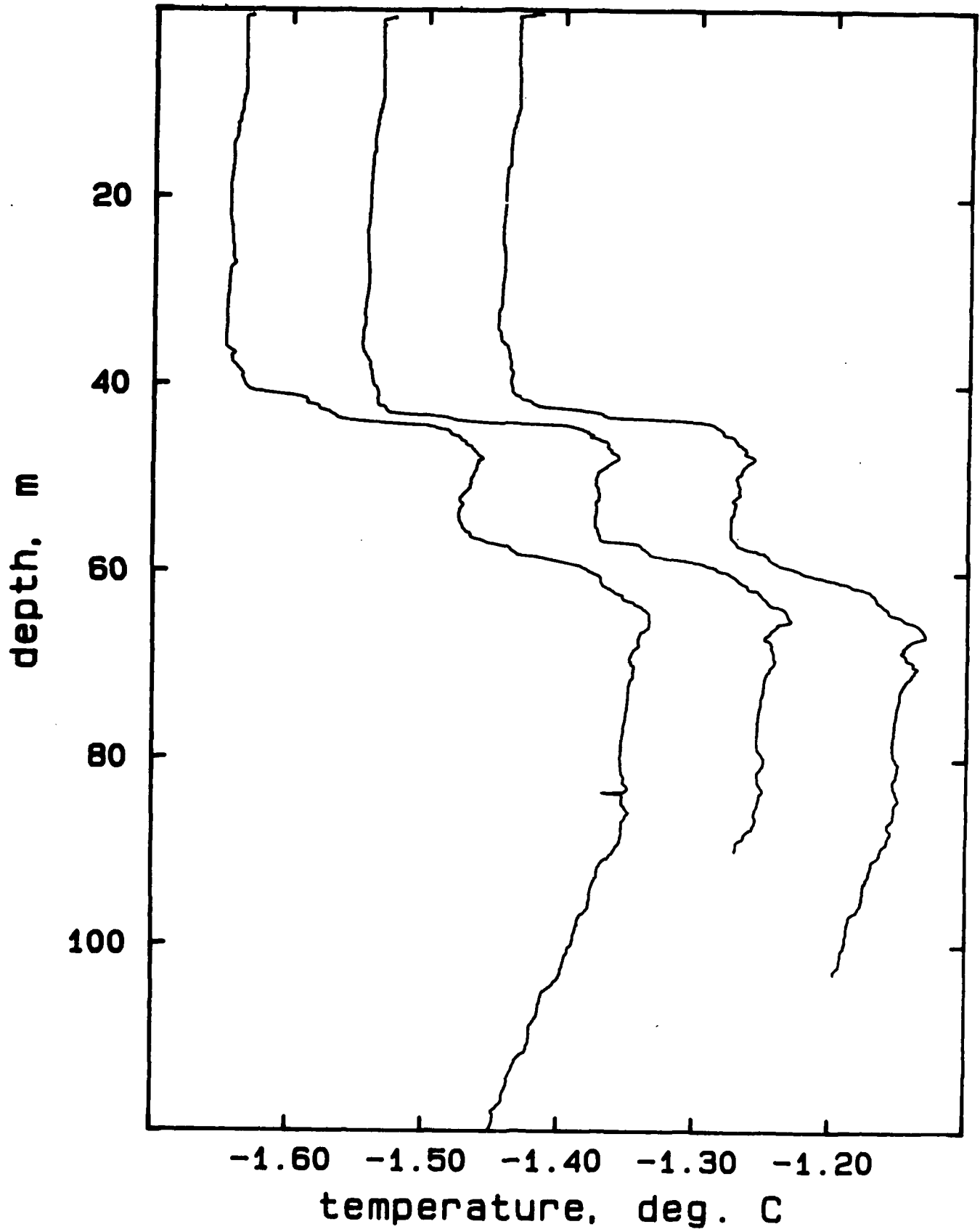


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## AR417F, drops 1, 18

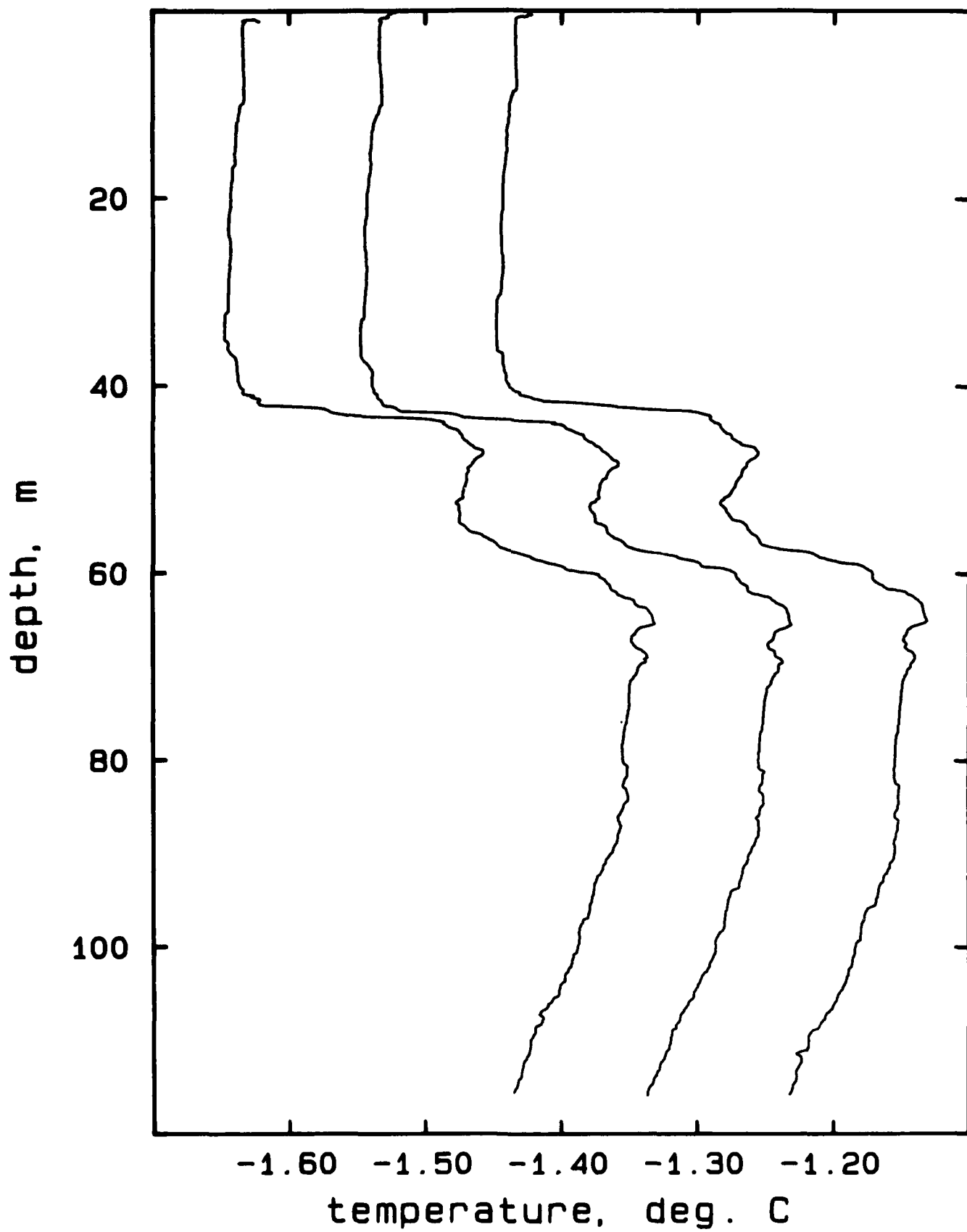


## AR417F, drops 1-3

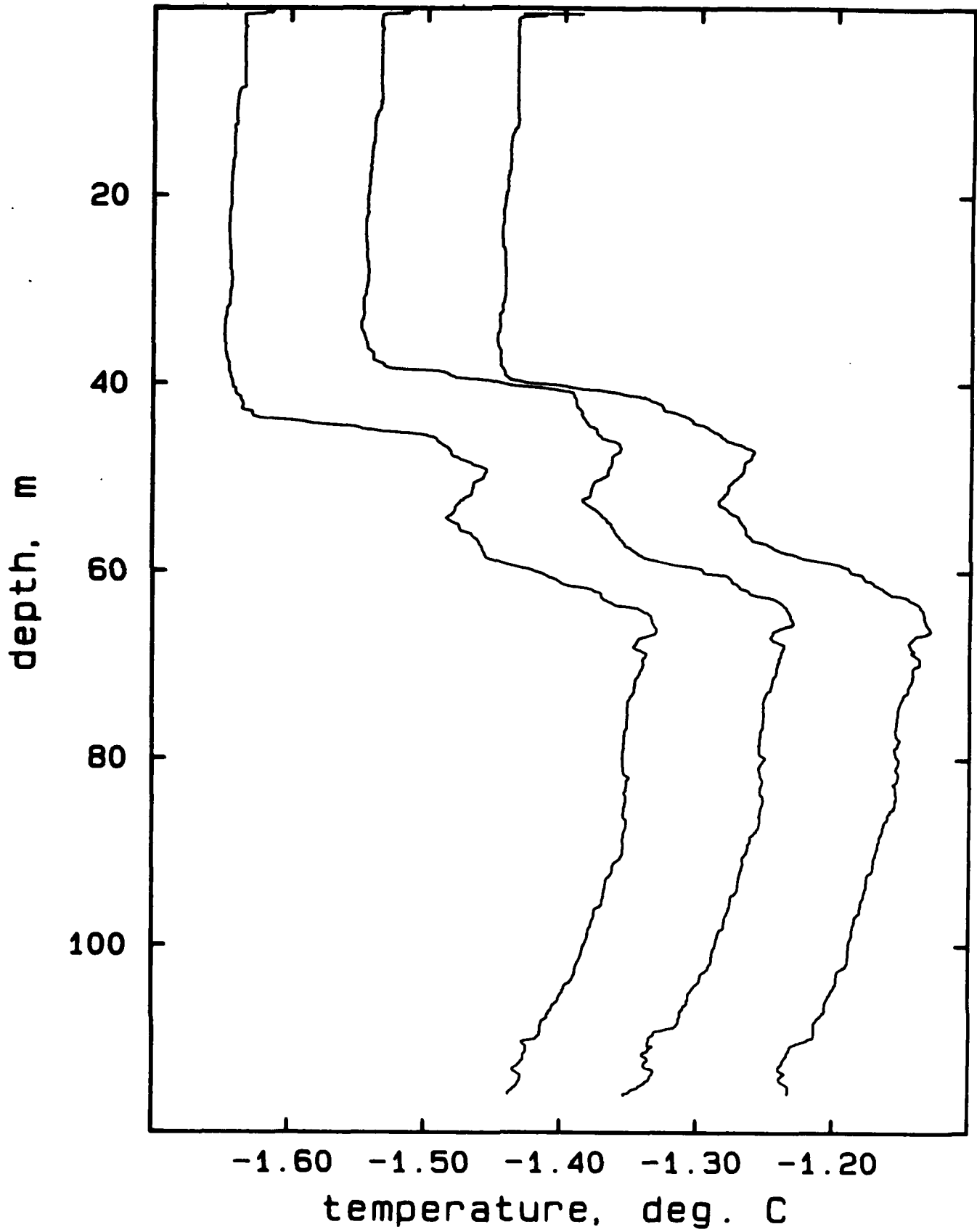


A vertical strip of small, rectangular frames or images along the right edge of the page, possibly representing a film edge or a sequence of frames.

AR417F, drops 4-6

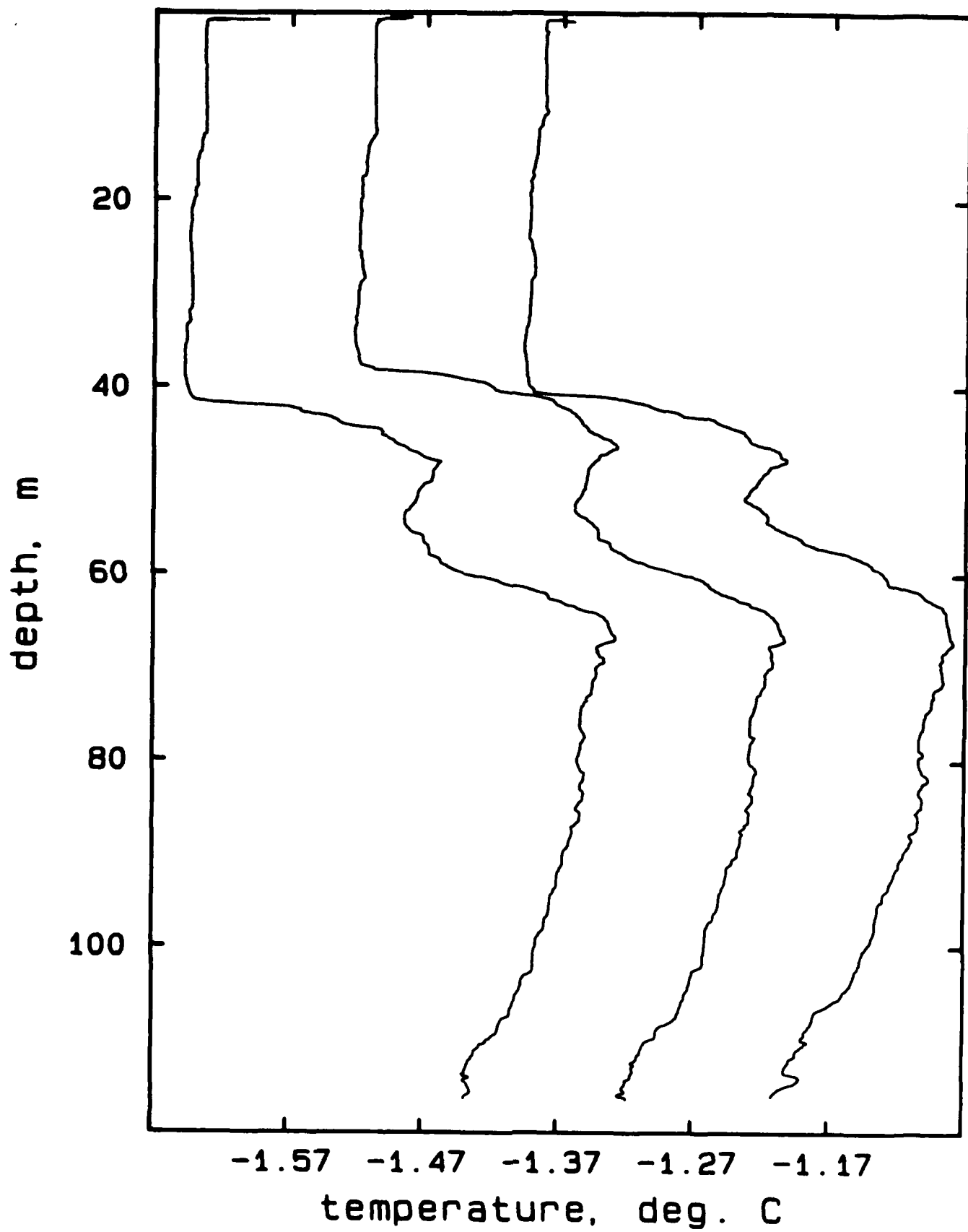


AR417F, drops 7-9



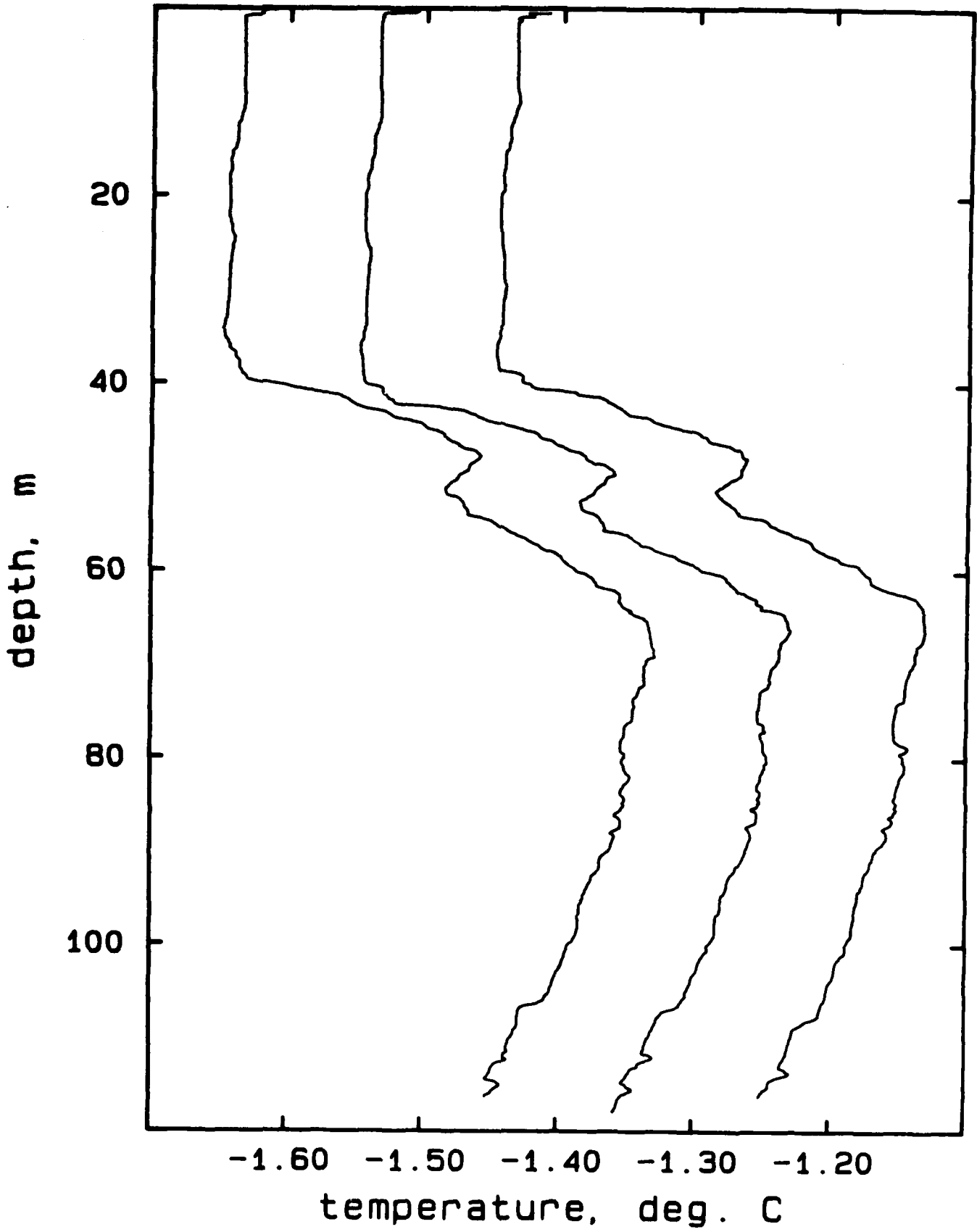
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## AR417F, drops 10-12



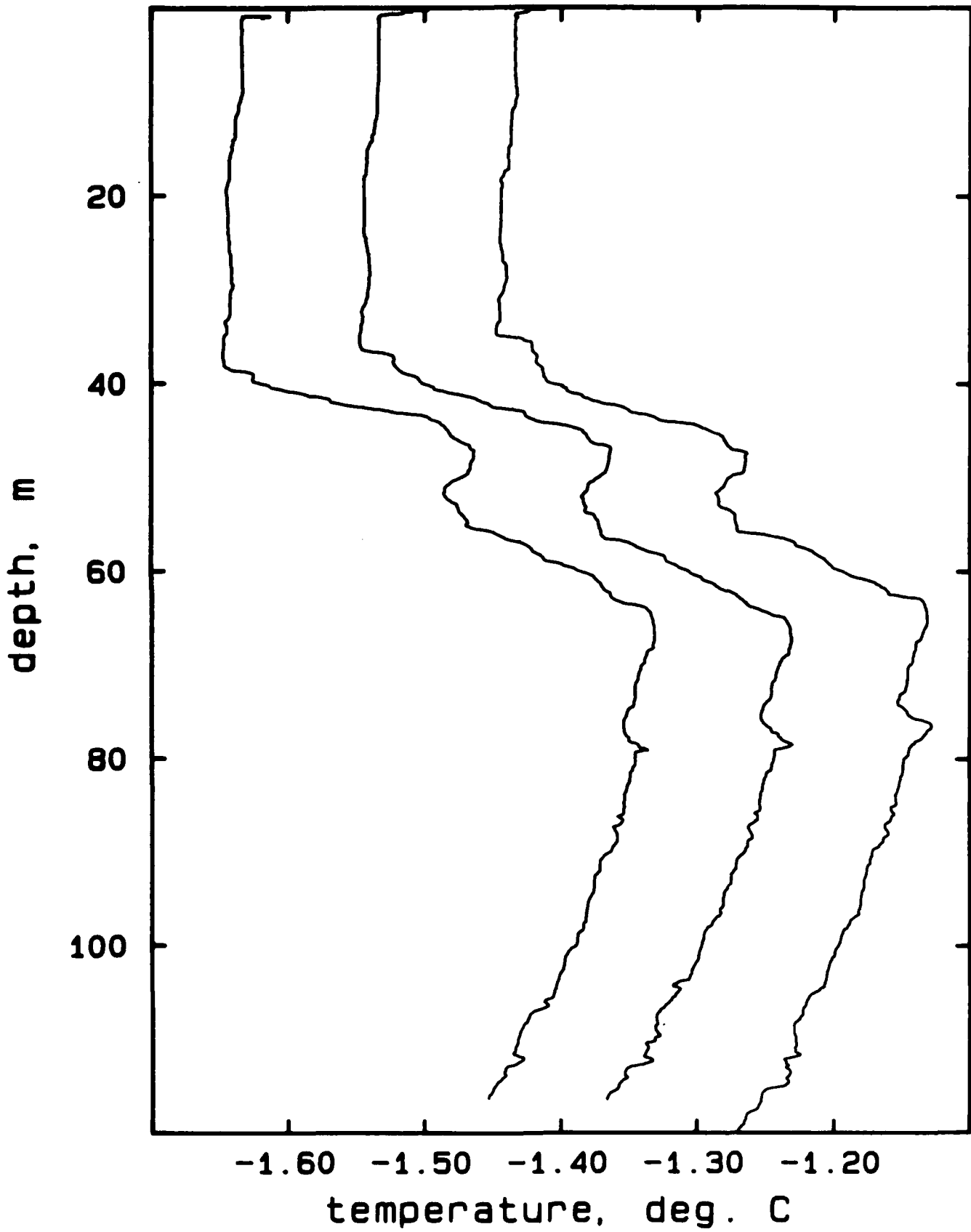


AR417F, drops 13-15

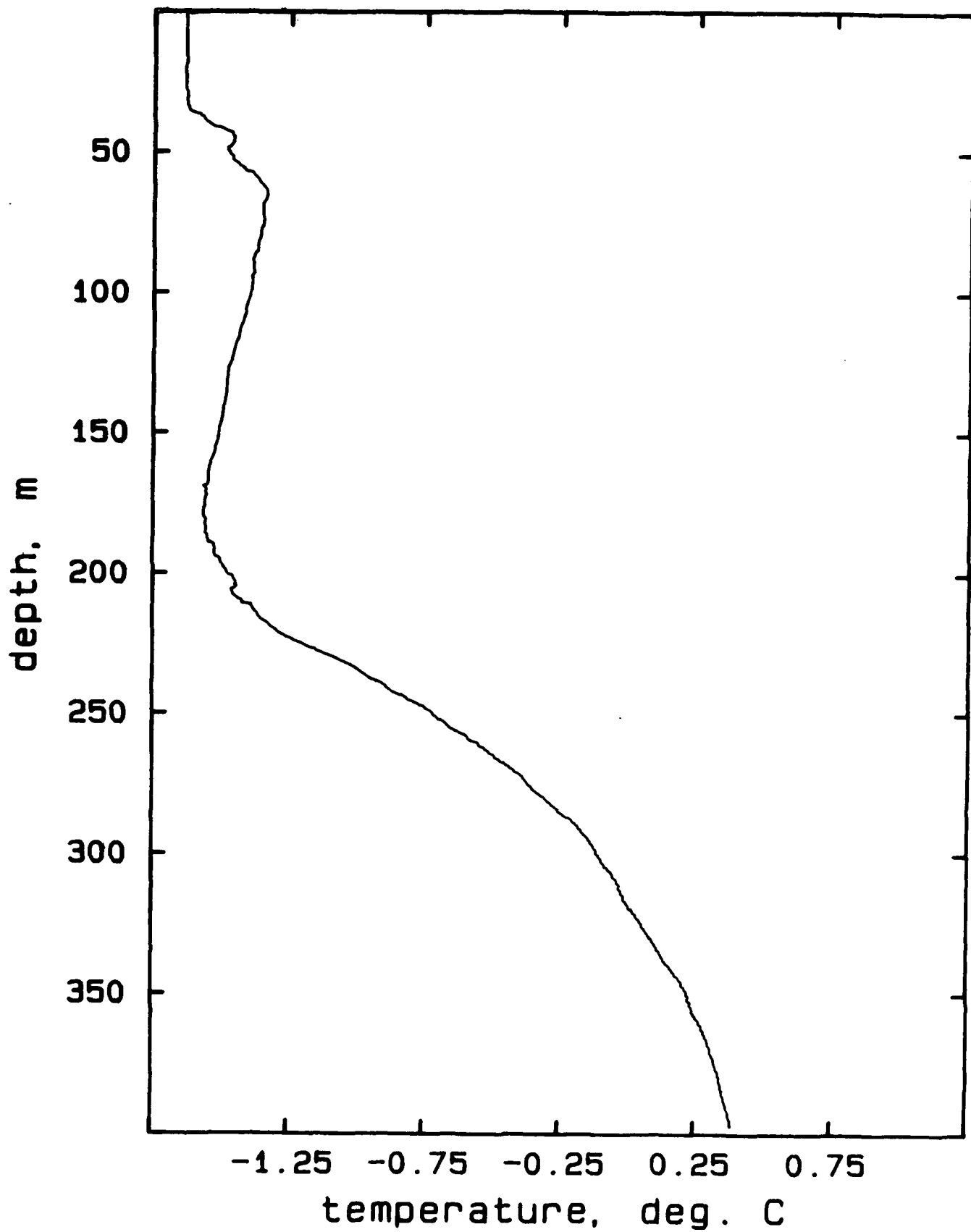


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## AR417F, drops 16-18

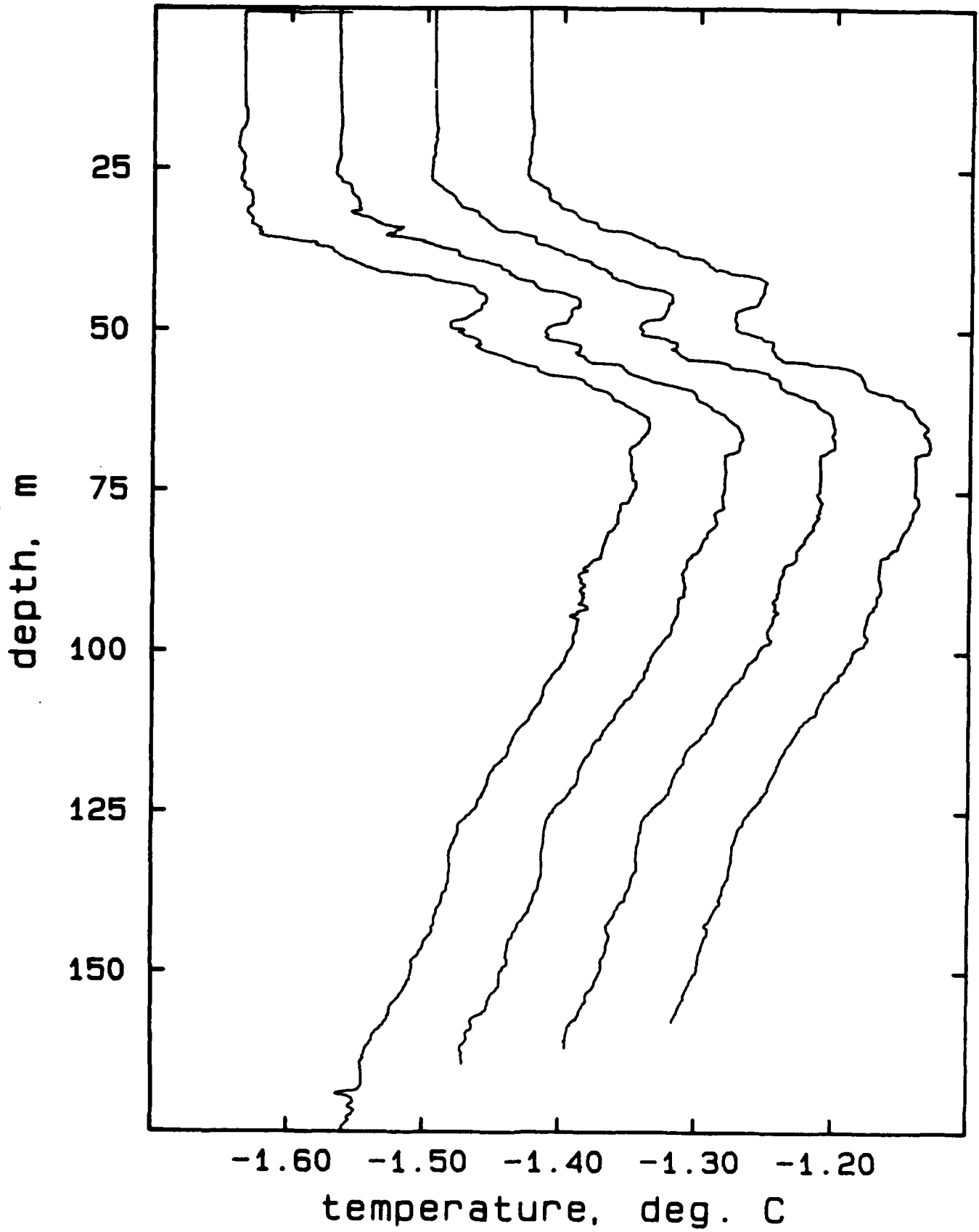


## AR418A, drop 3

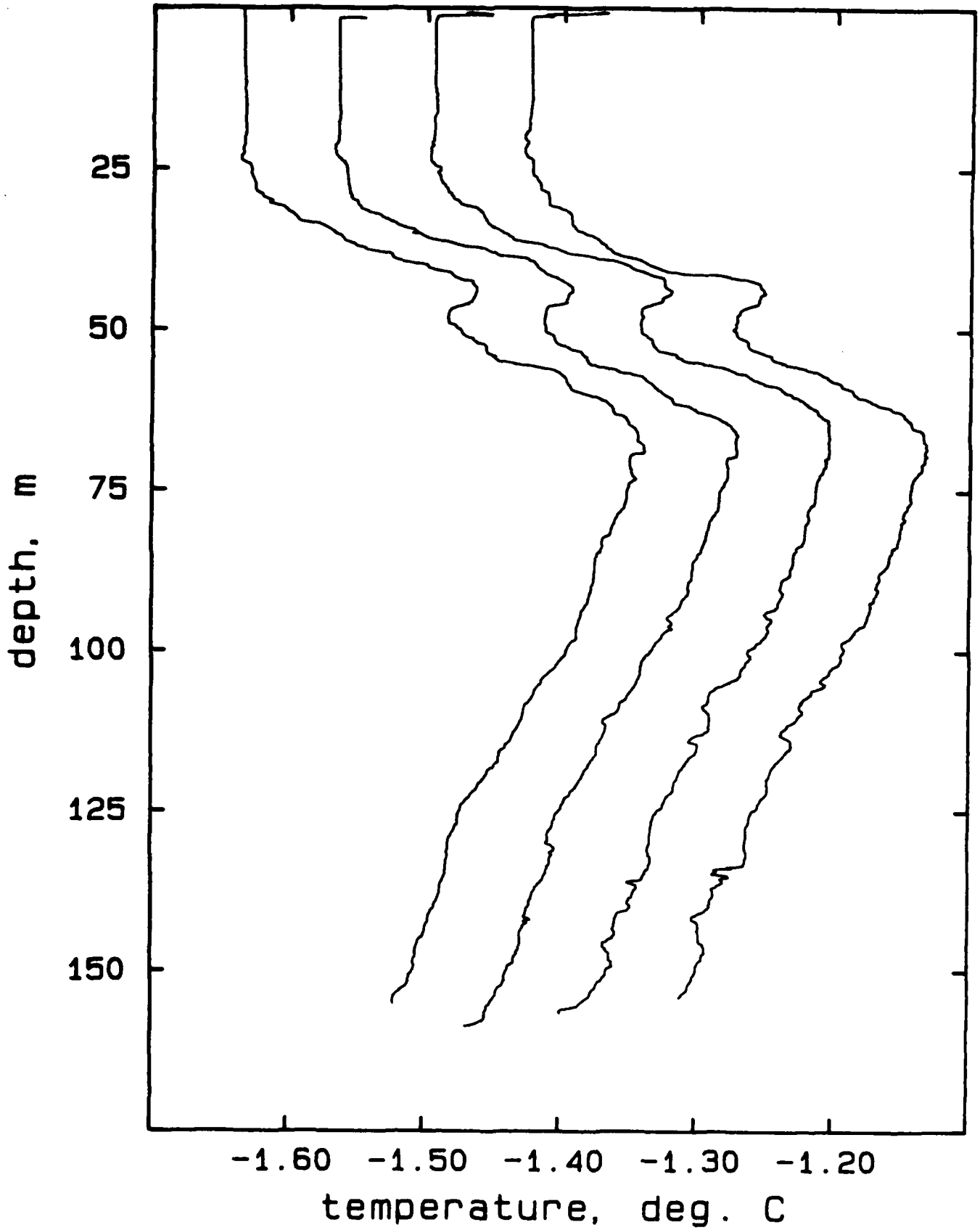


A vertical strip of small, dark rectangular markings runs along the right edge of the page, likely serving as a registration or scale marker.

## AR418A, drops 3-6

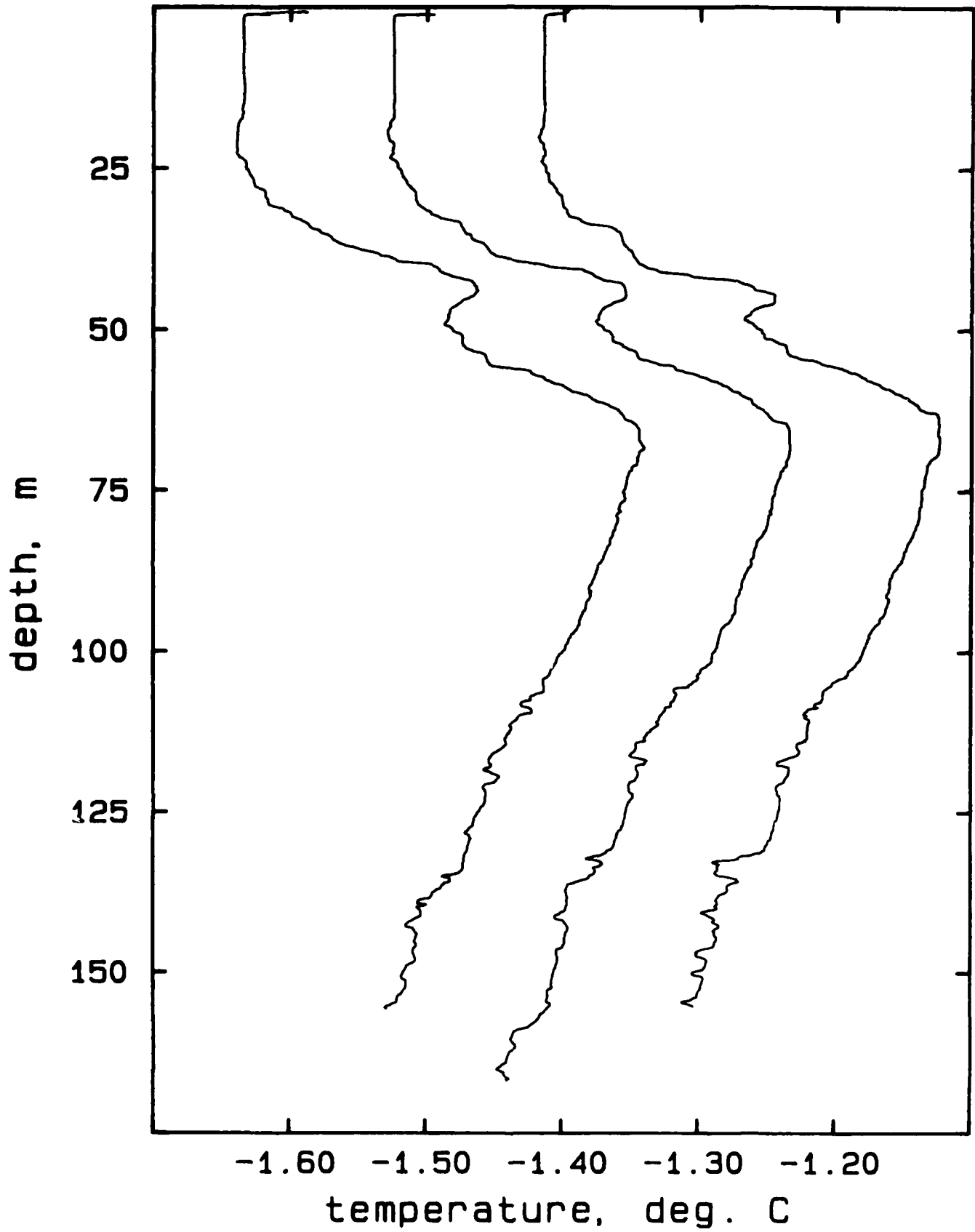


### AR418A, drops 7-10



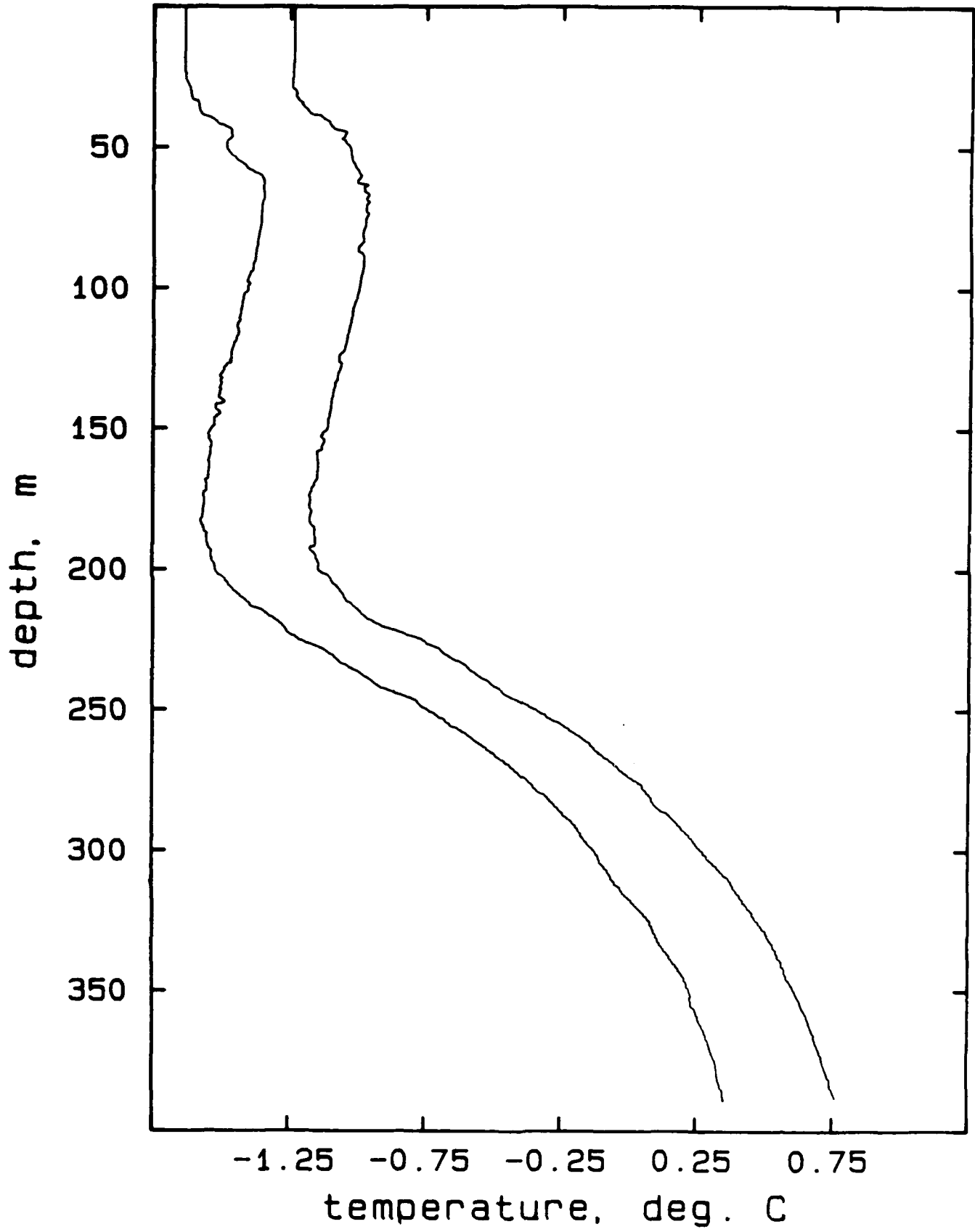
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## AR418A, drops 11-13



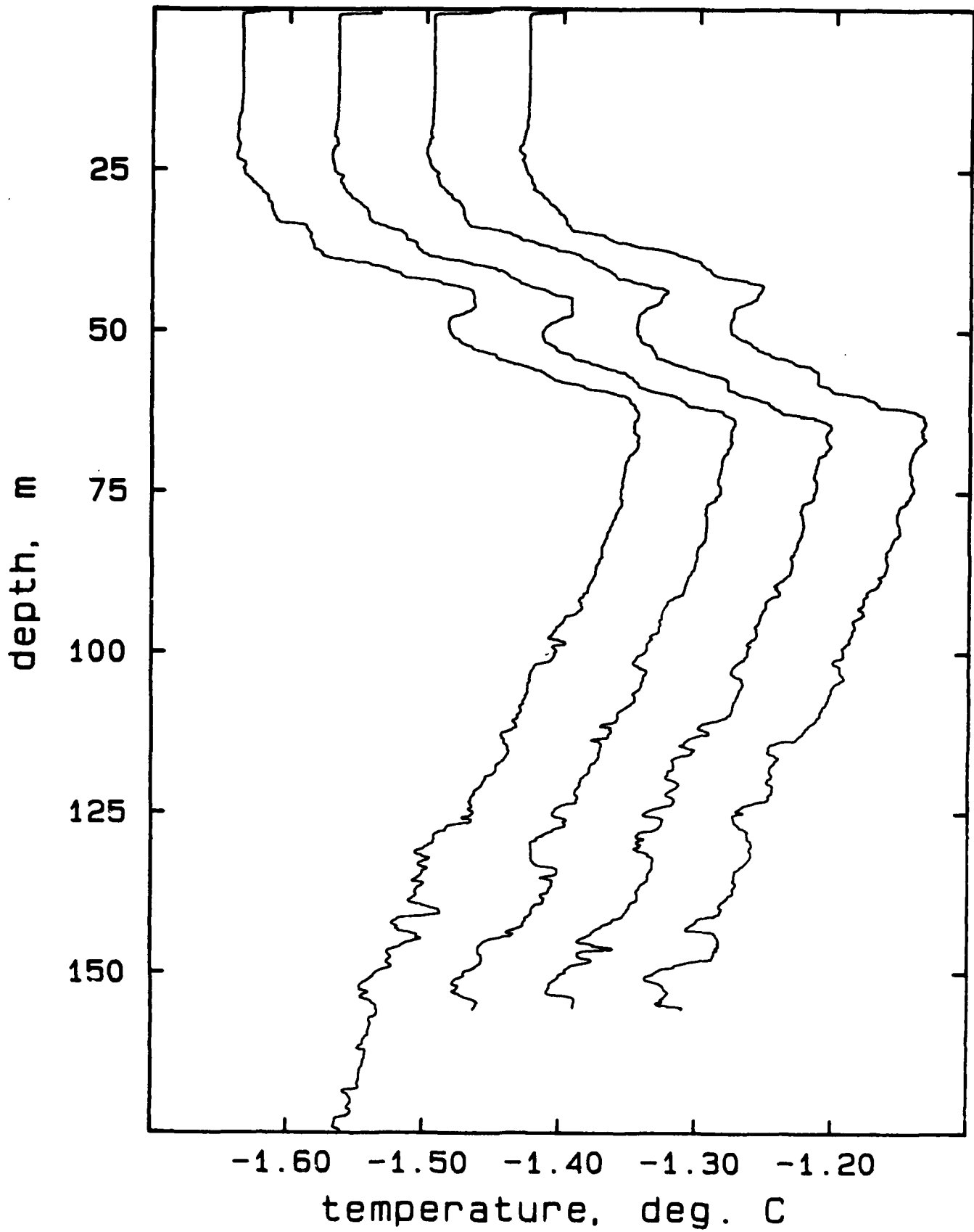


AR418B, drops 1, 7

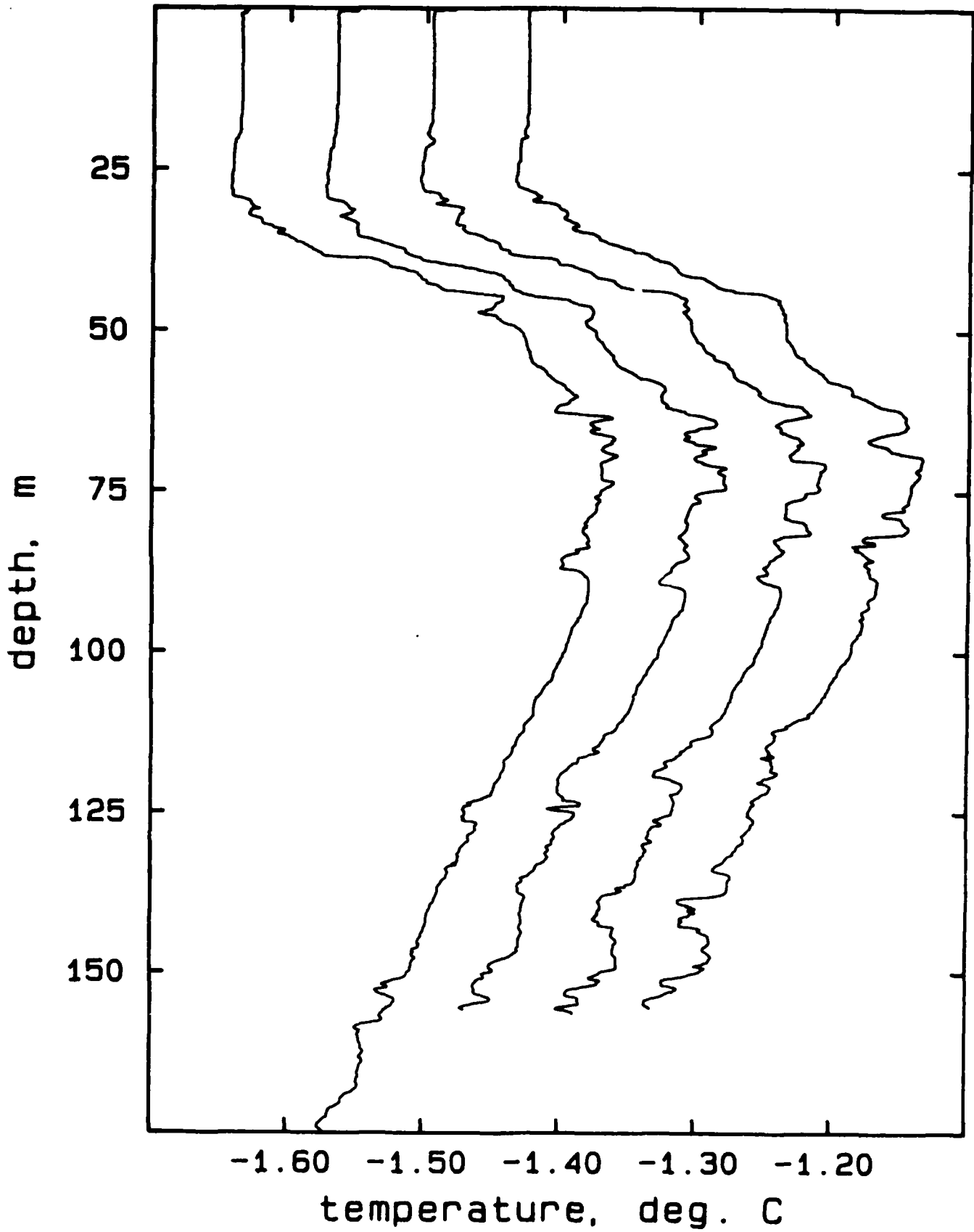




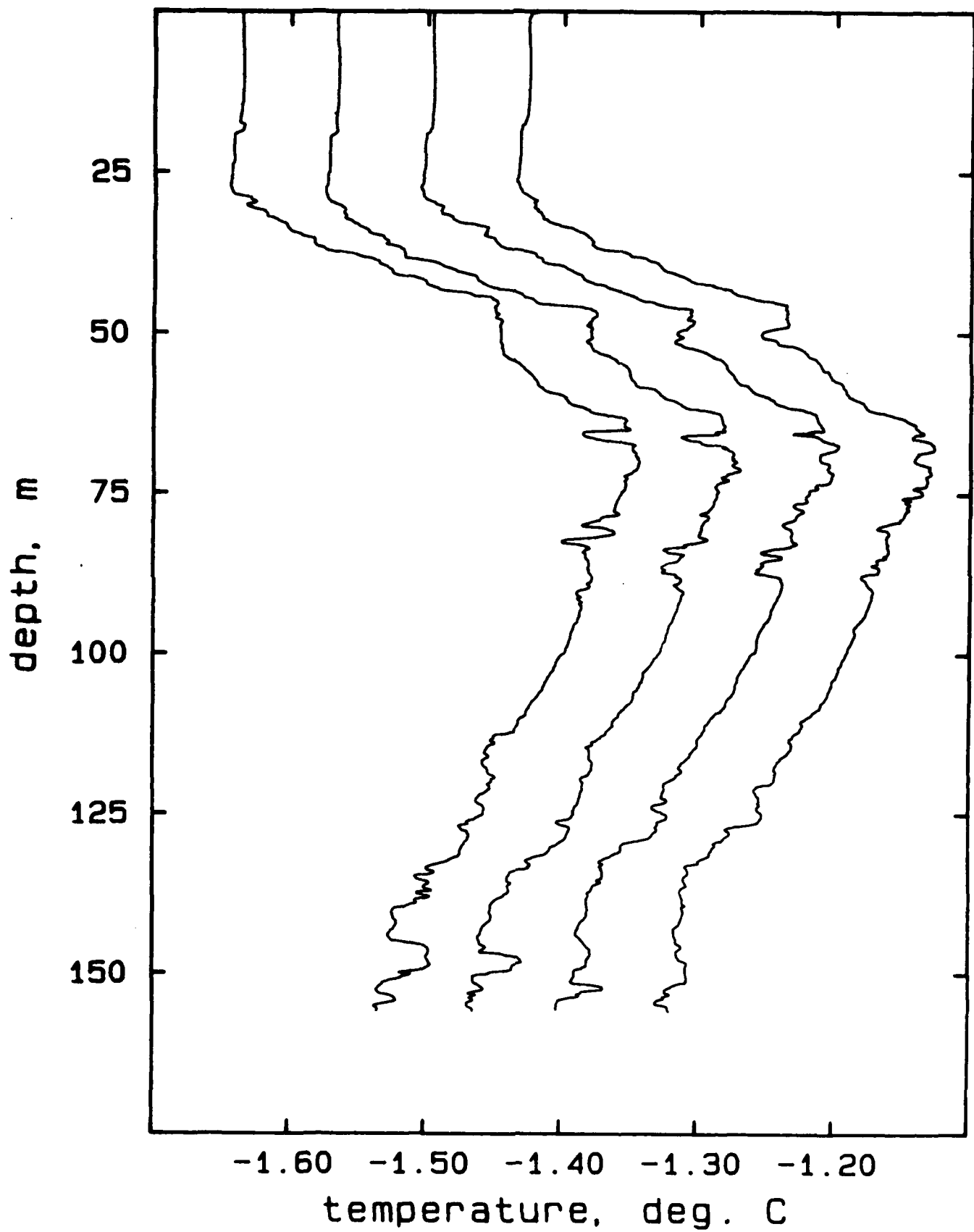
## AR418B, drops 1-4



## AR418B, drops 7-10

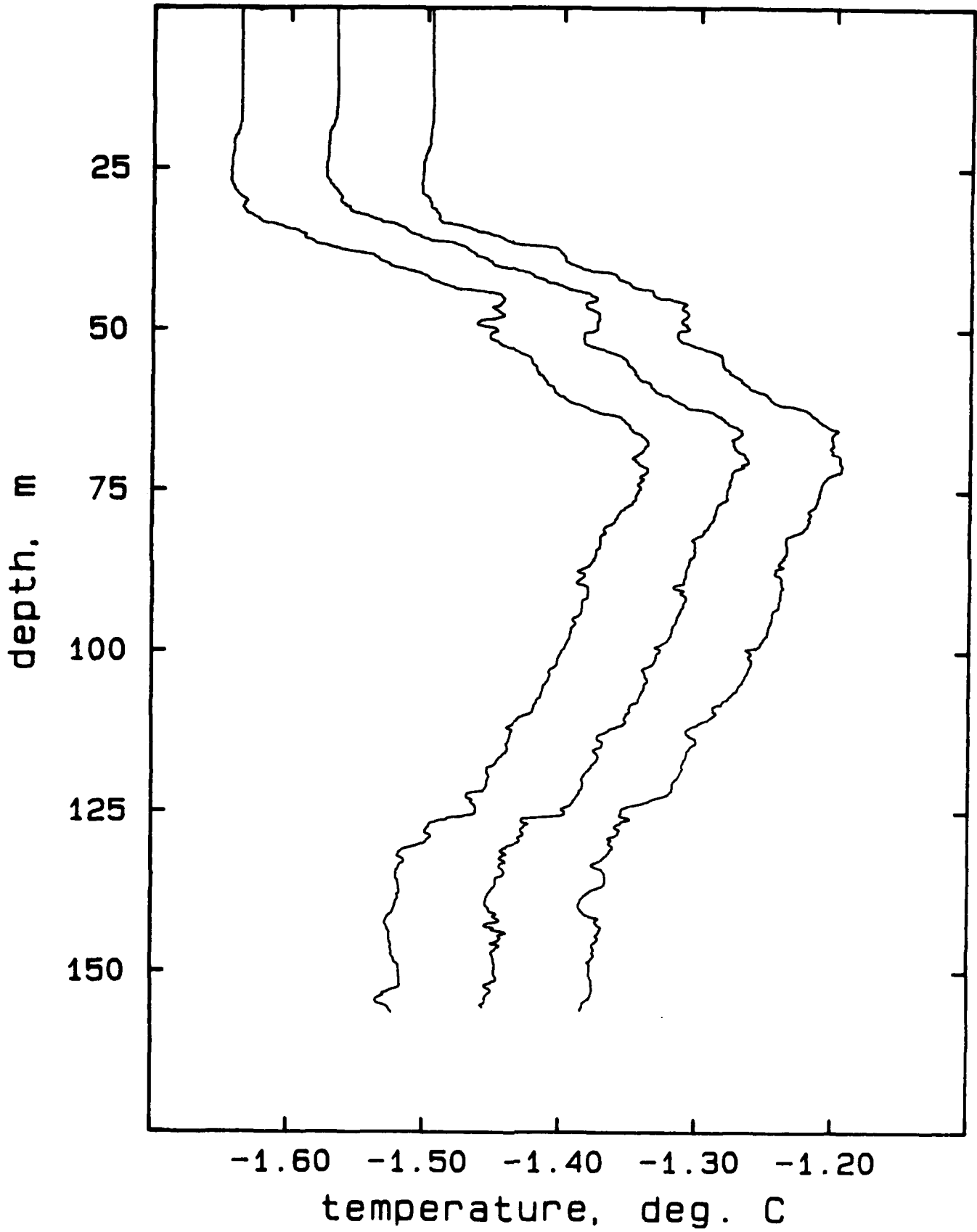


AR418B, drops 11-14

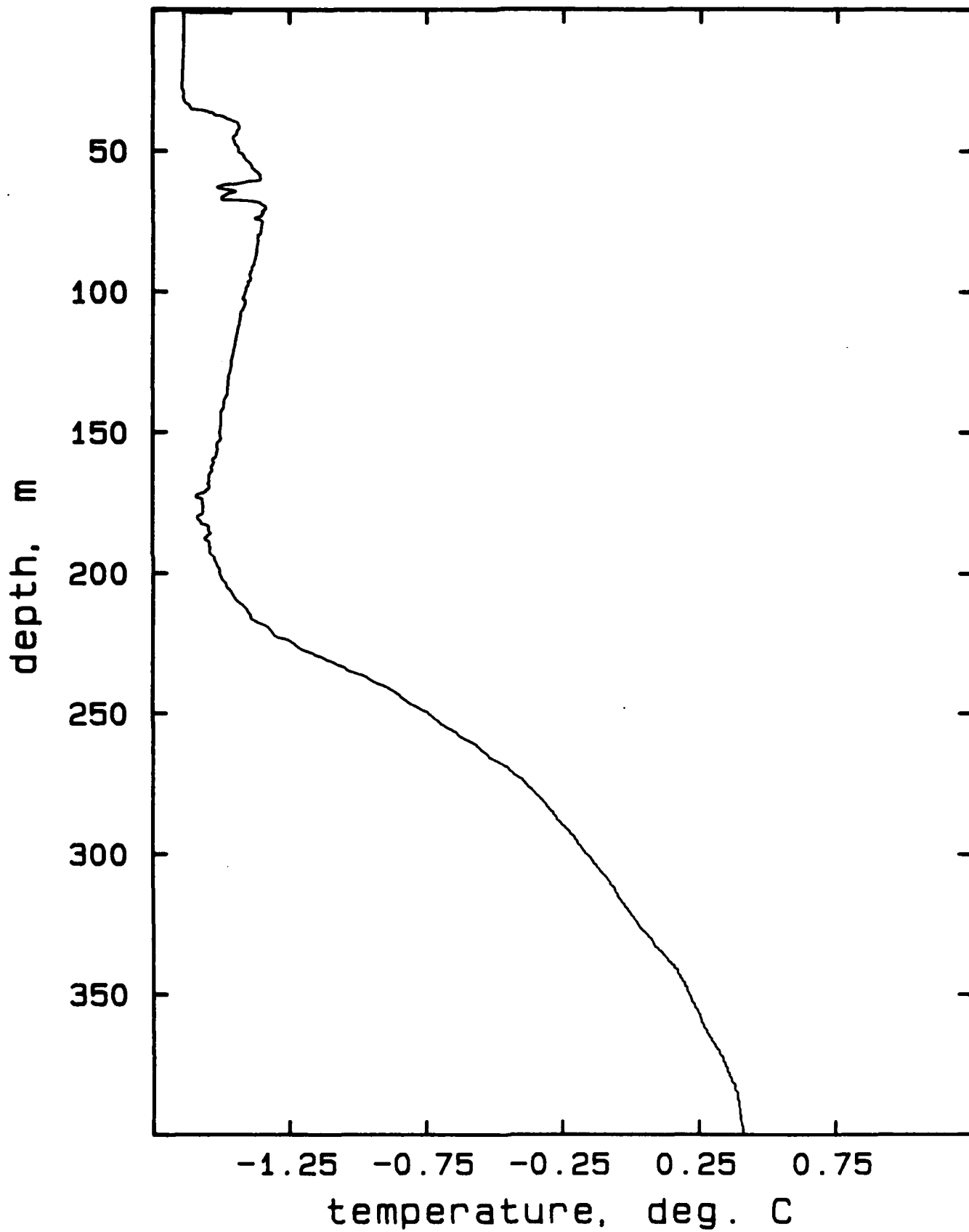


AR 418 B, drops 11-14

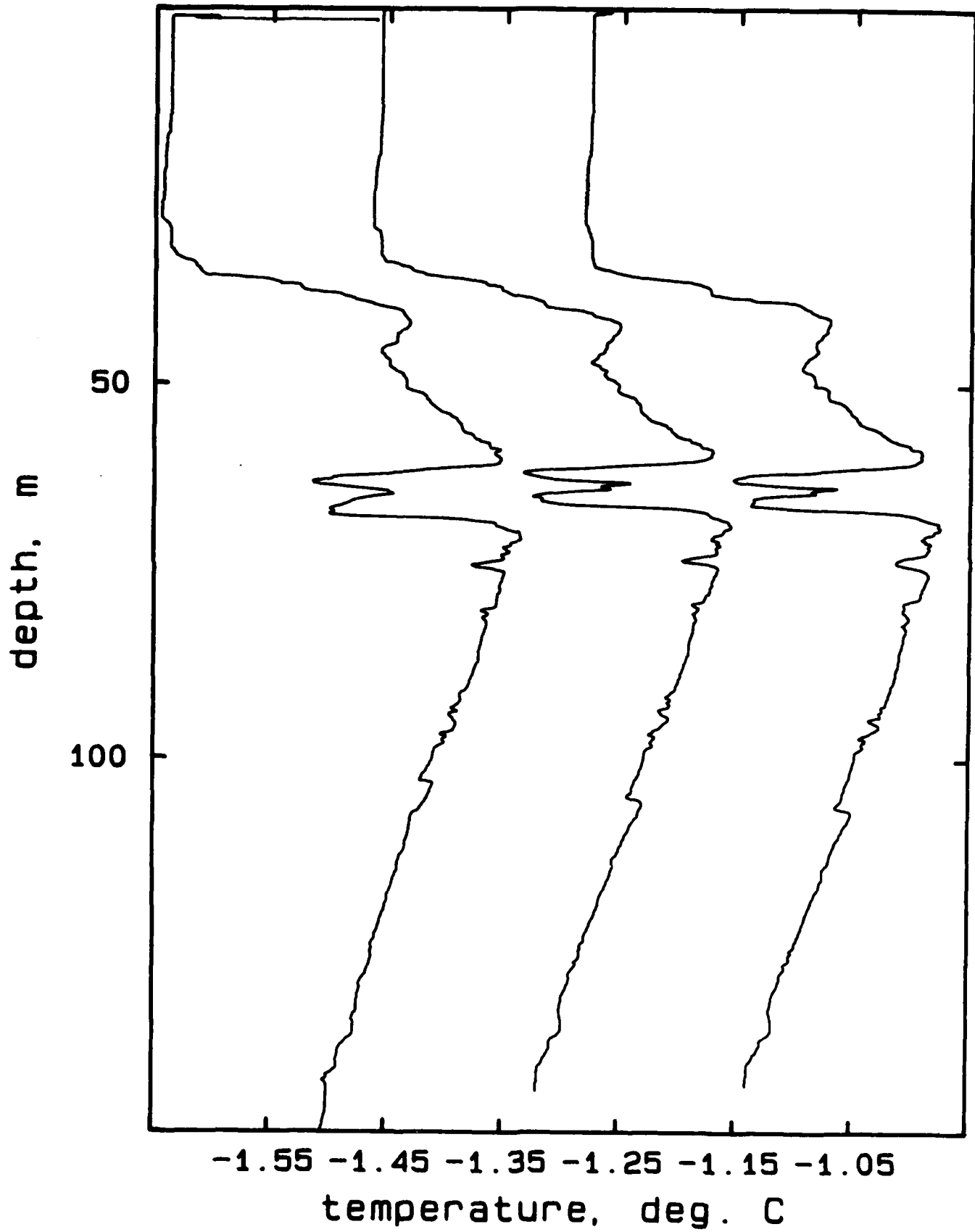
## AR418B, drops 15-17



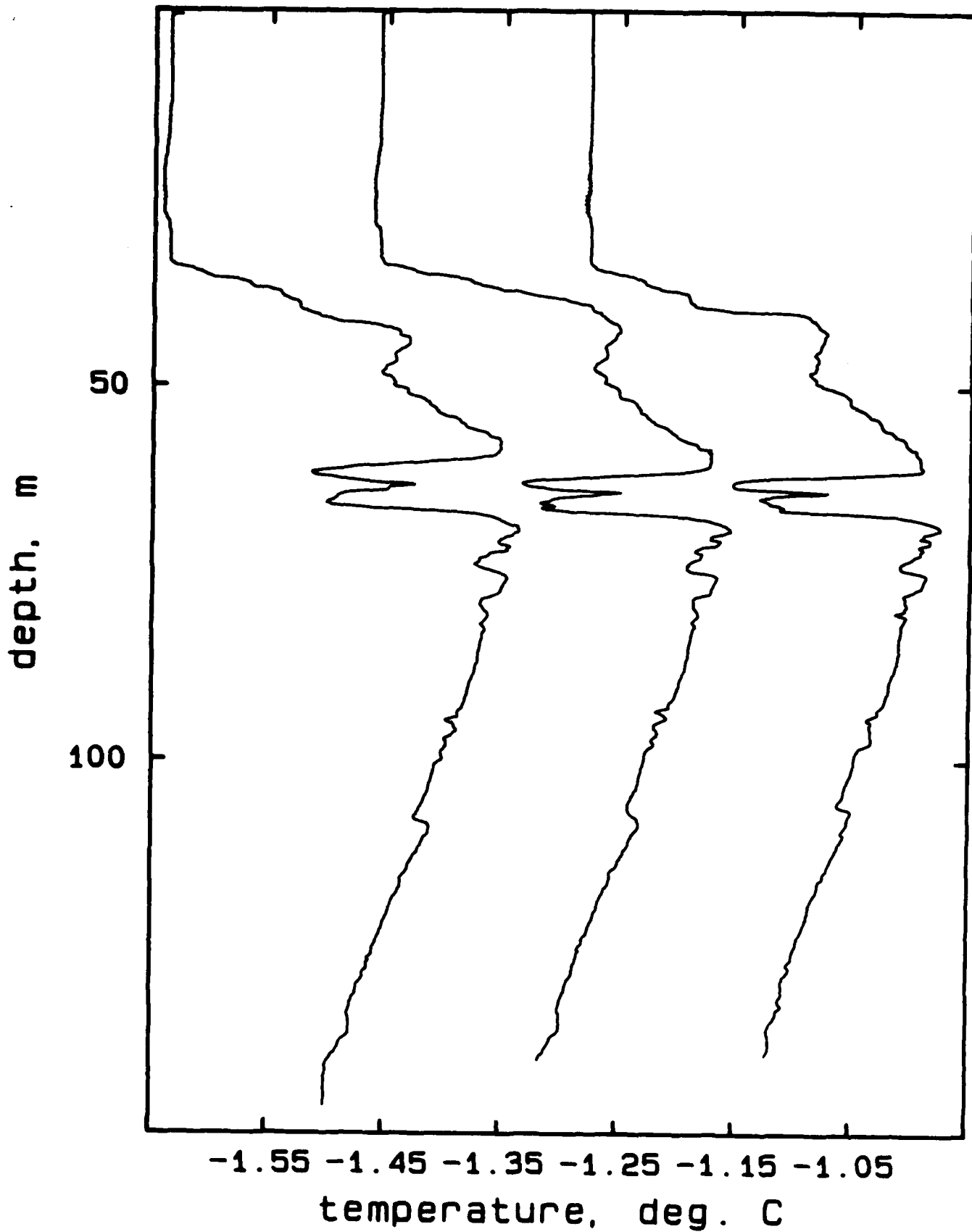
## AR419A, drop 1



## AR419A, drops 1-3

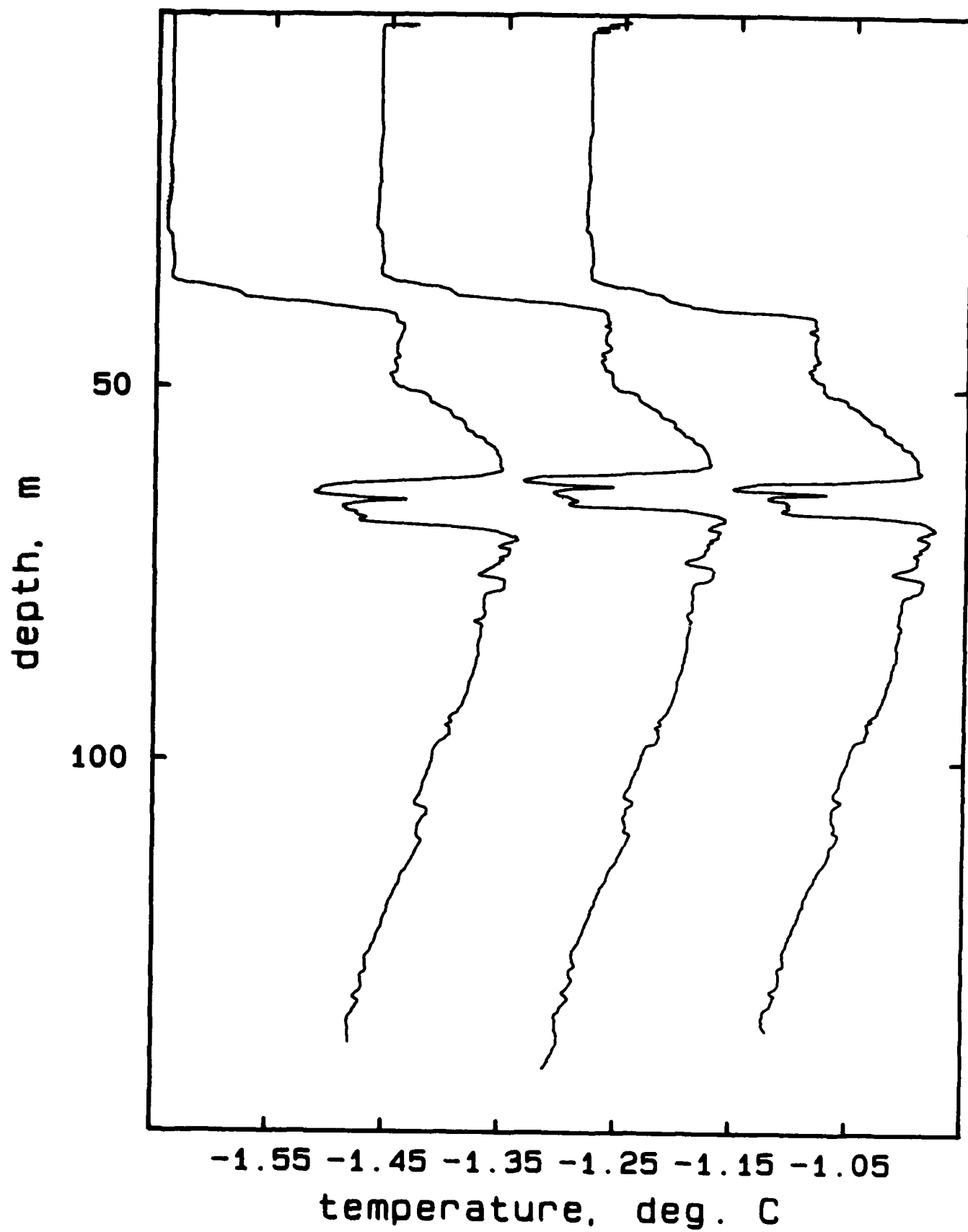


AR419A, drops 4-6



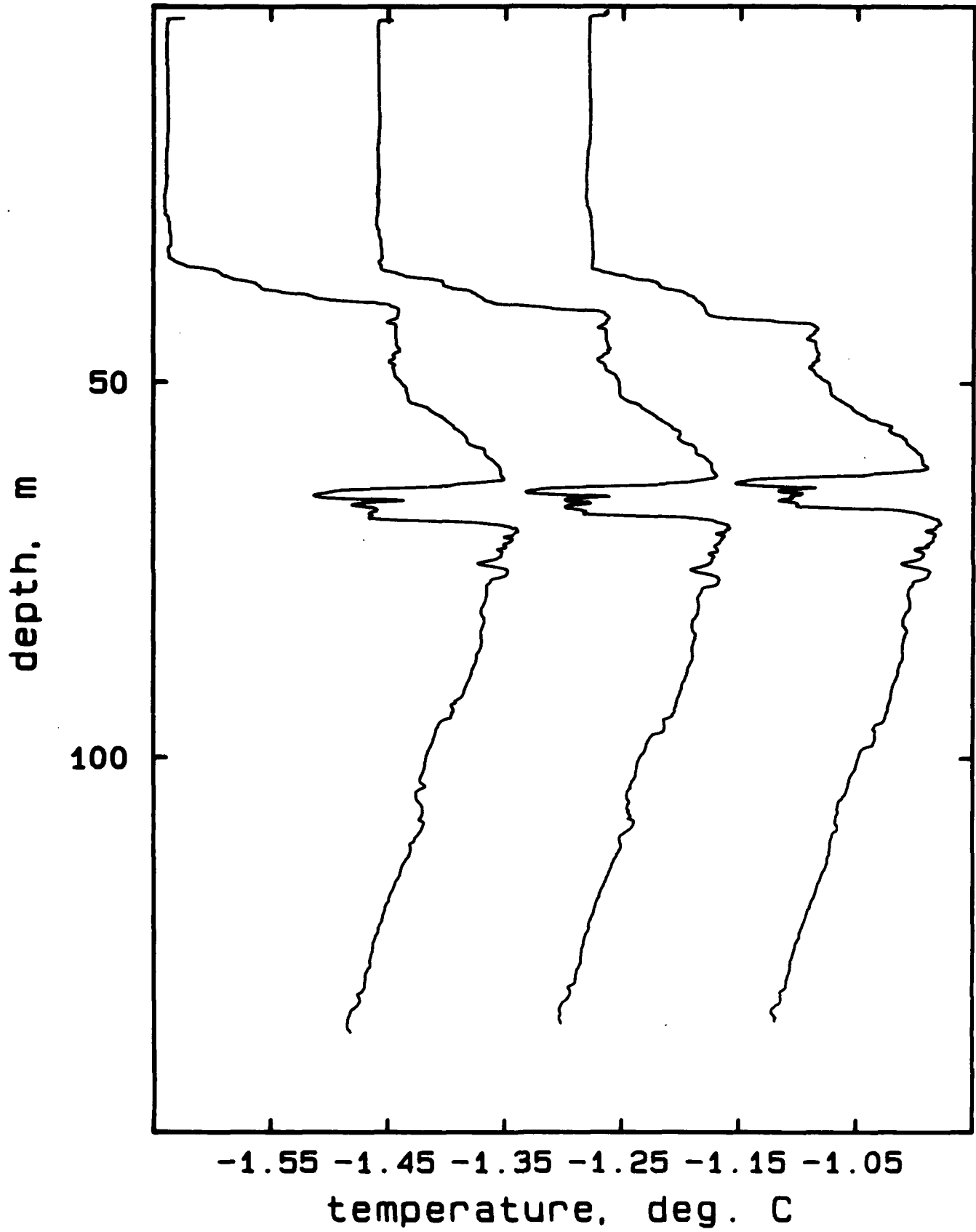
AR419A, drops 4-6

## AR419A, drops 7-9



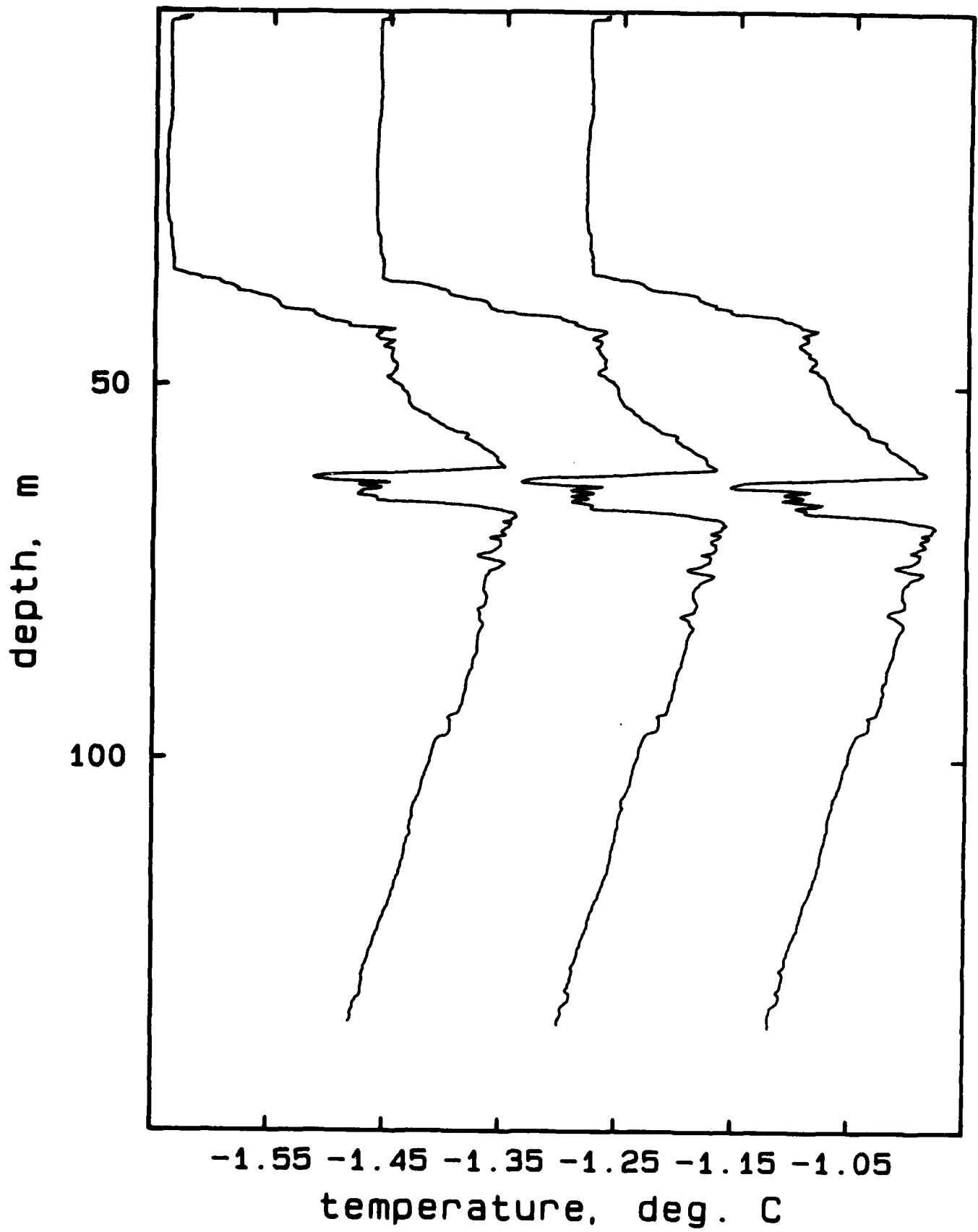


AR419A, drops 10-12

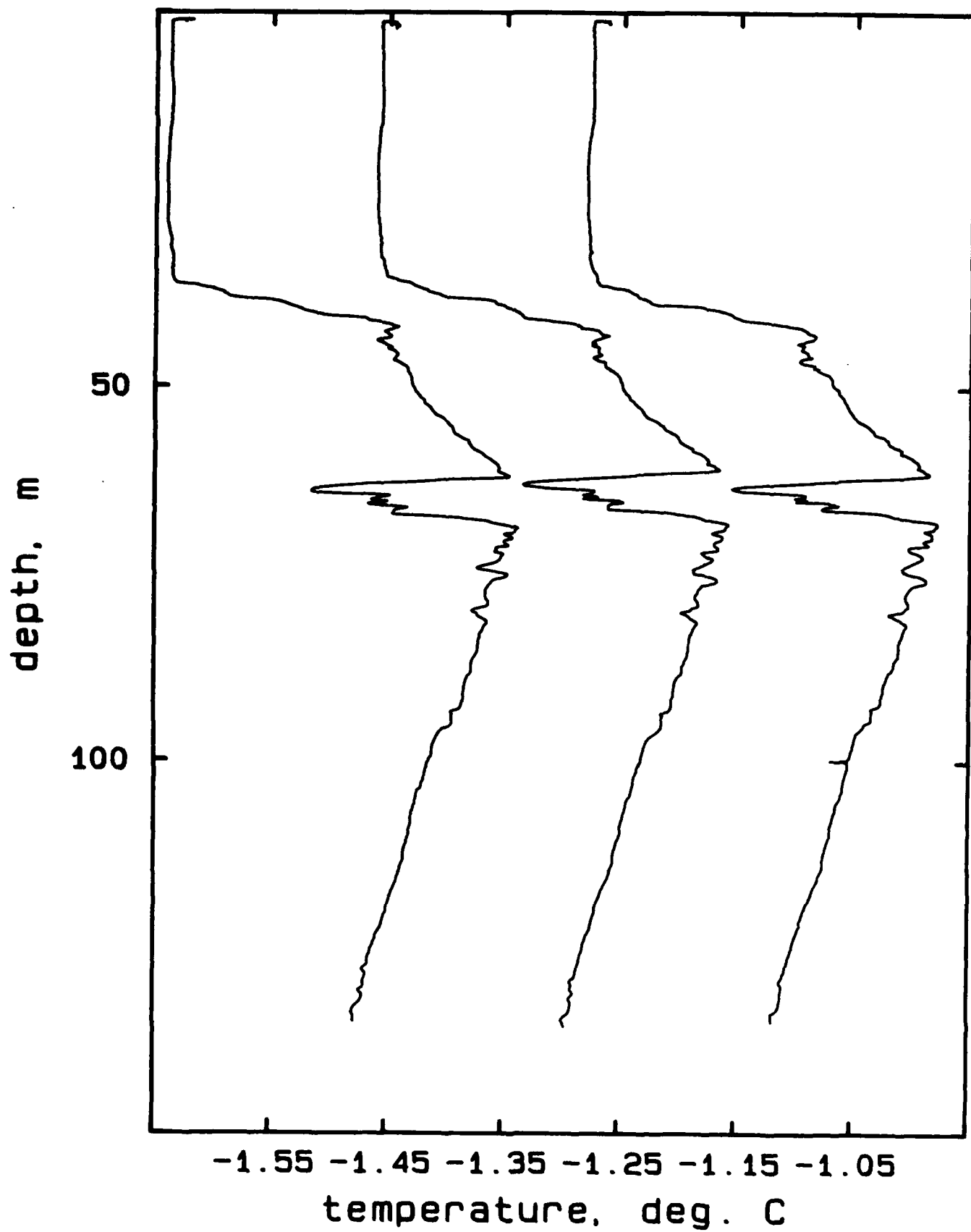


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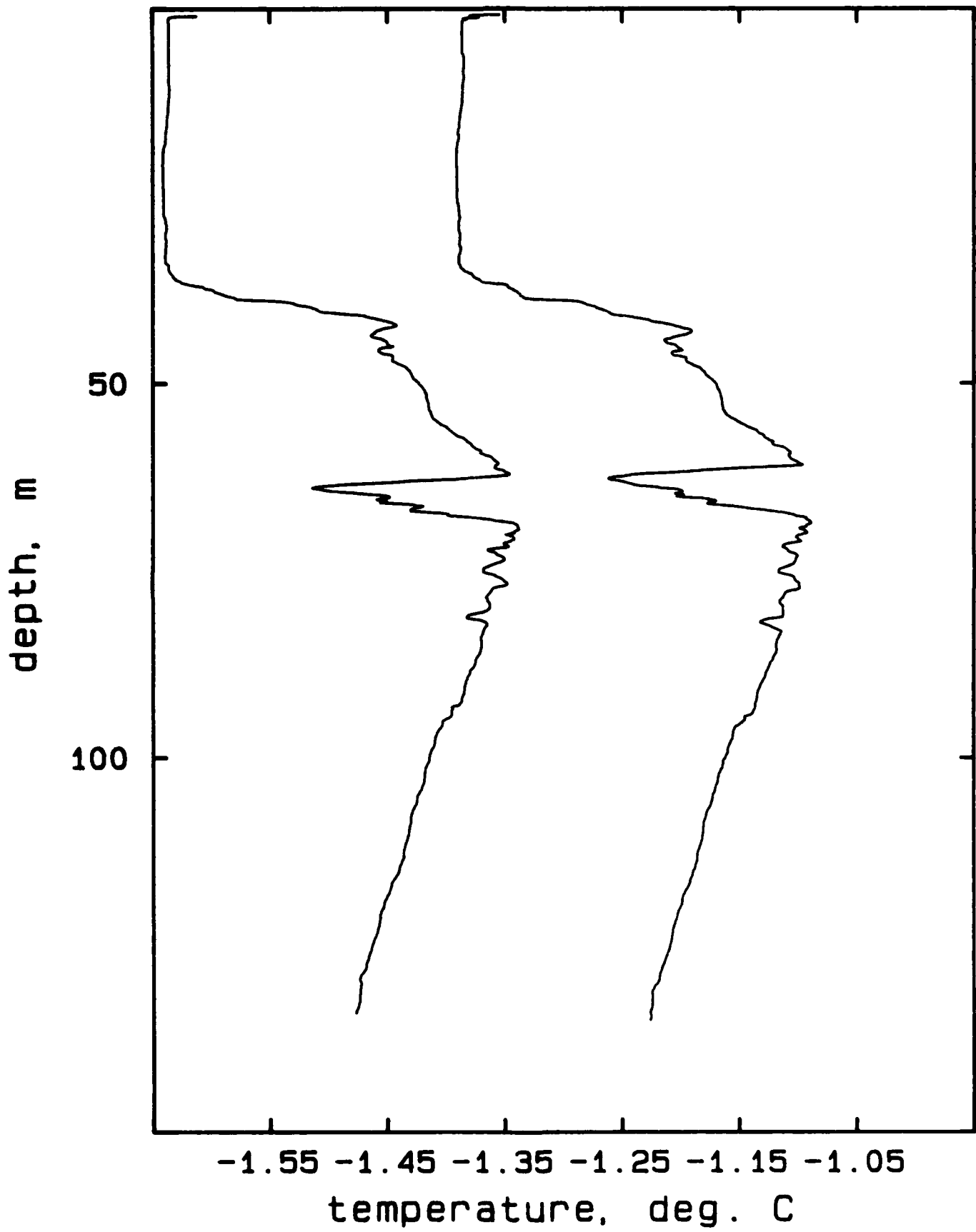
## AR419A, drops 13-15



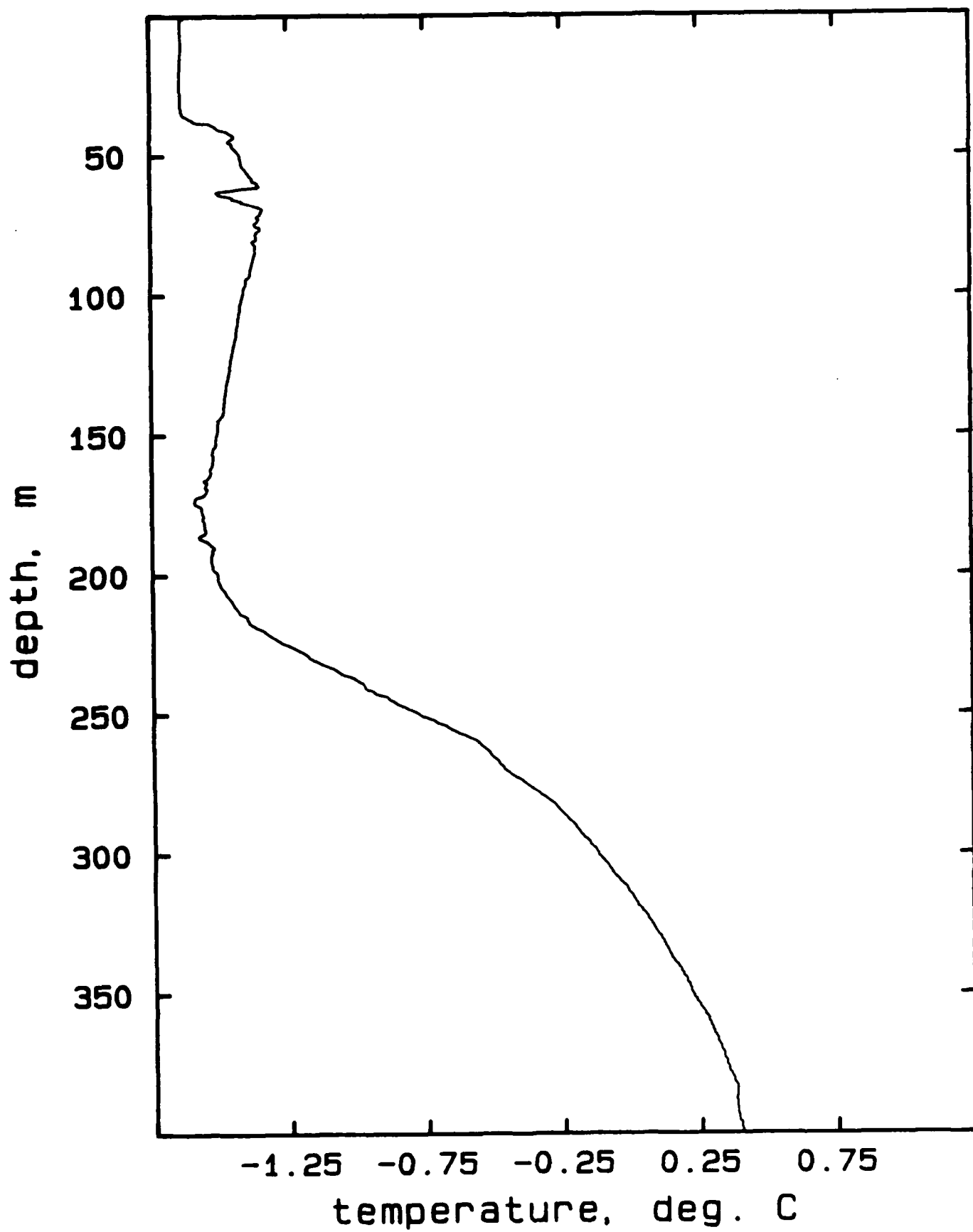
## AR419A, drops 16-18



## AR419A, drops 19, 20

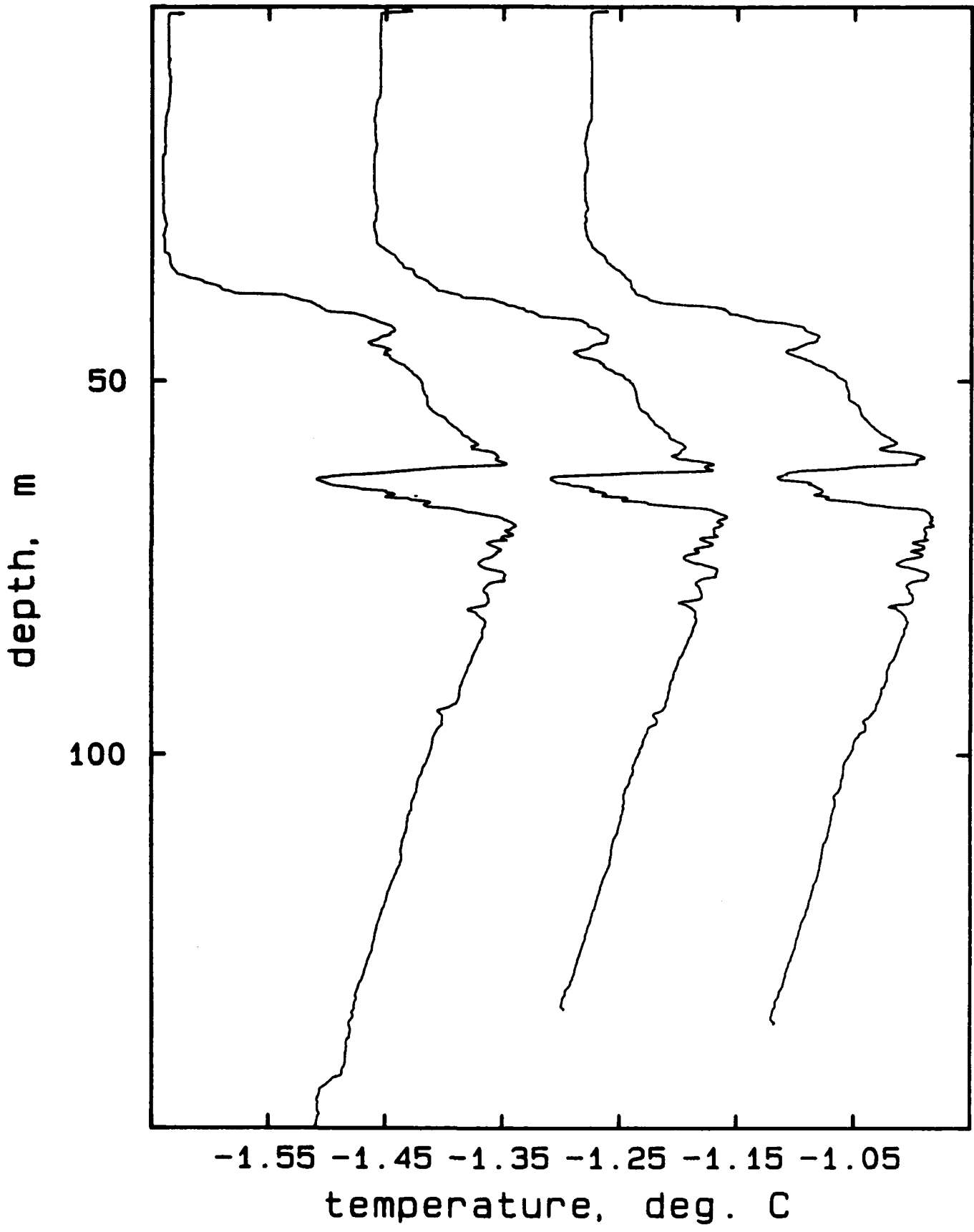


## AR419B, drop 1

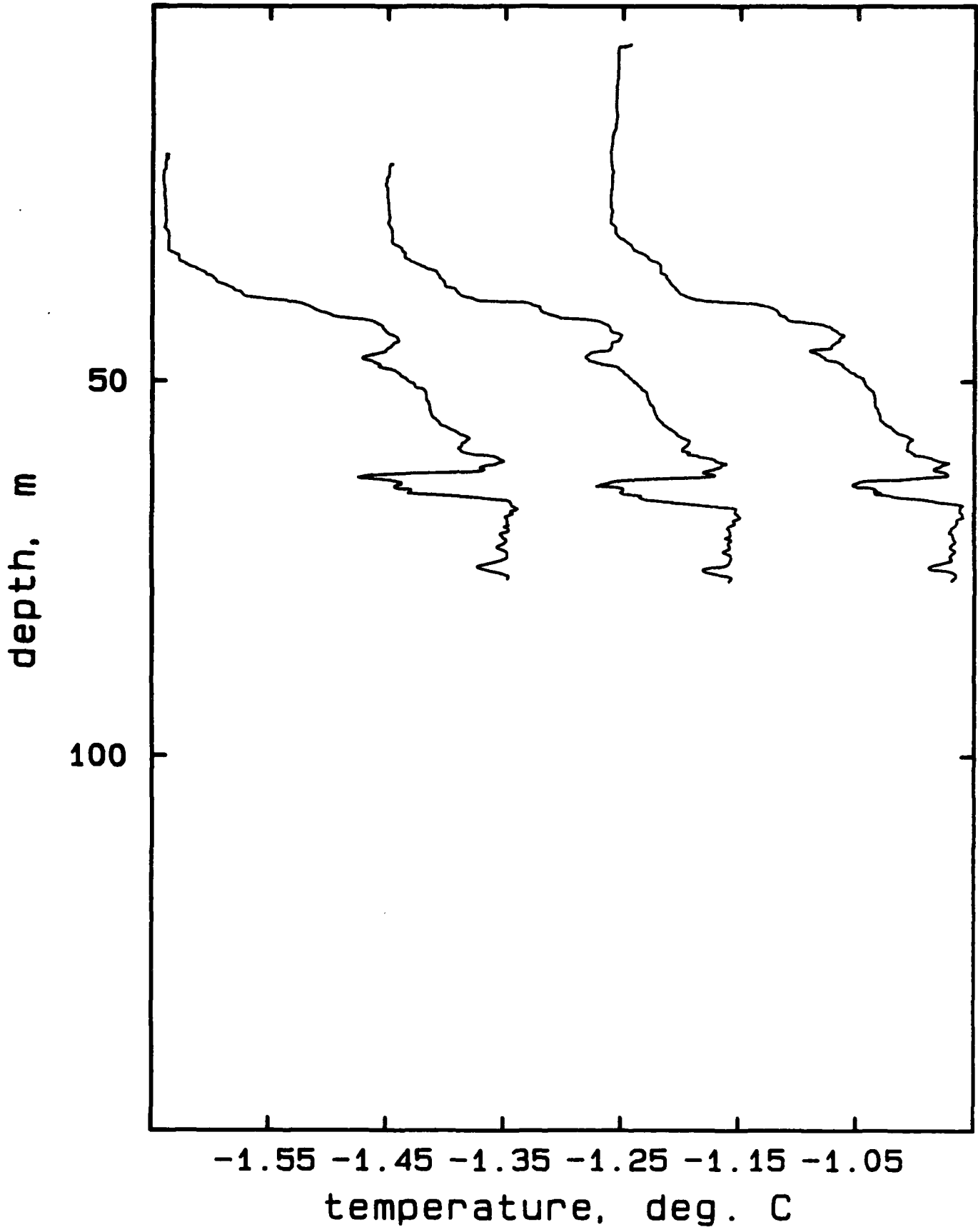


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# AR419B, drops 1-3

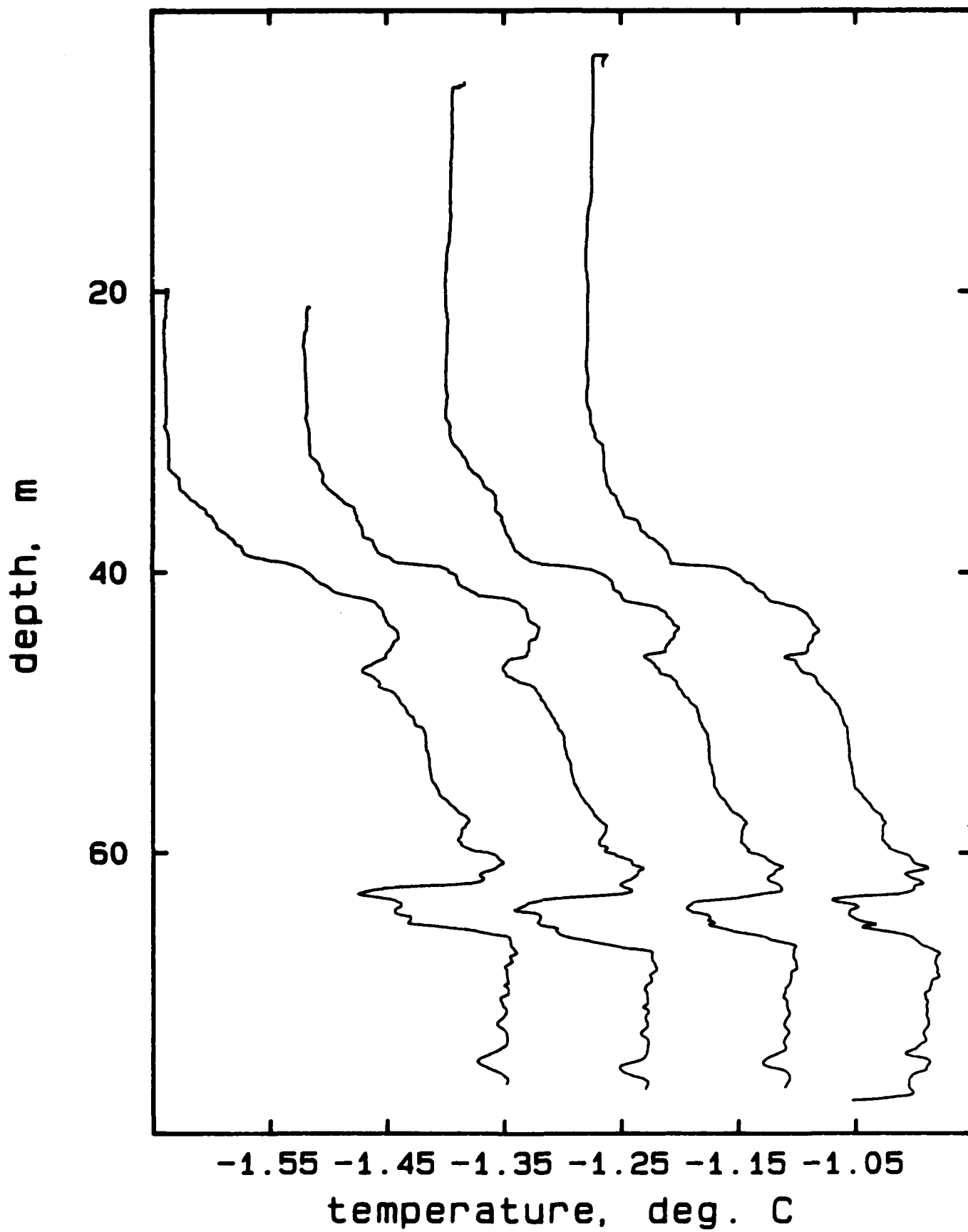


AR419B, drops 4, 5, 7



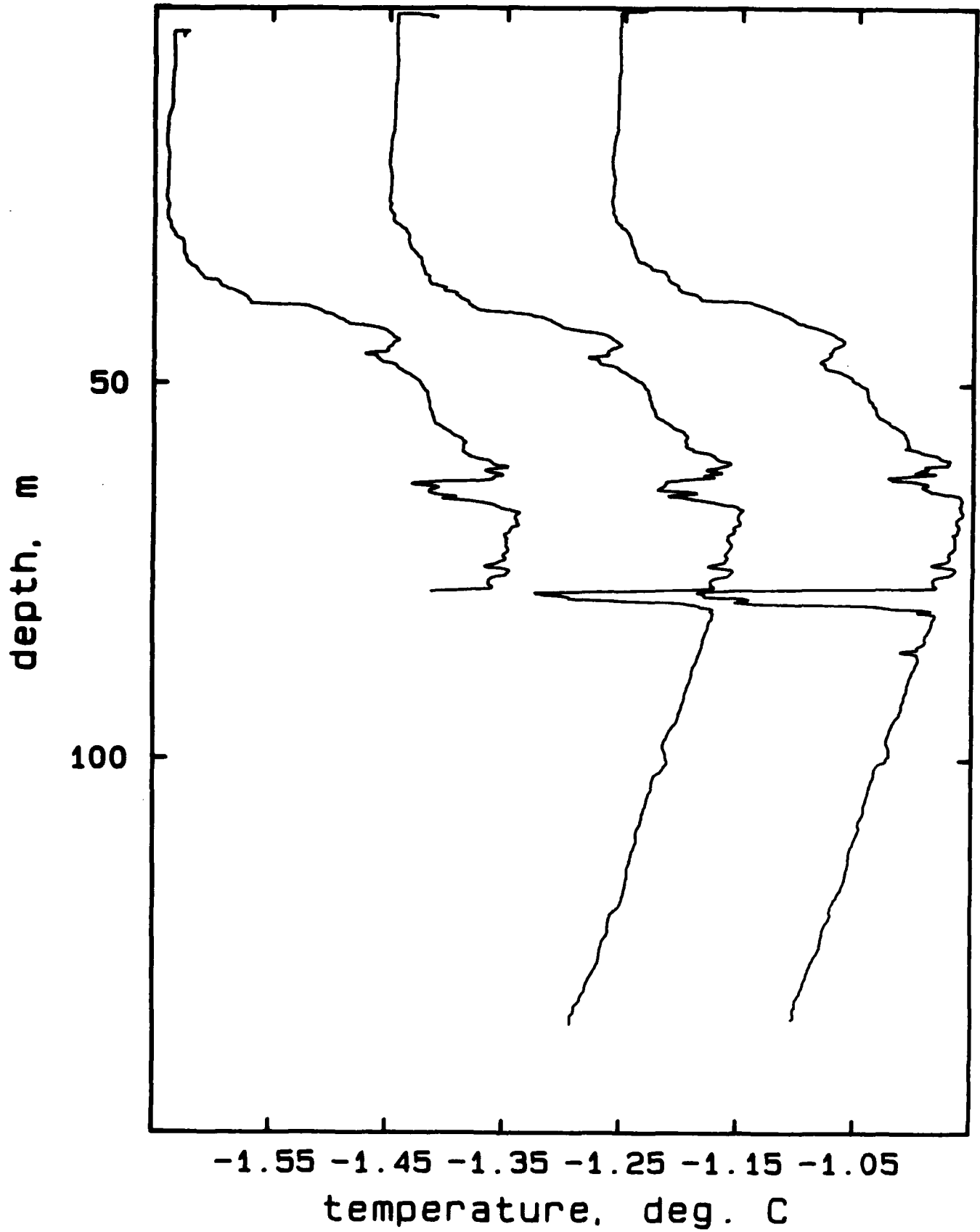
AR419B, drops 4, 5, 7

## AR419B, drops 4, 5, 7, 8



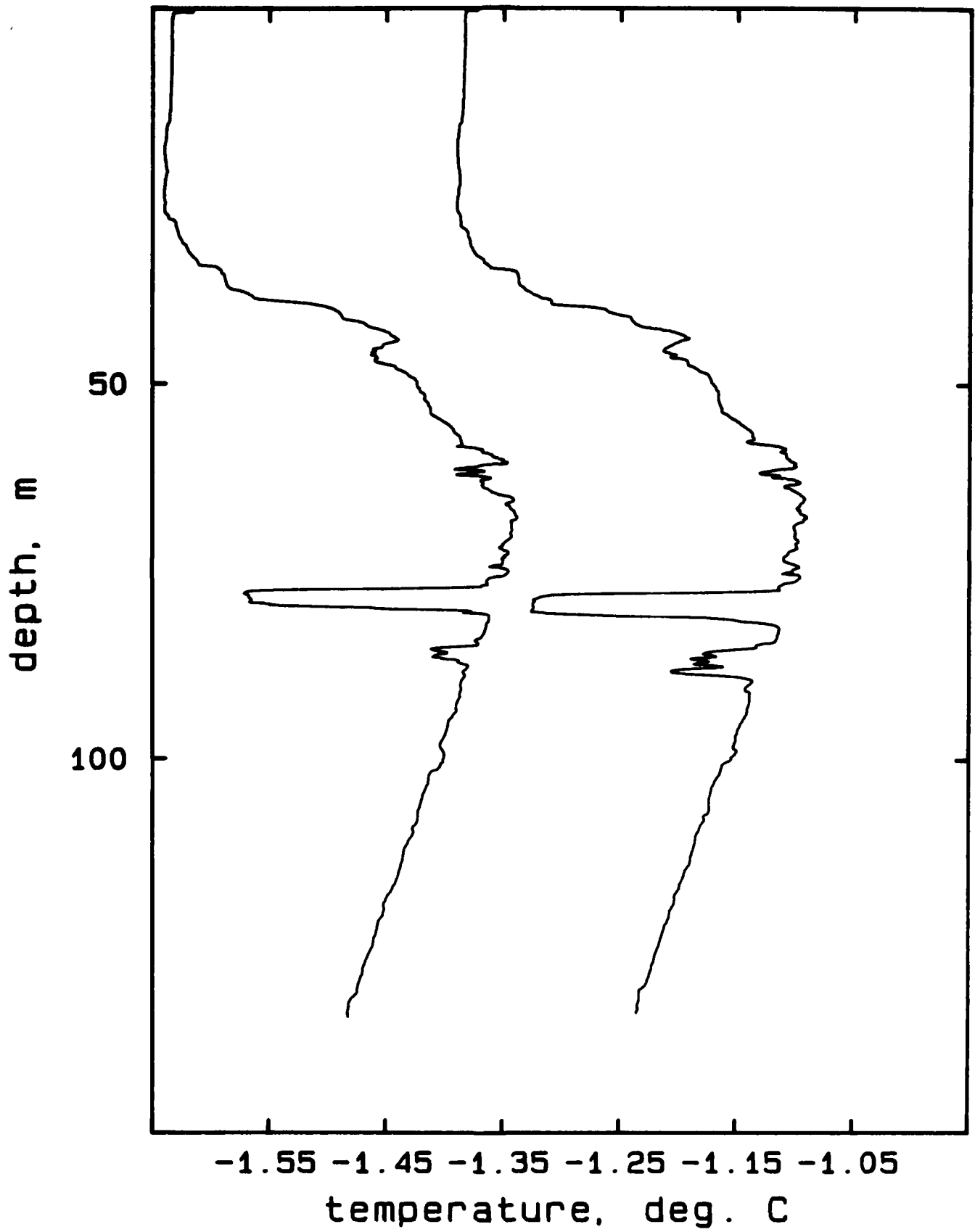


AR419B, drops 8-10

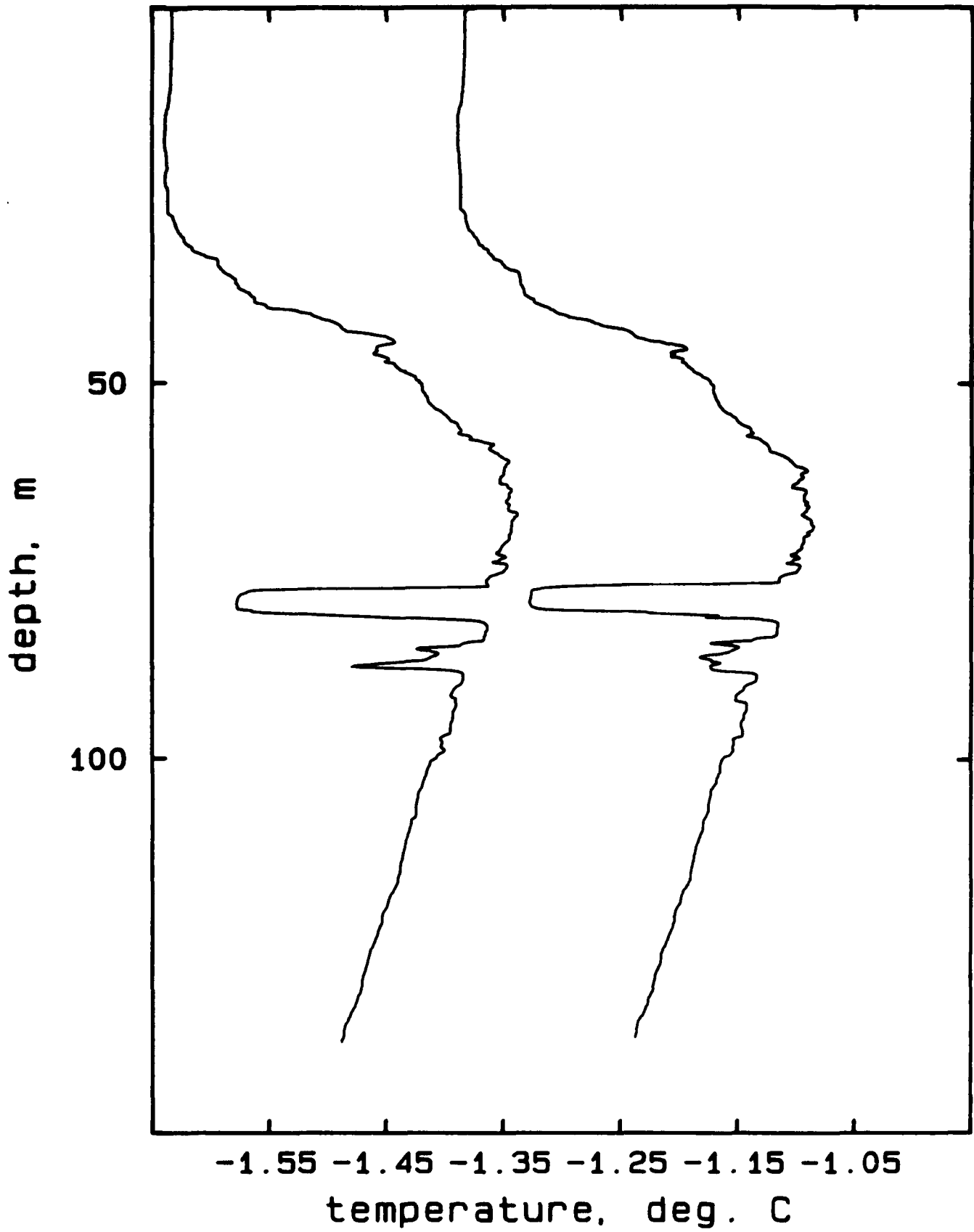


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## AR419B, drops 11, 12

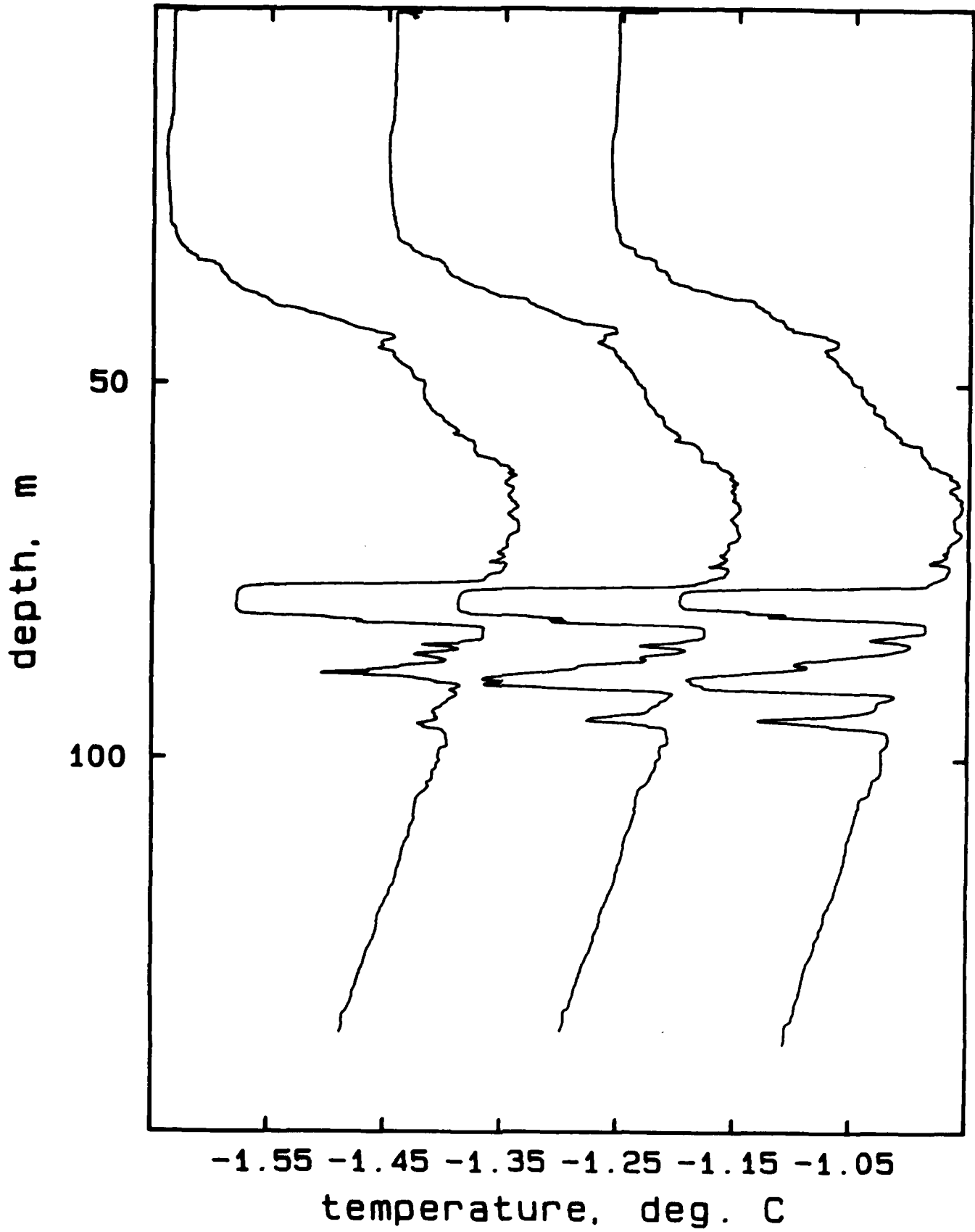


AR419B, drops 13, 14

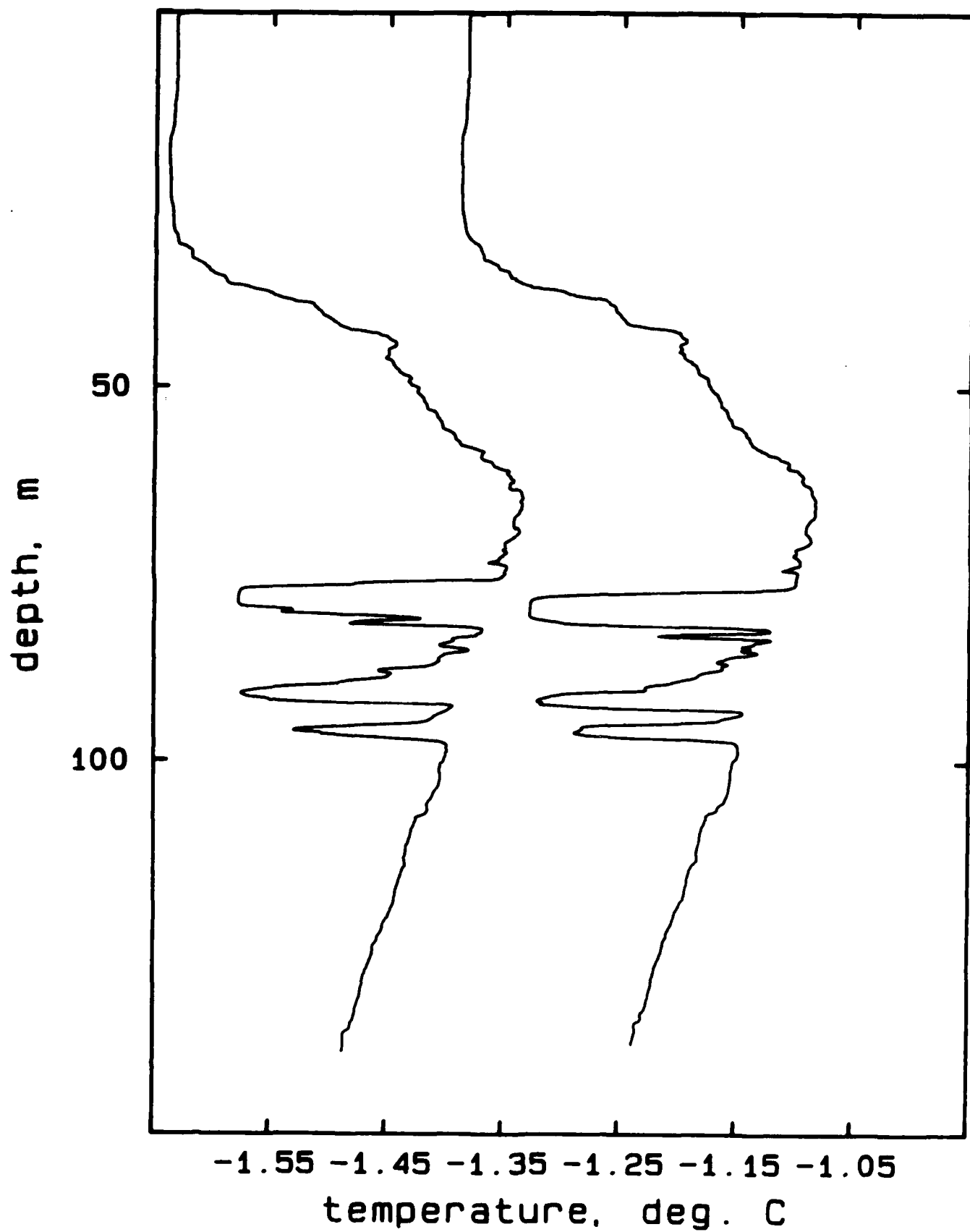


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## AR419B, drops 15-17

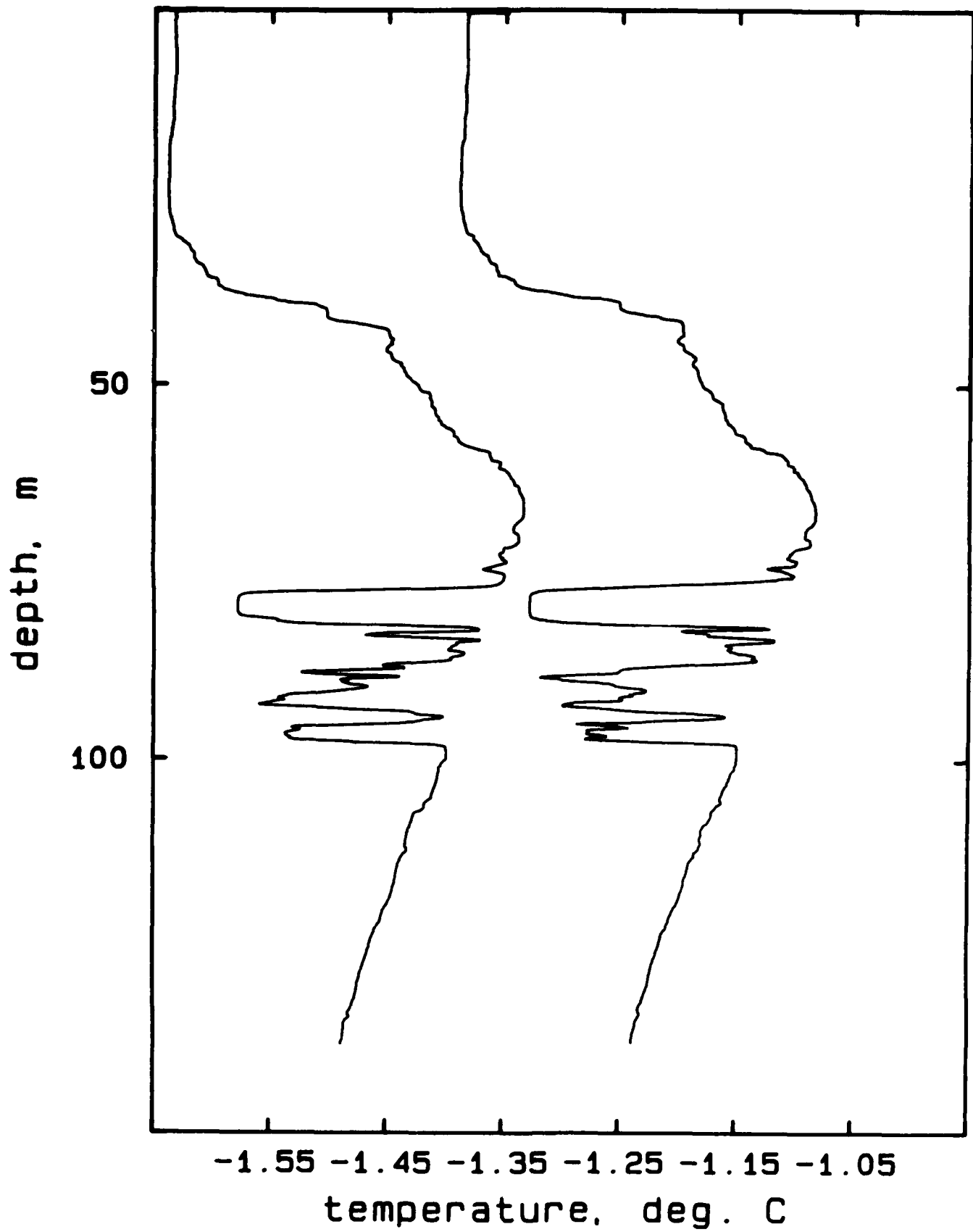


AR419B, drops 18, 19

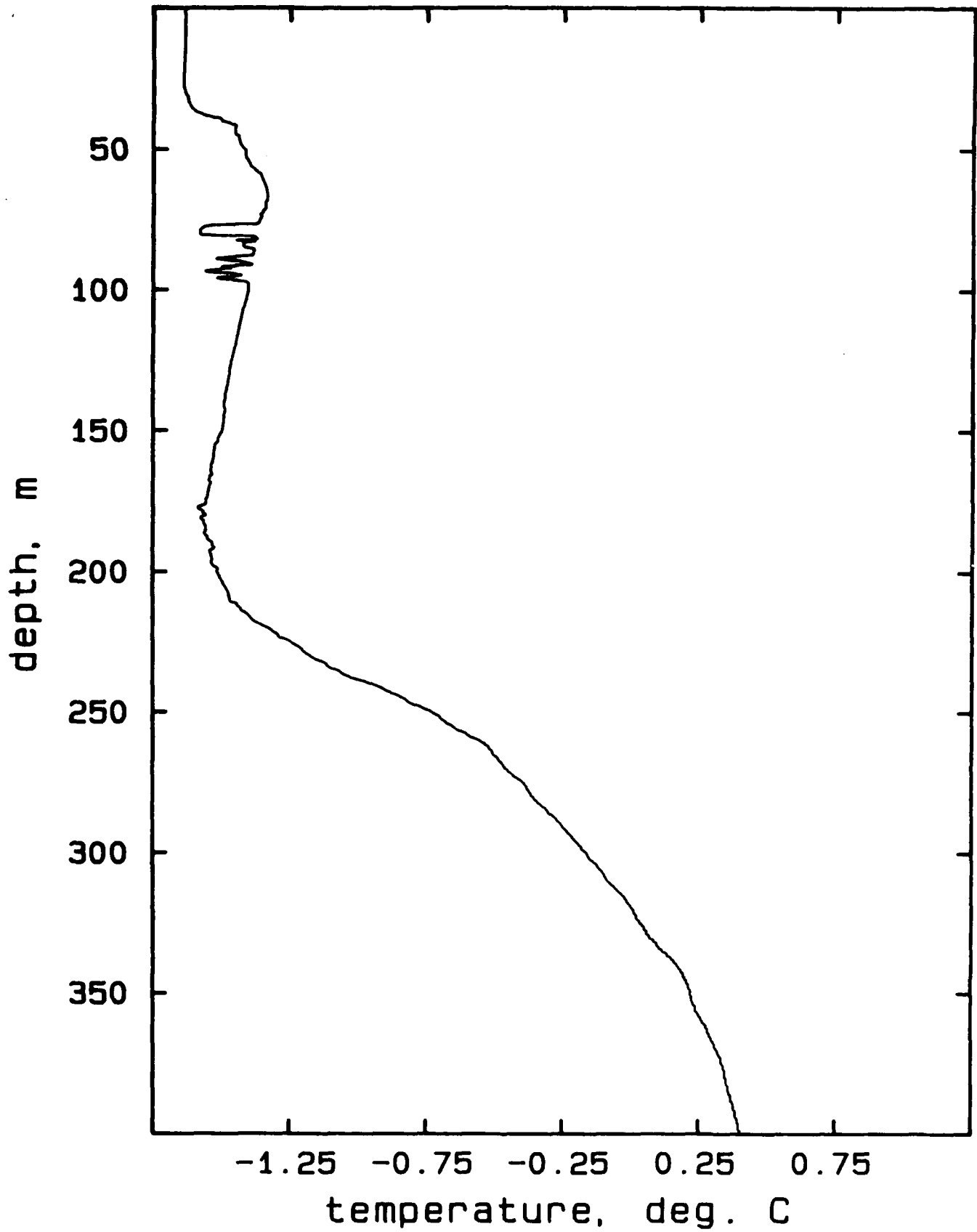


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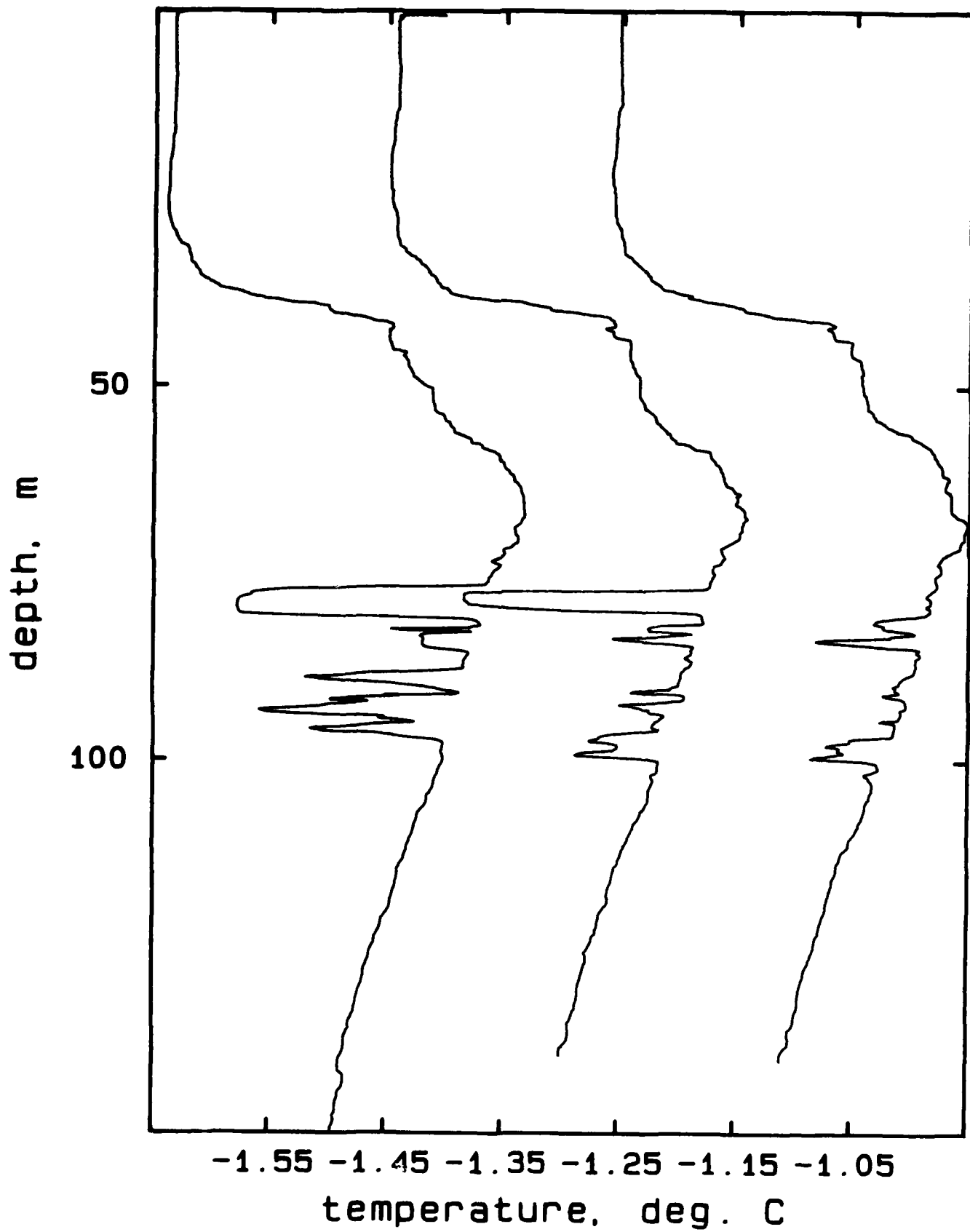
## AR419B, drops 20, 21



## AR419C, drop 1

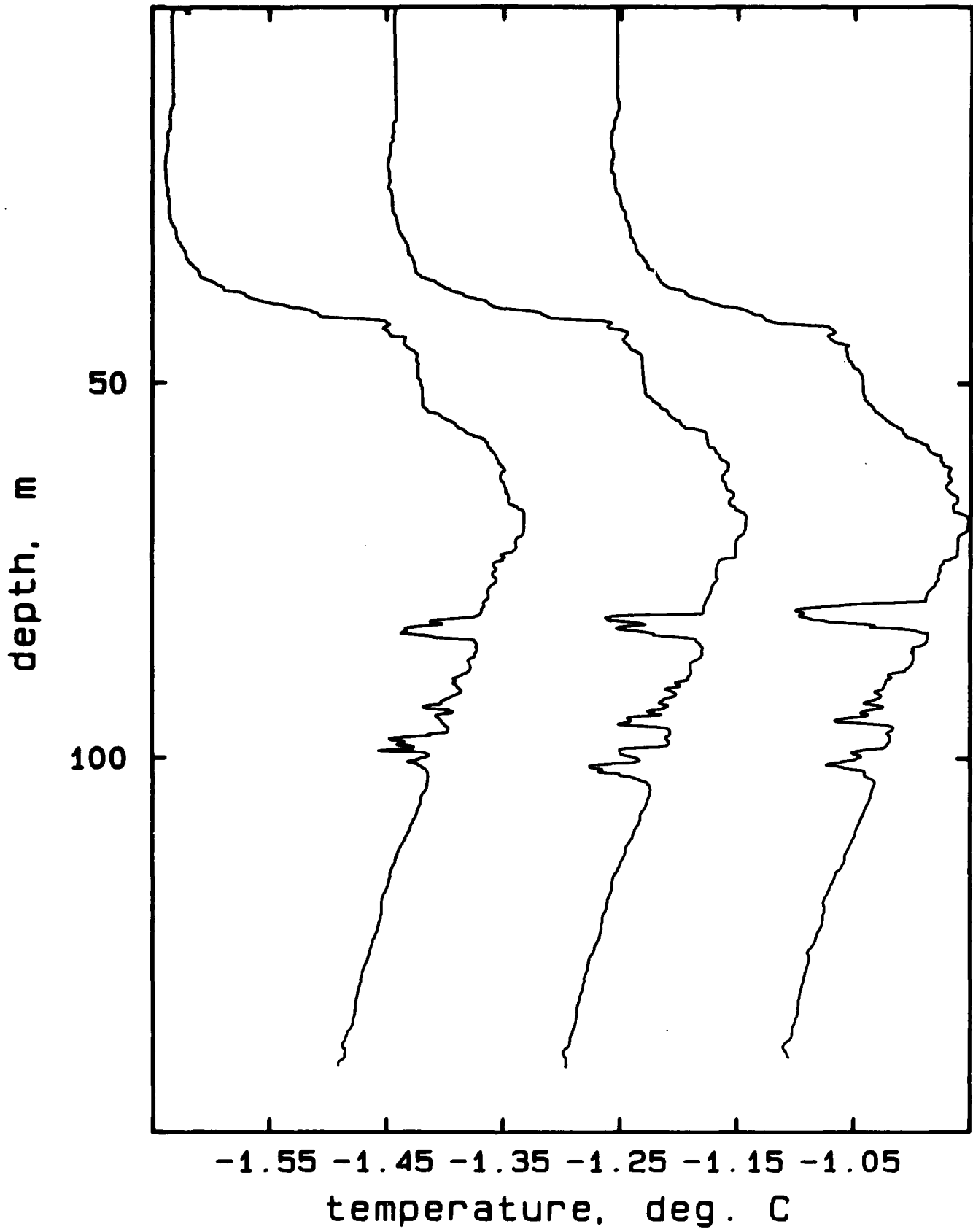


## AR419C, drops 1-3



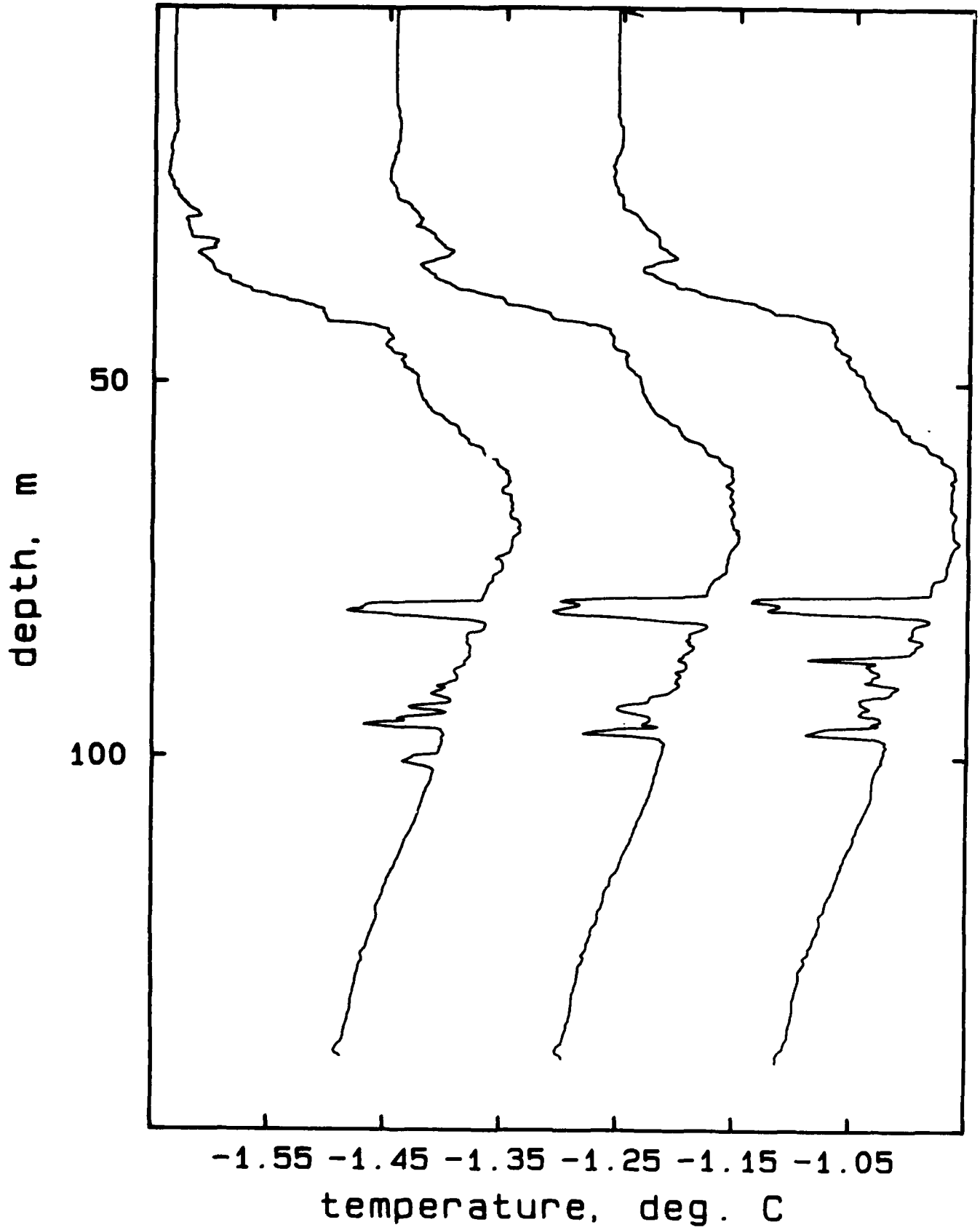


AR419C, drops 4-6

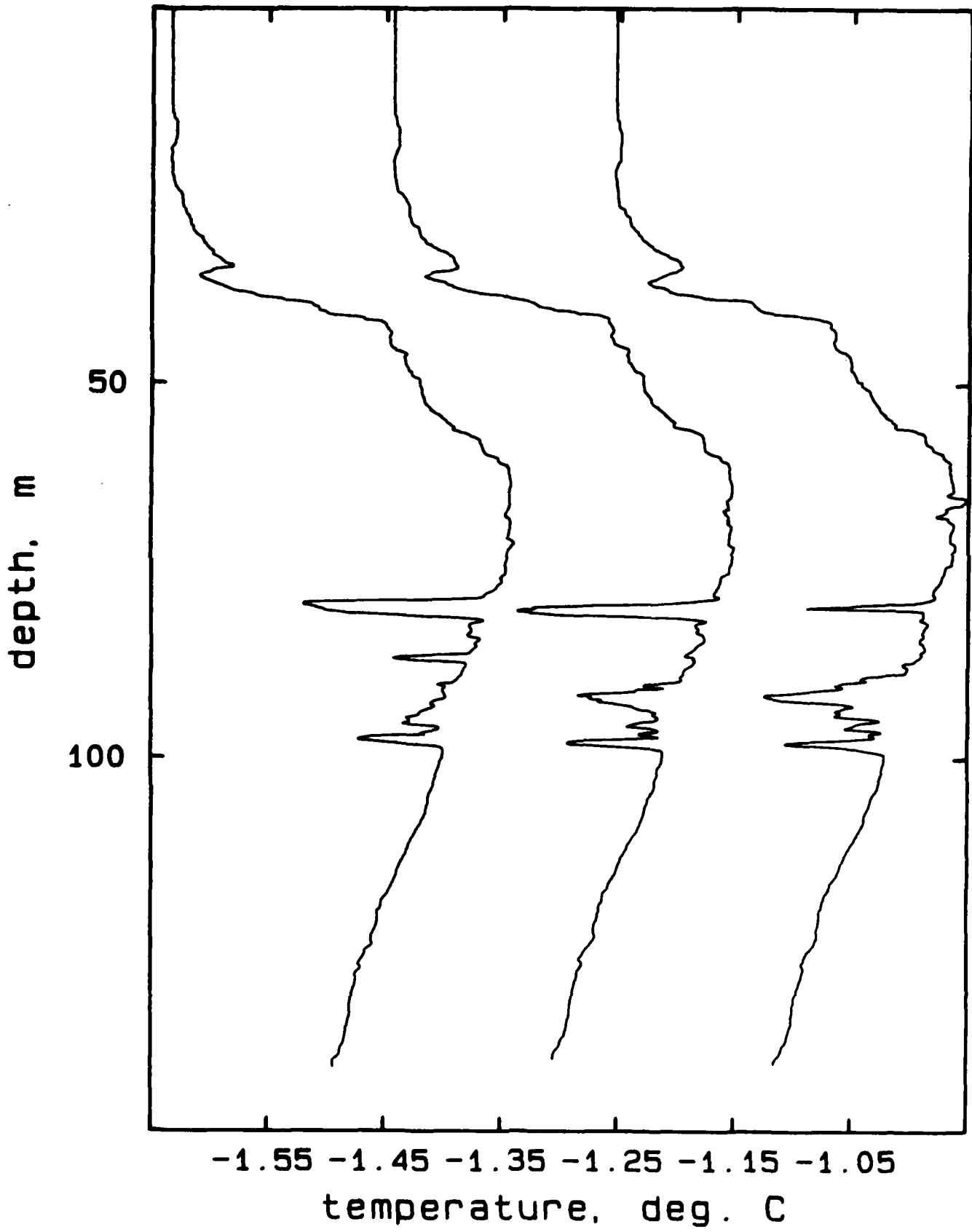


AR419C, drops 4-6

AR419C, drops 7-9

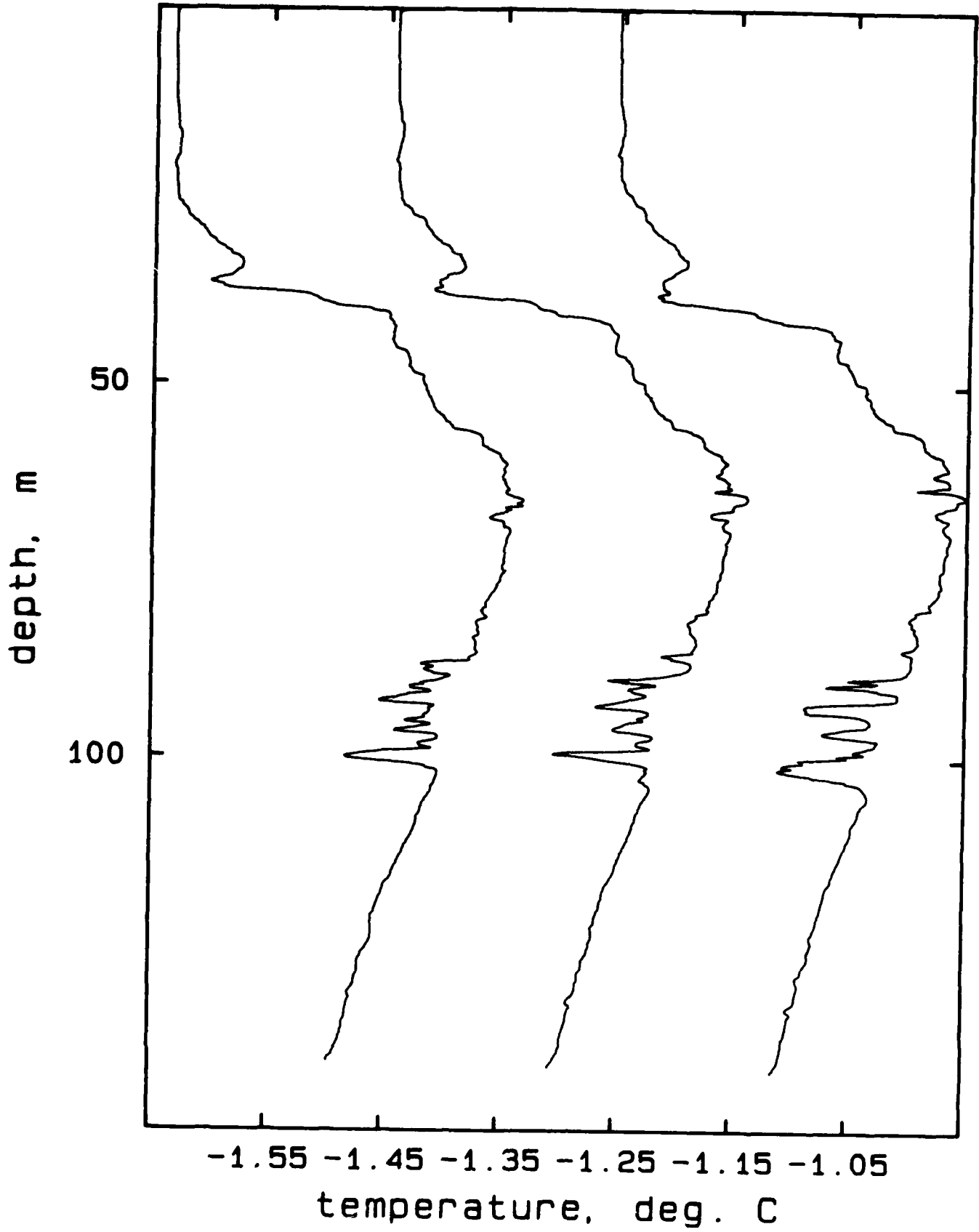


AR419C, drops 10-12

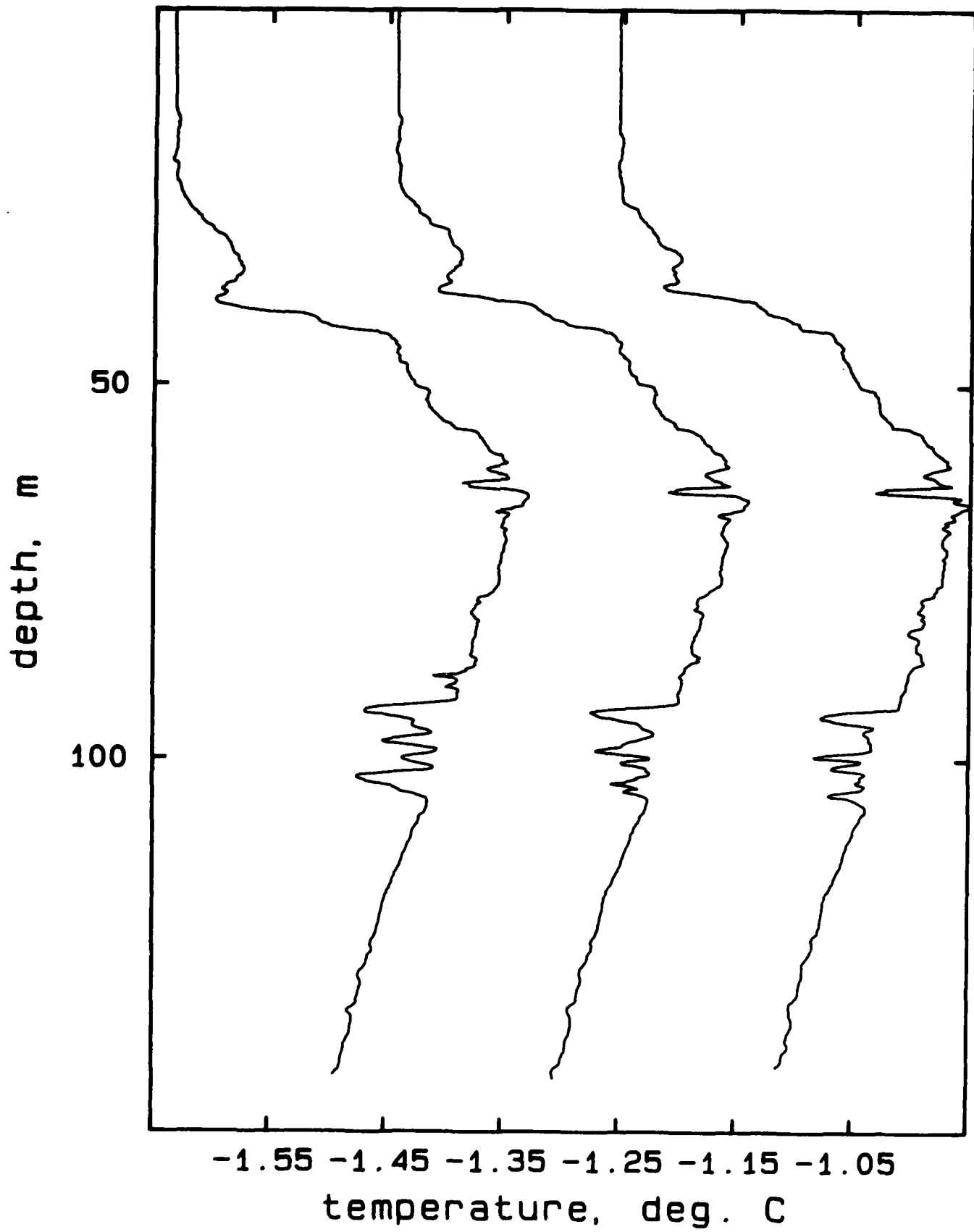


AR 419C, drops 10-12

AR419C, drops 13-15

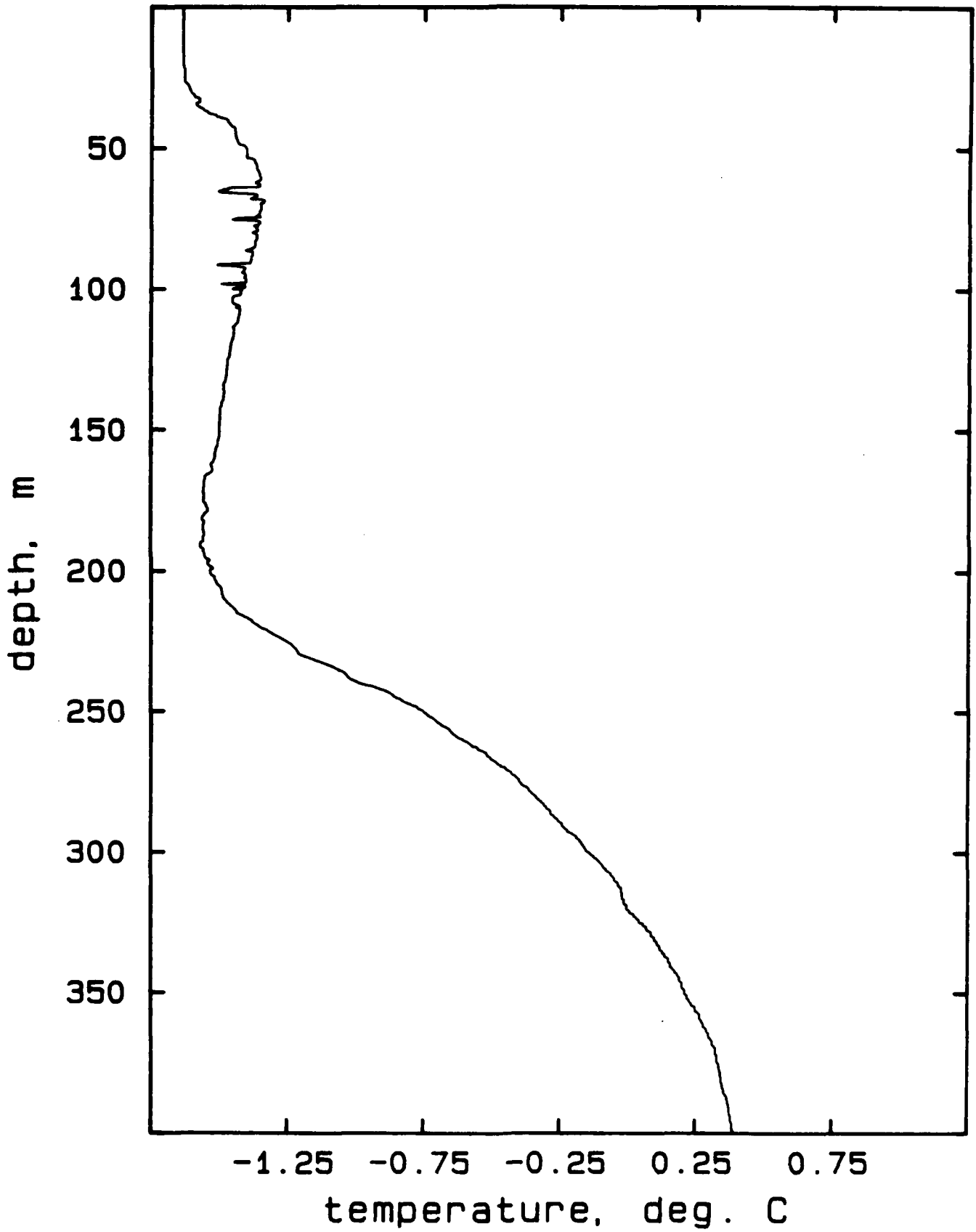


## AR419C, drops 16-18

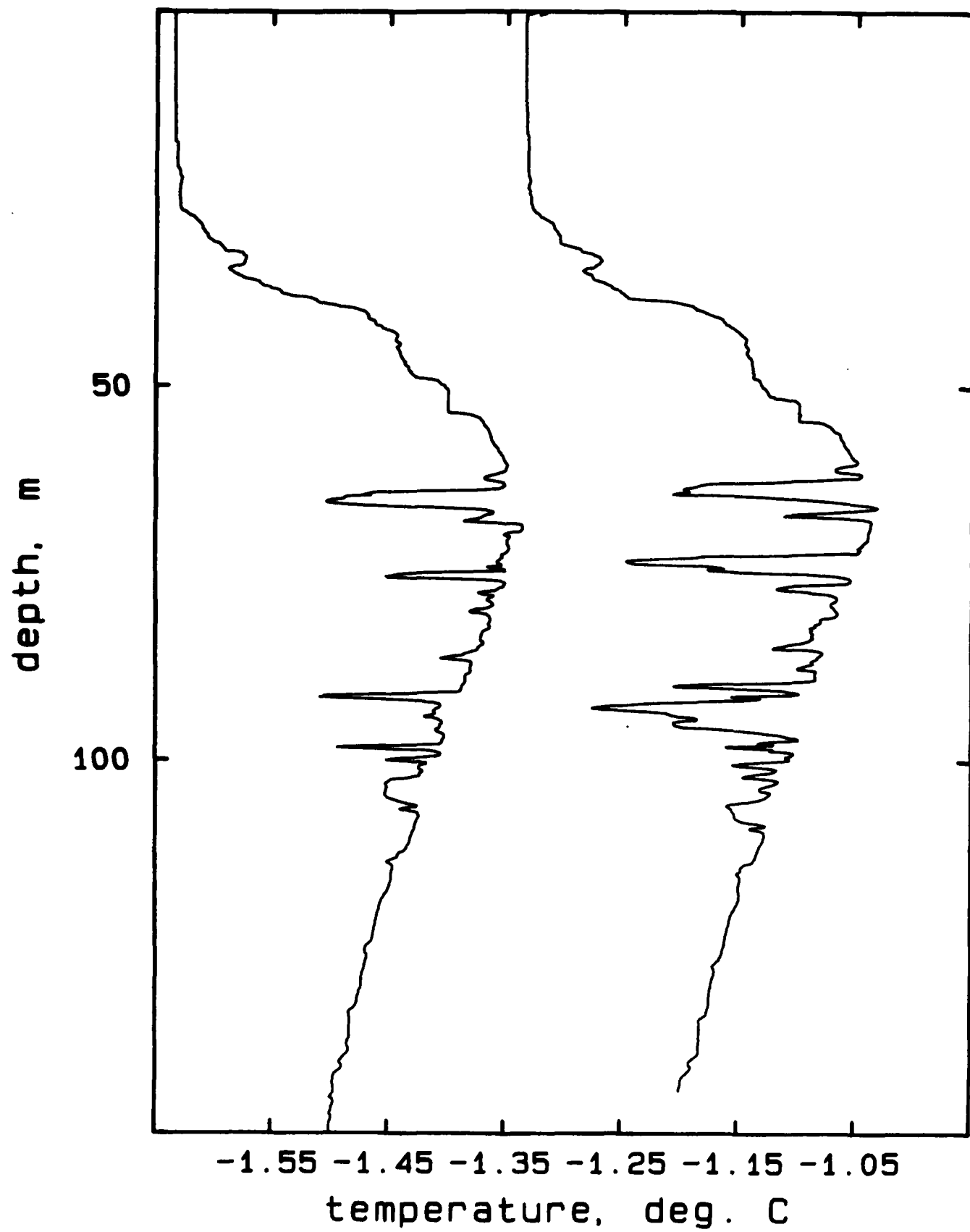


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AR419D, drop 1

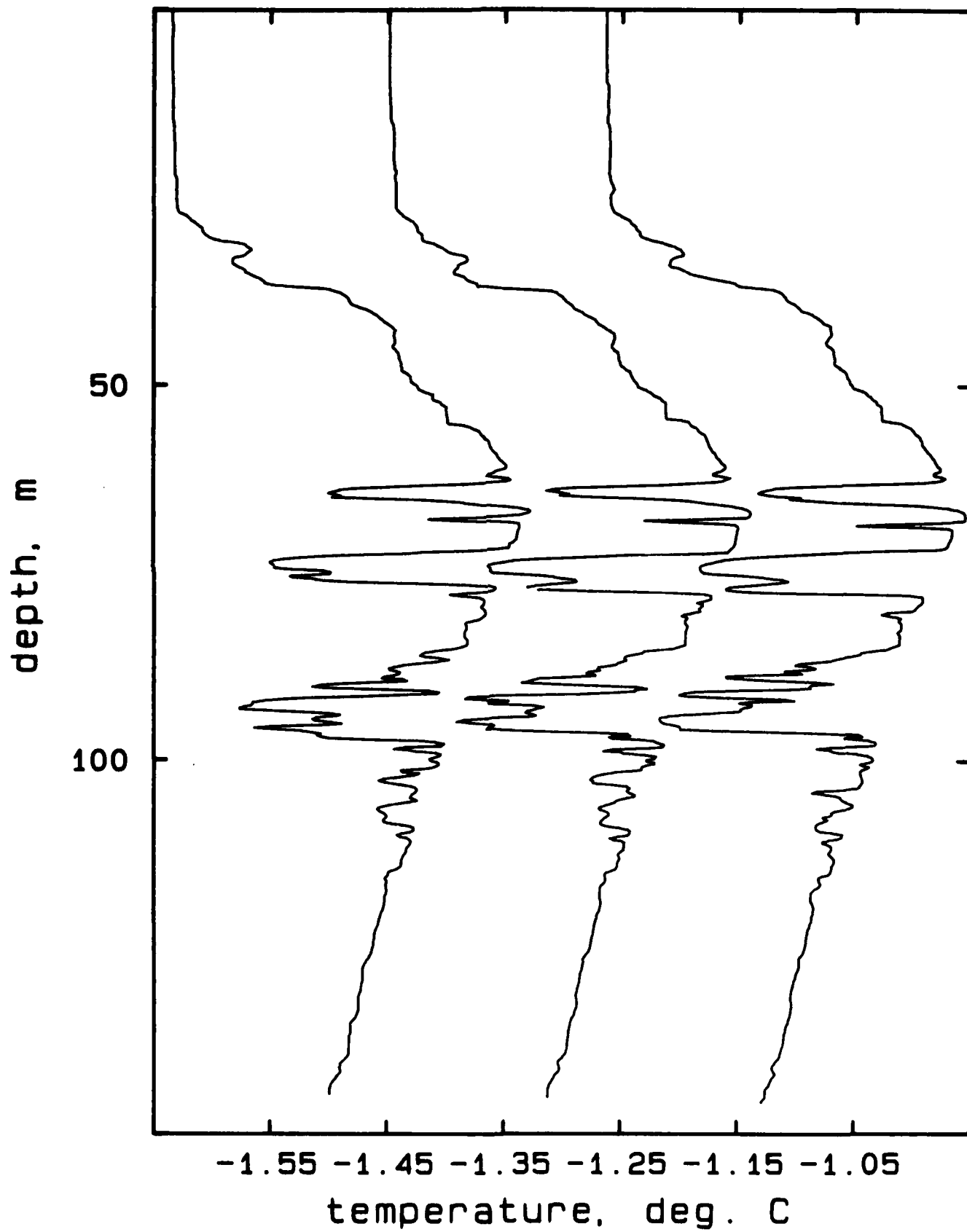


## AR419D, drops 1, 2



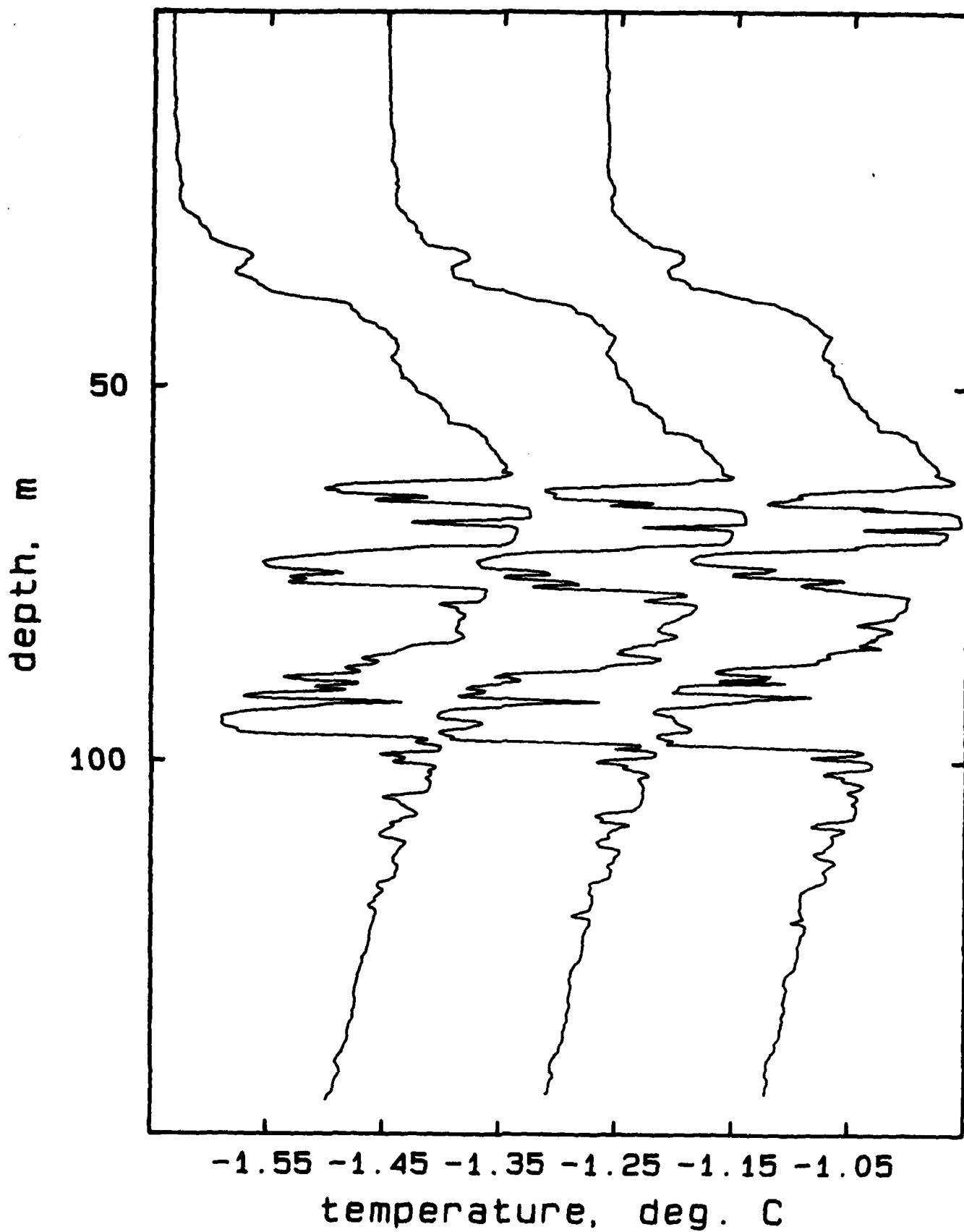
AR419D, drops 1, 2

## AR419D, drops 3-5



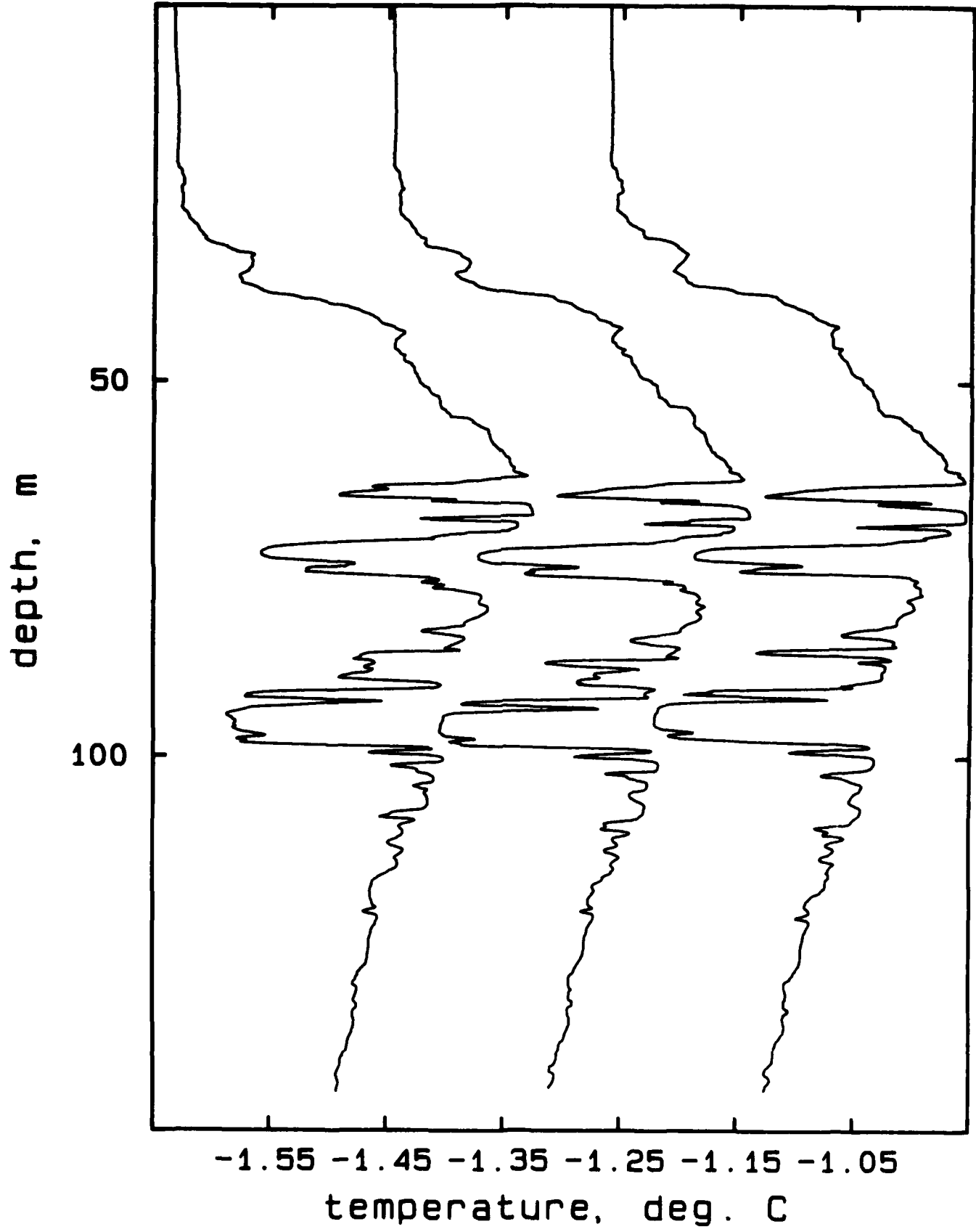


AR419D, drops 6-8

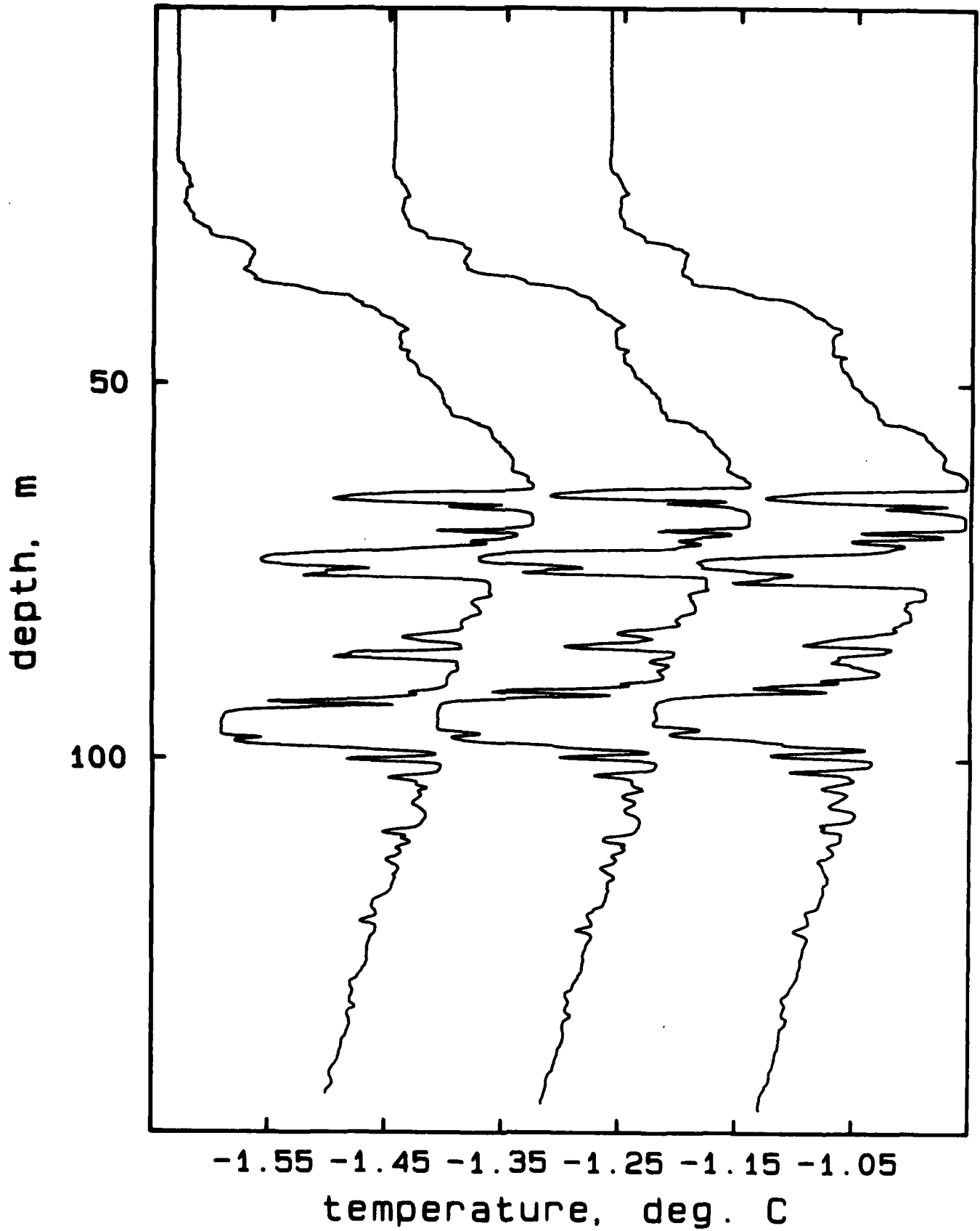


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AR419D, drops 9-11

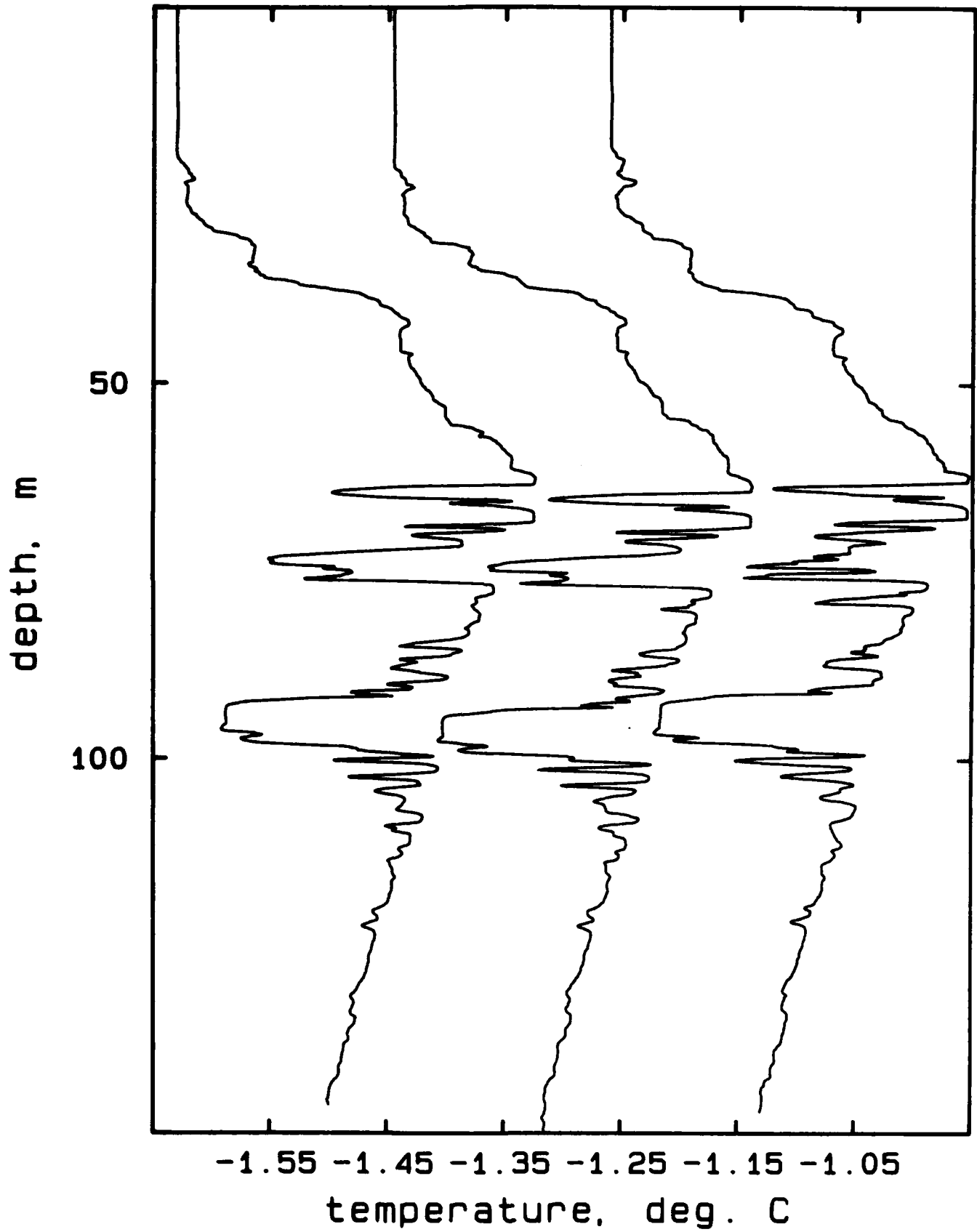


AR419D, drops 12-14



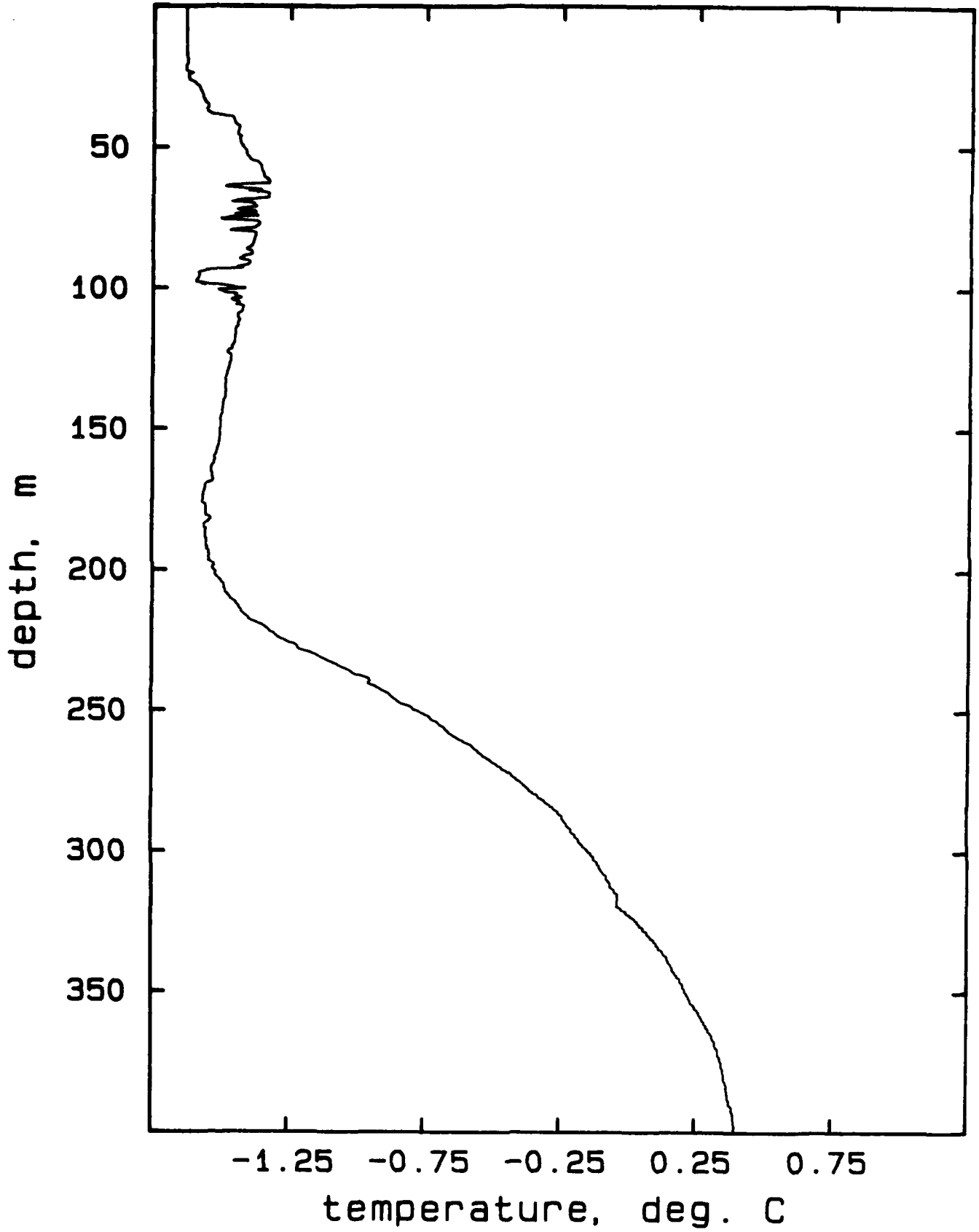
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## AR419D, drops 15-17

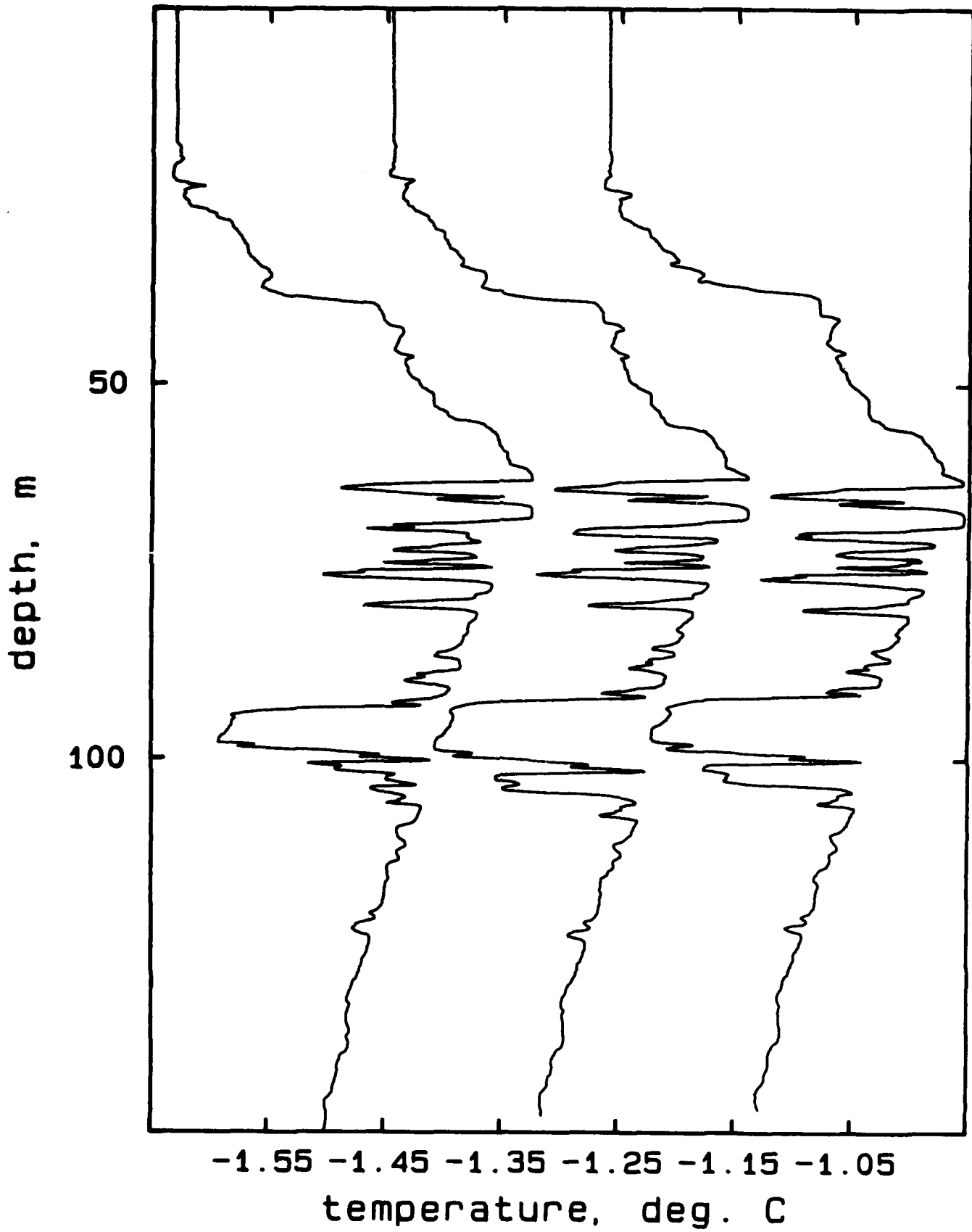




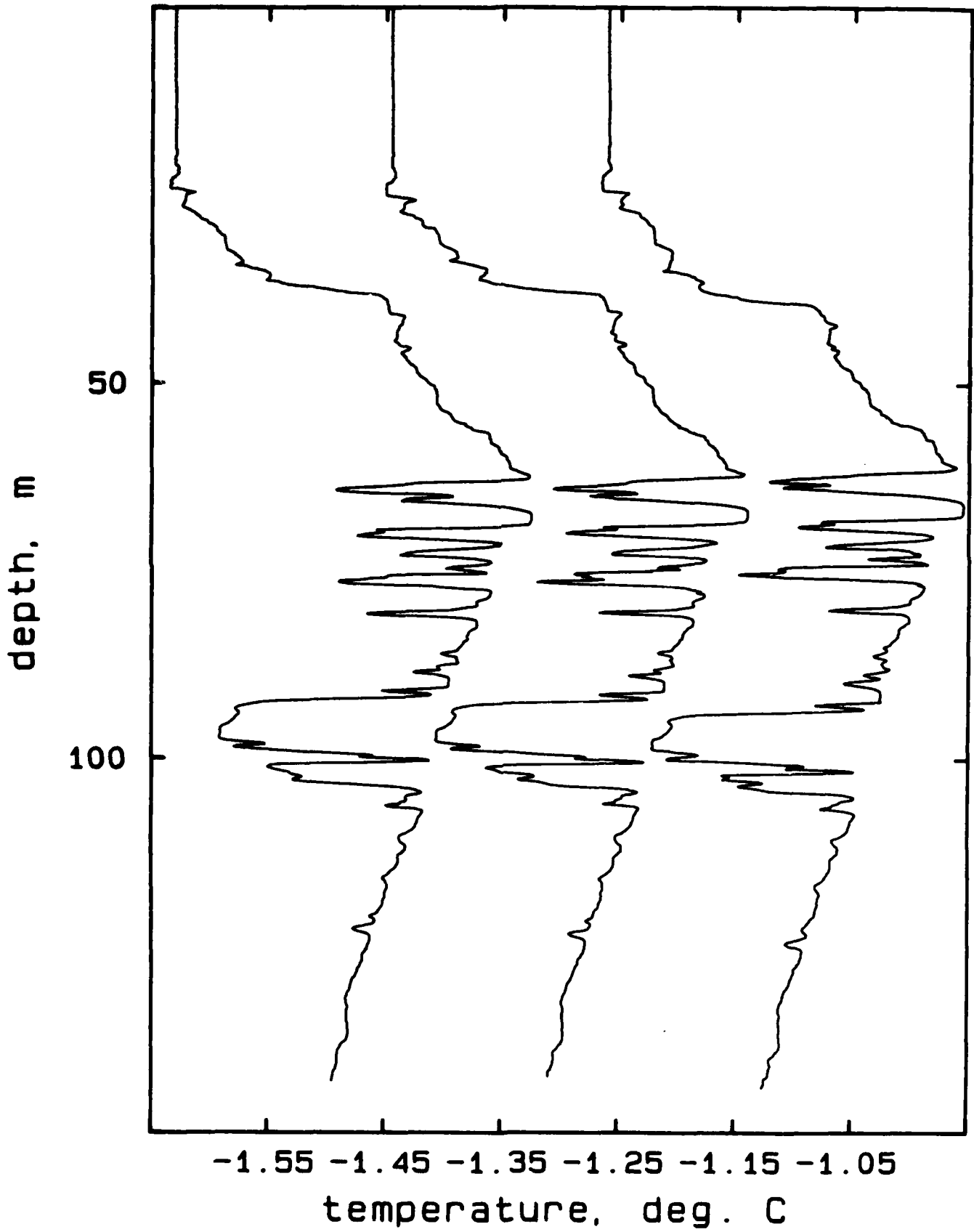
AR419E, drop 1



## AR419E, drops 1-3

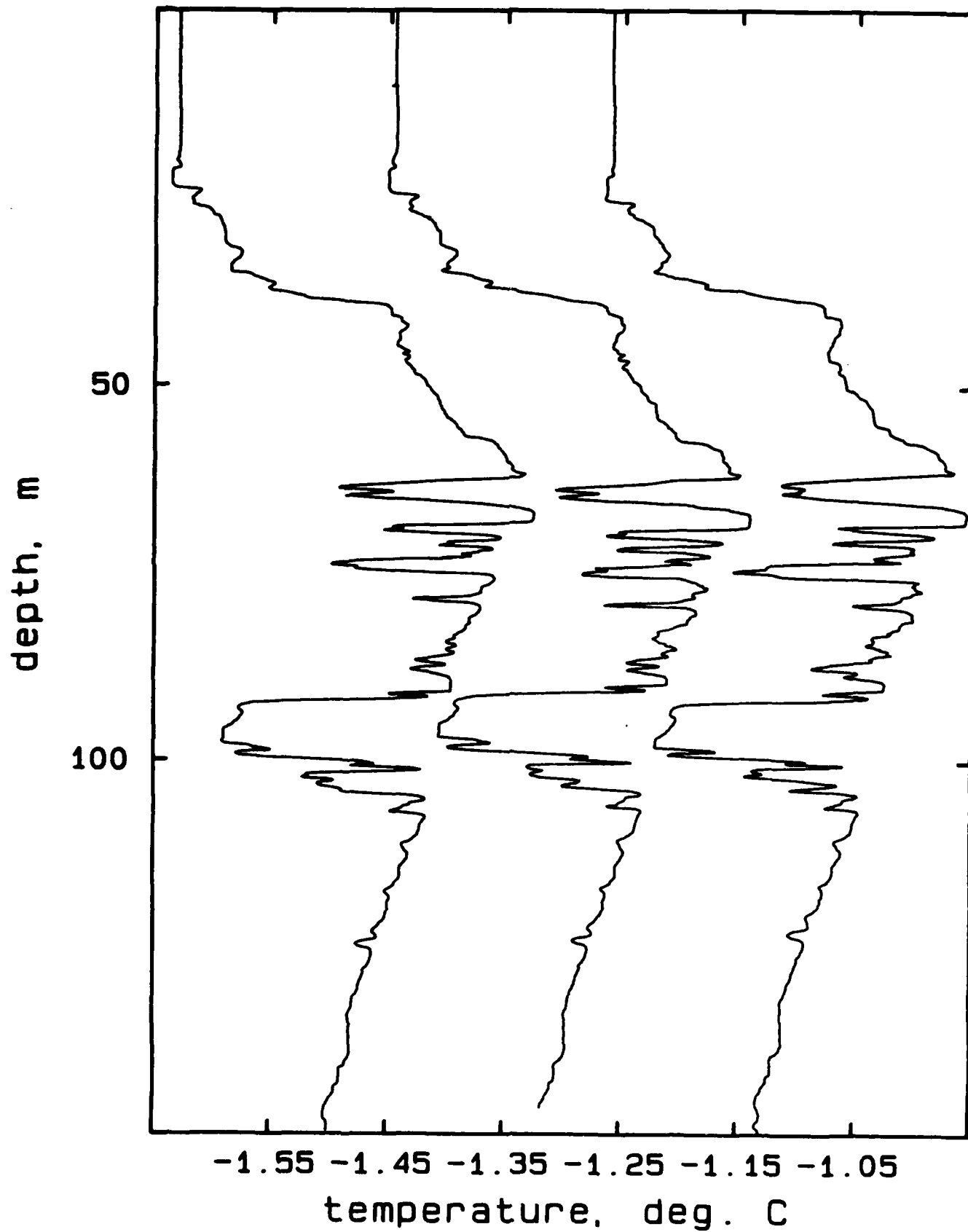


## AR419E, drops 4-6



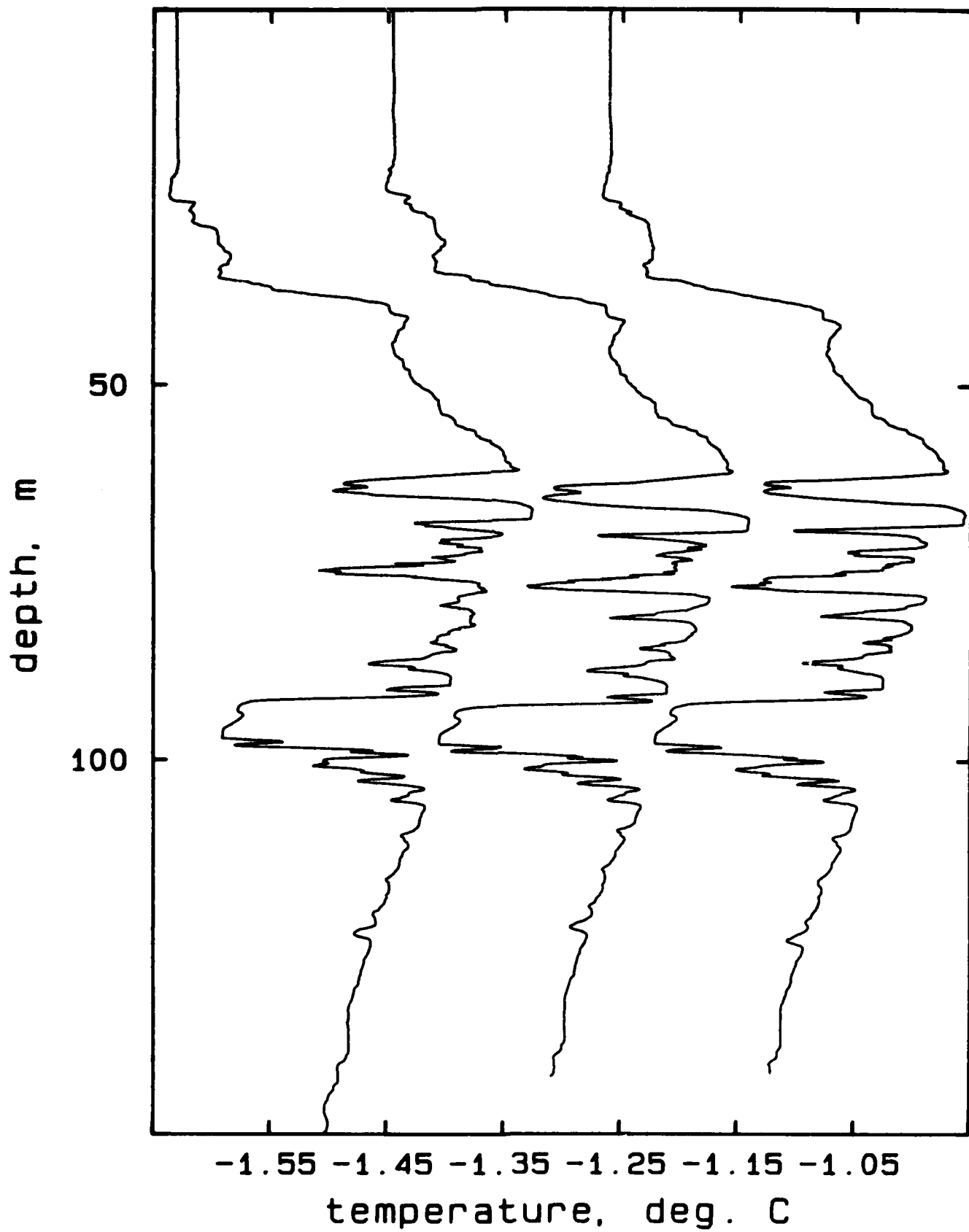


AR419E, drops 7, 8, 10

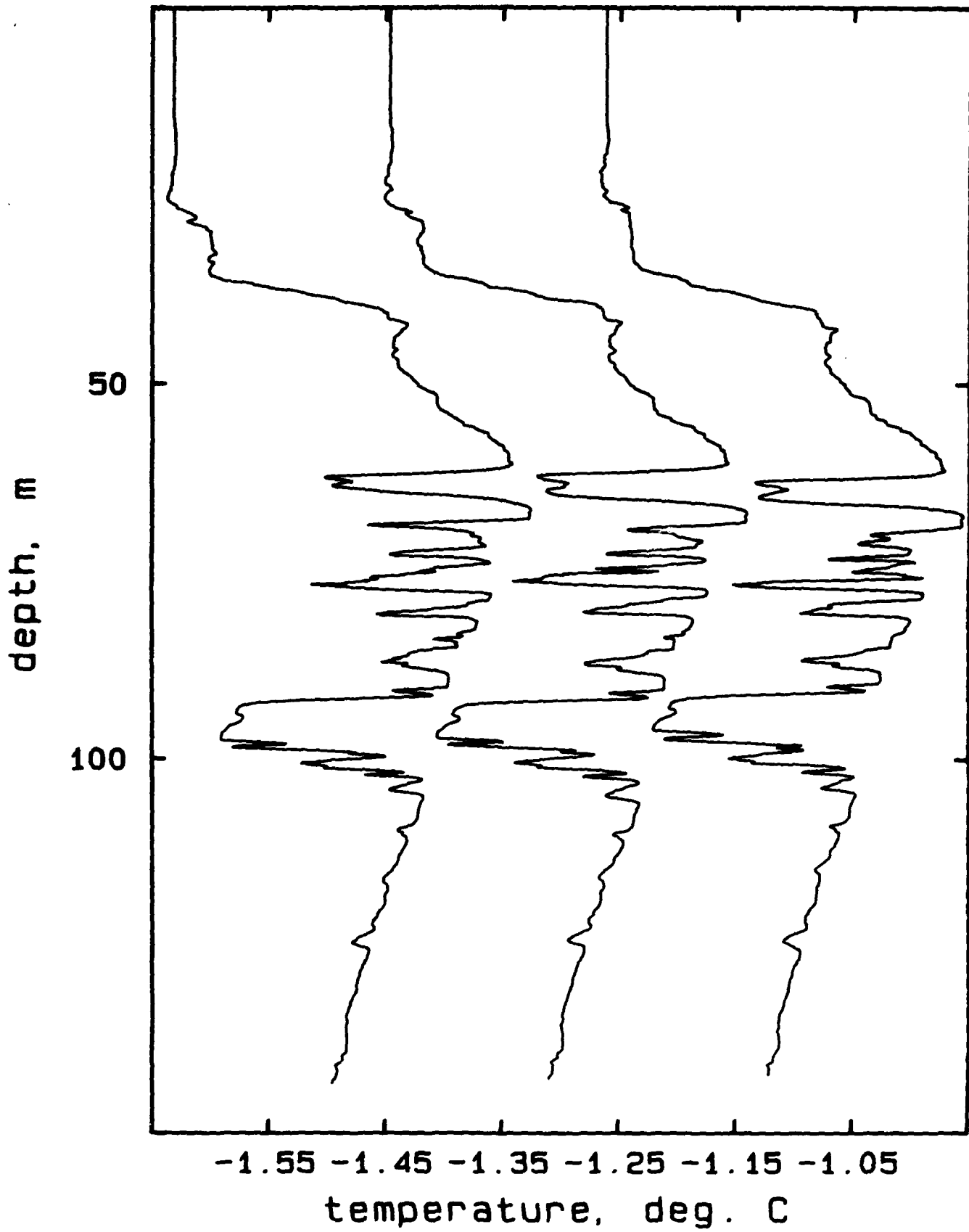


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AR419E, drops 11-13

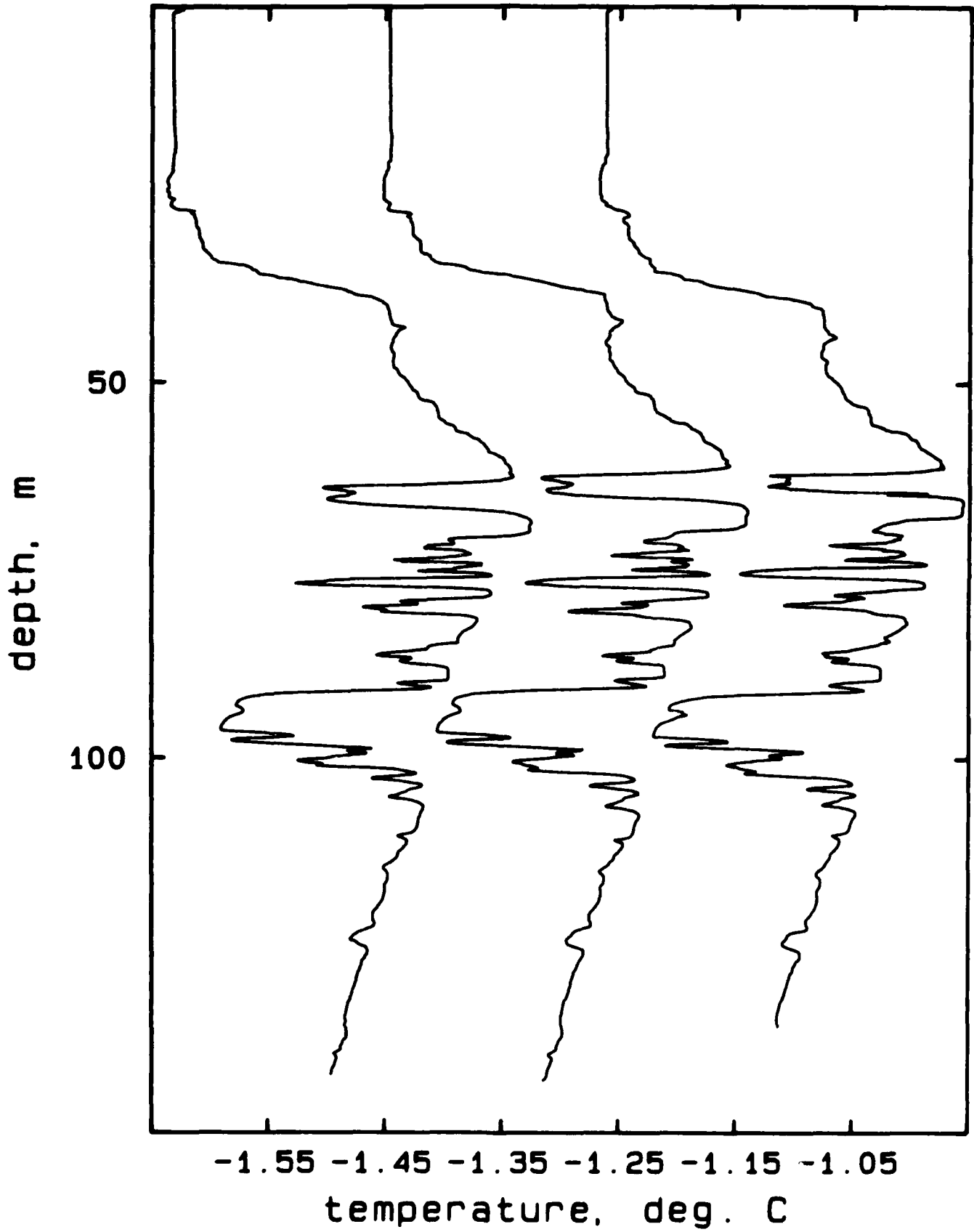


AR419E, drops 14-16

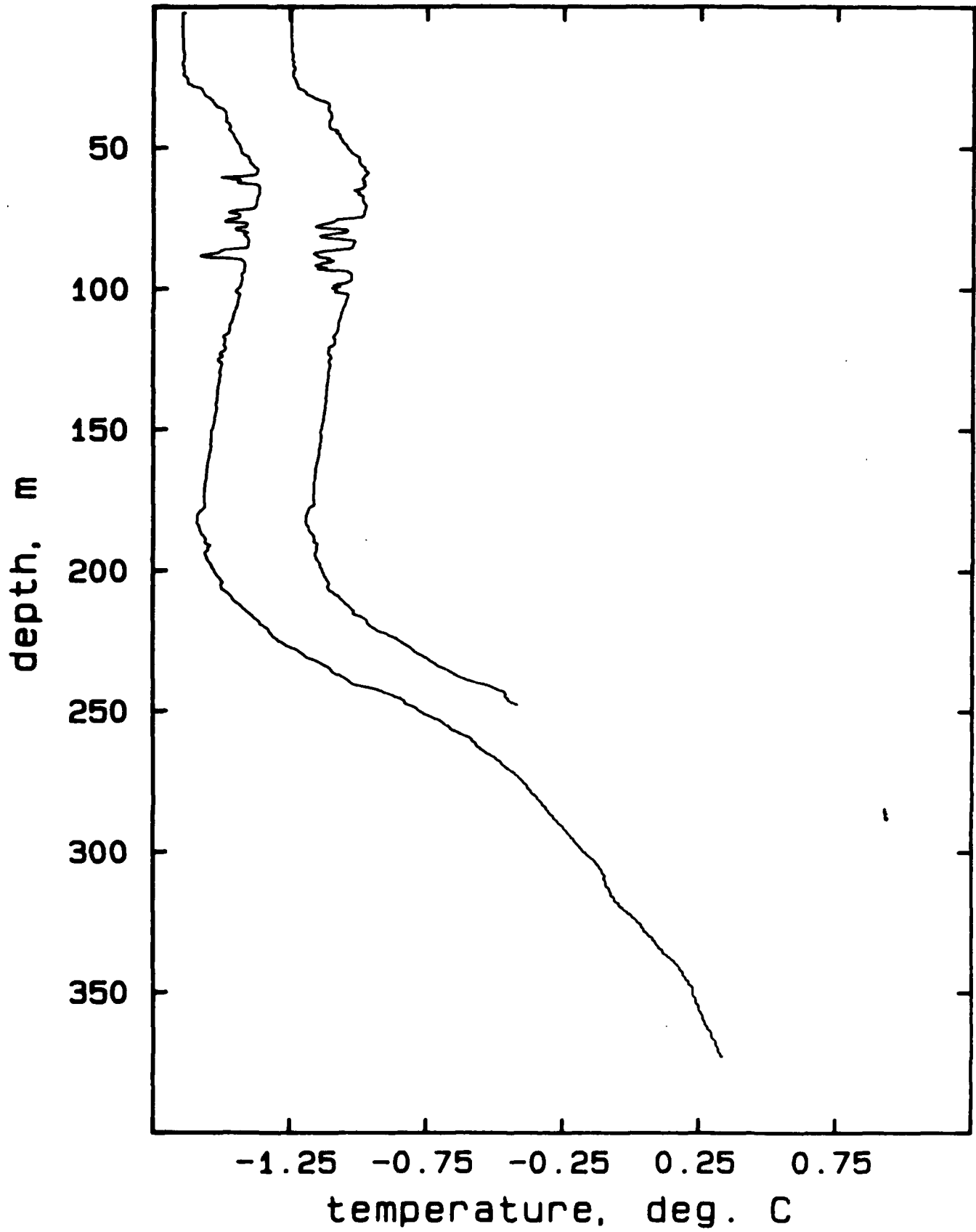


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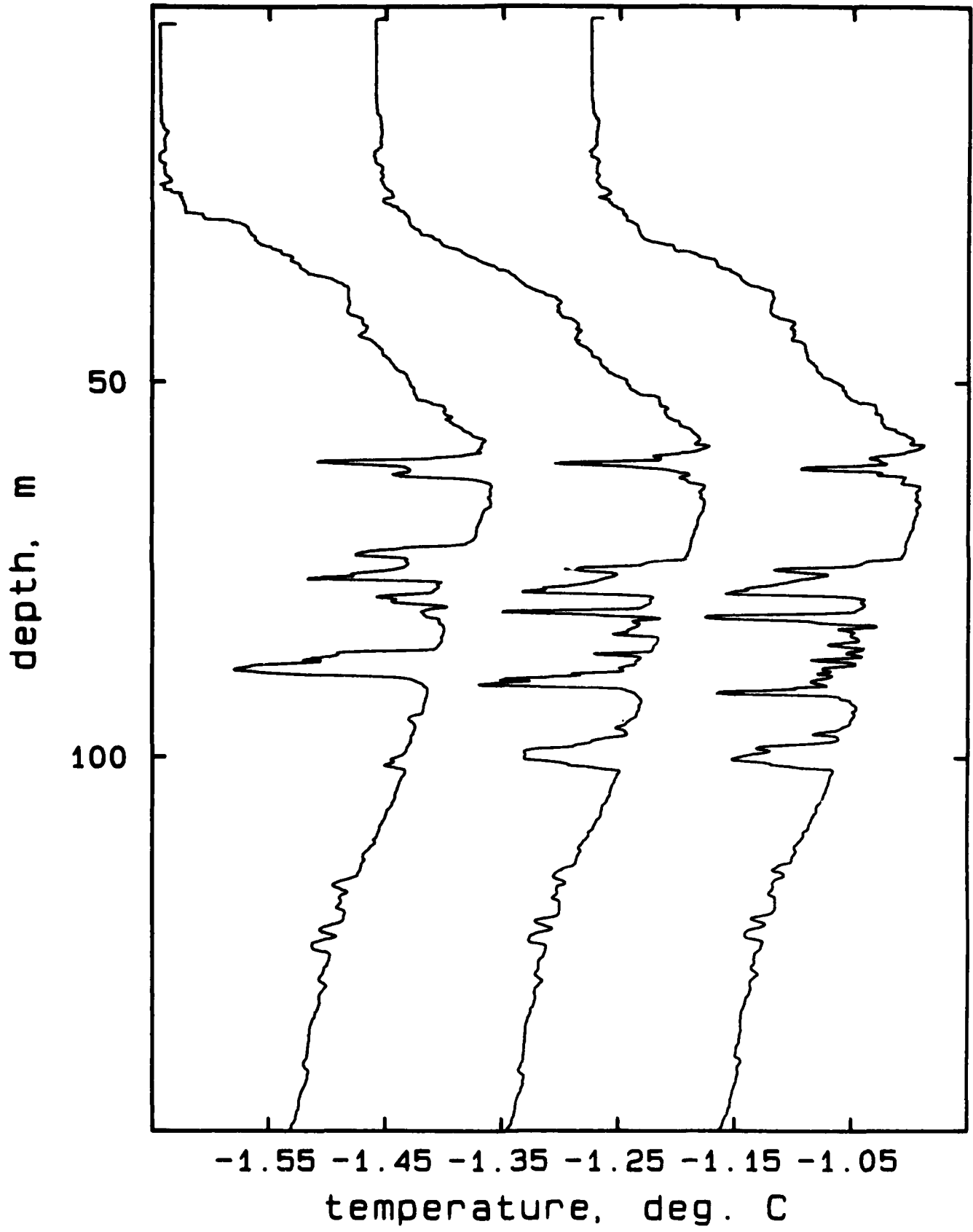
AR419E, drops 17-19



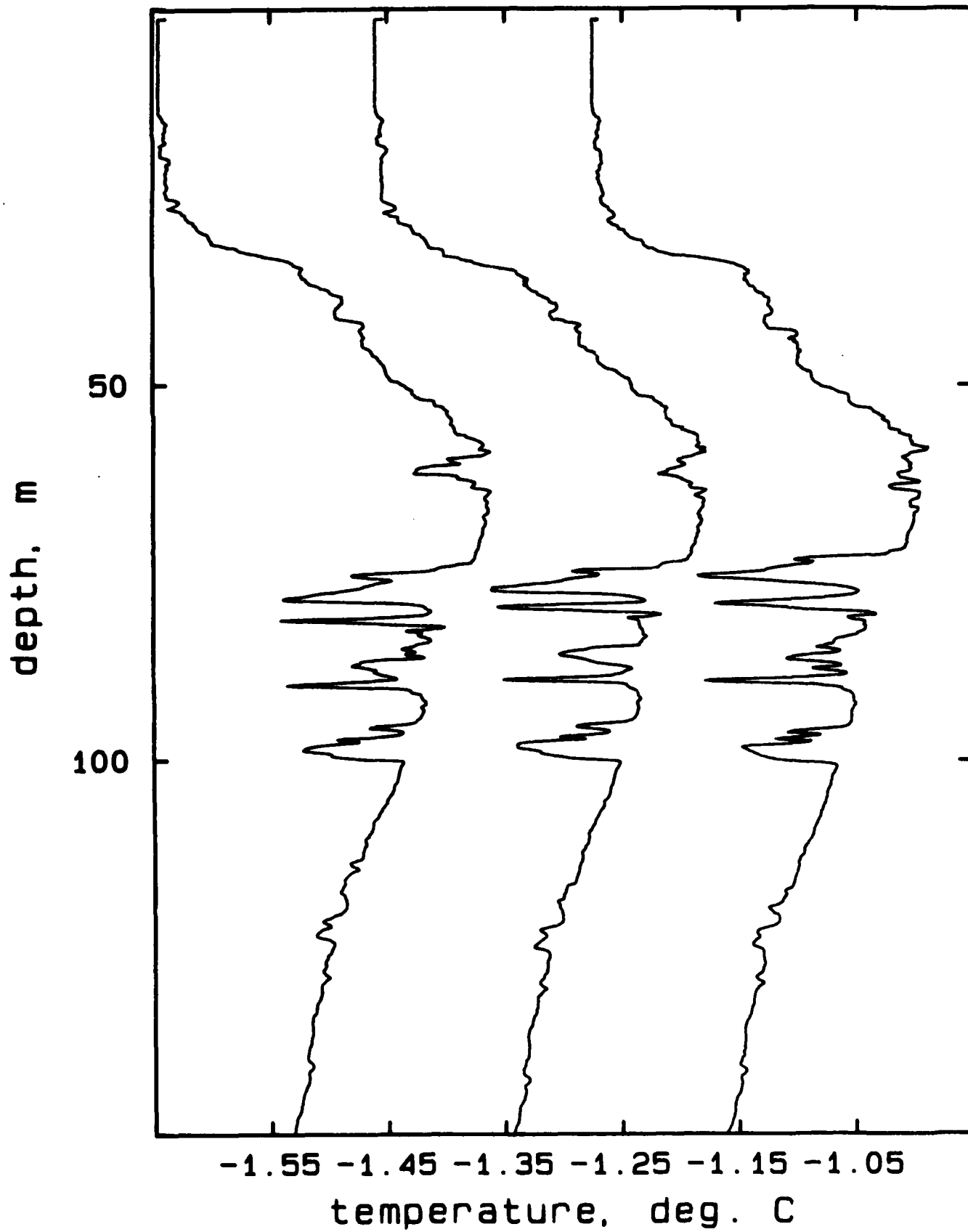
## AR420A, drops 1, 9



AR420A, drops 1-3

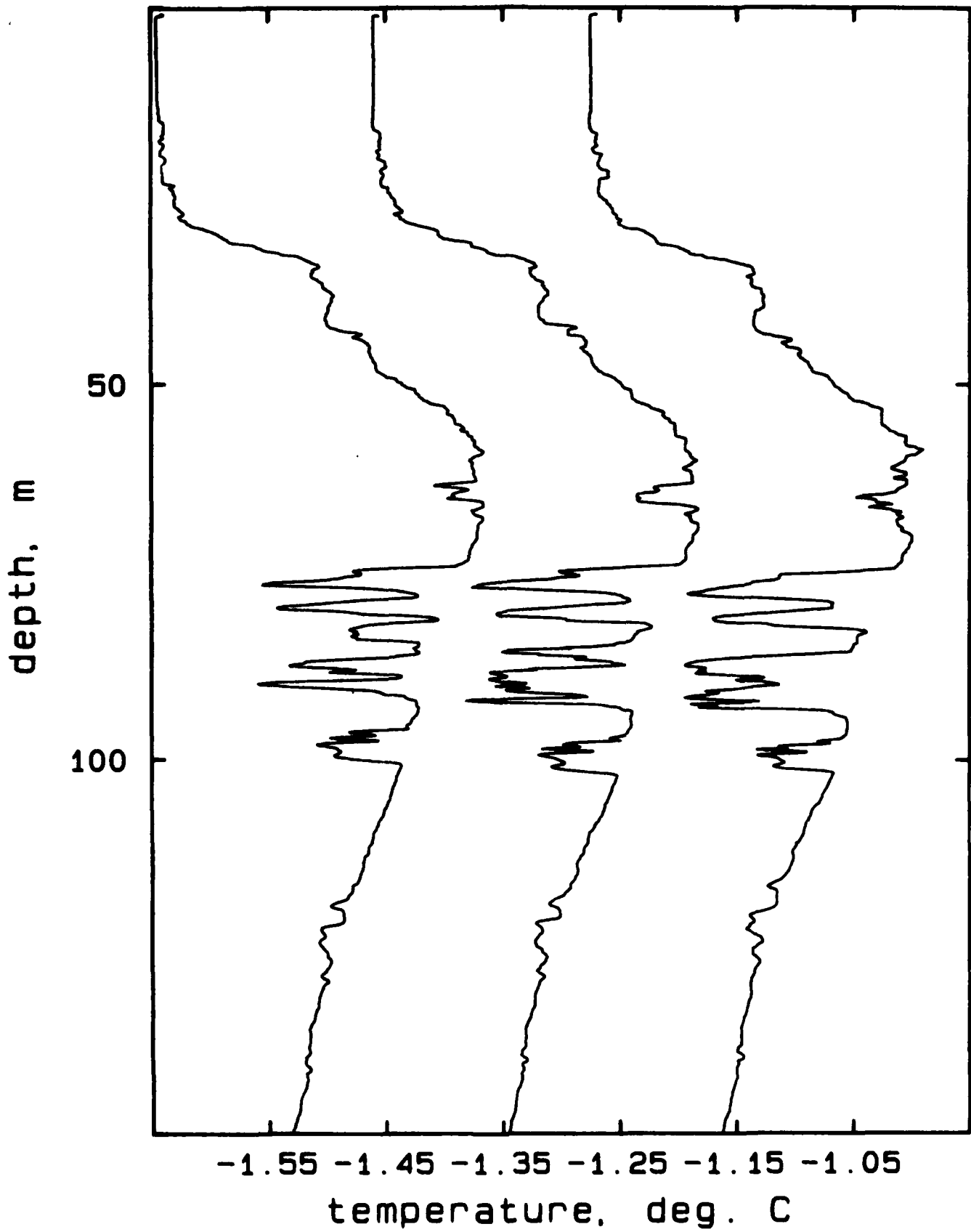


## AR420A, drops 4-6



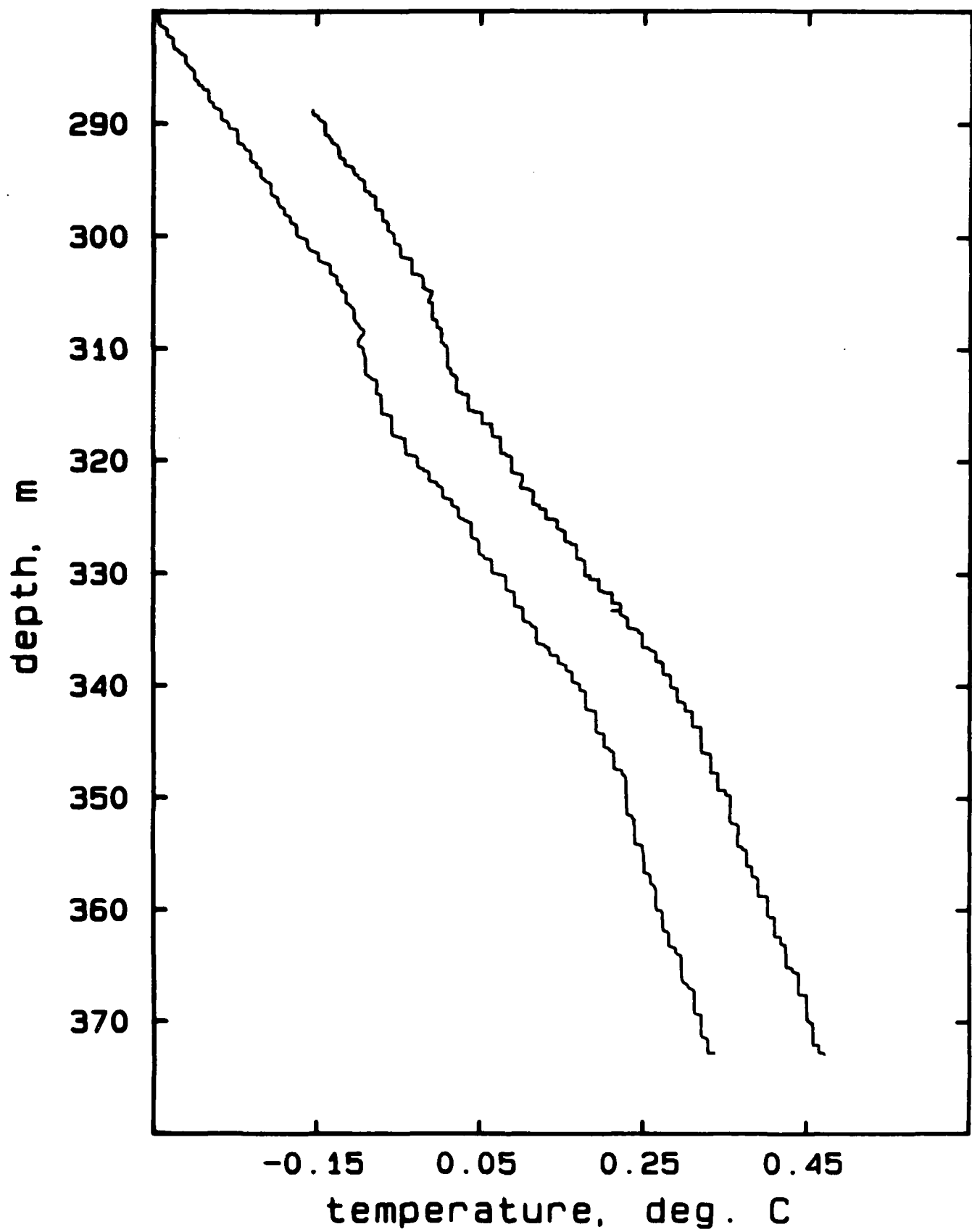
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## AR420A, drops 7-9



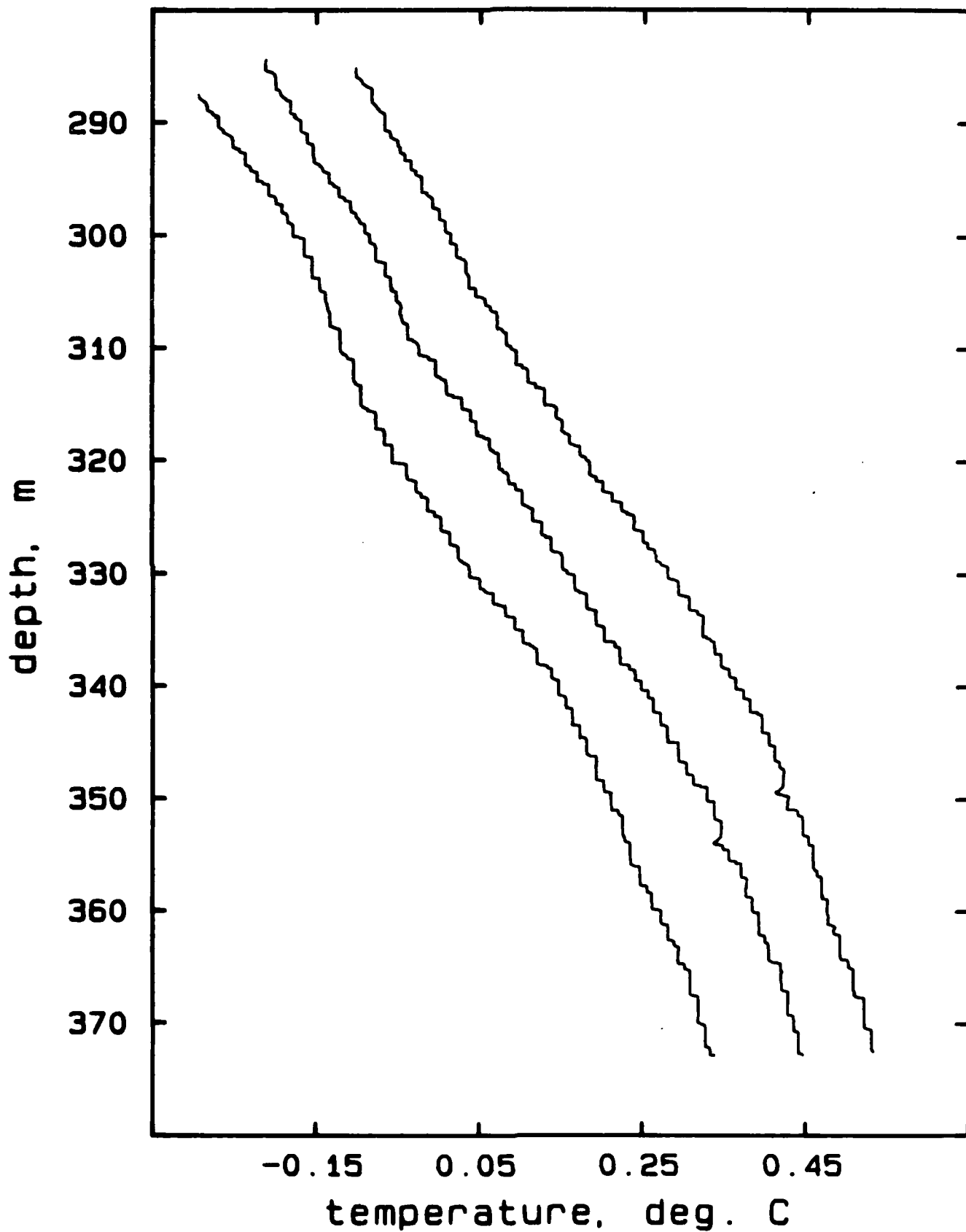


## AR420A, drops 1, 10

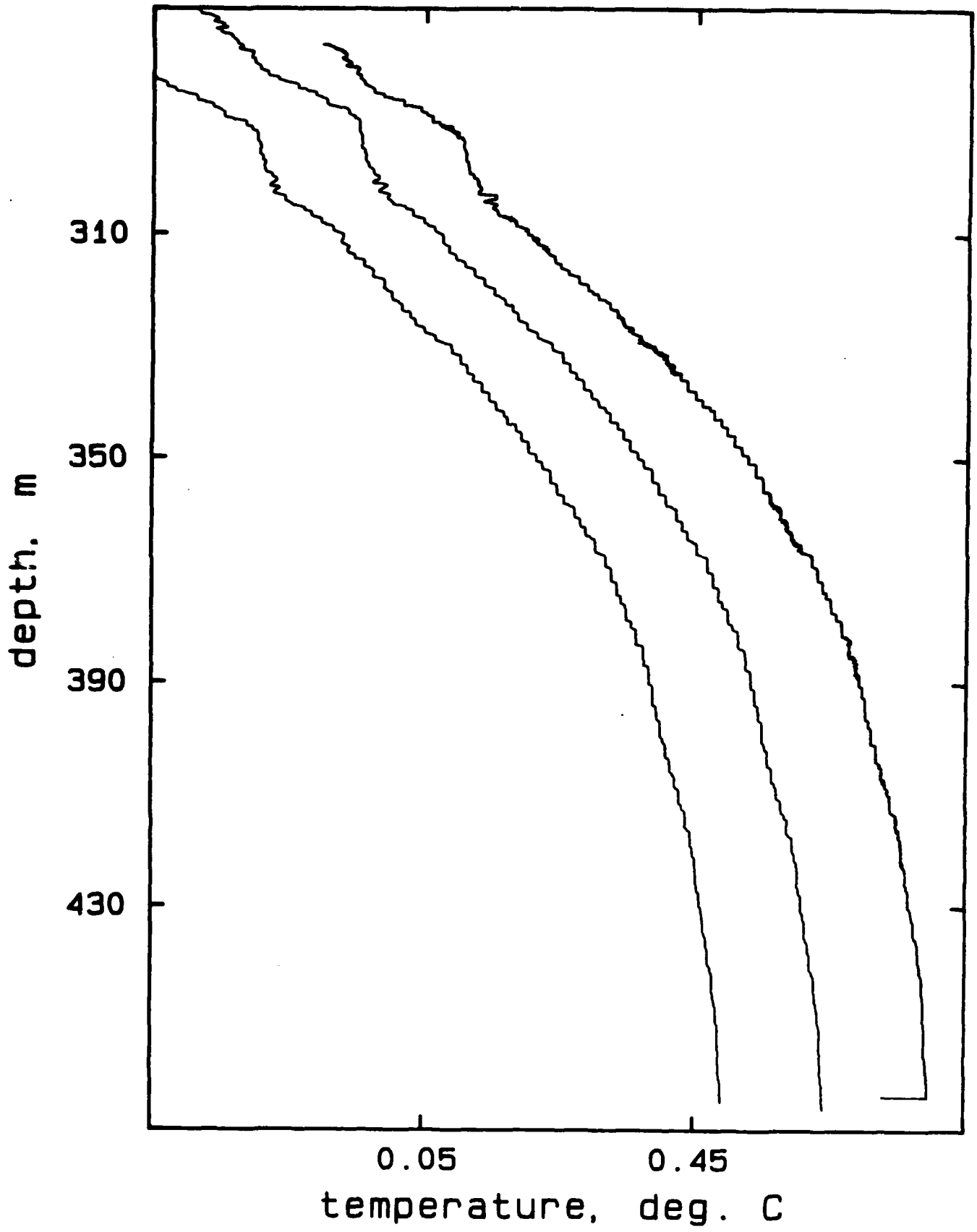


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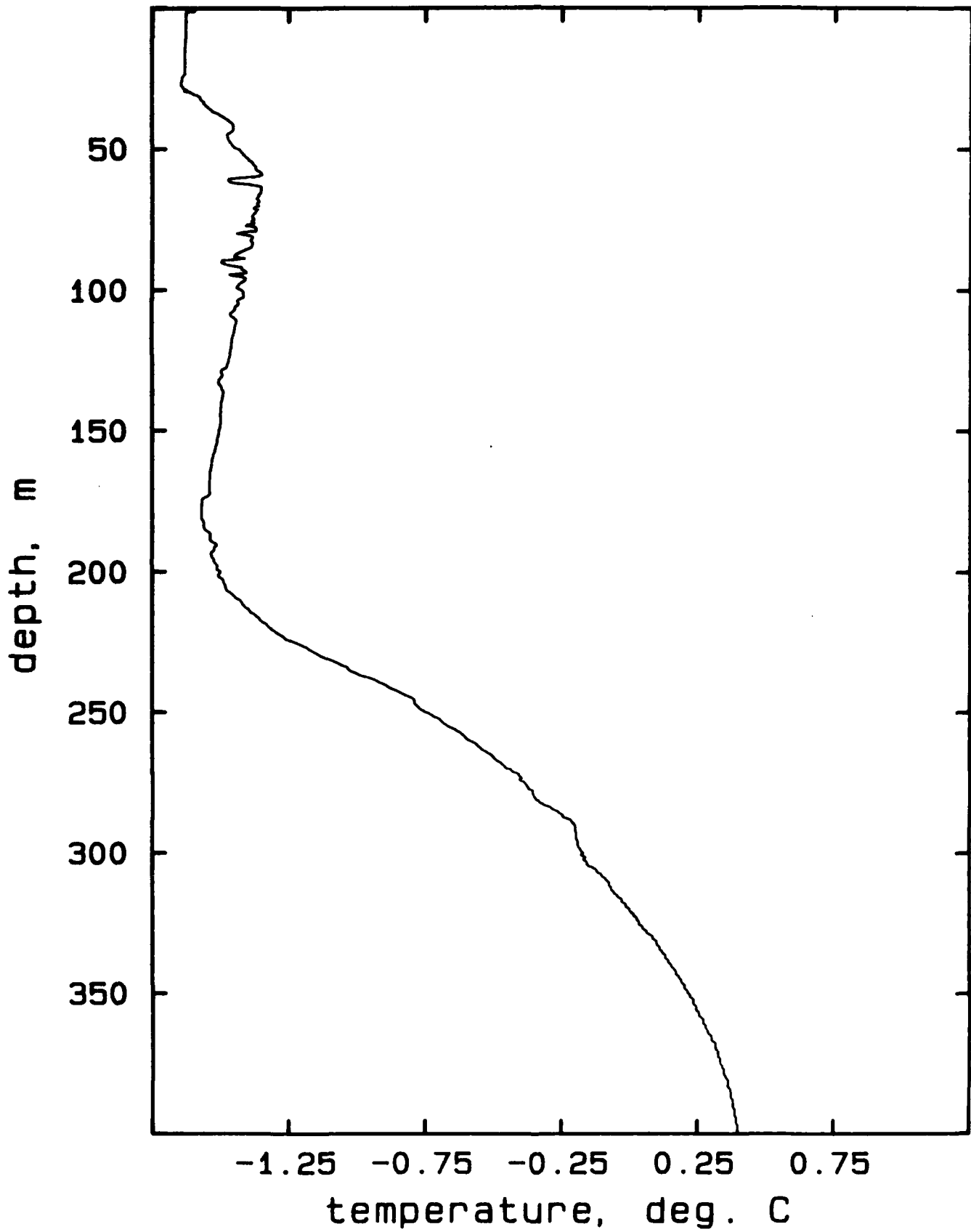
AR420B, drops 1, 2    AR420C, drop 1



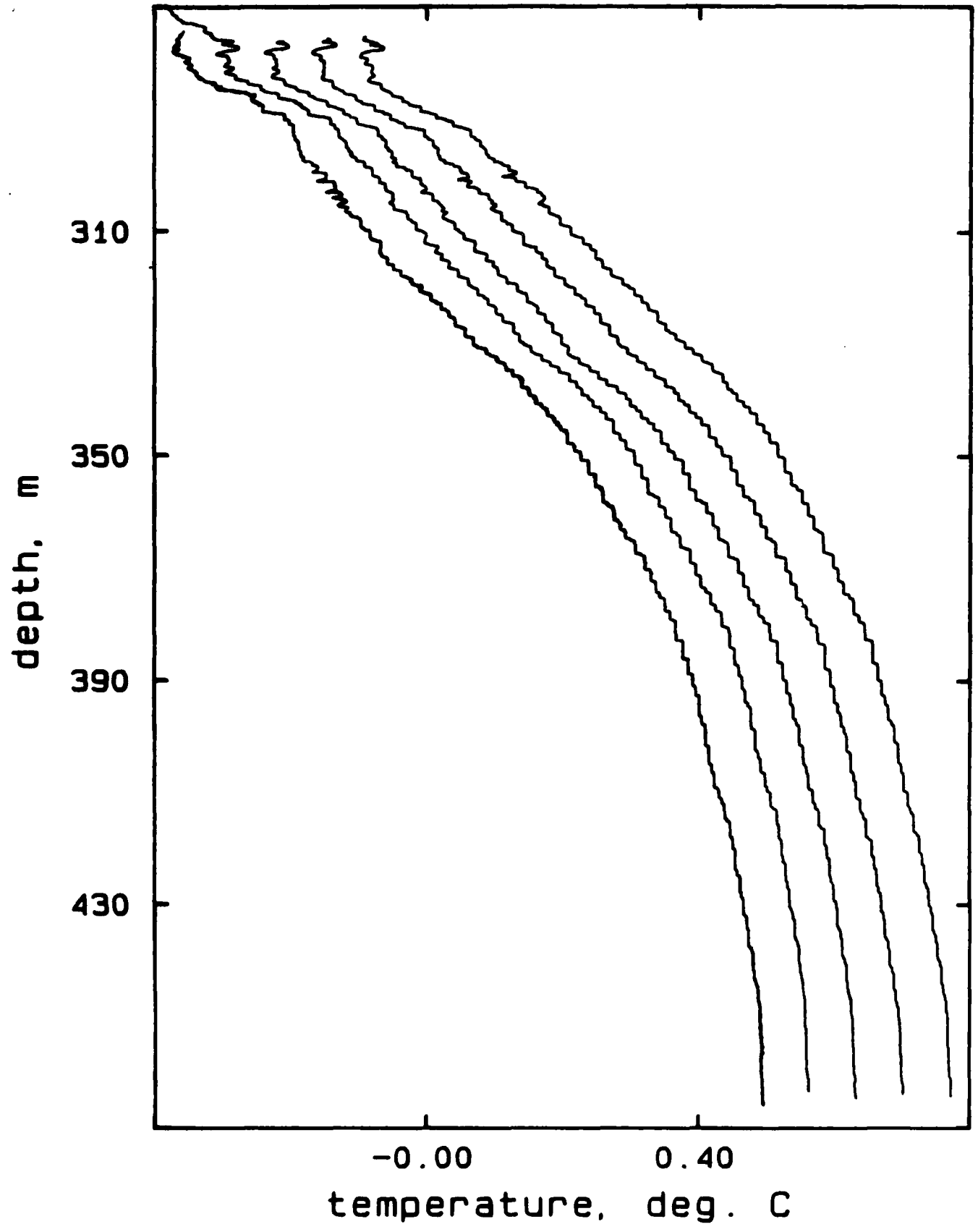
AR421A, drops 2-4



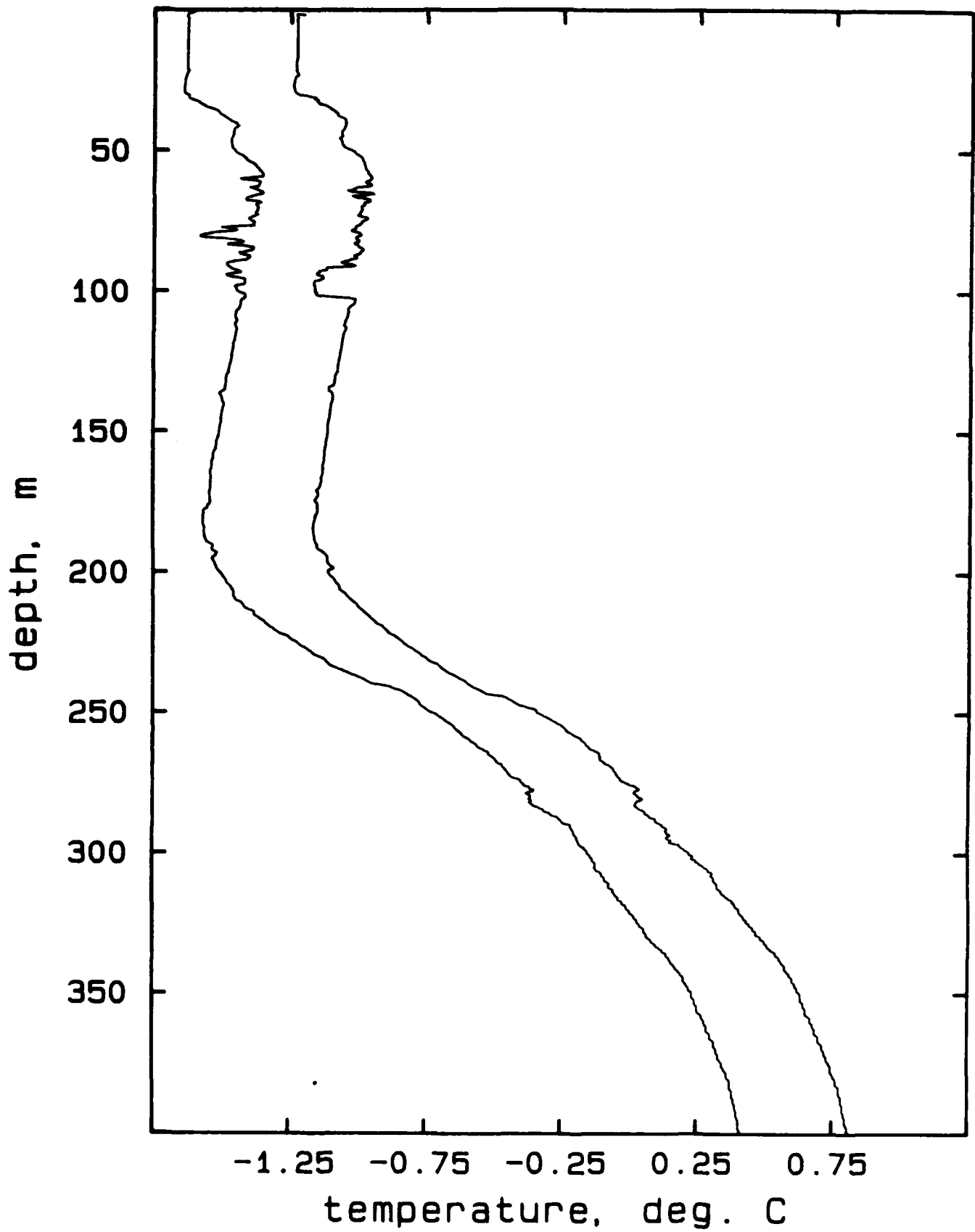
## AR421A, drop 3



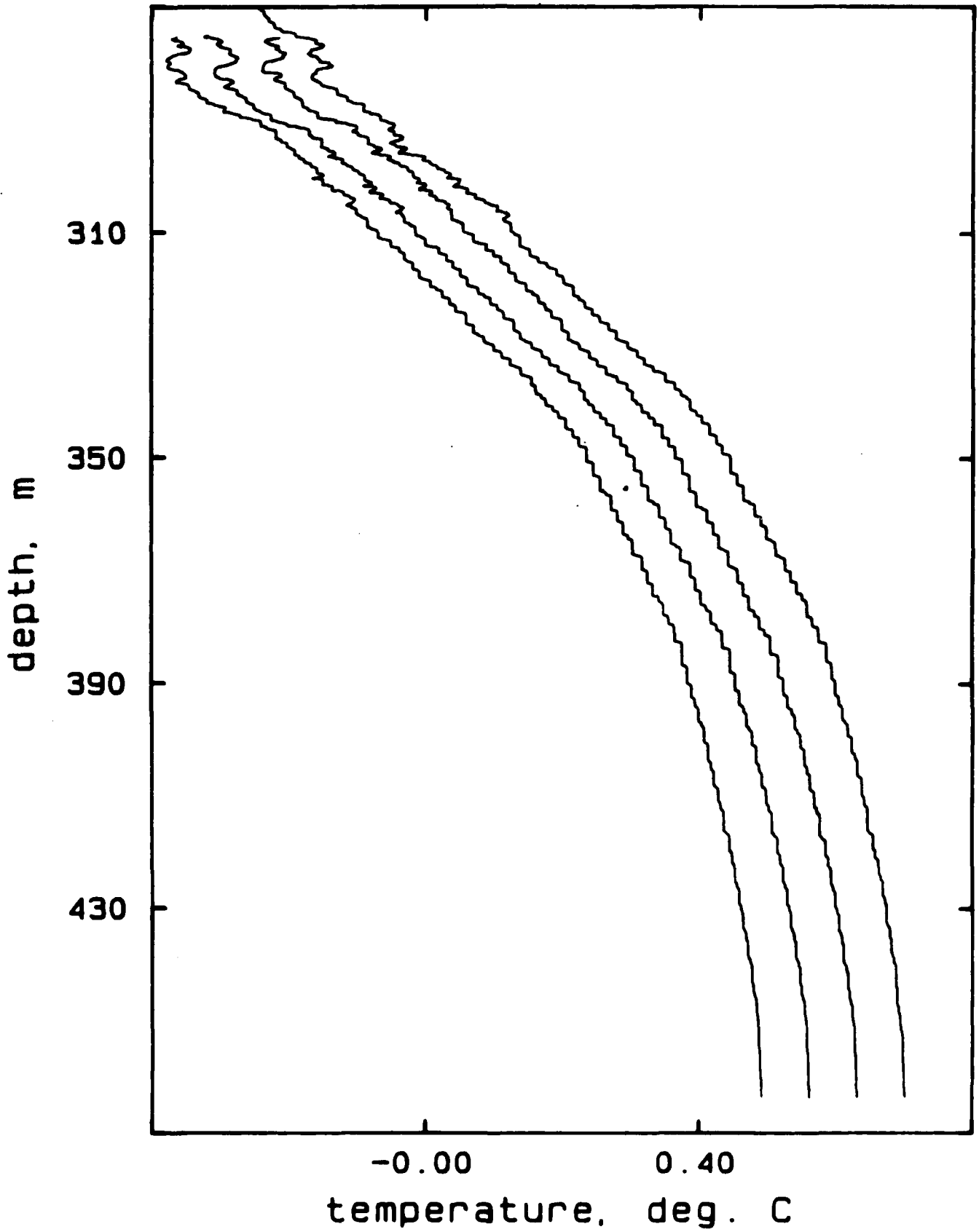
AR421B, drops 1-5



## AR421B, drops 2, 9

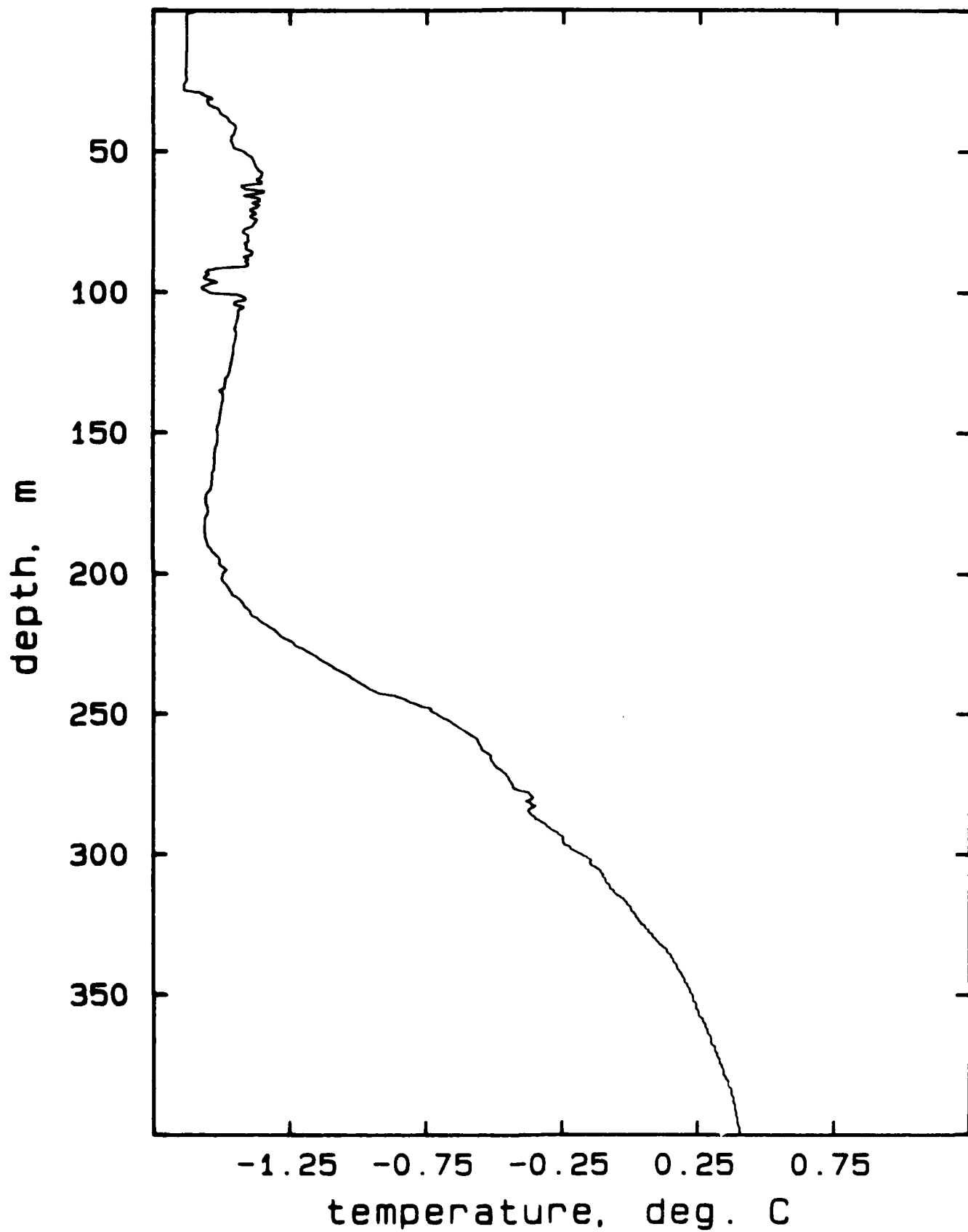


AR421B, drops 6-9



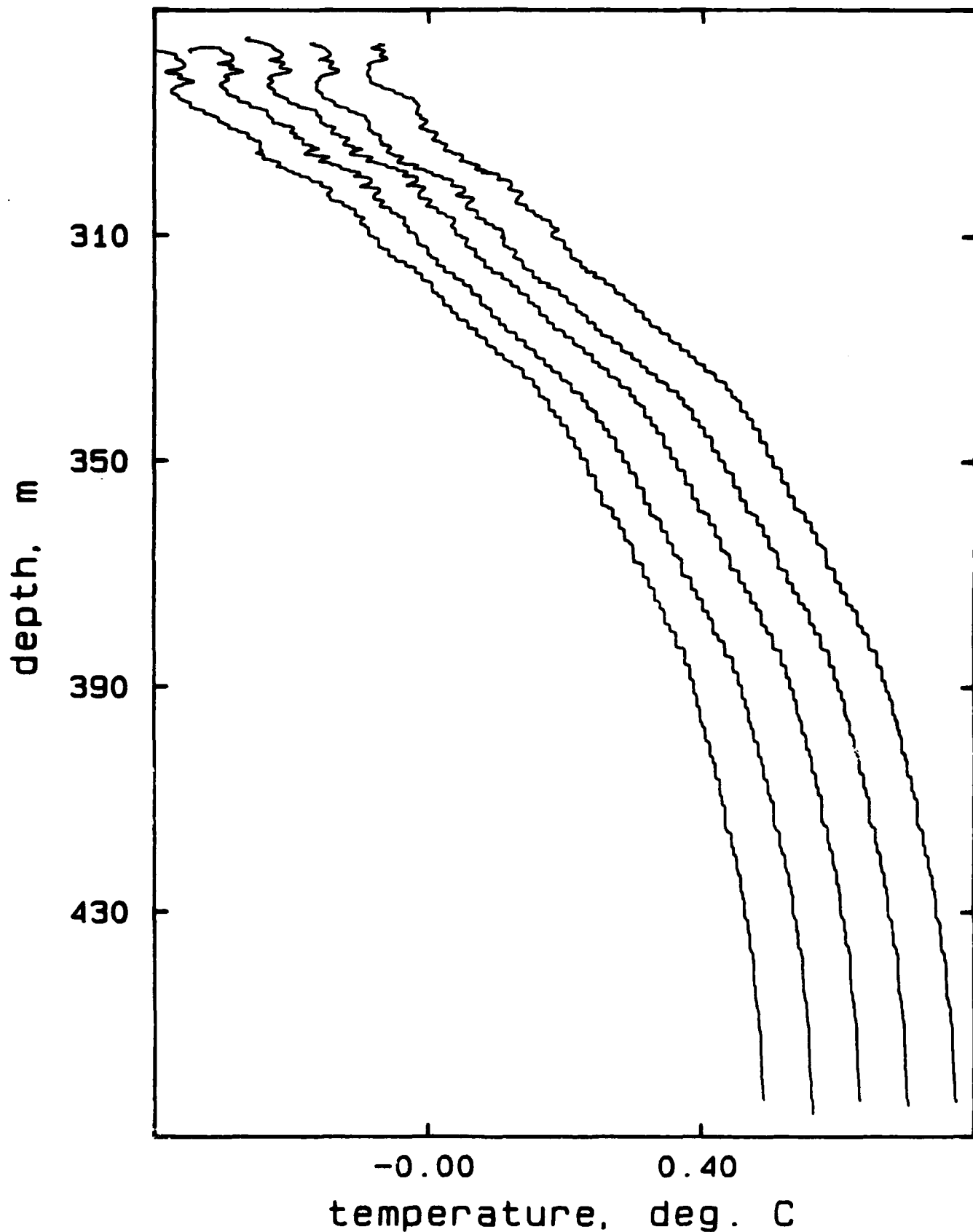
AR421B, drops 6-9

## AR421C, drop 1



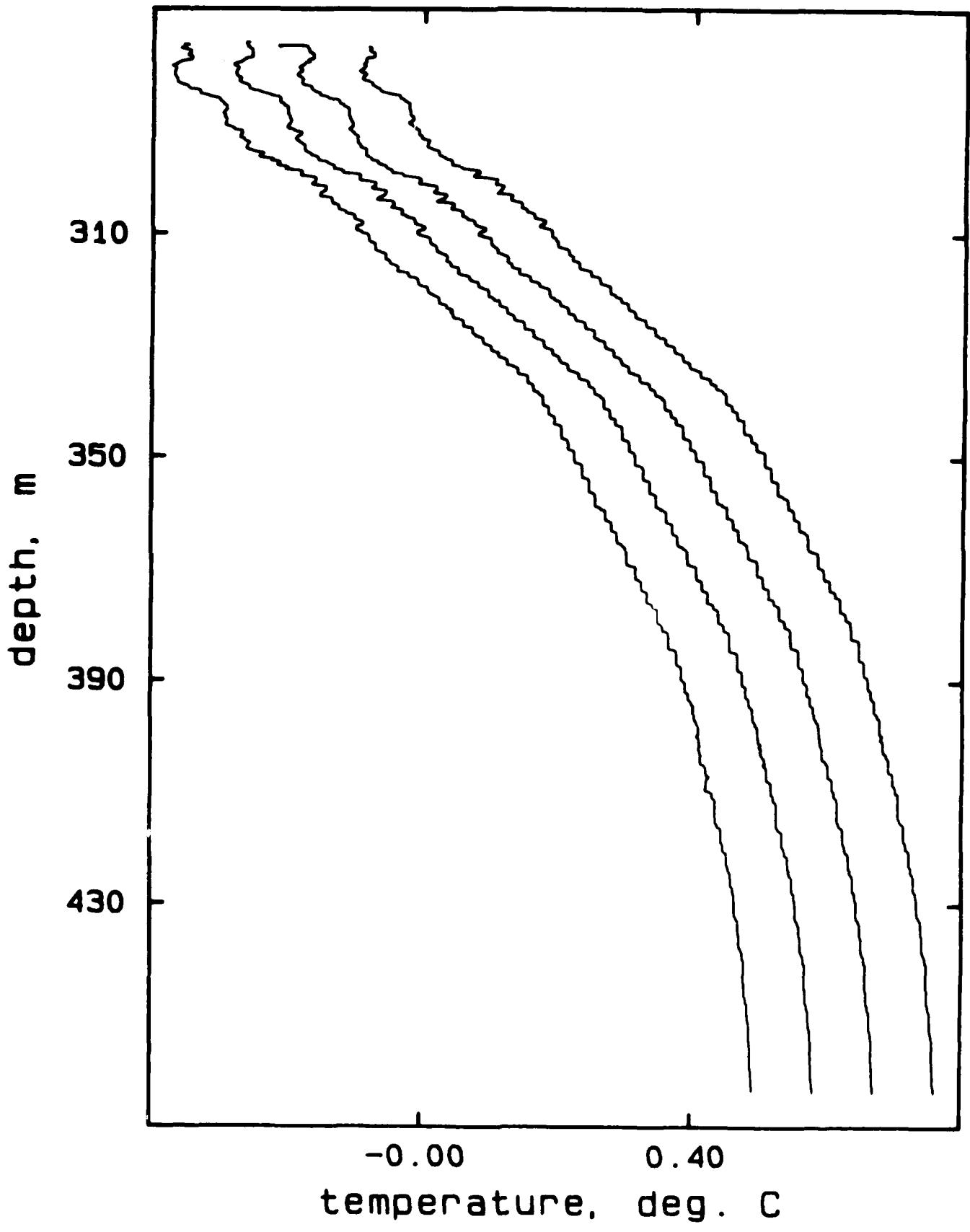


AR421C, drops 1-5

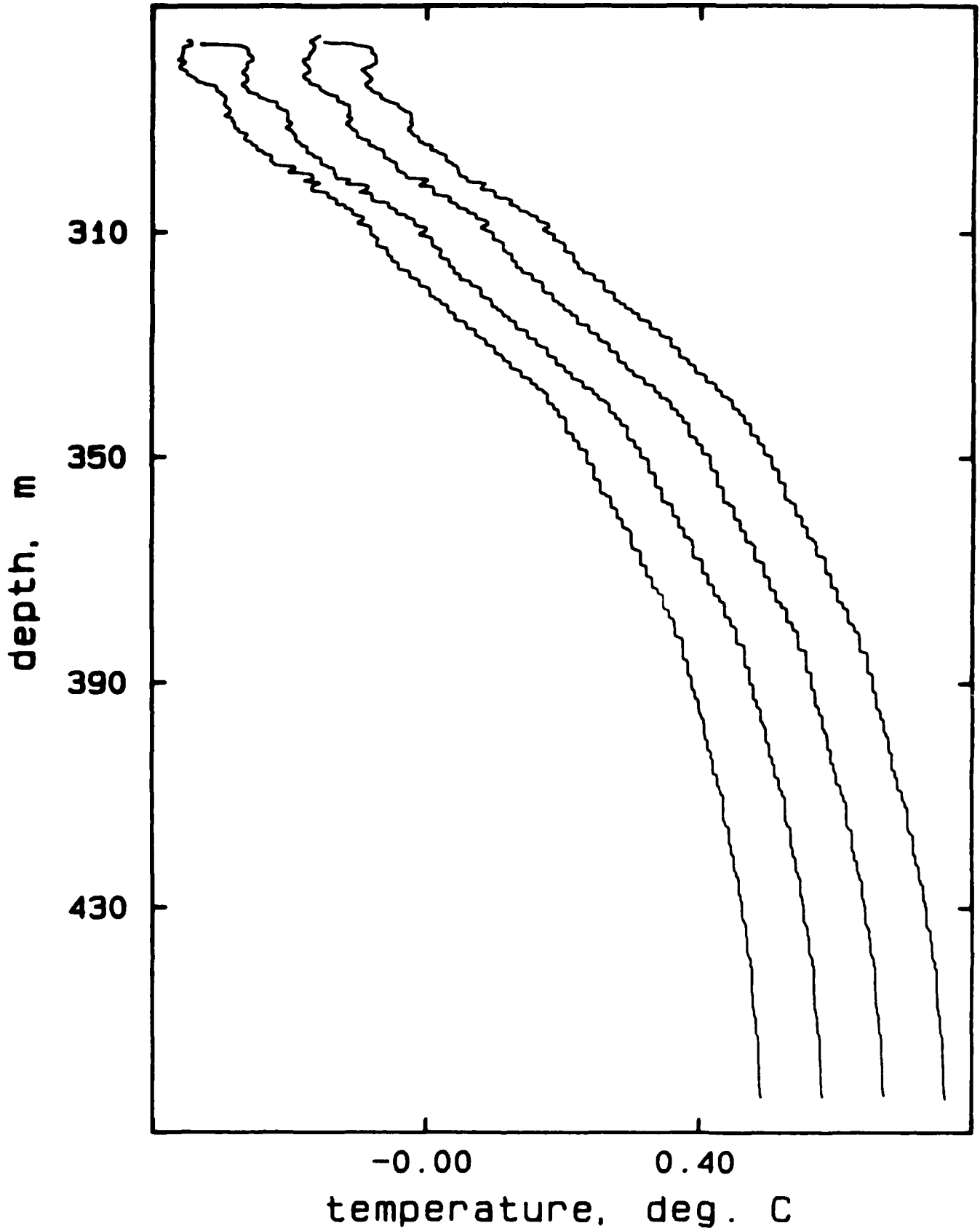


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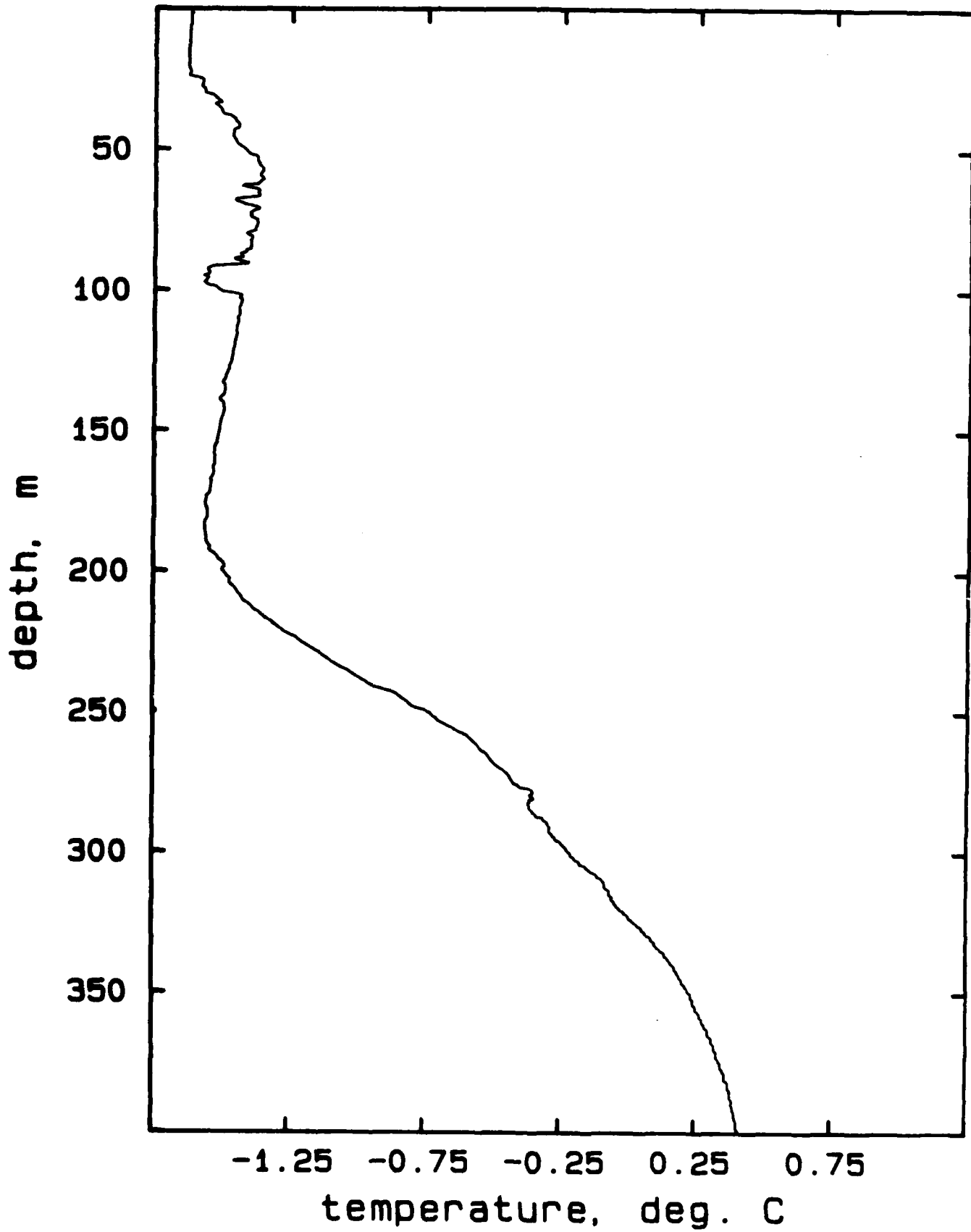
AR421C, drops 6-9



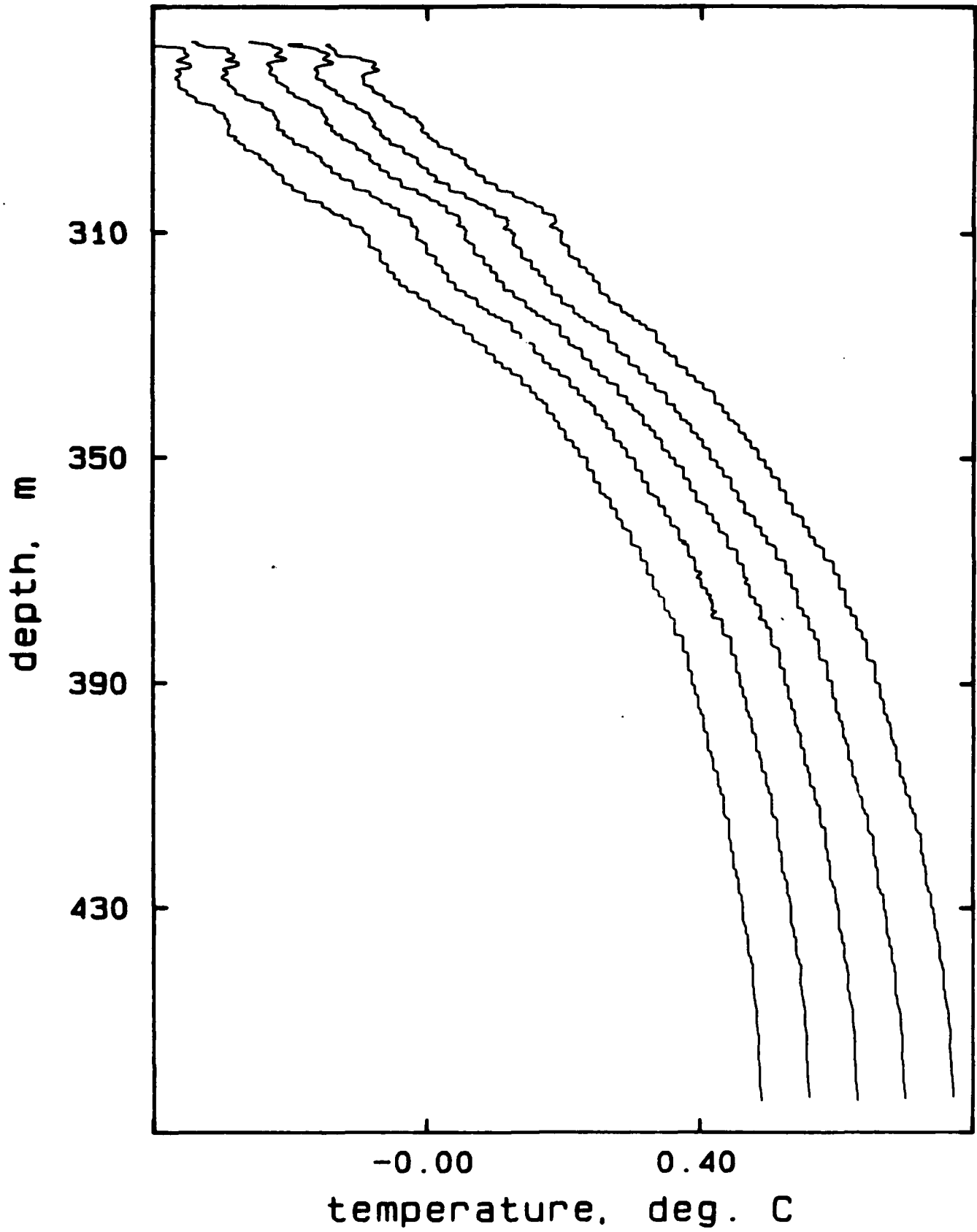
AR421C, drop 10-13



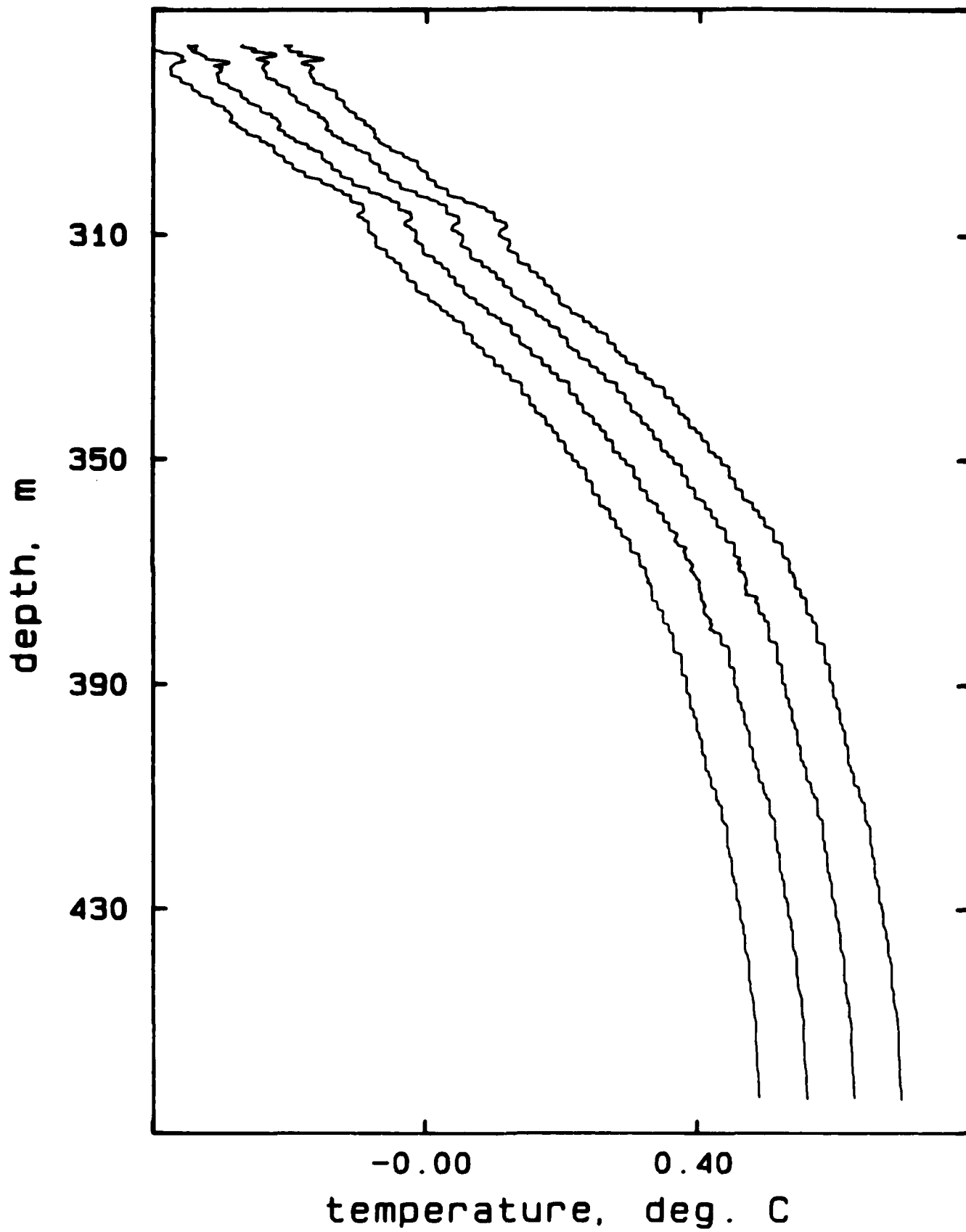
## AR421D, drop 1



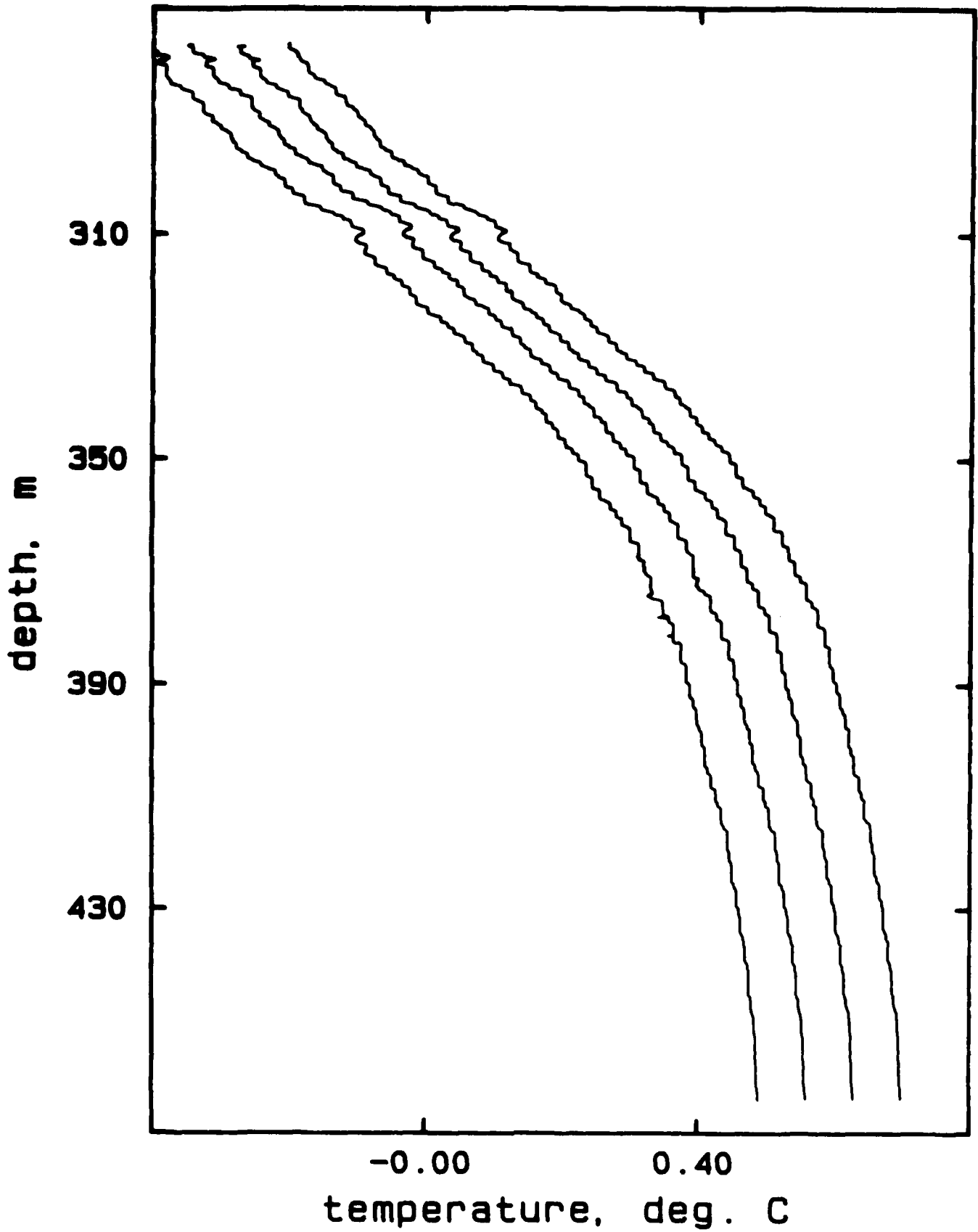
## AR4210, drops 1-5



## AR421D, drops 6-9

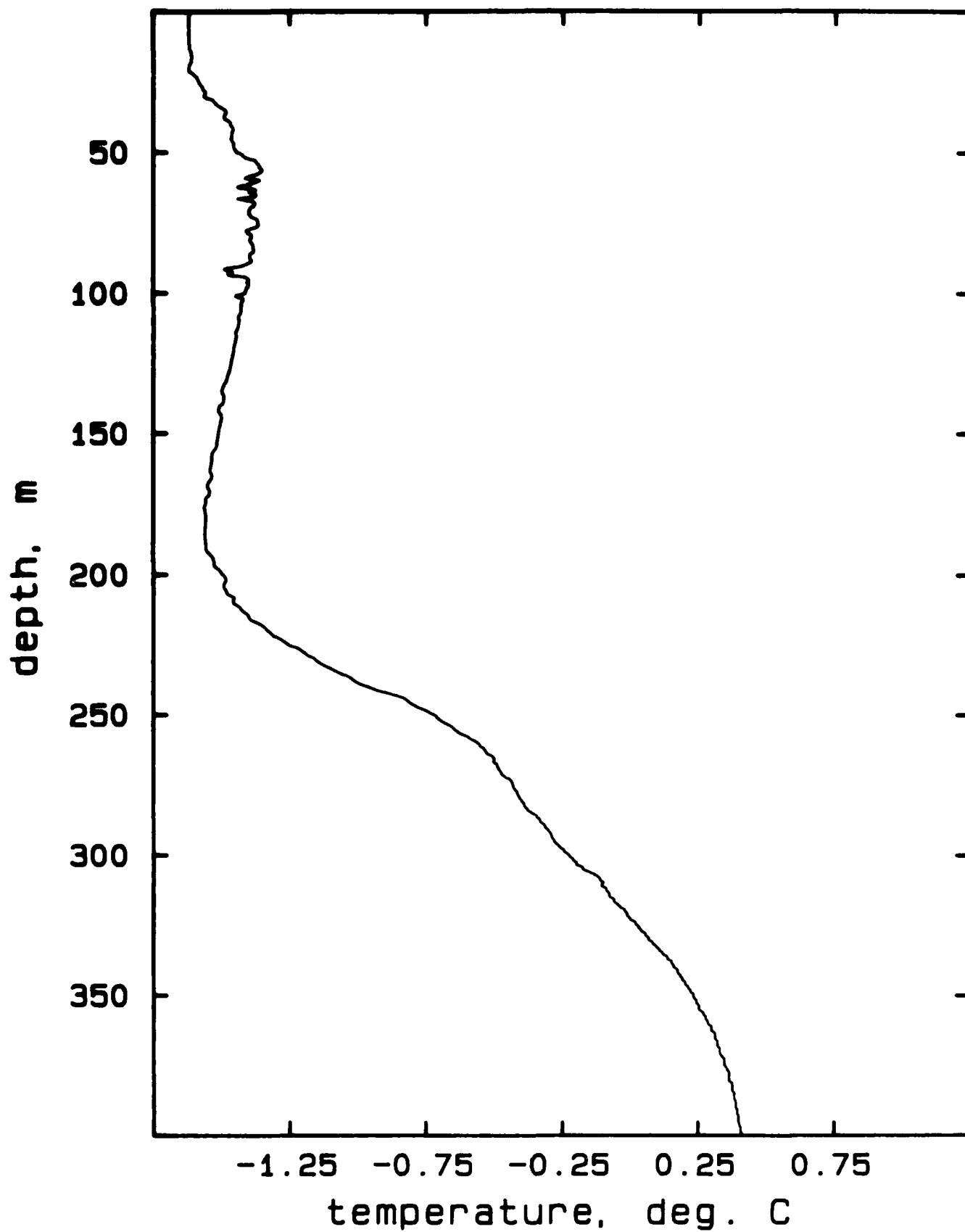


AR421D, drops 10-13



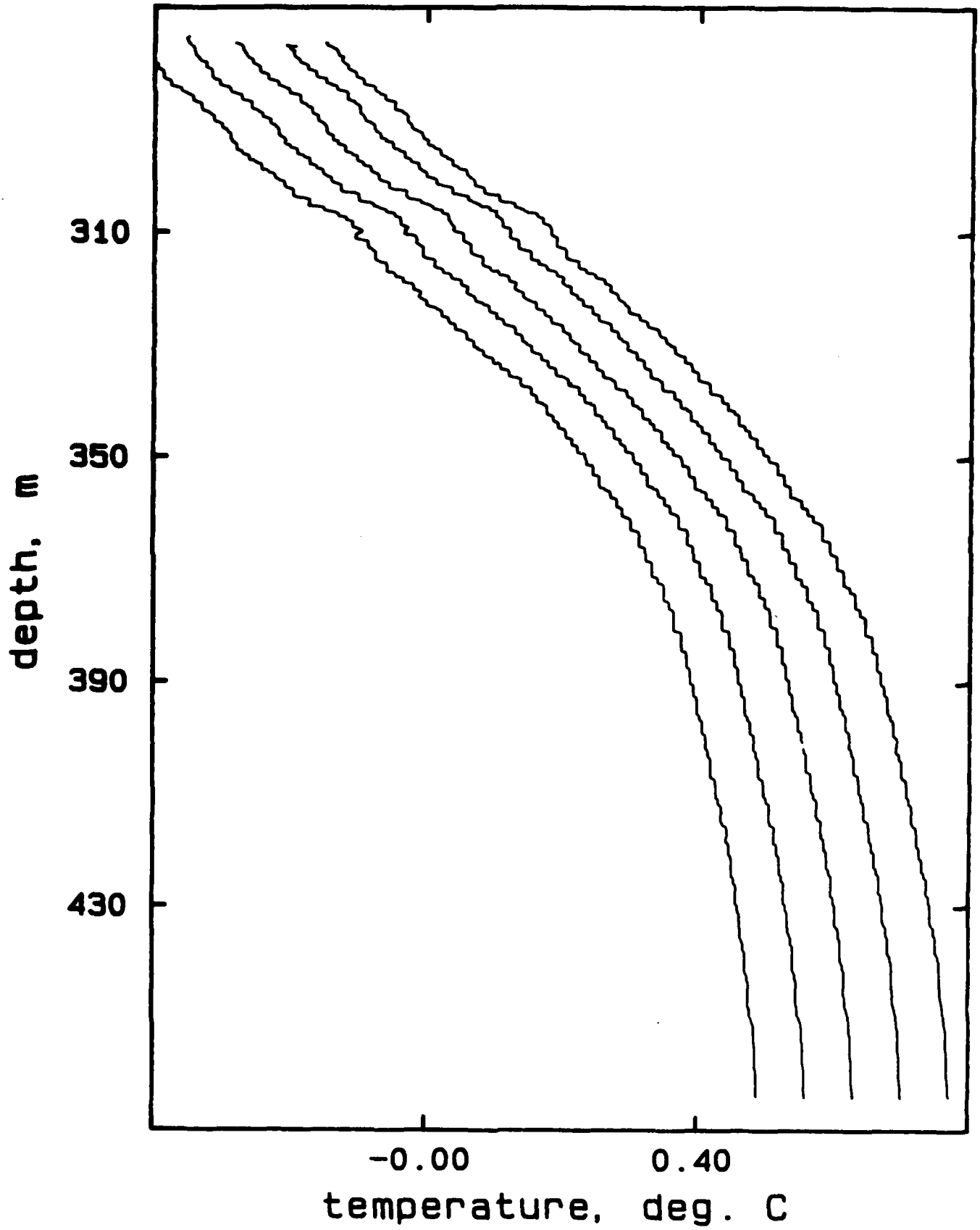
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## AR422A, drop 1



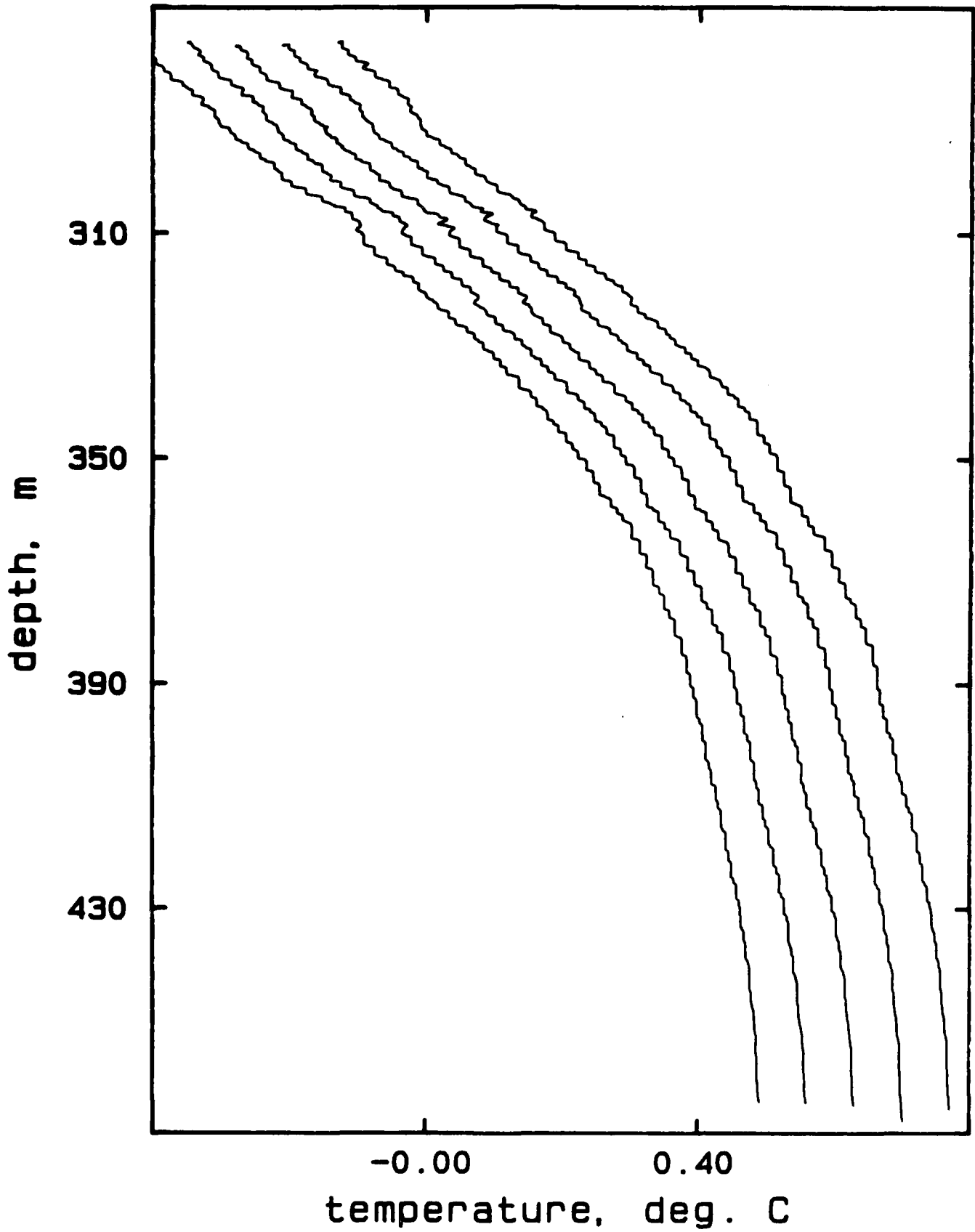


### AR422A, drops 1-5

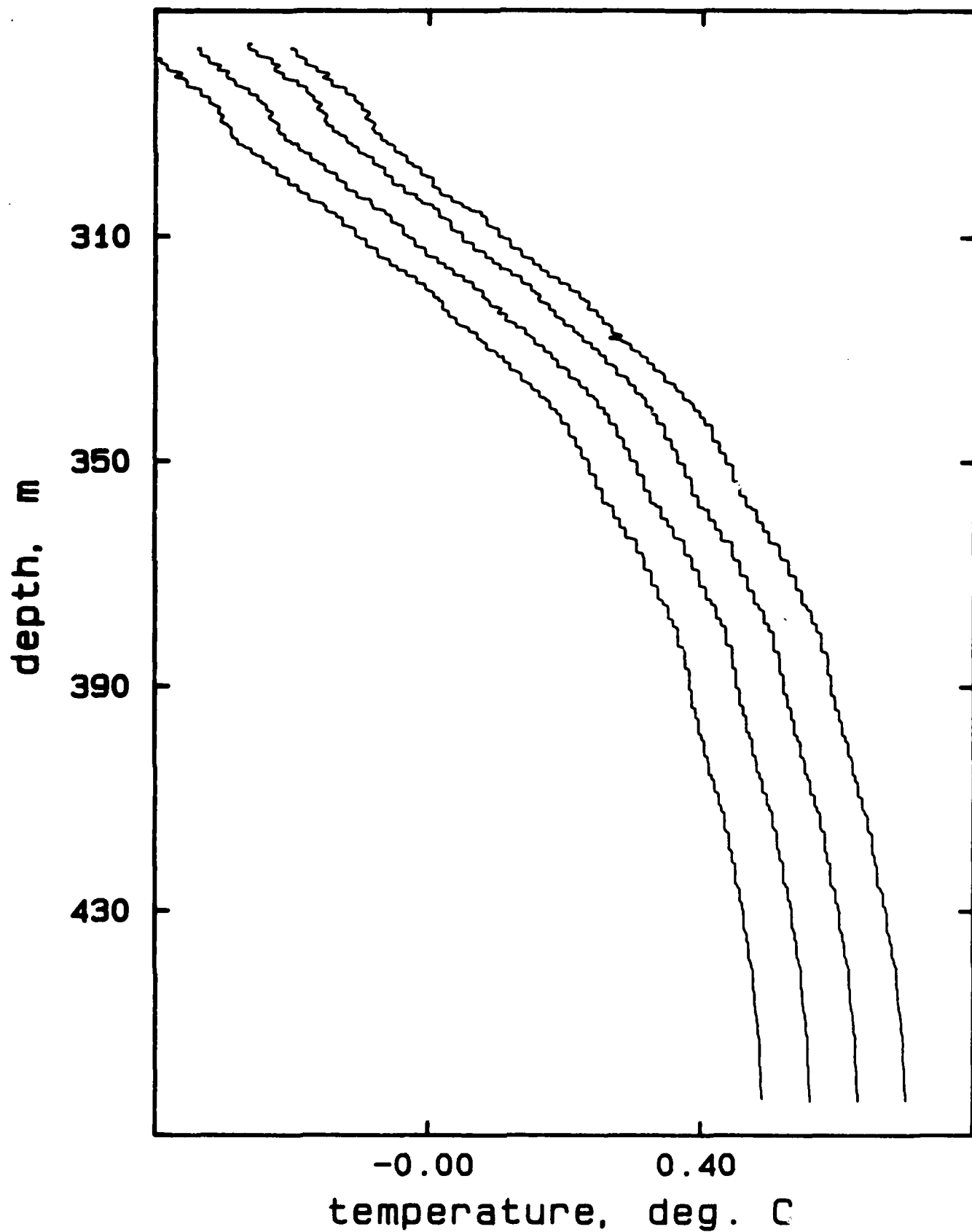


AR422A, drops 1-5

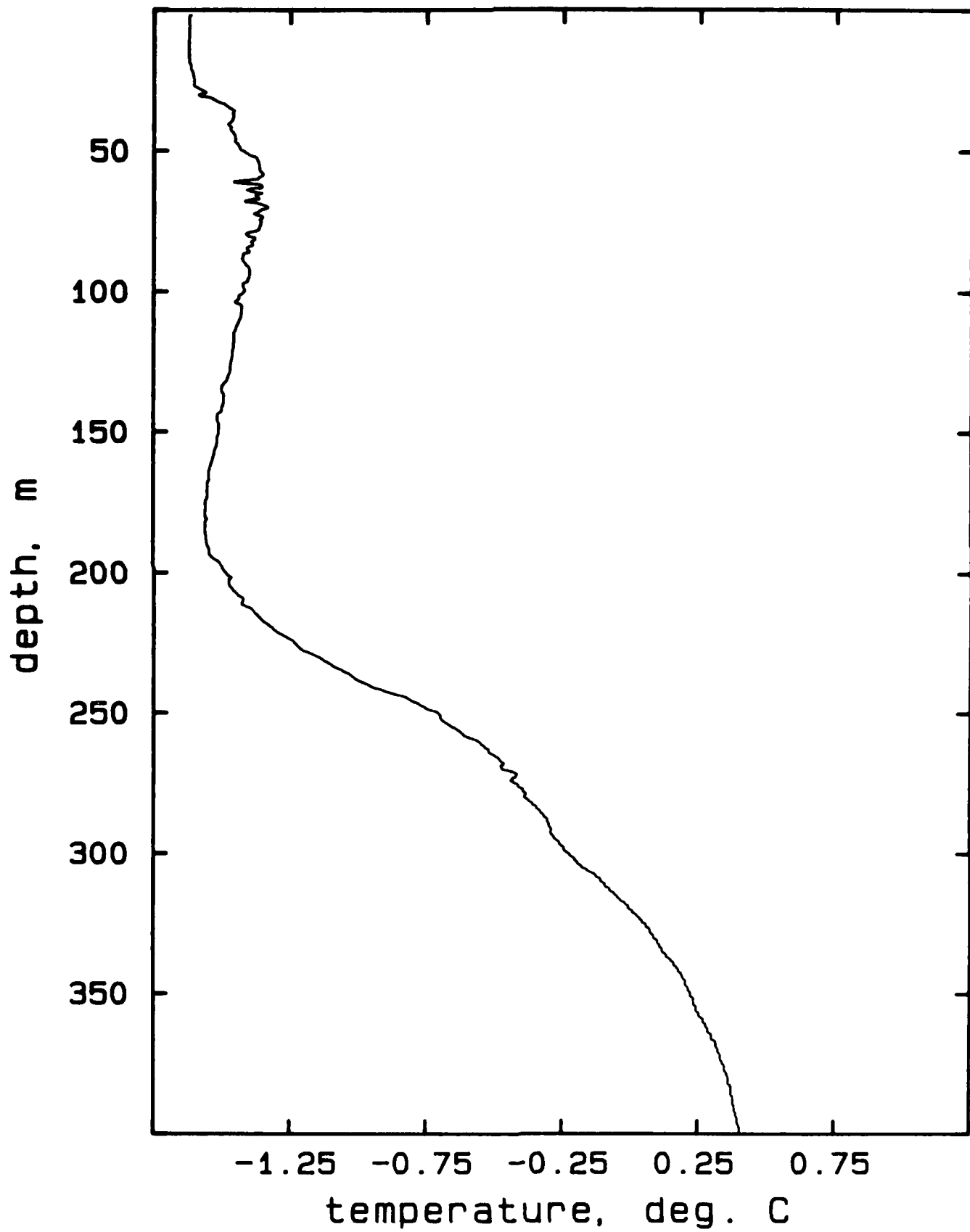
AR422A, drops 6-10



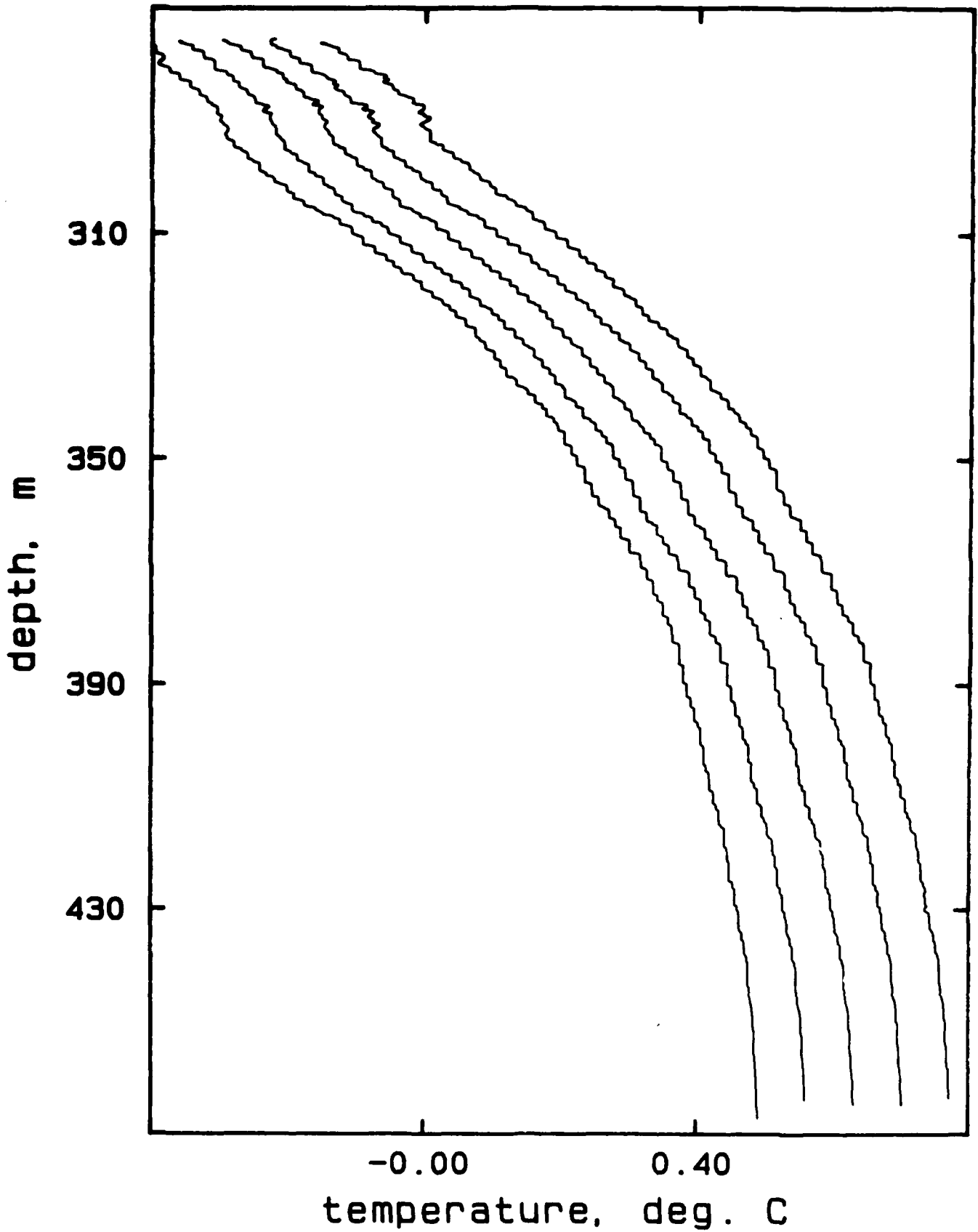
## AR422A, drops 11-15



## AR422B, drop 1

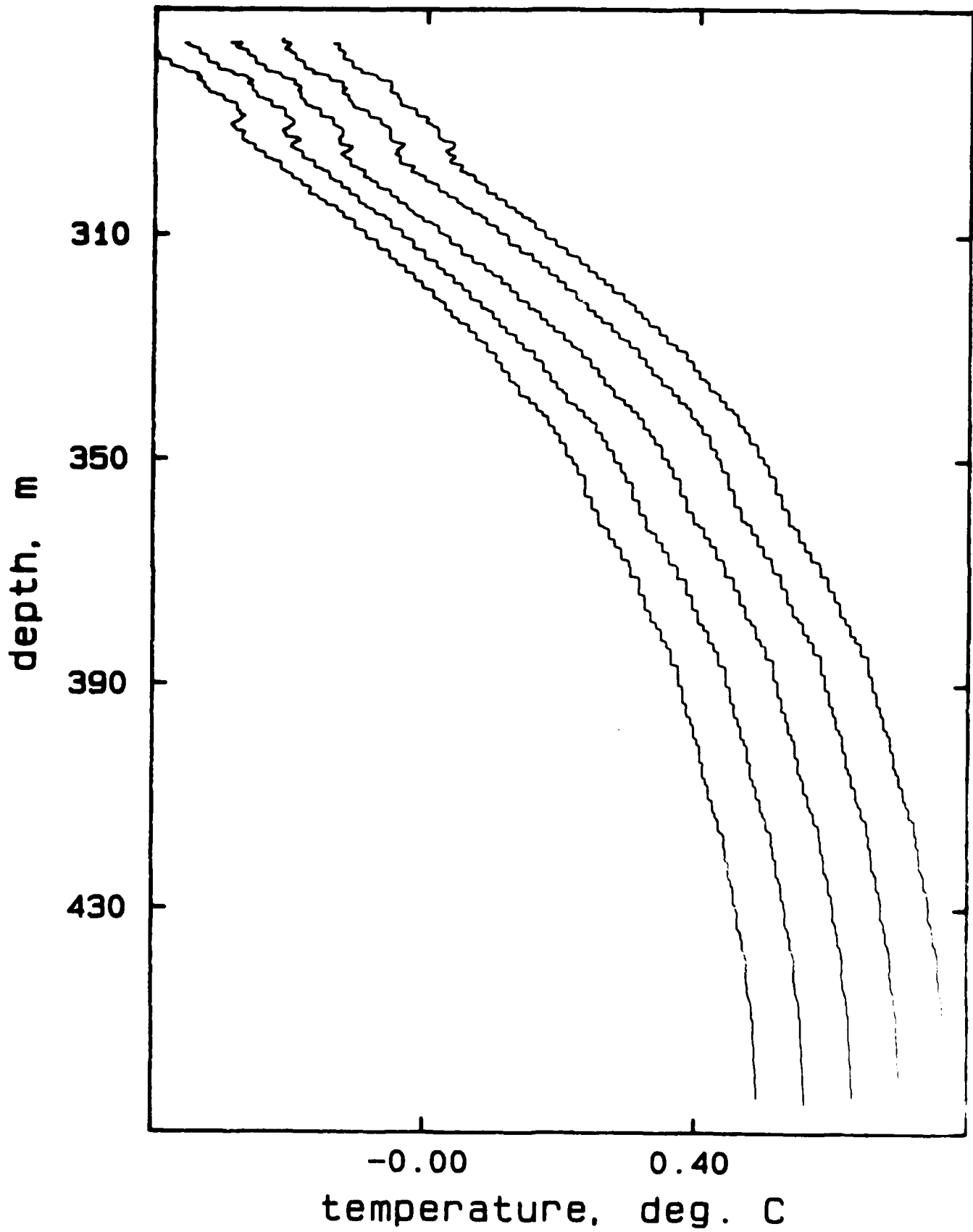


# AR422B, drops 1-5

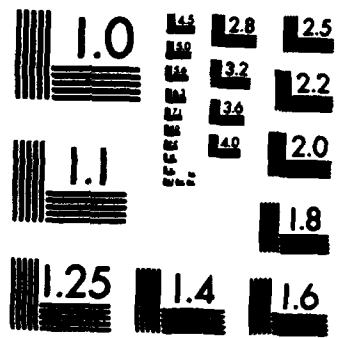


AR 422 B, drops 1-5

## AR422B, drops 6-10



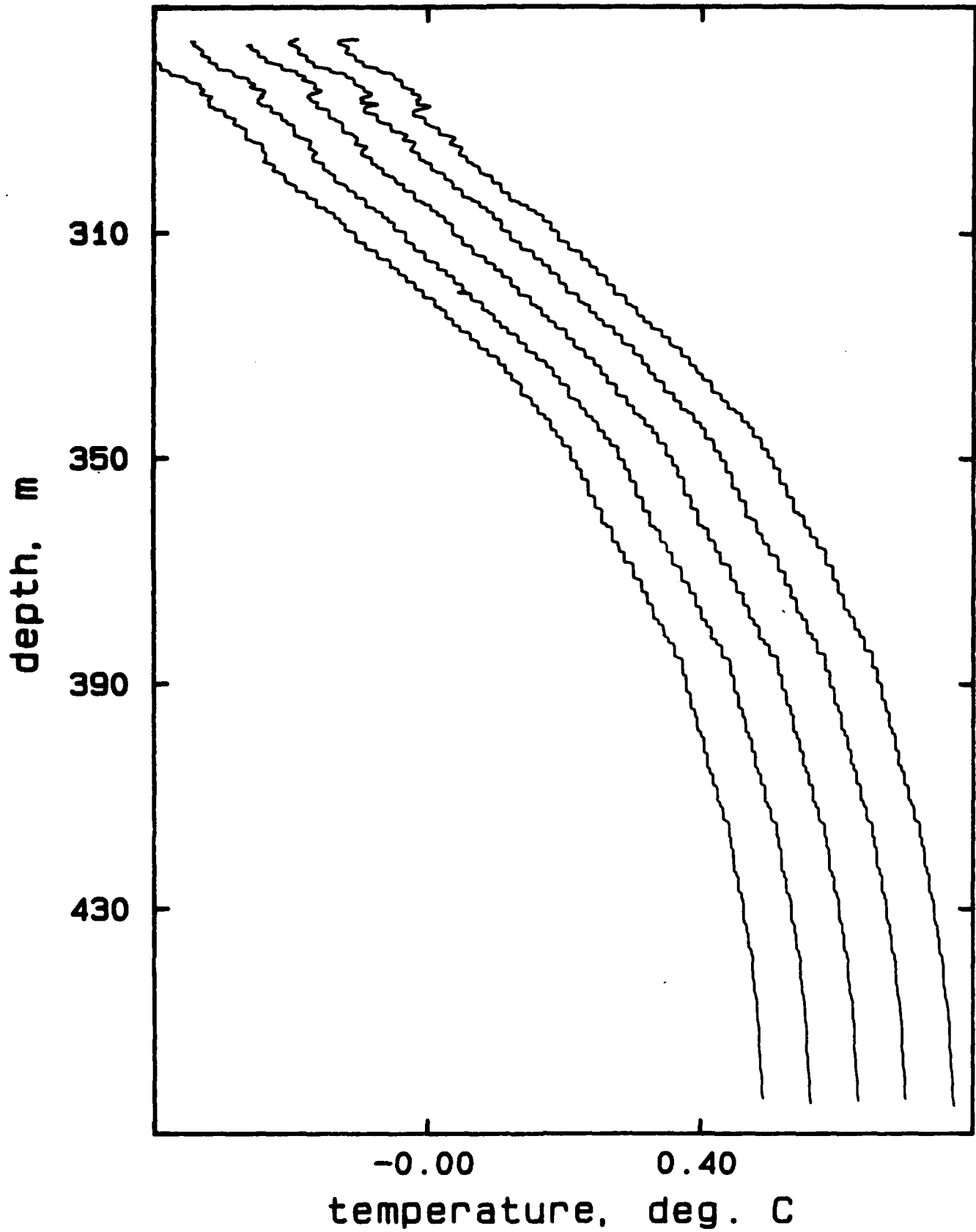




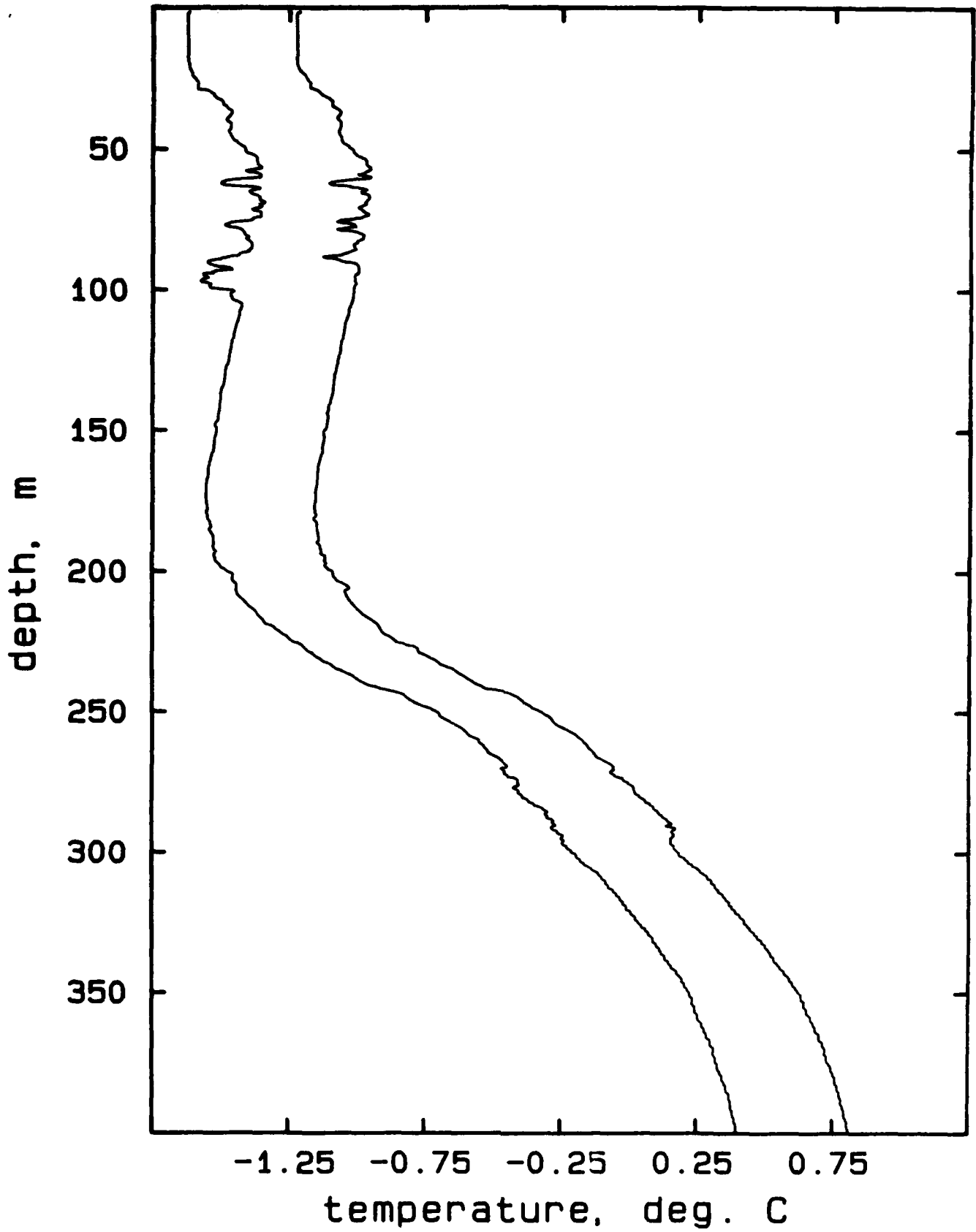
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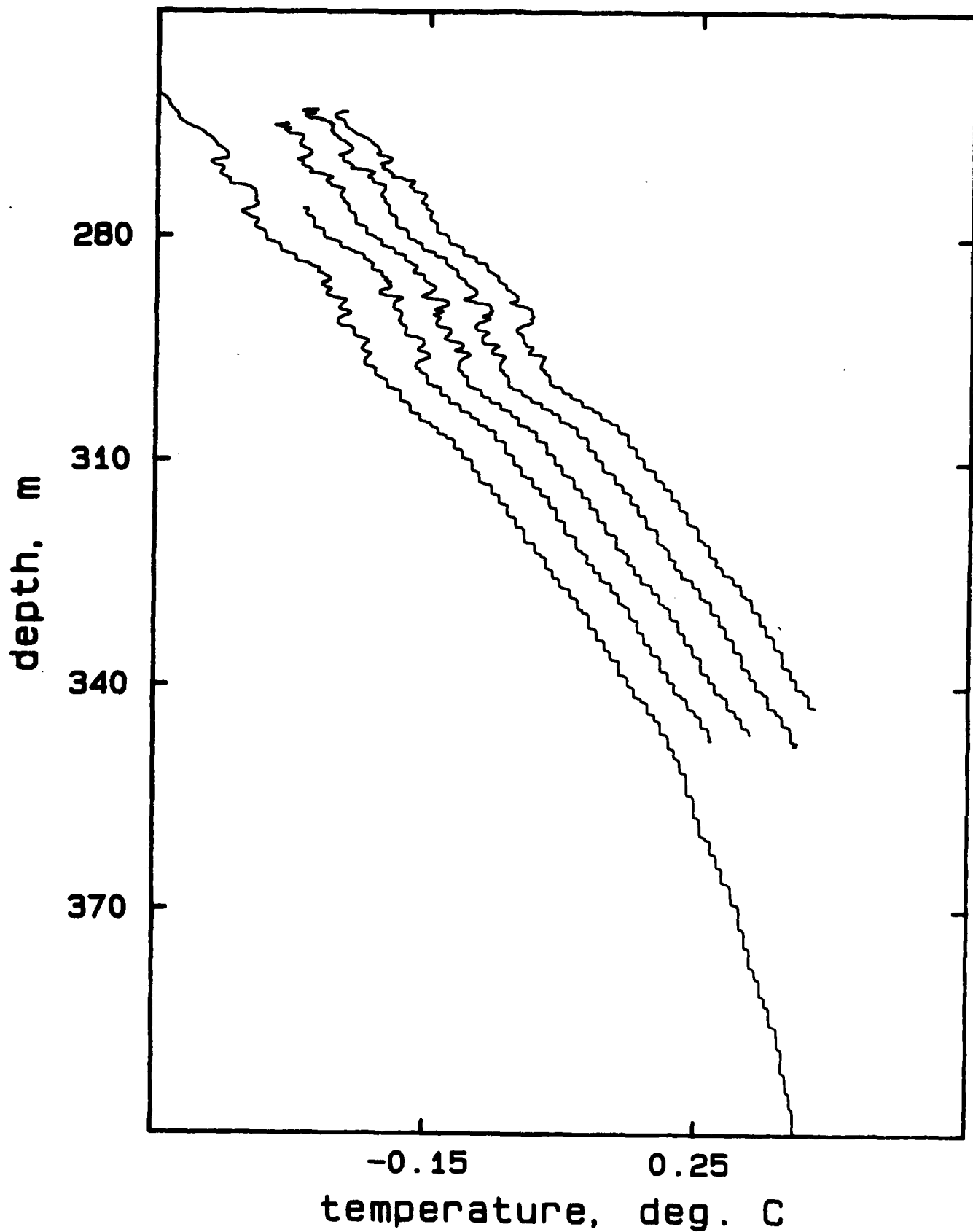
## AR422B, drops 11-15



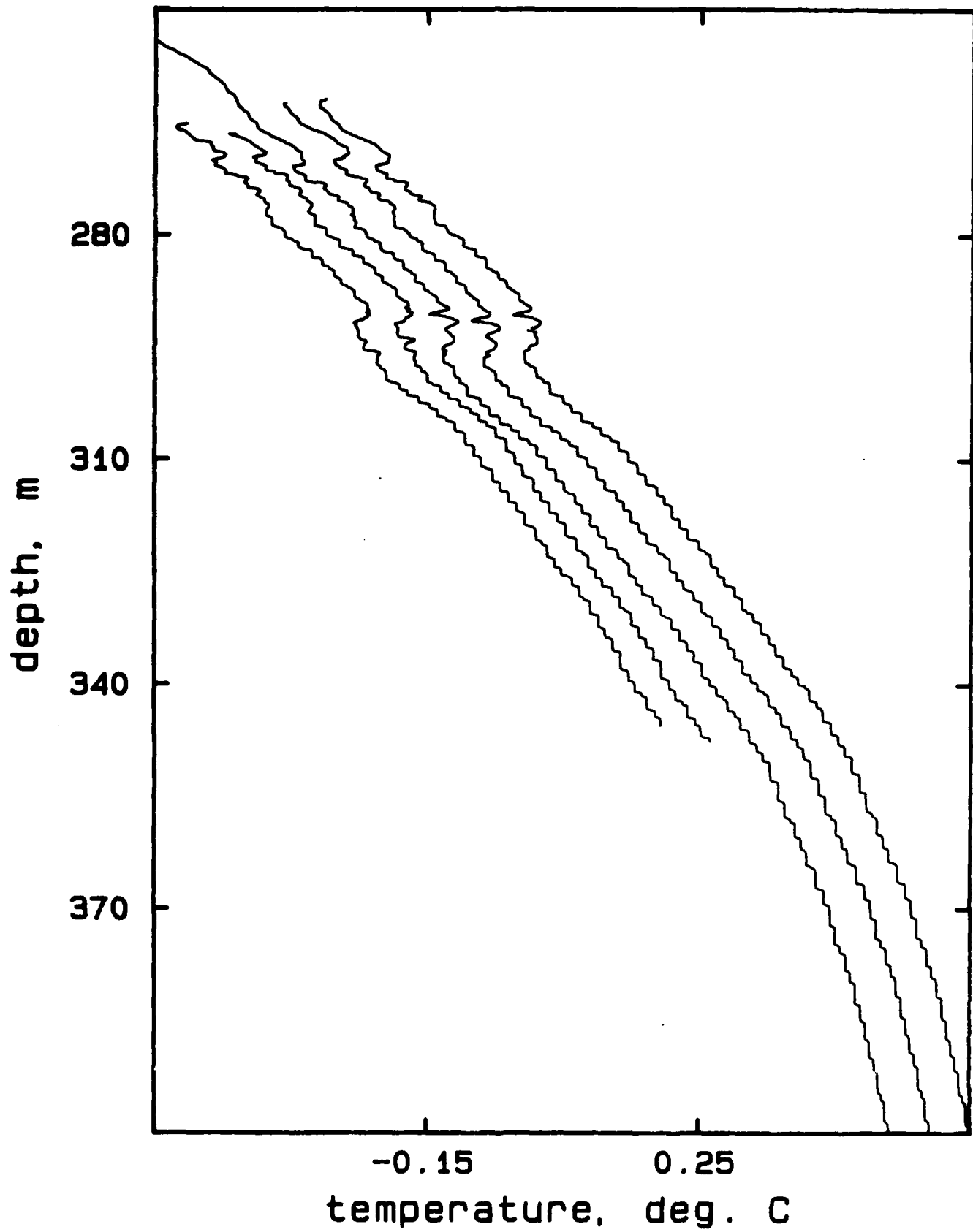
## AR422C, drops 1, 8



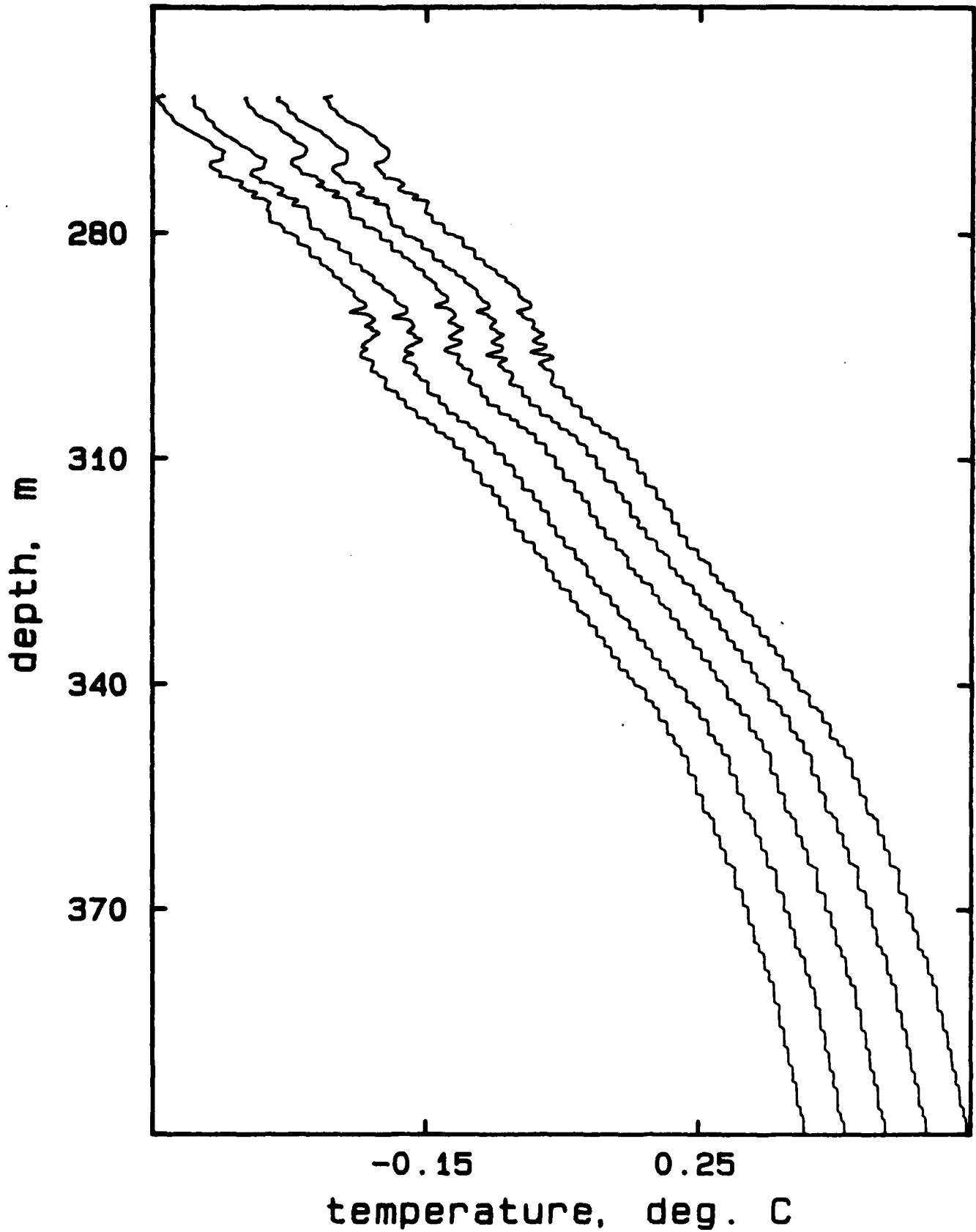
AR422C, drops 1-5



AR422C, drops 6-10

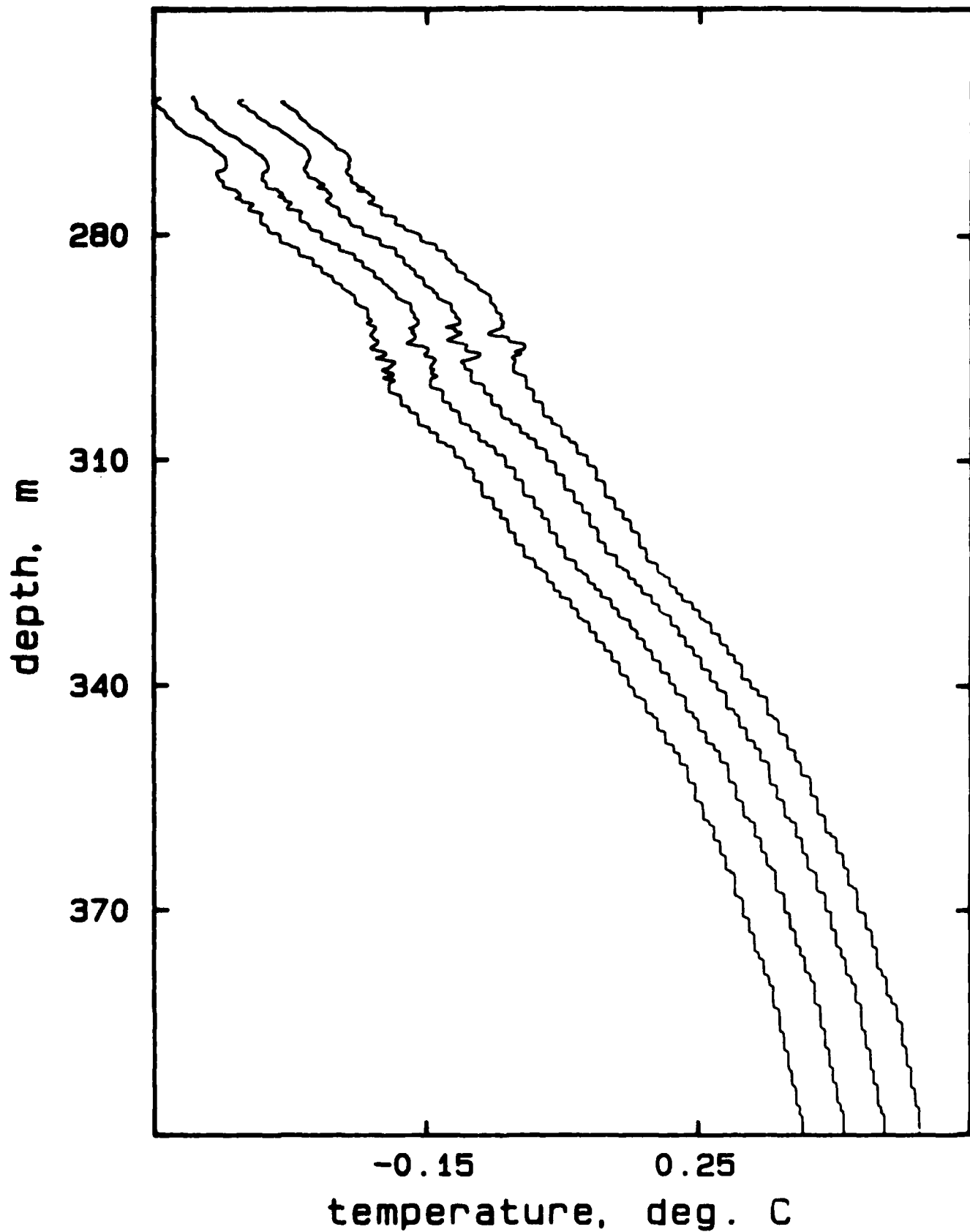


AR422C, drops 11-15

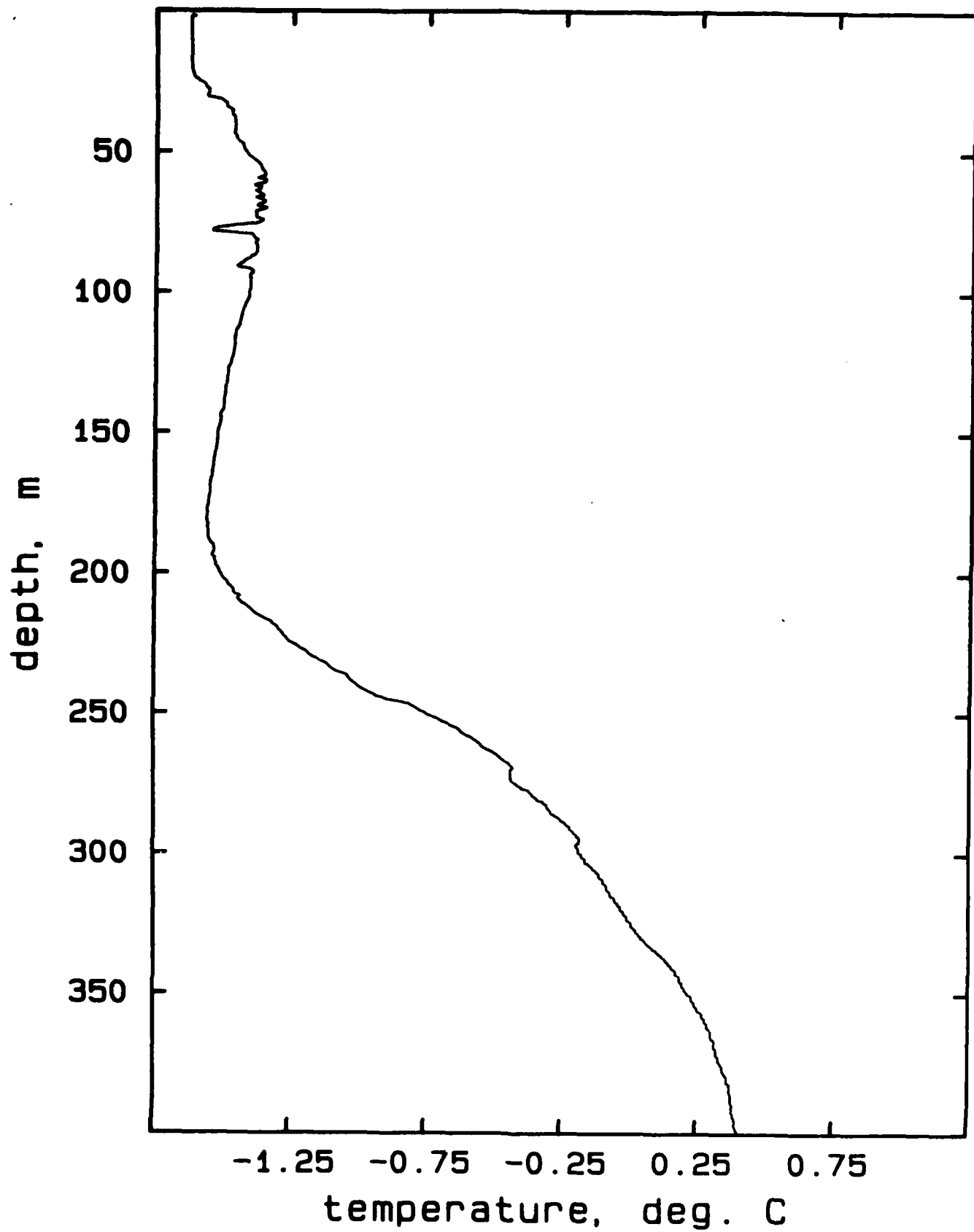


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AR422C, drops 16-18, 20

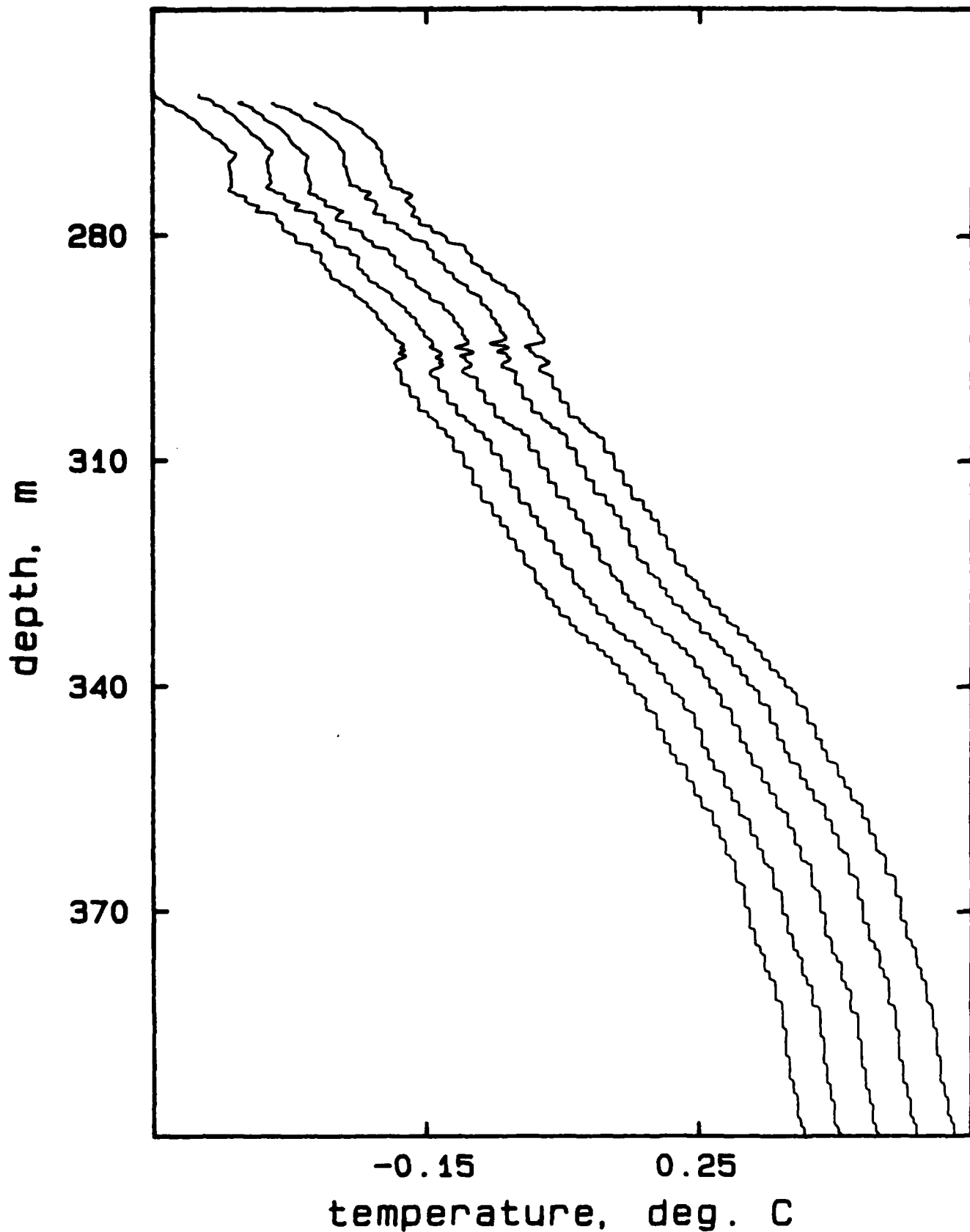


## AR422D, drop 1



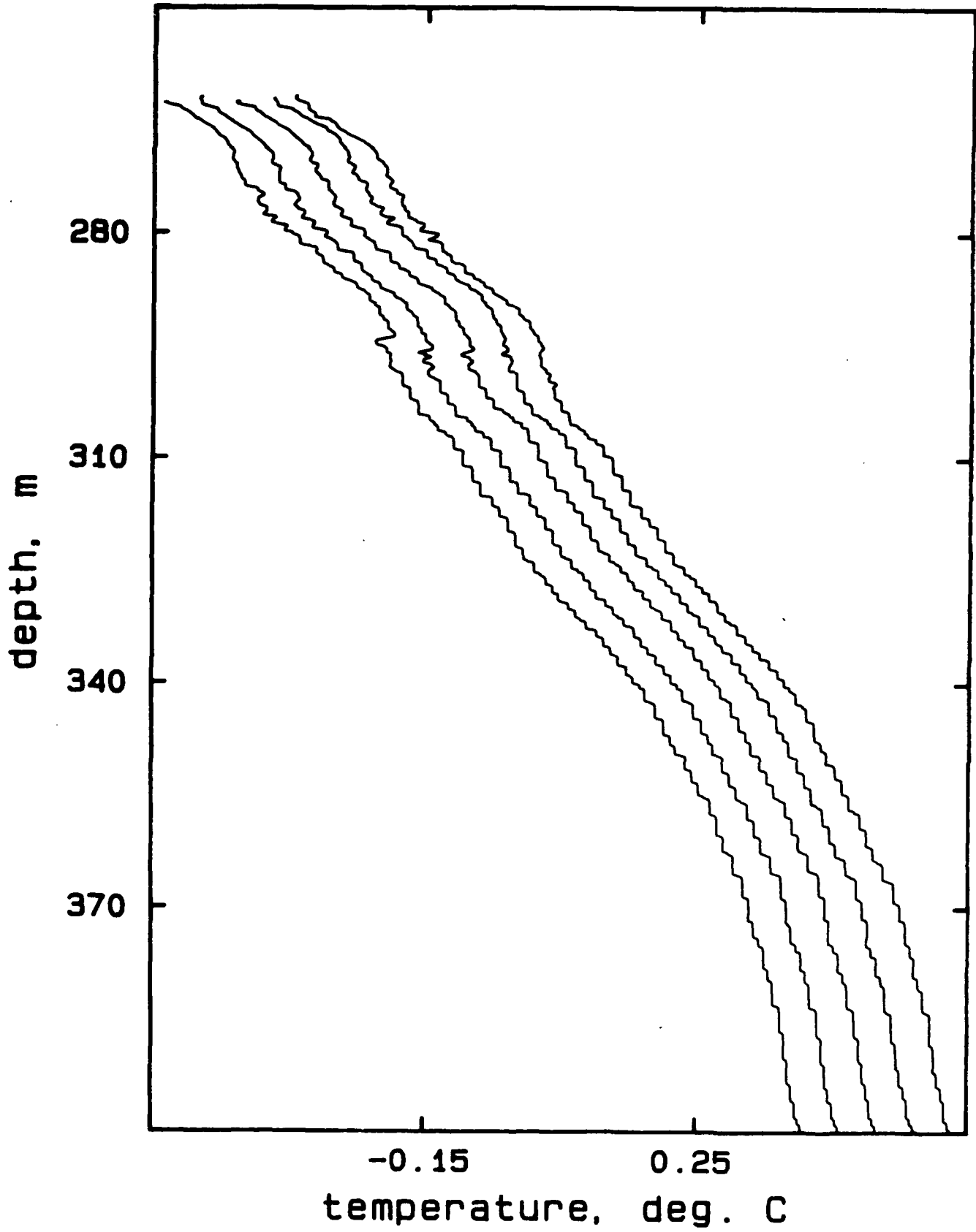
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AR422D, drops 1-5



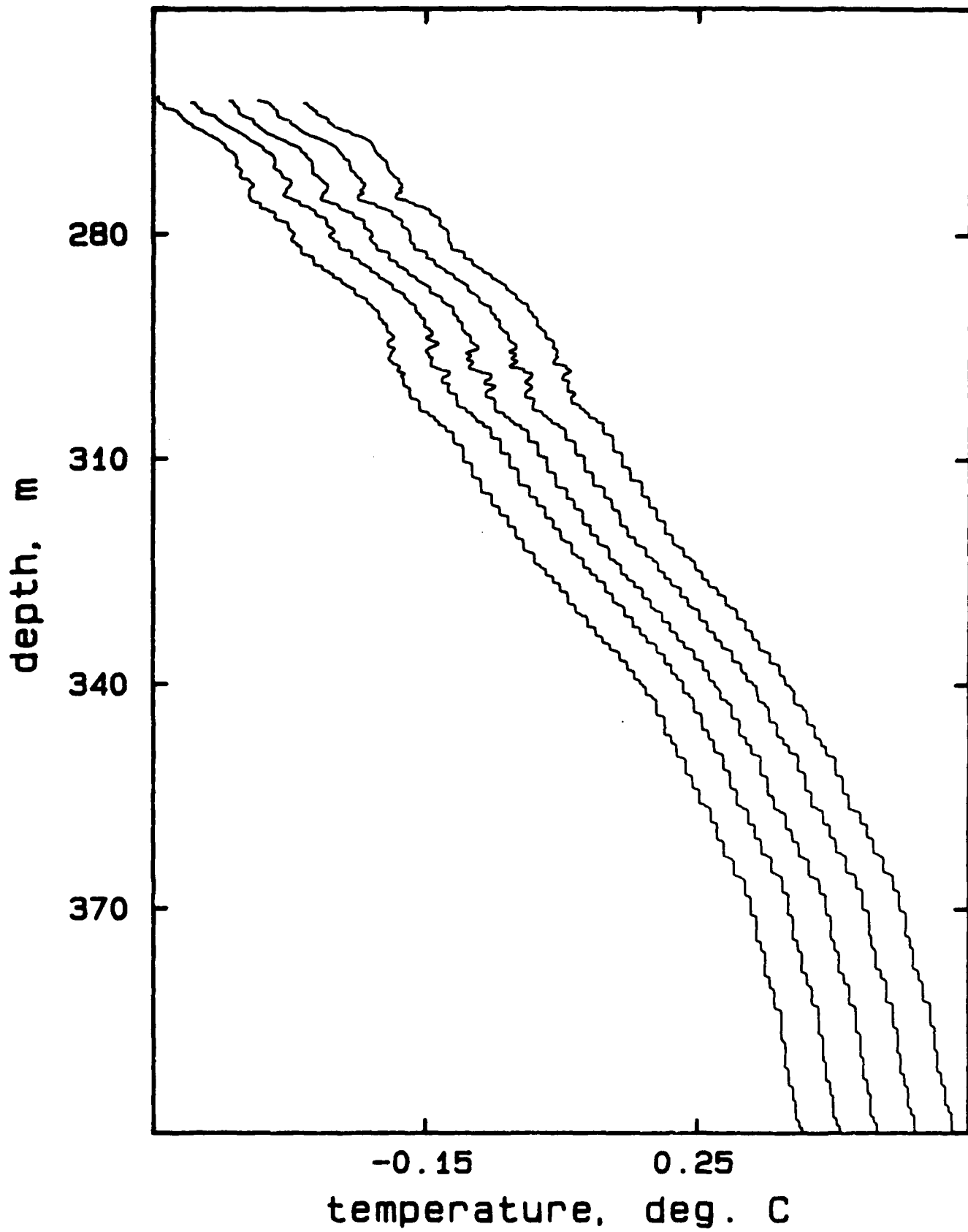


AR422D, drops 6-10



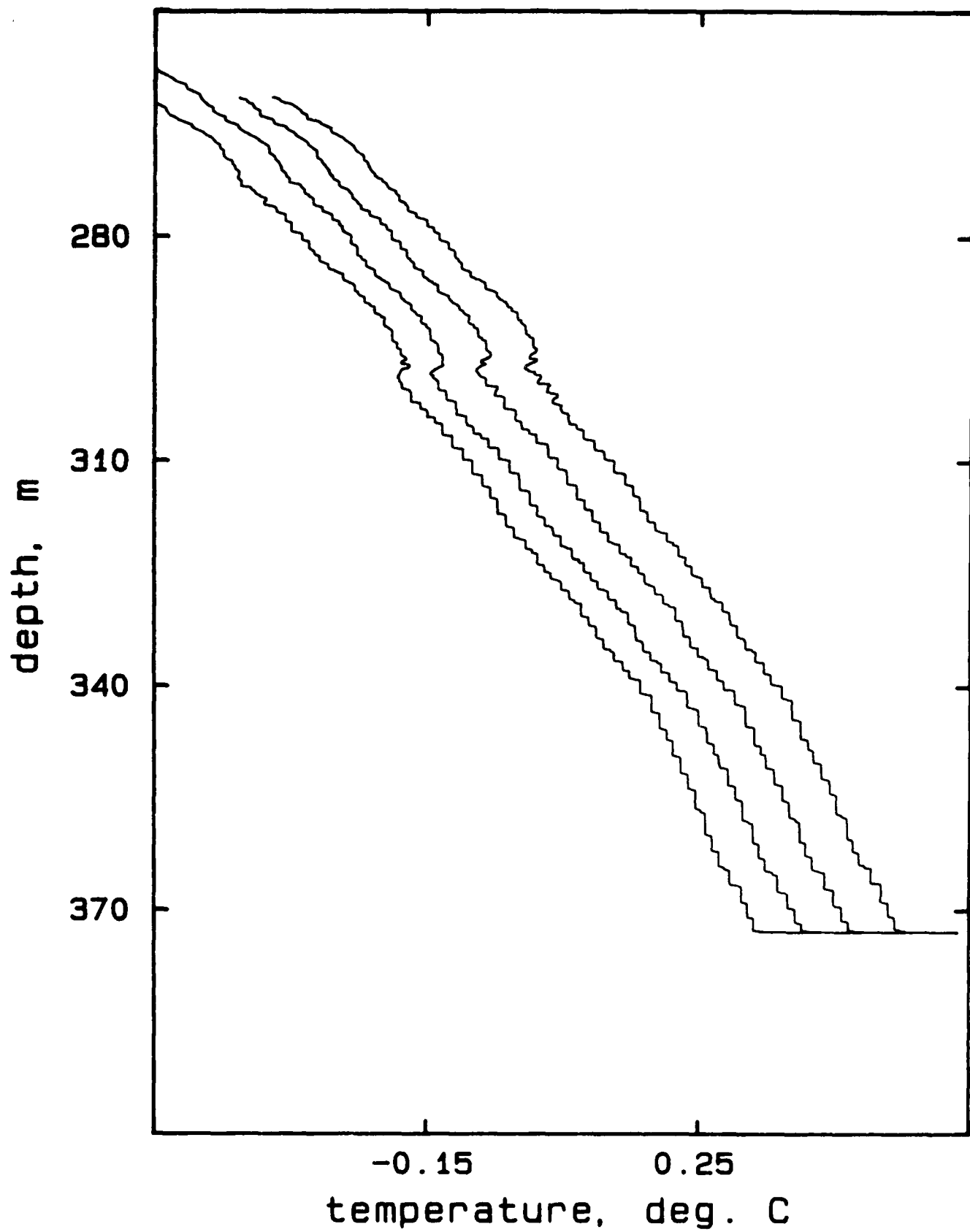
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AR422D, drops 11-15

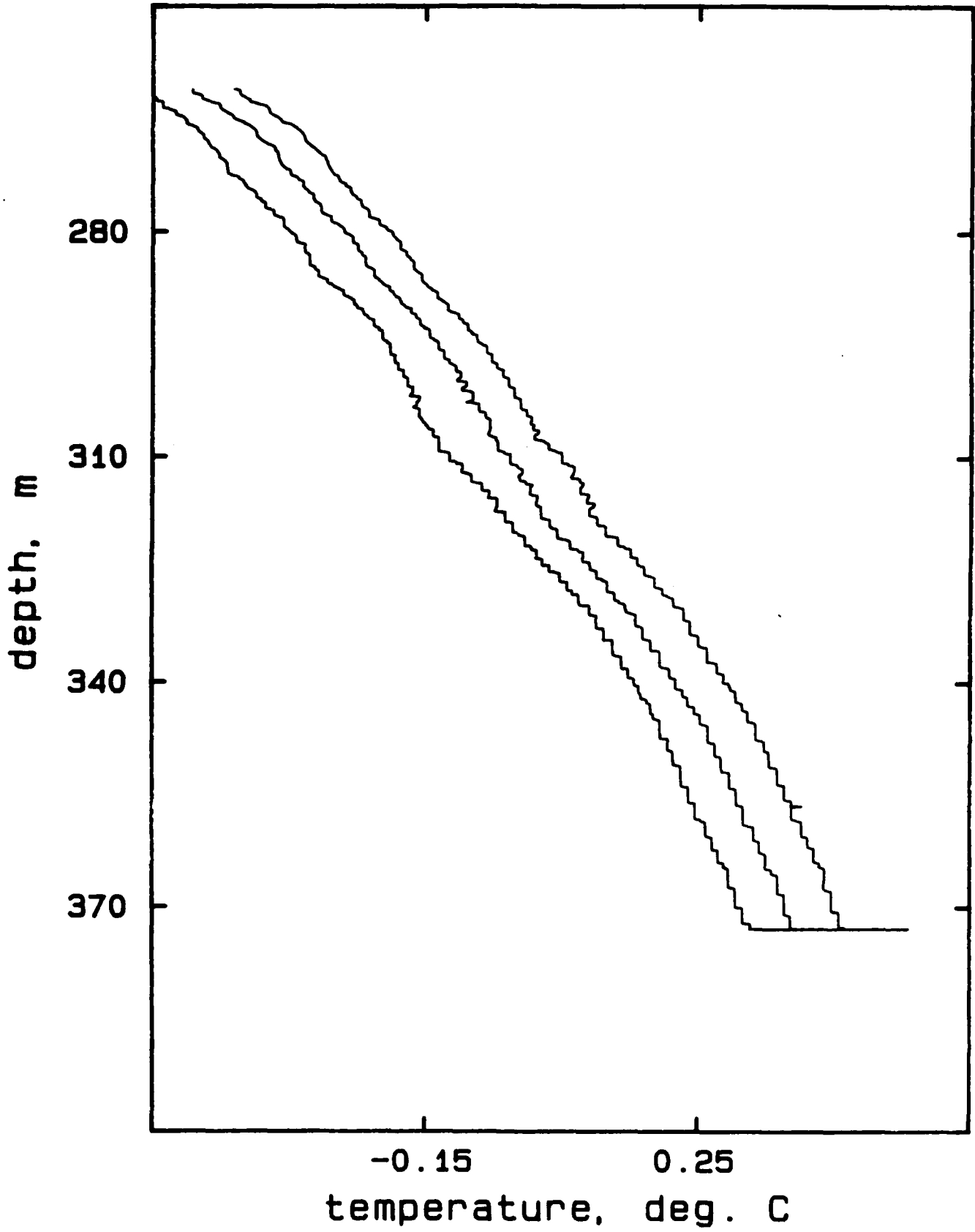




## AR422E, drops 1-4

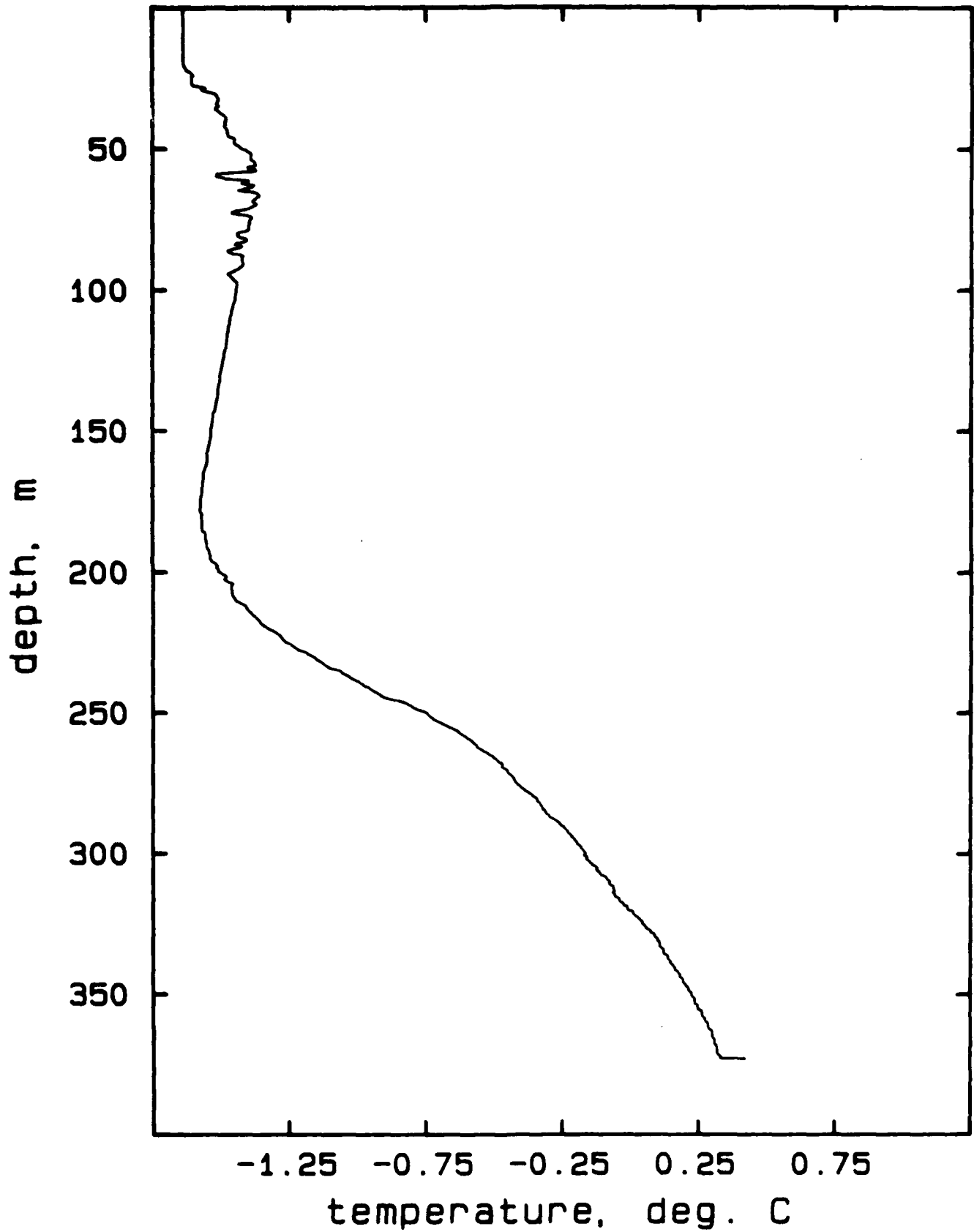


AR422E, drops 5-7

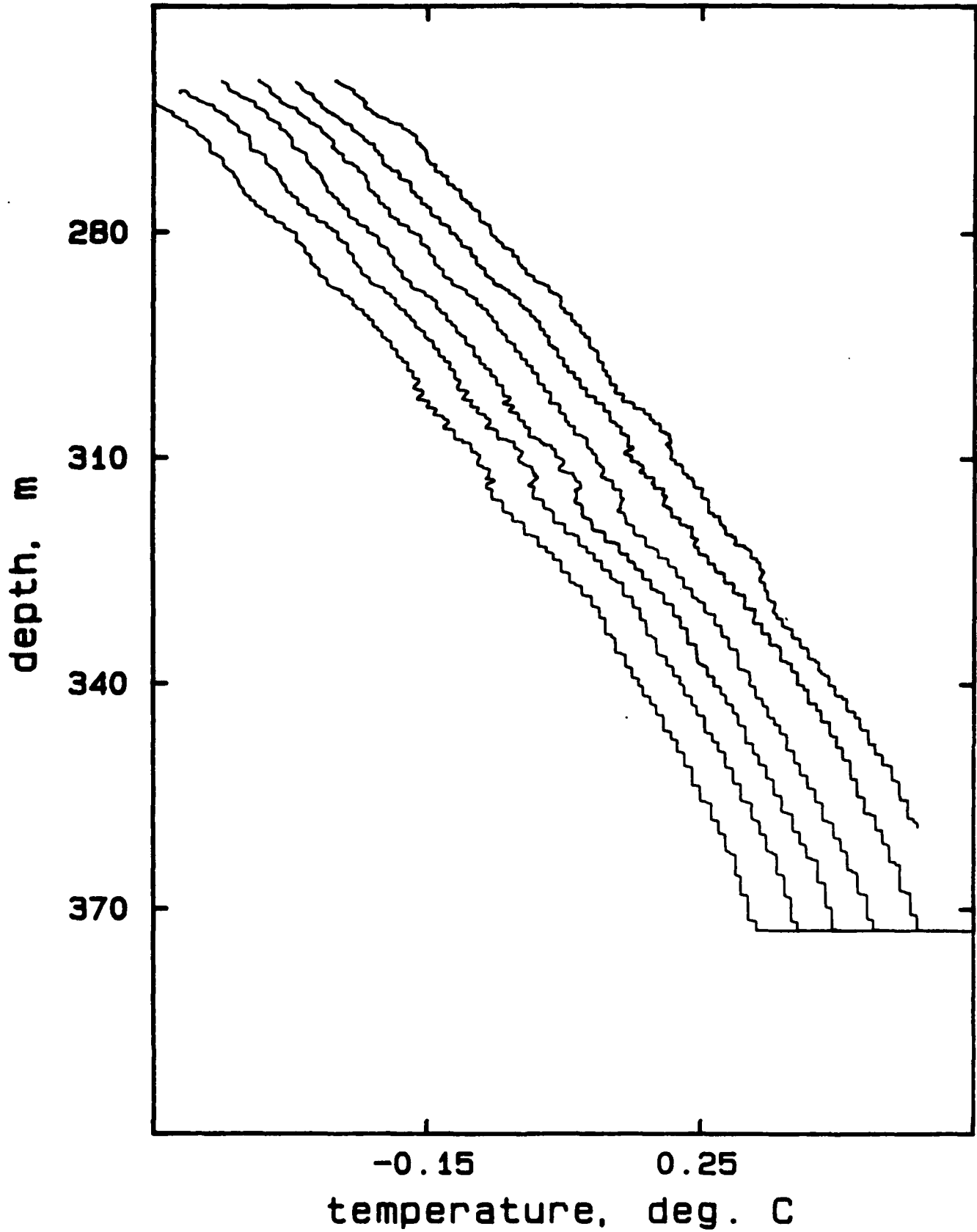


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## AR422F, drop 1

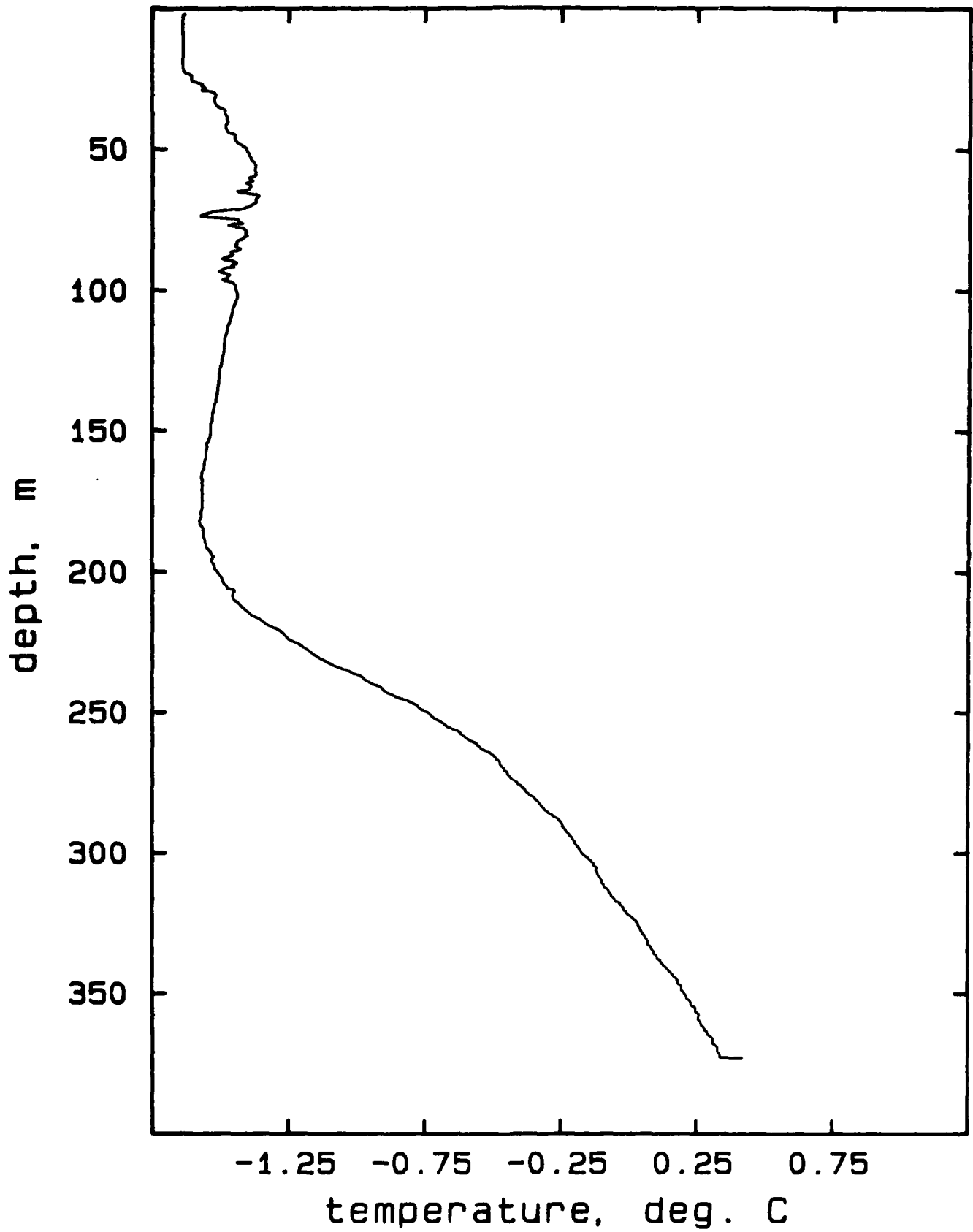


AR422F, drops 1-6



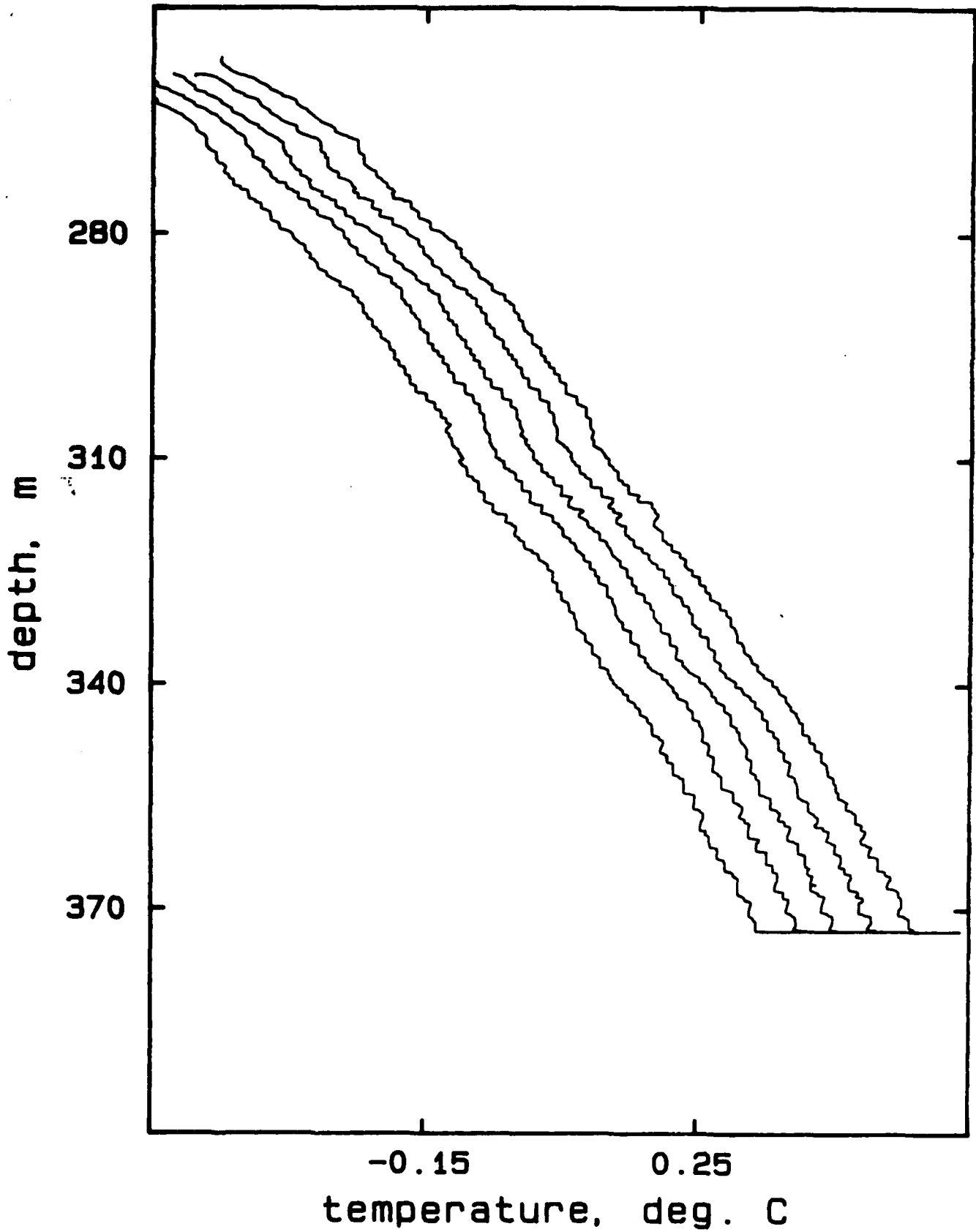
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## AR422G, drop 1



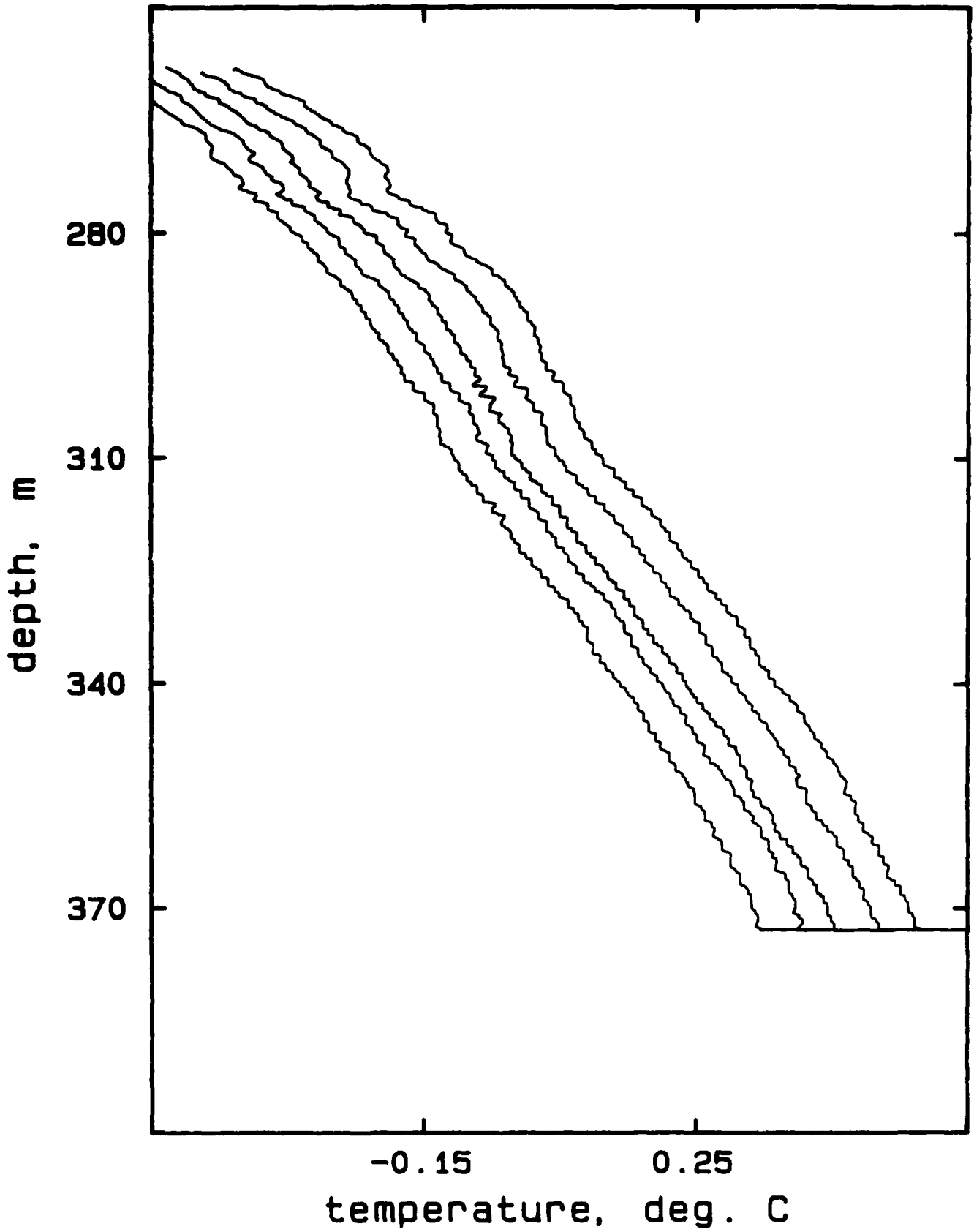


AR422G, drops 1-5



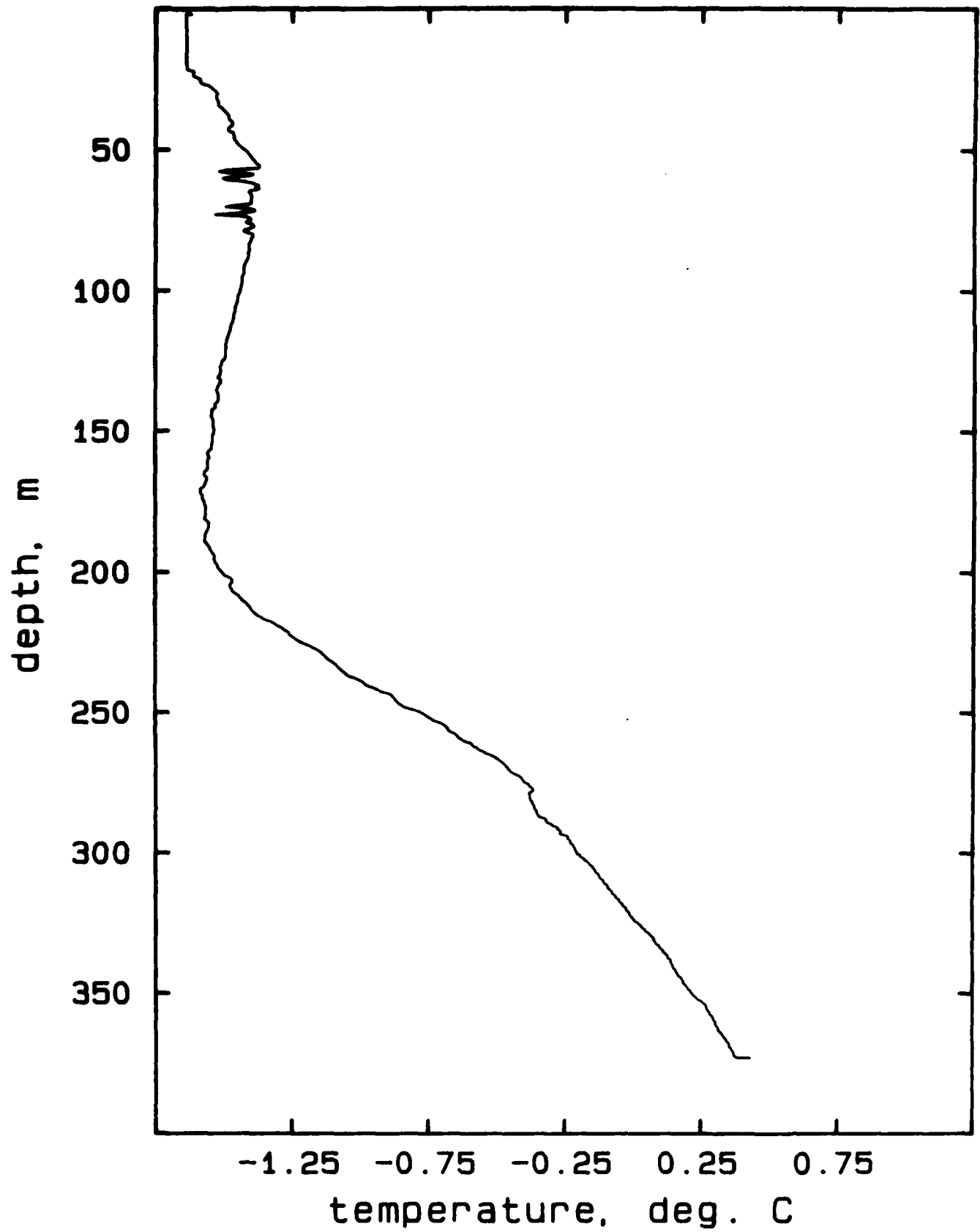
AR 422 G, drops 1-5

AR422G, drops 6-10

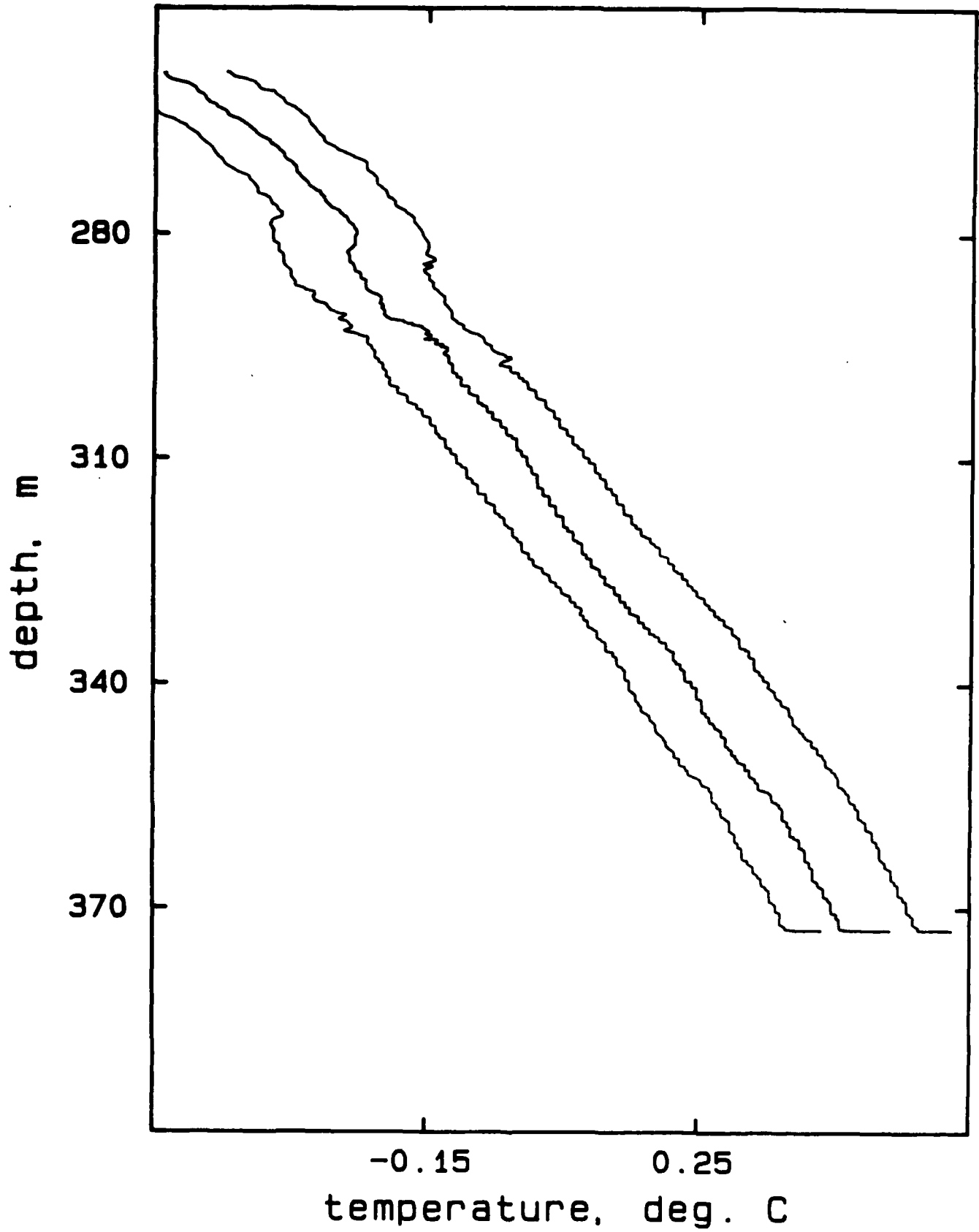




## AR422H, drop 1

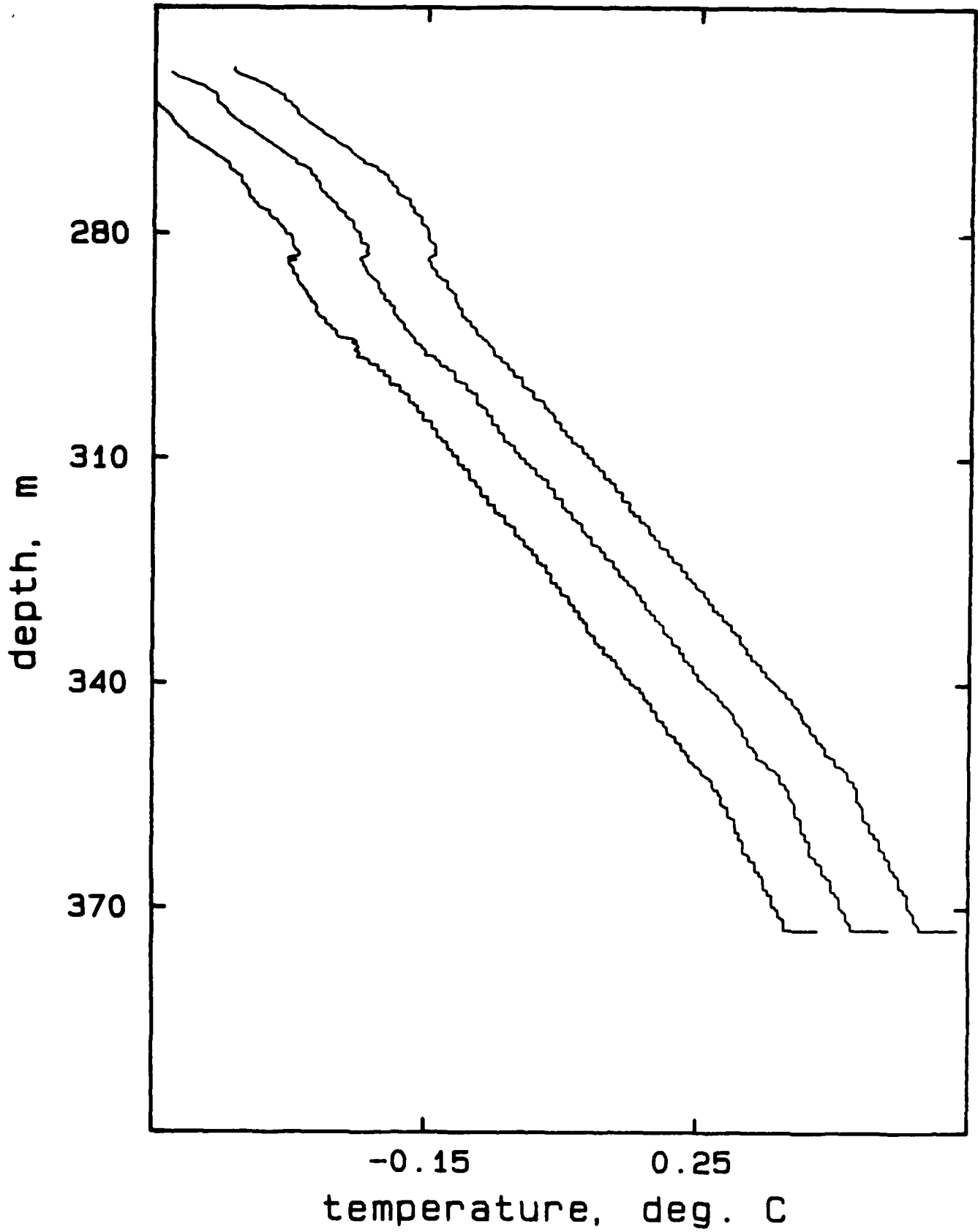


AR422H, drops 1-3

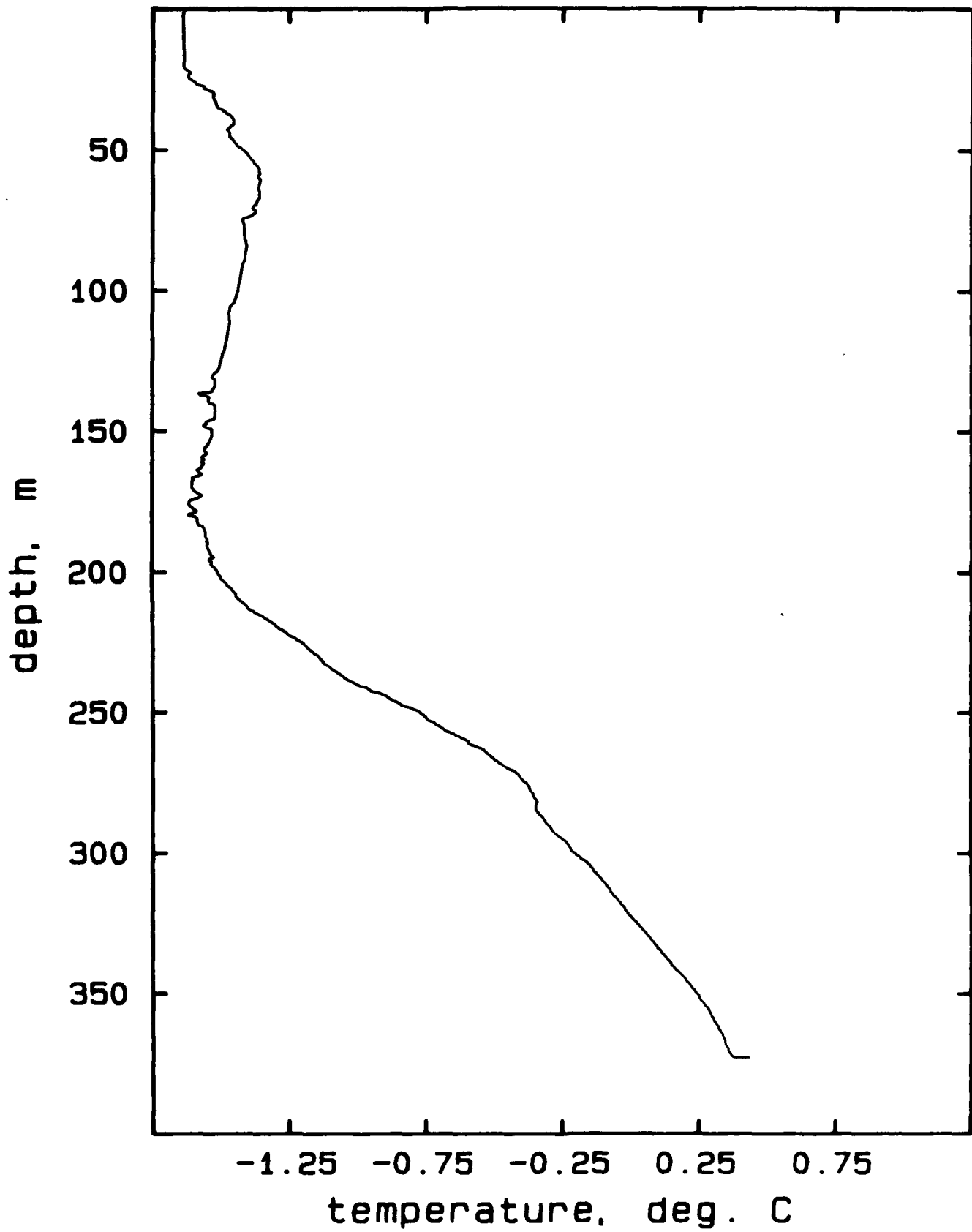


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AR422H, drops 4-6

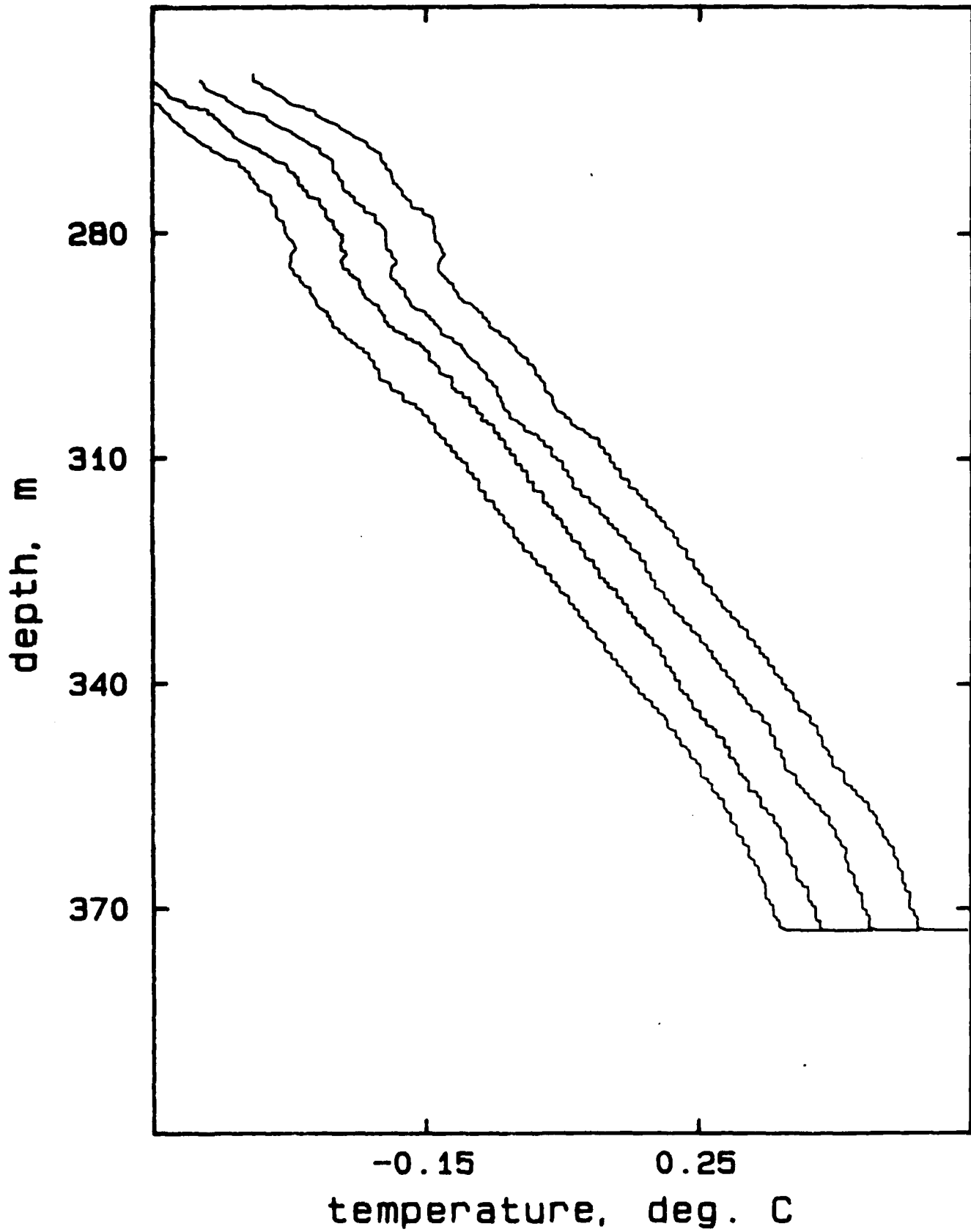


AR422I, drop 1



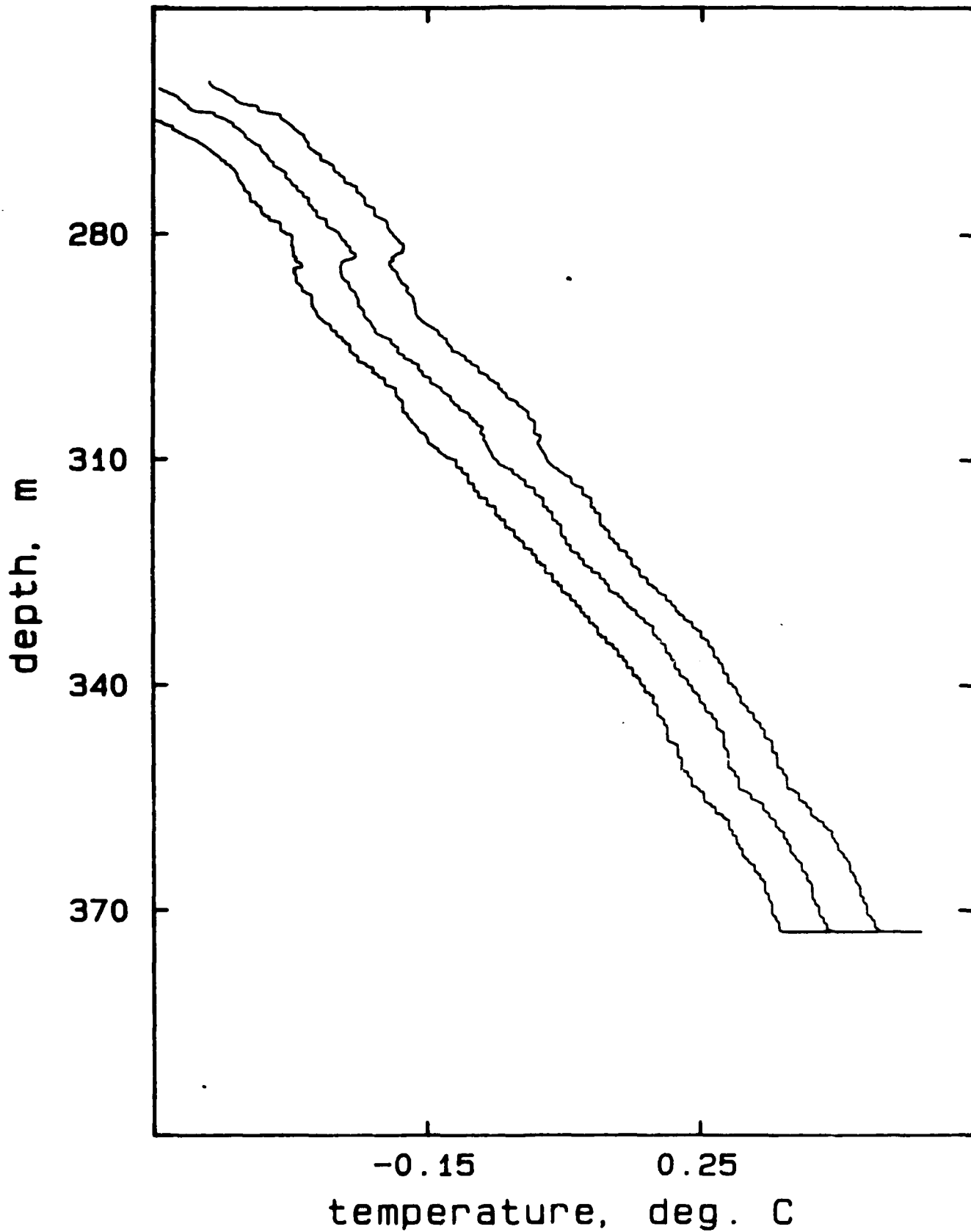
AR422I, drop 1

## AR422I, drops 1-4



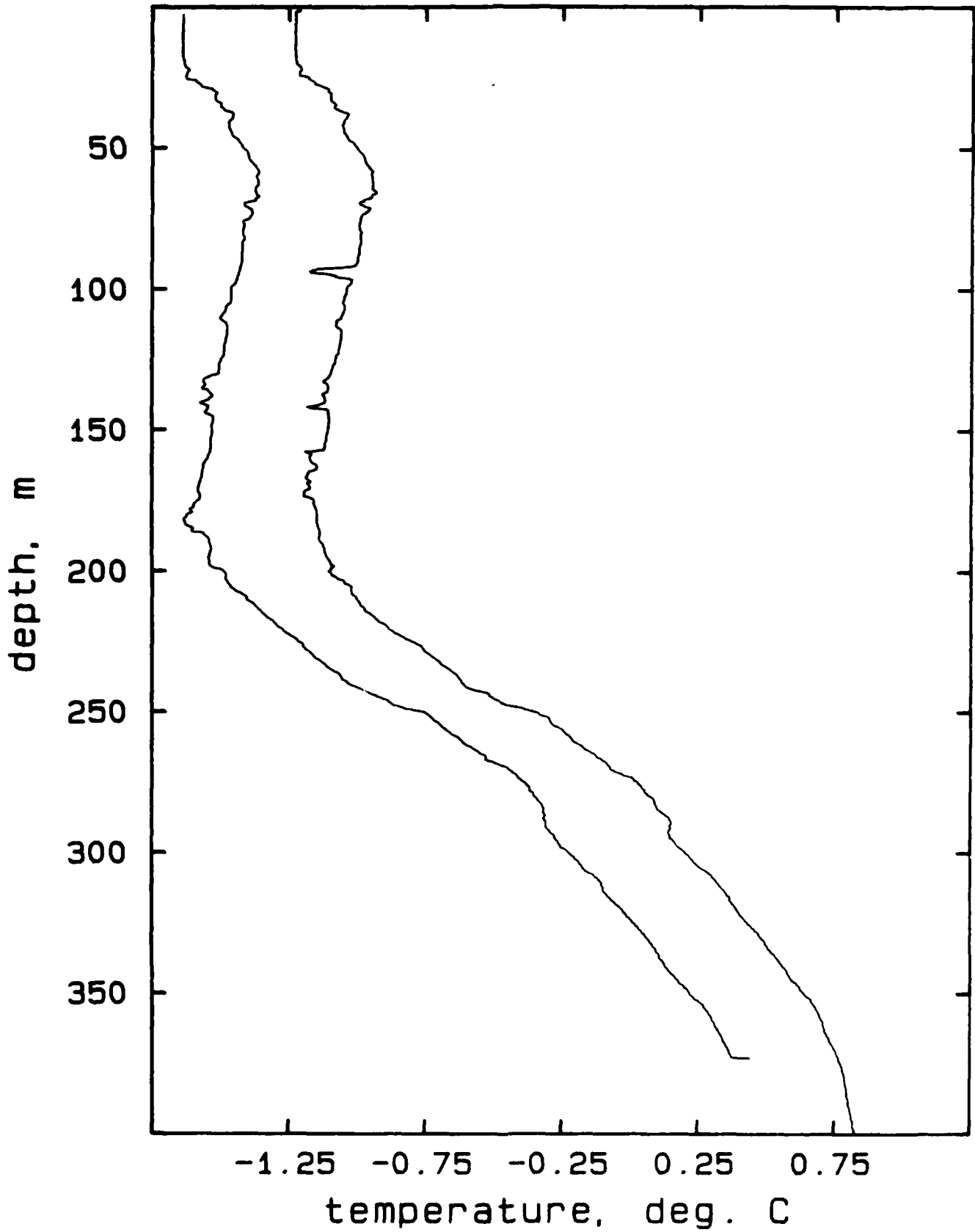


AR422I, drops 5-7

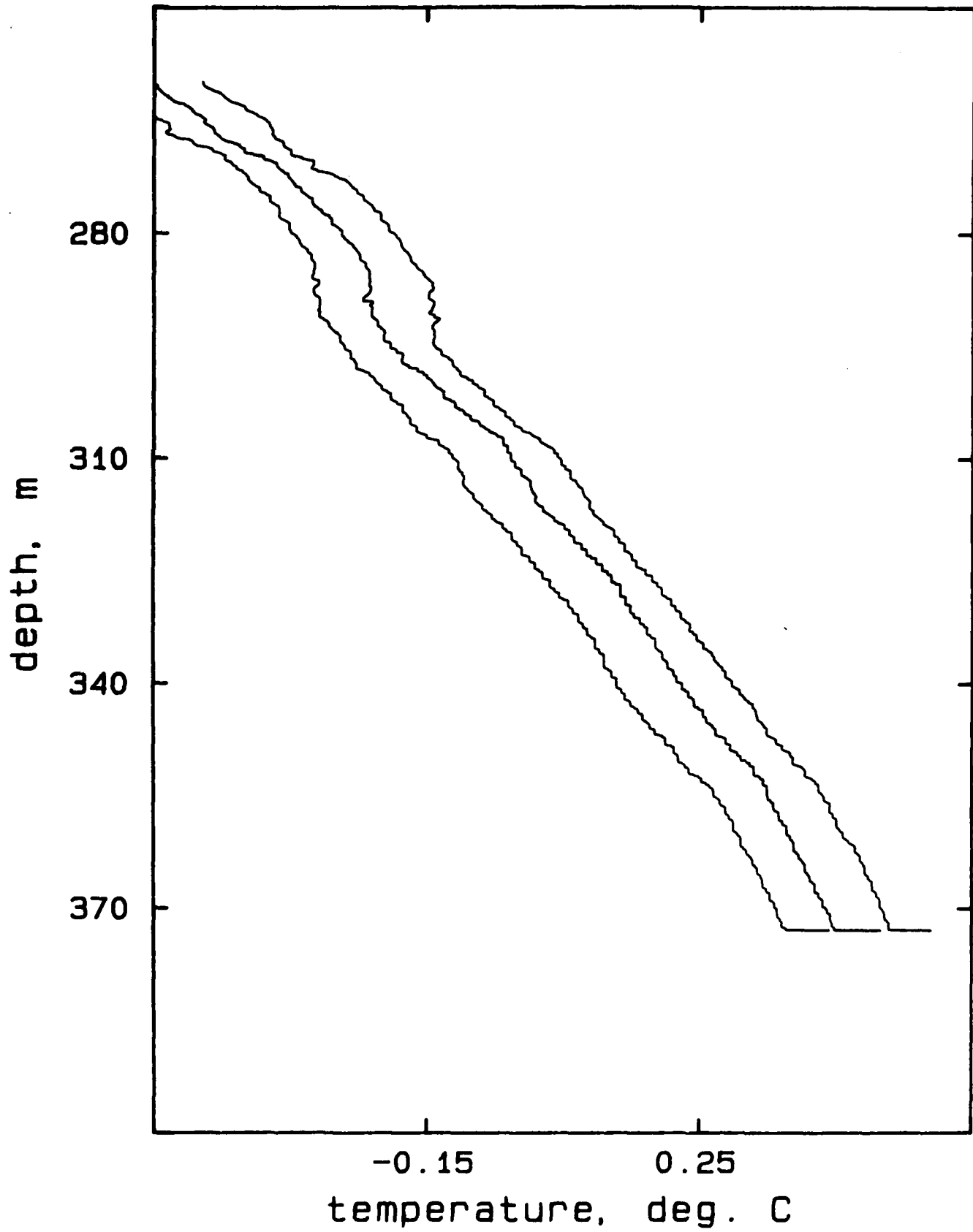


AR422I, drops 5-7

AR422J, drops 1, 4

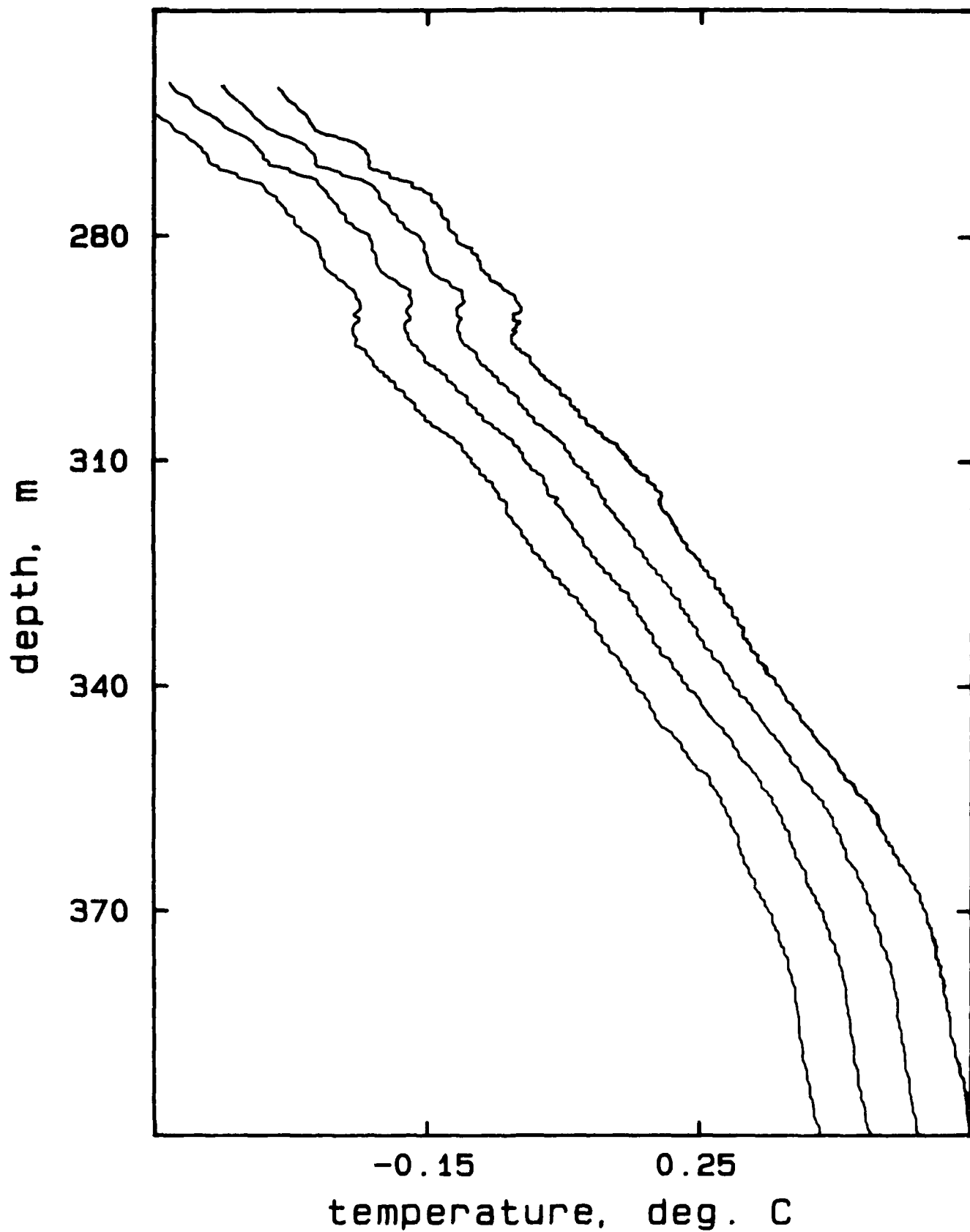


AR422J, drops 1-3

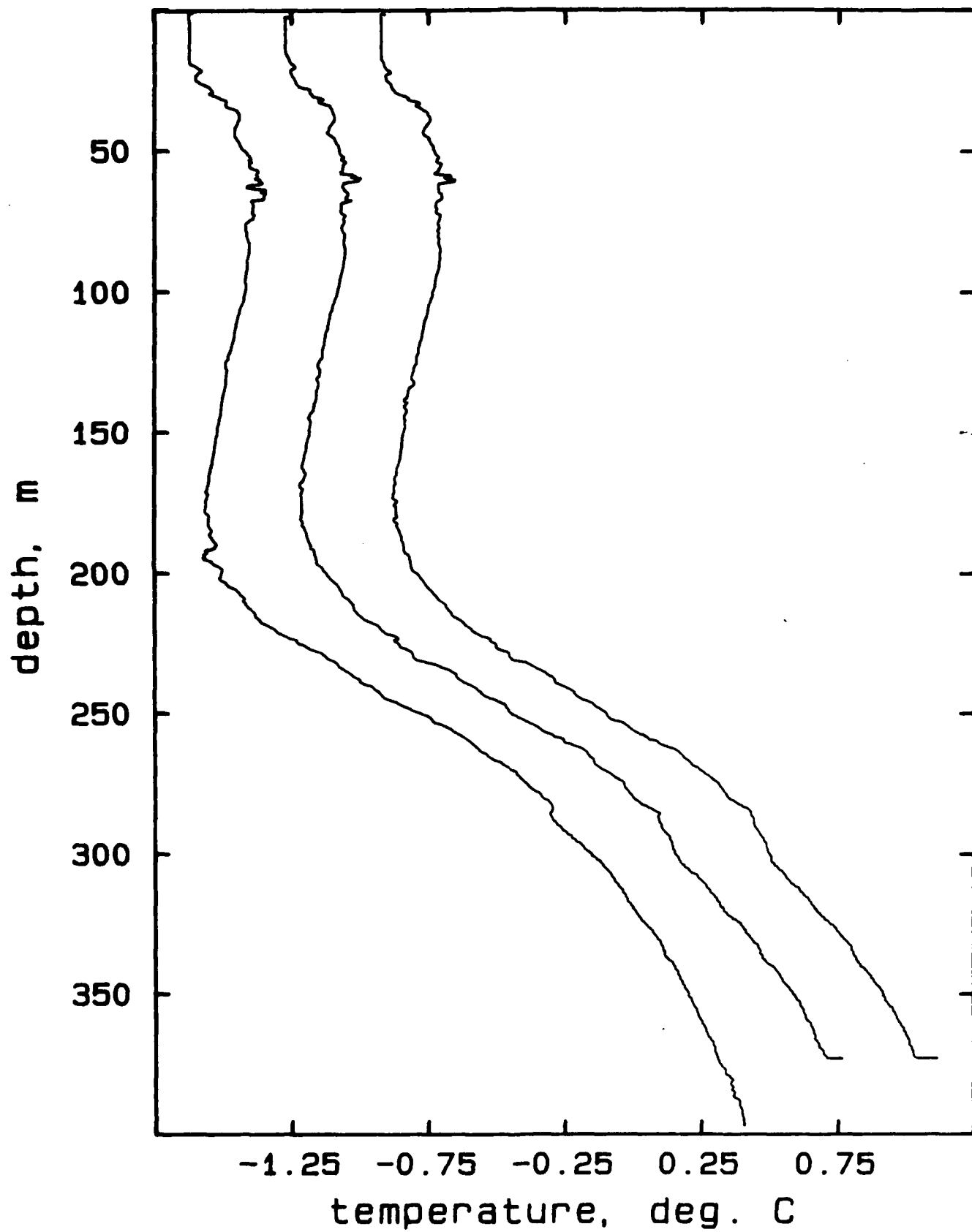


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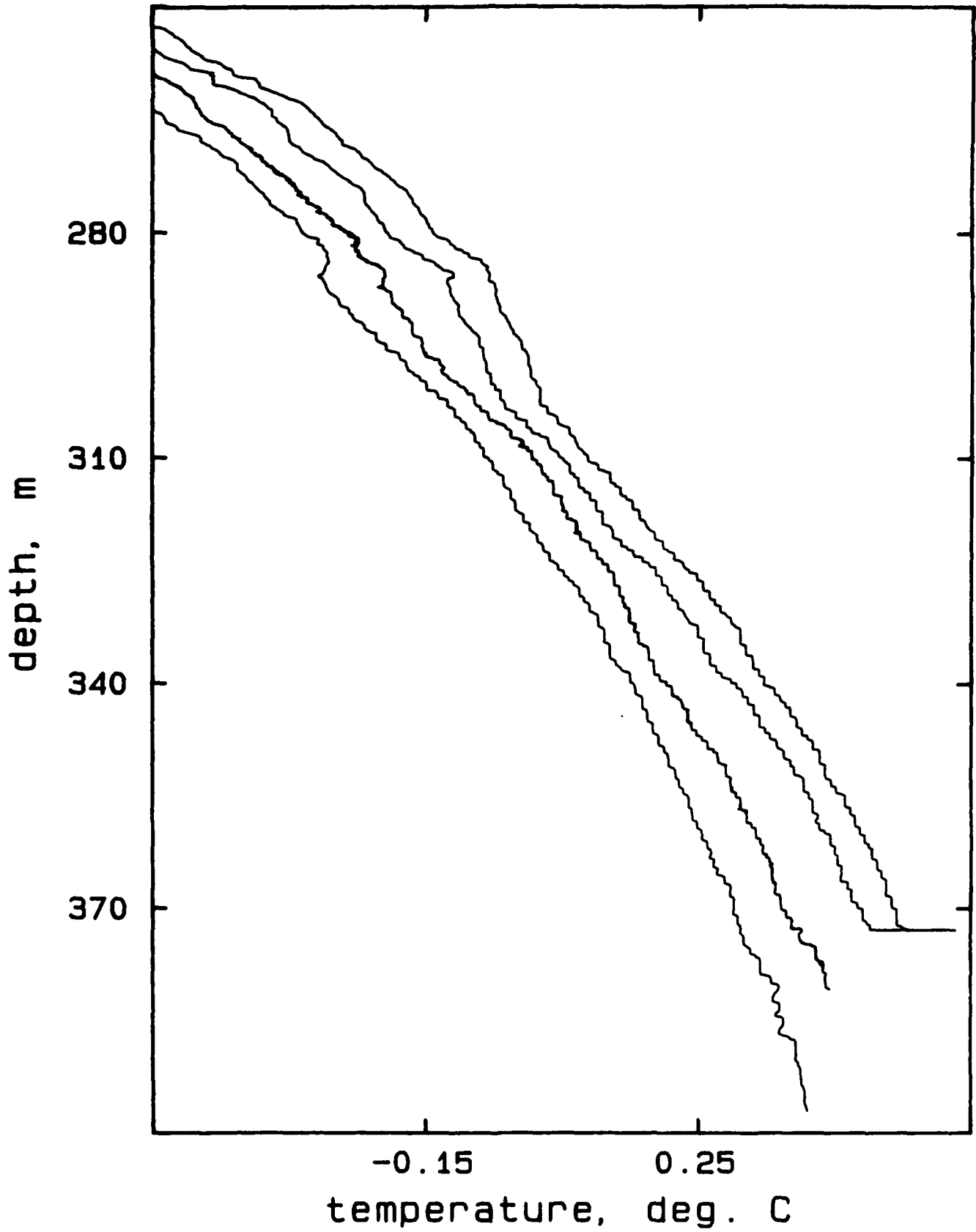
AR422J, drops 4-7



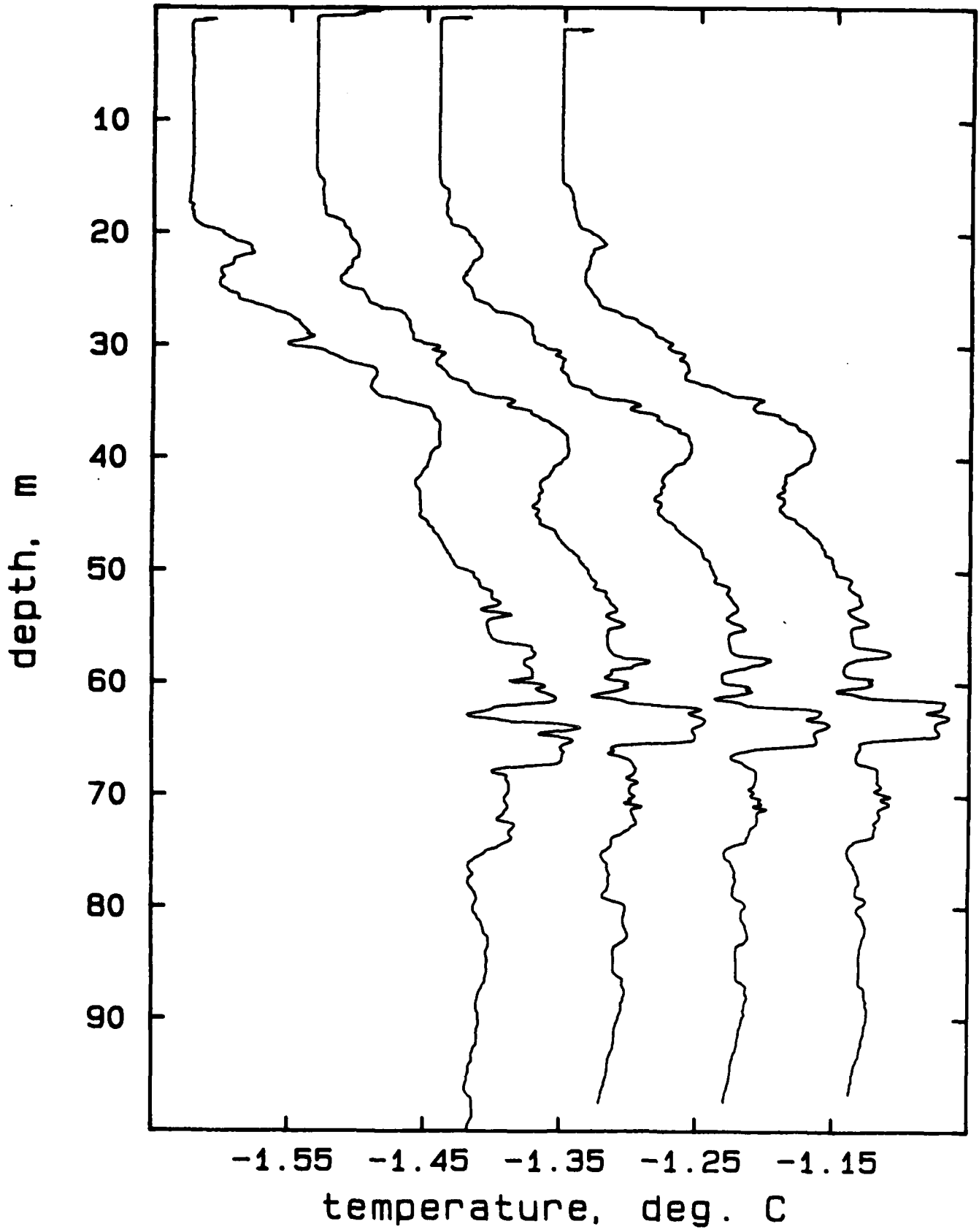
## AR423A, drops 2, 7, 8

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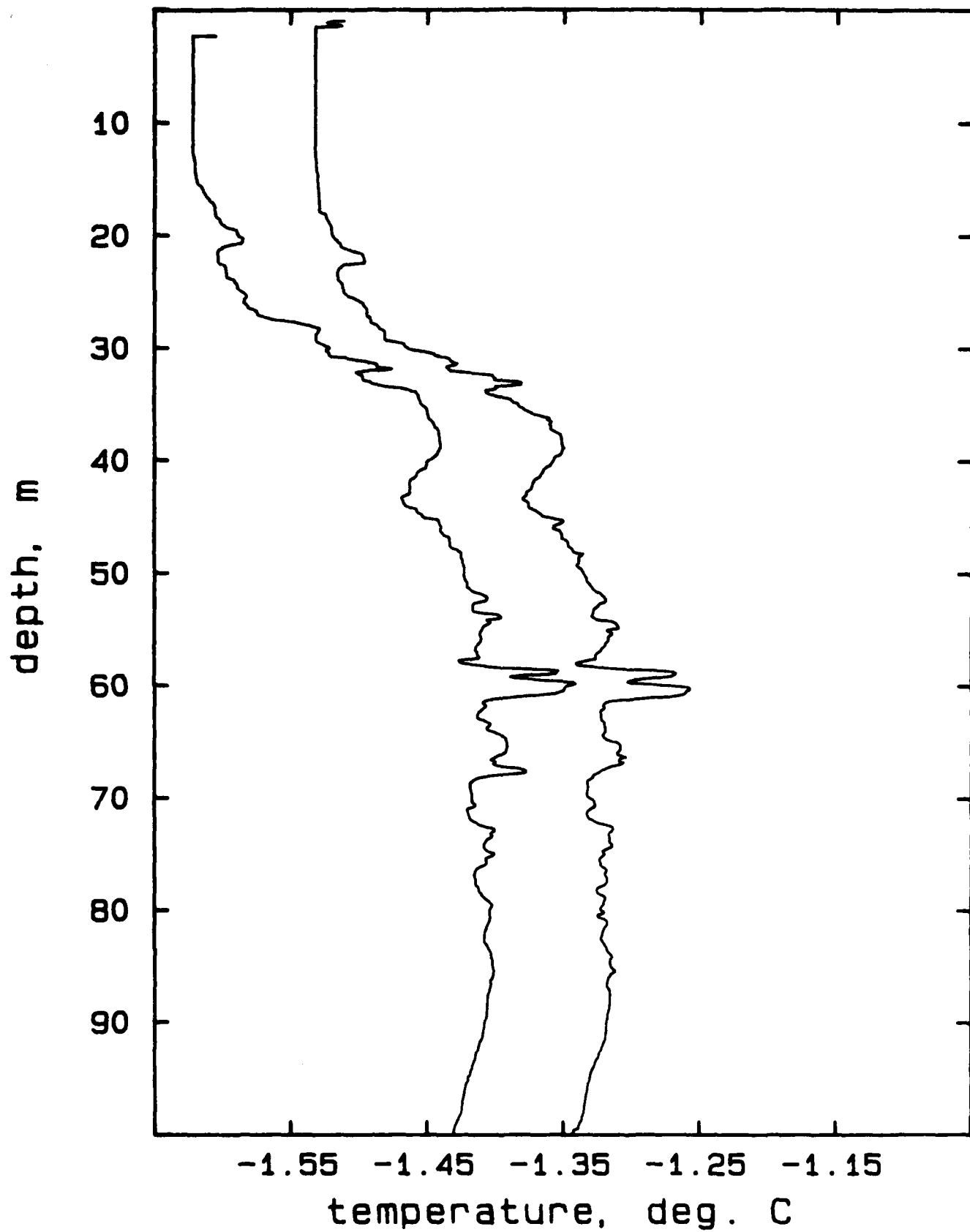
## AR423A, drops 2, 3, 7, 8



## AR423A, drops 2, 4-6



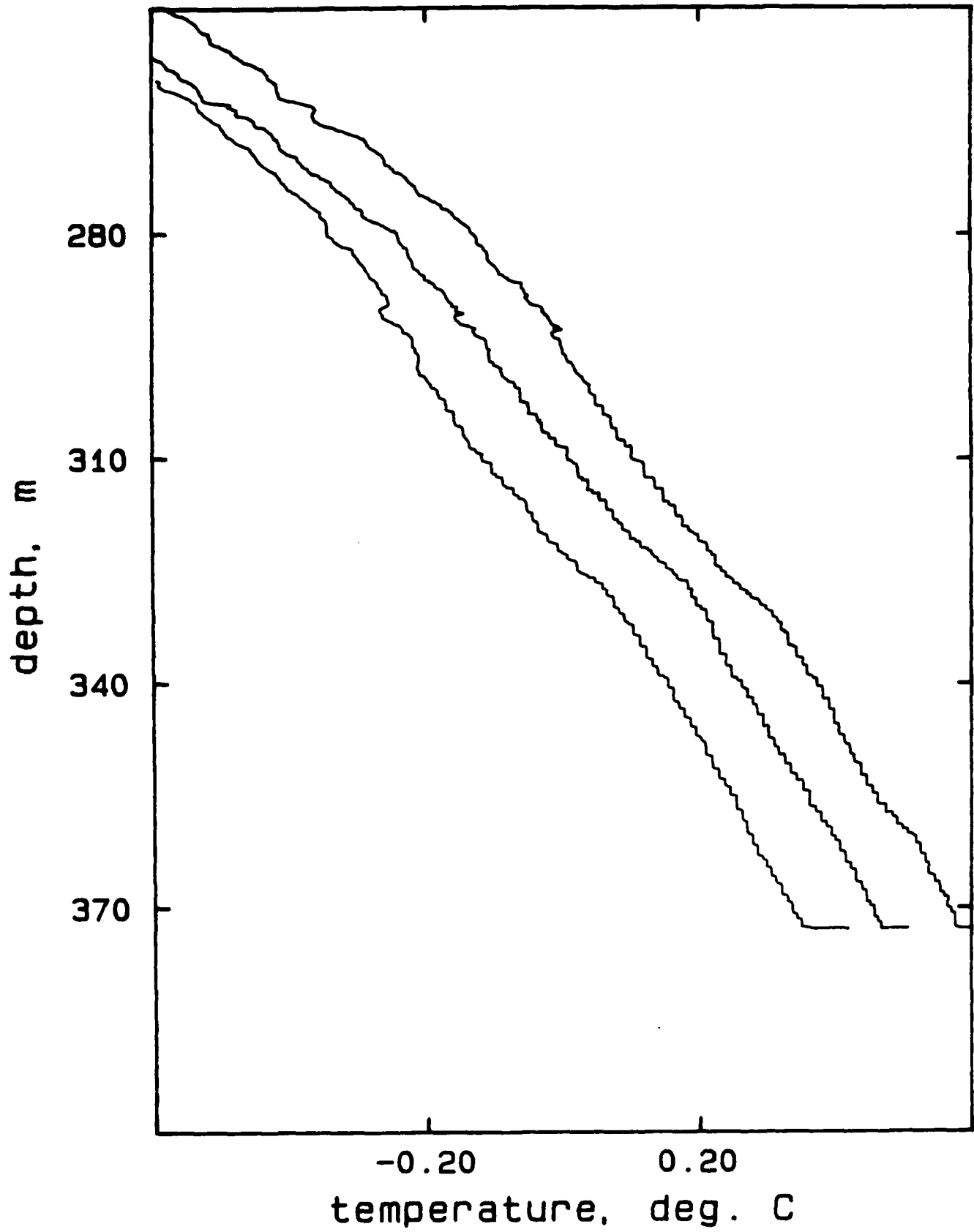
## AR423A, drops 7-8



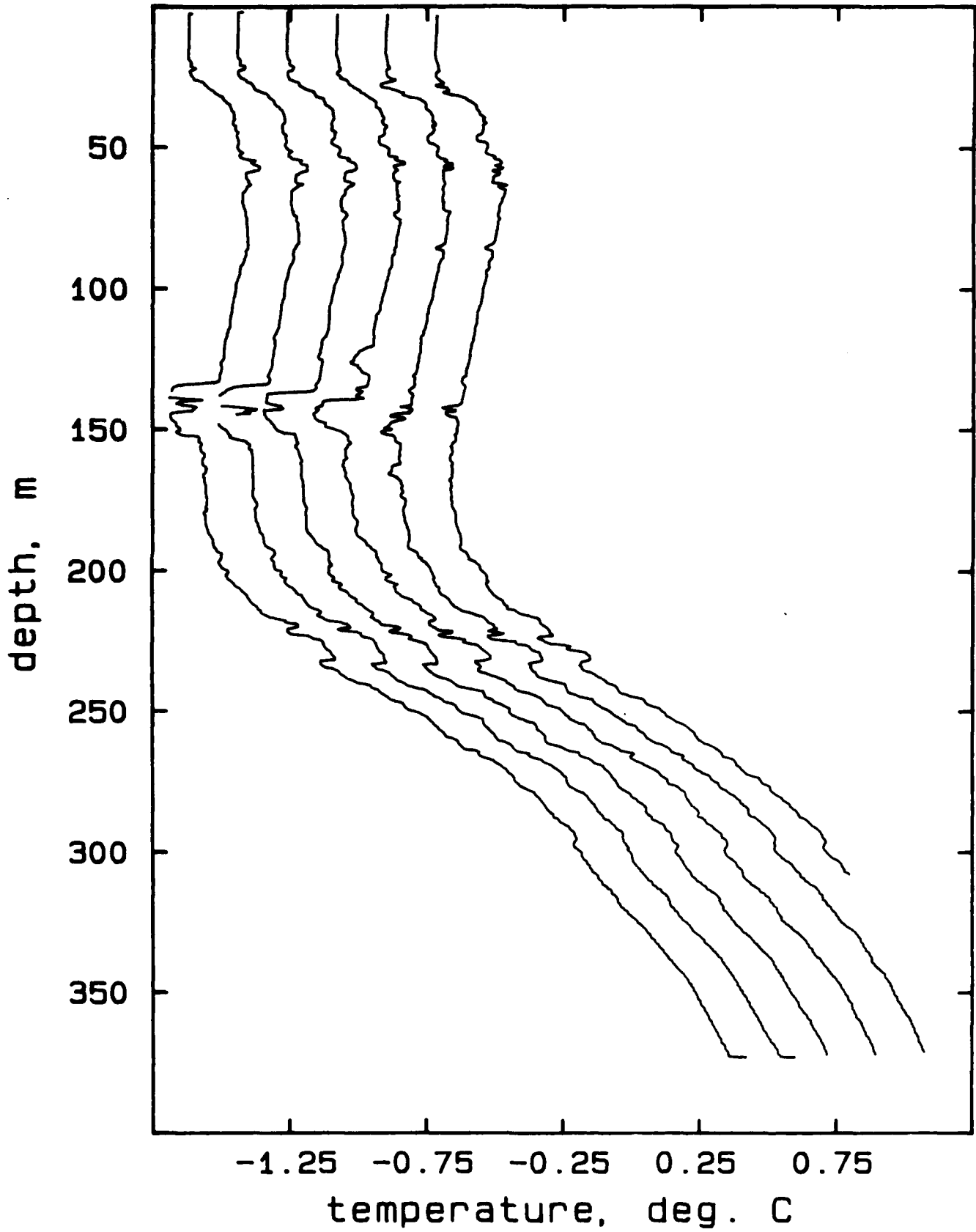




AR423B, drops 1-3

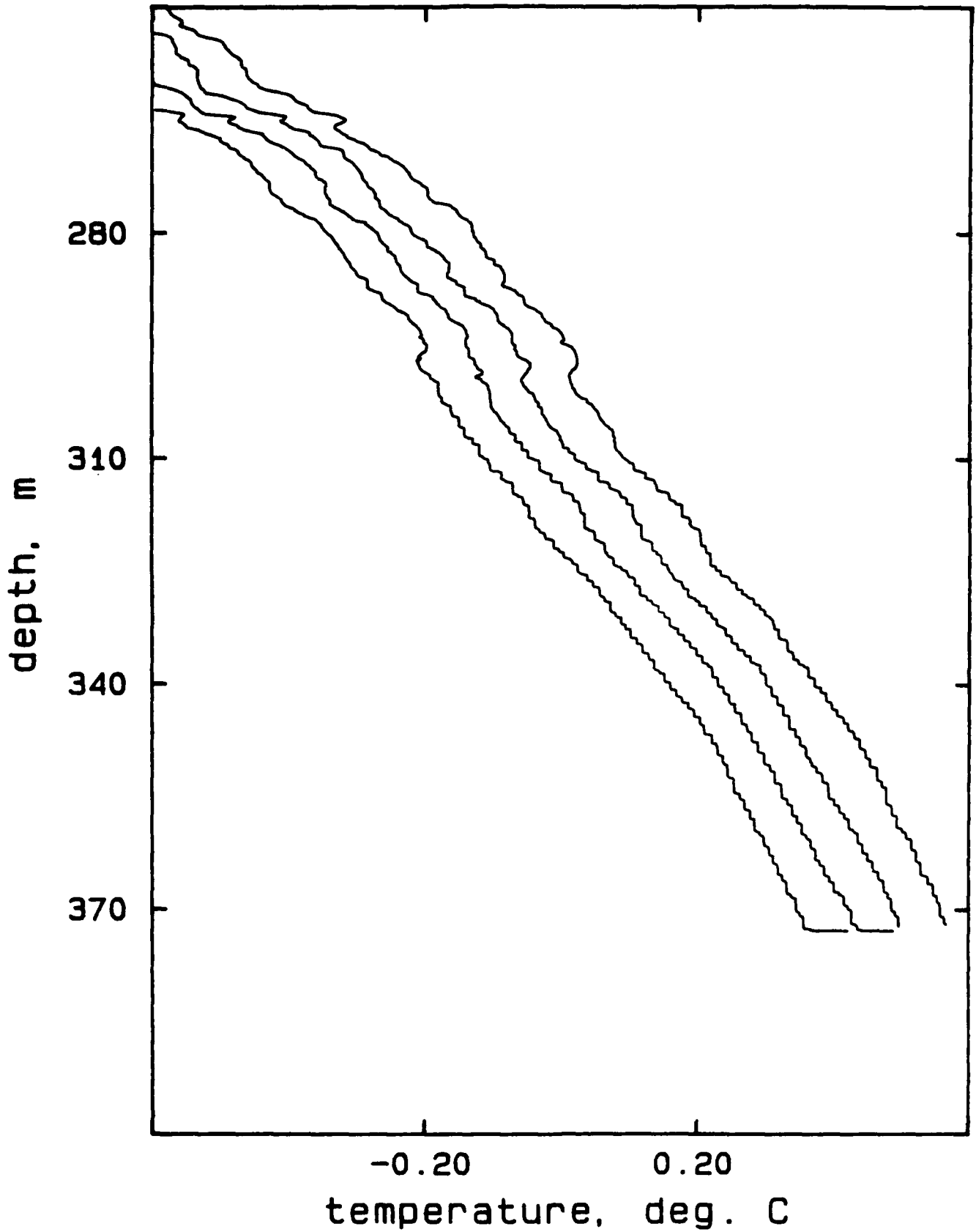


AR423C, drops 1-6

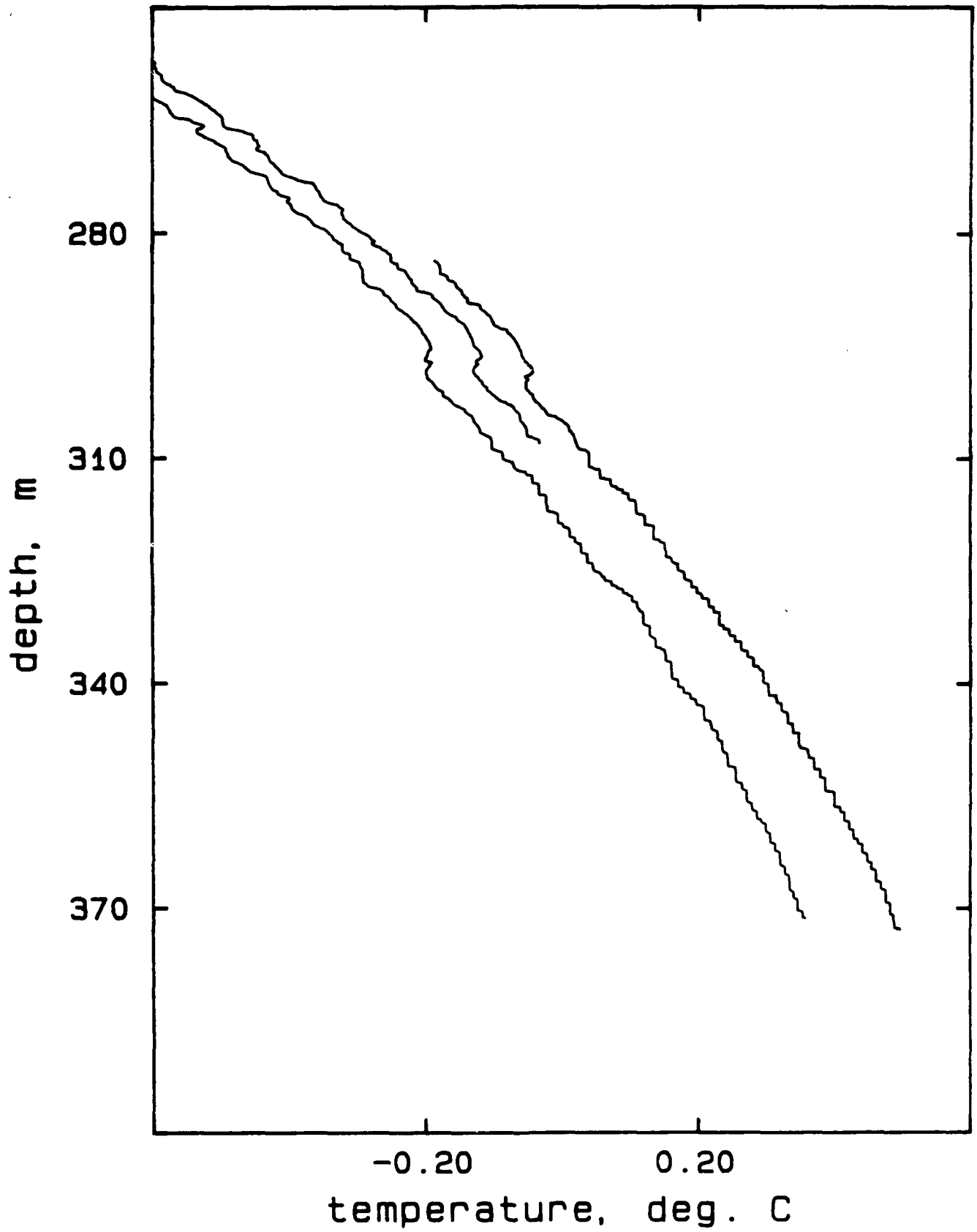


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AR423C, drops 1-4

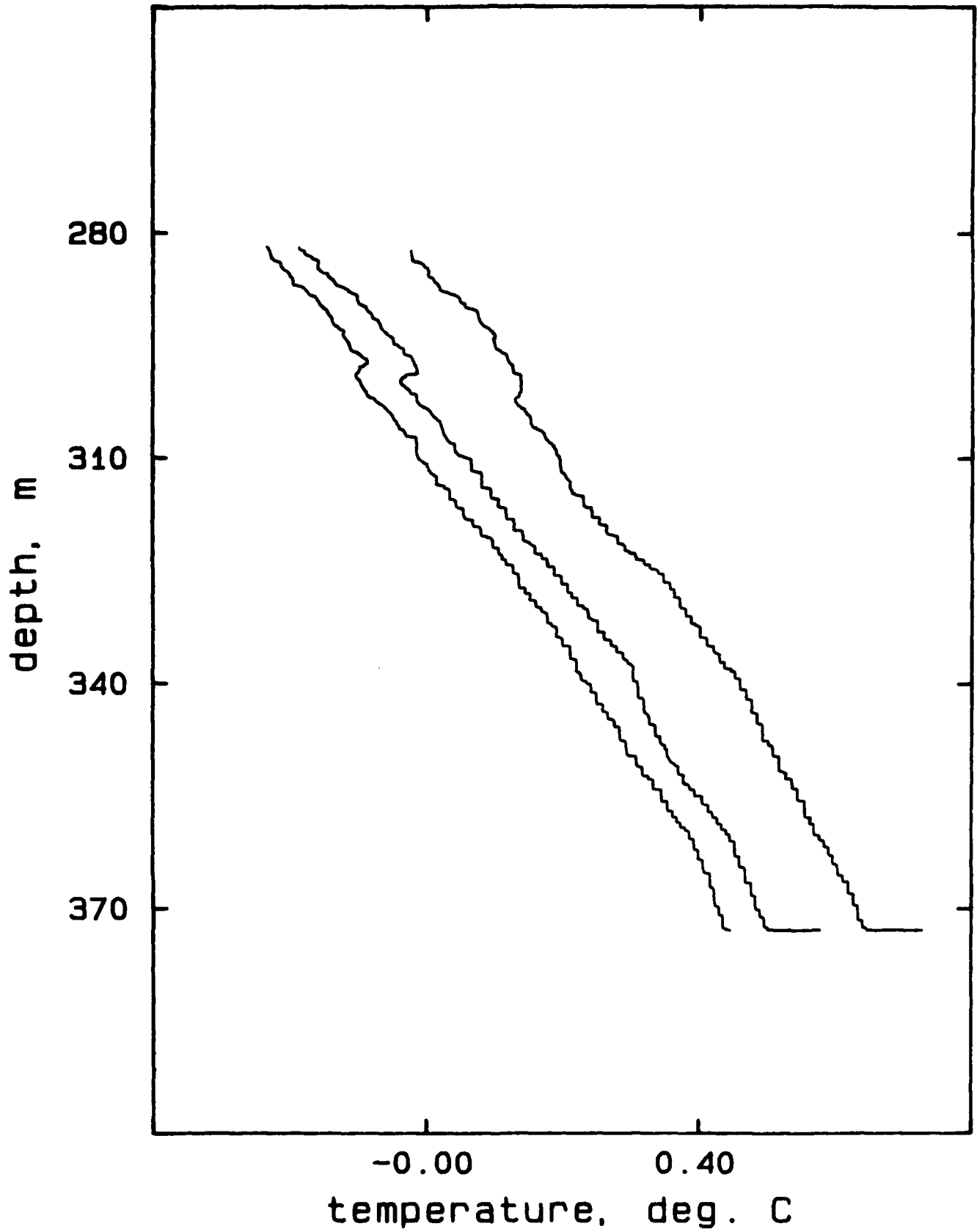


AR423C, drops 5-7

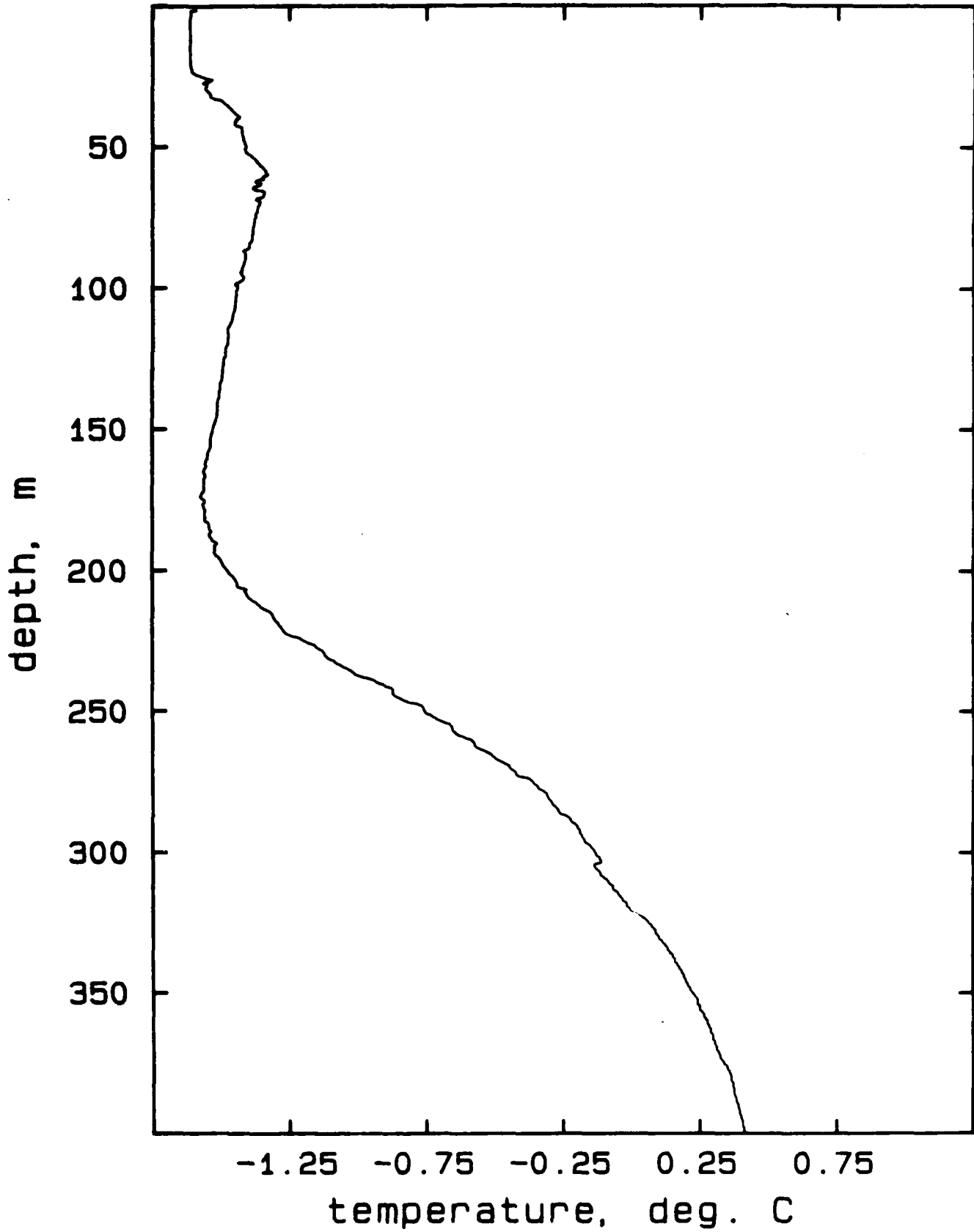


AR 423C, drops 5-7

AR423D, drops 1-3

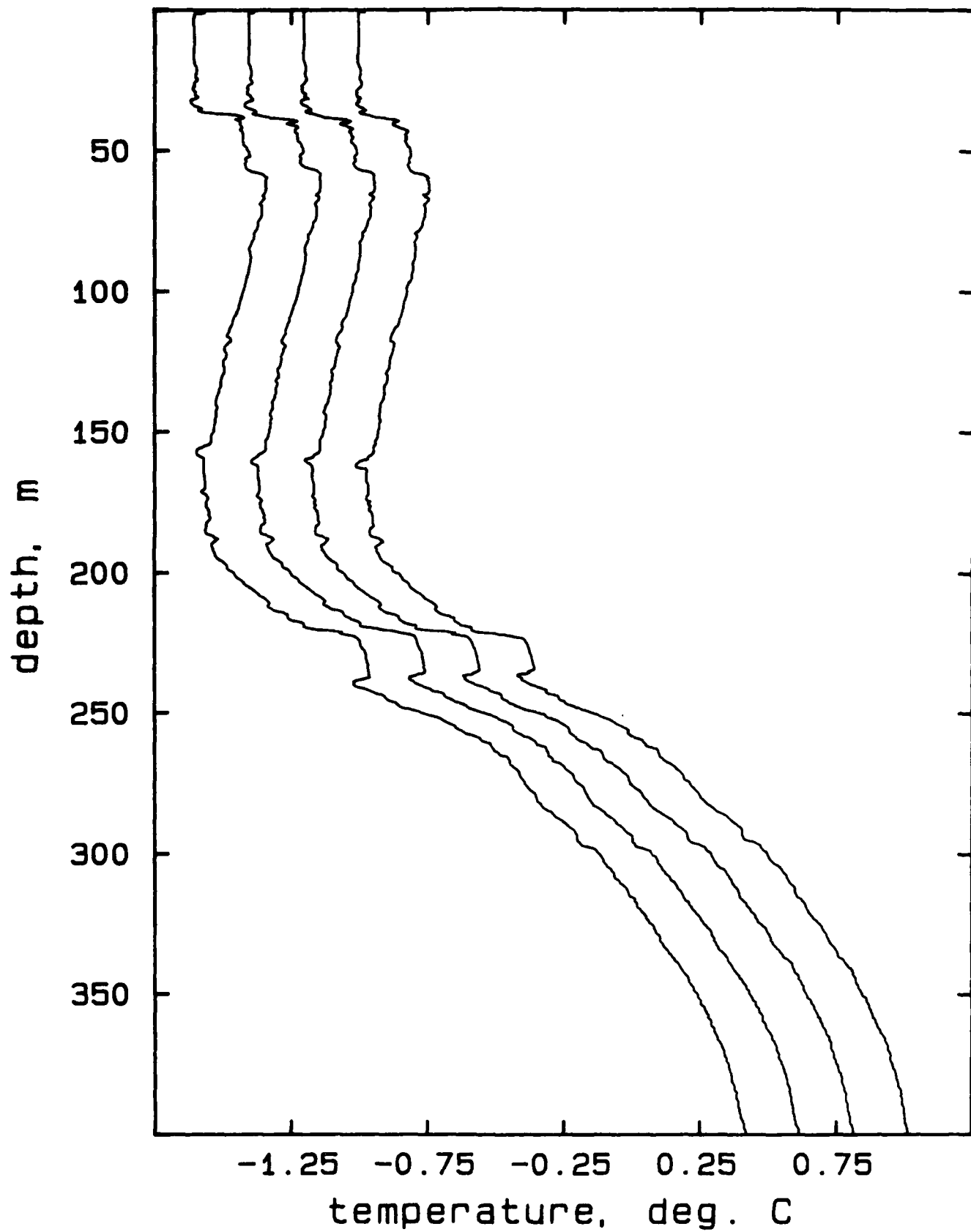


AR423E, drop 3



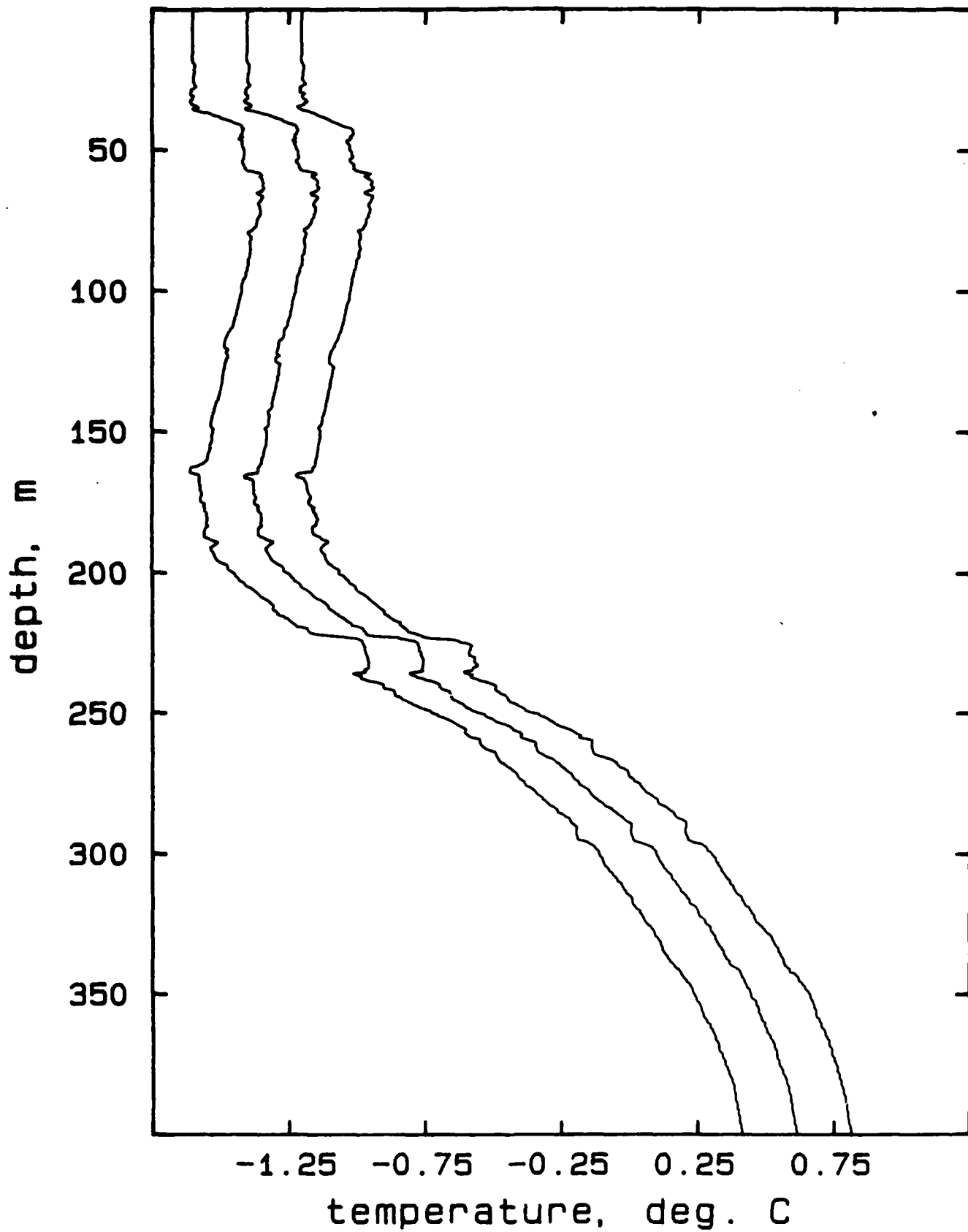
AR423E, drop 3

## AR424A, drops 1-4



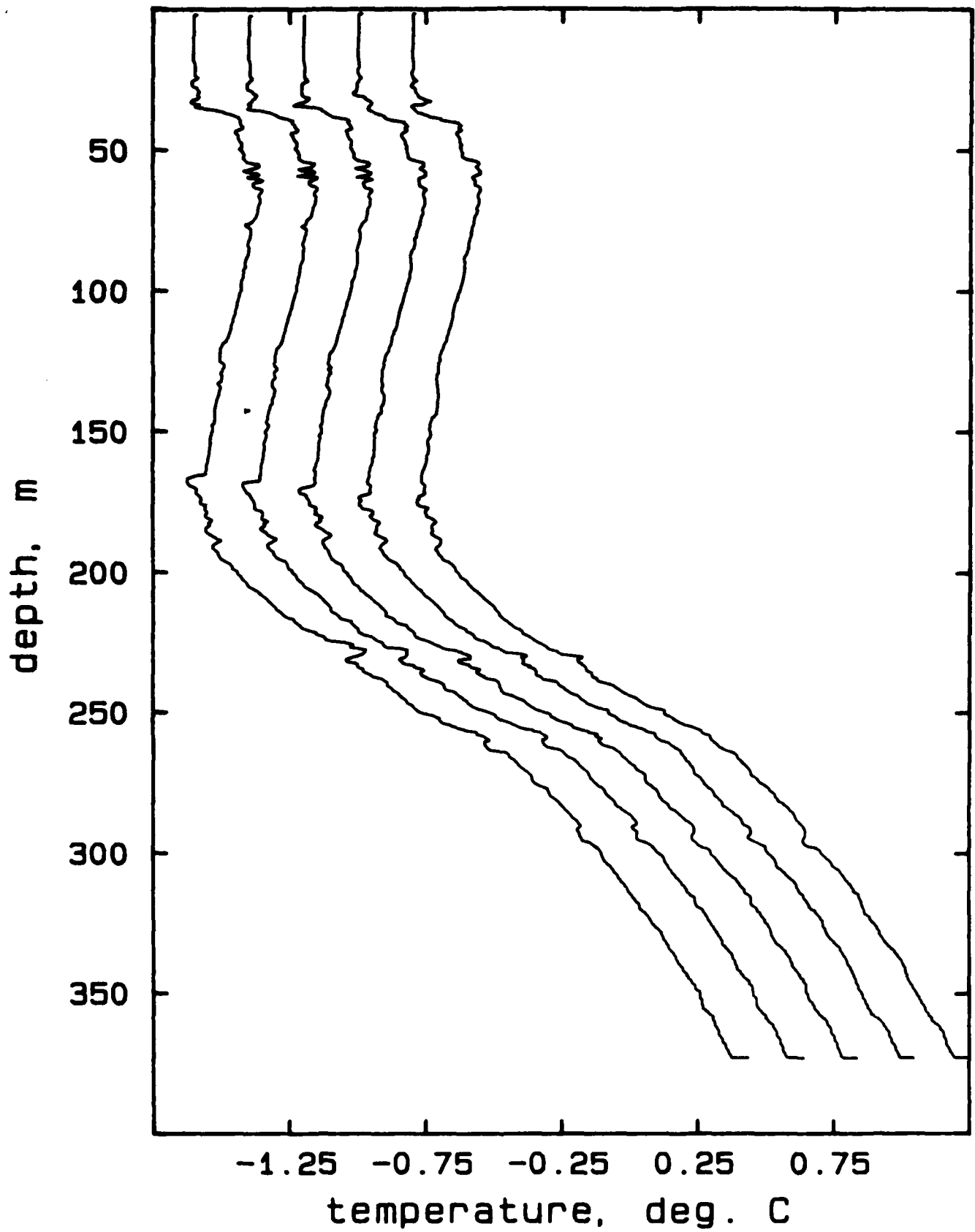


## AR424A, drops 5-7

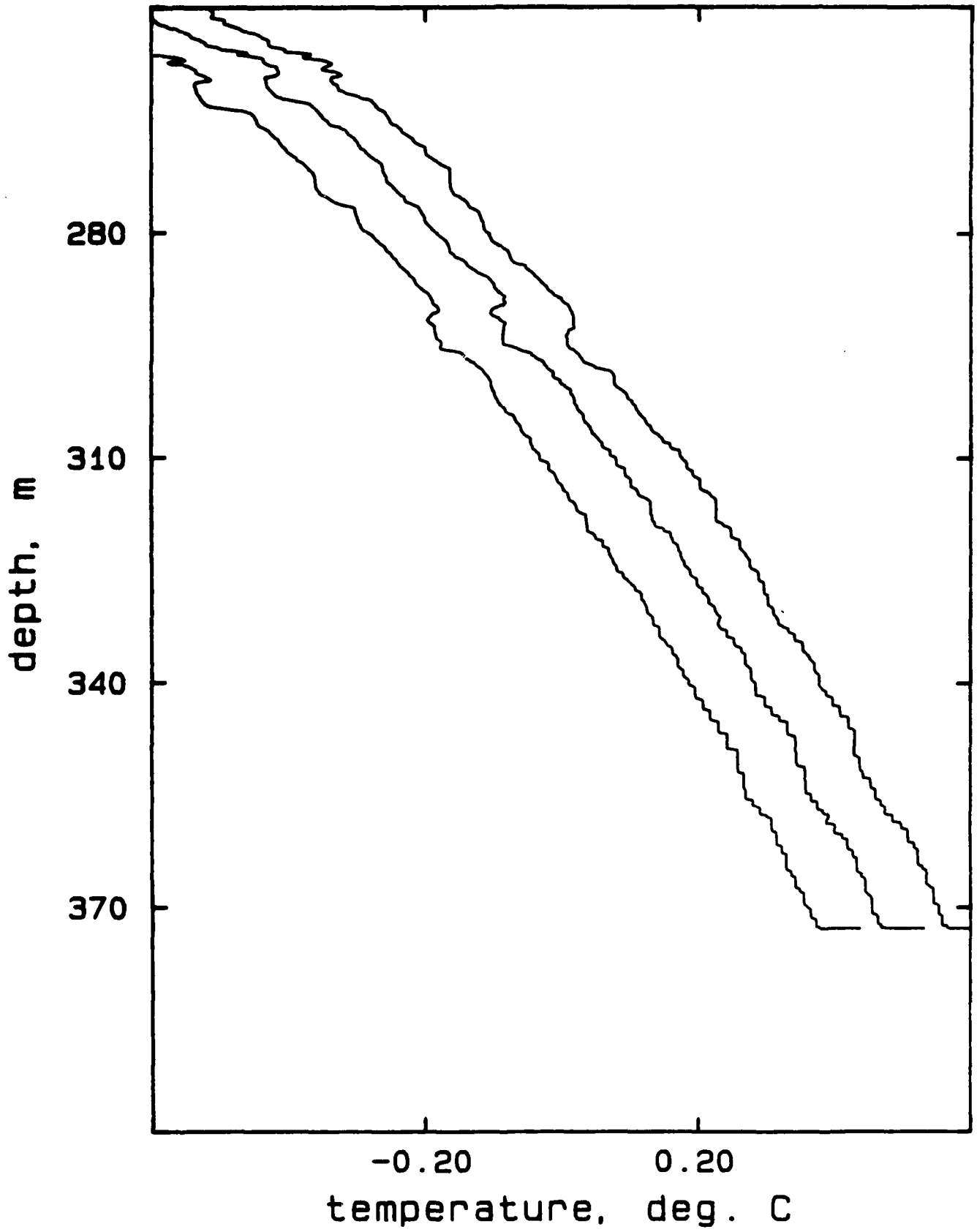


A vertical strip of microfilm frames is visible along the right edge of the page, containing various markings and numbers.

## AR424B, drops 1-3, 5, 6

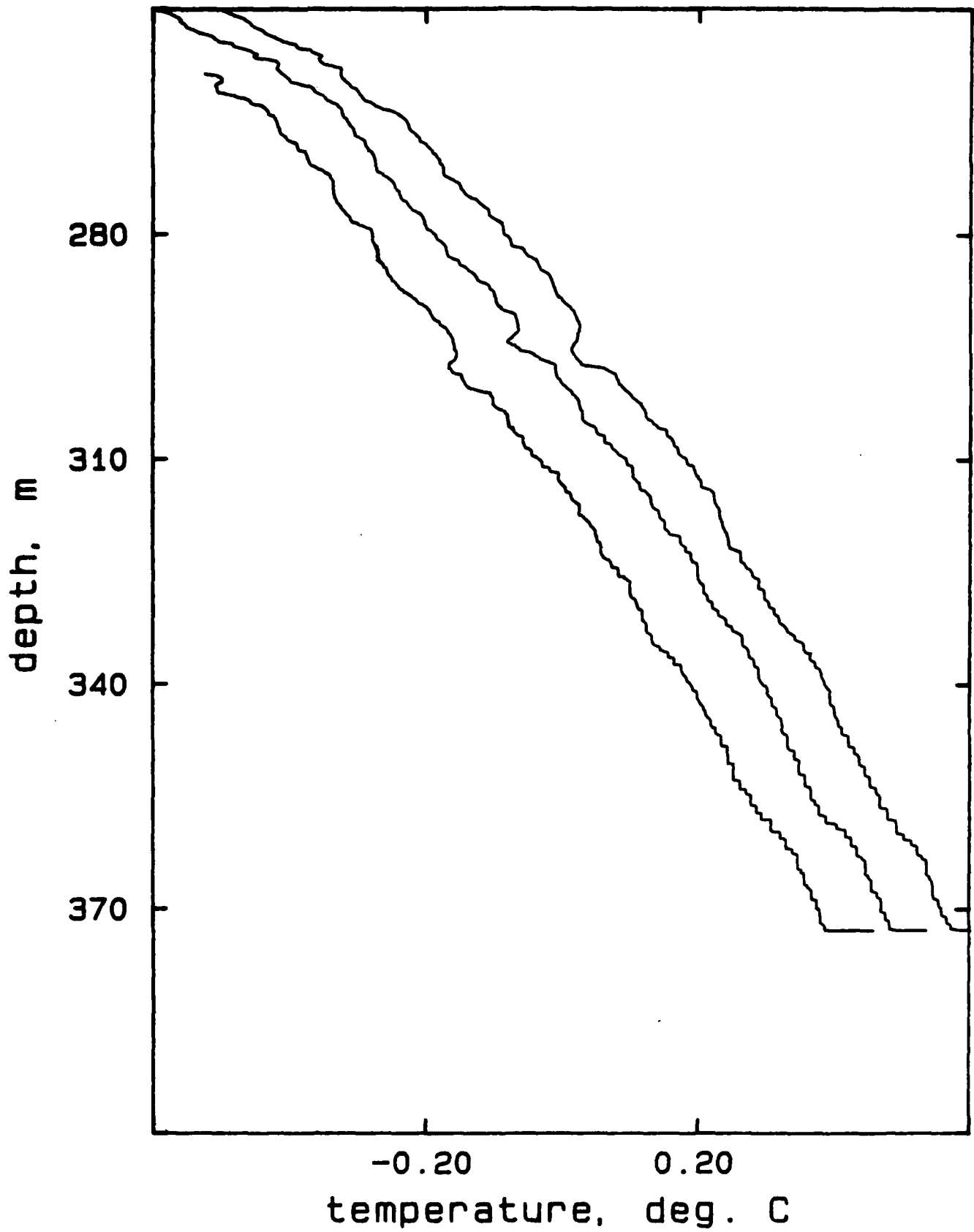


AR424B, drops 1-3

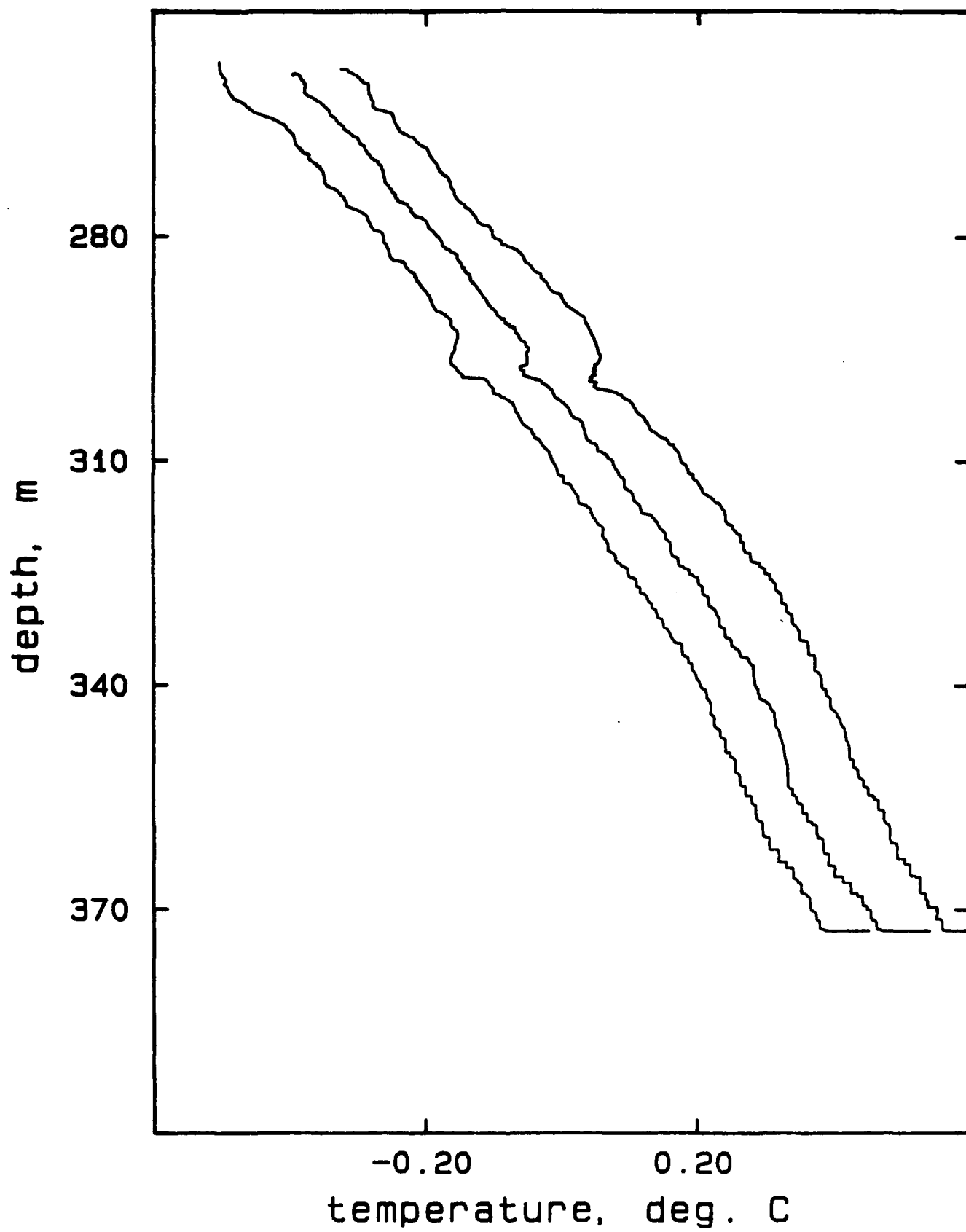


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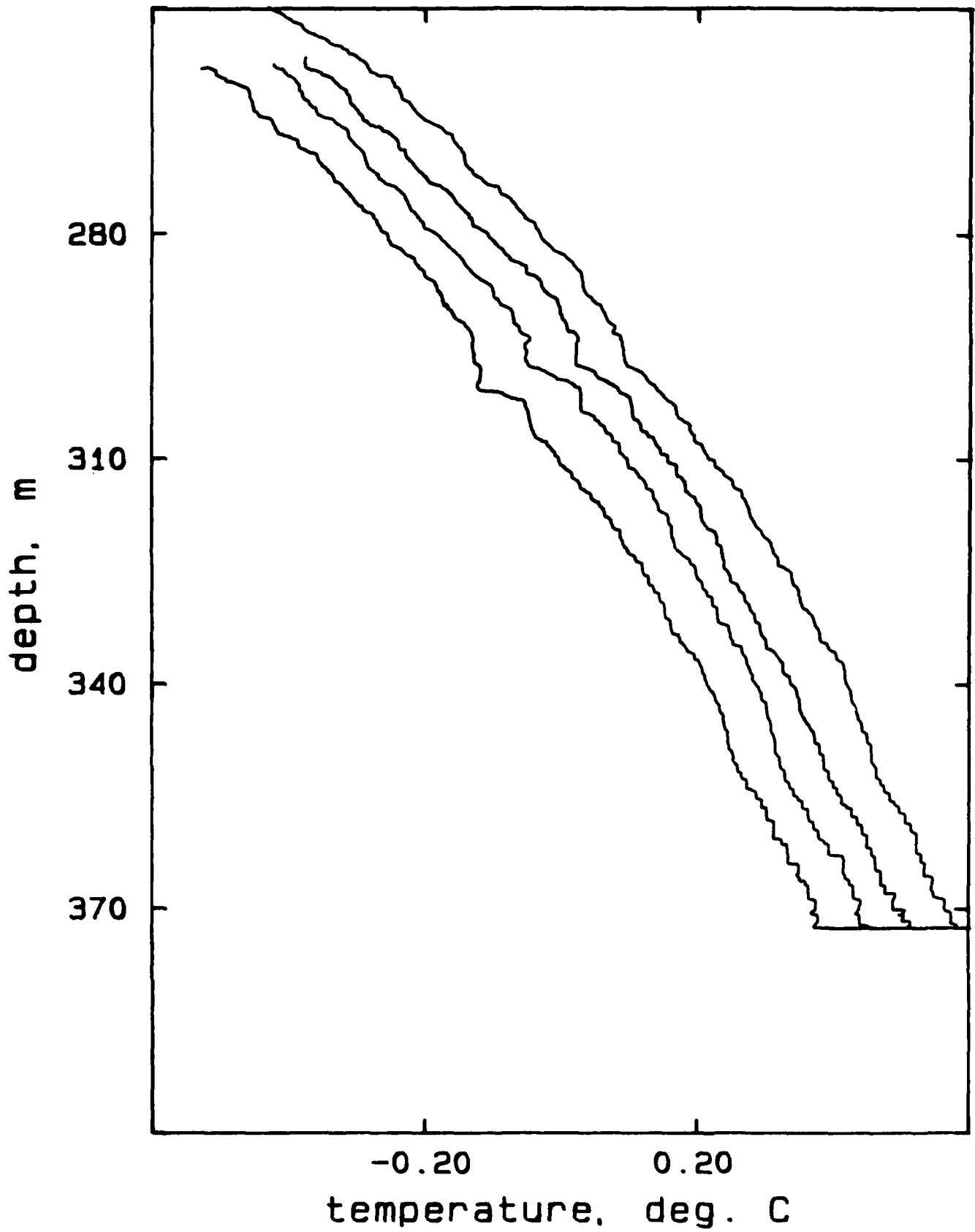
## AR424B, drops 4-6



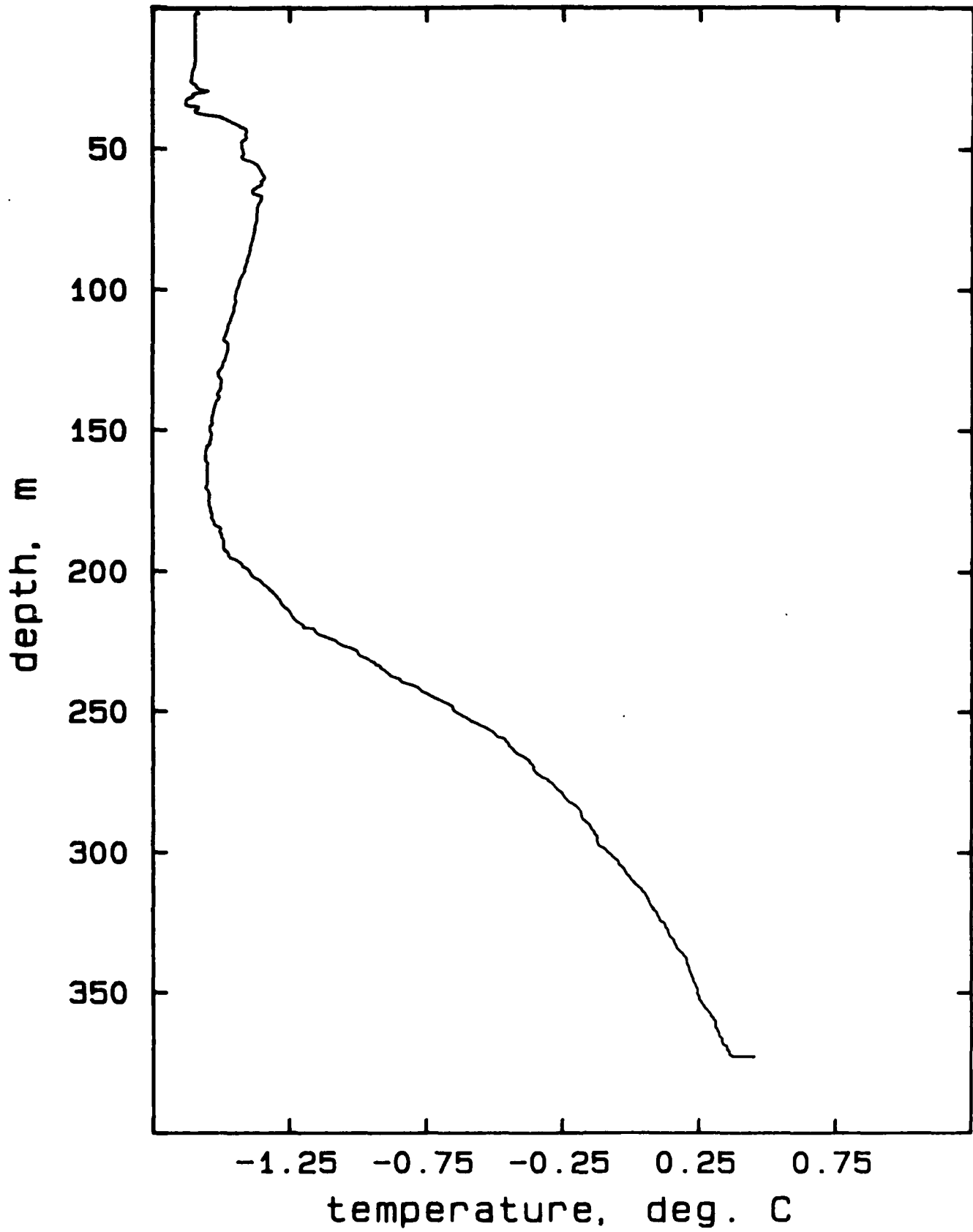
## AR424C, drops 1-3

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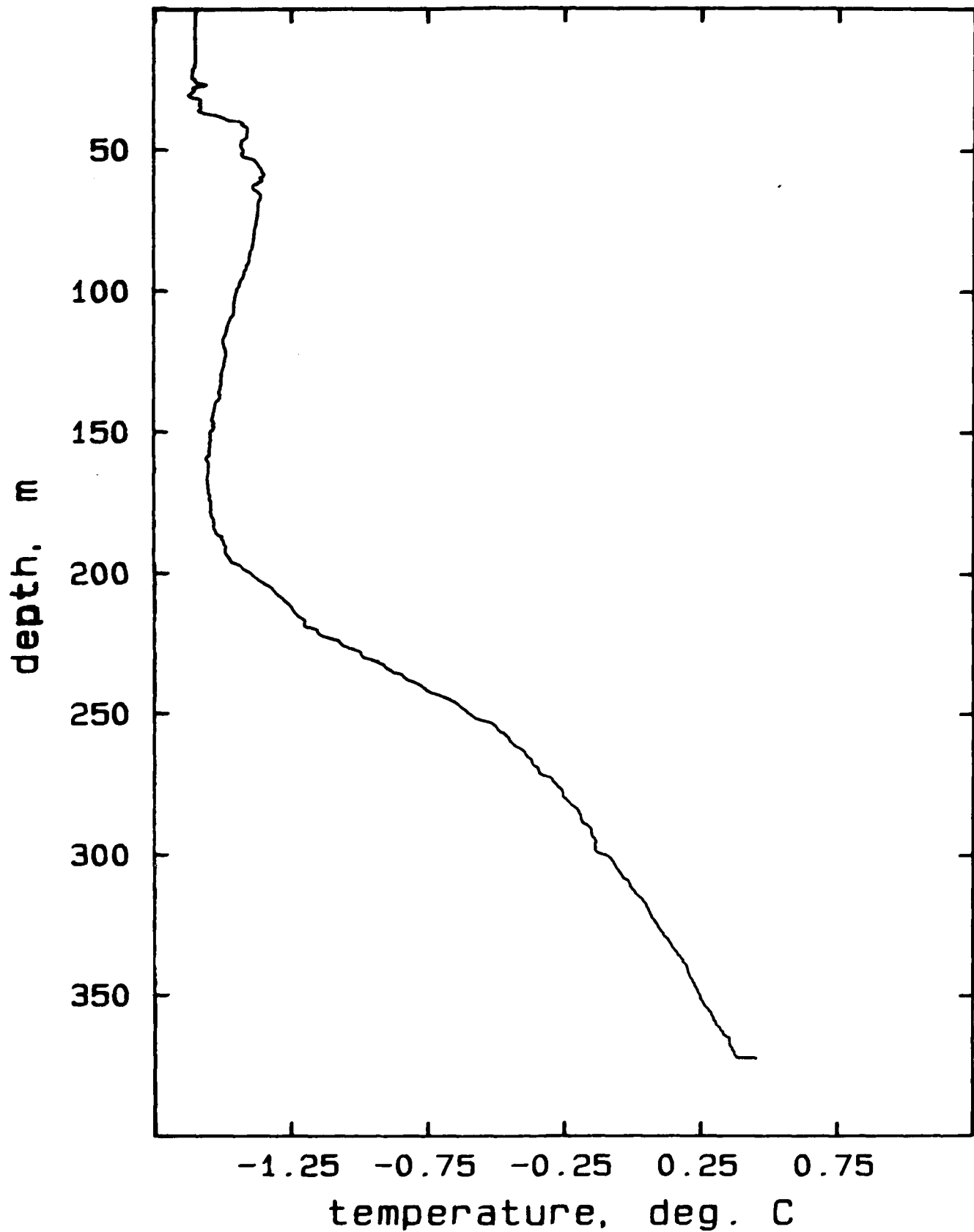
## AR424D, drops 1-4



## AR424D, drop 4

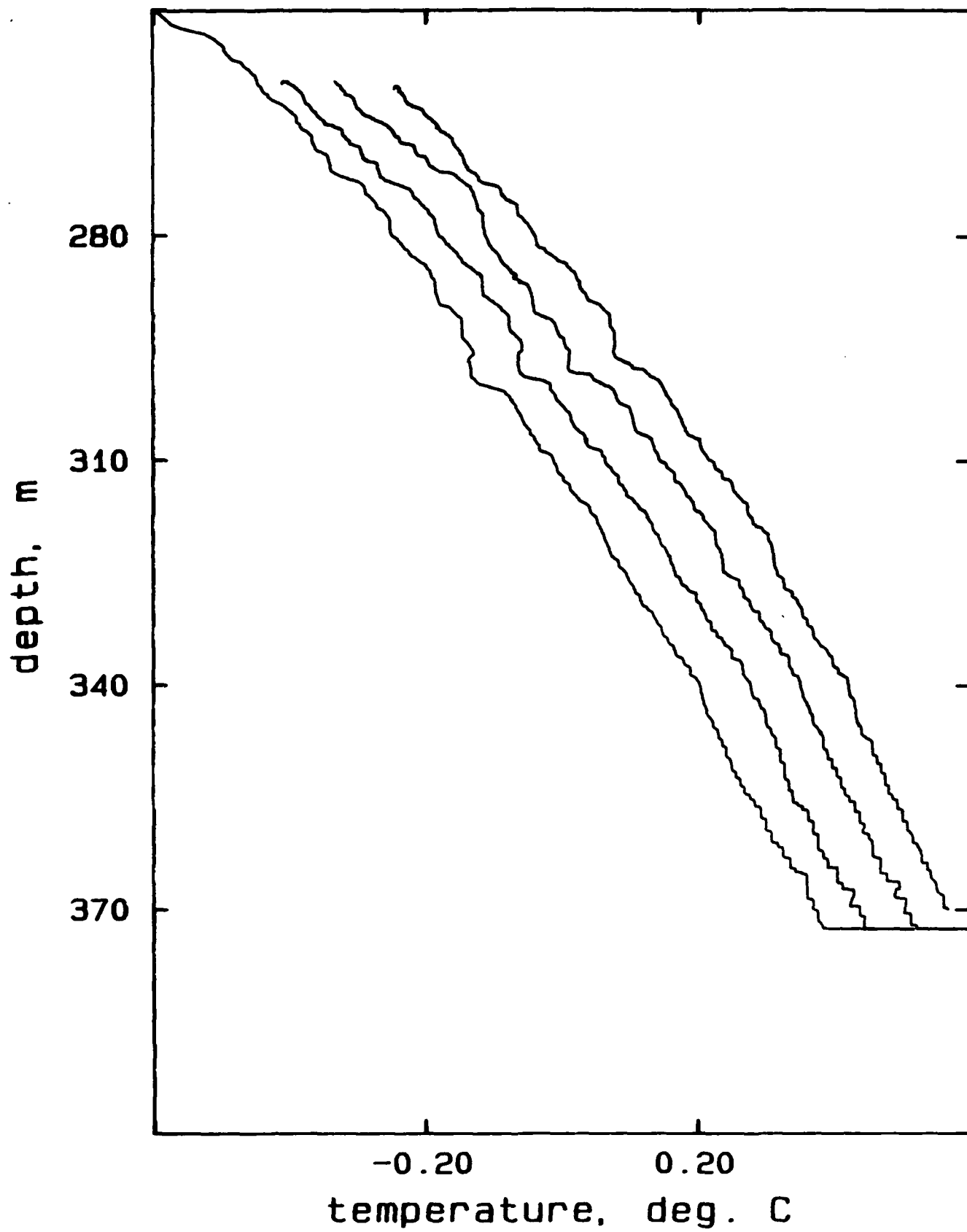


AR424E, drop 1

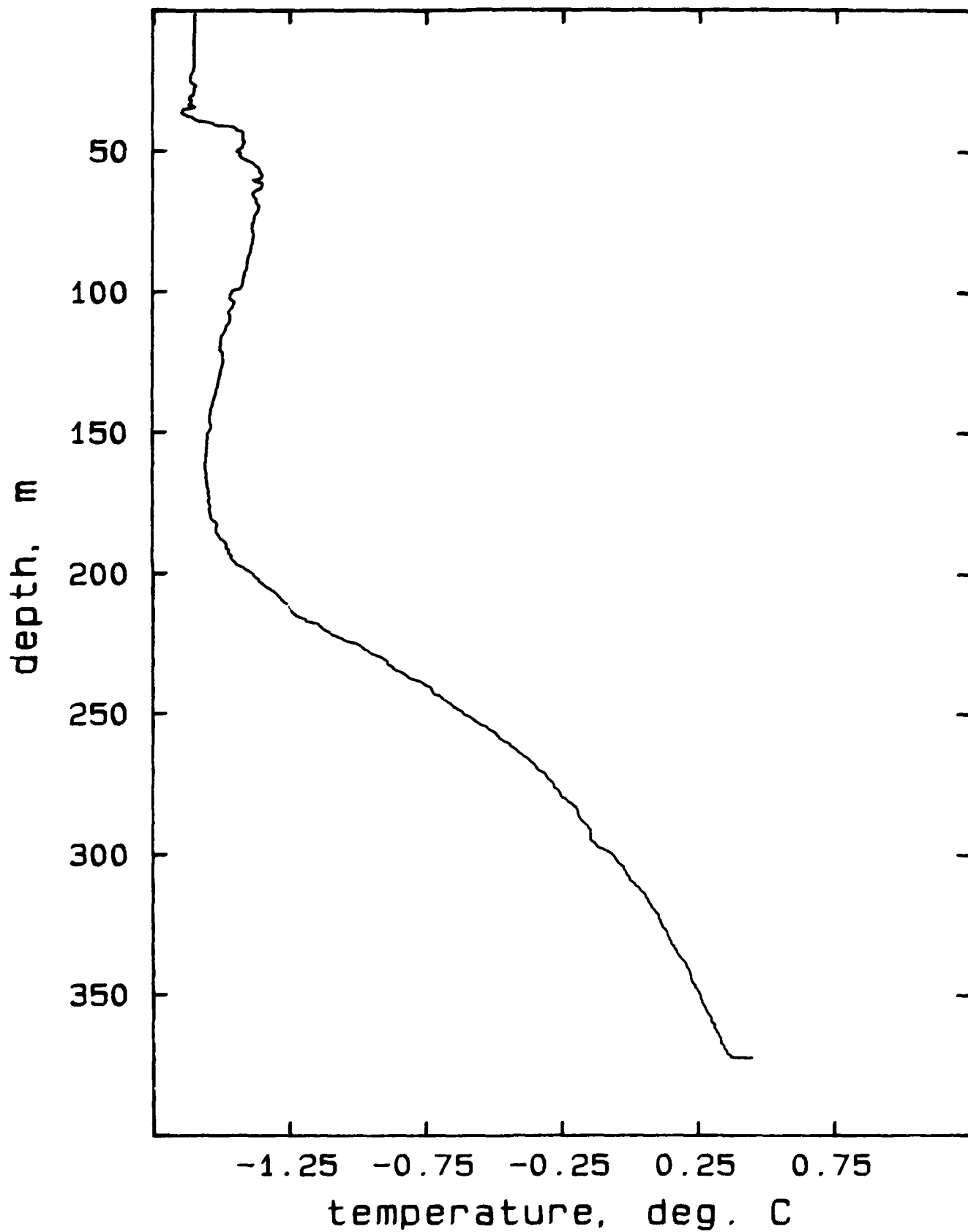




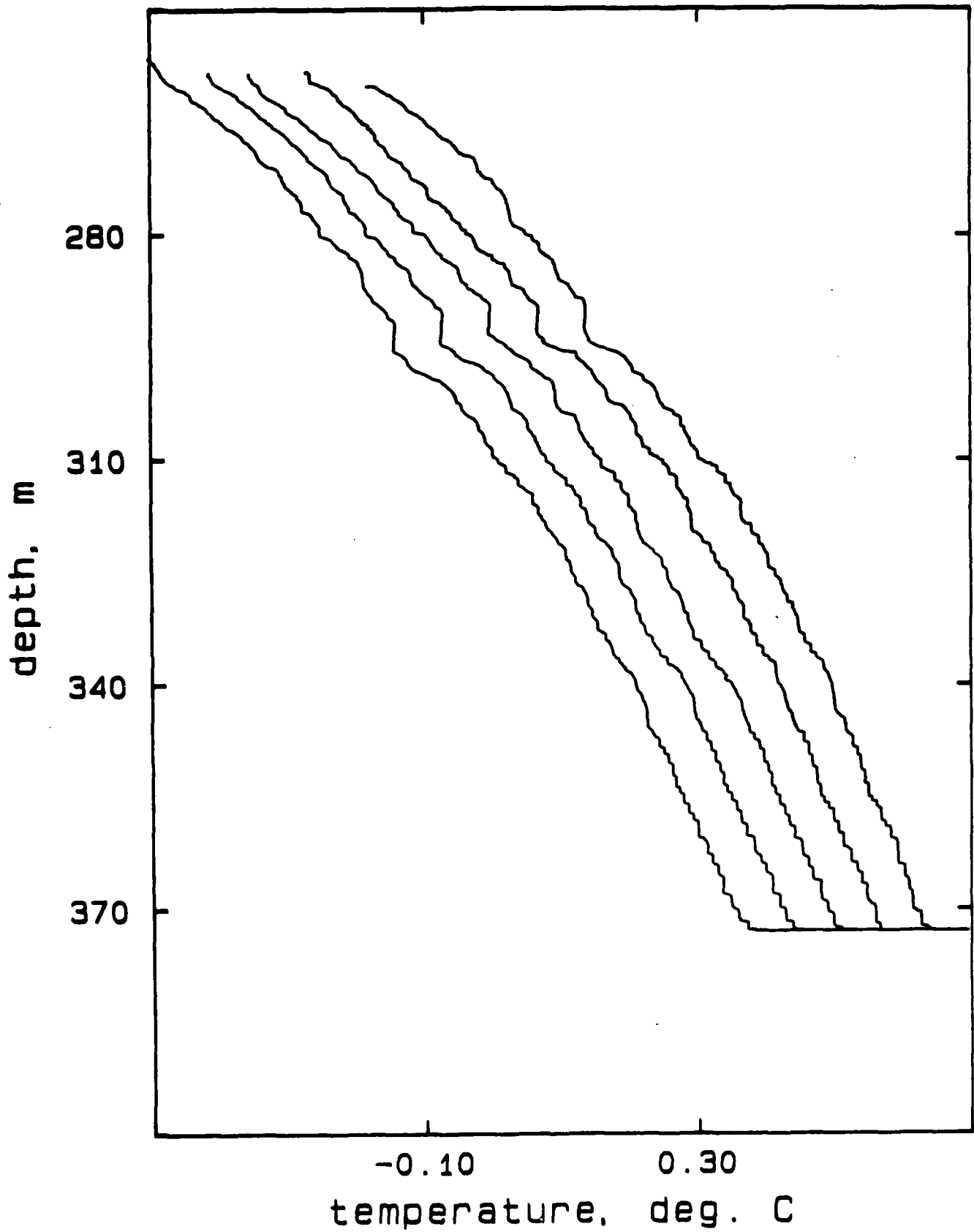
## AR424E, drops 1-4

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## AR424F, drop 1

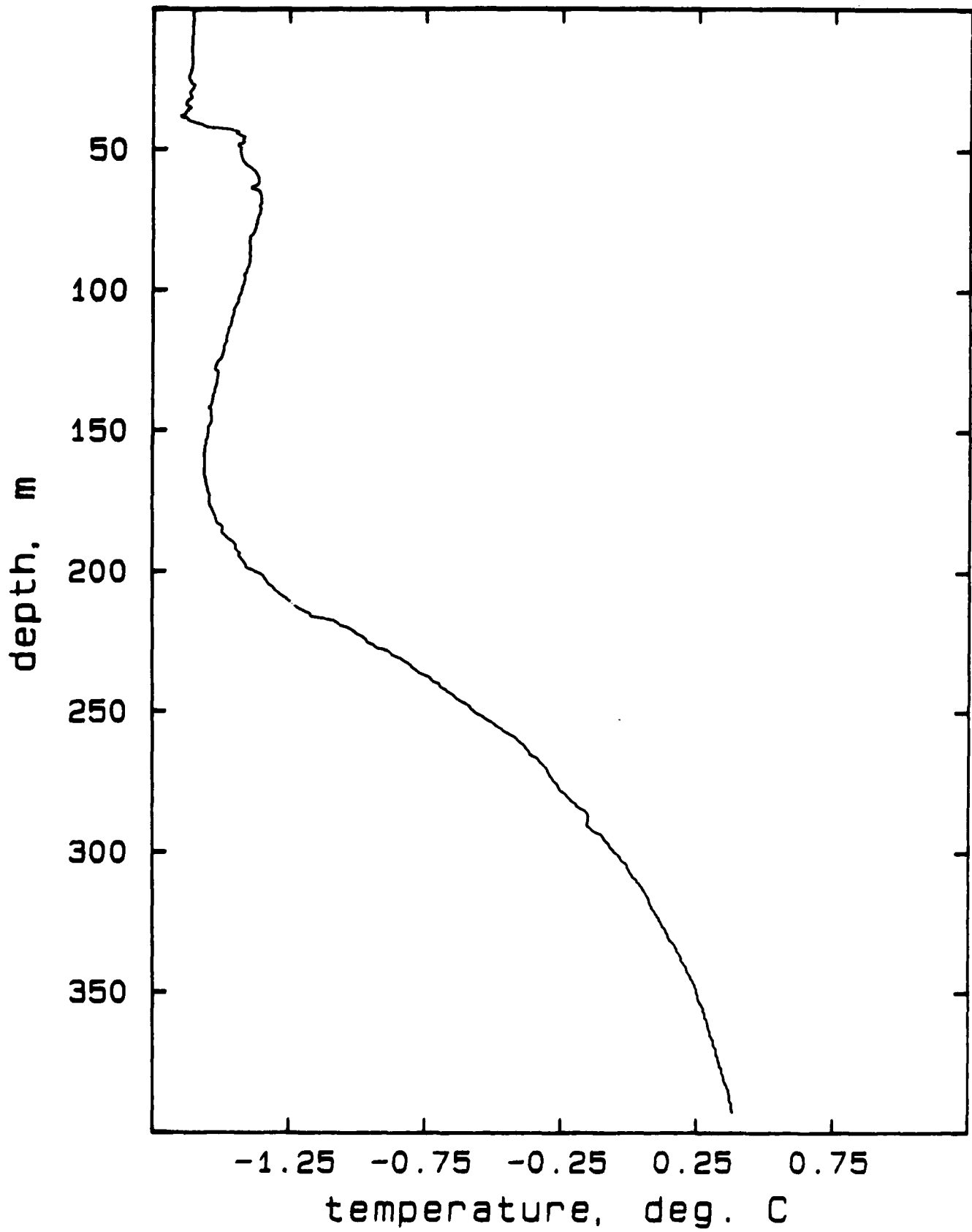


AR424F, drops 1-5

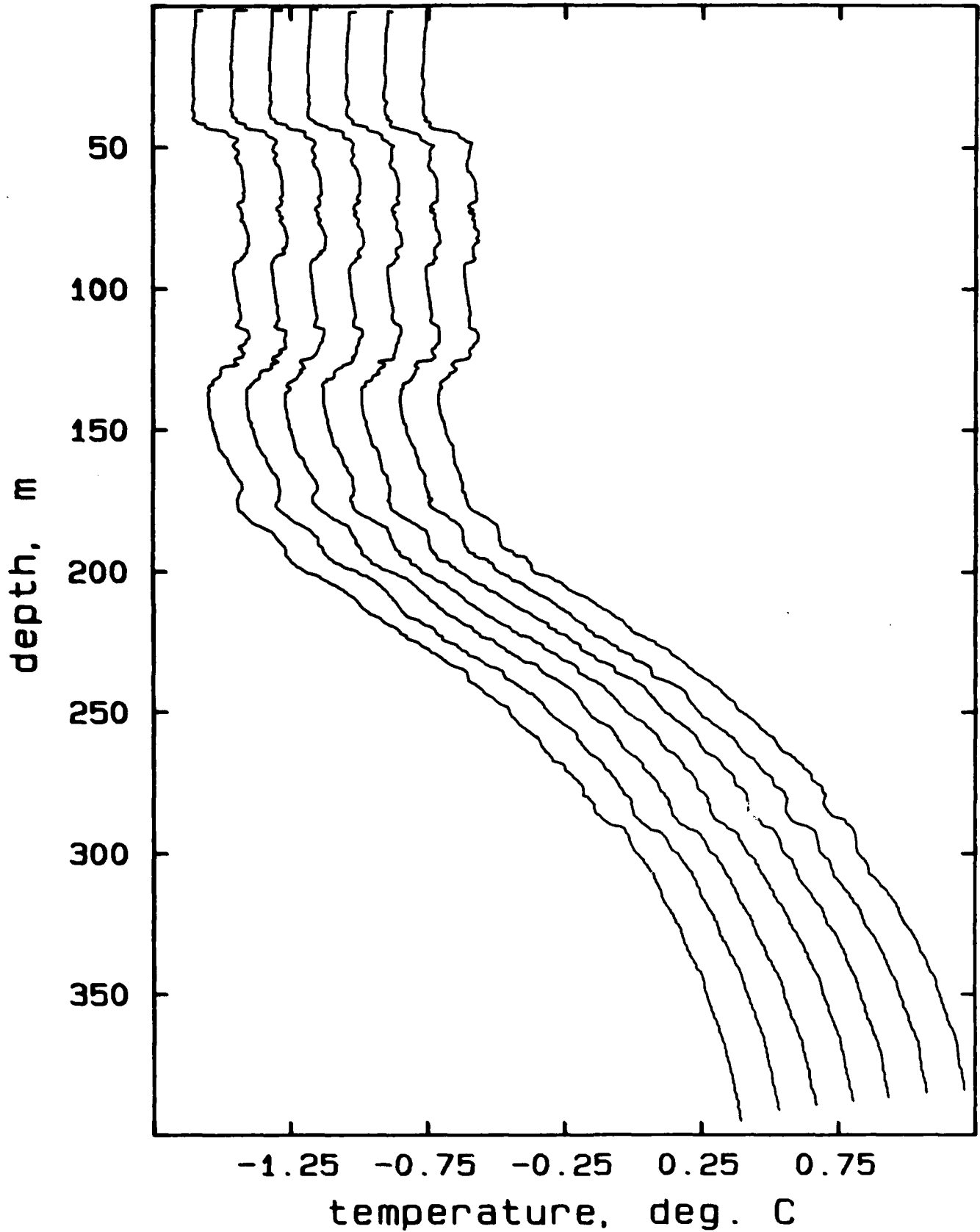


AR424F, drops 1-5

## AR424G, drop 1

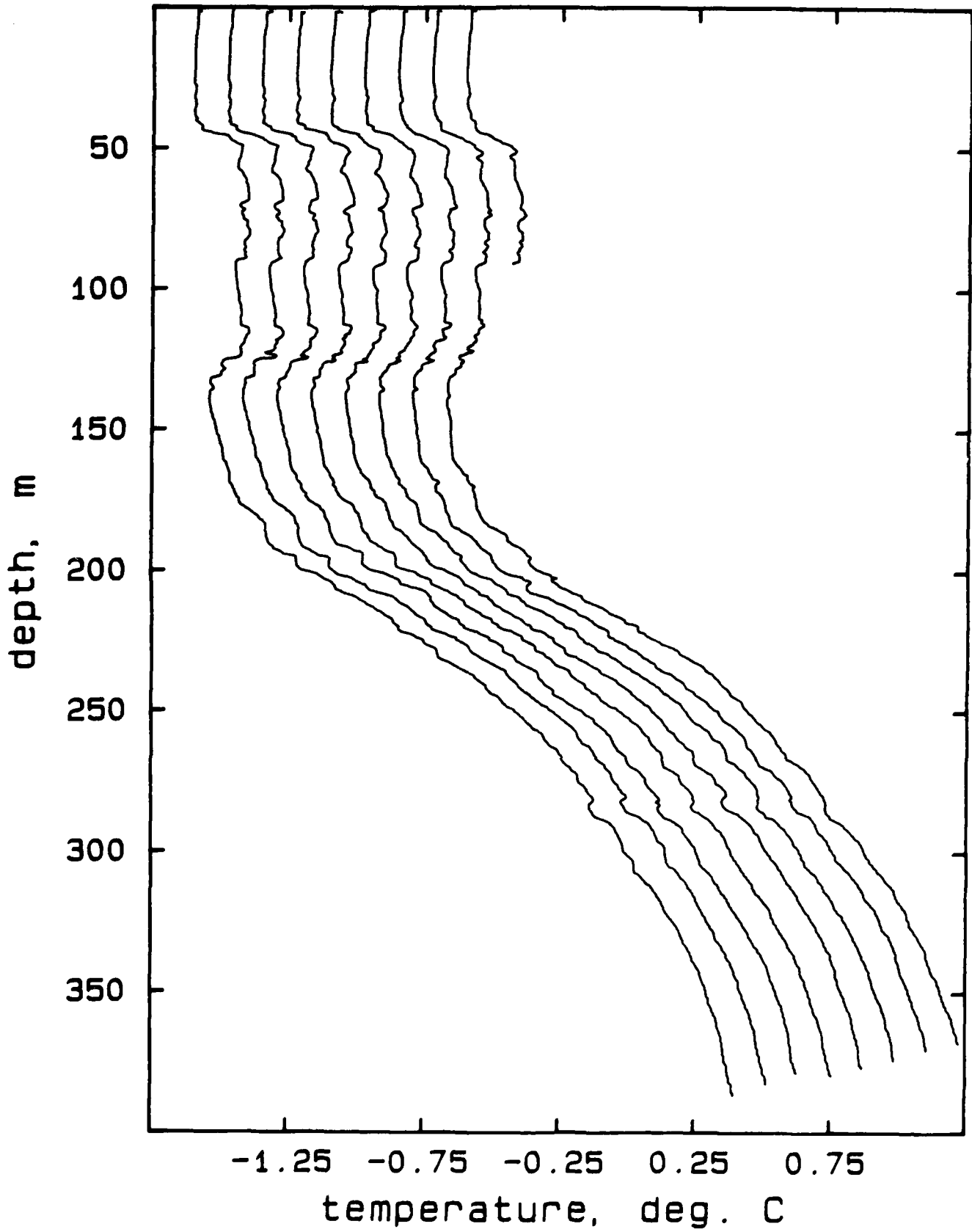


AR425A, drops 1-7

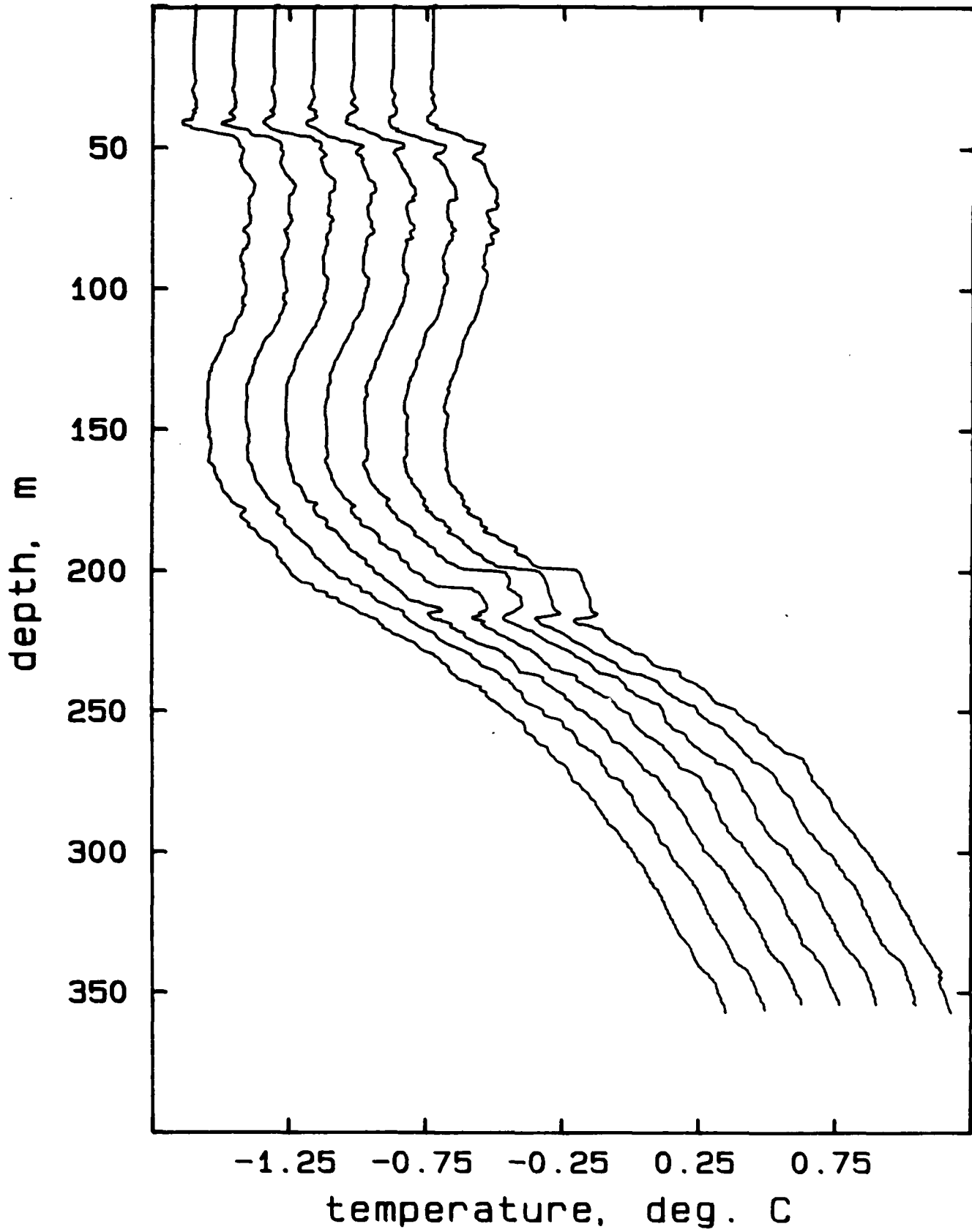


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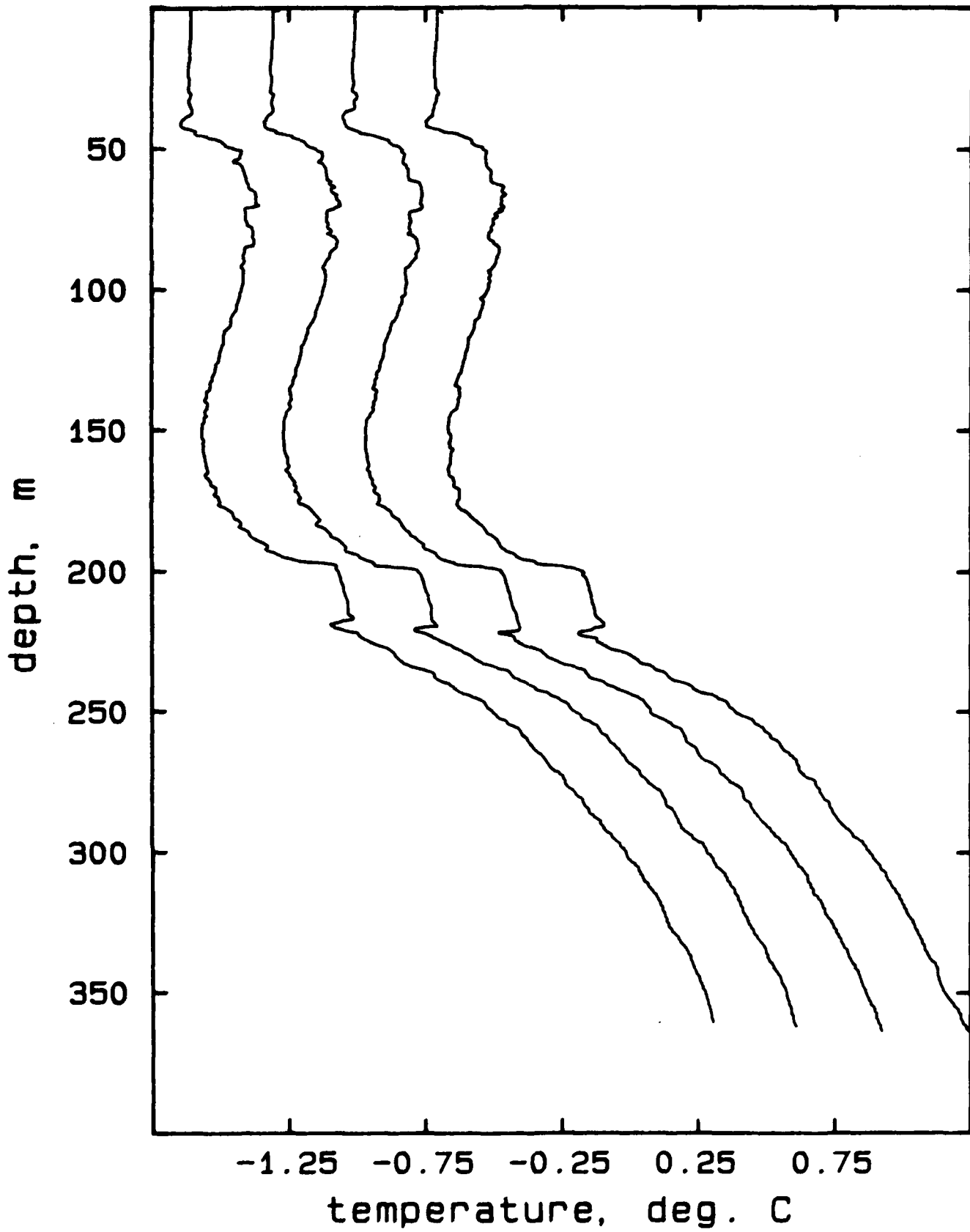
AR425B, drops 1-9



## AR425C, drops 1-7

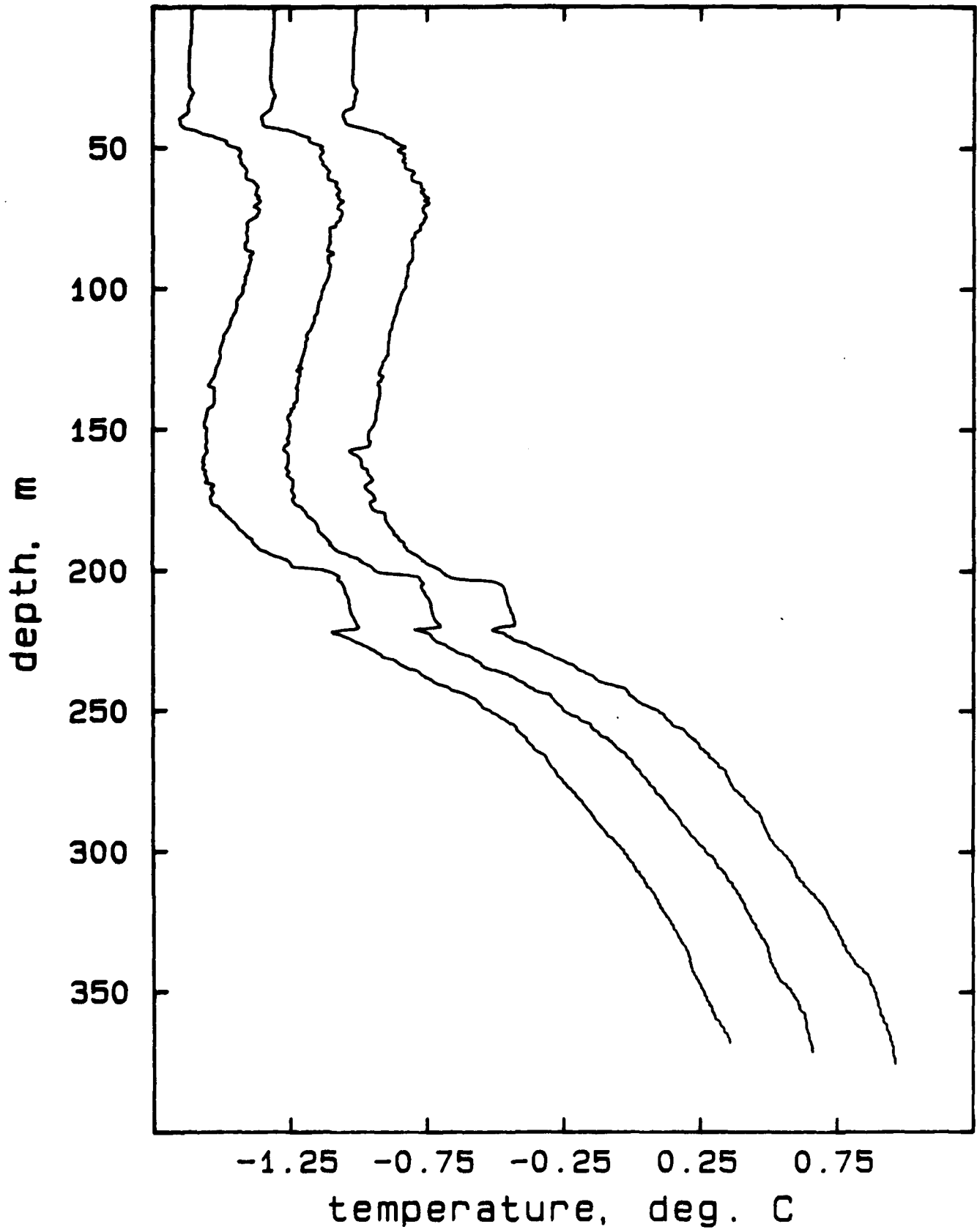


## AR425D, drops 1-4

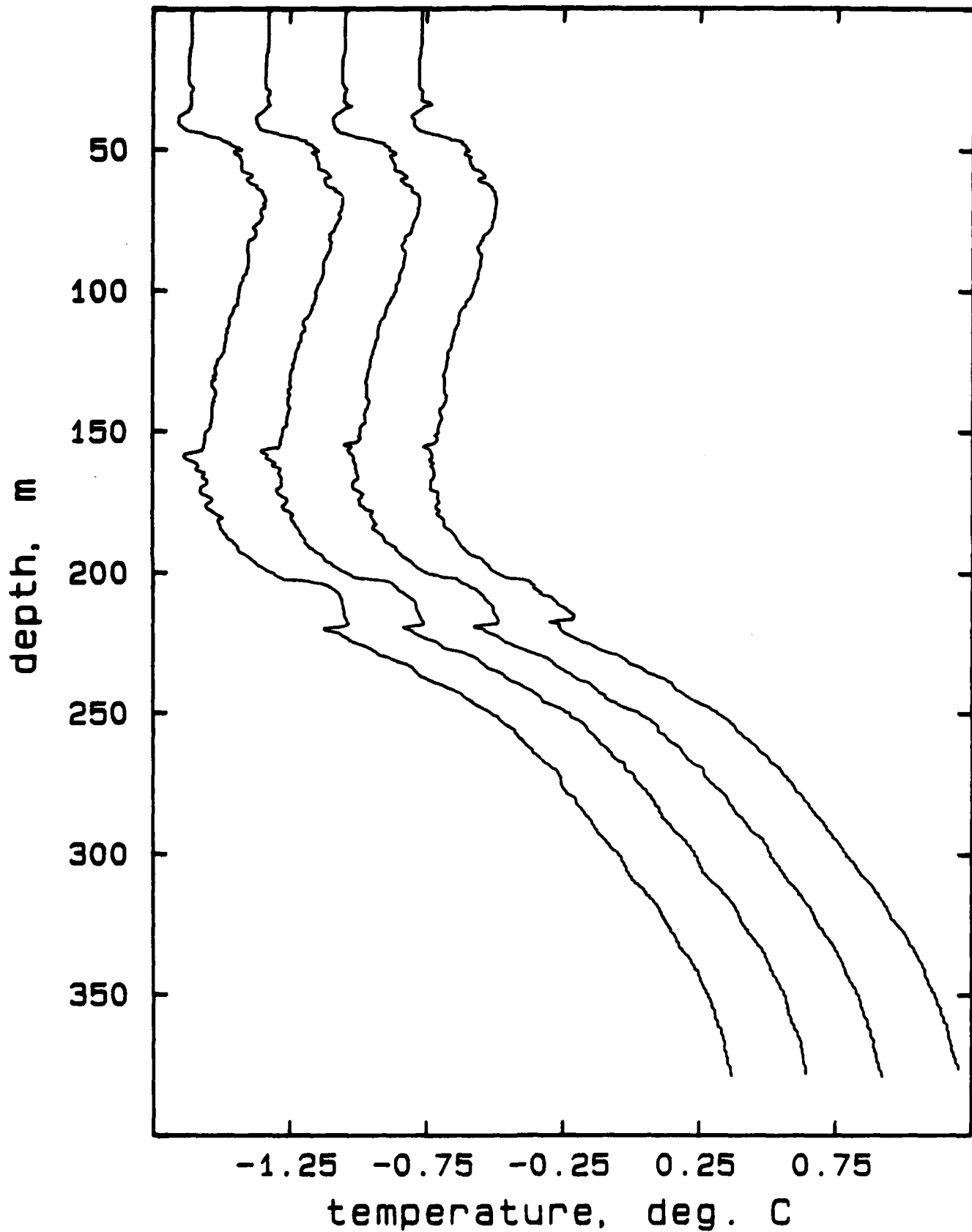




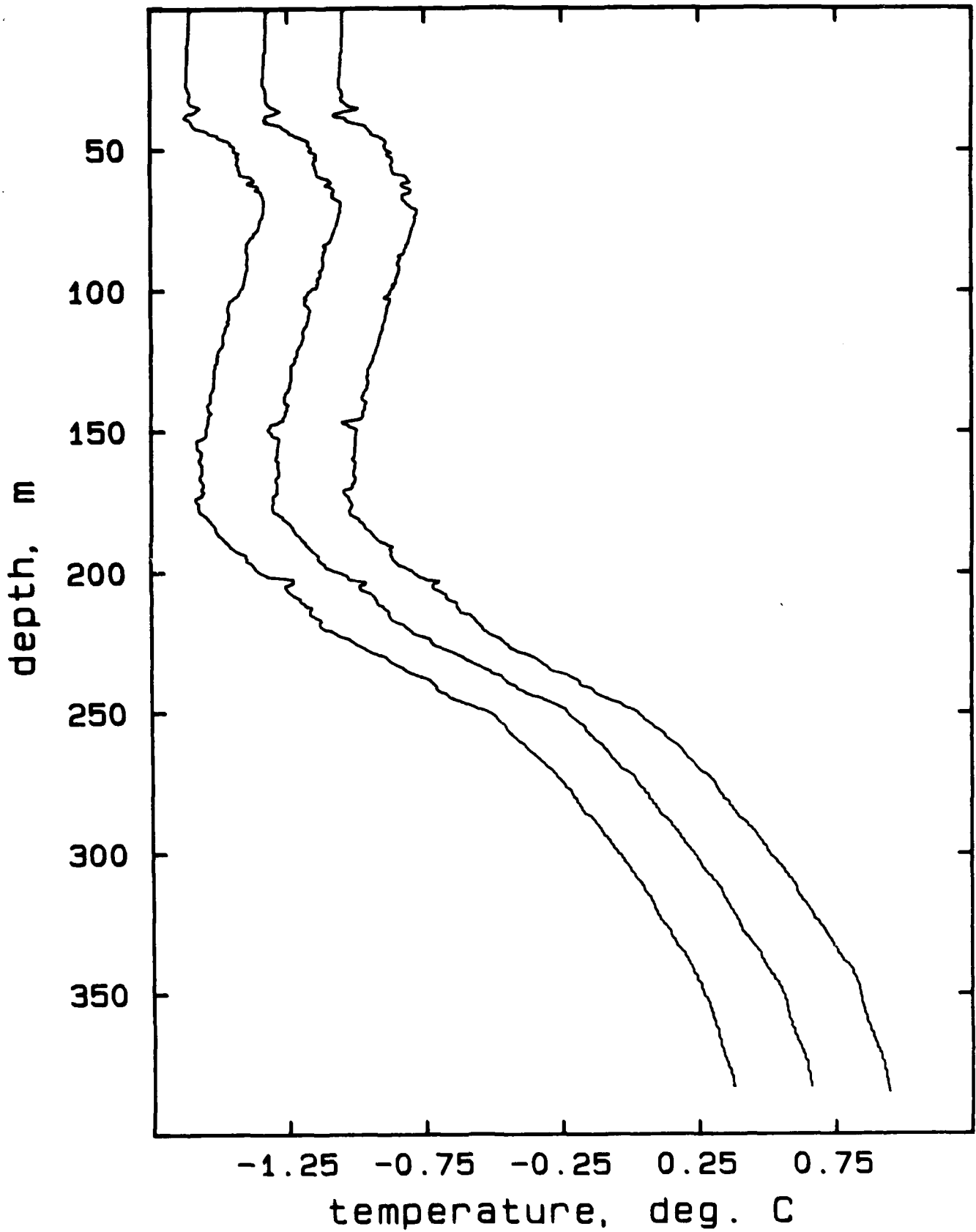
## AR425D, drops 5-7



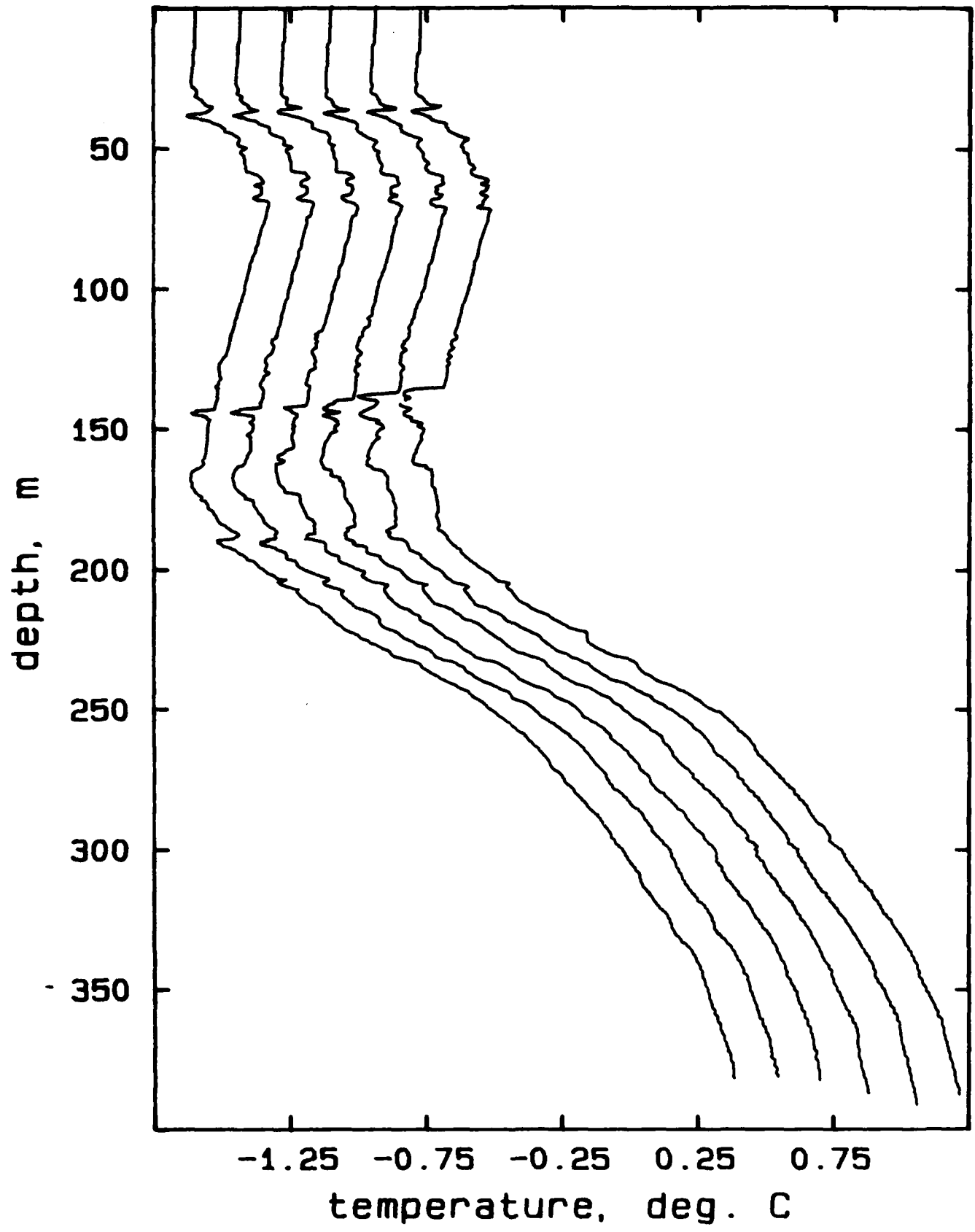
AR425E, drops 1-4



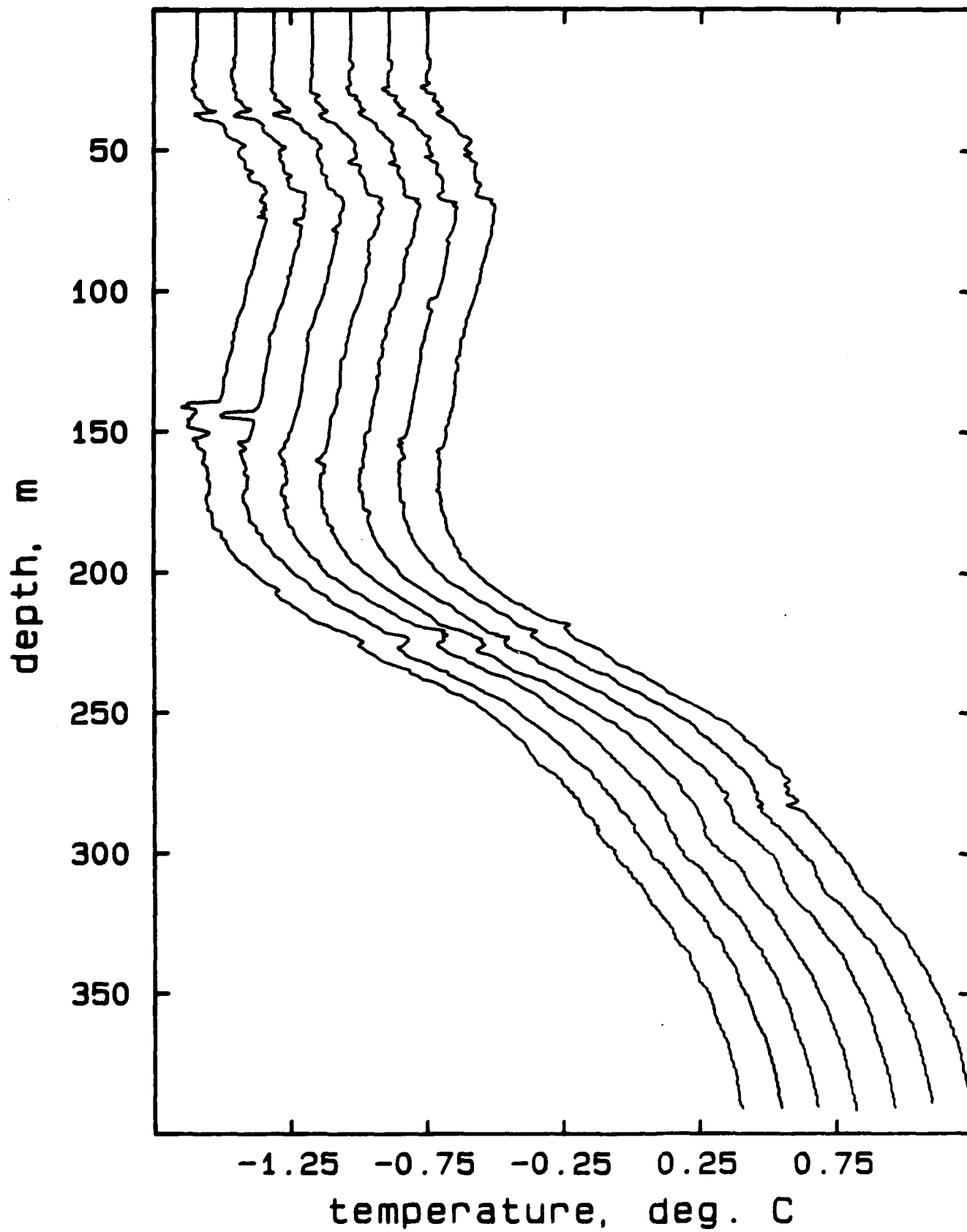
## AR425E, drops 5-7



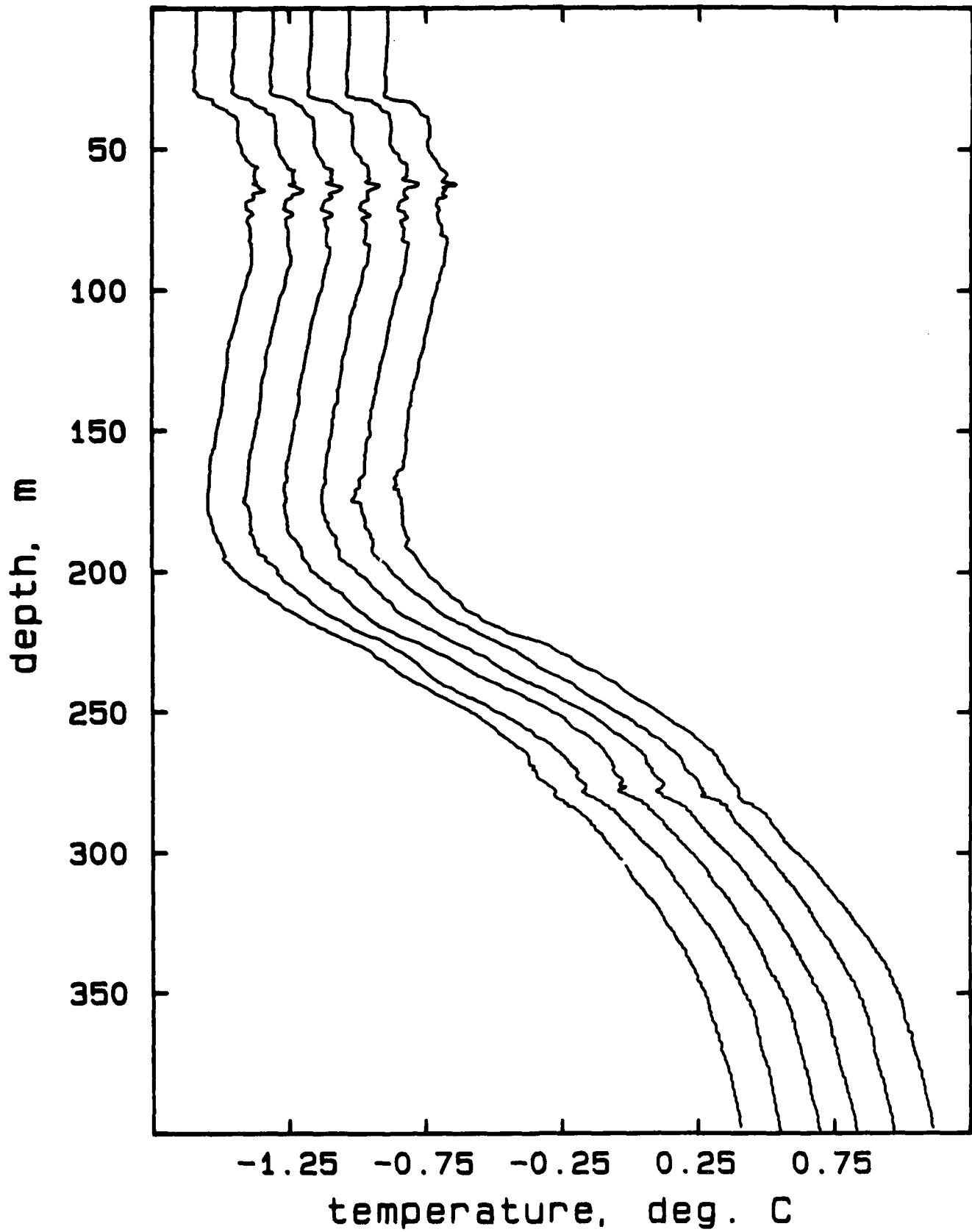
AR425F, drops 1-6



## AR425G, drops 1-7



## AR426A, drops 1-6

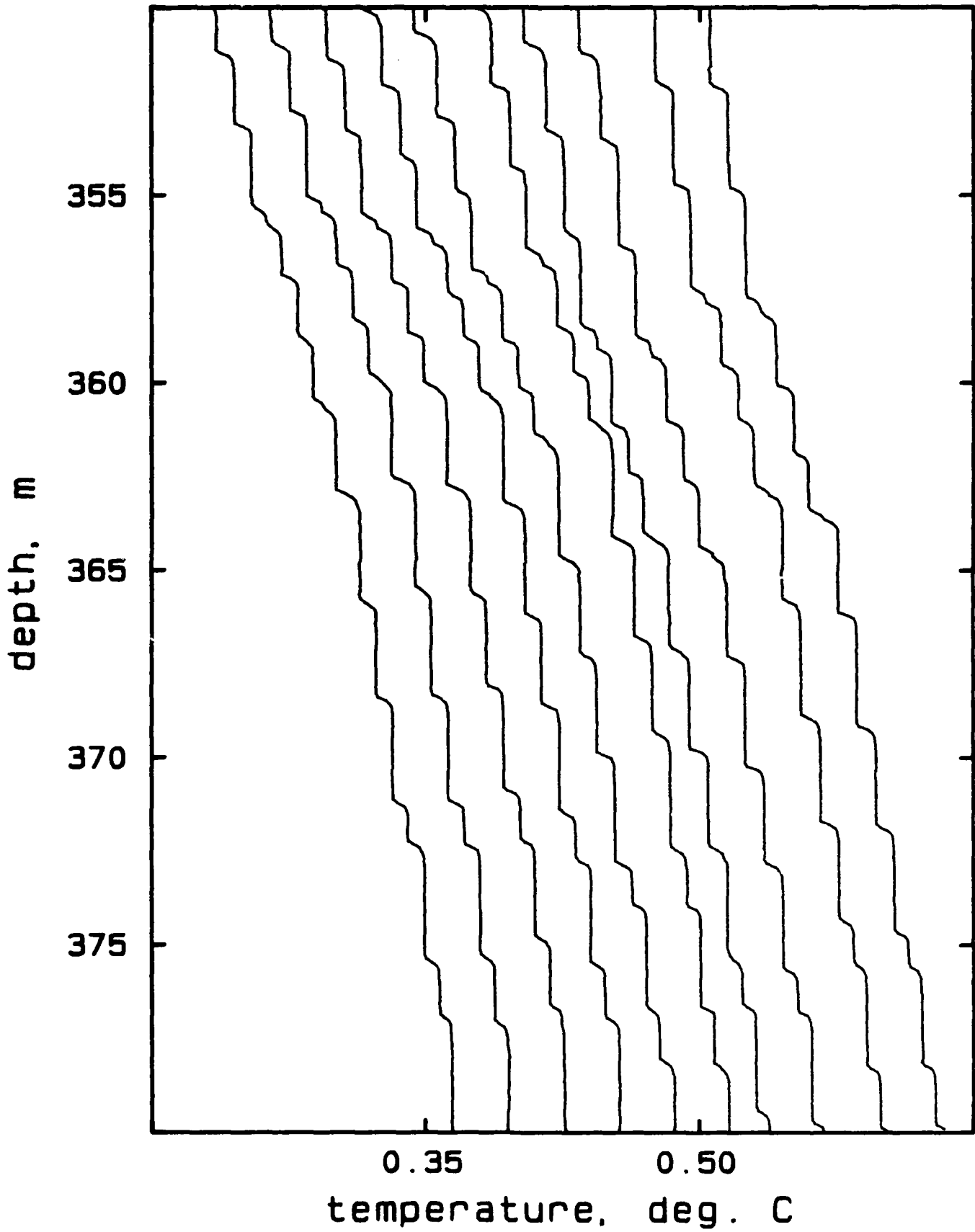


OBSERVATIONS:

D. STAIRCASE TEMPERATURE PROFILE DETAIL

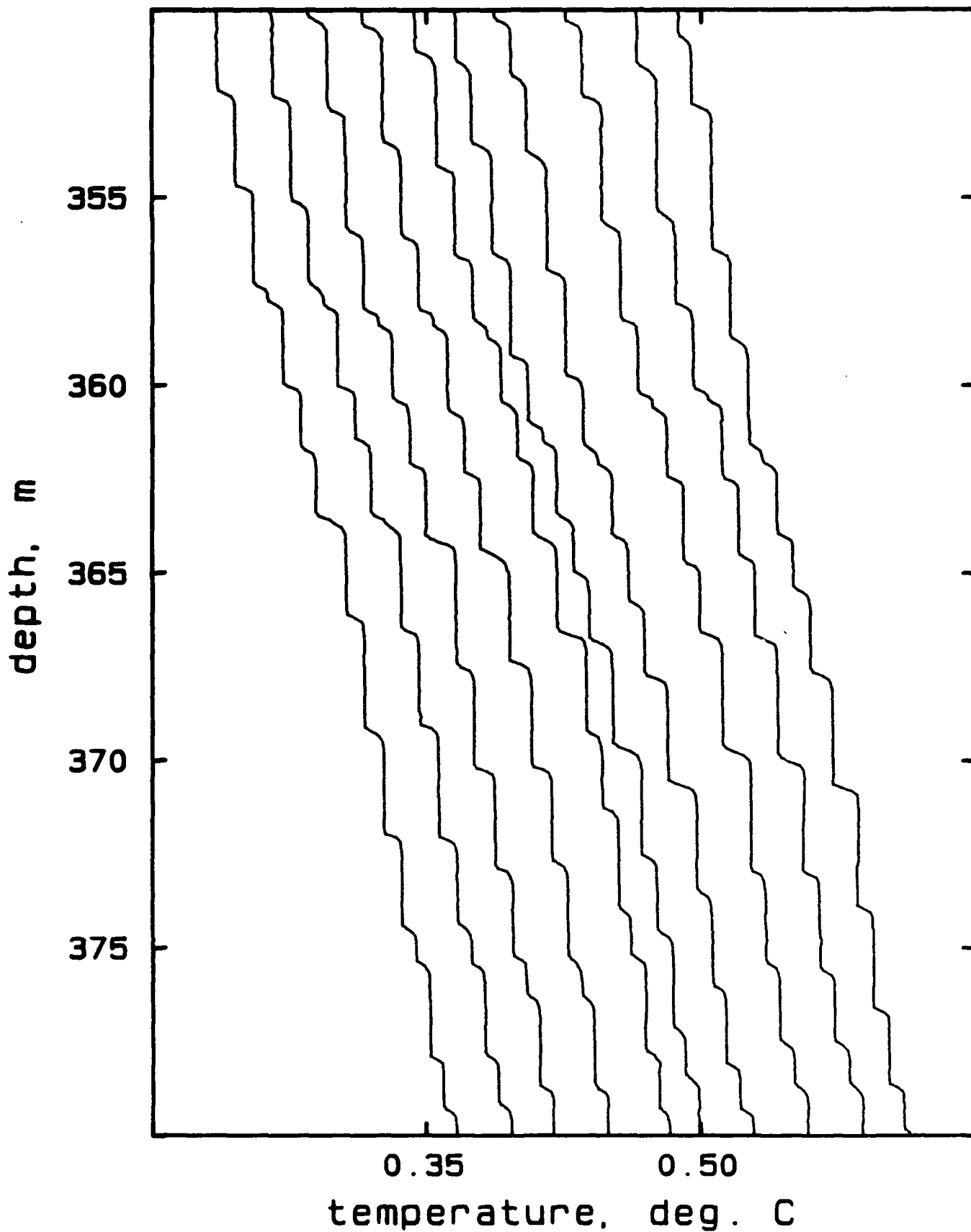


## AR422, drops A1-A10



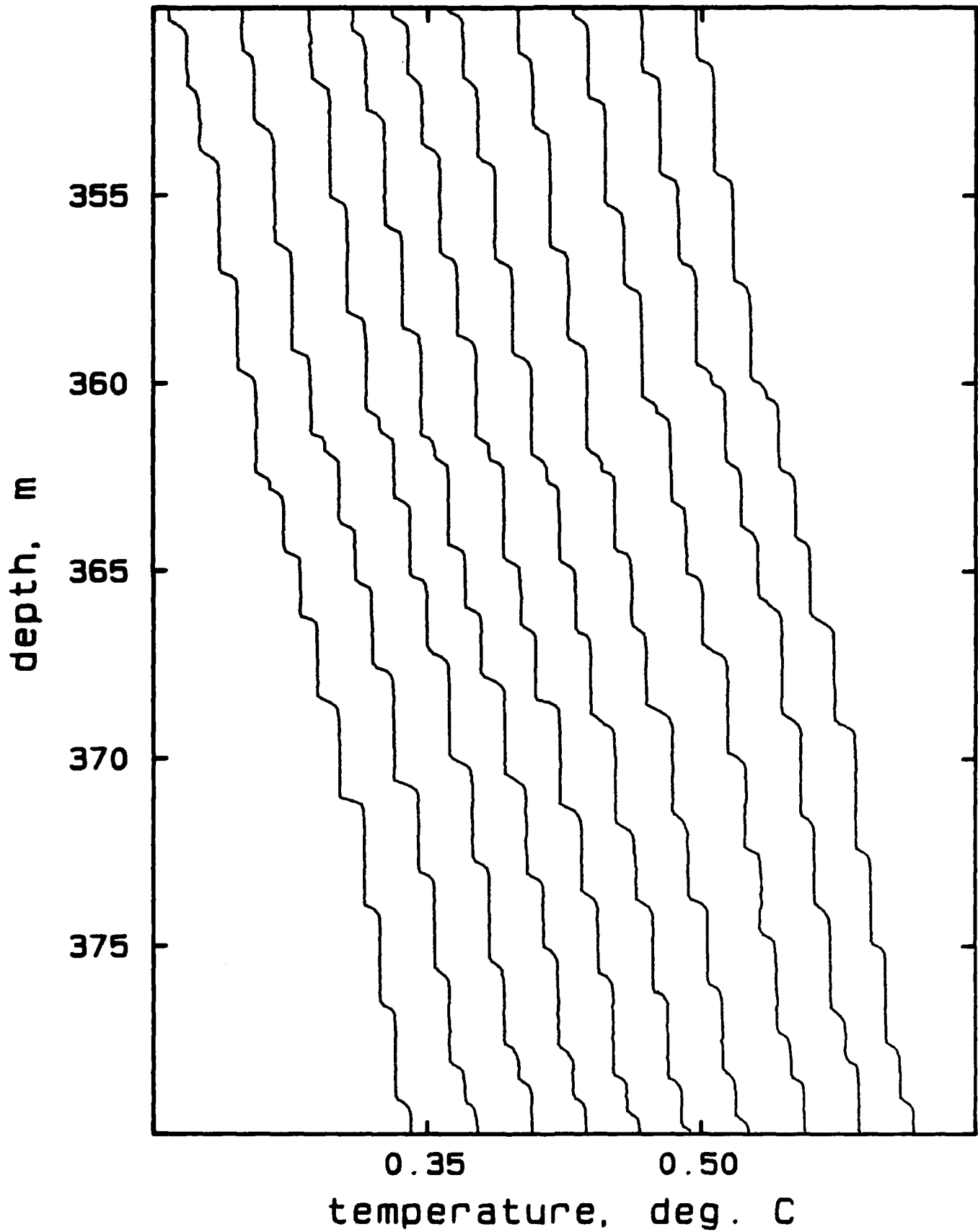


AR422, drops A11-B6

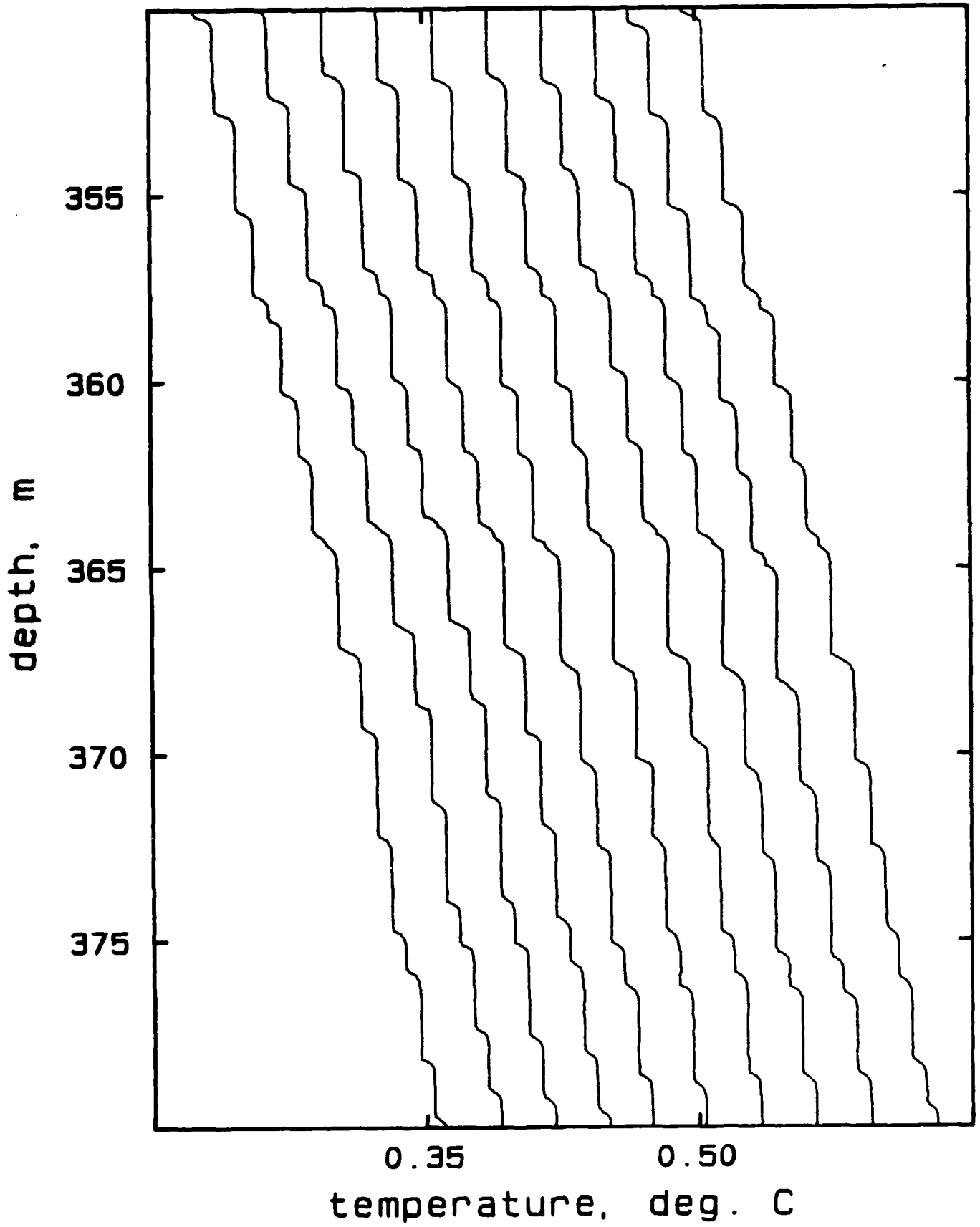


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AR422, drops B7-C1

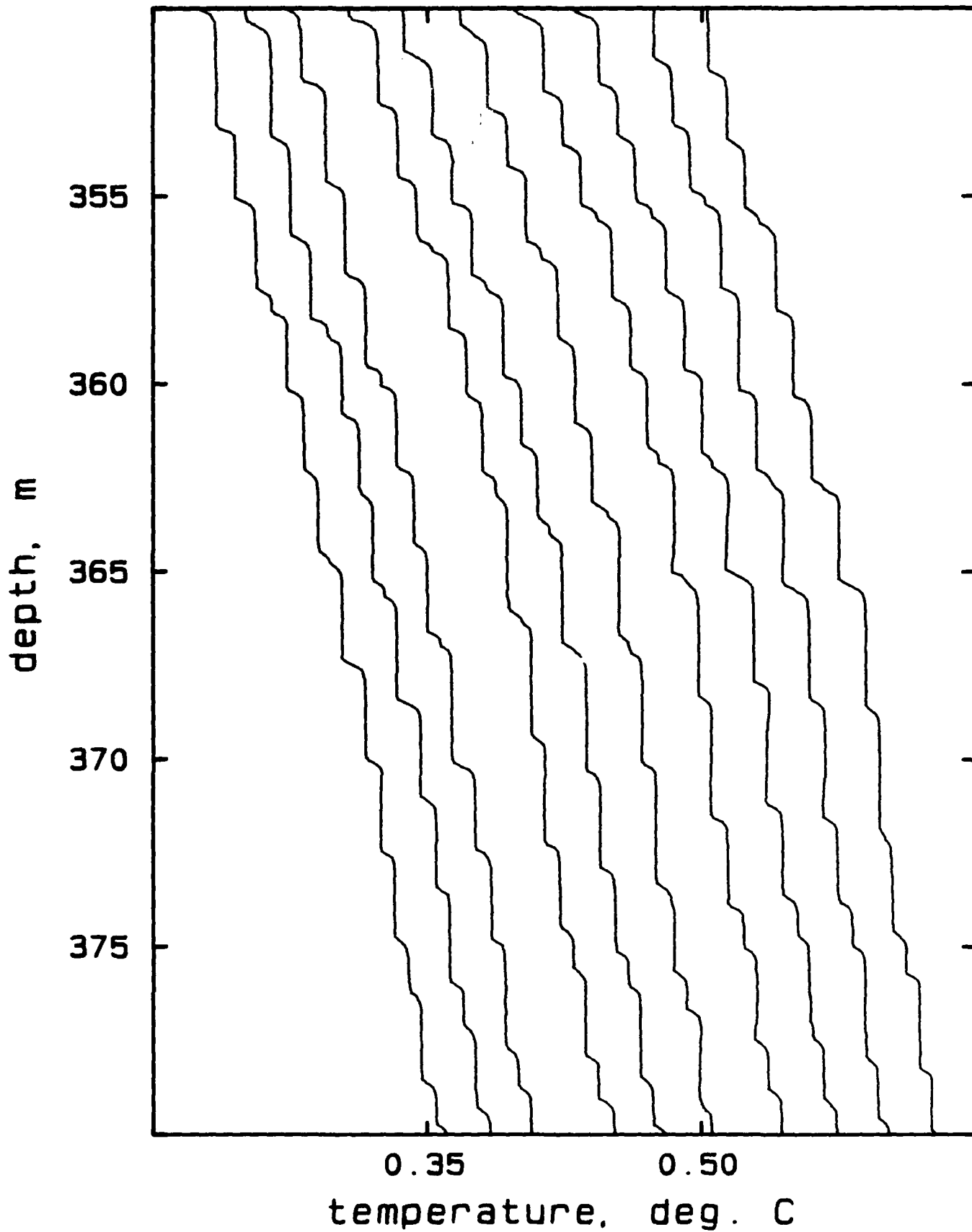


AR422, drops C8-C17

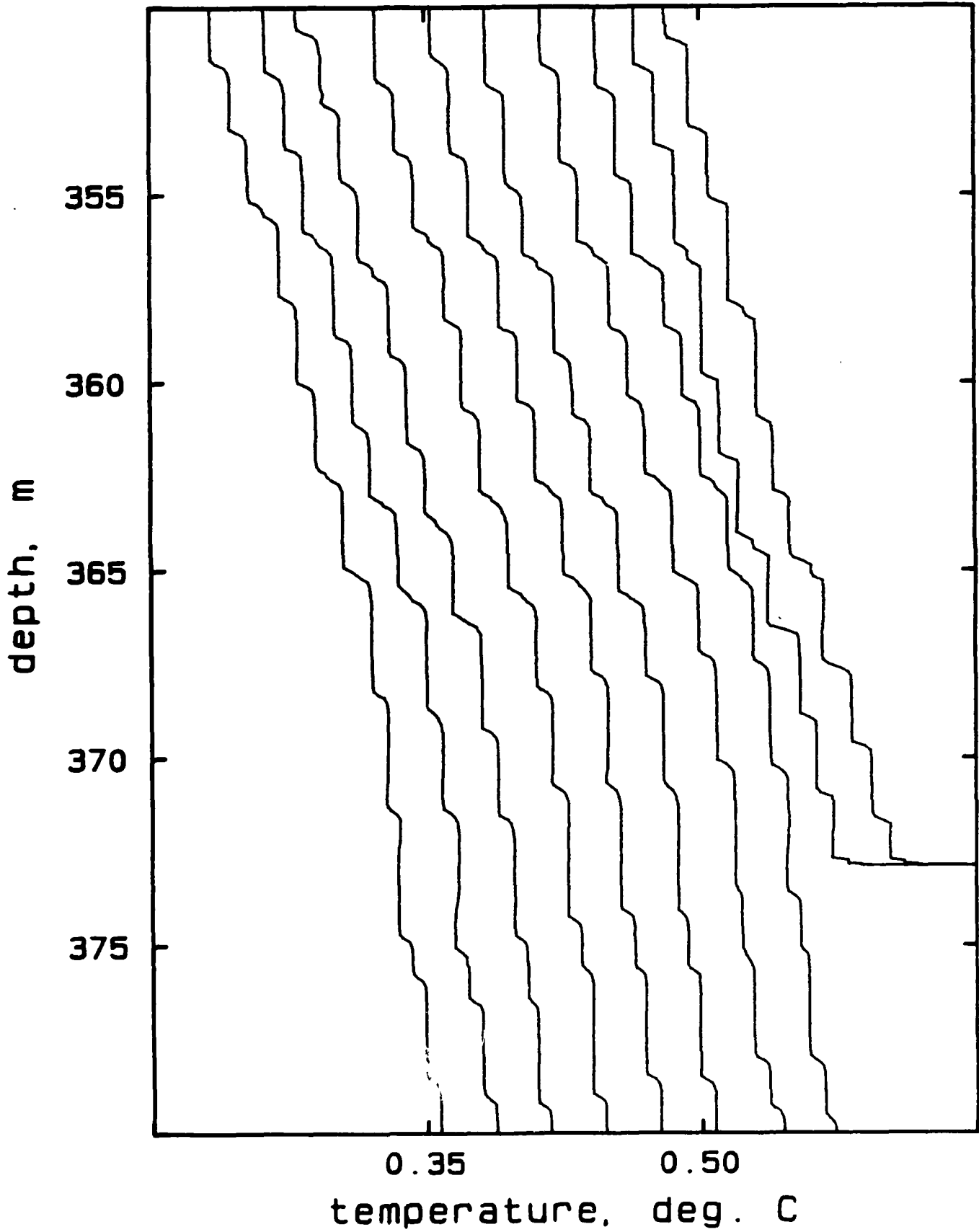


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AR422, drops C18-D7

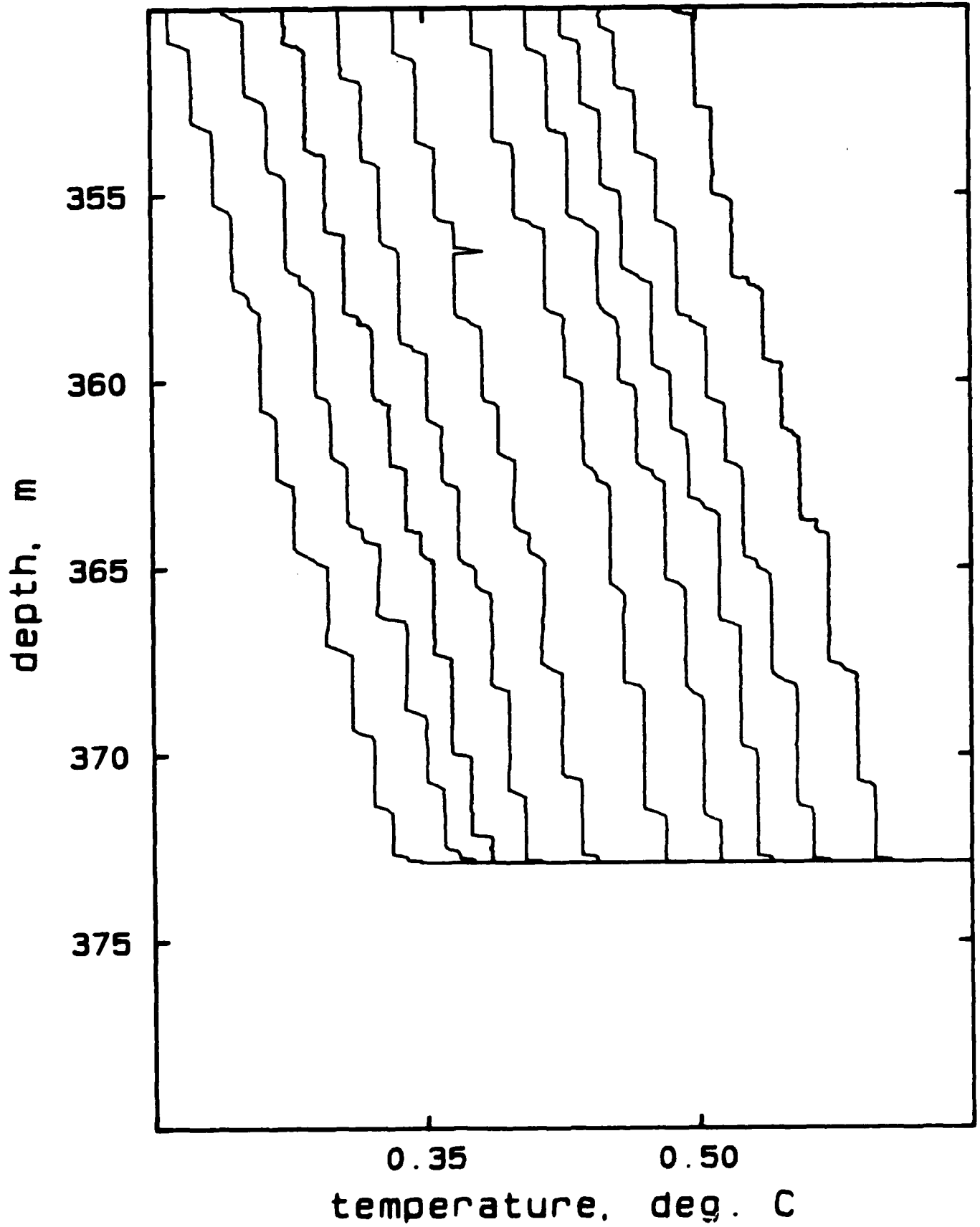


AR422, drops D8-E2

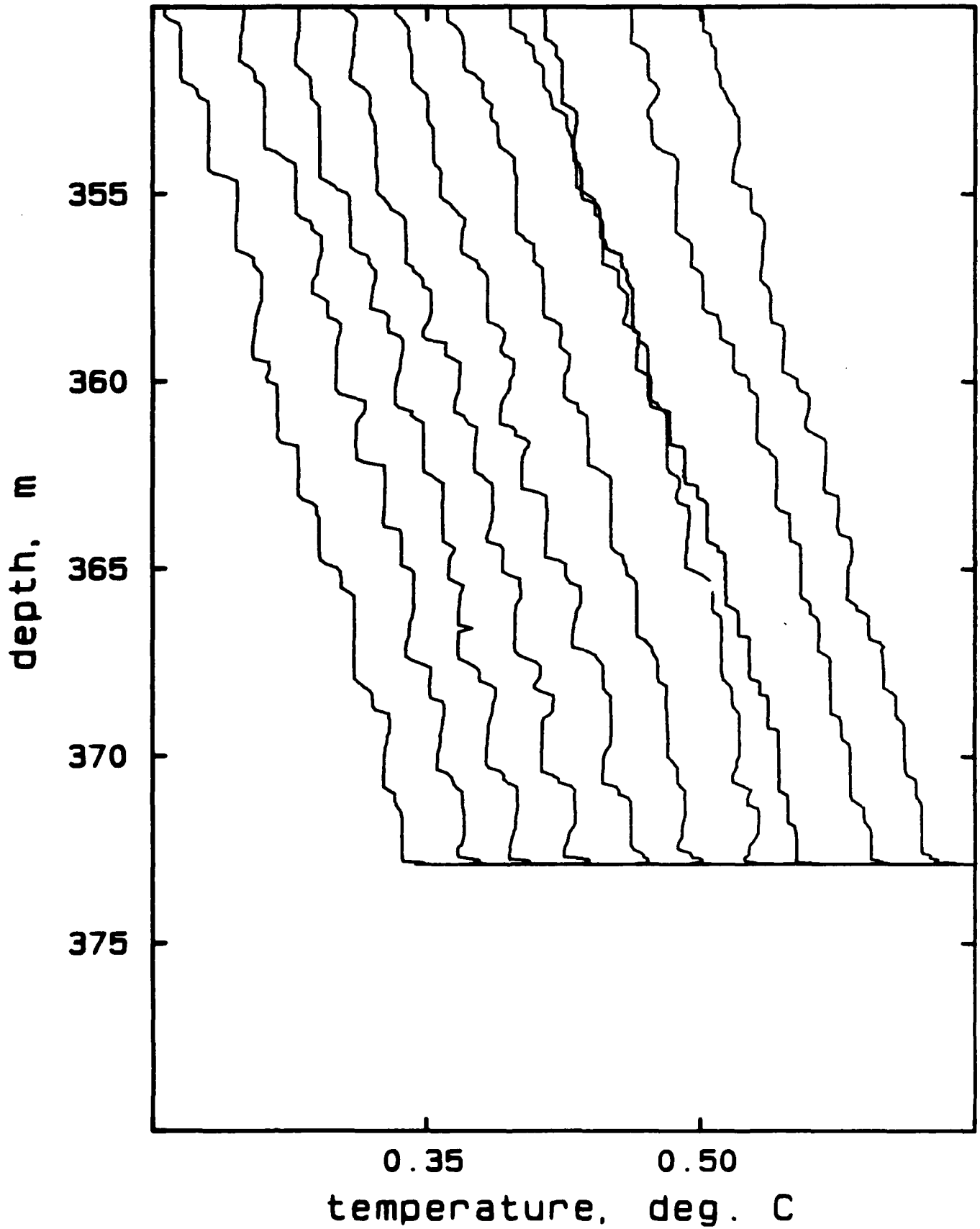


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AR422, drops E3-F5

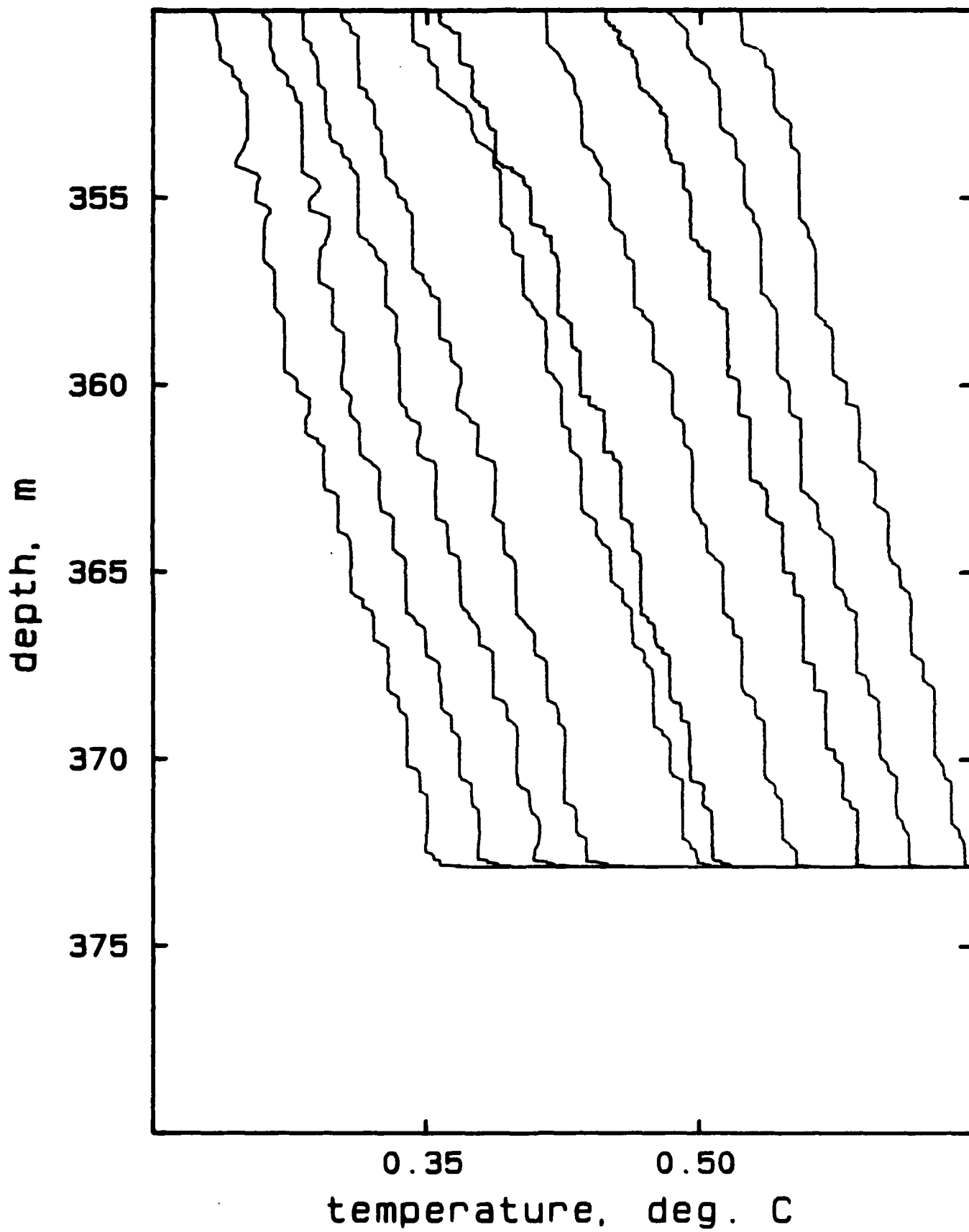


AR422, drops G1-G10



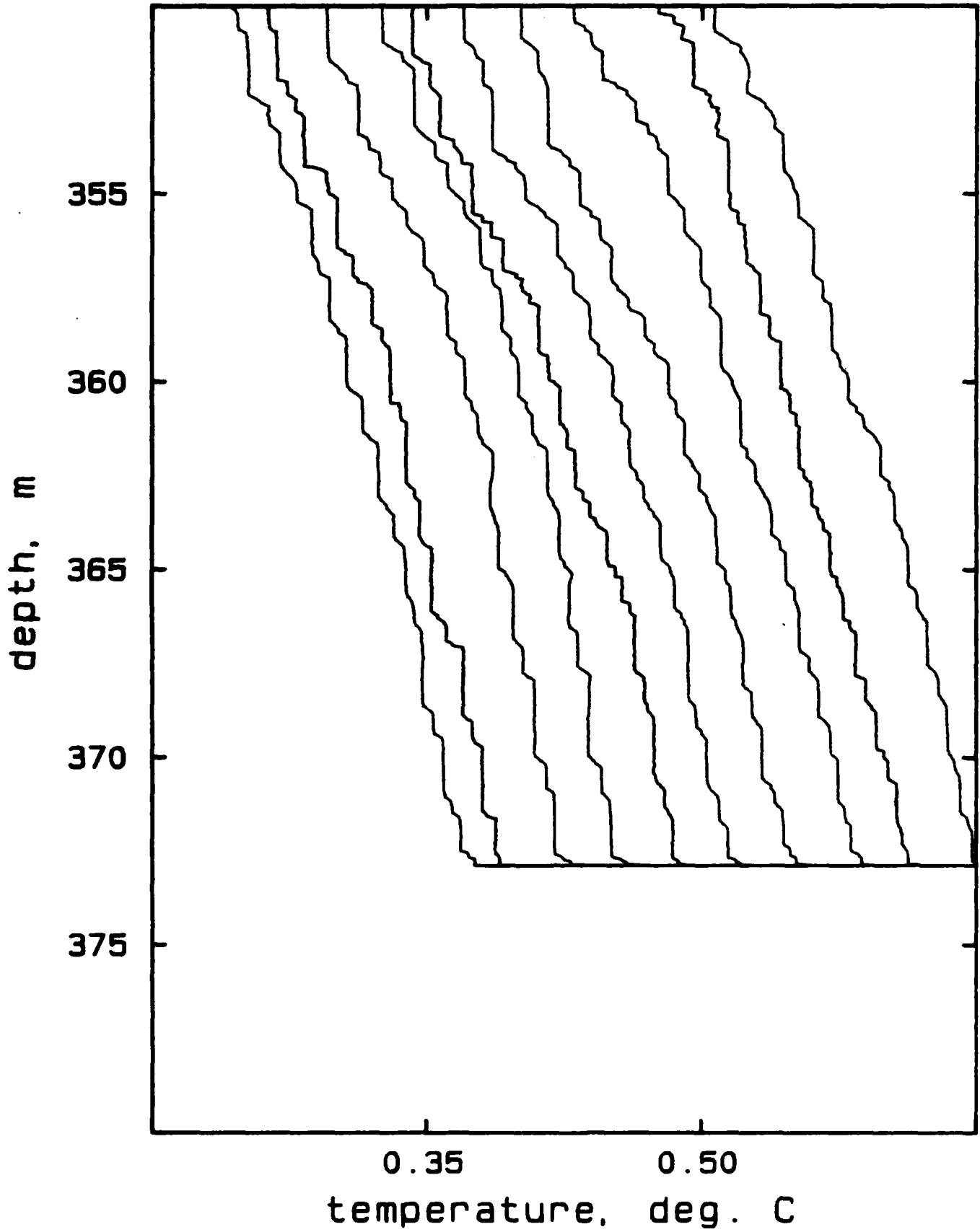
353 AR422, drops G1-G10

AR422, drops G11-H6



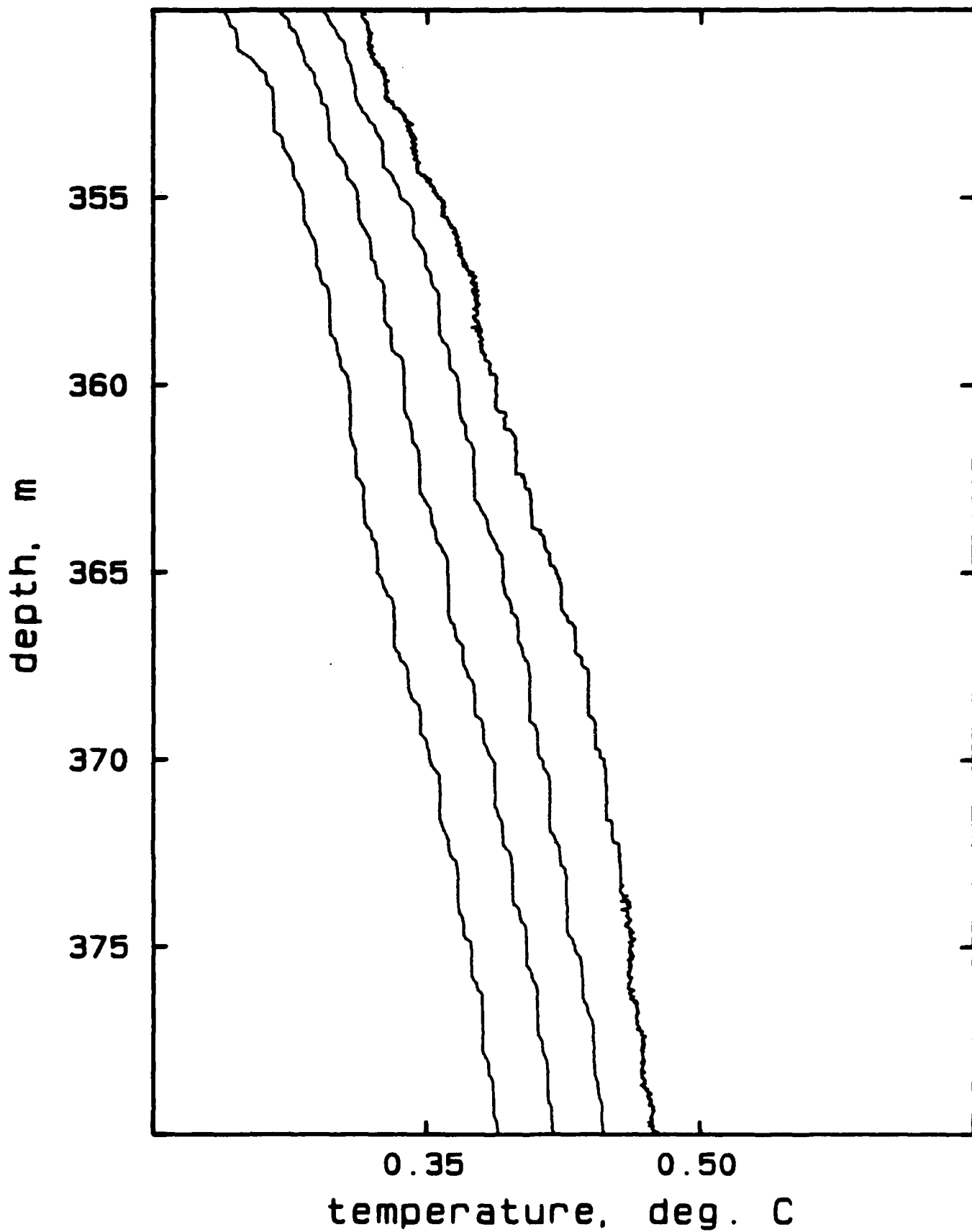


AR422, drops I1-J3

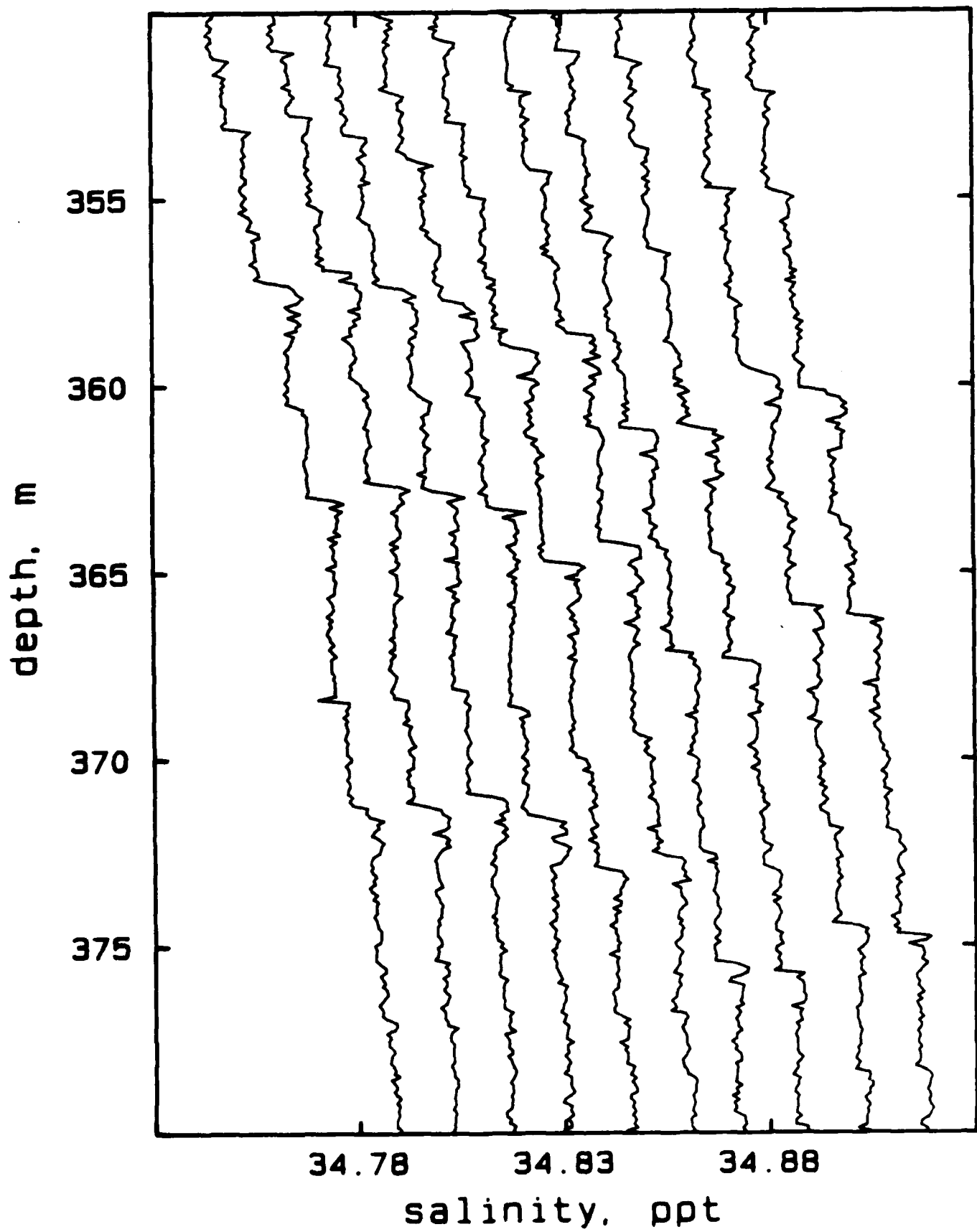


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## AR422, drops J4-J7

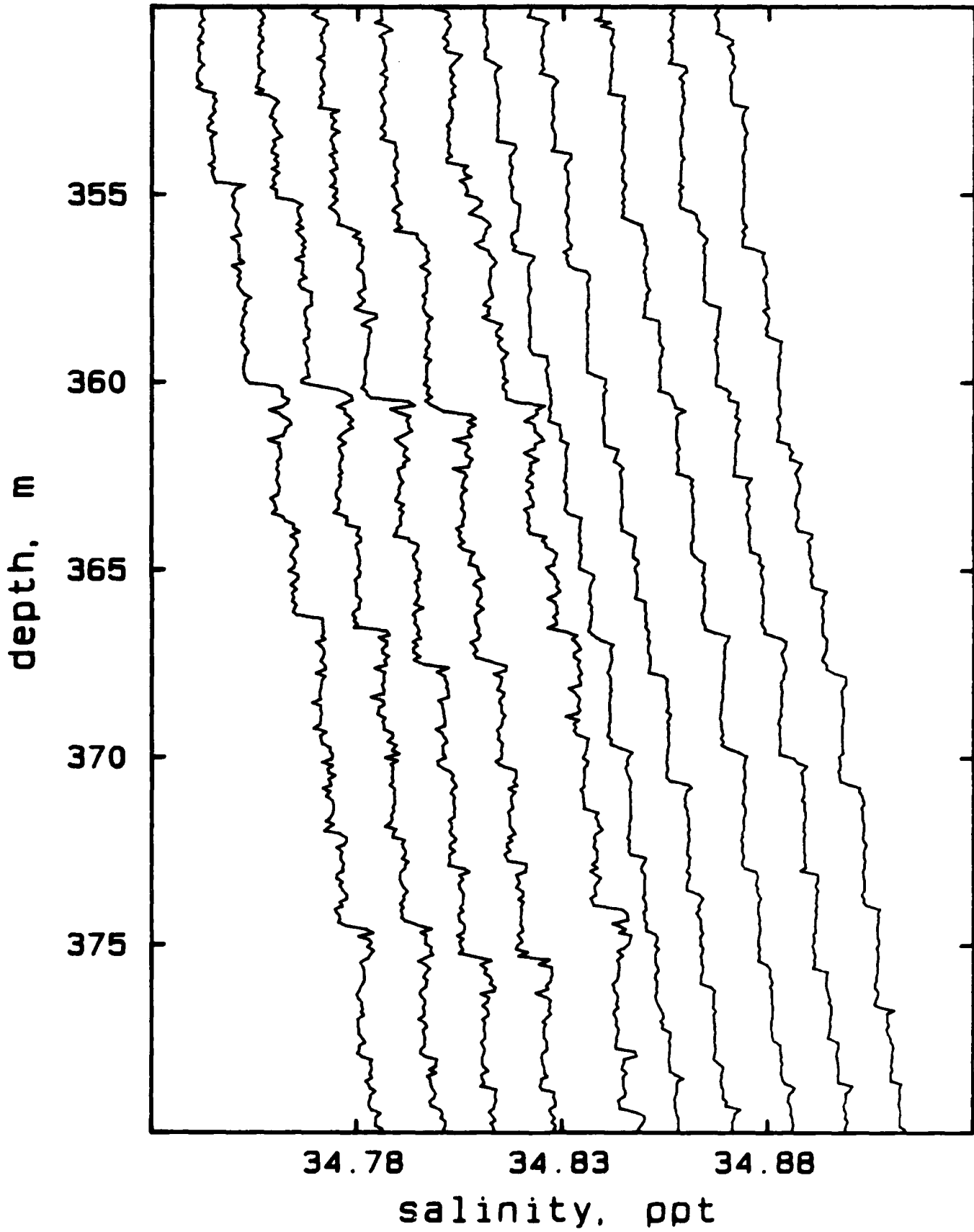


AR422, drops A1-A10

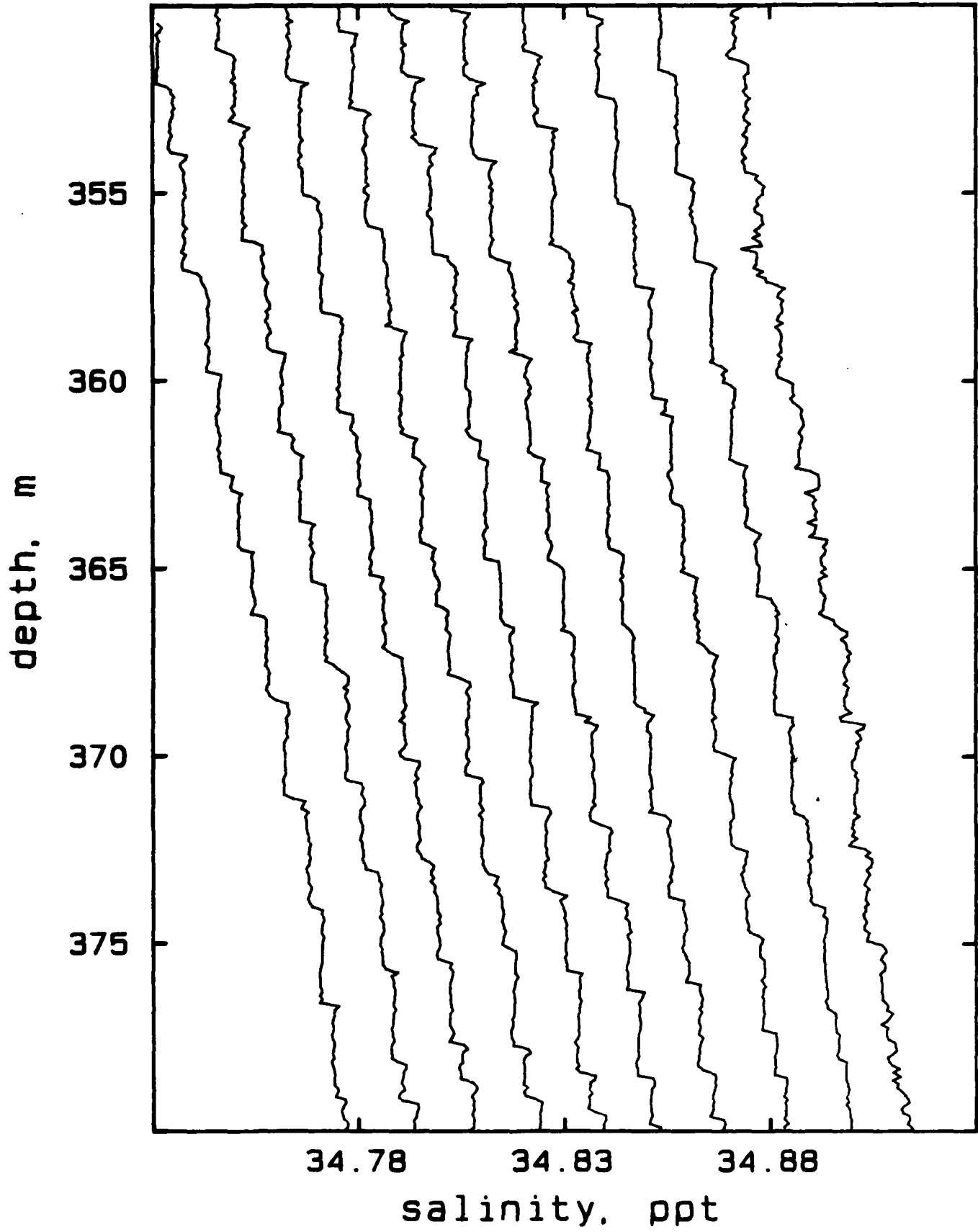


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## AR422, drops A11-B6

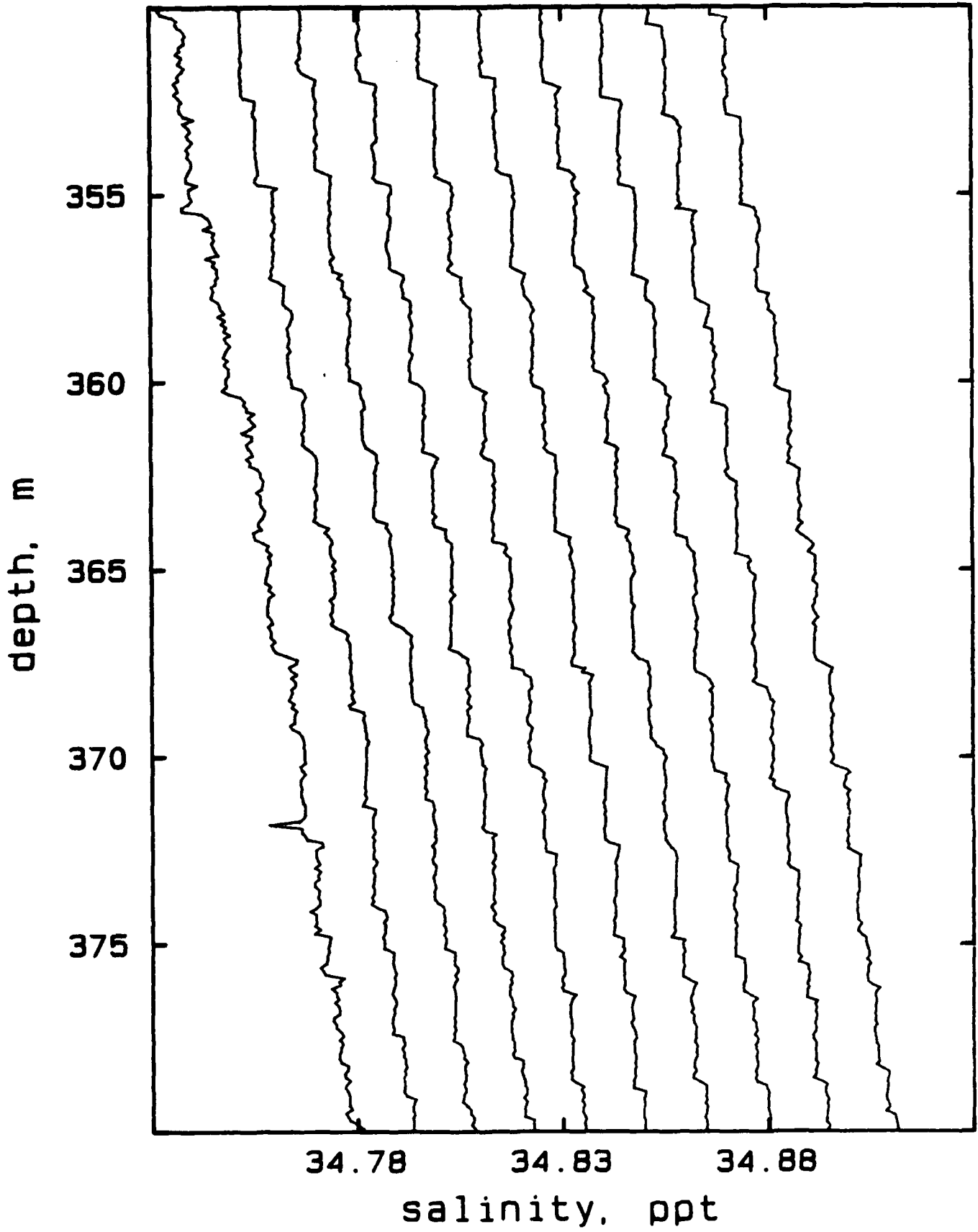


AR422, drops B7-C1

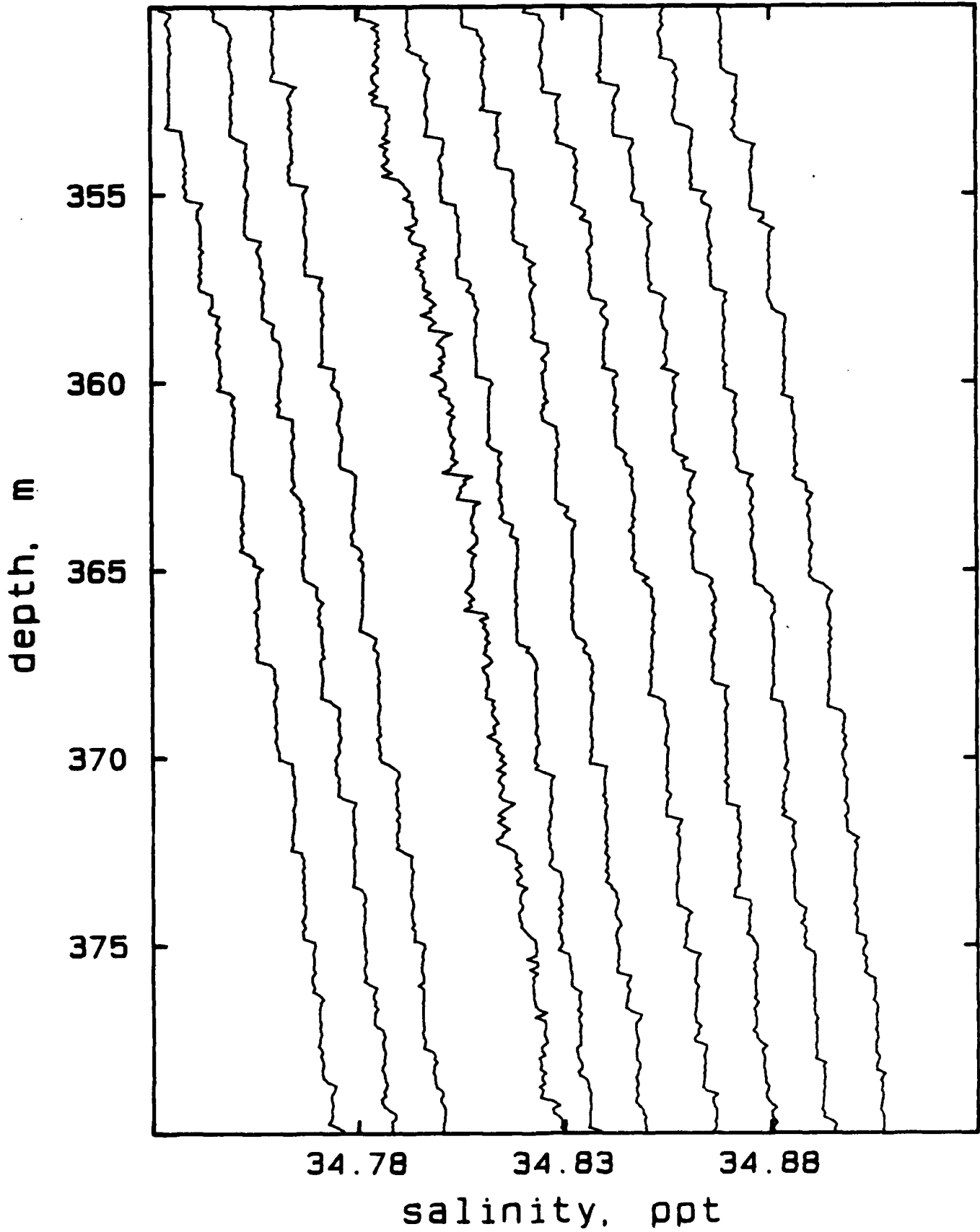


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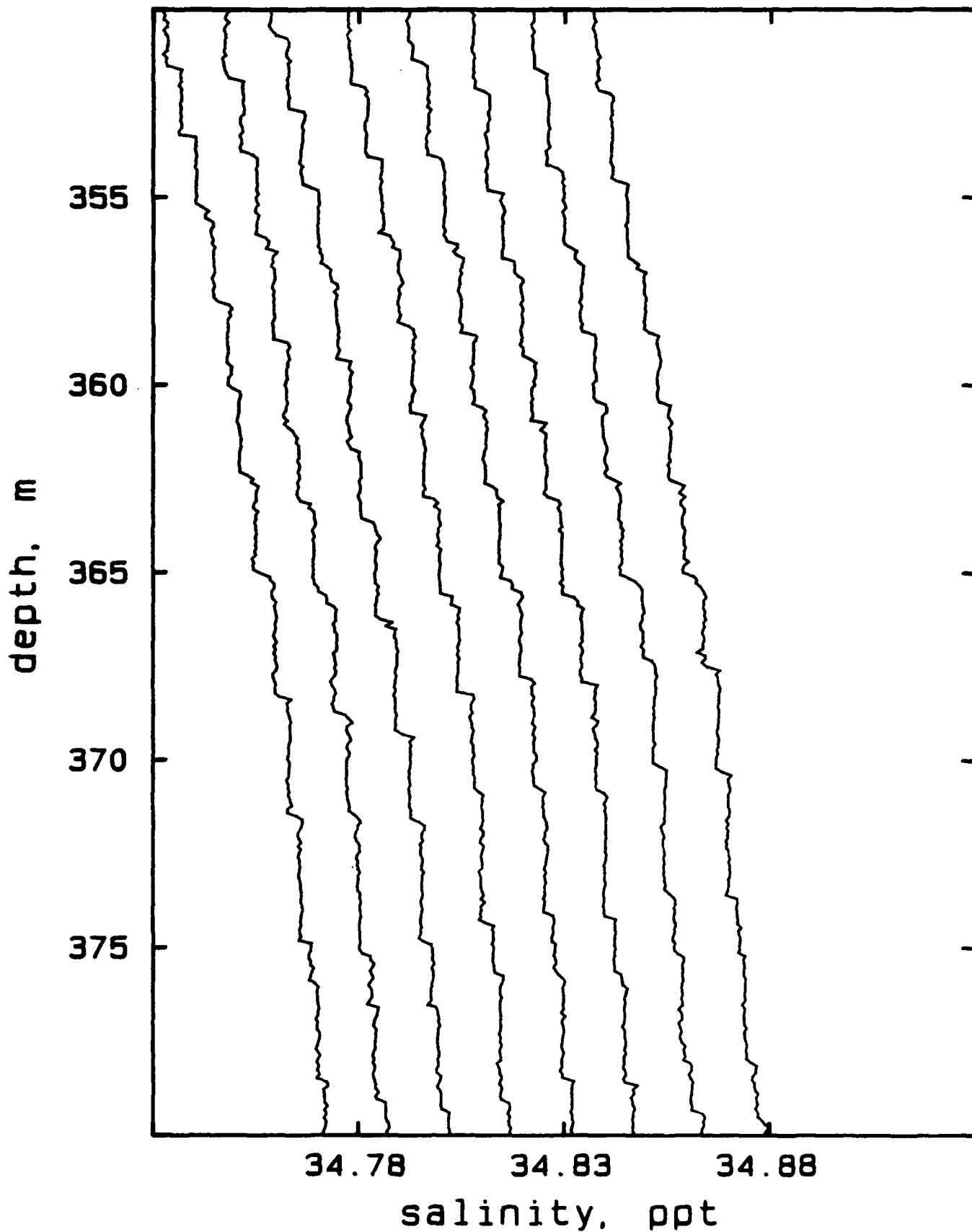
AR422, drops C8-C17



AR422, drops C18-D7



AR422, drops D8-015





OBSERVATIONS :

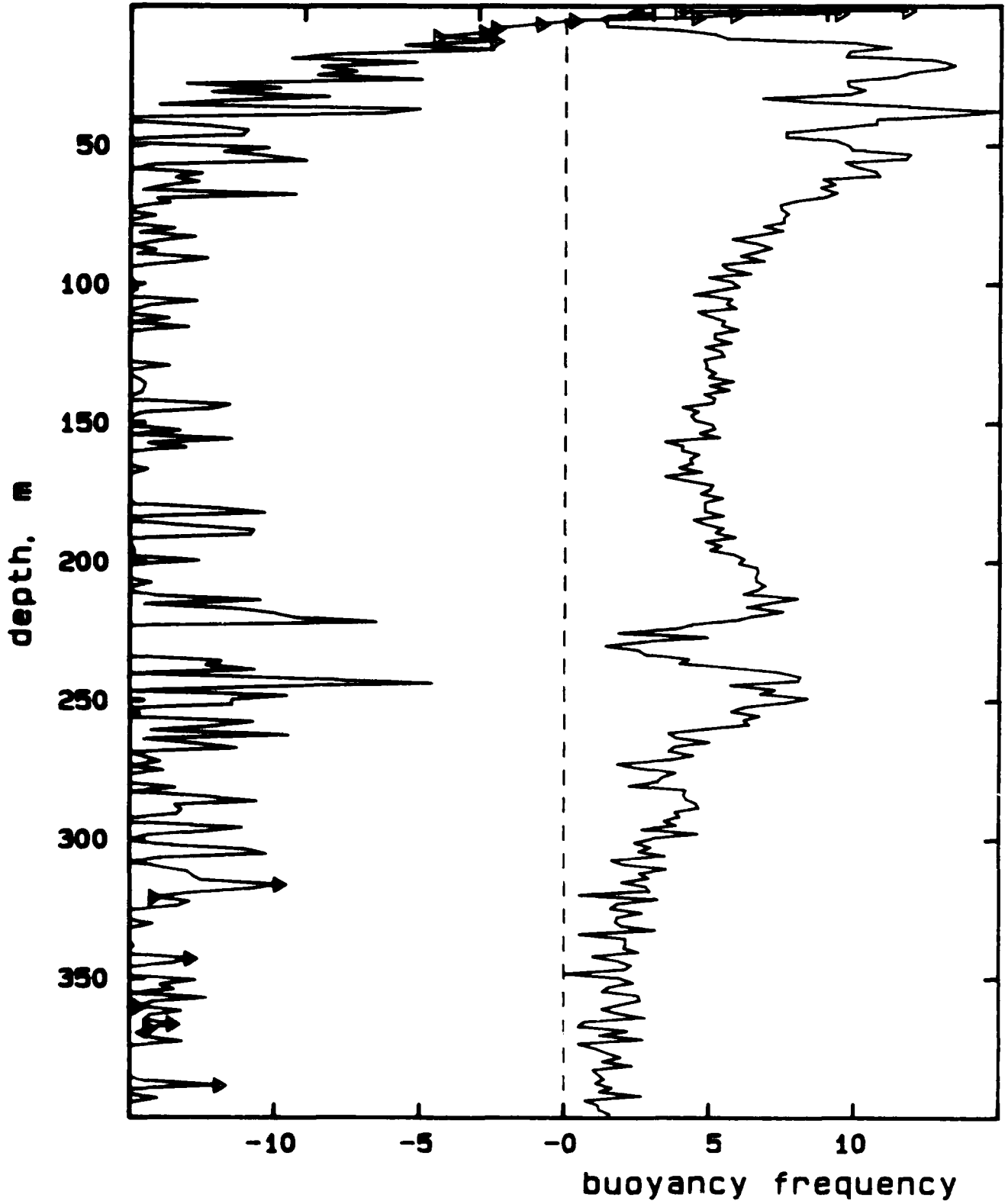
E. DISSIPATION RATES

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

DA424A.001

log (dissipation rate) [cgs]

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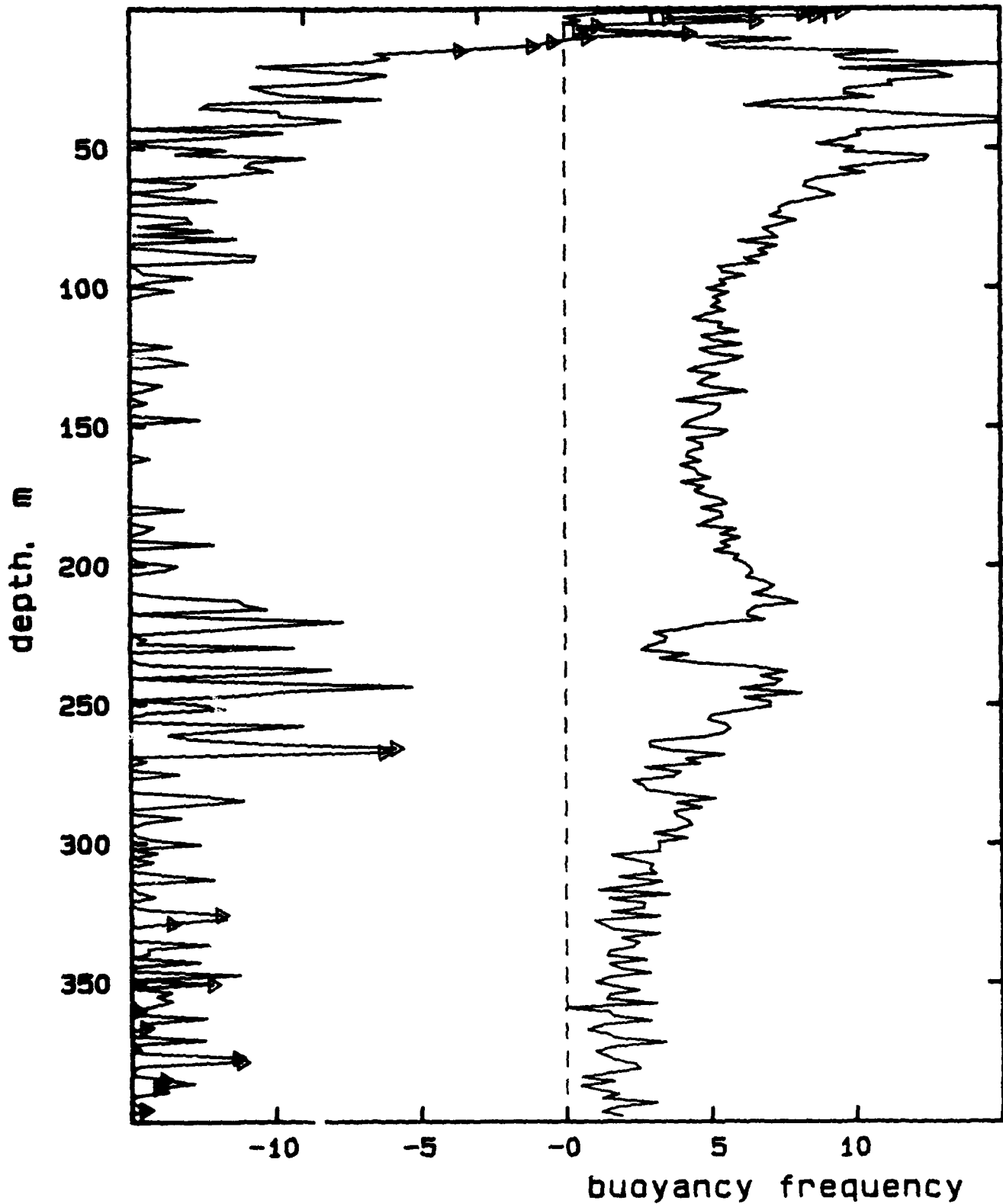


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DA424A.002

log (dissipation rate) [cgs]

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DA424A.003

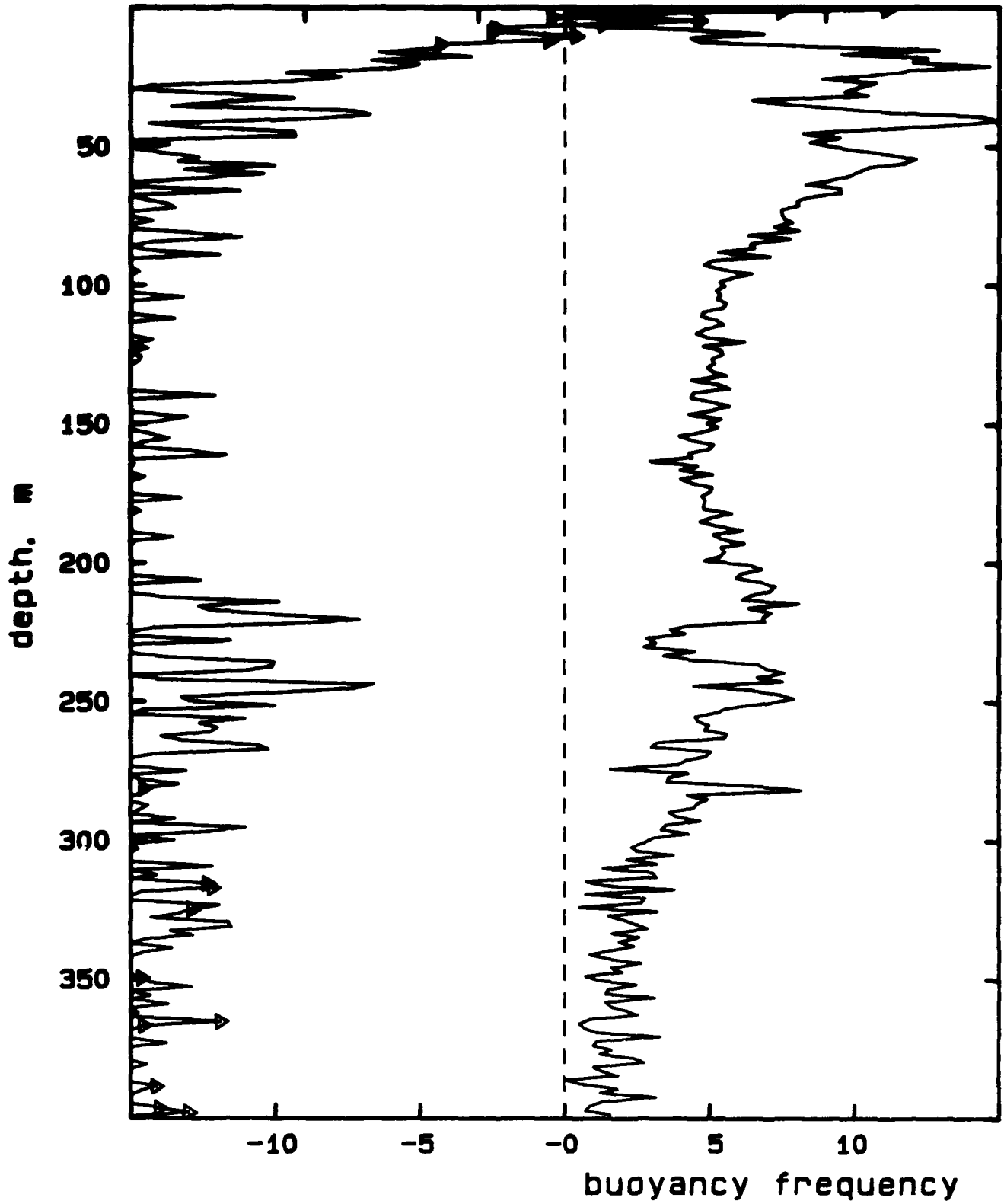
log (dissipation rate) [cgs]

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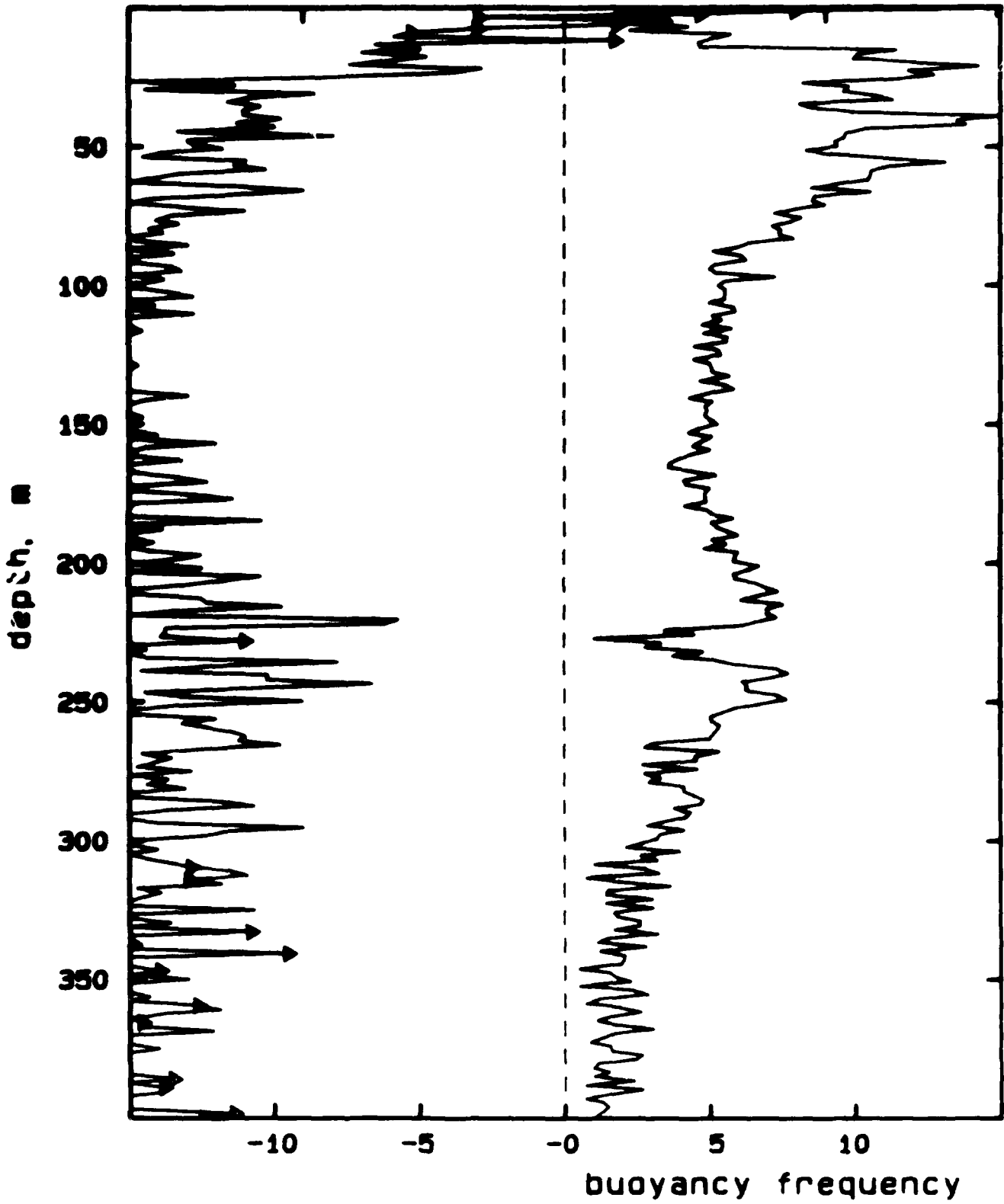
-2



DA424A.004

log (dissipation rate) [cgs]

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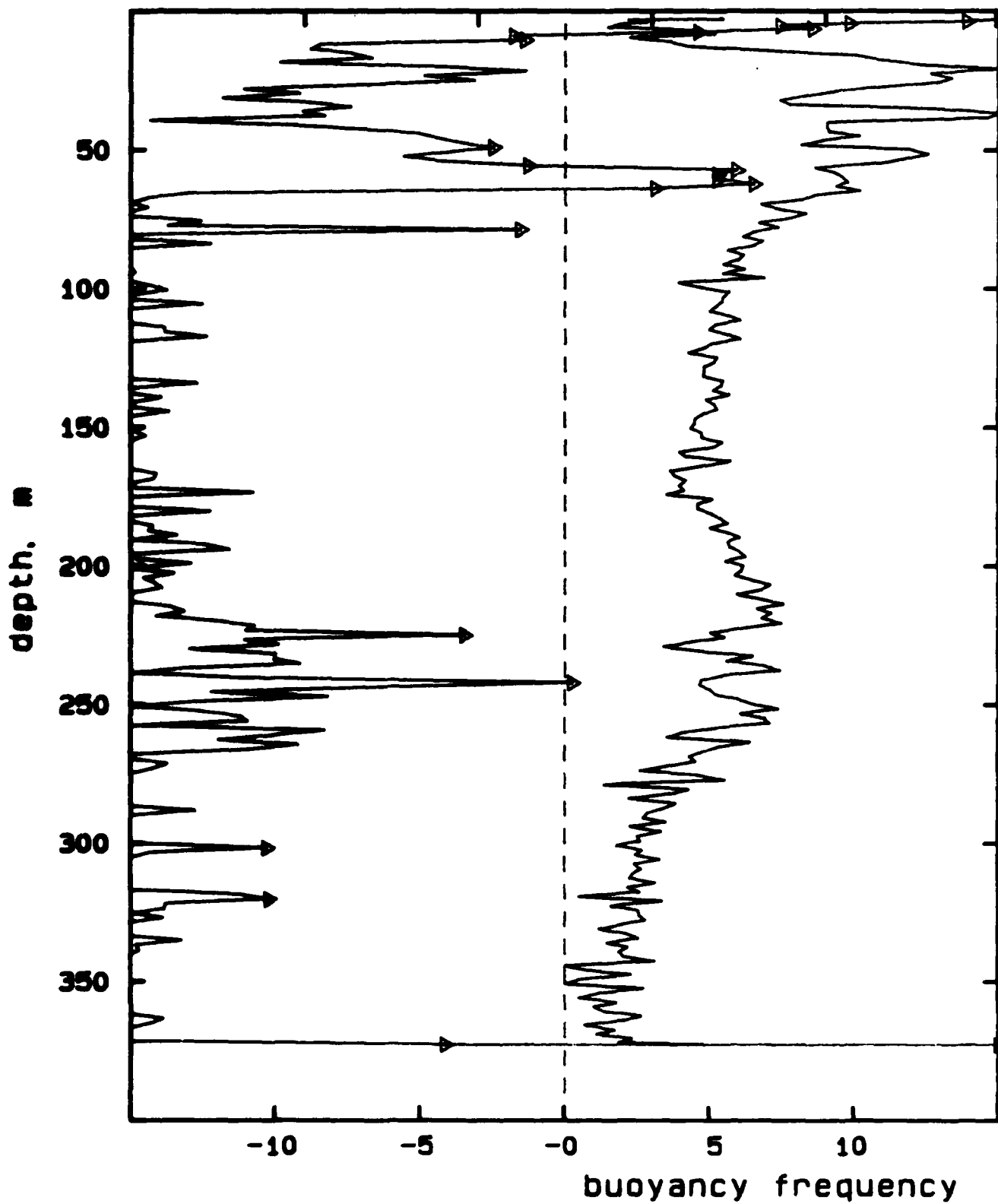


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DA4248.001

log (dissipation rate) [cgs]

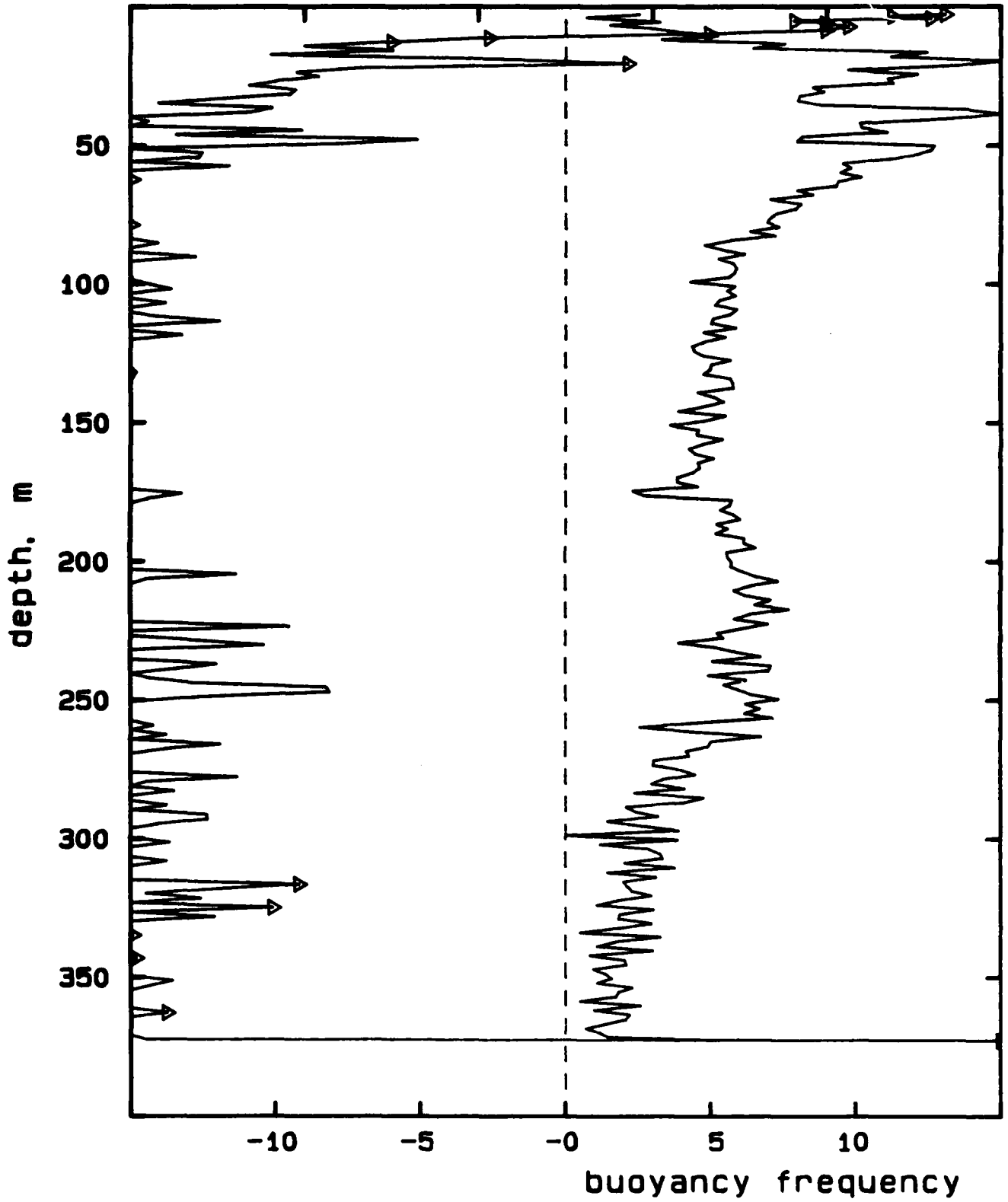
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DA424B.002

log (dissipation rate) [cgs]

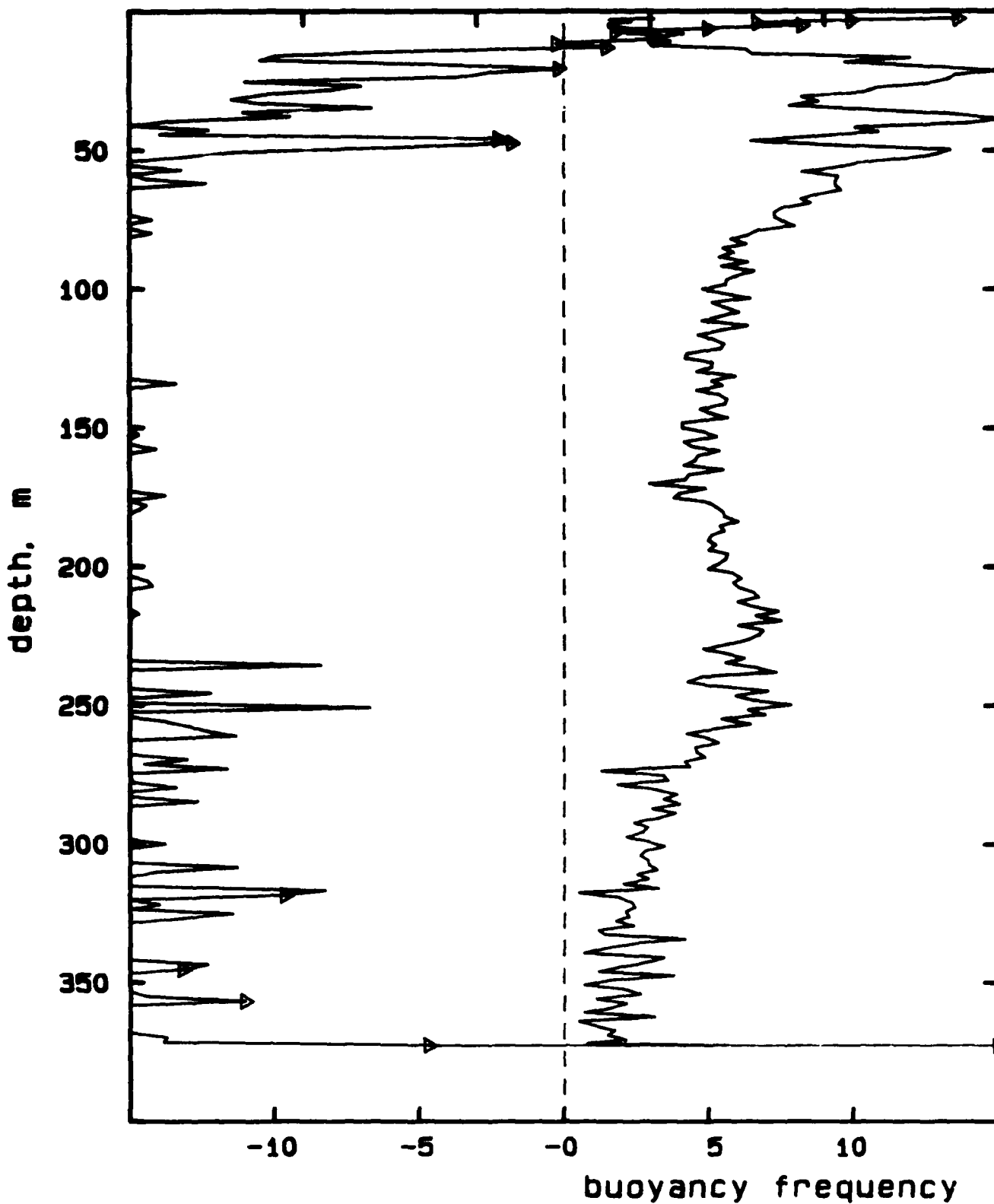
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DA424B.003

log (dissipation rate) [cgs]

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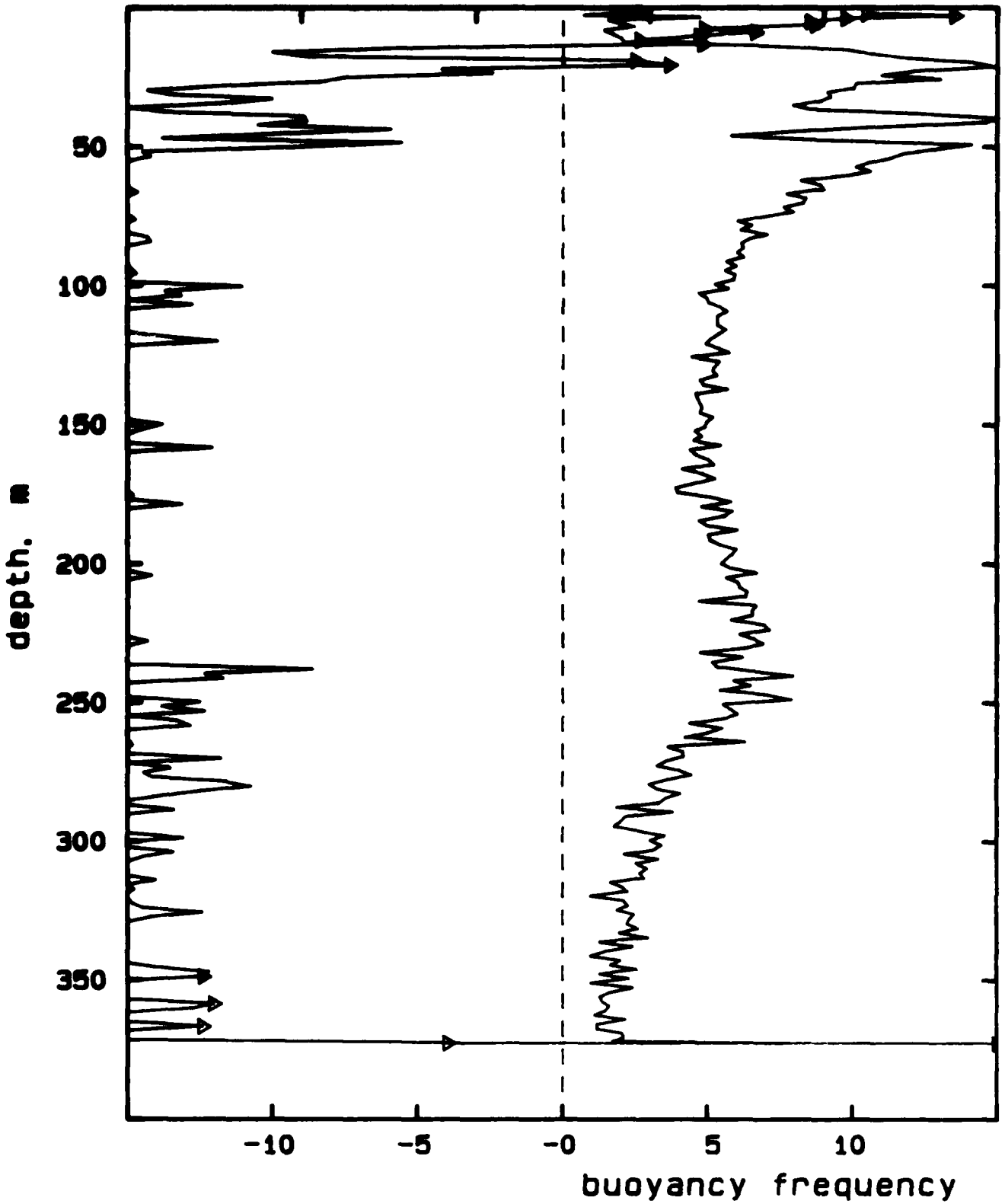




DA424B.006

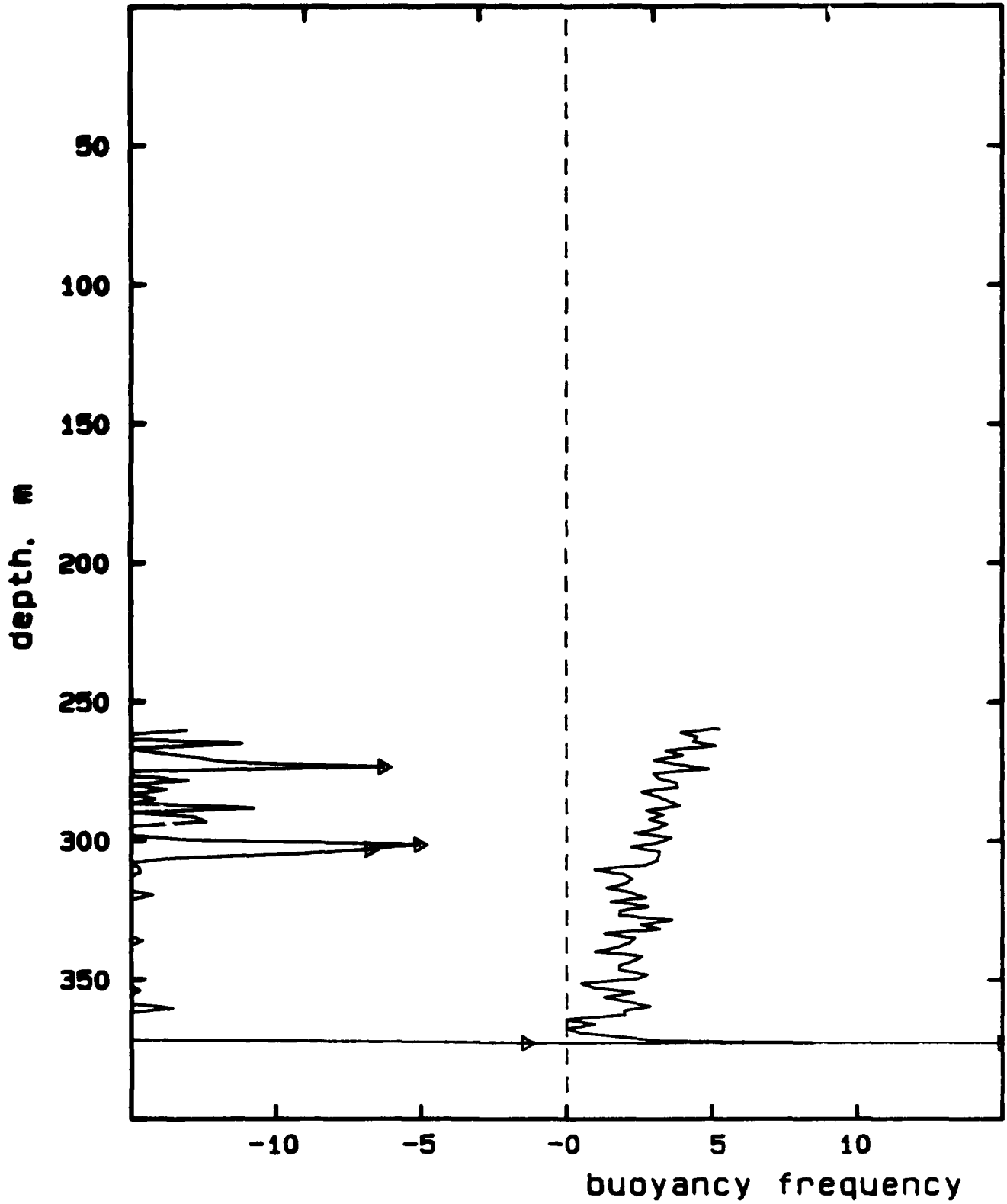
log (dissipation rate) [cgs]

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DA424D.002

log (dissipation rate) [cgs]  
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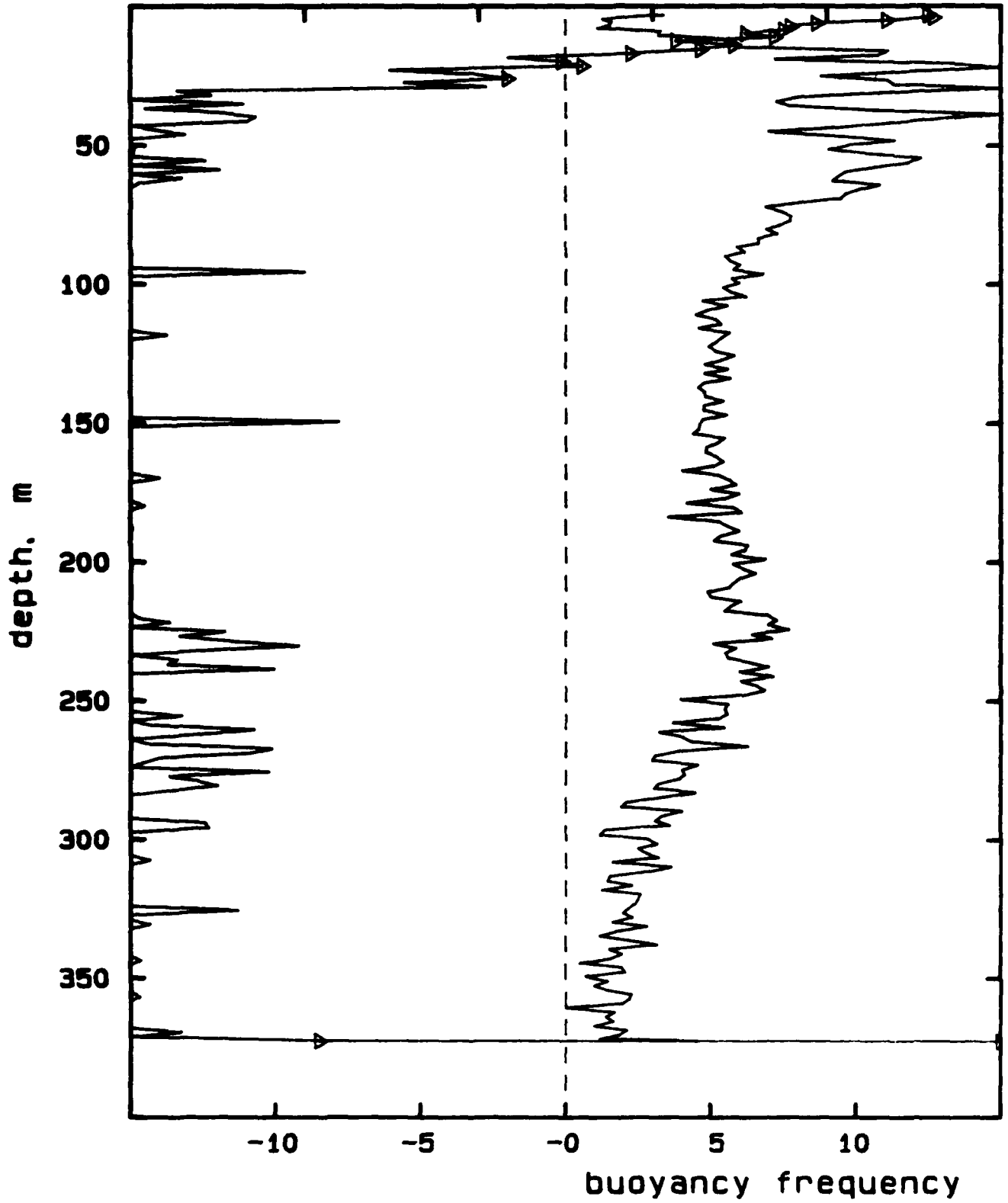


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DA424D.004

log (dissipation rate) [cgs]

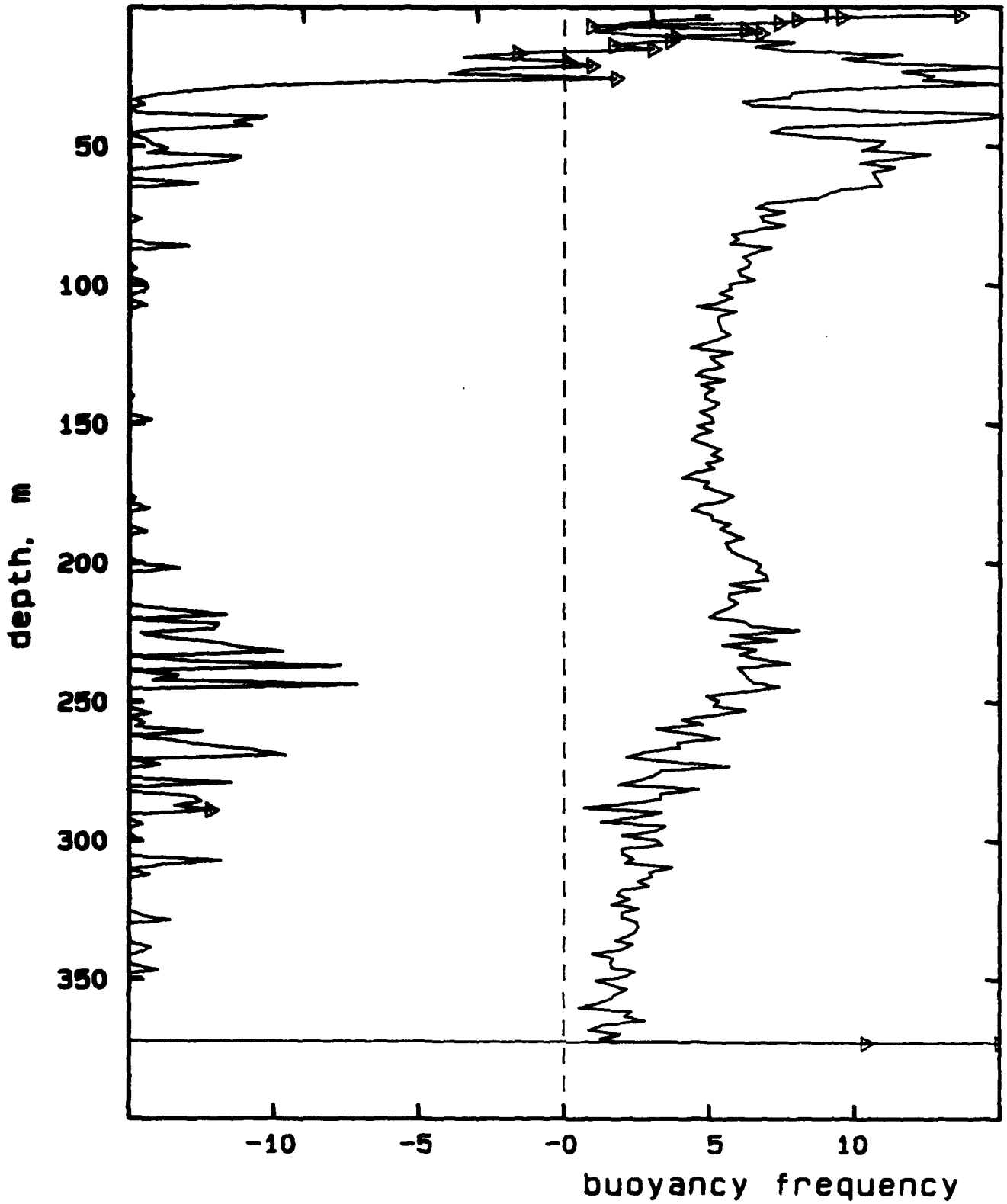
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DA424E.001

log (dissipation rate) [cgs]

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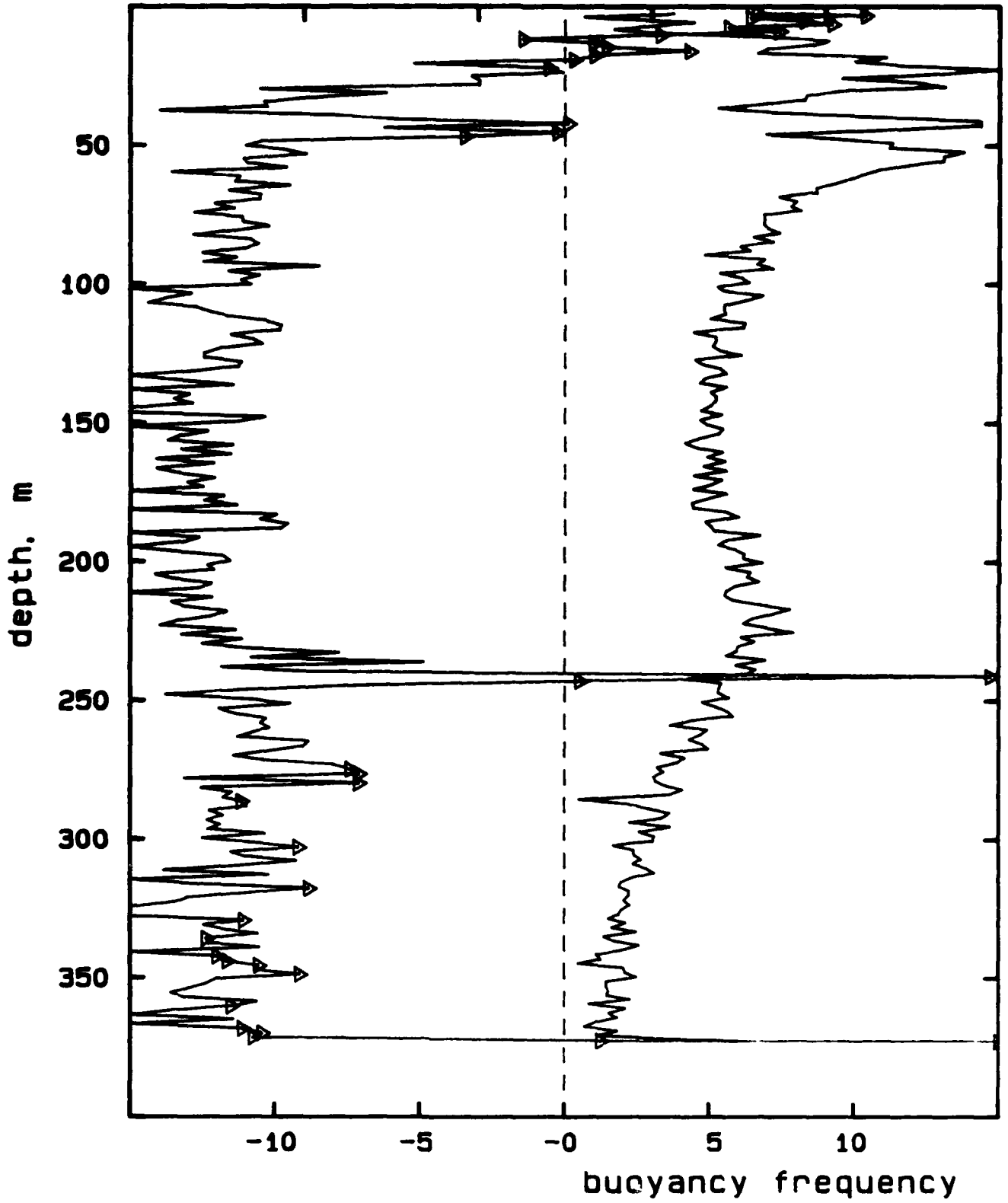


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DA424F.001

log (dissipation rate) [cgs]

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DA424F.003

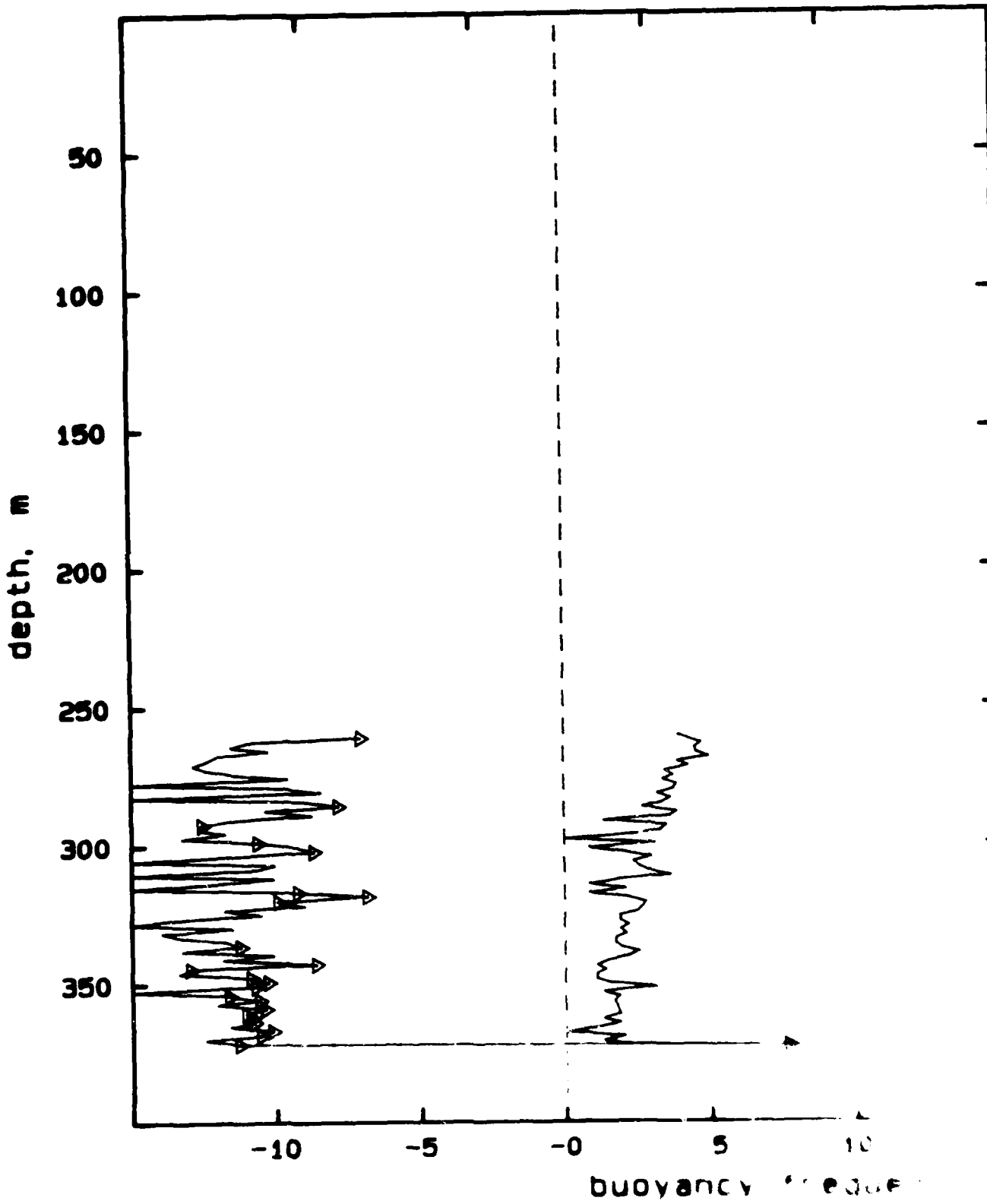
log (dissipation rate) [cgs]

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MICROSTRUCTURE CASTS DURING AIMEX (ARCTIC INTERNAL WAVE  
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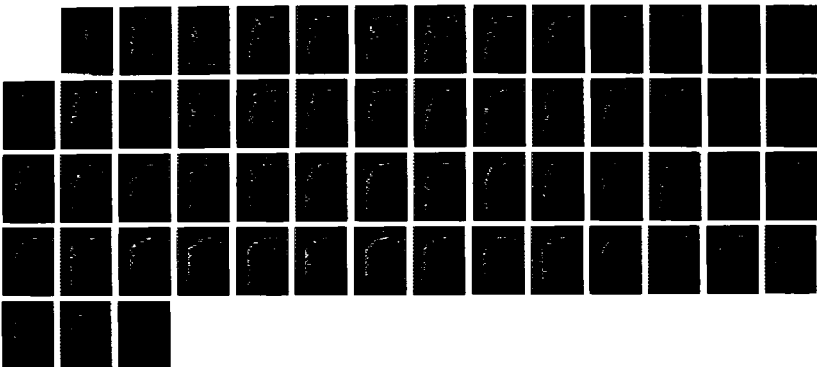
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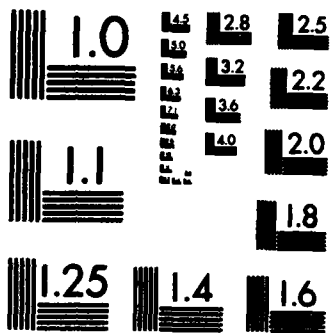
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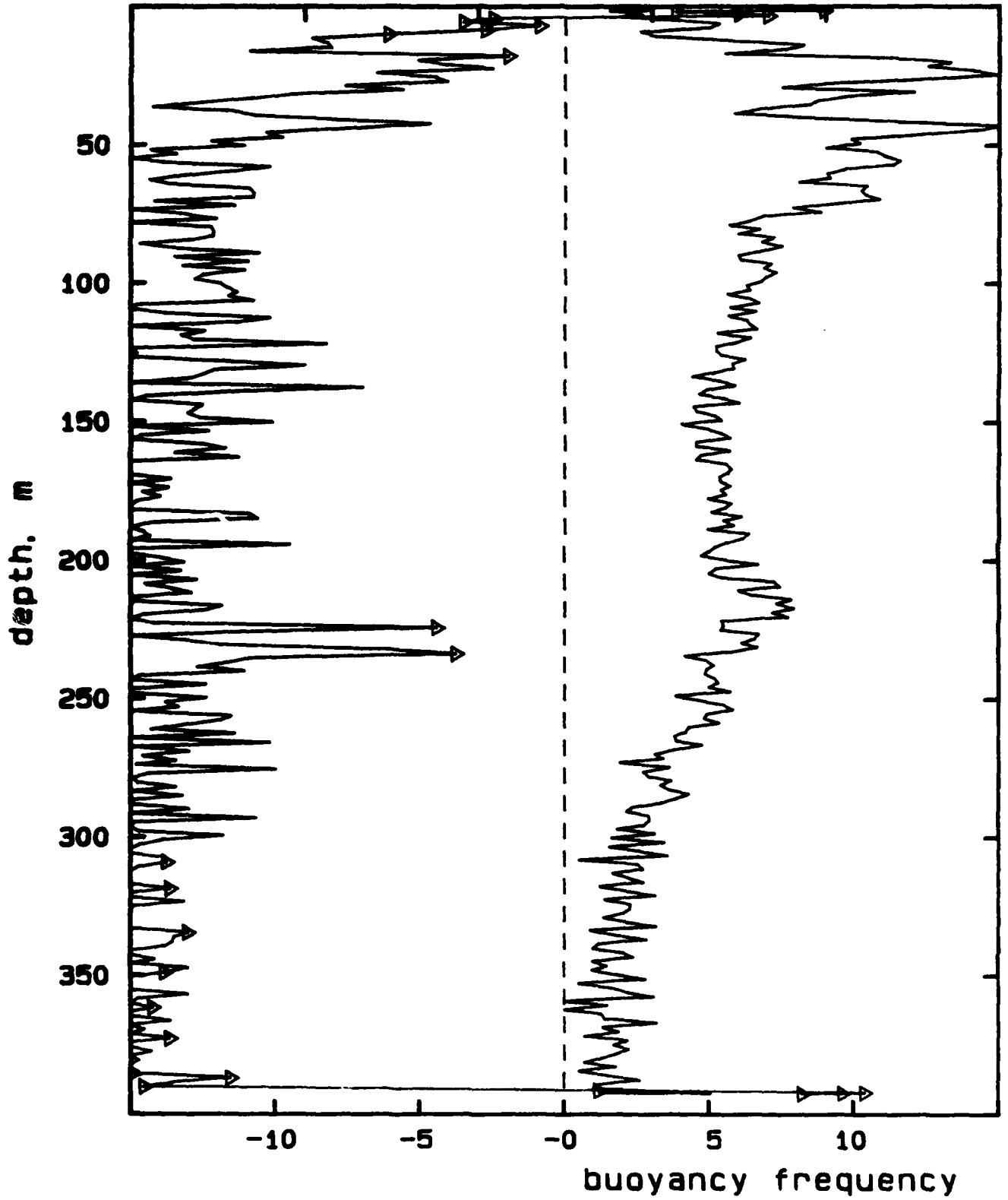


MICROCOPY RESOLUTION TEST CHART  
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DA424G.001

log (dissipation rate) [cgs]

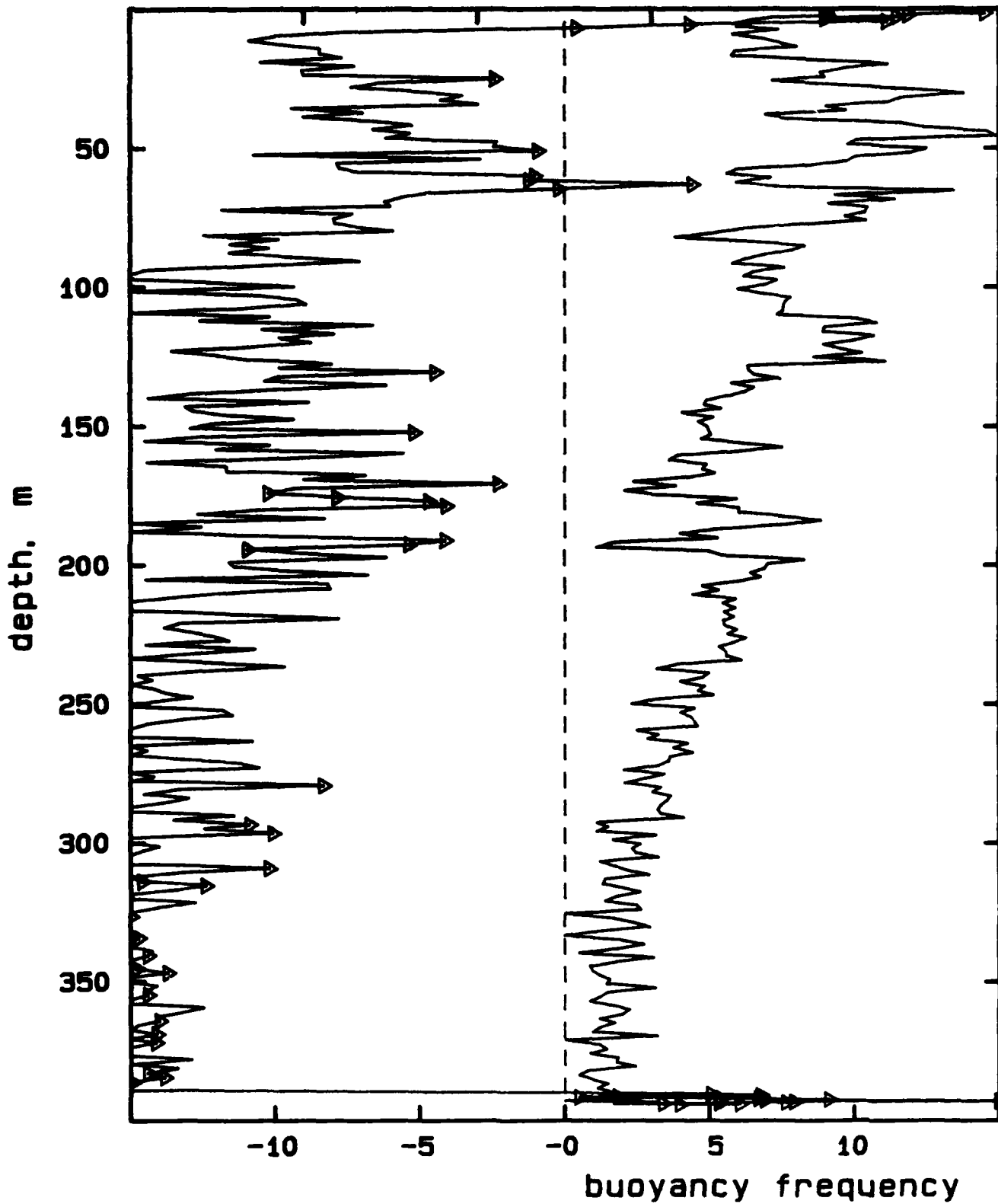
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DA425A.001

log (dissipation rate) [cgs]

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DA425A.002

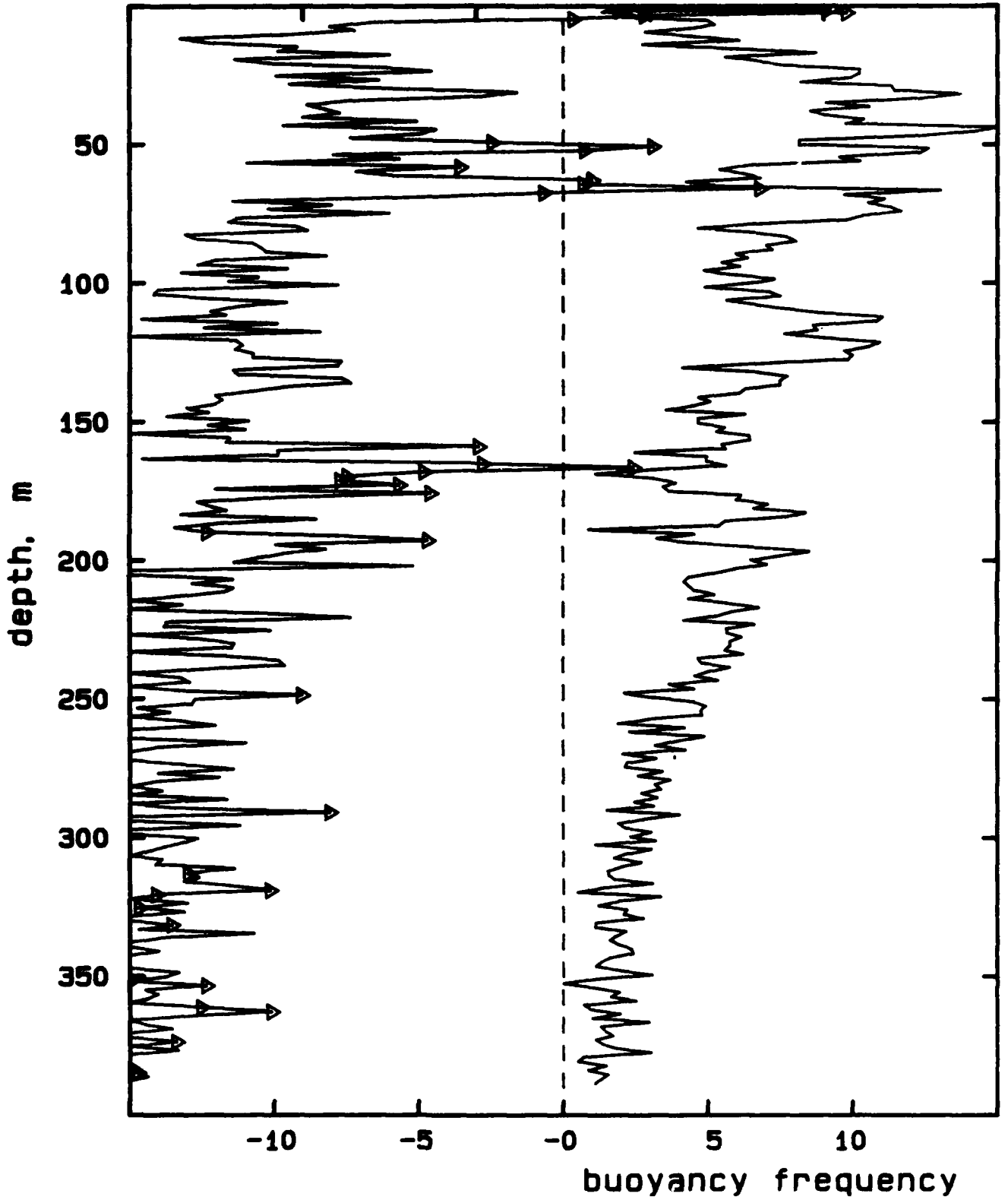
log (dissipation rate) [cgs]

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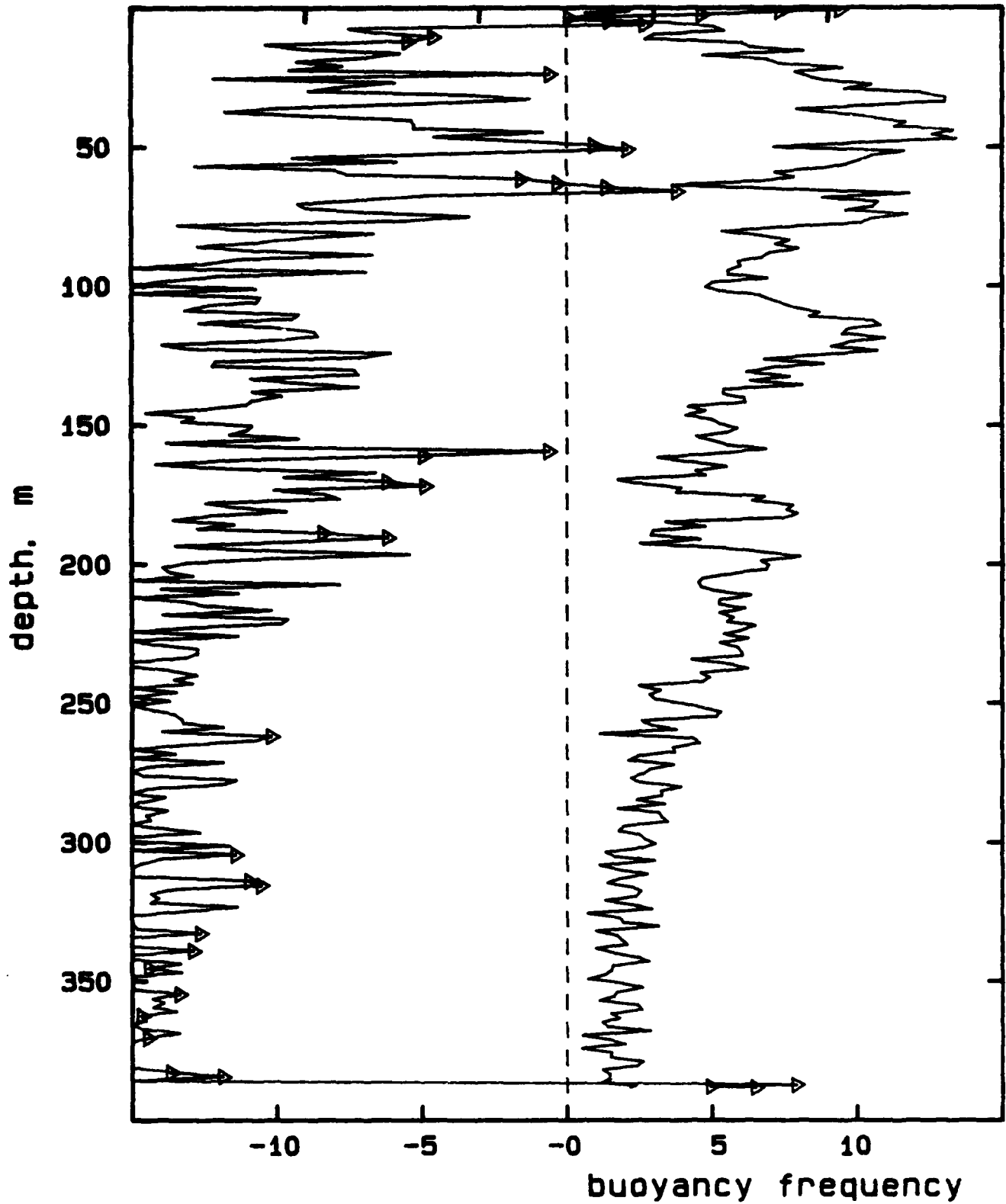
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DA425A.003

log (dissipation rate) [cgs]

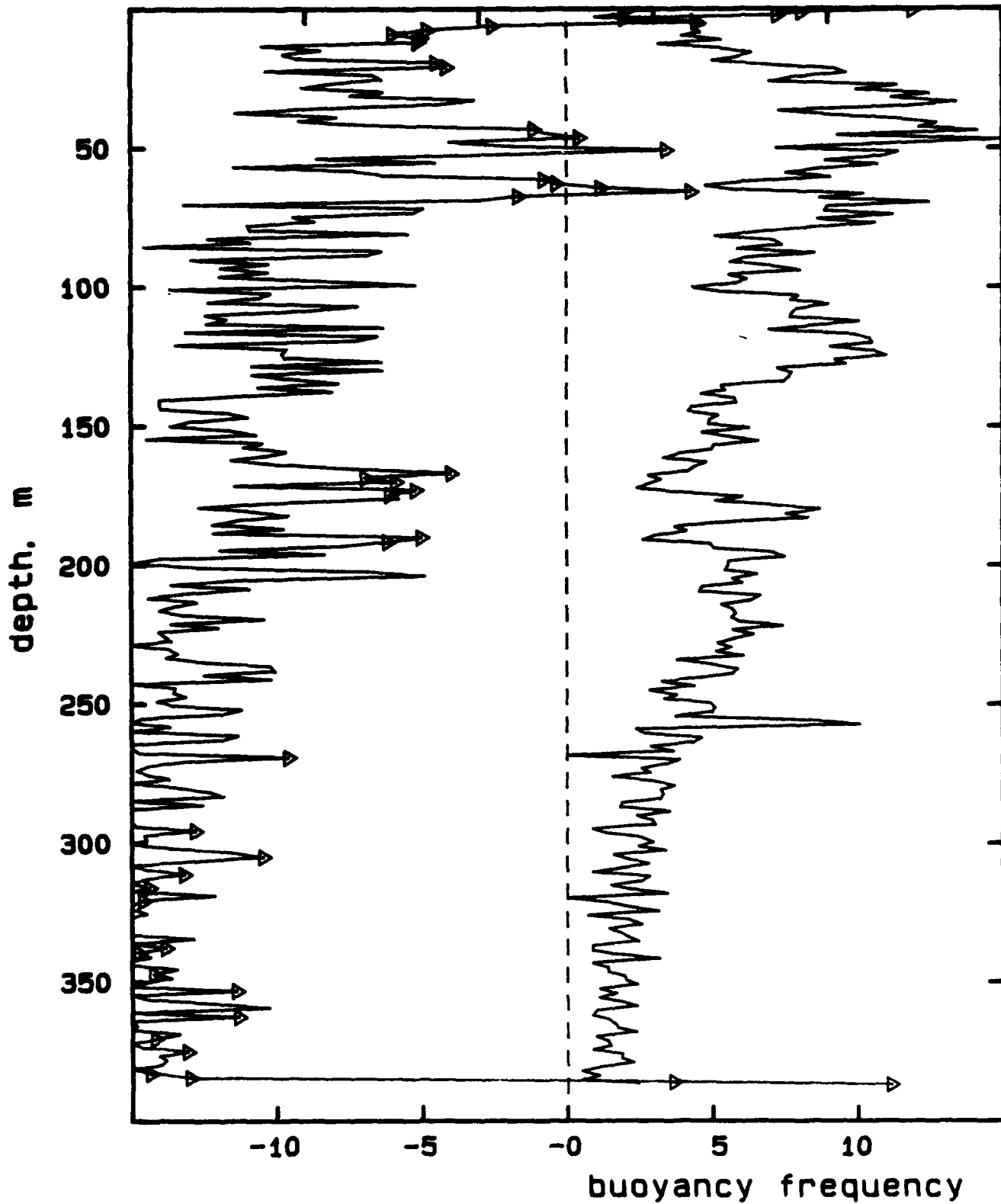
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DA425A.004

log (dissipation rate) [cgs]

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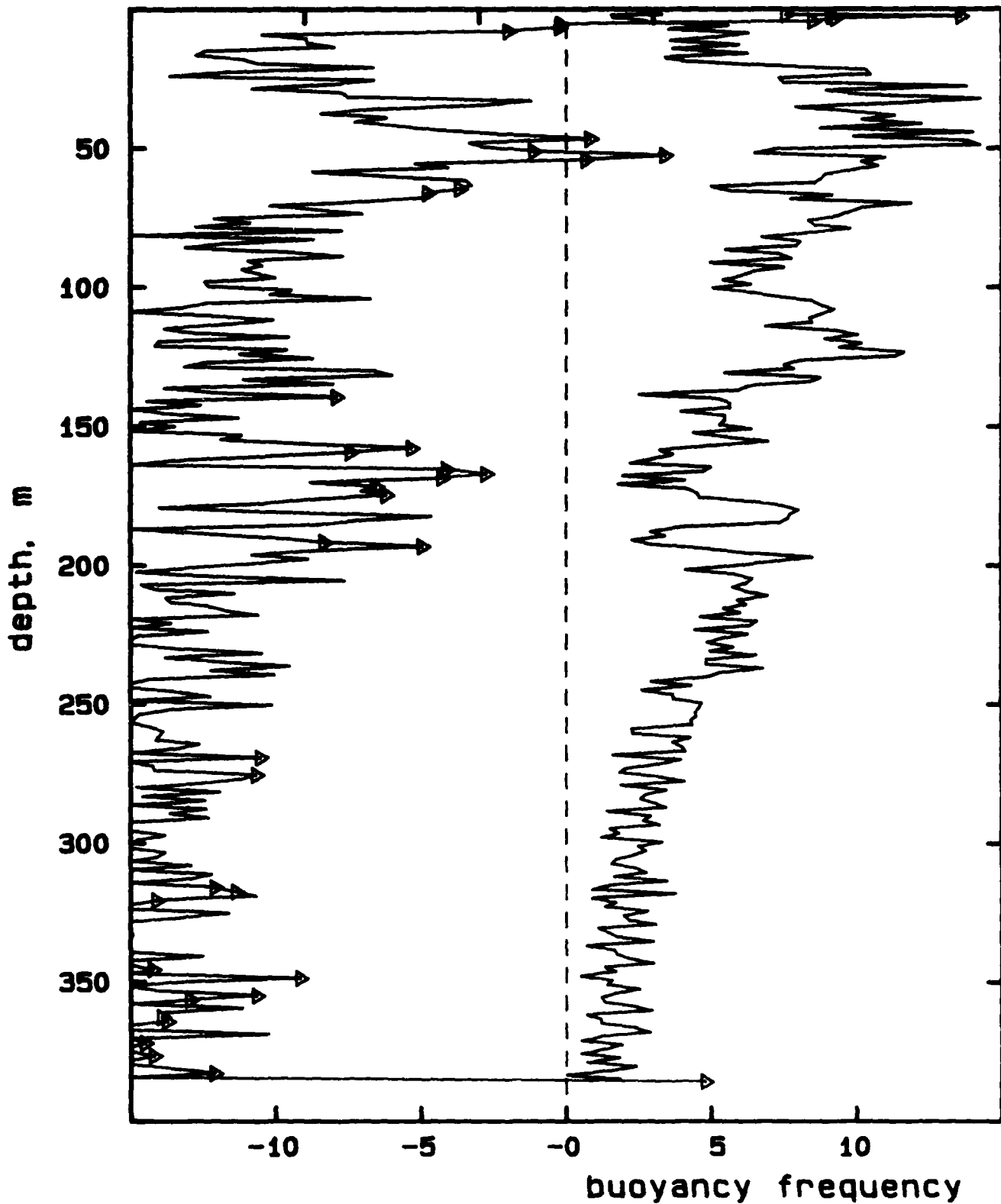


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DA425A.005

log (dissipation rate) [cgs]

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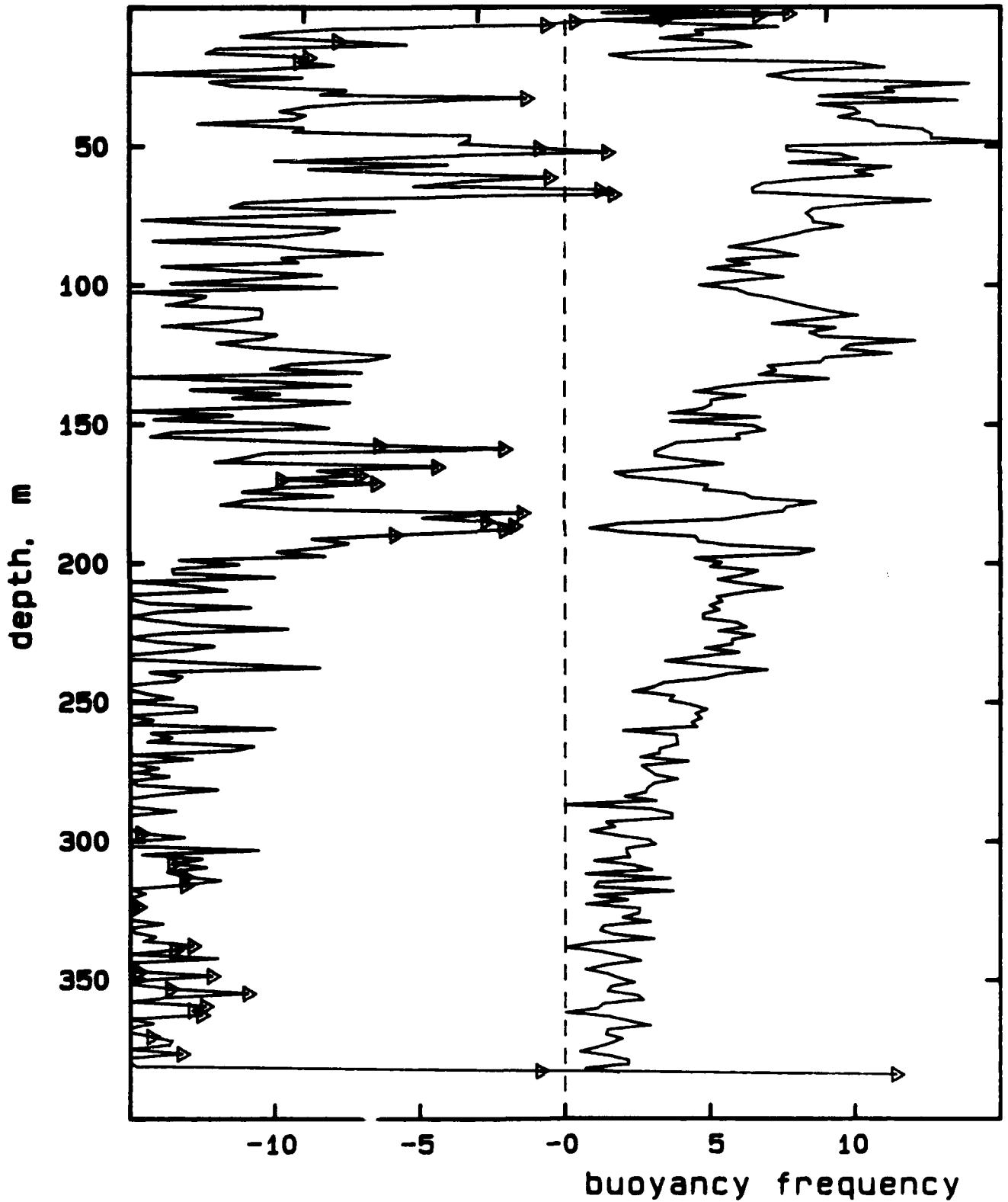




DA425A.006

log (dissipation rate) [cgs]

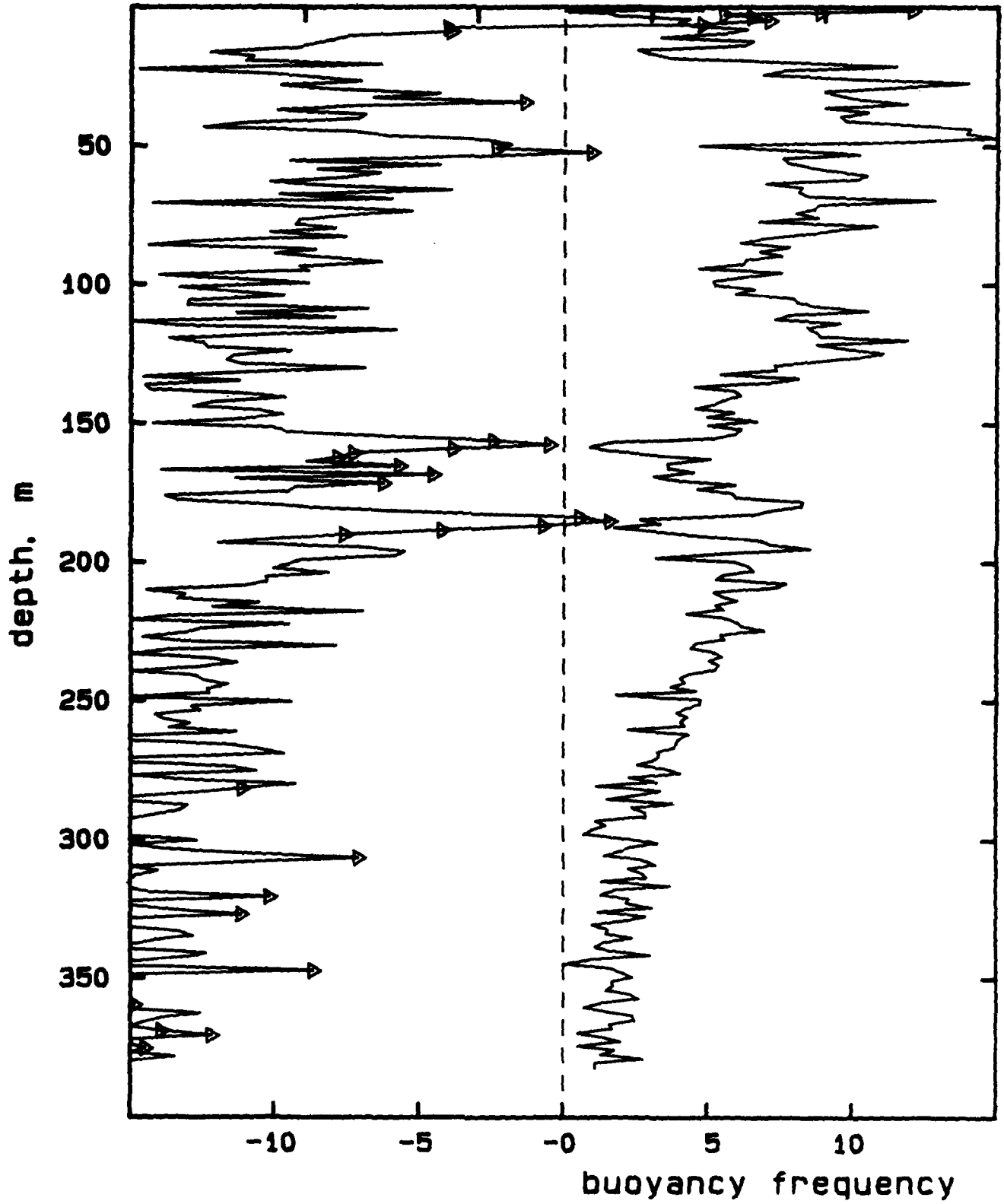
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DA425A.007

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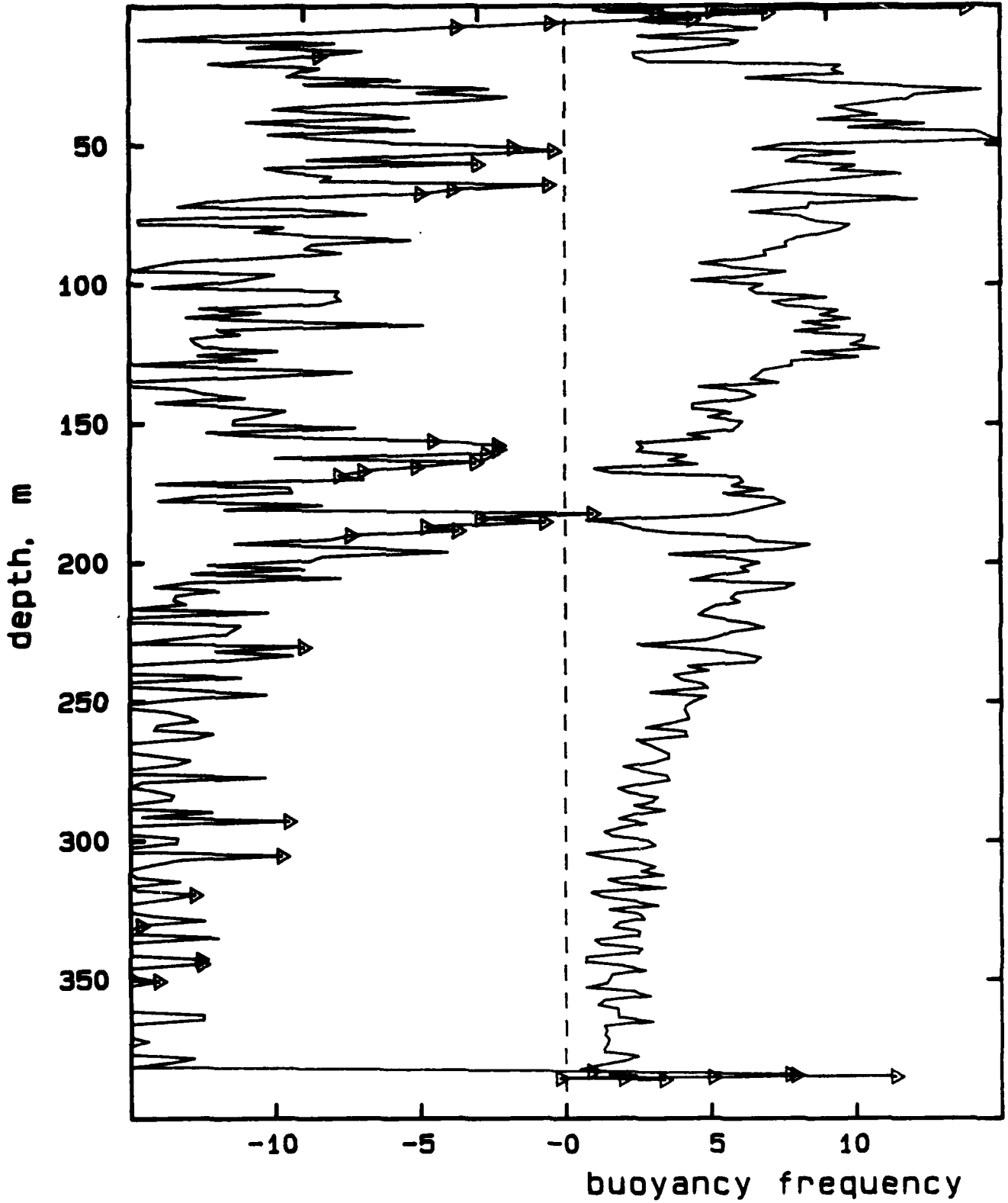
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DA425B.001

log (dissipation rate) [cgs]

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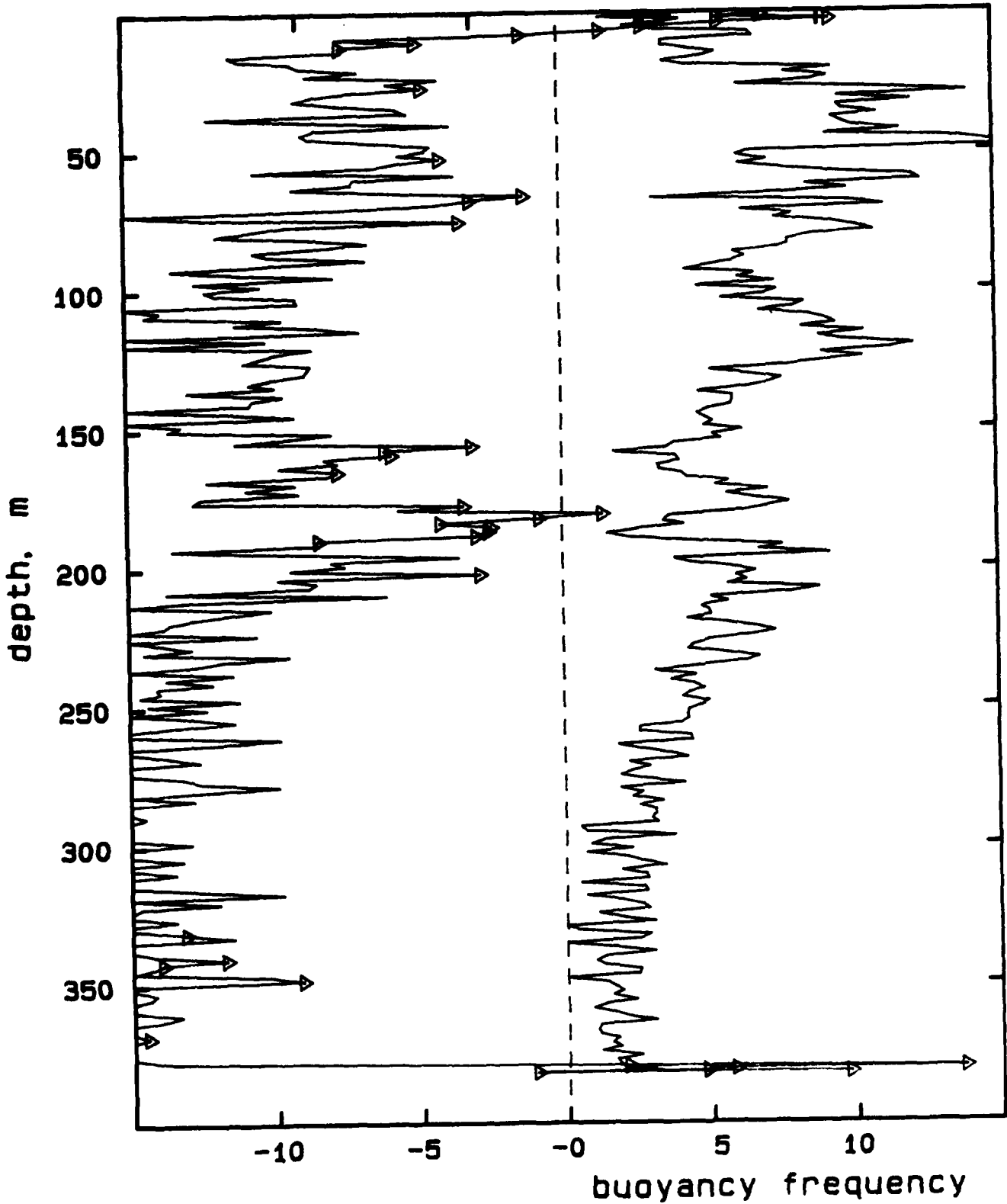


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DA425B.002

log (dissipation rate) [cgs]

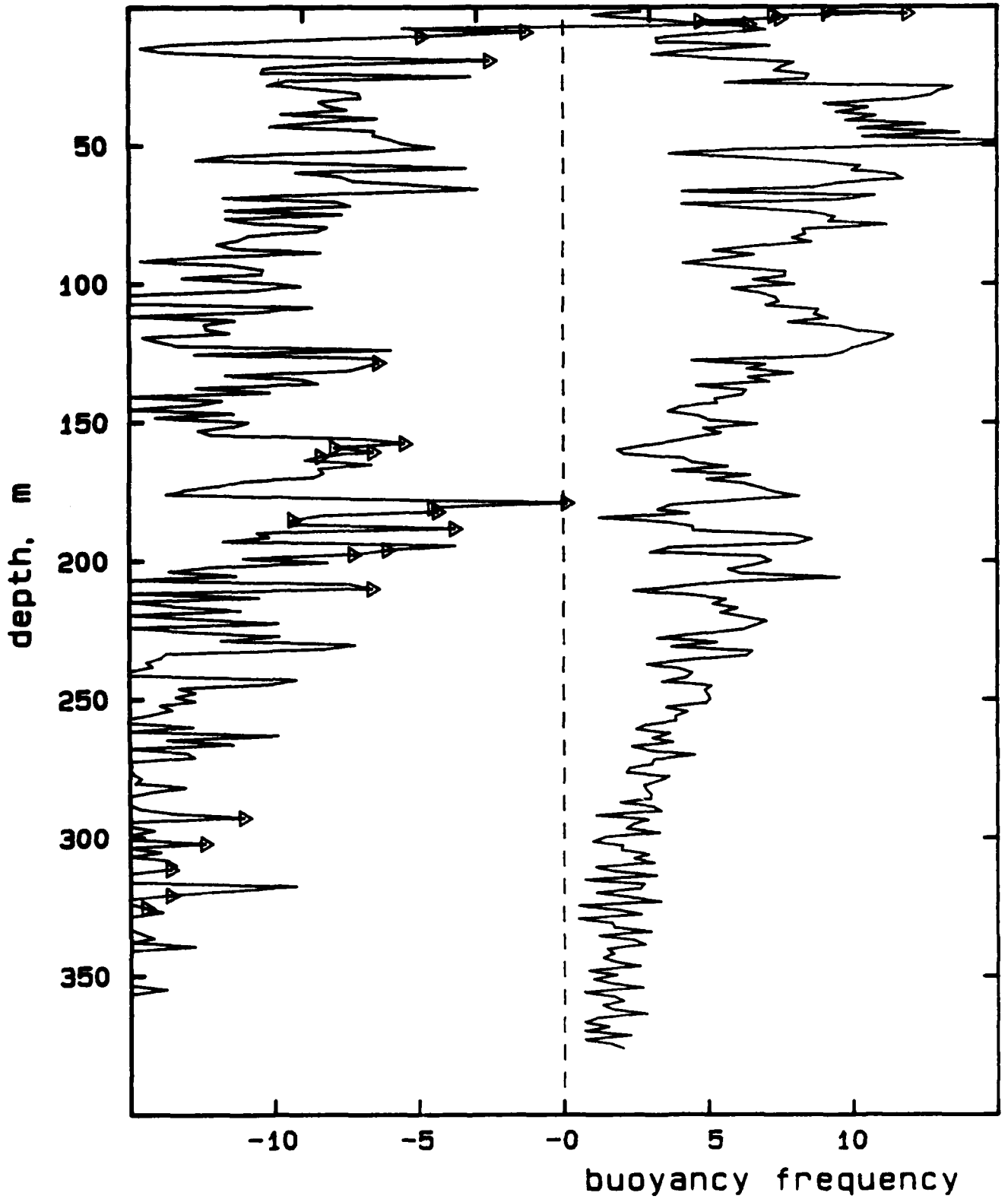
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DA425B.003

log (dissipation rate) [cgs]

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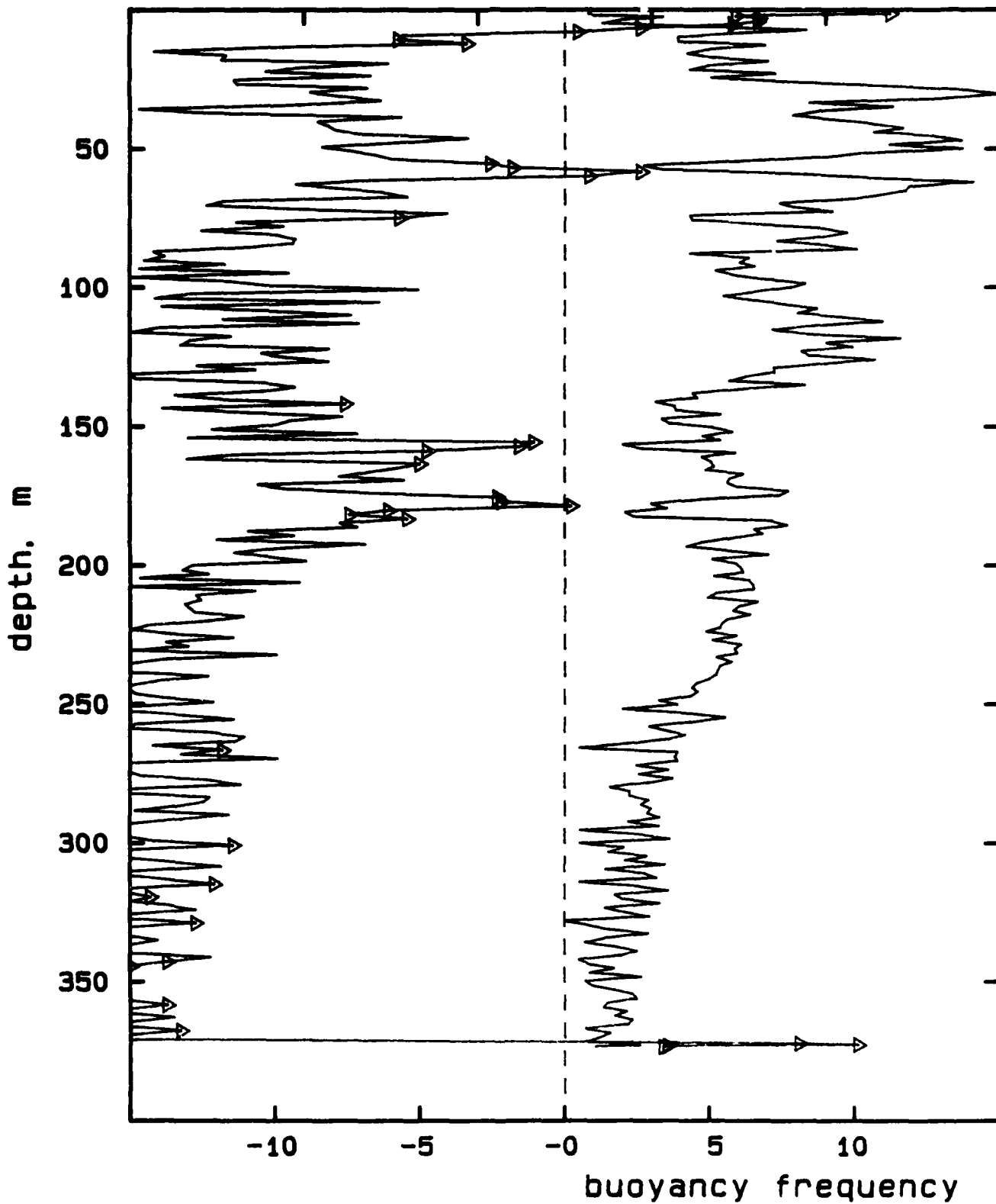


1000 900 800 700 600 500 400 300 200 100 0

DA425B.006

log (dissipation rate) [cgs]

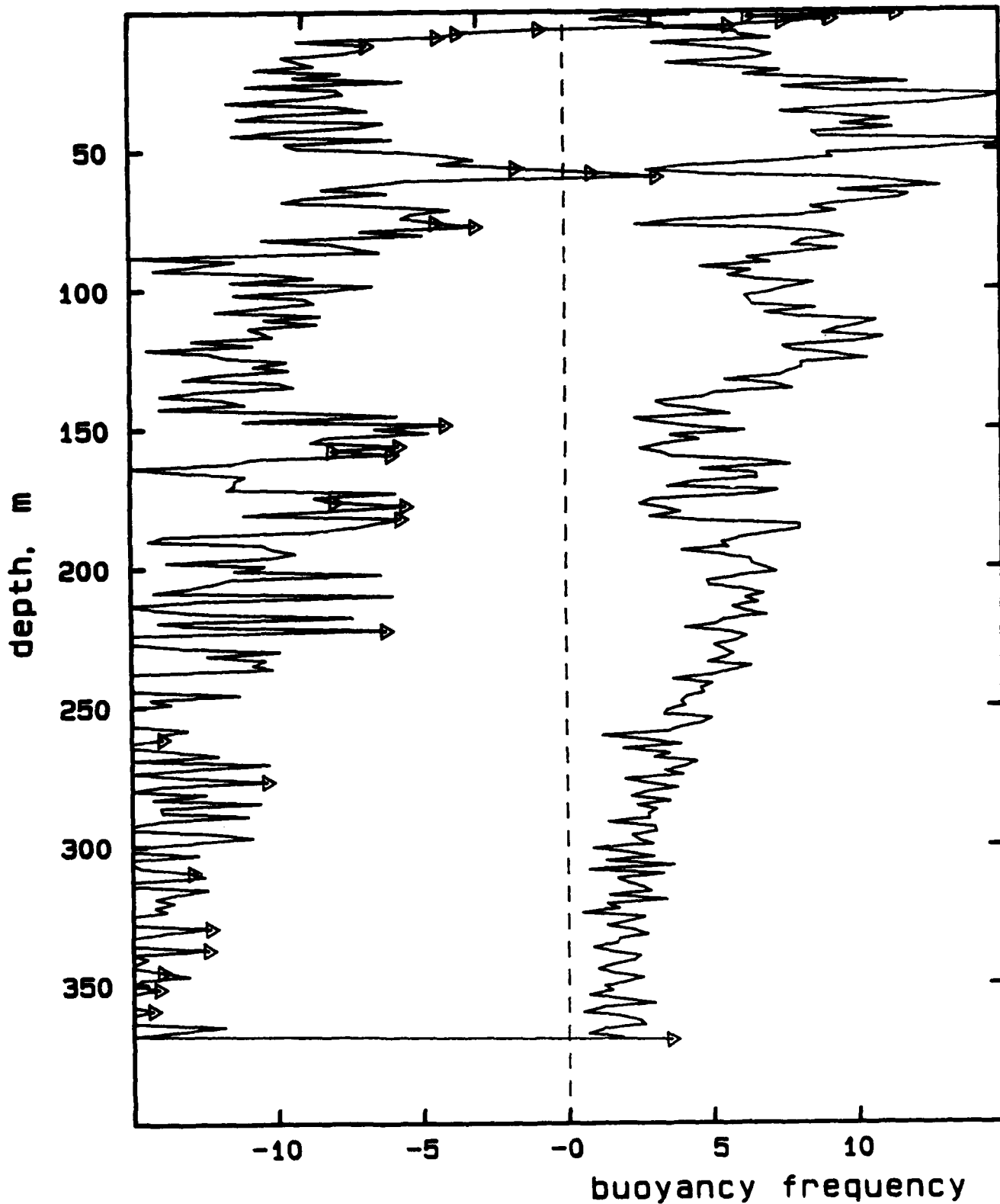
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DA425B.007

log (dissipation rate) [cgs]

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DA425B.008

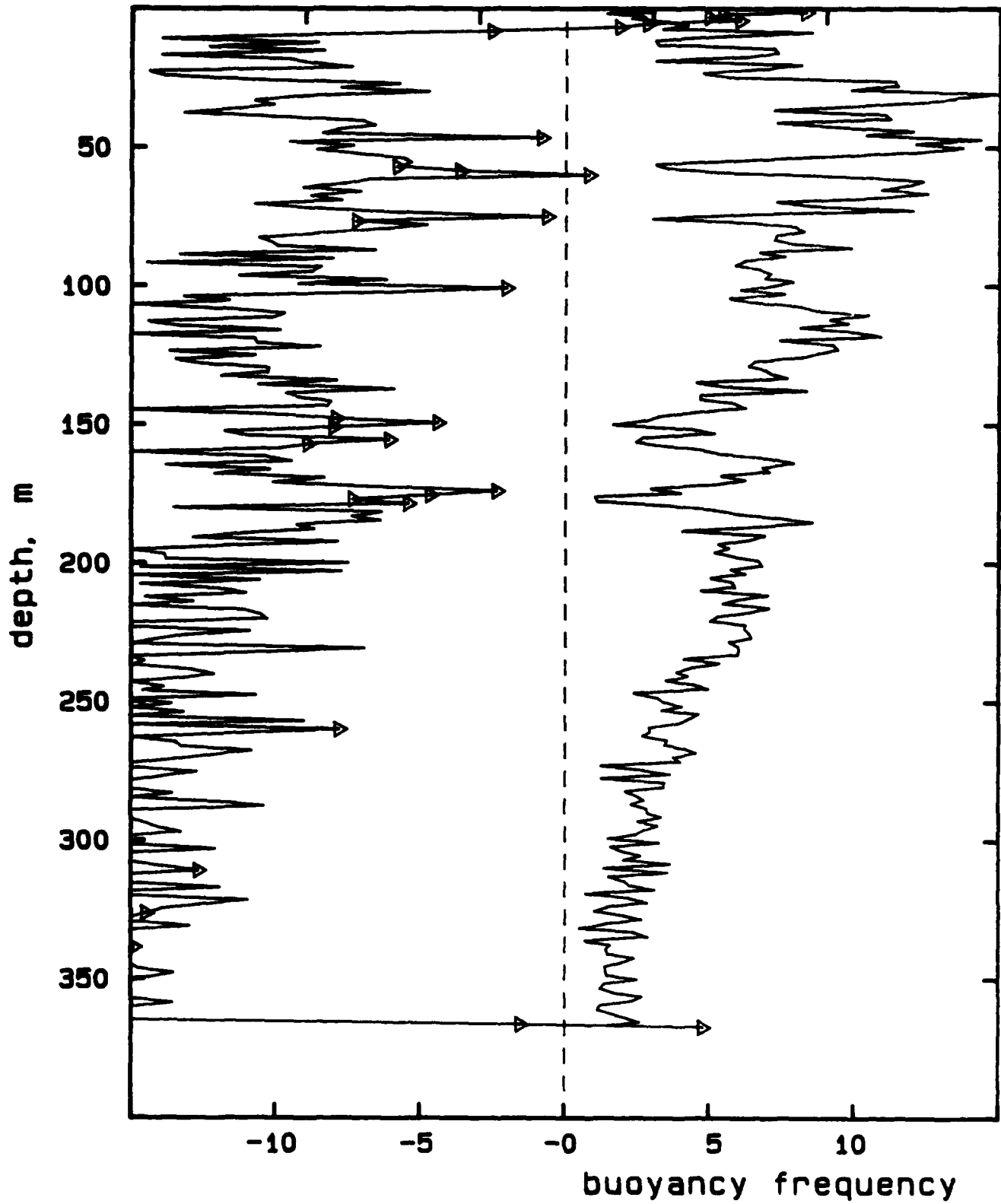
log (dissipation rate) [cgs]

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DA425B.009

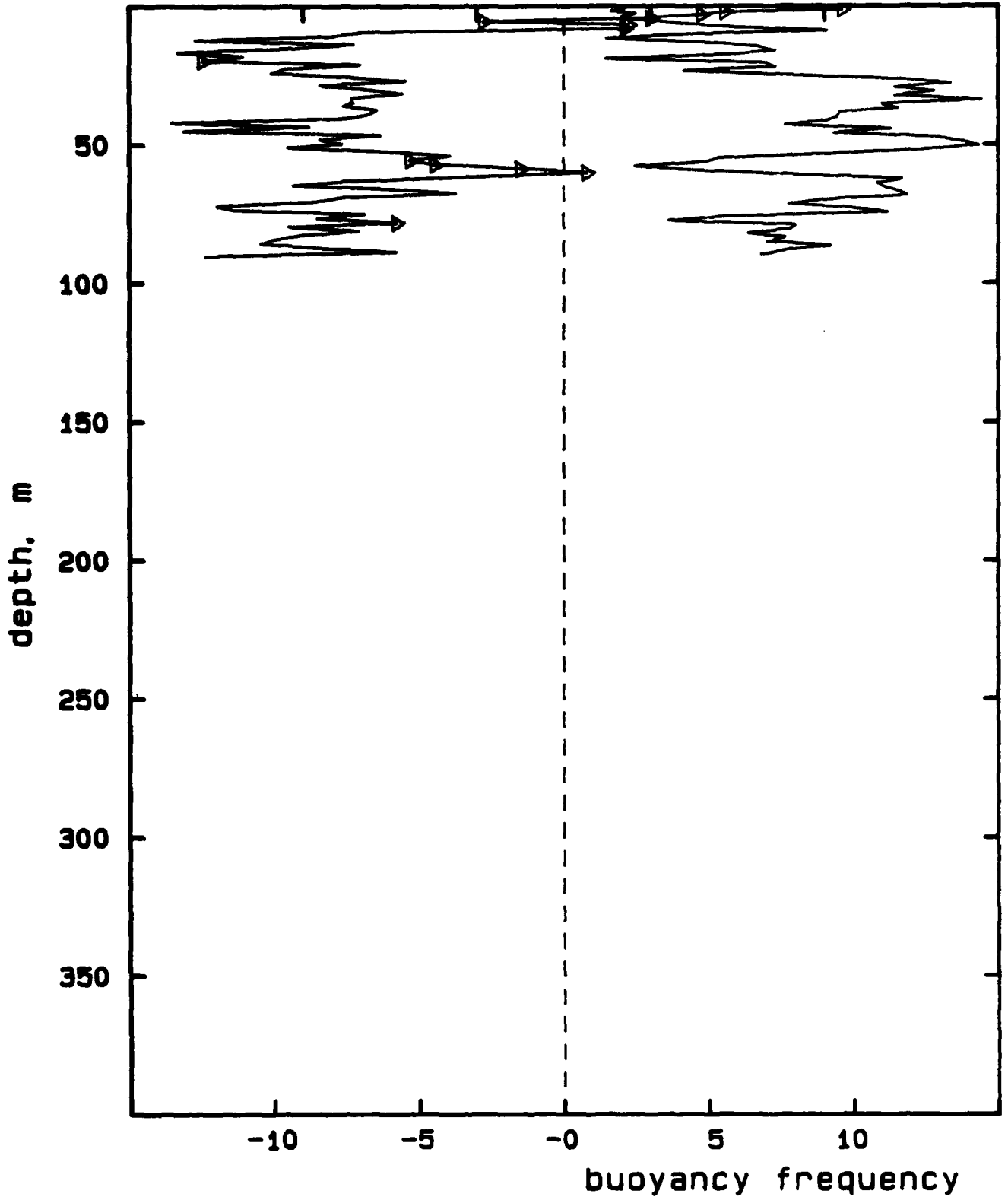
log (dissipation rate) [cgs]

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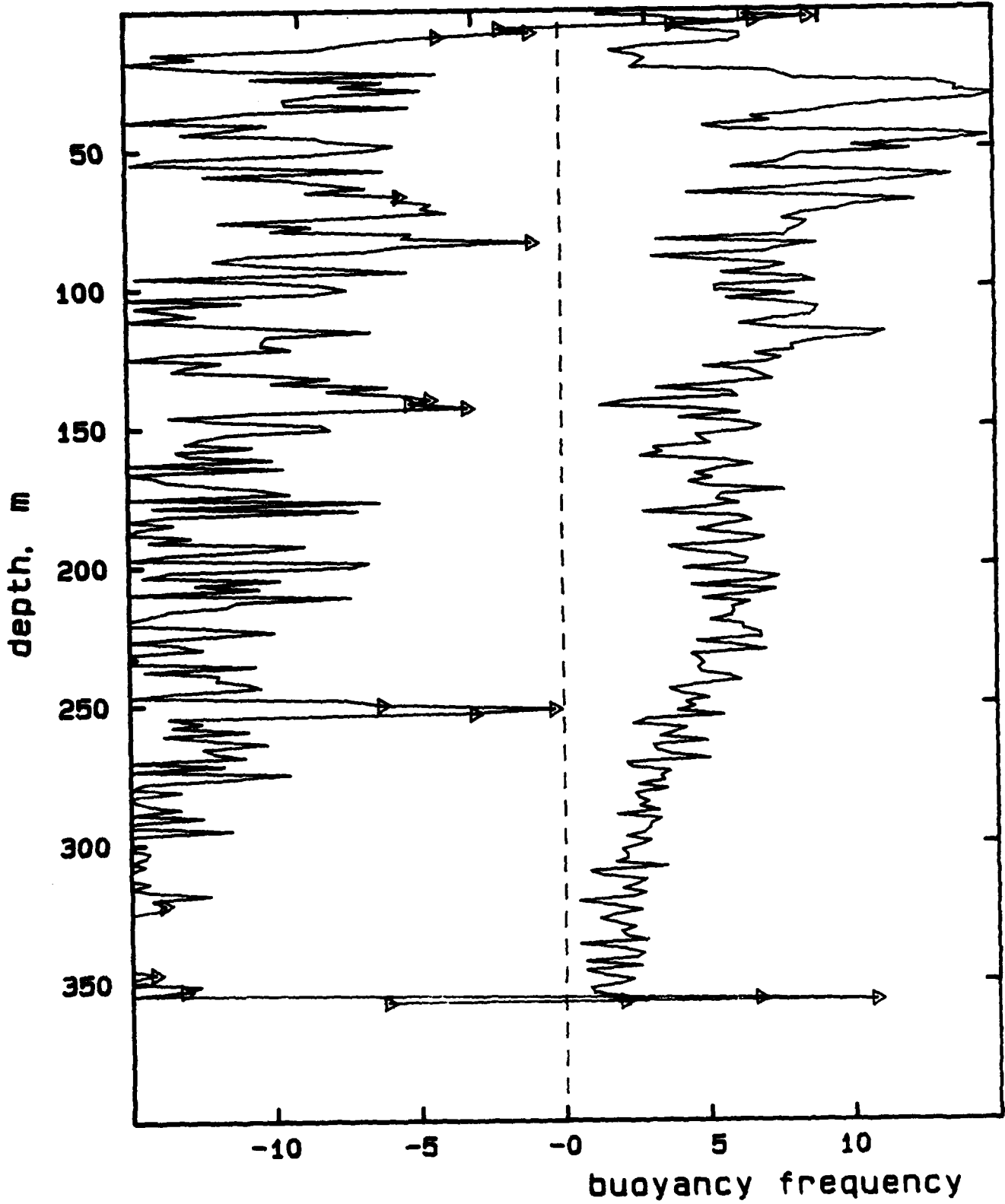
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DA425C.001

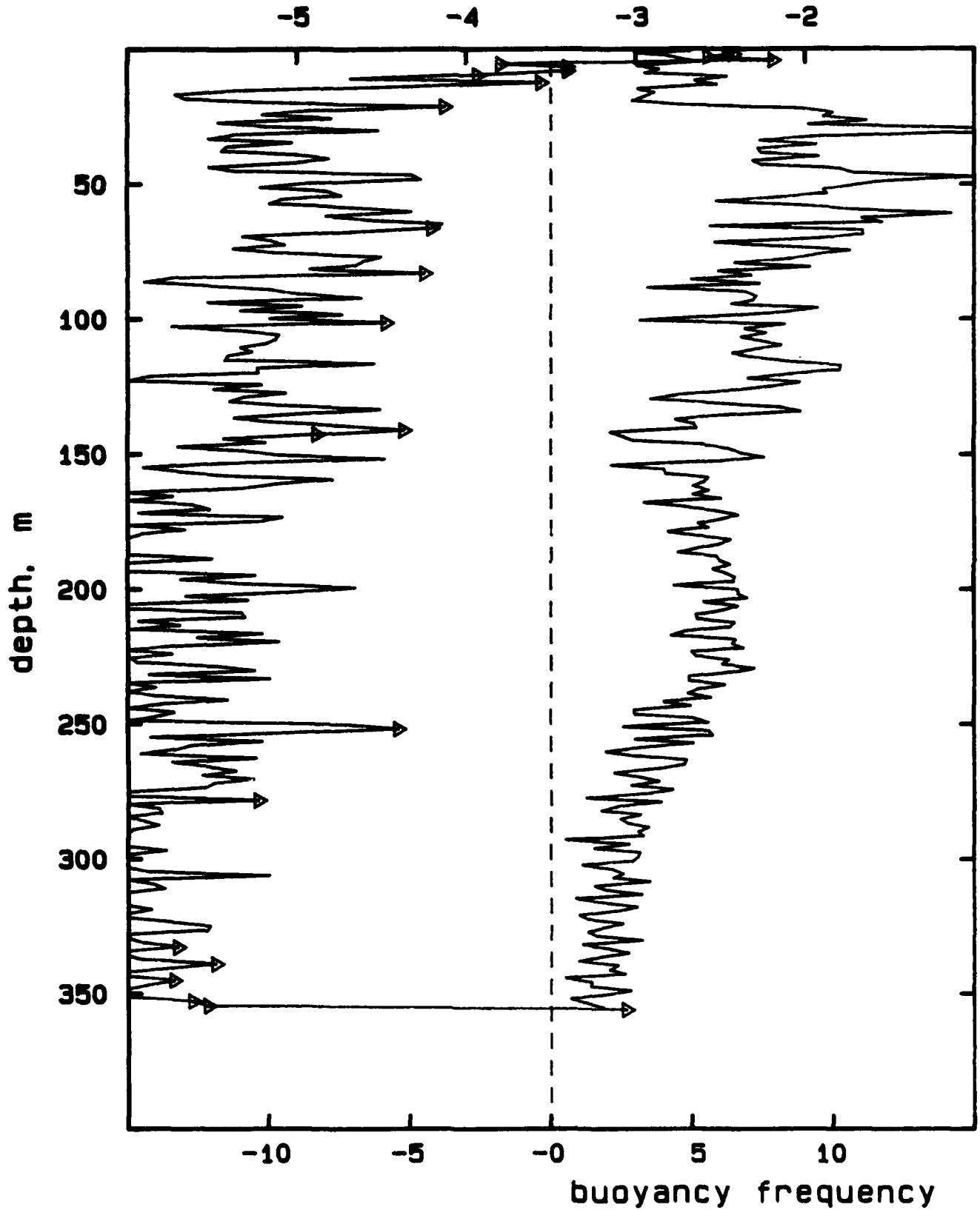
log (dissipation rate) [cgs]

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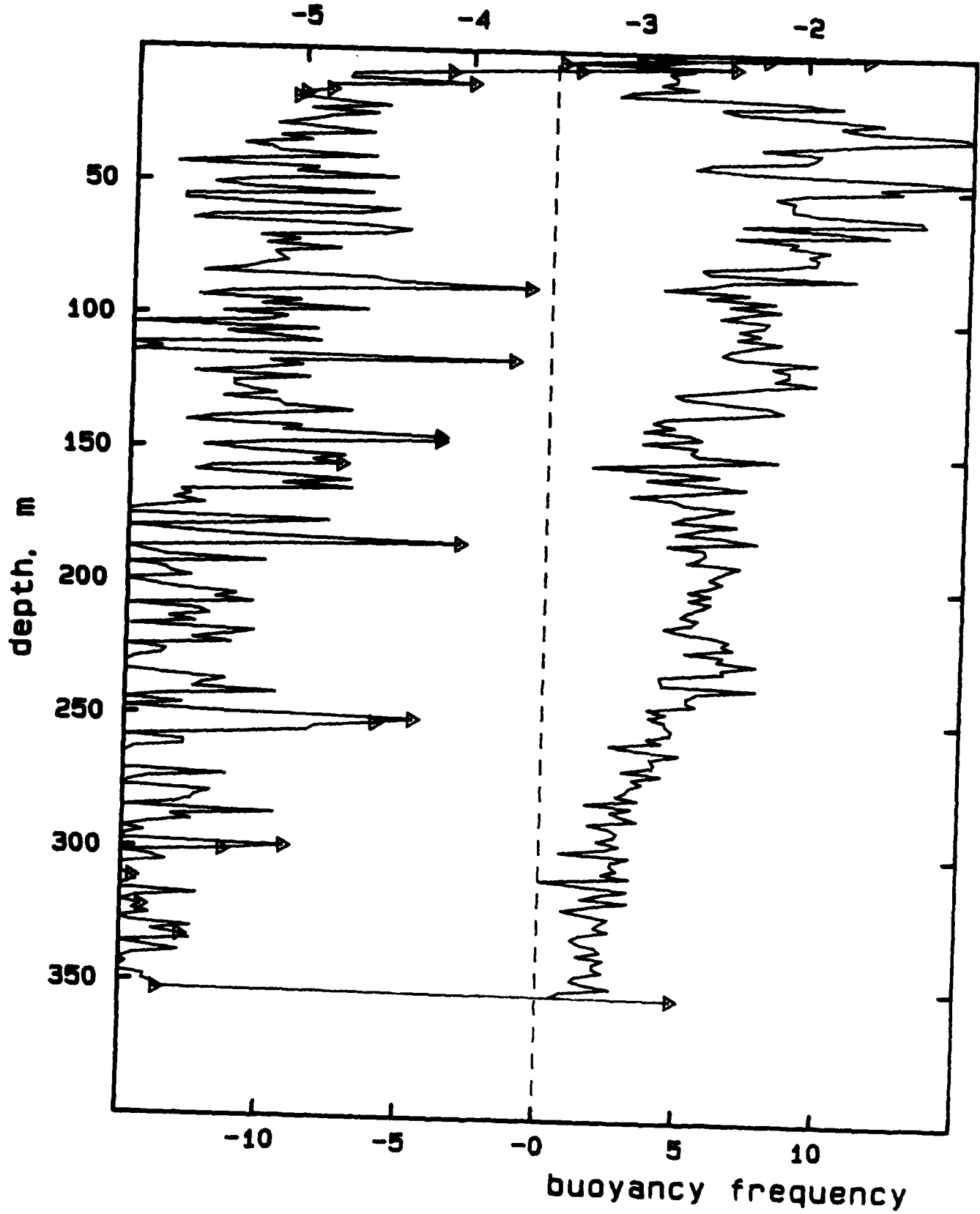
DA425C.002

log (dissipation rate) [cgs]



DA425C.003

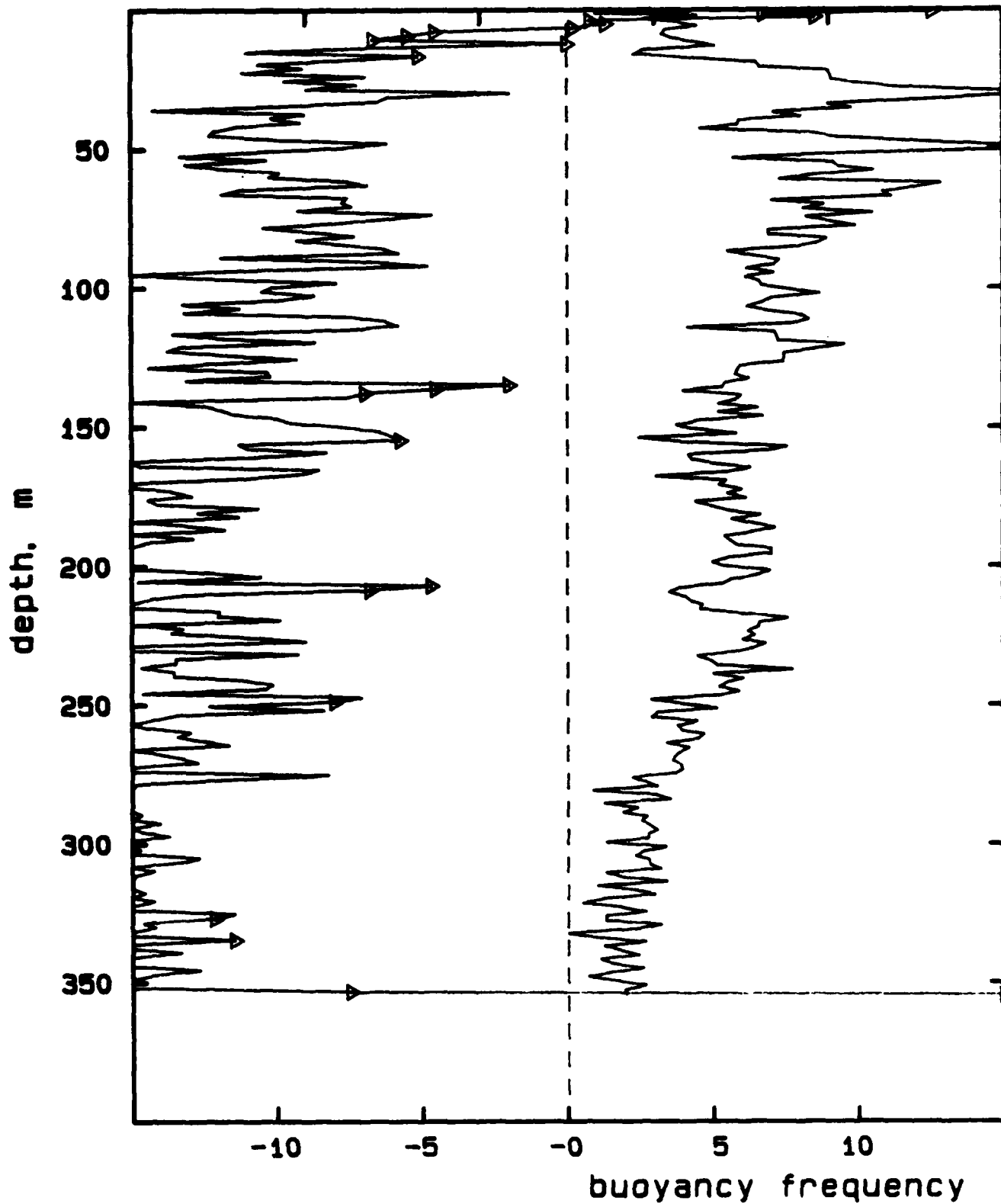
log (dissipation rate) [cgs]



DA425C.004

log (dissipation rate) [cgs]

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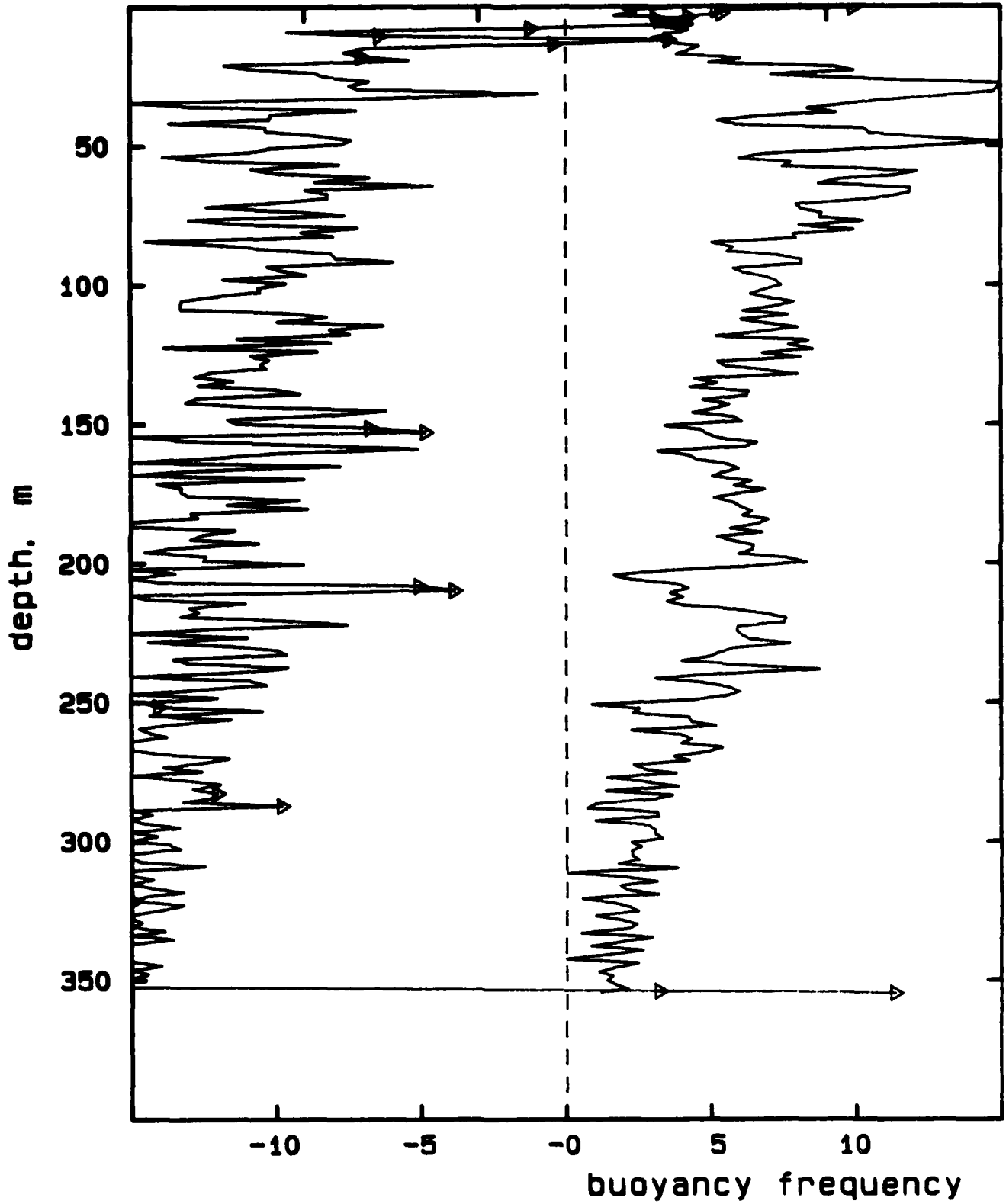


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DA425C.005

log (dissipation rate) [cgs]

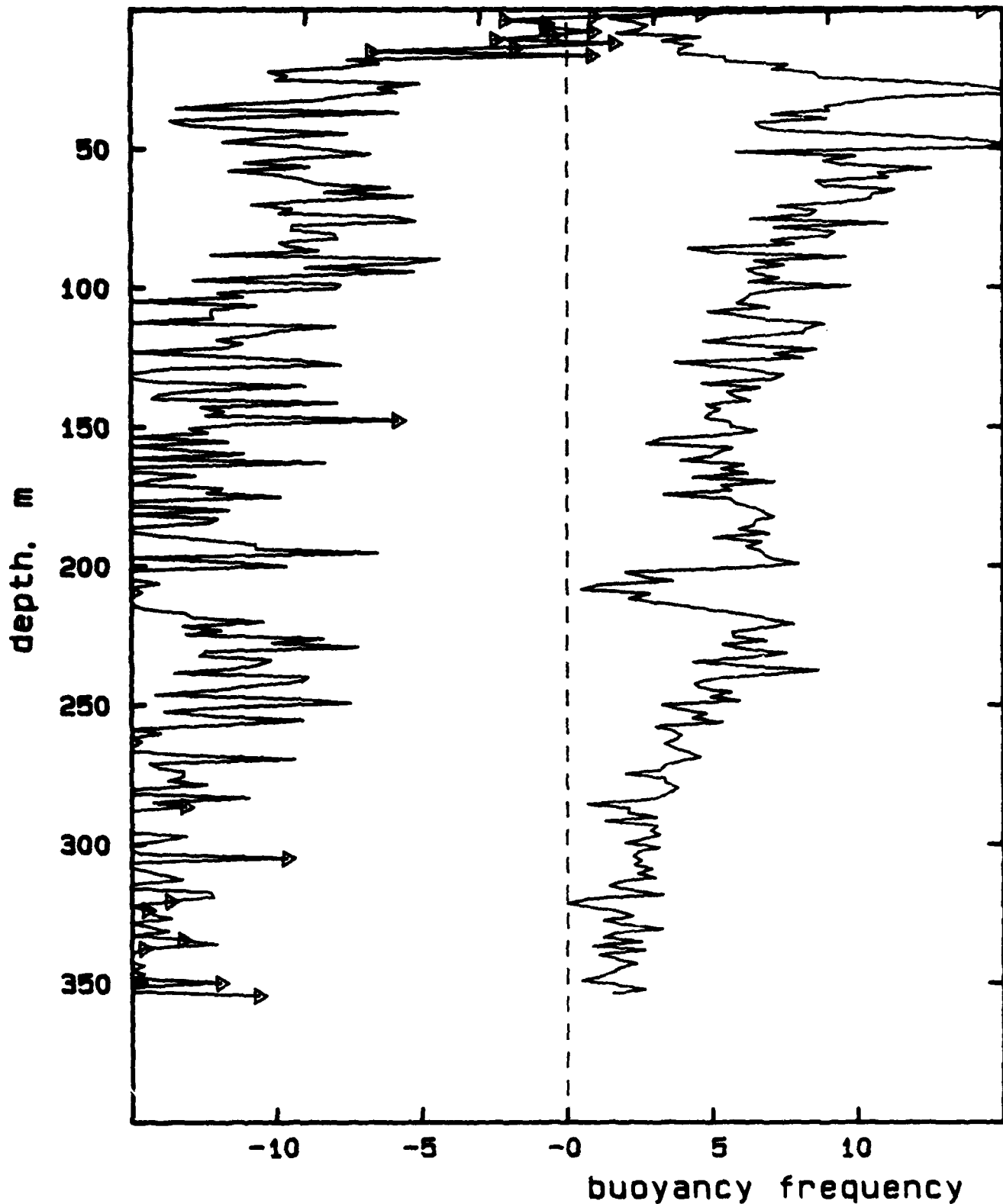
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DA425C.006

log (dissipation rate) [cgs]

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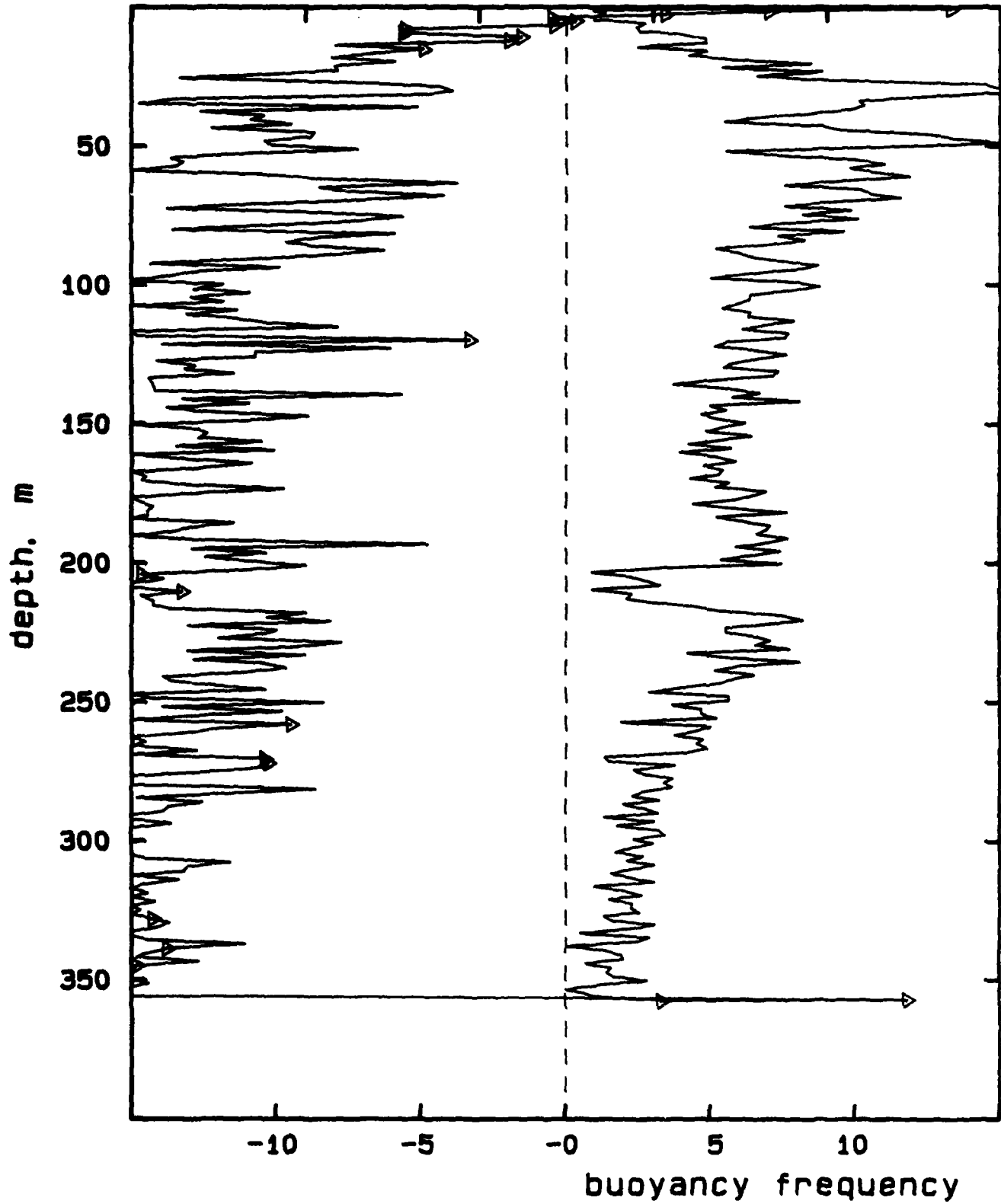
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

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DA425C.007

log (dissipation rate) [cgs]

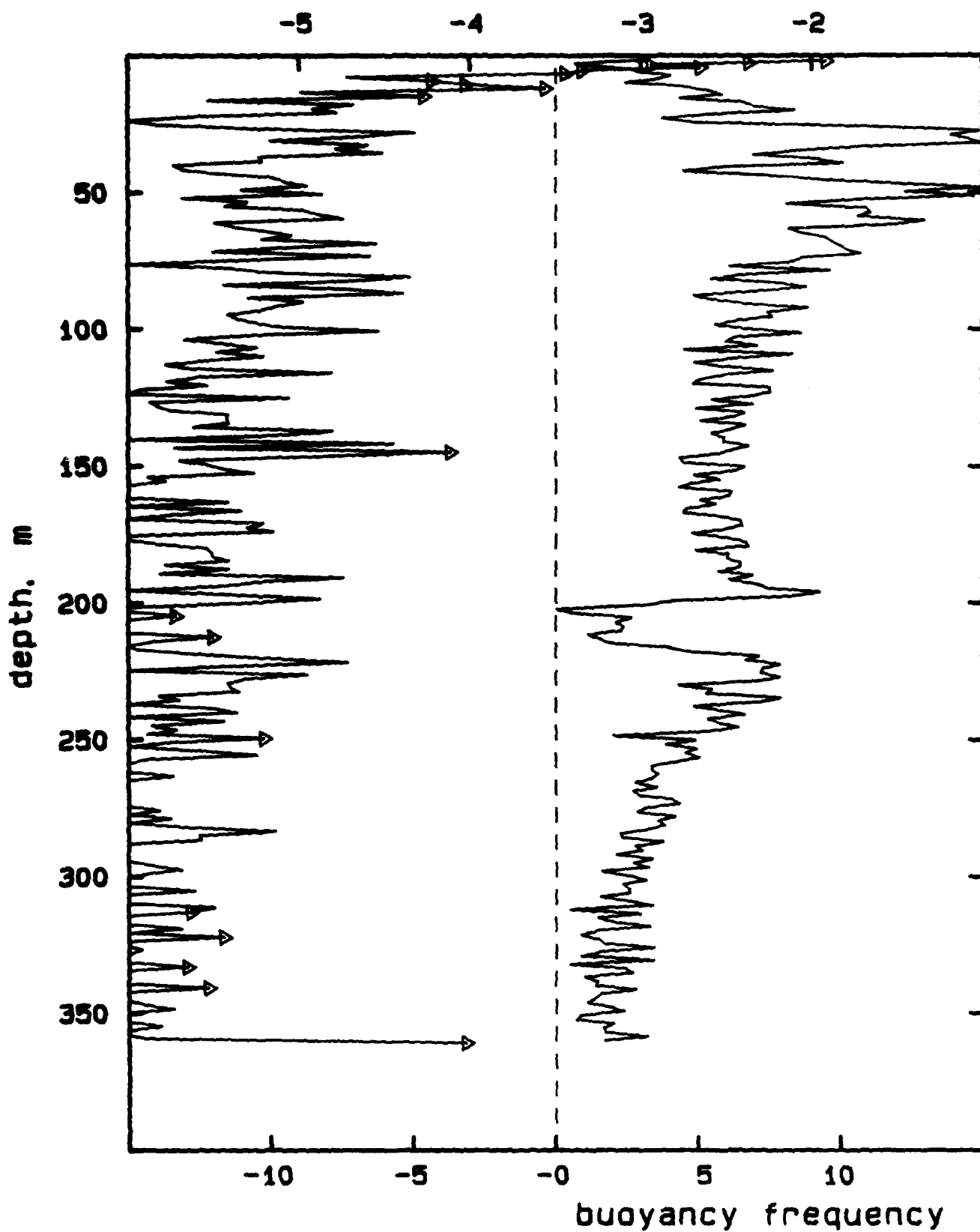
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DA4250.001

log (dissipation rate) [cgs]

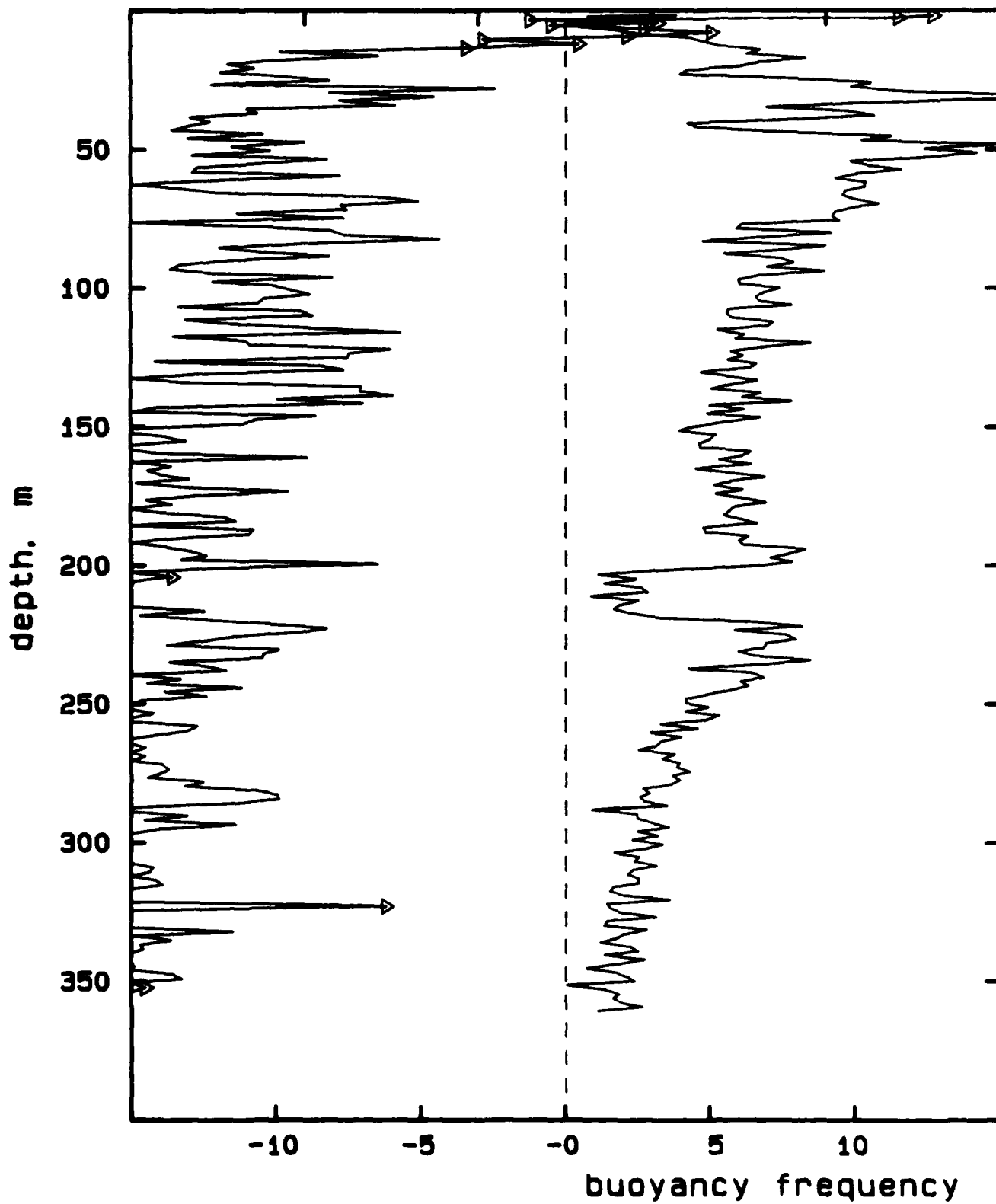


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DA425D.002

log (dissipation rate) [cgs]

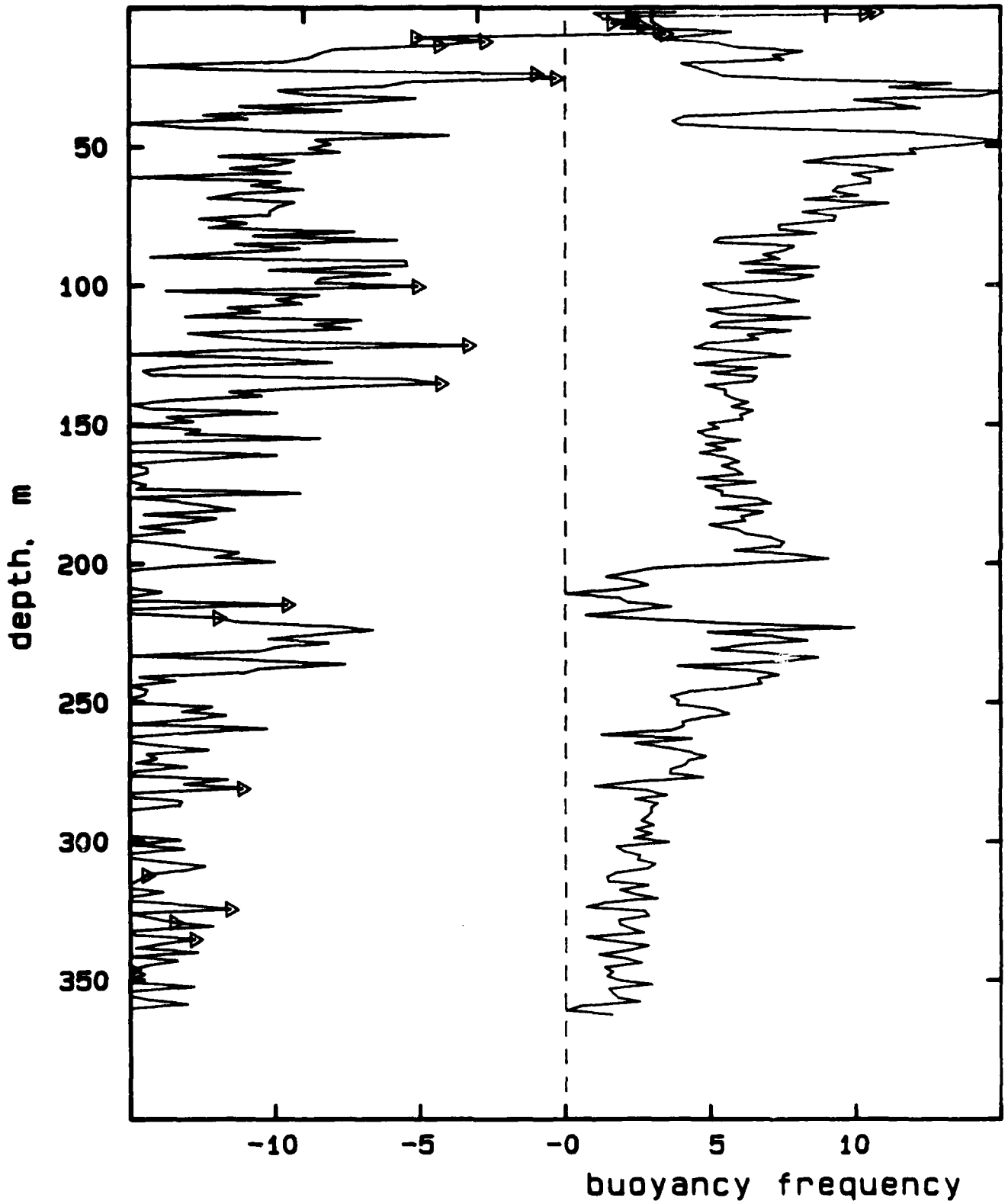
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DA425D.003

log (dissipation rate) [cgs]

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DA425D.004

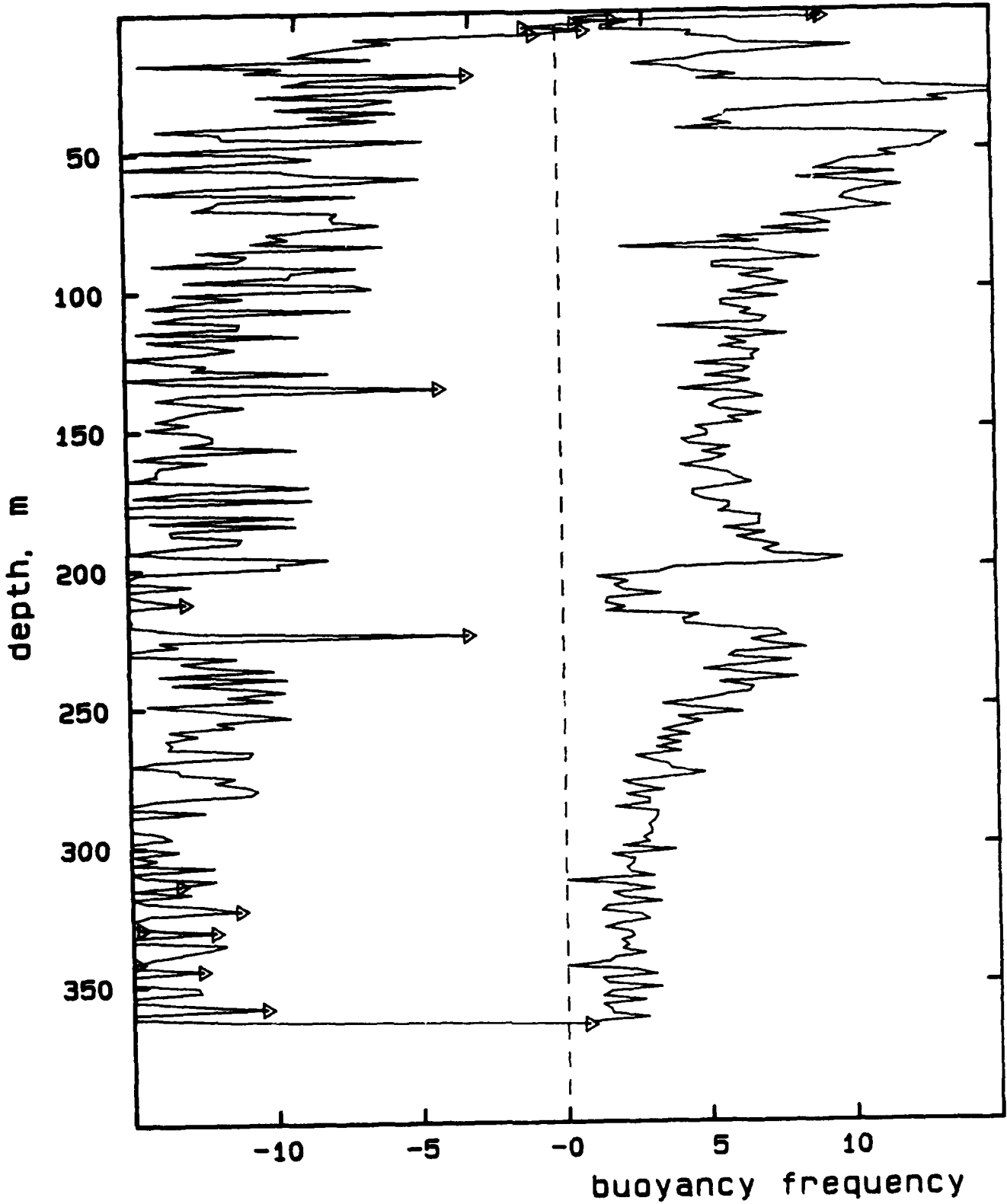
log (dissipation rate) [cgs]

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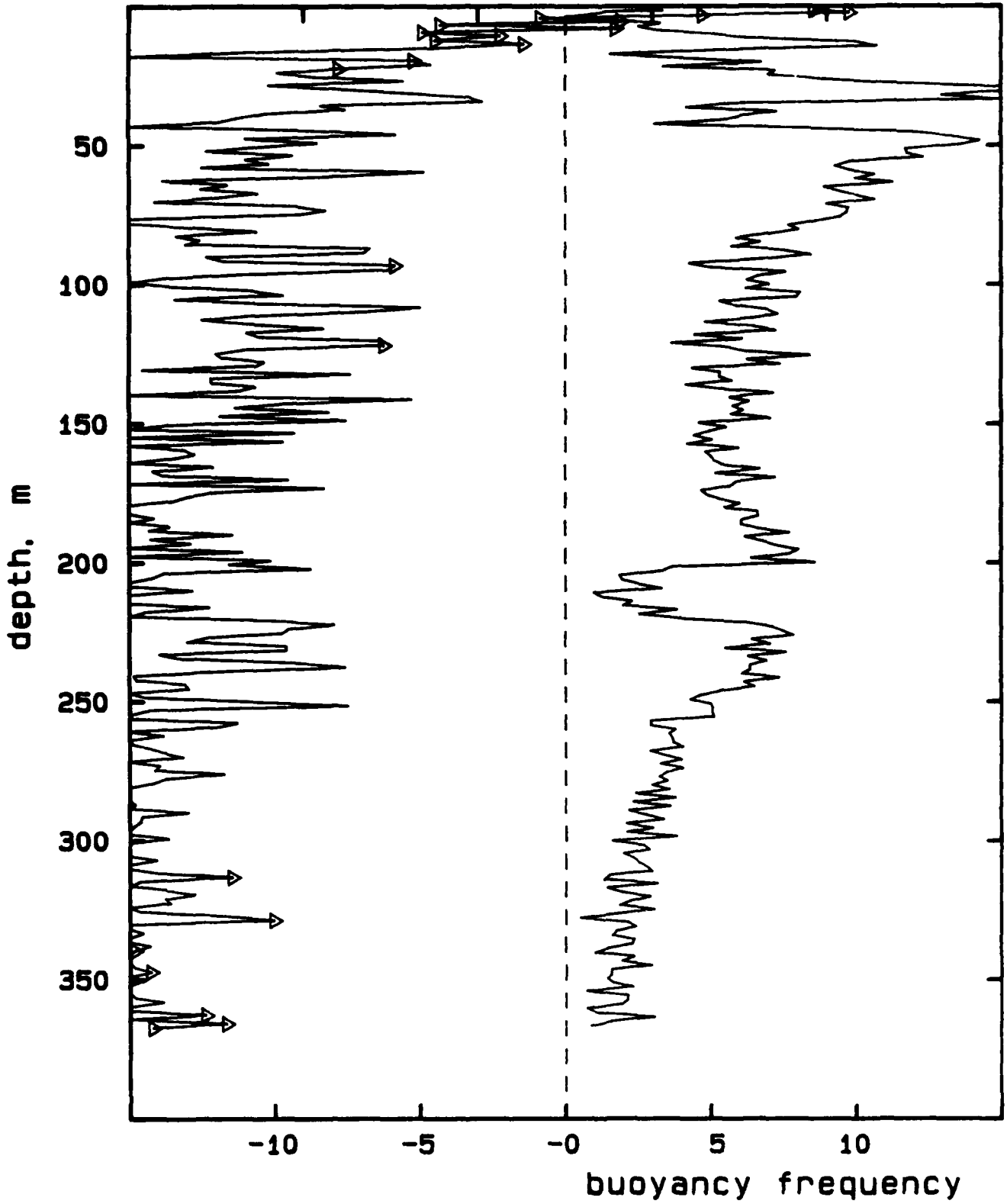
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DA425D.005

log (dissipation rate) [cgs]

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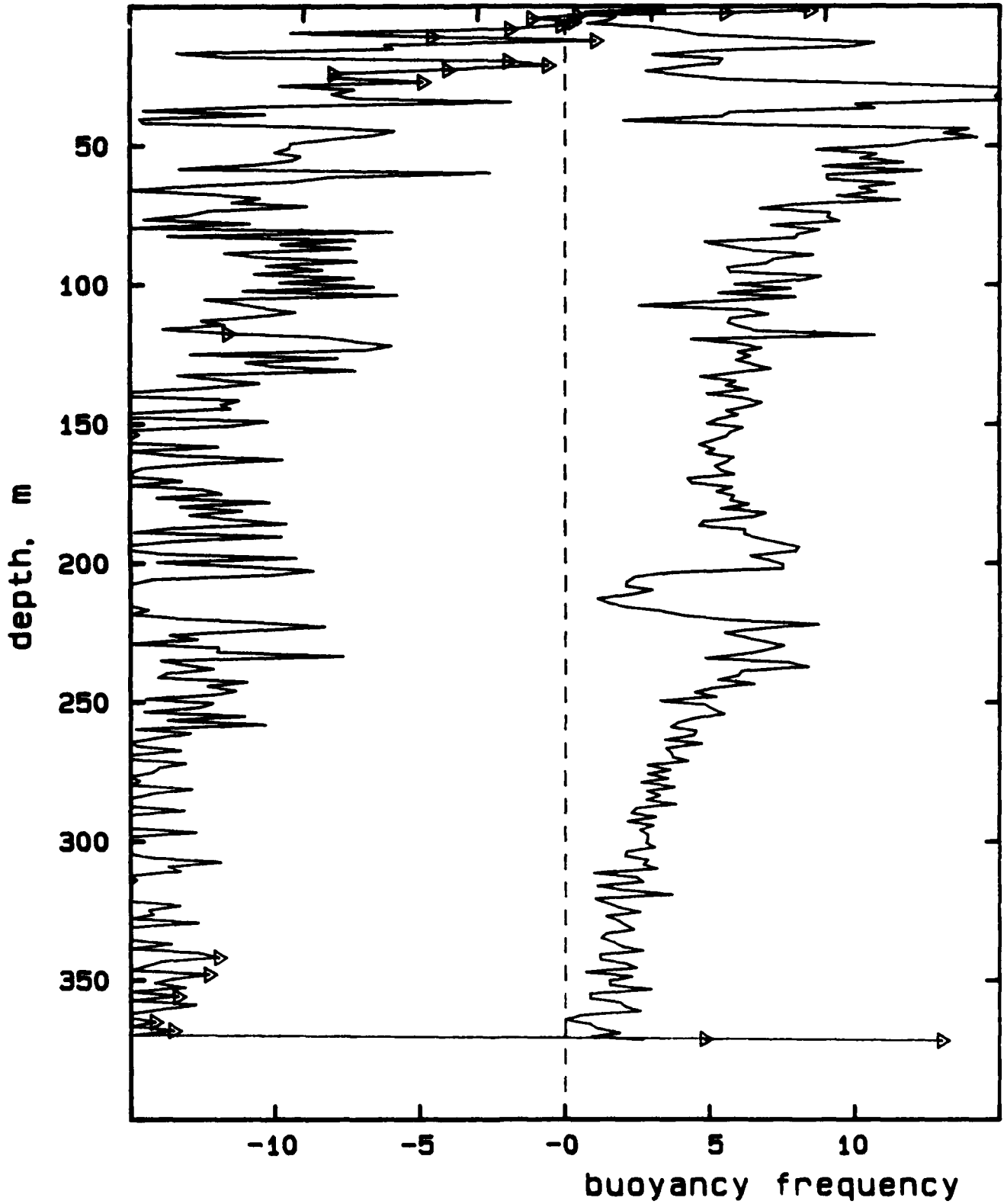


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DA4250.006

log (dissipation rate) [cgs]

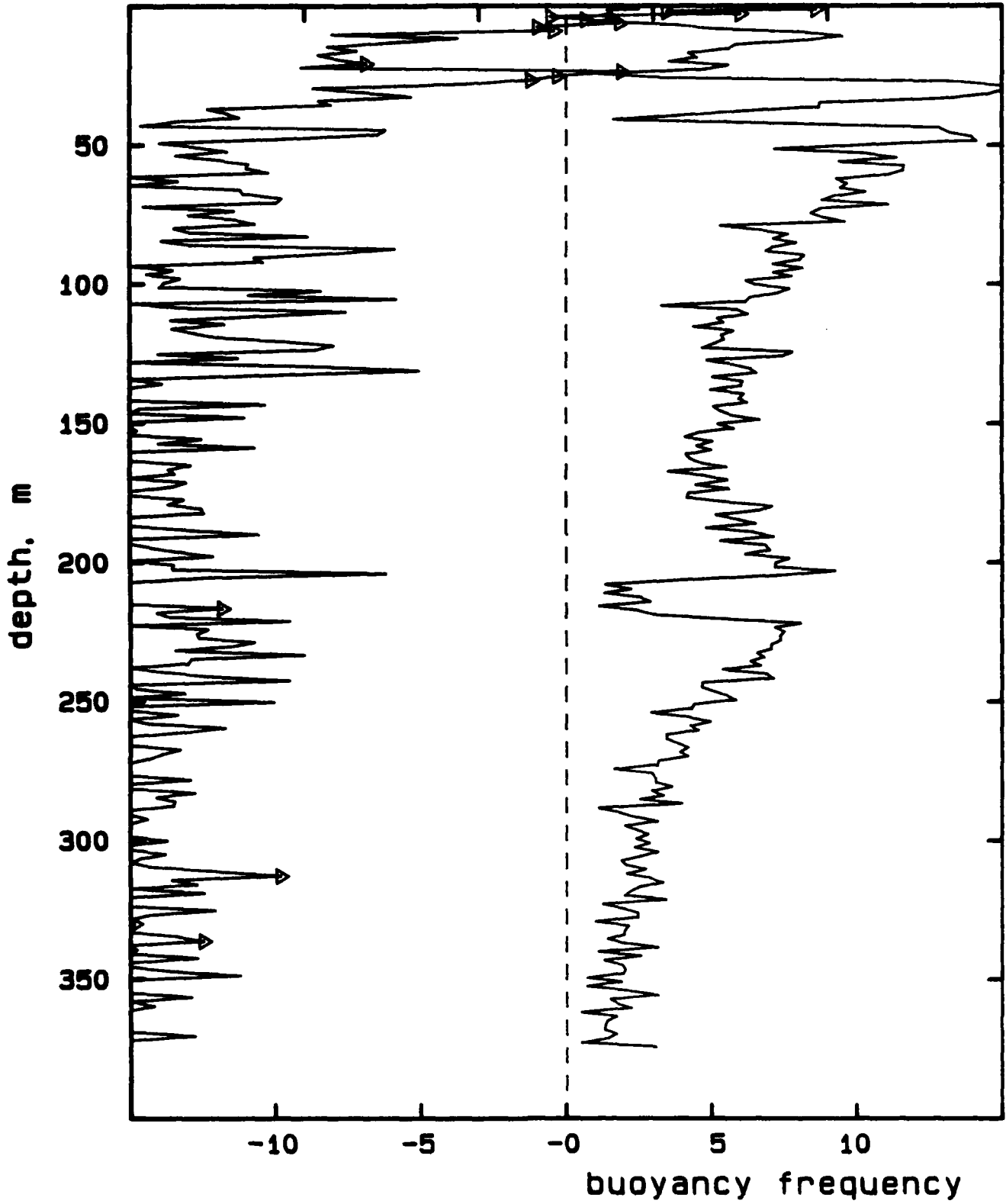
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DA425D.007

log (dissipation rate) [cgs]

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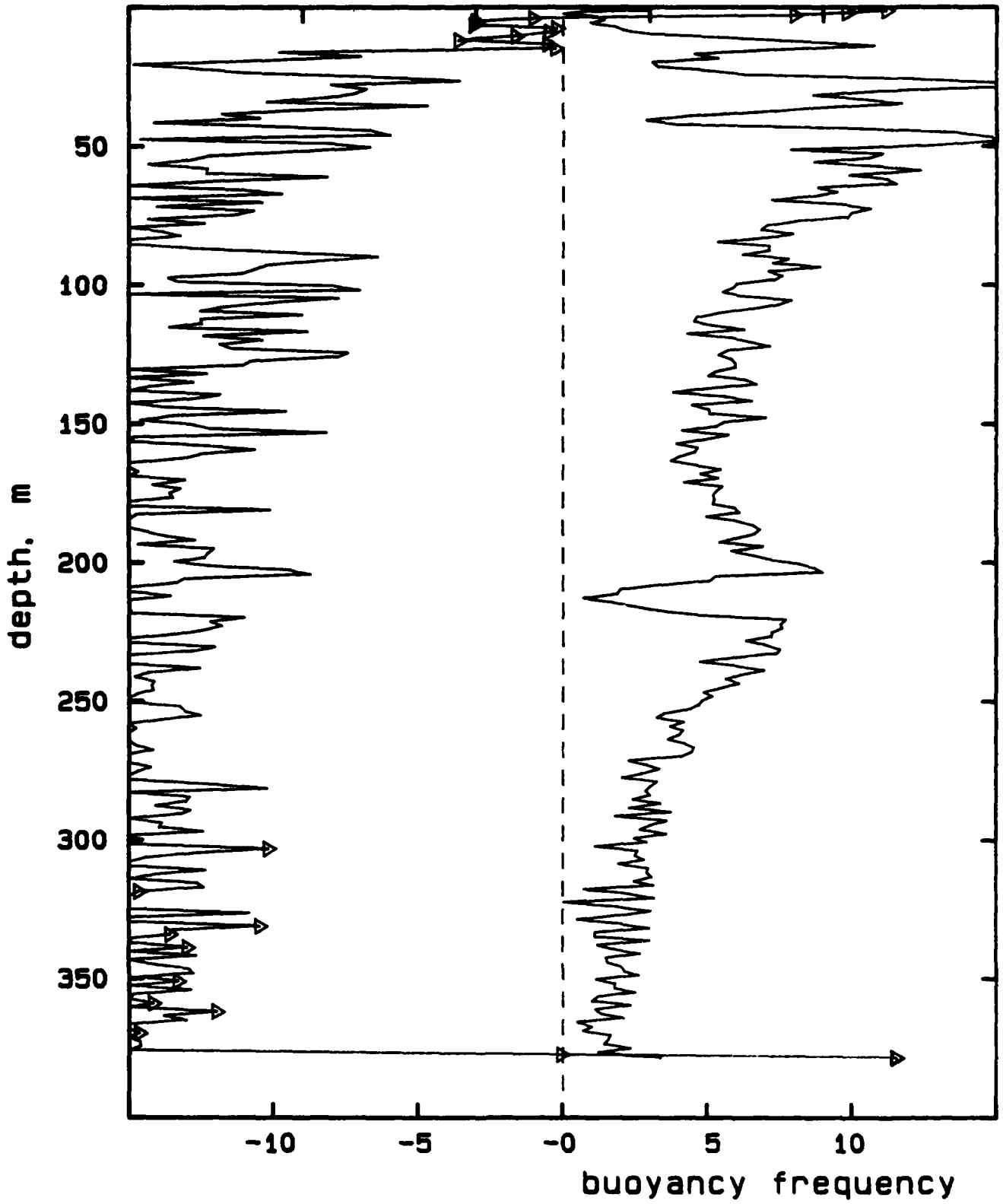


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DA425E.001

log (dissipation rate) [cgs]

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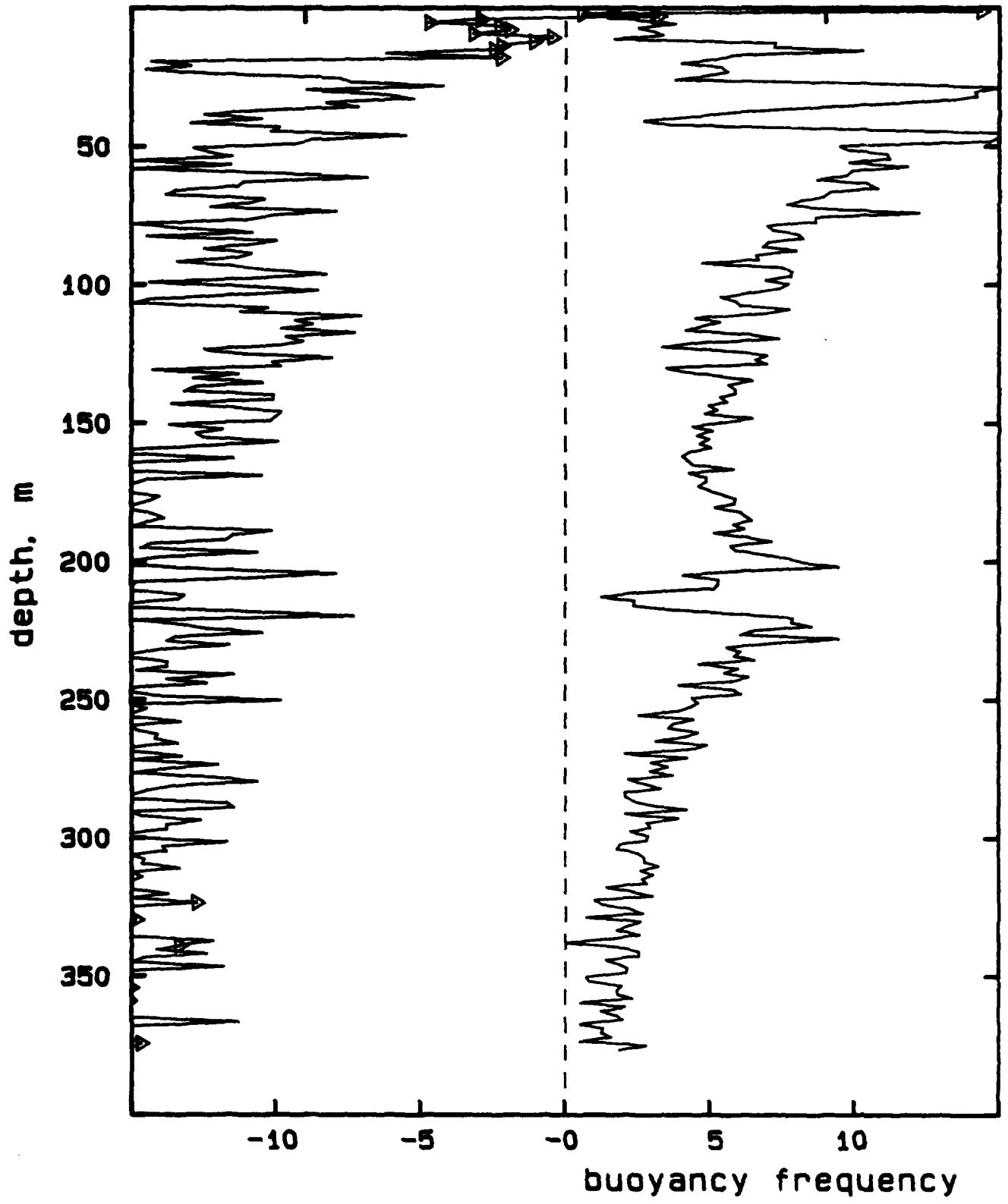




DA425E.002

log (dissipation rate) [cgs]

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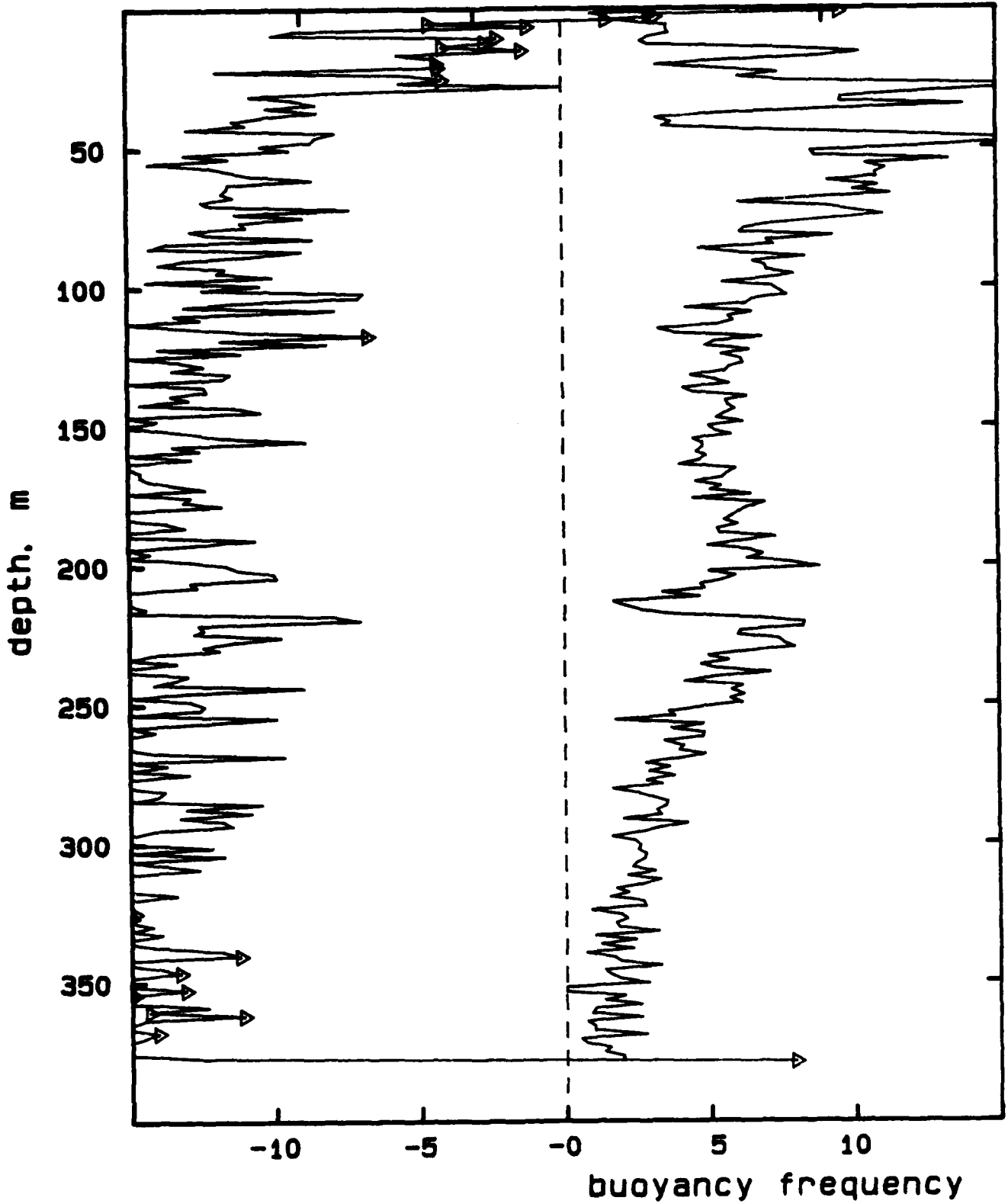


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DA425E.003

log (dissipation rate) [cgs]

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DA425E.004

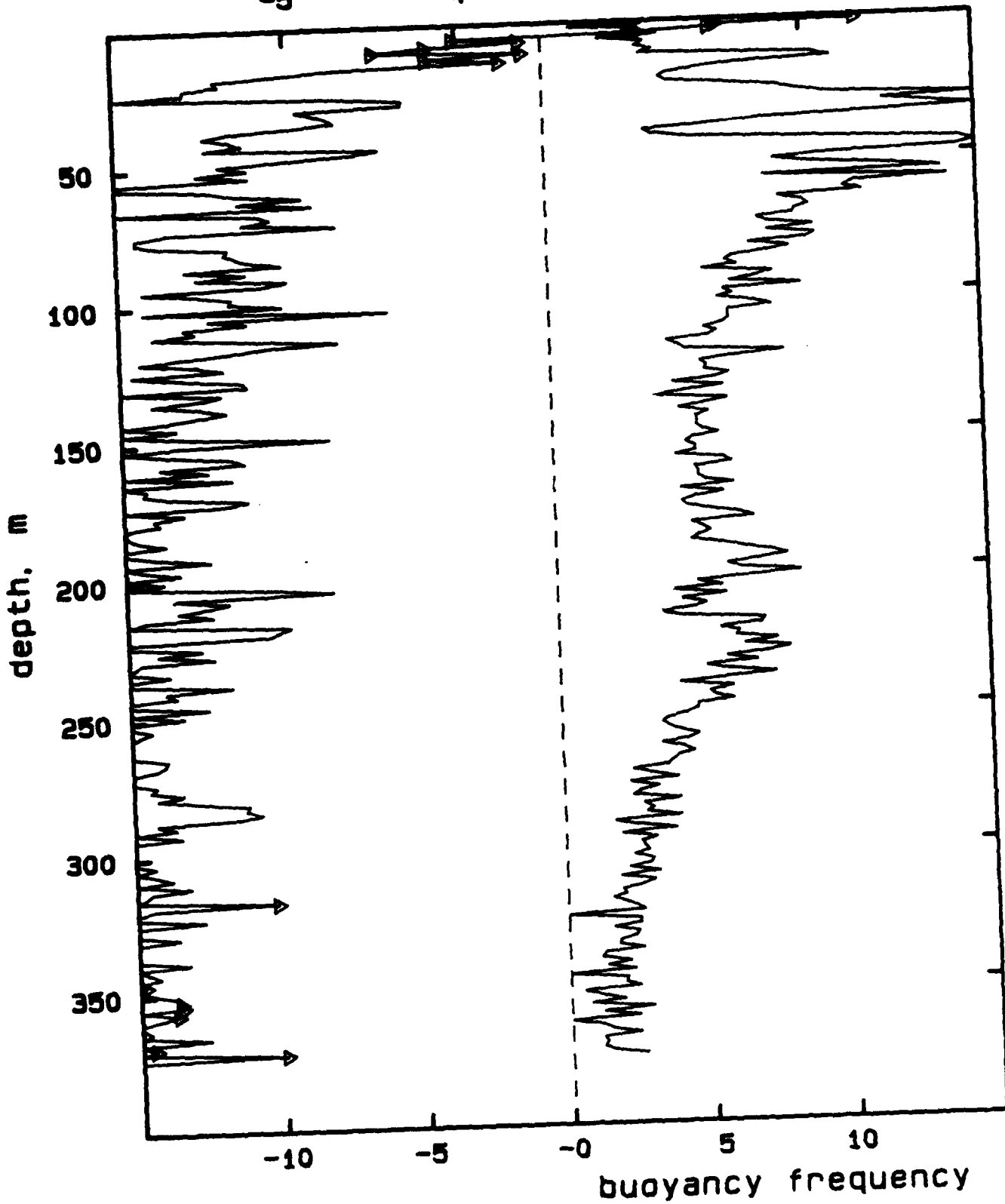
log (dissipation rate) [cgs]

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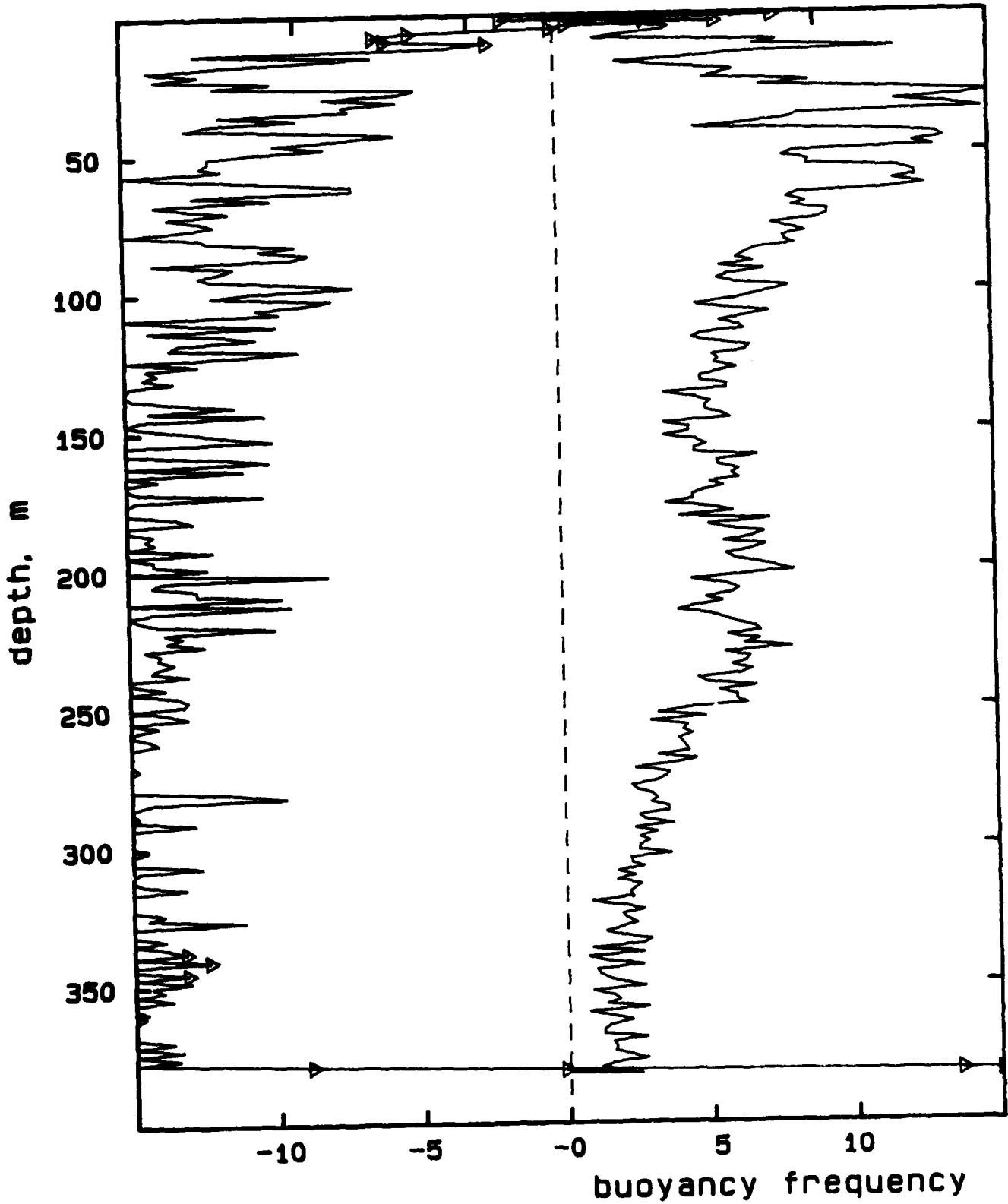
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DA425E.005

log (dissipation rate) [cgs]

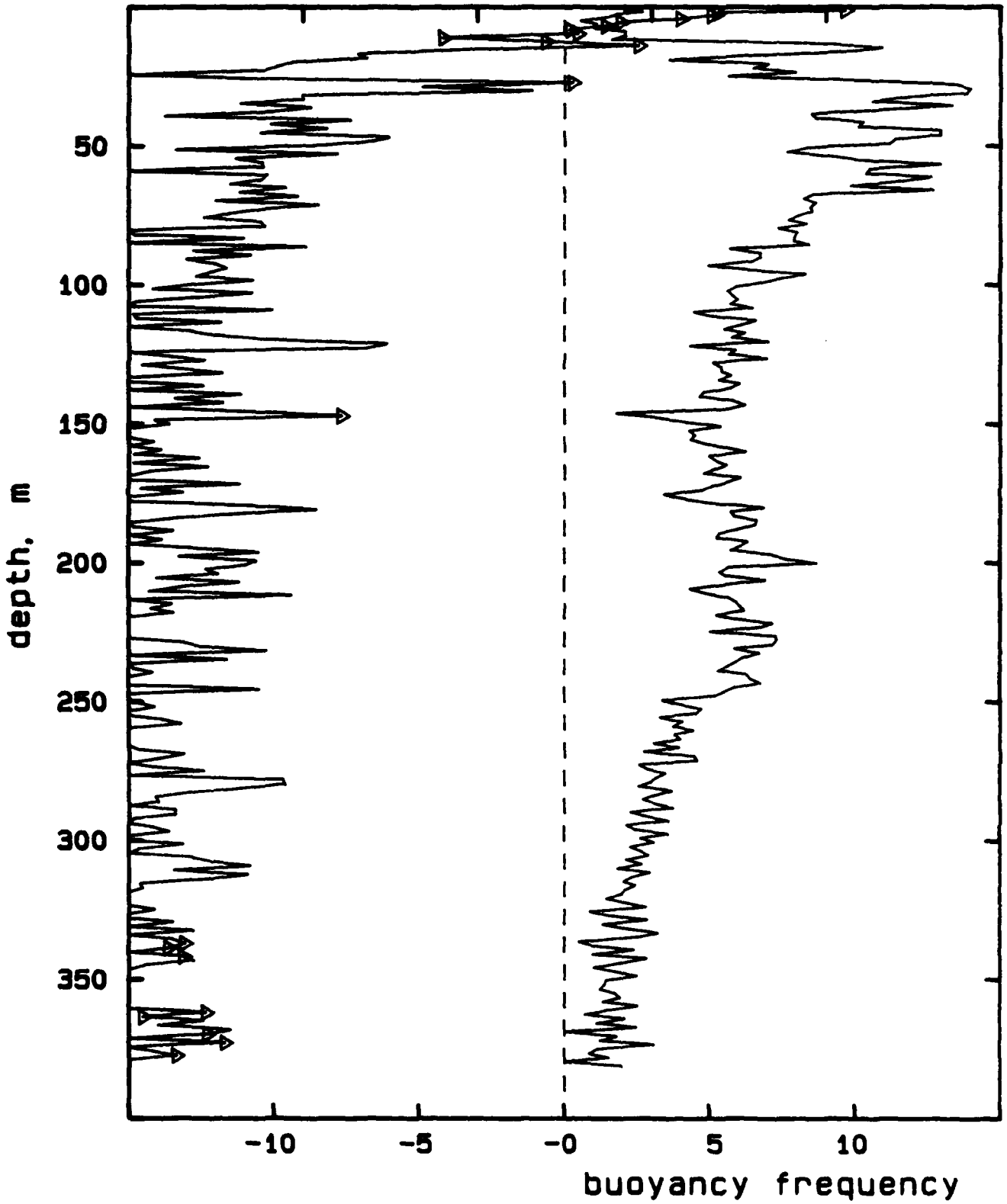
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DA425E.006

log (dissipation rate) [cgs]

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DA425E.007

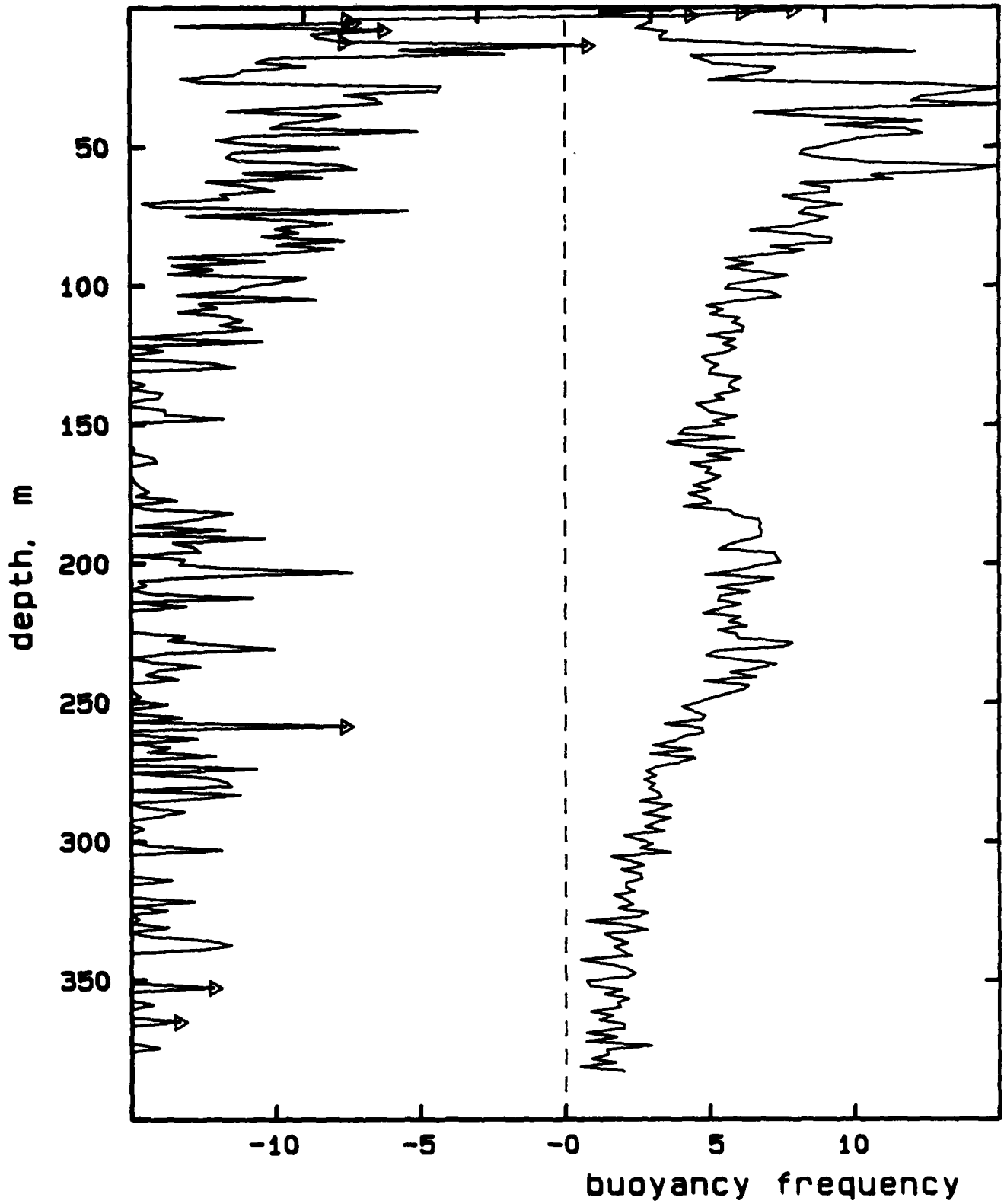
log (dissipation rate) [cgs]

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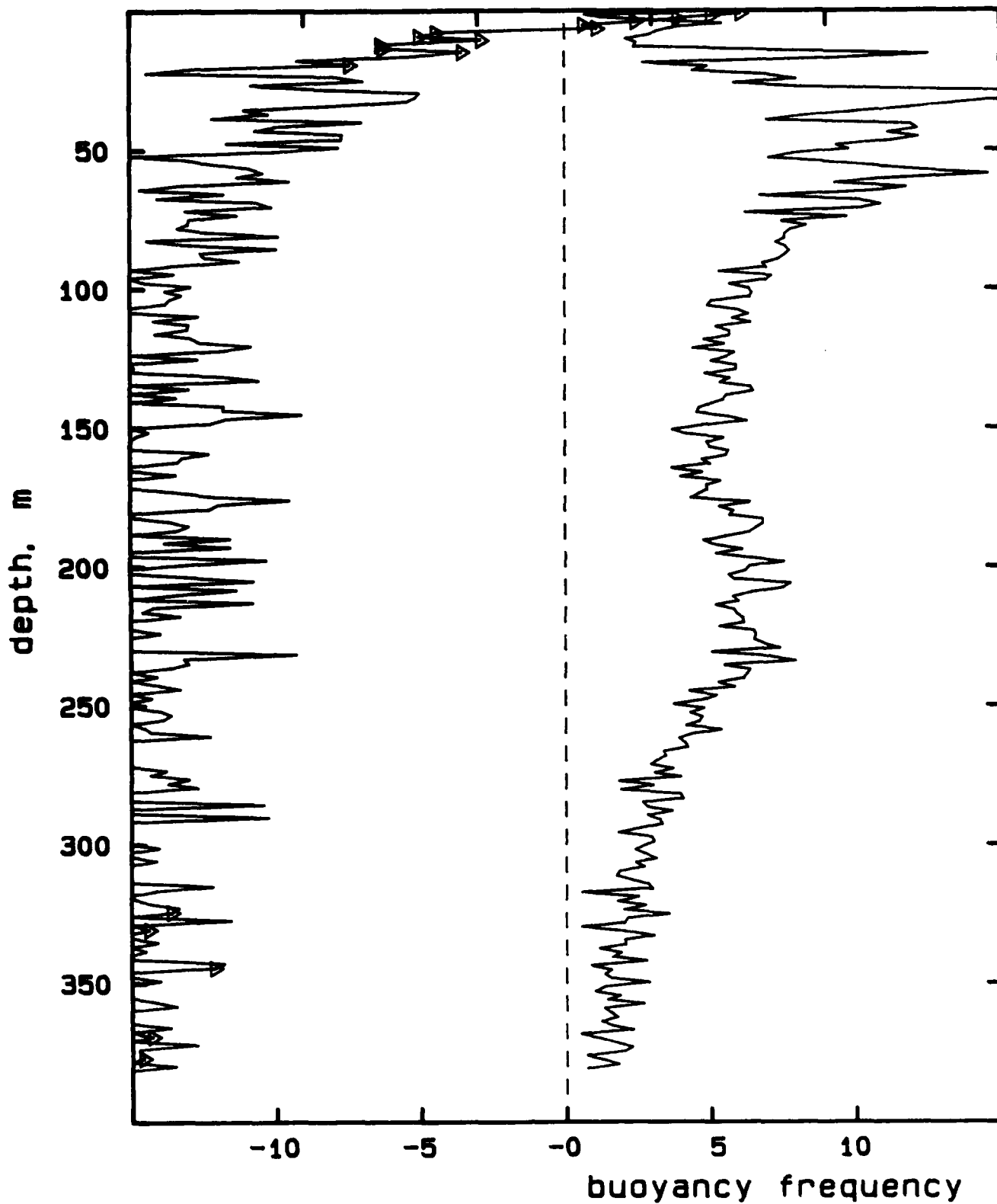
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DA425F.001

log (dissipation rate) [cgs]

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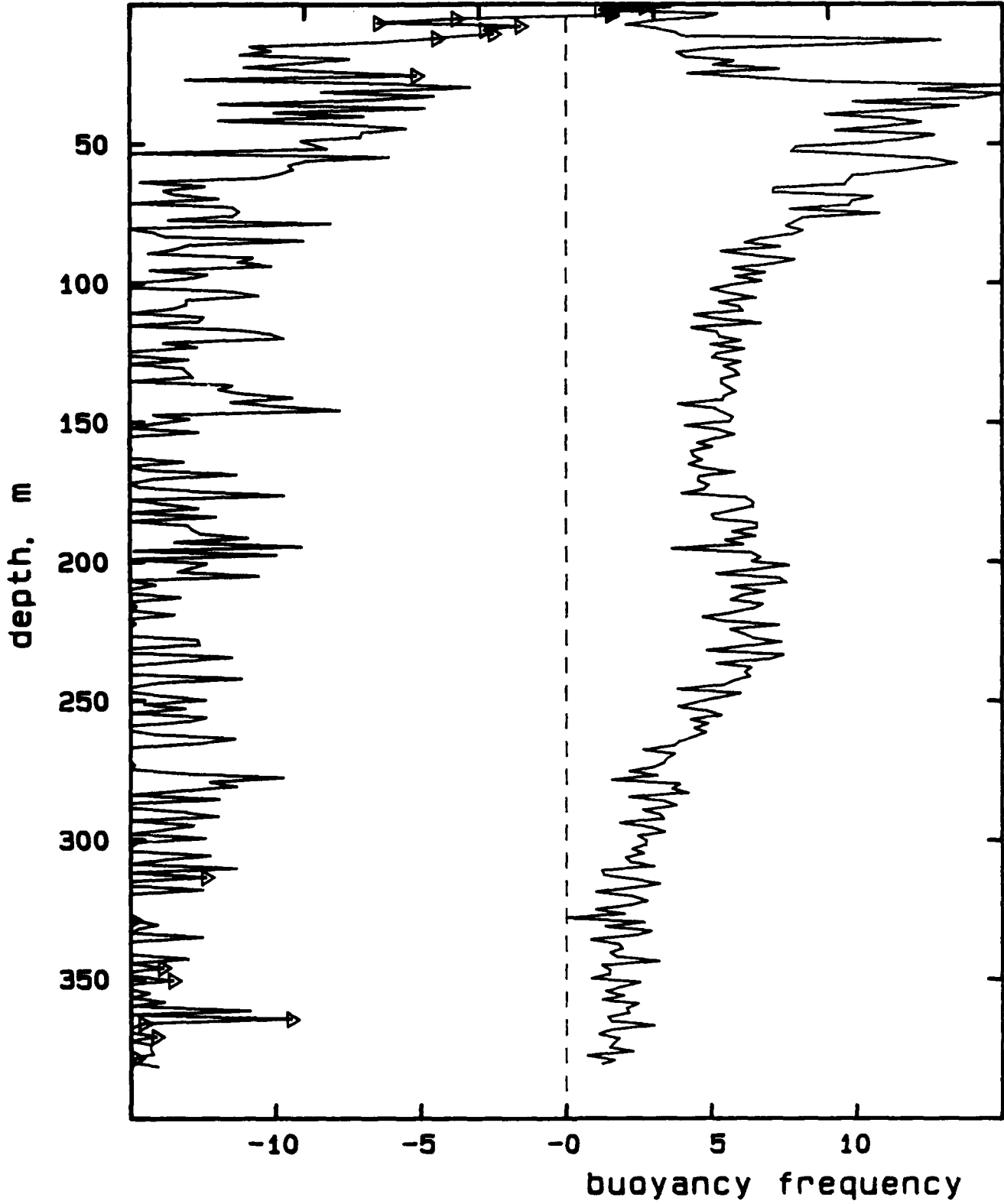


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DA425F.002

log (dissipation rate) [cgs]

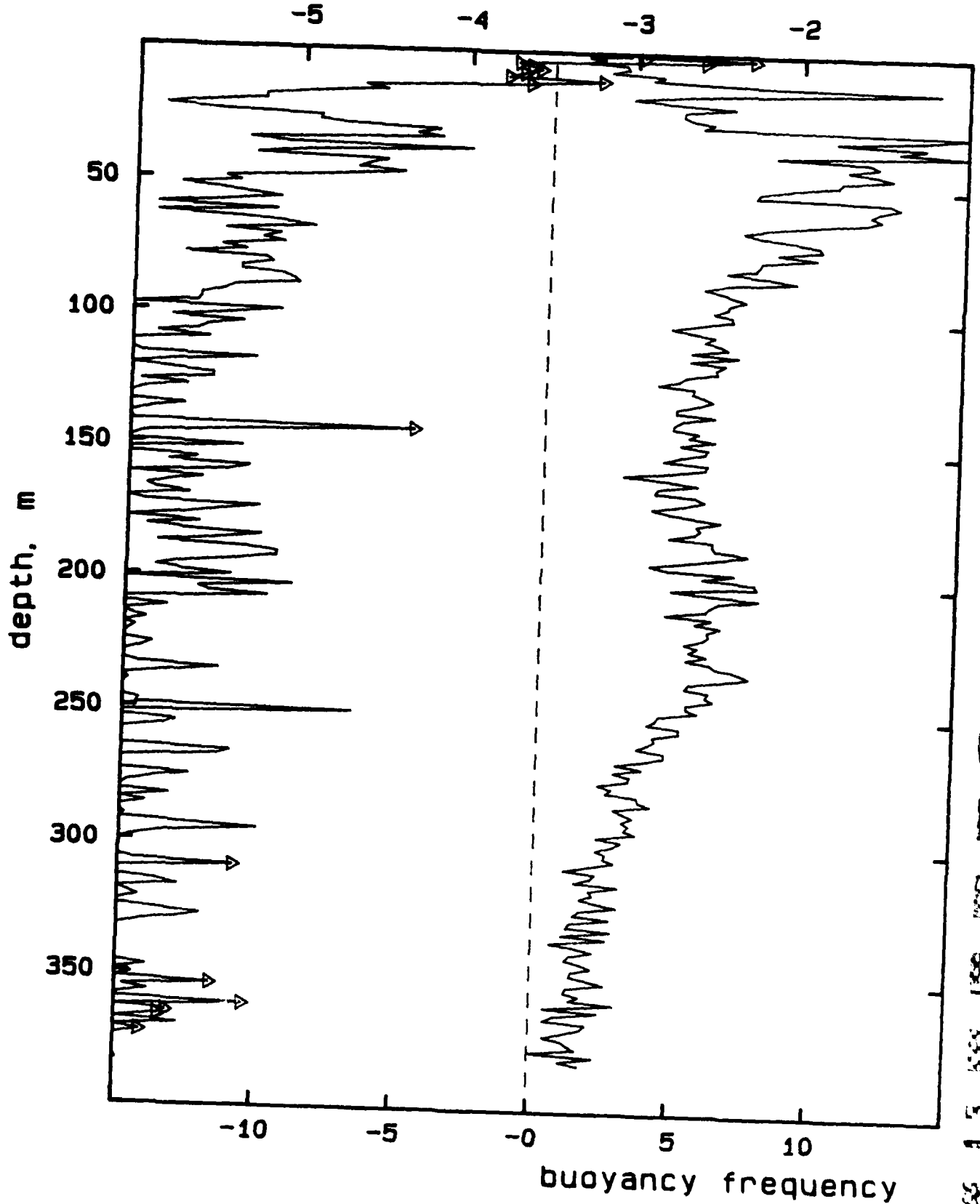
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DA425F.003

log (dissipation rate) [cgs]

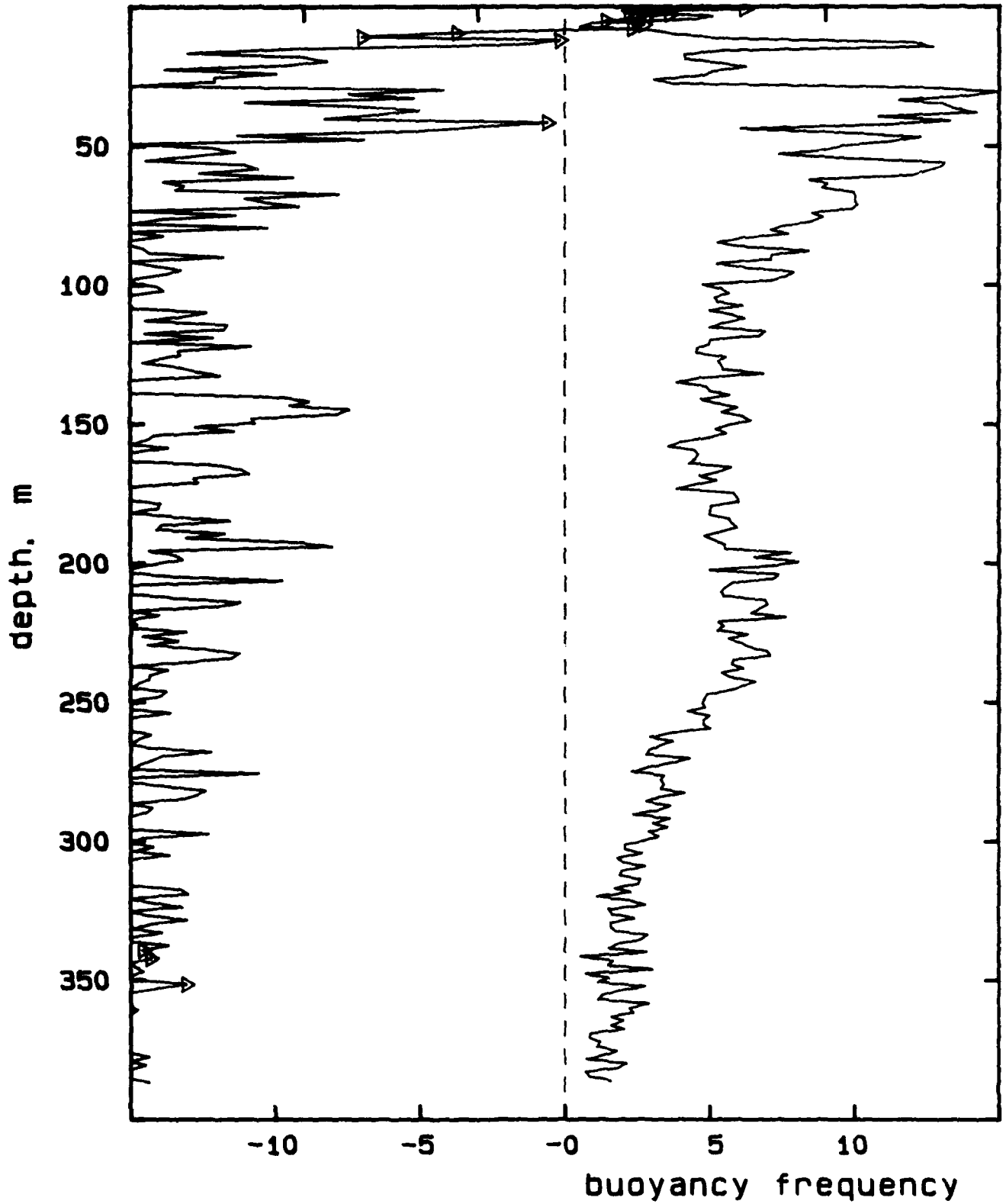


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DA425F.004

log (dissipation rate) [cgs]

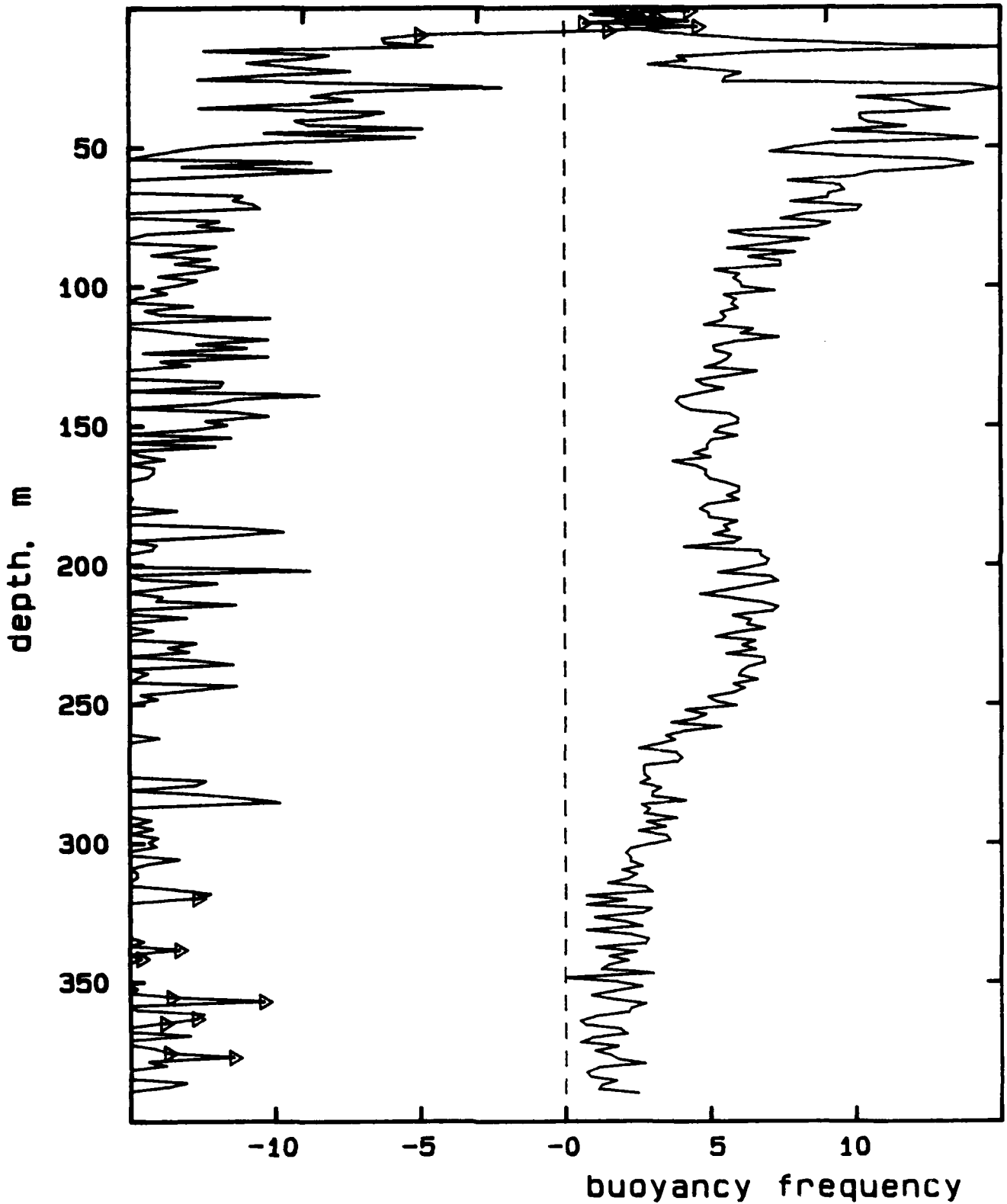
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DA425F.005

log (dissipation rate) [cgs]

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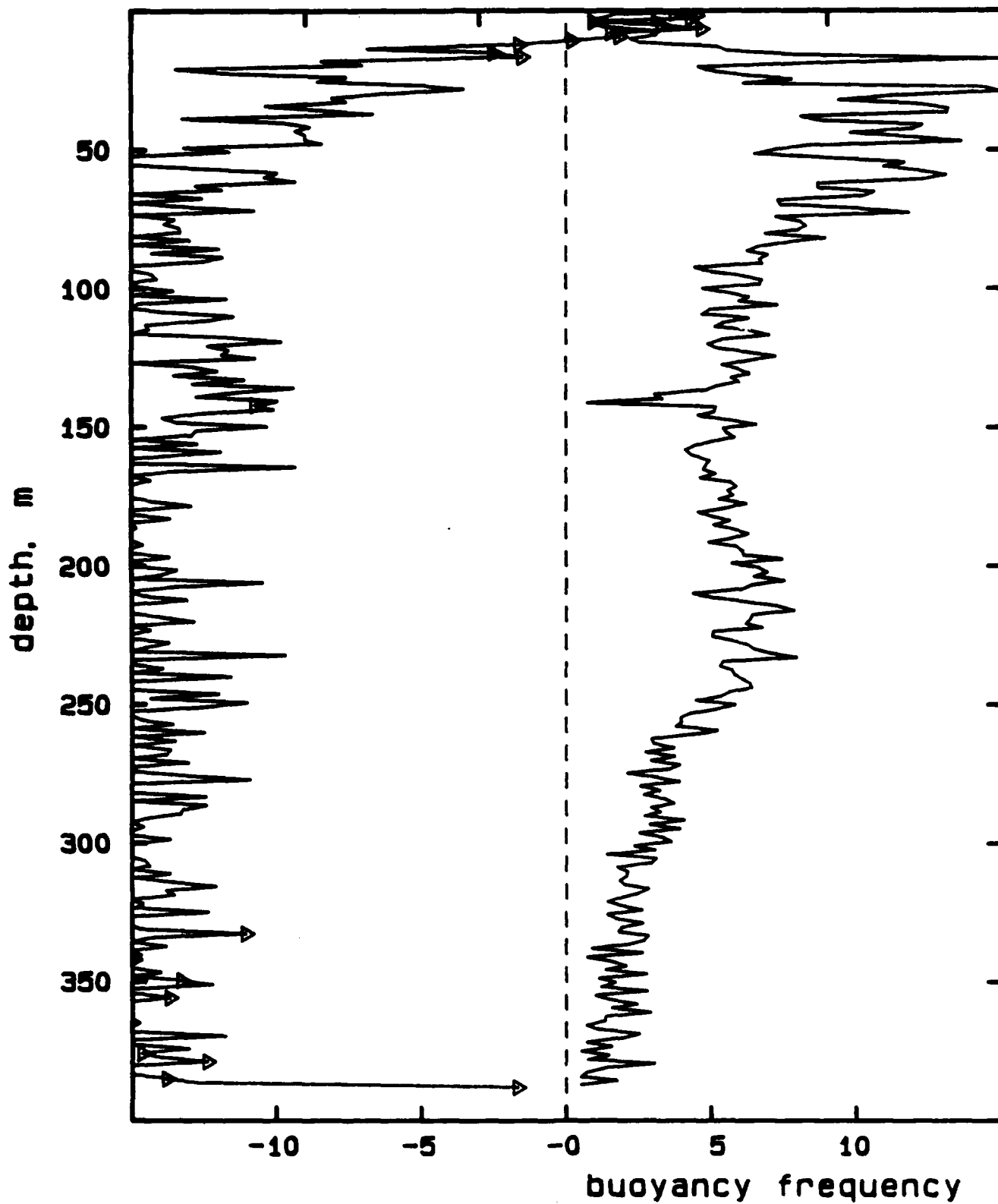


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DA425F.006

log (dissipation rate) [cgs]

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DA425F.007

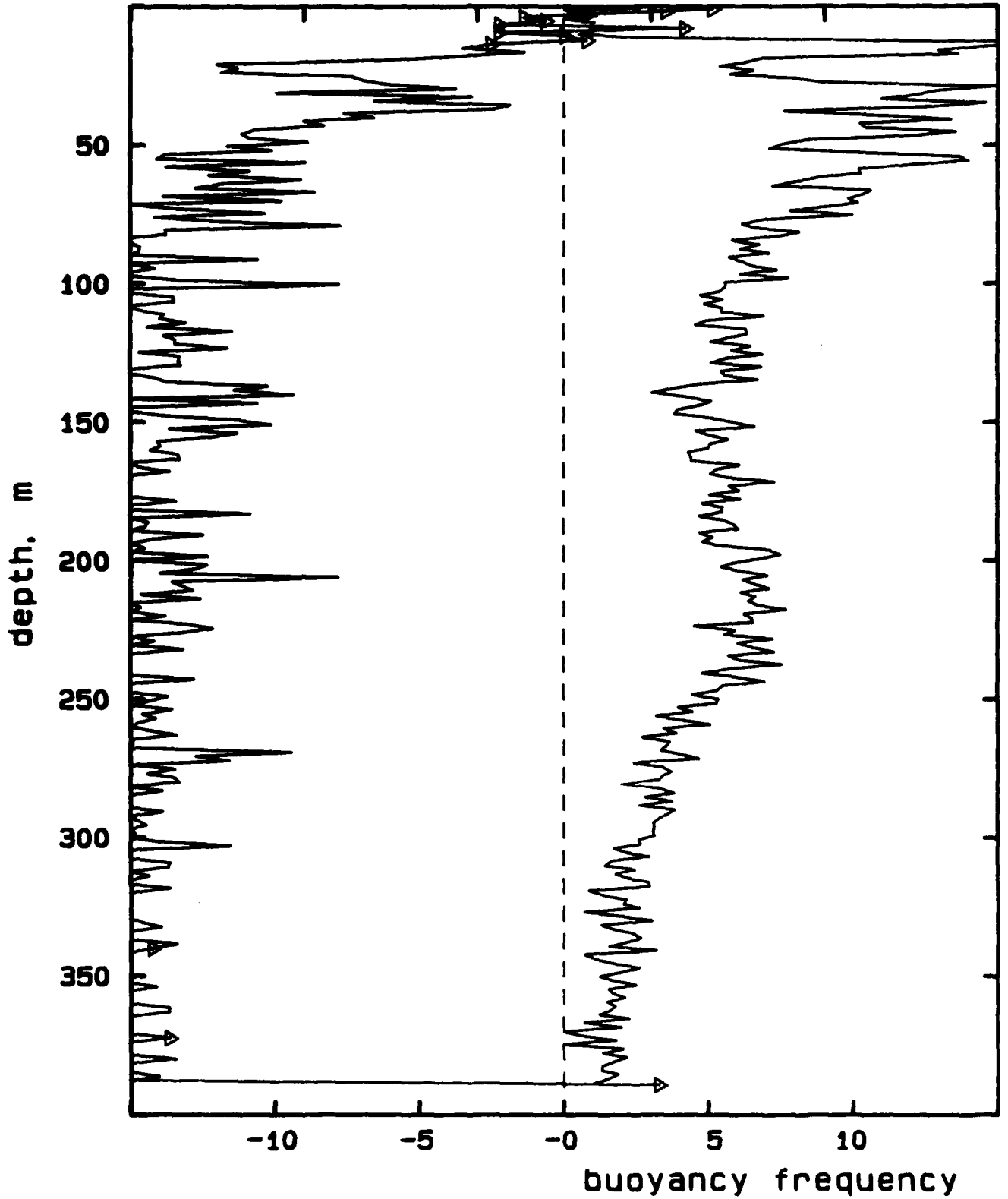
log (dissipation rate) [cgs]

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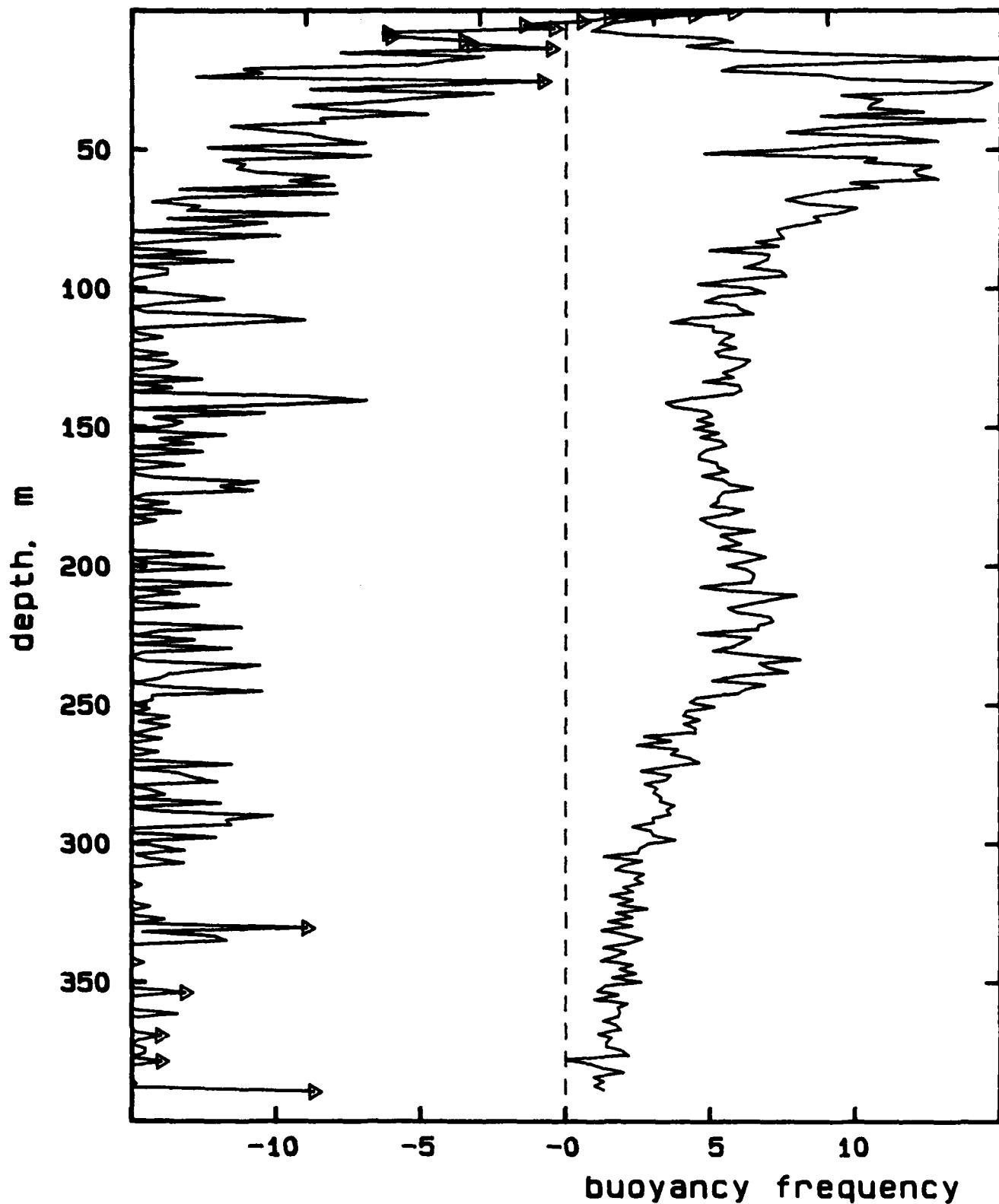
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DA425G.001

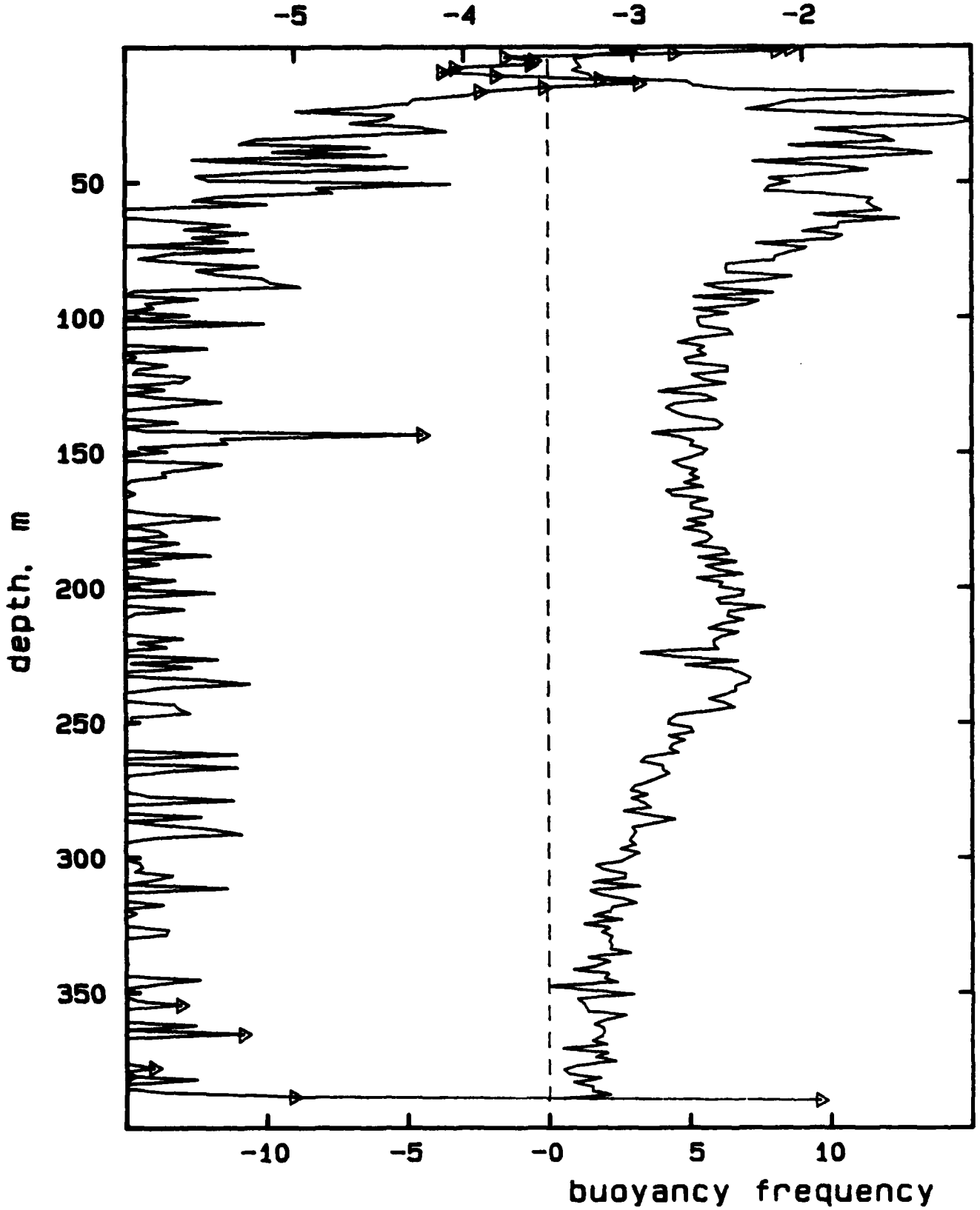
log (dissipation rate) [cgs]

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DA425G.002

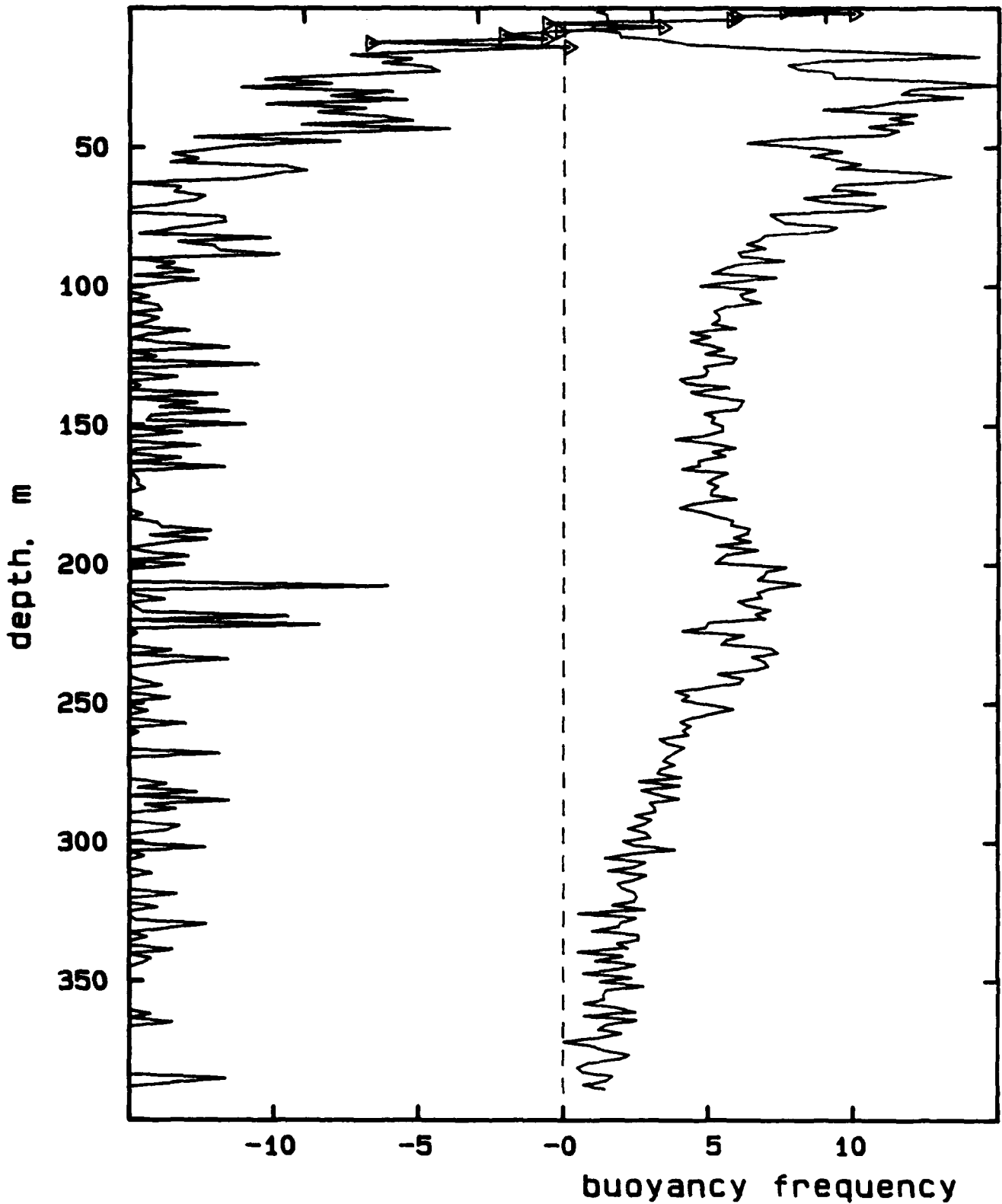
log (dissipation rate) [cgs]



DA425G.003

log (dissipation rate) [cgs]

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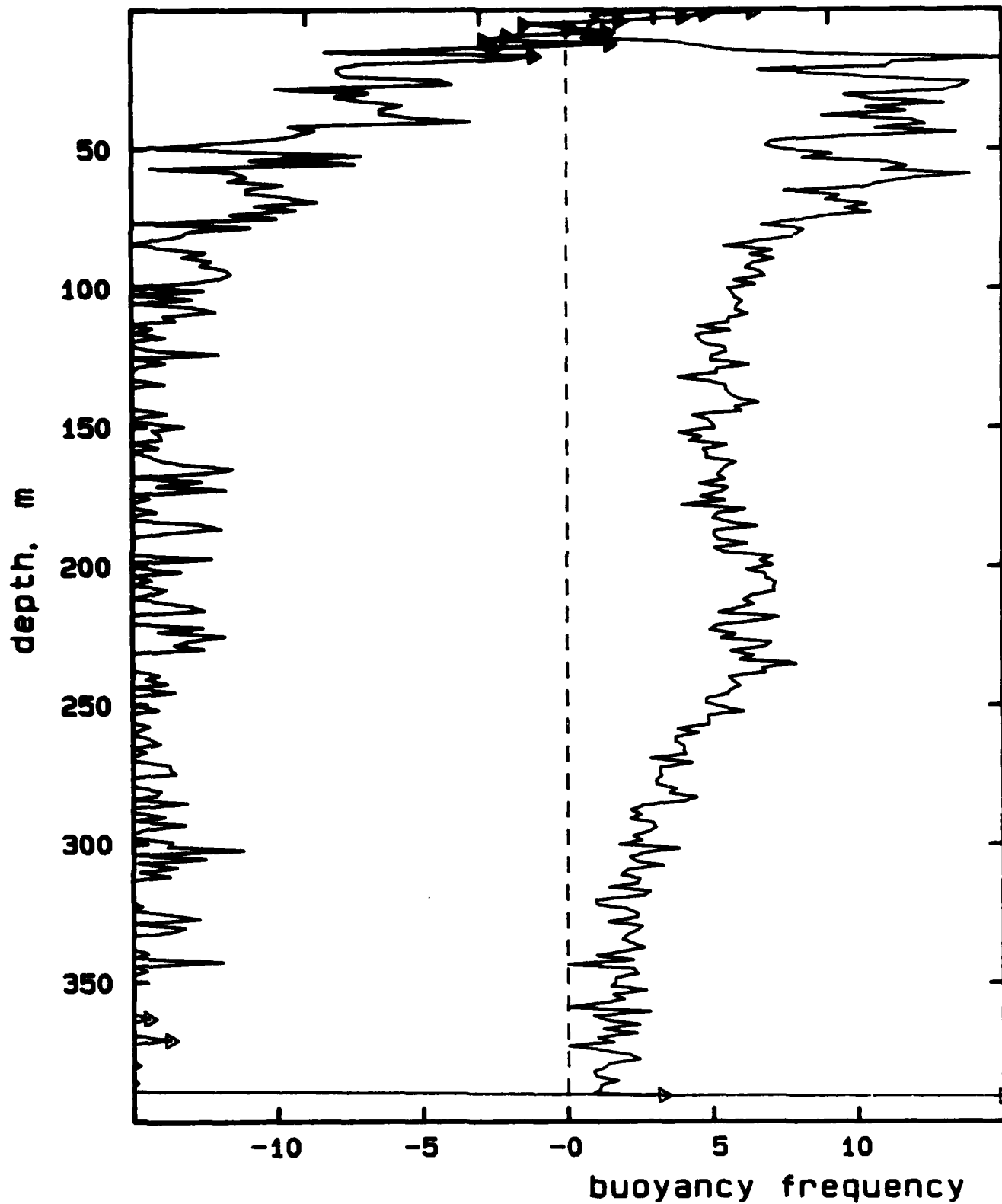




DA425G.004

log (dissipation rate) [cgs]

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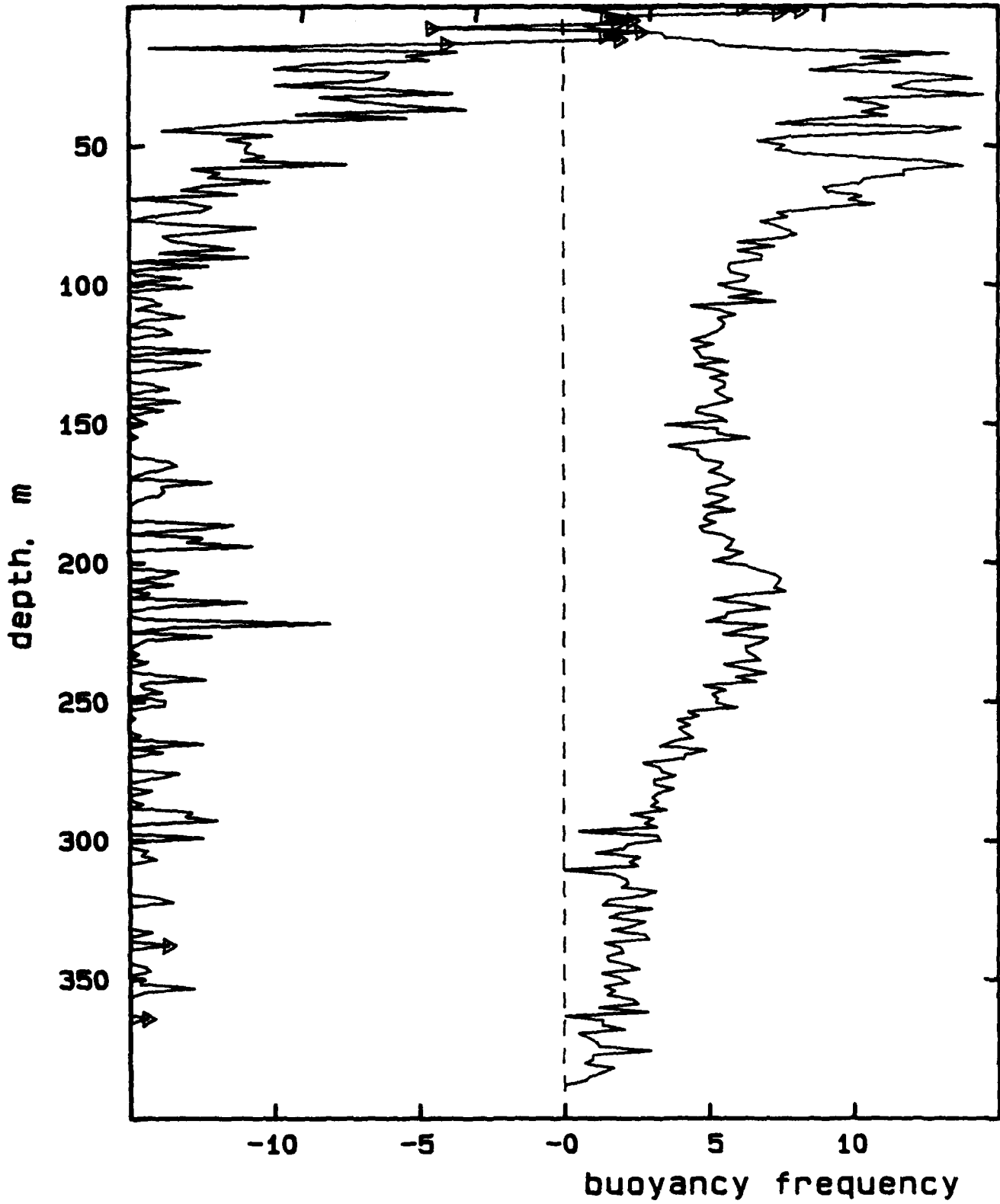


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DA425G.005

log (dissipation rate) [cgs]

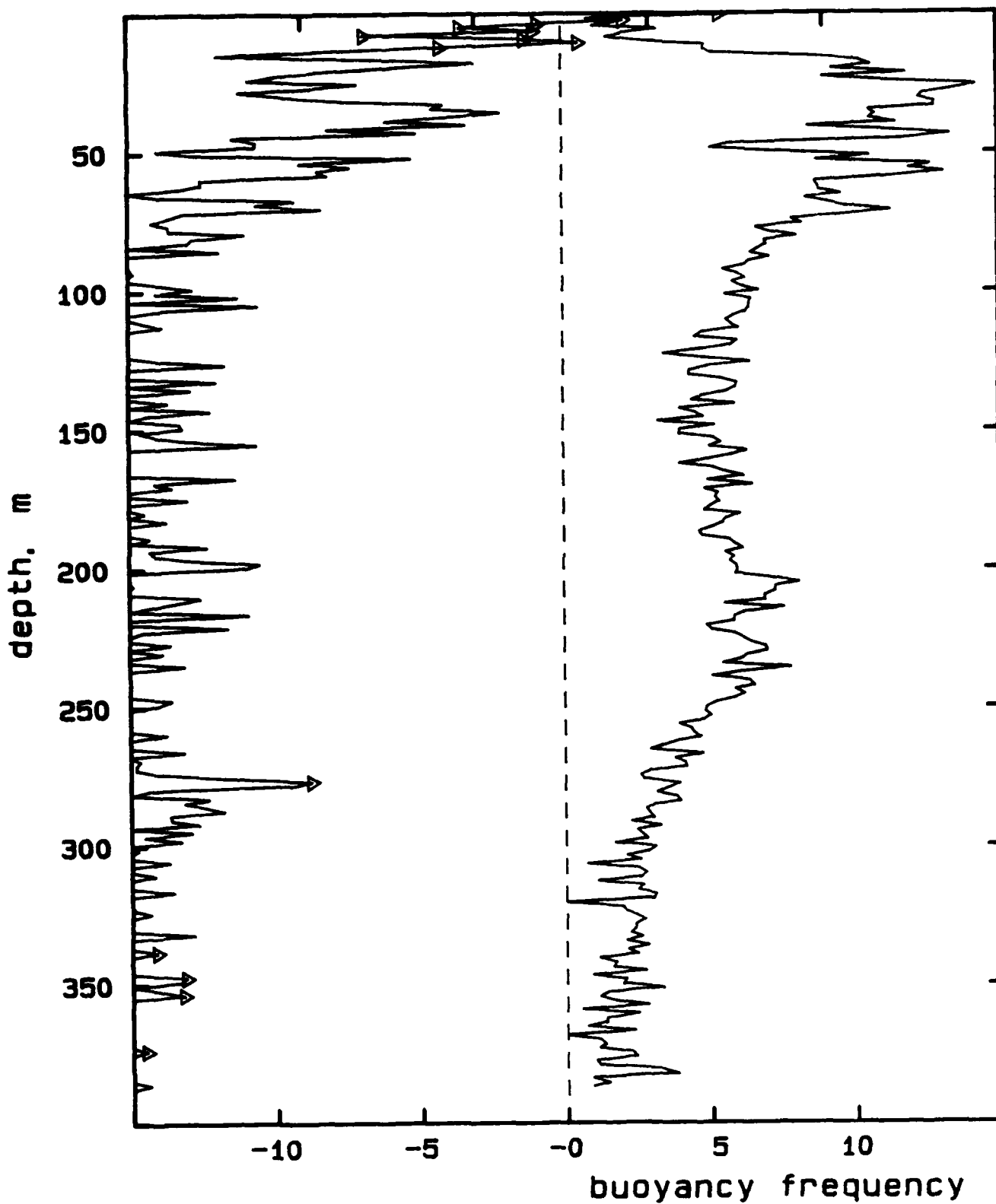
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DA425G.006

log (dissipation rate) [cgs]

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DA425G.007

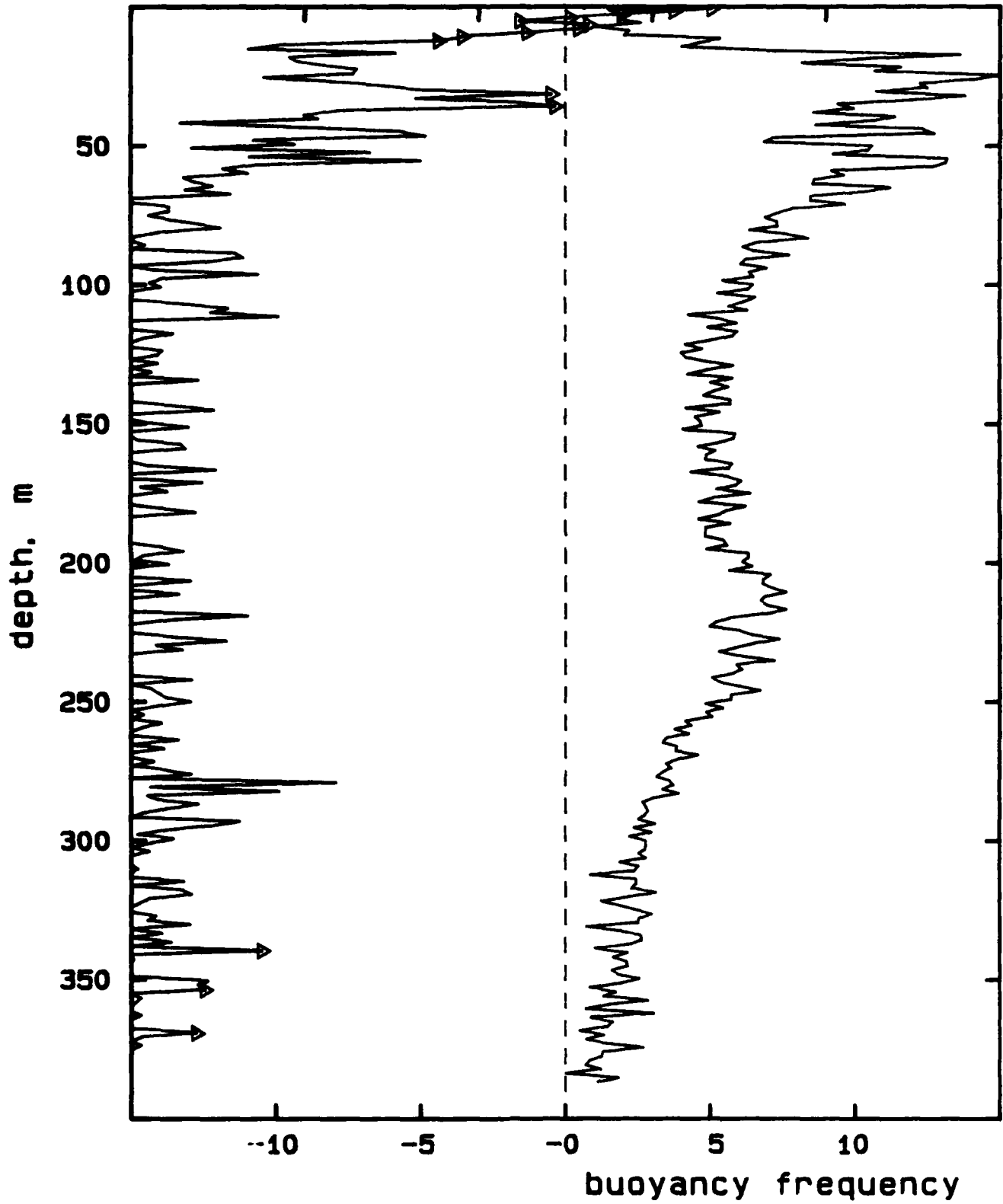
log (dissipation rate) [cgs]

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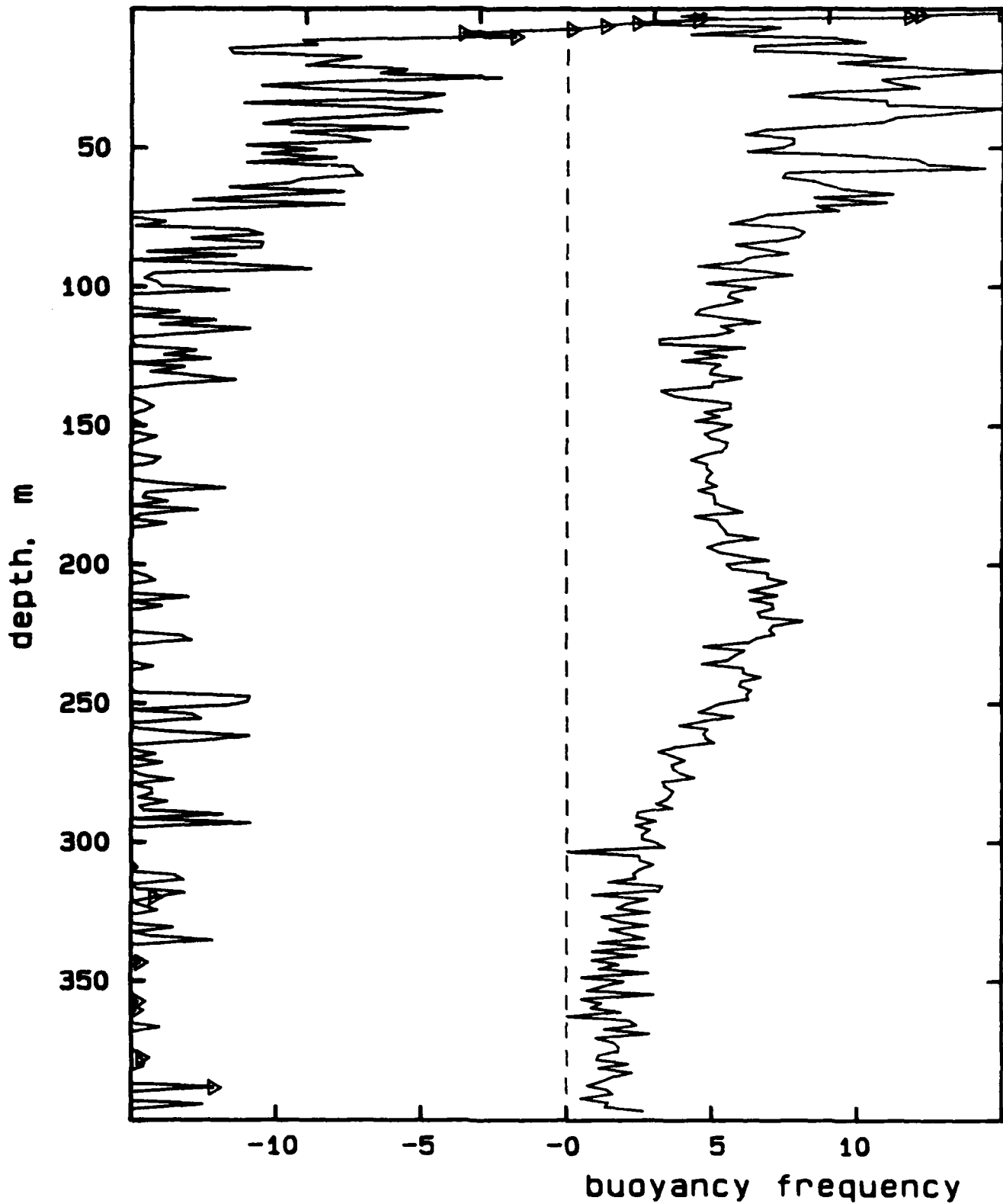
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DA426A.001

log (dissipation rate) [cgs]

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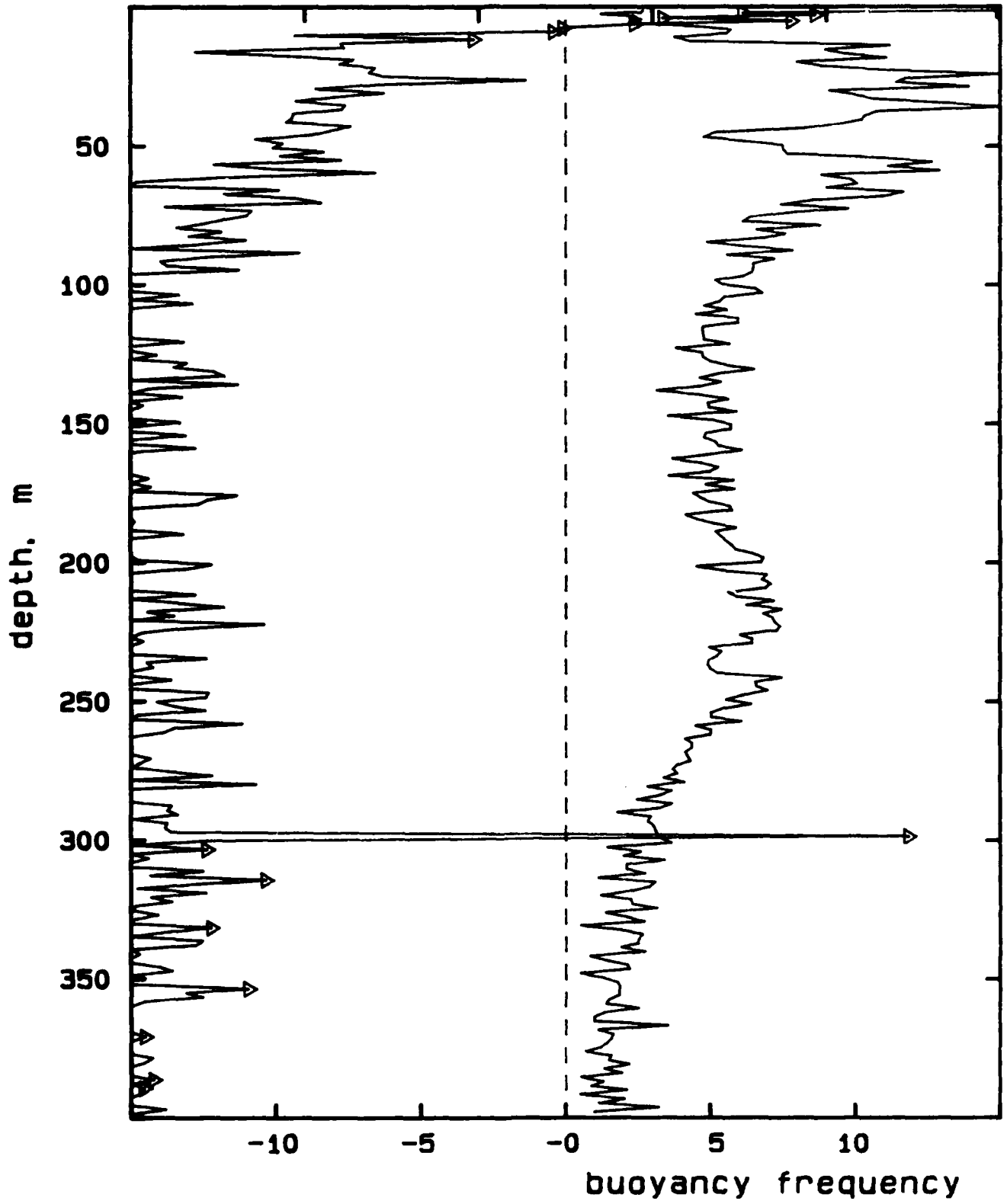


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DA426A.002

log (dissipation rate) [cgs]

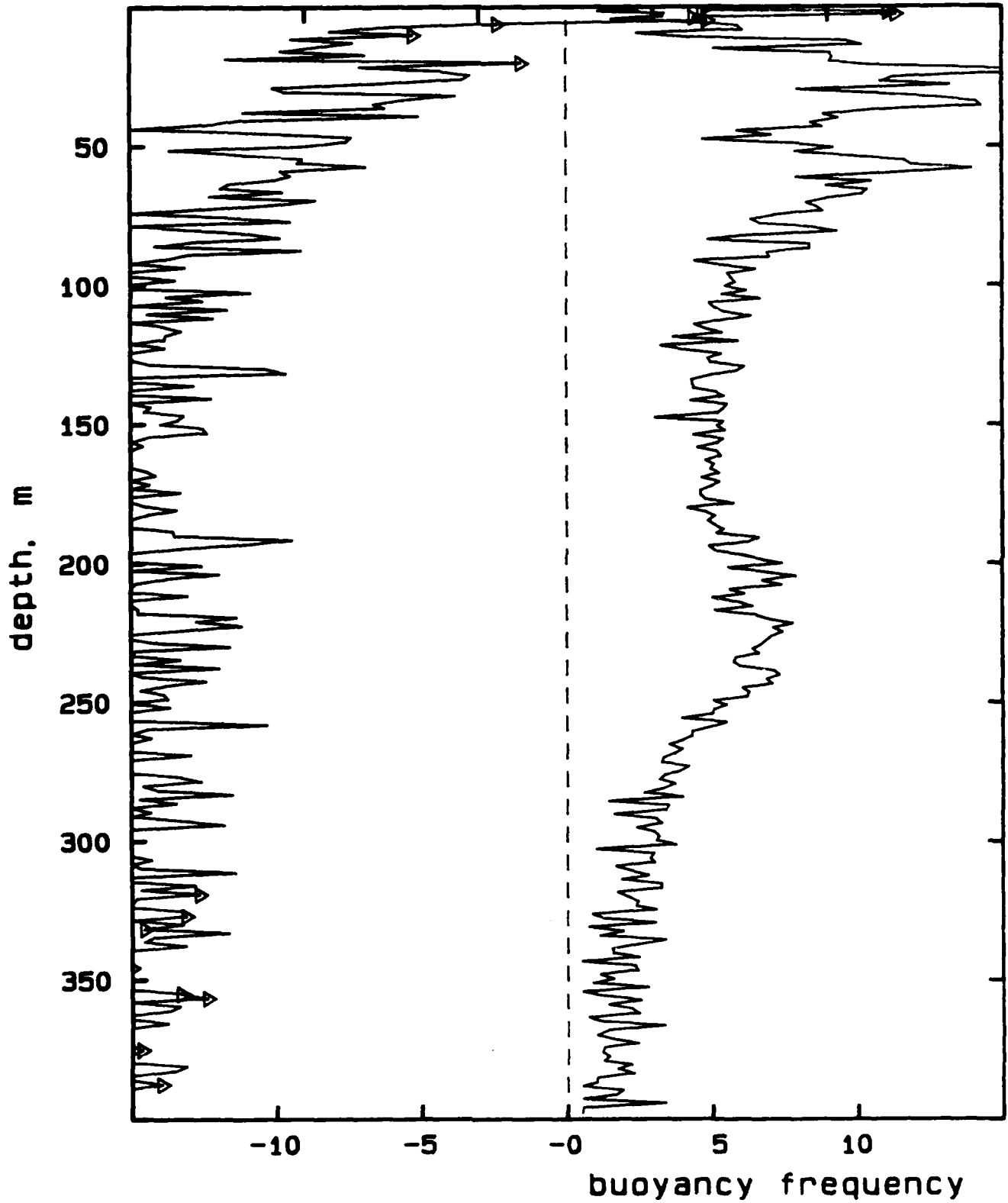
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DA426A.003

log (dissipation rate) [cgs]

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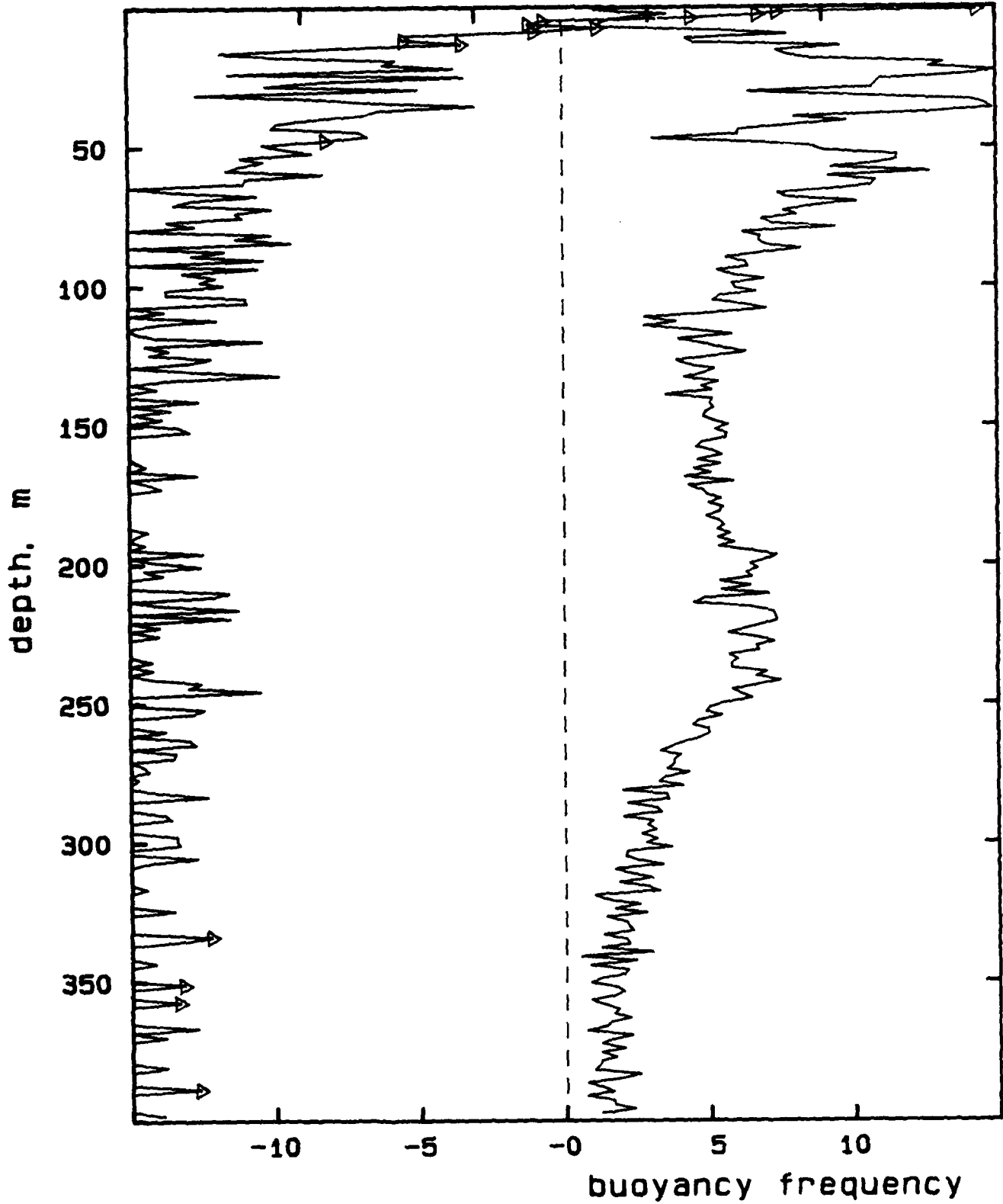


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DA426A.004

log (dissipation rate) [cgs]

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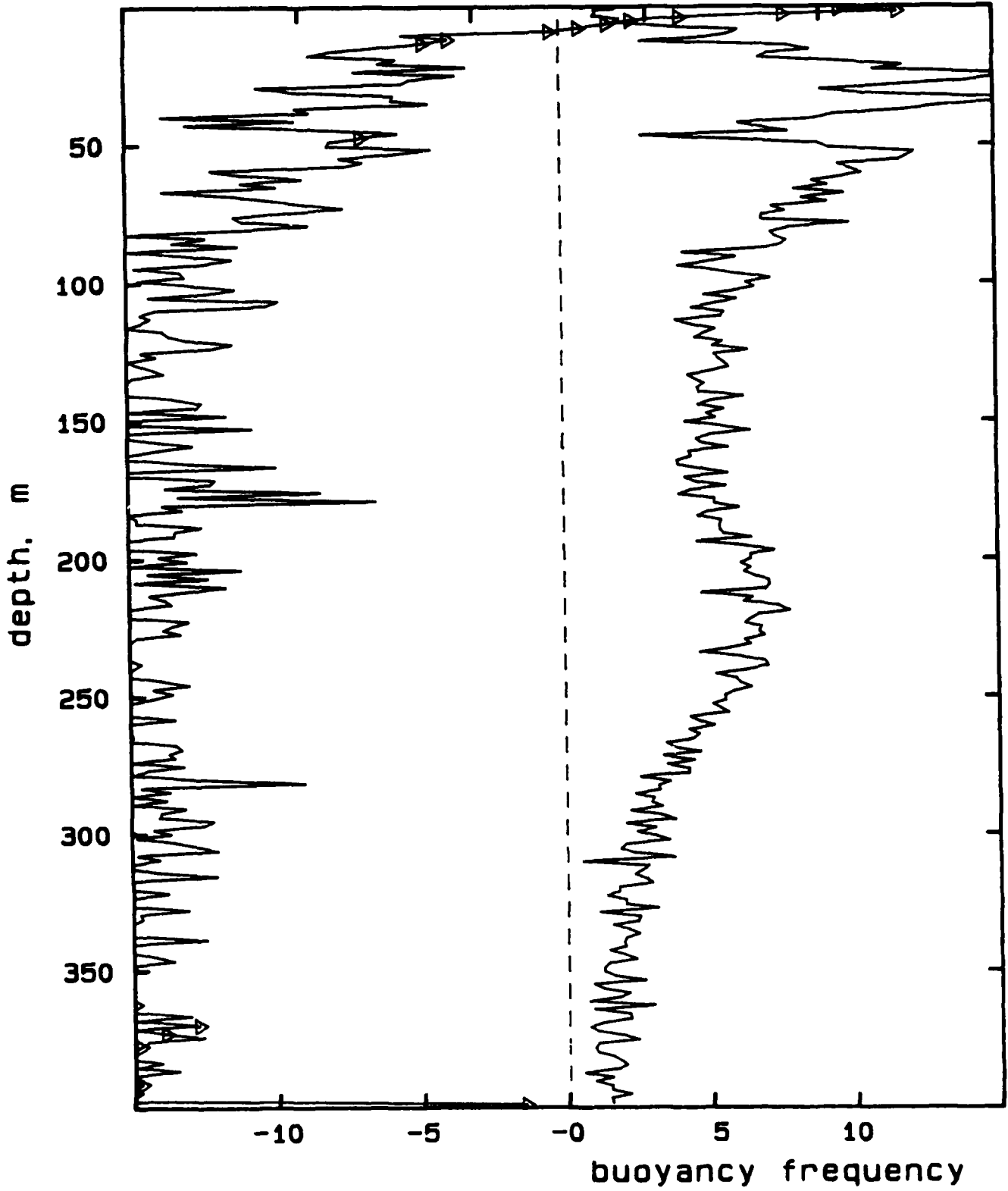




DA426A.005

log (dissipation rate) [cgs]

-5 -4 -3 -2

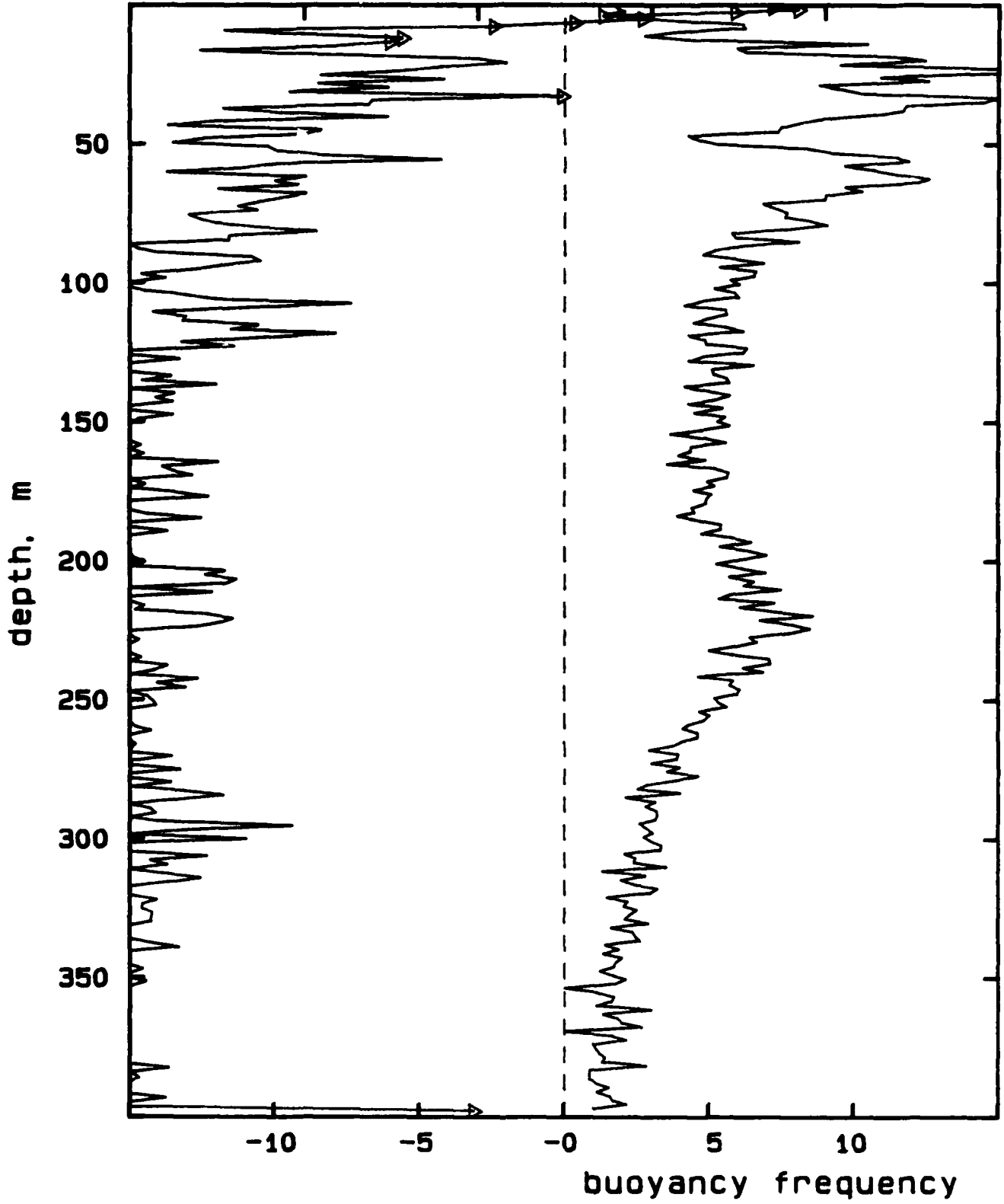


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DA426A.006

log (dissipation rate) [cgs]

-5                    -4                    -3                    -2



END

7-89

Dtatic