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Hydrographic Data from the Second Coastal Ocean Dynamics Experiment: R/V Wecoma, Legs 3 - 5 17 March - 4 April 1982

by
Jane Fleischbein
William E. Gilbert
Adriana Huyer

Data Report 105
Reference 83-11
August 1983

Code Technical Report No. 22
National Science Foundation
OCE-8014940, OCE-8014941 and OCE-8014943

OREGON STATE UNIVERSITY

School of Oceanography
Oregon State University
Corvallis, Oregon 97331

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ABSTRACT

CTD observations were made in the CODE region between Pt. Arena (39°N) and Pt. Reyes (38°N) during 17 March - 4 April 1982. The observations were along three sections: Code Central, Code - 2 Central, and Irish Gulch Lines; and alongside seven current meter moorings. Maximum sampling depth was 500 m. This report includes vertical sections and offshore profiles to summarize the data, and vertical profile plots and standard depth listings for each of the 81 stations.

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INTRODUCTION

The Coastal Ocean Dynamics Experiment (CODE) seeks to describe the response of continental shelf waters to a time-varying wind stress. The main purpose of Legs 3, 4, and 5 of the R/V WECOMA Code-2, cruise was to deploy a portion of the CODE-2 moored array in the region between Pt. Arena and Pt. Reyes. Secondary purposes of these legs were to complete CTD Stations near the moorings and along the Code Central, Code-2 Central, and Irish Gulch lines, and to collect continuous doppler acoustic velocity data. Only the CTD data are included in this report. Chief scientists in charge of these cruises were Robert C. Beardsley of Woods Hole Oceanographic Institution, and Wendell S. Brown and James Irish of the University of New Hampshire.

The R/V WECOMA departed on Code-2 Leg 3 on 16 March 1982 from Yerba Buena Island, California and returned on 20 March 1982 after completing 35 CTD Stations (Table 1). Code-2 Legs 4 and 5 departed 21 and 28 March 1982 respectively, from Yerba Buena Island, and in addition to the mooring work, a total of 37 CTD Stations (Table 1) were completed. On 3 April, the ship again left Yerba Buena Island, headed for Newport, Oregon, and one more CTD section along the Code Central line was completed enroute.

Altogether, the Code Central (COC) and Code-2 Central (COA) lines were occupied three times each (Figure 1), and the Irish Gulch line (Figure 1) was completed once. The maximum sampling depth was 500 m. Stations 31, 40, 42, 44 and 59 were either aborted or replays of the previous cast. Station 68 was a yo-yo cast to obtain real-time data for adjustment of instruments before deployment; only part of the

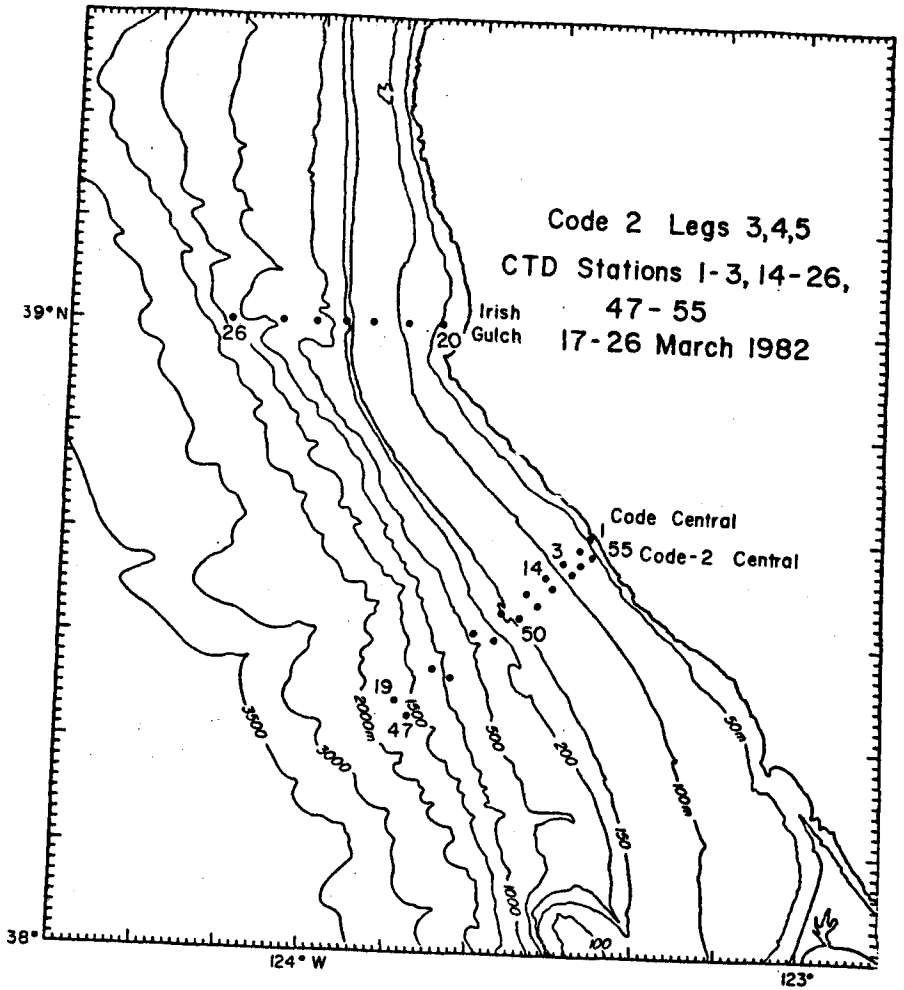
first downcast is included here. Personnel participating in the CTD data collection for Legs 3, 4, and 5 were Robert Beardsley and Carol Mills from Woods Hole Oceanographic Institution, and also for Leg 3, Russ Johnson from Scripps Institution of Oceanography. The last CTD section on the return trip was done by Jane Fleischbein and Henry Schaechterle of Oregon State University.

Table 1. List of CTD stations during Code 2 Legs 3, 4, 5 showing date, time, position, wind speed and direction and atmospheric pressure.

Date	Time	Station No.	Station Name	Lat. (°N)	Long. (°W)	Wind Dir. (°T)	Wind Spd. (kts)	Atm. Pressure (mbs)
March 17	2000	1	COC-1	38°40.0	123°25.5	320	8	1005.1
	2100	2	COC-2	38.8	26.9	320	12	1005.0
	2136	3	COC-3	37.5	28.9	320	12	1004.9
	2212	4	C3-1	36.4	27.0	320	16	1004.3
	2221	5	C3-2	"	"	-	-	-
	2228	6	C3-3	"	"	-	-	-
	2235	7	C3-4	"	"	-	-	-
	2242	8	C3-5	"	"	-	-	-
	2248	9	C3-6	"	"	-	-	-
	2254	10	C3-7	"	"	-	-	-
	2301	11	C3-8	"	"	-	-	-
	2307	12	C3-9	"	"	-	-	-
	2312	13	C3-10	"	"	-	-	-
	2353	14	COC-4	36.2	30.9	330	22	1004.0
March 18	0028	15	COC-5	34.5	33.2	340	20	1004.1
	0107	16	COC-6	32.7	36.2	320	17	1004.1
	0156	17	COC-7	30.5	39.6	340	20	1004.5
	0256	18	COC-8	27.2	44.5	340	18	1005.0
	0357	19	COC-9	24.0	49.2	350	20	1005.0
	1704	20	I-1	39°03.0	44.5	340	20	1009.0
	1740	21	I-2	03.0	48.5	000	14	1009.8
	1814	22	I-3	03.0	53.0	340	16	1010.1
	1857	23	I-4	03.0	56.2	340	20	1010.5
	2193	24	I-5	03.0	124°00.0	330	20	1010.9
	2029	25	I-6	03.0	124°04.0	350	18	1011.8
	2131	26	I-7	03.0	124°10.1	350	18	1012.4
March 19	1432	27	COC-1	38°39.8	123°25.8	-	-	1023.0
	1459	28	COC-2	38.8	26.9	-	-	1023.2
	1517	29	COC-3	37.5	29.0	-	-	1023.8
	1548	30	COC-4	36.2	30.8	-	-	1024.0
	1623	32	COC-5	34.6	33.3	-	-	1023.9
	1655	33	COC-6	32.7	36.2	-	-	1024.5
	1754	34	COC-7	39°30.3	39.6	000	6	1025.0
	1853	35	COC-8	39°27.1	44.5	-	-	1025.6
	1945	36	COC-9	38°24.0	49.2	000	5	1026.0
March 22	2046	37	C4	33.4	31.6	310	8	1020.0
March 24	1233	38	C3-1	36.2	27.6	-	-	1014.2
	1239	39	C3-2	"	"	-	-	-
	1247	41	C3-3	"	"	-	-	-
	1254	43	C3-4	"	"	-	-	-
	1351	45	C4	33.3	31.4	-	-	1014.8
March 25	1928	46	R4	20.6	22.9	110	8	1014.8

Table 1. Cont.

Date	Time	Station No.	Station Name	Lat. (°N)	Long. (°W)	Wind Dir. (°T)	Wind Spd. (kts)	Atm. Pressure (mbs)
March 26	0847	47	COA-9	38°22.5	123°47.5	AIRS	-	1011.7
	0950	48	COA-8	26.3	42.3	300	7	1011.9
	1051	49	COA-7	30.0	37.1	AIRS	-	1011.6
	1134	50	COA-6	32.2	34.1	AIRS	-	1011.5
	1210	51	COA-5	33.6	31.8	AIRS	-	1012.0
	1240	52	COA-4	35.0	29.8	AIRS	-	1012.0
	1307	53	COA-3	36.5	27.8	AIRS	-	-
	1330	54	COA-2	37.3	26.6	AIRS	-	1012.0
	1359	55	COA-1	38.1	25.3	AIRS	-	1012.5
March 30	0330	56	COA-9	22.6	47.5	290	30	1009.0
	0434	57	COA-8	26.3	42.3	300	24	1010.0
	0554	58	COA-7	30.0	37.1	300	25	1010.5
	0700	60	COA-6	32.2	34.0	290	16	1012.0
	0732	61	COA-5	33.6	31.8	280	25	1012.0
	0811	62	COA-4	34.8	29.9	280	16	1012.7
	0849	63	COA-3	36.5	28.0	280	15	1013.0
	0918	64	COA-2	37.5	26.5	280	12	1013.5
March 31	0428	65	R-1	28.3	12.8	200	24	1011.0
	0506	66	R-2	26.6	15.4	195	26	1009.7
	0546	67	R-3	24.8	18.0	190	28	1009.0
April 1	0700	68	UNH Profile	-	-	-	-	-
	2332	69	COA-9	22.4	47.5	300	14	1011.0
April 2	0031	70	COA-8	26.3	42.2	290	6	1011.2
	0132	71	COA-7	30.0	37.2	275	10	1011.6
	0209	72	COA-6	32.2	34.0	300	8	1011.8
	0248	73	COA-5	33.6	31.8	AIRS	-	-
	0350	74	COA-4	35.0	29.8	AIRS	-	1012.8
	0418	75	COA-3	36.5	27.8	AIRS	-	1012.6
	0444	76	COA-2	37.3	26.6	AIRS	-	1012.6
	0508	77	COA-1	38.2	25.2	AIRS	-	1007.0
April 4	0454	78	COC-1	39.8	25.5	315	8	1019.0
	0521	79	COC-2	38.8	26.9	270	12	1019.0
	0554	80	COC-3	37.5	28.9	280	16	1019.0
	0621	81	COC-4	36.2	30.8	280	17	1019.1
	0652	82	COC-5	34.6	33.3	300	16	1019.8
	0730	83	COC-6	31.4	35.1	270	17	1019.9
	0814	84	COC-7	30.3	39.6	260	14	1020.4
	0911	85	COC-8	27.0	44.5	320	18	1021.0
	1012	86	COC-9	24.0	49.2	300	15	1021.0



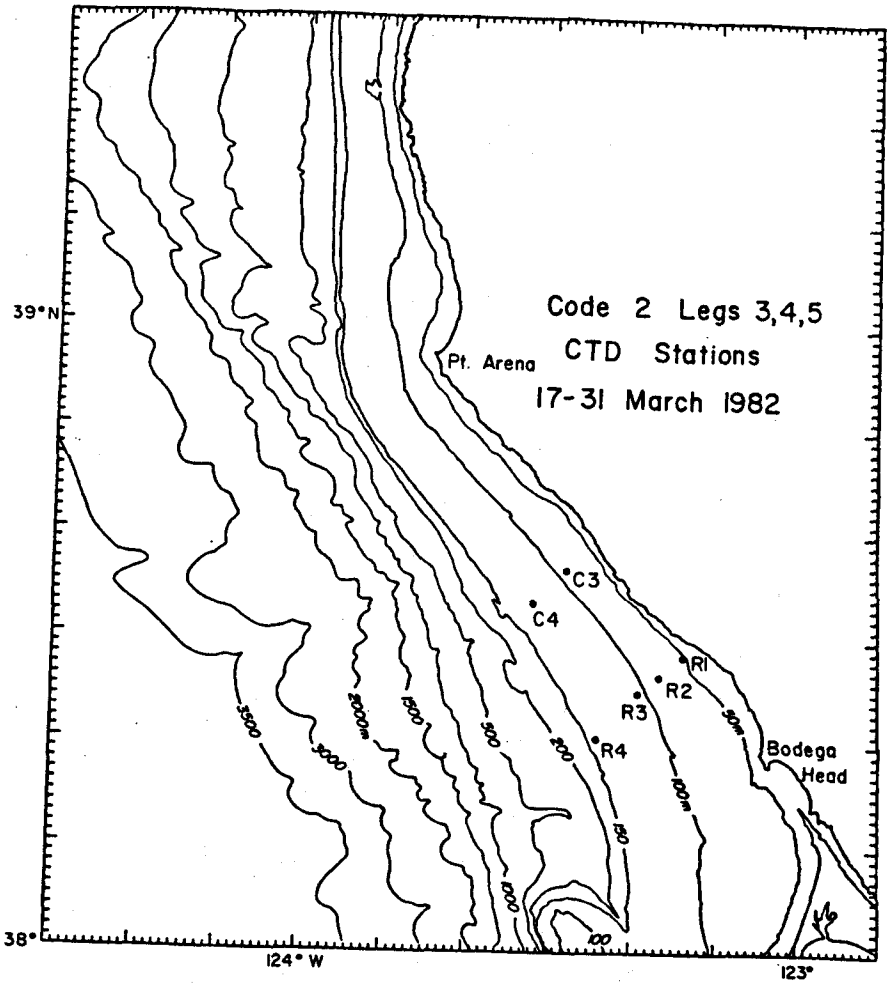


Figure 1. Location of stations in the Code region, 17 - 31 March 1982.

SAMPLING AND DATA PROCESSING PROCEDURES

A Neil Brown Instrument Mark IIIb conductivity-temperature-depth probe (CTD) was used to obtain continuous profiles of temperature and salinity versus pressure at each station. Sampling procedures were identical with those described by Fleischbein, Gilbert, Schramm and Huyer (1981), except that the probe with a 1600 db pressure sensor rating (probe #2567) was used for all stations.

The CTD probe was calibrated for pressure, temperature and conductivity by the manufacturer prior to delivery in the fall of 1980. In situ calibration data were also collected for temperature and conductivity sensors. A Niskin bottle equipped with three protected reversing thermometers was mounted about 2 m above the CTD sensors to provide calibration samples. The thermometers have an accuracy of ± 0.02°C and are corrected using the results of calibrations done once every three years. Water sample salinity is determined by Guildline Model 8400 "Autosal" salinometers with precision of better than ± 0.002°/₀₀ and accuracy of ± 0.003°/₀₀.

CTD data are recorded at the actual sample depth after the bottle is tripped. Occasionally, due to large wire angles, the CTD and sample bottles do not remain at the same depth (and temperature) during soak time. When this resulted in relatively large differences between the sample and CTD temperature readings, these points were eliminated from the overall CTD-sample comparisons.

Duplicate salinity samples were drawn from the Niskin bottle at each station. One set (S_2) of salinity samples was analyzed on OSU's Autosal #1 and the other set (S_1) on Autosal #3. Comparisons between

the duplicates are within the precision of the Autosal salinometer. Due to higher amounts of drift in the standardization of Autosal #1, the results from Autosal #3 were used in the CTD calibration.

Results of the comparison between in situ sample data and the CTD output are summarized in Table 2. The sample conductivity was calculated using the CTD temperature and sample salinity. CTD conductivity was corrected for the pressure and temperature effects on the cell prior to the comparison. The temperature differences are within the sampling and instrument errors, so no further corrections were applied to temperature prior to processing the data. The conductivity differences using samples S_1 showed a mean offset of 0.013 mmhos cm^{-2} and this correction was added to the CTD conductivity prior to processing the data.

The data were processed in the manner described by Gilbert, Huyer and Schramm (1981), using a value of 0.862 for the coefficient, α, of the conductivity filter.

Stations 17 and 57 showed sudden shifts in conductivity that were probably due to detritus in the cell, so the processed salinity was linearly interpolated from 247-255 db for station 17 and from 110-126 db for station 57. These stations also have footnotes to the listings in the body of the data report.

Table 2. Summary of the differences between the *in situ* calibration data and the Neil Brown CTD probe. CTD conductivity was corrected by adding ± 0.013 mmhos cm^{-2} before processing.

		No. of Samples	Mean Difference	Standard Deviation
Temperature (°C)		9	-0.007	0.006
Conductivity (mmhos cm^{-2})	S1	59	0.013	0.004
	S2	59	0.012	0.005
Salinity (°/₀₀)	S1	59	0.013	0.004
	S2	59	0.012	0.006

DATA PRESENTATION

The hydrographic data are summarized in vertical sections of temperature, salinity and sigma-theta. The distributions were contoured by hand. Tick marks at the top of each section indicate station positions at which a CTD cast was made, and an inverted "T" marks the maximum depth of each cast.

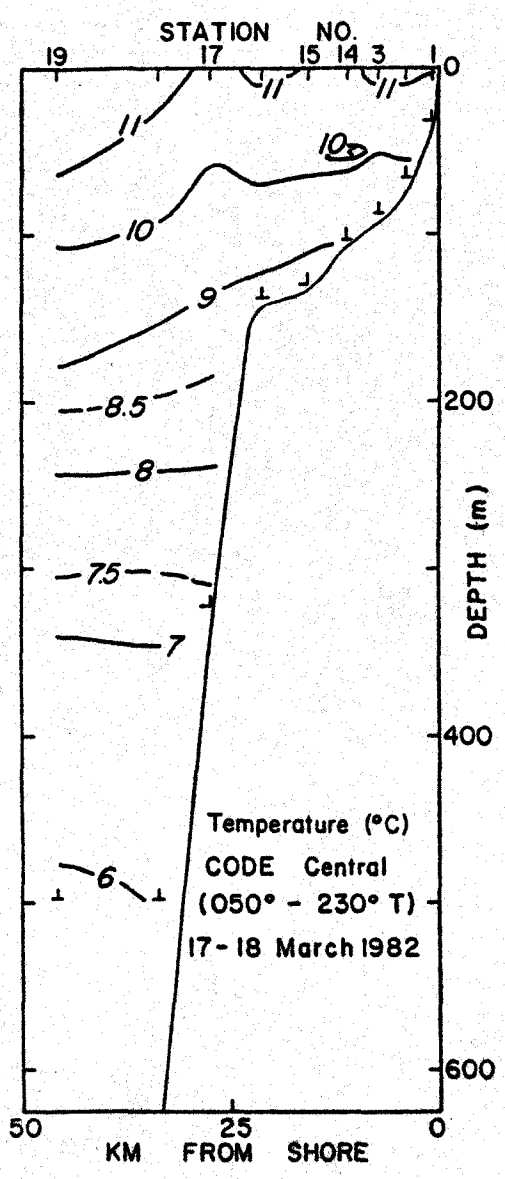
For the Code and Code-2 Central Line sections, we also show offshore profiles of temperature, salinity, sigma-theta and dynamic height relative to 500 db. Dynamic height at shallow stations was computed using the extrapolation method described by Reid and Mantyla (1976); the extrapolated portion of each profile is dashed.

Vertical profiles of temperature, salinity and sigma-theta versus pressure are shown for each station. Header information for each station is as follows:

STA NO	Consecutive station number.
STATION	The CTD section name (initialed) and number of the station on the line (Refer to Figures 1 and 2).
LAT	Latitude in degrees and minutes north of the equator.
LONG	Longitude in degrees and minutes west of Greenwich.
DATE	Day/Month/Year.
TIME	Time in Greenwich Mean Time.
PROBE	CTD probe number.
DEPTH	Sonic depth in meters, corrected according to Mathews Tables appearing in the Handbook of Oceanographic Tables, U.S. Naval Oceanographic Office Publication SP-68 (1966).

The data listing for each station gives values at standard pressures and at the shallowest and deepest observation levels. Temperature (TEMP), salinity (SAL), potential temperature (POTEN TEMP), sigma-theta (SIGMA-THETA), specific volume anomaly x 10^5 (SVA), and dynamic height (DELD) in dynamic meters are given for each pressure (PRESS) in decibars. Computed parameters are calculated from the complete data array.

VERTICAL SECTIONS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15
14
3
1
0
11
10
9
8.5
8
7.5
7
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200
400
600
DEPTH (m)
Temperature (°C)
CODE Central
(050° - 230° T)
17 - 18 March 1982
50
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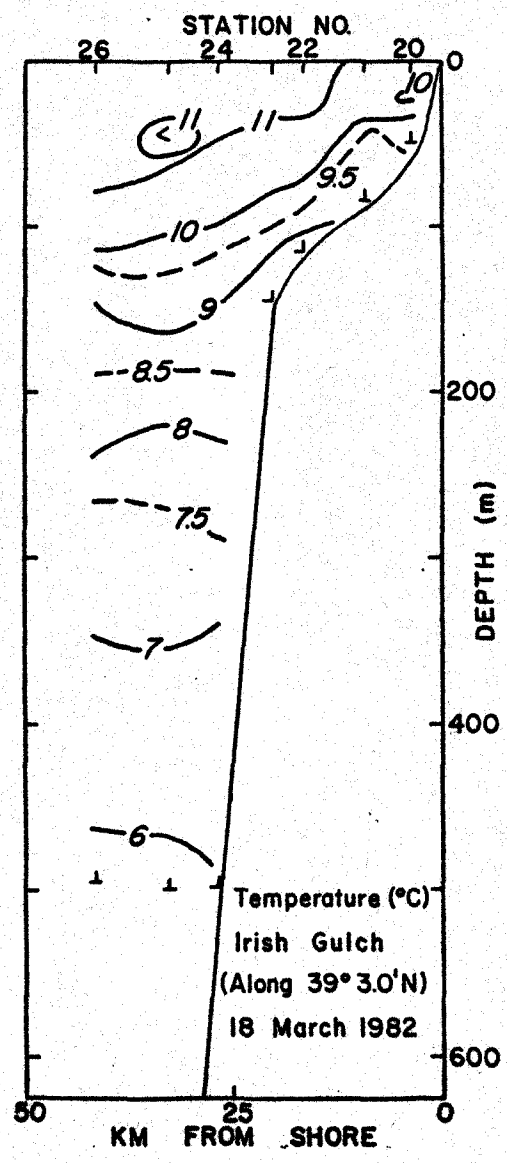
KM FROM SHORE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Temperature (°C)
Irish Gulch
(Along 39° 3.0'N)
18 March 1982
50
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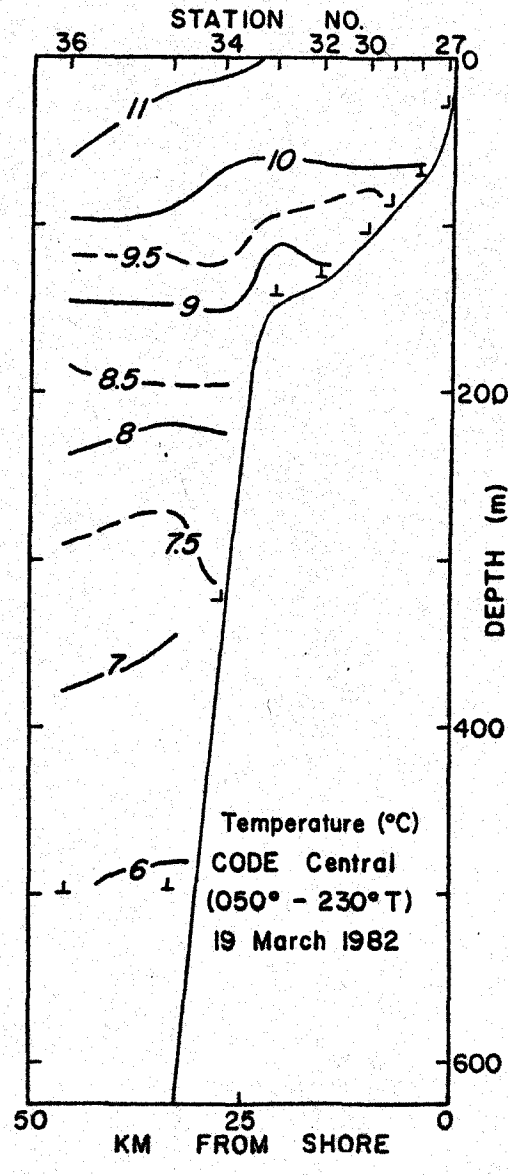
KM FROM SHORE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8
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400
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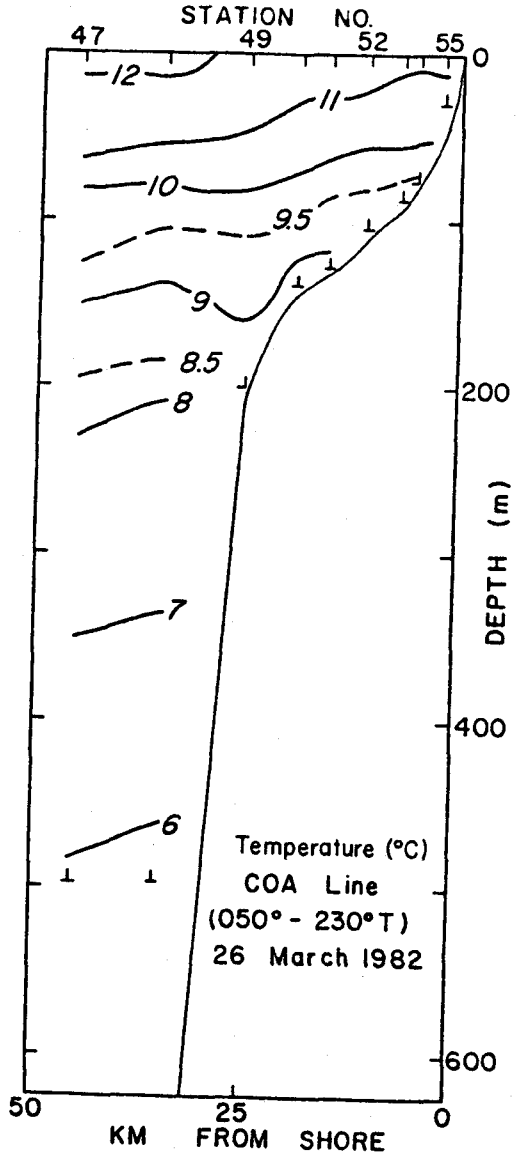
Temperature (°C)
CODE Central
(050° - 230° T)
19 March 1982
50
25
0
KM FROM SHORE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7
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Temperature (°C)
COA Line
(050° - 230°T)
26 March 1982
50
25
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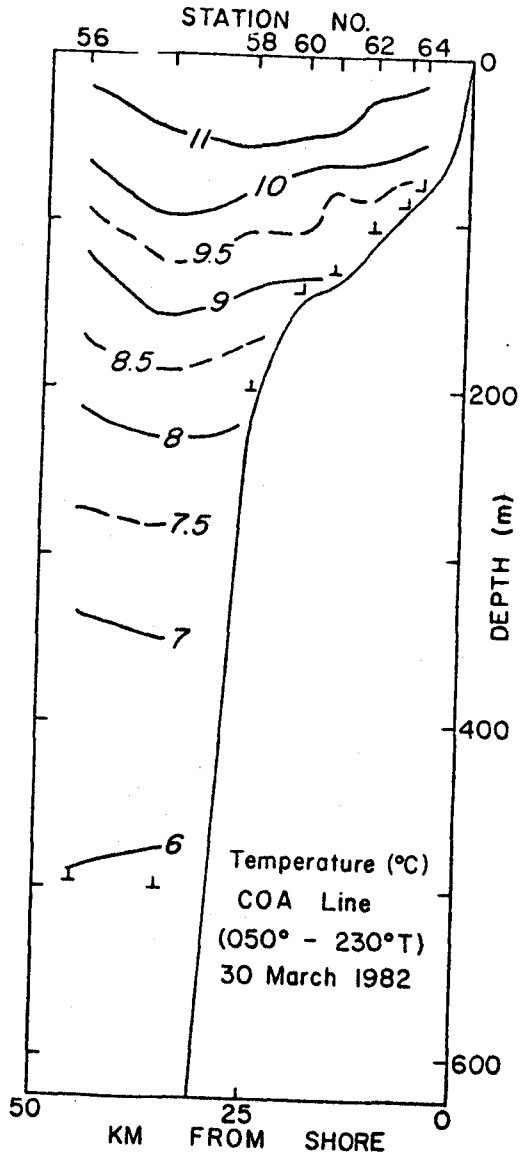
KM FROM SHORE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9
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7.5
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400
600
DEPTH (m)
Temperature (°C)
COA Line
(050° - 230°T)
30 March 1982
50
25
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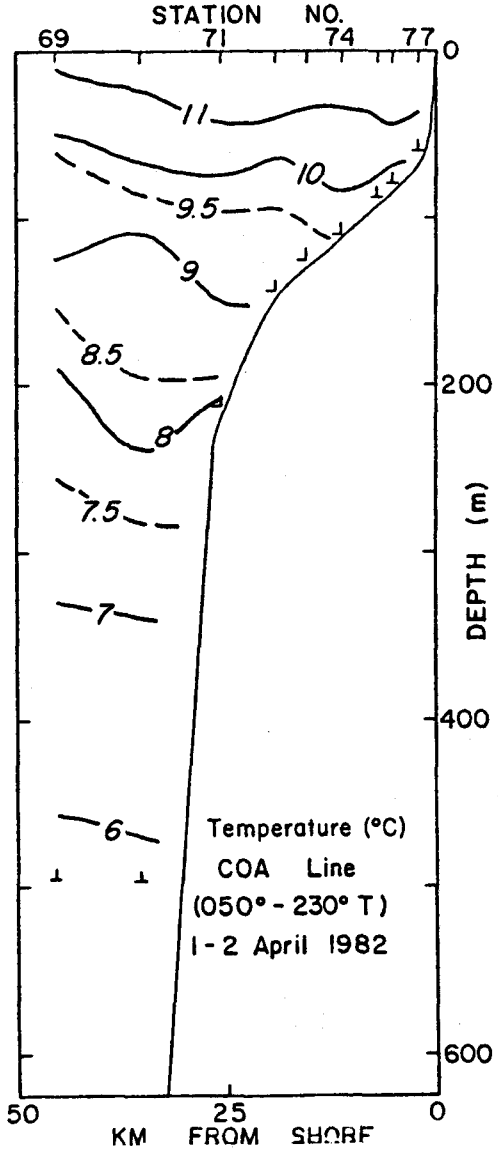
KM FROM SHORE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7
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600
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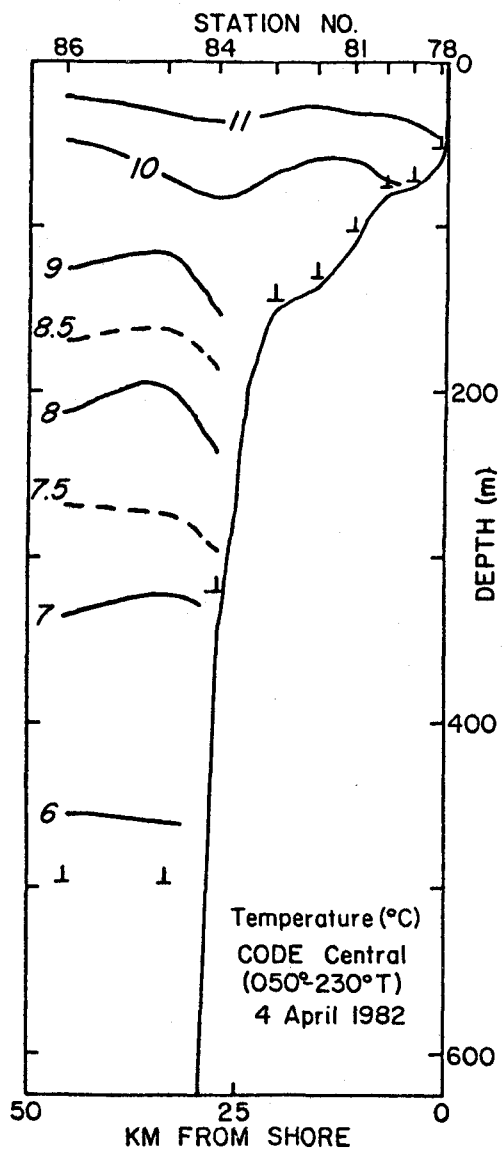
Temperature (°C)
COA Line
(050° - 230° T)
1 - 2 April 1982
50
25
0
KM FROM SHORE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9
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Temperature (°C)
CODE Central
(050°-230°T)
4 April 1982
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25
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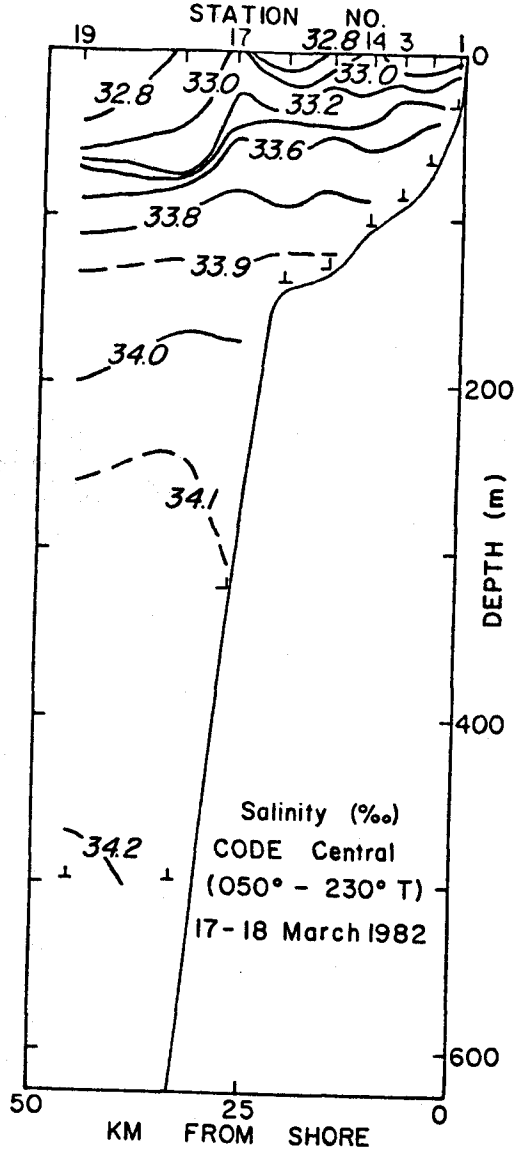
KM FROM SHORE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34.1
34.2
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DEPTH (m)
Salinity (‰)
CODE Central
(050° - 230° T)
17-18 March 1982
50
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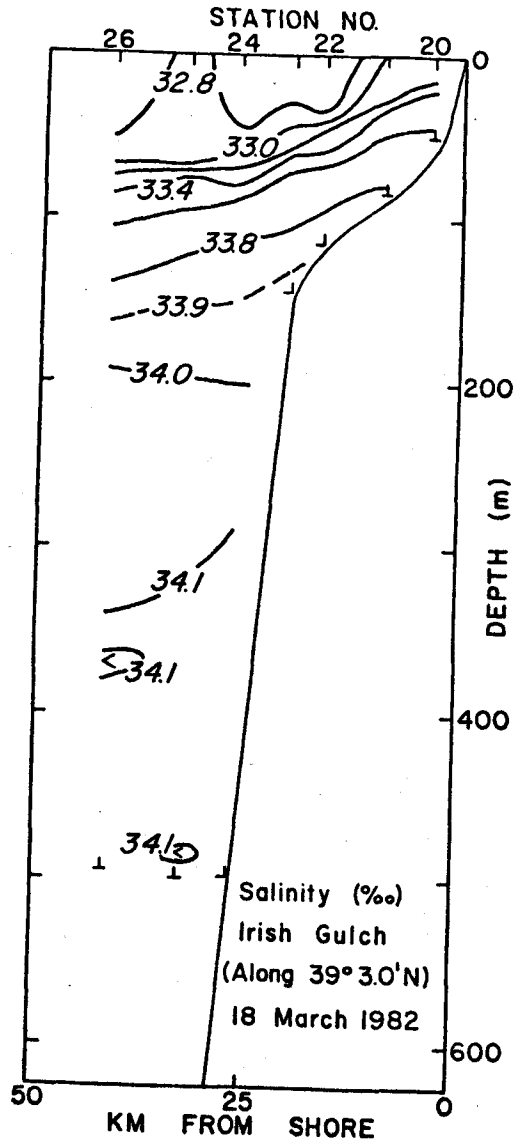
KM FROM SHORE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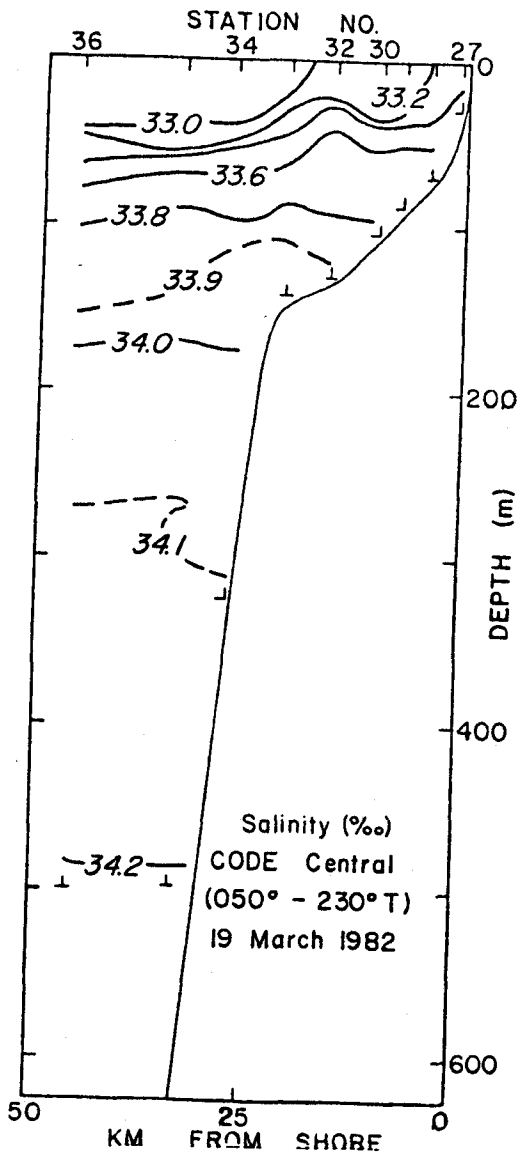
34.1
34.1
200
400
600
DEPTH (m)
Salinity (‰)
Irish Gulch
(Along 39° 3.0'N)
18 March 1982
50
25
0
KM FROM SHORE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34.2
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600
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Salinity (‰)
CODE Central
(050° - 230° T)
19 March 1982
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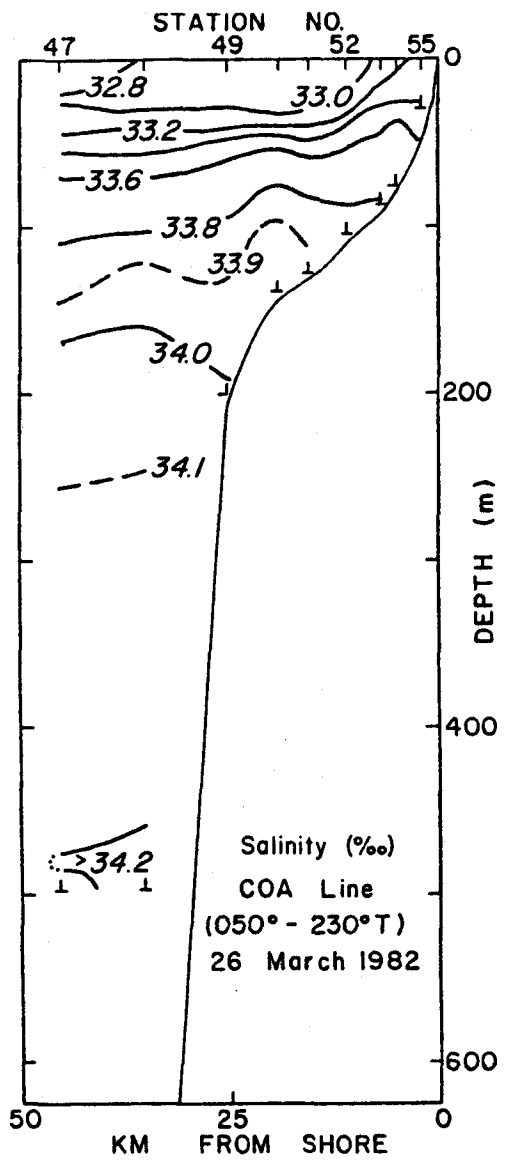
25
0
KM FROM SHORE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33.9
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34.1
>34.2
200
400
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DEPTH (m)
Salinity (‰)
COA Line
(050° - 230°T)
26 March 1982
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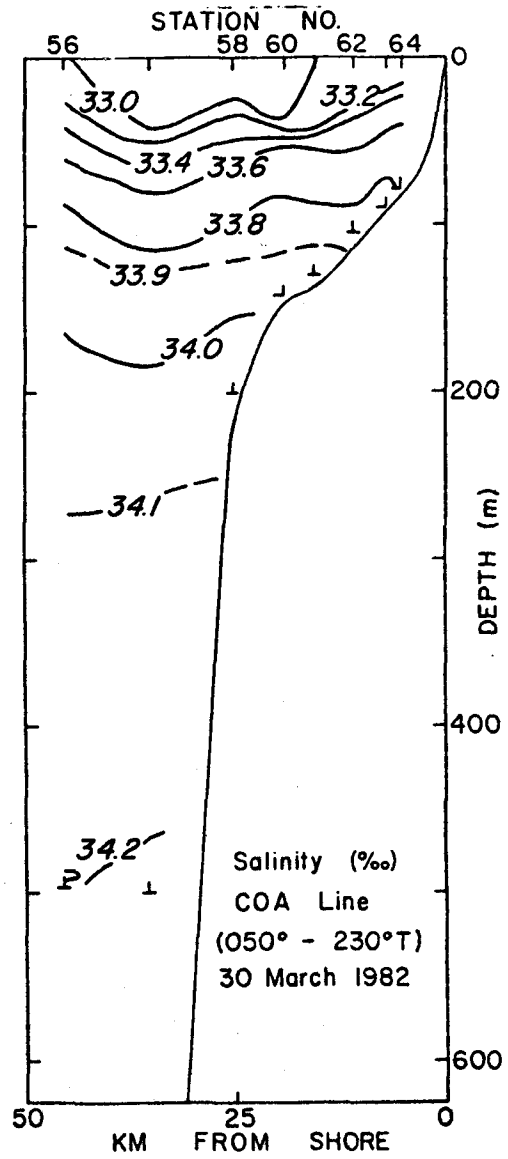
KM FROM SHORE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62
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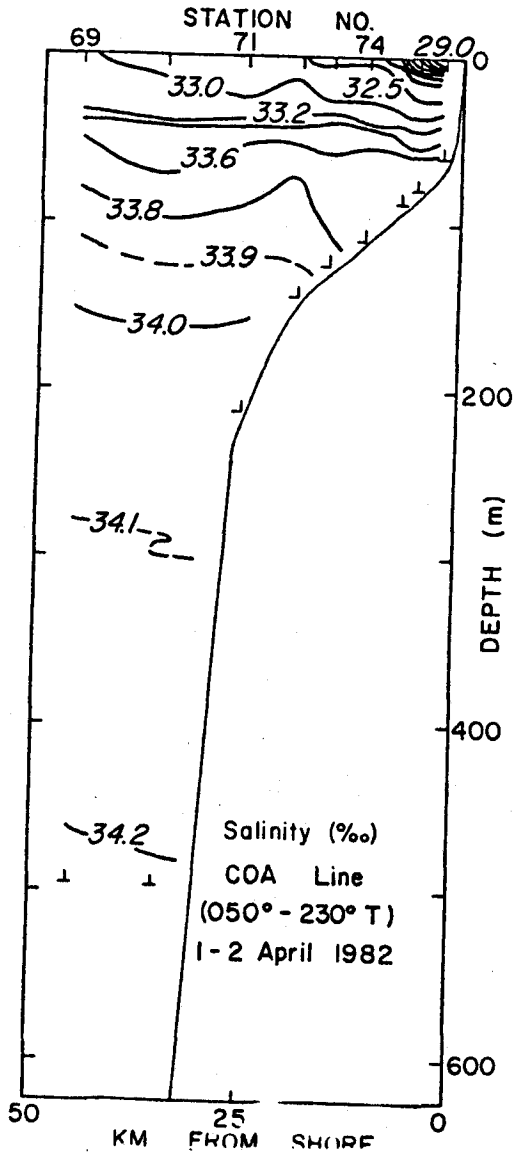
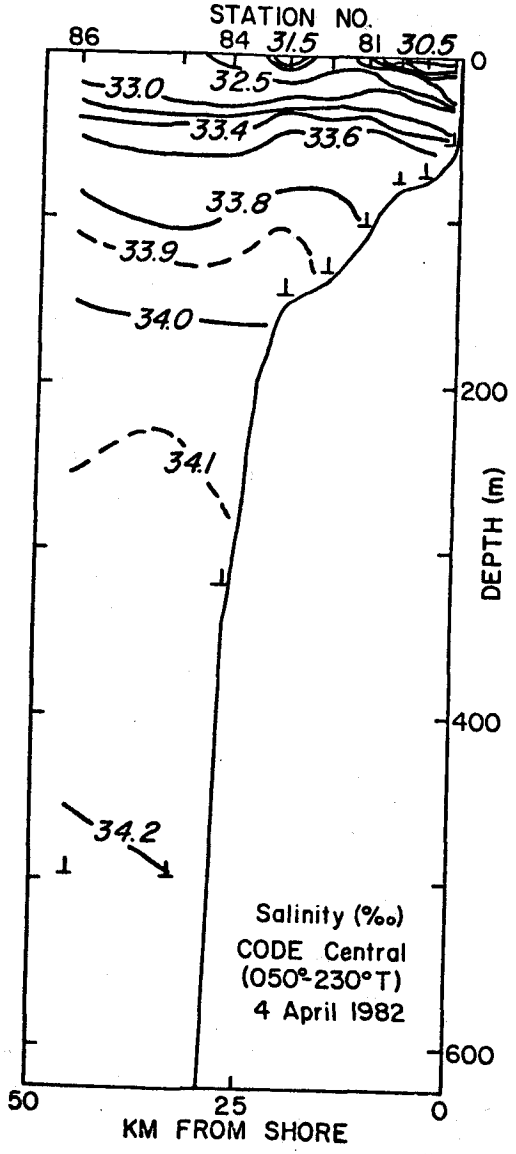
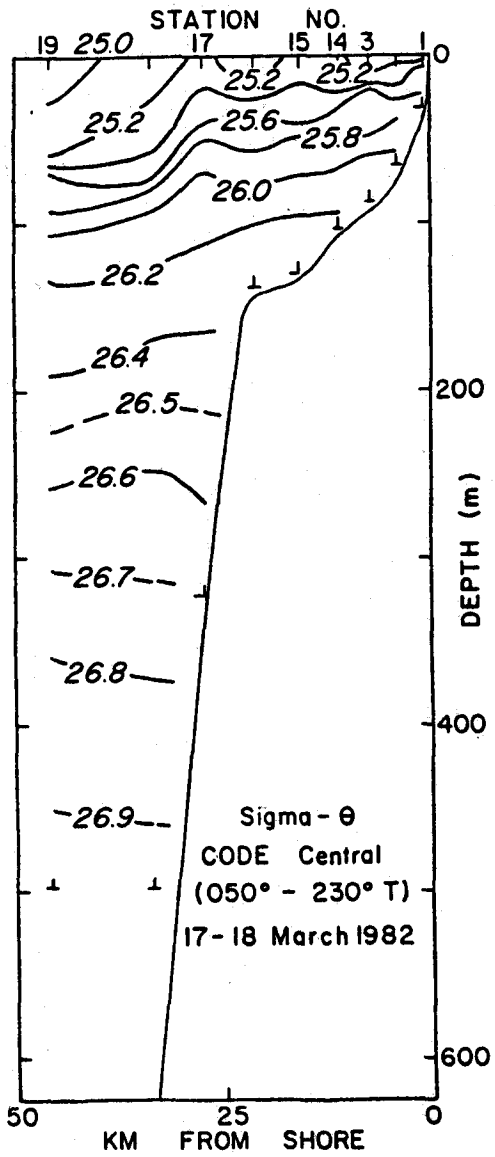
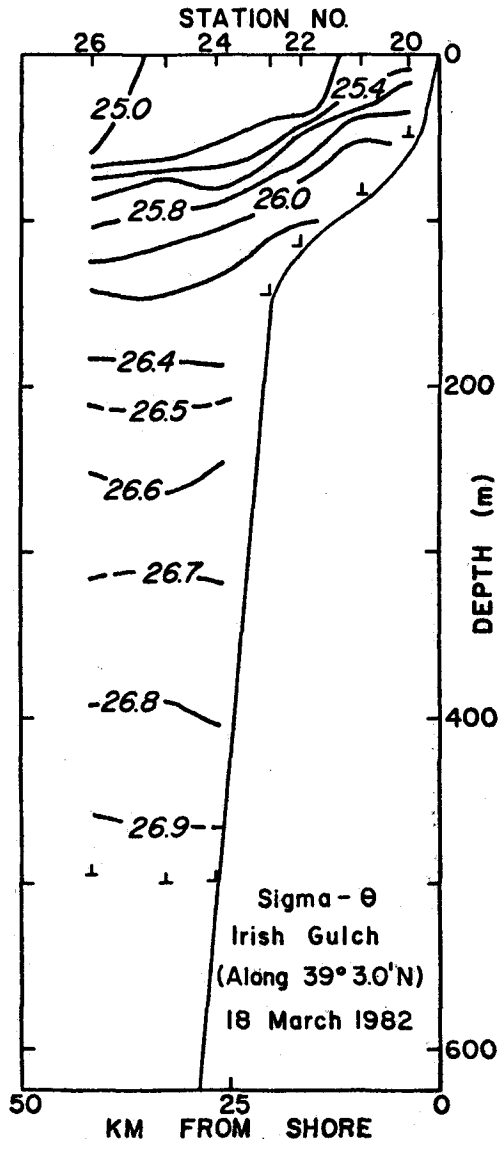
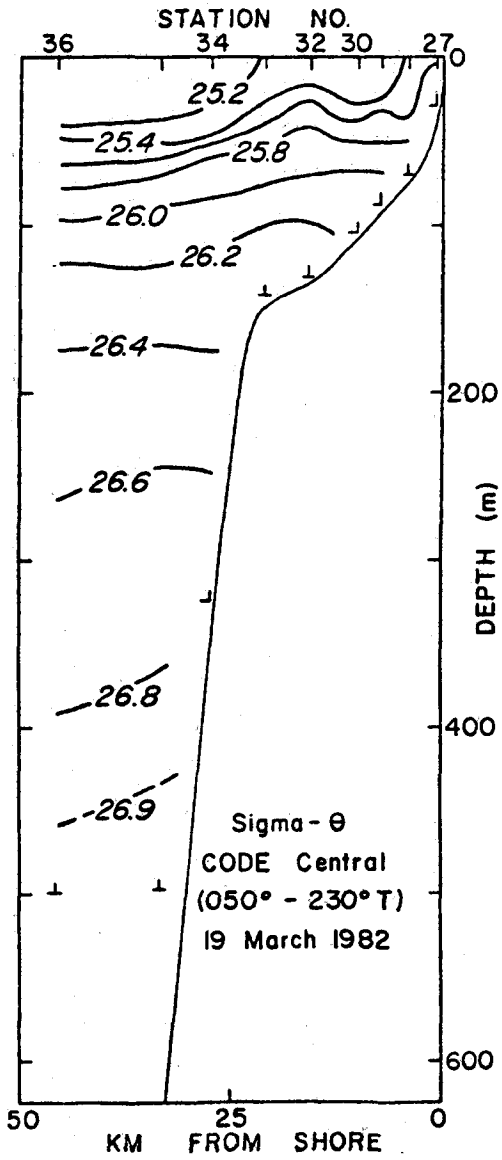
33.2
33.4
33.6
33.8
33.9
34.0
34.1
34.2
200
400
600
DEPTH (m)
Salinity (‰)
COA Line
(050° - 230°T)
30 March 1982
50
25
0
KM FROM SHORE

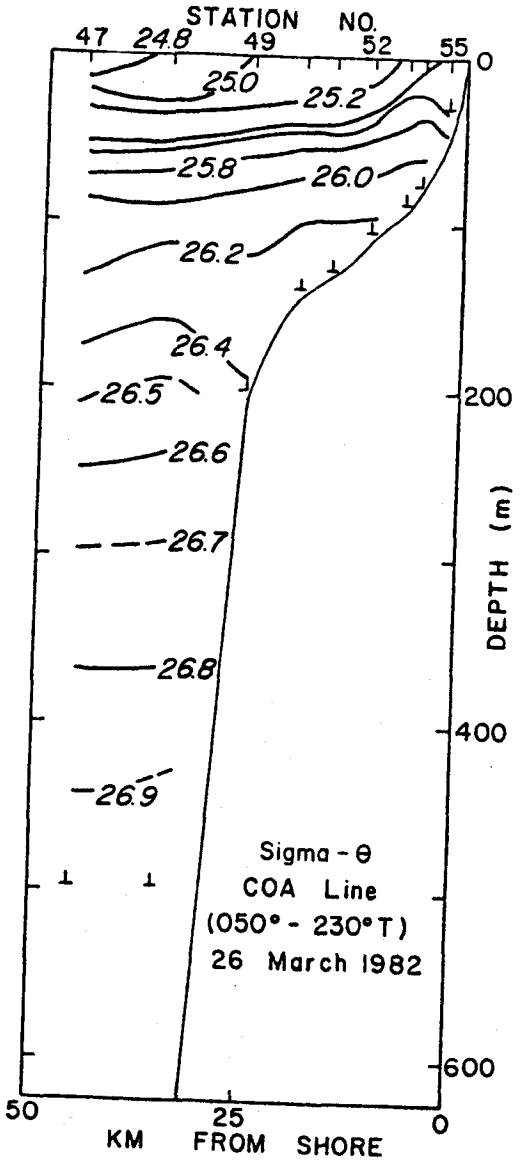

STATION NO.
69
71
74
29.0
0
33.0
32.5
33.2
33.6
33.8
33.9
34.0
200
34.1
400
34.2
Salinity (‰)
COA Line
(050° - 230° T)
1 - 2 April 1982
600
50
25
0
KM FROM SHORE
DEPTH (m)

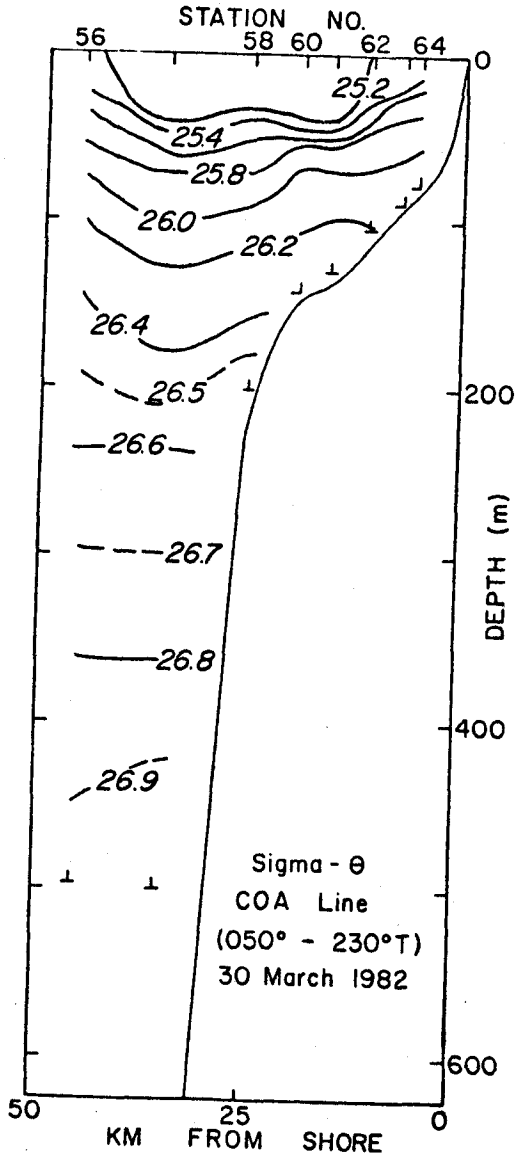

STATION NO.
86
84
31.5
81
30.5
0
33.0
32.5
33.4
33.6
33.8
33.9
34.0
200
34.1
400
34.2
Salinity (‰)
CODE Central
(050°-230°T)
4 April 1982
600
50
25
0
KM FROM SHORE
DEPTH (m)

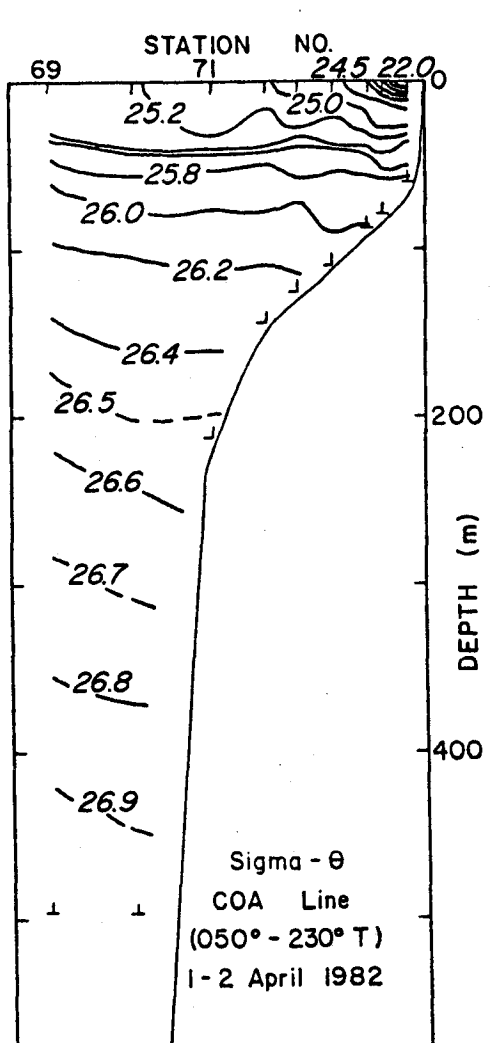

STATION NO.
19 25.0 17 15 14 3 1
0
25.2
25.2
25.2
25.6
25.8
26.0
26.2
26.4
26.5
26.6
26.7
26.8
26.9
200
400
600
DEPTH (m)
Sigma - θ
CODE Central
(050° - 230° T)
17 - 18 March 1982
50 25 0
KM FROM SHORE

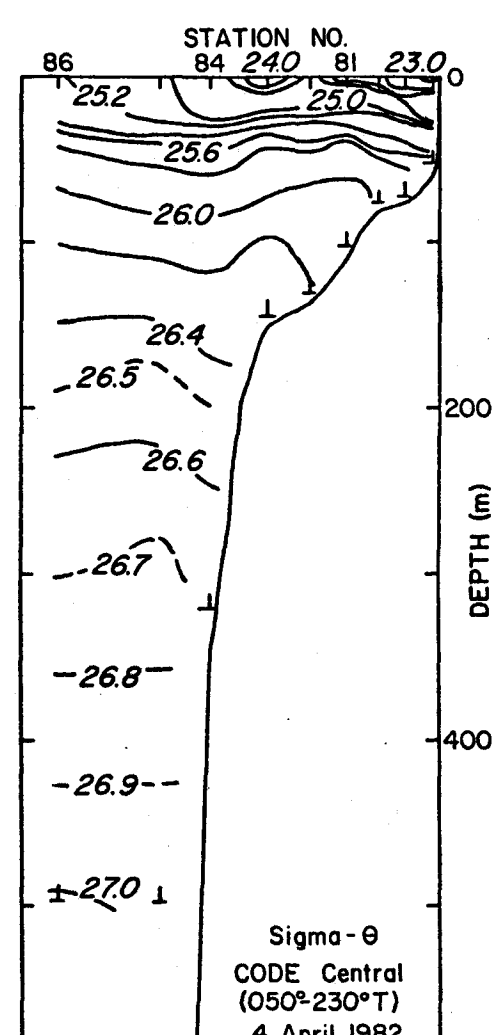

STATION NO.
26 24 22 20
0
25.0
25.4
25.8
26.0
26.4
26.5
26.6
26.7
26.8
26.9
200
400
600
DEPTH (m)
Sigma - θ
Irish Gulch
(Along 39° 3.0' N)
18 March 1982
50 25 0
KM FROM SHORE


STATION NO.
36 34 32 30 27
0
25.2
25.4
25.8
26.0
26.2
26.4
26.6
26.8
26.9
200
400
600
DEPTH (m)
Sigma - θ
CODE Central
(050° - 230° T)
19 March 1982
50 25 0
KM FROM SHORE

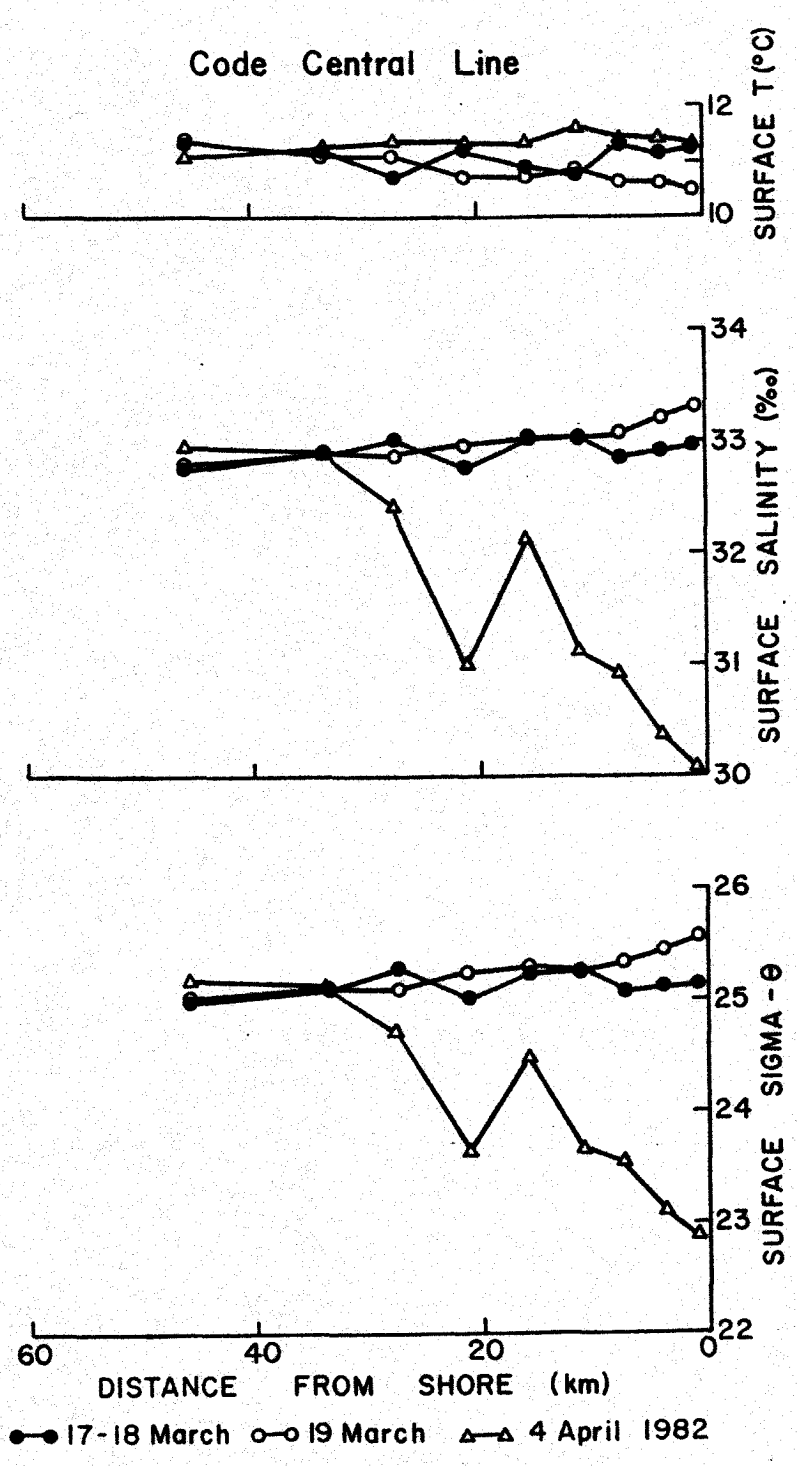

STATION NO.
47 48 49 52 55
0
25.0
25.2
25.8
26.0
26.2
26.4
26.5
26.6
26.7
26.8
26.9
200
400
600
DEPTH (m)
Sigma - θ
COA Line
(050° - 230°T)
26 March 1982
50
25
0
KM FROM SHORE

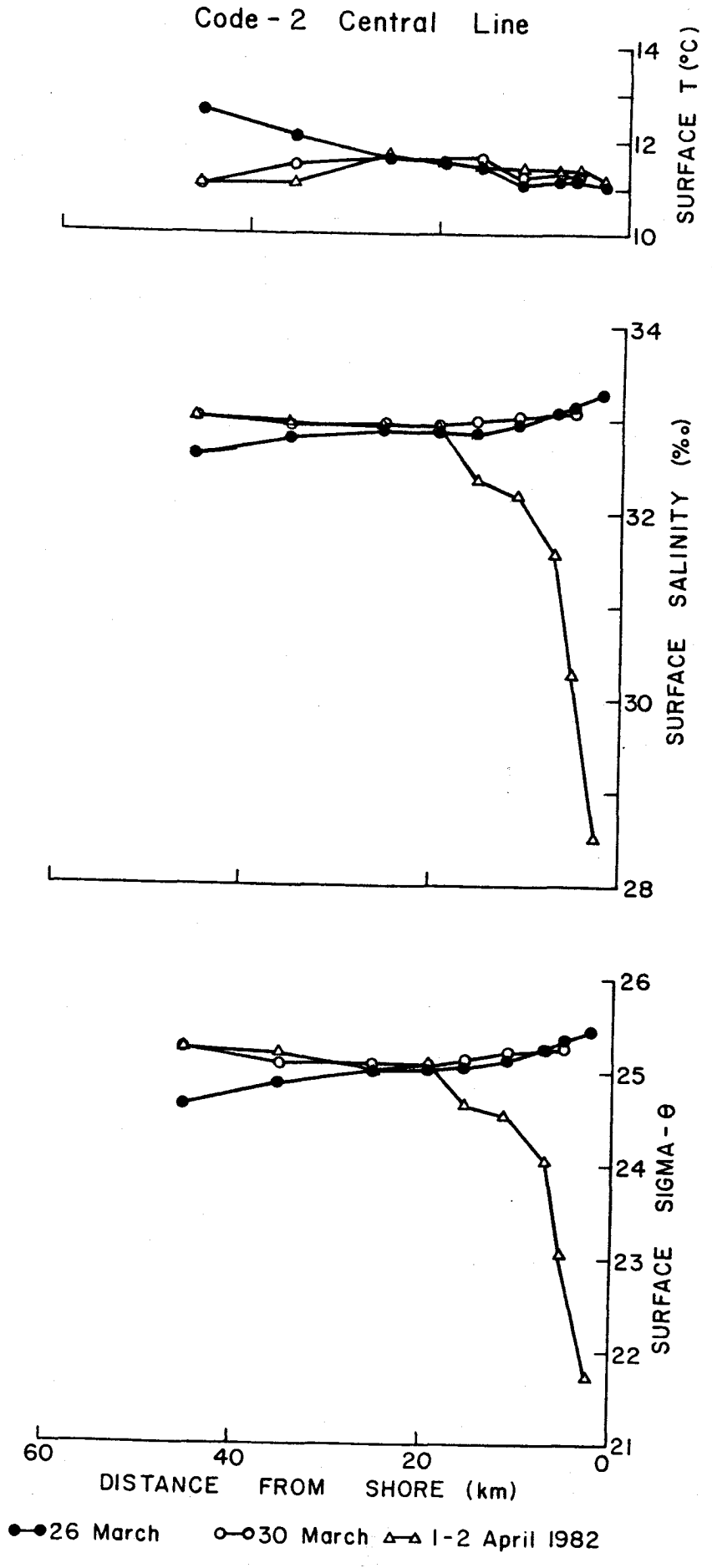

STATION NO.
56 58 60 62 64
0
25.2
25.4
25.8
26.0
26.2
26.4
26.5
26.6
26.7
26.8
26.9
200
400
600
DEPTH (m)
Sigma - θ
COA Line
(050° - 230°T)
30 March 1982
50
25
0
KM FROM SHORE

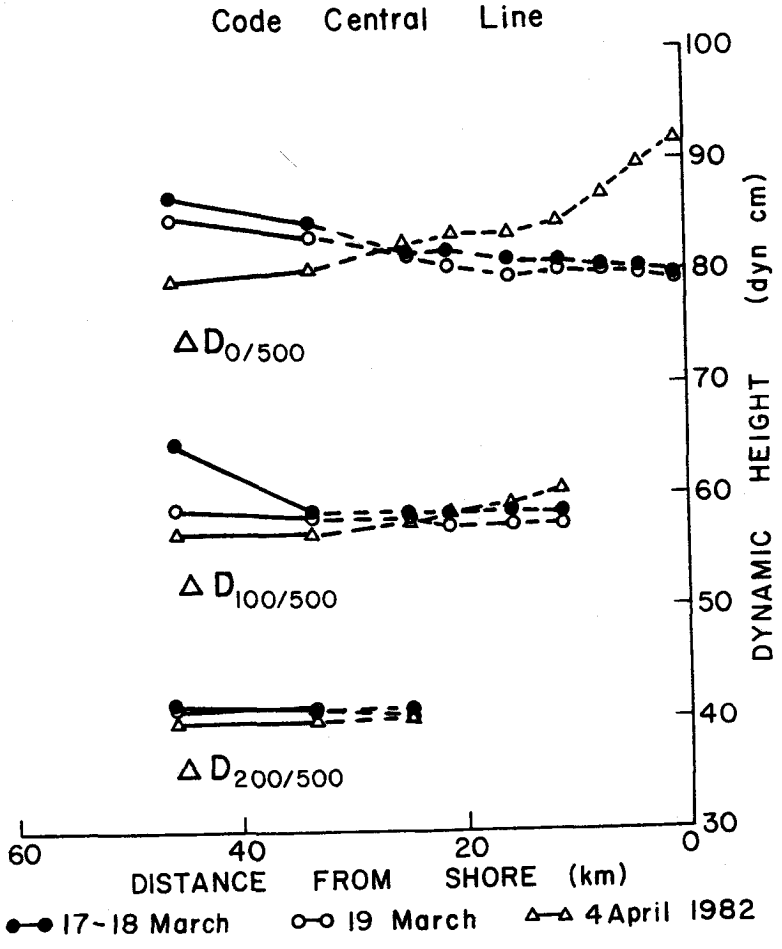

STATION NO.
69
71
24.5
22.0
0
25.2
25.0
25.8
26.0
26.2
26.4
26.5
26.6
26.7
26.8
26.9
200
400
600
DEPTH (m)
Sigma - θ
COA Line
(050° - 230° T)
1 - 2 April 1982
50
25
0
KM FROM SHORE

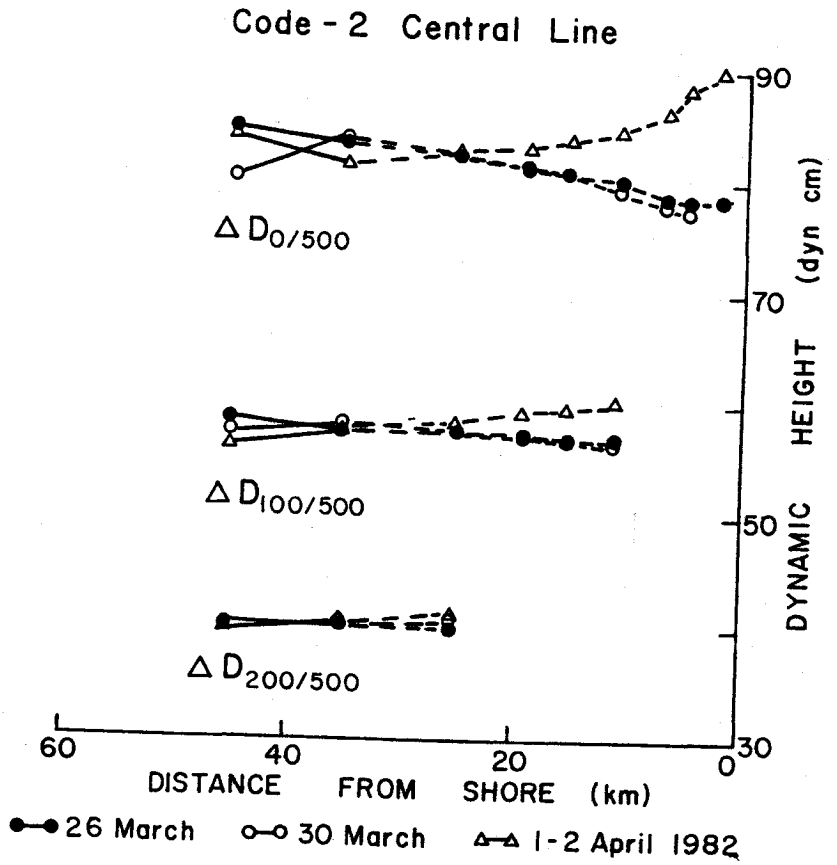

STATION NO.
86
84
24.0
81
23.0
0
25.2
25.0
25.6
26.0
26.4
26.5
26.6
26.7
26.8
26.9
27.0
200
400
600
DEPTH (m)
Sigma - θ
CODE Central
(050°-230°T)
4 April 1982
50
25
0
KM FROM SHORE

OFFSHORE PROFILES

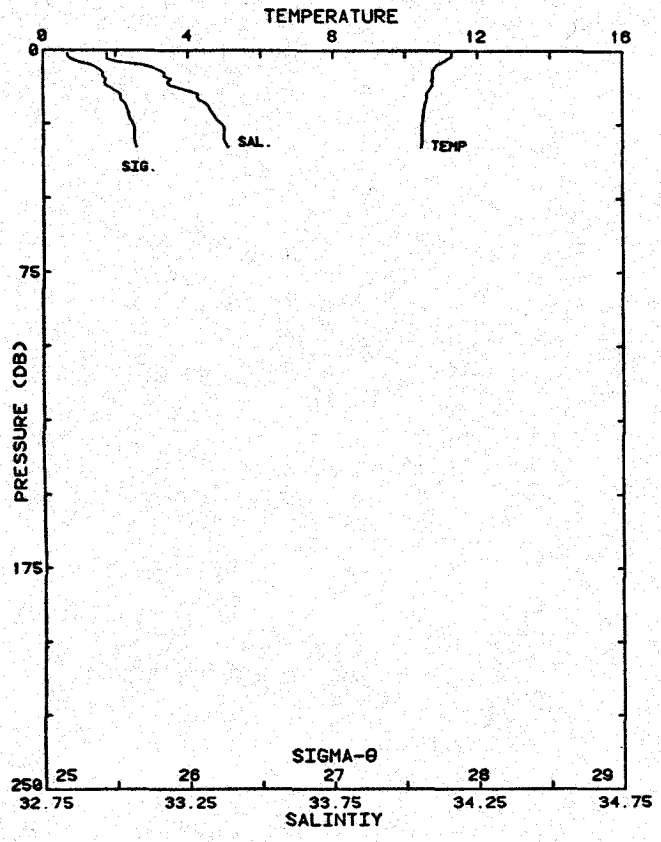

Code Central Line
SURFACE T (°C)
12
10
SURFACE SALINITY (‰)
34
33
32
31
30
SURFACE SIGMA - θ
26
25
24
23
22
60
40
20
0
DISTANCE FROM SHORE (km)
17-18 March
19 March
4 April 1982


Code - 2 Central Line
14
12
10
SURFACE T (°C)
34
32
30
28
SURFACE SALINITY (‰)
26
25
24
23
22
21
SURFACE SIGMA - θ
60
40
20
0
DISTANCE FROM SHORE (km)
26 March
30 March
1-2 April 1982


Code Central Line
100
90
80
70
60
50
40
30
DYNAMIC HEIGHT (dyn cm)
ΔD0/500
ΔD100/500
ΔD200/500
60
40
20
0
DISTANCE FROM SHORE (km)
17-18 March
19 March
4 April 1982


Code - 2 Central Line
90
70
50
30
DYNAMIC HEIGHT (dyn cm)
Δ D0/500
Δ D100/500
Δ D200/500
60
40
20
0
DISTANCE FROM SHORE (km)
26 March
30 March
1-2 April 1982

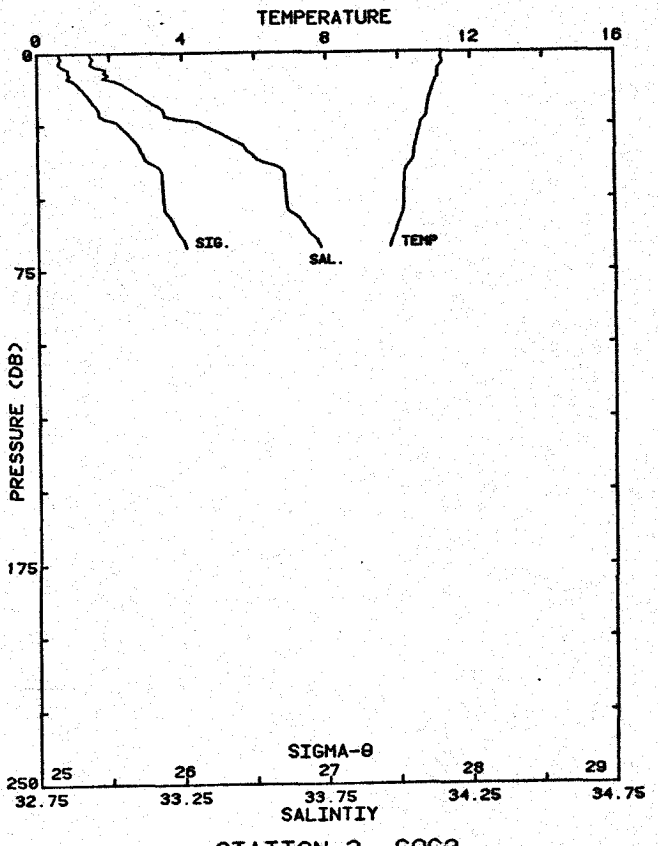
PROFILE PLOTS AND LISTINGS



STATION 1 COC1

STA NO 1 ,COC1 LAT: 38 40.0 N LONG:123 25.5 W
17 MAR 1982 2000 GMT PROBE 2567 DEPTH 42M
0.9 KM FROM SHORE

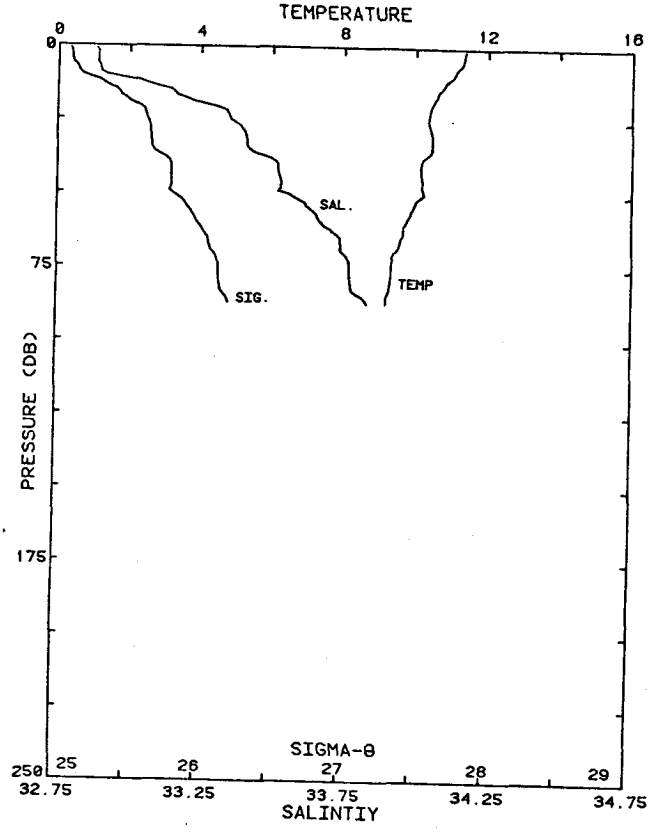
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.295	32.970	11.295	25.164	281.1	0.003
10	10.732	33.193	10.731	25.437	255.3	0.027
20	10.511	33.326	10.509	25.579	242.0	0.052
30	10.447	33.373	10.444	25.627	237.7	0.076
33	10.428	33.389	10.424	25.643	236.2	0.083



STATION 2 COC2

STA NO 2 ,COC2 LAT: 38 38.8 N LONG:123 26.9 W
17 MAR 1982 2100 GMT PROBE 2567 DEPTH 76M
4.1 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
0	11.194	32.933	11.194	25.153	282.1	0.000
10	11.023	33.019	11.022	25.251	273.0	0.028
20	10.778	33.184	10.775	25.422	256.9	0.054
30	10.484	33.418	10.480	25.656	235.0	0.079
40	10.197	33.589	10.192	25.838	217.8	0.102
50	10.126	33.608	10.120	25.865	215.5	0.123
60	9.946	33.673	9.939	25.947	207.9	0.145
67	9.744	33.729	9.736	26.024	200.8	0.159



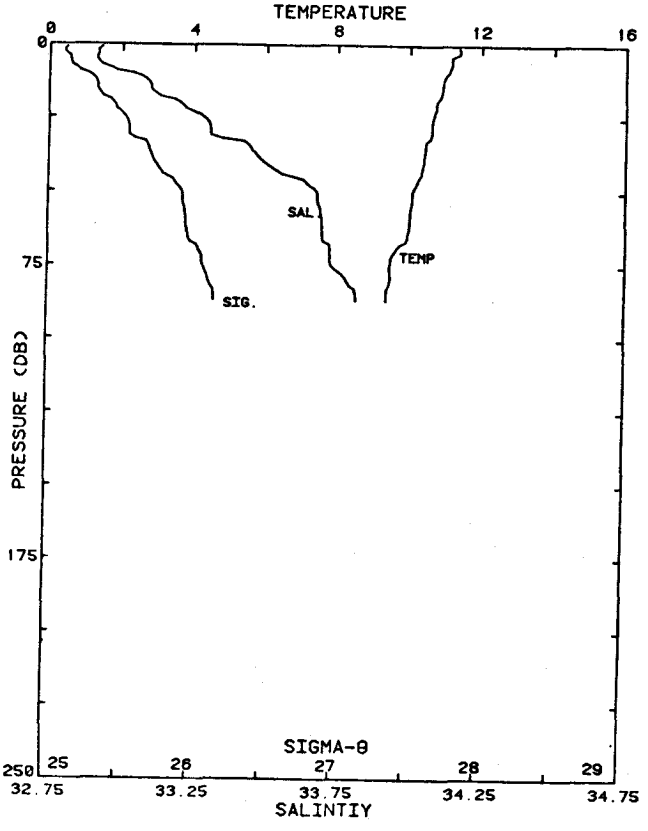
STATION 3 COC3

STA NO 3 ,COC3 LAT: 38 37.5 N LONG:123 28.9 W
17 MAR 1982 2136 GMT PROBE 2567 DEPTH 93M
7.4 KM FROM SHORE

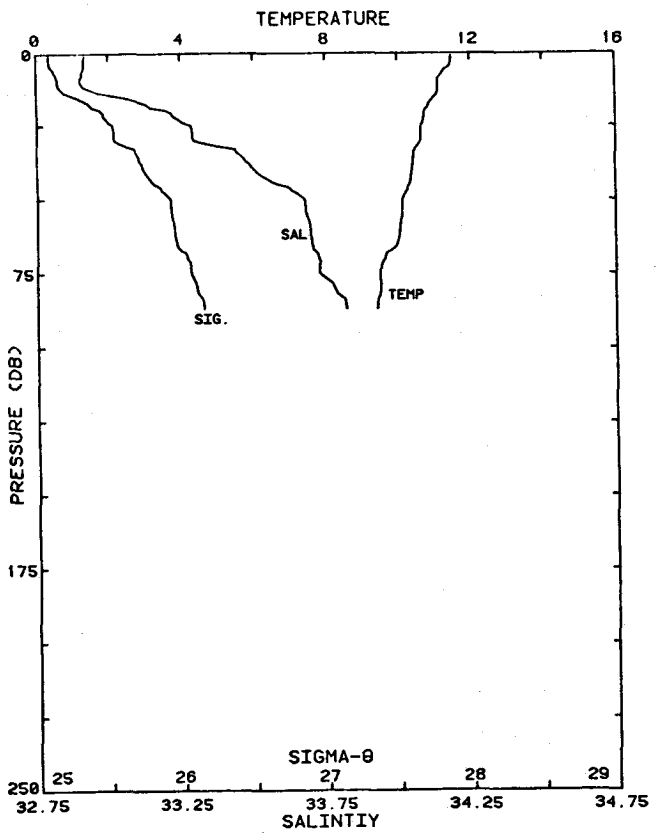
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.364	32.883	11.364	25.084	288.7	0.003
10	11.022	32.919	11.021	25.173	280.4	0.029
20	10.441	33.270	10.439	25.548	245.0	0.055
30	10.444	33.410	10.441	25.657	234.9	0.078
40	10.141	33.521	10.136	25.795	221.9	0.101
50	10.239	33.557	10.233	25.807	221.1	0.124
60	9.734	33.673	9.727	25.982	204.5	0.145
70	9.405	33.747	9.398	26.094	194.1	0.165
80	9.298	33.773	9.290	26.132	190.7	0.184
87	9.180	33.833	9.171	26.198	184.6	0.197

STA NO 4 ,C3 LAT: 38 36.4 N LONG:123 27.0 W
17 MAR 1982 2212 GMT PROBE 2567 DEPTH 89M
7.4 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.367	32.929	11.367	25.119	285.4	0.003
10	11.018	33.041	11.017	25.269	271.3	0.028
20	10.740	33.203	10.737	25.444	254.9	0.055
30	10.597	33.309	10.594	25.552	244.9	0.079
40	10.385	33.495	10.381	25.733	227.9	0.103
50	10.090	33.680	10.084	25.927	209.6	0.125
60	10.019	33.698	10.013	25.954	207.3	0.146
70	9.617	33.725	9.610	26.042	199.1	0.166
80	9.479	33.784	9.470	26.111	192.7	0.186
87	9.384	33.819	9.374	26.154	188.7	0.199



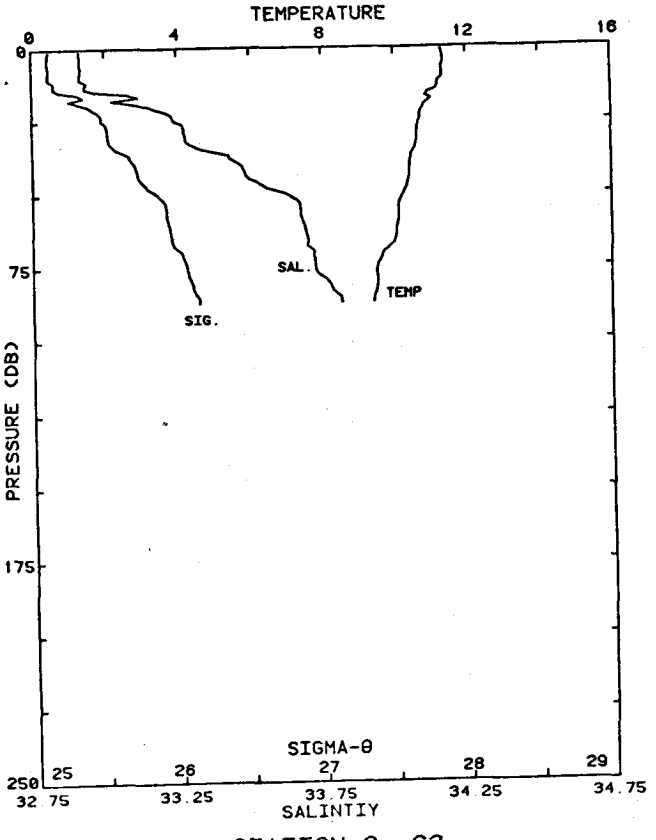
STATION 4 C3



STATION 5 C3

STA NO 5 ,C3 LAT: 38 36.4 N LONG:123 27.0 W
17 MAR 1982 2221 GMT PROBE 2567 DEPTH 89M
7.4 KM FROM SHORE

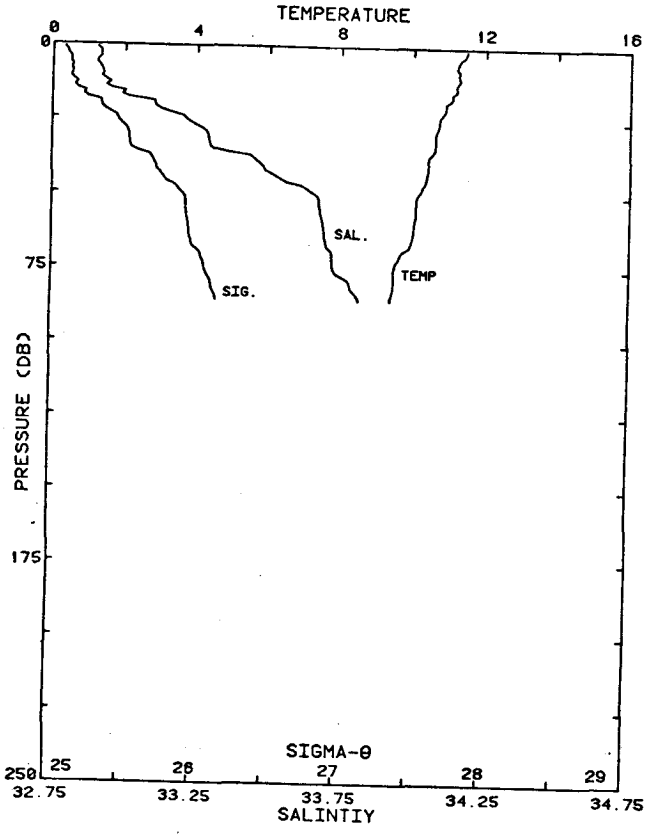
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.489	32.919	11.488	25.089	288.2	0.003
10	11.106	32.901	11.105	25.145	283.1	0.029
20	10.738	33.200	10.736	25.442	255.1	0.056
30	10.612	33.294	10.609	25.537	246.2	0.081
40	10.381	33.502	10.376	25.739	227.3	0.104
50	10.100	33.674	10.095	25.921	210.2	0.126
60	10.024	33.694	10.017	25.950	207.7	0.147
70	9.618	33.722	9.611	26.040	199.3	0.167
80	9.499	33.776	9.491	26.102	193.6	0.187
87	9.393	33.817	9.384	26.150	189.1	0.200



STATION 6 C3

STA NO 6 ,C3 LAT: 38 36.4 N LONG:123 27.0 W
17 MAR 1982 2228 GMT PROBE 2567 DEPTH 89M
7.4 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.310	32.915	11.310	25.118	285.5	0.003
10	11.332	32.914	11.330	25.114	286.1	0.029
20	10.824	33.150	10.821	25.388	260.2	0.056
30	10.631	33.278	10.627	25.521	247.8	0.081
40	10.419	33.464	10.414	25.703	230.7	0.105
50	10.234	33.627	10.228	25.862	215.8	0.128
60	10.070	33.682	10.063	25.933	209.3	0.149
70	9.681	33.720	9.673	26.027	200.5	0.170
80	9.513	33.768	9.505	26.093	194.4	0.189
87	9.402	33.815	9.393	26.148	189.4	0.203



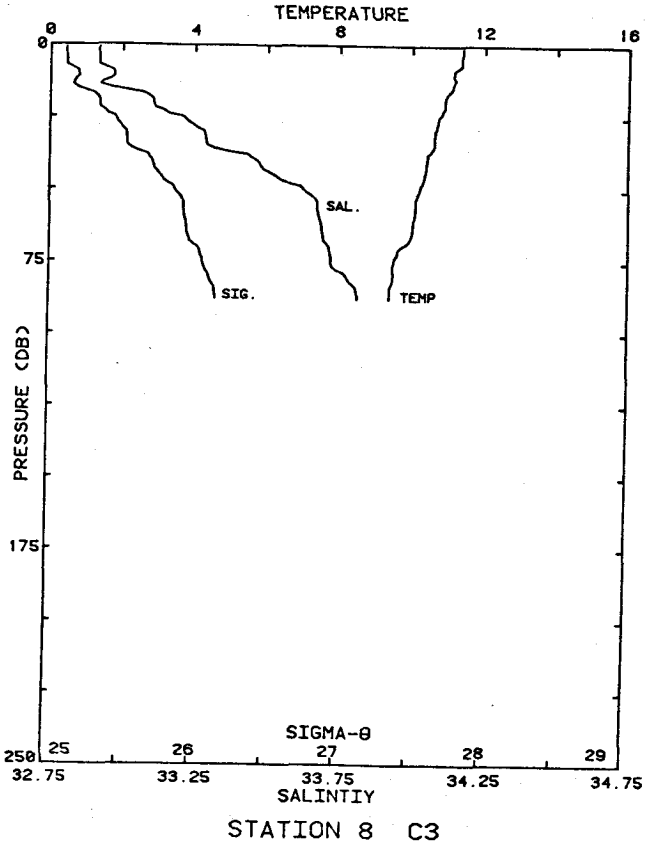
STATION 7 C3

STA NO 7 ,C3 LAT: 38 36.4 N LONG:123 27.0 W
17 MAR 1982 2235 GMT PROBE 2567 DEPTH 89M
7.4 KM FROM SHORE

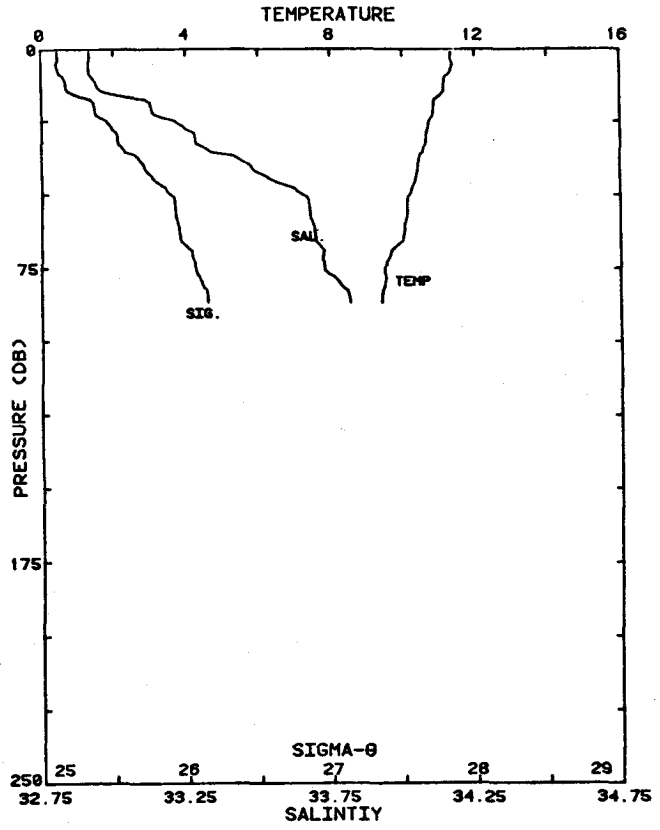
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.465	32.903	11.465	25.081	289.0	0.003
10	11.260	32.928	11.259	25.138	283.8	0.029
20	10.894	33.107	10.892	25.342	264.6	0.056
30	10.620	33.290	10.616	25.532	246.7	0.082
40	10.407	33.475	10.402	25.714	229.7	0.106
50	10.139	33.661	10.133	25.904	211.8	0.128
60	10.042	33.689	10.035	25.943	208.3	0.149
70	9.657	33.720	9.649	26.031	200.1	0.170
80	9.482	33.781	9.474	26.108	193.0	0.189
86	9.399	33.815	9.389	26.148	189.3	0.201

STA NO 8 ,C3 LAT: 38 36.4 N LONG:123 27.0 W
17 MAR 1982 2242 GMT PROBE 2567 DEPTH 89M
7.4 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.381	32.919	11.381	25.108	286.4	0.003
10	11.132	32.970	11.131	25.193	278.5	0.028
20	10.894	33.107	10.891	25.343	264.5	0.056
30	10.634	33.282	10.630	25.521	247.5	0.082
40	10.417	33.465	10.412	25.704	230.6	0.106
50	10.229	33.628	10.223	25.863	215.7	0.128
60	10.073	33.682	10.066	25.932	209.4	0.149
70	9.699	33.716	9.691	26.022	201.0	0.170
80	9.499	33.774	9.490	26.100	193.8	0.190
88	9.397	33.816	9.387	26.150	189.2	0.205



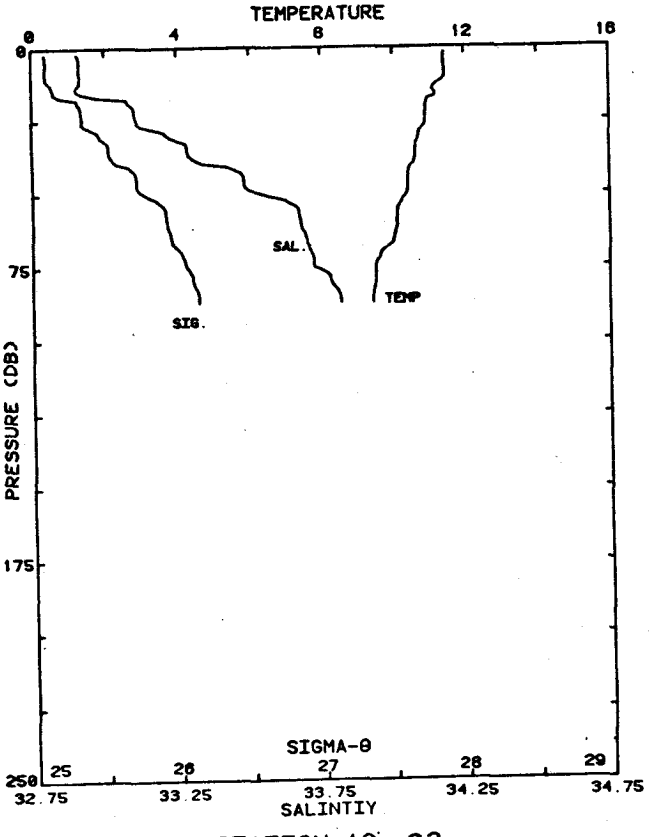
STATION 8 C3



STATION 9 C3

STA NO 9 ,C3 LAT: 38 36.4 N LONG:123 27.0 W
17 MAR 1982 2248 GMT PROBE 2567 DEPTH 89M
7.4 KM FROM SHORE

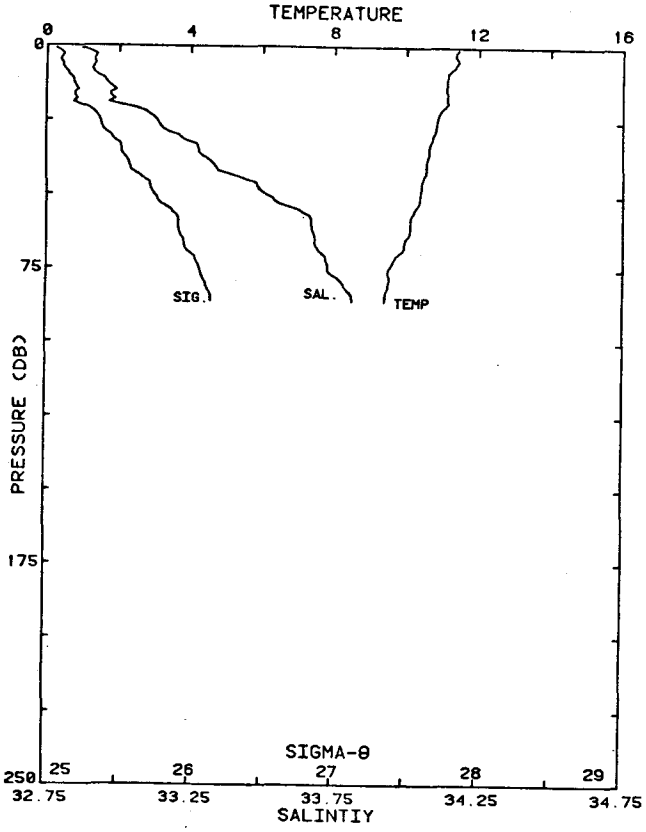
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.345	32.918	11.345	25.115	285.8	0.003
10	11.169	32.925	11.168	25.151	282.5	0.029
20	10.851	33.129	10.848	25.367	262.2	0.056
30	10.631	33.279	10.627	25.522	247.7	0.082
40	10.418	33.468	10.413	25.706	230.4	0.106
50	10.182	33.648	10.177	25.887	213.5	0.128
60	10.036	33.686	10.029	25.942	208.4	0.149
70	9.638	33.720	9.630	26.035	199.8	0.170
80	9.493	33.778	9.484	26.104	193.4	0.189
87	9.402	33.815	9.393	26.147	189.4	0.203



STATION 10 C3

STA NO 10 ,C3 LAT: 38 36.4 N LONG:123 27.0 W
17 MAR 1982 2254 GMT PROBE 2567 DEPTH 89M
7.4 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	11.440	32.906	11.440	25.088	288.4	0.006
10	11.436	32.916	11.435	25.097	287.7	0.029
20	10.913	33.094	10.911	25.329	265.9	0.057
30	10.720	33.216	10.717	25.458	253.8	0.083
40	10.558	33.340	10.554	25.582	242.2	0.108
50	10.357	33.538	10.352	25.771	224.5	0.131
60	10.085	33.677	10.078	25.927	209.9	0.152
70	9.653	33.713	9.645	26.027	200.5	0.173
80	9.478	33.783	9.470	26.110	192.8	0.192
87	9.398	33.815	9.388	26.148	189.3	0.206



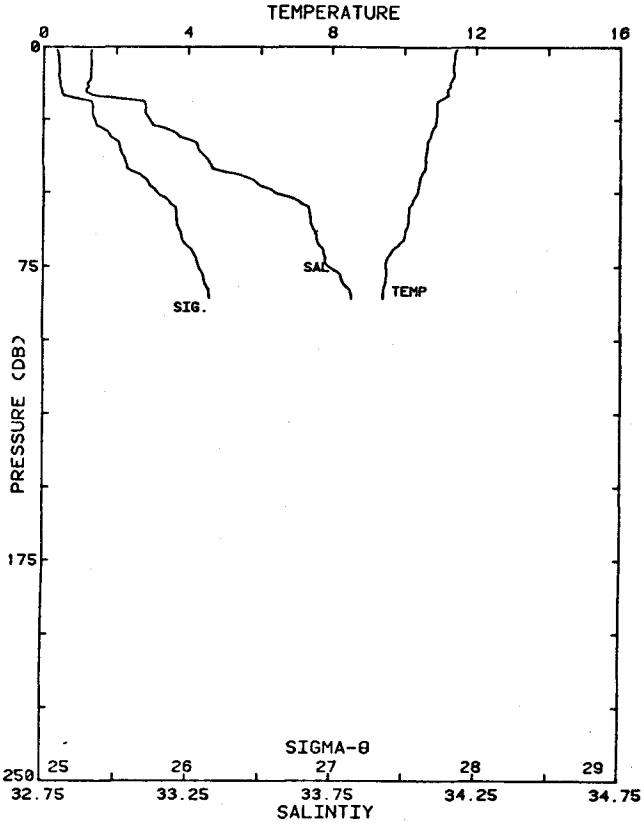
STATION 11 C3

STA NO 11 ,C3 LAT: 38 36.4 N LONG:123 27.0 W
17 MAR 1982 2301 GMT PROBE 2567 DEPTH 89M
7.4 KM FROM SHORE

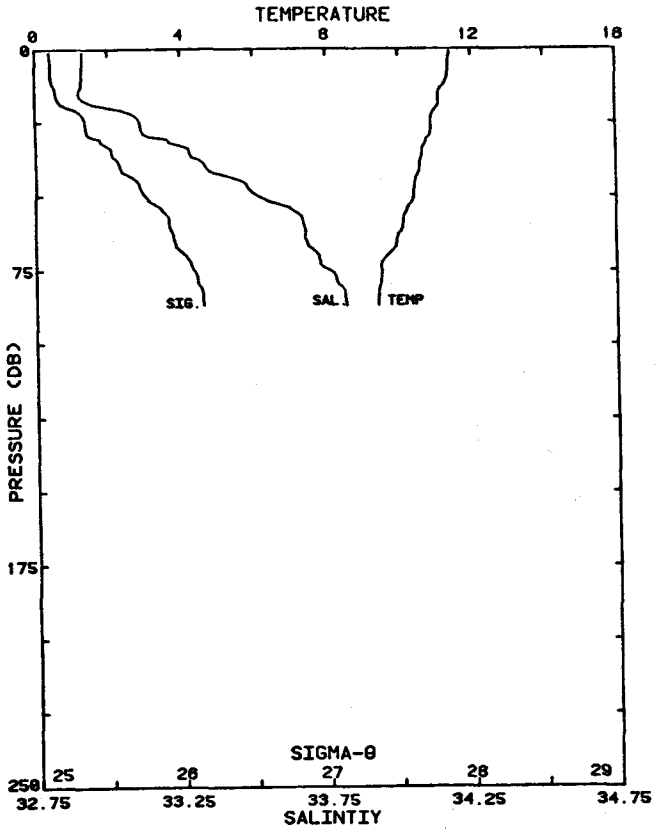
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.422	32.870	11.422	25.063	290.7	0.003
10	11.152	32.927	11.151	25.156	282.0	0.029
20	11.074	33.007	11.072	25.232	275.0	0.056
30	10.732	33.211	10.729	25.451	254.4	0.083
40	10.555	33.334	10.551	25.578	242.6	0.108
50	10.379	33.514	10.373	25.749	226.6	0.131
60	10.108	33.669	10.101	25.916	210.9	0.153
70	9.786	33.707	9.778	26.000	203.1	0.173
80	9.494	33.779	9.485	26.105	193.3	0.193
86	9.403	33.814	9.393	26.147	189.4	0.205

STA NO 12 ,C3 LAT: 38 36.4 N LONG:123 27.0 W
17 MAR 1982 2307 GMT PROBE 2567 DEPTH 89M
7.4 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.448	32.914	11.448	25.092	287.9	0.003
10	11.371	32.912	11.369	25.105	286.9	0.029
20	10.900	33.102	10.898	25.337	265.0	0.057
30	10.729	33.214	10.725	25.454	254.1	0.083
40	10.572	33.326	10.567	25.569	243.4	0.108
50	10.351	33.546	10.345	25.778	223.8	0.131
60	10.097	33.674	10.090	25.922	210.4	0.153
70	9.635	33.719	9.627	26.035	199.8	0.173
80	9.467	33.783	9.458	26.112	192.6	0.193
86	9.399	33.816	9.390	26.149	189.3	0.204



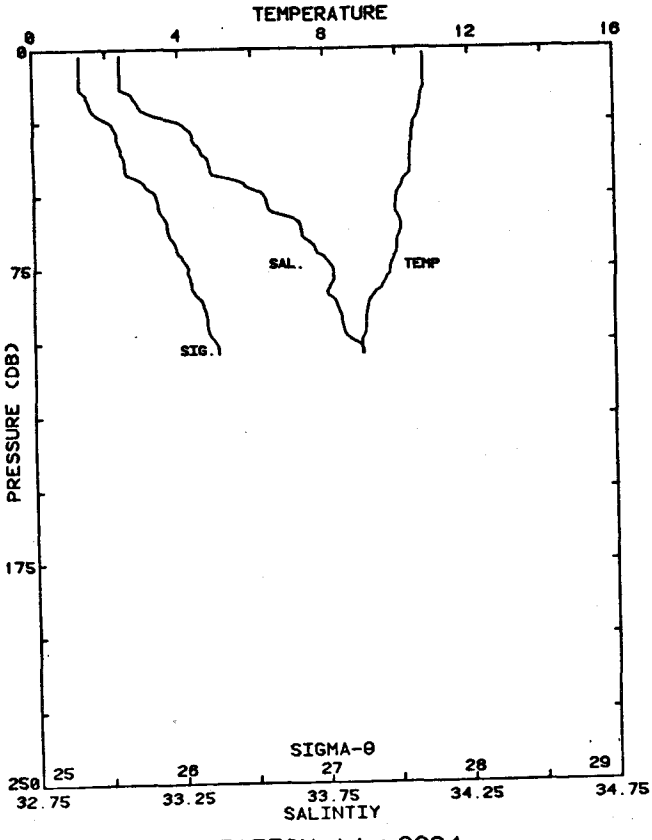
STATION 12 C3



STATION 13 C3

STA NO 13 ,C8 LAT: 38 36.4 N LONG:123 27.0 W
17 MAR 1982 2312 GMT PROBE 2567 DEPTH 89M
7.4 KM FROM SHORE

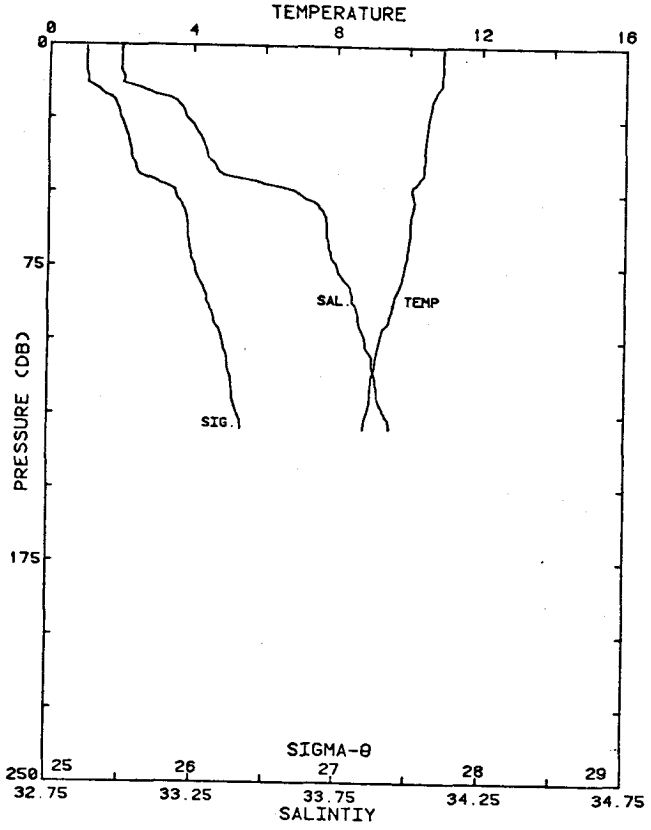
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.415	32.915	11.415	25.099	287.3	0.003
10	11.354	32.912	11.352	25.108	286.6	0.029
20	11.077	32.995	11.075	25.223	275.9	0.057
30	10.843	33.137	10.839	25.375	261.7	0.084
40	10.565	33.333	10.561	25.576	242.8	0.109
50	10.383	33.510	10.377	25.745	226.9	0.132
60	10.101	33.671	10.094	25.919	210.6	0.154
70	9.665	33.723	9.658	26.032	200.0	0.174
80	9.466	33.788	9.457	26.116	192.2	0.194
87	9.395	33.816	9.386	26.150	189.2	0.207



STATION 14 · COC4

STA NO 14 ,COC4 LAT: 38 36.2 N LONG:123 30.9 W
17 MAR 1982 2353 GMT PROBE 2567 DEPTH 107M
11.1 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	10.760	33.051	10.760	25.322	266.1	0.005
10	10.758	33.051	10.757	25.323	266.2	0.027
20	10.643	33.114	10.641	25.392	259.8	0.053
30	10.411	33.297	10.408	25.574	242.7	0.078
40	10.360	33.355	10.355	25.628	237.8	0.102
50	9.983	33.538	9.978	25.835	218.3	0.125
60	10.097	33.665	10.090	25.915	211.0	0.146
70	9.941	33.723	9.933	25.987	204.4	0.167
80	9.630	33.775	9.621	26.079	195.8	0.187
90	9.141	33.802	9.132	26.180	186.4	0.206
100	9.000	33.852	8.990	26.241	180.7	0.225
104	9.013	33.881	9.001	26.263	178.7	0.232



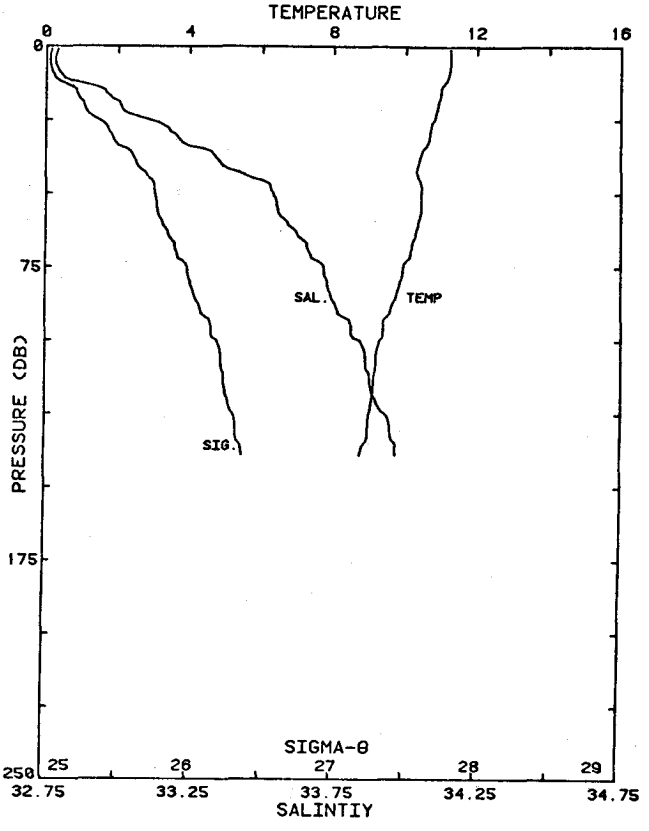
STATION 15 COC5

STA NO 15 ,COC5 LAT: 38 34.5 N LONG:123 33.2 W
18 MAR 1982 0028 GMT PROBE 2567 DEPTH 133M
15.7 KM FROM SHORE

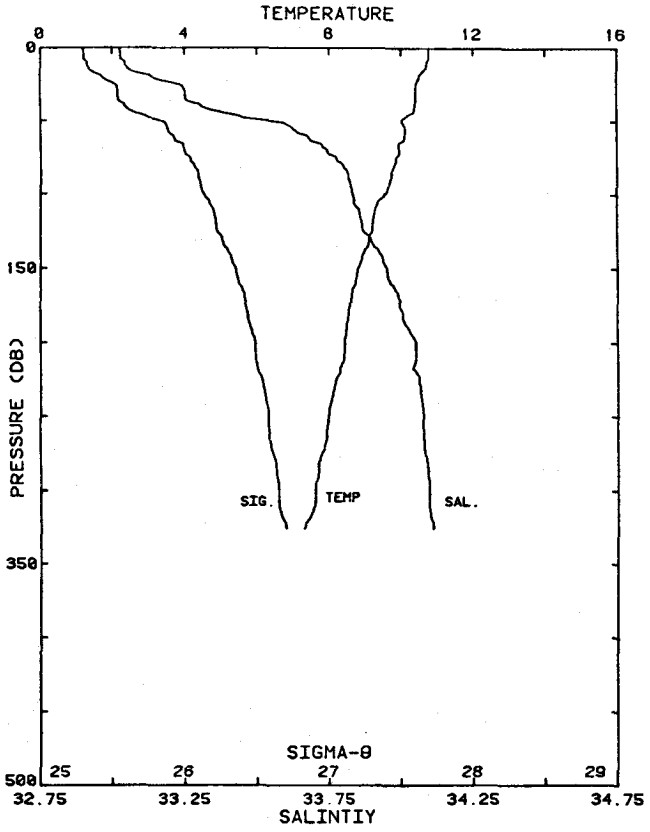
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.917	32.999	10.917	25.253	272.6	0.003
10	10.890	33.006	10.889	25.264	271.7	0.027
20	10.610	33.202	10.608	25.466	252.8	0.054
30	10.479	33.271	10.476	25.542	245.8	0.079
40	10.399	33.324	10.394	25.597	240.7	0.103
50	10.084	33.615	10.079	25.878	214.3	0.126
60	10.036	33.714	10.029	25.963	206.4	0.147
70	9.956	33.728	9.948	25.988	204.3	0.168
80	9.803	33.780	9.794	26.054	198.2	0.188
90	9.522	33.821	9.512	26.133	190.9	0.207
100	9.198	33.849	9.187	26.208	183.9	0.226
110	9.048	33.877	9.036	26.253	179.7	0.244
120	8.937	33.895	8.925	26.285	176.9	0.262
130	8.781	33.937	8.767	26.343	171.6	0.279

STA NO 16 ,COC6 LAT: 38 32.7 N LONG:123 36.2 W
18 MAR 1982 0107 GMT PROBE 2567 DEPTH 143M
21.3 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.237	32.789	11.237	25.034	293.5	0.003
10	11.192	32.807	11.191	25.056	291.5	0.029
20	10.896	33.009	10.893	25.265	271.9	0.057
30	10.661	33.201	10.658	25.456	253.9	0.084
40	10.361	33.359	10.357	25.631	237.5	0.108
50	10.430	33.537	10.424	25.758	225.7	0.131
60	10.343	33.587	10.336	25.812	220.7	0.154
70	10.139	33.665	10.131	25.908	211.9	0.175
80	9.844	33.728	9.835	26.007	202.7	0.196
90	9.577	33.765	9.567	26.080	195.9	0.216
100	9.275	33.845	9.265	26.192	185.4	0.235
110	9.170	33.866	9.158	26.225	182.4	0.253
120	9.066	33.896	9.053	26.266	178.8	0.271
130	8.962	33.947	8.949	26.323	173.6	0.289
139	8.759	33.969	8.745	26.371	169.1	0.304



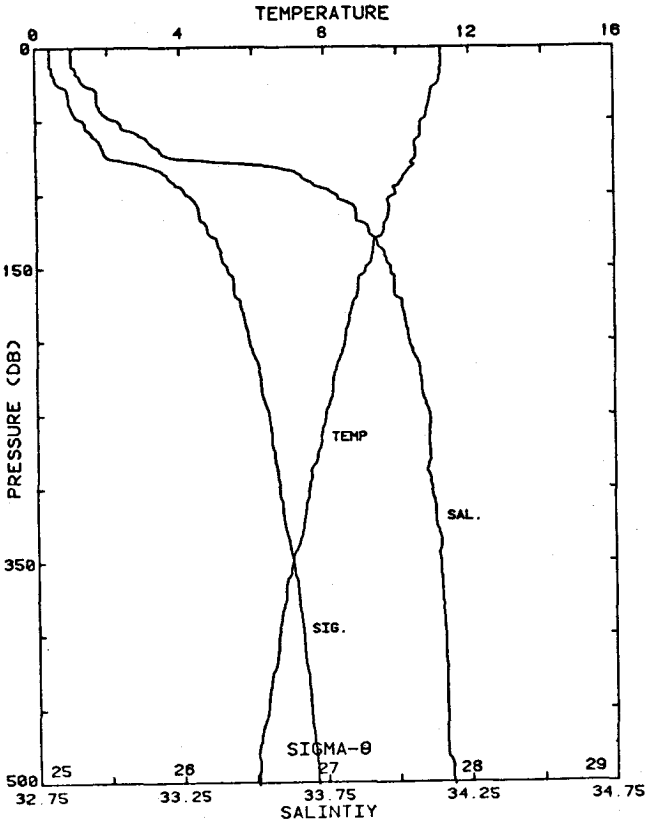
STATION 16 COC6



STATION 17 COC7

STA NO 17 ,COC7 LAT: 38 30.5 N LONG:123 39.6 W
18 MAR 1982 0156 GMT PROBE 2567 DEPTH 330M
27.3 KM FROM SHORE LIN INT SAL 247-255DB

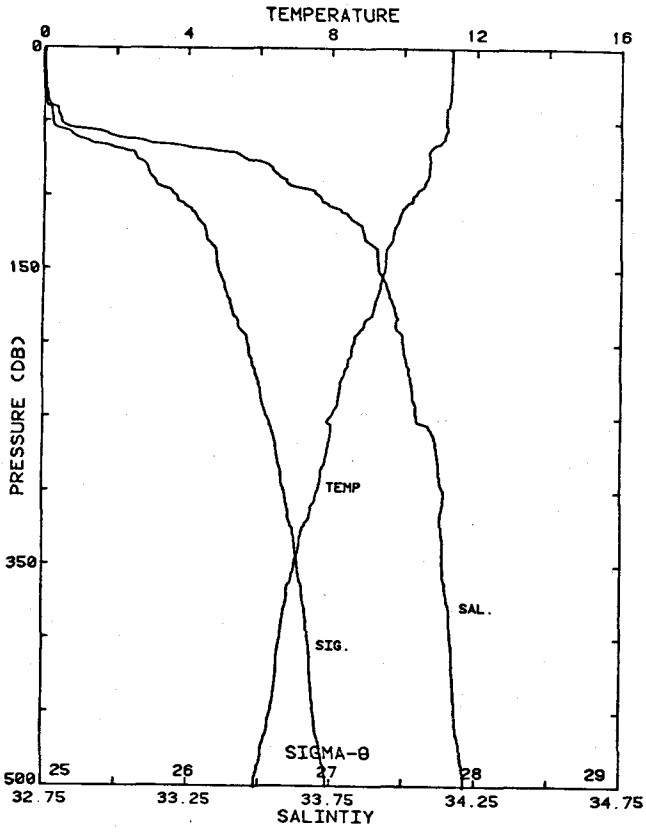
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.774	33.028	10.774	25.301	268.0	0.003
10	10.702	33.044	10.701	25.326	265.8	0.027
20	10.502	33.133	10.500	25.431	256.1	0.053
30	10.401	33.252	10.397	25.541	245.9	0.078
40	10.371	33.307	10.366	25.589	241.5	0.103
50	10.000	33.529	9.994	25.825	219.3	0.126
60	10.094	33.670	10.087	25.919	210.6	0.147
70	9.941	33.743	9.933	26.002	202.9	0.168
80	9.814	33.796	9.805	26.065	197.2	0.188
90	9.717	33.816	9.707	26.097	194.3	0.208
100	9.567	33.833	9.556	26.135	190.9	0.227
110	9.281	33.854	9.269	26.198	185.1	0.246
120	9.213	33.865	9.200	26.218	183.3	0.264
130	9.106	33.895	9.092	26.259	179.7	0.282
140	8.949	33.927	8.935	26.309	175.1	0.300
150	8.790	33.951	8.774	26.353	171.1	0.317
175	8.572	33.994	8.554	26.421	165.0	0.359
200	8.422	34.050	8.401	26.488	159.1	0.400
225	8.171	34.059	8.149	26.533	155.2	0.439
250	7.962	34.075	7.937	26.577	151.4	0.478
300	7.592	34.096	7.562	26.649	145.2	0.552
326	7.290	34.109	7.259	26.702	140.4	0.589



STATION 18 COC8

STA NO 18 ,COC8 LAT: 38 27.2 N LONG:123 44.5 W
18 MAR 1982 02 PROBE 2567 DEPTH M
33.5 KM FROM SHORE

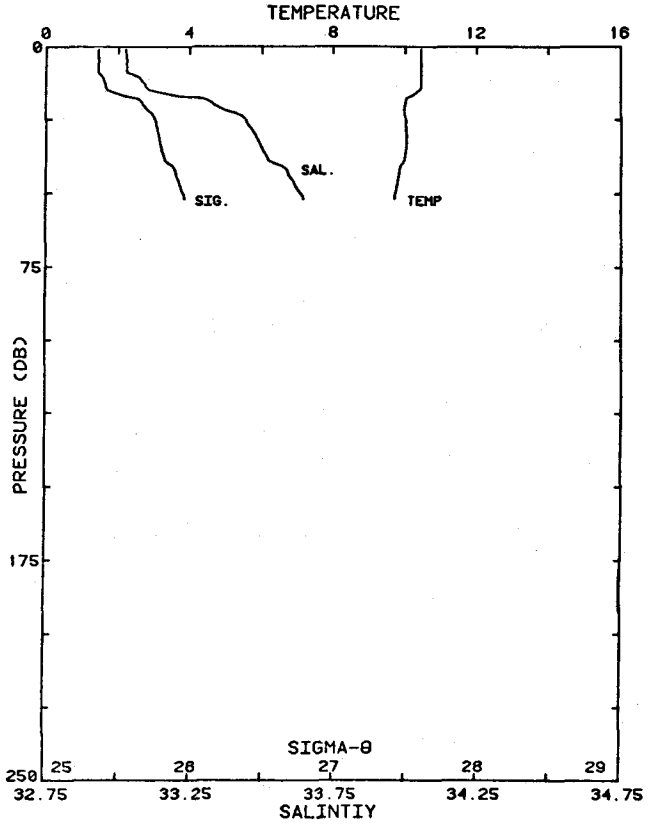
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.226	32.878	11.226	25.105	286.7	0.003
10	11.236	32.875	11.235	25.101	287.3	0.029
20	11.176	32.904	11.174	25.134	284.4	0.057
30	10.943	32.962	10.939	25.221	276.3	0.085
40	10.862	32.966	10.857	25.238	274.9	0.113
50	10.651	33.033	10.645	25.328	266.6	0.140
60	10.619	33.107	10.612	25.391	260.8	0.167
70	10.511	33.179	10.503	25.466	253.9	0.192
80	10.458	33.501	10.448	25.726	229.4	0.217
90	10.120	33.679	10.109	25.923	210.9	0.239
100	9.927	33.786	9.915	26.039	200.1	0.259
110	9.755	33.855	9.743	26.122	192.4	0.279
120	9.613	33.887	9.599	26.170	188.0	0.298
130	9.346	33.924	9.332	26.243	181.3	0.316
140	9.282	33.953	9.267	26.276	178.3	0.334
150	9.107	33.974	9.091	26.321	174.2	0.352
175	8.738	34.013	8.720	26.410	166.2	0.395
200	8.510	34.038	8.489	26.465	161.3	0.436
225	8.197	34.079	8.174	26.545	154.1	0.475
250	7.974	34.107	7.949	26.601	149.1	0.513
300	7.515	34.114	7.486	26.674	142.9	0.586
400	6.638	34.159	6.602	26.832	128.9	0.722
500	6.060	34.188	6.016	26.931	120.4	0.846
502	6.060	34.190	6.016	26.932	120.2	0.849



STATION 19 COC9

STA NO 19 ,COC9 LAT: 38 24.0 N LONG:123 49.2 W
18 MAR 1982 03 PROBE 2567 DEPTH M
45.7 KM FROM SHORE

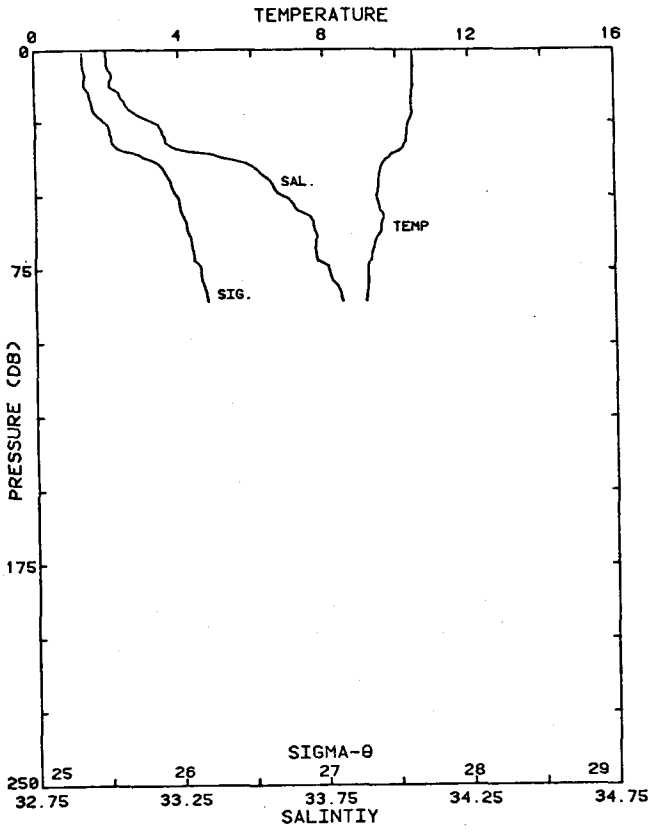
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.305	32.751	11.305	24.992	297.4	0.003
10	11.314	32.750	11.312	24.990	297.8	0.030
20	11.301	32.755	11.298	24.997	297.4	0.060
30	11.275	32.762	11.272	25.007	296.7	0.089
40	11.234	32.778	11.230	25.026	295.1	0.119
50	11.176	32.810	11.170	25.062	291.9	0.148
60	11.128	32.993	11.120	25.213	277.8	0.177
70	10.693	33.356	10.685	25.572	243.9	0.203
80	10.686	33.536	10.677	25.713	230.7	0.227
90	10.586	33.591	10.576	25.774	225.1	0.250
100	10.252	33.707	10.240	25.922	211.2	0.271
110	9.944	33.782	9.931	26.033	200.9	0.292
120	9.795	33.852	9.782	26.112	193.5	0.312
130	9.692	33.867	9.677	26.141	191.0	0.331
140	9.506	33.909	9.490	26.205	185.1	0.350
150	9.466	33.911	9.449	26.214	184.5	0.368
175	9.175	33.966	9.156	26.304	176.4	0.413
200	8.600	33.998	8.579	26.420	165.6	0.456
225	8.261	34.025	8.238	26.493	159.0	0.497
250	7.928	34.043	7.903	26.558	153.2	0.536
300	7.619	34.140	7.589	26.679	142.4	0.610
400	6.593	34.163	6.557	26.841	127.9	0.744
500	5.890	34.213	5.847	26.971	116.4	0.867
501	5.890	34.213	5.846	26.972	116.3	0.868



STATION 20 I1

STA NO 20 ,I1 LAT: 39 3.0 N LONG:123 44.5 W
18 MAR 1982 1704 GMT PROBE 2567 DEPTH 61M
3.7 KM FROM SHORE

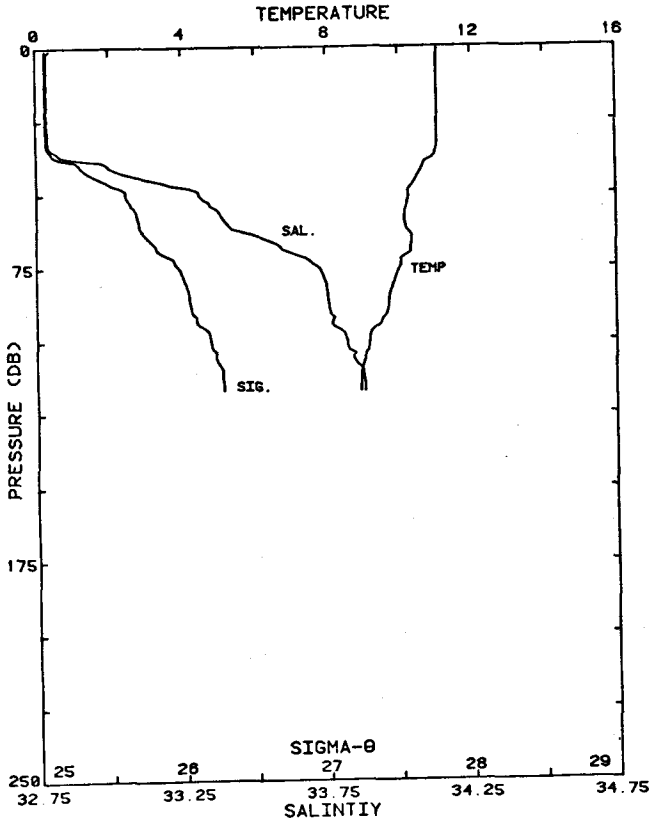
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.427	33.025	10.427	25.360	262.5	0.003
10	10.436	33.057	10.435	25.383	260.4	0.026
20	9.999	33.336	9.997	25.674	233.0	0.051
30	10.015	33.473	10.011	25.779	223.3	0.074
40	9.913	33.542	9.908	25.850	216.7	0.096
50	9.718	33.634	9.712	25.954	207.1	0.117
52	9.695	33.644	9.689	25.966	205.9	0.121



STATION 21 I2

STA NO 21 ,I2 LAT: 39 3.0 N LONG:123 48.5 W
18 MAR 1982 1740 GMT PROBE 2567 DEPTH 90M
9.4 KM FROM SHORE

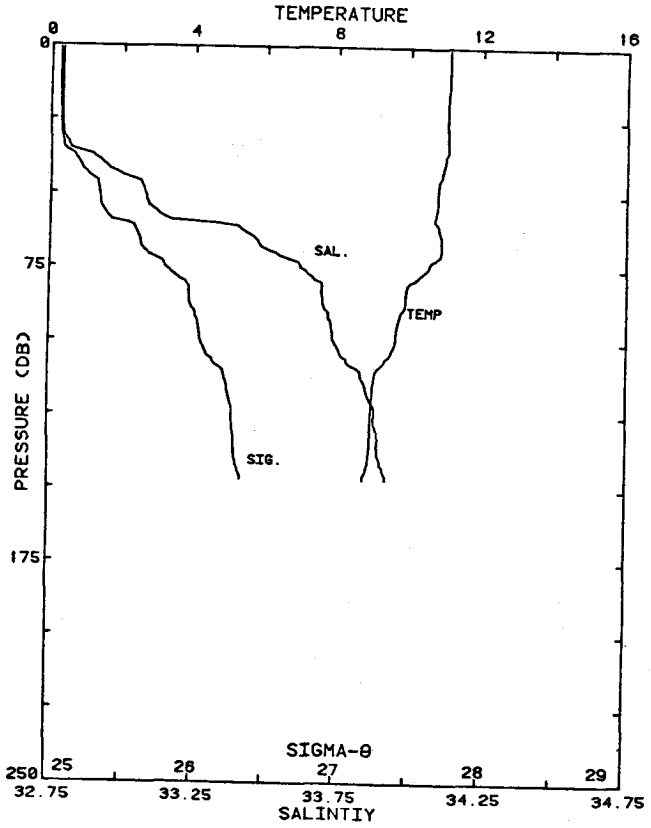
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.458	33.001	10.458	25.335	264.8	0.003
10	10.438	33.020	10.437	25.353	263.3	0.026
20	10.402	33.070	10.400	25.399	259.2	0.053
30	10.247	33.198	10.243	25.526	247.3	0.078
40	9.578	33.497	9.574	25.870	214.8	0.101
50	9.426	33.603	9.421	25.978	204.7	0.122
60	9.545	33.710	9.538	26.042	198.8	0.142
70	9.278	33.718	9.270	26.092	194.3	0.162
80	9.188	33.786	9.180	26.159	188.1	0.181
86	9.122	33.809	9.113	26.189	185.4	0.192



STATION 22 I3

STA NO 22 ,I3 LAT: 39 3.0 N LONG:123 53.0 W
18 MAR 1982 1814 GMT PROBE 2567 DEPTH 118M
16.5 KM FROM SHORE

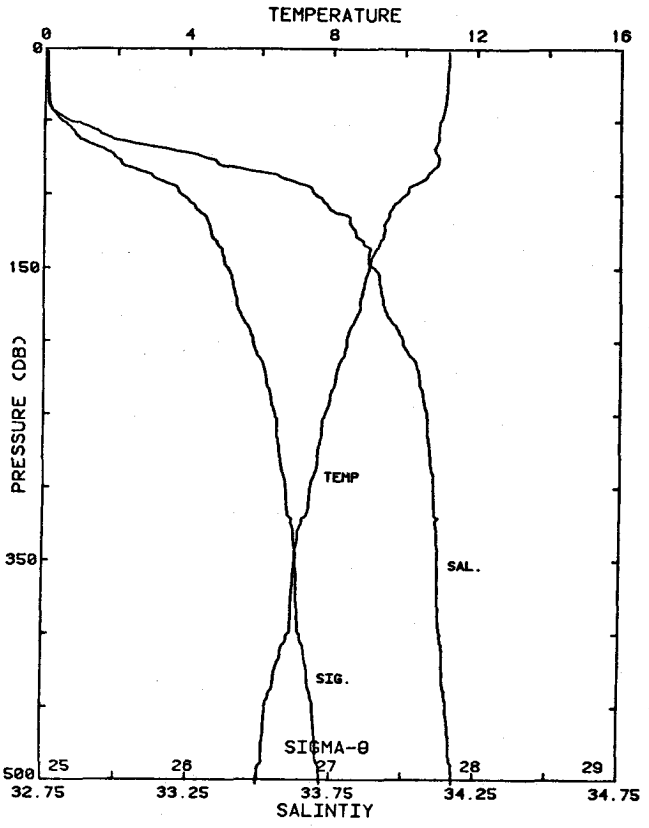
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.083	32.798	11.083	25.068	290.2	0.003
10	11.064	32.787	11.063	25.064	290.8	0.029
20	11.062	32.788	11.060	25.065	291.0	0.058
30	11.054	32.791	11.050	25.069	290.8	0.087
40	10.664	32.992	10.659	25.293	269.6	0.116
50	10.248	33.308	10.242	25.611	239.6	0.141
60	10.146	33.403	10.140	25.702	231.2	0.165
70	10.298	33.622	10.290	25.848	217.6	0.187
80	9.848	33.743	9.839	26.018	201.6	0.208
90	9.643	33.758	9.633	26.064	197.4	0.228
100	9.130	33.815	9.119	26.192	185.4	0.247
110	8.914	33.873	8.903	26.272	178.0	0.265
117	8.896	33.878	8.884	26.279	177.5	0.278



STATION 23 I4

STA NO 23 ,I4 LAT: 39 3.0 N LONG:123 56.2 W
18 MAR 1982 1857 GMT PROBE 2567 DEPTH 150M
20.2 KM FROM SHORE

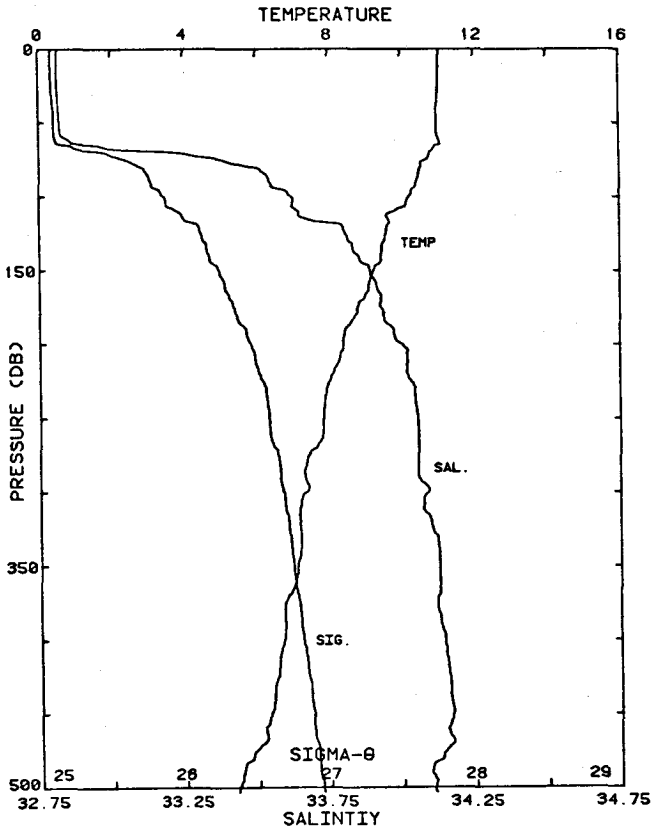
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.079	32.789	11.079	25.062	290.8	0.003
10	11.083	32.788	11.082	25.061	291.1	0.029
20	11.048	32.789	11.046	25.068	290.6	0.058
30	11.036	32.795	11.033	25.075	290.2	0.087
40	10.940	32.934	10.935	25.200	278.5	0.116
50	10.774	33.081	10.768	25.343	265.1	0.143
60	10.775	33.327	10.768	25.535	247.2	0.169
70	10.868	33.537	10.859	25.682	233.4	0.193
80	10.013	33.696	10.004	25.954	207.7	0.215
90	9.783	33.717	9.773	26.009	202.7	0.236
100	9.615	33.740	9.604	26.055	198.5	0.256
110	9.082	33.832	9.070	26.213	183.6	0.275
120	8.974	33.867	8.961	26.258	179.5	0.293
130	8.945	33.888	8.931	26.279	177.7	0.311
140	8.889	33.899	8.874	26.296	176.3	0.329
147	8.753	33.924	8.738	26.338	172.4	0.341



STATION 24 I5

STA NO 24 ,I5 LAT: 39 3.0 N LONG:124 0.0 W
18 MAR 1982 2193 GMT PROBE 2567 DEPTH 525M
26.8 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	11.196	32.757	11.196	25.016	295.2	0.006
10	11.194	32.757	11.193	25.017	295.3	0.030
20	11.165	32.757	11.162	25.022	295.0	0.059
30	11.145	32.759	11.141	25.028	294.7	0.089
40	11.098	32.766	11.094	25.041	293.7	0.118
50	10.987	32.834	10.981	25.115	286.9	0.147
60	10.926	32.955	10.919	25.219	277.2	0.175
70	10.821	33.188	10.813	25.419	258.4	0.202
80	10.894	33.354	10.884	25.535	247.6	0.227
90	10.521	33.585	10.510	25.780	224.5	0.251
100	10.034	33.684	10.023	25.941	209.4	0.272
110	9.628	33.736	9.616	26.050	199.2	0.293
120	9.433	33.807	9.420	26.137	191.1	0.312
130	9.385	33.838	9.371	26.169	188.3	0.331
140	9.149	33.875	9.134	26.236	182.0	0.349
150	8.998	33.894	8.982	26.276	178.4	0.368
175	8.763	33.926	8.744	26.338	173.0	0.411
200	8.390	33.994	8.370	26.449	162.7	0.453
225	8.092	34.052	8.070	26.540	154.5	0.493
250	7.802	34.080	7.777	26.605	148.7	0.531
300	7.399	34.103	7.370	26.682	142.0	0.604
400	6.851	34.131	6.814	26.781	133.9	0.741
500	5.966	34.175	5.923	26.932	120.1	0.866
503	5.964	34.177	5.921	26.934	119.9	0.870



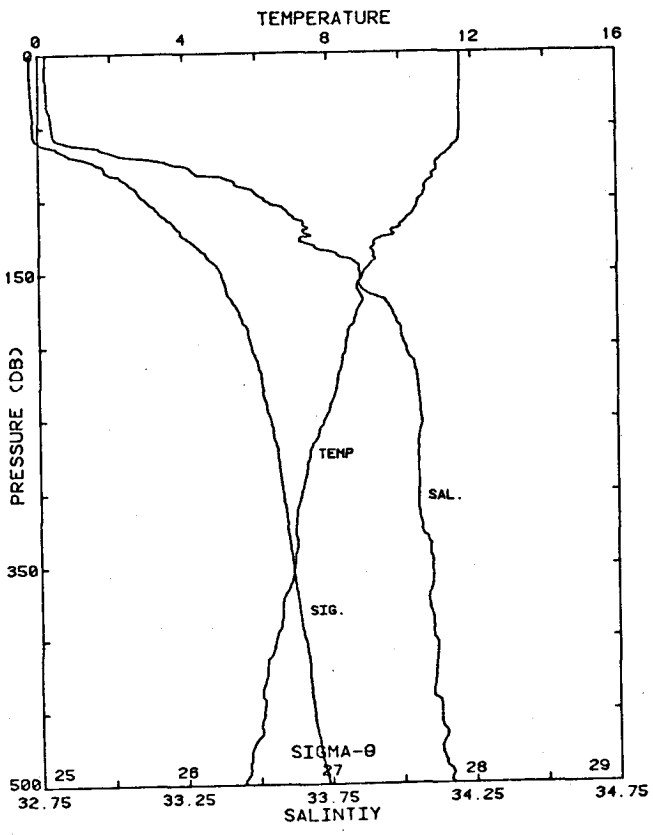
STATION 25 I6

STA NO 25 ,I6 LAT: 39 3.0 N LONG:124 4.0 W
18 MAR 1982 2029 GMT PROBE 2567 DEPTH 705M
32.7 KM FROM SHORE

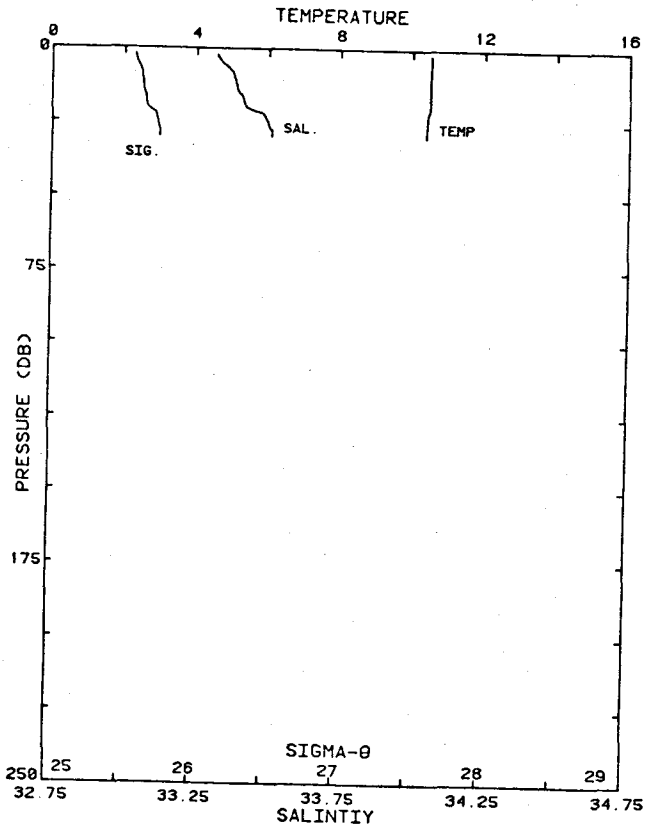
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.055	32.815	11.055	25.087	288.4	0.003
10	11.057	32.815	11.056	25.086	288.7	0.029
20	11.051	32.814	11.049	25.087	288.9	0.058
30	11.028	32.816	11.025	25.092	288.6	0.087
40	10.989	32.820	10.984	25.103	287.8	0.115
50	10.984	32.823	10.978	25.106	287.7	0.144
60	11.018	32.836	11.011	25.111	287.5	0.173
70	10.805	33.168	10.797	25.406	259.6	0.201
80	10.540	33.466	10.531	25.684	233.4	0.225
90	10.407	33.543	10.396	25.767	225.7	0.248
100	10.225	33.620	10.214	25.858	217.3	0.270
110	9.791	33.644	9.779	25.951	208.6	0.292
120	9.604	33.794	9.591	26.099	194.7	0.312
130	9.525	33.816	9.511	26.130	192.0	0.331
140	9.427	33.849	9.412	26.171	188.3	0.350
150	9.212	33.890	9.196	26.239	182.0	0.369
175	8.765	33.926	8.747	26.338	173.0	0.413
200	8.368	33.999	8.347	26.456	162.1	0.455
225	7.992	34.031	7.969	26.538	154.6	0.495
250	7.811	34.052	7.786	26.582	150.9	0.533
300	7.348	34.088	7.319	26.677	142.5	0.606
400	6.705	34.144	6.668	26.811	130.9	0.743
500	5.437	34.106	5.396	26.942	118.5	0.868
503	5.412	34.110	5.371	26.948	118.0	0.871

STA NO 26 ,I7 LAT: 39 3.0 N LONG:124 10.1 W
18 MAR 1982 2131 GMT PROBE 2567 DEPTH 1085M
41.6 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.678	32.777	11.678	24.944	302.0	0.003
10	11.687	32.774	11.686	24.941	302.5	0.030
20	11.681	32.777	11.679	24.944	302.5	0.060
30	11.650	32.780	11.646	24.952	301.9	0.091
40	11.654	32.790	11.649	24.959	301.5	0.121
50	11.654	32.799	11.648	24.967	301.0	0.151
60	11.626	32.839	11.618	25.003	297.8	0.181
70	11.255	33.030	11.246	25.219	277.5	0.210
80	11.015	33.277	11.005	25.454	255.3	0.236
90	10.700	33.428	10.689	25.627	239.1	0.261
100	10.505	33.526	10.493	25.737	228.8	0.284
110	10.324	33.614	10.311	25.838	219.5	0.306
120	9.924	33.676	9.910	25.954	208.6	0.328
130	9.229	33.672	9.215	26.065	198.1	0.348
140	9.208	33.790	9.193	26.161	189.2	0.368
150	8.961	33.857	8.945	26.253	180.6	0.386
175	8.786	33.966	8.768	26.366	170.3	0.430
200	8.435	34.013	8.414	26.457	162.0	0.472
225	8.189	34.056	8.166	26.528	155.7	0.511
250	7.850	34.069	7.826	26.589	150.2	0.549
300	7.200	34.057	7.172	26.674	142.6	0.622
400	6.459	34.108	6.423	26.815	130.2	0.759
500	5.591	34.172	5.549	26.976	115.5	0.883



STATION 26 I7



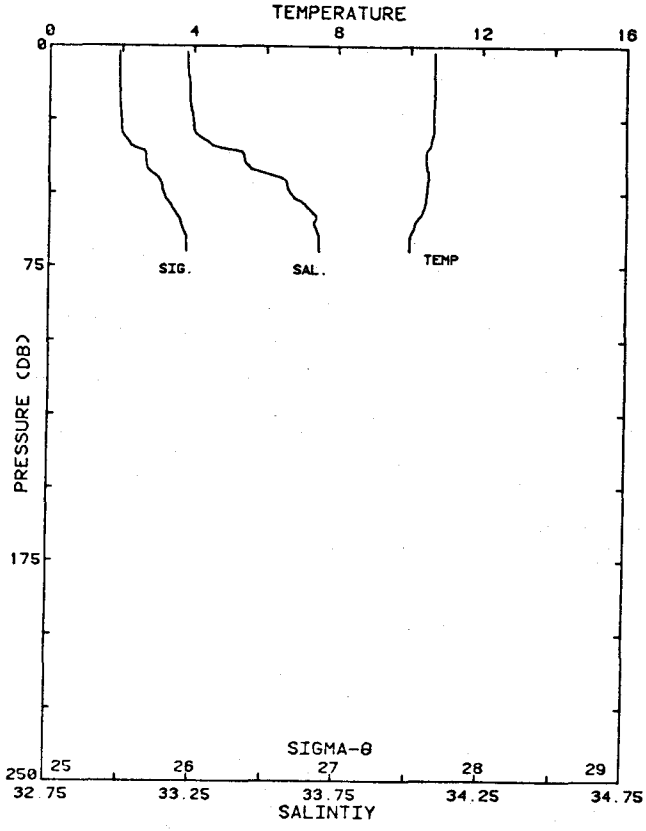
STATION 27 COC1

STA NO 27 ,COC1 LAT: 38 39.8 N LONG:123 25.8 W
19 MAR 1982 1432 GMT PROBE 2567 DEPTH 38M
0.9 KM FROM SHORE

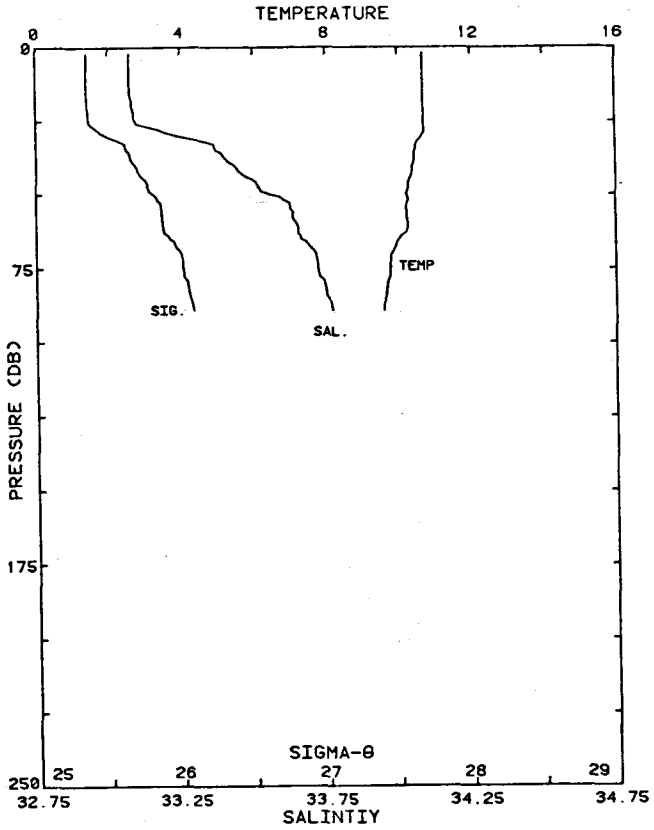
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	10.518	33.321	10.517	25.574	242.1	0.005
10	10.495	33.382	10.494	25.625	237.4	0.024
20	10.468	33.422	10.465	25.662	234.2	0.048
30	10.378	33.512	10.375	25.747	226.3	0.070

STA NO 28 ,COC2 LAT: 38 38.8 N LONG:123 26.9 W
19 MAR 1982 1459 GMT PROBE 2567 DEPTH 75M
4.1 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	10.649	33.227	10.649	25.478	251.3	0.005
10	10.652	33.228	10.651	25.479	251.4	0.025
20	10.651	33.239	10.649	25.488	250.7	0.050
30	10.639	33.259	10.636	25.505	249.3	0.075
40	10.448	33.429	10.444	25.671	233.8	0.099
50	10.448	33.581	10.442	25.789	222.8	0.122
60	10.131	33.666	10.124	25.910	211.5	0.144
70	9.969	33.684	9.961	25.952	207.7	0.165



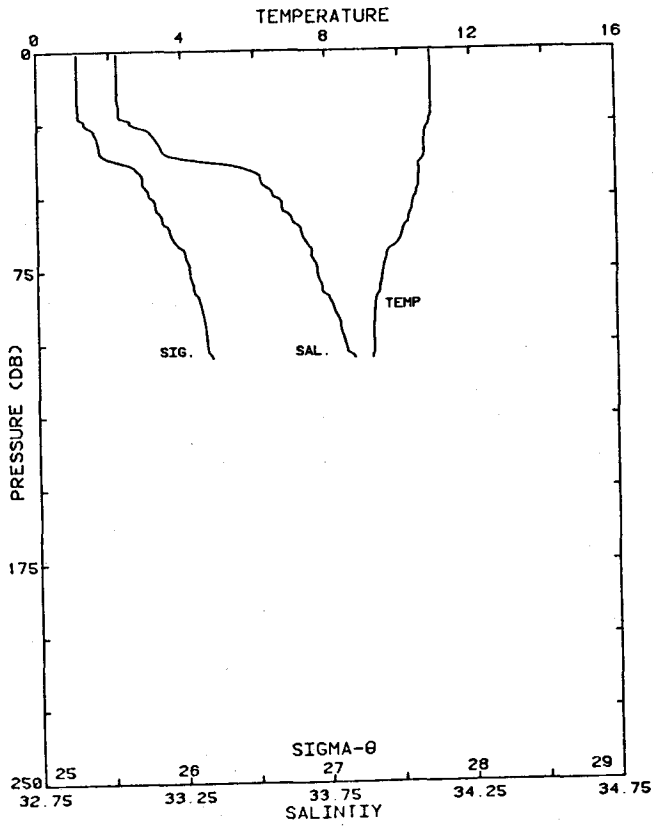
STATION 28 COC2



STATION 29 COC3

STA NO 29 ,COC3 LAT: 38 37.5 N LONG:123 29.0 W
19 MAR 1982 1517 GMT PROBE 2567 DEPTH 92M
7.4 KM FROM SHORE

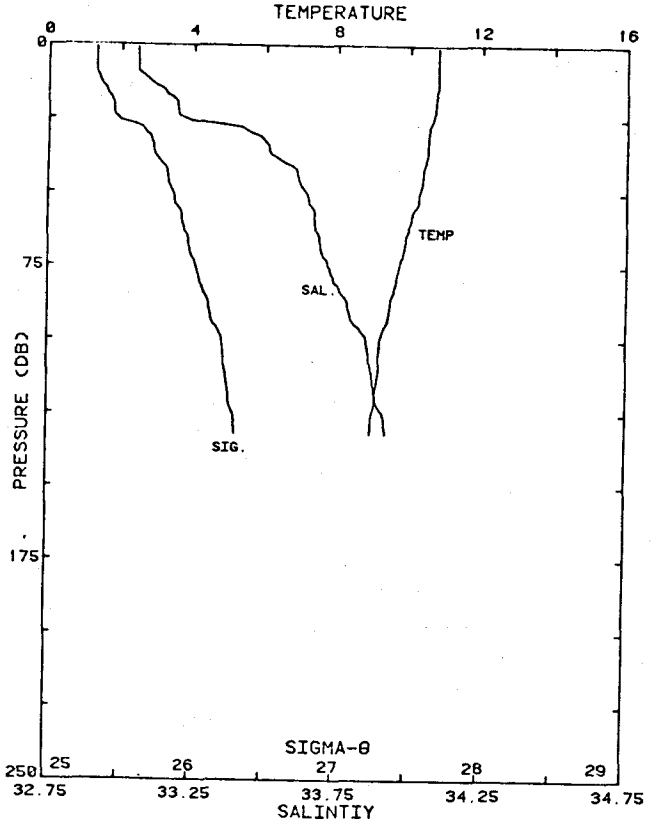
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	10.697	33.076	10.697	25.352	263.2	0.005
10	10.704	33.075	10.703	25.350	263.6	0.026
20	10.710	33.082	10.708	25.355	263.4	0.053
30	10.669	33.237	10.666	25.483	251.4	0.079
40	10.397	33.432	10.393	25.682	232.7	0.103
50	10.211	33.556	10.206	25.811	220.7	0.125
60	10.260	33.650	10.253	25.875	214.8	0.147
70	9.801	33.715	9.793	26.004	202.8	0.168
80	9.691	33.743	9.683	26.044	199.1	0.188
89	9.581	33.770	9.571	26.083	195.6	0.206



STATION 30 COC4

STA NO 30 ,COC4 LAT: 38 36.2 N LONG:123 30.8 W
19 MAR 1982 1548 GMT PROBE 2567 DEPTH 109M
11.1 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.896	33.027	10.896	25.279	270.1	0.003
10	10.903	33.027	10.901	25.278	270.5	0.027
20	10.902	33.032	10.900	25.282	270.3	0.054
30	10.715	33.158	10.712	25.414	258.0	0.081
40	10.545	33.451	10.540	25.671	233.7	0.106
50	10.465	33.565	10.460	25.774	224.2	0.129
60	10.145	33.655	10.139	25.898	212.6	0.150
70	9.626	33.693	9.618	26.016	201.6	0.171
80	9.458	33.731	9.449	26.073	196.3	0.191
90	9.296	33.779	9.286	26.137	190.4	0.210
100	9.272	33.810	9.261	26.165	188.0	0.229
105	9.218	33.843	9.207	26.199	184.8	0.239



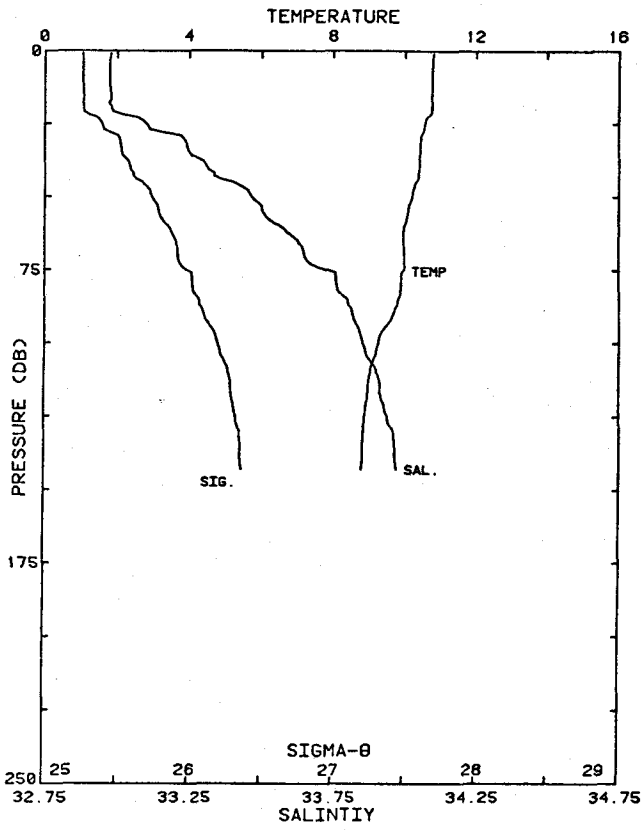
STATION 32 COC5

STA NO 32 ,COC5 LAT: 38 34.6 N LONG:123 33.3 W
19 MAR 1982 1623 GMT PROBE 2567 DEPTH 135M
15.7 KM FROM SHORE

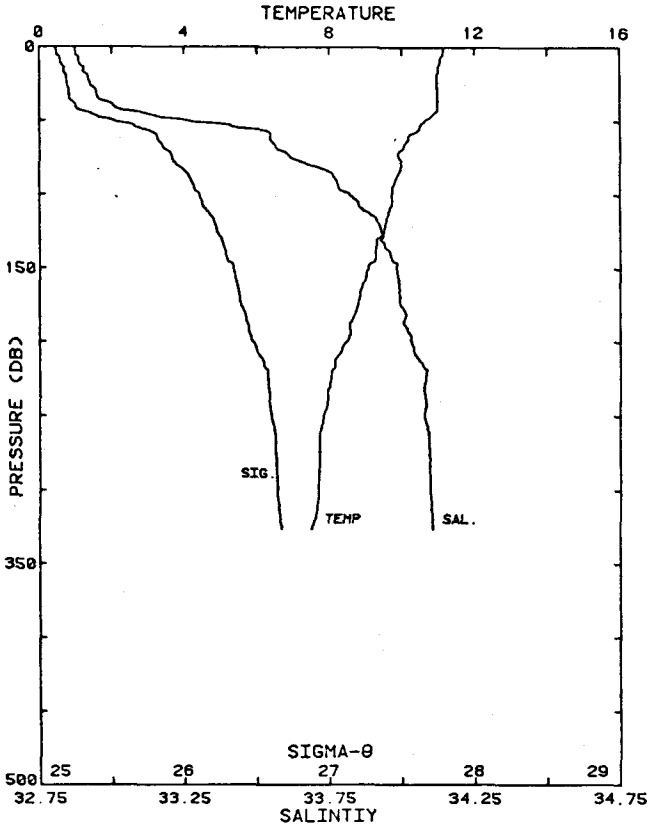
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.768	33.056	10.767	25.325	265.8	0.003
10	10.775	33.068	10.774	25.332	265.3	0.027
20	10.693	33.194	10.691	25.445	254.8	0.053
30	10.517	33.453	10.514	25.677	232.9	0.077
40	10.438	33.571	10.433	25.783	223.1	0.100
50	10.281	33.643	10.276	25.866	215.4	0.122
60	10.042	33.674	10.035	25.931	209.5	0.143
70	9.837	33.696	9.829	25.983	204.7	0.164
80	9.639	33.738	9.630	26.049	198.6	0.184
90	9.466	33.789	9.456	26.117	192.3	0.204
100	9.214	33.854	9.203	26.209	183.8	0.222
110	9.167	33.868	9.153	26.227	182.3	0.241
120	9.070	33.885	9.058	26.257	179.6	0.259
130	8.963	33.921	8.949	26.302	175.6	0.277
132	8.955	33.923	8.941	26.305	175.3	0.280

STA NO 33 ,COC6 LAT: 38 32.7 N LONG:123 36.2 W
19 MAR 1982 1655 GMT PROBE 2567 DEPTH 148M
21.3 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.779	32.977	10.779	25.261	271.9	0.003
10	10.747	32.974	10.746	25.264	271.8	0.027
20	10.749	32.982	10.747	25.270	271.4	0.054
30	10.452	33.232	10.449	25.517	248.2	0.080
40	10.396	33.312	10.391	25.588	241.6	0.105
50	10.201	33.465	10.195	25.741	227.3	0.128
60	9.982	33.564	9.975	25.856	216.6	0.151
70	9.979	33.650	9.971	25.924	210.4	0.172
80	9.891	33.764	9.882	26.027	200.8	0.192
90	9.675	33.818	9.665	26.106	193.5	0.212
100	9.260	33.854	9.249	26.202	184.5	0.231
110	9.039	33.901	9.027	26.274	177.8	0.249
120	8.948	33.925	8.935	26.307	174.8	0.267
130	8.847	33.961	8.833	26.351	170.8	0.284
140	8.829	33.969	8.814	26.361	170.1	0.301
143	8.806	33.974	8.791	26.369	169.4	0.306



STATION 33 COC6



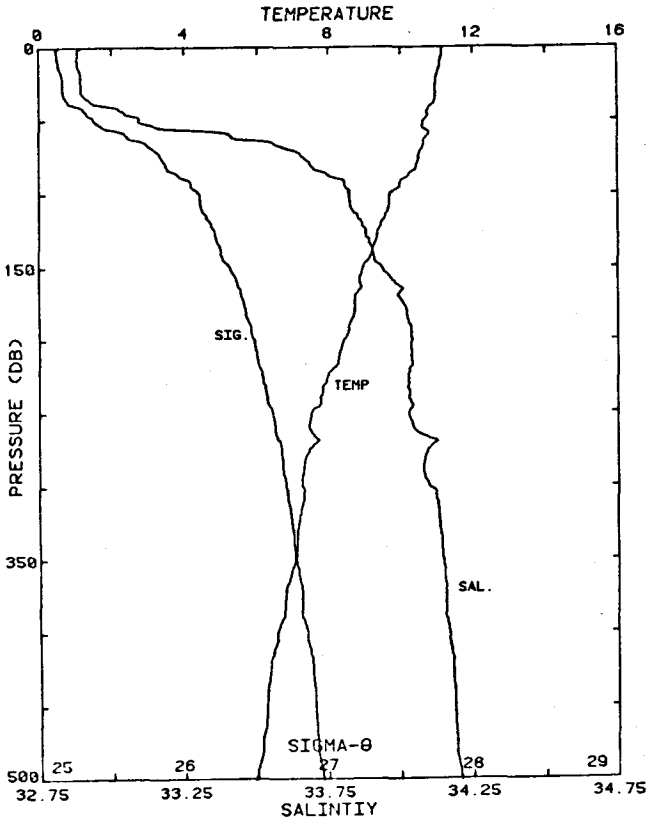
STATION 34 COC7

STA NO 34 ,COC7 LAT: 39 30.3 N LONG:123 39.6 W
19 MAR 1982 1754 GMT PROBE 2567 DEPTH 335M
27.4 KM FROM SHORE

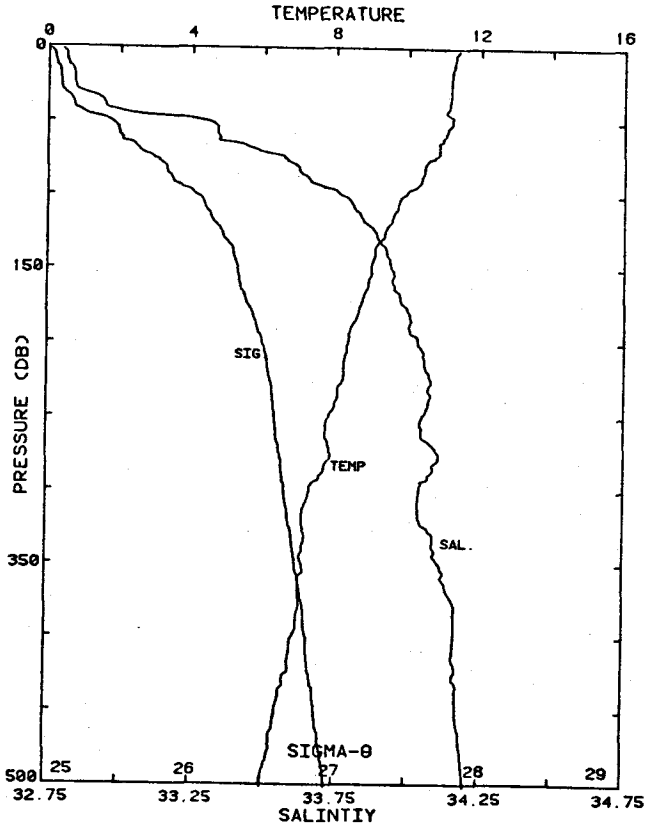
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.152	32.873	11.152	25.114	285.9	0.003
10	11.045	32.885	11.044	25.143	283.3	0.028
20	10.948	32.917	10.946	25.185	279.5	0.057
30	10.968	32.945	10.964	25.203	278.0	0.085
40	10.975	33.005	10.970	25.249	273.9	0.112
50	10.619	33.261	10.613	25.511	249.2	0.139
60	10.173	33.545	10.166	25.808	221.1	0.162
70	9.971	33.571	9.963	25.864	216.1	0.184
80	9.973	33.674	9.964	25.944	208.7	0.205
90	9.815	33.770	9.804	26.045	199.3	0.225
100	9.712	33.819	9.701	26.101	194.2	0.245
110	9.638	33.863	9.626	26.147	190.0	0.264
120	9.521	33.920	9.508	26.211	184.1	0.283
130	9.295	33.929	9.281	26.255	180.1	0.301
140	9.254	33.957	9.239	26.284	177.6	0.319
150	9.041	33.978	9.025	26.334	172.9	0.337
175	8.766	33.992	8.748	26.389	168.1	0.379
200	8.452	34.029	8.431	26.467	161.1	0.420
225	8.017	34.078	7.995	26.571	151.5	0.459
250	7.822	34.076	7.798	26.599	149.2	0.497
300	7.668	34.095	7.639	26.637	146.5	0.570
327	7.491	34.104	7.460	26.670	143.7	0.610

STA NO 35 ,COC8 LAT: 39 27.1 N LONG:123 44.5 W
19 MAR 1982 1853 GMT PROBE 2567 DEPTH 1155M
33.5 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.145	32.893	11.145	25.131	284.2	0.003
10	11.096	32.881	11.095	25.130	284.5	0.028
20	10.996	32.894	10.994	25.159	282.0	0.057
30	10.962	32.894	10.959	25.165	281.6	0.085
40	10.857	32.969	10.852	25.242	274.5	0.113
50	10.640	33.091	10.634	25.375	262.1	0.140
60	10.772	33.405	10.764	25.596	241.4	0.165
70	10.575	33.607	10.566	25.788	223.4	0.188
80	10.433	33.685	10.423	25.874	215.4	0.210
90	10.095	33.780	10.084	26.006	203.1	0.231
100	9.681	33.823	9.670	26.109	193.4	0.251
110	9.637	33.828	9.625	26.120	192.6	0.270
120	9.428	33.866	9.415	26.184	186.7	0.289
130	9.311	33.881	9.297	26.215	183.9	0.308
140	9.170	33.901	9.155	26.253	180.4	0.326
150	8.948	33.933	8.932	26.314	174.8	0.344
175	8.699	34.005	8.681	26.410	166.2	0.386
200	8.404	34.039	8.384	26.482	159.6	0.427
225	7.973	34.023	7.950	26.535	154.9	0.467
250	7.501	34.027	7.477	26.607	148.3	0.505
300	7.227	34.094	7.199	26.699	140.3	0.577
400	6.545	34.165	6.509	26.849	127.2	0.711
500	5.946	34.209	5.903	26.961	117.4	0.833
501	5.945	34.209	5.902	26.962	117.3	0.834



STATION 35 COC8



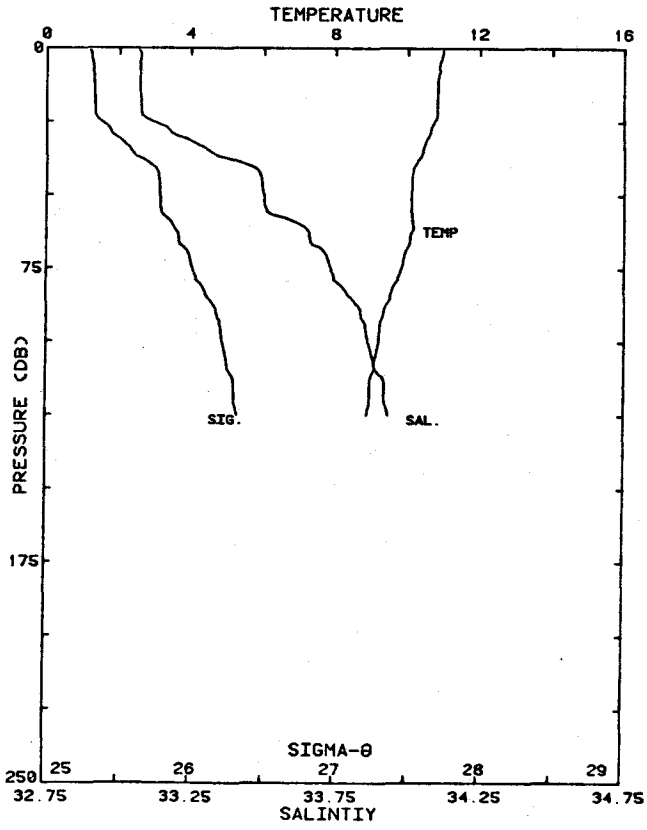
STATION 36 COC9

STA NO 36 ,COC9 LAT: 38 24.0 N LONG:123 49.2 W
19 MAR 1982 1945 GMT PROBE 2567 DEPTH 1650M
45.7 KM FROM SHORE

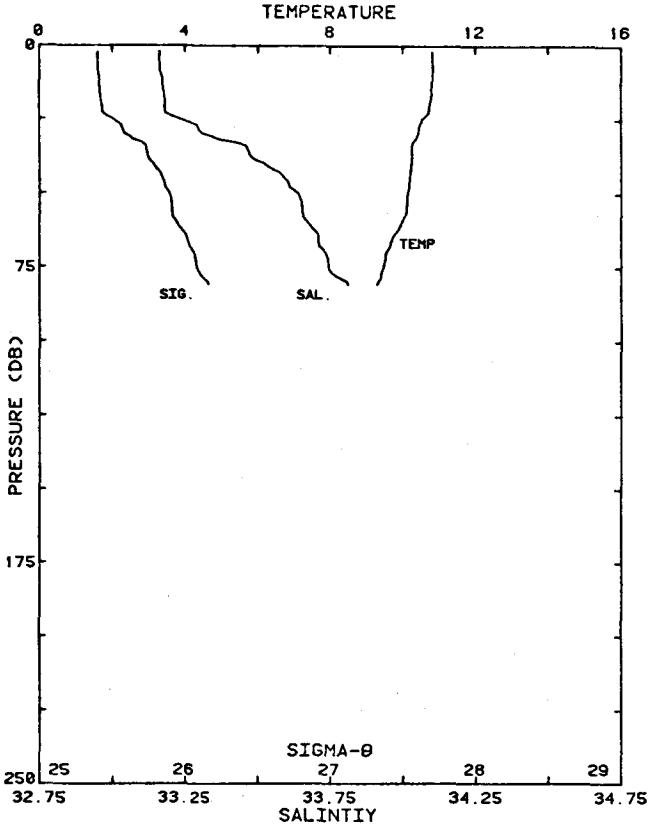
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	11.379	32.799	11.379	25.016	295.2	0.006
10	11.249	32.816	11.248	25.053	291.9	0.029
20	11.185	32.840	11.182	25.083	289.2	0.058
30	11.155	32.857	11.152	25.102	287.7	0.087
40	11.117	32.952	11.112	25.183	280.2	0.115
50	11.217	33.307	11.211	25.441	255.9	0.143
60	10.995	33.346	10.988	25.511	249.5	0.168
70	10.860	33.485	10.851	25.642	237.2	0.192
80	10.451	33.612	10.442	25.813	221.1	0.215
90	10.356	33.659	10.346	25.867	216.3	0.237
100	9.898	33.769	9.887	26.031	200.9	0.258
110	9.687	33.819	9.674	26.105	194.0	0.277
120	9.464	33.864	9.450	26.177	187.3	0.296
130	9.267	33.897	9.253	26.235	182.0	0.315
140	9.069	33.926	9.054	26.289	177.0	0.333
150	8.967	33.942	8.951	26.318	174.4	0.350
175	8.685	33.990	8.667	26.401	167.0	0.393
200	8.342	34.036	8.322	26.489	158.9	0.434
225	8.204	34.080	8.182	26.545	154.1	0.473
250	7.823	34.052	7.798	26.580	151.0	0.511
300	7.291	34.042	7.262	26.649	145.0	0.585
400	6.856	34.166	6.819	26.808	131.3	0.723
500	6.024	34.203	5.981	26.947	118.8	0.848
502	6.022	34.205	5.978	26.949	118.7	0.850

STA NO 37 ,C4 LAT: 38 33.4 N LONG:123 31.6 W
22 MAR 1982 2046 GMT PROBE 2567 DEPTH M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.974	33.070	10.973	25.299	268.2	0.003
10	10.828	33.072	10.827	25.326	265.9	0.027
20	10.806	33.078	10.804	25.335	265.3	0.053
30	10.582	33.203	10.579	25.471	252.5	0.079
40	10.194	33.446	10.190	25.727	228.4	0.103
50	10.099	33.501	10.093	25.787	223.0	0.126
60	10.139	33.623	10.132	25.875	214.8	0.148
70	9.909	33.713	9.902	25.984	204.6	0.169
80	9.650	33.759	9.641	26.063	197.3	0.189
90	9.331	33.836	9.321	26.176	186.8	0.208
100	9.195	33.862	9.184	26.218	182.9	0.227
110	9.052	33.893	9.040	26.265	178.6	0.245
120	8.949	33.921	8.937	26.304	175.1	0.262
125	8.880	33.935	8.867	26.326	173.1	0.271



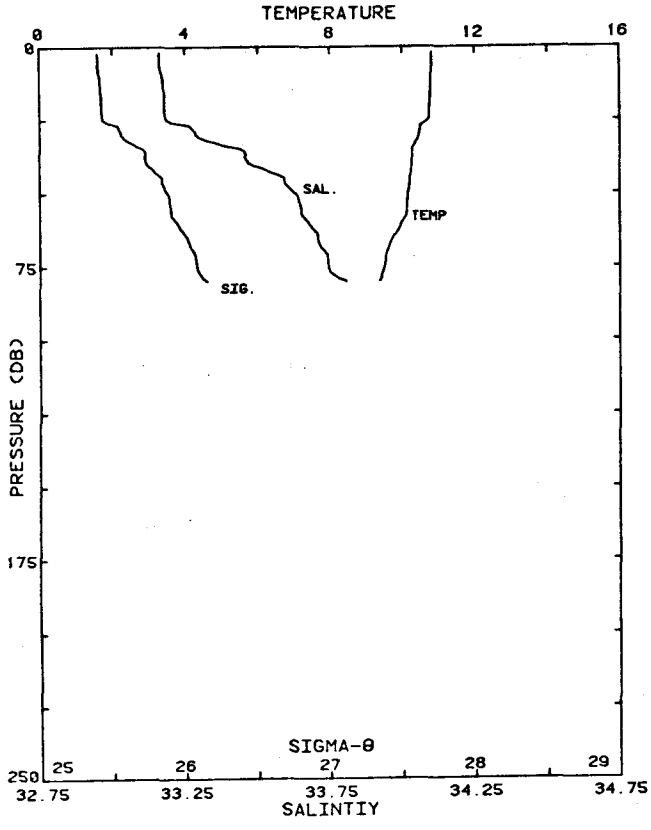
STATION 37 C4



STATION 38 C3

STA NO 38 ,C3 LAT: 38 36.2 N LONG:123 27.6 W
24 MAR 1982 1233 GMT PROBE 2567 DEPTH 95M

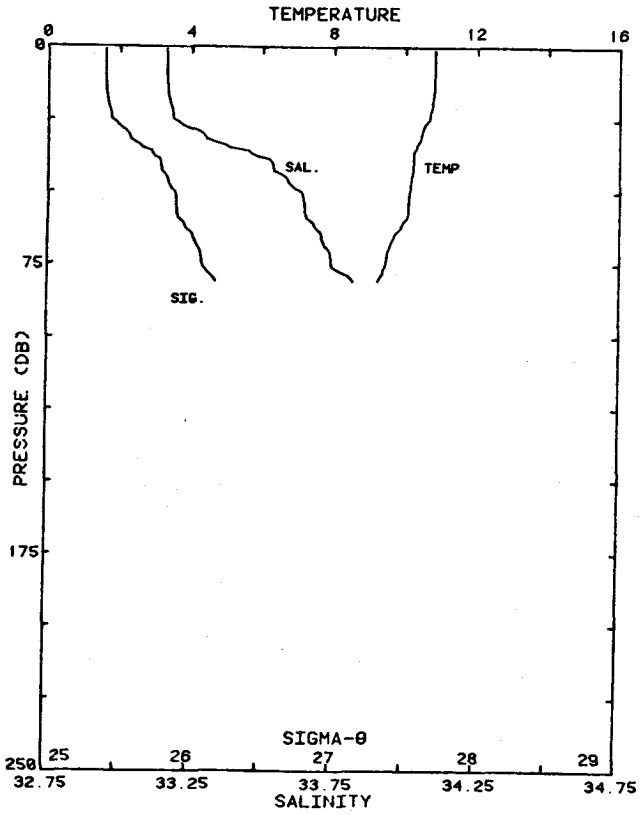
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	10.819	33.162	10.819	25.398	258.9	0.005
10	10.810	33.167	10.809	25.403	258.5	0.026
20	10.741	33.180	10.738	25.426	256.6	0.052
30	10.417	33.311	10.413	25.584	241.8	0.077
40	10.228	33.521	10.224	25.780	223.4	0.100
50	10.118	33.638	10.112	25.890	213.2	0.121
60	9.969	33.673	9.962	25.943	208.4	0.143
70	9.544	33.732	9.536	26.059	197.4	0.163
80	9.320	33.807	9.312	26.155	188.6	0.182
81	9.288	33.810	9.279	26.162	187.8	0.184



STATION 39 C3

STA NO 39 ,C3 LAT: 38 36.2 N LONG:123 27.6 W
24 MAR 1982 1239 GMT PROBE 2567 DEPTH 95M

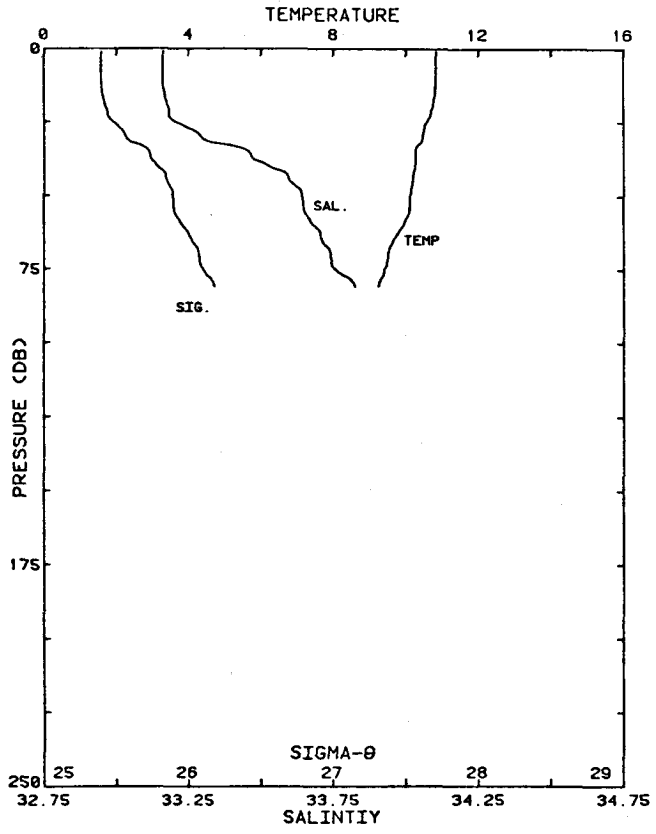
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	10.828	33.164	10.828	25.397	258.9	0.005
10	10.793	33.172	10.792	25.410	257.9	0.026
20	10.759	33.180	10.757	25.422	256.9	0.052
30	10.453	33.287	10.449	25.559	244.1	0.077
40	10.250	33.468	10.245	25.735	227.6	0.100
50	10.140	33.624	10.135	25.876	214.5	0.122
60	9.969	33.672	9.962	25.942	208.4	0.143
70	9.547	33.731	9.540	26.058	197.5	0.164
80	9.337	33.803	9.328	26.149	189.1	0.183



STATION 41 C3

STA NO 41 ,C3 LAT: 38 36.2 N LONG:123 27.6 W
24 MAR 1982 1247 GMT PROBE 2567 DEPTH 90M

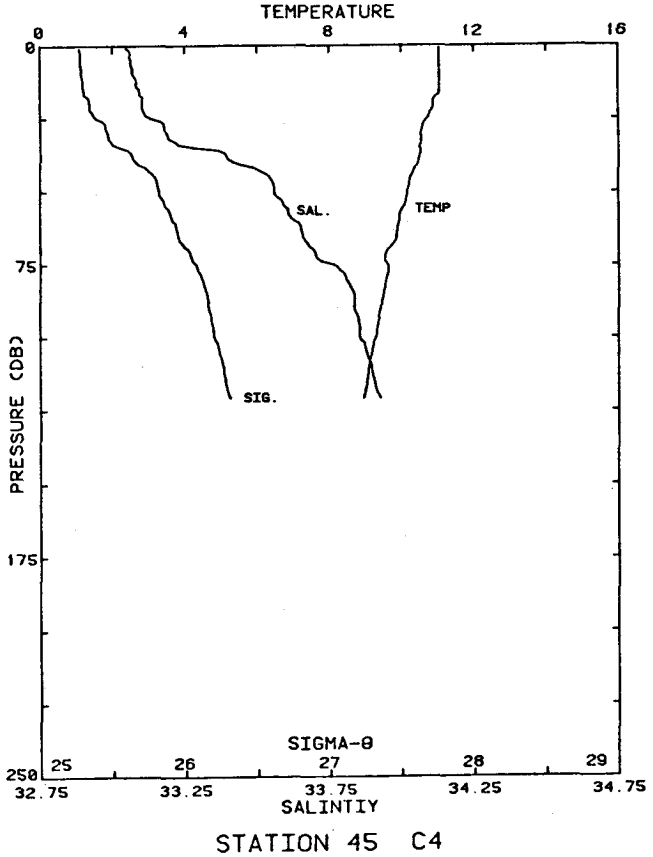
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.818	33.162	10.818	25.398	258.8	0.003
10	10.812	33.163	10.811	25.400	258.8	0.026
20	10.747	33.177	10.745	25.422	257.0	0.052
30	10.461	33.290	10.457	25.560	244.0	0.077
40	10.236	33.534	10.232	25.789	222.6	0.100
50	10.123	33.635	10.118	25.887	213.4	0.122
60	10.000	33.668	9.993	25.933	209.2	0.143
70	9.539	33.732	9.532	26.060	197.3	0.164
80	9.285	33.812	9.276	26.165	187.6	0.183
81	9.248	33.820	9.239	26.177	186.5	0.185



STATION 43 C3

STA NO 43 ,C3 LAT: 38 36.2 N LONG:123 27.6 W
24 MAR 1982 1254 GMT PROBE 2567 DEPTH 90M

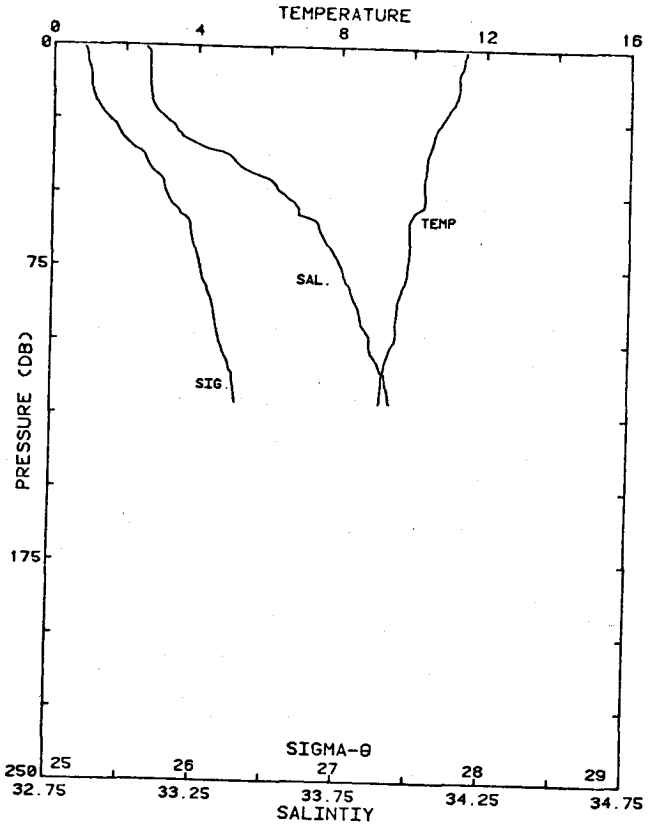
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.827	33.163	10.827	25.397	258.9	0.003
10	10.823	33.162	10.821	25.397	259.1	0.026
20	10.725	33.181	10.723	25.429	256.3	0.052
30	10.452	33.293	10.448	25.564	243.6	0.077
40	10.240	33.524	10.235	25.780	223.4	0.100
50	10.114	33.641	10.109	25.893	212.8	0.122
60	9.927	33.681	9.921	25.956	207.1	0.143
70	9.505	33.740	9.498	26.072	196.2	0.163
80	9.250	33.820	9.241	26.176	186.5	0.182
81	9.236	33.824	9.227	26.182	186.0	0.184



STATION 45 C4

STA NO 45 ,C4 LAT: 38 33.3 N LONG:123 31.4 W
24 MAR 1982 1351 GMT PROBE 2567 DEPTH 134M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.053	33.048	11.053	25.268	271.2	0.003
10	11.060	33.070	11.059	25.283	269.9	0.027
20	10.879	33.102	10.876	25.341	264.7	0.054
30	10.542	33.187	10.538	25.466	253.0	0.080
40	10.462	33.414	10.457	25.657	235.1	0.104
50	10.165	33.559	10.159	25.820	219.8	0.127
60	9.926	33.626	9.919	25.913	211.1	0.148
70	9.601	33.694	9.593	26.020	201.1	0.169
80	9.553	33.807	9.544	26.117	192.2	0.189
90	9.402	33.837	9.393	26.165	187.8	0.208
100	9.272	33.854	9.262	26.200	184.7	0.226
110	9.066	33.894	9.054	26.264	178.7	0.244
120	8.948	33.920	8.936	26.303	175.2	0.262
121	8.927	33.925	8.914	26.310	174.6	0.264



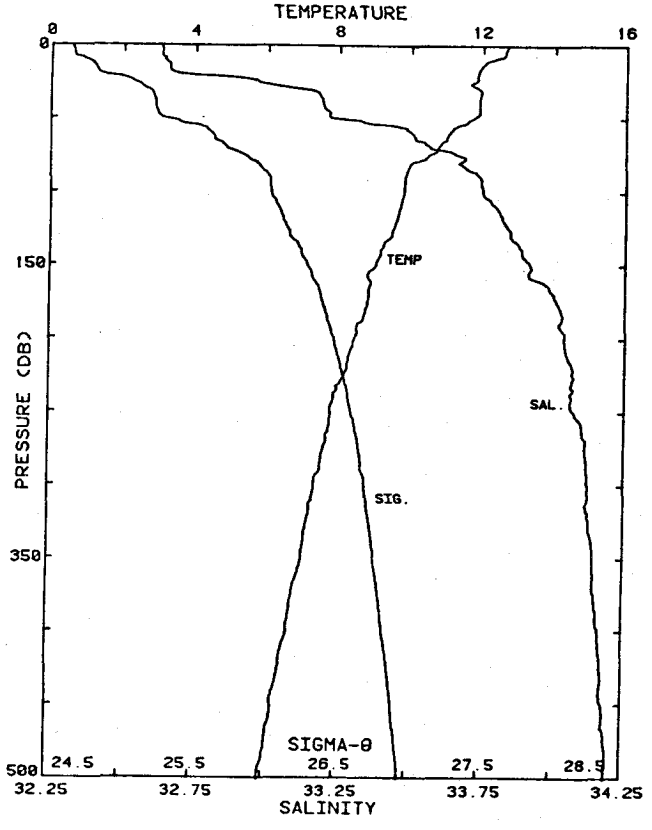
STATION 46 R4

STA NO 46 ,R4 LAT: 38 20.6 N LONG:123 22.9 W
25 MAR 1982 1928 GMT PROBE 2567 DEPTH 130M

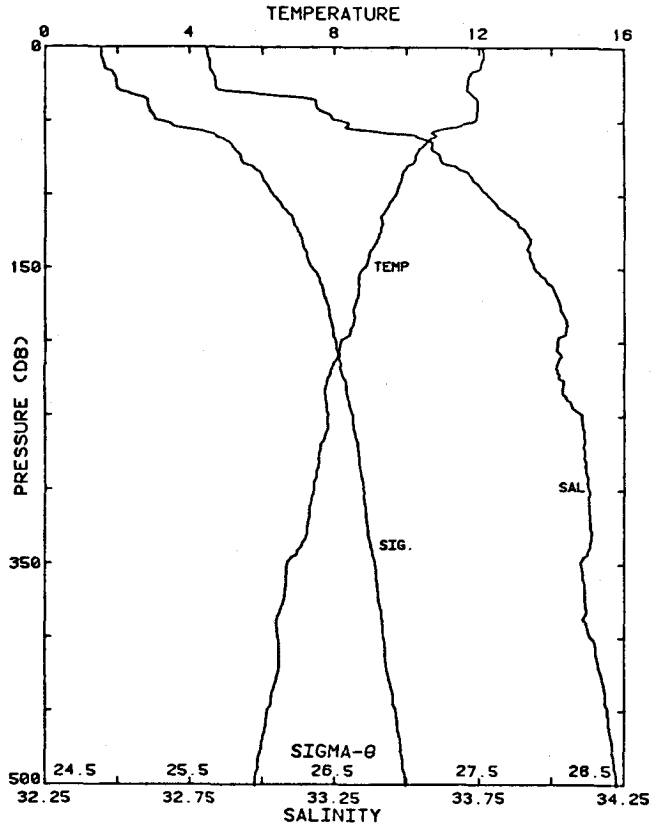
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.440	33.070	11.440	25.215	276.2	0.003
10	11.237	33.085	11.236	25.264	271.8	0.027
20	11.042	33.094	11.040	25.306	268.0	0.054
30	10.554	33.192	10.551	25.467	252.9	0.081
40	10.357	33.390	10.352	25.656	235.2	0.105
50	10.320	33.548	10.314	25.786	223.1	0.128
60	9.894	33.671	9.887	25.954	207.3	0.149
70	9.888	33.724	9.881	25.996	203.5	0.170
80	9.788	33.769	9.780	26.048	198.7	0.190
90	9.579	33.816	9.569	26.120	192.1	0.209
100	9.514	33.854	9.503	26.160	188.5	0.228
110	9.224	33.893	9.212	26.238	181.2	0.247
120	9.141	33.924	9.128	26.275	177.9	0.265
121	9.116	33.928	9.103	26.283	177.2	0.267

STA NO 47 ,COA9 LAT: 38 22.5 N LONG:123 47.5 W
26 MAR 1982 0847 GMT PROBE 2567 DEPTH 1621M
45.3 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.662	32.631	12.662	24.646	330.4	0.003
10	12.274	32.640	12.273	24.727	322.9	0.033
20	11.853	32.692	11.851	24.847	311.7	0.064
30	11.898	33.107	11.894	25.160	282.2	0.094
40	11.904	33.193	11.898	25.226	276.2	0.121
50	11.753	33.220	11.746	25.275	271.7	0.149
60	11.083	33.502	11.075	25.616	239.5	0.174
70	10.762	33.567	10.754	25.724	229.5	0.198
80	10.075	33.676	10.066	25.927	210.2	0.220
90	9.843	33.741	9.833	26.018	201.9	0.240
100	9.812	33.752	9.801	26.031	200.8	0.260
110	9.726	33.795	9.713	26.079	196.4	0.280
120	9.615	33.822	9.602	26.119	192.8	0.300
130	9.484	33.848	9.469	26.161	189.0	0.319
140	9.178	33.889	9.162	26.243	181.4	0.337
150	9.056	33.917	9.040	26.284	177.6	0.355
175	8.818	34.010	8.800	26.395	167.6	0.398
200	8.452	34.036	8.431	26.472	160.6	0.439
225	8.175	34.069	8.152	26.541	154.5	0.479
250	7.810	34.073	7.785	26.598	149.3	0.517
300	7.391	34.125	7.362	26.700	140.3	0.589
400	6.667	34.167	6.630	26.834	128.7	0.723
500	5.905	34.195	5.862	26.956	117.8	0.846
501	5.905	34.196	5.862	26.956	117.8	0.847



STATION 47 COA9



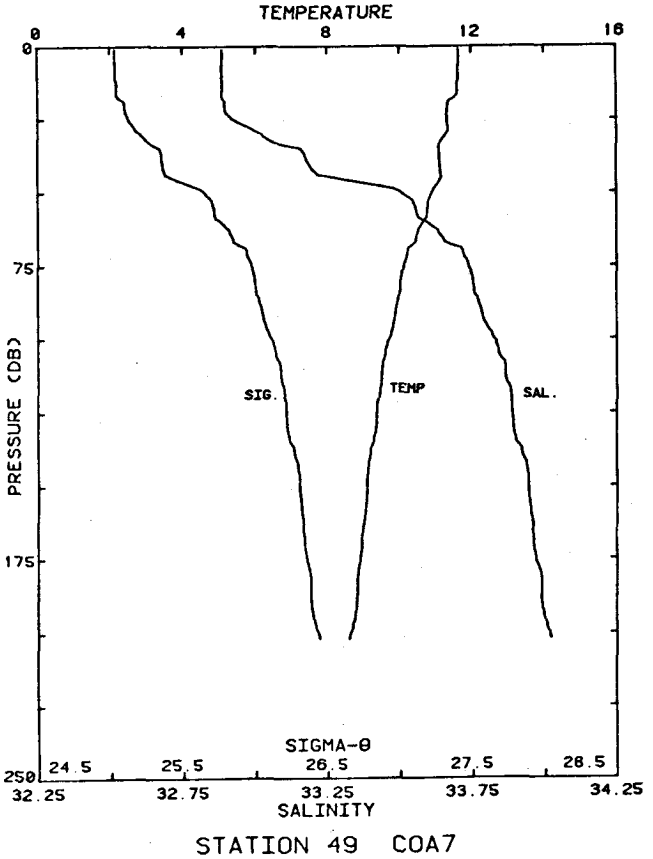
STATION 48 COA8

STA NO 48 ,COA8 LAT: 38 26.3 N LONG:123 42.3 W
26 MAR 1982 0950 GMT PROBE 2567 DEPTH 853M
35.2 KM FROM SHORE

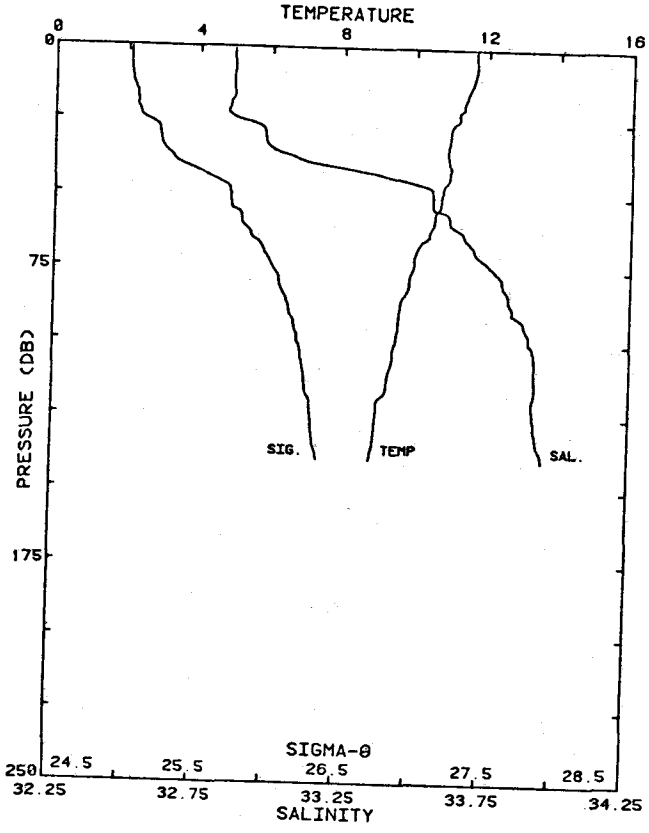
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.095	32.808	12.094	24.891	307.1	0.003
10	12.075	32.819	12.074	24.904	306.1	0.031
20	11.719	32.836	11.717	24.983	298.8	0.061
30	11.665	32.878	11.662	25.025	295.0	0.091
40	11.949	33.186	11.944	25.212	277.5	0.119
50	11.852	33.275	11.845	25.299	269.4	0.146
60	10.817	33.535	10.810	25.689	232.6	0.172
70	10.327	33.587	10.319	25.815	220.8	0.194
80	10.086	33.639	10.077	25.897	213.1	0.216
90	9.842	33.727	9.832	26.007	202.9	0.237
100	9.682	33.778	9.671	26.073	196.8	0.257
110	9.416	33.826	9.404	26.155	189.2	0.276
120	9.305	33.882	9.292	26.217	183.5	0.294
130	9.183	33.924	9.169	26.269	178.7	0.312
140	8.953	33.925	8.938	26.307	175.3	0.330
150	8.780	33.940	8.764	26.346	171.7	0.348
175	8.555	34.030	8.537	26.451	162.1	0.389
200	8.153	34.018	8.133	26.504	157.5	0.429
225	7.806	34.029	7.784	26.564	152.1	0.468
250	7.811	34.106	7.786	26.624	146.9	0.505
300	7.418	34.128	7.389	26.699	140.4	0.577
400	6.428	34.132	6.393	26.838	128.1	0.711
500	5.802	34.224	5.760	26.991	114.4	0.832
501	5.800	34.224	5.757	26.991	114.4	0.834

STA NO 49 ,COA7 LAT: 38 30.0 N LONG:123 37.1 W
26 MAR 1982 1051 GMT PROBE 2567 DEPTH 210M
25.3 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.643	32.887	11.643	25.036	293.2	0.003
10	11.628	32.885	11.627	25.037	293.4	0.029
20	11.329	32.893	11.326	25.098	287.7	0.059
30	11.284	33.021	11.281	25.206	277.8	0.087
40	11.118	33.183	11.113	25.361	263.2	0.114
50	10.906	33.501	10.900	25.646	236.4	0.139
60	10.668	33.588	10.661	25.756	226.1	0.162
70	10.210	33.718	10.202	25.937	209.1	0.184
80	10.026	33.753	10.017	25.996	203.8	0.205
90	9.880	33.781	9.870	26.042	199.5	0.225
100	9.699	33.826	9.688	26.108	193.5	0.245
110	9.496	33.865	9.484	26.172	187.6	0.264
120	9.412	33.884	9.399	26.201	185.1	0.282
130	9.341	33.892	9.327	26.219	183.5	0.301
140	9.158	33.925	9.143	26.274	178.5	0.319
150	9.063	33.942	9.047	26.303	175.9	0.337
175	8.885	33.970	8.866	26.353	171.6	0.380
200	8.610	34.017	8.589	26.433	164.4	0.422
202	8.581	34.020	8.560	26.440	163.8	0.425



STATION 49 COA7



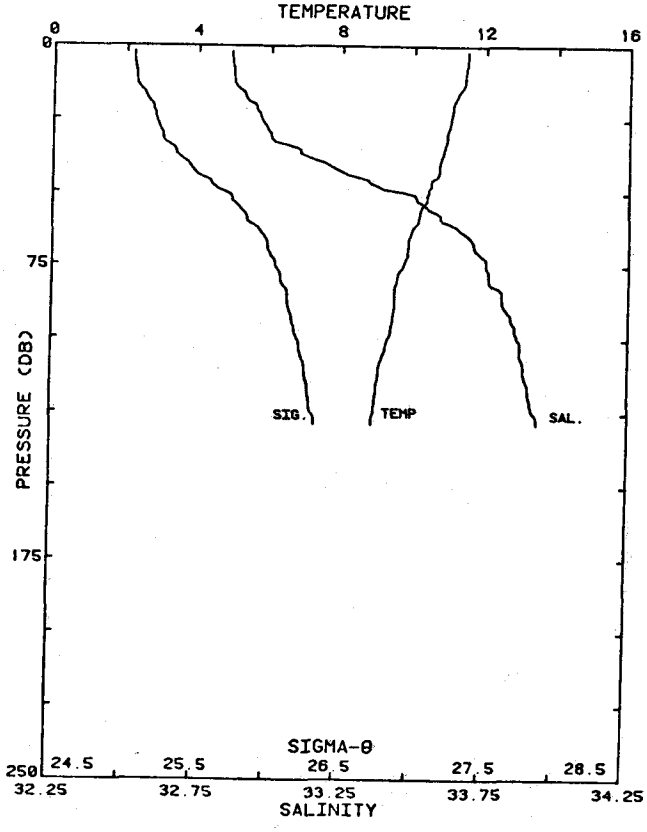
STATION 50 COA6

STA NO 50 ,COA6 LAT: 38 32.2 N LONG:123 34.1 W
26 MAR 1982 1134 GMT PROBE 2567 DEPTH 144M
19.2 KM FROM SHORE

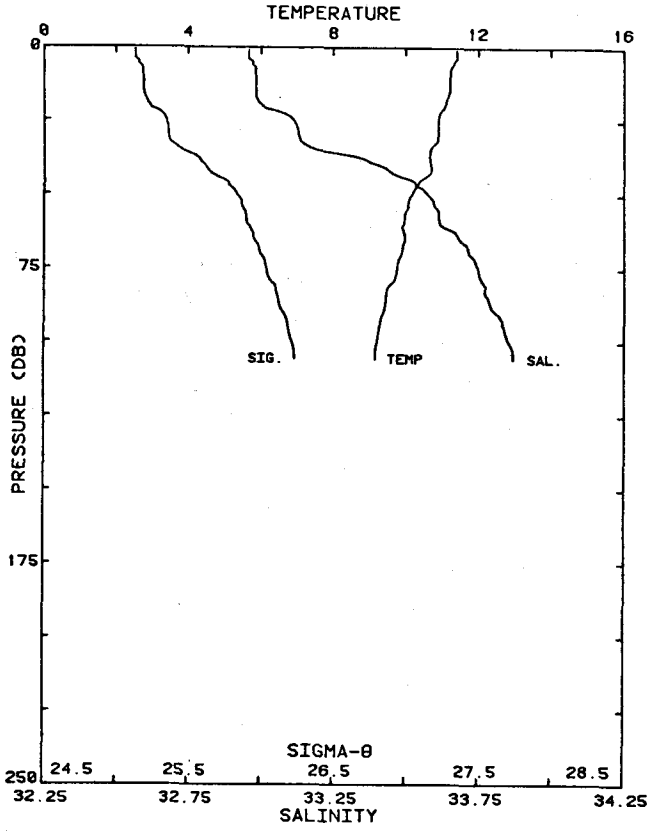
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.650	32.871	11.650	25.022	294.6	0.003
10	11.610	32.867	11.608	25.027	294.4	0.029
20	11.330	32.858	11.328	25.071	290.4	0.059
30	10.966	32.980	10.962	25.231	275.4	0.087
40	10.970	33.183	10.965	25.388	260.7	0.114
50	10.738	33.563	10.732	25.725	228.9	0.138
60	10.534	33.625	10.527	25.809	221.1	0.161
70	10.034	33.714	10.027	25.964	206.6	0.182
80	9.871	33.808	9.862	26.065	197.1	0.202
90	9.606	33.842	9.596	26.136	190.6	0.221
100	9.525	33.902	9.514	26.196	185.1	0.240
110	9.334	33.921	9.322	26.242	180.9	0.258
120	9.013	33.914	9.000	26.288	176.6	0.276
130	8.961	33.926	8.948	26.306	175.1	0.294
140	8.846	33.954	8.832	26.346	171.5	0.311

STA NO 51 ,COA5 LAT: 38 33.6 N LONG:123 31.8 W
26 MAR 1982 1210 GMT PROBE 2567 DEPTH 133M
15.5 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	11.474	32.865	11.474	25.050	292.0	0.006
10	11.407	32.873	11.405	25.069	290.4	0.029
20	11.090	32.948	11.088	25.184	279.6	0.058
30	10.919	33.003	10.915	25.257	272.9	0.085
40	10.735	33.190	10.731	25.435	256.2	0.112
50	10.435	33.463	10.429	25.700	231.2	0.137
60	10.147	33.601	10.140	25.857	216.5	0.159
70	9.862	33.716	9.854	25.994	203.6	0.180
80	9.562	33.764	9.553	26.082	195.5	0.200
90	9.483	33.822	9.473	26.140	190.2	0.219
100	9.327	33.864	9.316	26.198	184.9	0.238
110	9.088	33.887	9.077	26.255	179.6	0.256
120	8.999	33.908	8.986	26.286	176.9	0.274
129	8.888	33.935	8.875	26.325	173.3	0.289



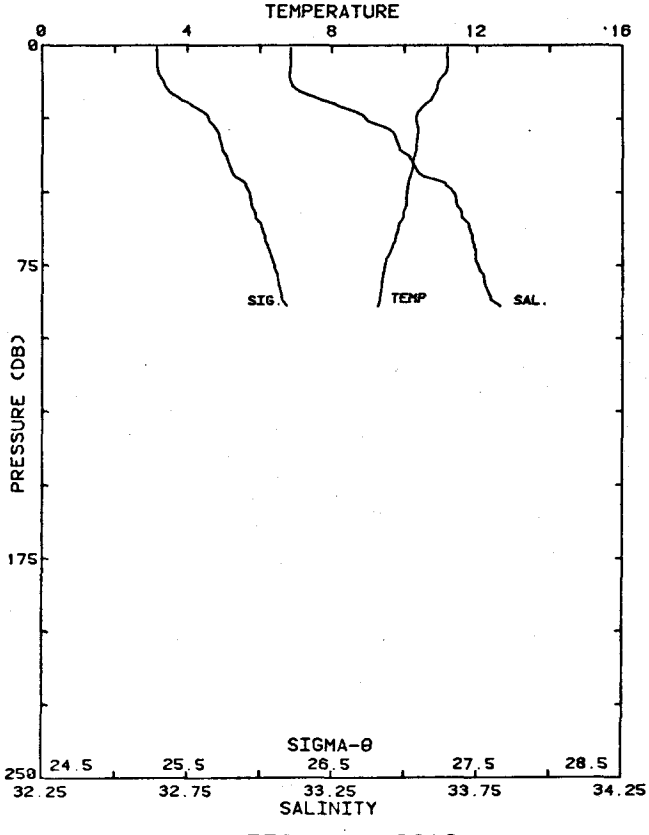
STATION 51 COA5



STATION 52 COA4

STA NO 52 ,COA4 LAT: 38 35.0 N LONG:123 29.8 W
26 MAR 1982 1240 GMT PROBE 2567 DEPTH 109M
11.1 KM FROM SHORE

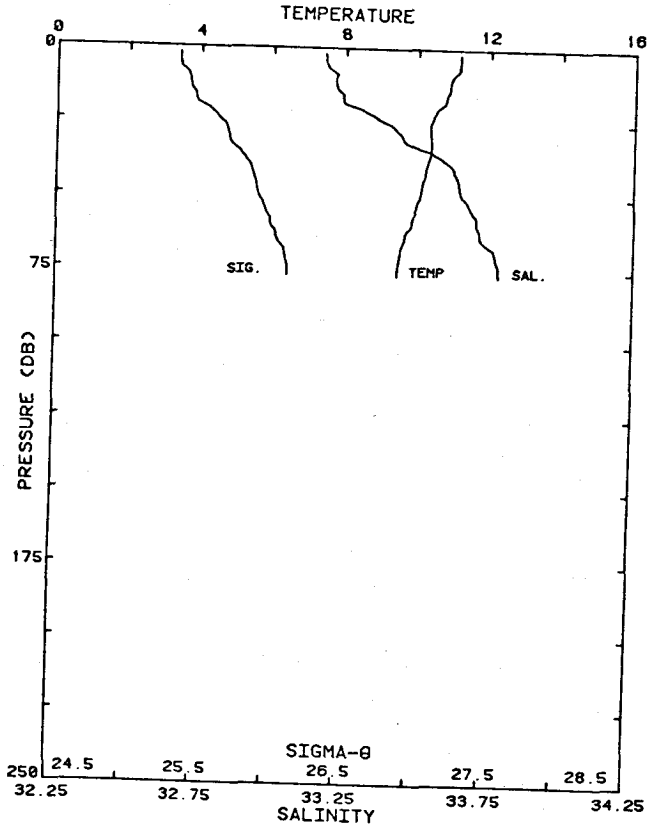
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.407	32.959	11.406	25.135	283.9	0.003
10	11.208	32.981	11.206	25.188	279.0	0.028
20	11.064	33.004	11.062	25.232	275.0	0.056
30	10.881	33.129	10.877	25.362	262.9	0.083
40	10.675	33.404	10.671	25.611	239.4	0.108
50	10.162	33.575	10.156	25.833	218.5	0.131
60	9.932	33.617	9.925	25.905	211.9	0.152
70	9.870	33.717	9.862	25.994	203.7	0.173
80	9.608	33.766	9.599	26.076	196.1	0.193
90	9.356	33.807	9.346	26.149	189.3	0.212
100	9.191	33.853	9.180	26.212	183.5	0.231
106	9.148	33.869	9.137	26.231	181.8	0.242



STATION 53 COA3

STA NO 53 ,COA3 LAT: 38 36.5 N LONG:123 27.8 W
26 MAR 1982 1307 GMT PROBE 2567 DEPTH 93M
7.0 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.186	33.106	11.186	25.289	269.2	0.003
10	11.113	33.102	11.112	25.299	268.4	0.027
20	10.590	33.255	10.588	25.510	248.6	0.053
30	10.350	33.460	10.347	25.712	229.6	0.077
40	10.229	33.526	10.224	25.784	223.0	0.099
50	10.049	33.666	10.043	25.924	209.9	0.121
60	9.880	33.709	9.873	25.986	204.3	0.142
70	9.590	33.743	9.583	26.060	197.4	0.162
80	9.352	33.773	9.344	26.123	191.6	0.181
89	9.243	33.828	9.234	26.184	186.0	0.198



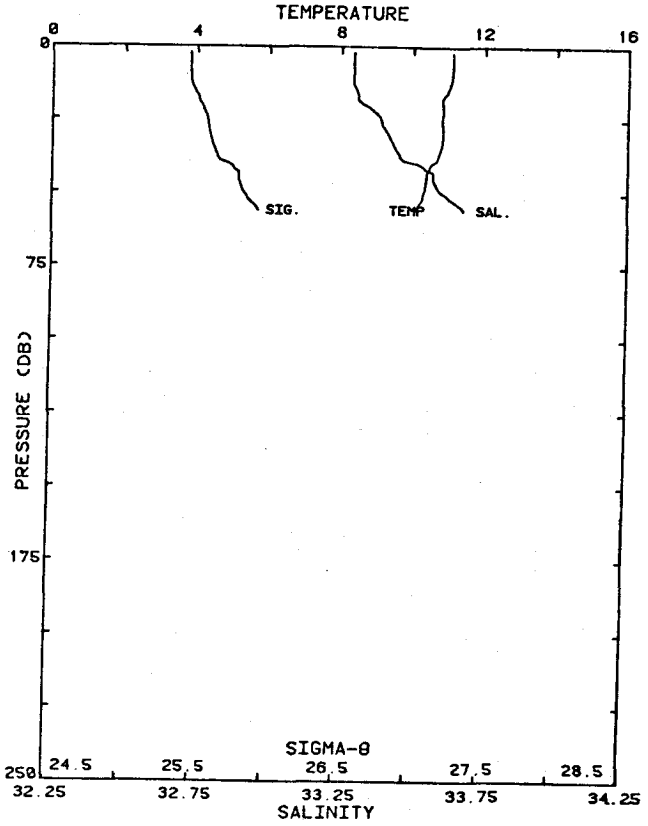
STATION 54 COA2

STA NO 54 ,COA2 LAT: 38 37.3 N LONG:123 26.6 W
26 MAR 1982 1330 GMT PROBE 2567 DEPTH 80M
5.2 KM FROM SHORE

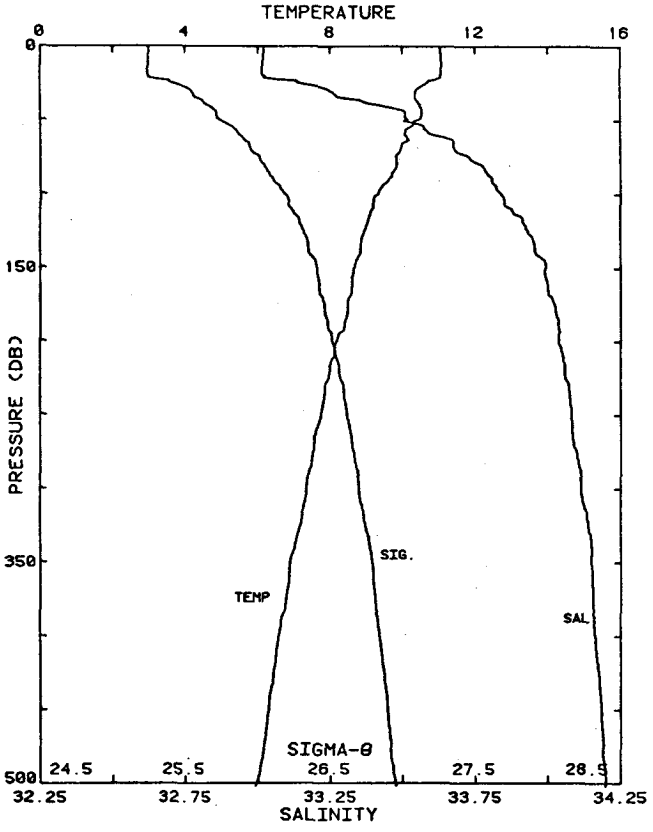
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	11.142	33.178	11.141	25.353	263.1	0.005
10	10.933	33.216	10.932	25.420	257.0	0.026
20	10.615	33.274	10.612	25.521	247.6	0.052
30	10.373	33.449	10.370	25.699	230.9	0.075
40	10.259	33.622	10.254	25.853	216.4	0.098
50	10.088	33.654	10.082	25.908	211.4	0.119
60	9.843	33.706	9.837	25.989	203.9	0.140
70	9.540	33.771	9.532	26.090	194.5	0.160
77	9.475	33.786	9.467	26.113	192.4	0.173

STA NO 55 ,COA1 LAT: 38 38.1 N LONG:123 25.3 W
26 MAR 1982 1359 GMT PROBE 2567 DEPTH 62M
2.2 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	11.090	33.292	11.090	25.450	253.9	0.005
10	11.078	33.291	11.076	25.452	253.9	0.025
20	10.815	33.329	10.813	25.528	246.9	0.050
30	10.832	33.414	10.829	25.592	241.1	0.075
40	10.526	33.513	10.521	25.723	228.8	0.099
50	10.296	33.601	10.290	25.831	218.8	0.121
56	10.087	33.679	10.080	25.928	209.7	0.134



STATION 55 COA1



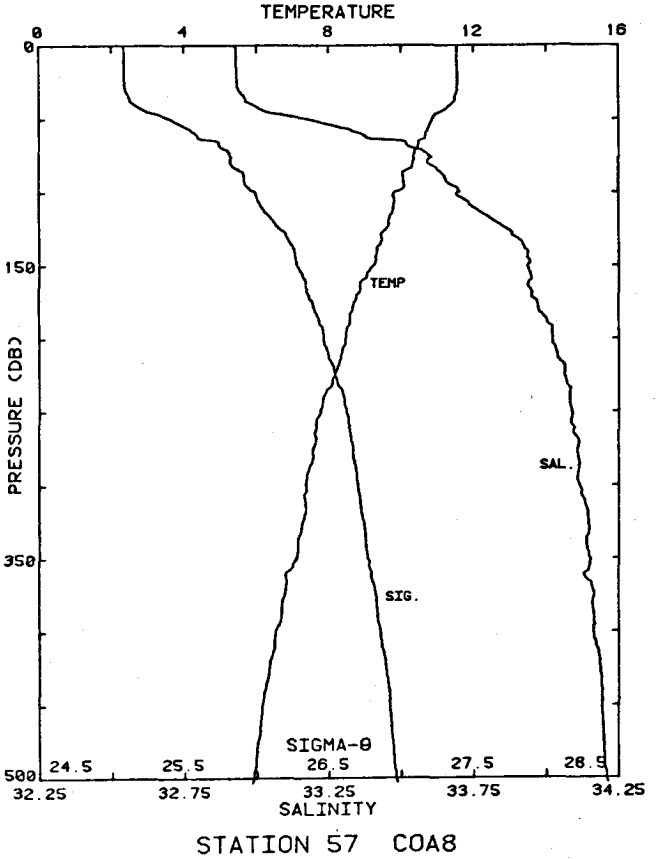
STATION 56 COA9

STA NO 56 ,COA9 LAT: 38 22.6 N LONG:123 47.5 W
30 MAR 1982 0330 GMT PROBE 2567 DEPTH 1595M
45.3 KM FROM SHORE

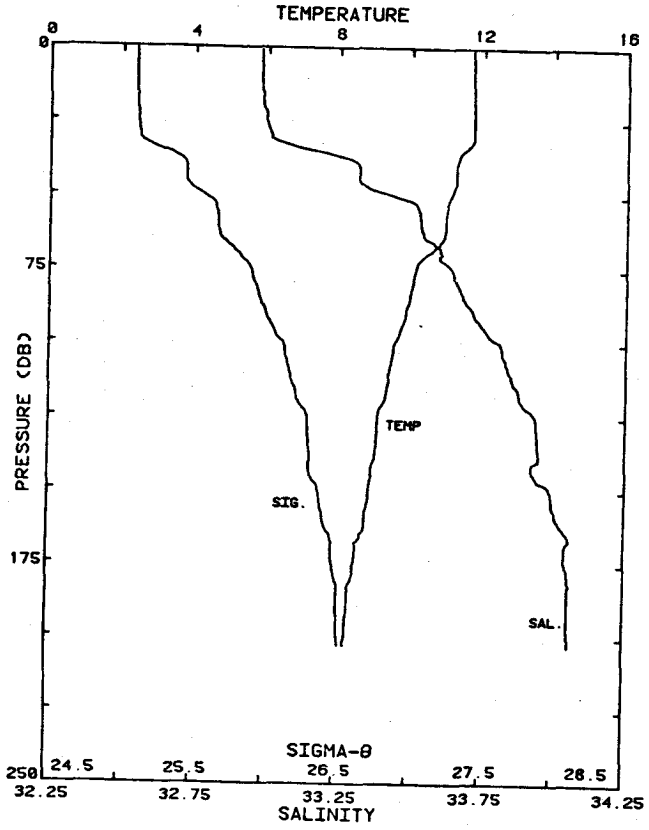
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
.1	11.050	33.022	11.050	25.248	273.1	0.003
10	11.063	33.017	11.061	25.242	273.9	0.027
20	11.069	33.016	11.067	25.240	274.2	0.055
30	10.385	33.246	10.381	25.539	246.0	0.081
40	10.497	33.415	10.493	25.651	235.6	0.105
50	10.440	33.519	10.434	25.743	227.2	0.128
60	10.064	33.600	10.057	25.870	215.3	0.150
70	9.946	33.679	9.938	25.952	207.7	0.171
80	9.839	33.764	9.830	26.036	199.9	0.191
90	9.630	33.806	9.620	26.104	193.7	0.211
100	9.321	33.836	9.310	26.178	186.8	0.230
110	9.182	33.876	9.170	26.232	181.9	0.248
120	9.020	33.917	9.007	26.290	176.5	0.266
130	8.866	33.947	8.852	26.338	172.1	0.284
140	8.826	33.958	8.811	26.353	170.9	0.301
150	8.653	33.993	8.637	26.407	165.9	0.318
175	8.472	34.022	8.454	26.458	161.5	0.359
200	8.183	34.037	8.163	26.514	156.6	0.399
225	7.950	34.060	7.928	26.567	151.8	0.437
250	7.735	34.080	7.710	26.615	147.7	0.474
300	7.335	34.116	7.306	26.701	140.1	0.546
400	6.584	34.163	6.548	26.842	127.9	0.680
500	5.953	34.199	5.910	26.953	118.2	0.803
502	5.930	34.198	5.886	26.955	118.0	0.805

STA NO 57 ,COA8 LAT: 38 26.3 N LONG:123 42.3 W
30 MAR 1982 0434 GMT PROBE 2567 DEPTH 868M
35.2 KM FROM SHORE LIN INT SAL 110-126DB

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.535	32.927	11.535	25.087	288.5	0.003
10	11.544	32.929	11.543	25.087	288.6	0.029
20	11.547	32.931	11.545	25.088	288.7	0.058
30	11.539	32.938	11.535	25.096	288.3	0.087
40	11.395	32.983	11.390	25.156	282.7	0.115
50	10.859	33.175	10.853	25.401	259.6	0.142
60	10.669	33.359	10.662	25.578	243.0	0.168
70	10.430	33.533	10.422	25.755	226.4	0.191
80	10.307	33.590	10.298	25.821	220.4	0.213
90	10.037	33.650	10.026	25.914	211.8	0.235
100	9.800	33.700	9.789	25.993	204.4	0.256
110	9.758	33.743	9.746	26.034	200.7	0.276
120	9.630	33.821	9.616	26.116	193.1	0.296
130	9.409	33.883	9.395	26.201	185.2	0.315
140	9.302	33.933	9.287	26.257	180.1	0.333
150	9.205	33.933	9.189	26.273	178.8	0.351
175	8.677	33.968	8.659	26.384	168.6	0.394
200	8.442	34.020	8.421	26.462	161.6	0.435
225	8.140	34.061	8.117	26.540	154.6	0.475
250	7.747	34.086	7.723	26.617	147.4	0.513
300	7.344	34.113	7.315	26.697	140.5	0.584
400	6.504	34.162	6.468	26.852	126.8	0.718
500	5.909	34.208	5.866	26.965	116.9	0.840
503	5.872	34.213	5.829	26.974	116.1	0.843



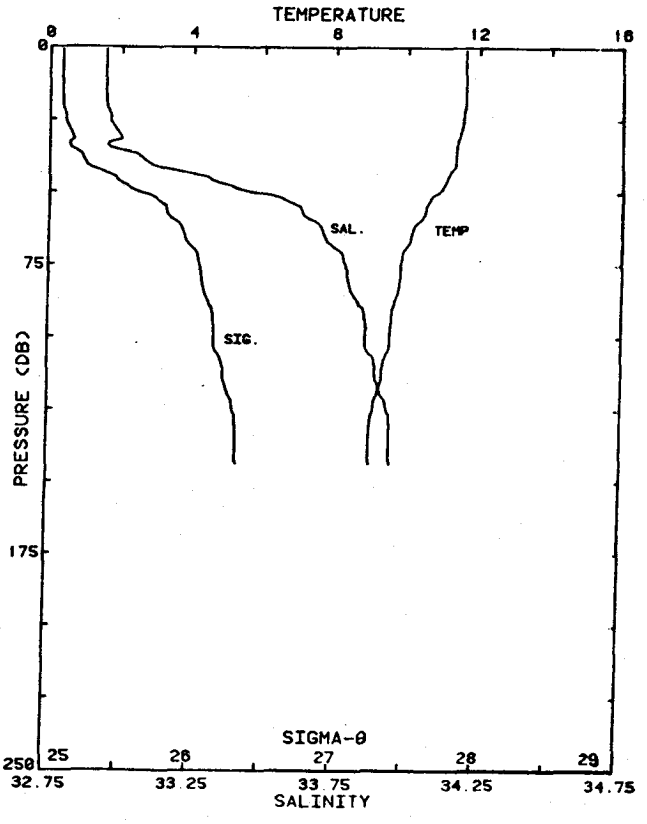
STATION 57 COA8



STATION 58 COA7

STA NO 58 ,COA7 LAT: 38 30.0 N LONG:123 37.1 W
30 MAR 1982 0554 GMT PROBE 2567 DEPTH 217M
25.3 KM FROM SHORE

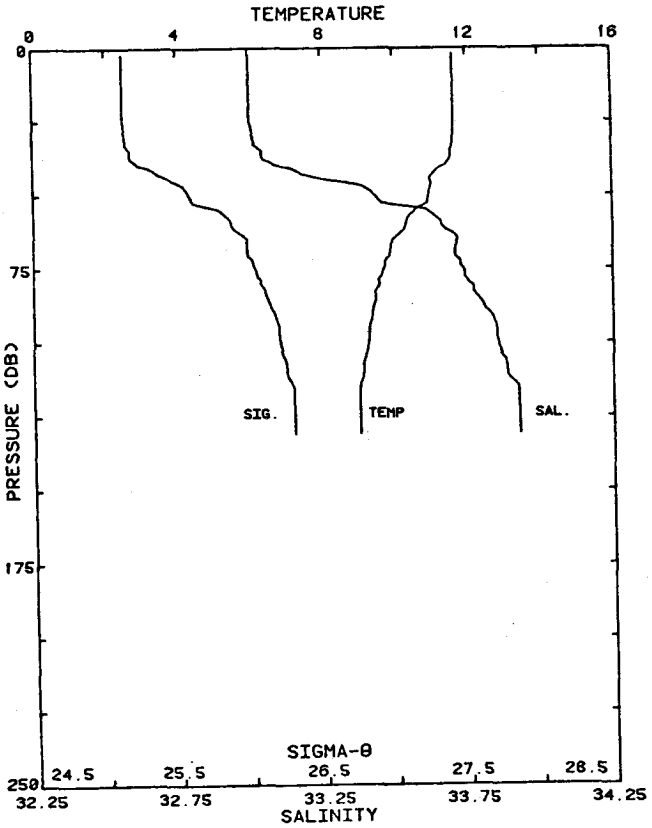
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.688	32.977	11.688	25.097	287.4	0.003
10	11.699	32.977	11.698	25.096	287.8	0.029
20	11.712	32.982	11.709	25.097	287.9	0.058
30	11.718	33.013	11.714	25.121	285.9	0.086
40	11.255	33.318	11.250	25.442	255.6	0.113
50	11.092	33.432	11.086	25.560	244.6	0.139
60	10.960	33.533	10.952	25.662	235.1	0.162
70	10.440	33.608	10.431	25.812	221.1	0.185
80	10.043	33.661	10.034	25.922	210.8	0.207
90	9.865	33.718	9.854	25.996	203.9	0.228
100	9.562	33.809	9.551	26.117	192.6	0.248
110	9.425	33.843	9.413	26.166	188.1	0.267
120	9.273	33.887	9.260	26.226	182.6	0.285
130	9.105	33.942	9.091	26.296	176.2	0.303
140	9.022	33.947	9.007	26.313	174.7	0.321
150	8.881	33.988	8.865	26.367	169.7	0.338
175	8.485	34.048	8.467	26.476	159.8	0.379
200	8.274	34.059	8.254	26.517	156.3	0.418
203	8.242	34.062	8.222	26.525	155.6	0.423



STATION 60 COA6

STA NO 60 ,COA6 LAT: 38 32.2 N LONG:123 34.0 W
30 MAR 1982 0700 GMT PROBE 2567 DEPTH 144M
19.2 KM FROM SHORE

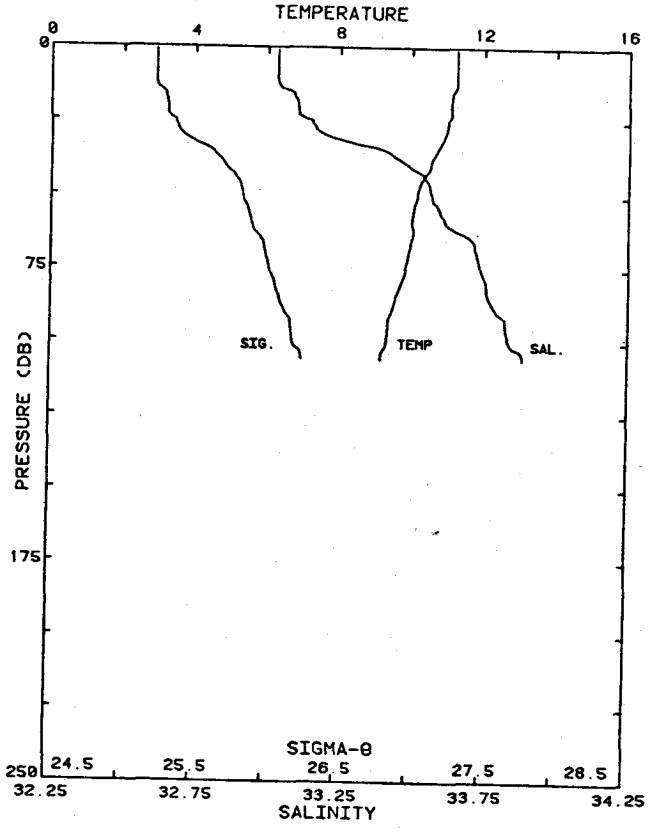
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.603	32.944	11.603	25.088	288.4	0.003
10	11.608	32.944	11.607	25.087	288.6	0.029
20	11.594	32.948	11.592	25.093	288.3	0.058
30	11.454	32.992	11.451	25.153	282.8	0.086
40	11.341	33.094	11.336	25.252	273.6	0.114
50	10.861	33.453	10.855	25.617	239.1	0.140
60	10.325	33.678	10.318	25.886	213.8	0.162
70	9.918	33.763	9.910	26.021	201.1	0.183
80	9.798	33.793	9.789	26.065	197.1	0.203
90	9.599	33.846	9.589	26.139	190.3	0.222
100	9.542	33.857	9.531	26.158	188.7	0.241
110	9.343	33.891	9.331	26.217	183.3	0.260
120	9.192	33.913	9.179	26.259	179.5	0.278
130	9.016	33.945	9.002	26.312	174.6	0.296
140	8.992	33.946	8.977	26.317	174.4	0.313
144	8.986	33.947	8.971	26.319	174.3	0.320



STATION 61 COA5

STA NO 61 ,COA5 LAT: 38 33.6 N LONG:123 31.8 W
30 MAR 1982 0732 GMT PROBE 2567 DEPTH 137M
15.5 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	11.644	33.003	11.644	25.125	284.8	0.006
10	11.648	33.002	11.647	25.124	285.1	0.028
20	11.646	33.002	11.643	25.125	285.3	0.057
30	11.623	33.015	11.620	25.139	284.1	0.086
40	11.425	33.089	11.420	25.233	275.5	0.114
50	10.953	33.430	10.947	25.583	242.4	0.139
60	10.307	33.661	10.300	25.876	214.7	0.162
70	9.871	33.708	9.863	25.987	204.4	0.183
80	9.576	33.756	9.567	26.074	196.3	0.203
90	9.361	33.824	9.351	26.162	188.1	0.222
100	9.244	33.854	9.234	26.204	184.3	0.240
110	9.115	33.885	9.103	26.249	180.2	0.259
120	9.012	33.924	8.999	26.296	175.9	0.276
130	9.007	33.927	8.993	26.299	175.8	0.294
131	9.006	33.927	8.992	26.300	175.8	0.296



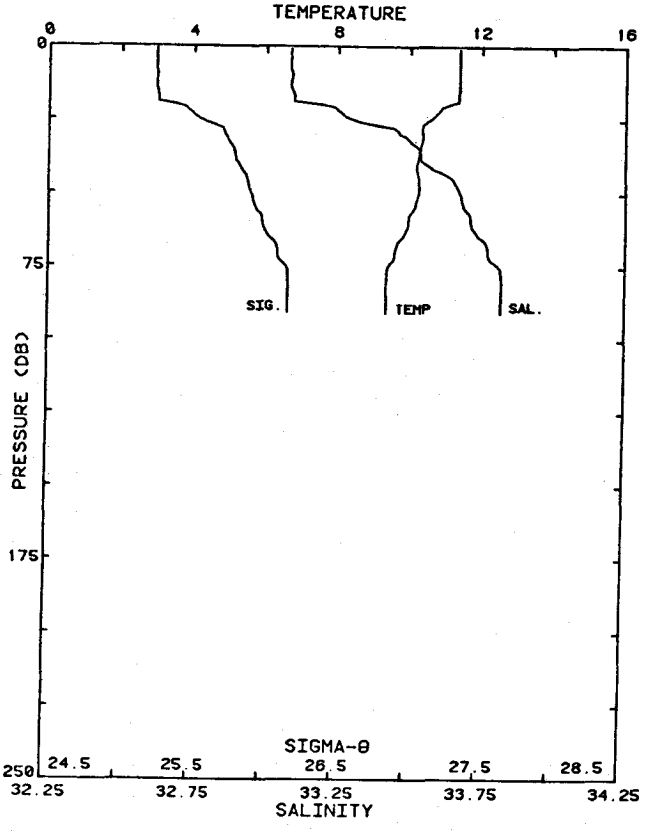
STATION 62 COA4

STA NO 62 ,COA4 LAT: 38 34.8 N LONG:123 29.9 W
30 MAR 1982 0811 GMT PROBE 2567 DEPTH 113M
11.1 KM FROM SHORE

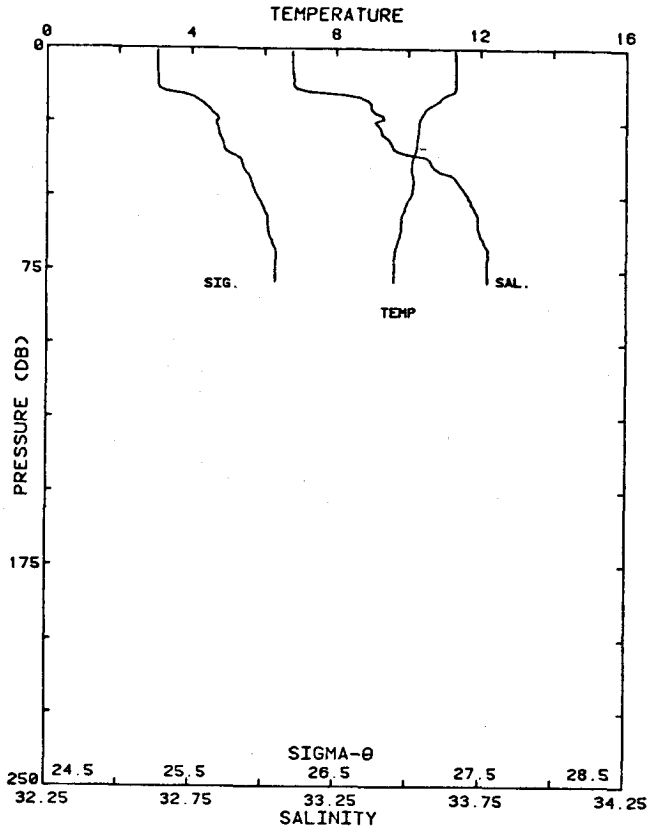
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.228	33.034	11.228	25.226	275.2	0.003
10	11.236	33.033	11.235	25.224	275.6	0.028
20	11.079	33.105	11.076	25.308	267.9	0.055
30	10.898	33.201	10.895	25.414	257.9	0.081
40	10.515	33.489	10.510	25.705	230.5	0.105
50	10.154	33.570	10.148	25.831	218.7	0.128
60	10.010	33.622	10.003	25.896	212.7	0.149
70	9.916	33.727	9.908	25.993	203.7	0.170
80	9.703	33.759	9.694	26.055	198.1	0.190
90	9.441	33.798	9.432	26.128	191.3	0.210
100	9.315	33.837	9.304	26.179	186.6	0.228
106	9.163	33.888	9.152	26.244	180.6	0.239

STA NO 63 ,COA3 LAT: 38 26.5 N LONG:123 28.0 W
30 MAR 1982 0849 GMT PROBE 2567 DEPTH 93M
7.0 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.365	33.085	11.365	25.240	273.9	0.003
10	11.363	33.089	11.362	25.244	273.7	0.027
20	11.090	33.185	11.088	25.368	262.2	0.055
30	10.345	33.465	10.342	25.716	229.2	0.079
40	10.198	33.552	10.194	25.810	220.6	0.101
50	10.250	33.674	10.244	25.896	212.6	0.123
60	9.957	33.713	9.950	25.976	205.2	0.144
70	9.595	33.774	9.587	26.084	195.1	0.164
80	9.369	33.822	9.360	26.158	188.2	0.183
90	9.372	33.820	9.362	26.157	188.6	0.202
91	9.372	33.821	9.362	26.157	188.6	0.204



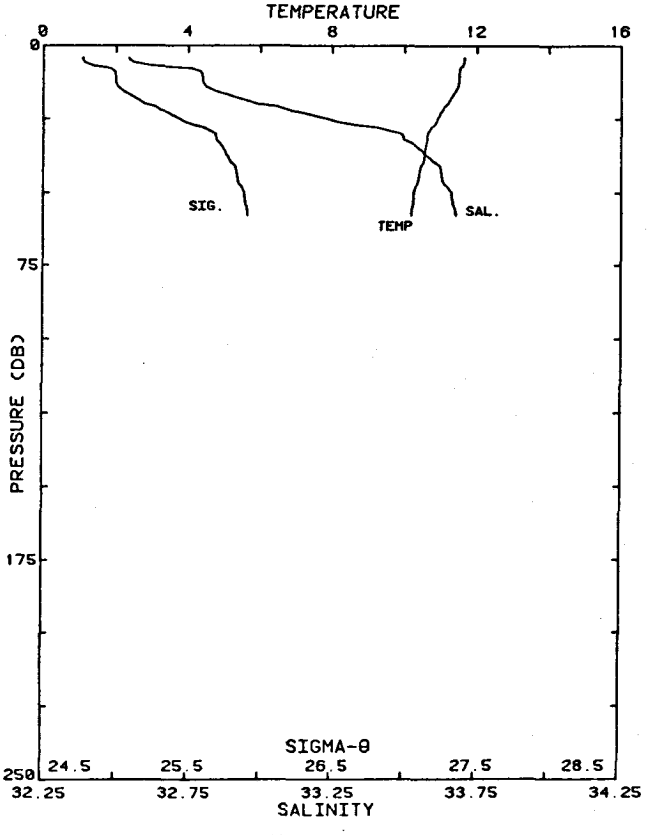
STATION 63 COA3



STATION 64 COA2

STA NO 64 ,COA2 LAT: 38 27.5 N LONG:123 26.5 W
30 MAR 1982 0918 GMT PROBE 2567 DEPTH 82M
5.2 KM FROM SHORE

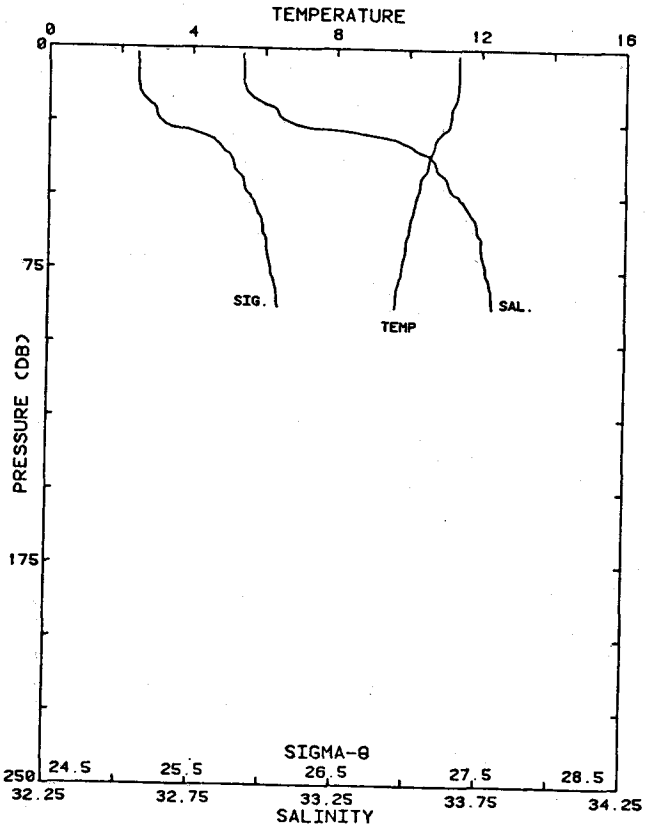
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.292	33.096	11.292	25.262	271.8	0.003
10	11.295	33.099	11.294	25.264	271.8	0.027
20	10.562	33.368	10.560	25.603	239.7	0.053
30	10.264	33.421	10.261	25.696	231.1	0.077
40	10.092	33.584	10.087	25.852	216.5	0.099
50	10.066	33.704	10.061	25.950	207.4	0.120
60	9.783	33.738	9.776	26.025	200.5	0.140
70	9.604	33.773	9.596	26.082	195.3	0.160
79	9.604	33.774	9.595	26.082	195.4	0.178



STATION 65 R1

STA NO 65 ,R1 LAT: 38 28.3 N LONG:123 12.8 W
31 MAR 1982 0428 GMT PROBE 2567 DEPTH 60M

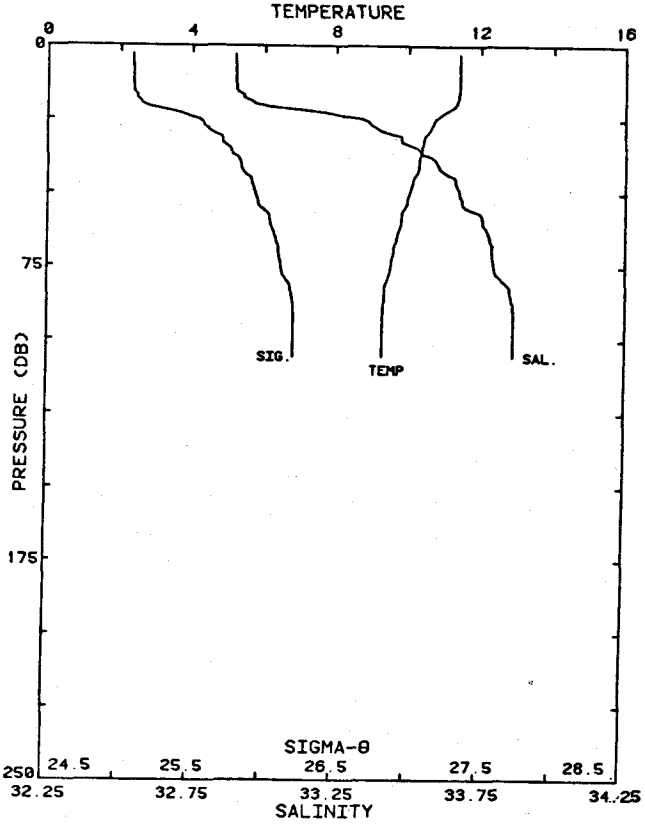
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
4	11.647	32.545	11.647	24.771	318.6	0.013
10	11.494	32.798	11.493	24.994	297.4	0.031
20	11.180	32.988	11.178	25.198	278.2	0.060
30	10.619	33.485	10.616	25.684	232.3	0.086
40	10.503	33.605	10.498	25.798	221.7	0.109
50	10.241	33.663	10.235	25.888	213.3	0.130
58	10.173	33.676	10.167	25.911	211.4	0.147



STATION 66 R2

STA NO 66 ,R2 LAT: 38 26.6 N LONG:123 15.4 W
31 MAR 1982 0506 GMT PROBE 2567 DEPTH 91M

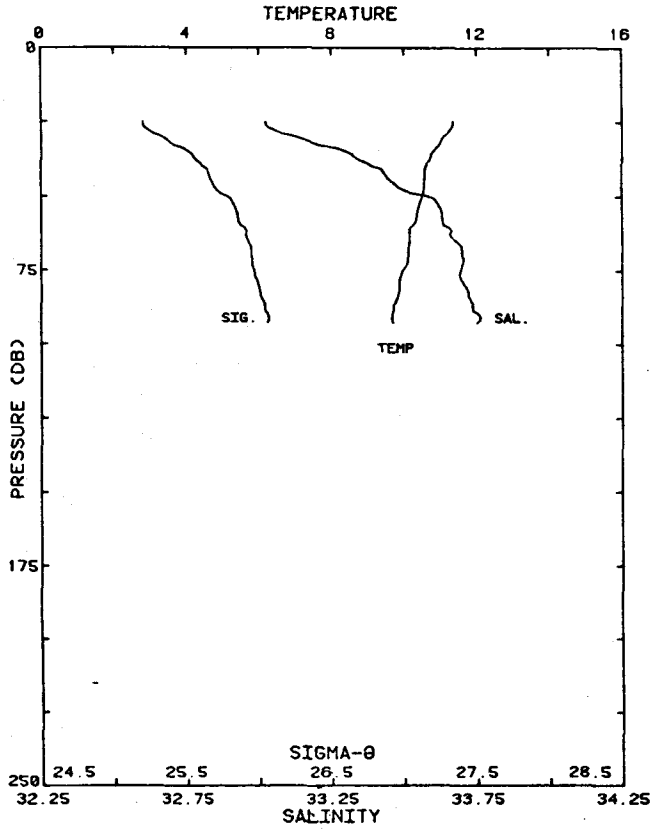
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	11.349	32.925	11.348	25.119	285.4	0.006
10	11.351	32.924	11.350	25.118	285.7	0.029
20	11.179	33.029	11.177	25.231	275.2	0.057
30	10.783	33.412	10.780	25.599	240.4	0.083
40	10.511	33.594	10.507	25.788	222.6	0.106
50	10.192	33.671	10.187	25.903	211.9	0.128
60	10.003	33.733	9.996	25.984	204.4	0.149
70	9.879	33.753	9.871	26.020	201.2	0.169
80	9.698	33.780	9.689	26.072	196.5	0.189
88	9.609	33.791	9.599	26.095	194.4	0.205



STATION 67 R3

STA NO 67 ,R3 LAT: 38 24.8 N LONG:123 18.0 W
31 MAR 1982 0546 GMT PROBE 2567 DEPTH 107M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	11.408	32.898	11.408	25.087	288.4	0.009
10	11.408	32.899	11.406	25.088	288.5	0.029
20	11.324	32.967	11.321	25.157	282.2	0.058
30	10.519	33.436	10.515	25.664	234.2	0.083
40	10.268	33.596	10.263	25.832	218.5	0.105
50	10.023	33.676	10.017	25.936	208.8	0.127
60	9.787	33.757	9.780	26.038	199.2	0.147
70	9.587	33.788	9.580	26.096	193.9	0.167
80	9.407	33.826	9.399	26.156	188.5	0.186
90	9.296	33.862	9.286	26.202	184.3	0.204
100	9.289	33.864	9.278	26.204	184.2	0.223
106	9.290	33.864	9.278	26.205	184.4	0.234



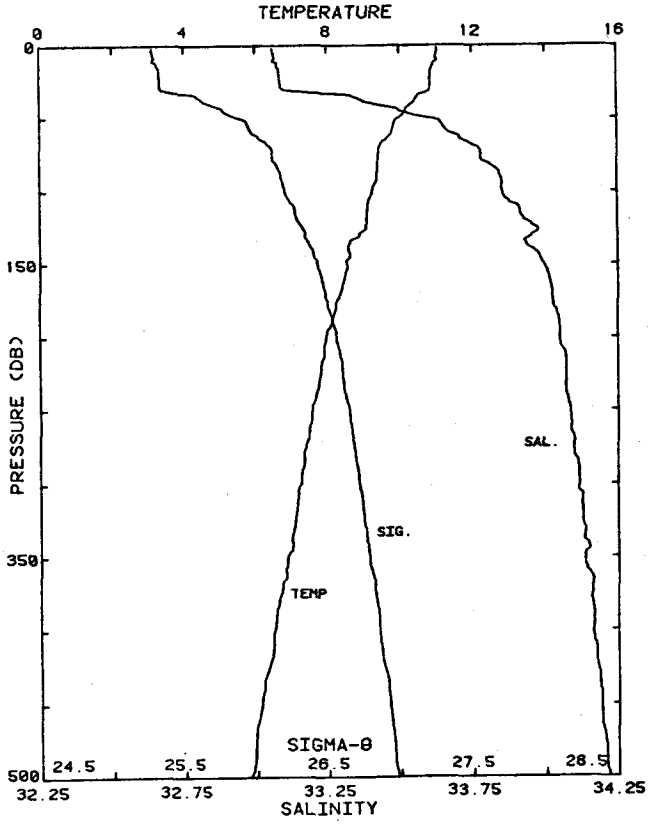
STATION 68 UNH

STA NO 68 ,UNH LAT: N LONG: W
1 APR 1982 0700 GMT PROBE 2567 DEPTH M

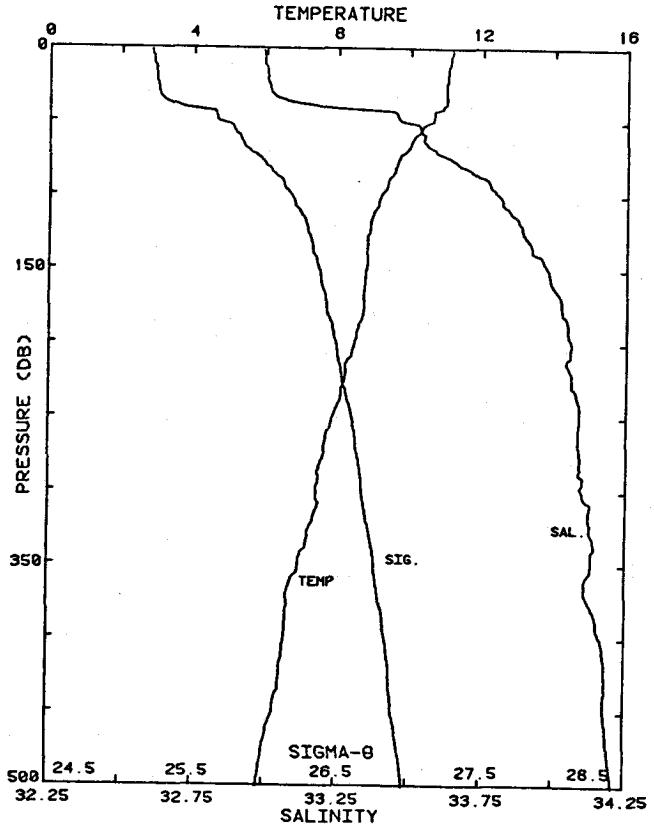
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
25	11.344	33.022	11.341	25.196	278.6	0.070
30	11.086	33.119	11.082	25.317	267.2	0.083
40	10.598	33.388	10.594	25.613	239.3	0.109
50	10.494	33.577	10.489	25.778	223.8	0.132
60	10.218	33.634	10.211	25.870	215.2	0.154
70	10.095	33.698	10.087	25.942	208.7	0.175
80	9.843	33.703	9.834	25.988	204.5	0.195
90	9.671	33.754	9.661	26.056	198.2	0.216
93	9.674	33.750	9.664	26.053	198.6	0.222

STA NO 69 ,COA9 LAT: 38 22.4 N LONG:123 47.5 W
1 APR 1982 2332 GMT PROBE 2567 DEPTH 1628M
45.3 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	11.044	33.061	11.044	25.279	270.1	0.005
10	11.041	33.062	11.039	25.281	270.2	0.027
20	10.853	33.085	10.850	25.332	265.5	0.054
30	10.844	33.092	10.841	25.339	265.1	0.080
40	10.363	33.395	10.358	25.659	234.9	0.105
50	9.977	33.589	9.972	25.875	214.5	0.127
60	9.767	33.669	9.760	25.974	205.4	0.148
70	9.420	33.767	9.412	26.107	192.9	0.168
80	9.389	33.790	9.380	26.131	190.9	0.187
90	9.363	33.846	9.353	26.179	186.5	0.206
100	9.228	33.851	9.217	26.205	184.2	0.225
110	9.106	33.904	9.094	26.265	178.6	0.243
120	9.076	33.927	9.063	26.289	176.6	0.261
130	8.867	33.953	8.854	26.342	171.7	0.278
140	8.558	33.957	8.543	26.393	166.9	0.295
150	8.513	33.991	8.497	26.427	163.9	0.311
175	8.261	34.023	8.243	26.491	158.2	0.352
200	7.935	34.047	7.915	26.559	152.2	0.390
225	7.781	34.070	7.759	26.600	148.7	0.428
250	7.545	34.084	7.521	26.645	144.7	0.465
300	7.243	34.116	7.214	26.714	138.9	0.536
400	6.498	34.162	6.462	26.852	126.8	0.668
500	5.830	34.217	5.787	26.983	115.2	0.789



STATION 69 COA9



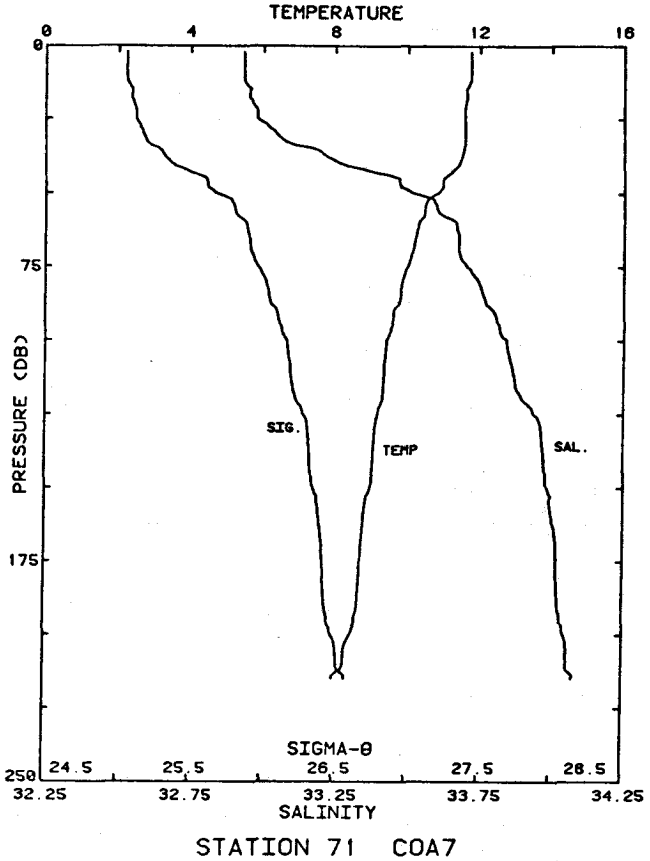
STATION 70 COA8

STA NO 70 ,COA8 LAT: 38 26.3 N LONG:123 42.2 W
2 APR 1982 0031 GMT PROBE 2567 DEPTH 846M
35.2 KM FROM SHORE

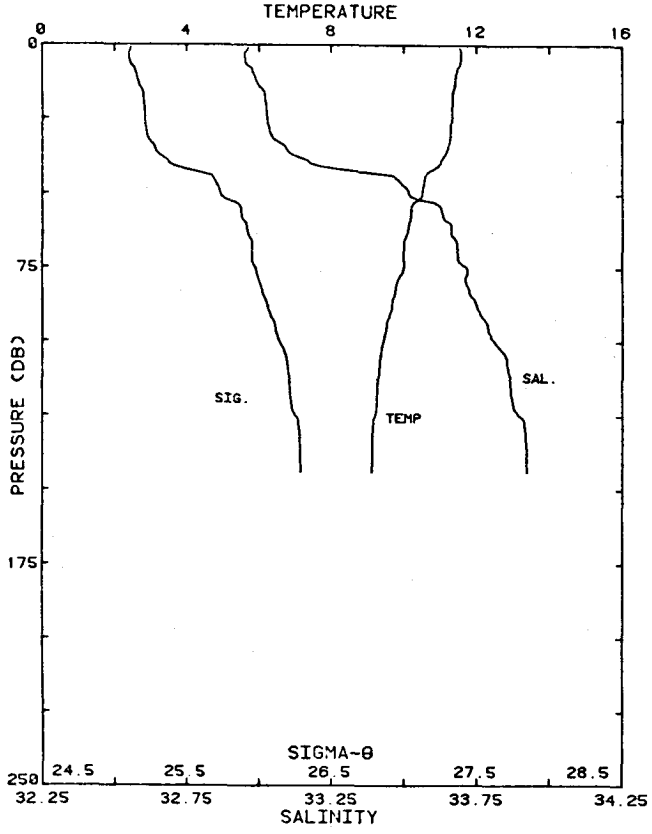
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	11.149	32.990	11.148	25.205	277.2	0.006
10	11.084	32.994	11.083	25.221	275.9	0.028
20	11.011	33.005	11.009	25.242	274.1	0.055
30	10.979	33.016	10.975	25.257	272.9	0.082
40	10.892	33.188	10.888	25.406	259.0	0.109
50	10.612	33.471	10.606	25.675	233.6	0.133
60	10.111	33.549	10.104	25.822	219.8	0.156
70	9.871	33.587	9.863	25.892	213.3	0.178
80	9.601	33.672	9.592	26.004	202.9	0.198
90	9.377	33.769	9.367	26.116	192.5	0.218
100	9.177	33.808	9.166	26.179	186.6	0.237
110	9.022	33.842	9.011	26.231	181.9	0.256
120	8.887	33.882	8.874	26.283	177.1	0.273
130	8.811	33.906	8.797	26.314	174.3	0.291
140	8.805	33.935	8.790	26.338	172.3	0.308
150	8.787	33.976	8.771	26.373	169.2	0.325
175	8.711	34.025	8.693	26.423	164.9	0.367
200	8.463	34.060	8.443	26.490	159.0	0.408
225	8.190	34.062	8.167	26.533	155.2	0.447
250	7.866	34.089	7.841	26.603	148.9	0.485
300	7.429	34.098	7.400	26.674	142.8	0.558
400	6.577	34.168	6.541	26.847	127.4	0.693
500	5.847	34.210	5.804	26.975	116.0	0.815
501	5.845	34.210	5.802	26.975	115.9	0.816

STA NO 71 ,COA7 LAT: 38 30.0 N LONG:123 37.2 W
2 APR 1982 0132 GMT PROBE 2567 DEPTH 217M
25.3 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	11.740	32.931	11.740	25.053	291.7	0.006
10	11.741	32.932	11.740	25.053	291.9	0.029
20	11.589	32.963	11.586	25.106	287.1	0.058
30	11.575	33.043	11.571	25.170	281.2	0.087
40	11.430	33.263	11.425	25.367	262.7	0.114
50	10.834	33.516	10.828	25.671	234.1	0.138
60	10.305	33.668	10.299	25.882	214.2	0.161
70	10.138	33.678	10.130	25.918	210.9	0.182
80	9.856	33.747	9.847	26.019	201.5	0.202
90	9.625	33.797	9.615	26.097	194.3	0.222
100	9.427	33.845	9.416	26.167	187.8	0.242
110	9.378	33.865	9.366	26.191	185.7	0.260
120	9.326	33.897	9.313	26.225	182.7	0.279
130	9.111	33.964	9.097	26.312	174.7	0.296
140	9.070	33.975	9.055	26.327	173.4	0.314
150	8.985	33.985	8.969	26.349	171.6	0.331
175	8.712	34.020	8.694	26.420	165.2	0.373
200	8.454	34.047	8.434	26.481	159.8	0.414
215	7.968	34.078	7.946	26.579	150.6	0.437



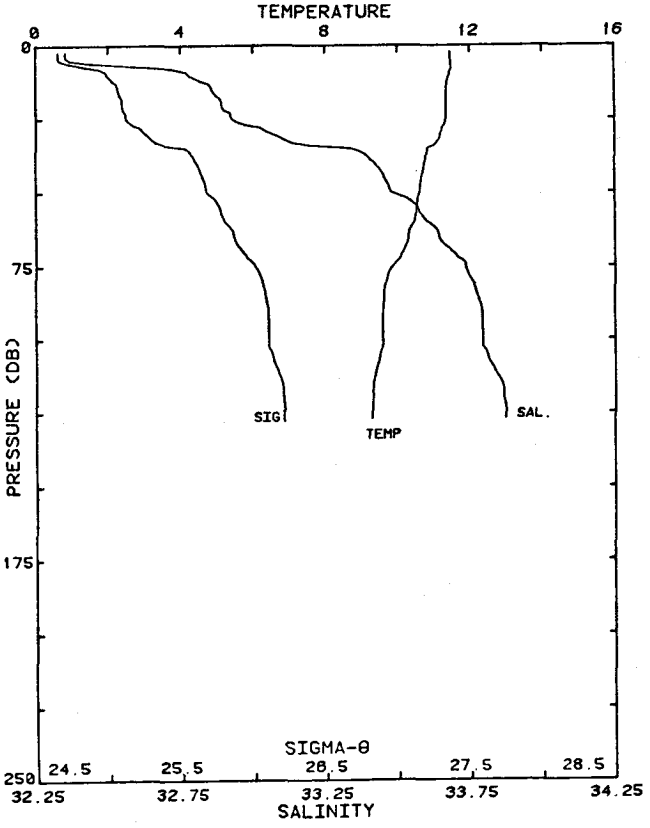
STATION 71 COA7



STATION 72 COA6

STA NO 72 ,COA6 LAT: 38 32.2 N LONG:123 34.0 W
2 APR 1982 0209 GMT PROBE 2567 DEPTH 147M
19.2 KM FROM SHORE

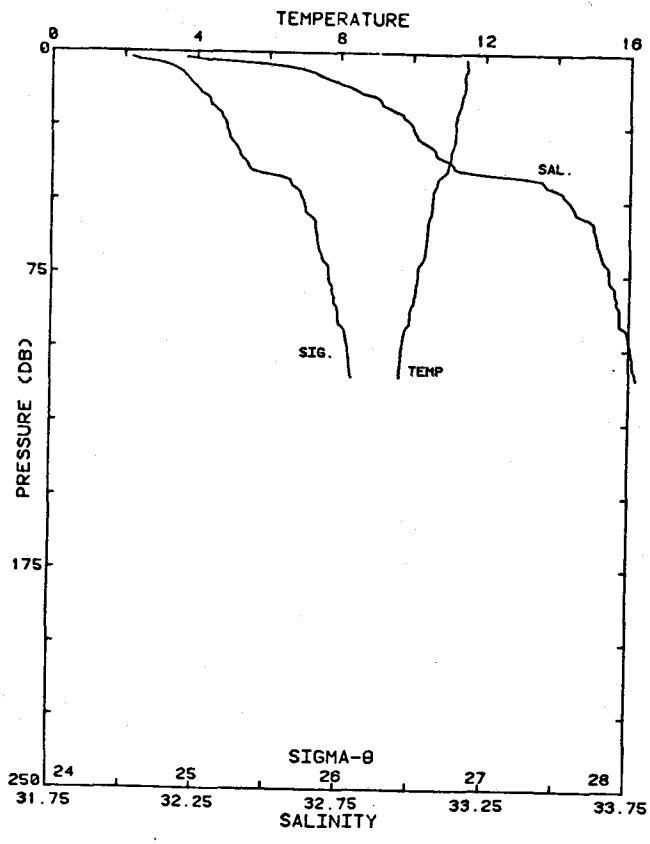
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.543	32.963	11.543	25.113	286.0	0.003
10	11.425	32.982	11.423	25.149	282.7	0.029
20	11.319	33.024	11.317	25.201	278.0	0.057
30	11.277	33.041	11.273	25.222	276.2	0.084
40	11.002	33.176	10.997	25.377	261.7	0.111
50	10.492	33.517	10.486	25.731	228.2	0.135
60	10.121	33.657	10.115	25.905	212.0	0.157
70	9.981	33.685	9.973	25.950	207.9	0.178
80	9.801	33.713	9.792	26.002	203.1	0.199
90	9.625	33.759	9.615	26.067	197.1	0.219
100	9.430	33.809	9.419	26.138	190.5	0.238
110	9.302	33.858	9.291	26.198	185.0	0.257
120	9.246	33.873	9.233	26.219	183.2	0.275
130	9.116	33.916	9.102	26.274	178.3	0.293
140	9.091	33.920	9.076	26.281	177.8	0.311
144	9.085	33.922	9.070	26.284	177.6	0.318



STATION 73 COA5

STA NO 73 ,COA5 LAT: 38 33.6 N LONG:123 31.8 W
2 APR 1982 0248 GMT PROBE 2567 DEPTH 130M
15.5 KM FROM SHORE

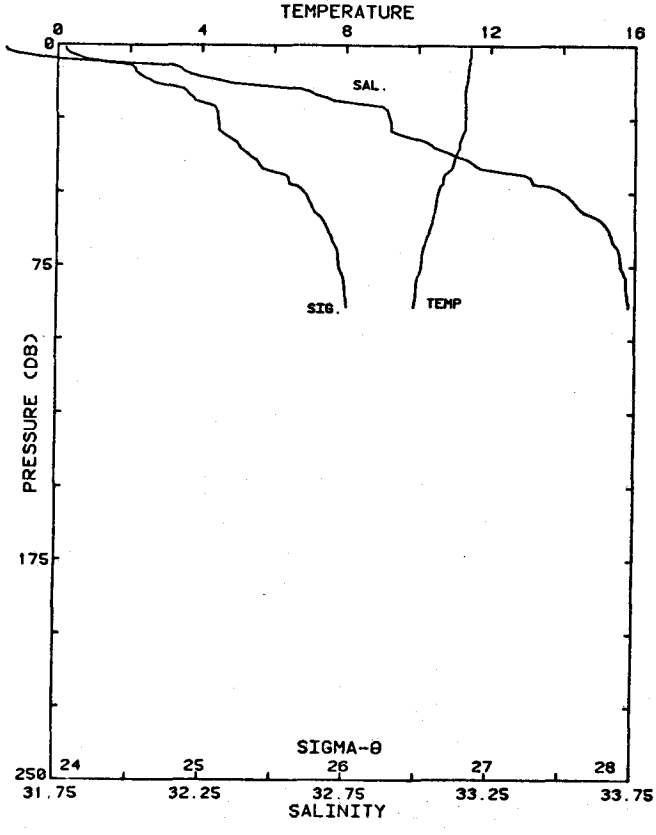
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	11.459	32.353	11.459	24.656	329.5	0.007
10	11.433	32.777	11.431	24.990	297.9	0.032
20	11.335	32.891	11.332	25.096	288.0	0.061
30	11.178	33.064	11.175	25.258	272.8	0.089
40	10.743	33.420	10.738	25.612	239.3	0.115
50	10.607	33.478	10.601	25.681	233.0	0.138
60	10.447	33.601	10.440	25.805	221.5	0.161
70	10.140	33.686	10.132	25.924	210.4	0.182
80	9.666	33.755	9.657	26.058	197.8	0.203
90	9.574	33.790	9.564	26.100	194.0	0.222
100	9.561	33.793	9.550	26.105	193.8	0.242
110	9.386	33.831	9.374	26.163	188.4	0.261
120	9.287	33.864	9.274	26.206	184.5	0.279
127	9.272	33.872	9.258	26.215	183.9	0.292



STATION 74 COA4

STA NO 74 ,COA4 LAT: 38 35.0 N LONG:123 29.8 W
2 APR 1982 0350 GMT PROBE 2567 DEPTH 113M
11.1 KM FROM SHORE

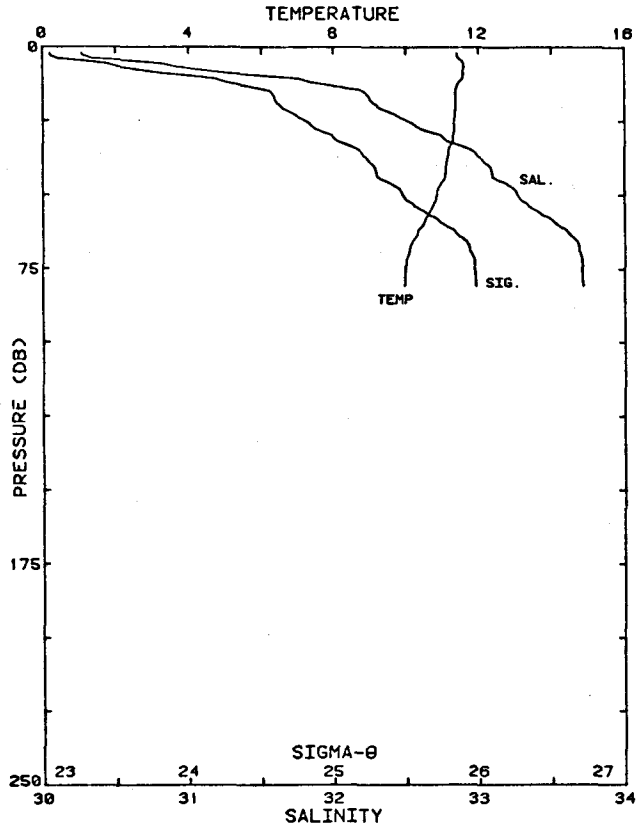
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	11.460	32.211	11.460	24.545	340.0	0.007
10	11.438	32.732	11.437	24.953	301.3	0.032
20	11.251	32.940	11.249	25.149	283.0	0.061
30	11.142	33.029	11.139	25.237	274.8	0.089
40	10.936	33.168	10.931	25.382	261.2	0.116
50	10.549	33.543	10.543	25.742	227.2	0.139
60	10.426	33.629	10.419	25.830	219.1	0.162
70	10.297	33.656	10.289	25.874	215.1	0.183
80	10.094	33.699	10.085	25.942	208.8	0.205
90	9.927	33.717	9.917	25.984	205.0	0.225
100	9.706	33.757	9.694	26.053	198.7	0.245
110	9.628	33.773	9.616	26.078	196.5	0.265



STATION 75 COA3

STA NO 75 ,COA3 LAT: 38 36.5 N LONG:123 27.8 W
2 APR 1982 0418 GMT PROBE 2567 DEPTH 93M
7.0 KM FROM SHORE

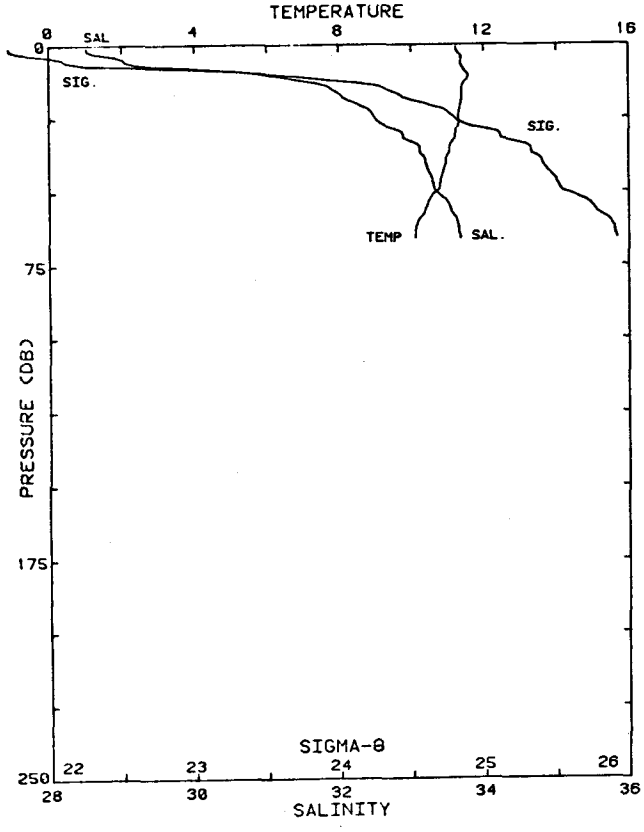
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.440	31.573	11.440	24.055	386.7	0.004
10	11.368	32.212	11.367	24.563	338.5	0.037
20	11.312	32.792	11.309	25.023	294.9	0.068
30	11.222	32.920	11.218	25.139	284.2	0.097
40	10.968	33.182	10.963	25.388	260.7	0.124
50	10.549	33.497	10.543	25.706	230.6	0.148
60	10.385	33.636	10.378	25.843	217.9	0.171
70	10.103	33.691	10.095	25.935	209.4	0.192
80	9.947	33.717	9.938	25.981	205.1	0.213
89	9.870	33.726	9.860	26.002	203.4	0.231



STATION 76 COA2

STA NO 76 ,COA2 LAT: 38 37.3 N LONG:123 26.6 W
2 APR 1982 0444 GMT PROBE 2567 DEPTH 85M
5.2 KM FROM SHORE

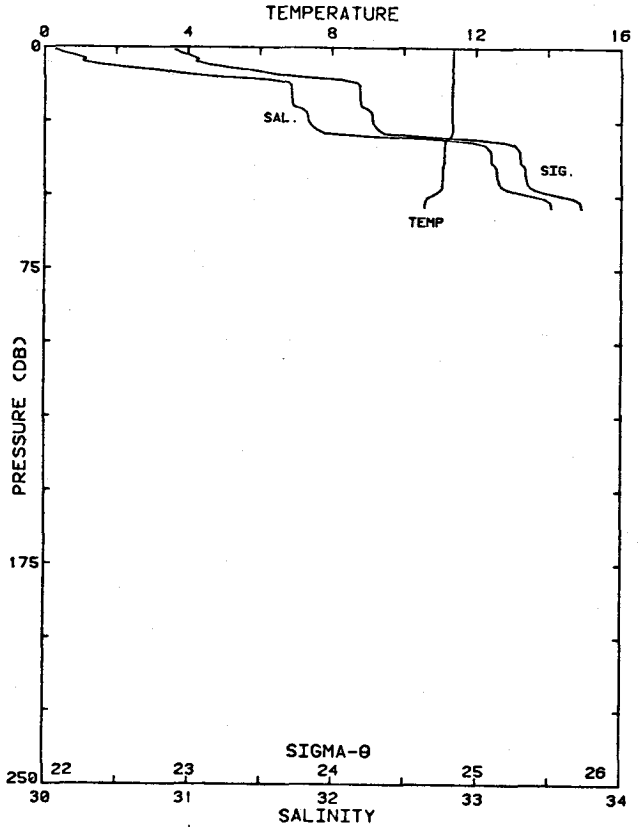
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	11.409	30.270	11.409	23.051	482.6	0.010
10	11.560	31.526	11.559	23.997	392.4	0.045
20	11.357	32.298	11.355	24.632	332.2	0.080
30	11.276	32.735	11.273	24.986	298.7	0.112
40	11.103	33.062	11.098	25.271	271.8	0.140
50	10.841	33.264	10.835	25.474	252.8	0.167
60	10.461	33.530	10.454	25.748	226.9	0.191
70	10.049	33.695	10.041	25.947	208.2	0.212
80	9.953	33.714	9.944	25.978	205.4	0.233
81	9.950	33.717	9.941	25.980	205.2	0.235



STATION 77 COA1

STA NO 77 ,COA1 LAT: 38 38.2 N LONG:123 25.2 W
2 APR 1982 0508 GMT PROBE 2567 DEPTH 70M
2.2 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.234	28.517	11.234	21.725	609.4	0.006
10	11.556	30.888	11.555	23.503	439.5	0.056
20	11.359	32.236	11.357	24.583	336.8	0.093
30	11.209	32.871	11.206	25.103	287.5	0.125
40	10.946	33.196	10.941	25.403	259.3	0.152
50	10.687	33.324	10.681	25.548	245.7	0.177
60	10.170	33.626	10.164	25.872	215.1	0.200
66	10.082	33.666	10.074	25.918	210.8	0.213



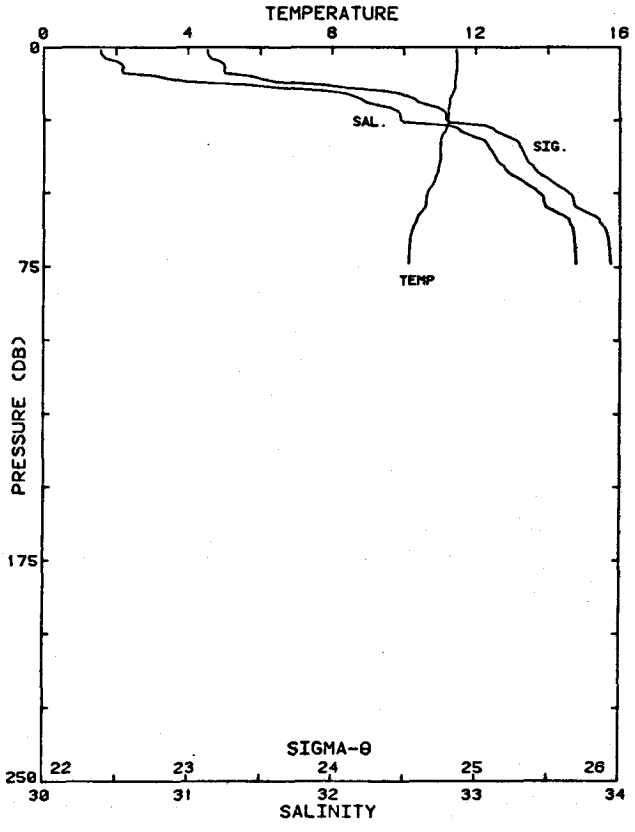
STATION 78 COC1

STA NO 78 ,COC1 LAT: 38 39.8 N LONG:123 25.5 W
4 APR 1982 0454 GMT PROBE 2567 DEPTH 58M
0.9 KM FROM SHORE

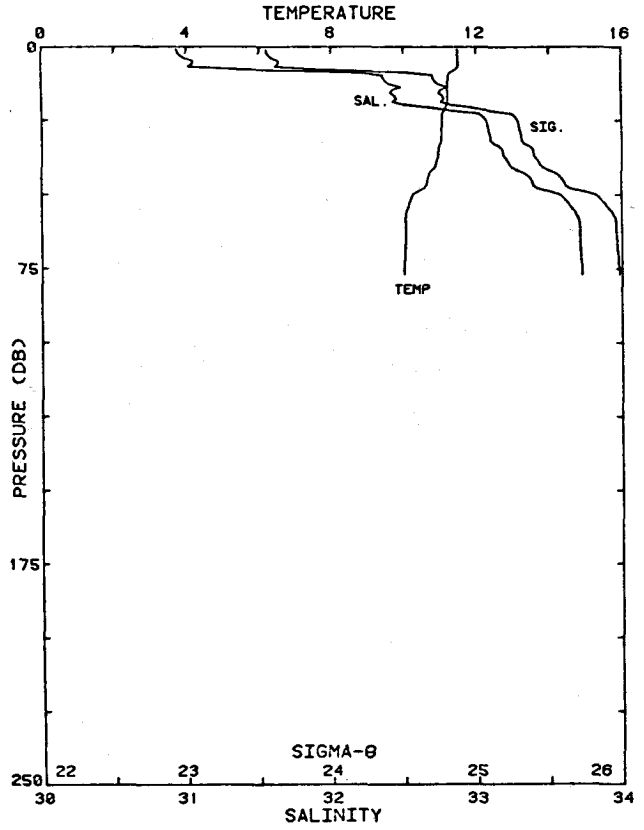
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.361	30.072	11.361	22.906	496.4	0.005
10	11.325	31.159	11.324	23.755	415.5	0.047
20	11.313	31.730	11.310	24.200	373.3	0.085
30	11.271	32.234	11.268	24.598	335.6	0.121
40	11.075	33.126	11.070	25.325	266.7	0.149
50	10.749	33.375	10.743	25.577	243.0	0.175
54	10.536	33.515	10.530	25.723	229.2	0.184

STA NO 79 ,COC2 LAT: 38 38.8 N LONG:123 26.9 W
4 APR 1982 0521 GMT PROBE 2567 DEPTH 78M
4.1 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.461	30.391	11.461	23.136	474.5	0.005
10	11.444	30.775	11.443	23.436	445.9	0.047
20	11.272	32.322	11.270	24.665	329.0	0.084
30	11.063	32.944	11.059	25.186	279.7	0.115
40	10.988	33.165	10.983	25.371	262.3	0.142
50	10.660	33.433	10.654	25.638	237.2	0.167
60	10.343	33.647	10.336	25.859	216.4	0.190
70	10.126	33.685	10.118	25.926	210.2	0.211
74	10.115	33.690	10.107	25.932	209.7	0.219



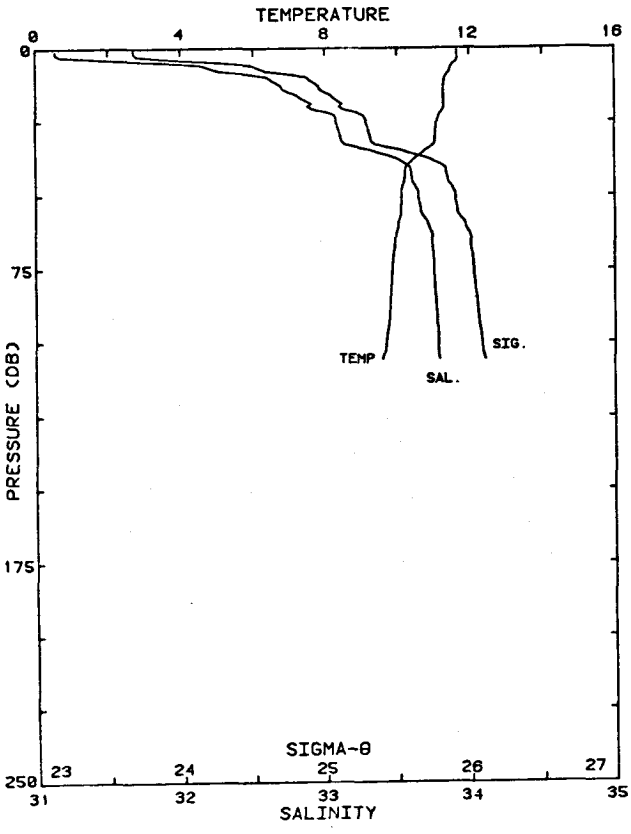
STATION 79 COC2



STATION 80 COC3

STA NO 80 ,COC3 LAT: 38 37.5 N LONG:123 28.9 W
4 APR 1982 0554 GMT PROBE 2567 DEPTH 81M
7.4 KM FROM SHORE

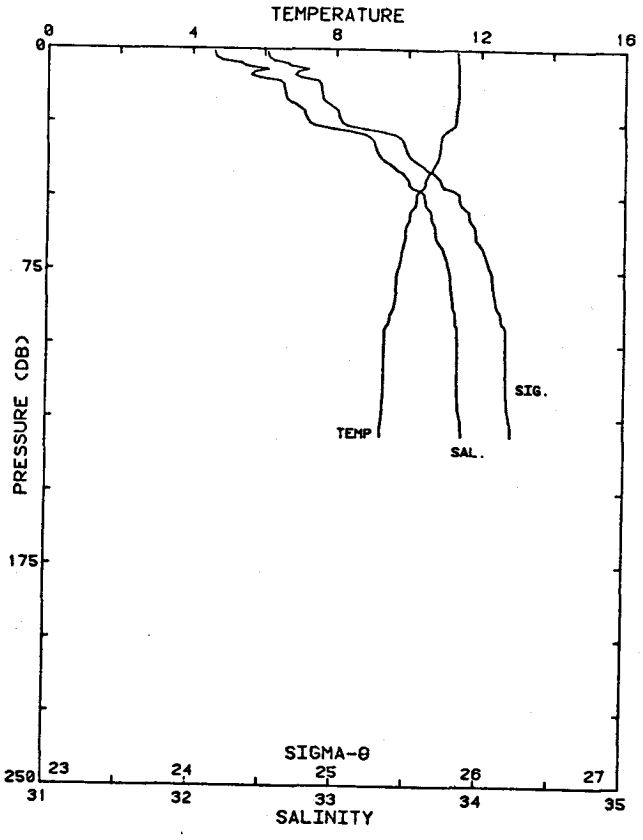
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.492	30.933	11.492	23.550	434.9	0.004
10	11.238	32.361	11.237	24.702	325.3	0.041
20	11.194	32.510	11.192	24.825	313.8	0.073
30	11.030	33.091	11.026	25.306	268.3	0.101
40	10.872	33.223	10.867	25.436	256.1	0.127
50	10.251	33.575	10.245	25.818	220.0	0.152
60	10.034	33.711	10.027	25.961	206.6	0.173
70	10.009	33.718	10.001	25.971	205.9	0.193
77	9.979	33.724	9.971	25.981	205.0	0.208



STATION 81 COC4

STA NO 81 ,COC4 LAT: 38 36.2 N LONG:123 30.8 W
4 APR 1982 0621 GMT PROBE 2567 DEPTH 109M
11.1 KM FROM SHORE

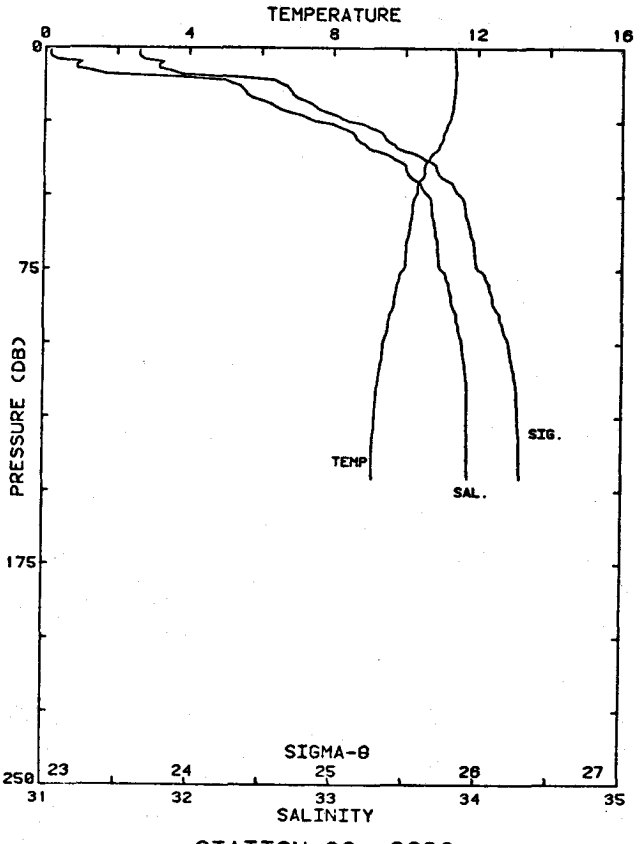
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.662	31.138	11.662	23.678	422.7	0.004
10	11.321	32.596	11.320	24.869	309.4	0.037
20	11.284	32.874	11.281	25.092	288.4	0.067
30	11.055	33.105	11.052	25.312	267.7	0.094
40	10.290	33.570	10.285	25.808	220.8	0.119
50	10.095	33.645	10.089	25.900	212.2	0.141
60	10.005	33.710	9.998	25.966	206.1	0.162
70	9.873	33.748	9.865	26.018	201.4	0.182
80	9.813	33.757	9.804	26.035	200.0	0.202
90	9.758	33.770	9.748	26.054	198.4	0.222
100	9.656	33.777	9.645	26.077	196.4	0.242
106	9.563	33.791	9.551	26.103	194.1	0.254



STATION 82 COC5

STA NO 82 ,COC5 LAT: 38 34.6 N LONG:123 33.3 W
4 APR 1982 0652 GMT PROBE 2567 DEPTH 136M
15.7 KM FROM SHORE

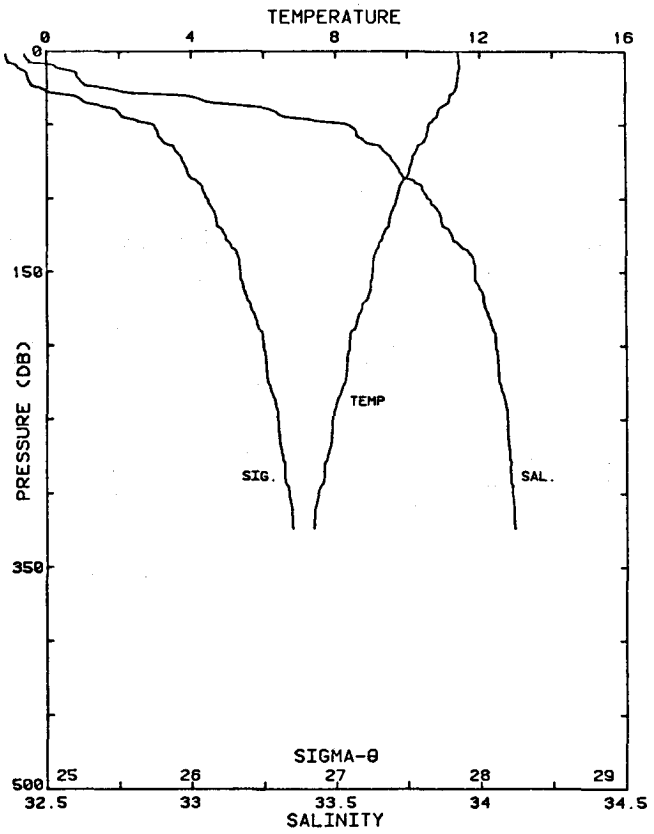
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.340	32.152	11.340	24.521	342.3	0.003
10	11.374	32.466	11.372	24.759	319.9	0.033
20	11.336	32.753	11.334	24.988	298.2	0.064
30	10.902	33.240	10.899	25.444	255.1	0.092
40	10.683	33.402	10.678	25.608	239.7	0.117
50	10.226	33.613	10.220	25.852	216.8	0.140
60	9.943	33.686	9.936	25.957	207.0	0.161
70	9.820	33.760	9.812	26.036	199.7	0.182
80	9.684	33.799	9.675	26.089	194.9	0.201
90	9.506	33.828	9.496	26.141	190.1	0.221
100	9.357	33.843	9.346	26.177	186.8	0.239
110	9.352	33.845	9.340	26.180	186.8	0.258
120	9.329	33.853	9.316	26.190	186.0	0.277
130	9.274	33.878	9.260	26.218	183.6	0.295
131	9.275	33.878	9.261	26.218	183.6	0.297



STATION 83 COC6

STA NO 83 ,COC6 LAT: 38 31.4 N LONG:123 35.1 W
4 APR 1982 0730 GMT PROBE 2567 DEPTH 151M
20.7 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.353	31.037	11.353	23.655	424.9	0.004
10	11.371	31.934	11.370	24.347	359.0	0.041
20	11.303	32.594	11.301	24.871	309.4	0.074
30	11.040	33.150	11.037	25.350	264.1	0.102
40	10.533	33.501	10.529	25.712	229.9	0.127
50	10.277	33.653	10.271	25.875	214.6	0.150
60	10.115	33.696	10.108	25.936	209.0	0.171
70	9.996	33.724	9.988	25.978	205.2	0.191
80	9.753	33.800	9.744	26.078	195.9	0.212
90	9.560	33.853	9.550	26.151	189.1	0.231
100	9.365	33.889	9.354	26.212	183.5	0.250
110	9.258	33.917	9.246	26.251	180.0	0.268
120	9.175	33.929	9.162	26.274	178.0	0.286
130	9.125	33.930	9.111	26.283	177.3	0.303
140	9.083	33.933	9.068	26.293	176.7	0.321
146	9.078	33.935	9.062	26.295	176.6	0.332



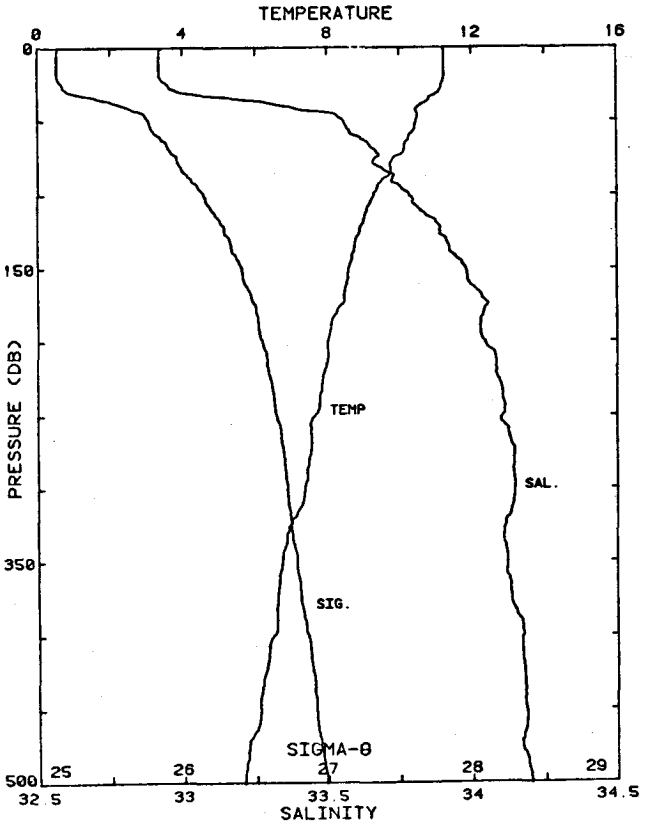
STATION 84 COC7

STA NO 84 ,COC7 LAT: 38 30.3 N LONG:123 39.6 W
4 APR 1982 0814 GMT PROBE 2567 DEPTH 345M
27.4 KM FROM SHORE

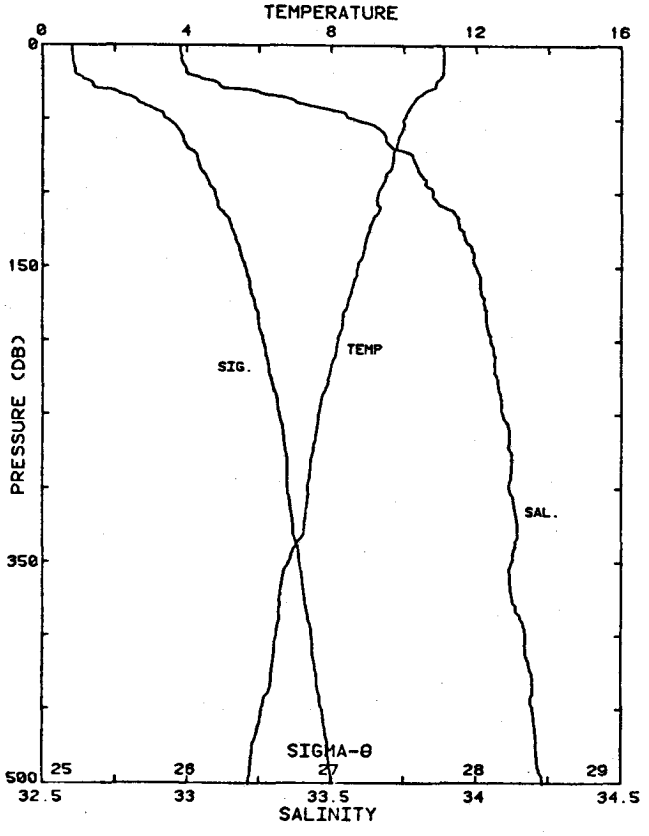
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	11.399	32.425	11.399	24.722	323.1	0.006
10	11.422	32.524	11.421	24.795	316.4	0.032
20	11.364	32.612	11.362	24.874	309.1	0.063
30	11.211	32.892	11.207	25.119	286.1	0.094
40	10.862	33.271	10.858	25.476	252.4	0.121
50	10.572	33.536	10.566	25.732	228.2	0.145
60	10.481	33.591	10.474	25.791	222.8	0.168
70	10.198	33.675	10.190	25.906	212.1	0.189
80	10.044	33.715	10.035	25.963	206.8	0.210
90	9.827	33.773	9.817	26.045	199.2	0.231
100	9.688	33.816	9.677	26.101	194.1	0.250
110	9.524	33.858	9.511	26.162	188.5	0.269
120	9.418	33.878	9.404	26.195	185.6	0.288
130	9.192	33.916	9.178	26.261	179.5	0.306
140	9.059	33.972	9.044	26.327	173.4	0.324
150	9.016	33.980	9.000	26.340	172.3	0.341
175	8.714	34.017	8.696	26.417	165.5	0.384
200	8.360	34.051	8.340	26.498	158.1	0.424
225	8.228	34.061	8.205	26.527	155.8	0.463
250	7.895	34.090	7.870	26.599	149.2	0.501
300	7.489	34.107	7.460	26.672	143.0	0.574
324	7.361	34.116	7.330	26.697	140.9	0.608

STA NO 85 ,COC8 LAT: 38 27.0 N LONG:123 44.5 W
4 APR 1982 0911 GMT PROBE 2567 DEPTH 1157M
33.5 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.234	32.924	11.233	25.139	283.5	0.003
10	11.245	32.919	11.244	25.133	284.2	0.028
20	11.244	32.921	11.241	25.135	284.2	0.057
30	11.112	32.981	11.108	25.206	277.8	0.085
40	10.554	33.342	10.550	25.584	242.0	0.111
50	10.460	33.555	10.454	25.767	224.9	0.134
60	10.253	33.591	10.246	25.831	219.0	0.156
70	10.105	33.665	10.097	25.914	211.3	0.178
80	9.722	33.665	9.713	25.978	205.4	0.199
90	9.496	33.723	9.486	26.060	197.7	0.219
100	9.267	33.783	9.257	26.145	189.9	0.238
110	9.098	33.821	9.086	26.202	184.6	0.257
120	8.975	33.883	8.962	26.270	178.4	0.275
130	8.778	33.913	8.765	26.324	173.3	0.293
140	8.677	33.934	8.663	26.357	170.4	0.310
150	8.572	33.979	8.557	26.409	165.7	0.327
175	8.370	34.054	8.352	26.499	157.6	0.367
200	7.982	34.042	7.962	26.548	153.2	0.406
225	7.853	34.087	7.831	26.603	148.4	0.444
250	7.635	34.103	7.611	26.647	144.6	0.481
300	7.346	34.142	7.317	26.719	138.4	0.551
400	6.479	34.174	6.443	26.864	125.6	0.684
500	5.662	34.200	5.620	26.990	114.3	0.804
501	5.662	34.201	5.619	26.990	114.3	0.805



STATION 85 COC8



STATION 86 COC9

STA NO 86 ,COC9 LAT: 38 24.0 N LONG:123 49.2 W
4 APR 1982 1012 GMT PROBE 2567 DEPTH 1697M
45.7 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.100	32.978	11.100	25.205	277.2	0.003
10	11.103	32.979	11.102	25.206	277.3	0.028
20	11.079	33.003	11.076	25.228	275.4	0.055
30	10.685	33.203	10.682	25.454	254.2	0.082
40	10.204	33.408	10.199	25.696	231.3	0.106
50	9.986	33.574	9.981	25.862	215.8	0.128
60	9.903	33.681	9.896	25.960	206.7	0.149
70	9.785	33.713	9.777	26.005	202.6	0.170
80	9.679	33.789	9.670	26.082	195.5	0.190
90	9.493	33.818	9.483	26.136	190.6	0.209
100	9.285	33.849	9.275	26.193	185.3	0.228
110	9.337	33.890	9.325	26.218	183.2	0.246
120	9.092	33.936	9.079	26.293	176.2	0.264
130	8.951	33.959	8.938	26.334	172.6	0.282
140	8.873	33.986	8.858	26.367	169.6	0.299
150	8.715	33.998	8.699	26.401	166.5	0.315
175	8.436	34.027	8.418	26.468	160.6	0.356
200	8.166	34.049	8.146	26.526	155.4	0.396
225	7.912	34.072	7.889	26.582	150.4	0.434
250	7.632	34.091	7.607	26.638	145.4	0.471
300	7.330	34.112	7.301	26.699	140.4	0.542
400	6.477	34.170	6.441	26.862	125.9	0.675
500	5.703	34.230	5.661	27.008	112.7	0.795
501	5.697	34.230	5.655	27.009	112.6	0.796

ACKNOWLEDGMENTS

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