APPENDIX A

PRODUCTIVITY AND RESPIRATION METHODS

Methods

Production Analyses by ^{14}C - Field Procedures.

From each of the 5 productivity depths at each productivity station, samples were obtained by filtration through 300 mm Nitex screen (to remove zooplankton) from the Niskin bottles into opaque 1 gal polyethylene bottles. Under subdued green light, sub-samples were transferred by siphon into individual 75 ml acid cleaned polycarbonate bottles. Each bottle was flushed with approximately 250 ml of sample. A total of 16 bottles (14 light bottles, 2 dark bottles) were filled for each depth and incubated in a light and temperature controlled incubator. Light bottles from each depth are incubated at 14 light intensities (250 W tungsten-halogen lamps attenuated with Rosco neutral density filters) and all bottles incubated within 2° C of the *in situ* temperature at each depth for 4-6 hr (actual time was recorded). Single bottles of sample collected from each depth was assayed for background (time-zero) activity.

The 75 ml samples were incubated with 5-10 μCi ^{14}C-bicarbonate (higher activity during winter and spring season) and biological activity terminated by filtration of the entire contents of the bottles through 2.5 cm diameter Whatman GF/F glass fiber filters and immediate contact of the filters with 0.2 ml of a 20% aqueous solution of acetic acid contained in pre-prepared 20 ml glass scintillation vials (vials immediately recapped). For specific activity determination 0.1 ml aliquots of sample were placed in pre-prepared 20 ml scintillation vials containing 0.2 ml of benzethonium hydroxide (approximately 1.0 M solution in methanol; Sigma Chemical Company) to covalently sequester the ^{14}C inorganic carbon (vials immediately recapped). Specific activity was determined from the measured activity and measurements of DIC.

Samples for DIC analysis were collected from the Niskin bottles into 300 ml BOD bottles, following collection procedures used for oxygen analyses. Within 6 hr. of BOD sample collection, duplicate 10 ml samples were injected into 20 ml crimp-sealed serum bottles containing 0.5 ml of a 2N aqueous solution of sulfuric acid for subsequent I.R. analysis (Beckman IR-315 infrared analyzer) of the gaseous phase (5 - 150 ml samples) at the W.H.O.I. laboratory.

During summer months 1995 some of the ^{14}C incubations (W9508-W9513) were incubated on shore in the MWRA laboratory at Deer Island. Samples were collected in opaque bottles and maintained at *in situ* temperature until transport to the lab. The ^{14}C incubations were begun approximately 2 - 3 hr from sample collection and should compare favorably with samples that are incubated aboard the ship.

Production Analyses by ^{14}C - Laboratory Procedures.

Sample processing. Upon arrival to the W.H.O.I. laboratory scintillation cocktail (10 ml Scintiverse II) were added to the scintillation vials containing the specific activity samples and analyzed using a Packard Tricarb 4000 liquid scintillation counter which possesses automated routines for quench correction. Vials containing acidified filters were opened and placed in a

ventilator in the hood for overnight to allow the filters to dry and excess ^{14}C carbon dioxide dissipate. The vials containing the filters were analyzed by scintillation spectroscopy as described above.

Calculation of Primary production. Volume specific primary production was calculated using equations similar to that of Strickland and Parsons (1972) as follows:

$$P(i) = \frac{1.05(DPM(i)-DPM(blk))}{V_s A_{sp} T}$$

$$P(d) = \frac{1.05(DPM(d)-DPM(blk))}{V_s A_{sp} T}$$

$$A_{sp} = \frac{DPM(sa)-DPM(back)}{V_{sa} DIC}$$

where:

P(i) = primary production rate at light intensity i, ($\mu gC\ l^{-1}h^{-1}$ or $mgC\ m^{-3}h^{-1}$)
P(d) = dark production, ($\mu gC\ l^{-1}h^{-1}$ or $mgC\ m^{-3}h^{-1}$)
A_{sp} = specific activity (DPM/μgC)
DPM(i) = dpm in sample incubated at light intensity i
DPM(blk) = dpm in zero time blank (sample filtered immediately after addition of tracer)
DPM(d) = dpm in dark incubated sample
DPM(back) = background dpm in vial containing only scintillation cocktail
V_s = volume of incubated sample (l)
T = incubation time (h)
V_{sa} = volume counted of specific activity sample (ml)
DIC = concentration of dissolved inorganic carbon (μg/ml)

P-I curves. For each of the 5 depths for each photosynthesis station a P-I curve was obtained from the data P(I) = P(i)-P(d) vs. the irradiance (I, $\mu E\ m^{-2}s^{-1}$) that the incubating sample is exposed. The P-I curves were fit via one of two possible models, depending upon whether or not significant photoinhibition occurs. In cases where photoinhibition is evident the model of Platt et al. (1980) was fit (SAAM II, 1994) to obtain the theoretical maximum production, and terms for light-dependent rise in production and degree of photoinhibition:

$$P(I) = P_{sb}"(1-e^{-a})e^{-b}$$

$$P\max" = P_{sb}"[\alpha"/(\alpha"+\beta")][\beta"/(\alpha"+\beta")]^{\beta"/\alpha"}$$ (Lohrenz et al., 1994)

where:

P(I) = primary production at irradiance I, corrected for dark fixation (P(i)-P(d))
P_{sb}"= theoretical maximum production without photoinhibition
a = α"I/Psb", and α"is the initial slope the light-dependent rise in production

b = β"I/Psb", and β"is a term relaying the degree of photoinhibition
P_{max}"= light saturated maximum production

If it is not possible to converge upon a solution the model of Webb et al. (1974) was similarly fit to obtain the maximum production and the term for light-dependent rise in production:

$$P(I) = P_{max}"\left(1 - e^{-a'}\right)$$

where:

P(I) = primary production at irradiance I corrected for dark fixation (P(i)-P(d))
P_{max}"= light saturated maximum production
a' = α"I/Pmax", and α"is the initial slope the light-dependent rise in production

Nearly all P-I curves obtained did not show evidence of photoinhibition and were fit according to the Webb model.

Light vs. depth profiles. To obtain a numerical representation of the light field throughout the water column bin averaged CTD light profiles (0.5 m intervals) was fit (SAAM II, 1994) to an empirical sum of exponentials equation of the form:

$$I_Z = A_1 e^{-a_1 Z} + A_2 e^{-a_2 Z}$$

which is an expansion of the standard irradiance vs. depth equation:

$$I_Z = I_0 e^{-kZ}$$

where:

I_Z = light irradiance at depth Z
I_0 = incident irradiance (Z=0)
k = extinction coefficient
A_1, A_2 = factors relating to incident irradiance ($I_0 = A_1+A_2$)
a_1, a_2 = coefficients relating to the extinction coefficient ($k = a_1+a_2$)

The expanded equation was used as pigment absorption and other factors usually resulted in significant deviation from the idealized standard irradiance vs. depth equation. The best fit profiles were used to compute percent light attenuation for each of the sampling depths.

Daily incident light field. During normal CTD hydrocasts the incident light field was routinely measured via a deck light sensor at high temporal resolution. The average incident light intensity was determined for each of the CTD casts to provide, over the course of the photoperiod (12 hr period centered upon solar noon), a reasonably well resolved irradiance time series consisting of 12-17 data points. A 48 point time series (every 15 min.) of incident was obtained from these data by linear interpolation.

Calculation of daily primary production. Given the best fit parameters (Pmax", α", β") of the P-I curves obtained for each of the 5 sampling depths, percent *in situ* light attenuation at each depth determined from the sum of exponential fits of the *in situ* light field, and the photoperiod incident light (I_0) time series it was possible to compute daily volumetric production for each depth. To do this at a given depth, hourly production was determined for the *in situ* light intensity computed for each 15 min. interval of the photoperiod, using the appropriate P-I parameters and *in situ* irradiance computed from the percent attenuation and incident irradiance. Daily production ($\mu gC\ l^{-1}d^{-1}$) was obtained by integration of the determined activity throughout the 12 hr photoperiod. An advantage of this approach is that seasonal changes in photoperiod length are automatically incorporated into the integral computation. For example, during winter months computed early morning and late afternoon production contributes minimally to whole day production, whereas during summer months the relative contribution during these hours is more significant. The investigator does not have to decide which factor to employ when converting hourly production to daily production. The primary assumption for the approach is that the P-I relationship obtained at the time of sample procurement (towards the middle of the photoperiod) is representative of the majority of production occurring during the photoperiod.

Calculation of daily areal production. Areal production ($mgC\ m^{-2}d^{-1}$) was obtained by trapezoidal integration of daily volumetric production vs. depth from the sea surface down to the 0.5% light level. The P-I factors from the uppermost sampling depth (approximately 1.2 - 2.7 m, depending upon weather state) were used to compute the contribution of the portion of the water column between the sea surface interface and uppermost sampling depth to areal production (rather than to assume that the activity in the uppermost sample is representative of that section of the water column, which is not always the case).

Calculation of chlorophyll-specific parameters. Chlorophyll-specific measures of the various parameters were determined by dividing by the appropriate chlorophyll term obtained from independent measurements:

$$\alpha = \frac{\alpha''}{[chla]}$$

$$P\max = \frac{P\max''}{[chla]}$$

where:

α = chlorophyll-a-specific initial slope of light-dependent production $[(gC(gchla)^{-1}h^{-1}(\mu Em^{-2}s^{-1})^{-1}]$

Pmax = light saturated chlorophyll-specific production $[gC(gchla)^{-1}h^{-1}]$

APPENDIX B

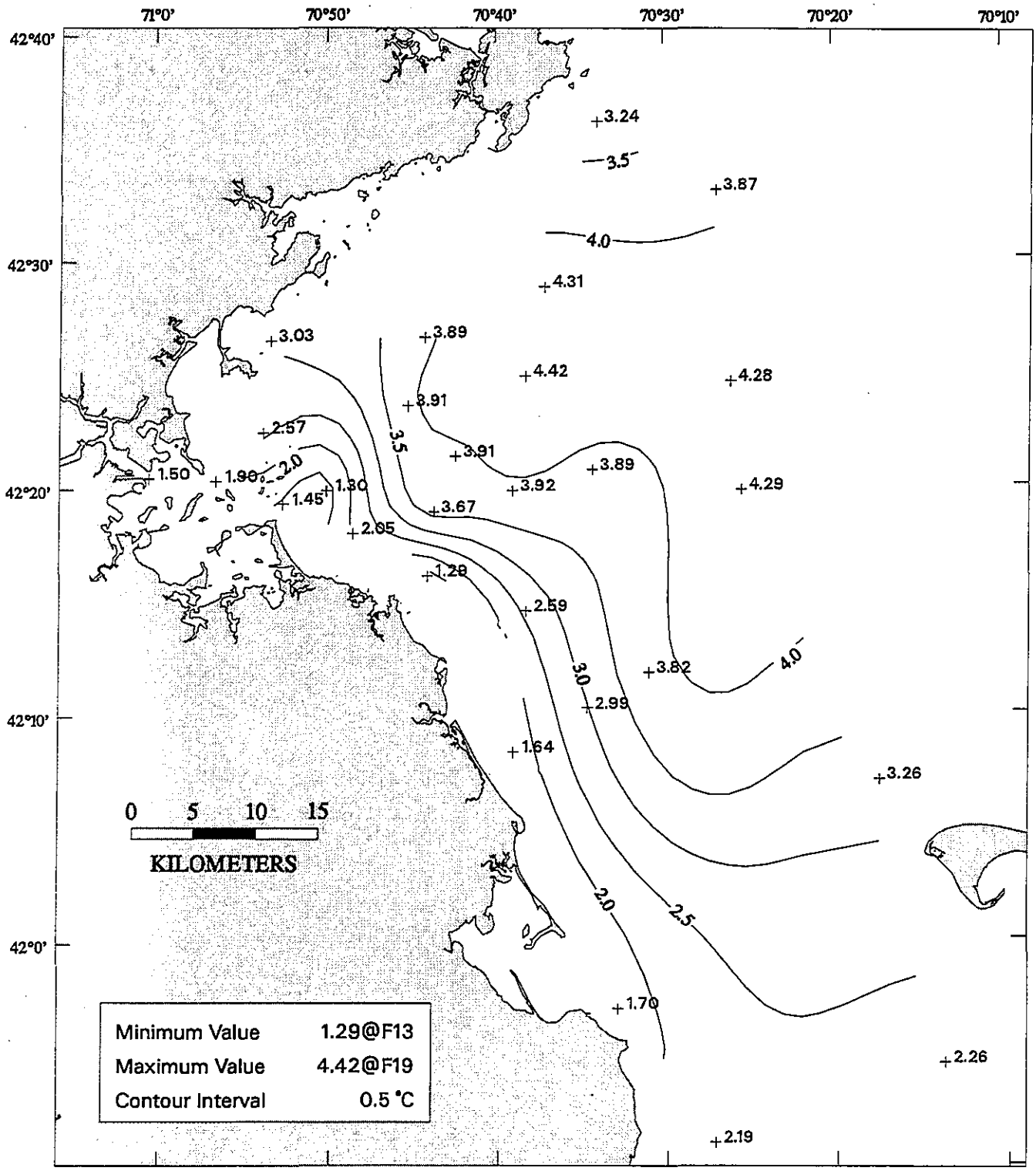
SURFACE CONTOUR PLOTS - FARFIELD SURVEY

APPENDIX B

All contour plots were created using data from the surface bottle sample (A). Each plot is labelled on the bottom right with the survey number ("9501"), and parameter as listed below. The minimum and maximum value, and the station where the value was measured, is provided for each plot, as well as the contour interval and parameter units.

Appendix B: Table of Contents

*$NO_3 + NO_2 + NH_4$



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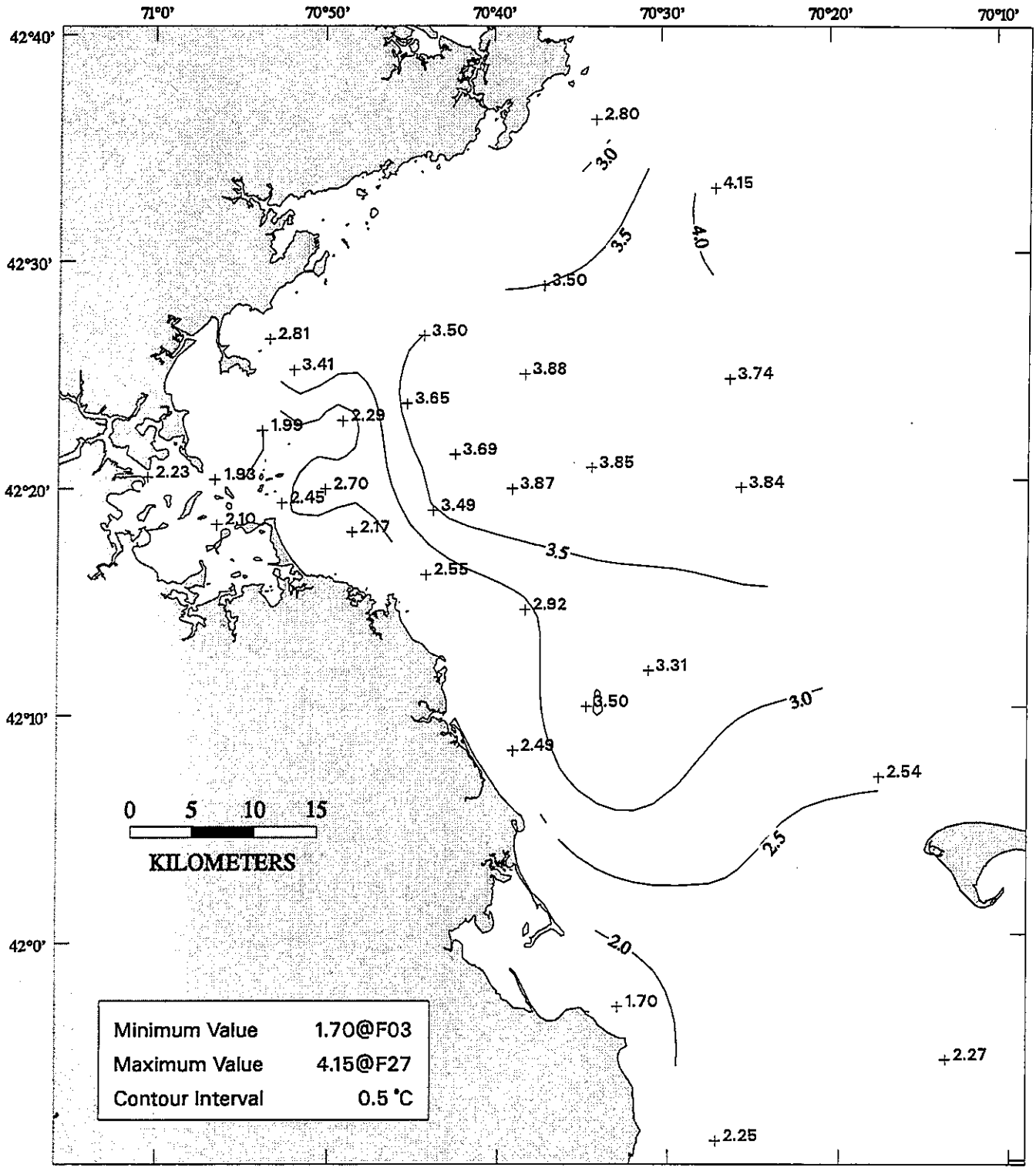

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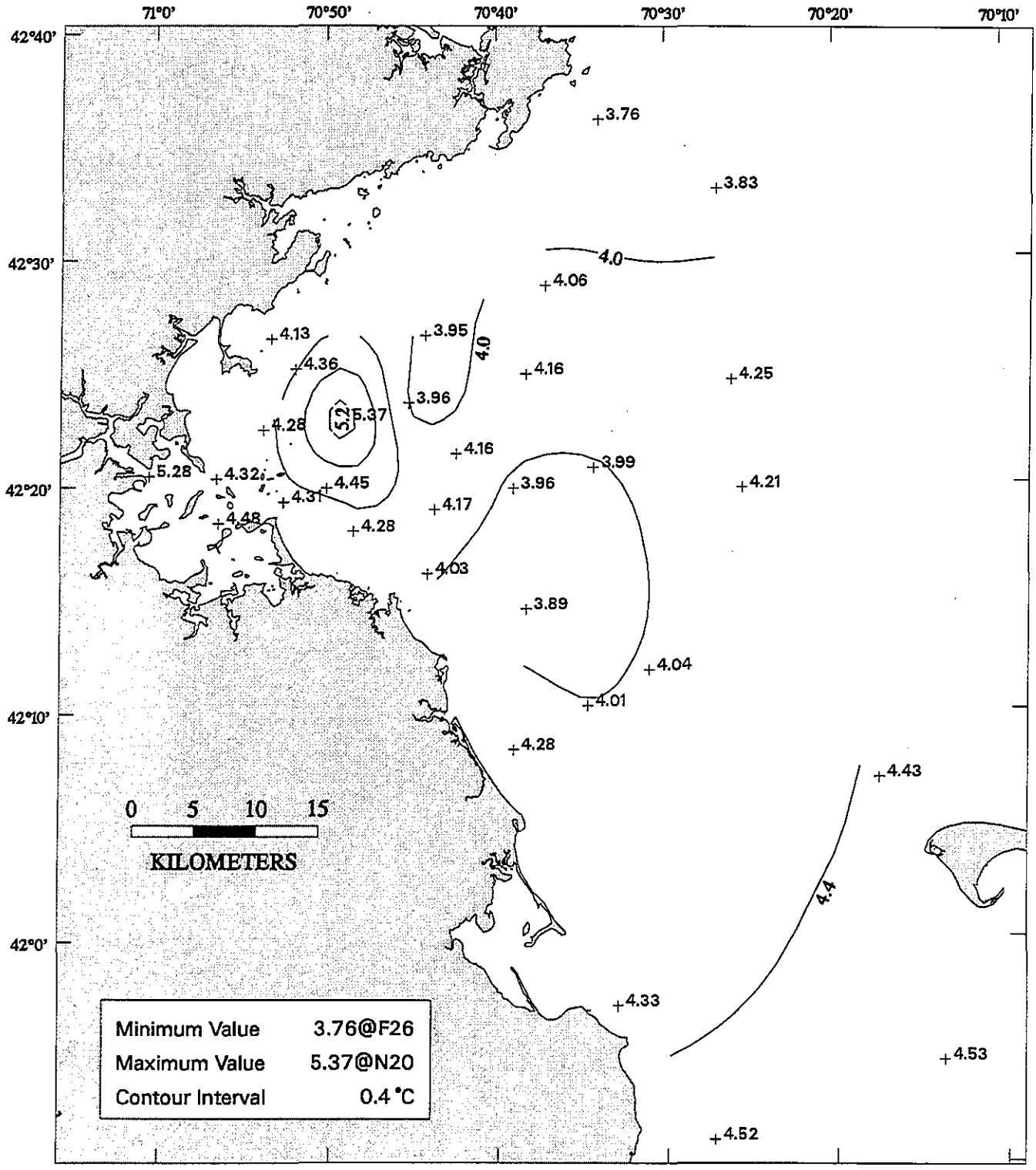

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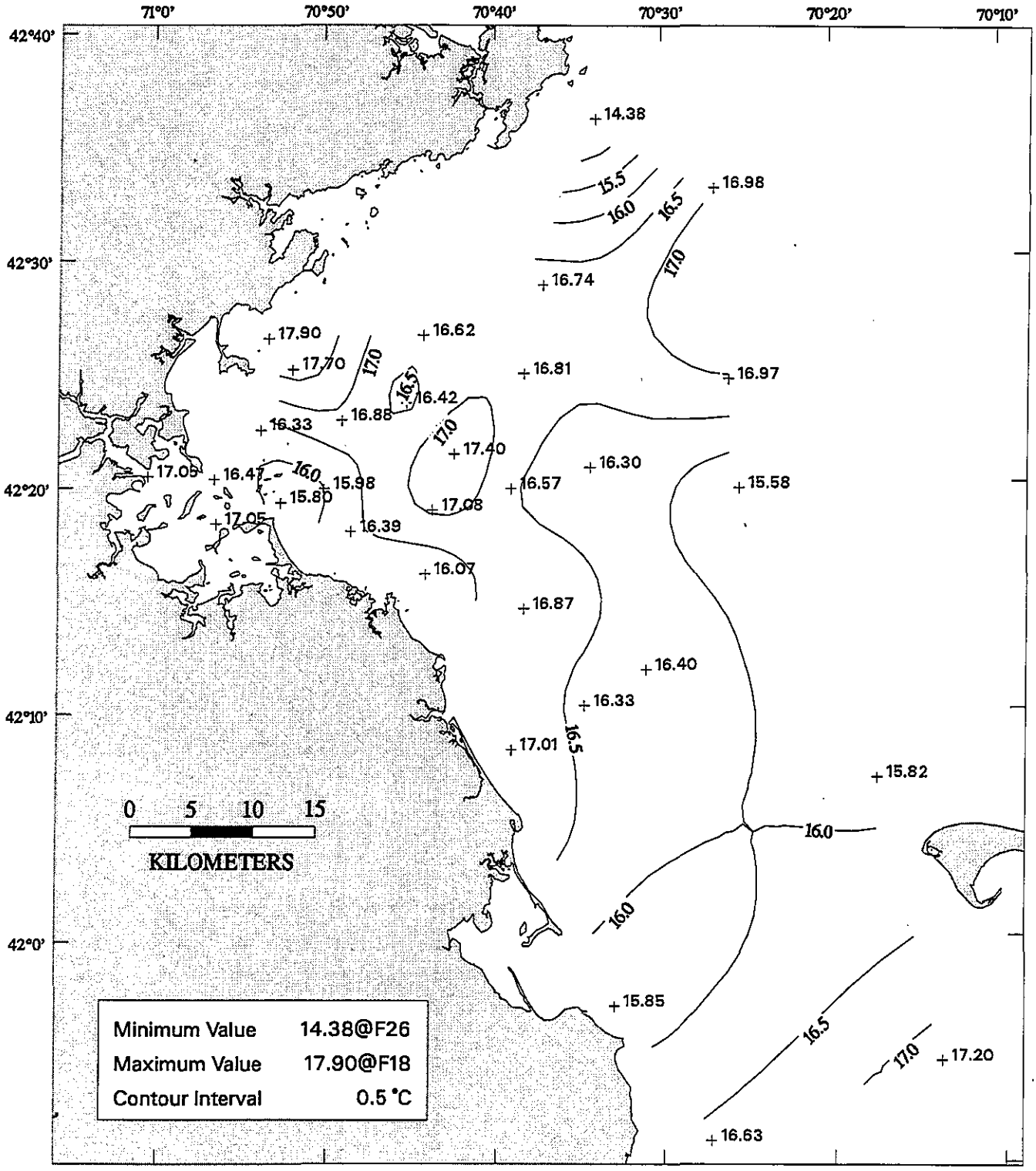

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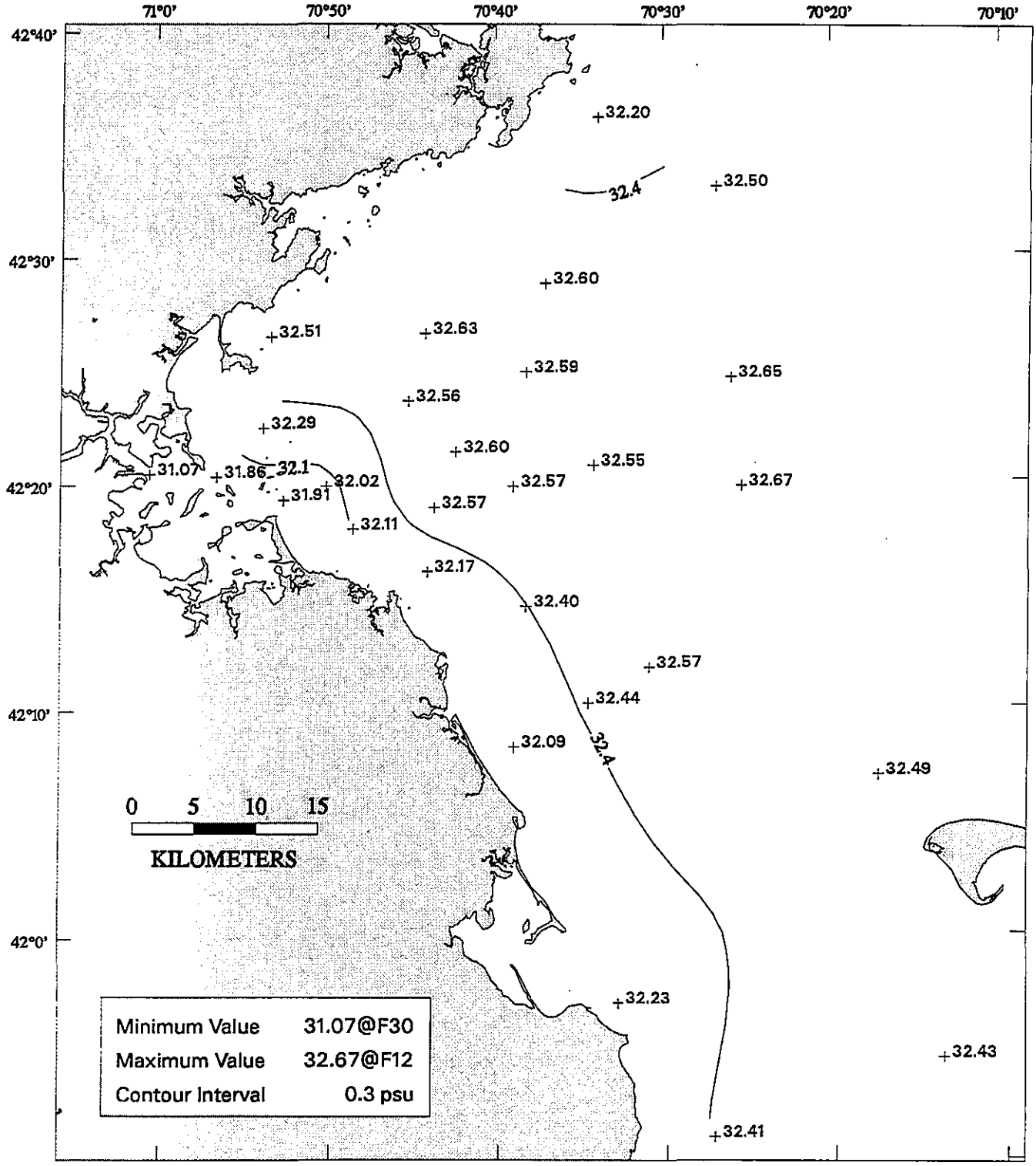
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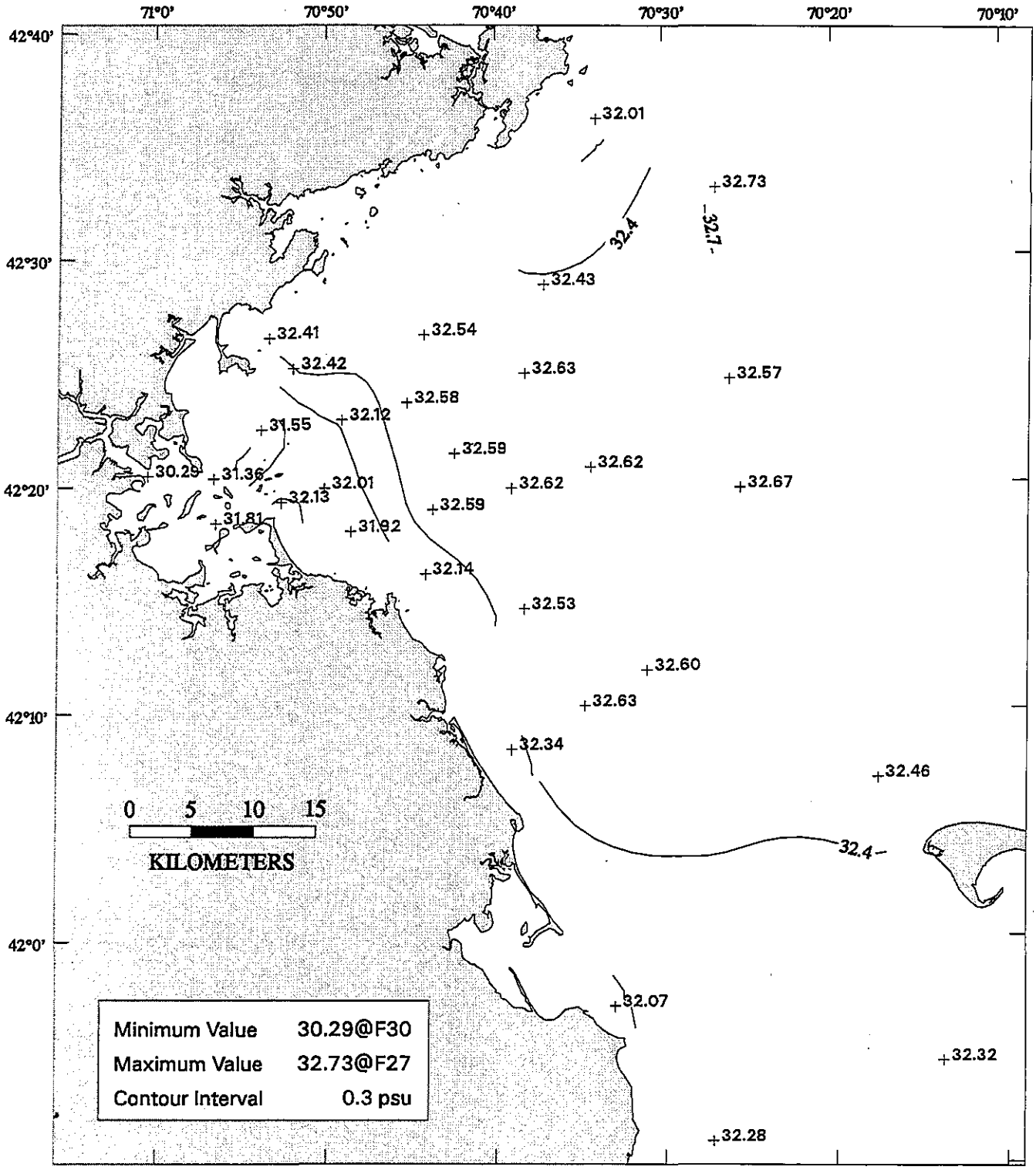
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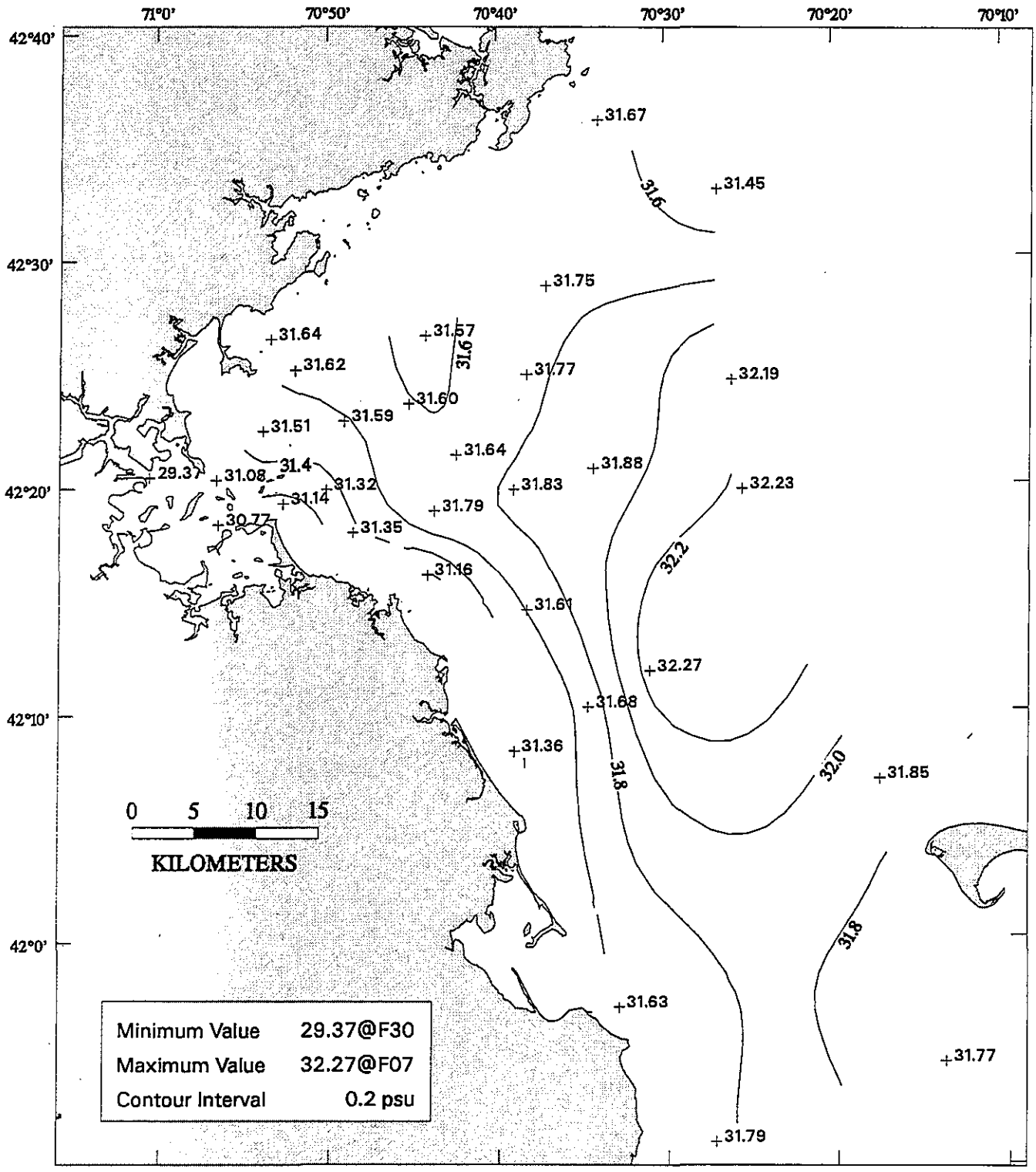
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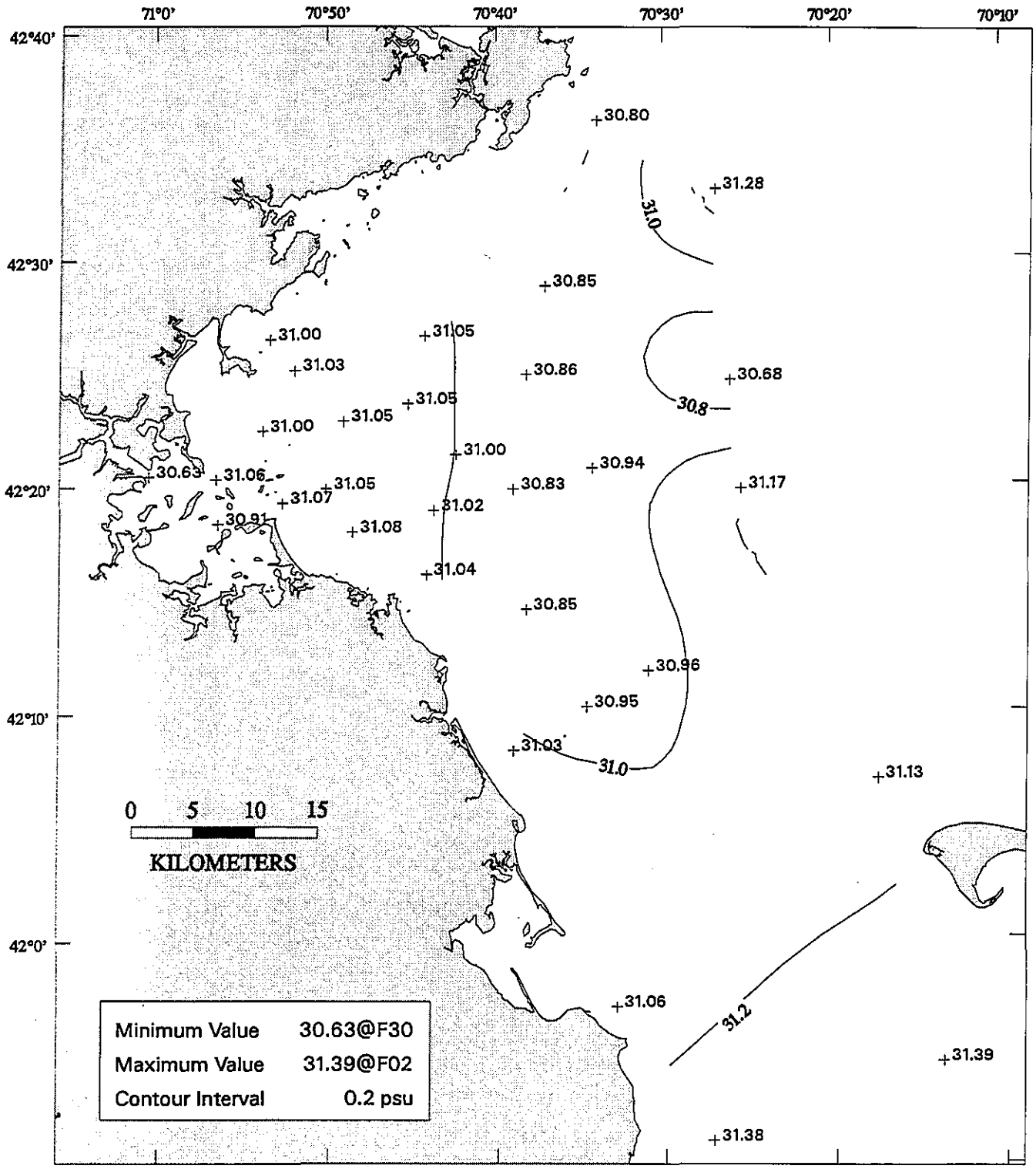
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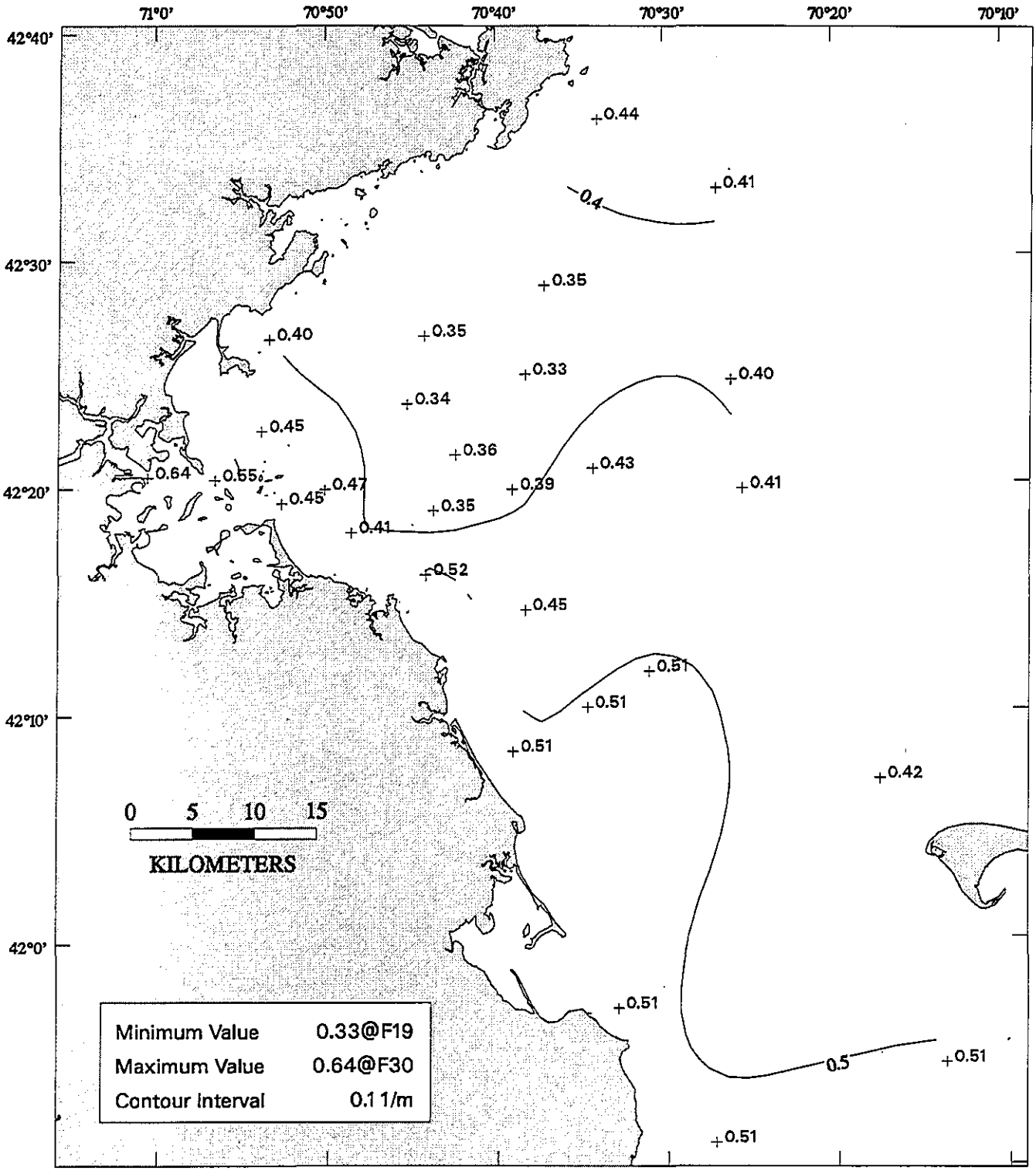

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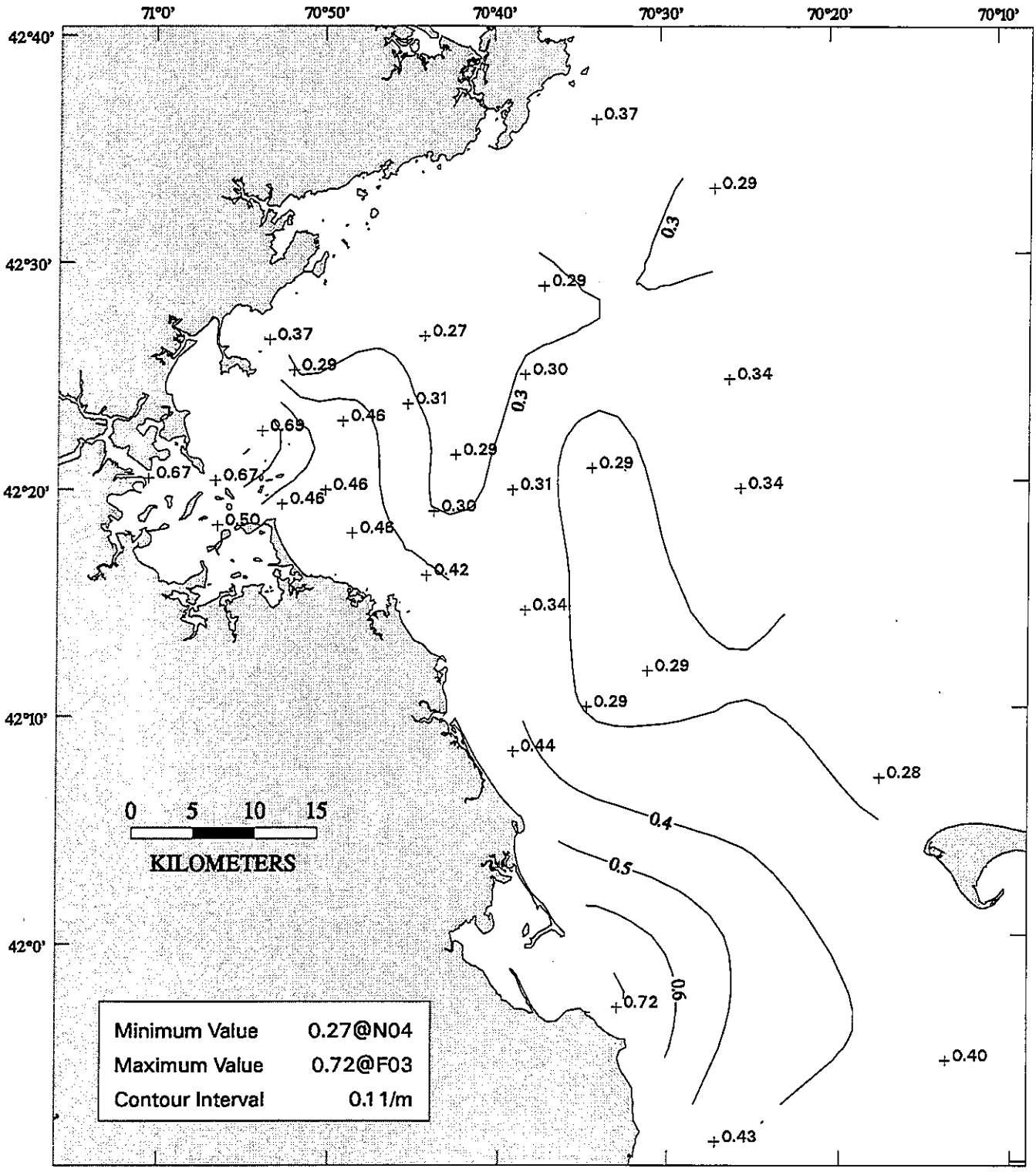

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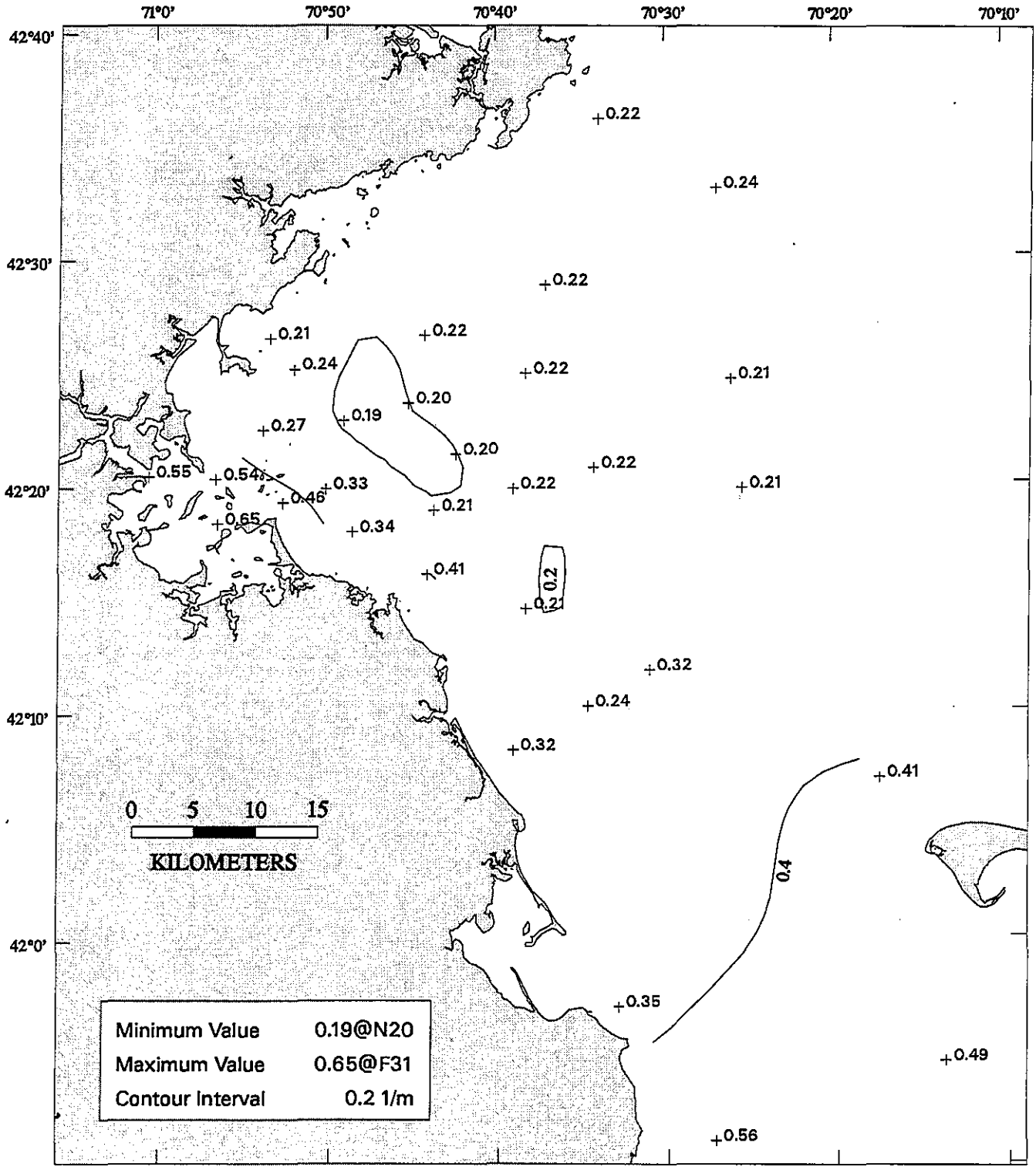

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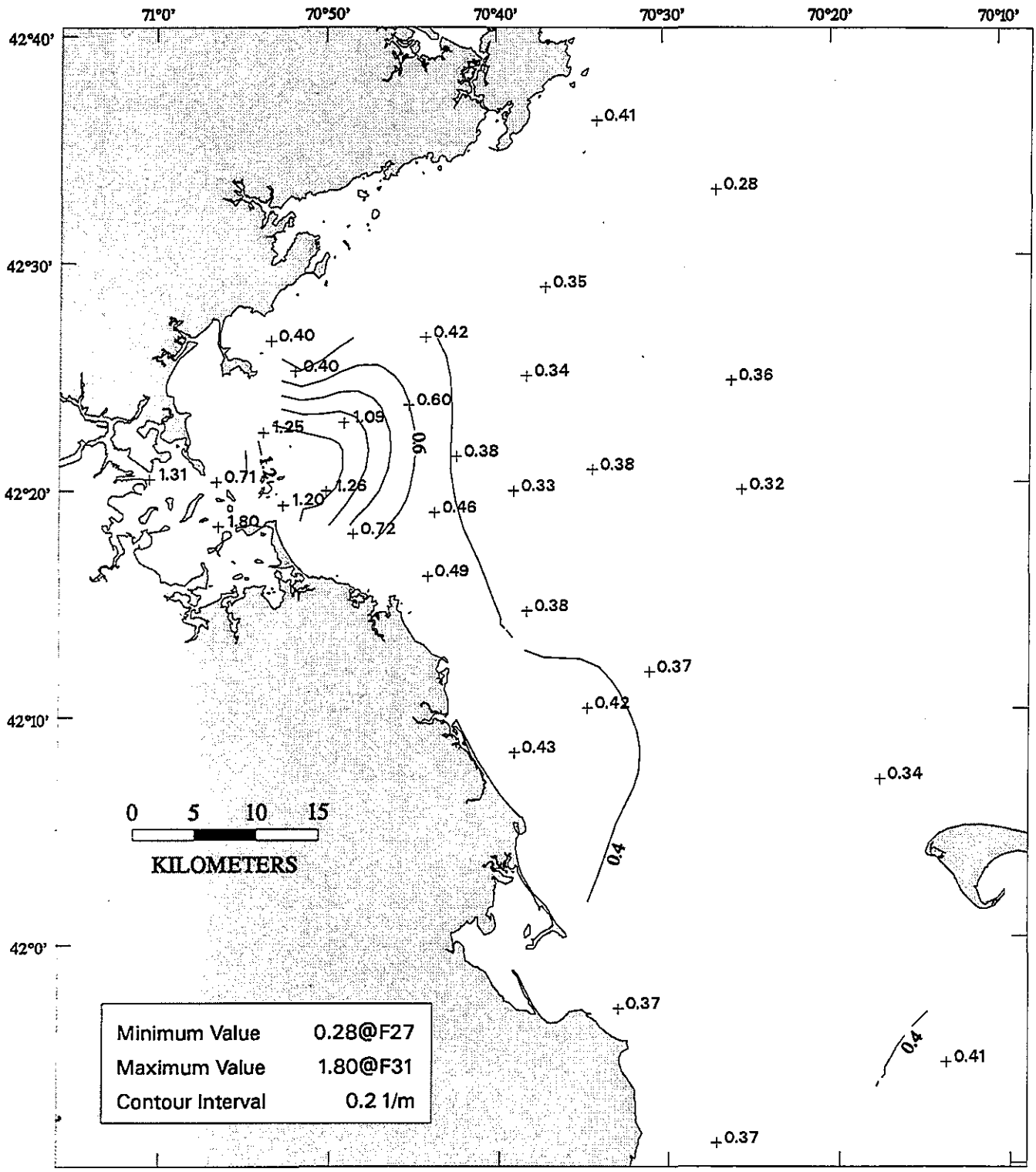

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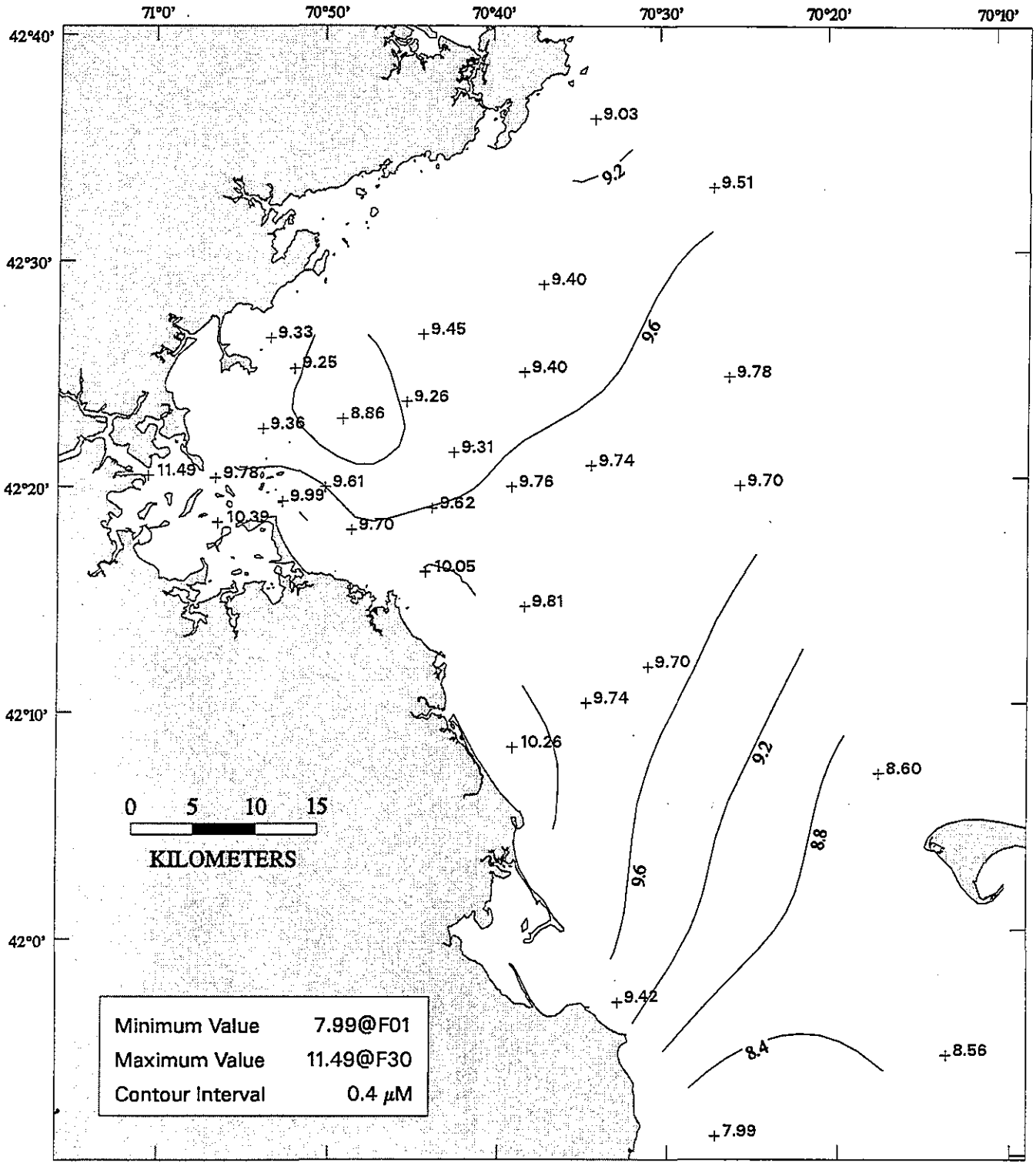
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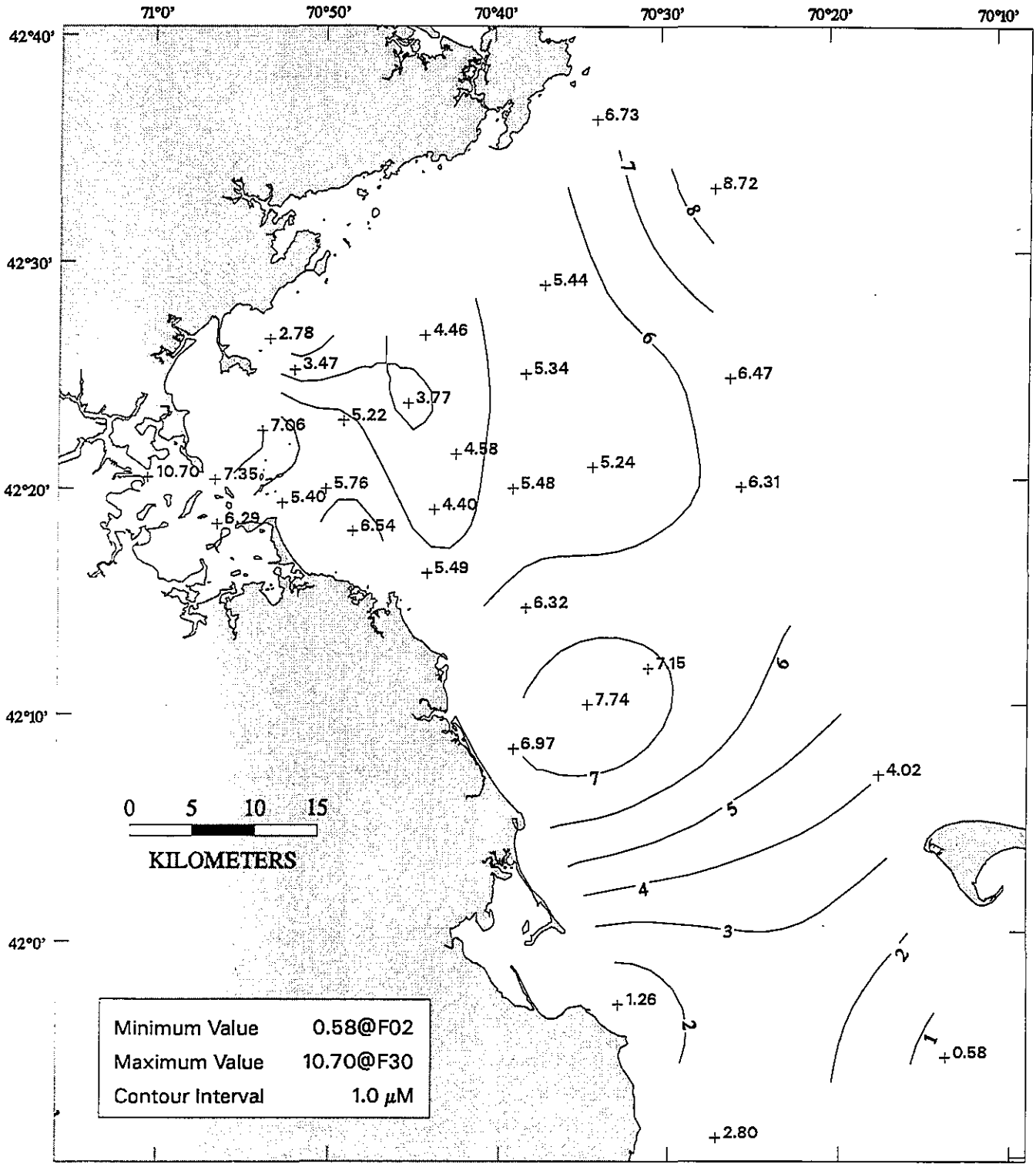
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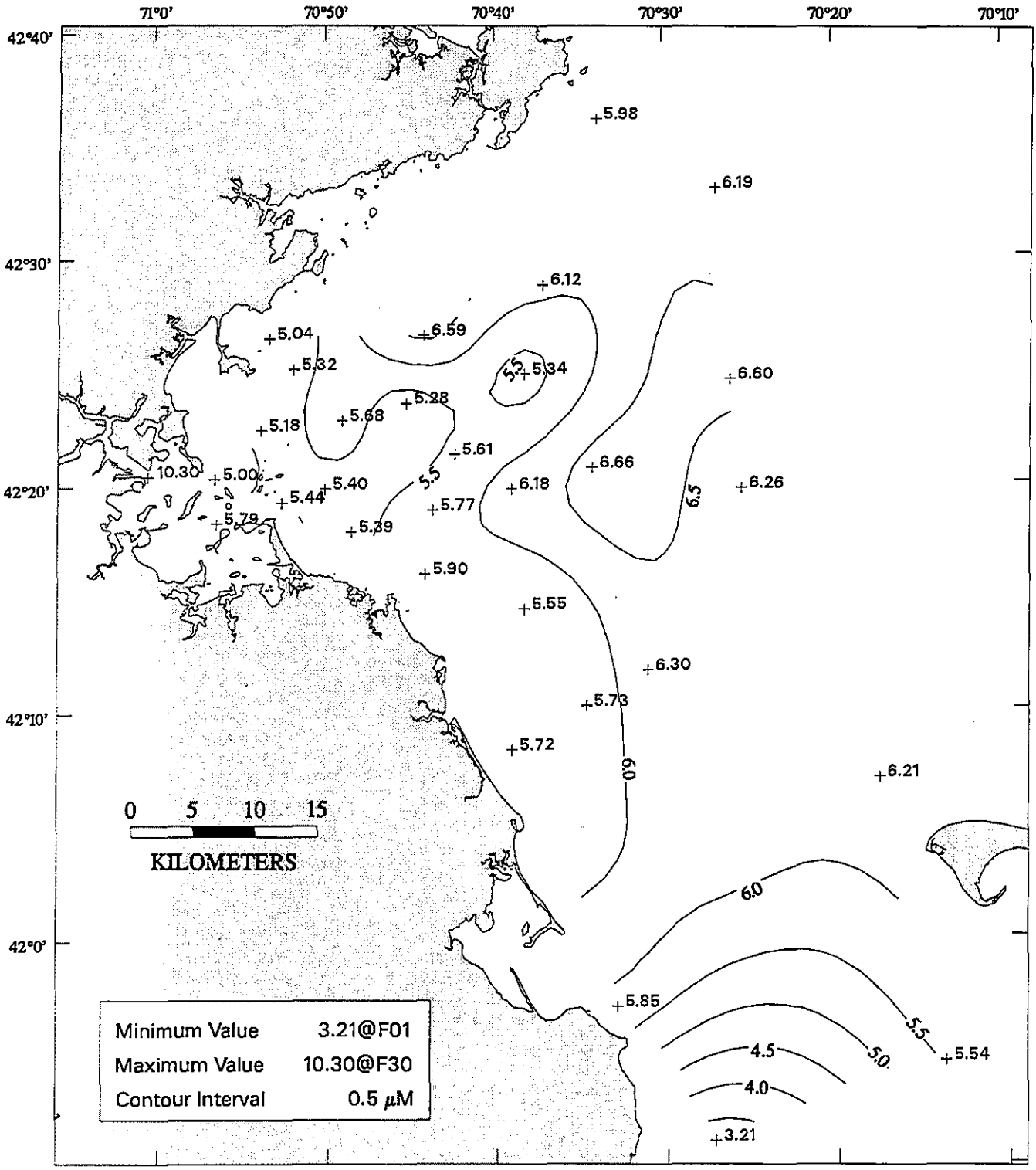
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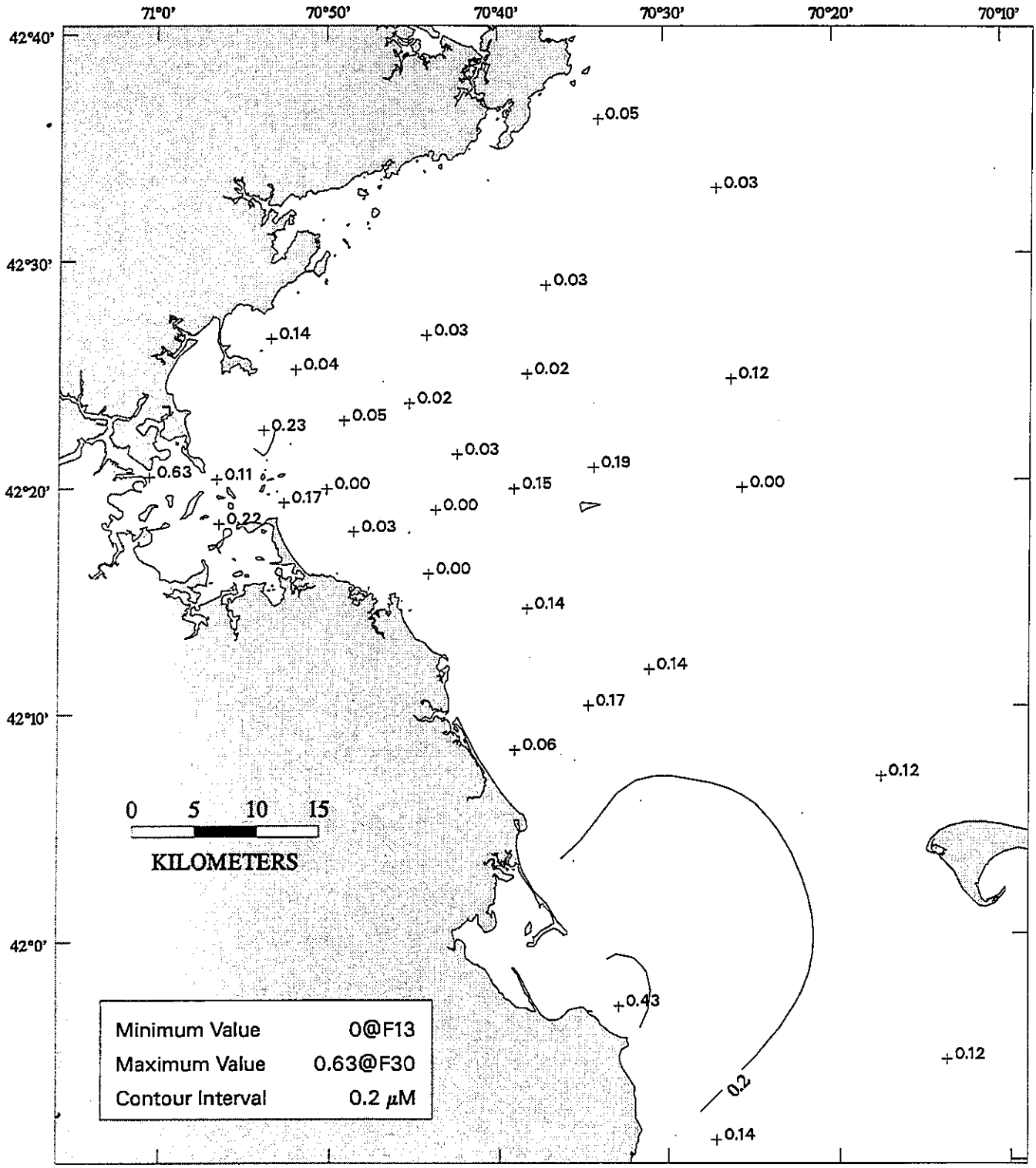
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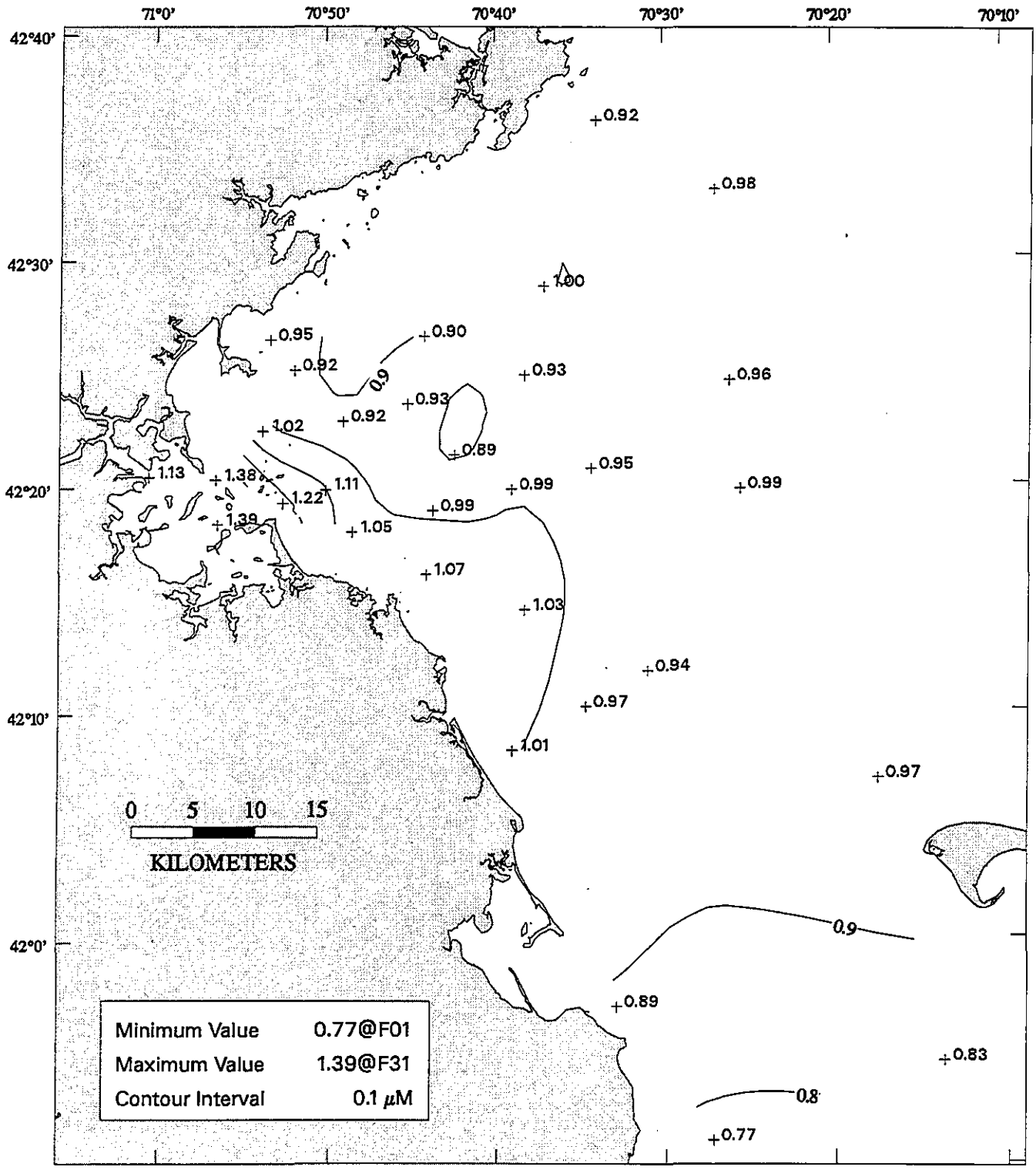
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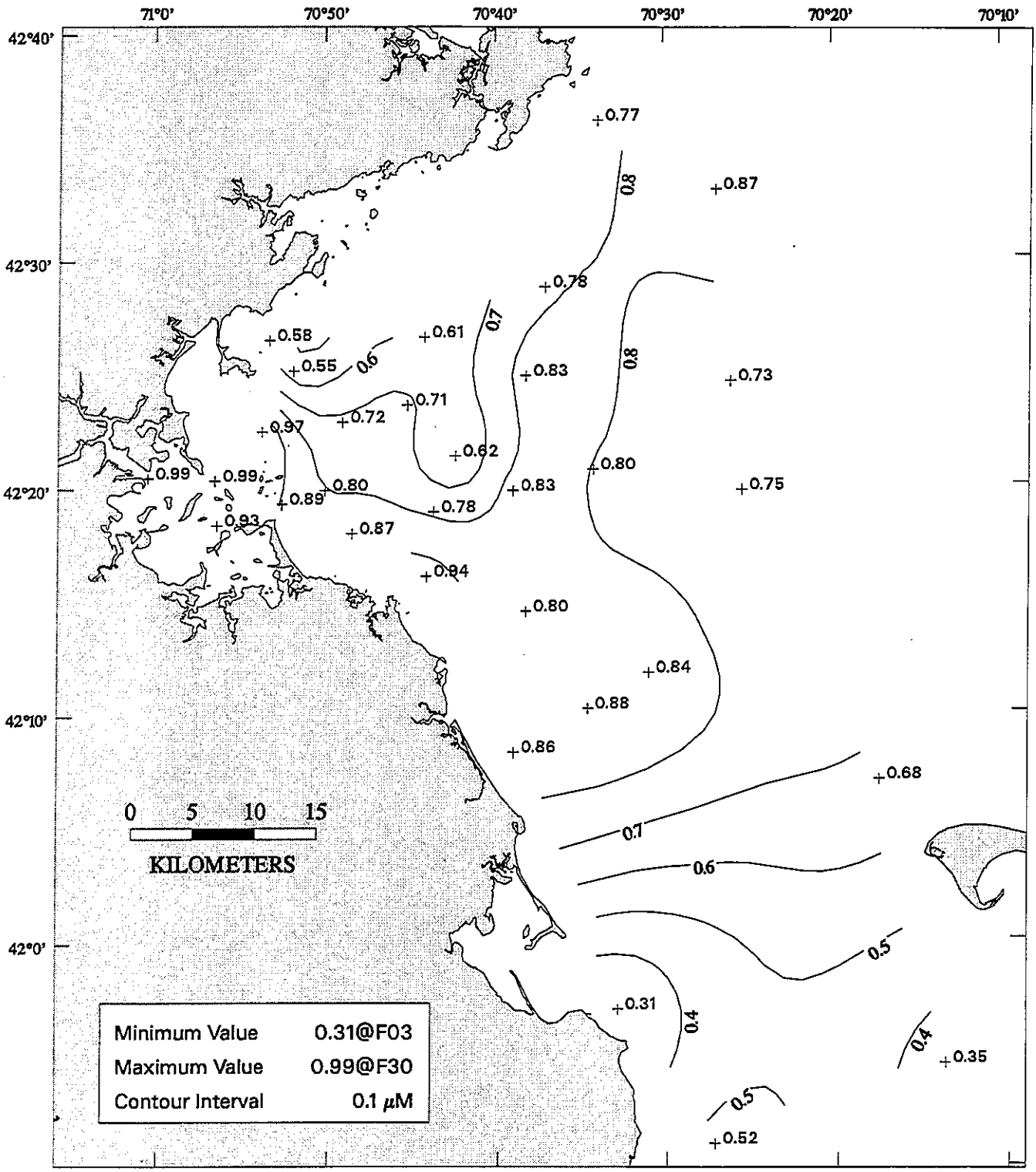
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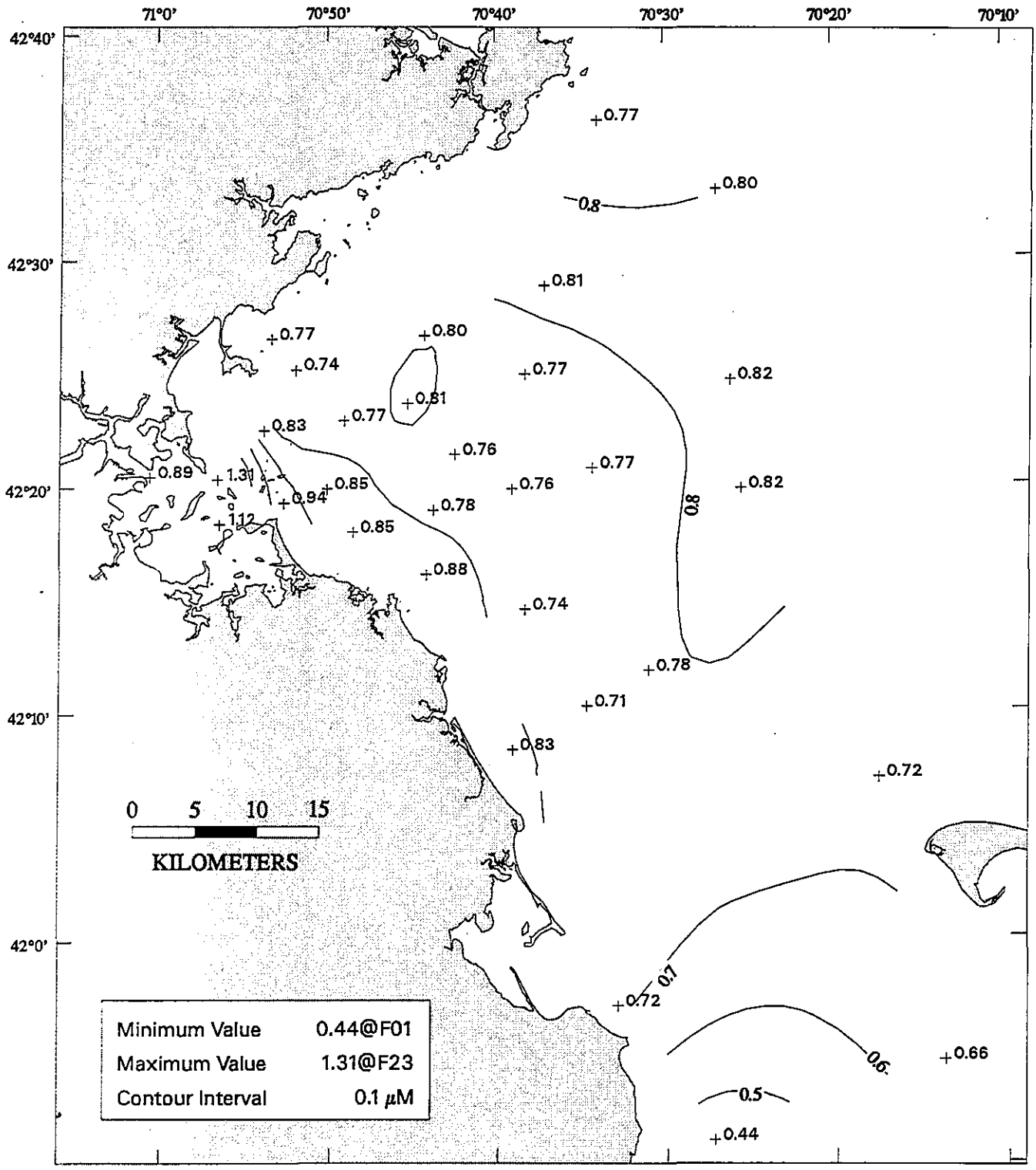
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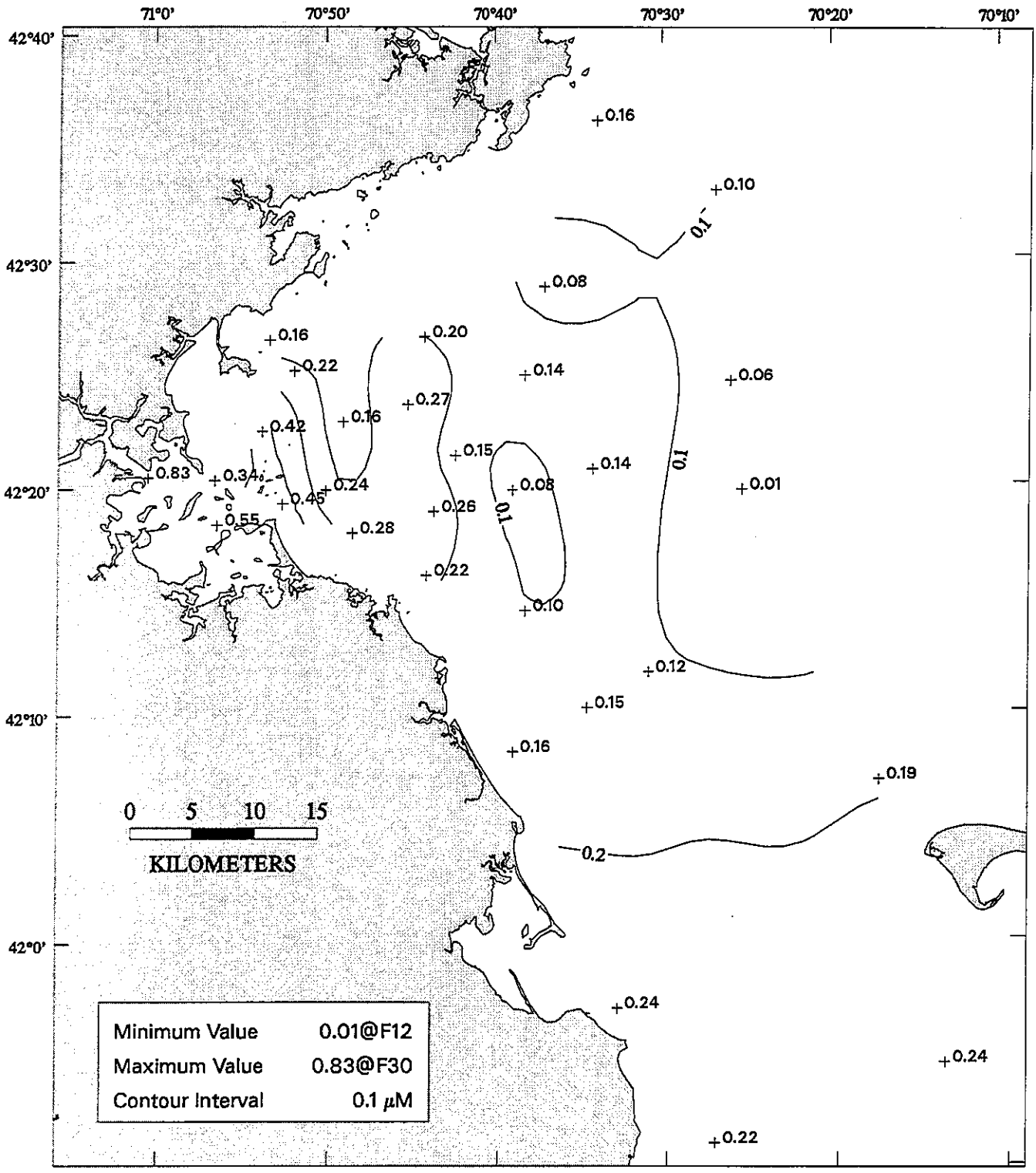
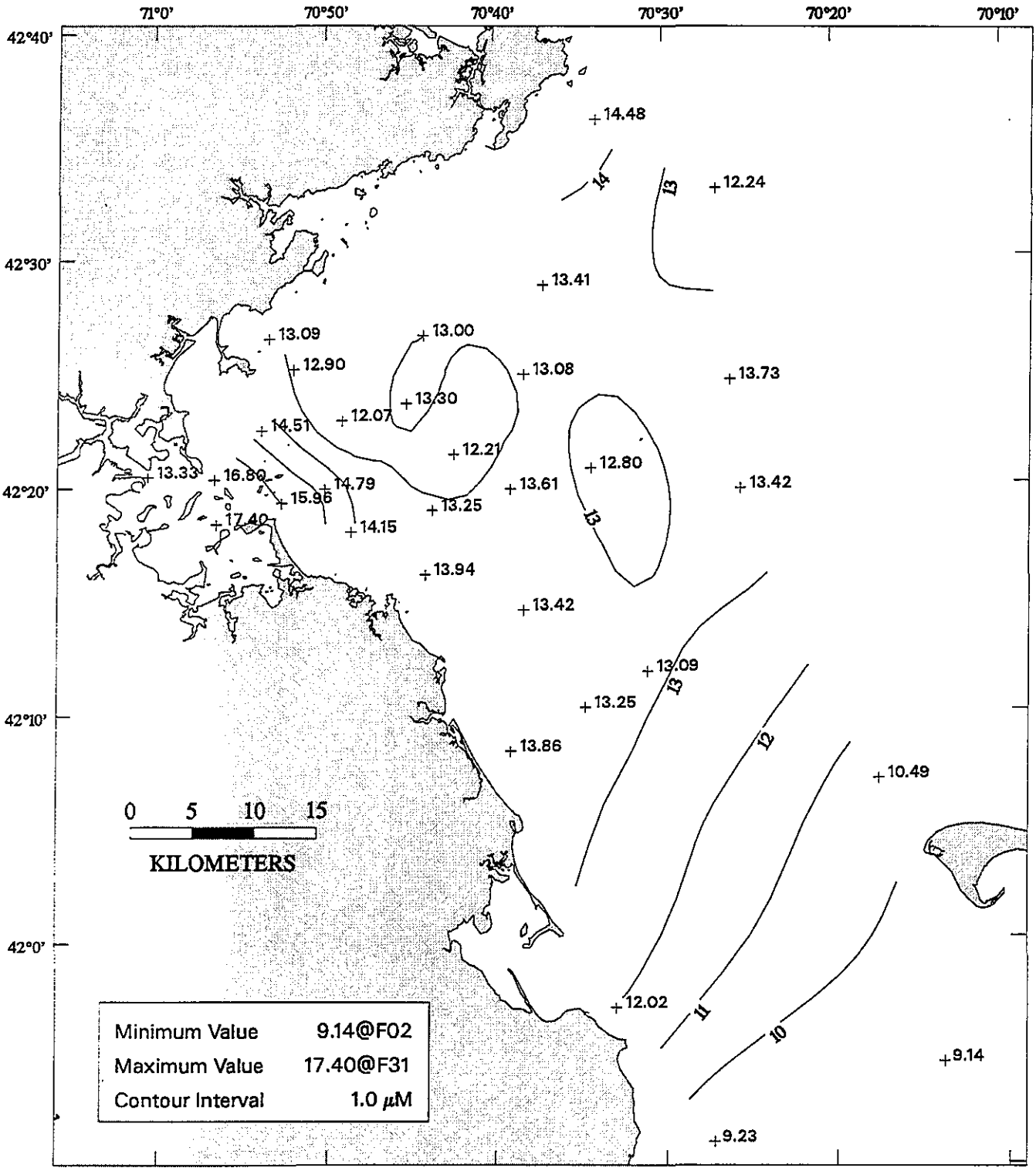
42°30'
42°20'
42°10'
42°0'
0 5 10 15
KILOMETERS
Minimum Value 0.44@F01
Maximum Value 1.31@F23
Contour Interval 0.1 μM

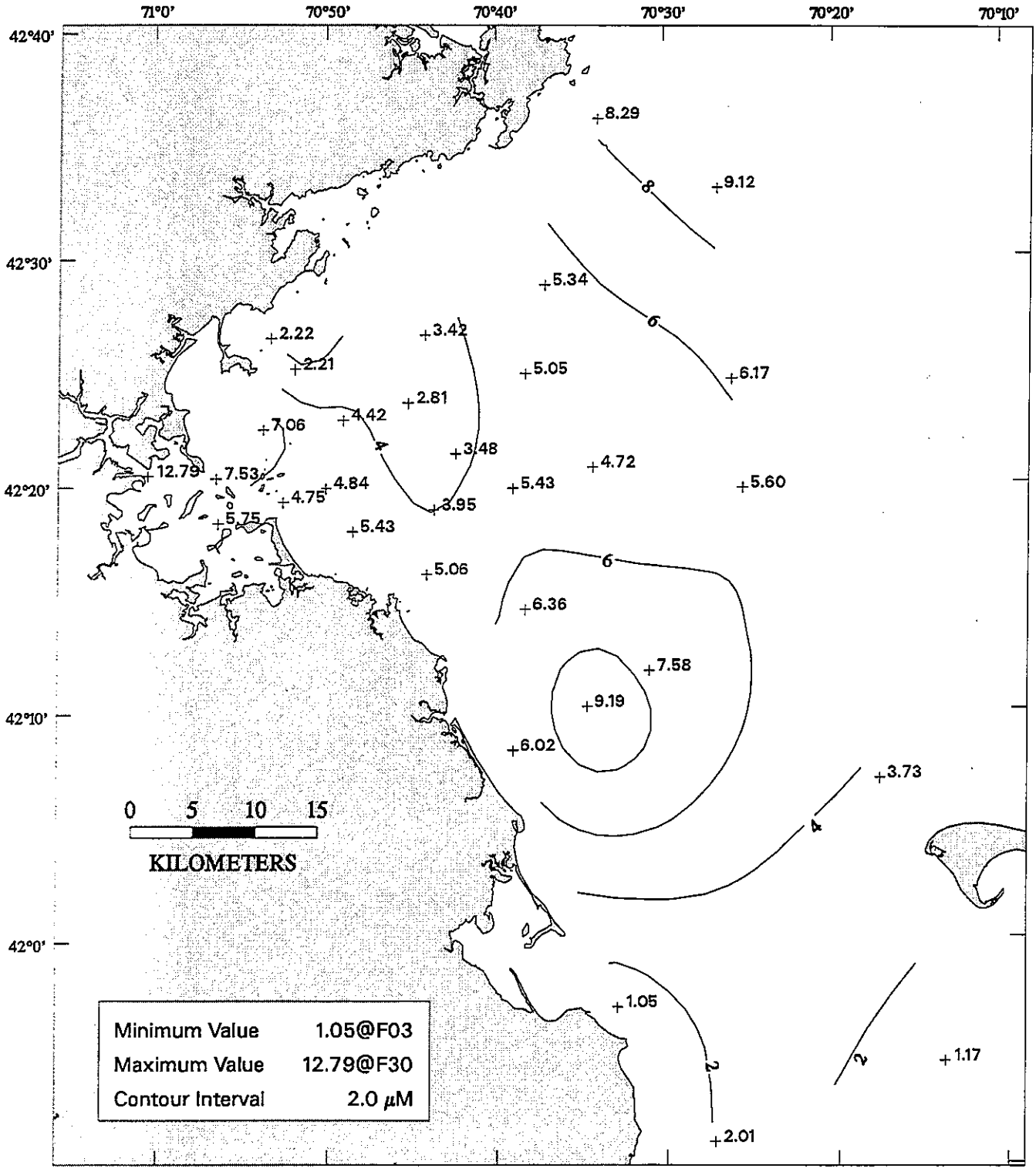
9504po4_lin


71°0'
70°50'
70°40'
70°30'
70°20'
70°10'
42°40'
42°30'
42°20'
42°10'
42°0'
0.16
0.10
0.1
0.08
0.16
0.20
0.22
0.14
0.06
0.27
0.42
0.16
0.15
0.14
0.01
0.83
0.34
0.24
0.08
0.45
0.26
0.1
0.55
0.28
0.22
0.10
0.12
0.15
0.16
0.19
0.2
0 5 10 15
KILOMETERS
0.24
0.24
0.22
Minimum Value 0.01@F12
Maximum Value 0.83@F30
Contour Interval 0.1 μM

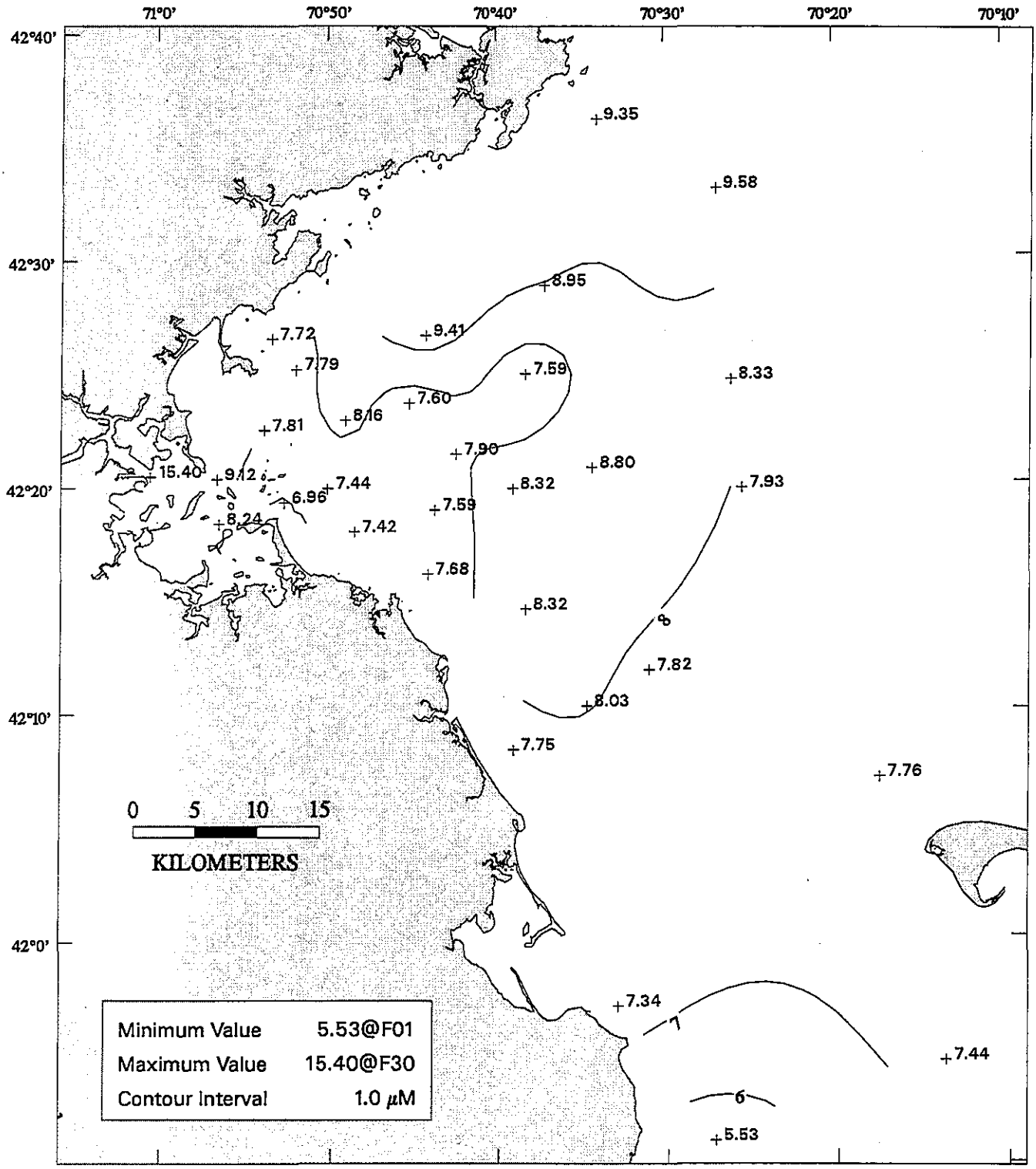
9507po4_lin



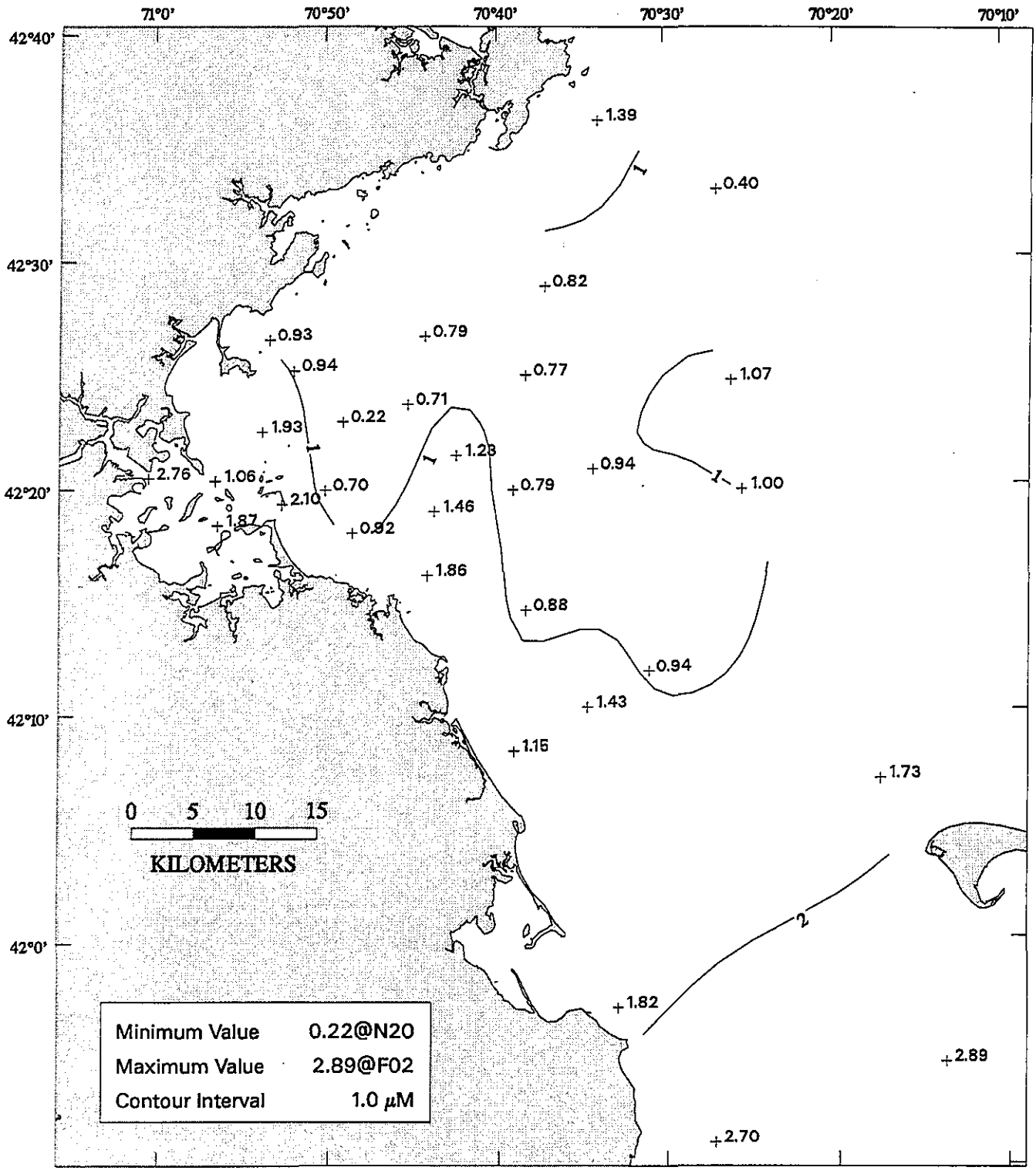
9501sio4_lin



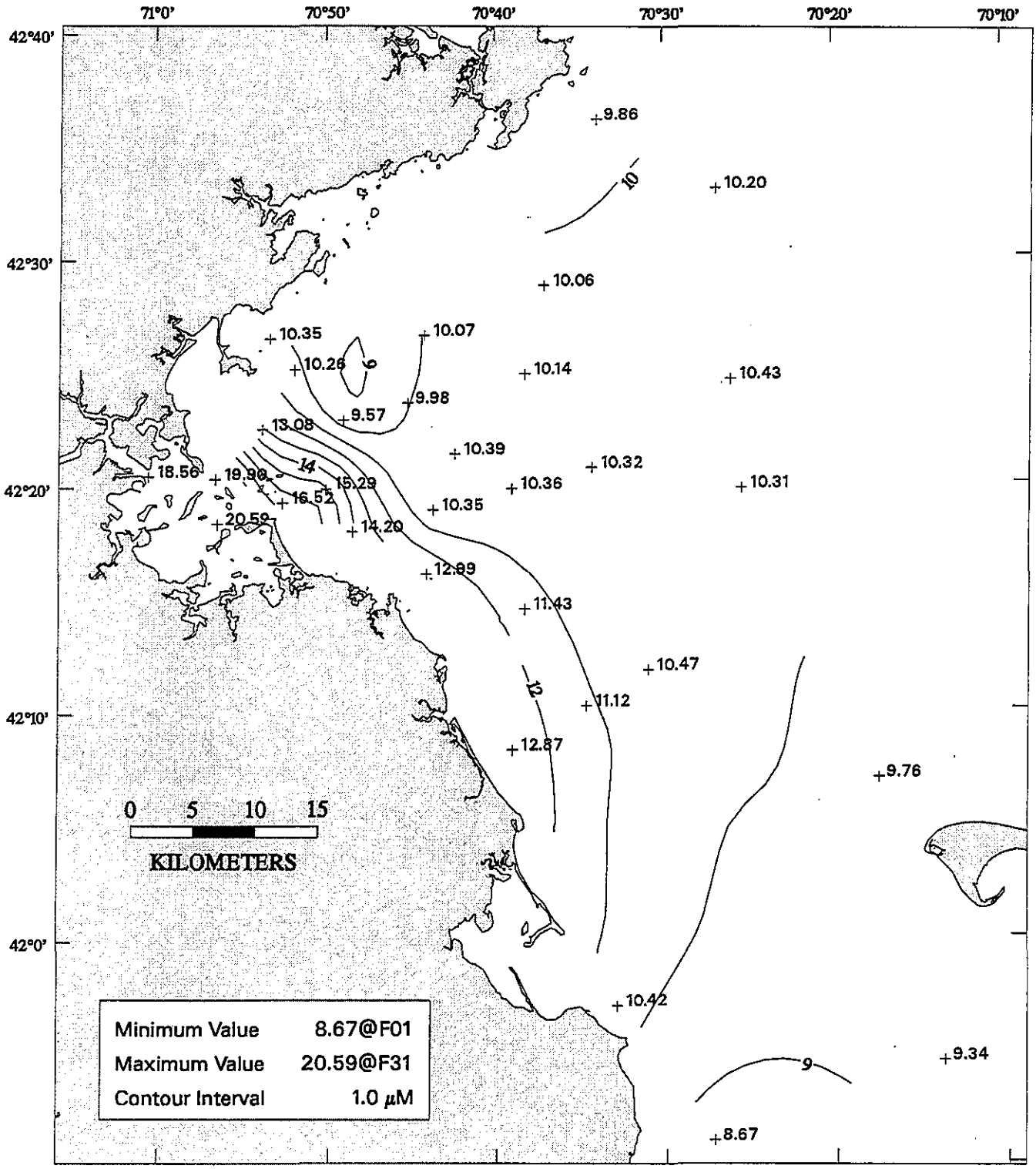
9502sio4_lin



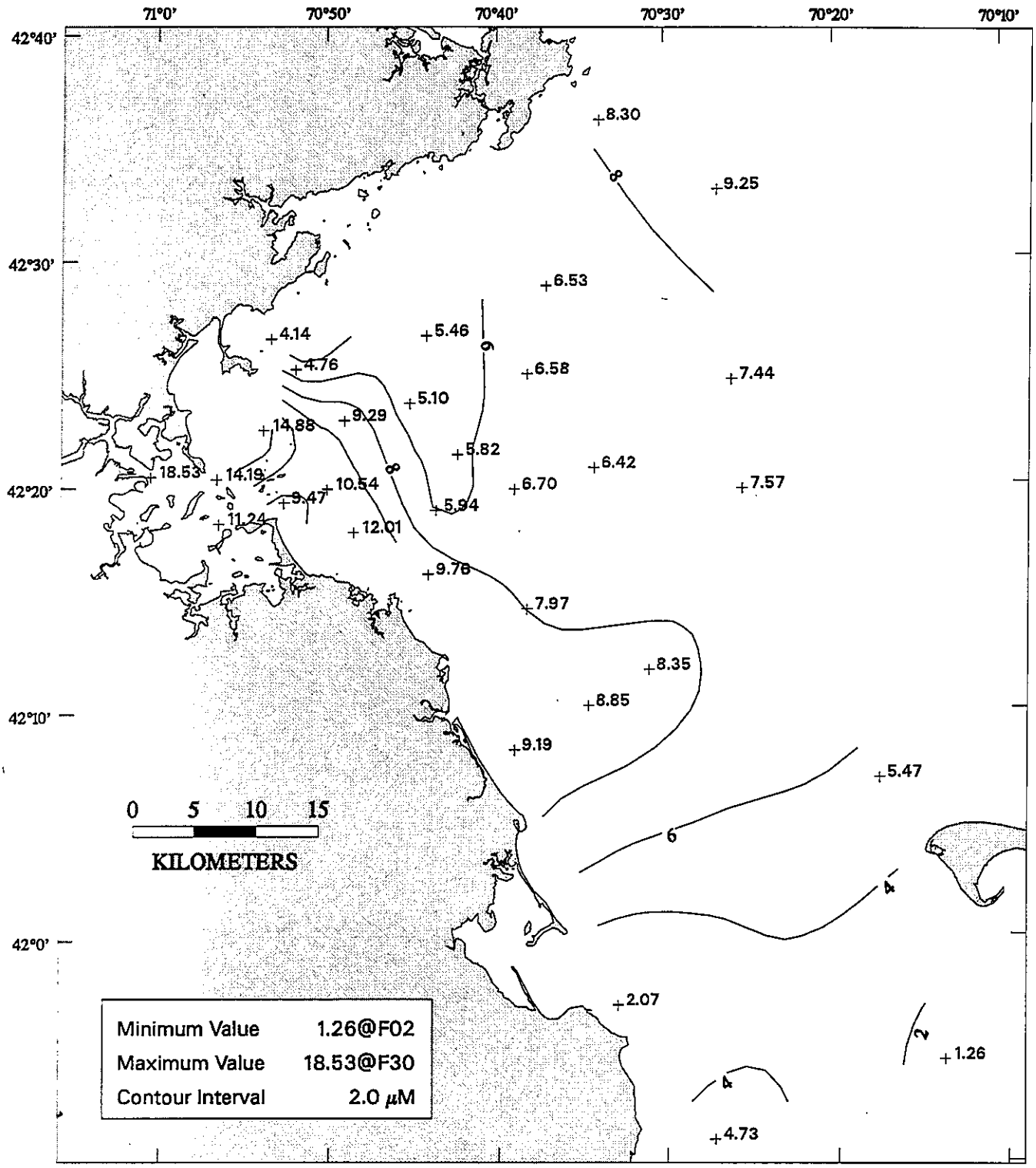
9504sio4_lin



9507sio4_lin


71°0'
70°50'
70°40'
70°30'
70°20'
70°10'
42°40'
42°30'
42°20'
42°10'
42°0'
9.86
10.20
10
10.06
10.35
10.07
10.26
10.14
10.43
9.98
9.57
13.08
10.39
10.32
18.56
19.90
14
15.29
10.36
10.31
16.52
10.35
20.59
14.20
12.89
11.43
10.47
12
11.12
12.87
9.76
0 5 10 15
KILOMETERS
10.42
9.34
9
8.67
Minimum Value 8.67@F01
Maximum Value 20.59@F31
Contour Interval 1.0 μM

9501din_lin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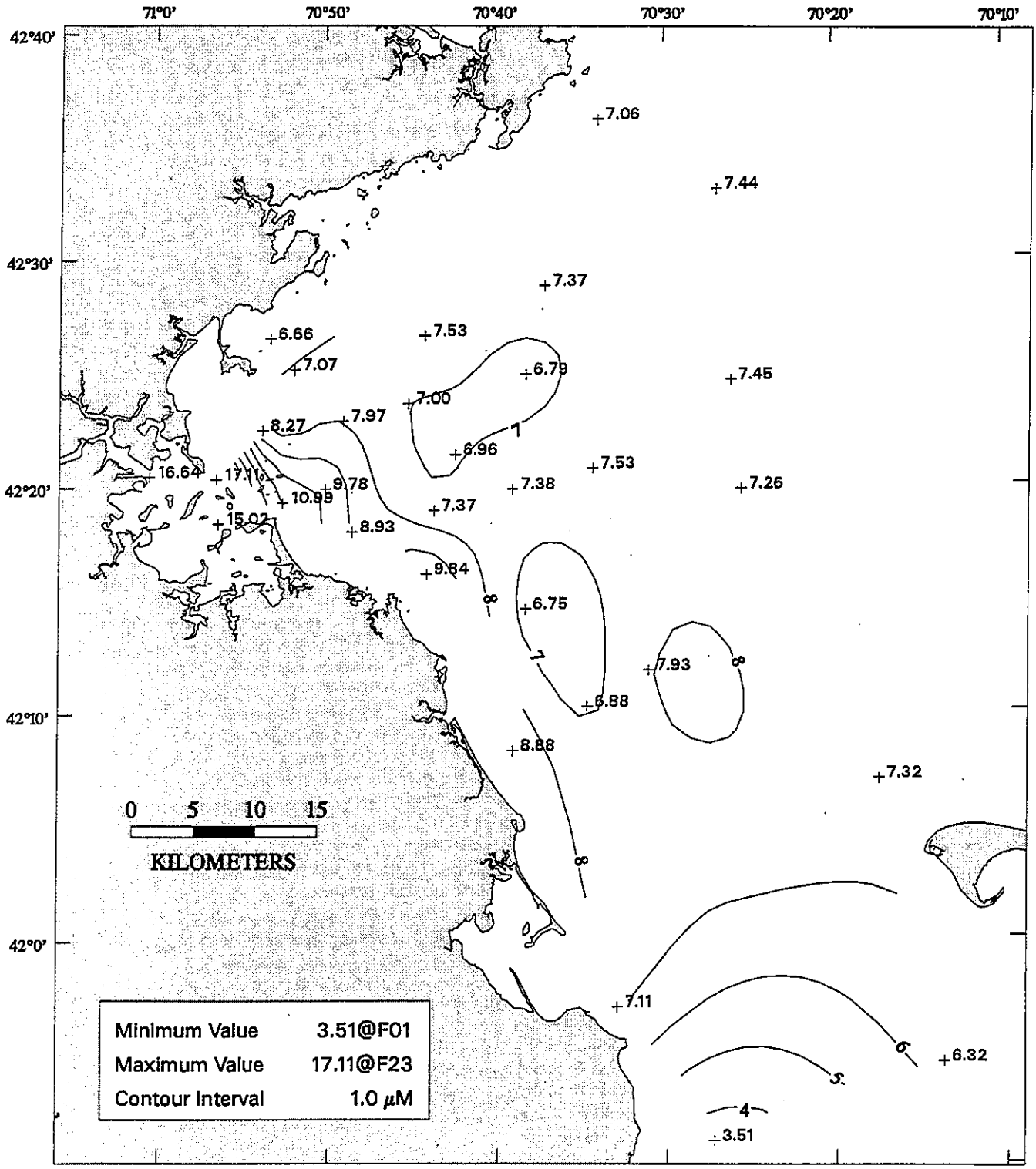
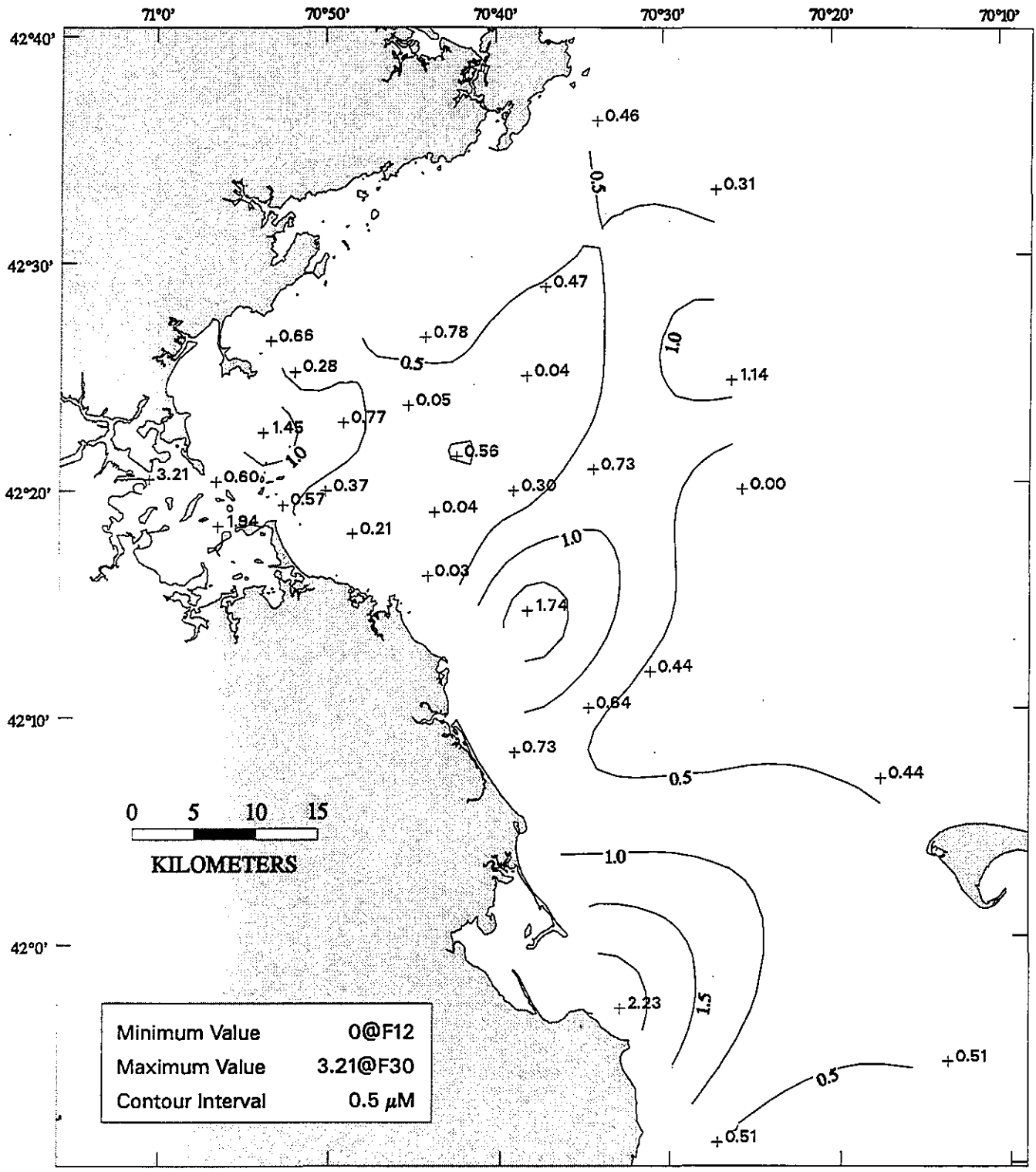
70°50'
70°40'
70°30'
70°20'
70°10'
42°40'
42°30'
42°20'
42°10'
42°0'
8.30
9.25
6.53
4.14
5.46
4.76
6.58
7.44
5.10
9.29
14.88
5.82
18.53
14.19
6.42
10.54
6.70
7.57
9.47
5.94
11.24
12.01
9.78
7.97
8.35
8.85
9.19
5.47
2.07
1.26
4.73
0 5 10 15
KILOMETERS
Minimum Value 1.26@F02
Maximum Value 18.53@F30
Contour Interval 2.0 μM

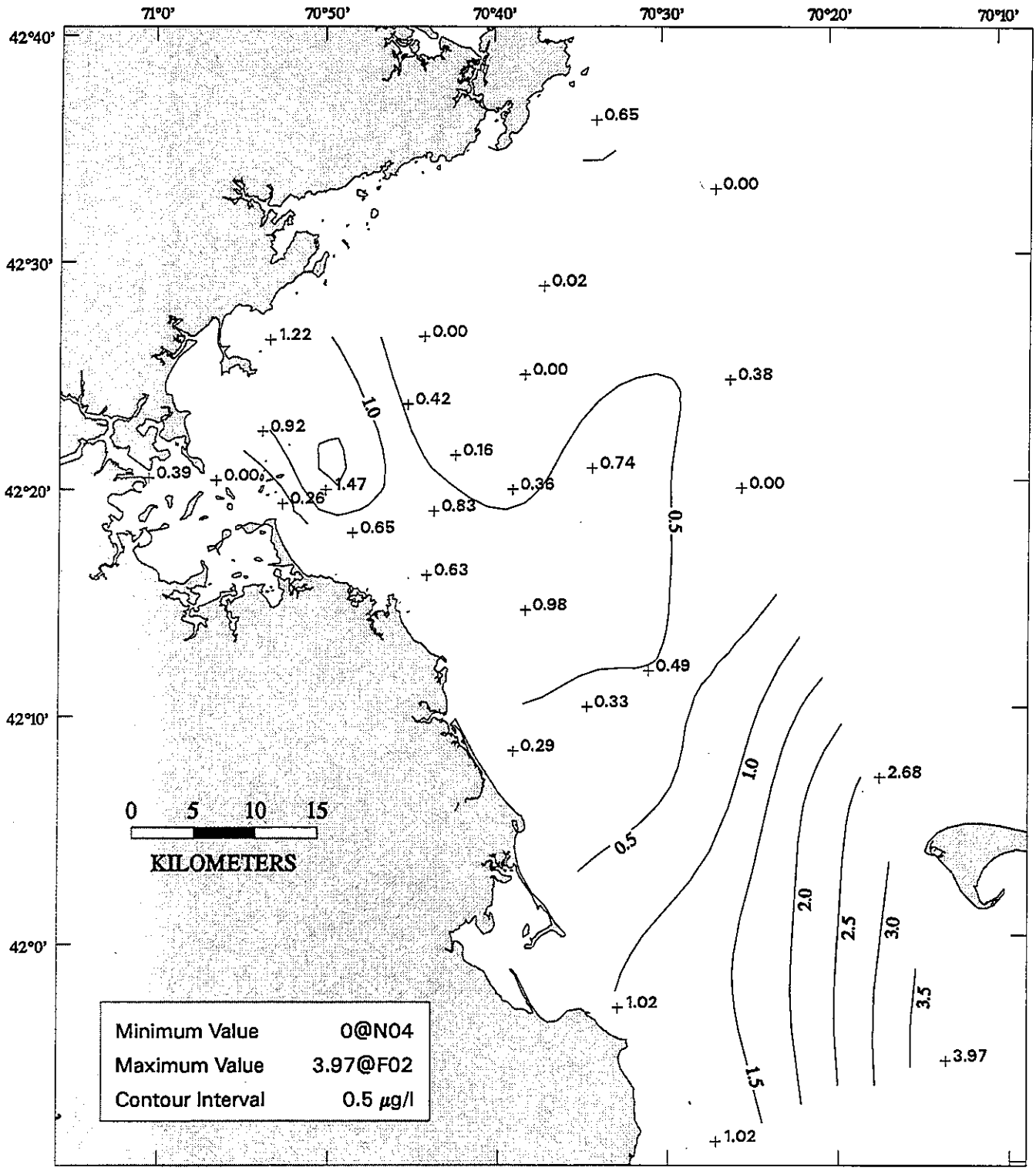
9502din_lin


71°0'
70°50'
70°40'
70°30'
70°20'
70°10'
42°40'
42°30'
42°20'
42°10'
42°0'
7.06
7.44
7.37
6.66
7.53
7.07
6.79
7.45
7.00
8.27
7.97
6.96
7
16.64
17.11
9.78
7.53
7.38
7.26
10.99
7.37
15.02
8.93
9.84
8
6.75
7
7.93
8
6.88
8.88
7.32
0 5 10 15
KILOMETERS
Minimum Value 3.51@F01
Maximum Value 17.11@F23
Contour Interval 1.0 μM
7.11
6
6.32
5
4
3.51

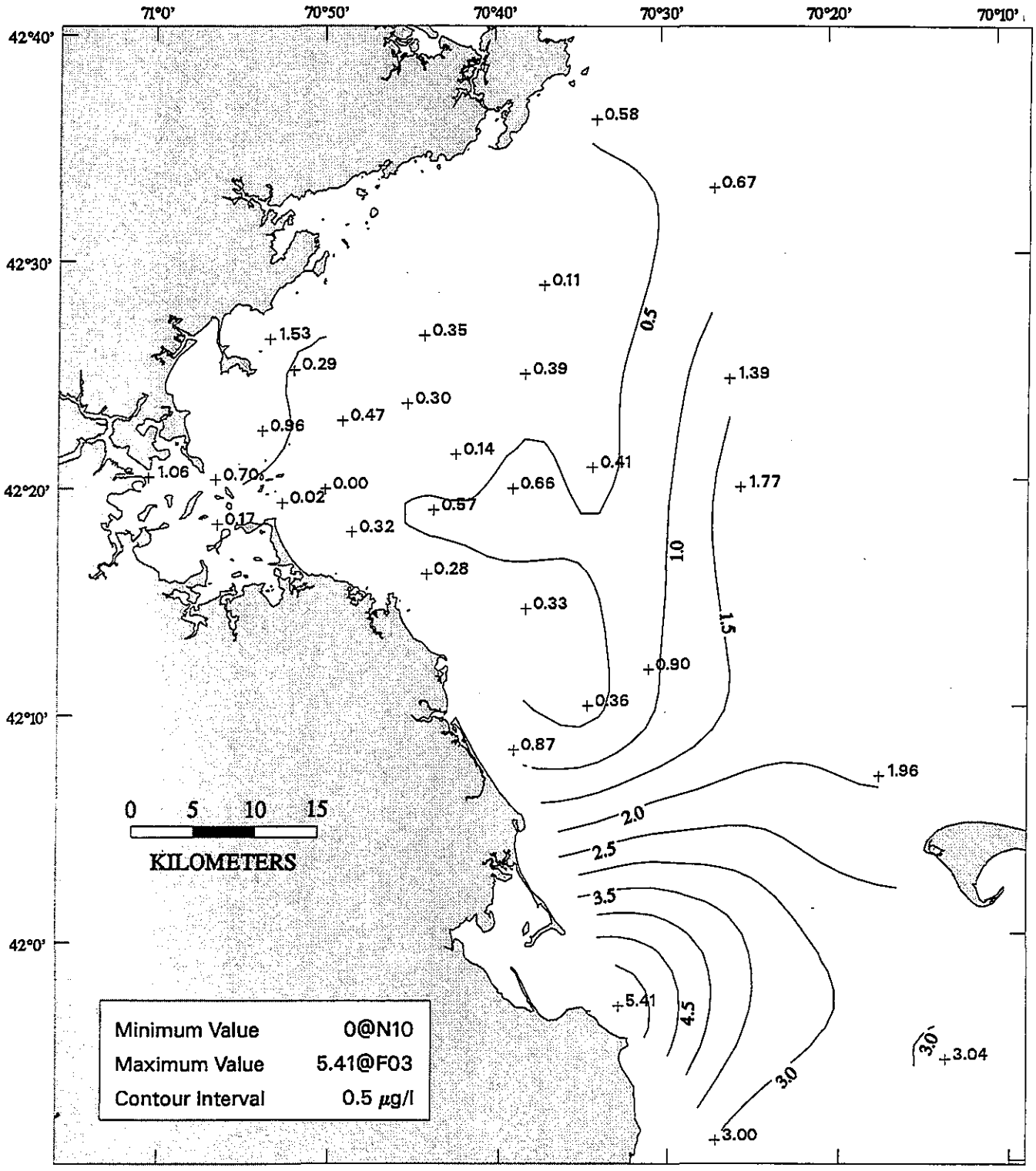
9504din_lin


71°0'
70°50'
70°40'
70°30'
70°20'
70°10'
42°40'
42°30'
42°20'
42°10'
42°0'
+0.46
+0.31
+0.47
+0.66
+0.78
+0.28
+0.04
+1.14
+0.05
+1.45
+0.77
+0.56
+3.21
+0.60
+0.73
+0.00
+0.37
+0.30
+0.57
+0.04
+1.94
+0.21
+0.03
+1.74
+0.44
+0.64
+0.73
+0.44
0.5
1.0
1.5
0 5 10 15
KILOMETERS
+2.23
+0.51
+0.51
Minimum Value 0@F12
Maximum Value 3.21@F30
Contour Interval 0.5 μM

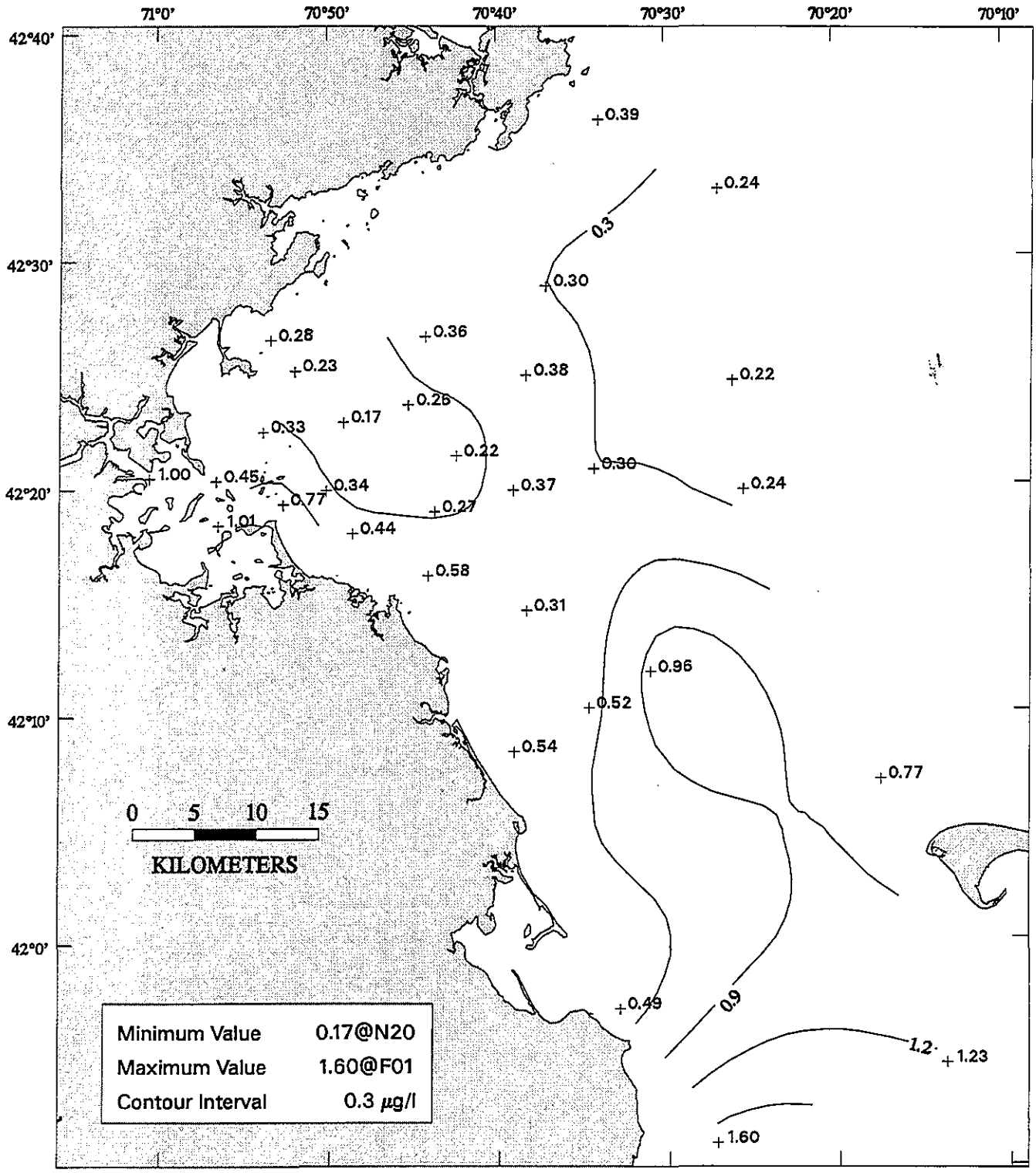
9507din_lin



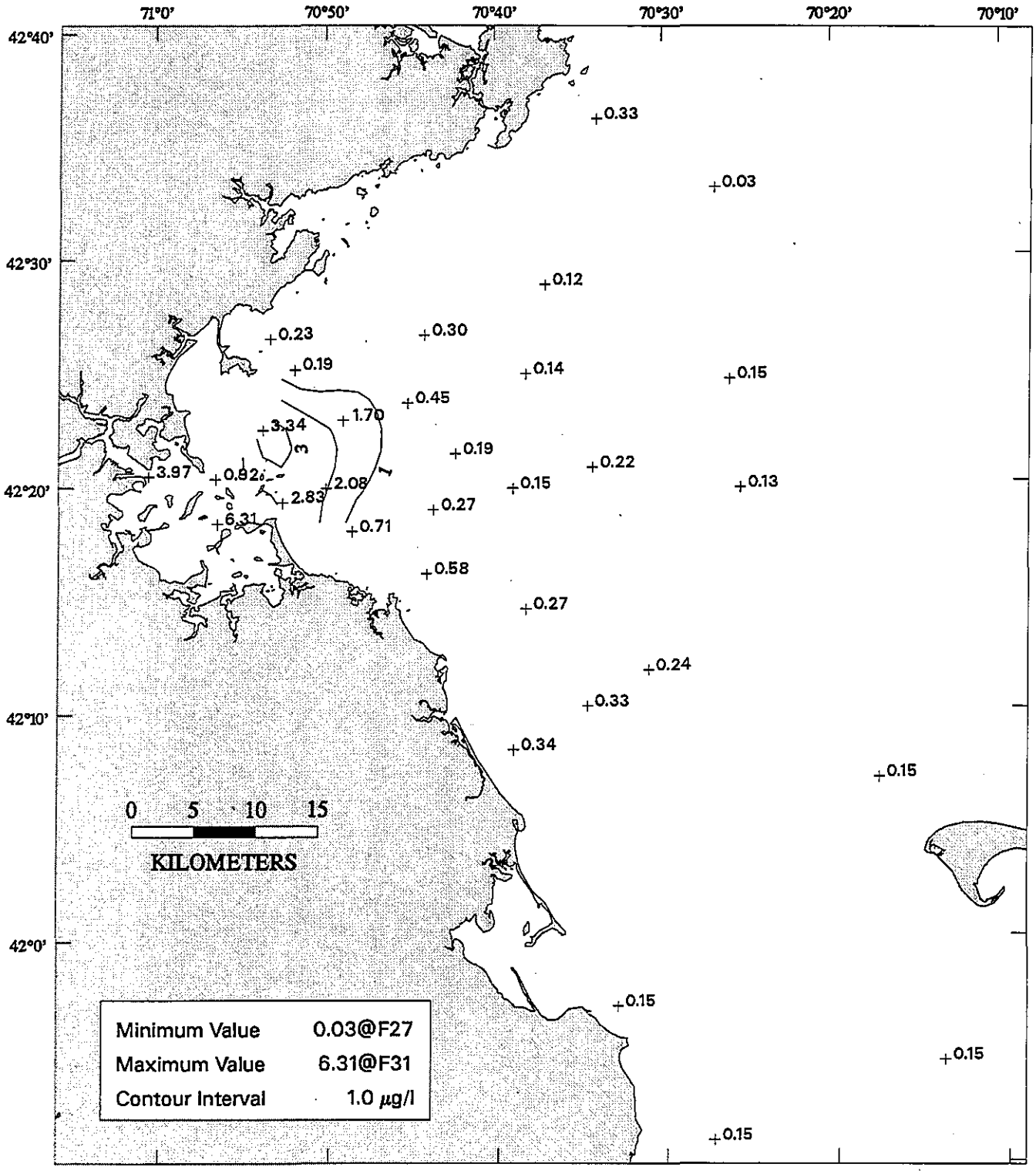
9501fluo_lin



9502fluo_lin



9504fluo_lin



9507fluo_lin

APPENDIX C

TRANSECT PLOTS

APPENDIX C

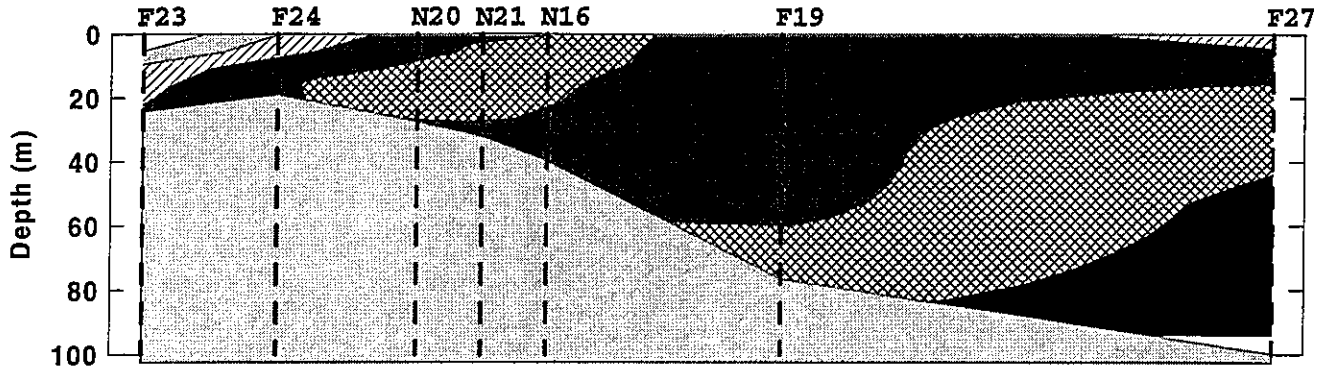
Data were contoured relative to water depth and distance between stations as shown on the transects (Figure 1-3, text). Relative distances between stations and water depth at each station is shown on the transect. Water depth is labelled with negative values in meters, with zero depth at the sea surface, and shaded with slanted lines. Three transects (Boston-Nearfield, Cohasset, and Marshfield) are provided on each plot, as well as shaded contour levels on the scale bar at the bottom of the plot. Contour units are as noted on the table below. Each plot is labelled on the bottom right with the parameter as listed below, and the survey number ("9501").

Appendix C: Table of Contents

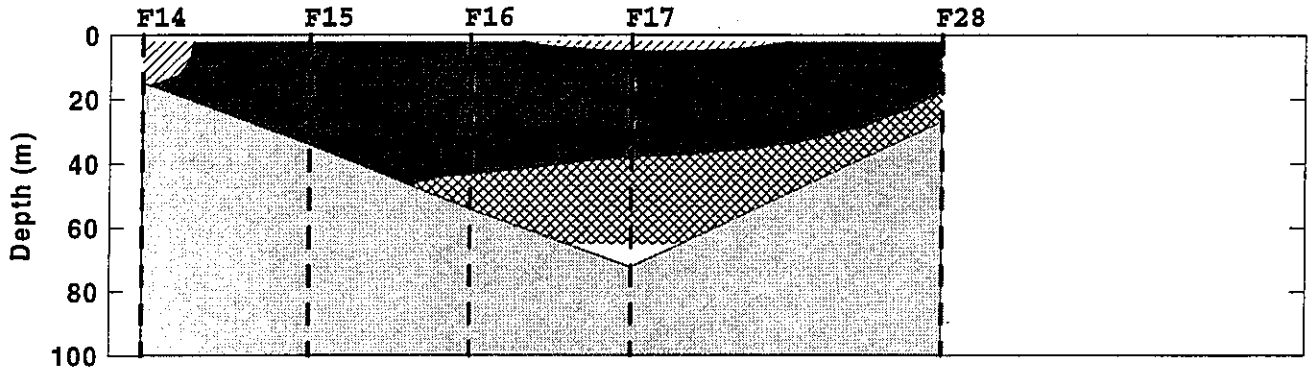
Parameter Name	Map Parameter Name	Units
Sigma-T (σ_t)	Sigma-T	n/a
Temperature	Temperature	°C
Salinity	Salinity	PSU
Transmissivity (beam attenuation)	Trans	/m
Nitrate (NO_3)	NO3	µM
Phosphate (PO_4)	PO4	µM
Silicate (SiO_4)	SiO4	µM
Dissolved Inorganic Nitrogen (DIN*)	DI Nitro	µM
Chlorophyll *a*	Fluorescence	µg/L
DO Saturation	DO % Saturation	%

*$NO_3 + NO_2 + NH_4$

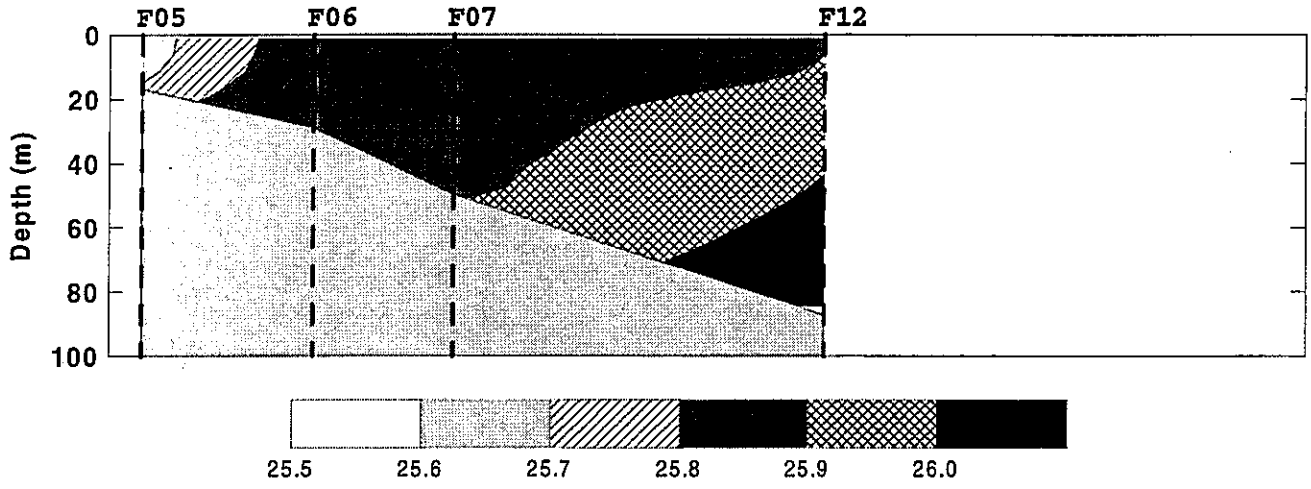
Boston-Nearfield Transect



Cohassett Transect

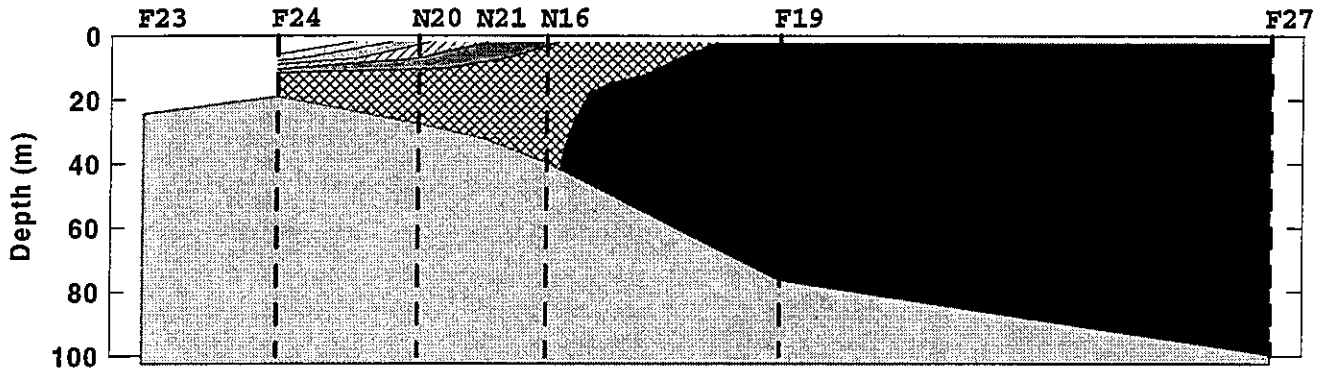


Marshfield Transect

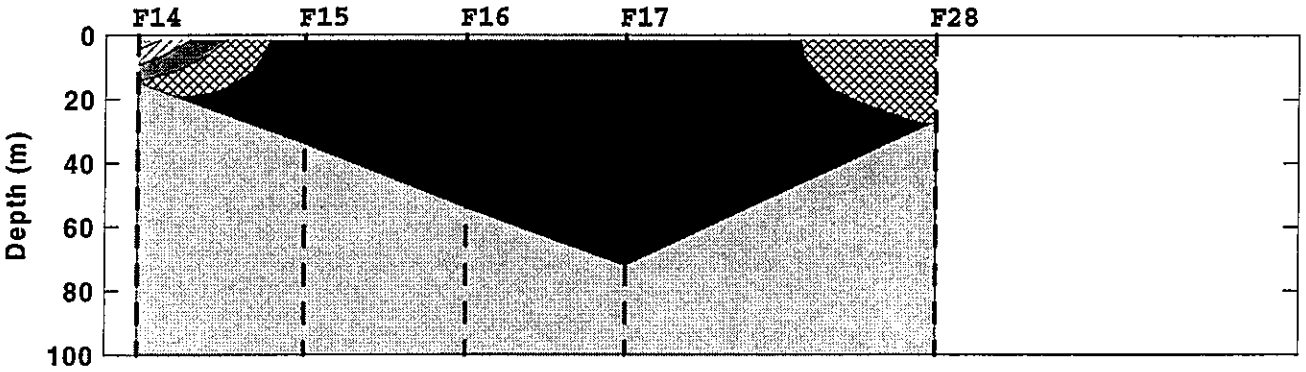


Sigma-T 9501

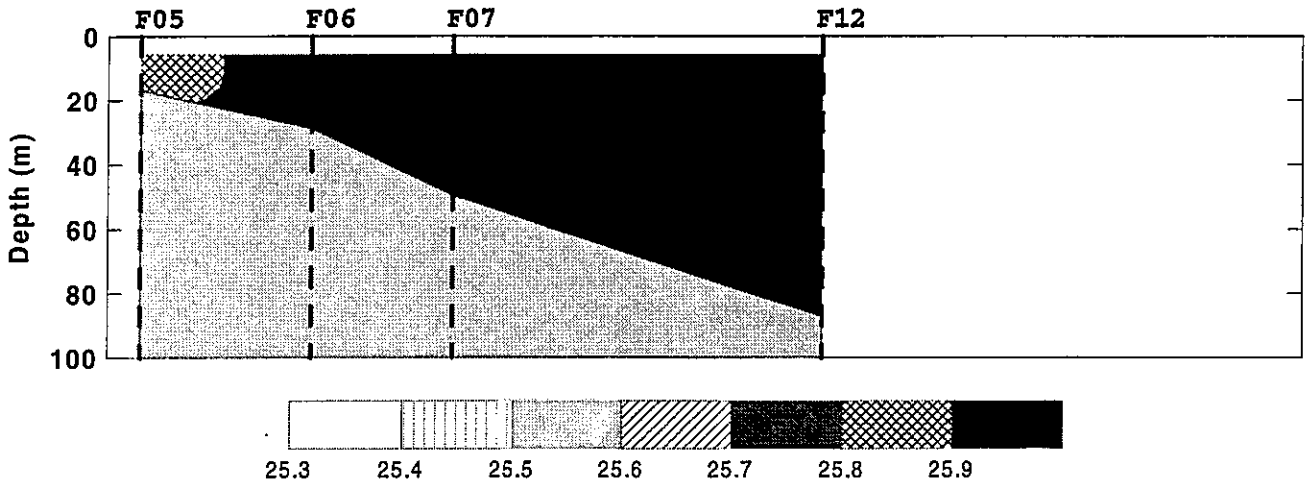
Boston-Nearfield Transect



Cohassett Transect

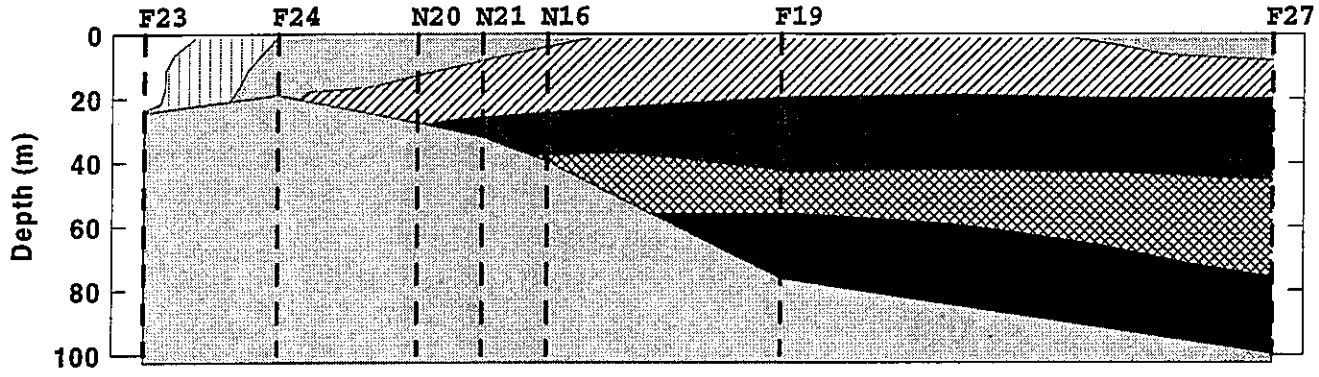


Marshfield Transect

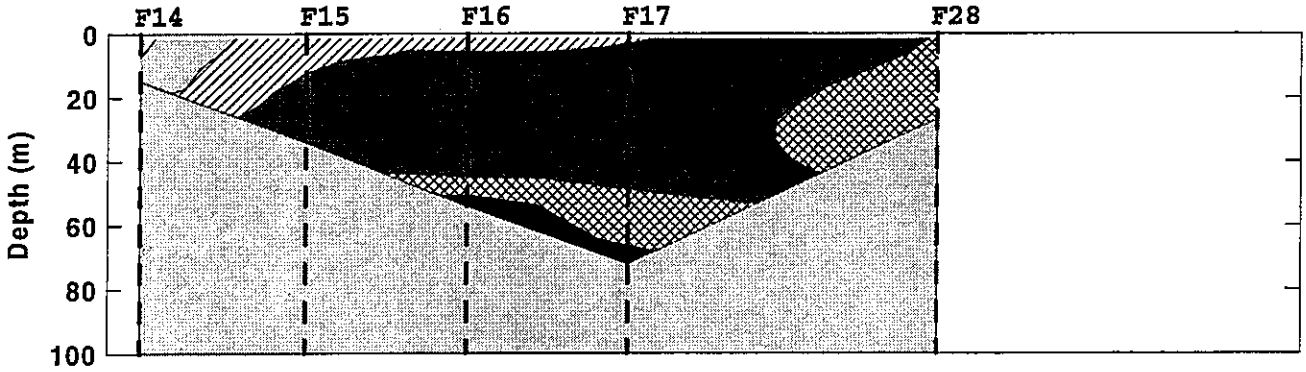


Sigma-T 9502

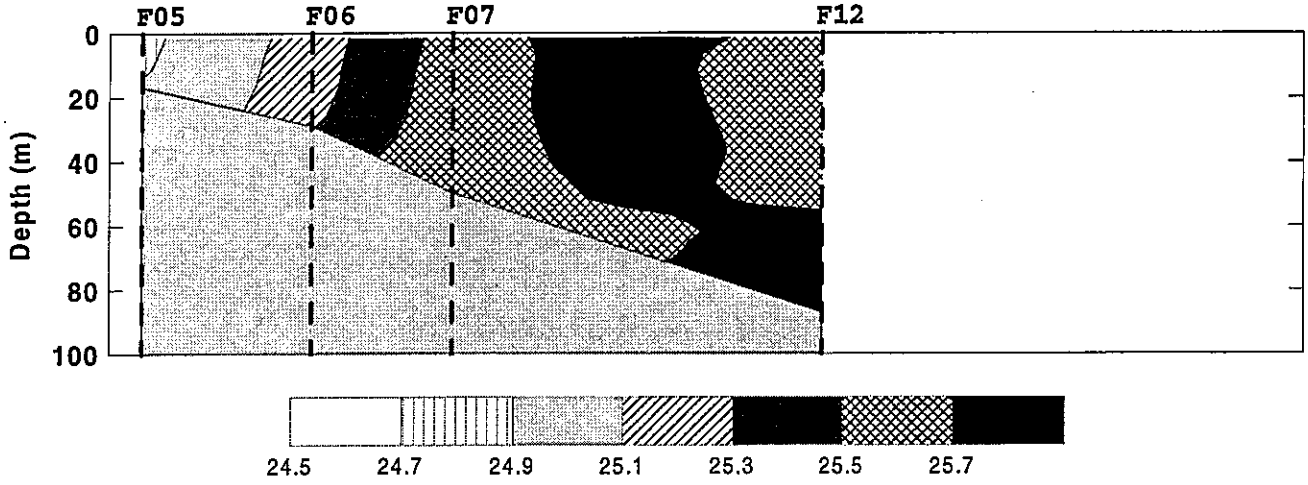
Boston-Nearfield Transect



Cohassett Transect

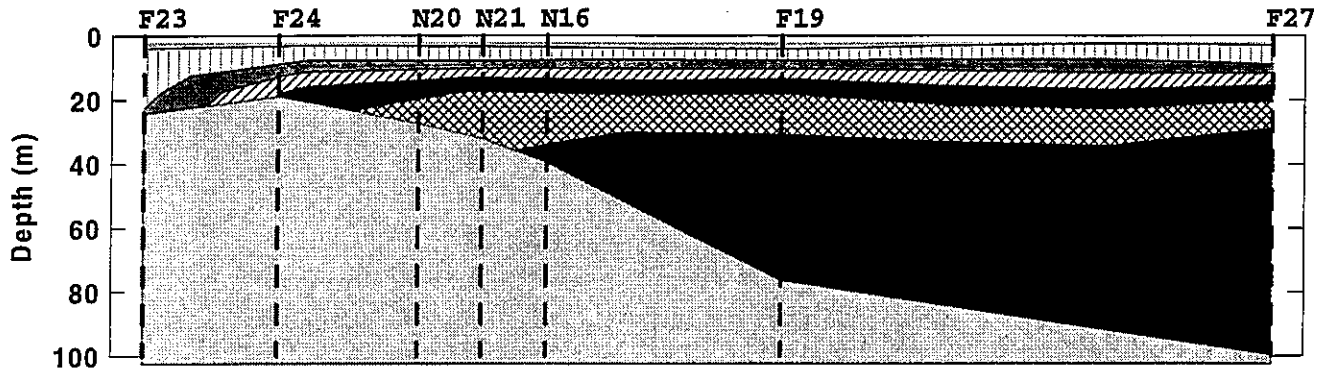


Marshfield Transect

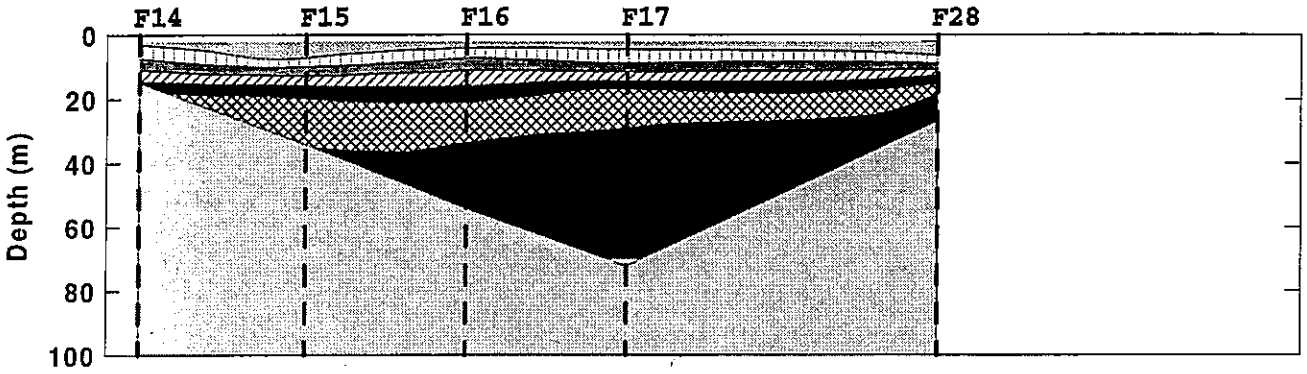


Sigma-T 9504

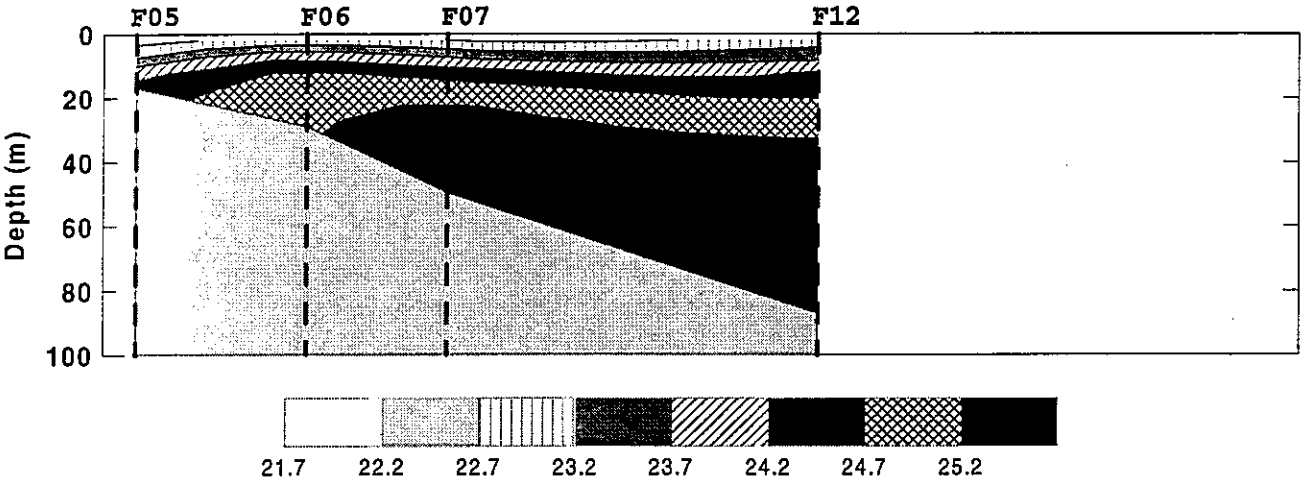
Boston-Nearfield Transect



Cohassett Transect

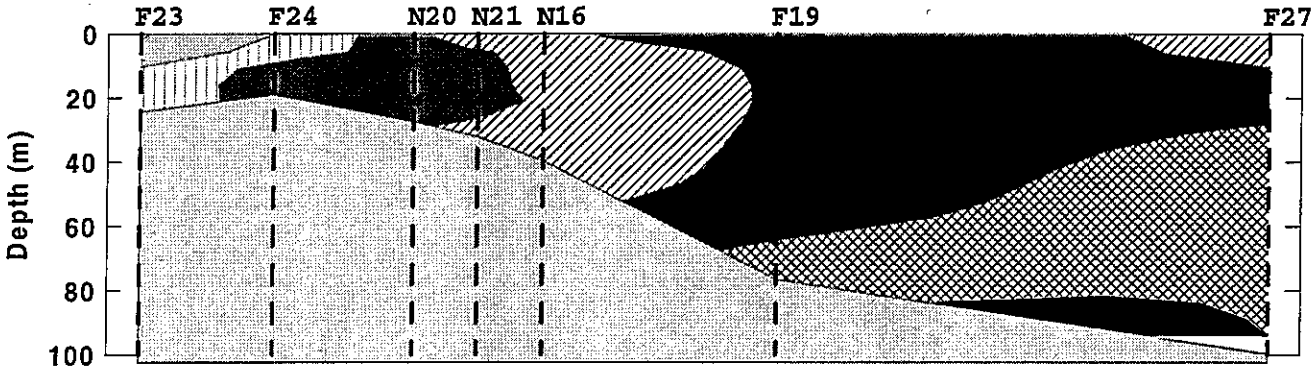


Marshfield Transect

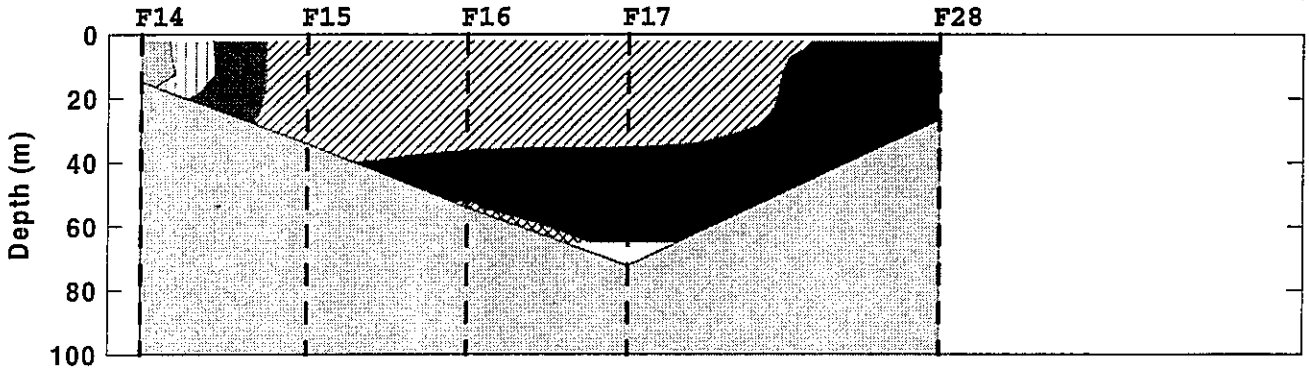


Sigma-T 9507

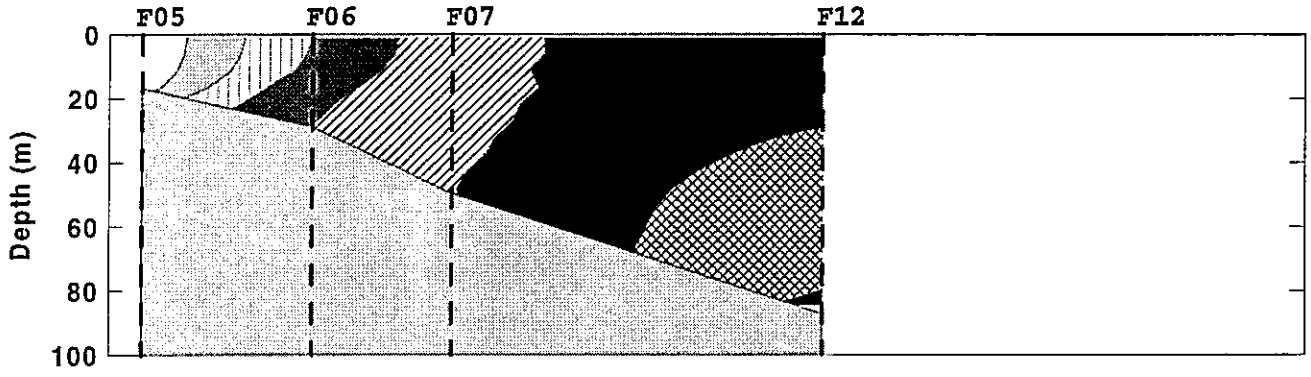
Boston-Nearfield Transect



Cohassett Transect

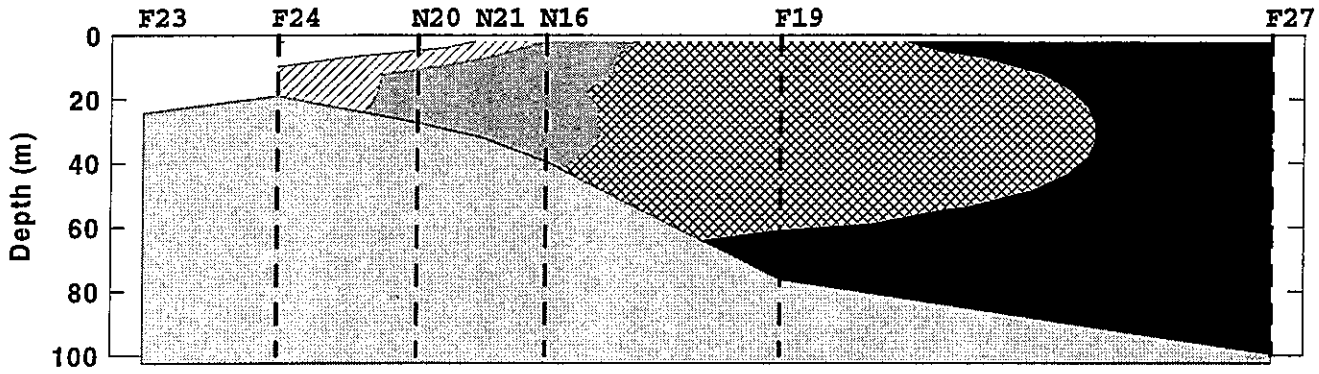


Marshfield Transect

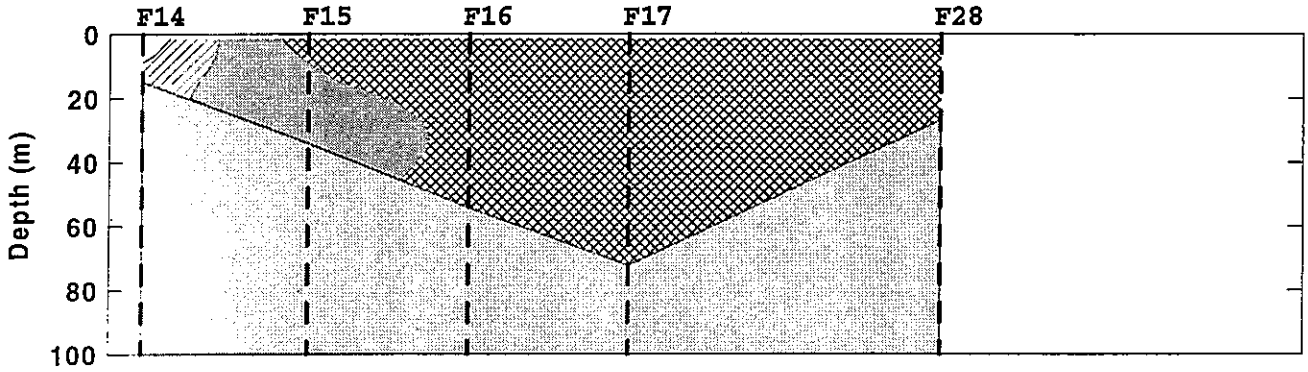


Temperature 9501

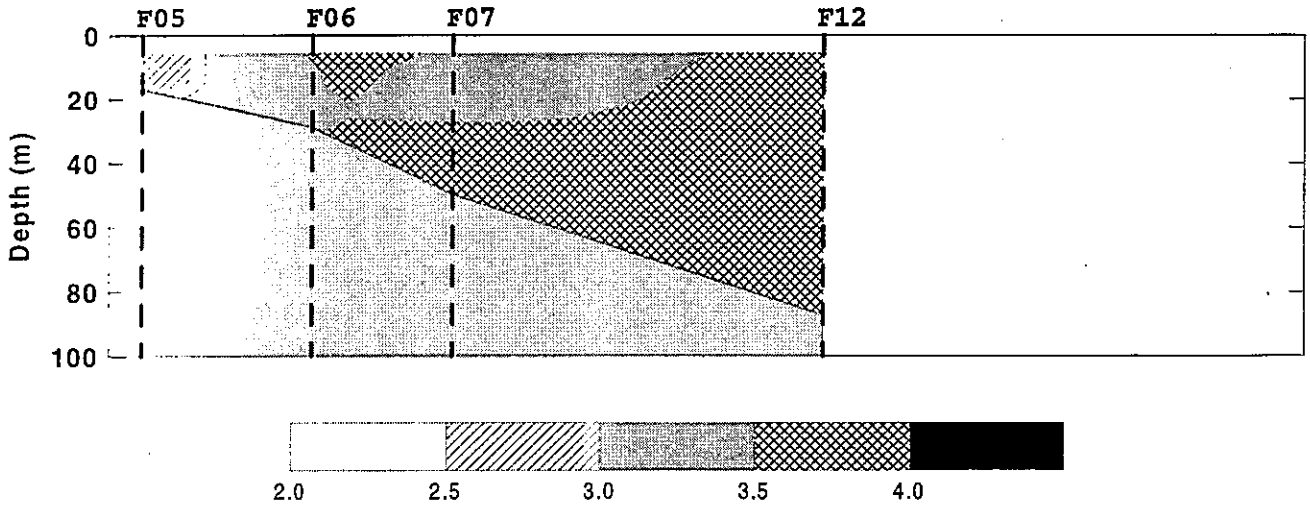
Boston-Nearfield Transect



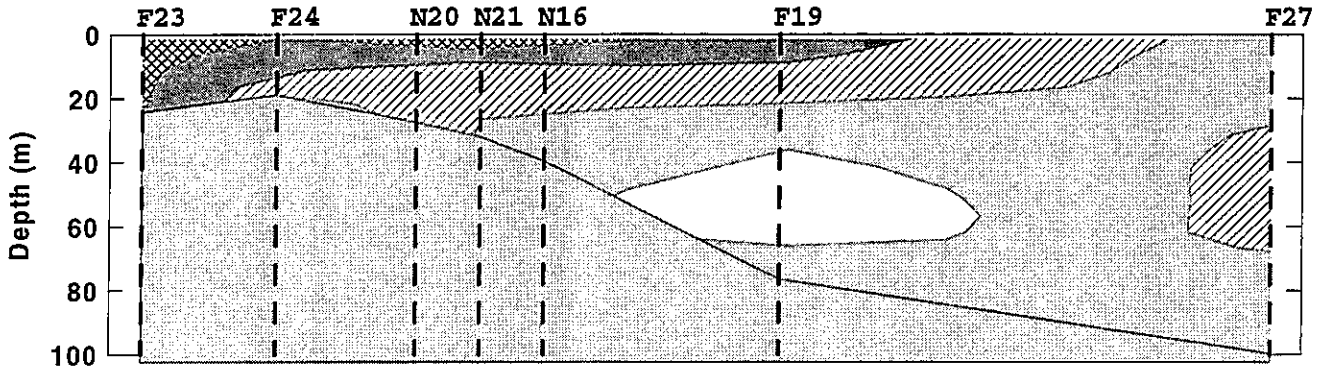
Cohassett Transect



Marshfield Transect



Boston-Nearfield Transect



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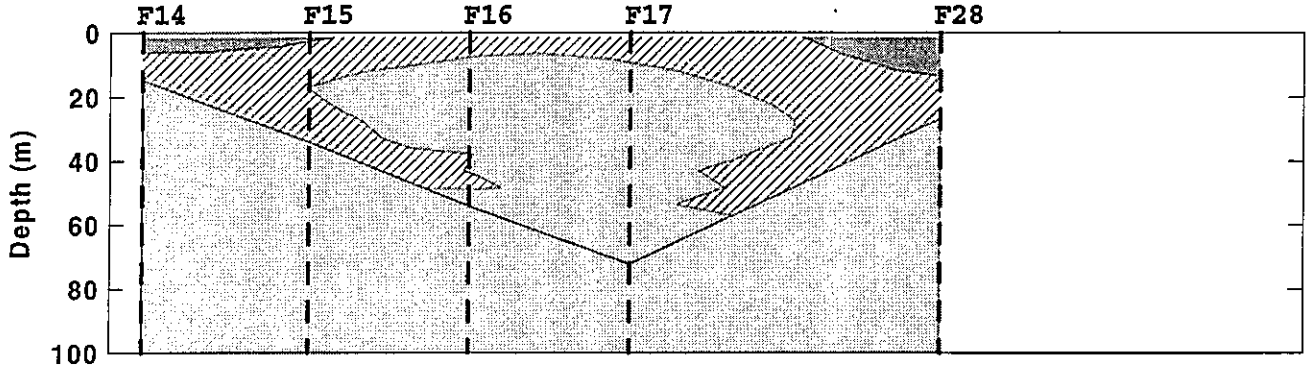
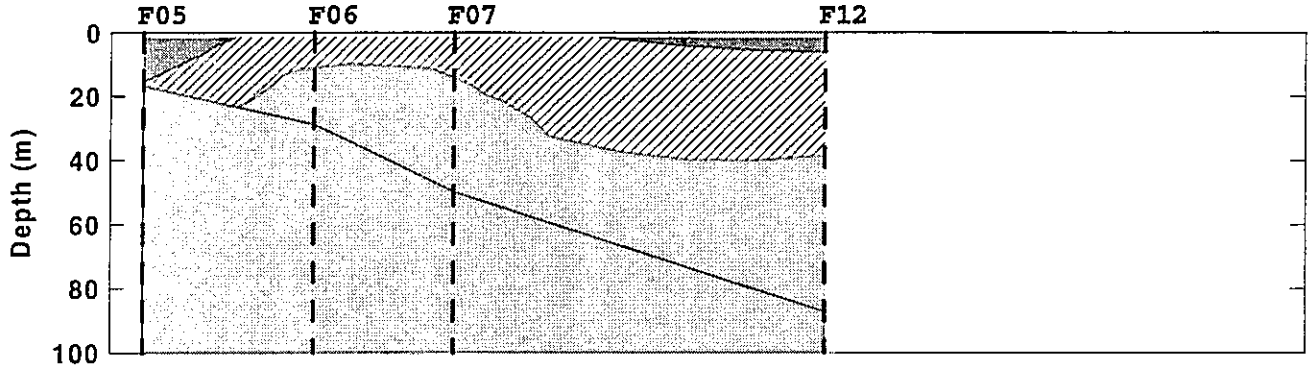
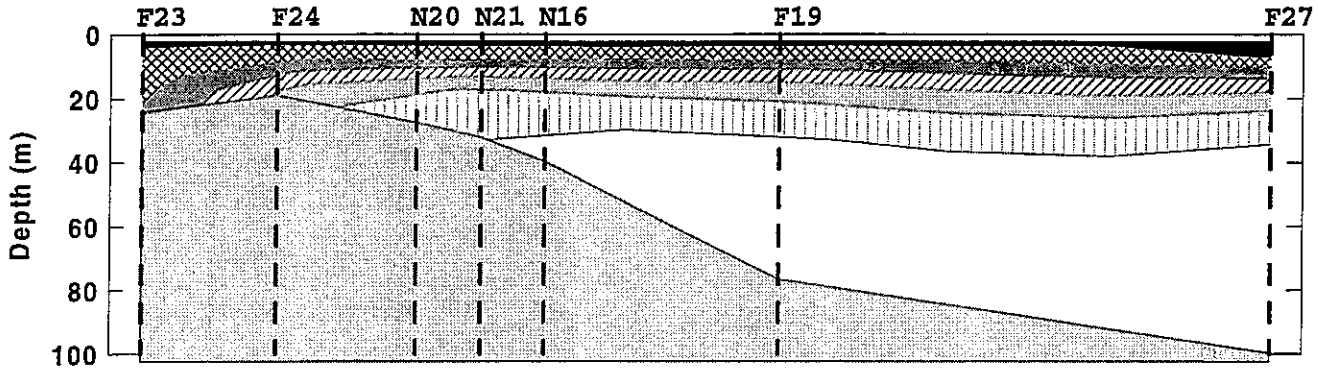


Marshfield Transect

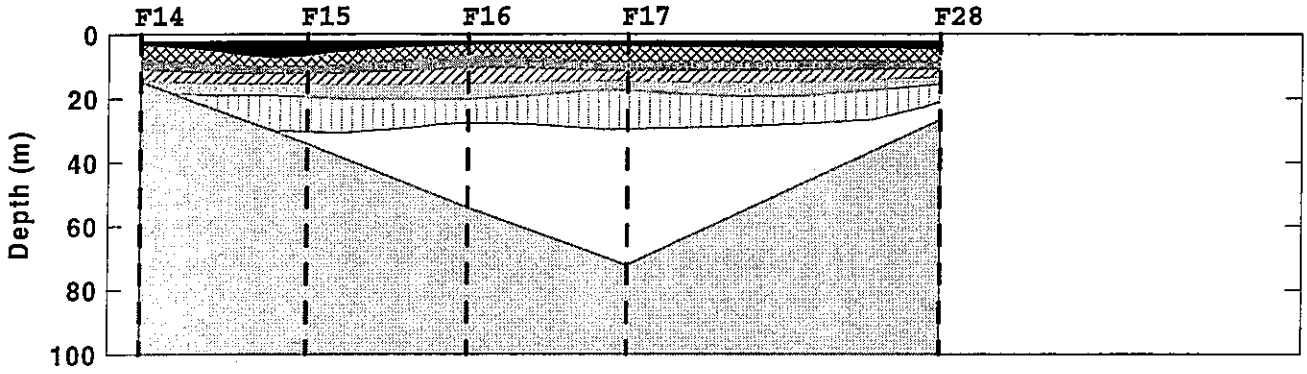


Temperature 9504

Boston-Nearfield Transect



Cohassett Transect



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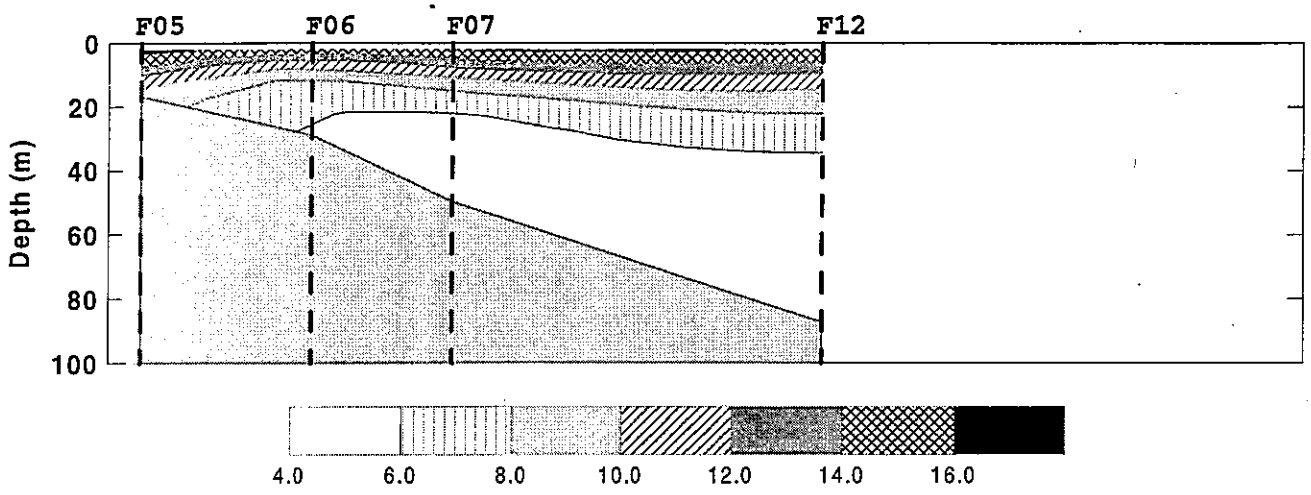
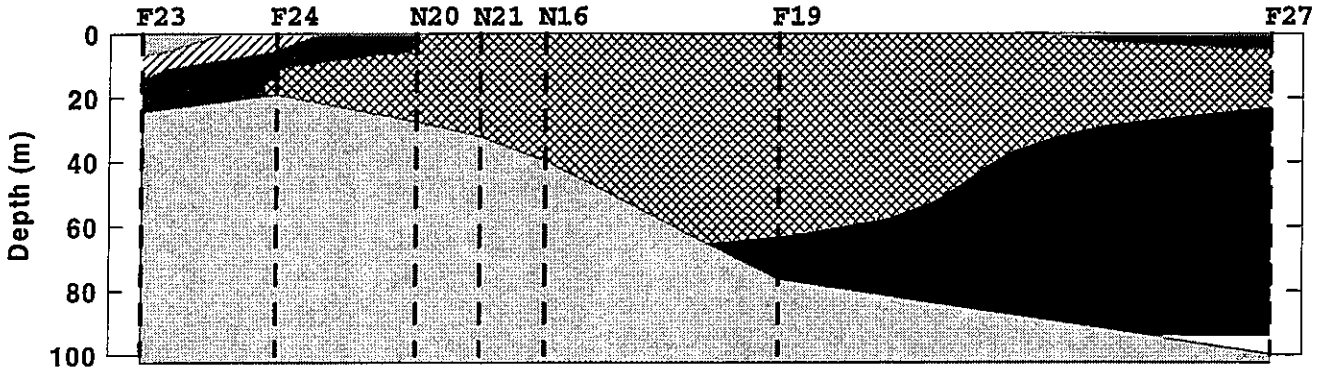
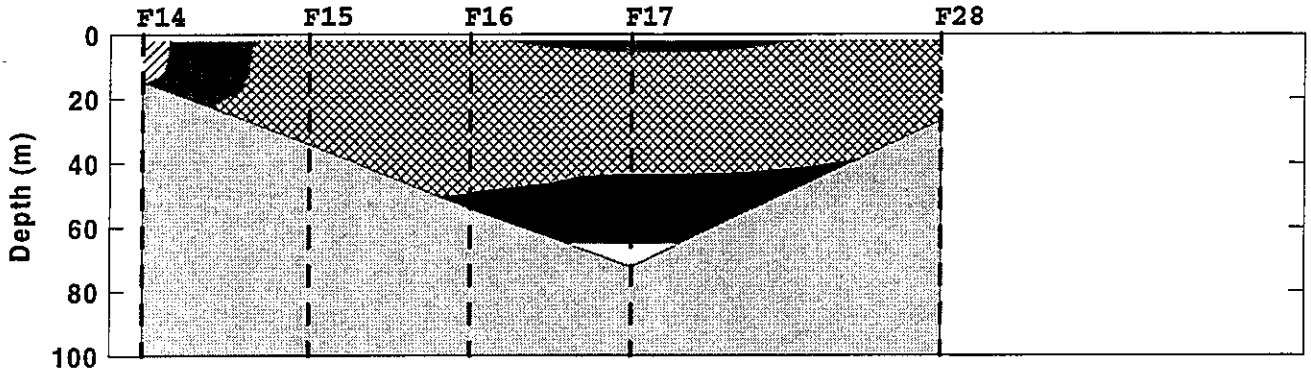


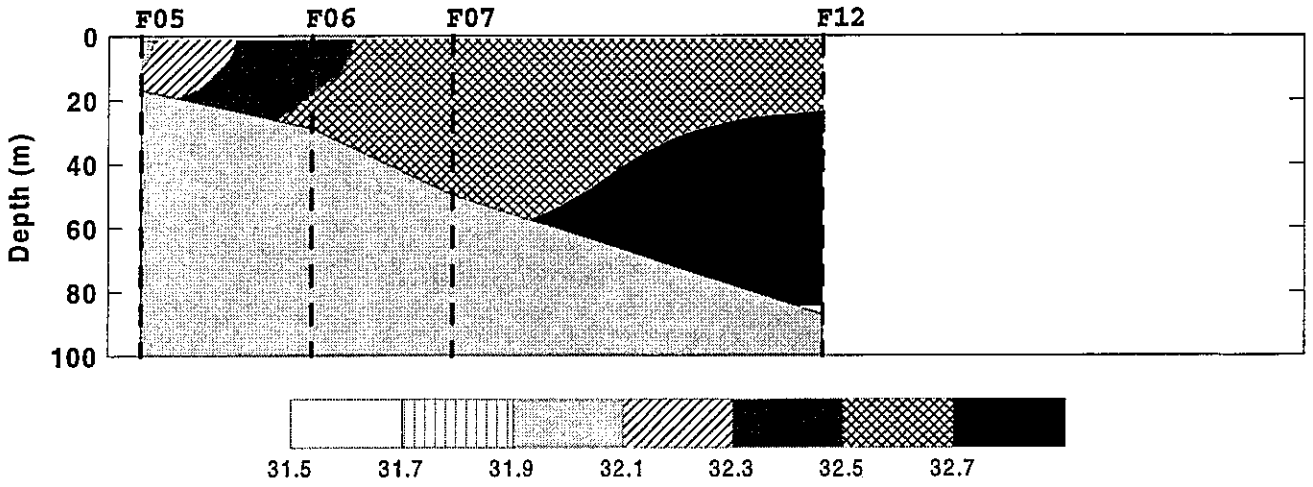
Boston-Nearfield Transect



Cohassett Transect

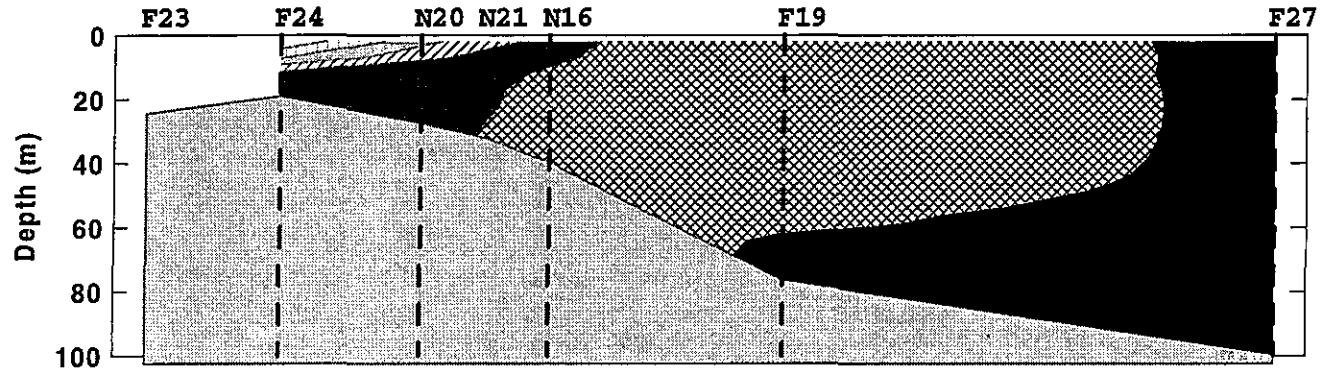


Marshfield Transect

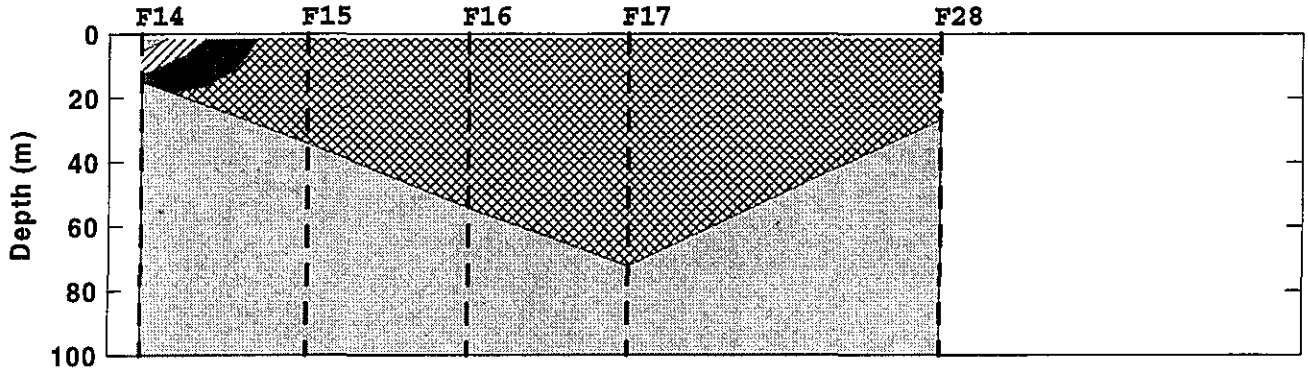


Salinity 9501

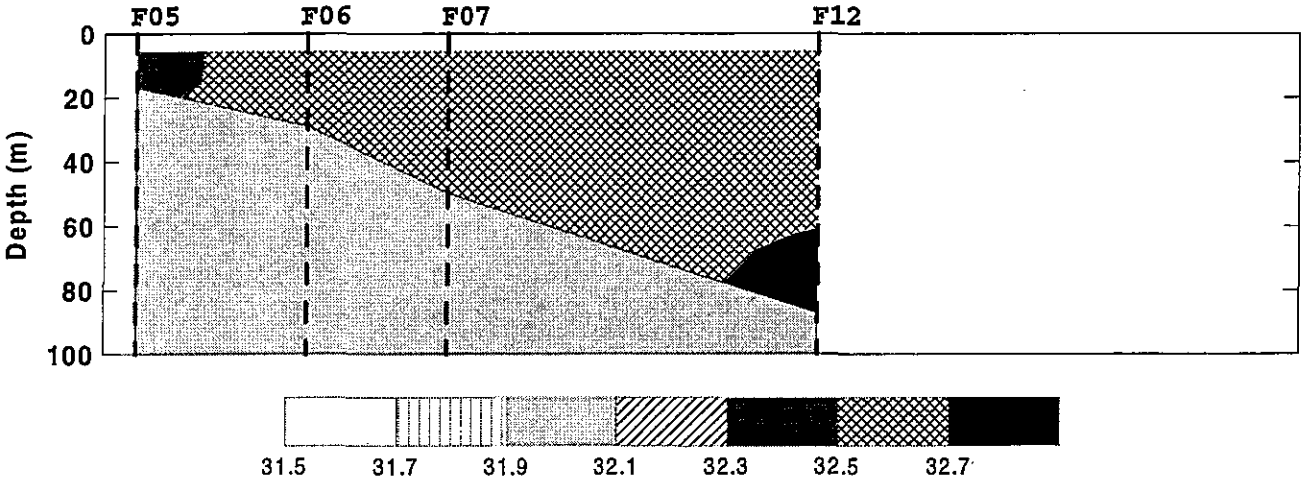
Boston-Nearfield Transect



Cohassett Transect

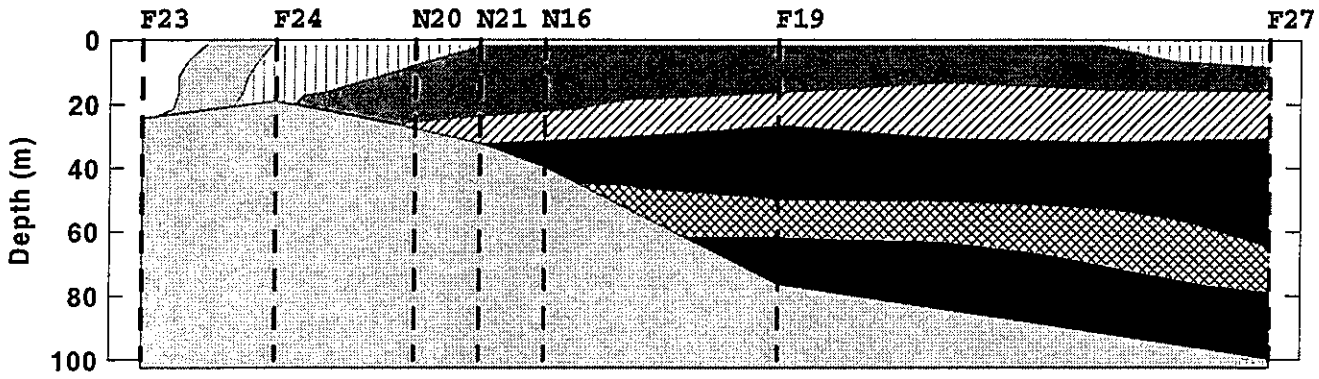


Marshfield Transect

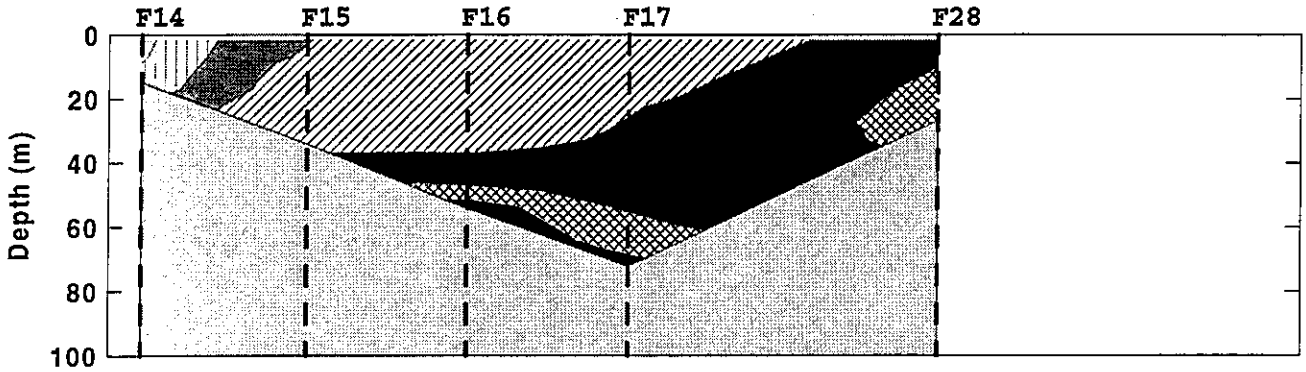


Salinity 9502

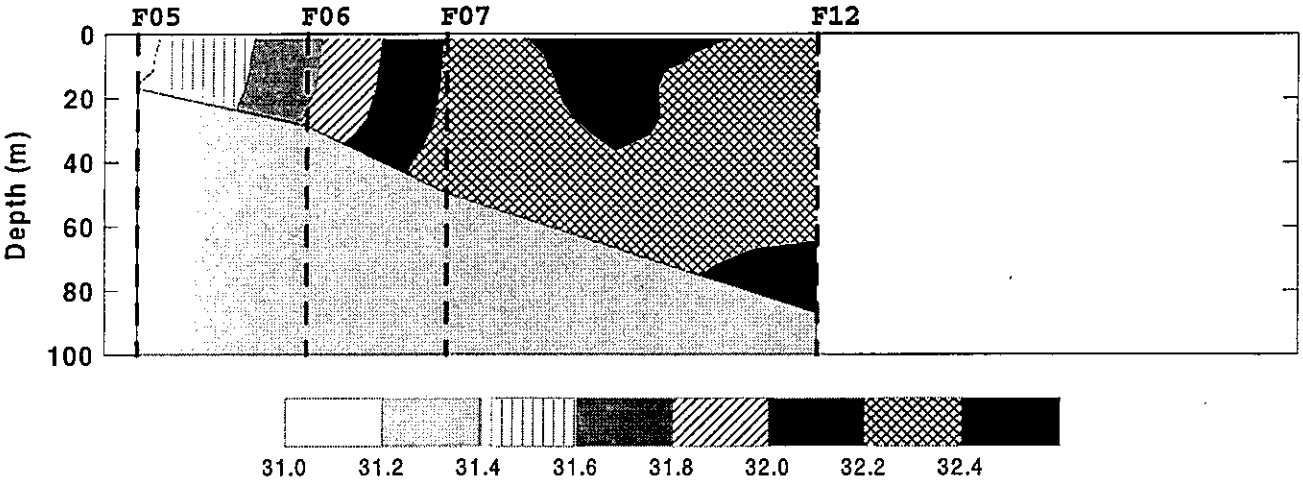
Boston-Nearfield Transect



Cohassett Transect

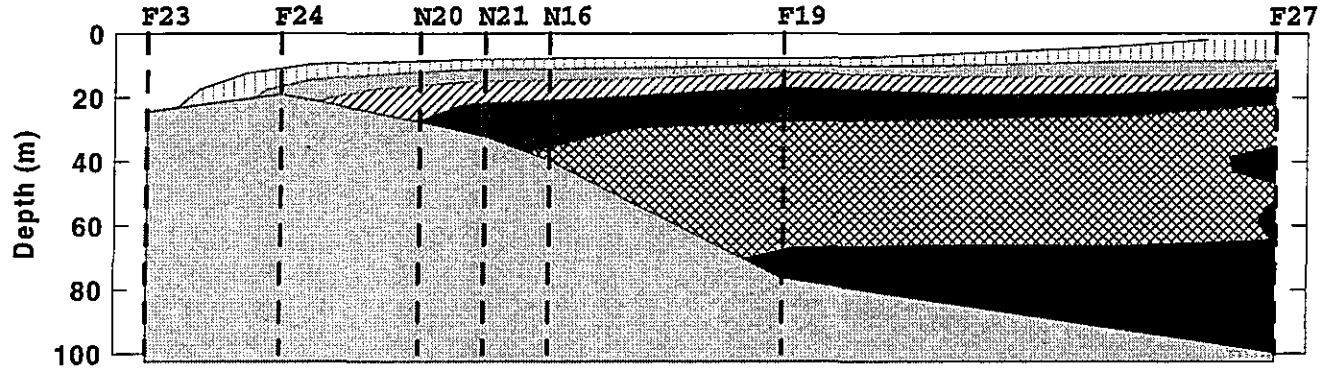


Marshfield Transect



Salinity 9504

Boston-Nearfield Transect



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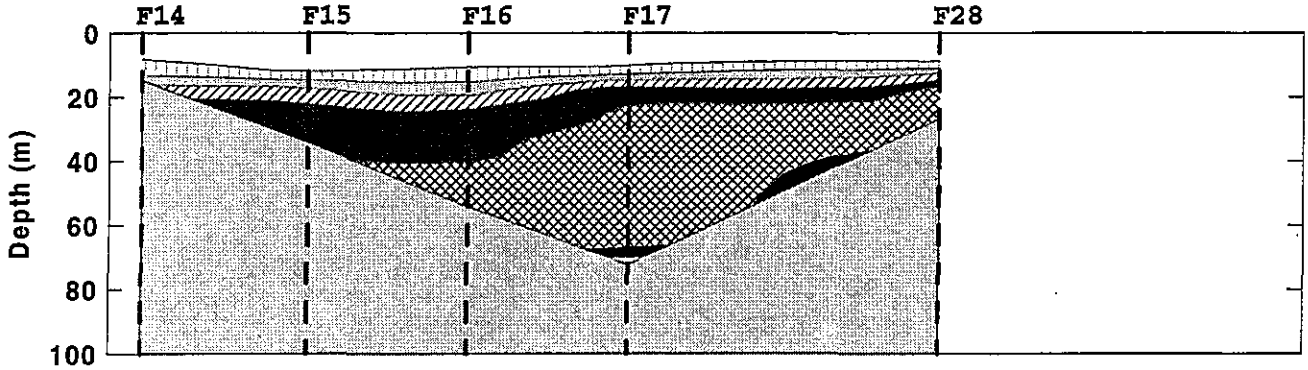

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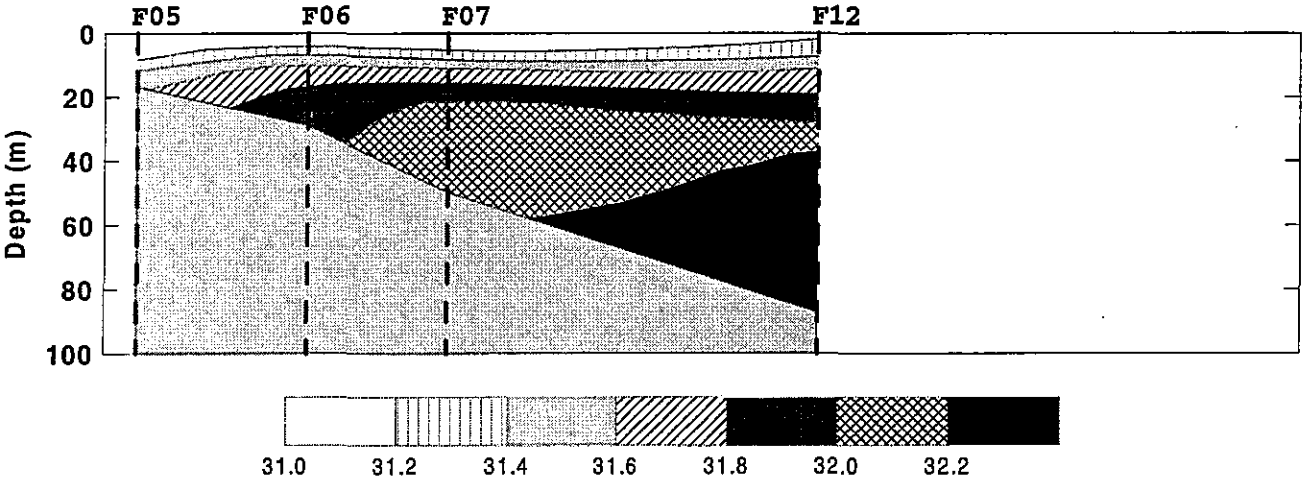
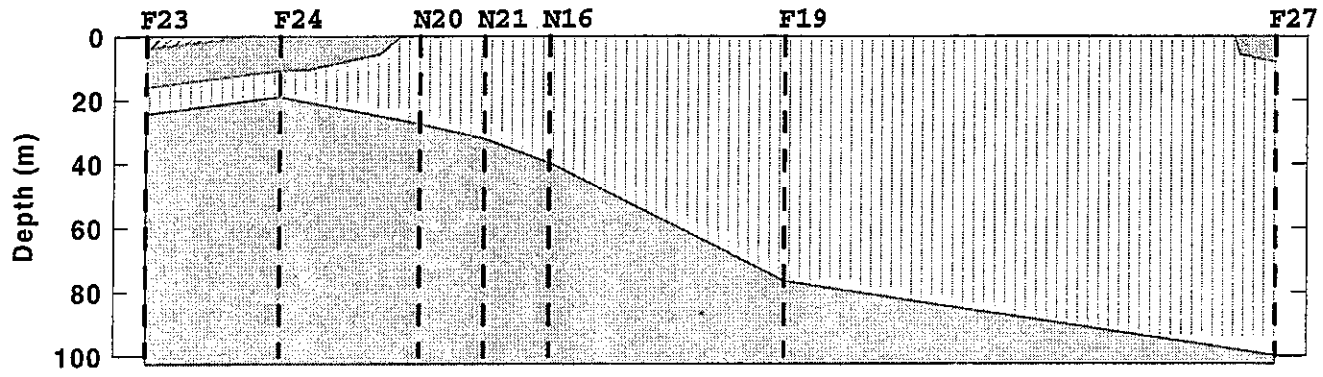


Salinity 9507

Boston-Nearfield Transect



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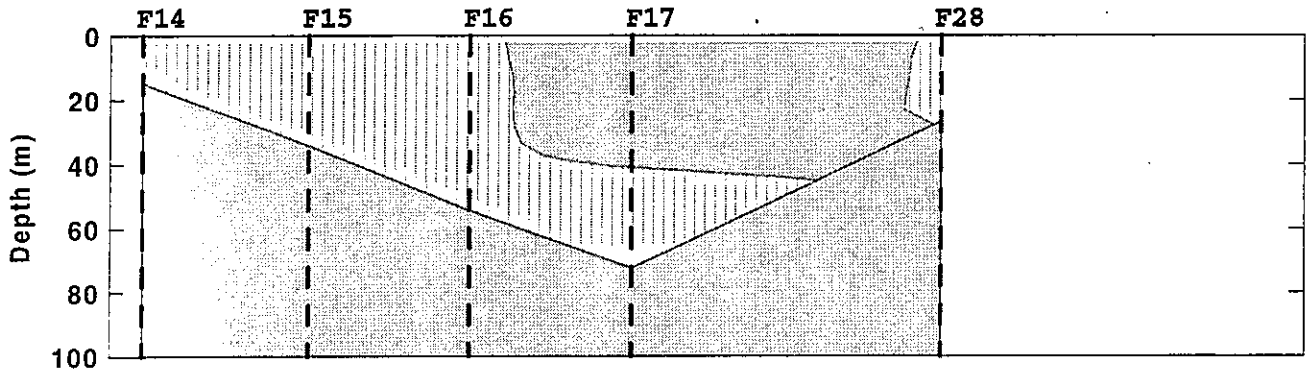

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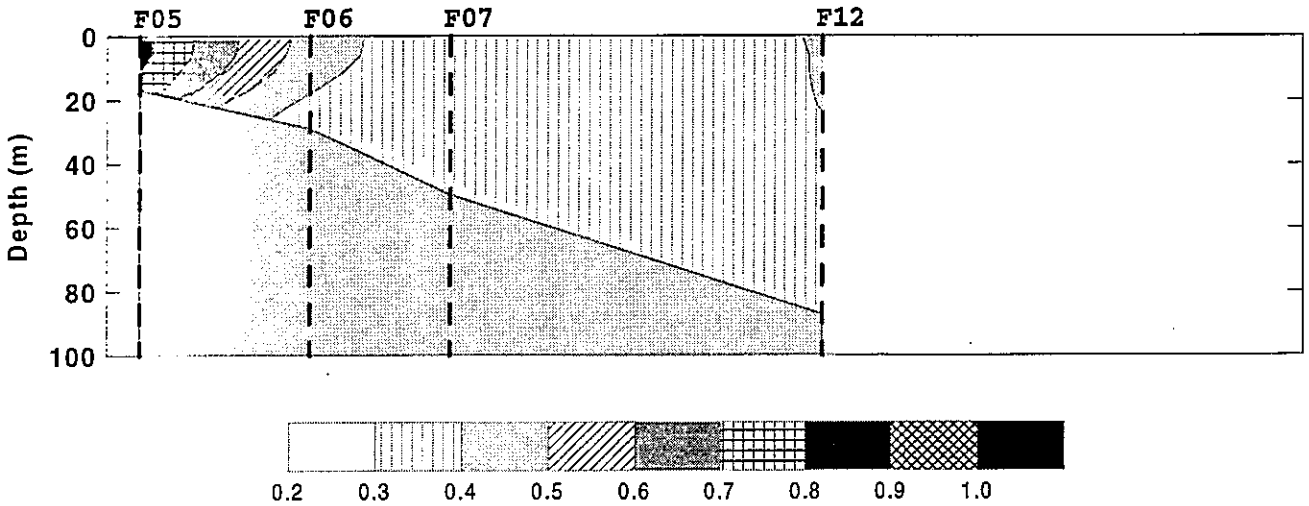
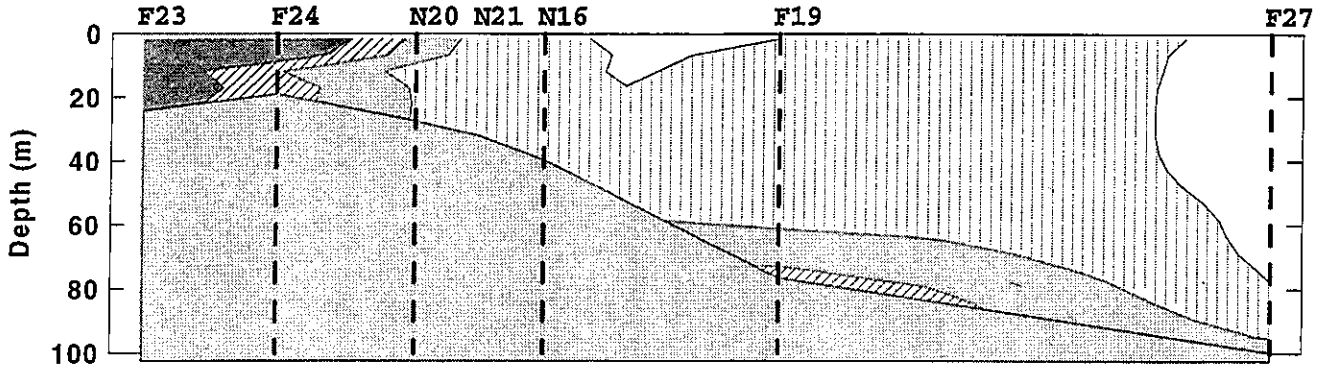
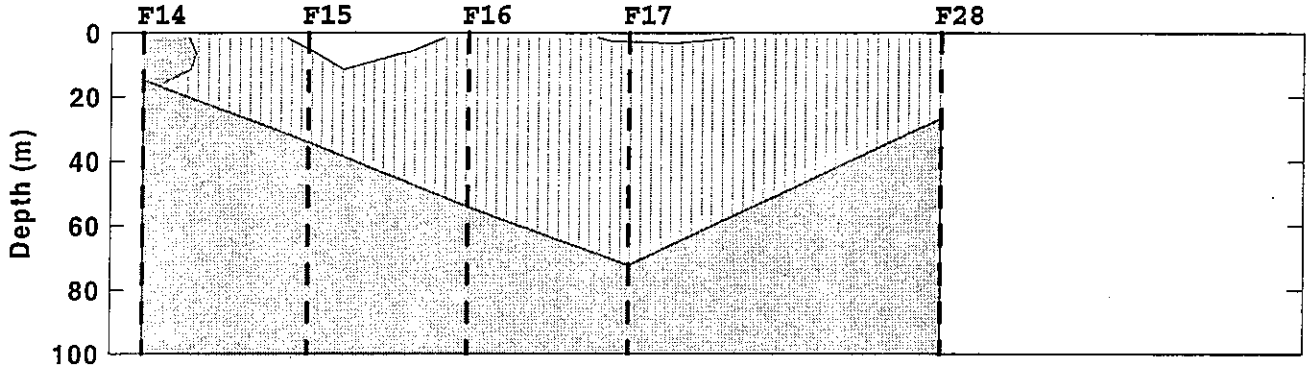


Trans 9501

Boston-Nearfield Transect



Cohassett Transect



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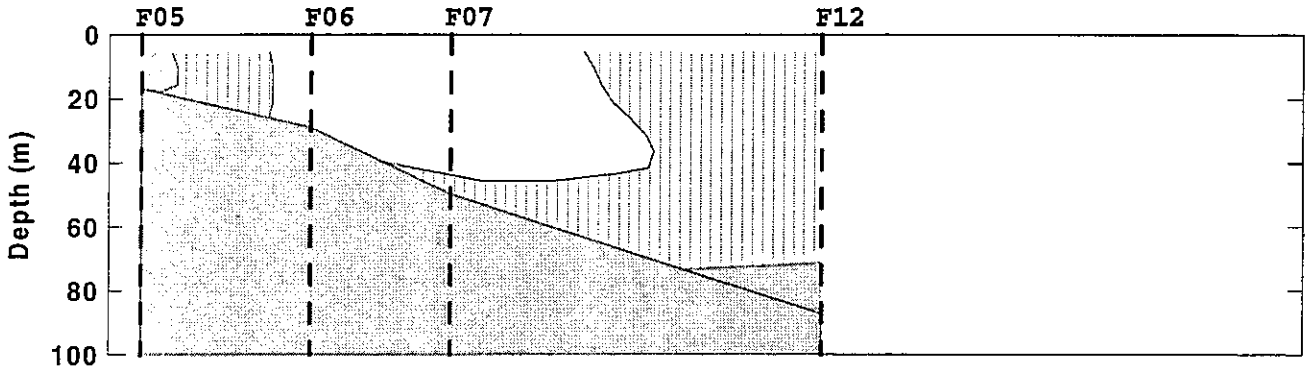

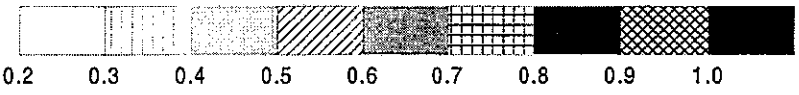

Trans 9502

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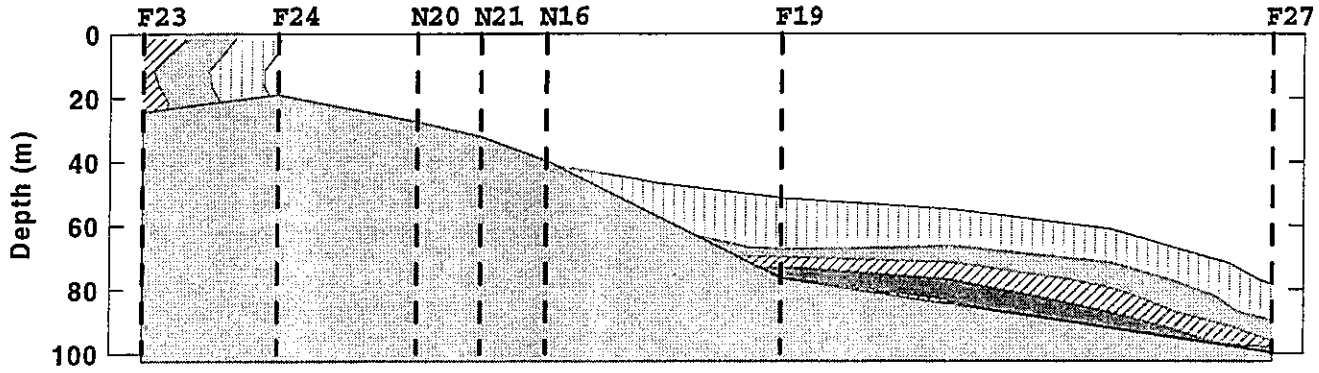

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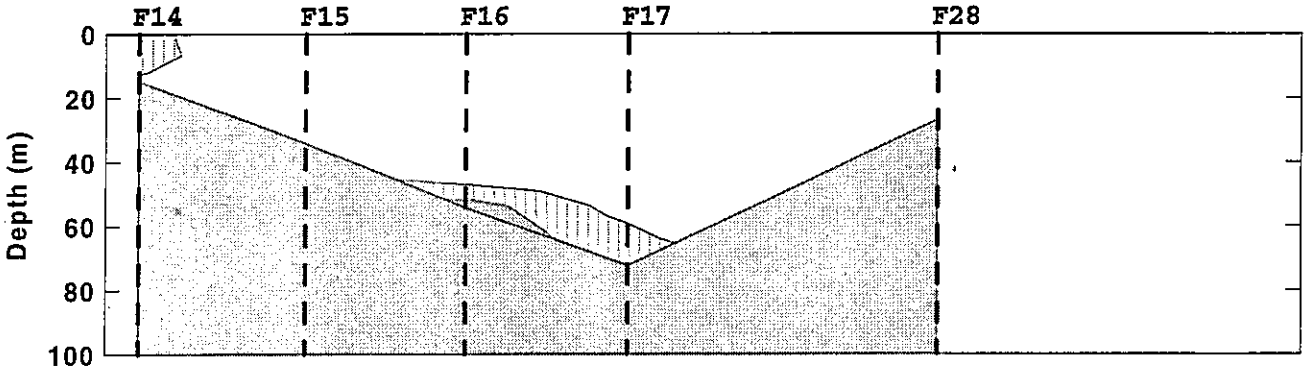

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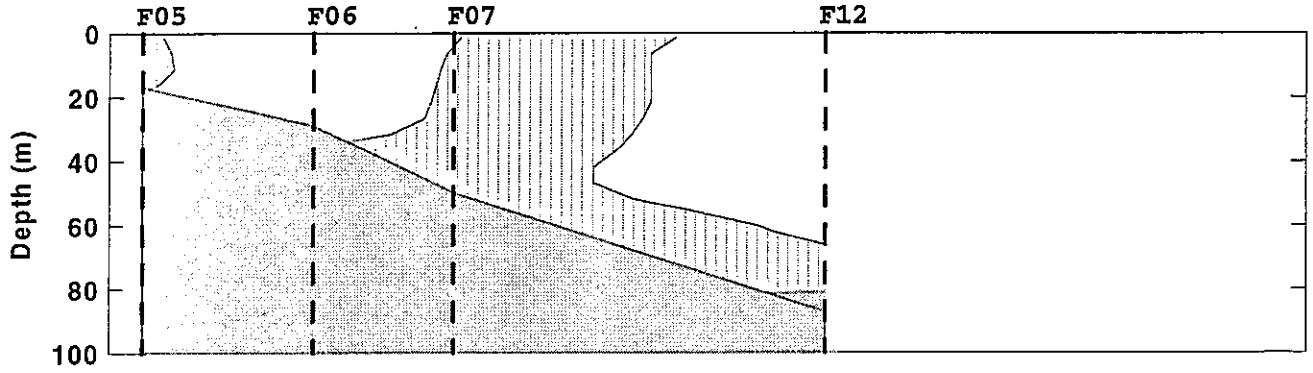

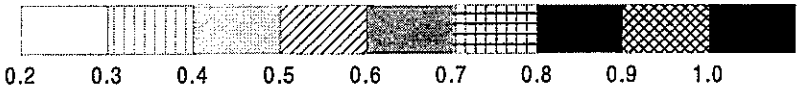

Trans 9504

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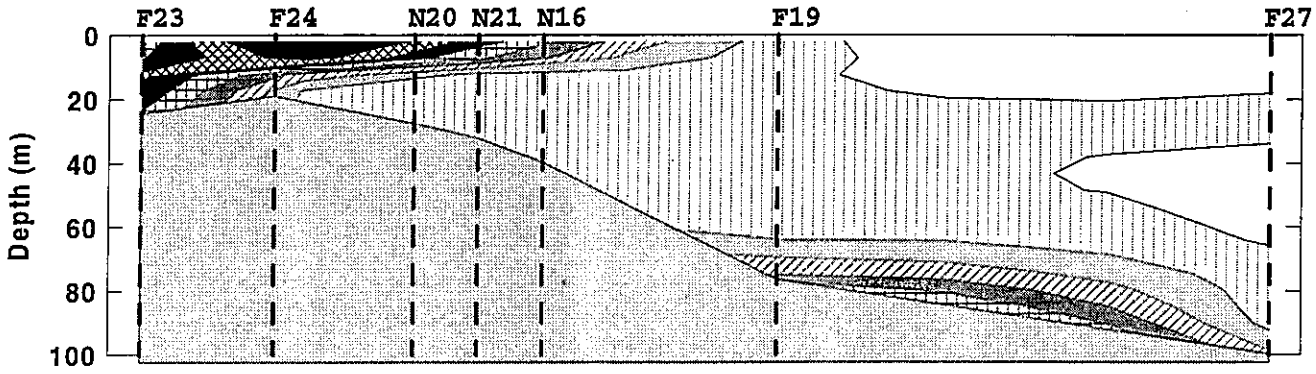

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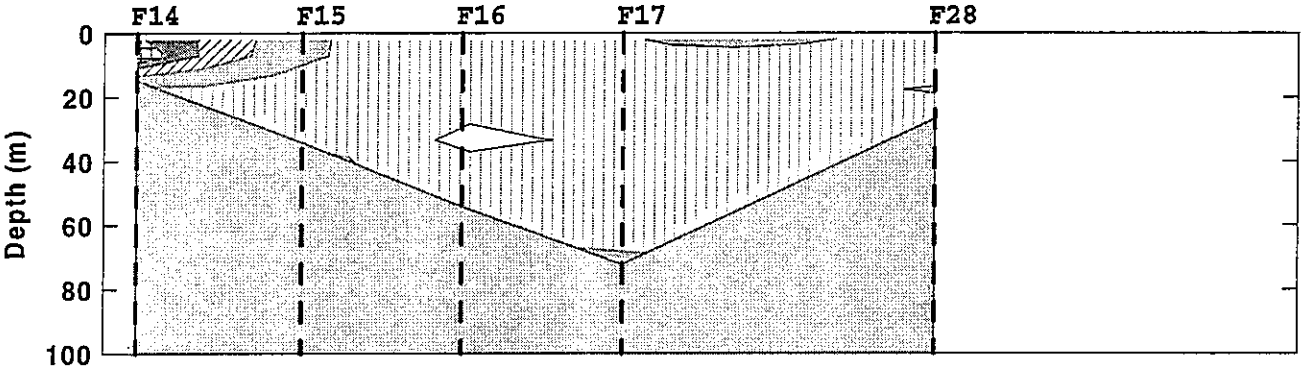

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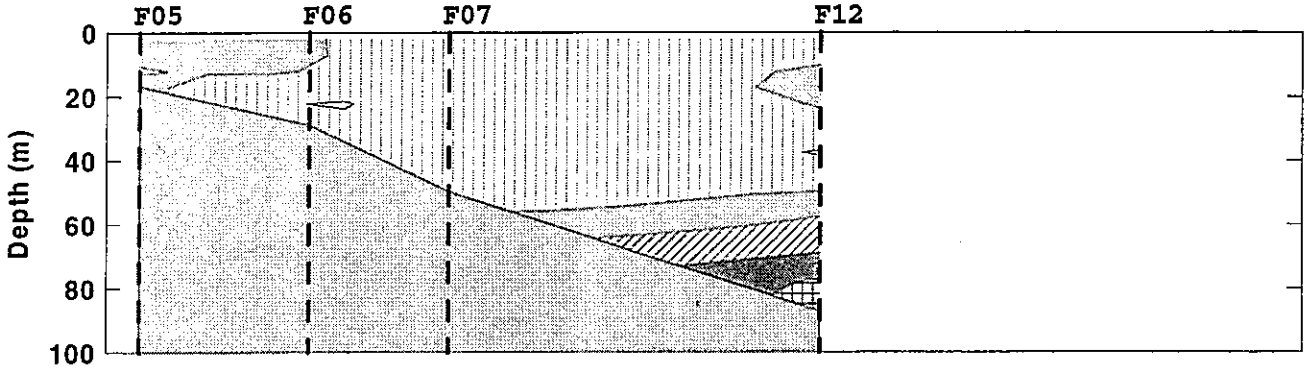

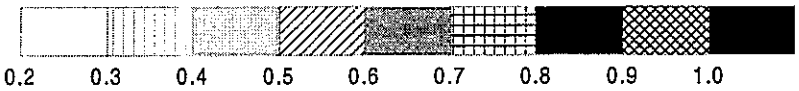

Trans 9507

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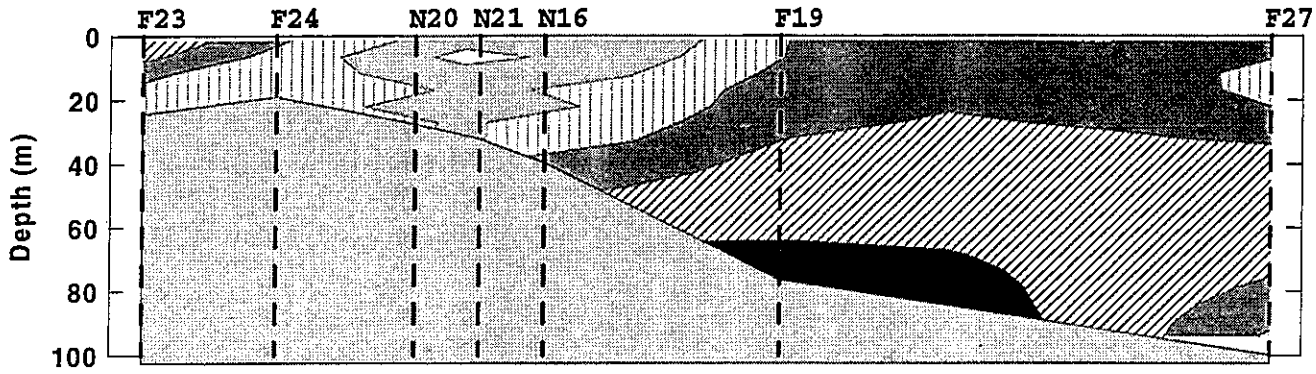

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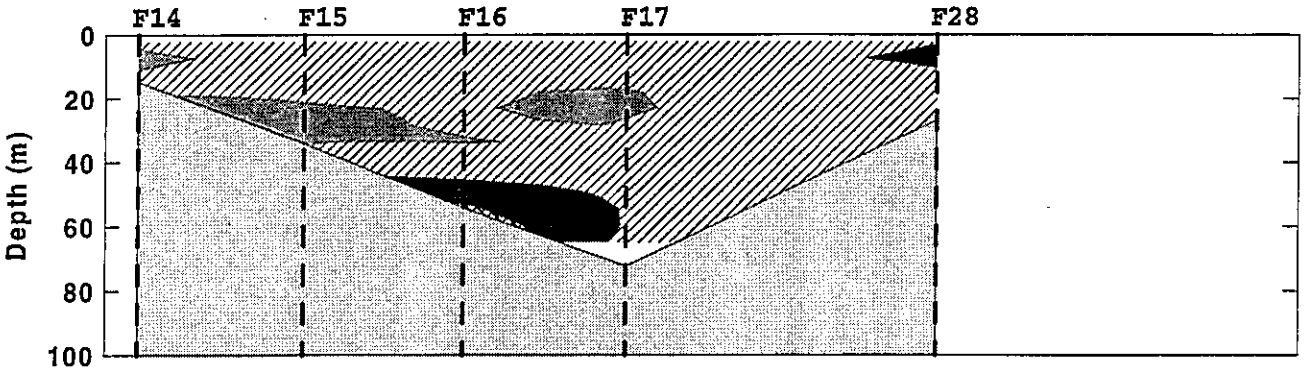

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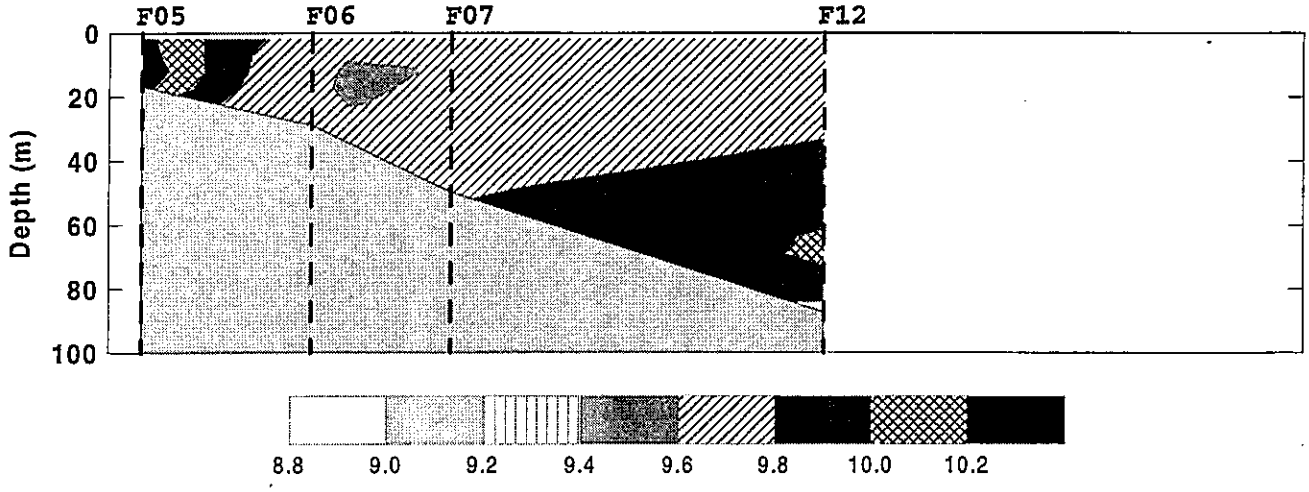
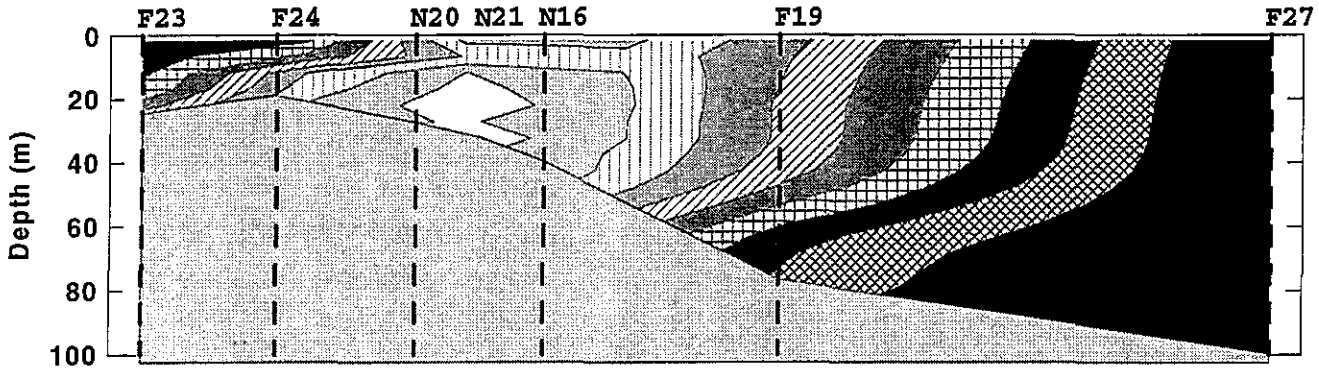
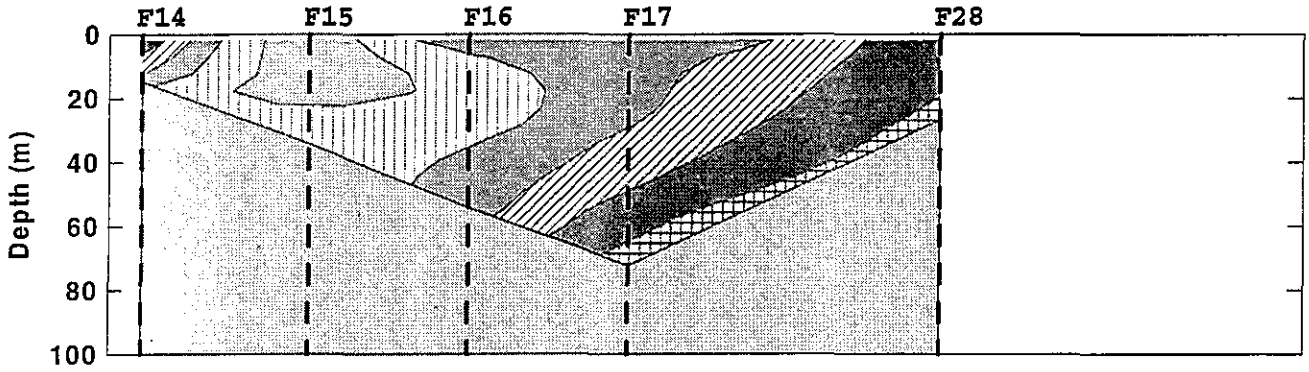


NO3 9501

Boston-Nearfield Transect



Cohassett Transect



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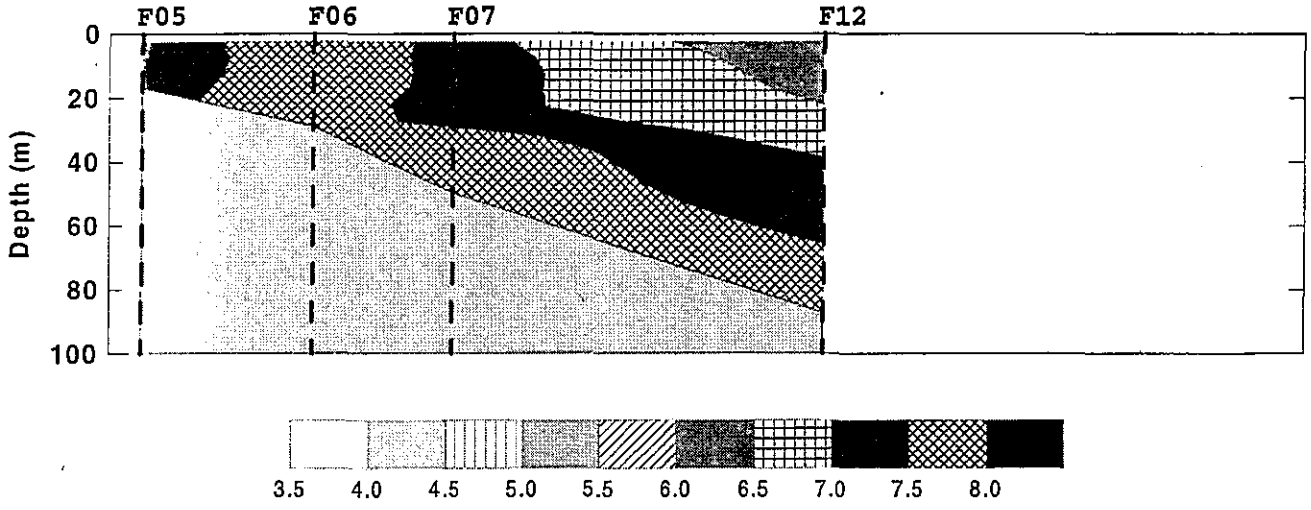

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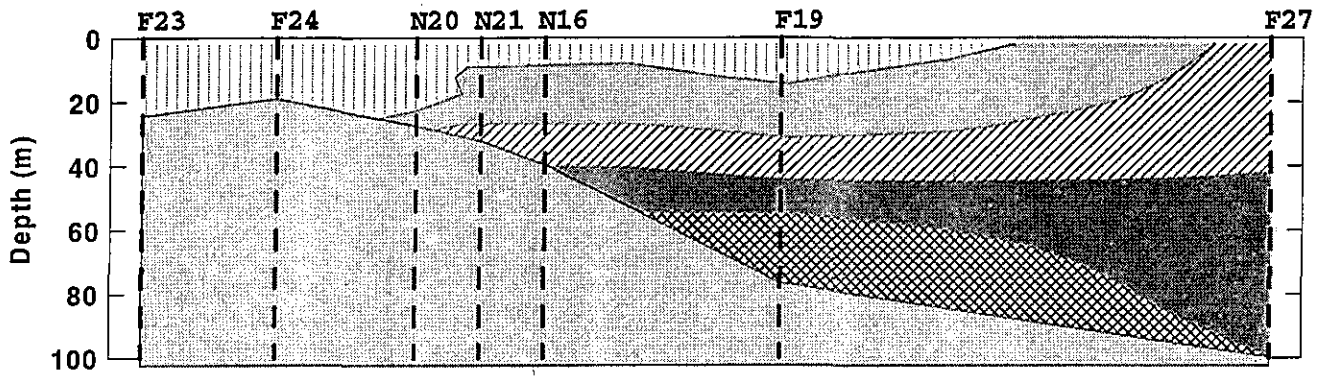

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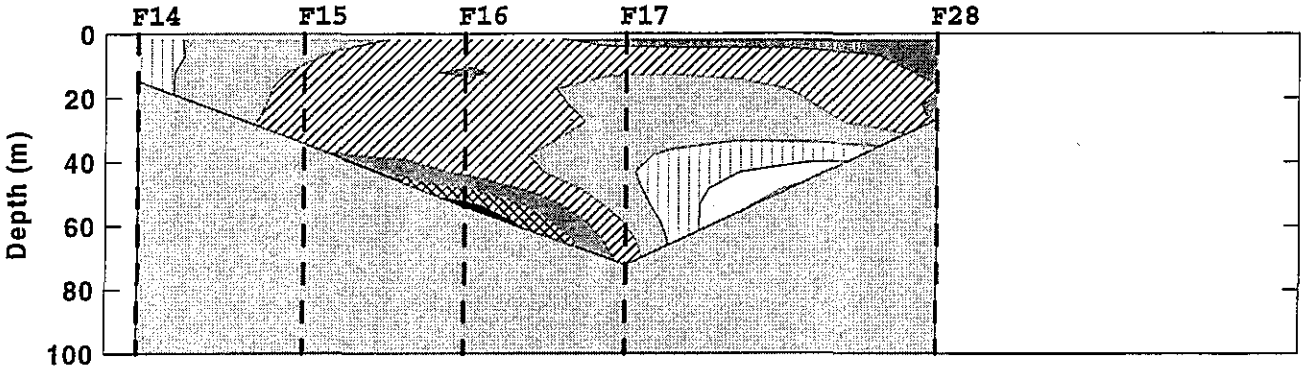

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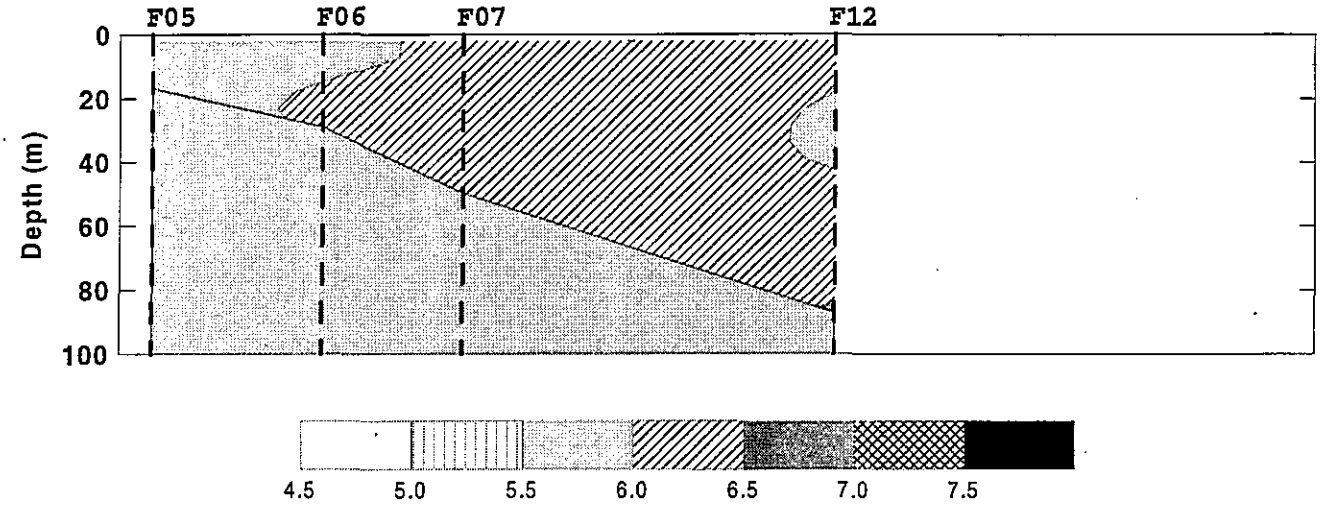

NO3 9504

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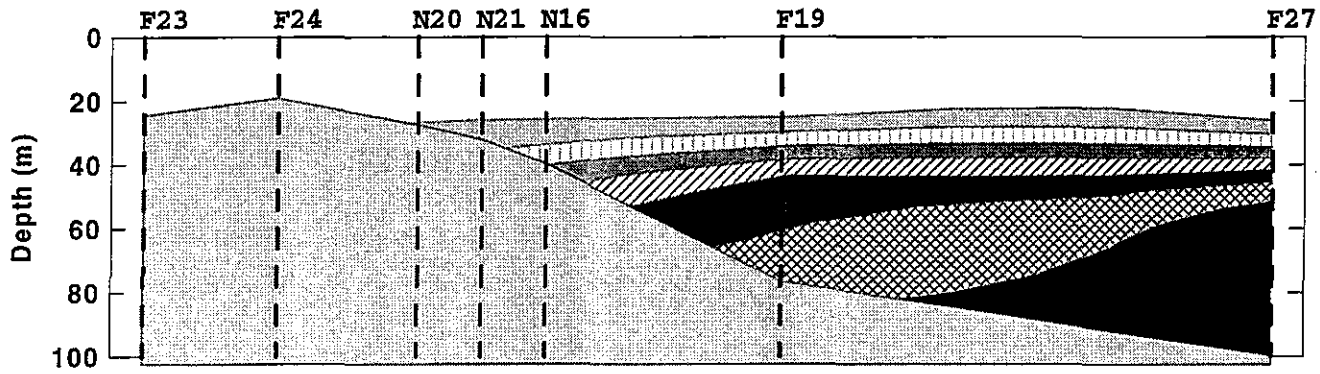

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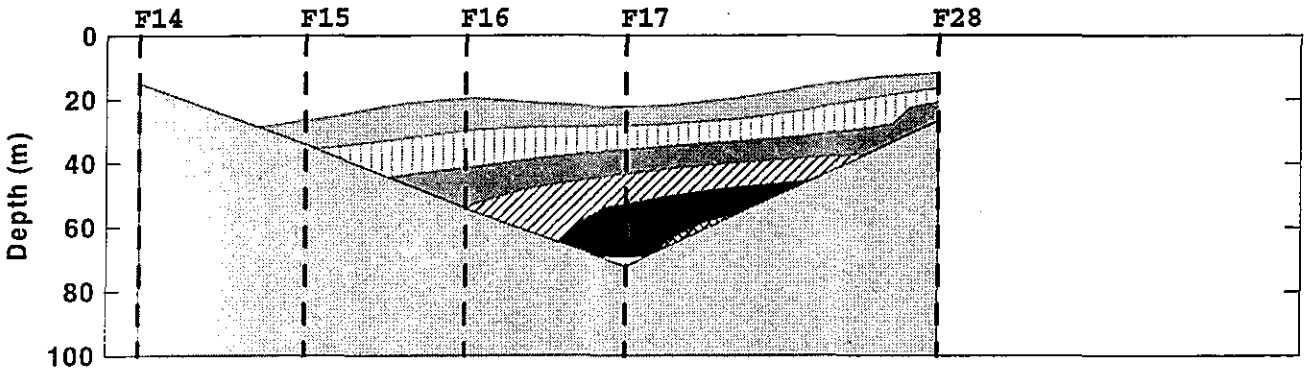

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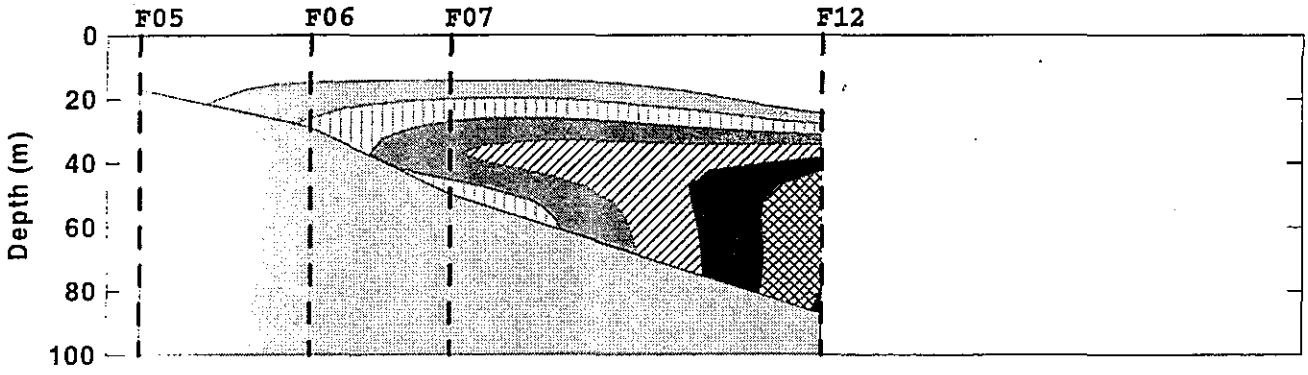

NO3 9507

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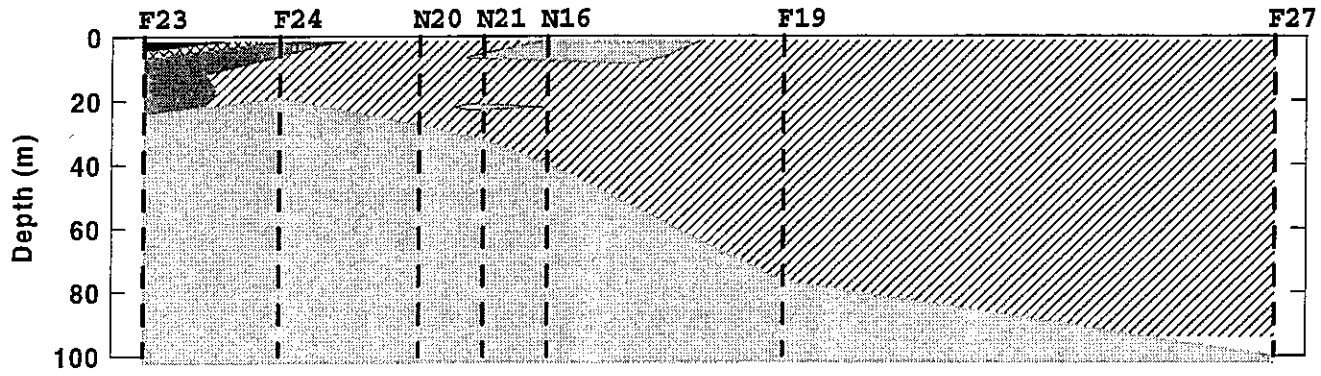

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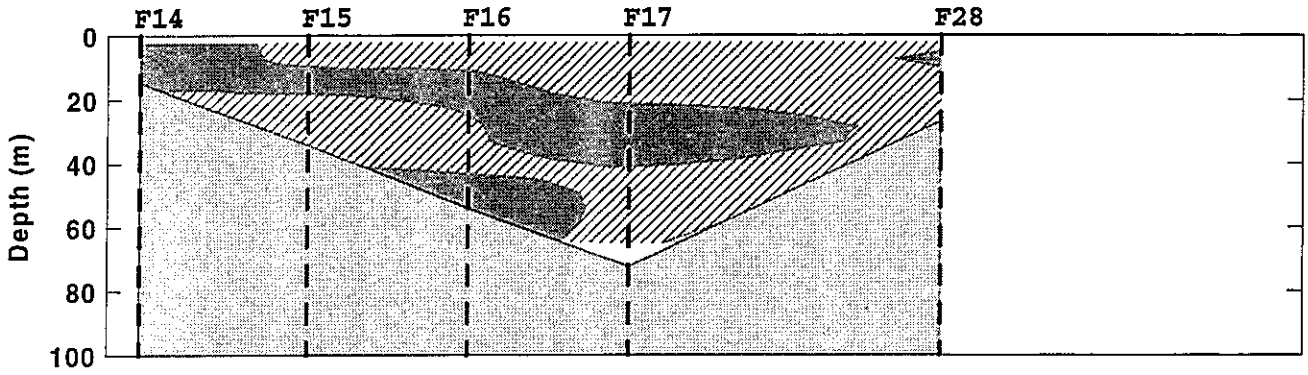

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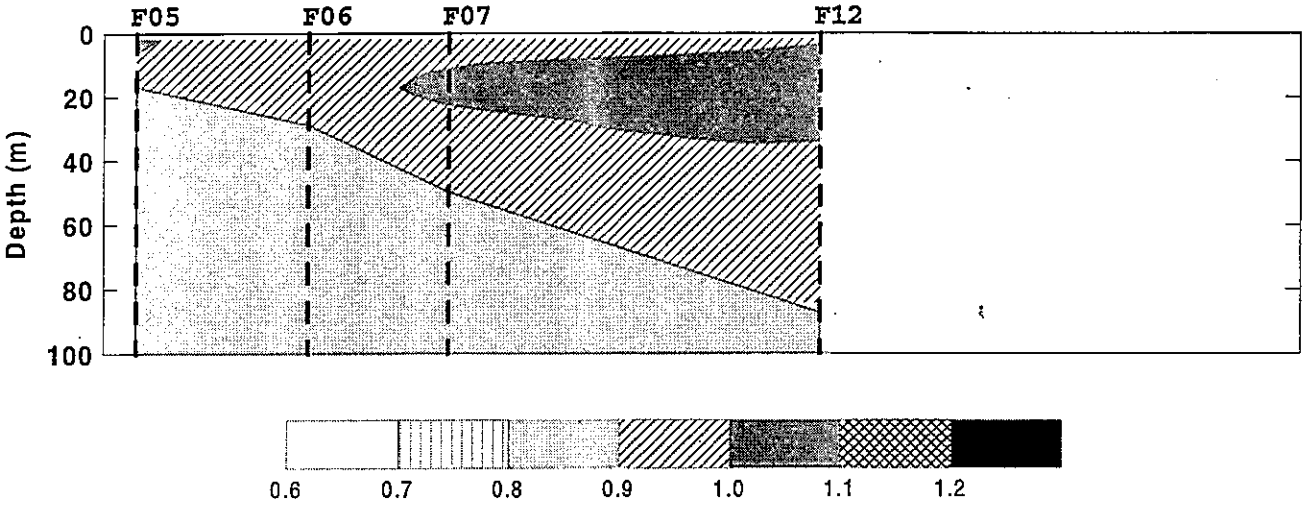

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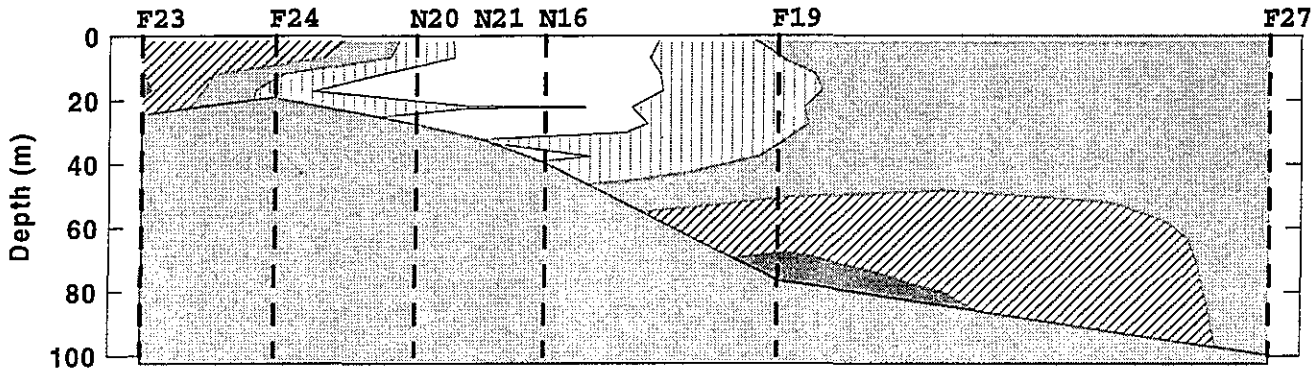

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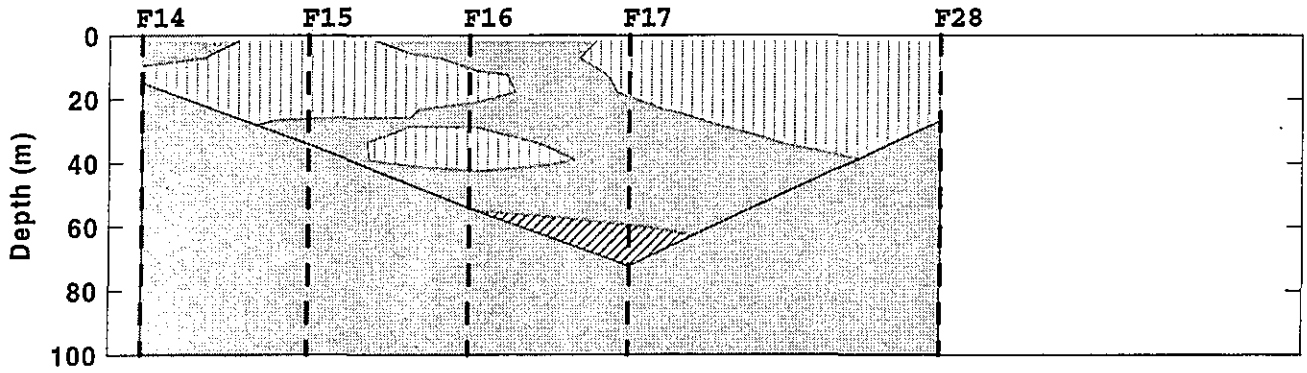

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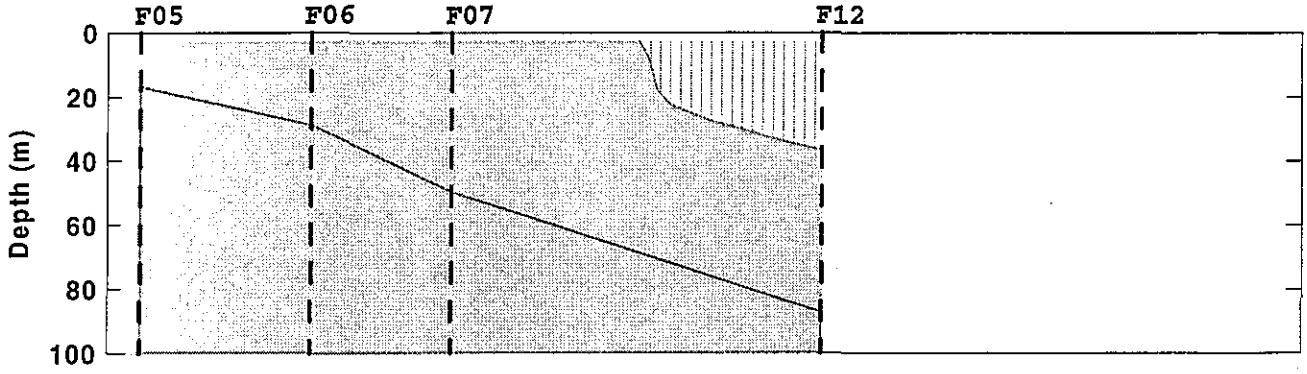
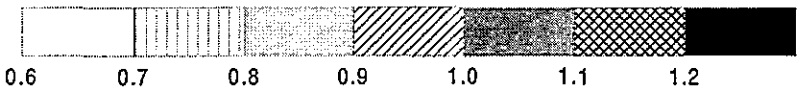
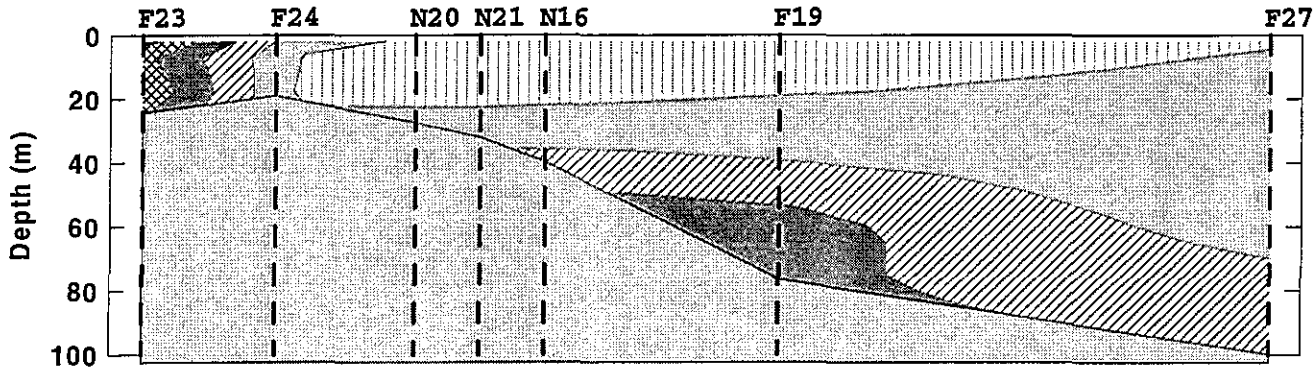




PO4 9502

Boston-Nearfield Transect



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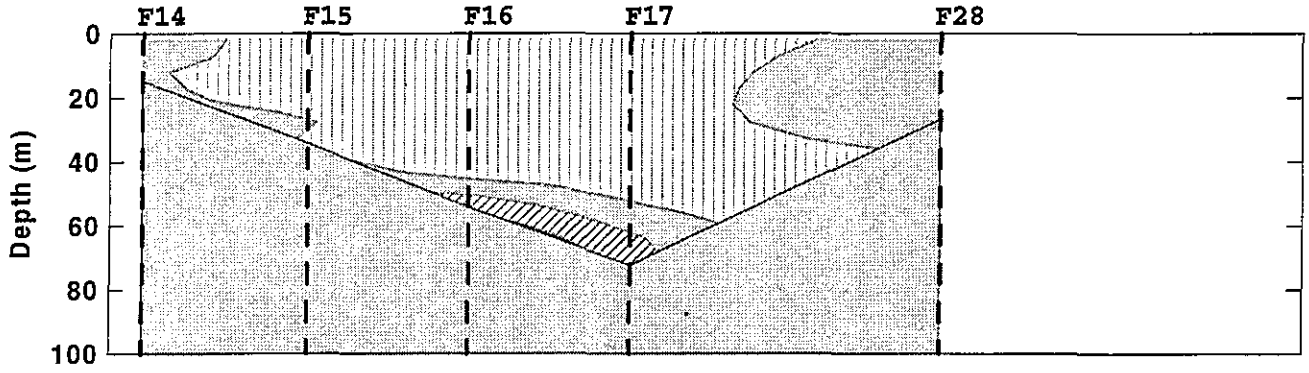

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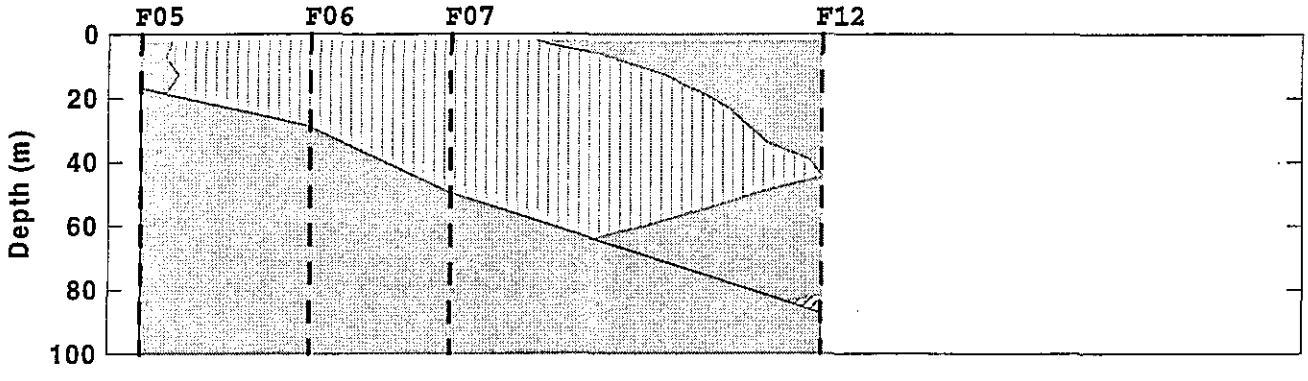
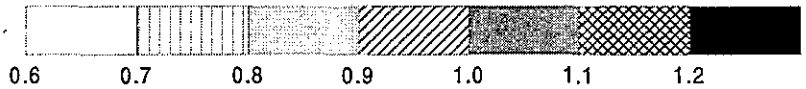
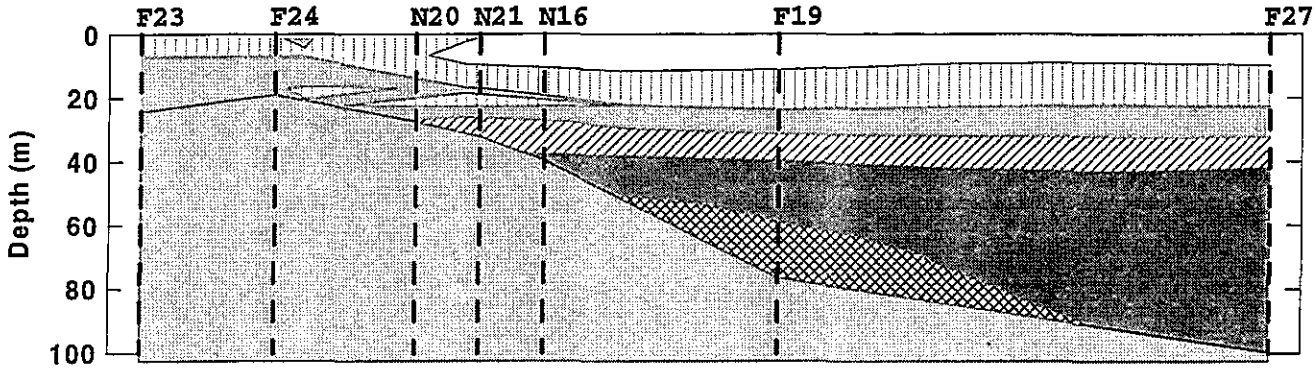




Boston-Nearfield Transect



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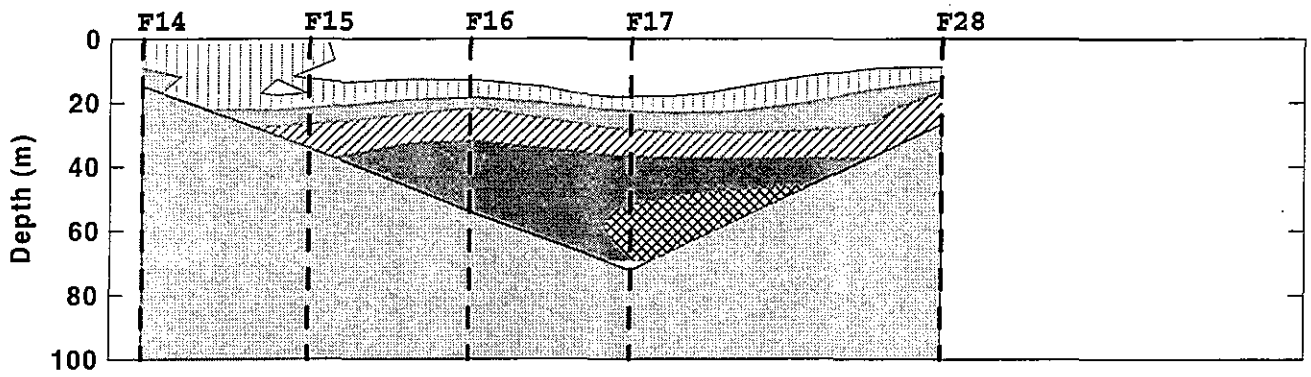

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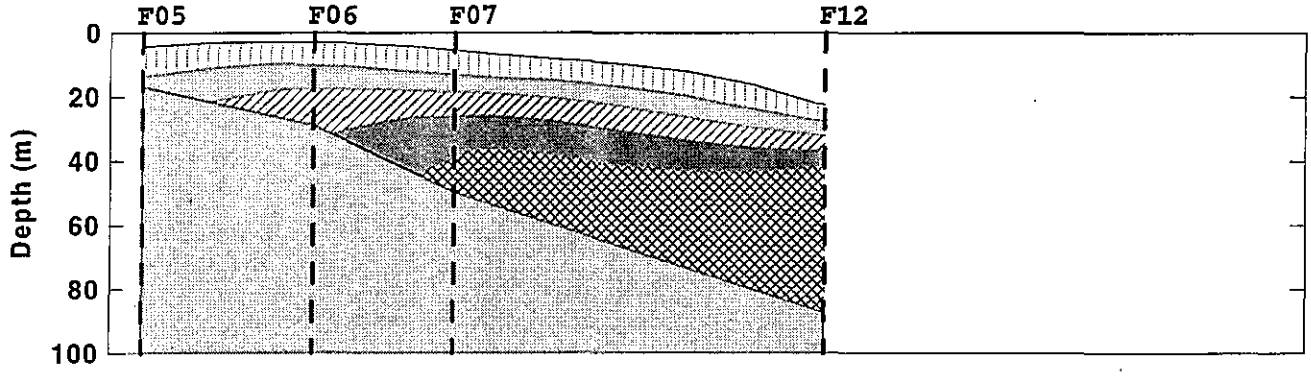

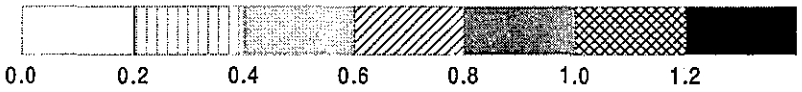

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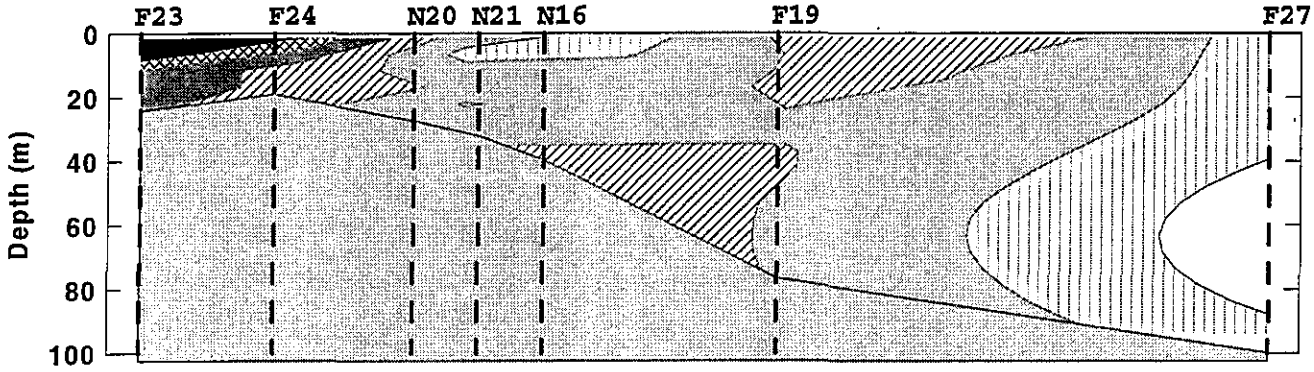

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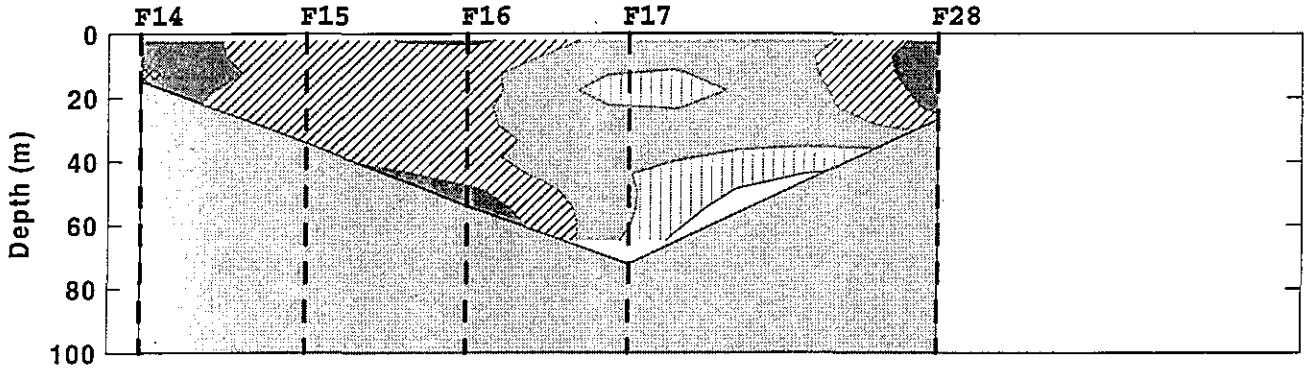

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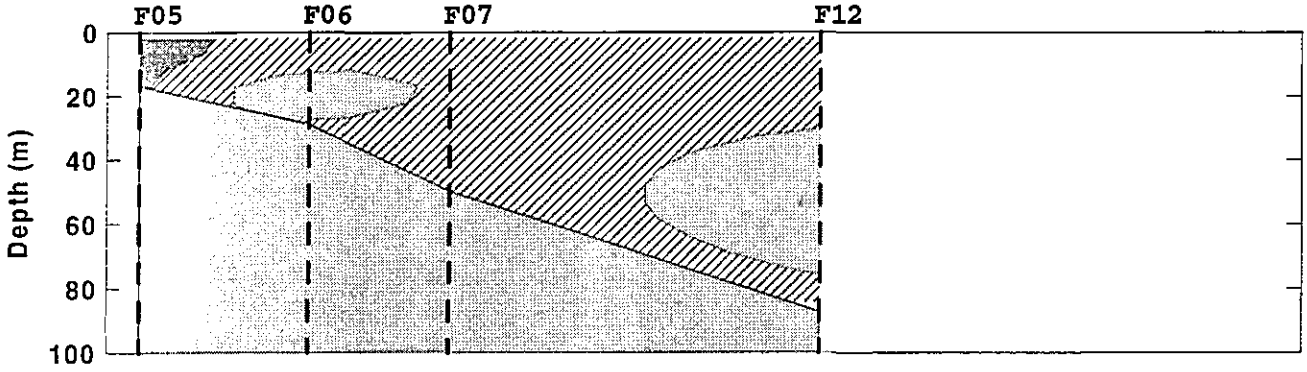
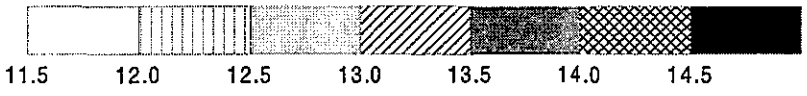
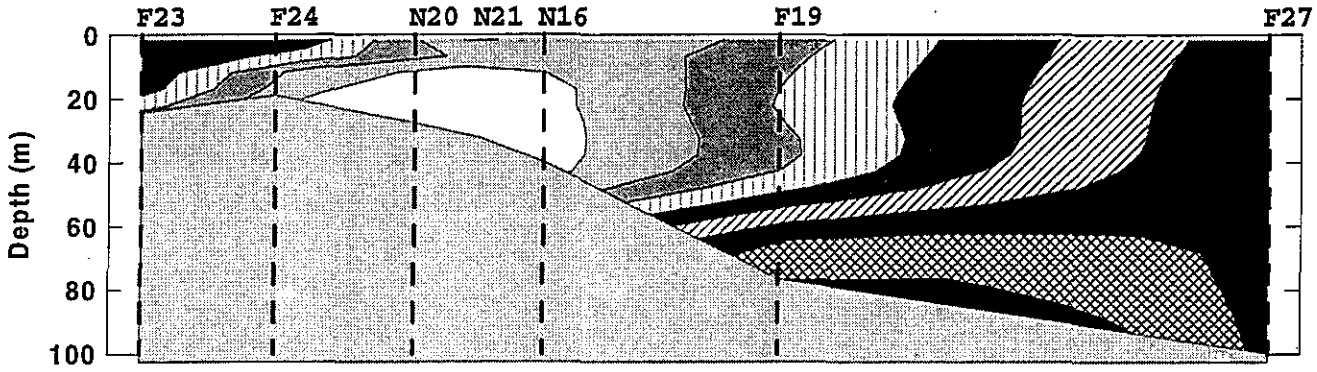




SIO4 9501

Boston-Nearfield Transect



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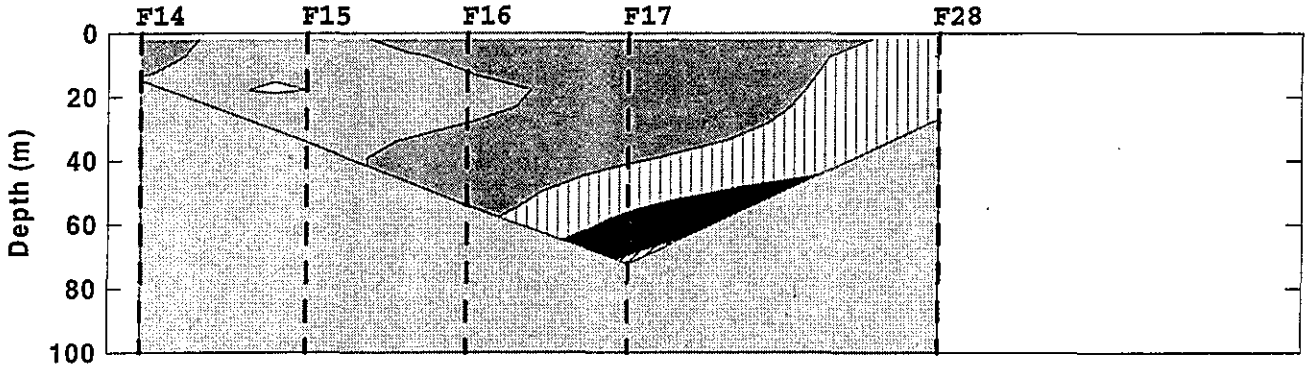

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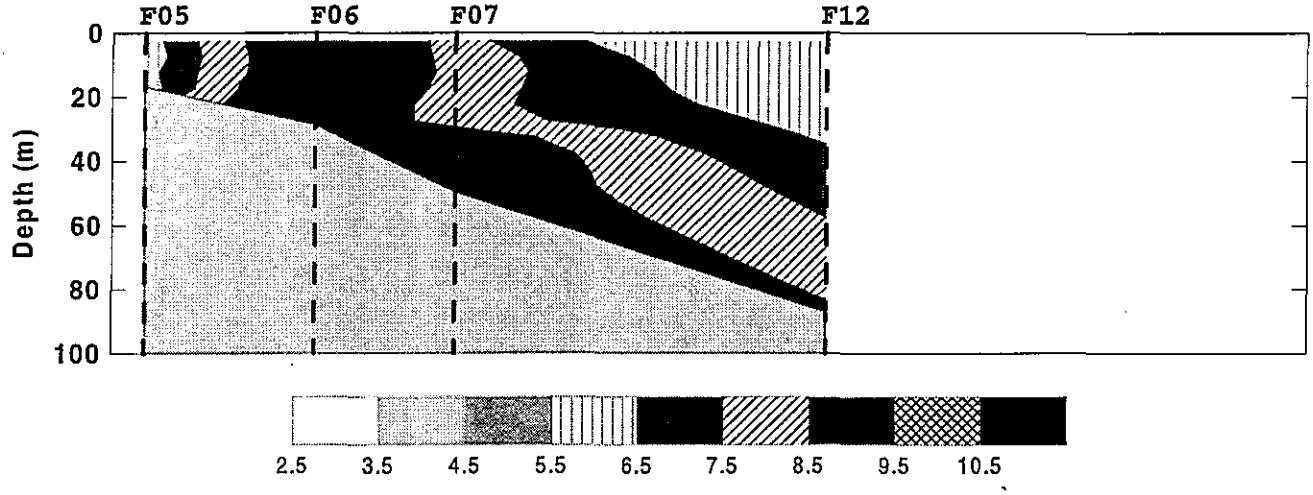
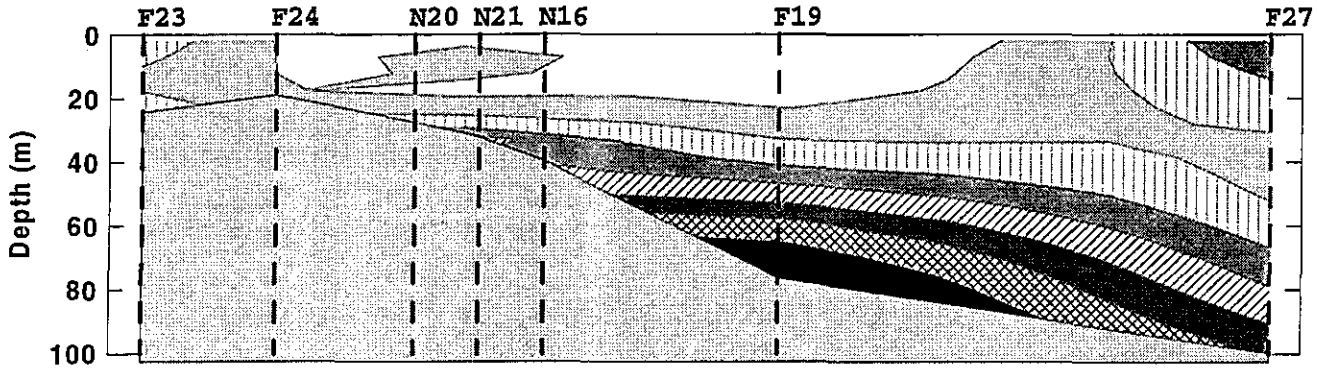


SIO4 9502

Boston-Nearfield Transect



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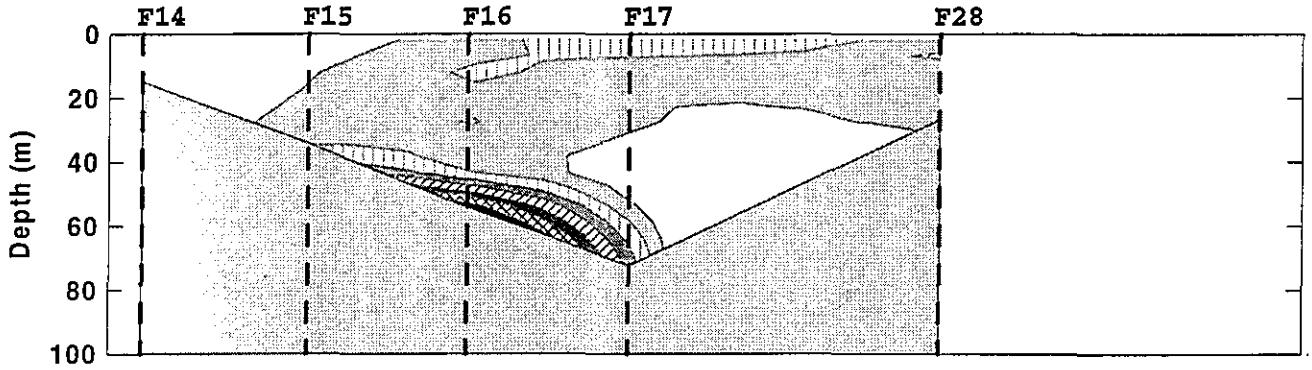
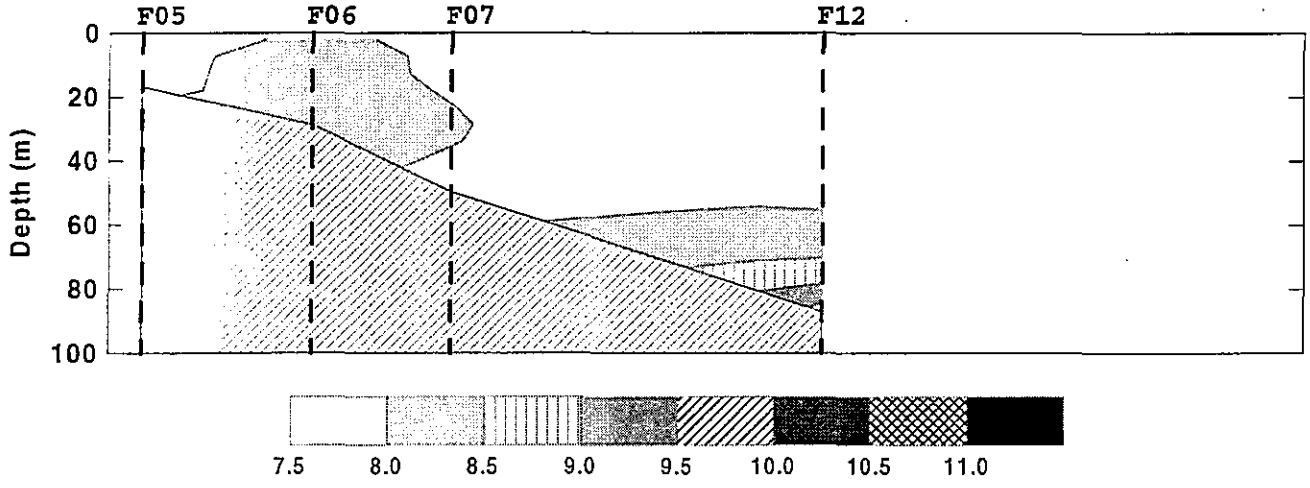


Marshfield Transect



SIO4 9504

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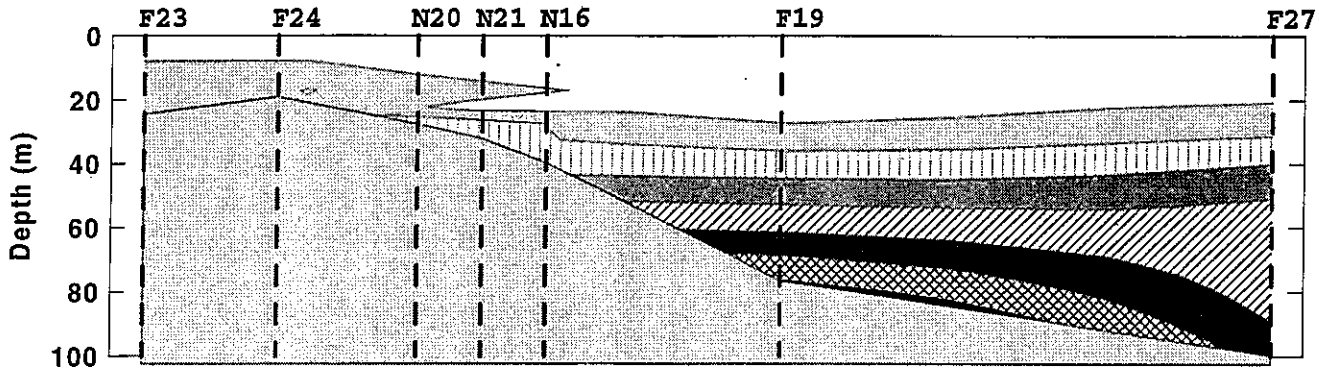

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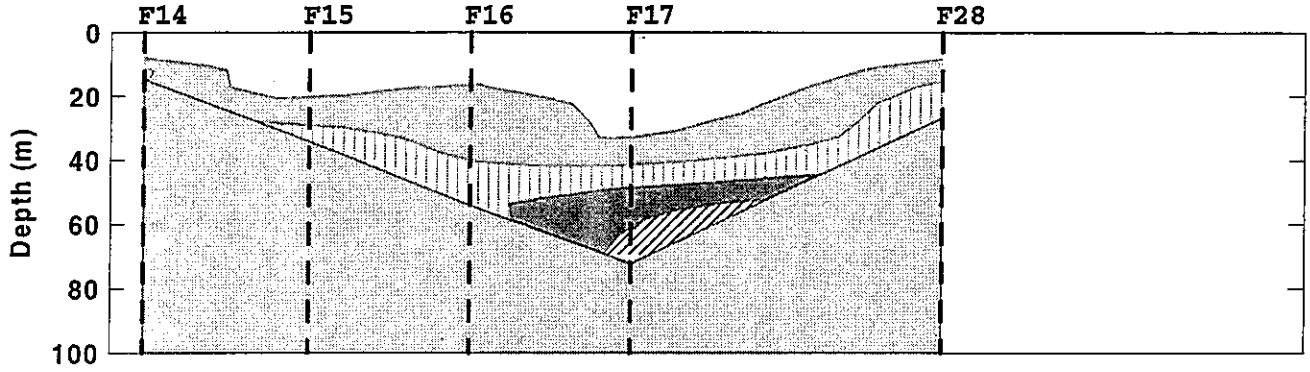

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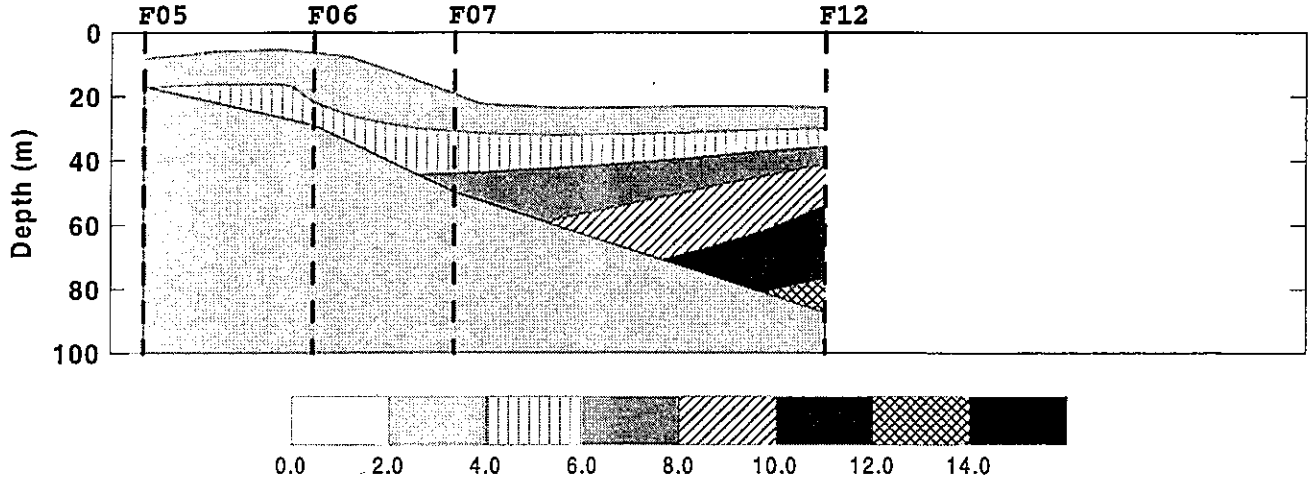
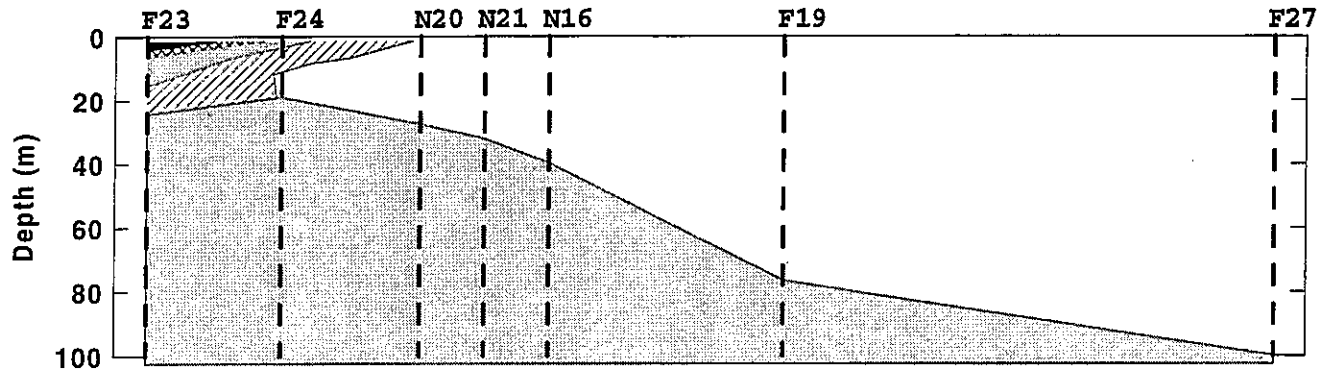
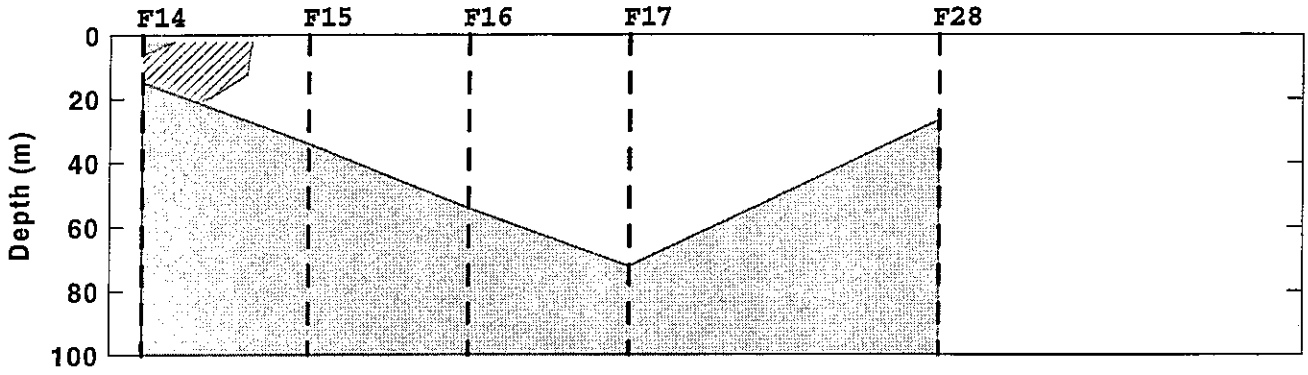


SIO4 9507

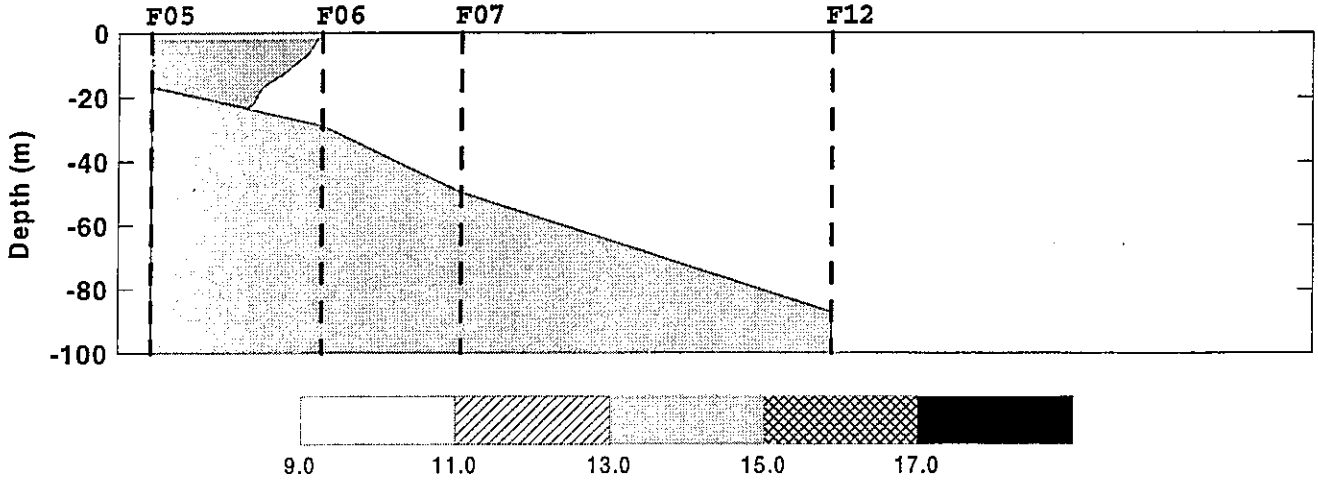
Boston-Nearfield Transect



Cohassett Transect

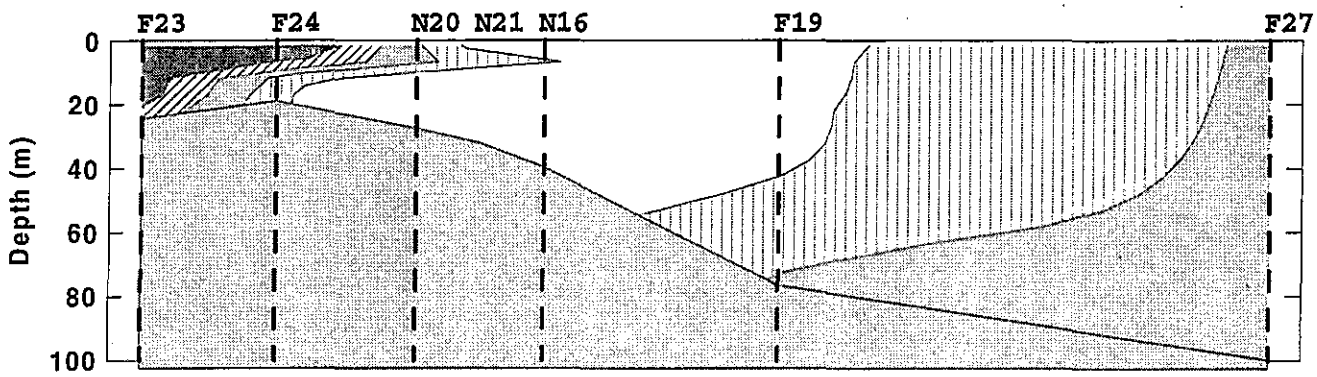


Marshfield Transect

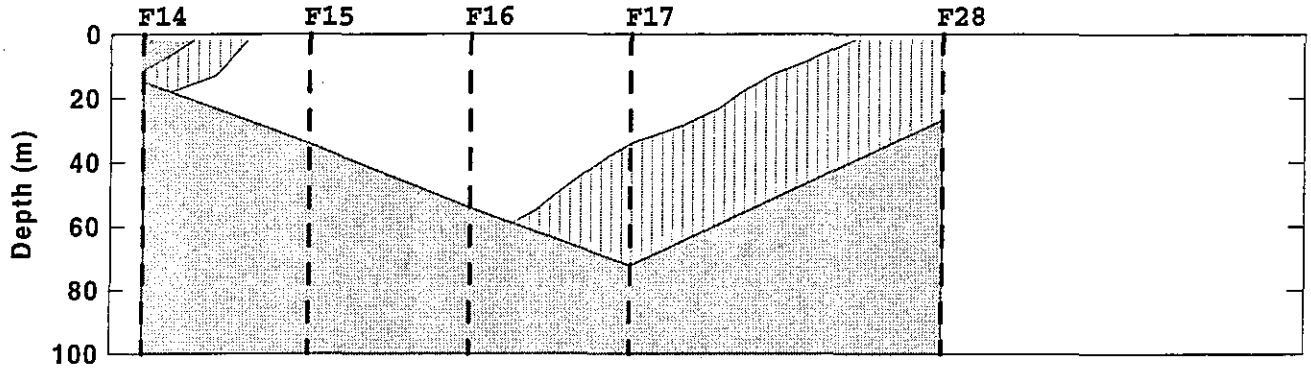


DI Nitro 9501

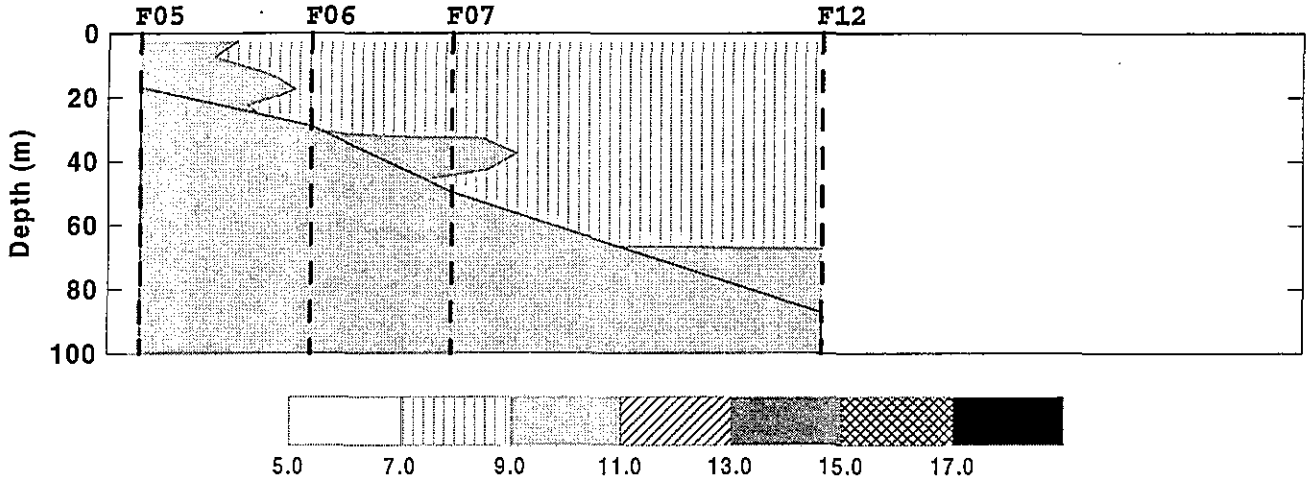
Boston-Nearfield Transect



Cohassett Transect

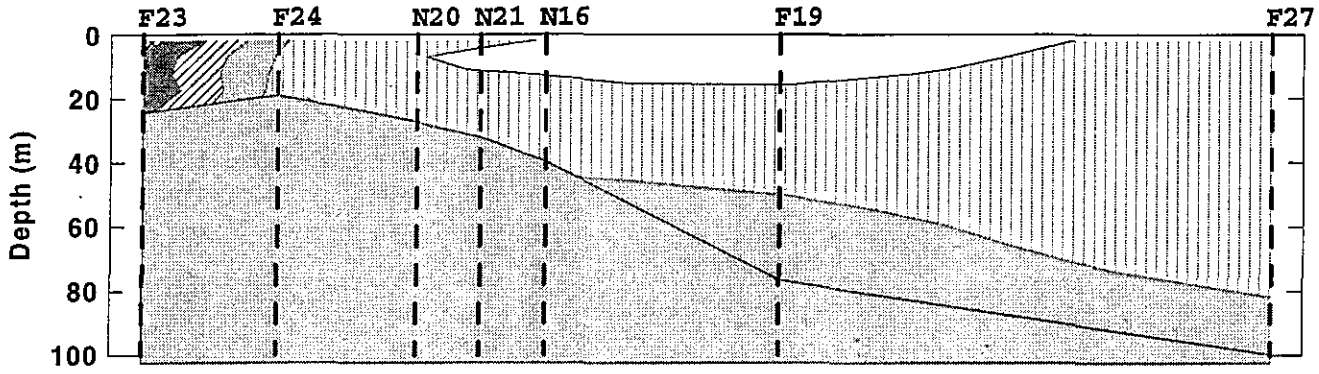


Marshfield Transect

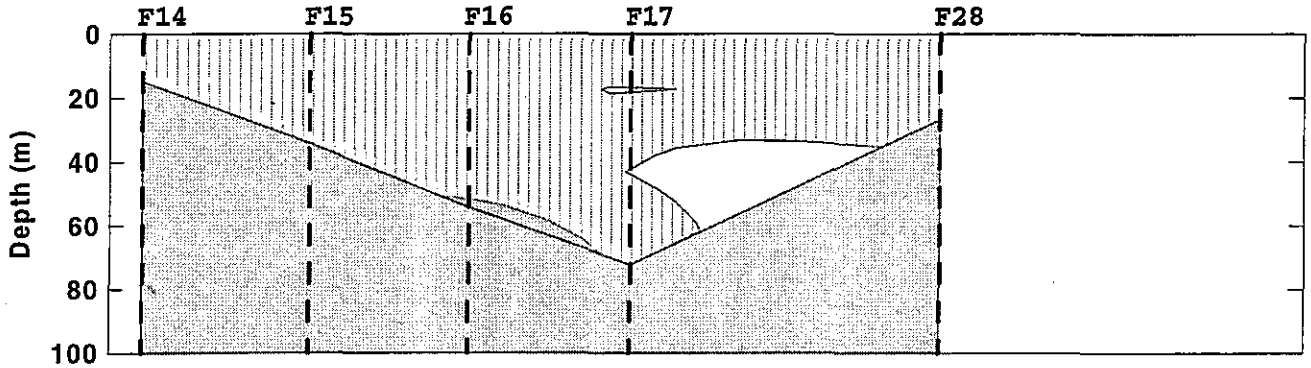


DI Nitro 9502

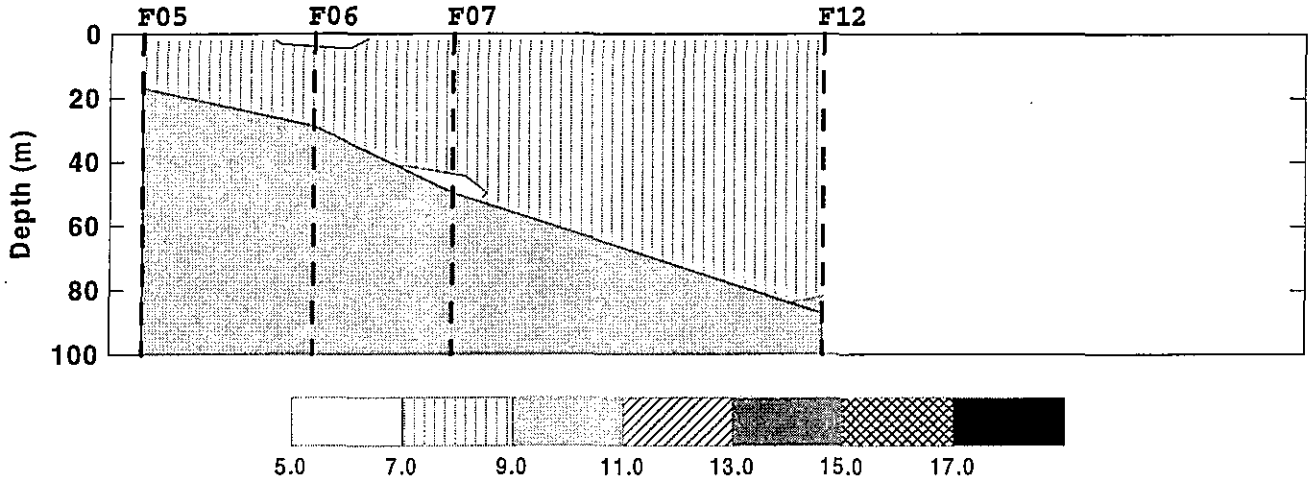
Boston-Nearfield Transect



Cohassett Transect

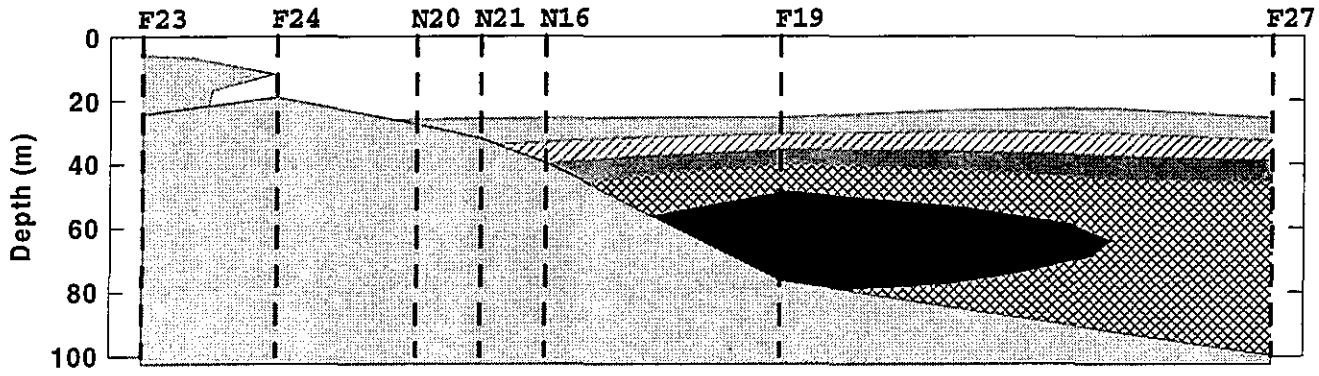


Marshfield Transect

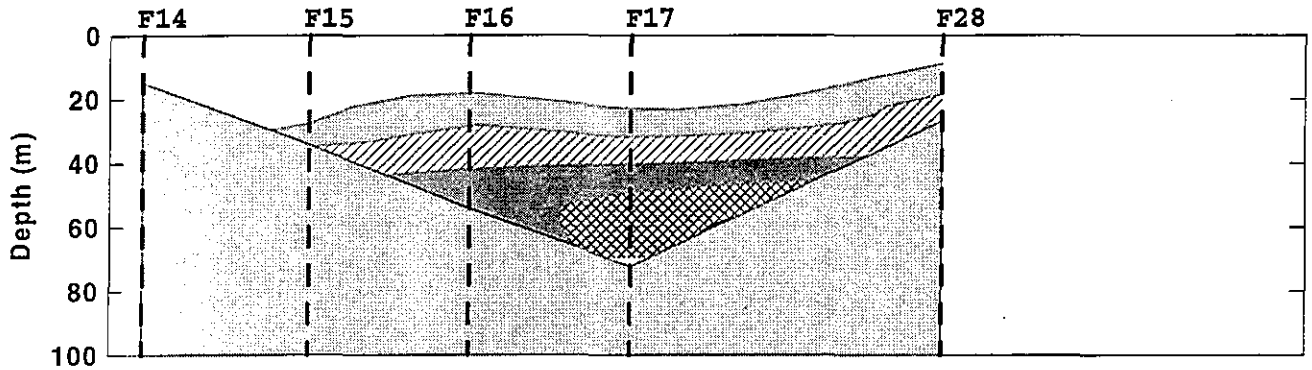


DI Nitro 9504

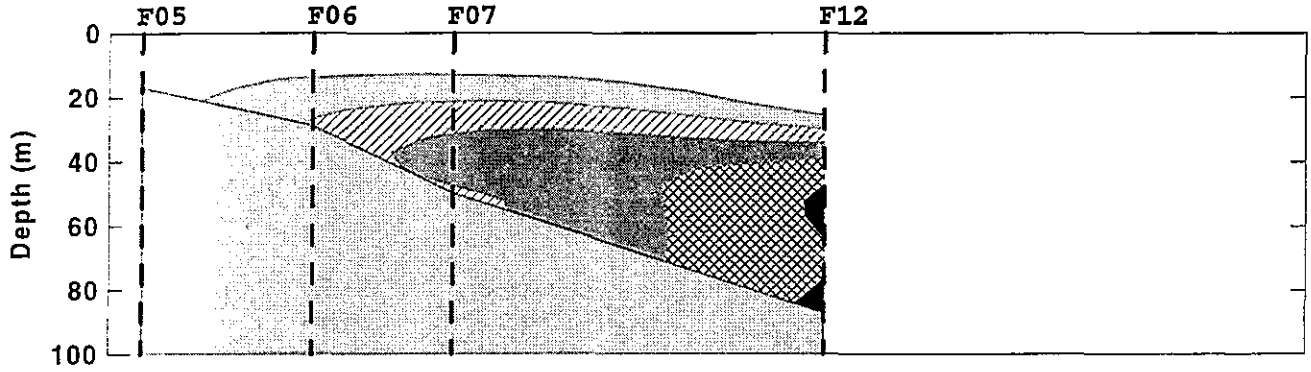
Boston-Nearfield Transect

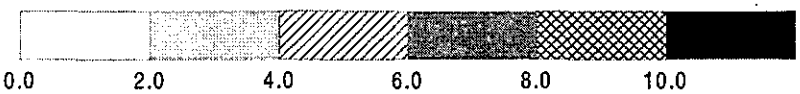


Cohassett Transect



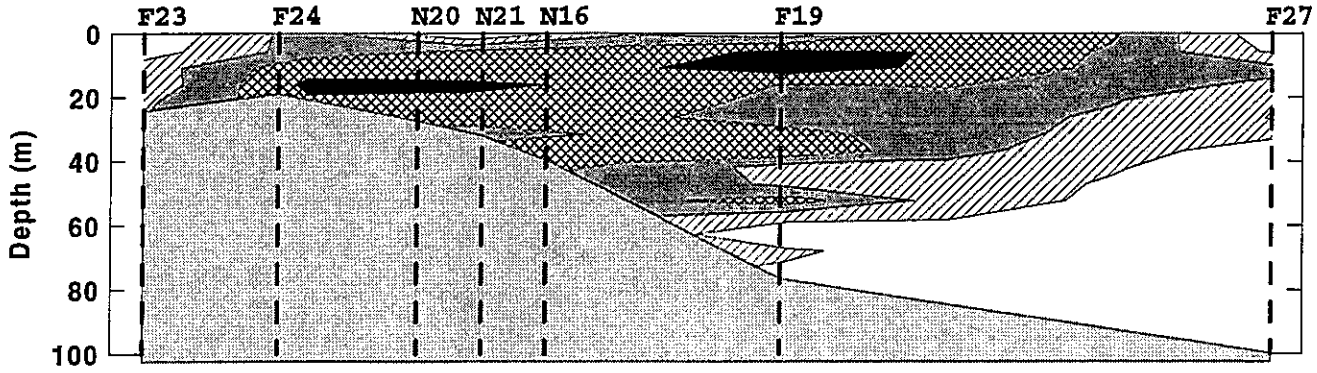
Marshfield Transect



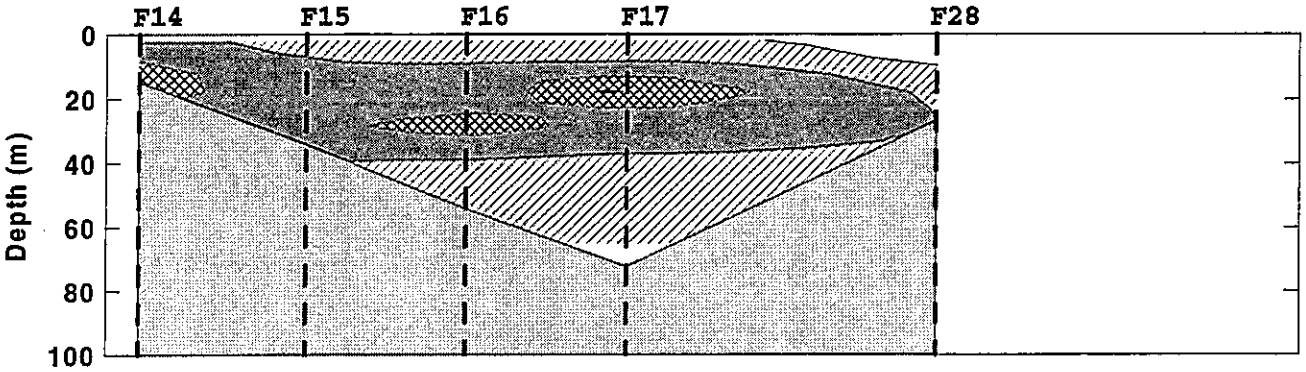


DI Nitro 9507

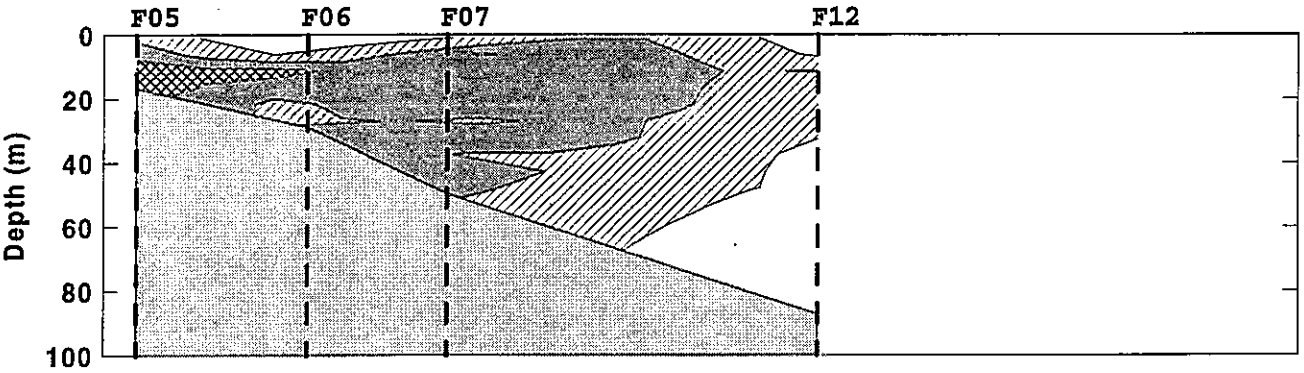
Boston-Nearfield Transect



Cohassett Transect

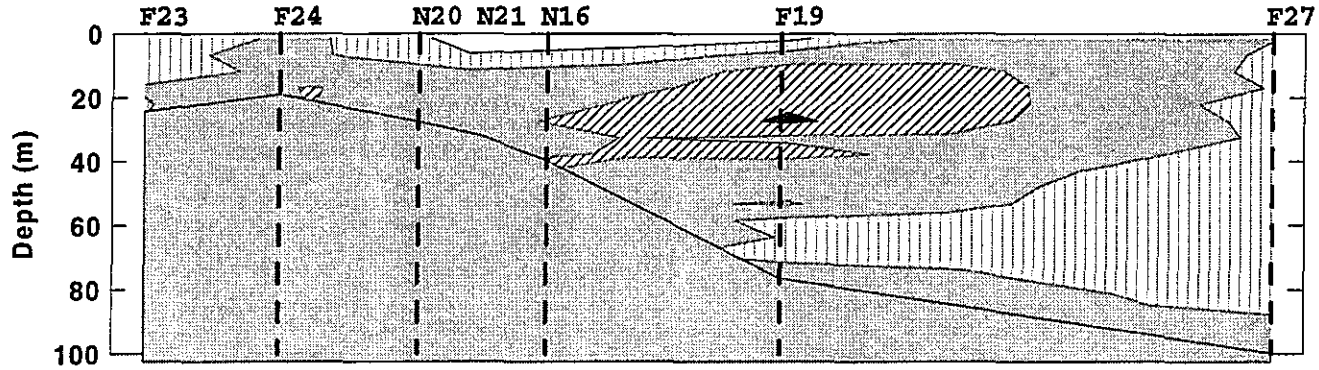


Marshfield Transect

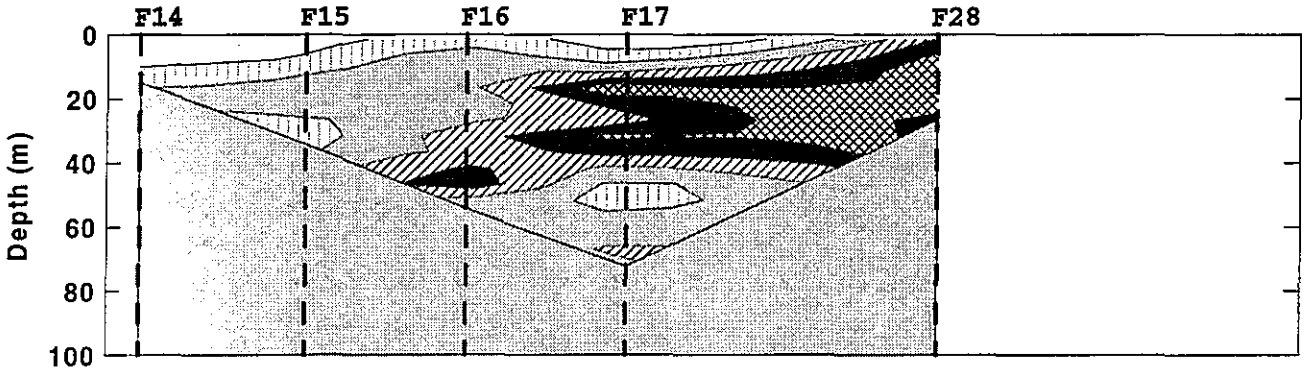


Fluorescence 9501

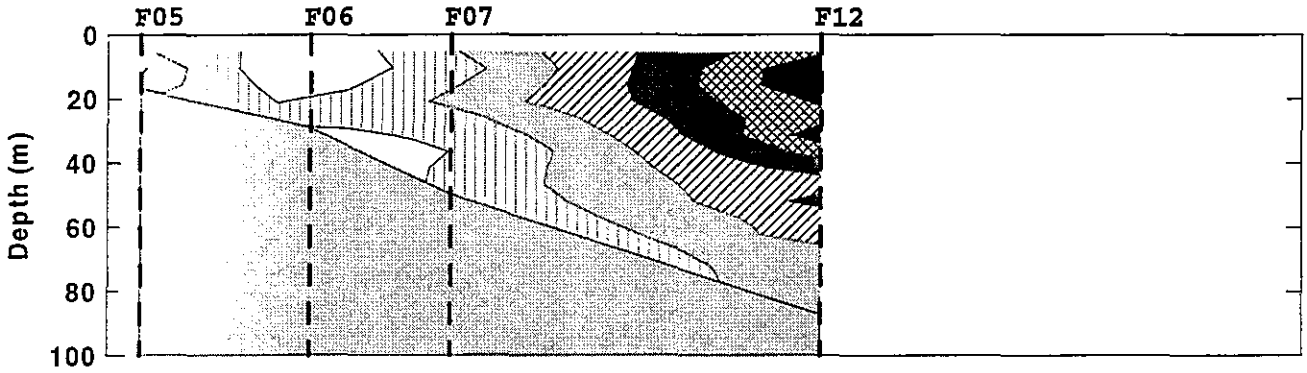
Boston-Nearfield Transect

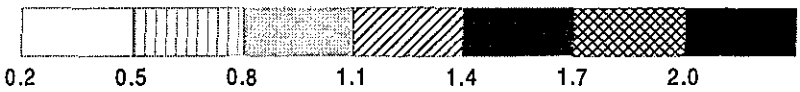


Cohassett Transect



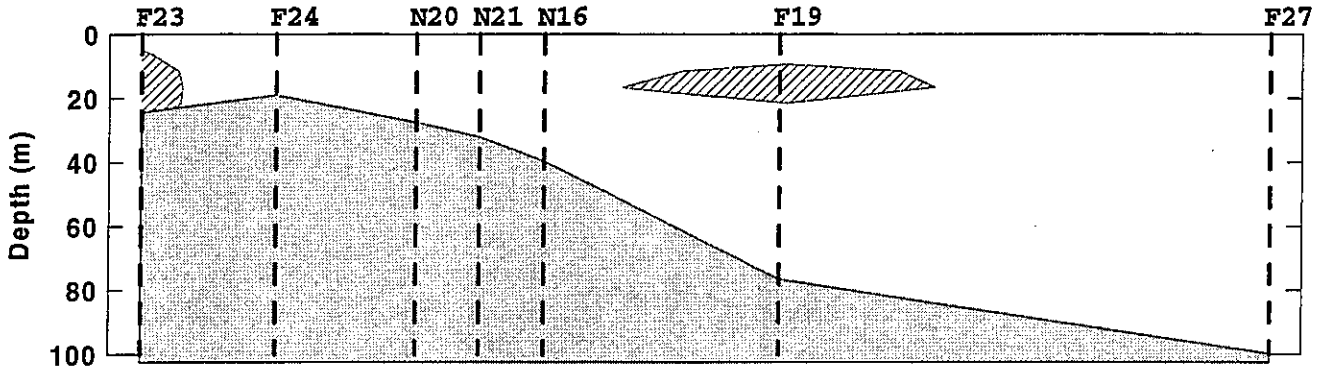
Marshfield Transect



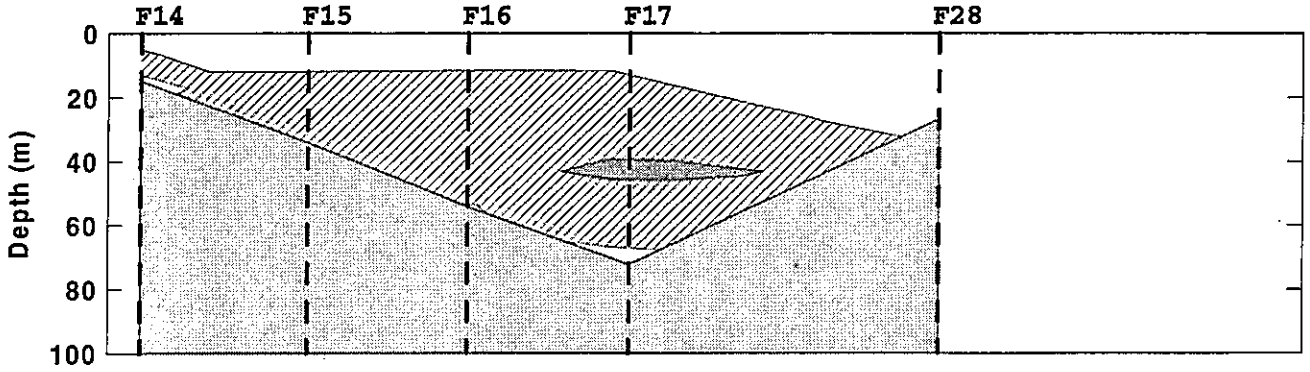


Fluorescence 9502

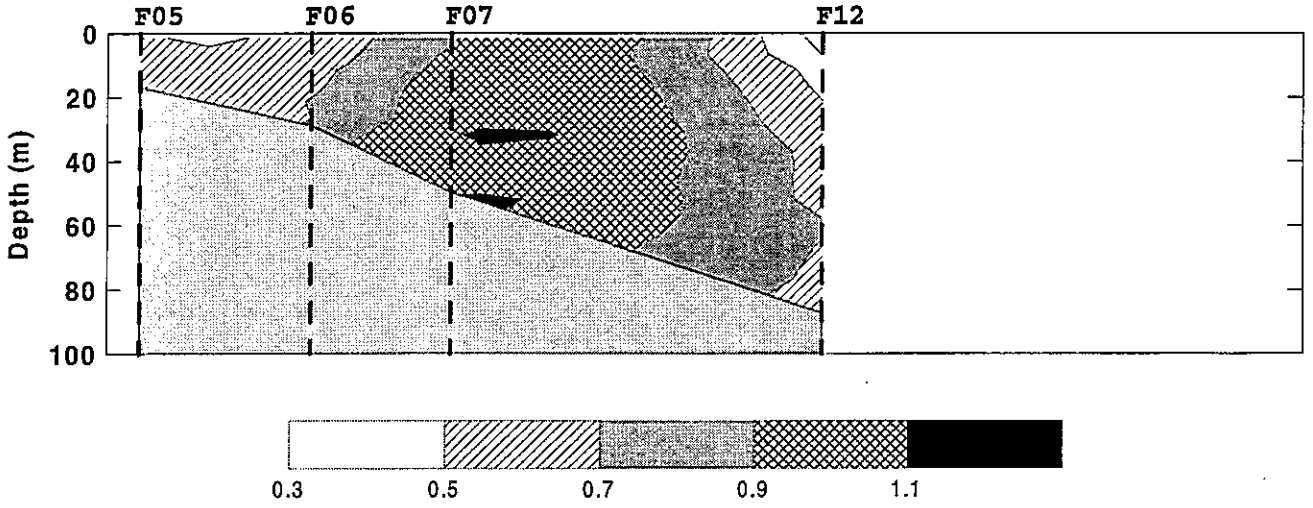
Boston-Nearfield Transect



Cohassett Transect

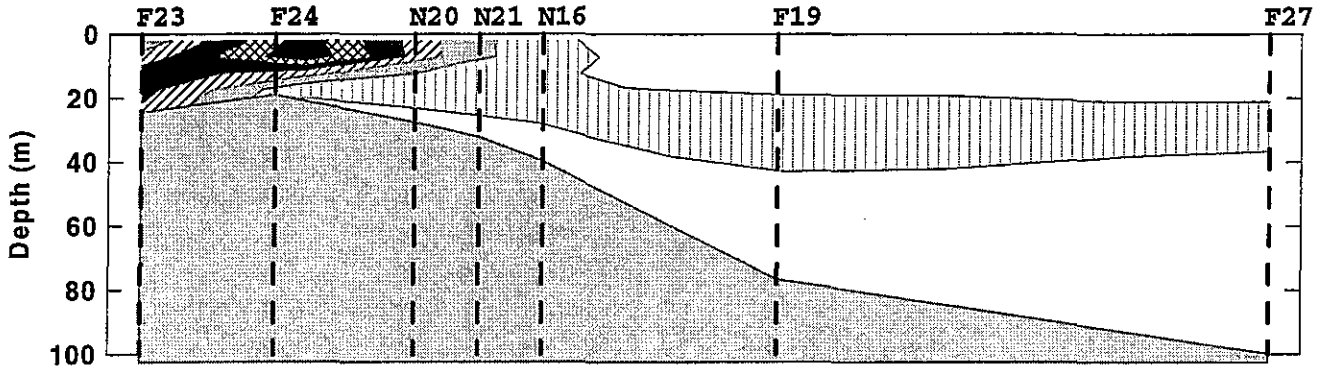


Marshfield Transect

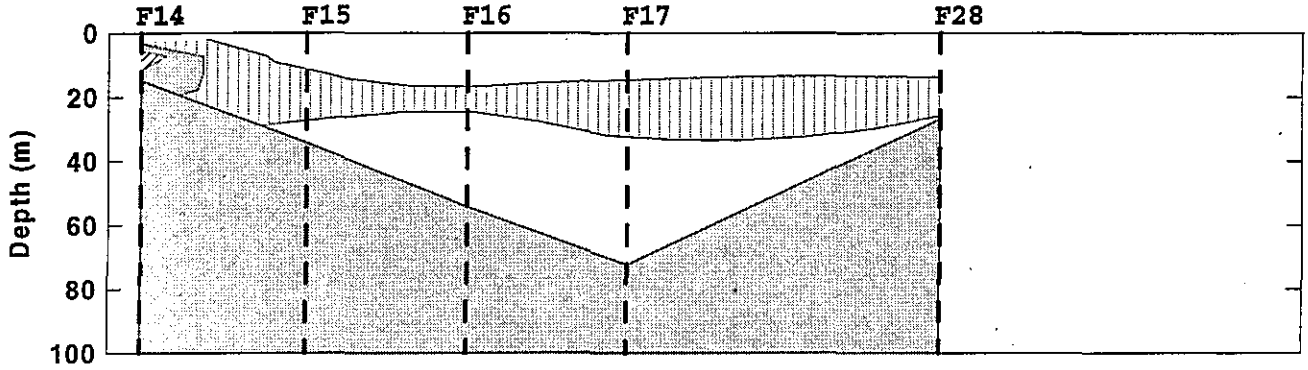


Fluorescence 9504

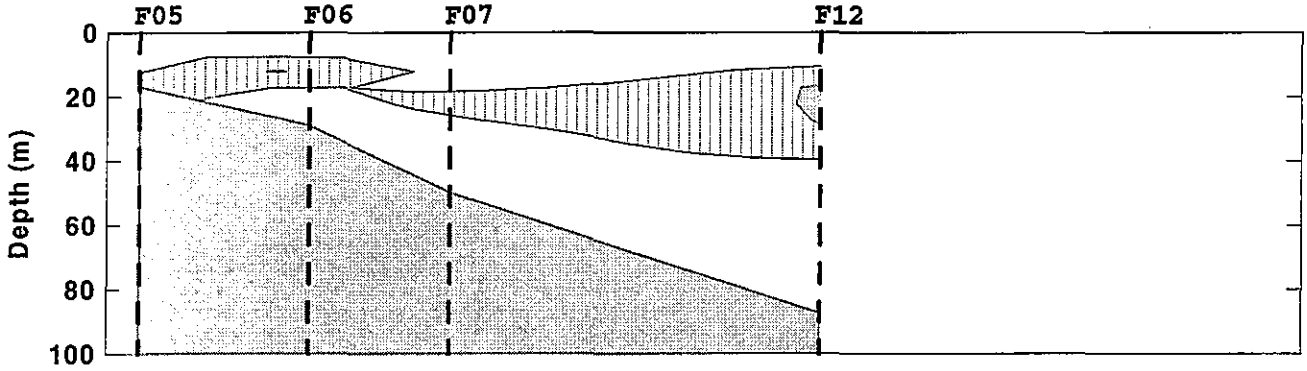
Boston-Nearfield Transect

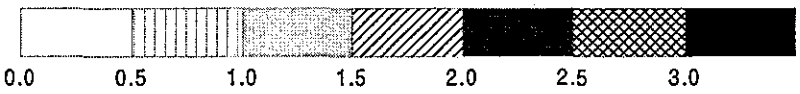


Cohassett Transect



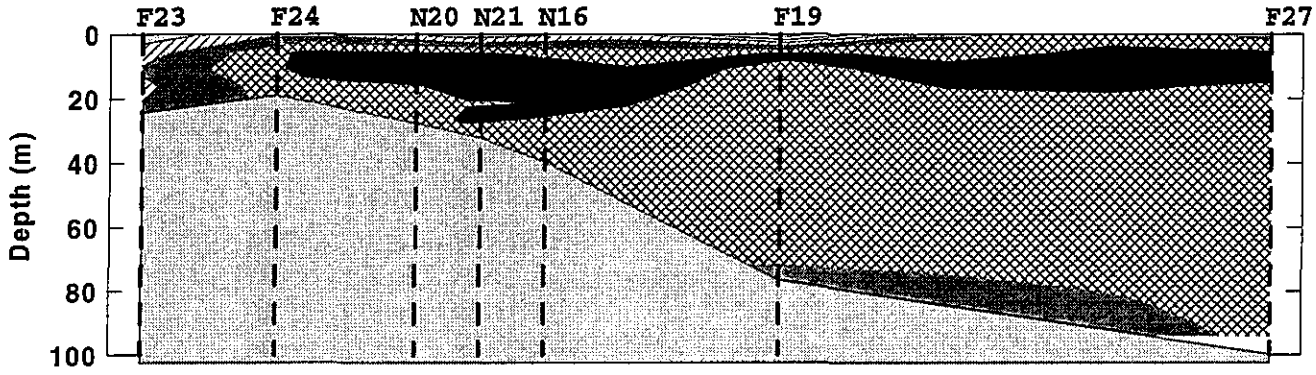
Marshfield Transect



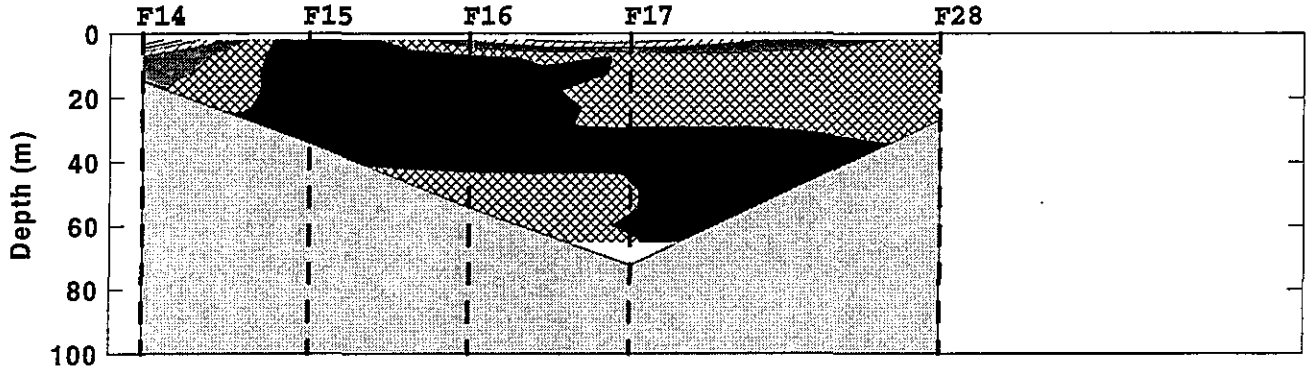


Fluorescence 9507

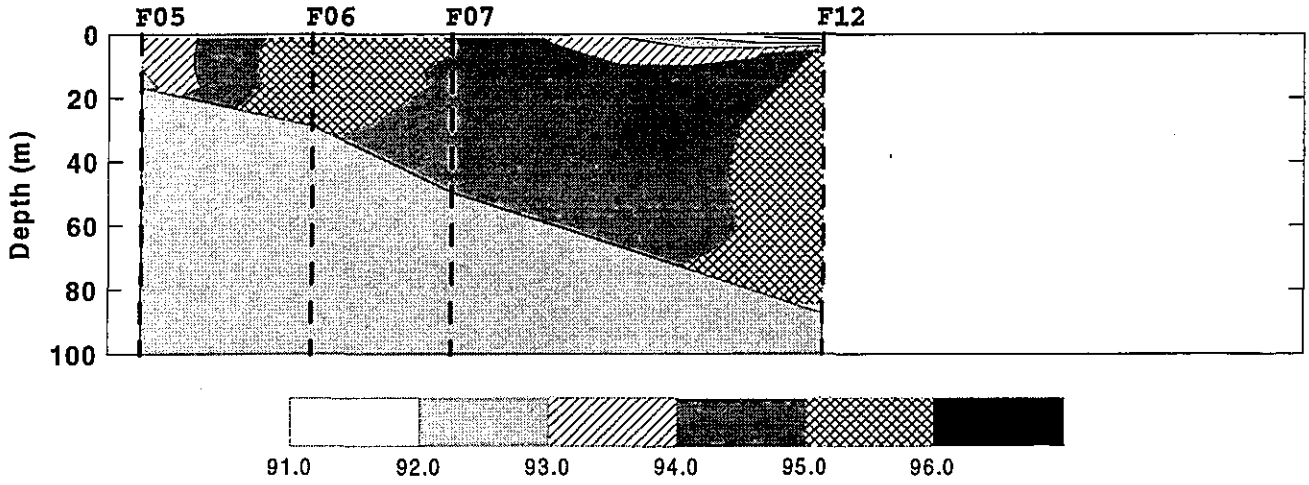
Boston-Nearfield Transect



Cohassett Transect

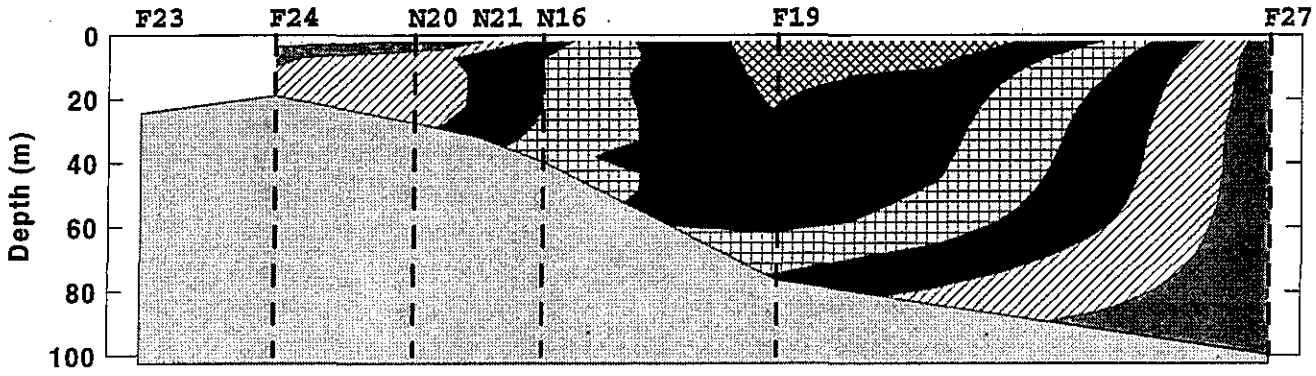


Marshfield Transect

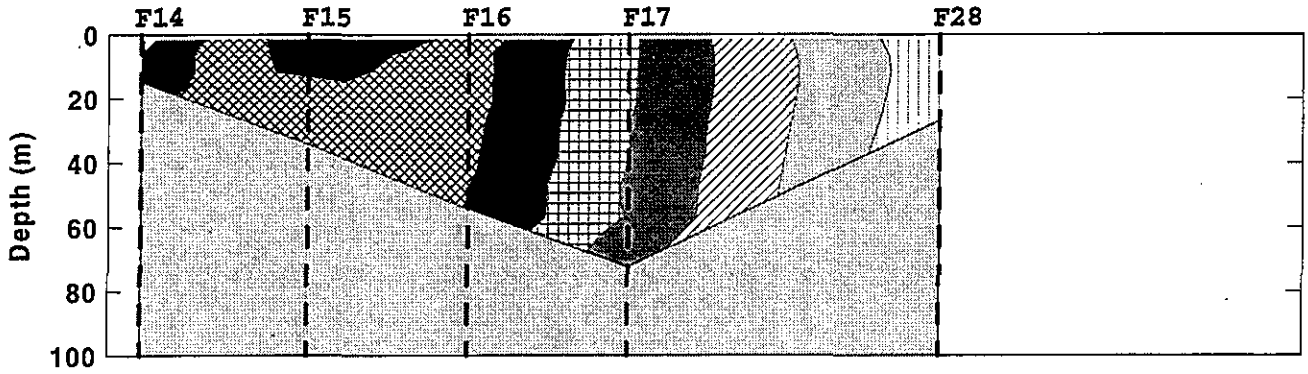


DO % Saturation 9501

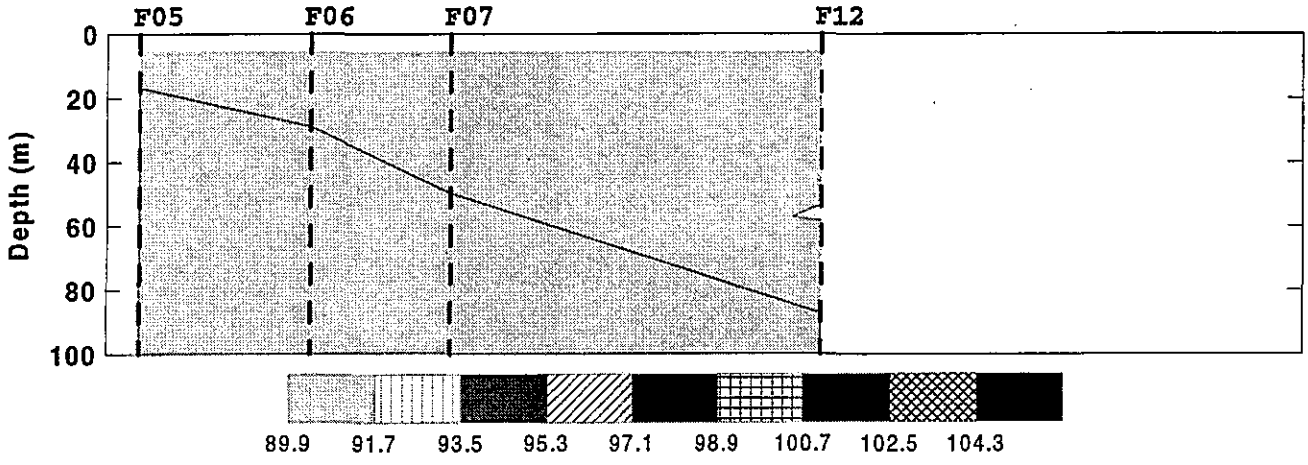
Boston-Nearfield Transect



Cohassett Transect

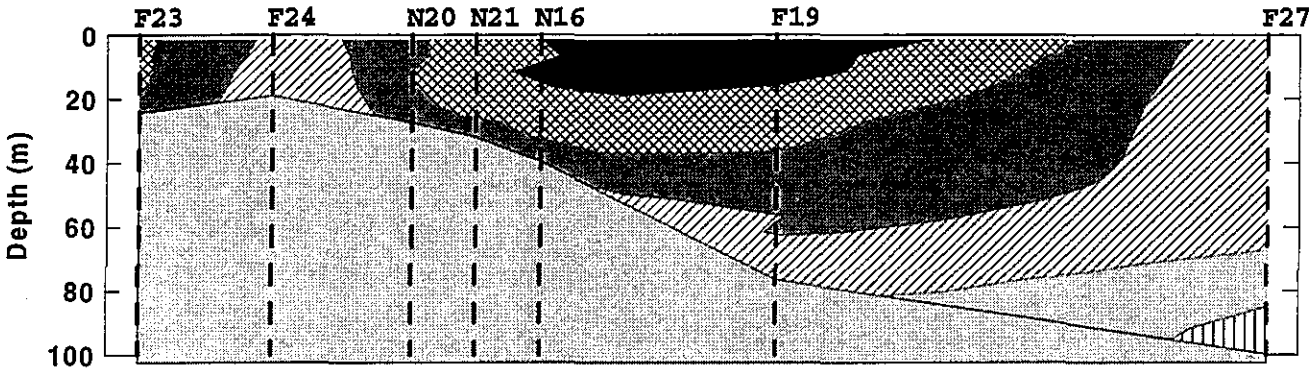


Marshfield Transect

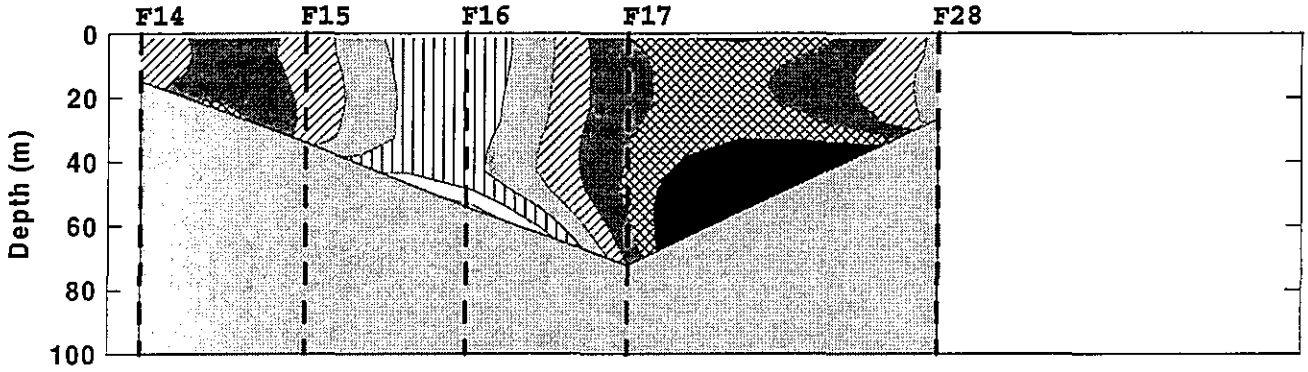


DO % Saturation 9502

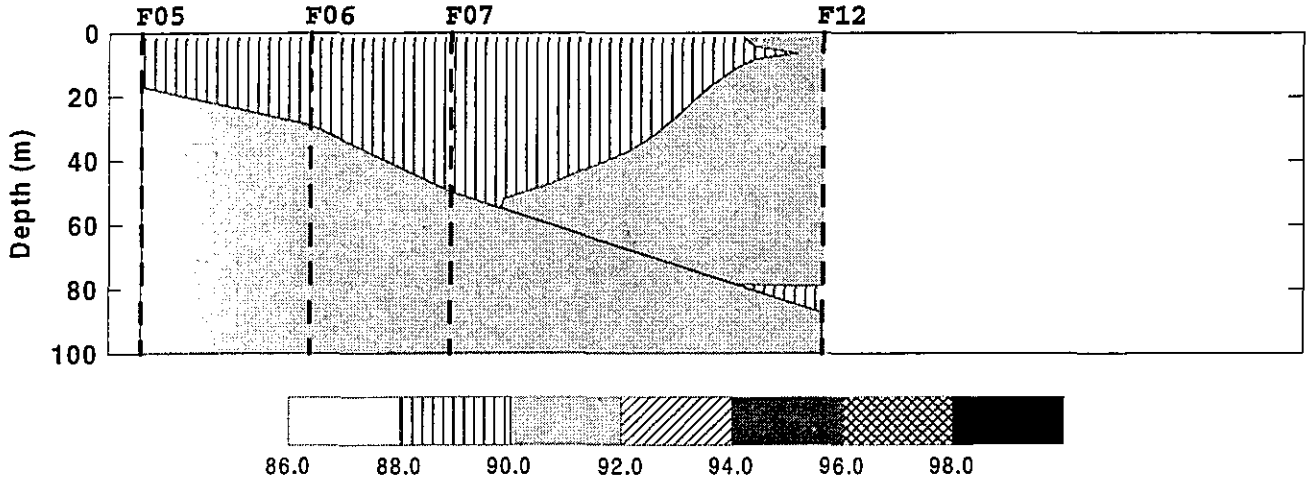
Boston-Nearfield Transect



Cohassett Transect

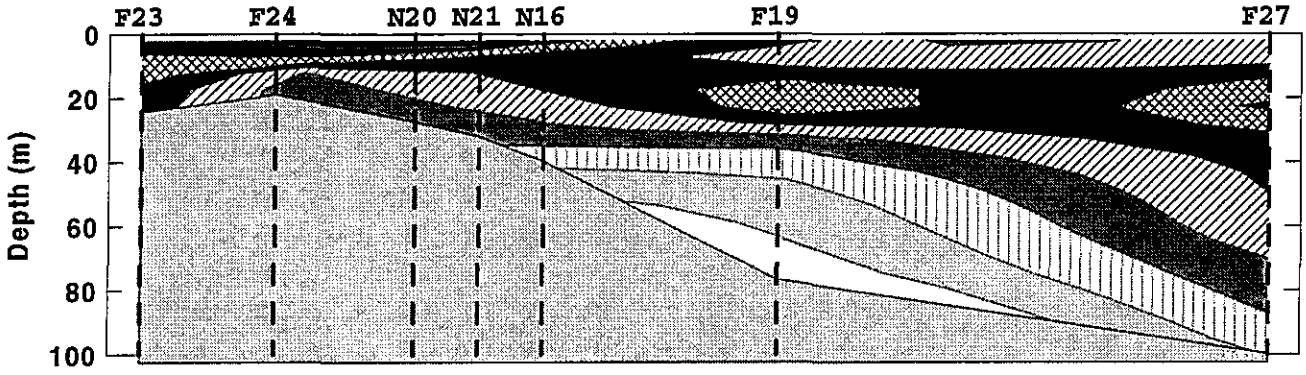


Marshfield Transect

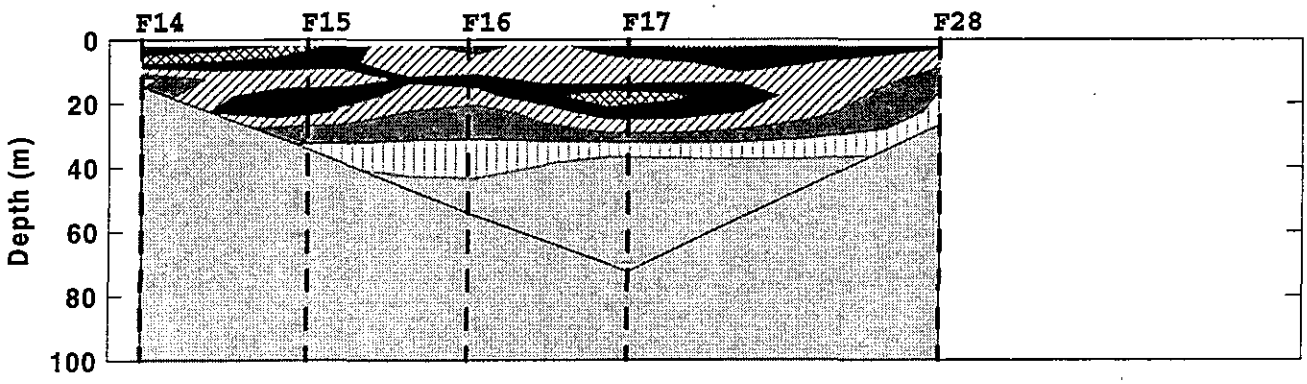


DO % Saturation 9504

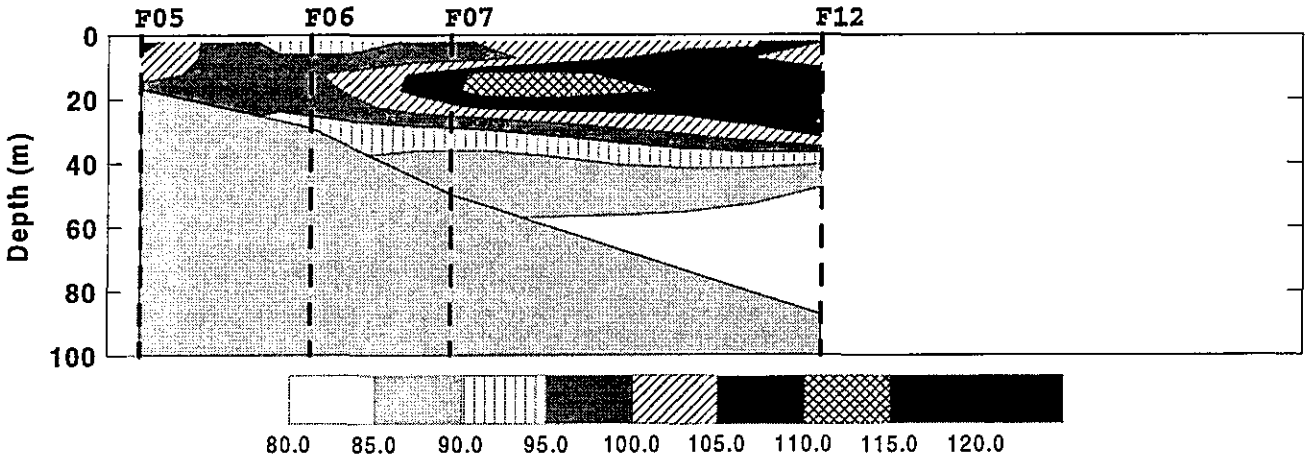
Boston-Nearfield Transect



Cohassett Transect



Marshfield Transect



DO % Saturation 9507

APPENDIX D

NUTRIENT SCATTER PLOTS

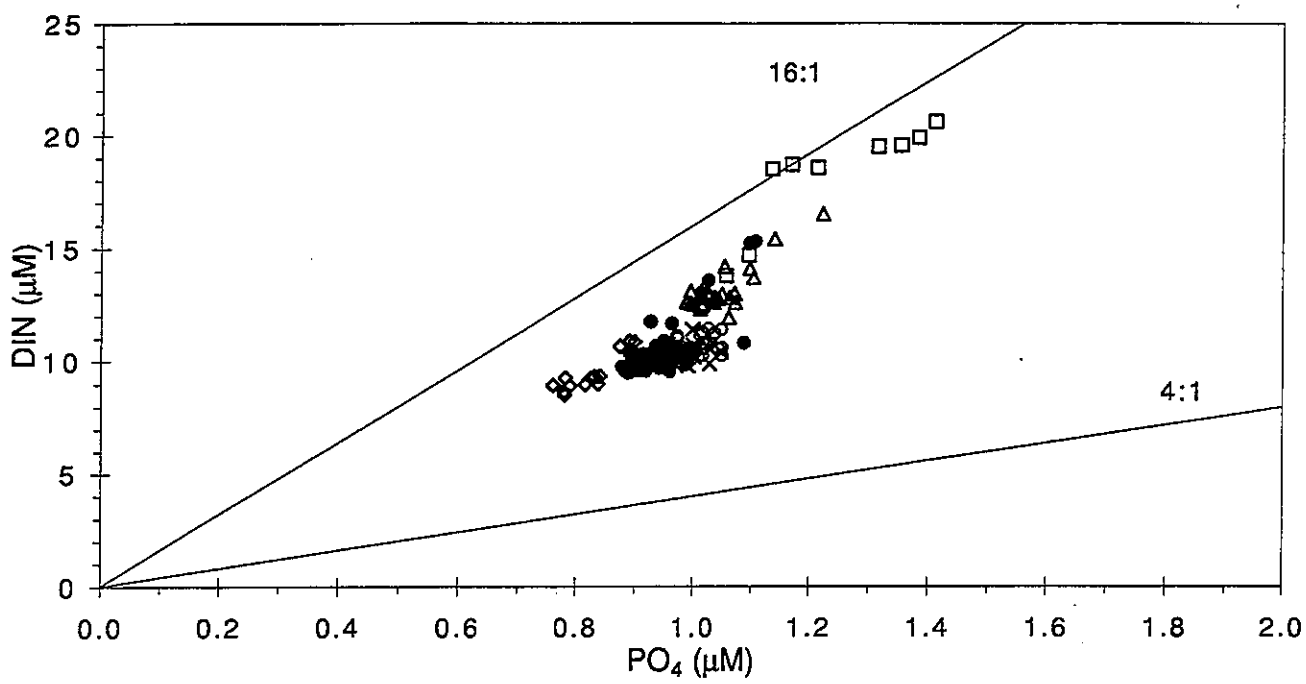
APPENDIX D

Scatter plots are included for every survey conducted during the semi-annual period. EAch plot includes all stations and all depths unless otherwise noted. The plots are organized by type of plot, and then by survey. Combined nearfield/farfield surveys show the regions with different symbols, including boundary (BOU), Cape Cod Bay (CCB), coastal (COA), Boston Harbor (BH), nearfield (NEA), and offshore (OFF). Available plots, in the order they appear in the appendix, are summarized in the table below.

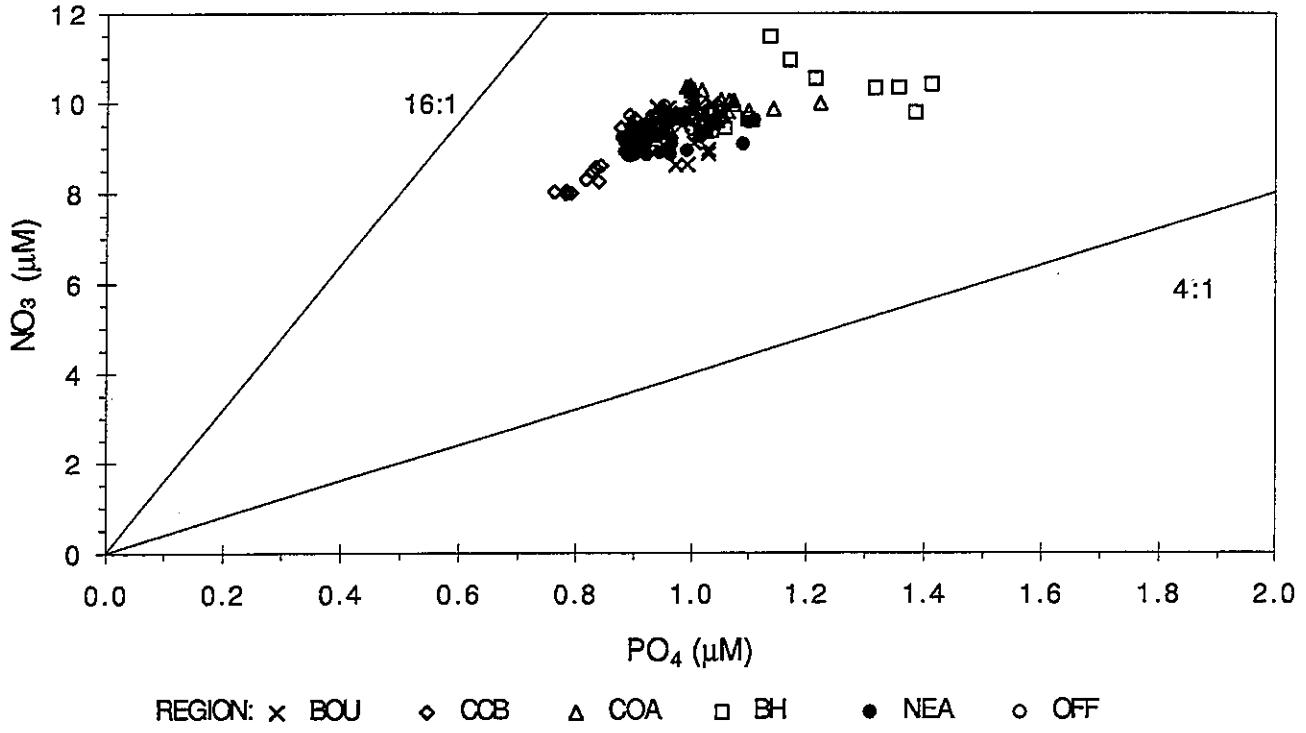
Type of Plot	Surveys	Comments
PO_4:DIN; PO_4:NO_3	W9501-09	Lines of nitrogen:phosphate
PO_4:NH_4; SiO_4:NH_4	W9501-09	
SiO_4:DIN; SiO_4:NO_3	W9501-09	Lines of nitrogen:silicate
Salinity:DIN	W9501-09	Stations types A,D,F,G
Salinity:NH_4 and NO_3	W9501-09	
Salinity:PO_4 and SiO_4	W9501-09	
Salinity:TN and DIN+PON	W9501-09	Station types A,D,F,G
Depth:DIN	W9501-09	
Depth:NH_4 and NO_3	W9501-09	
Depth:PO_4 and SiO_4	W9501-09	

Acronyms:
DIN = dissolved inorganic nitrogen
PON = particulate organic nitrogen
TN = total dissolved nitrogen + PON

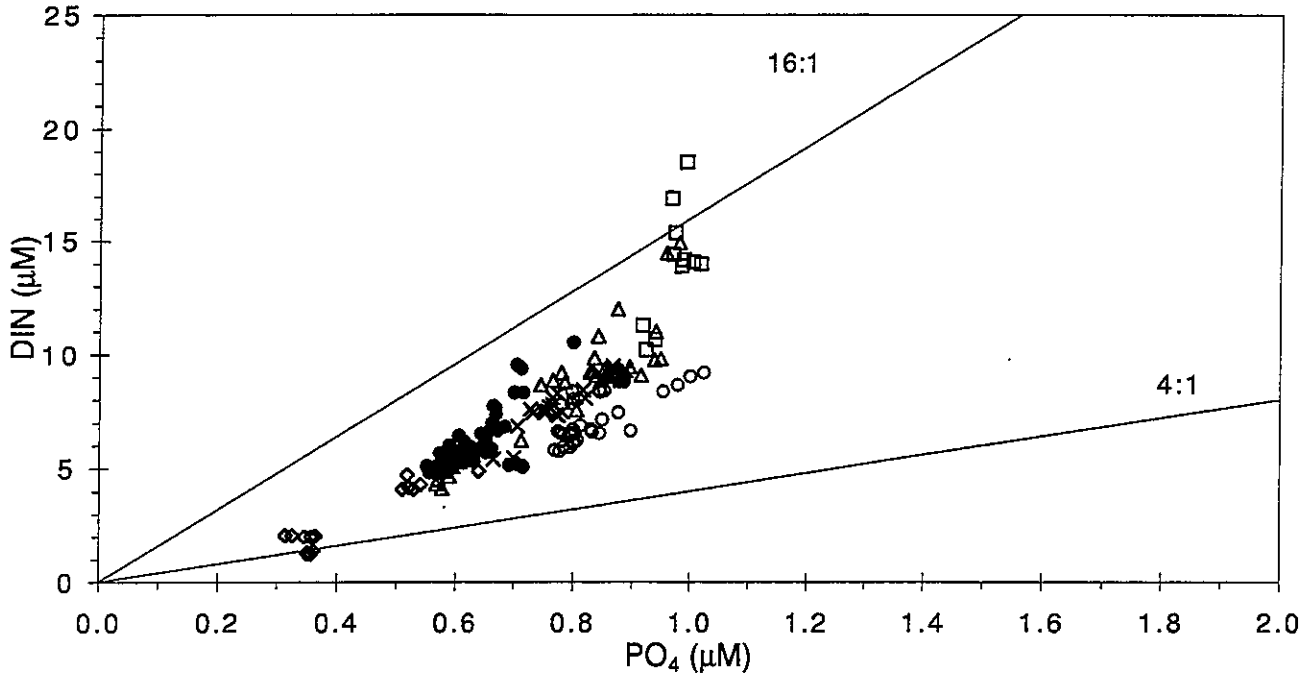
W9501 .


25
20
15
10
5
0
DIN (µM)
16:1
4:1
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

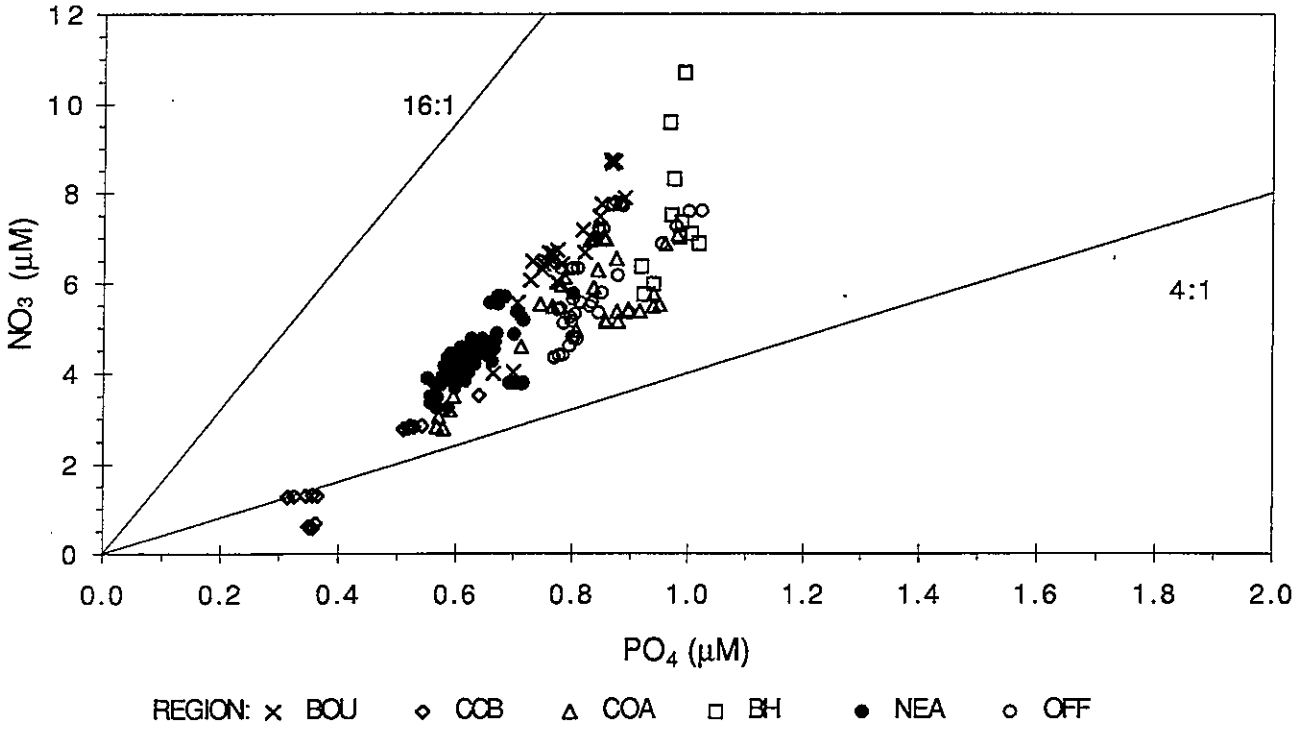
W9501 .


12
10
8
6
4
2
0
NO3 (µM)
16:1
4:1
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

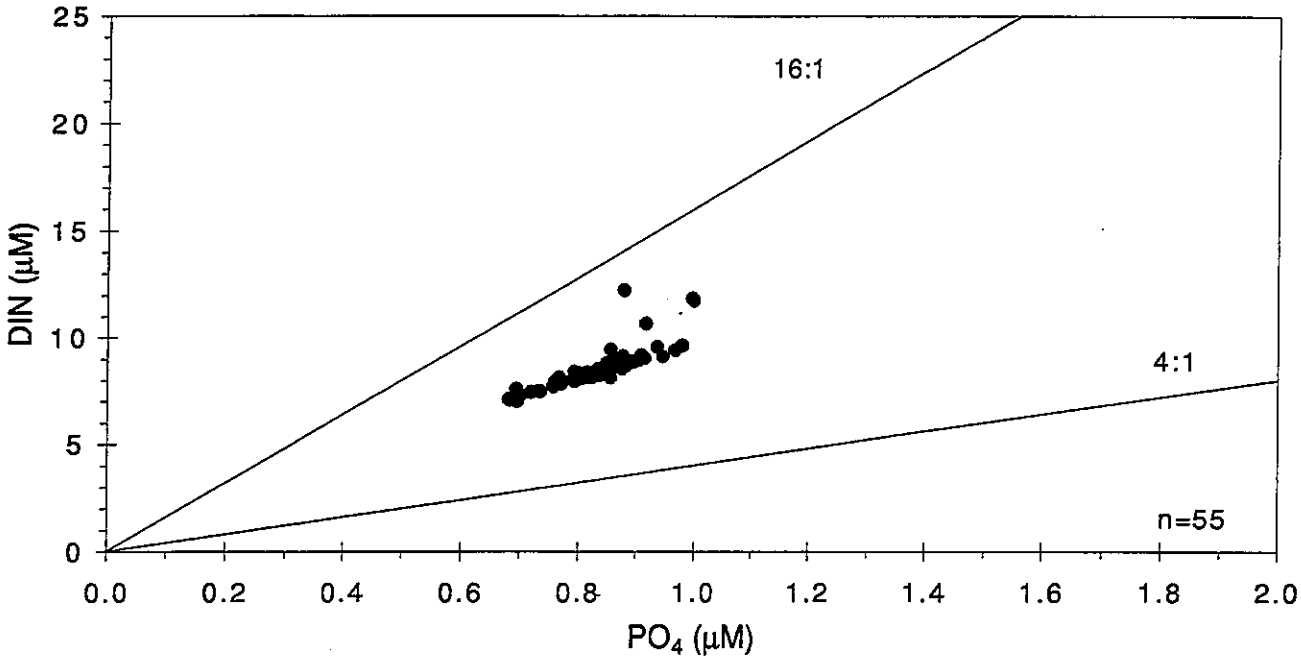
W9502 .


16:1
4:1
DIN (µM)
PO4 (µM)
0
5
10
15
20
25
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0

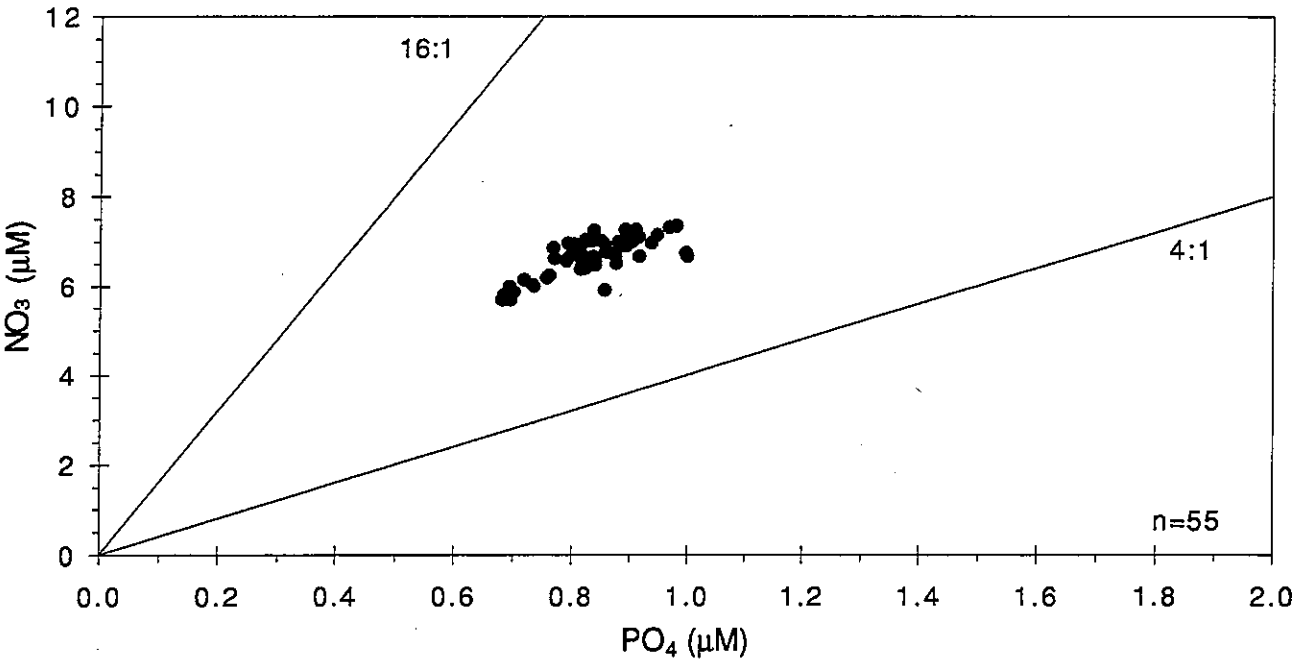
W9502 .

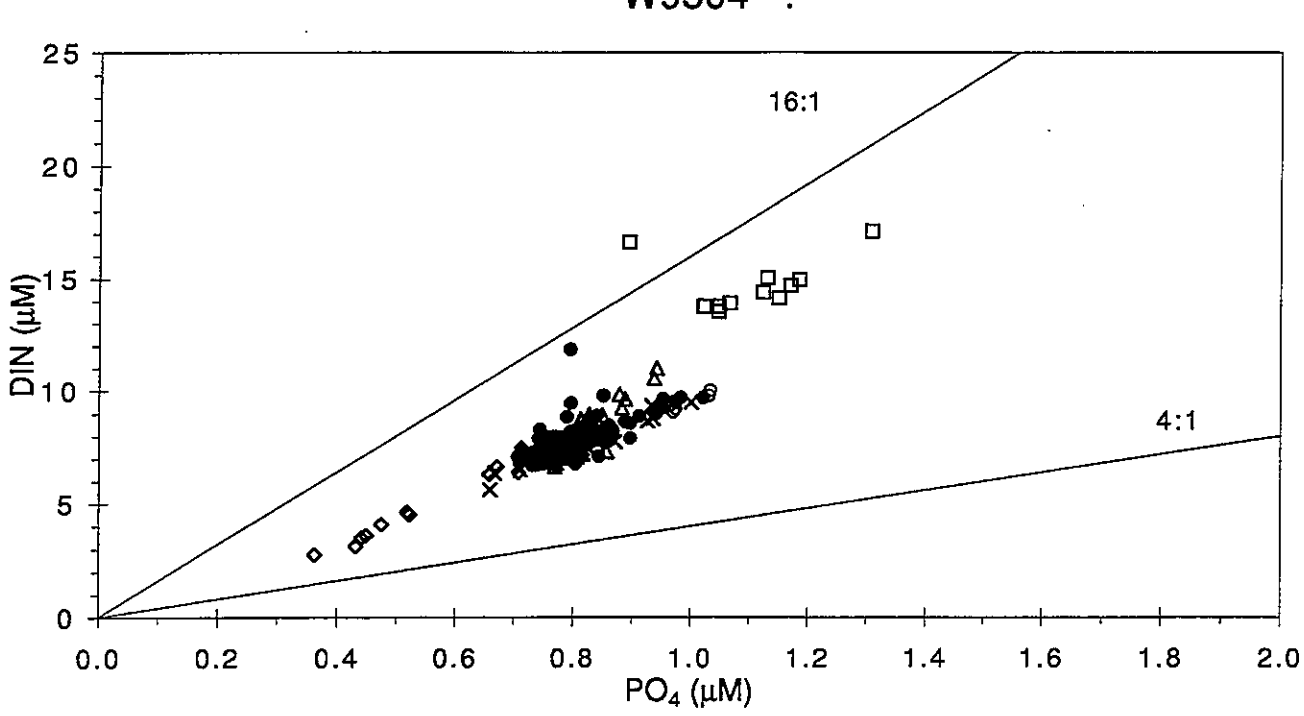

16:1
4:1
NO3 (µM)
PO4 (µM)
0
2
4
6
8
10
12
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

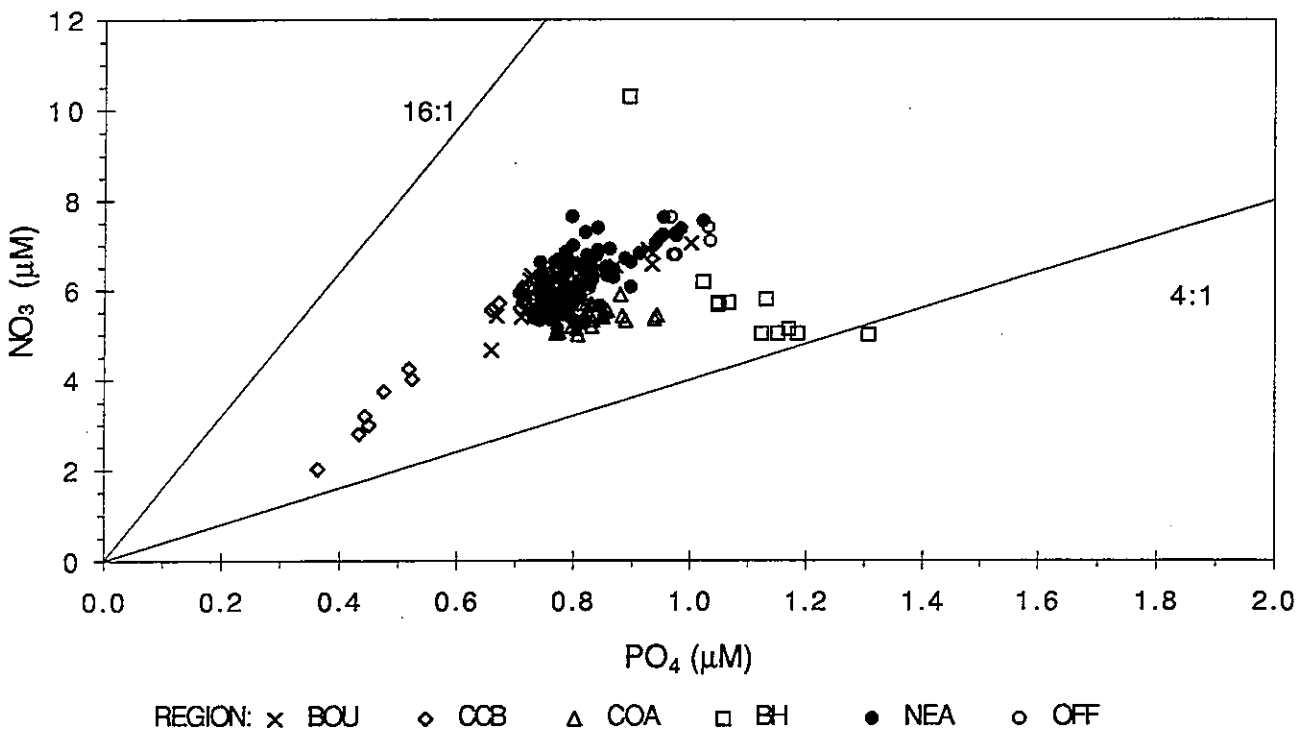
W9503 .


25
20
15
10
5
0
DIN (µM)
16:1
4:1
n=55
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

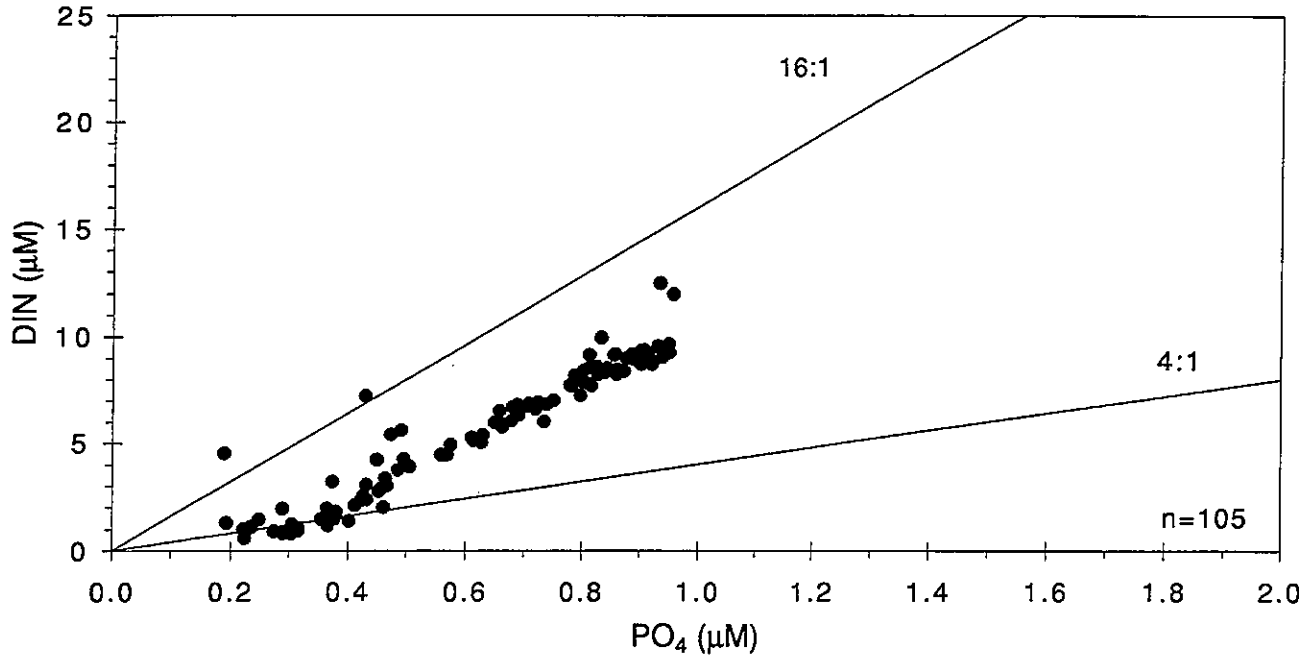
W9503 .


12
10
8
6
4
2
0
NO3 (µM)
16:1
4:1
n=55
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

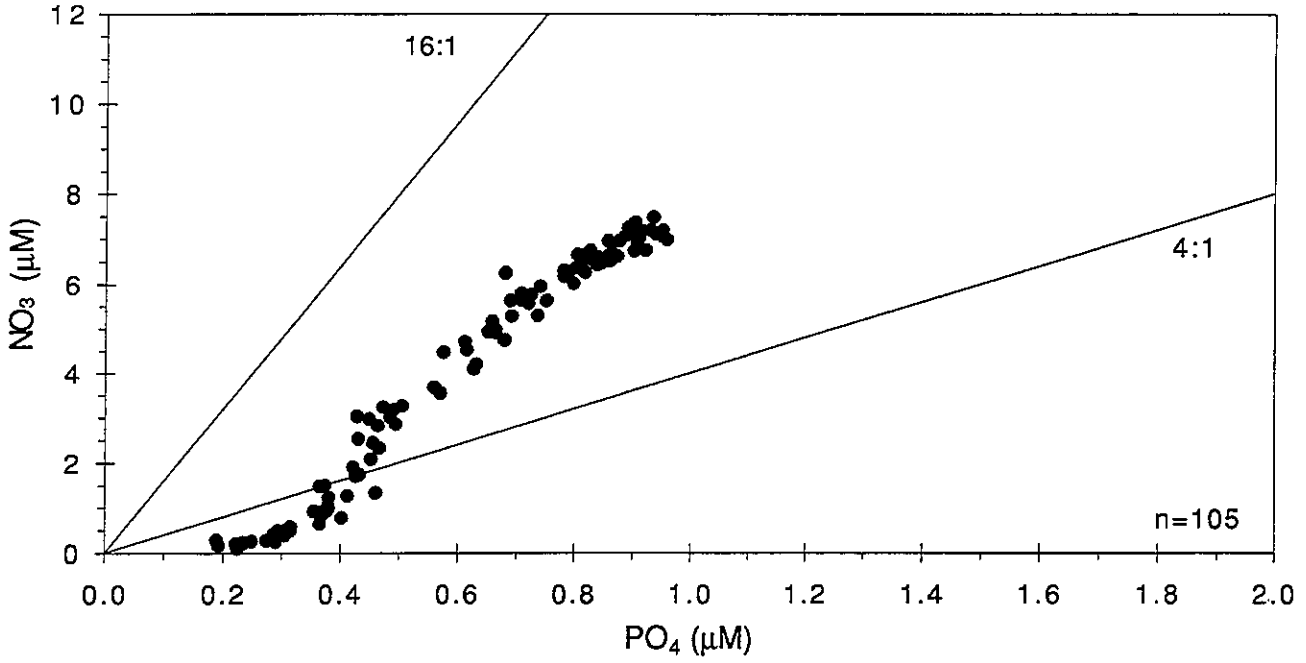

W9504 .
16:1
4:1
DIN (µM)
PO4 (µM)
0
5
10
15
20
25
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0


W9504 .
16:1
4:1
NO3 (µM)
PO4 (µM)
0
2
4
6
8
10
12
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

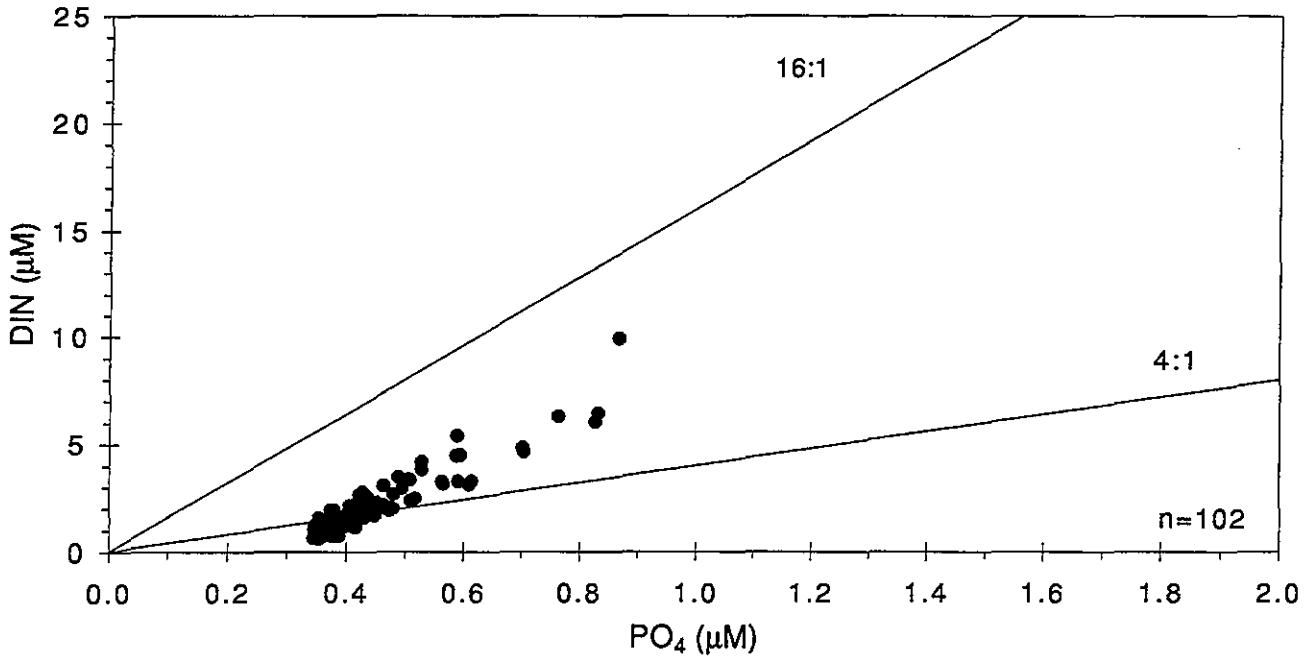
W9505 .


25
20
15
10
5
0
DIN (µM)
16:1
4:1
n=105
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

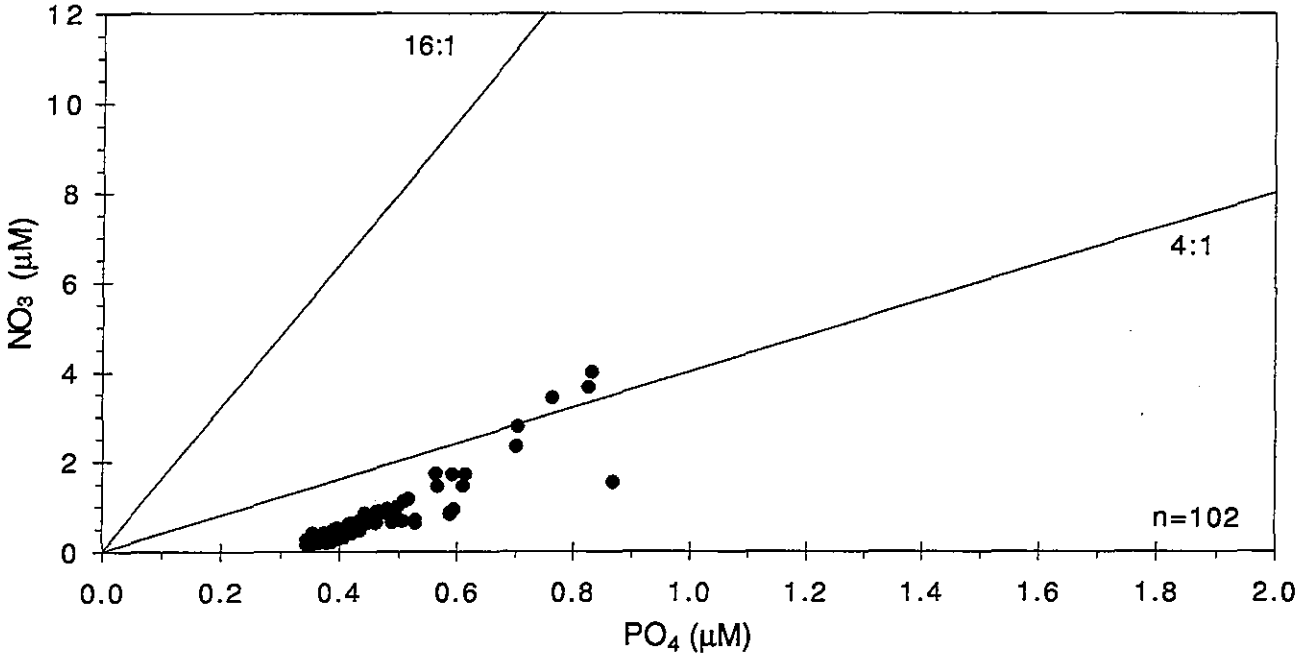
W9505 .


12
10
8
6
4
2
0
NO3 (µM)
16:1
4:1
n=105
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

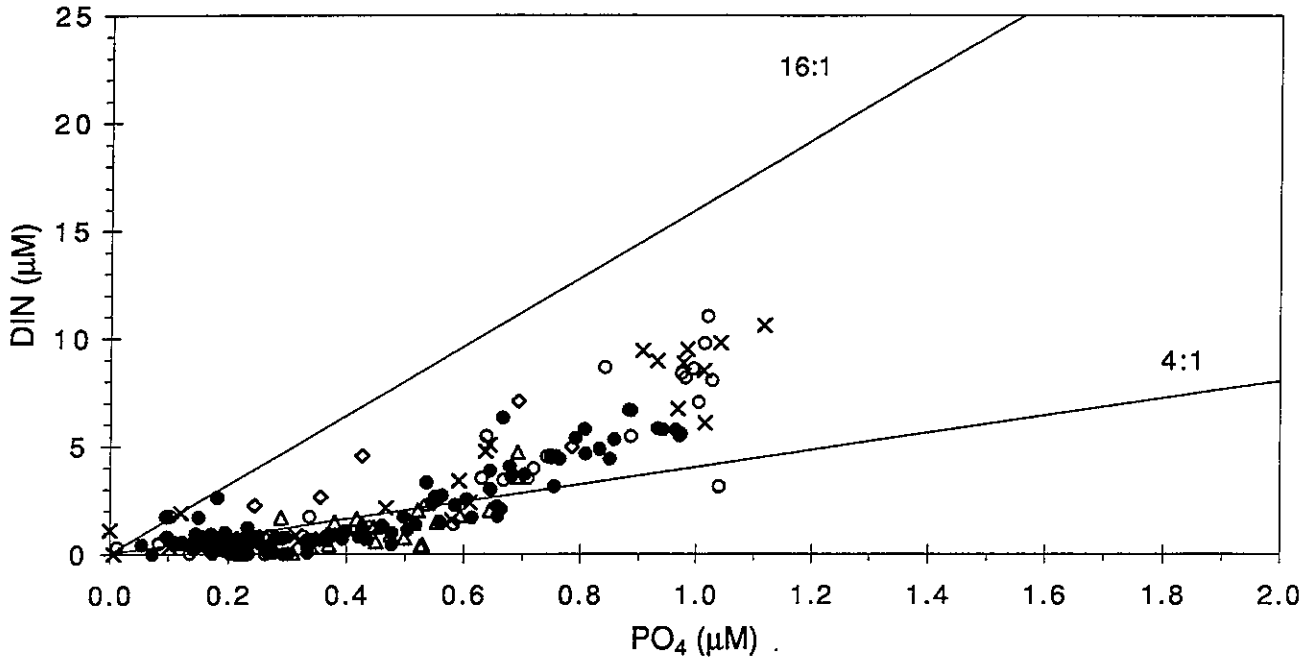
W9506 .


16:1
4:1
n=102
DIN (µM)
PO4 (µM)
0
5
10
15
20
25
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0

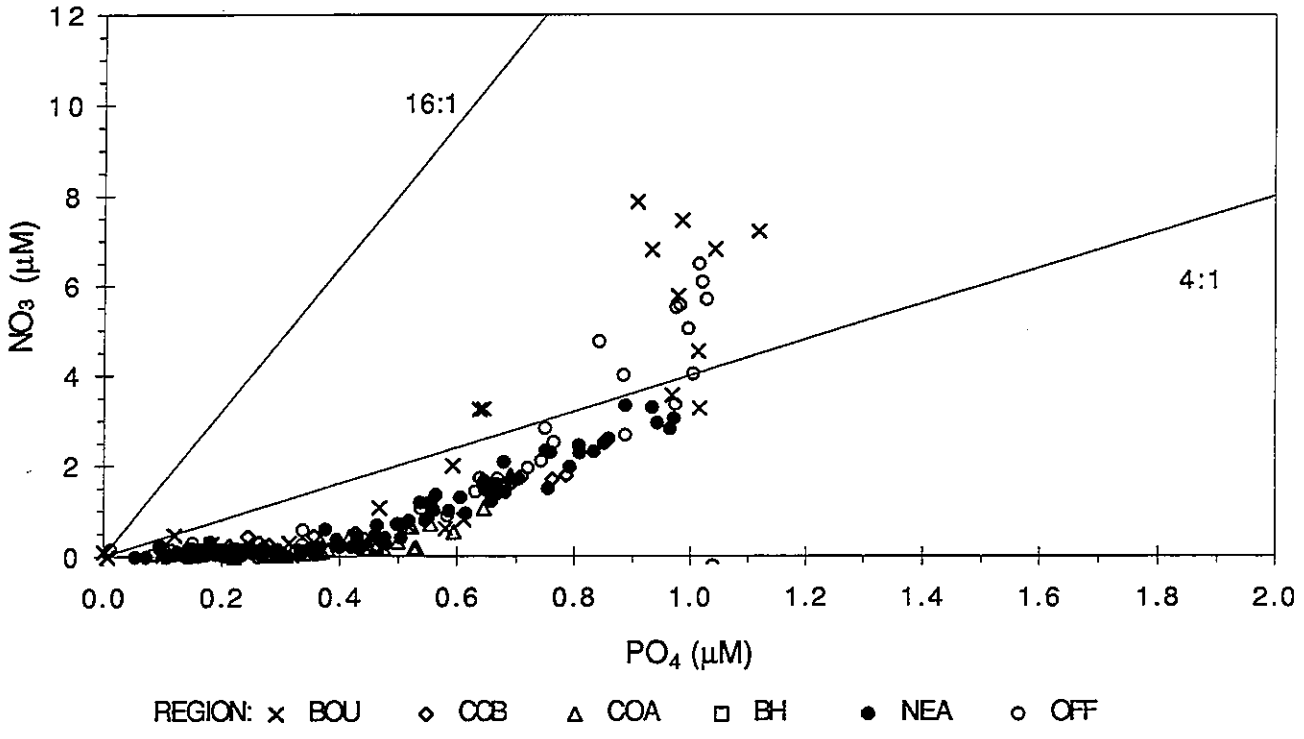
W9506 .


16:1
4:1
n=102
NO3 (µM)
PO4 (µM)
0
2
4
6
8
10
12
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0

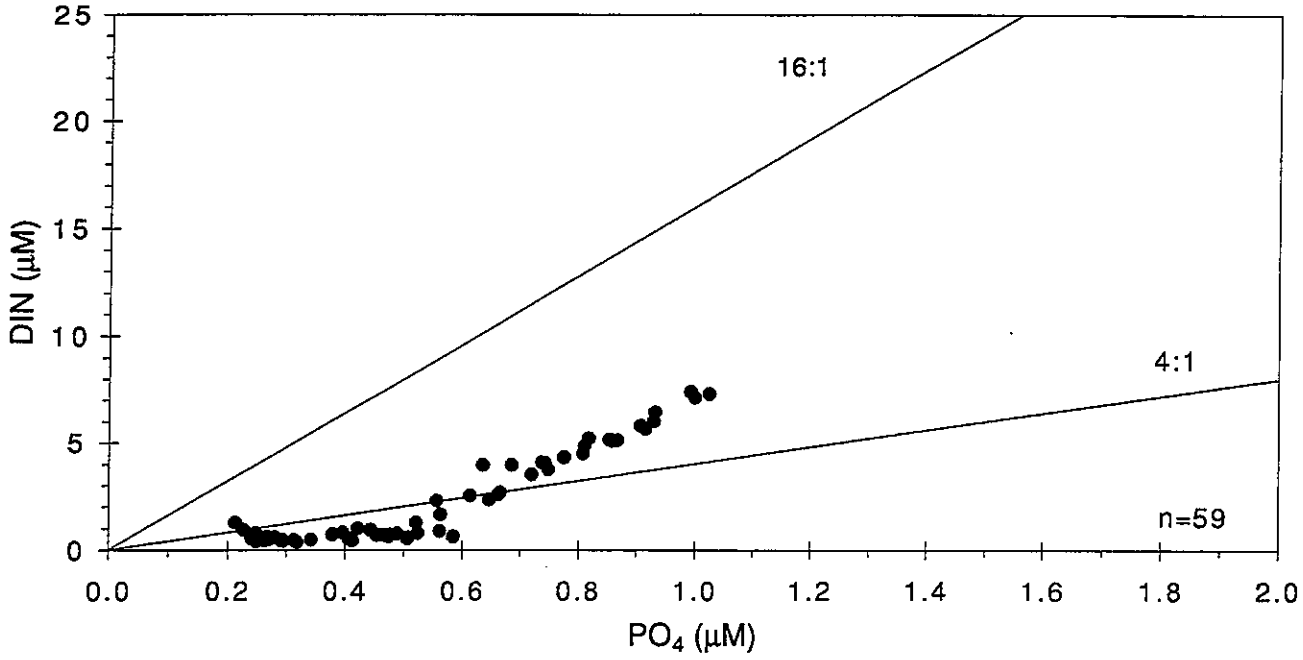
W9507 .


DIN (µM)
PO4 (µM)
16:1
4:1
0
5
10
15
20
25
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0

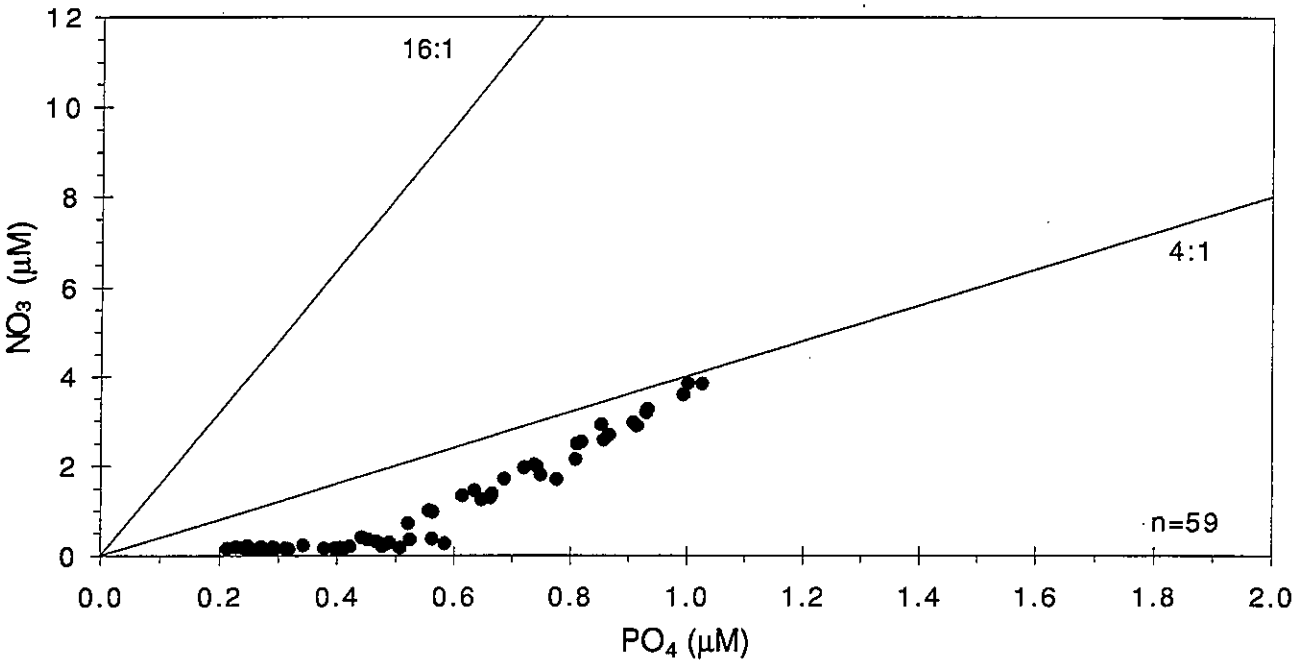
W9507 .


NO3 (µM)
PO4 (µM)
16:1
4:1
0
2
4
6
8
10
12
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

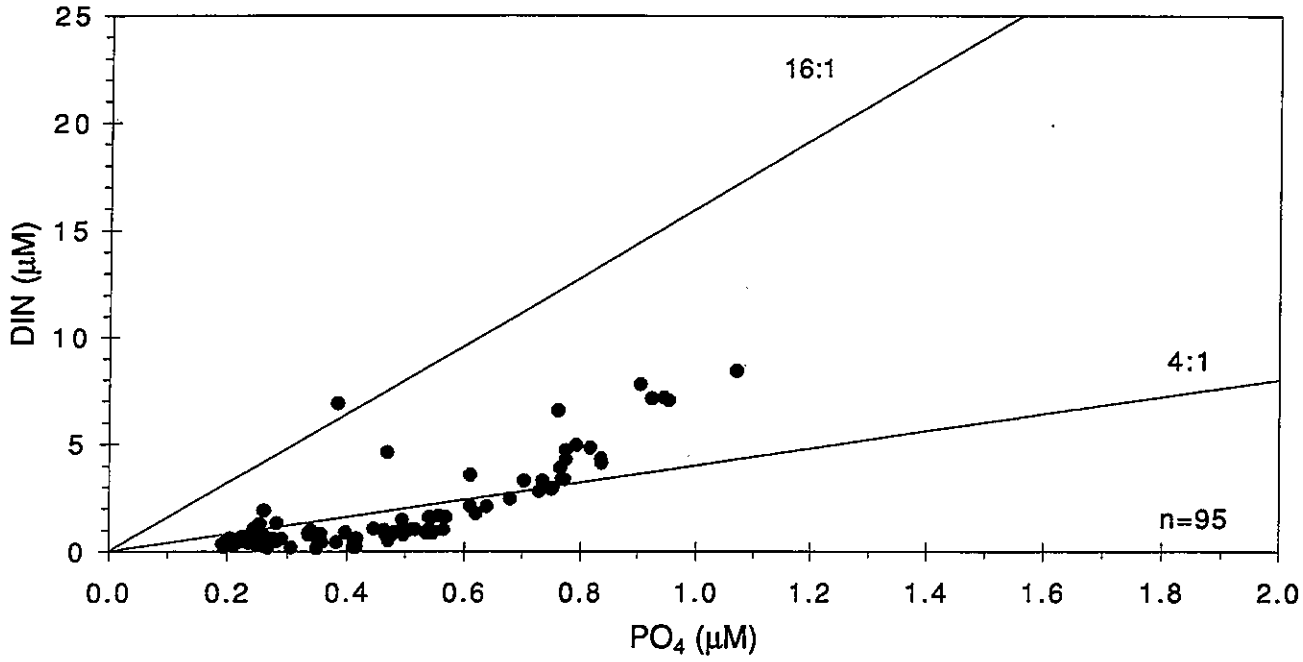
W9508 .


25
20
15
10
5
0
DIN (µM)
16:1
4:1
n=59
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

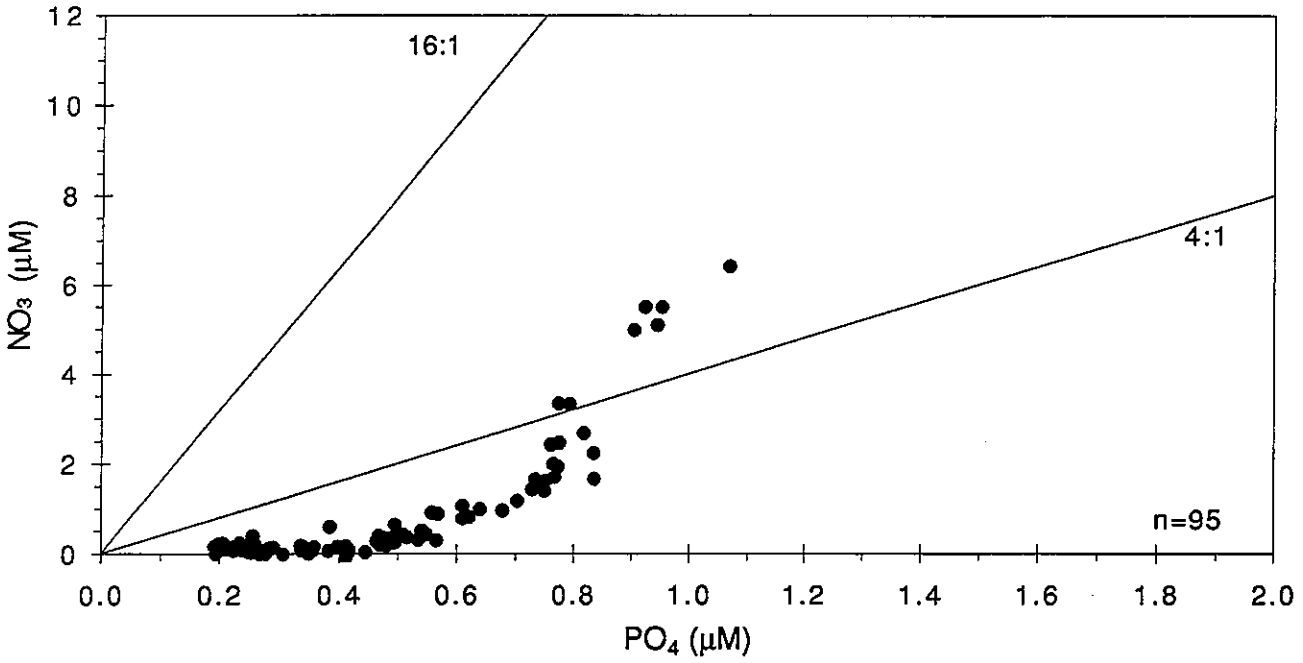
W9508 .


12
10
8
6
4
2
0
NO3 (µM)
16:1
4:1
n=59
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

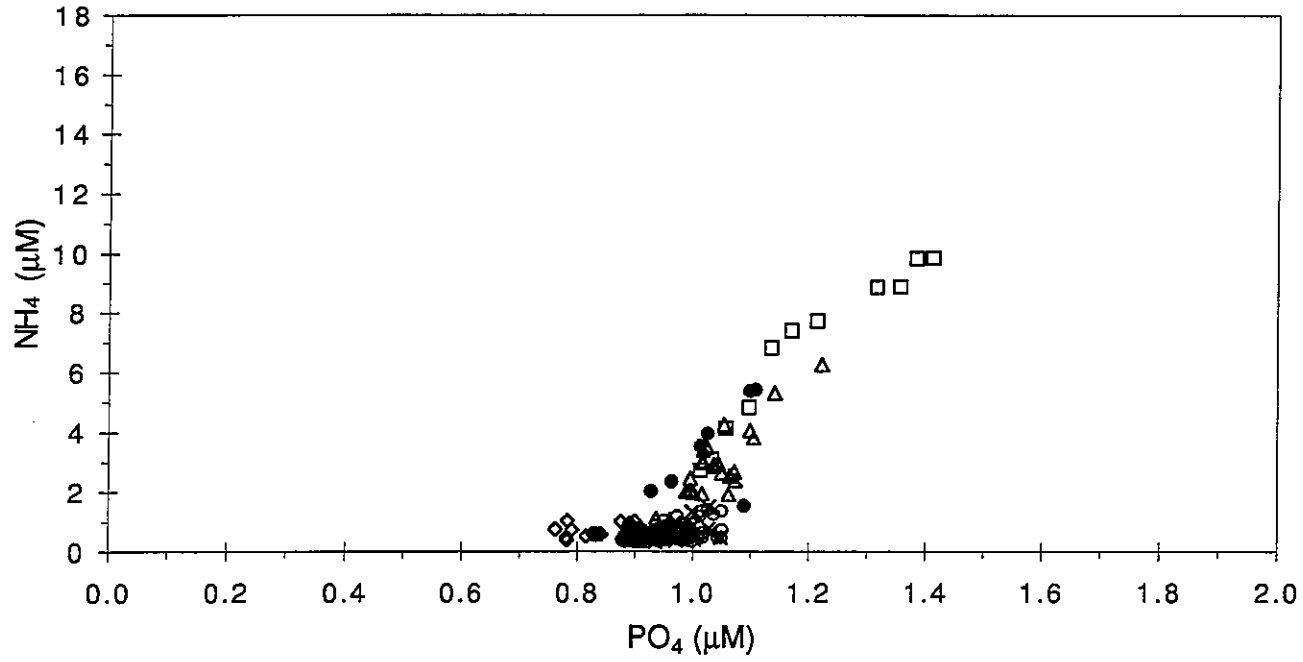
W9509 .


25
20
15
10
5
0
DIN (µM)
16:1
4:1
n=95
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

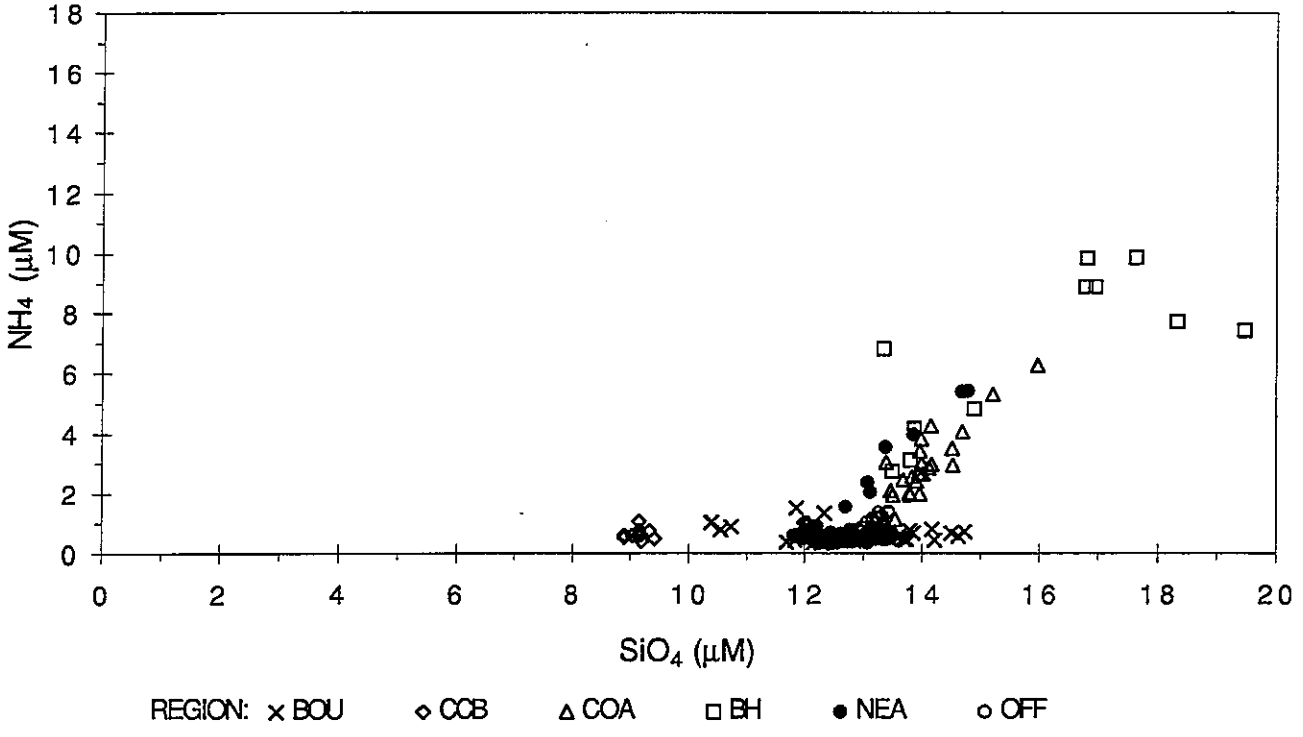
W9509 .


12
10
8
6
4
2
0
NO3 (µM)
16:1
4:1
n=95
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

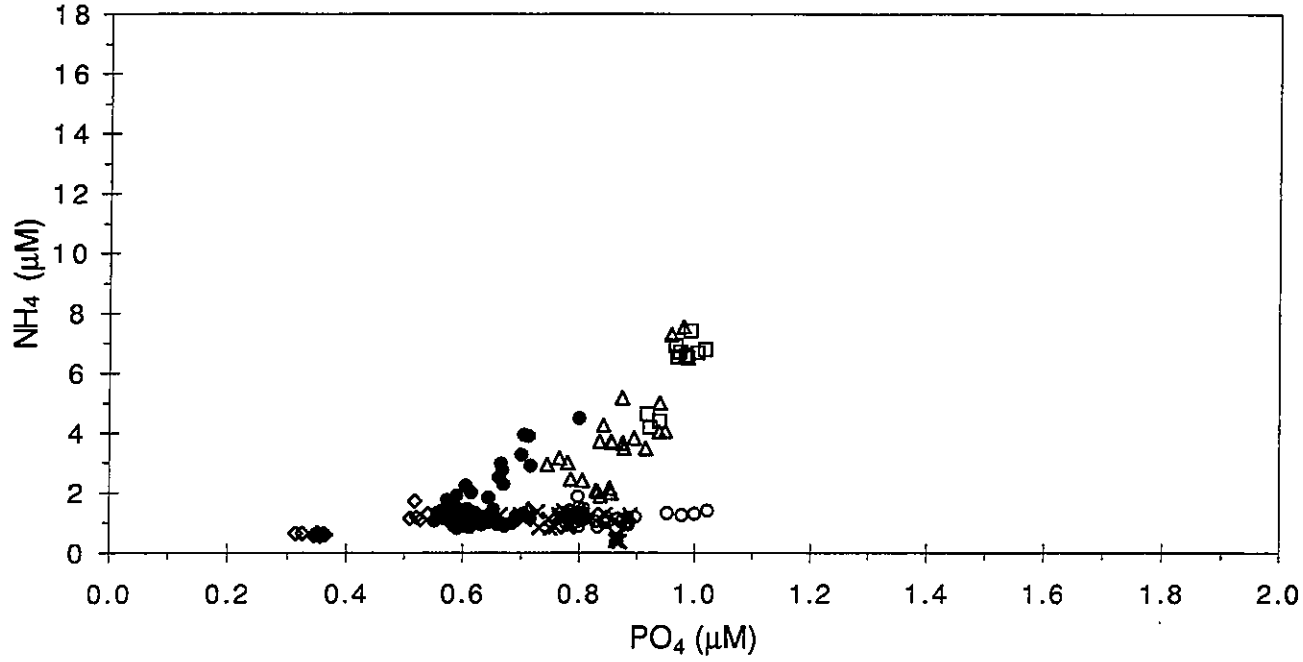
W9501 .


NH4 (µM)
PO4 (µM)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
0
2
4
6
8
10
12
14
16
18

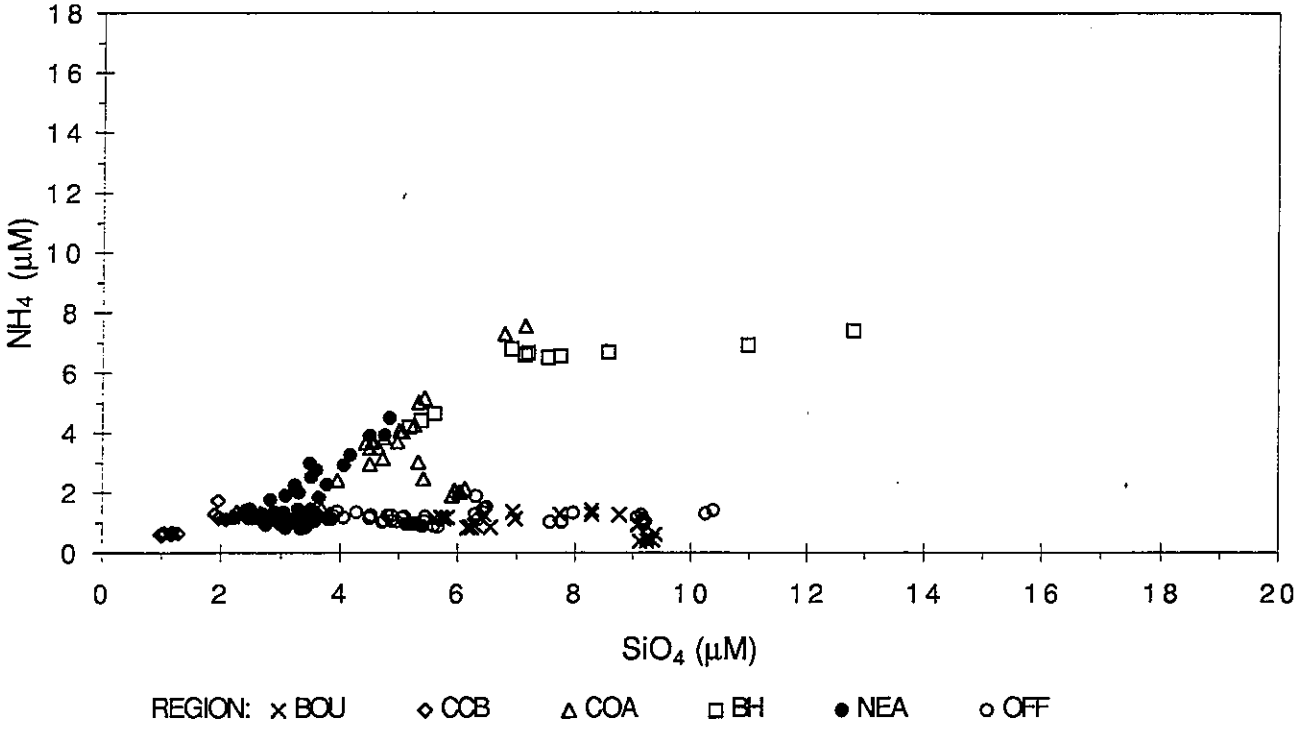
W9501 .


NH4 (µM)
SiO4 (µM)
0
2
4
6
8
10
12
14
16
18
20
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

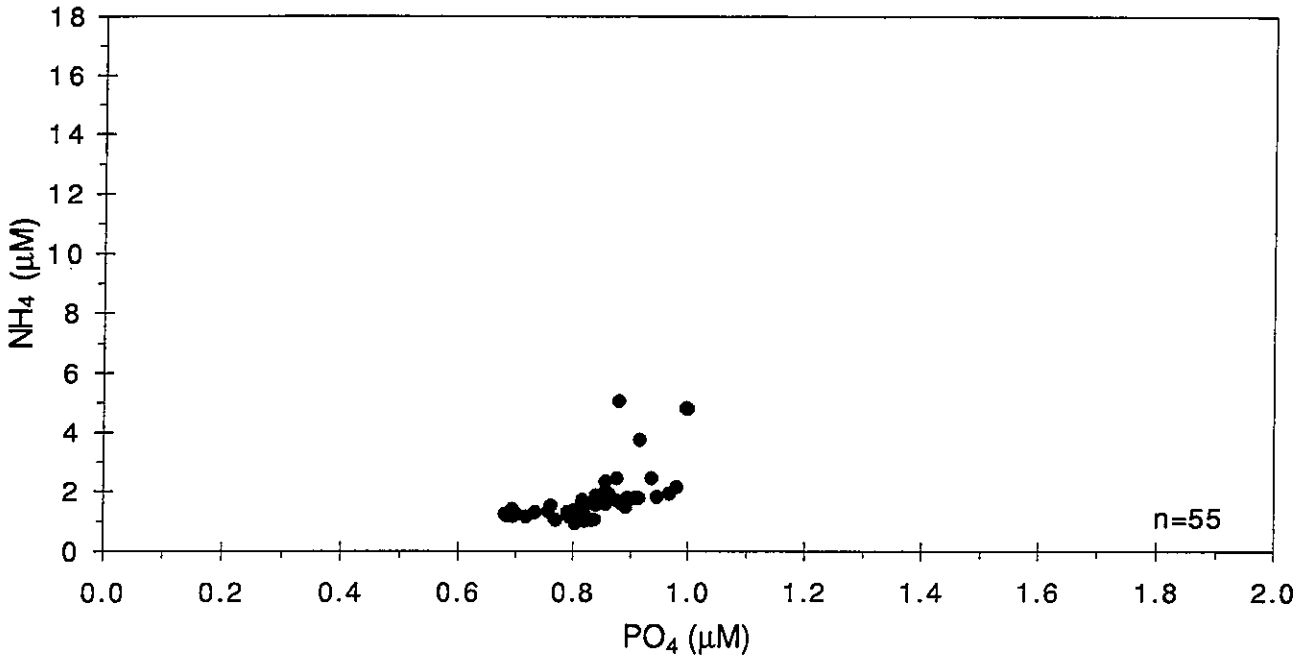
W9502 .


NH4 (µM)
PO4 (µM)
0
2
4
6
8
10
12
14
16
18
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0

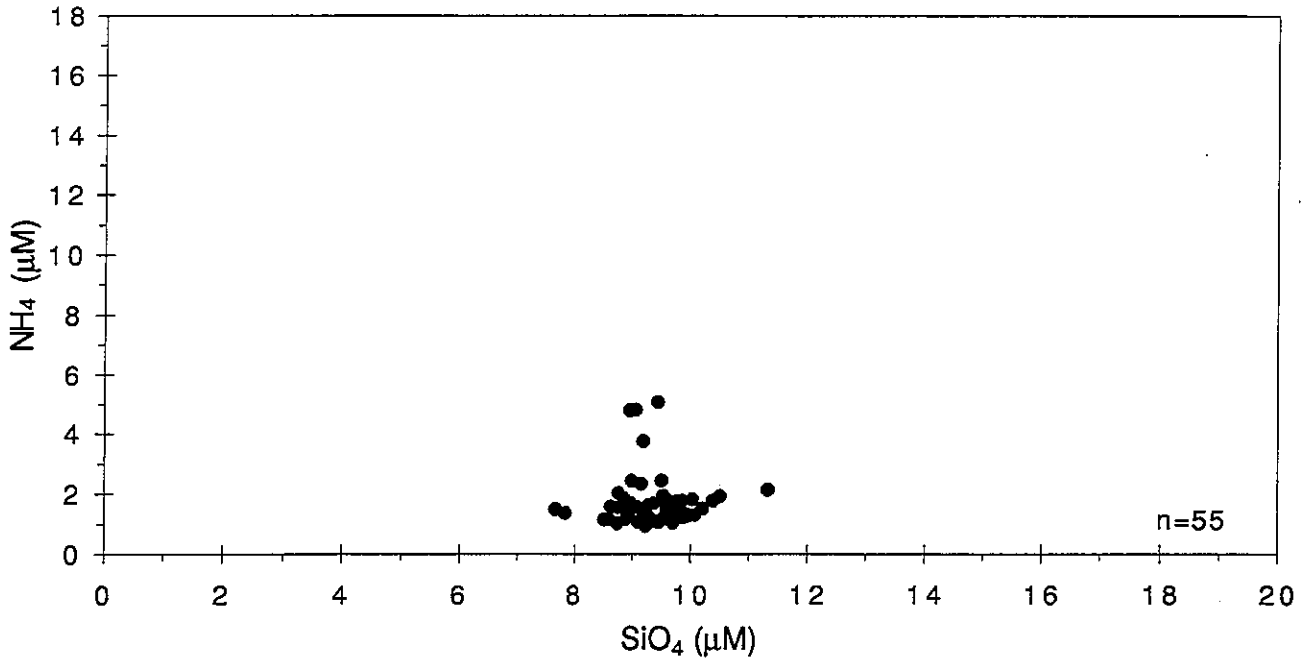
W9502 .


NH4 (µM)
SiO4 (µM)
0
2
4
6
8
10
12
14
16
18
20
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

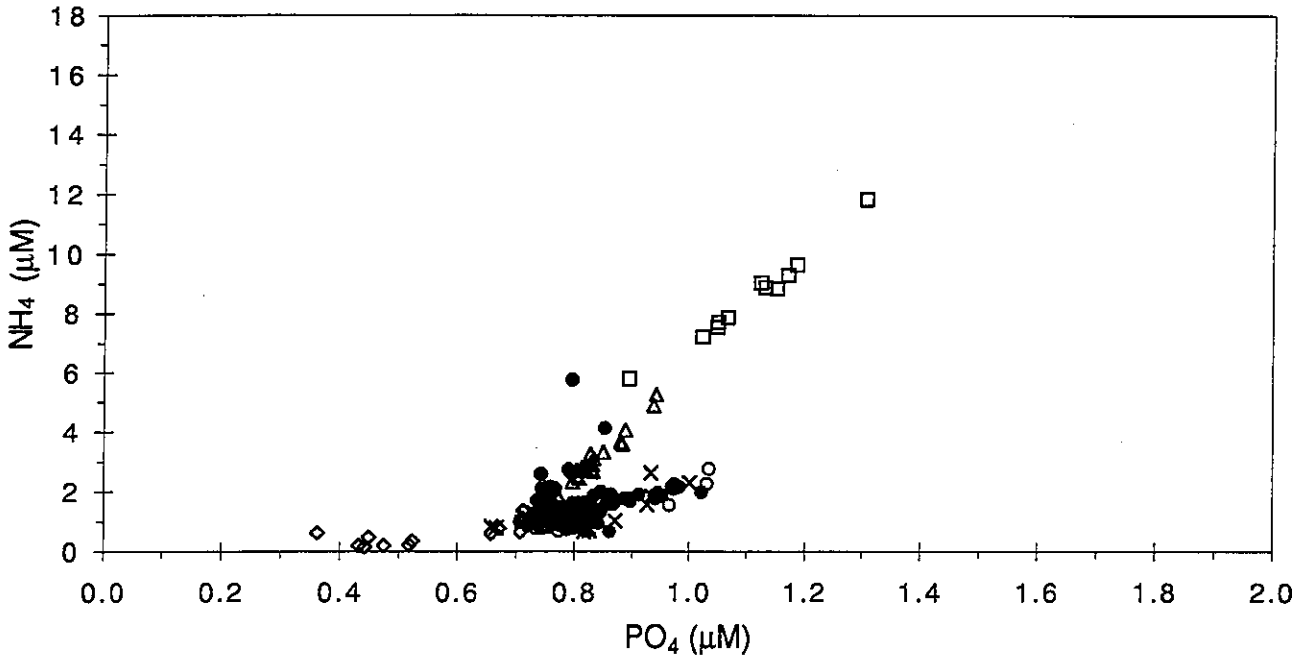
W9503 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=55
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

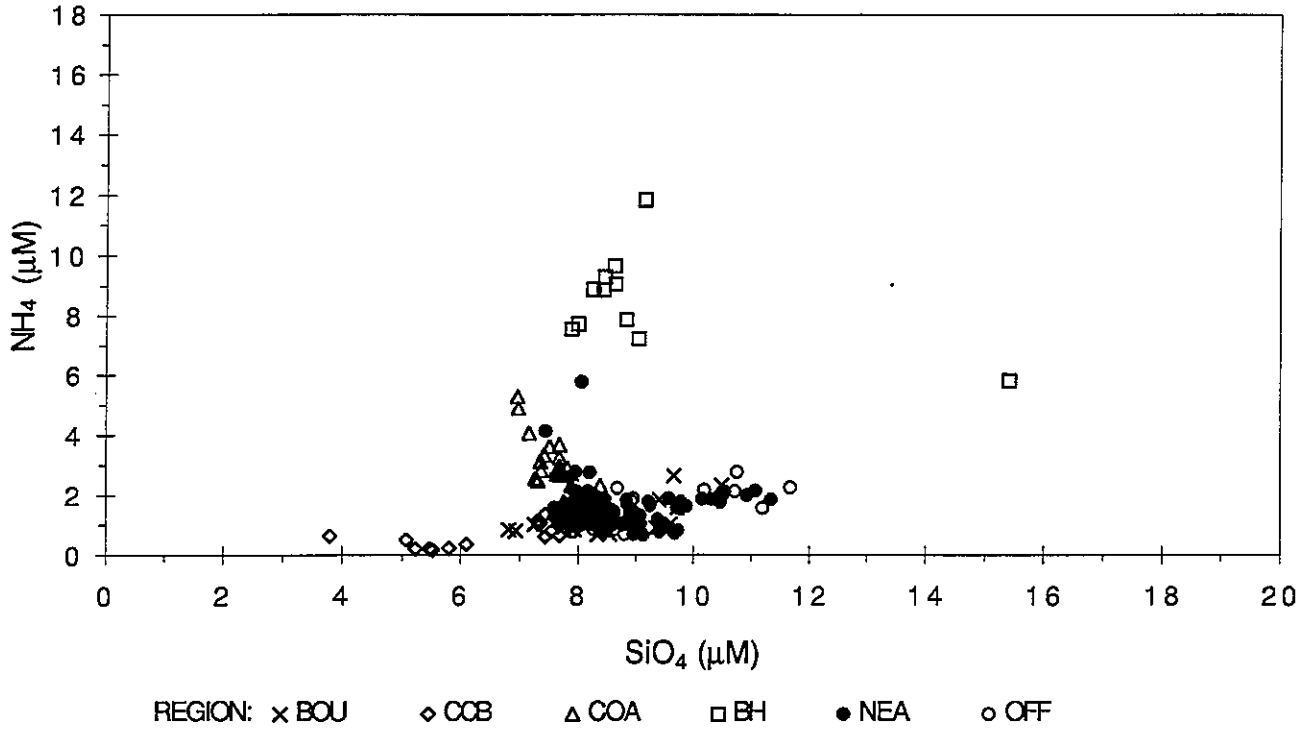
W9503 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=55
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

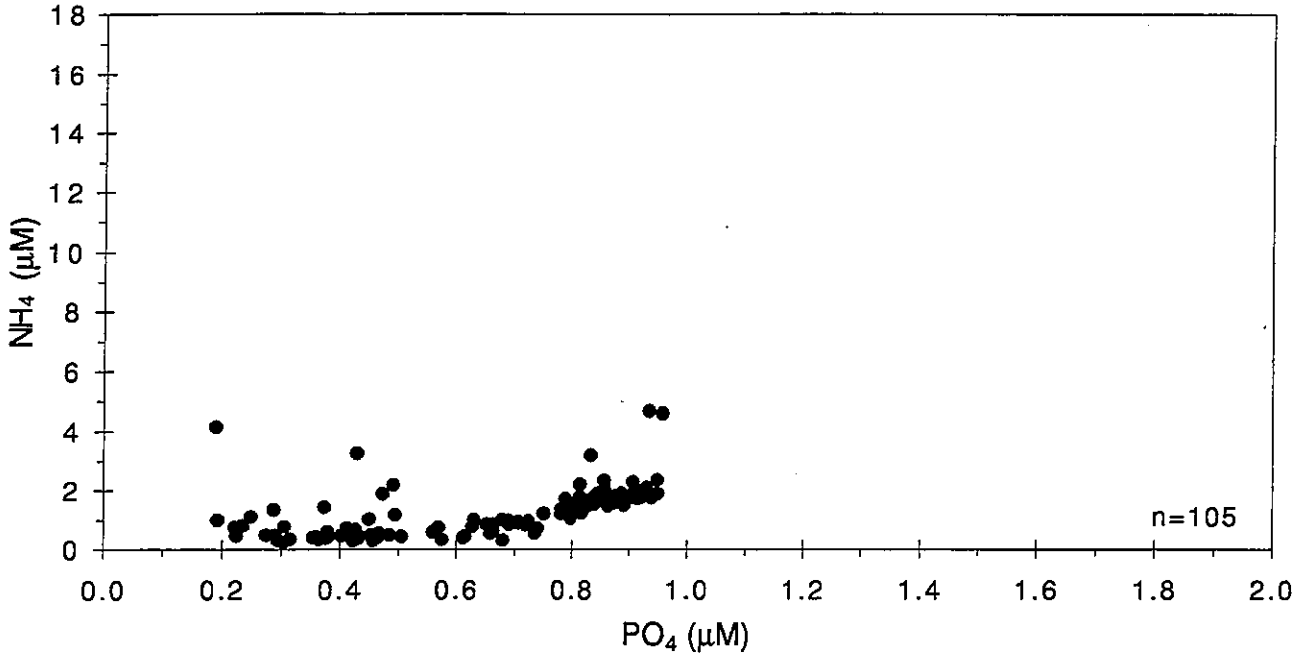
W9504 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

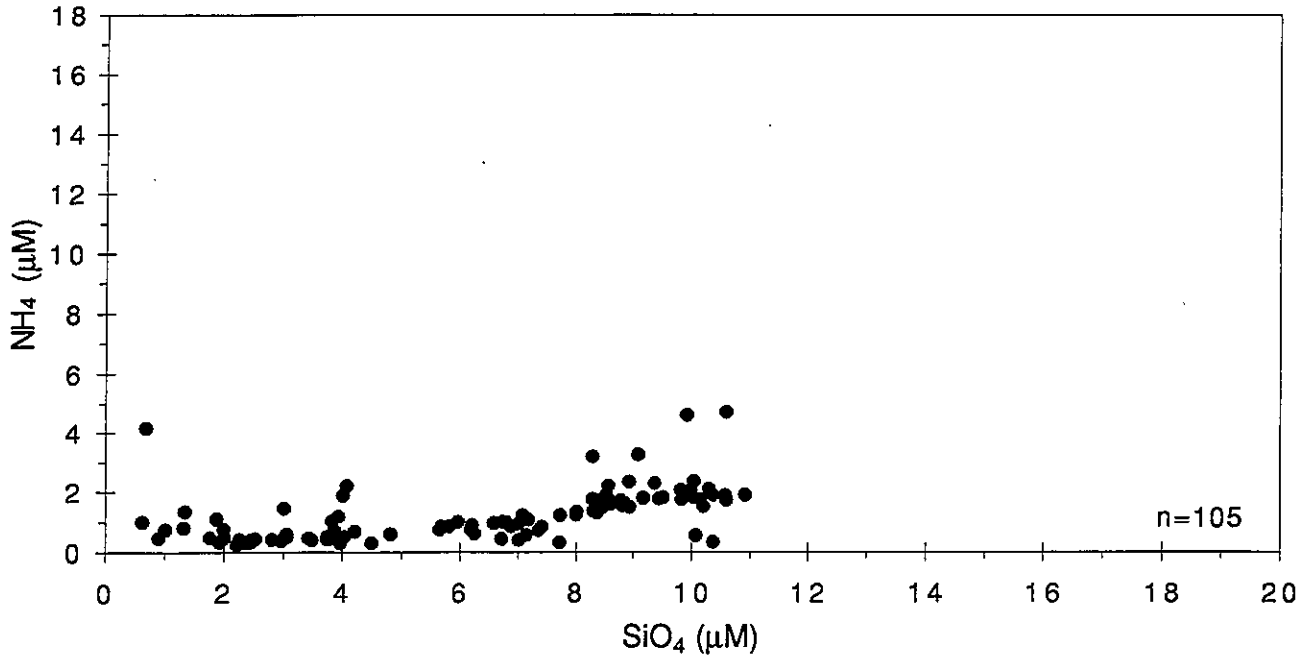
W9504 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

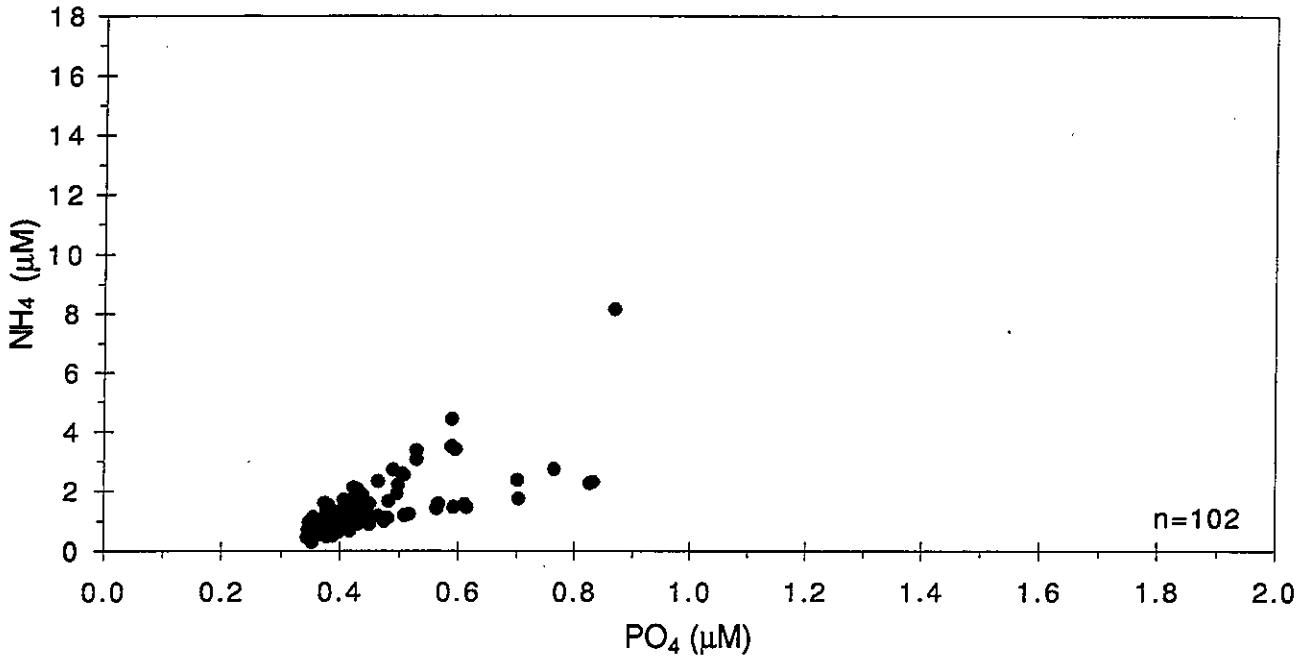
W9505 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=105
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

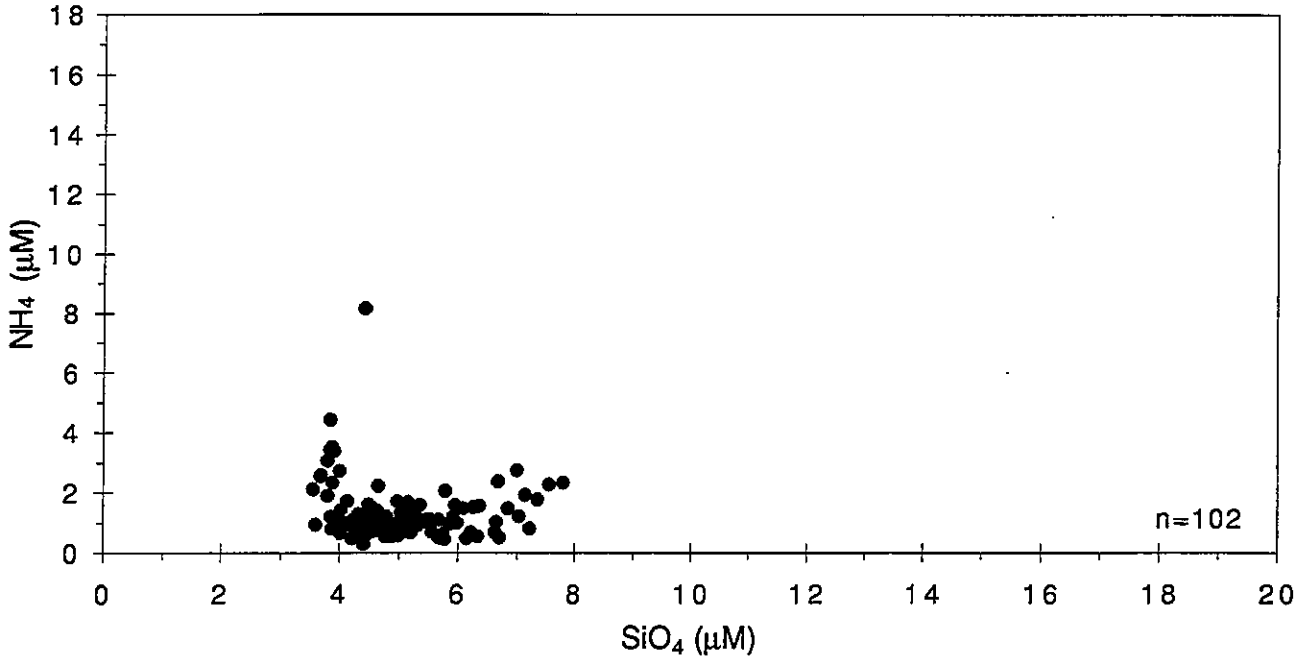
W9505 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=105
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

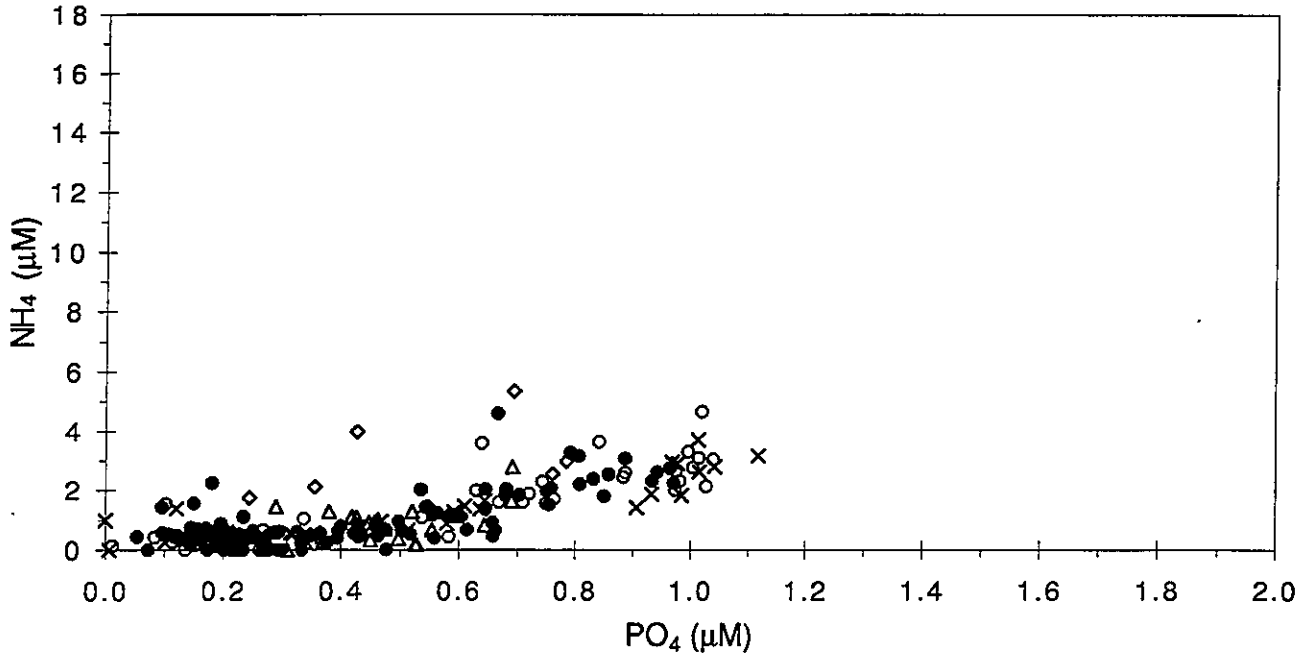
W9506 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=102
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

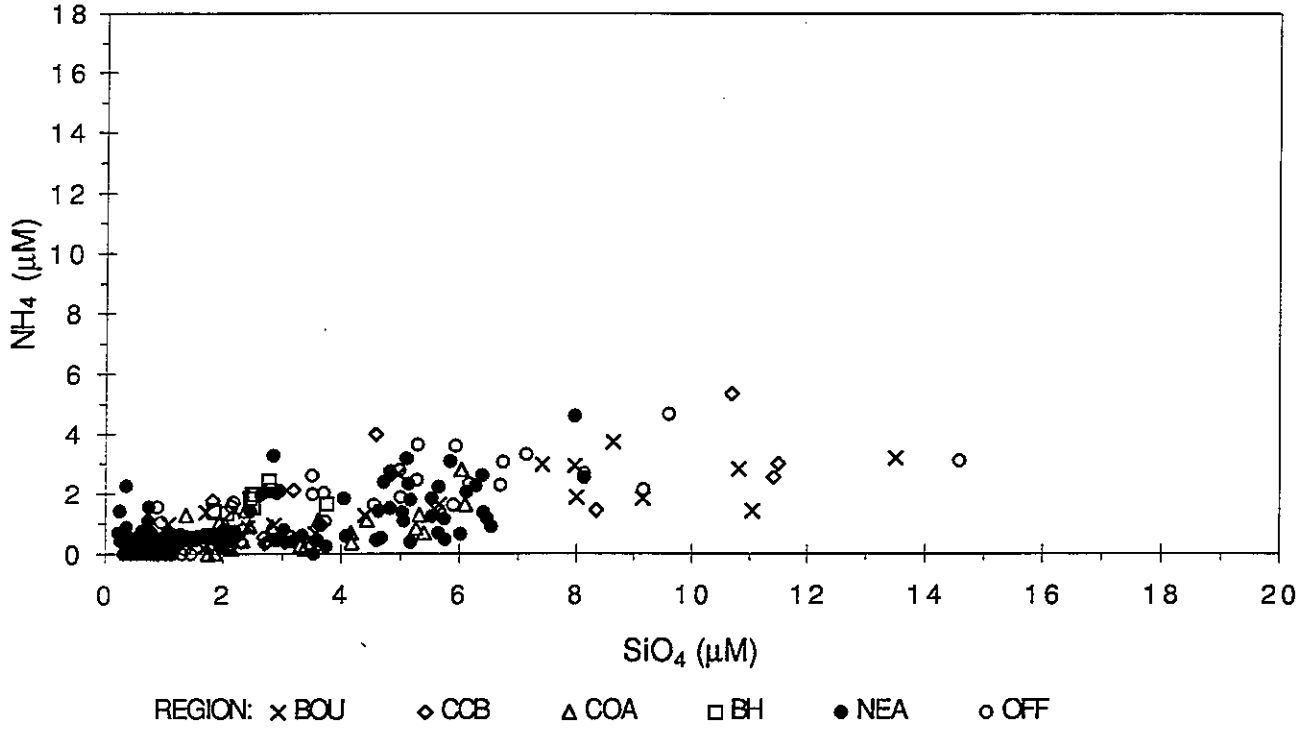
W9506 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=102
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

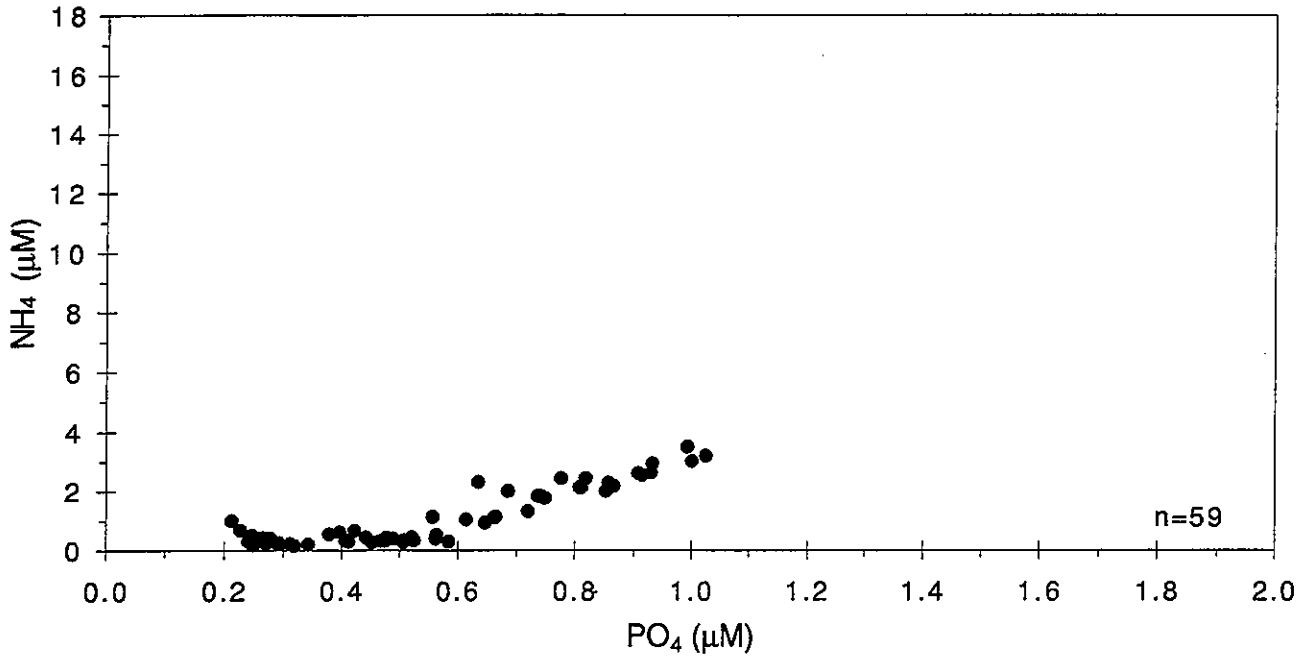
W9507 .


NH4 (µM)
PO4 (µM)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
0
2
4
6
8
10
12
14
16
18

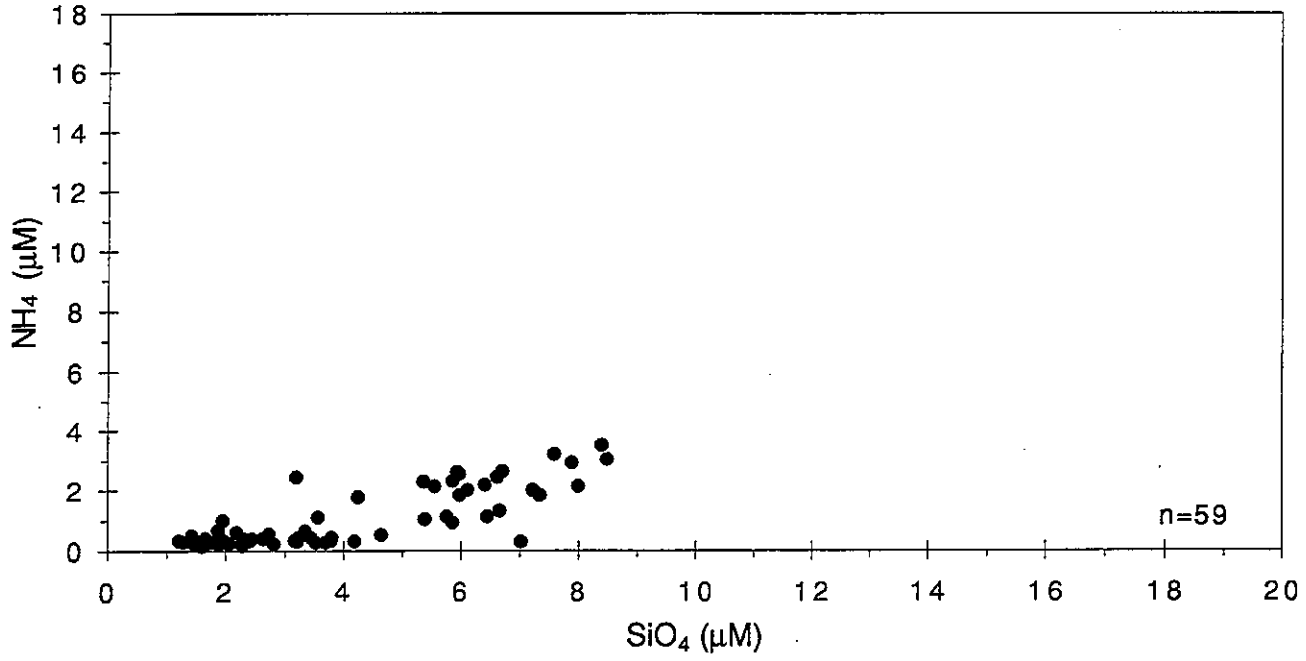
W9507 .


NH4 (µM)
SiO4 (µM)
0
2
4
6
8
10
12
14
16
18
20
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

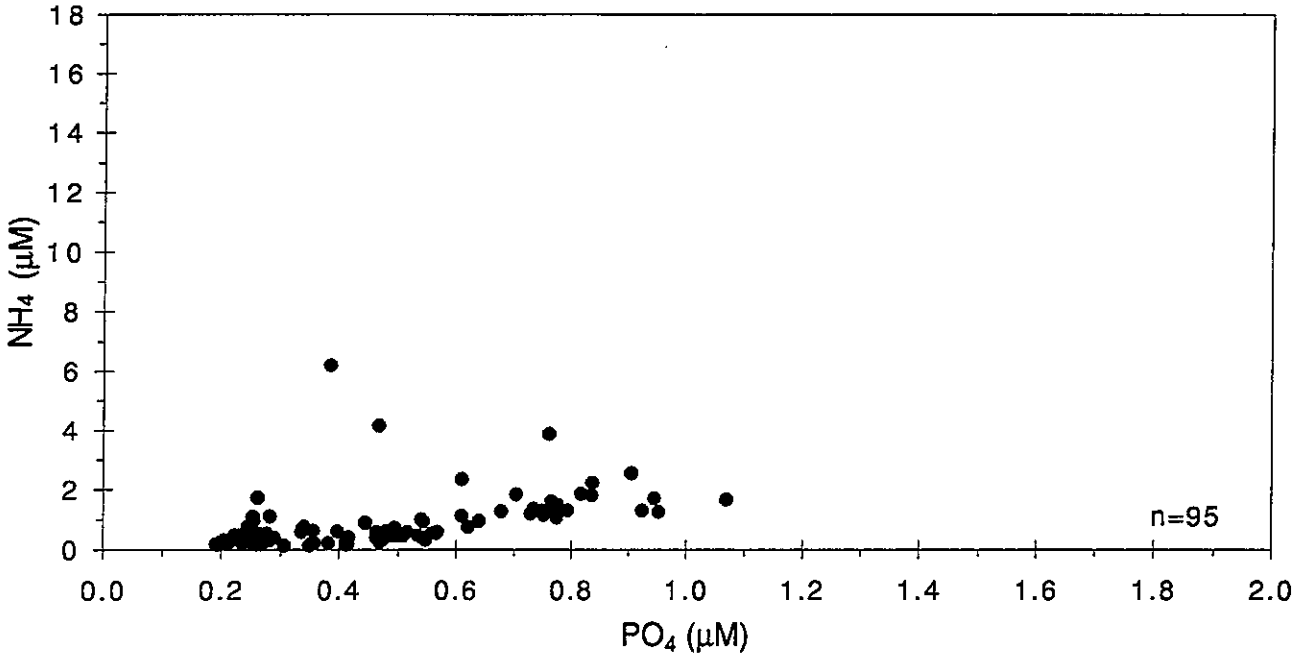
W9508 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=59
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

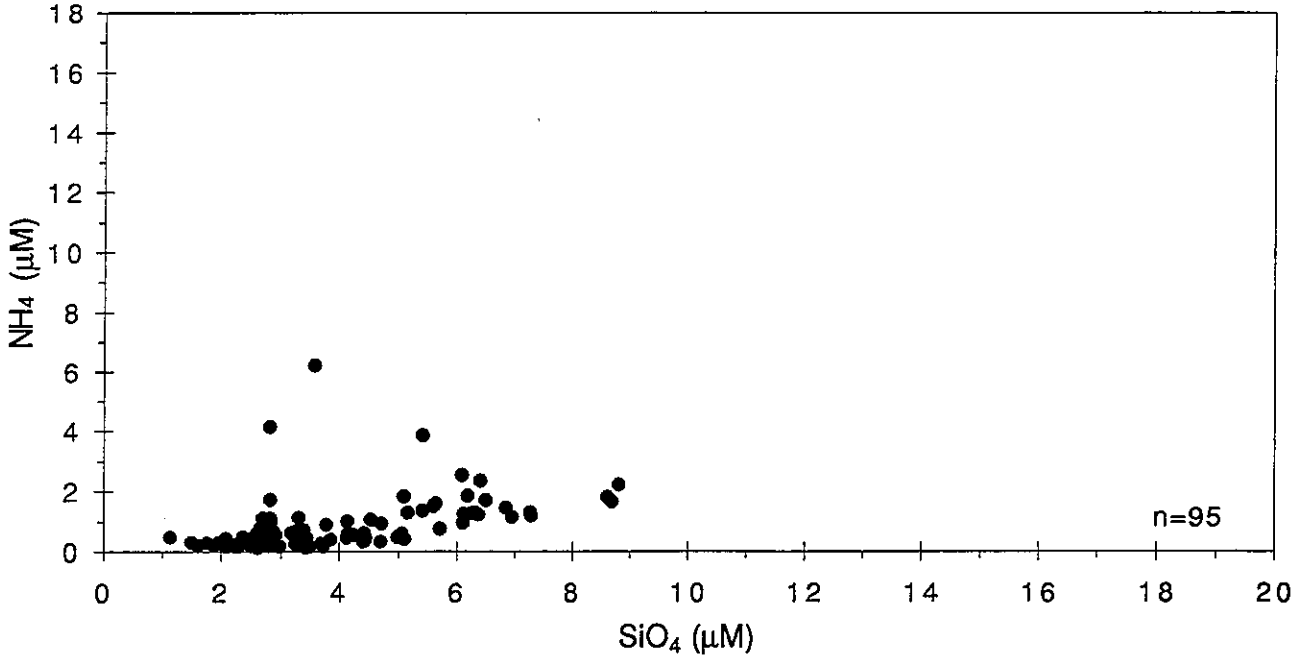
W9508 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=59
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

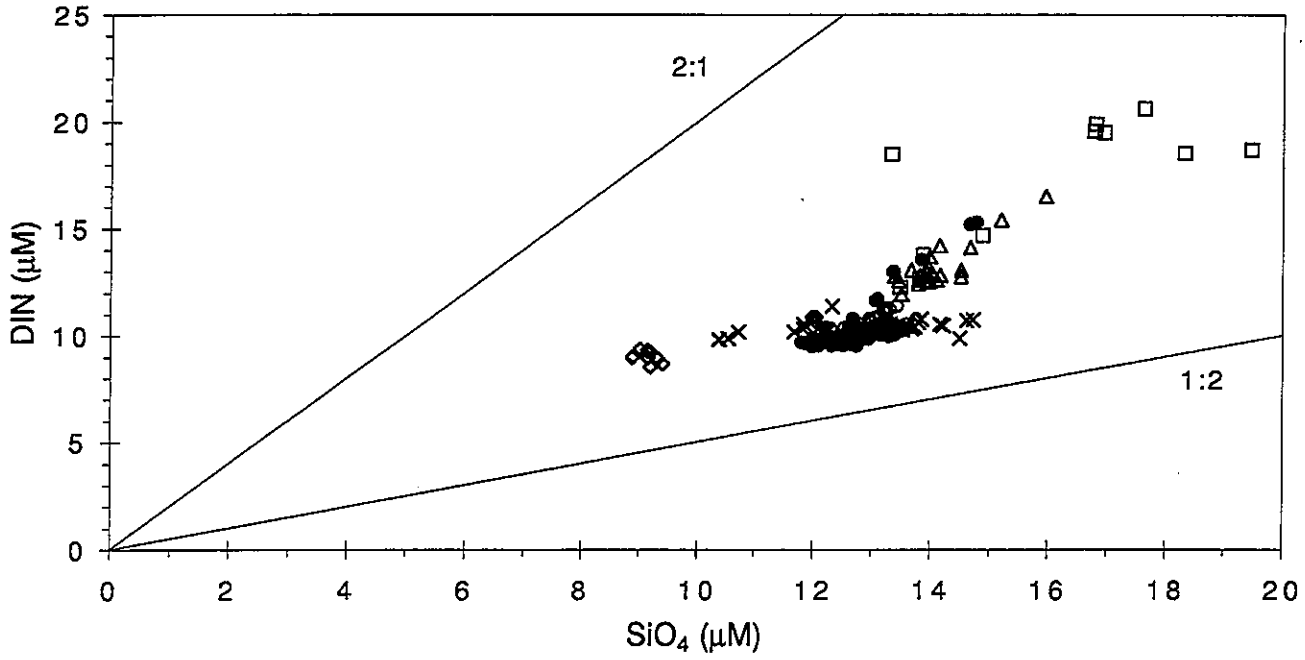
W9509 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=95
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
PO4 (µM)

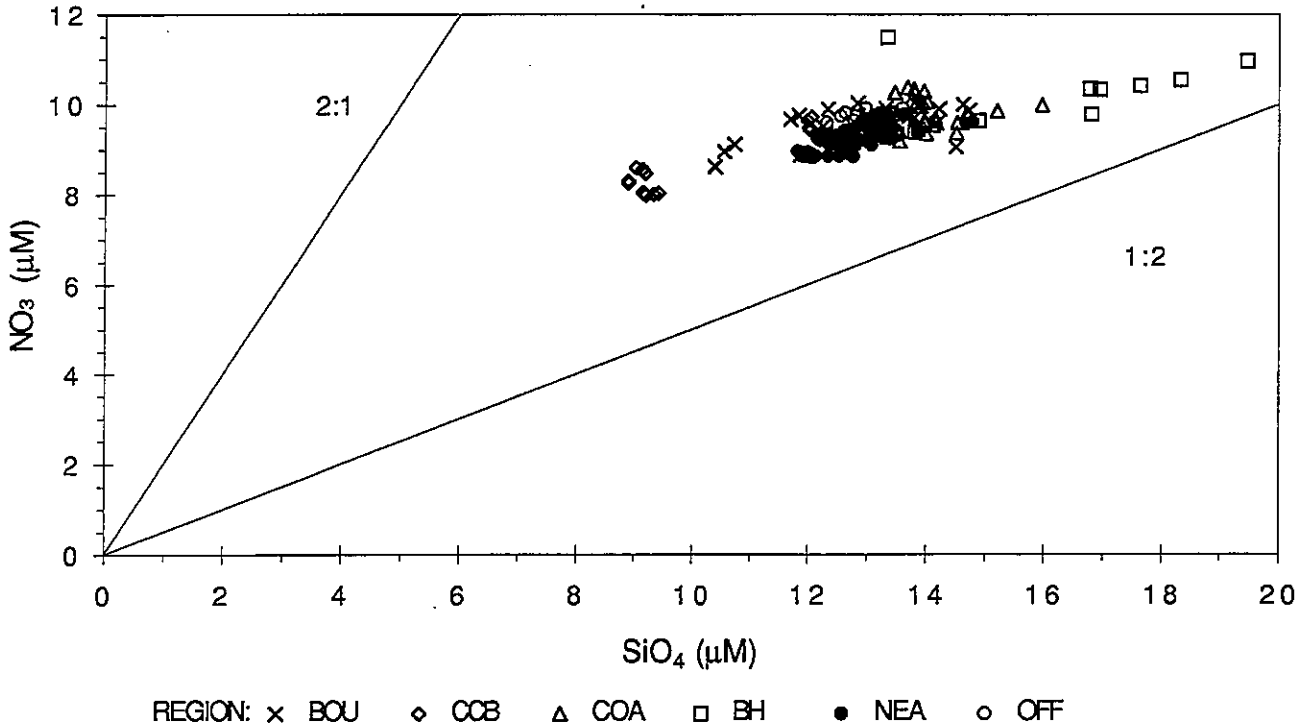
W9509 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
n=95
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

W9501 .

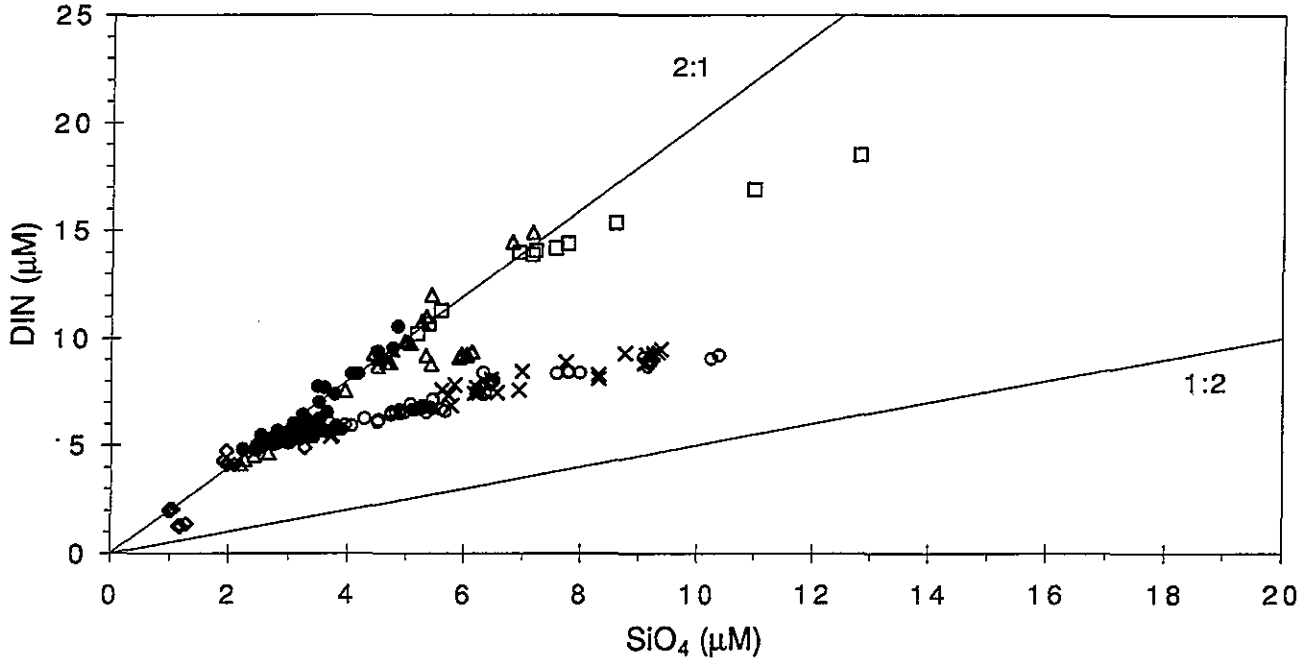


W9501 .

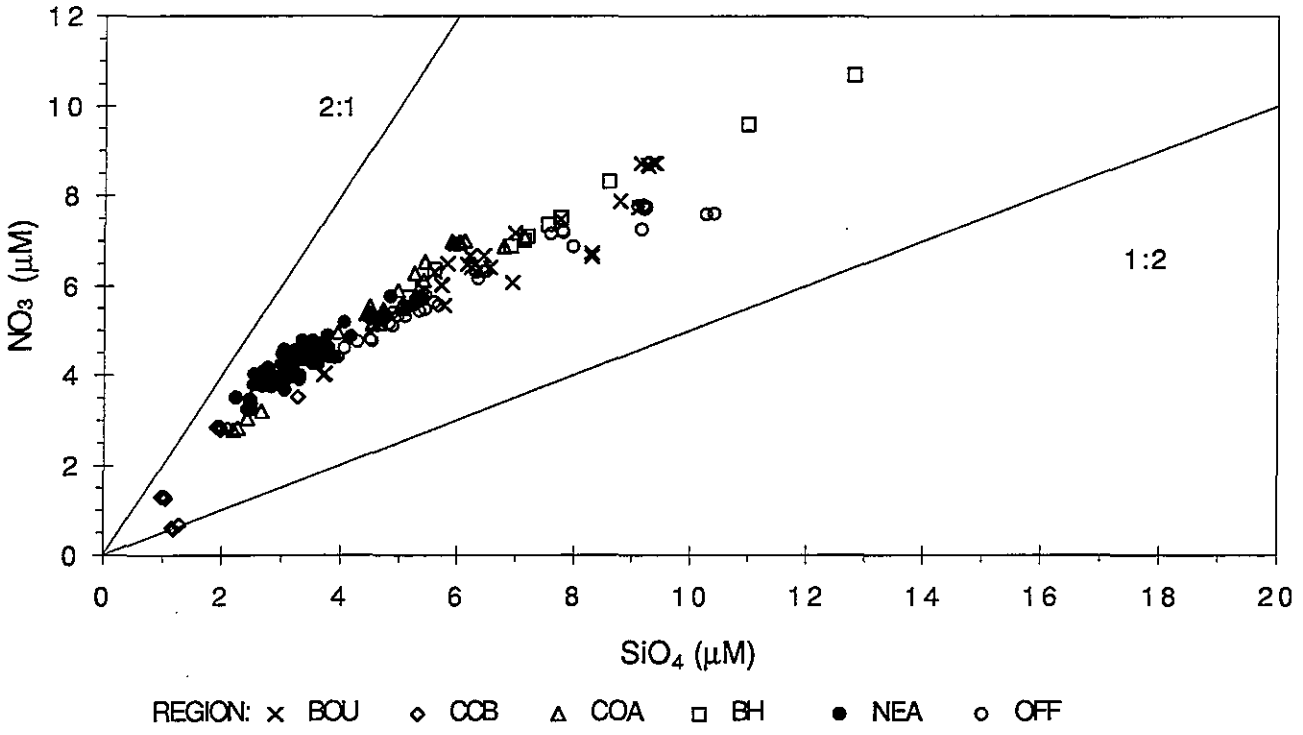


REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

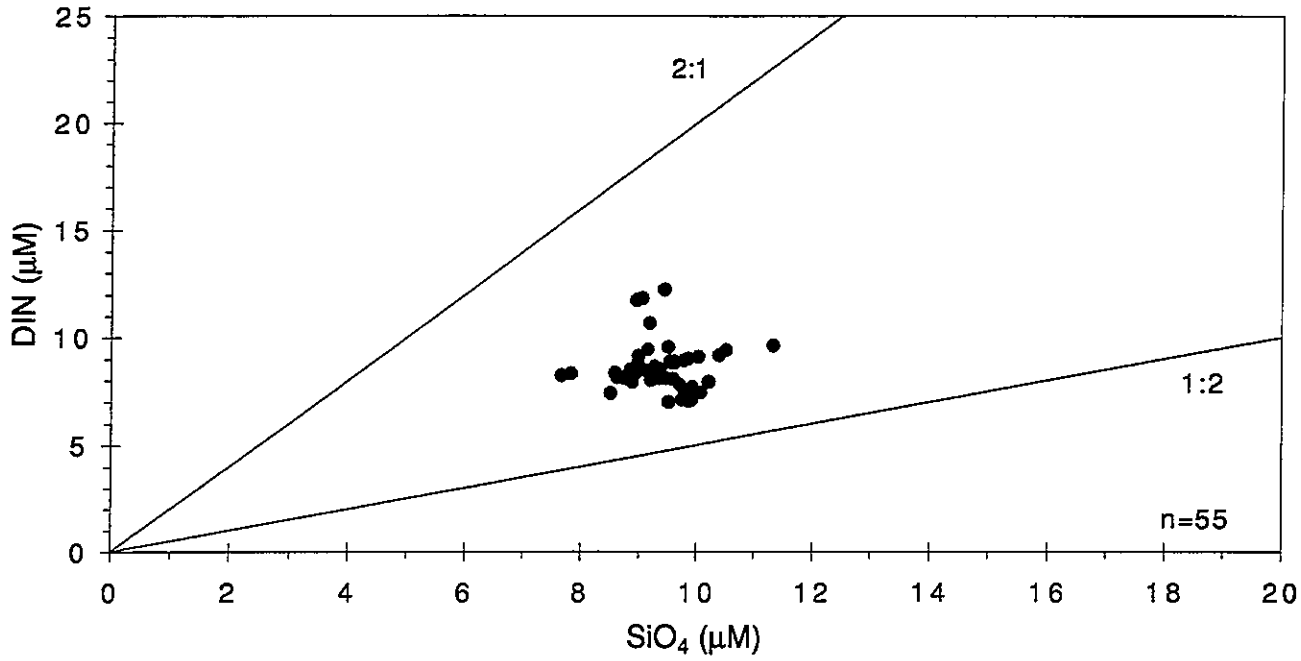
W9502 .


25
20
15
10
5
0
DIN (µM)
2:1
1:2
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

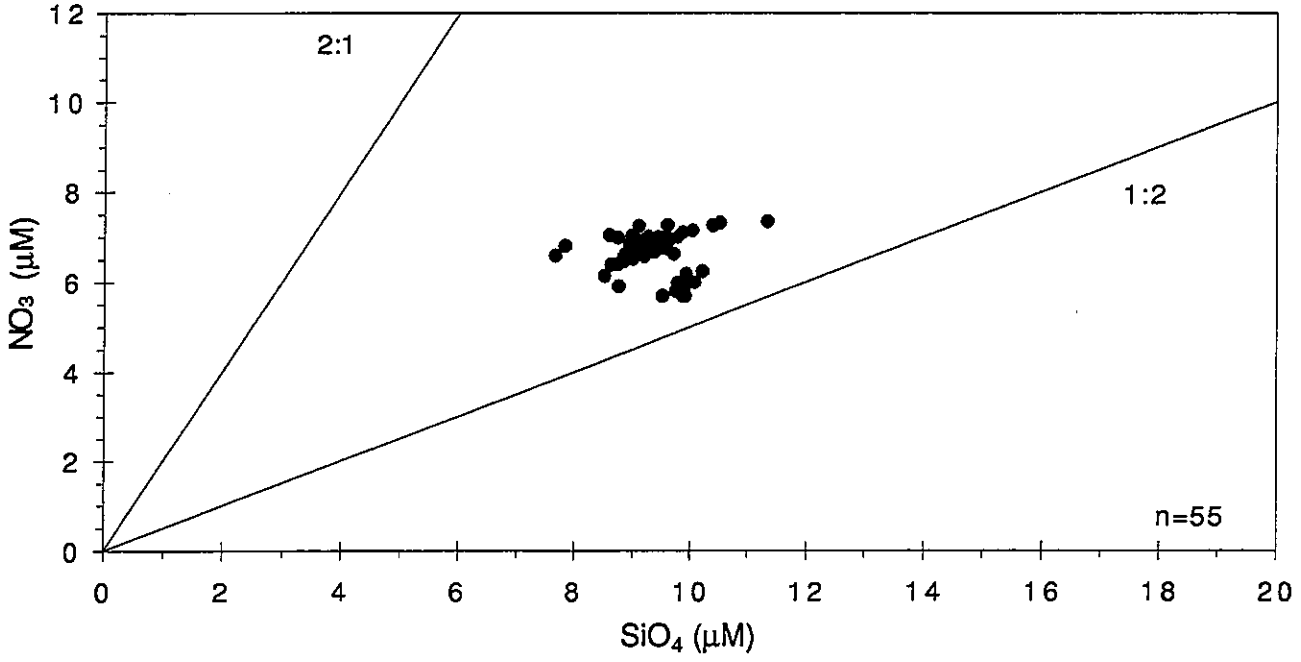
W9502 .


12
10
8
6
4
2
0
NO3 (µM)
2:1
1:2
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

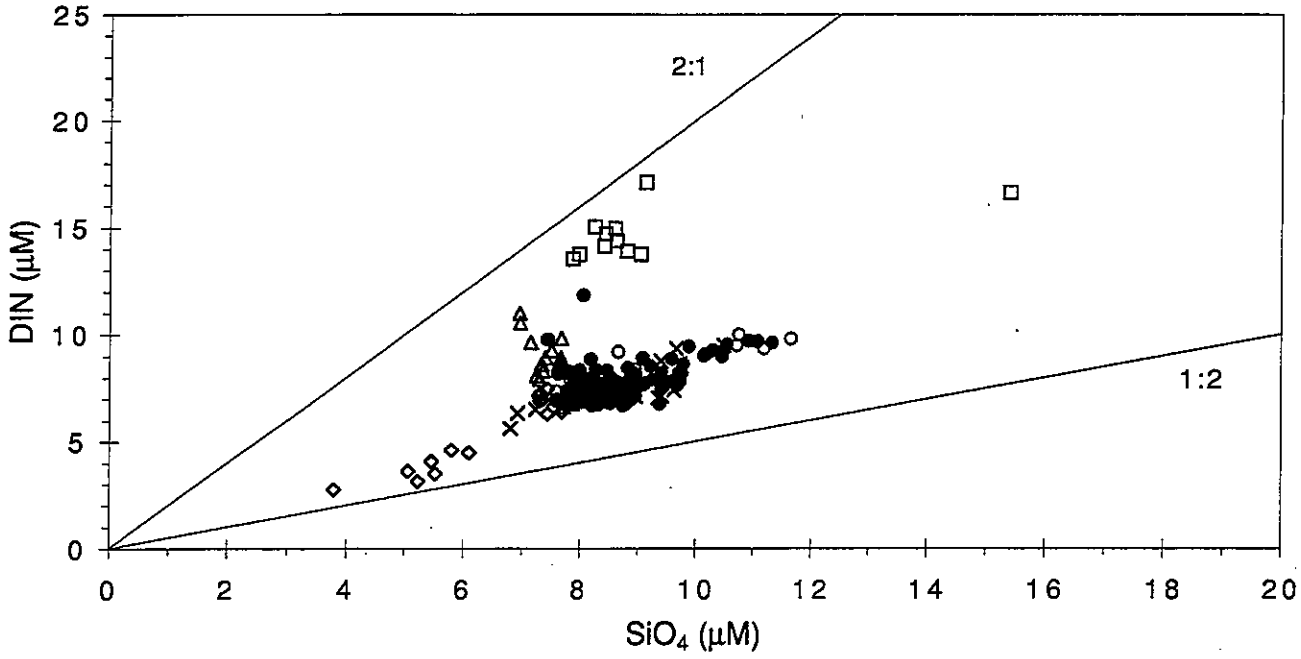
W9503 .


25
20
15
10
5
0
DIN (µM)
2:1
1:2
n=55
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

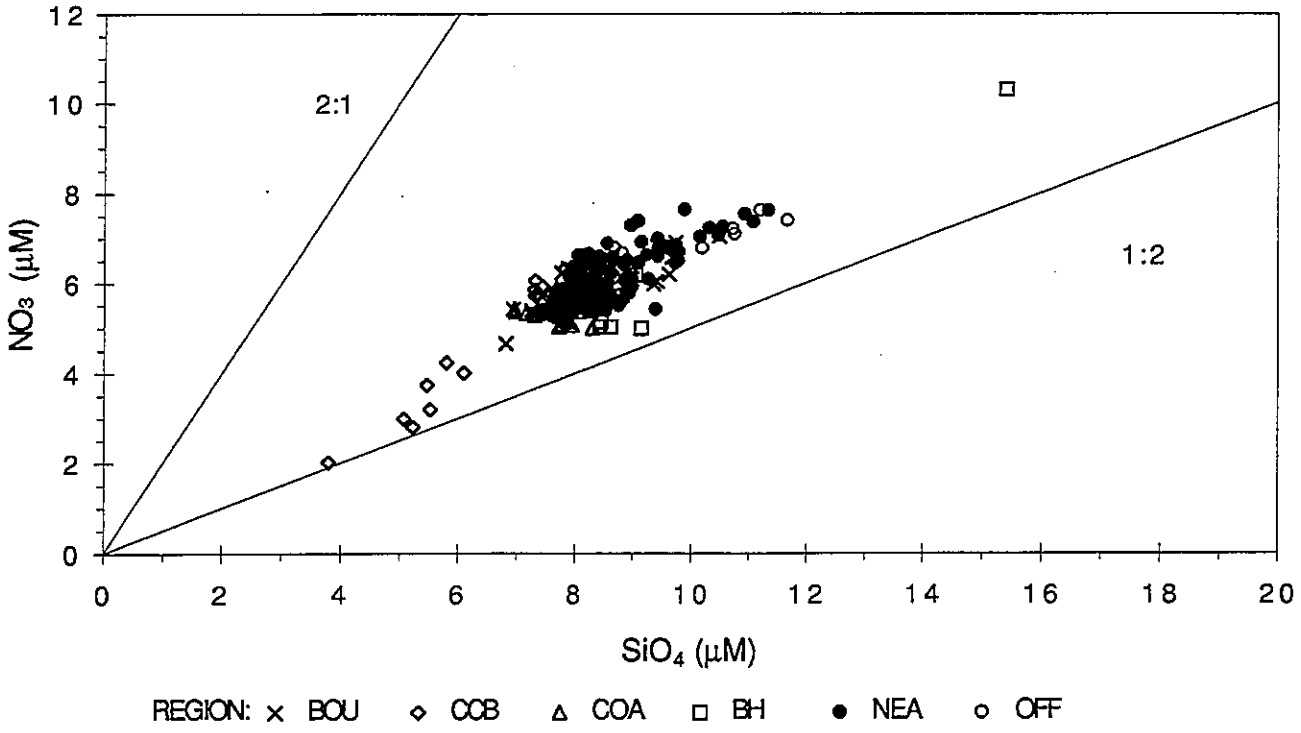
W9503 .


12
10
8
6
4
2
0
NO3 (µM)
2:1
1:2
n=55
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

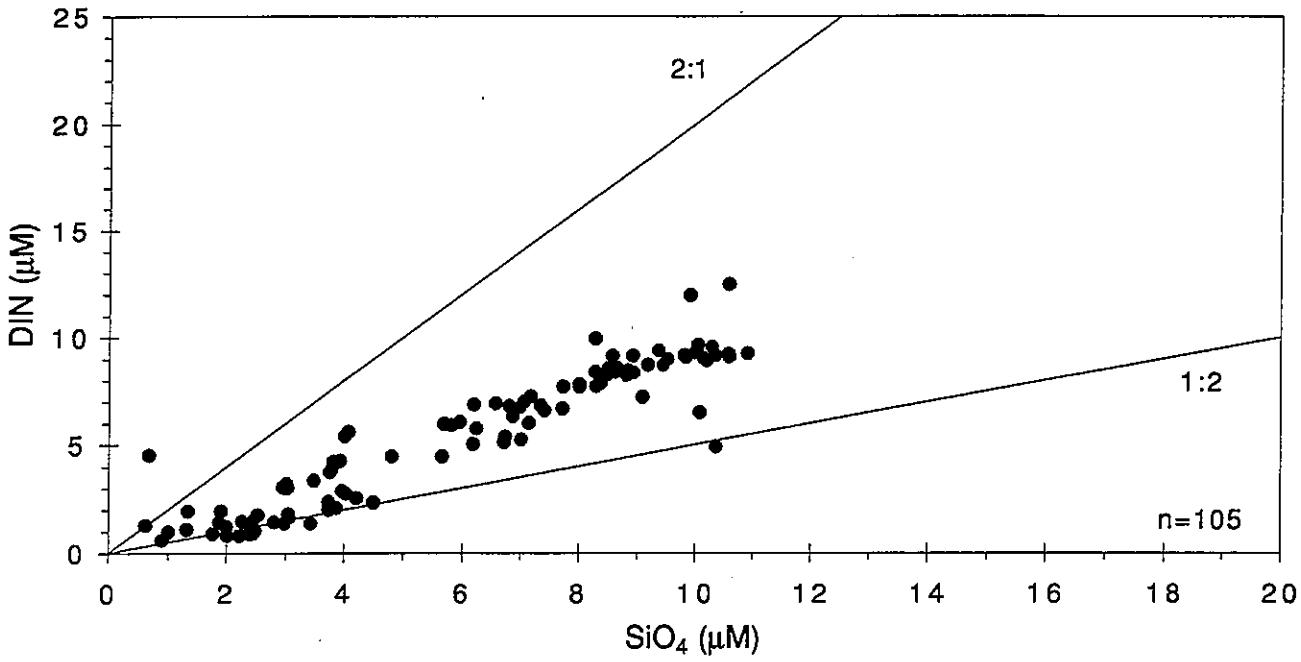
W9504 .


2:1
1:2
DIN (µM)
SiO4 (µM)
0
5
10
15
20
25
0
2
4
6
8
10
12
14
16
18
20

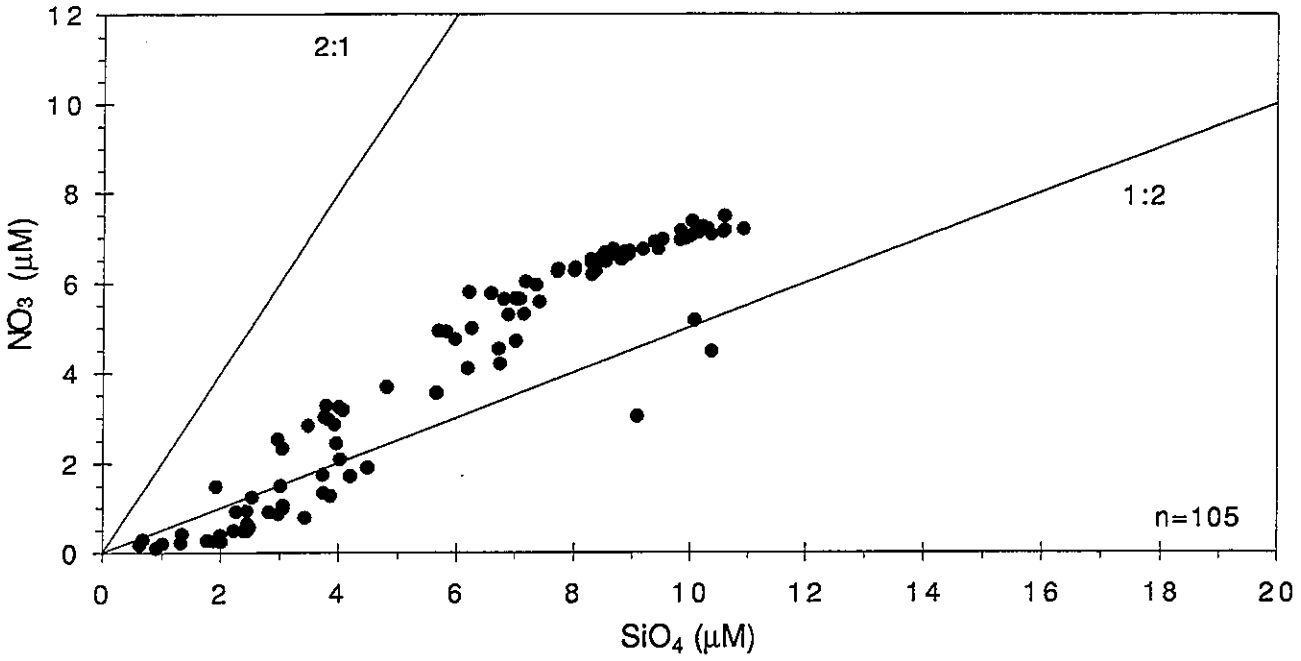
W9504 .


2:1
1:2
NO3 (µM)
SiO4 (µM)
0
2
4
6
8
10
12
0
2
4
6
8
10
12
14
16
18
20
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

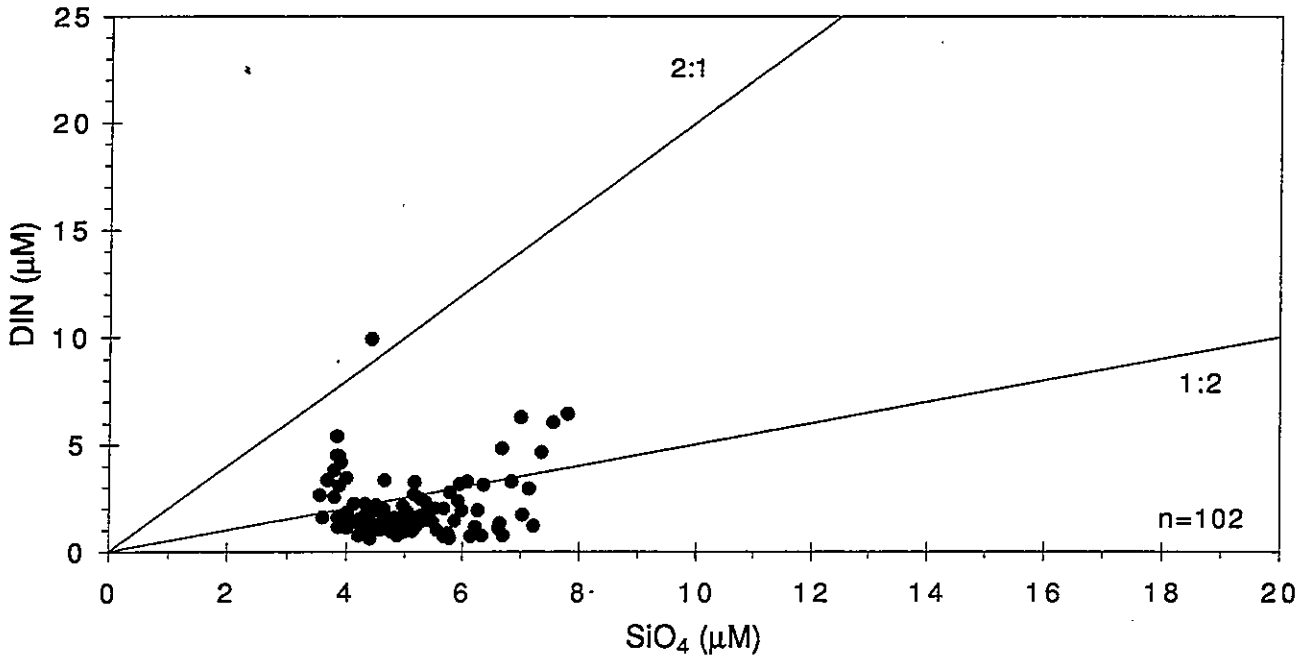
W9505 .


25
20
15
10
5
0
DIN (µM)
2:1
1:2
n=105
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

W9505 .


12
10
8
6
4
2
0
NO3 (µM)
2:1
1:2
n=105
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

W9506 .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15
10
5
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DIN (µM)
2:1
1:2
n=102
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2
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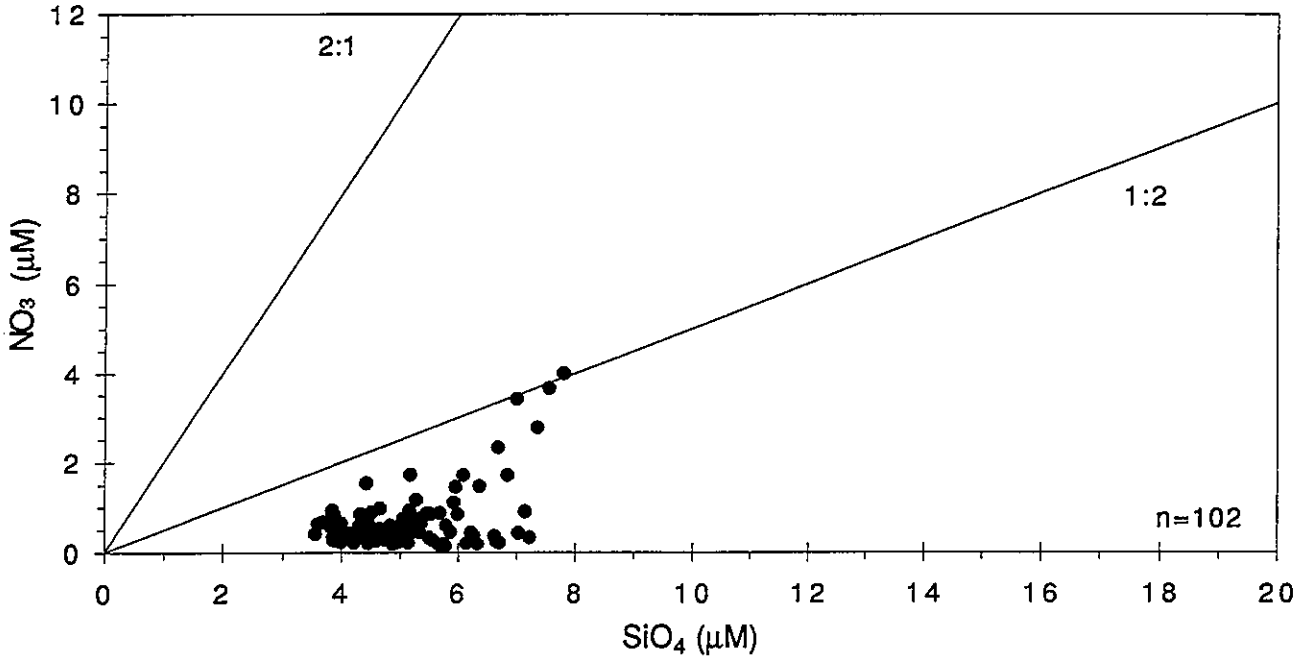
6
8
10
12
14
16
18
20
SiO4 (µM)

W9506 .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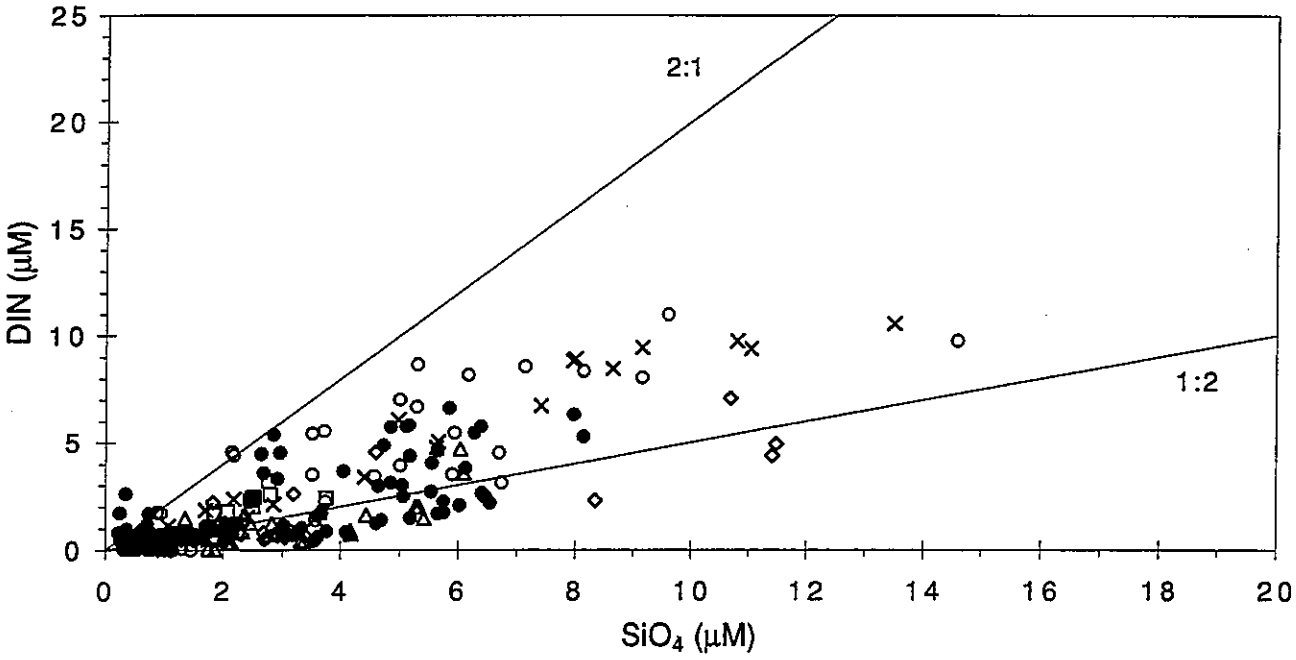
6
4
2
0
NO3 (µM)
2:1
1:2
n=102
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

W9507 .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DIN (µM)
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1:2
0
2
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8
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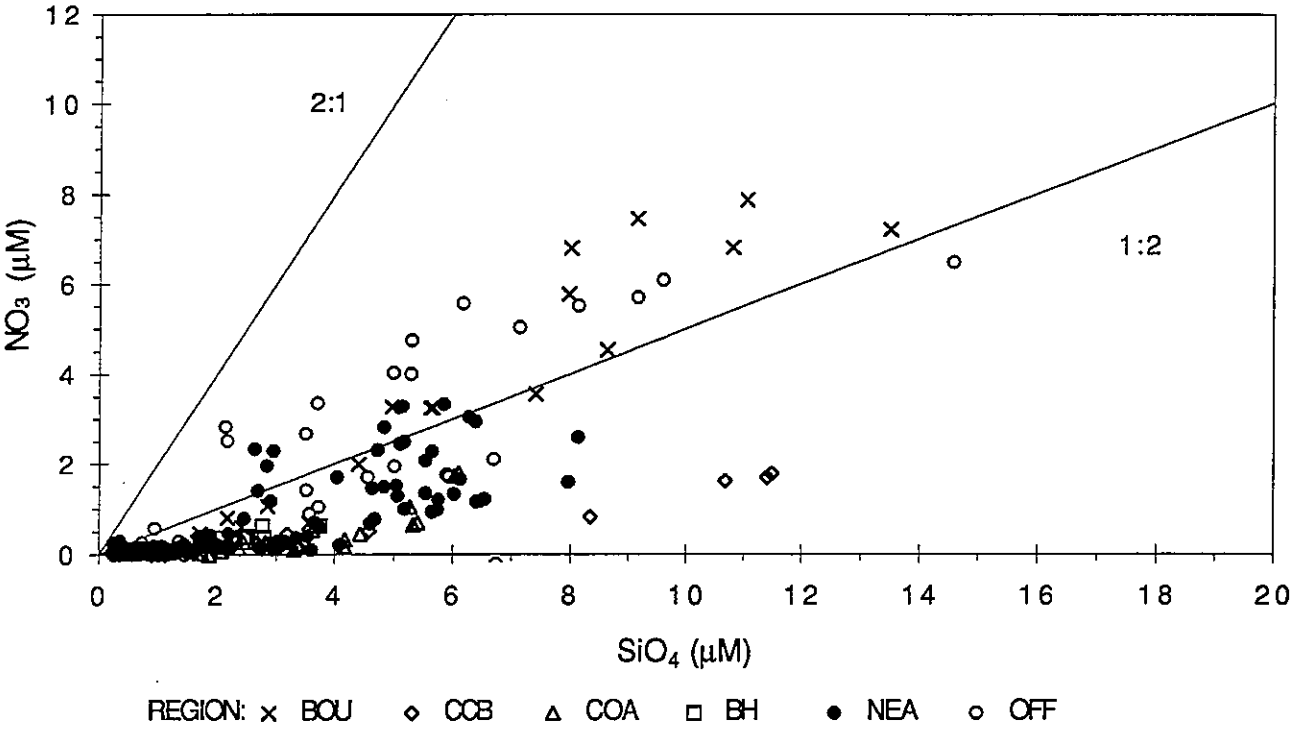
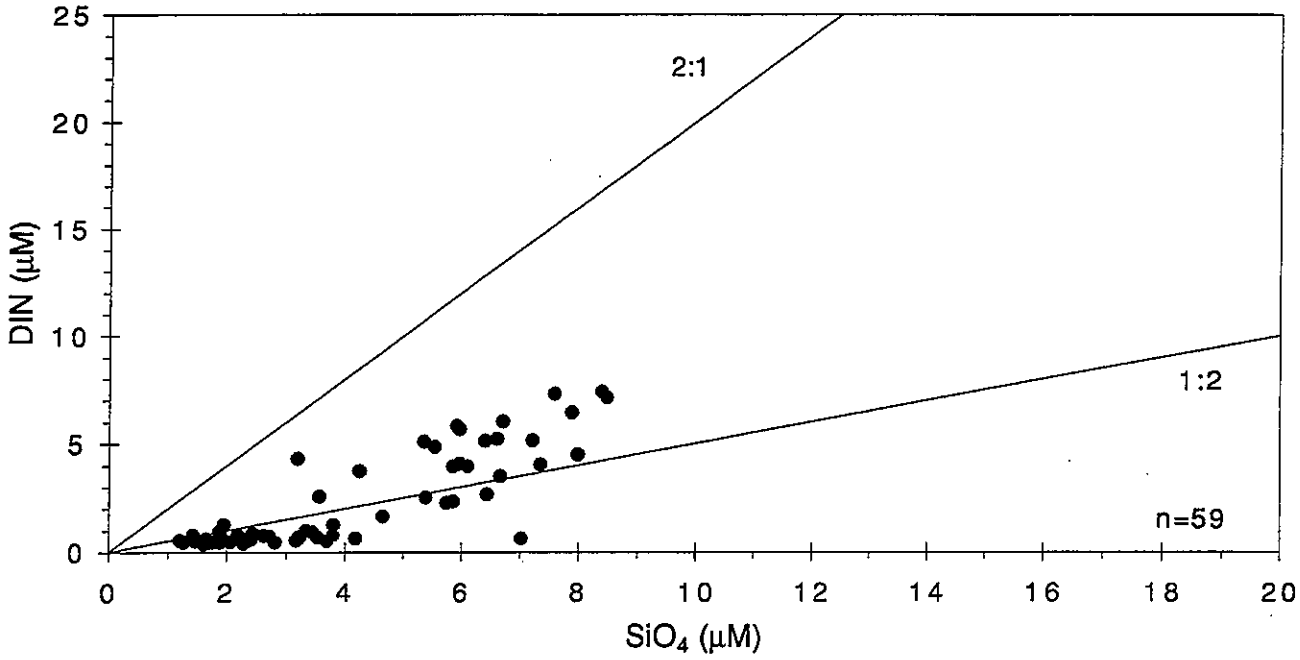
16
18
20
SiO4 (µM)

W9507 .


12
10
8
6
4
2
0
NO3 (µM)
2:1
1:2
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

W9508 .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15
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5
0
DIN (µM)
2:1
1:2
n=59
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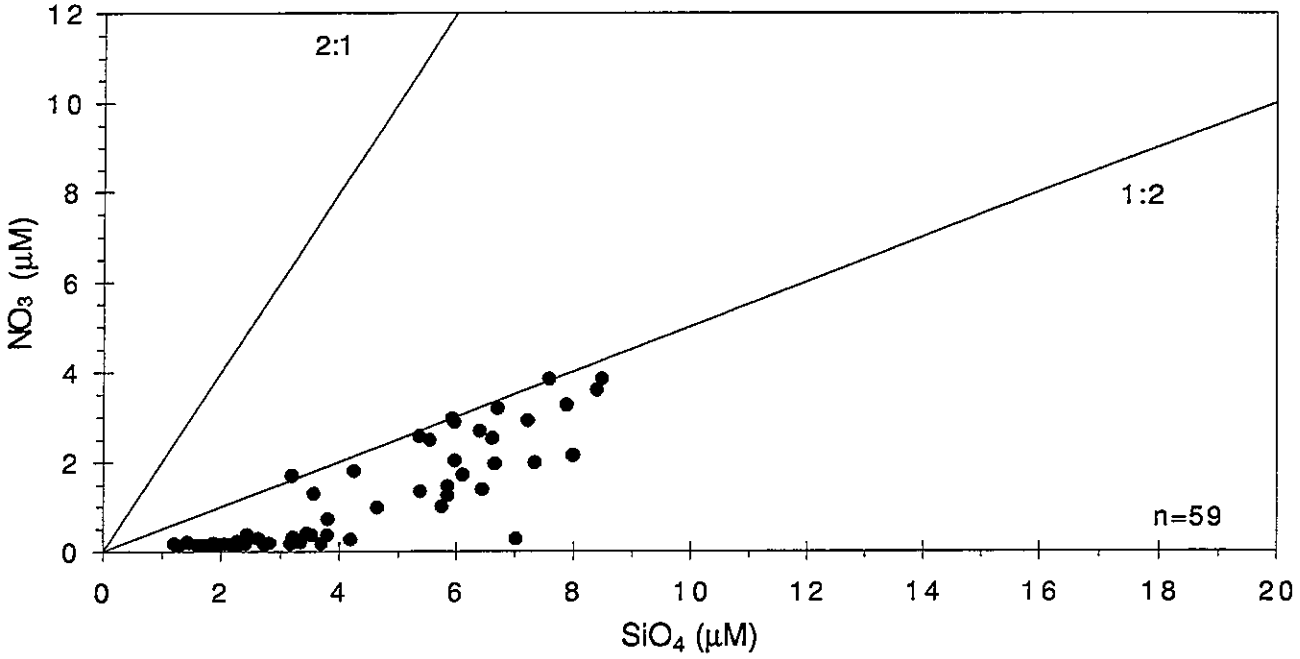
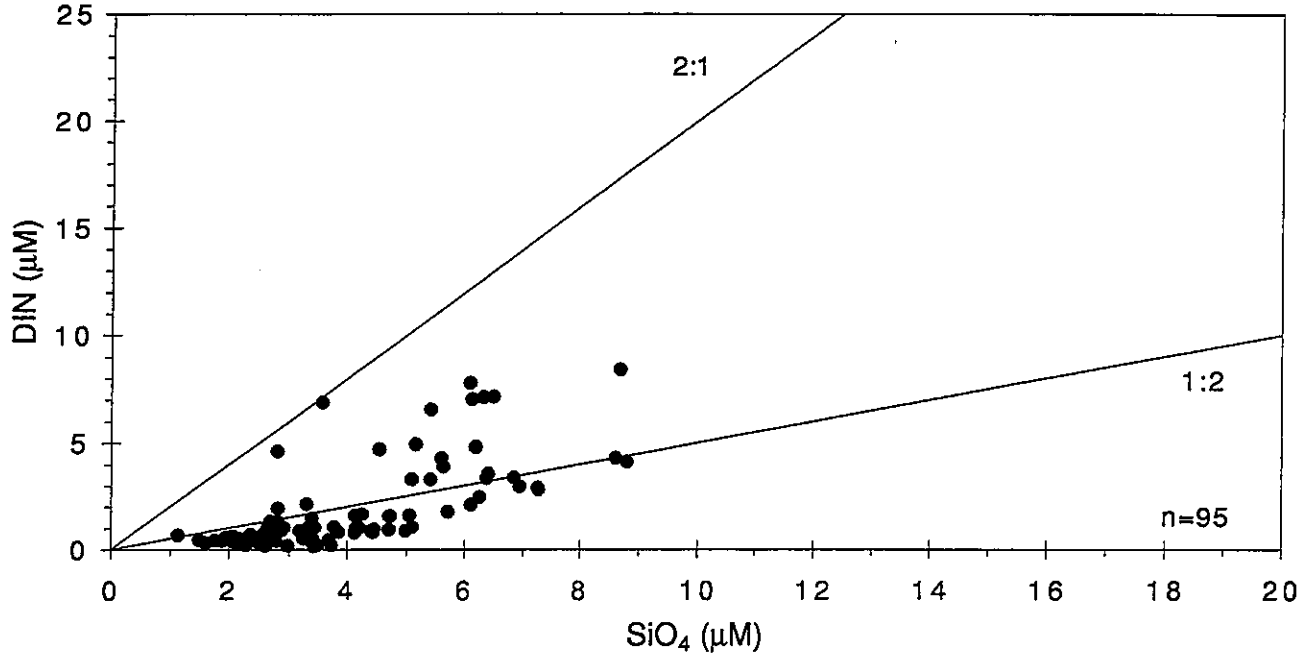
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

W9508 .


12
10
8
6
4
2
0
NO3 (µM)
2:1
1:2
n=59
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

W9509 .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5
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DIN (µM)
2:1
1:2
n=95
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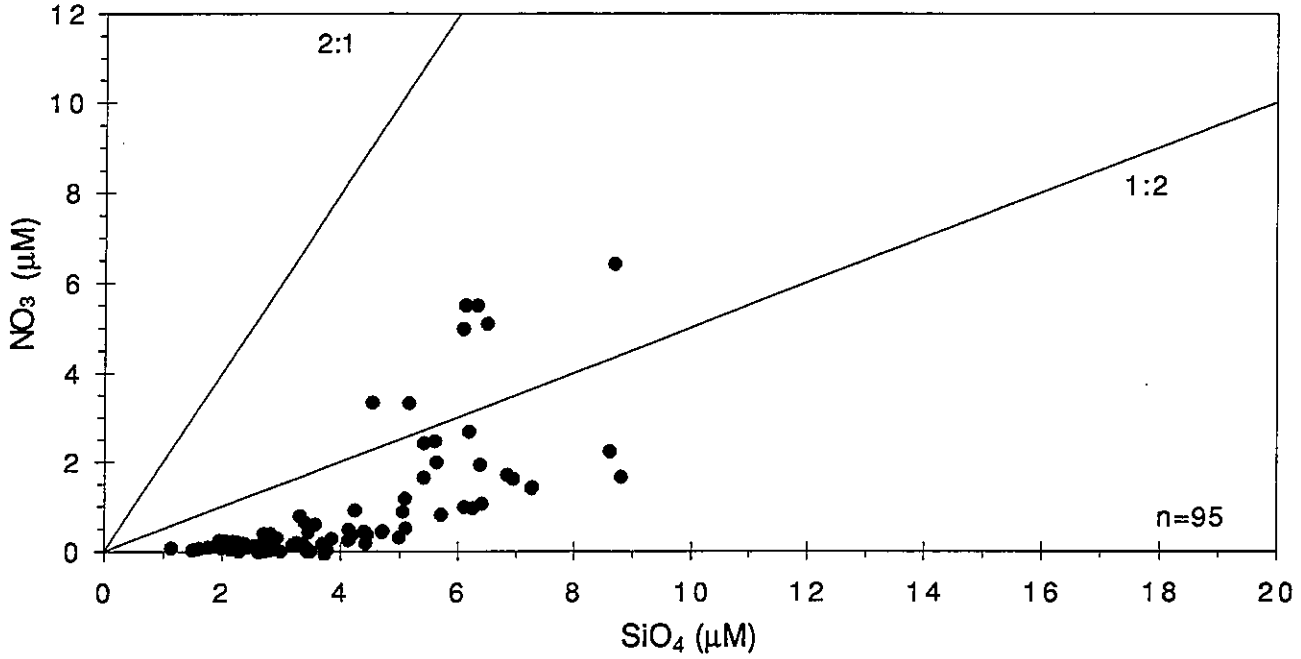
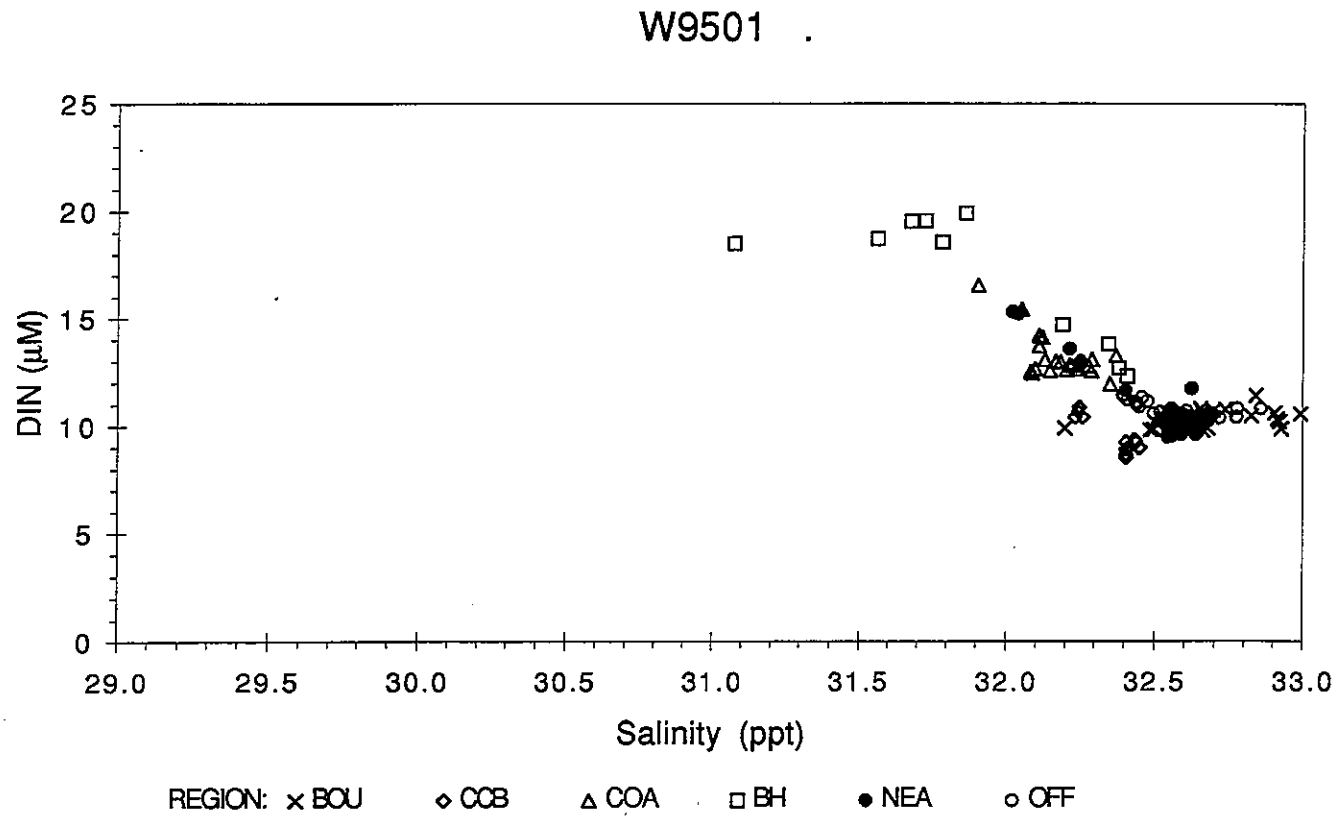
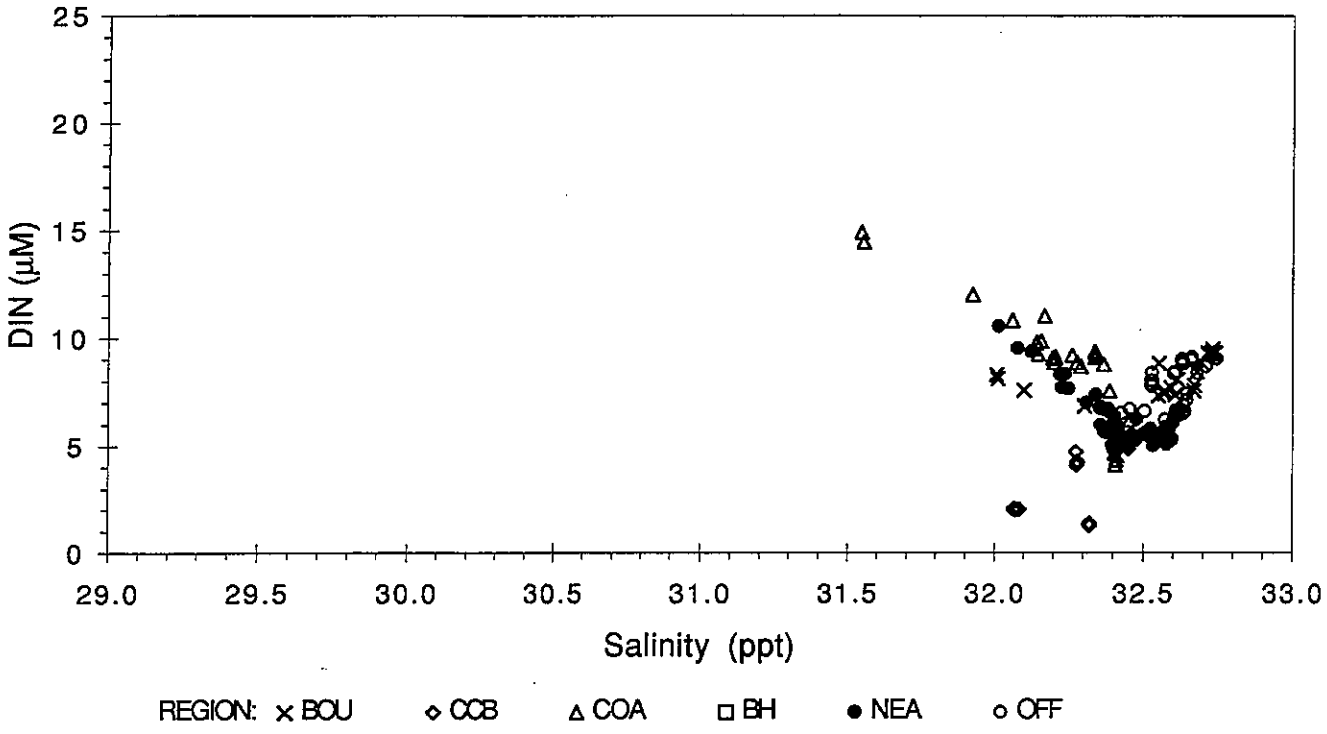
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)

W9509 .


12
10
8
6
4
2
0
NO3 (µM)
2:1
1:2
n=95
0
2
4
6
8
10
12
14
16
18
20
SiO4 (µM)


W9501
25
20
15
10
5
0
DIN (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

W9502 .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20
15
10
5
0
DIN (µM)
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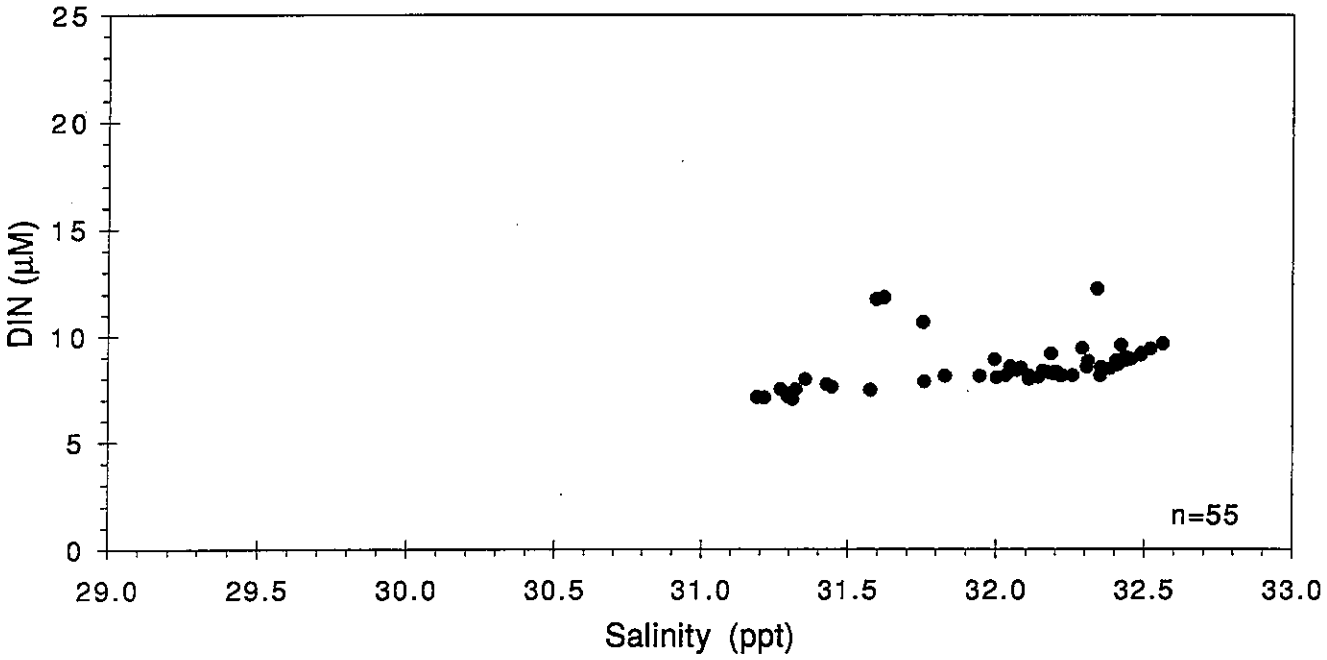
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

W9503 .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20
15
10
5
0
DIN (µM)
n=55
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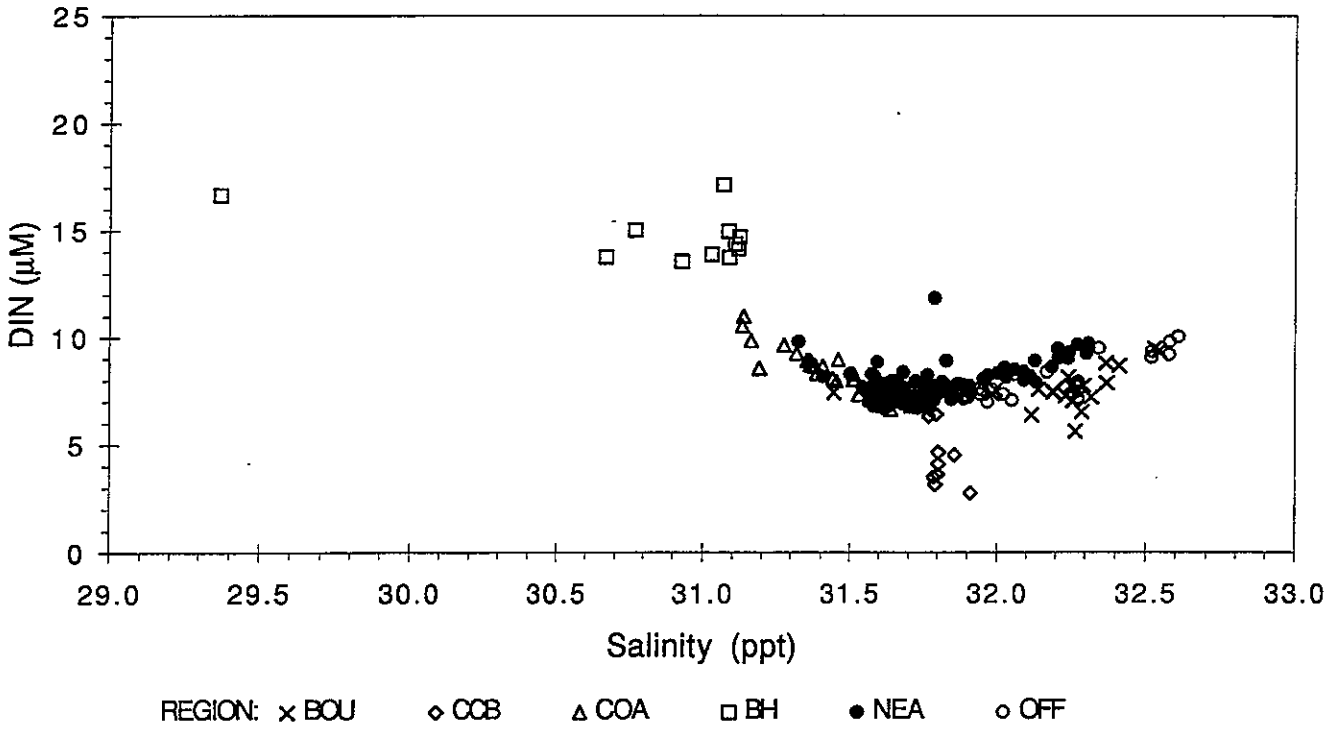
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

W9504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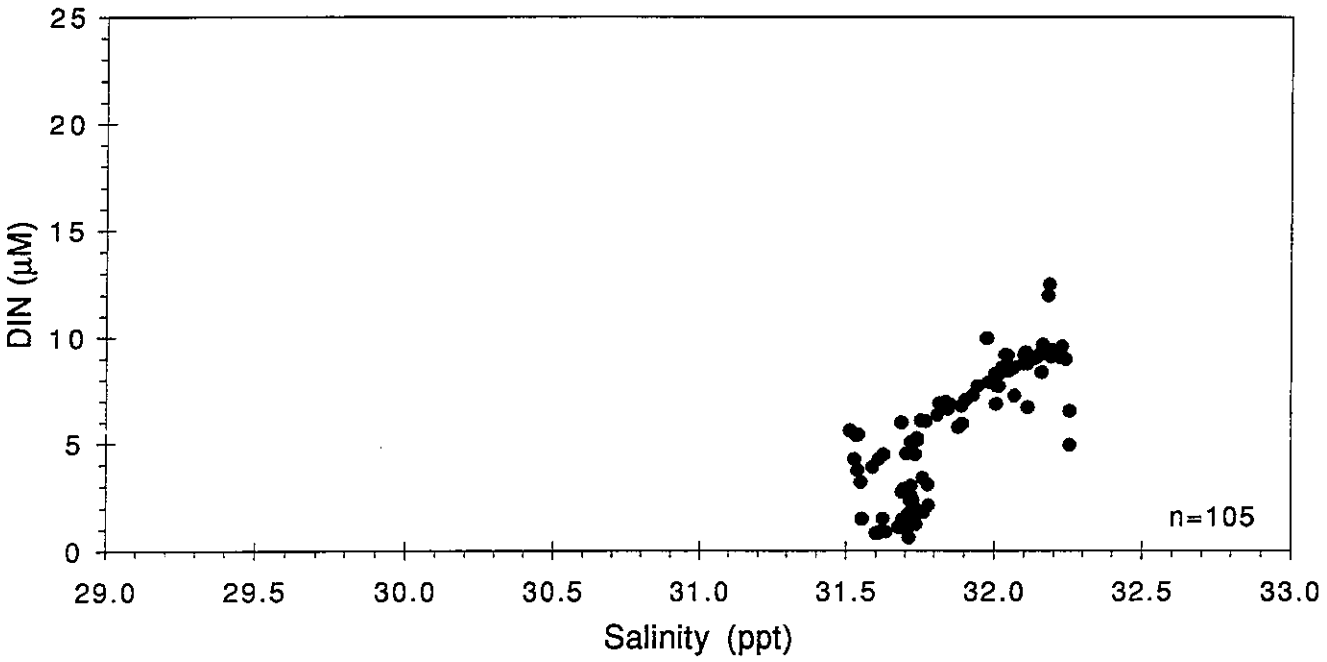
20
15
10
5
0
DIN (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

W9505 .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20
15
10
5
0
DIN (µM)
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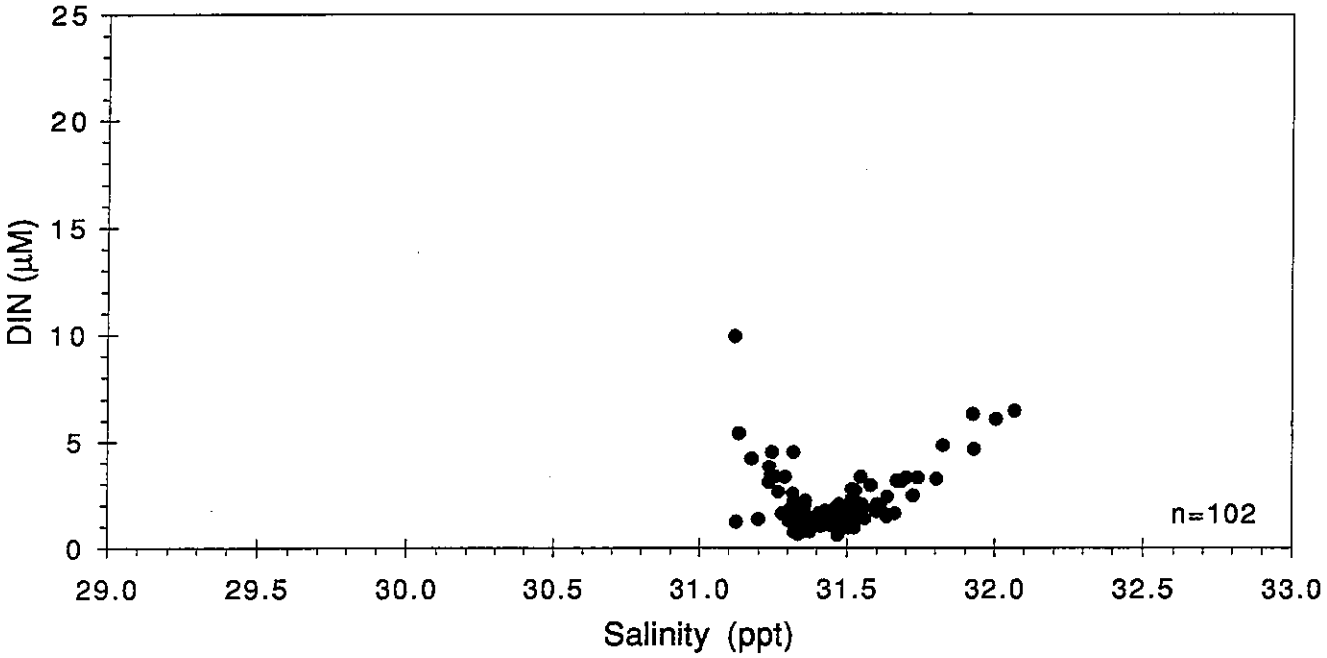
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=105

W9506 .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20
15
10
5
0
DIN (µM)
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31.0
31.5
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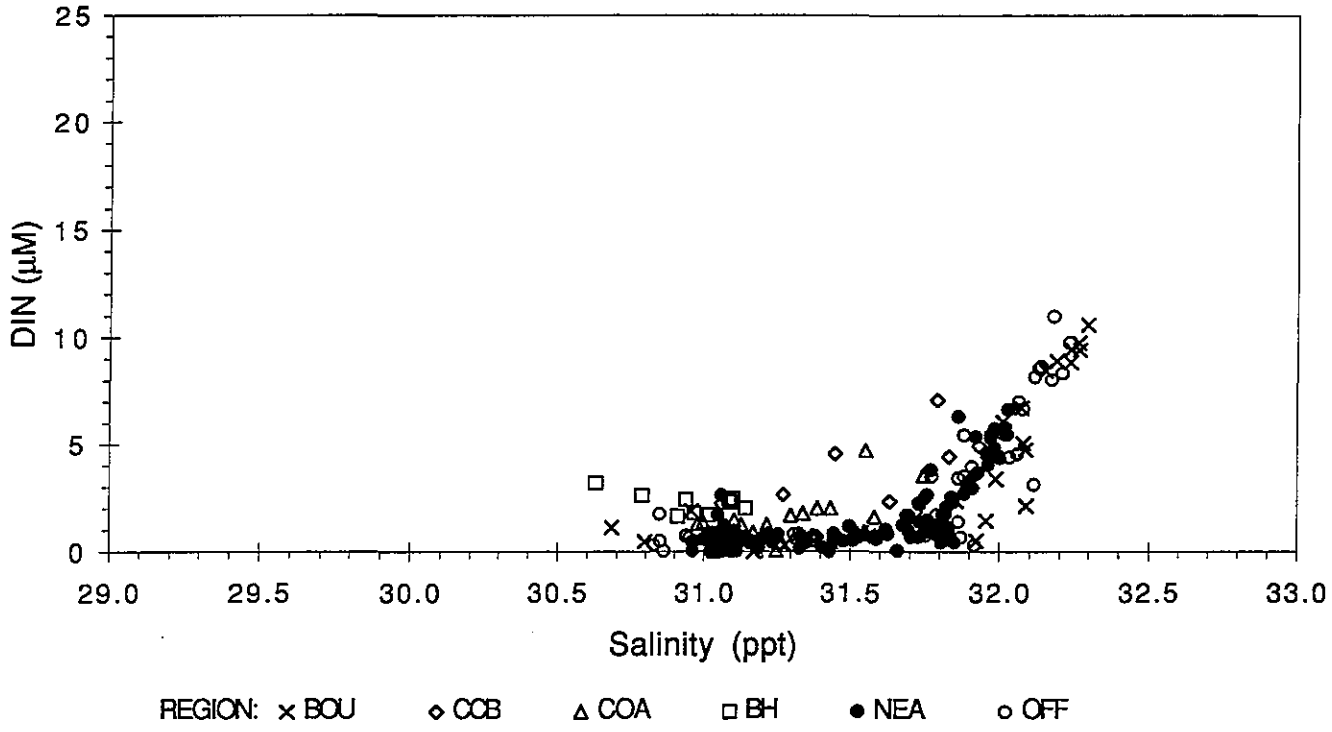
32.5
33.0
Salinity (ppt)
n=102

W9507 .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20
15
10
5
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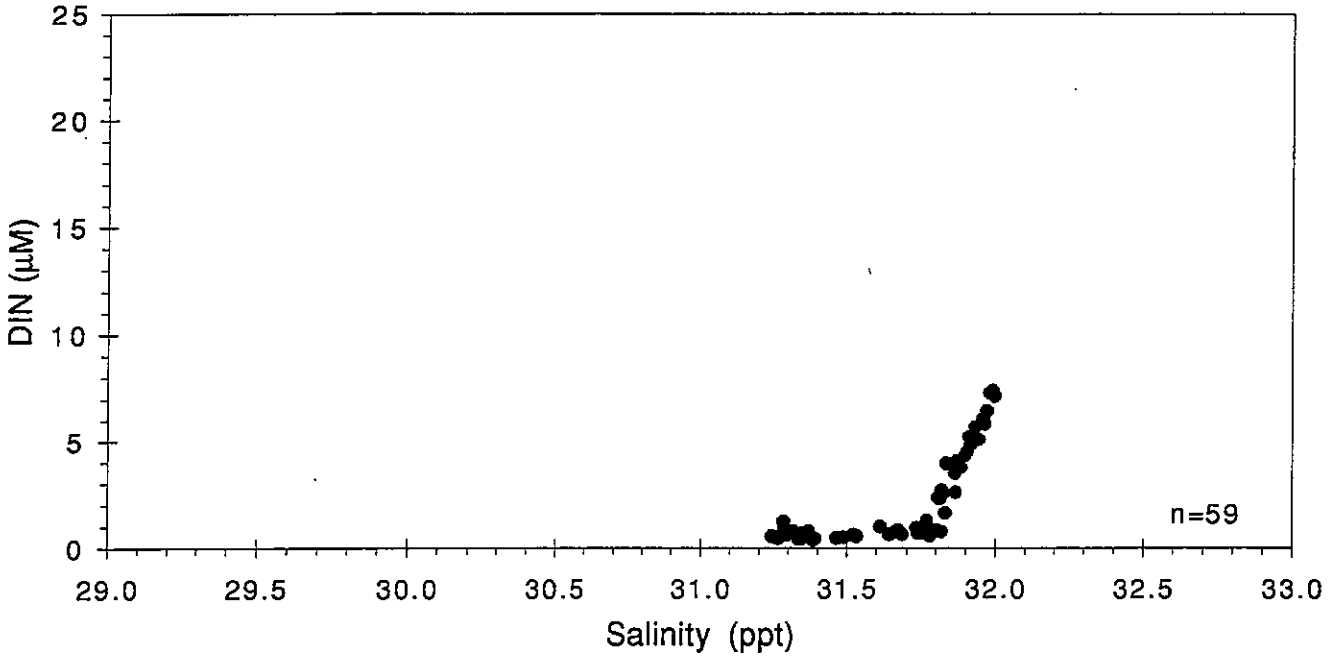
DIN (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

W9508 .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20
15
10
5
0
DIN (µM)
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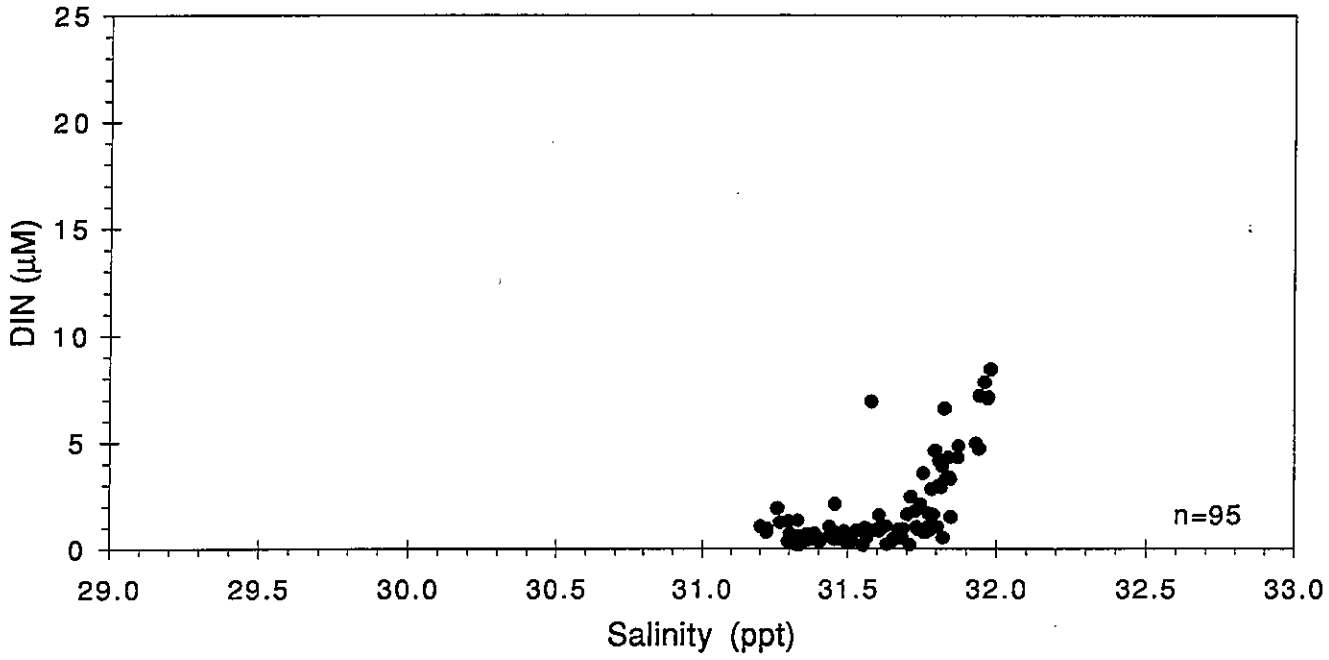
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=59

W9509 .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10
5
0
DIN (µM)
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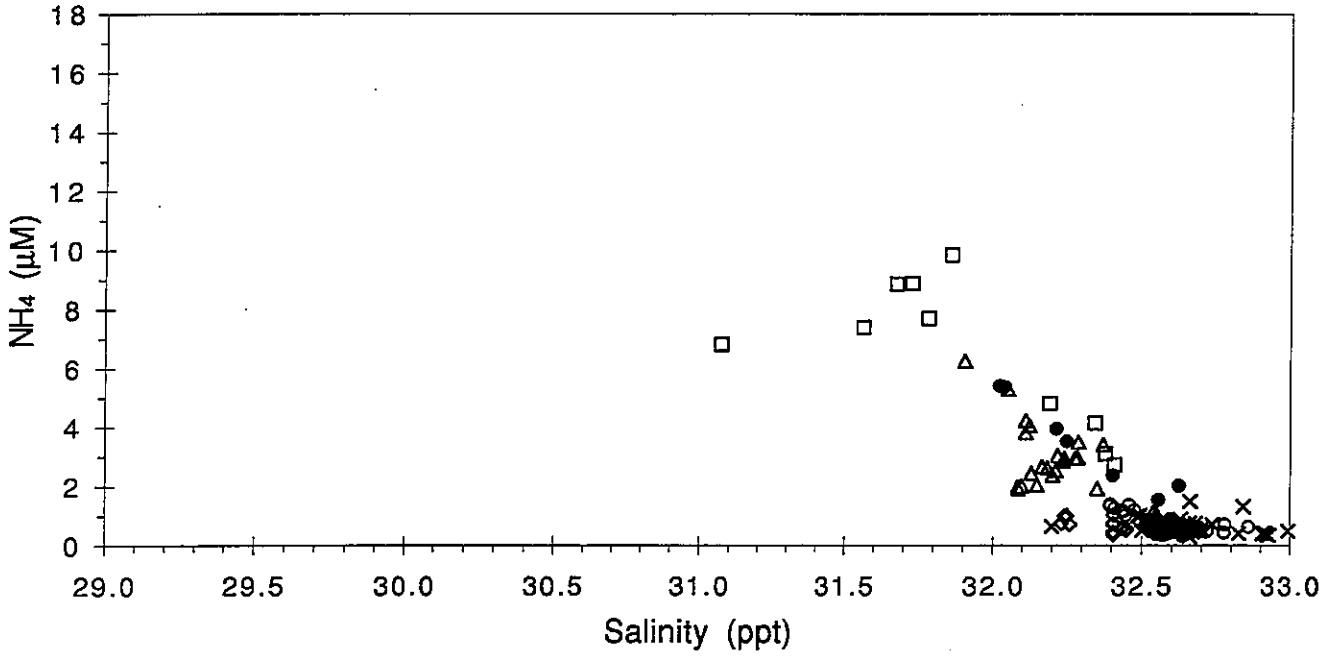
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=95

W9501 .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10
8
6
4
2
0
NH4 (µM)
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30.0
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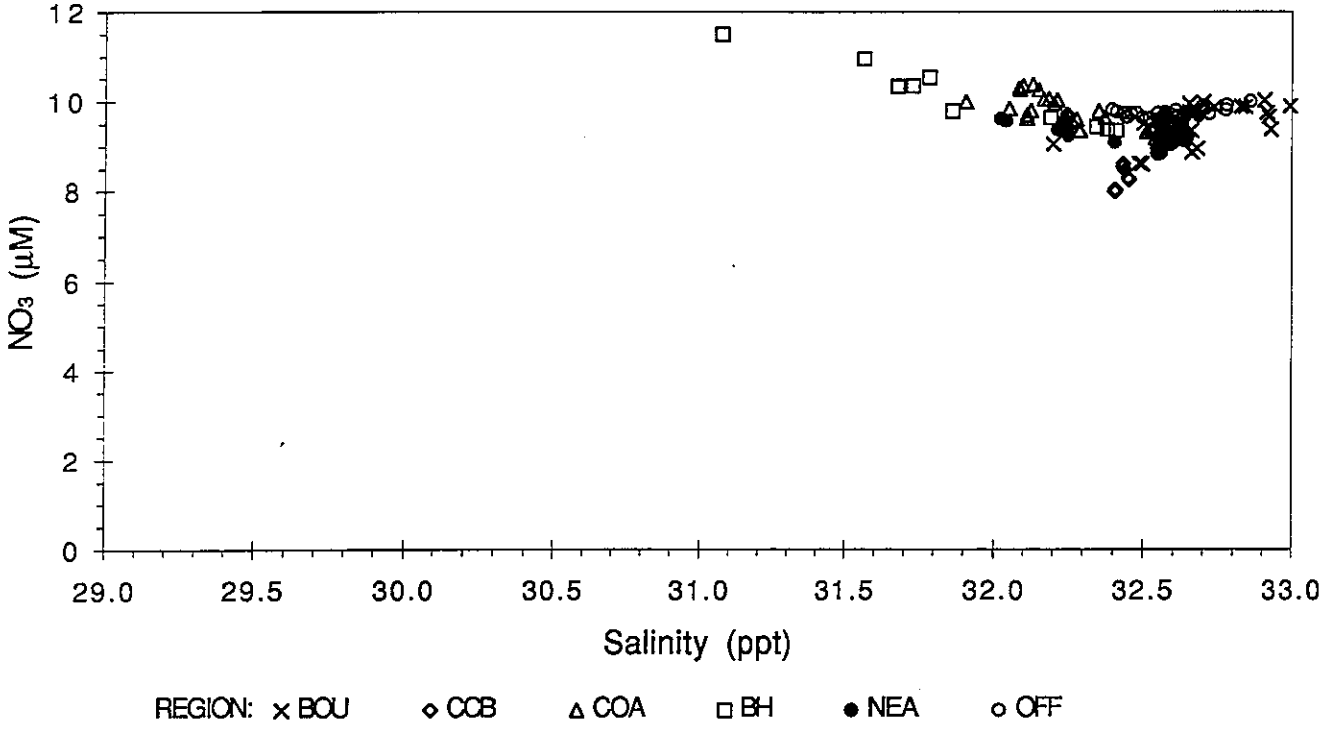
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

W9501 .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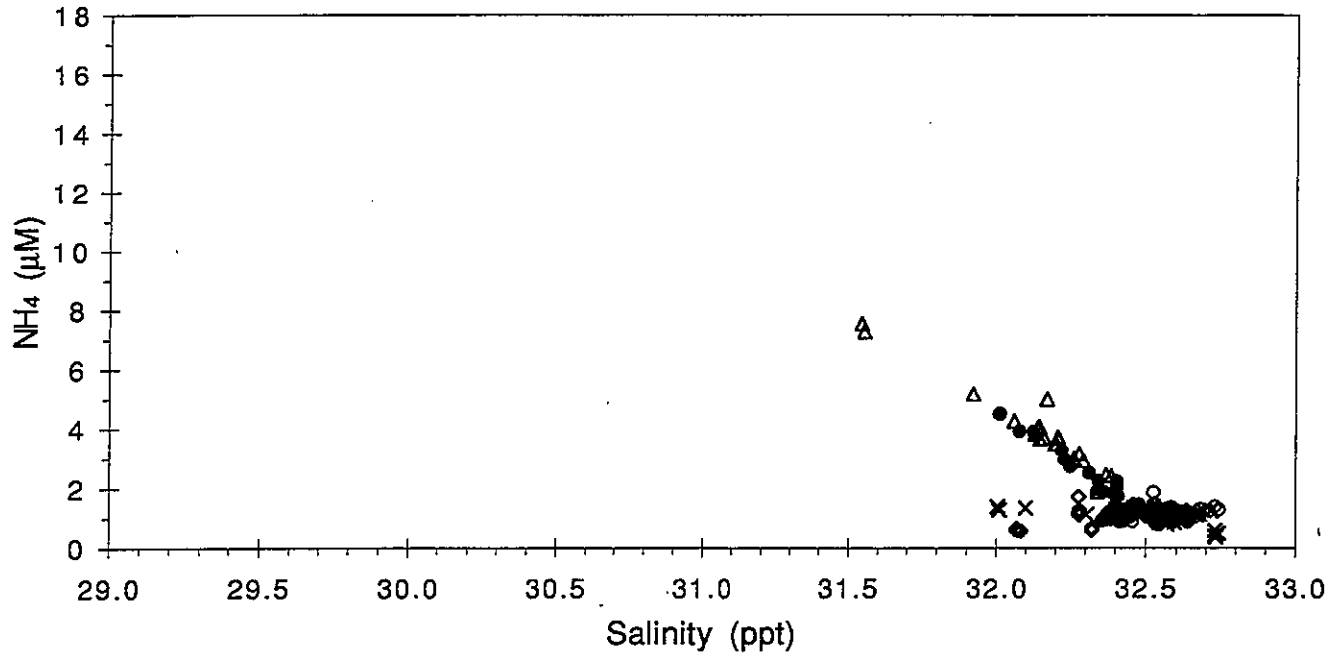
10
8
6
4
2
0
NO3 (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

W9502 .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16
14
12
10
8
6
4
2
0
NH4 (µM)
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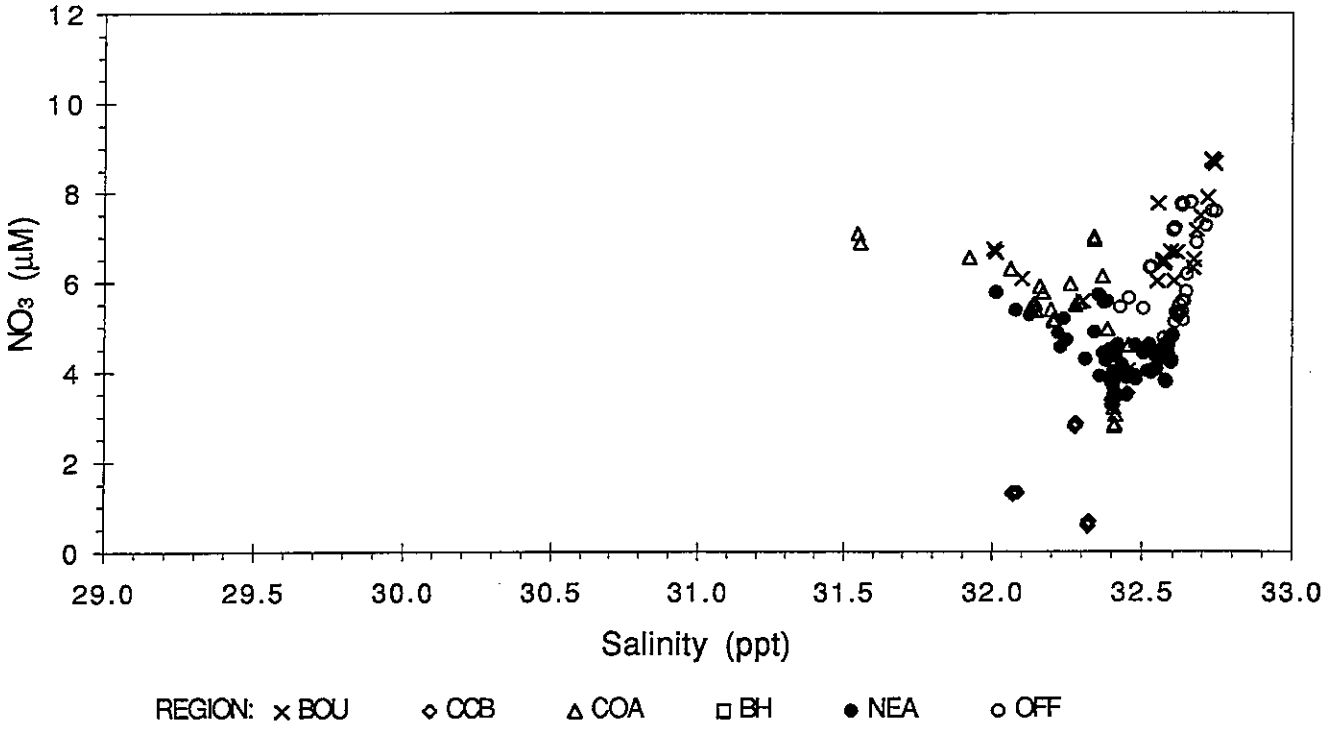
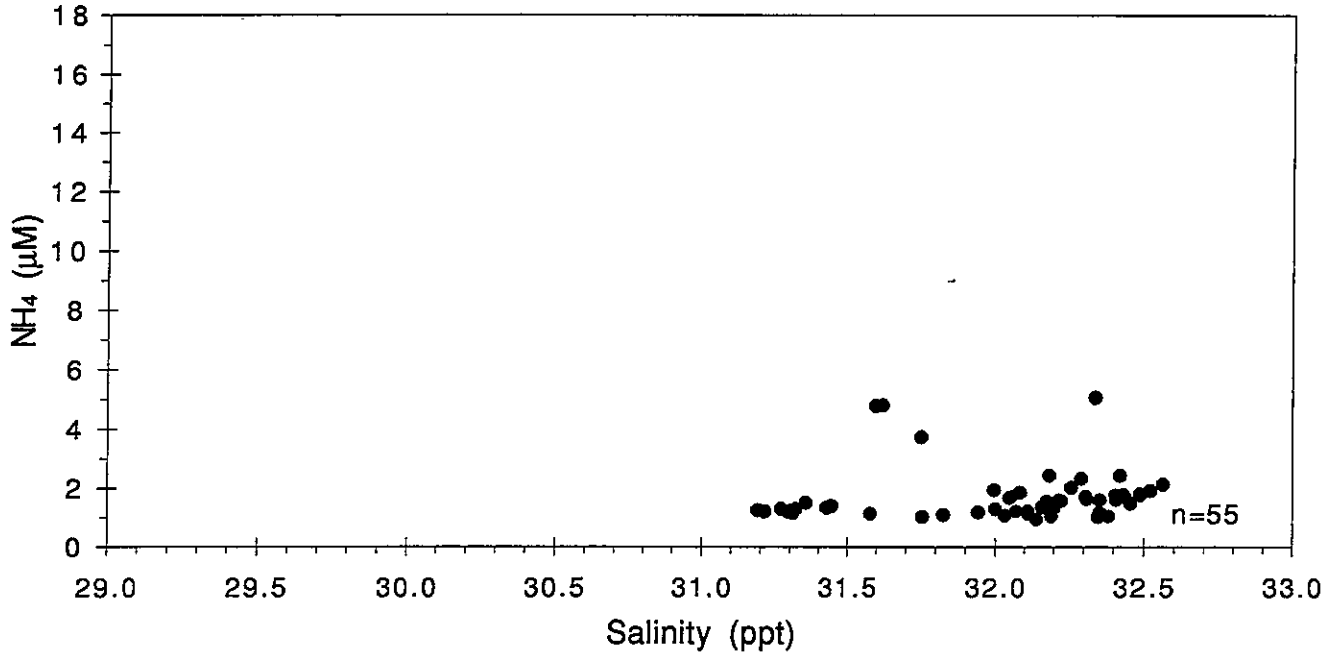
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

W9502 .


12
10
8
6
4
2
0
NO3 (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

W9503 .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2
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NH4 (µM)
n=55
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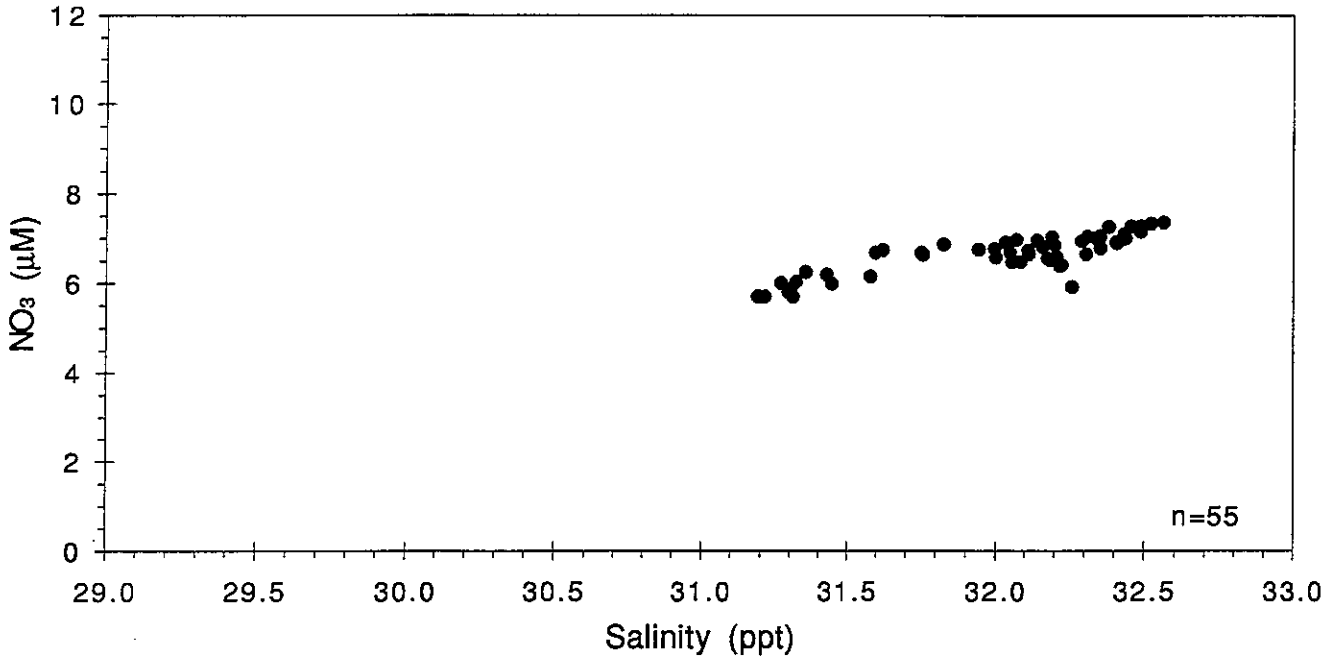
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

W9503 .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10
8
6
4
2
0
NO3 (µM)
n=55
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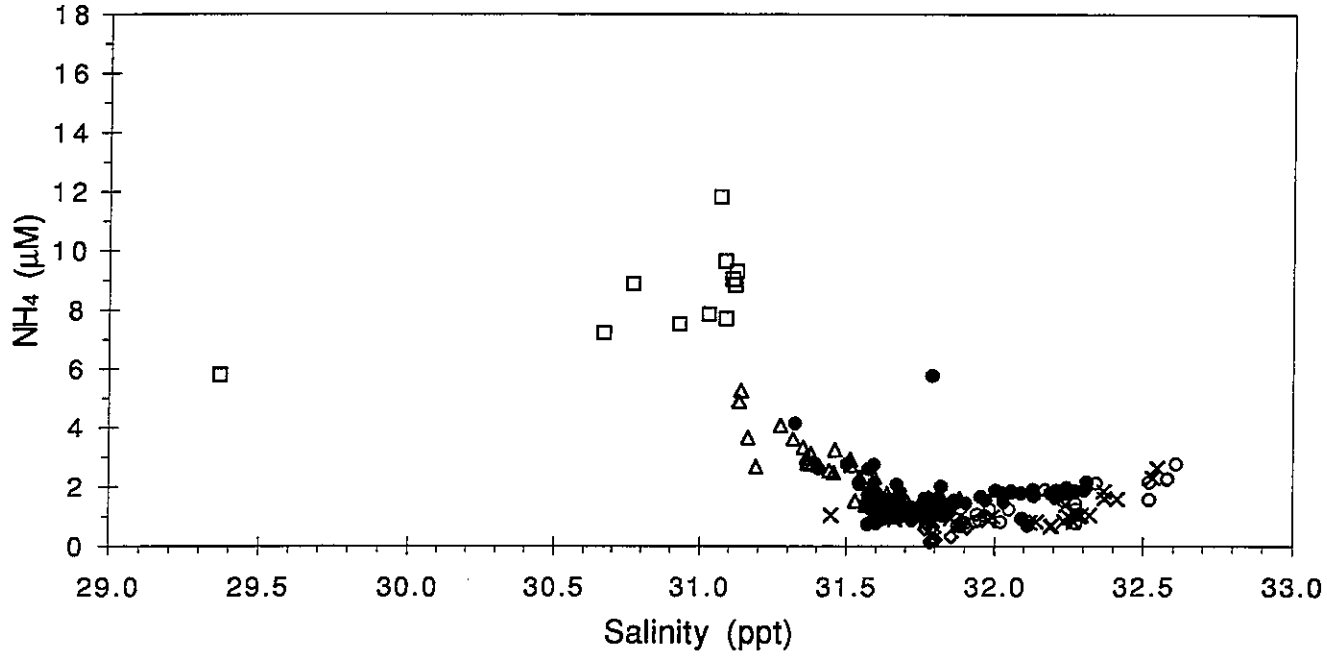
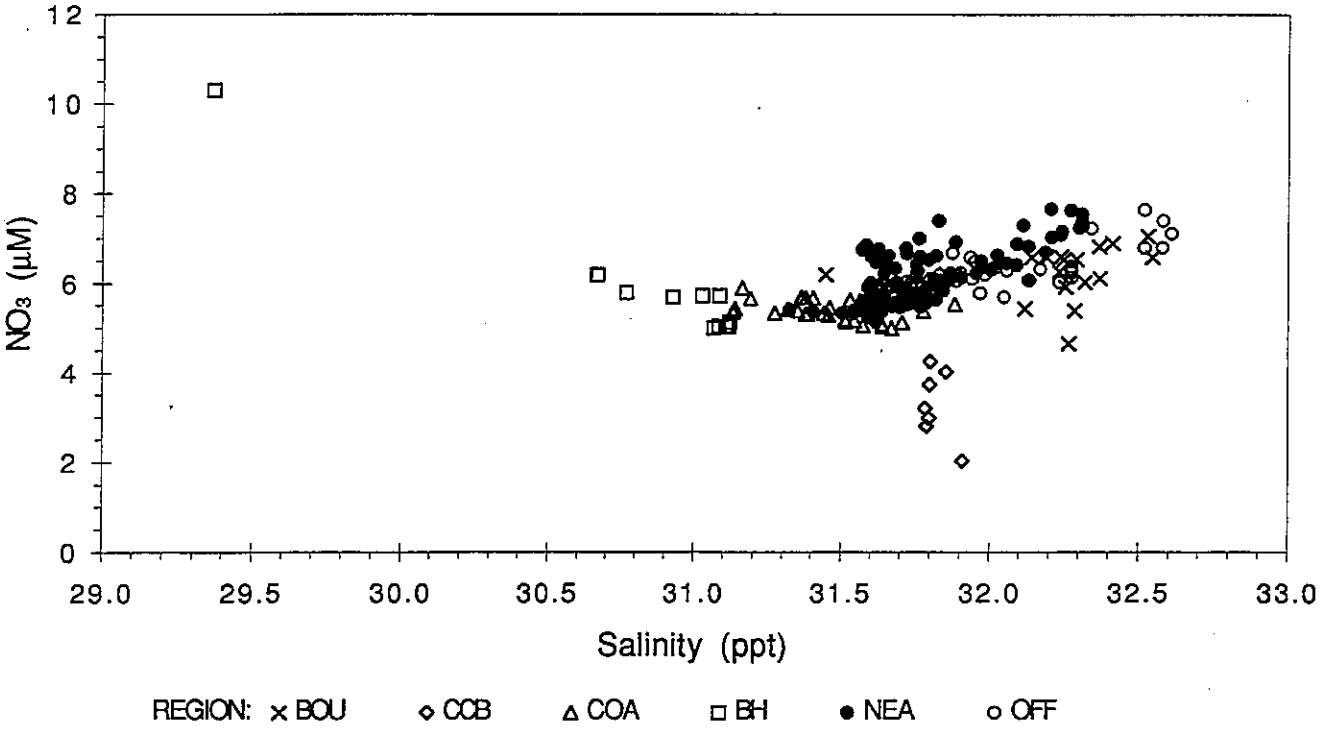
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

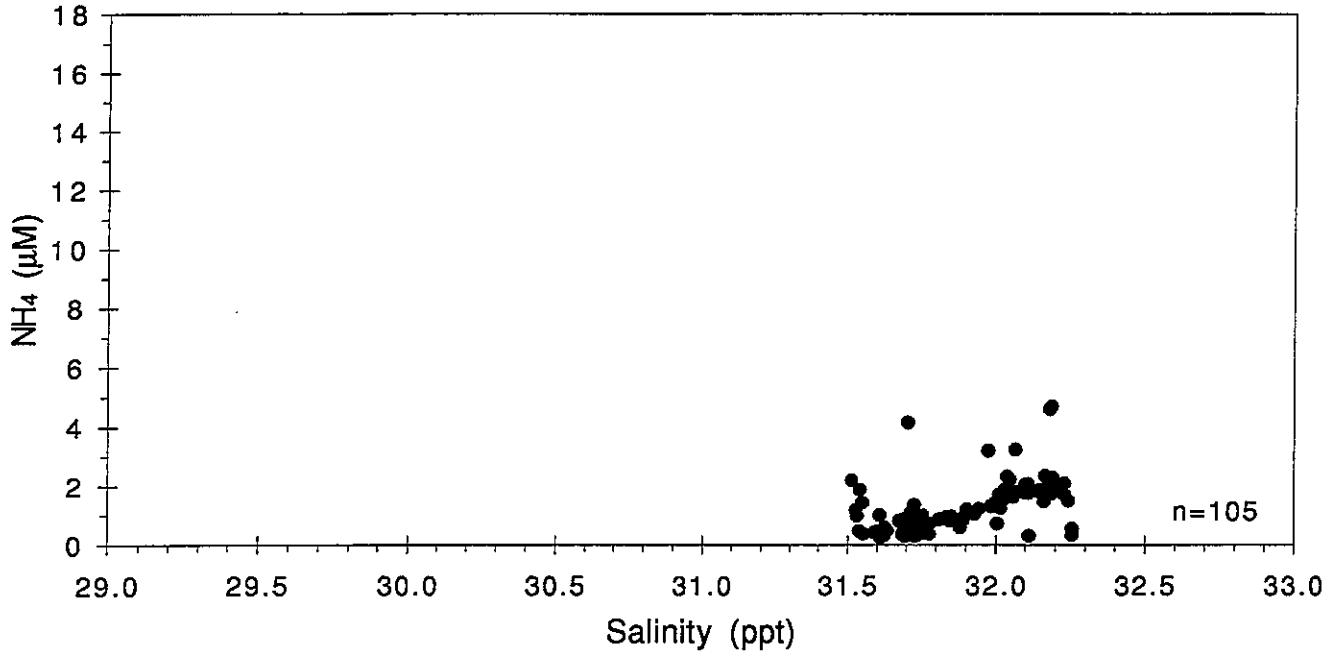
W9504 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

W9504 .


12
10
8
6
4
2
0
NO3 (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

W9505 .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10
8
6
4
2
0
NH4 (µM)
n=105
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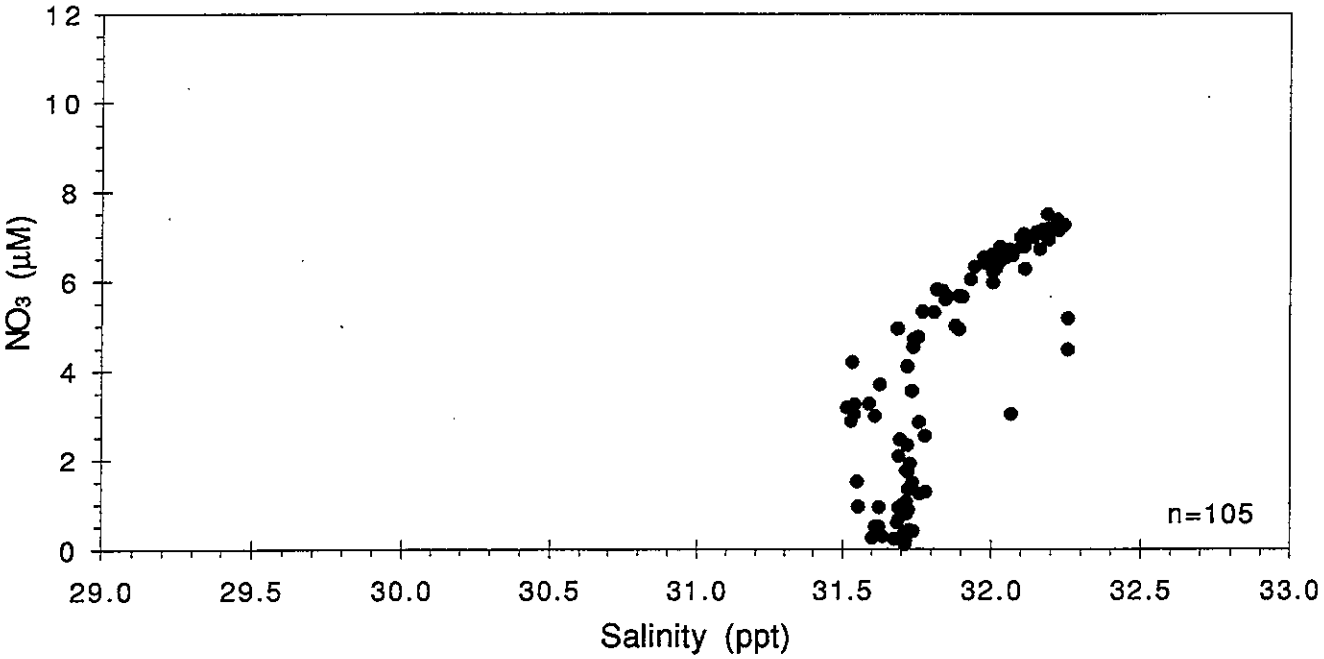
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

W9505 .


12
10
8
6
4
2
0
NO3 (µM)
n=105
29.0
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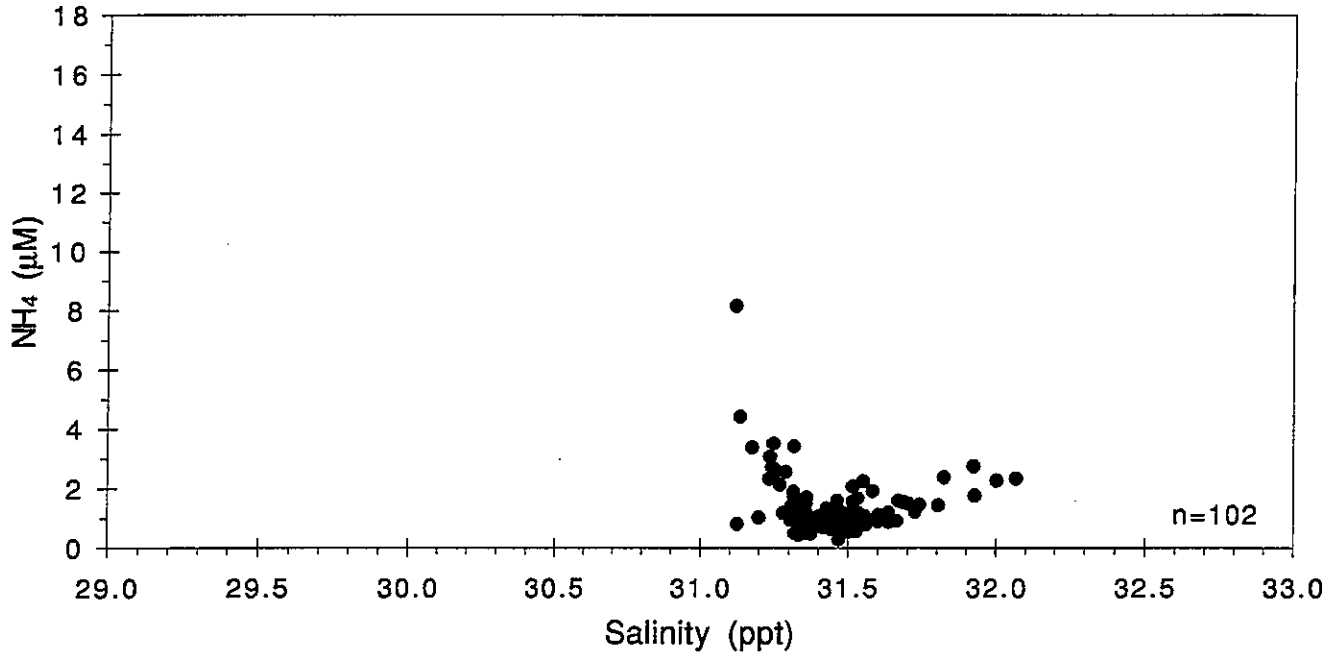
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

W9506 .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10
8
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4
2
0
NH4 (µM)
n=102
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30.5
31.0
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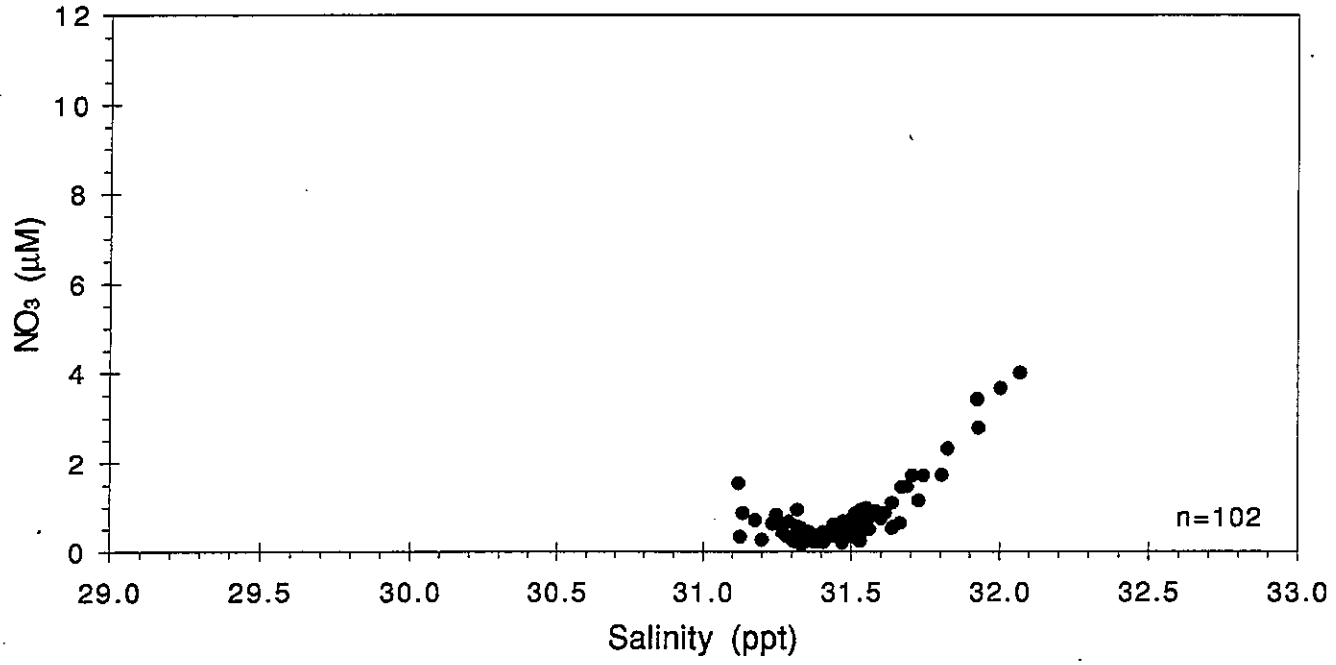
32.5
33.0
Salinity (ppt)

W9506 .


12
10
8
6
4
2
0
NO3 (µM)
n=102
29.0
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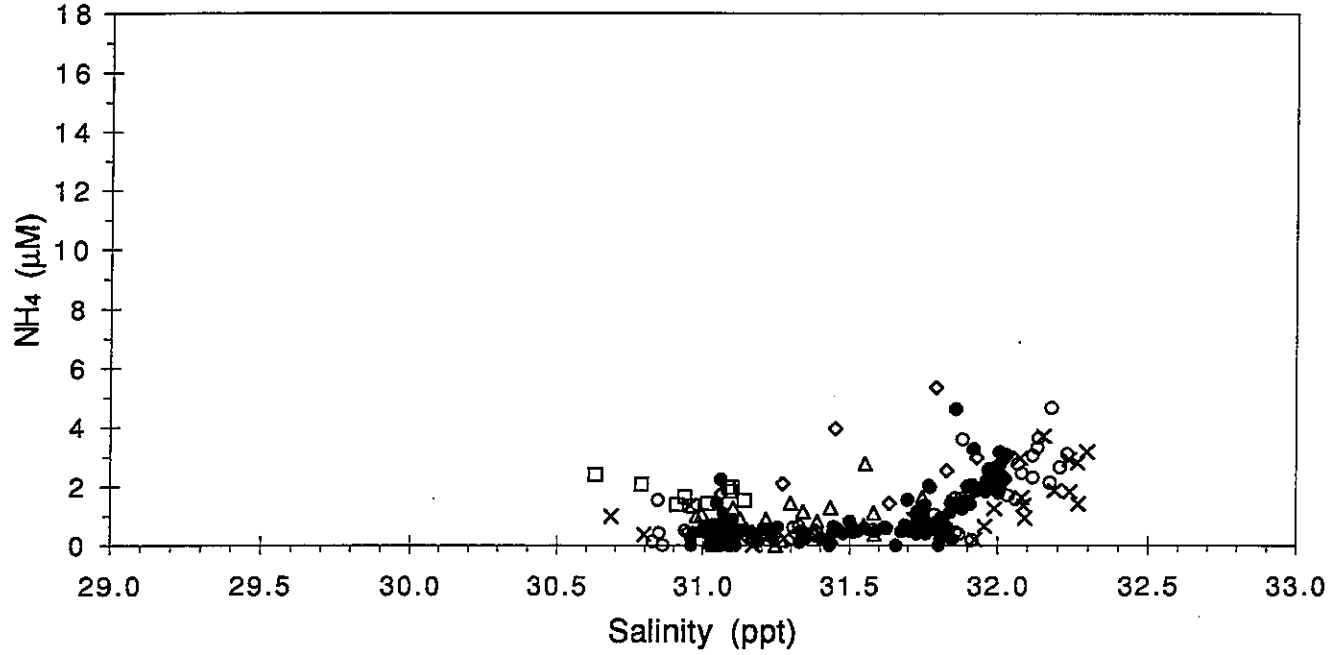
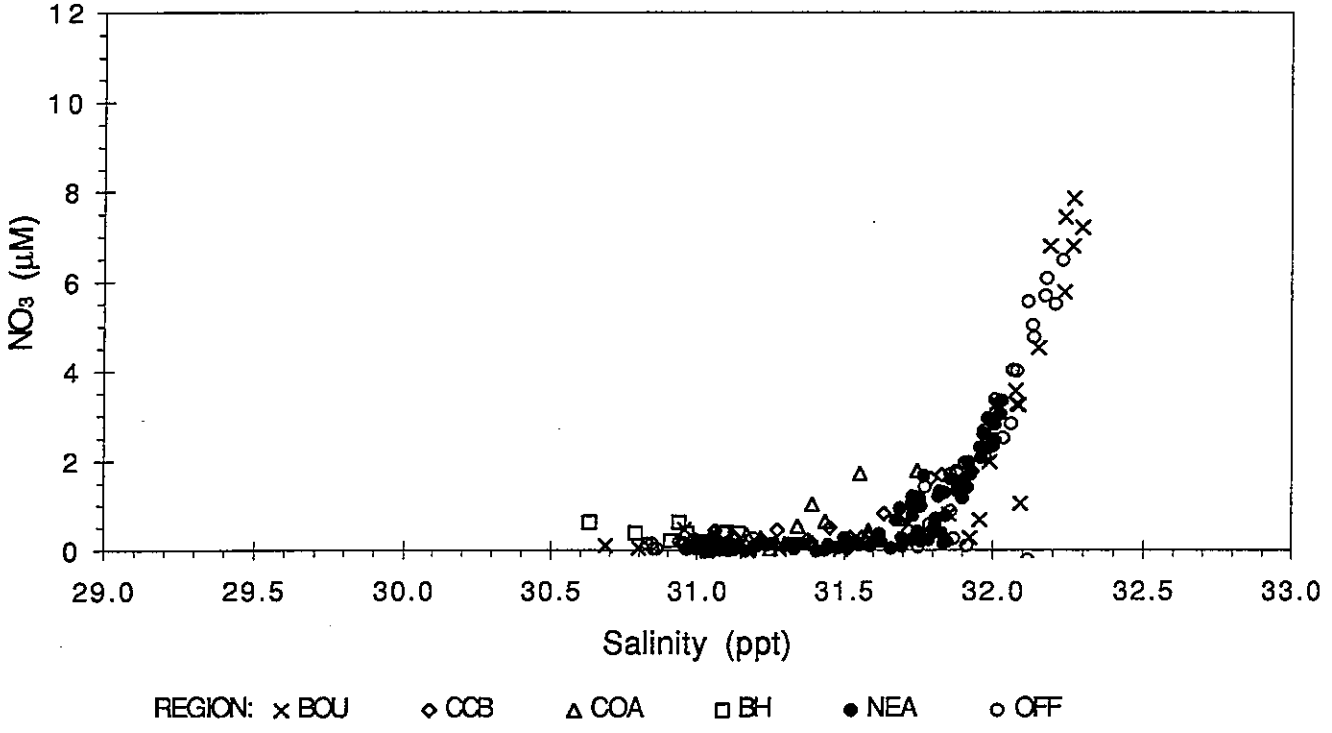
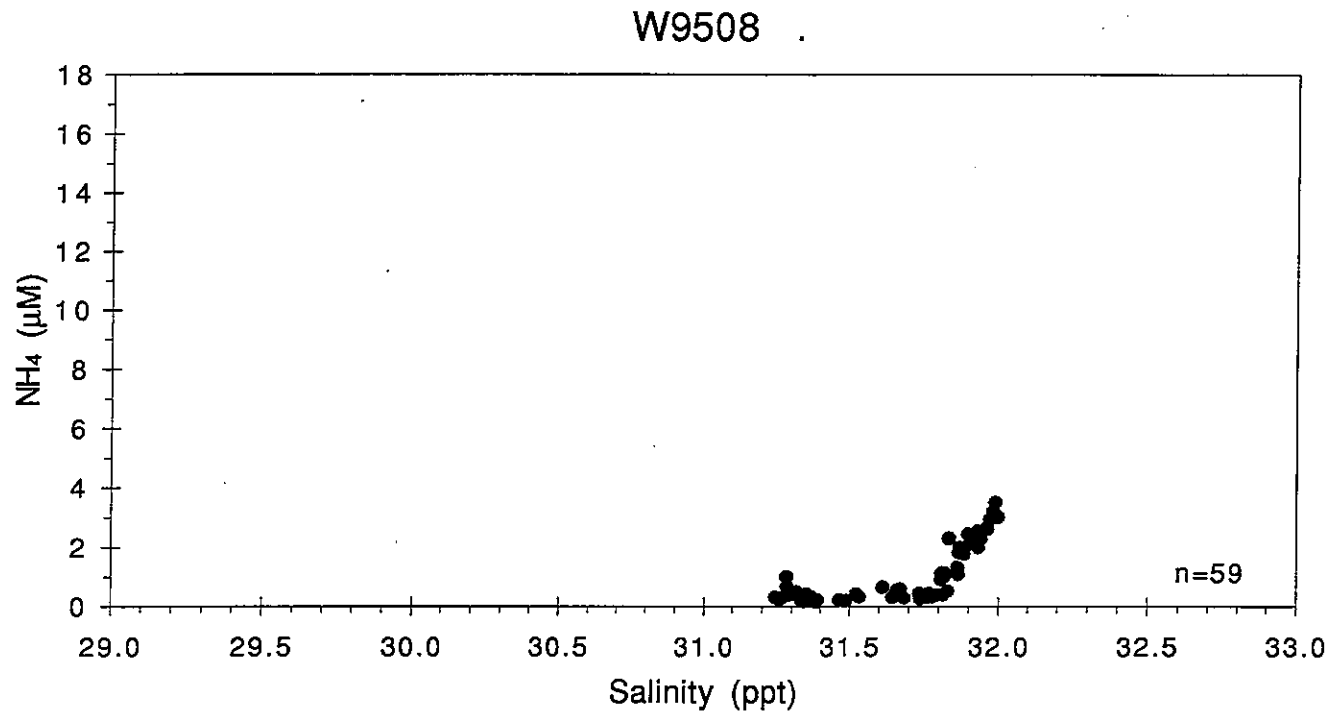
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

W9507 .


18
16
14
12
10
8
6
4
2
0
NH4 (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

W9507 .


12
10
8
6
4
2
0
NO3 (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF


W9508 .
NH4 (µM)
Salinity (ppt)
n=59
0
2
4
6
8
10
12
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16
18
29.0
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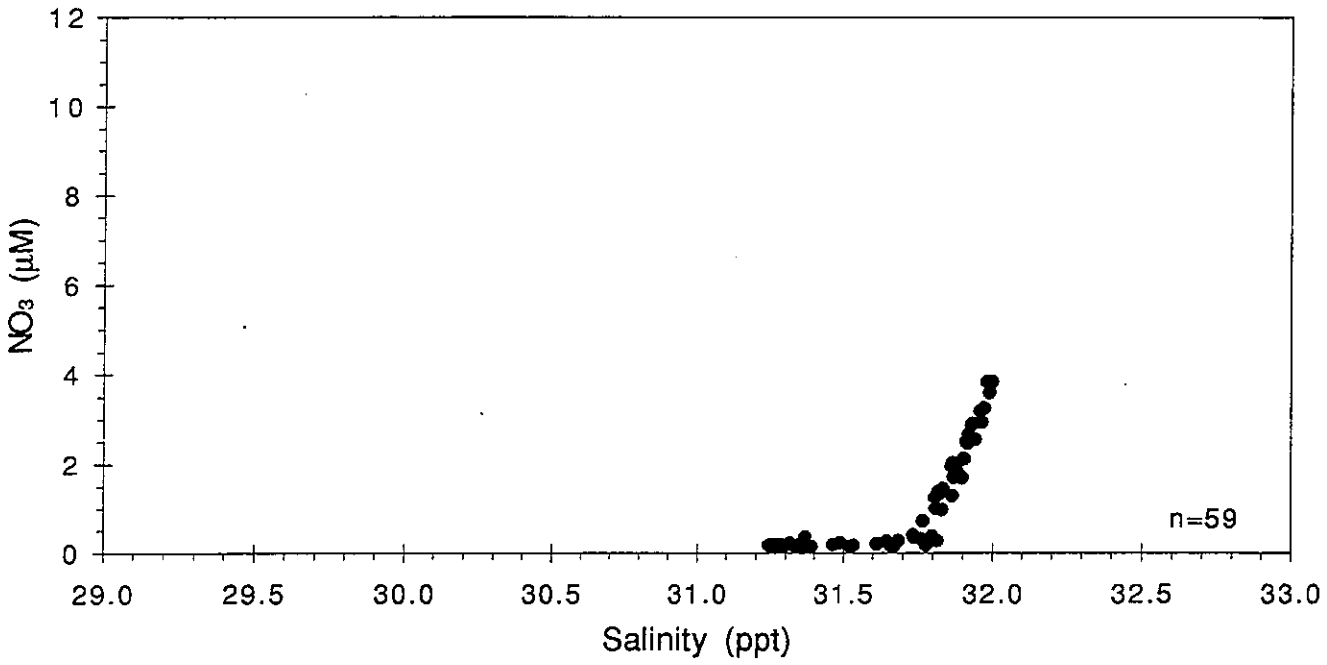
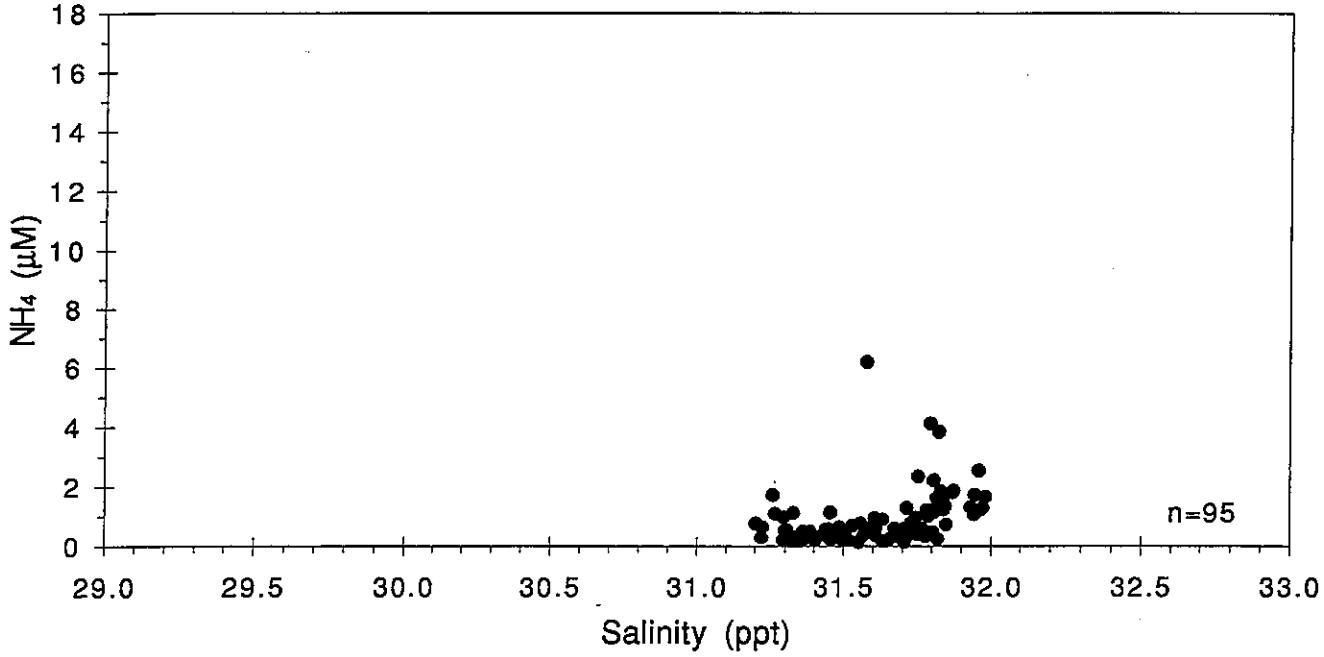
30.0
30.5
31.0
31.5
32.0
32.5
33.0


W9508 .
NO3 (µM)
Salinity (ppt)
n=59
0
2
4
6
8
10
12
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0

W9509 .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12
10
8
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4
2
0
NH4 (µM)
n=95
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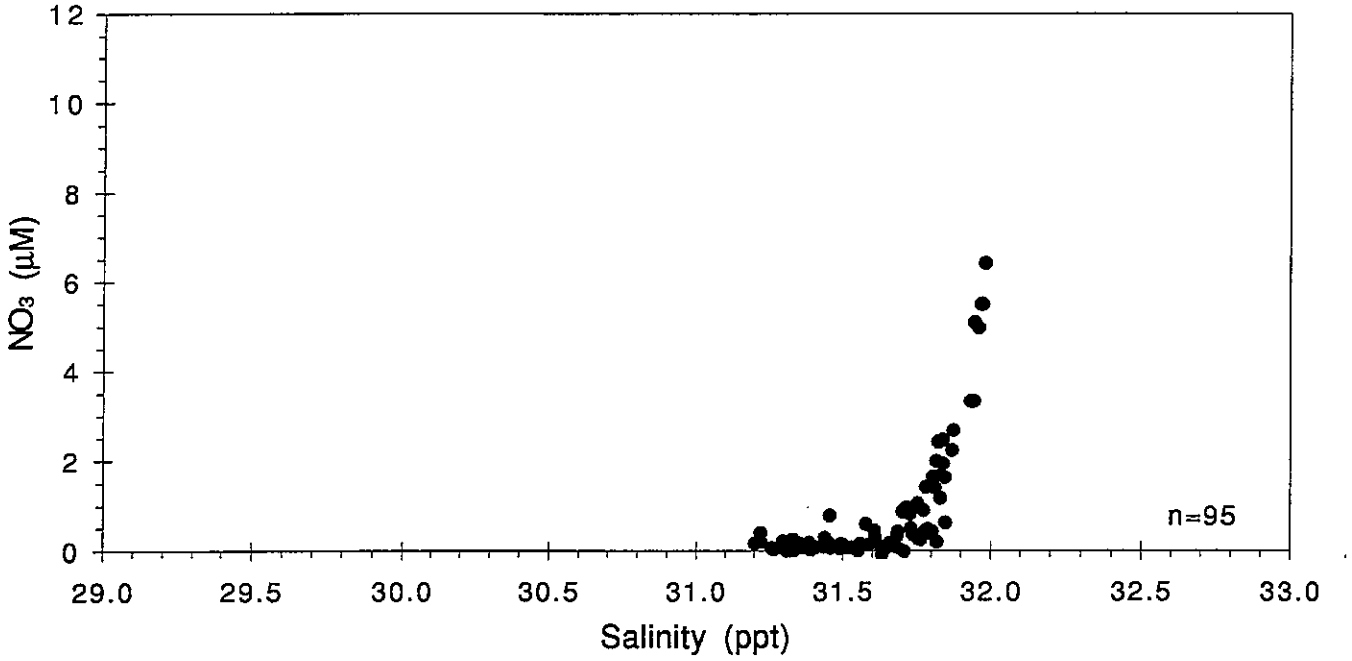
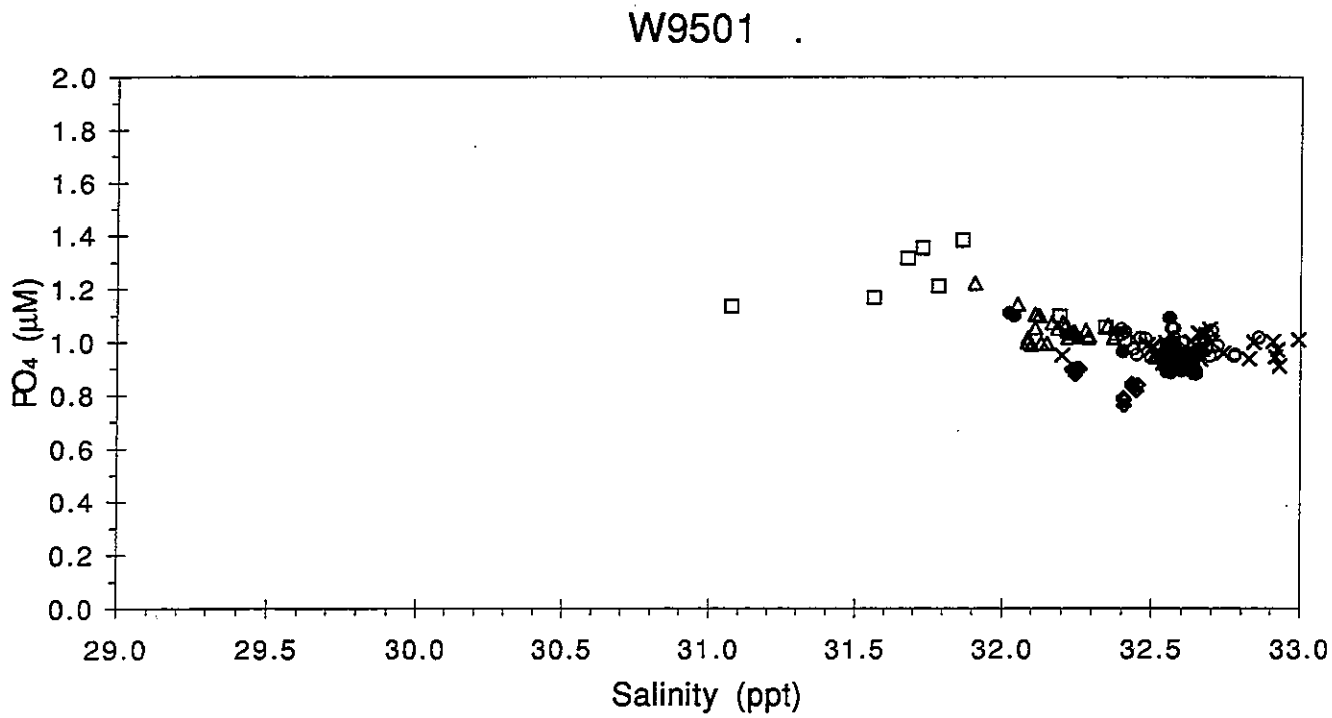
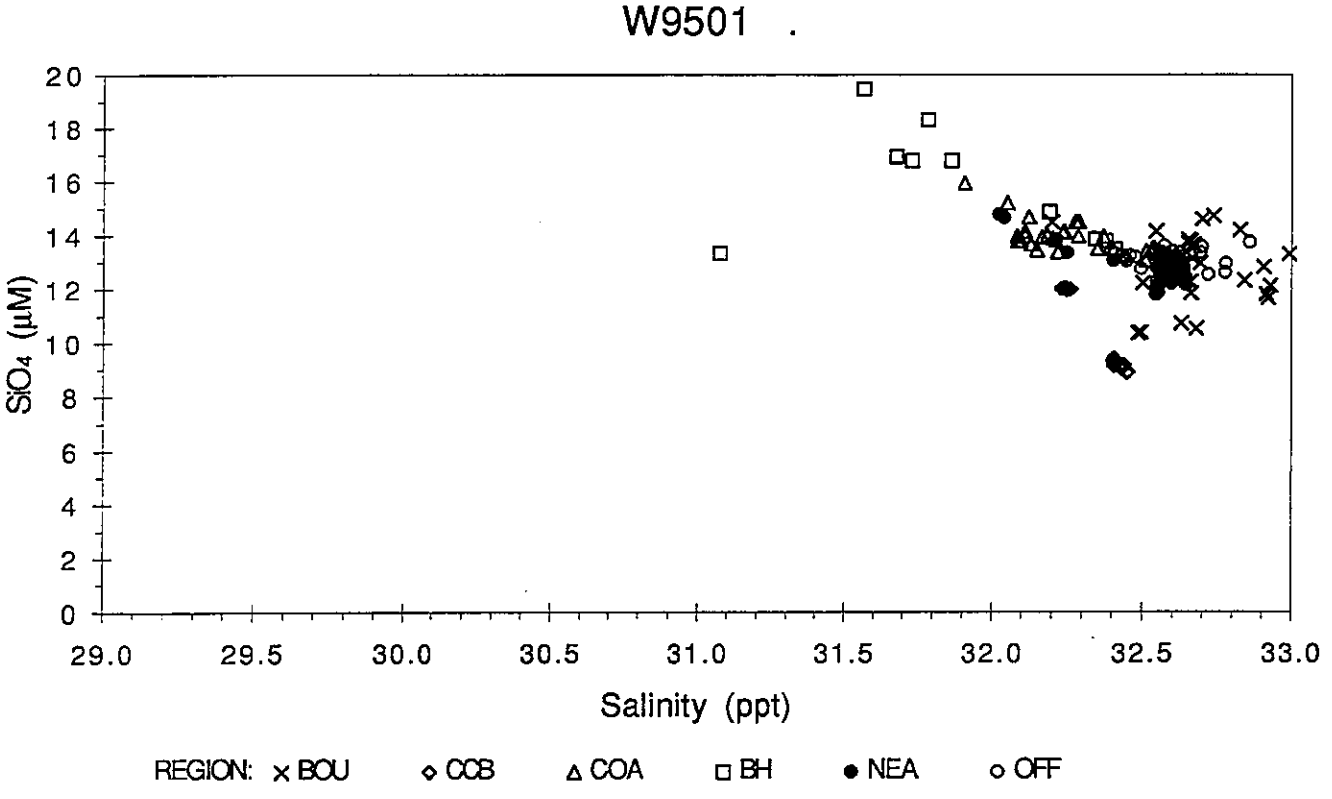
32.0
32.5
33.0
Salinity (ppt)

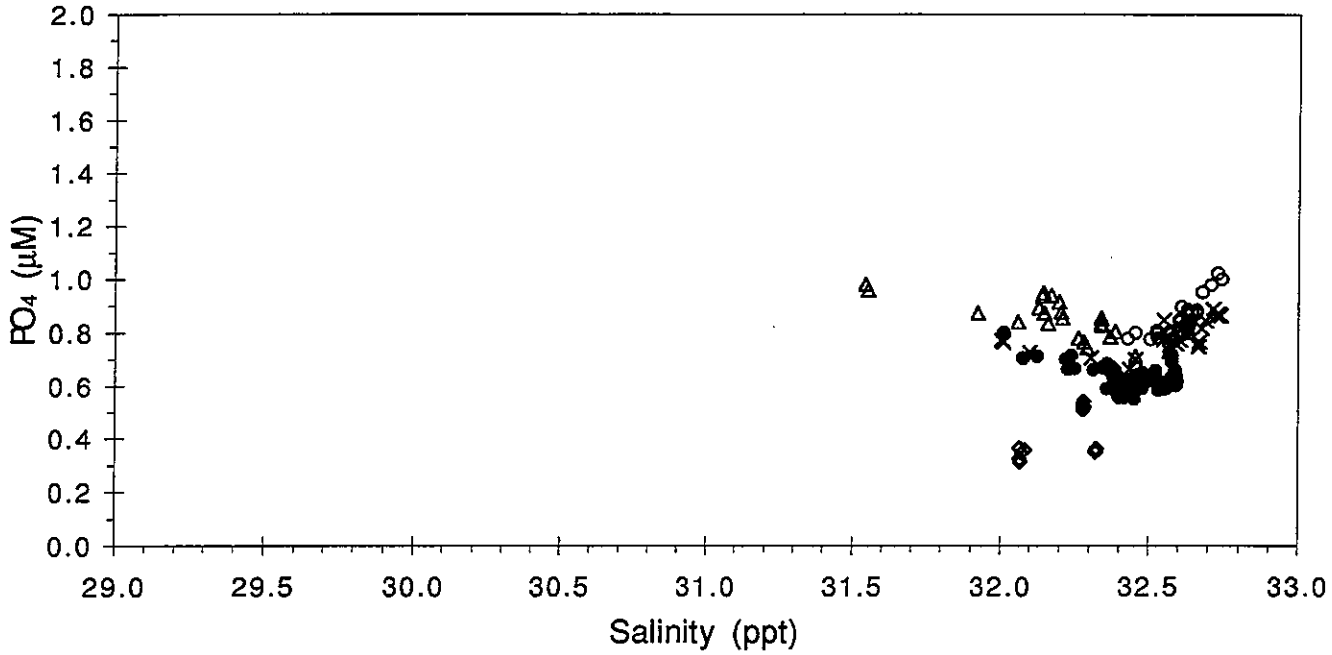
W9509 .


12
10
8
6
4
2
0
NO3 (µM)
n=95
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

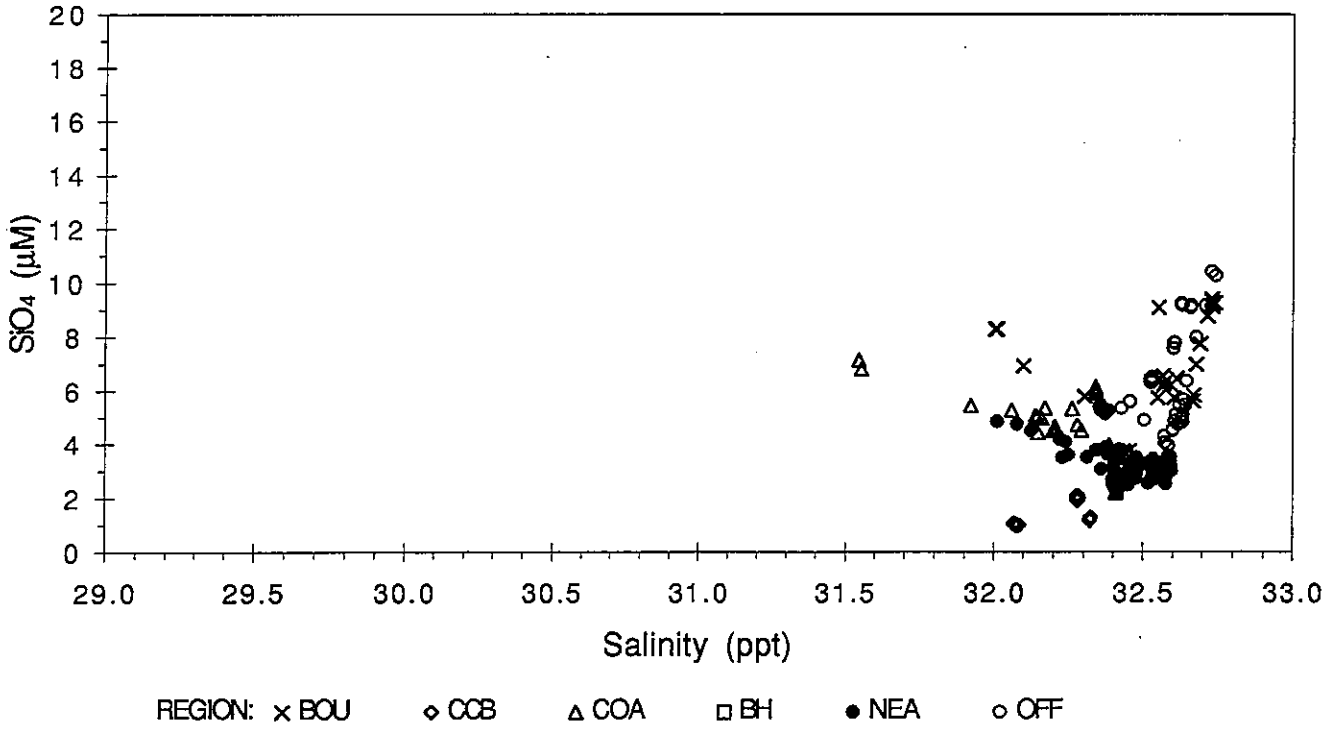

W9501 .
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
PO4 (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)


W9501 .
20
18
16
14
12
10
8
6
4
2
0
SiO4 (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

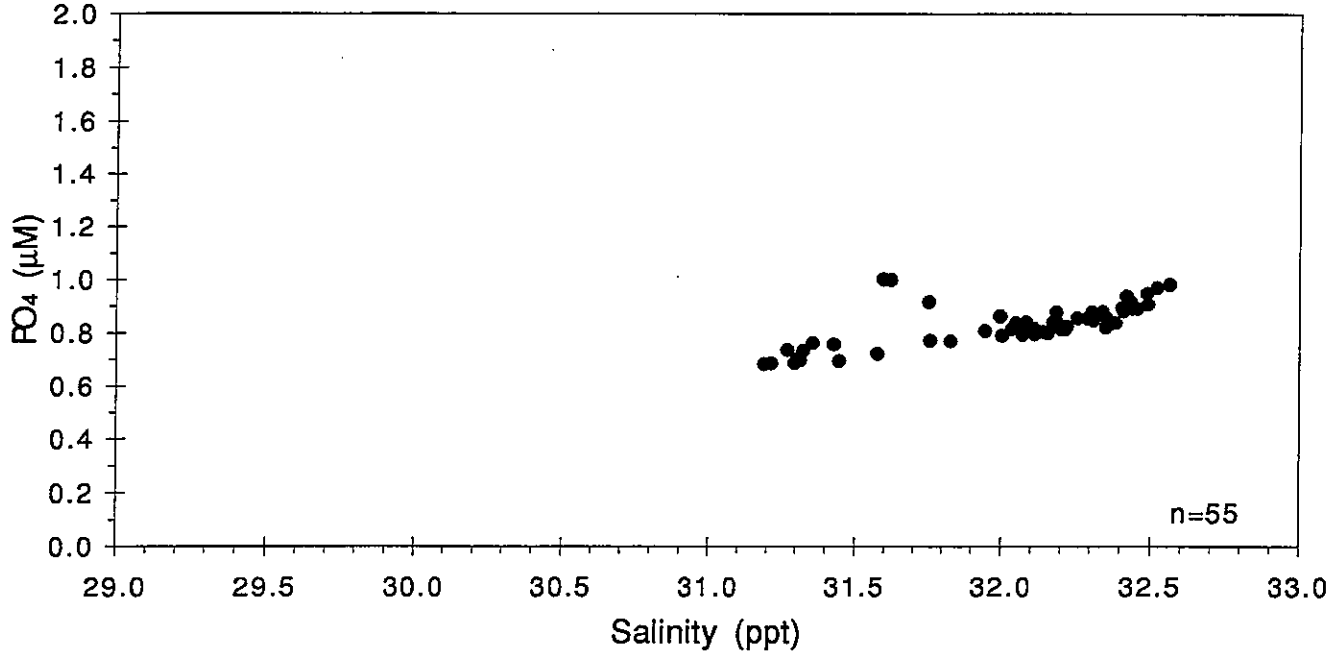
W9502 .


2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
PO4 (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

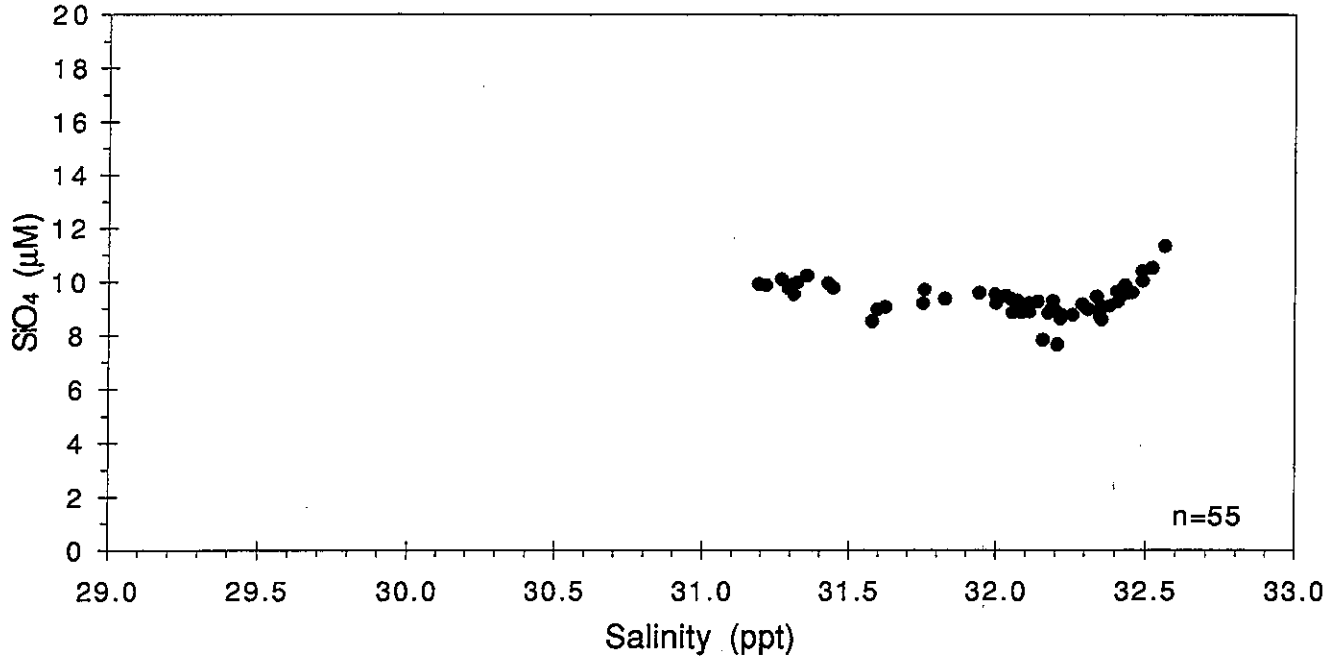
W9502 .

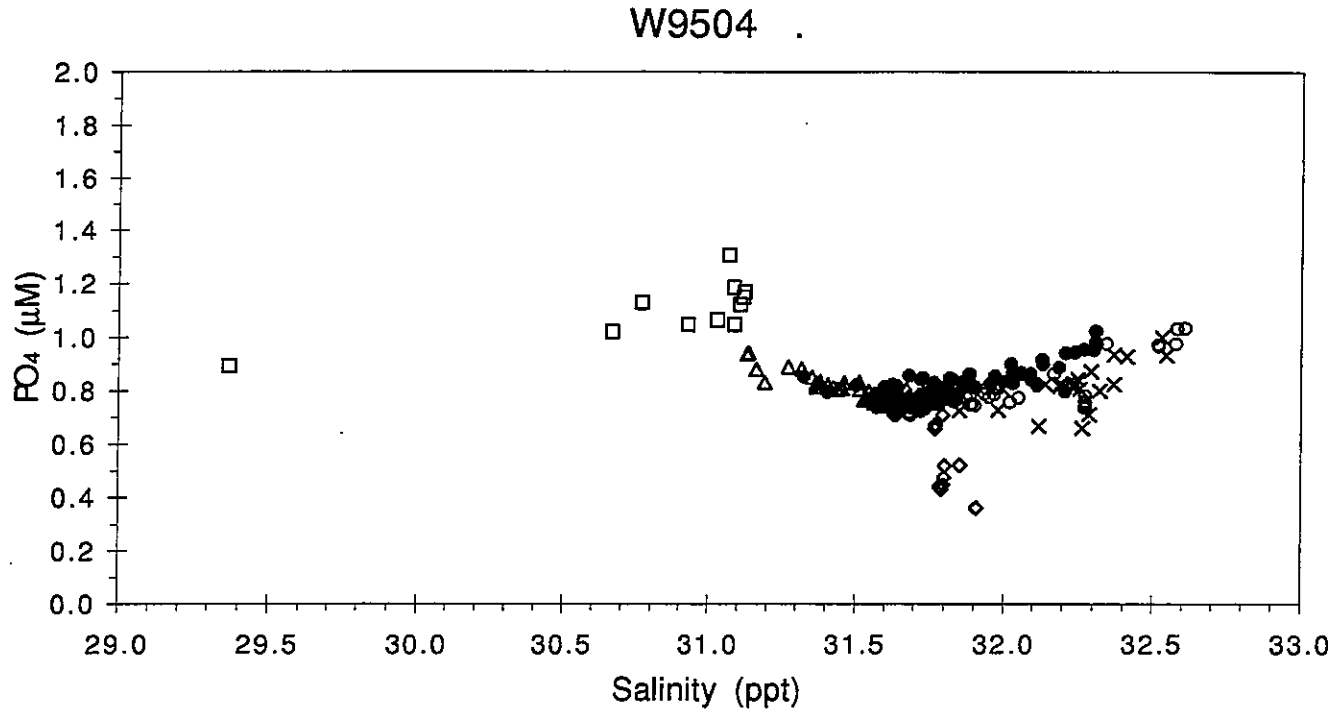

20
18
16
14
12
10
8
6
4
2
0
SiO4 (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

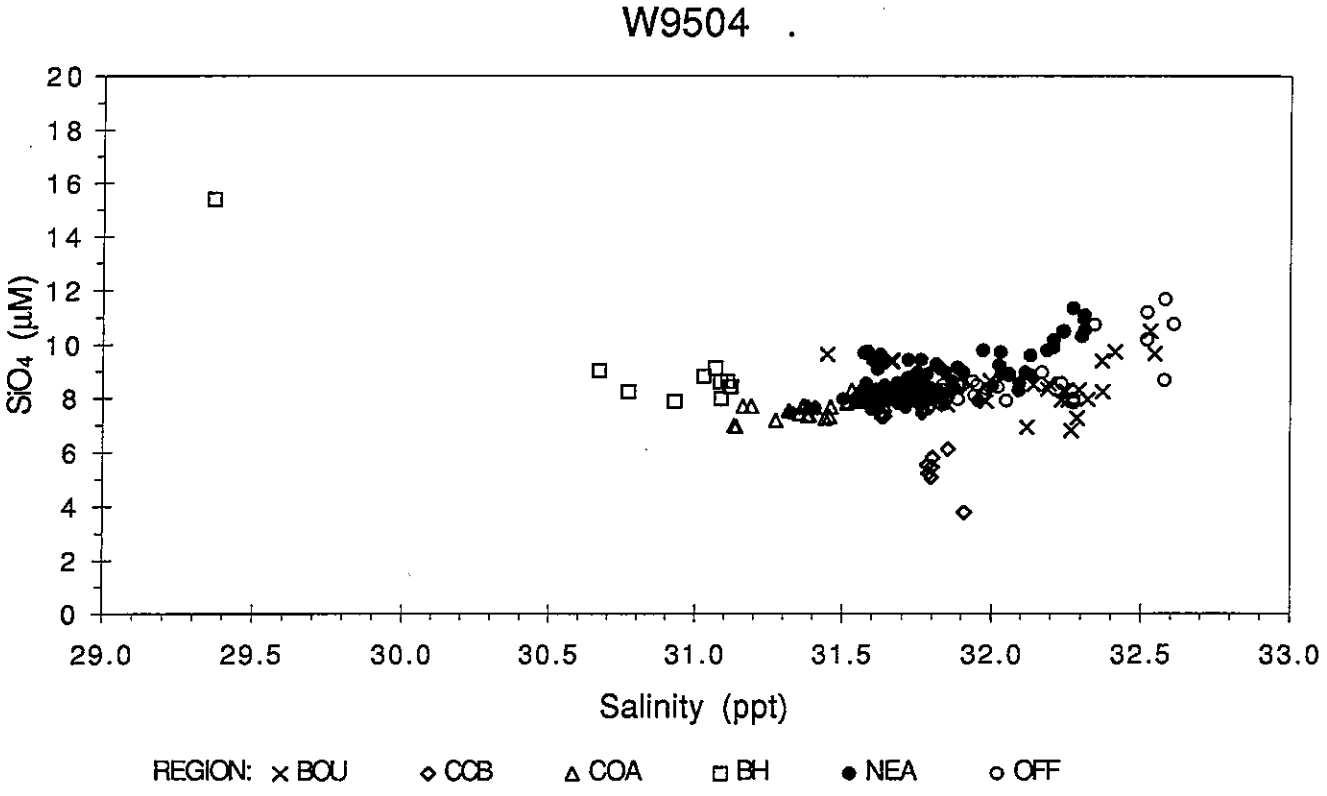
W9503 .


2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
PO4 (µM)
n=55
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

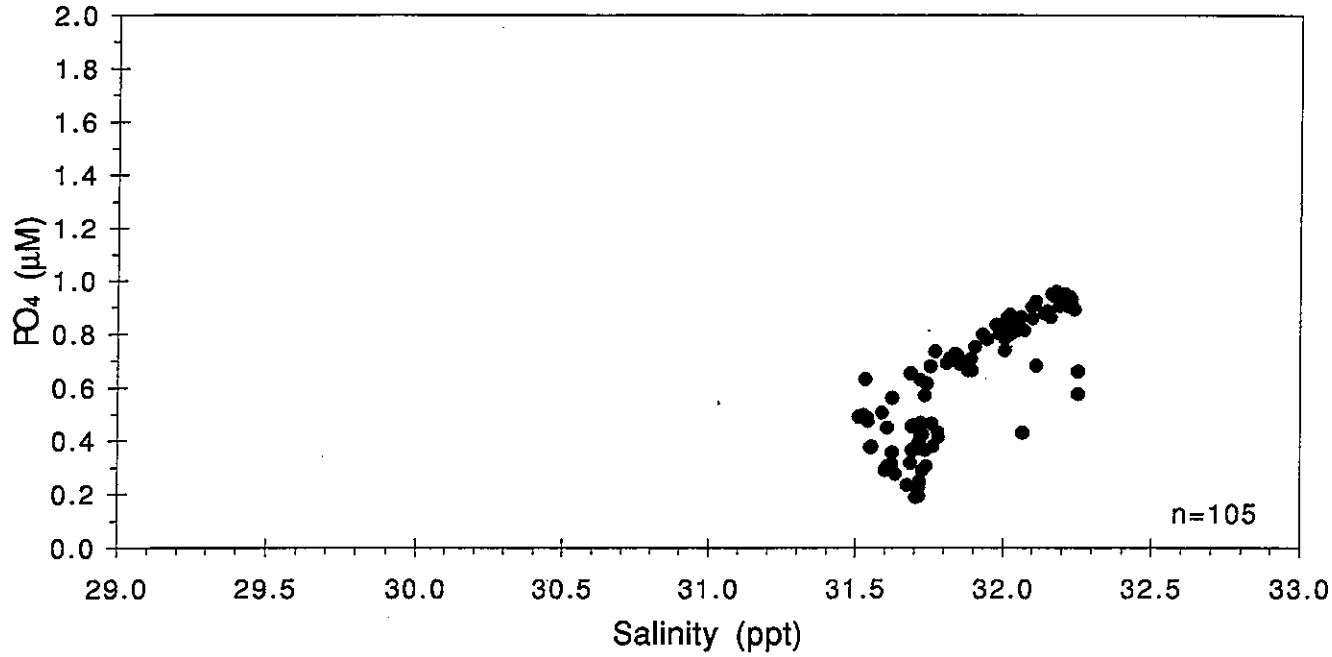
W9503 .


20
18
16
14
12
10
8
6
4
2
0
SiO4 (µM)
n=55
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

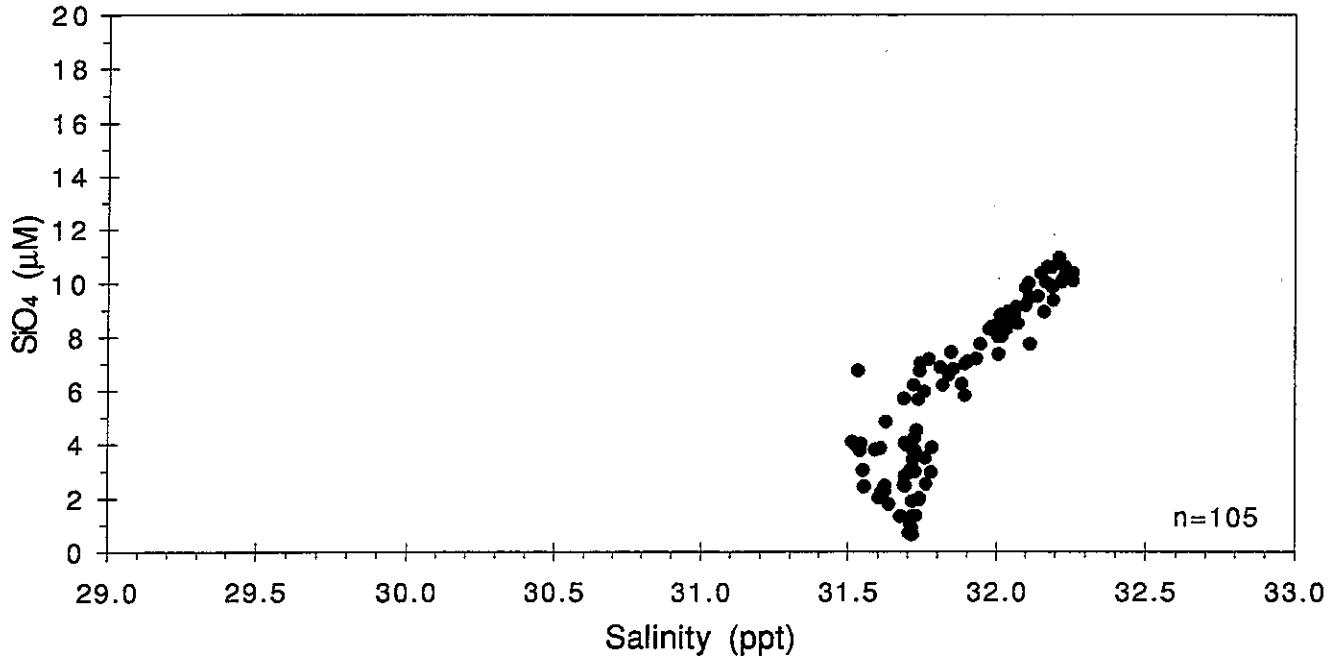

W9504 .
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
PO4 (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)


W9504 .
20
18
16
14
12
10
8
6
4
2
0
SiO4 (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

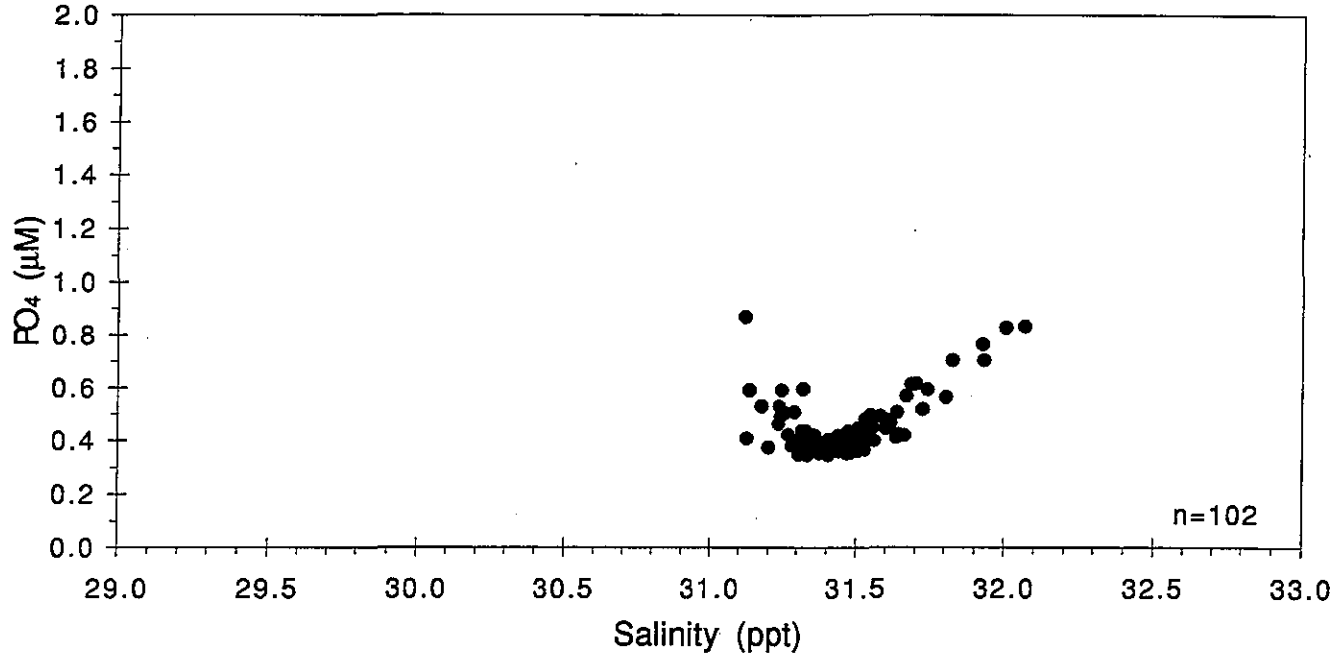
W9505 .


2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
PO4 (µM)
n=105
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

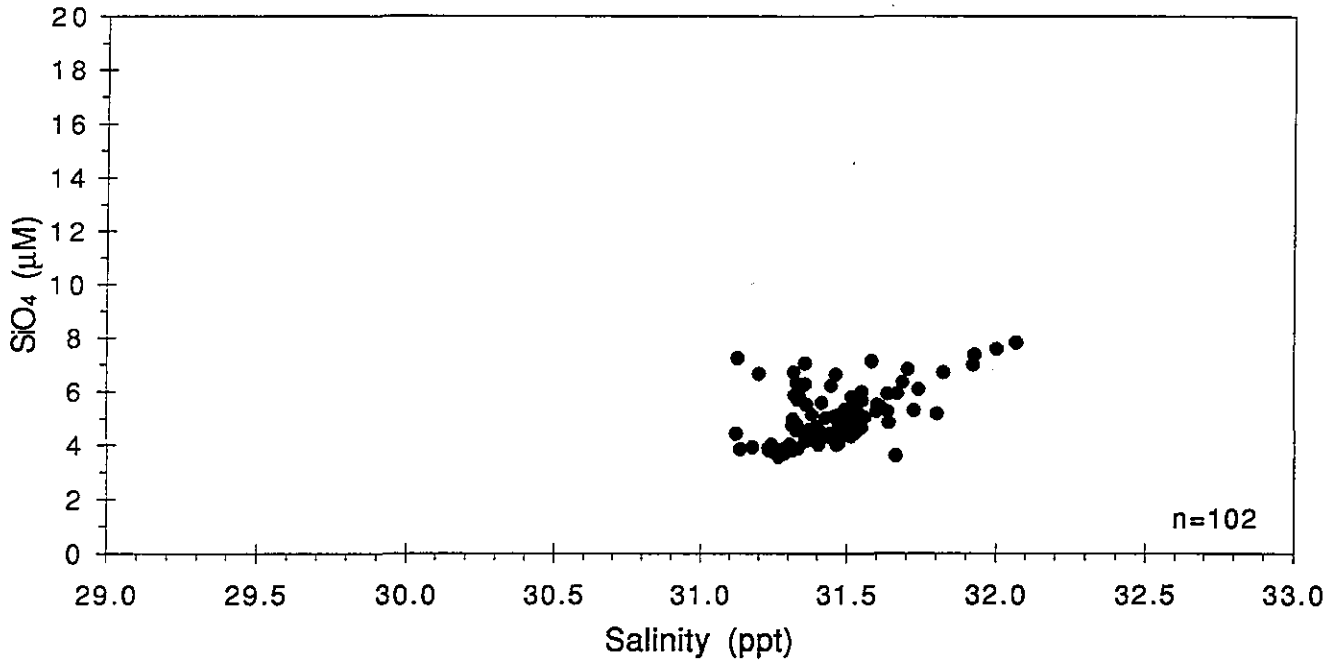
W9505 .


20
18
16
14
12
10
8
6
4
2
0
SiO4 (µM)
n=105
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

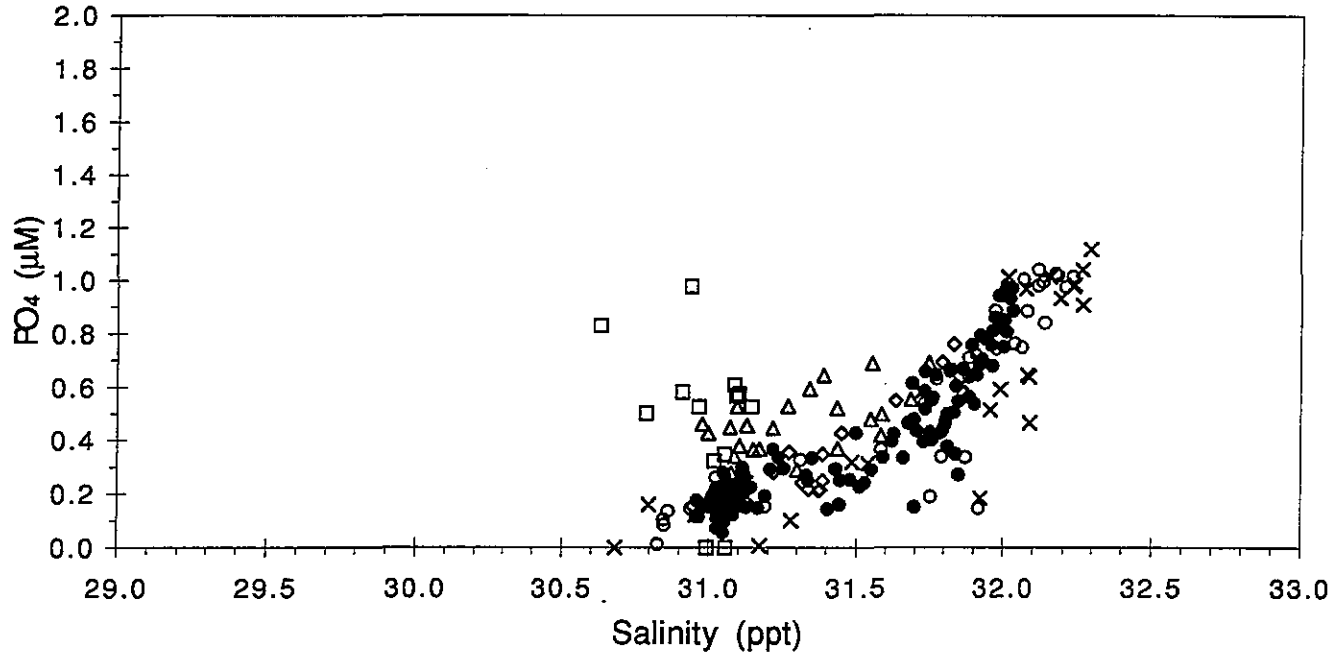
W9506 .


2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
PO4 (µM)
n=102
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

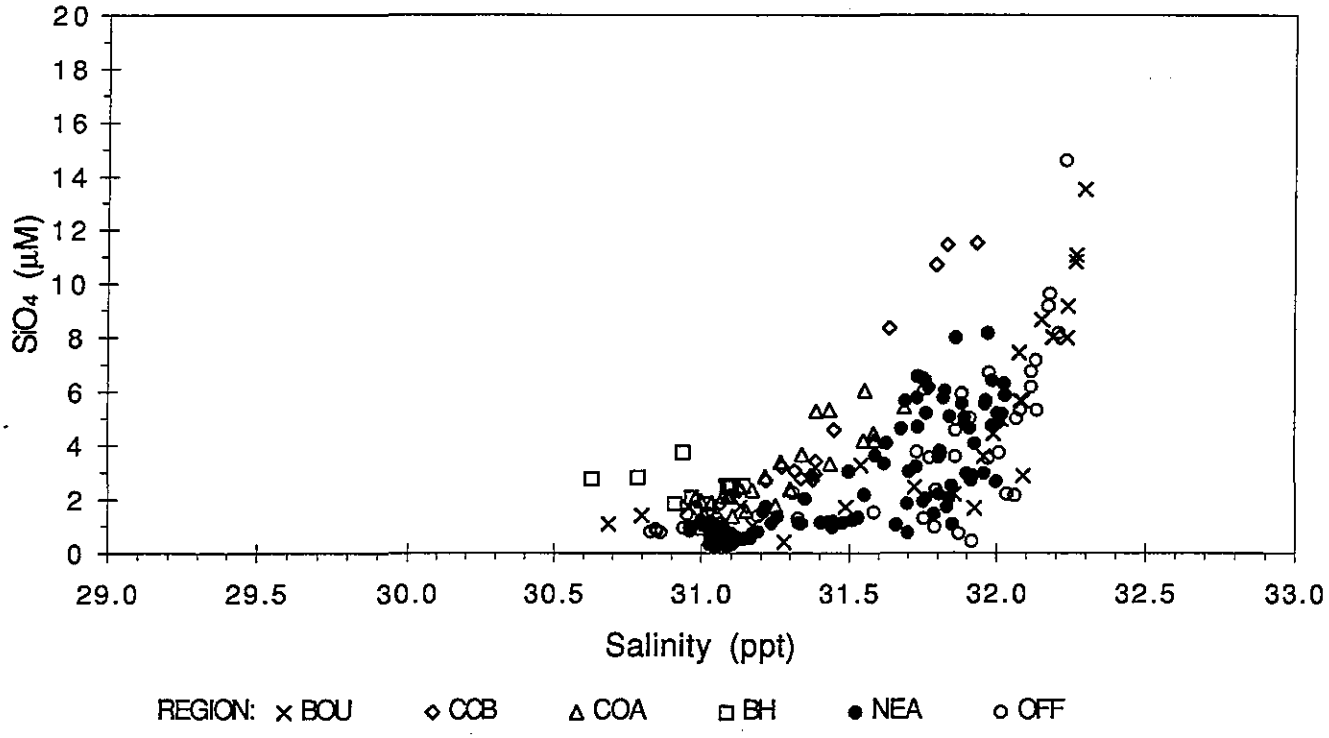
W9506 .


20
18
16
14
12
10
8
6
4
2
0
SiO4 (µM)
n=102
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

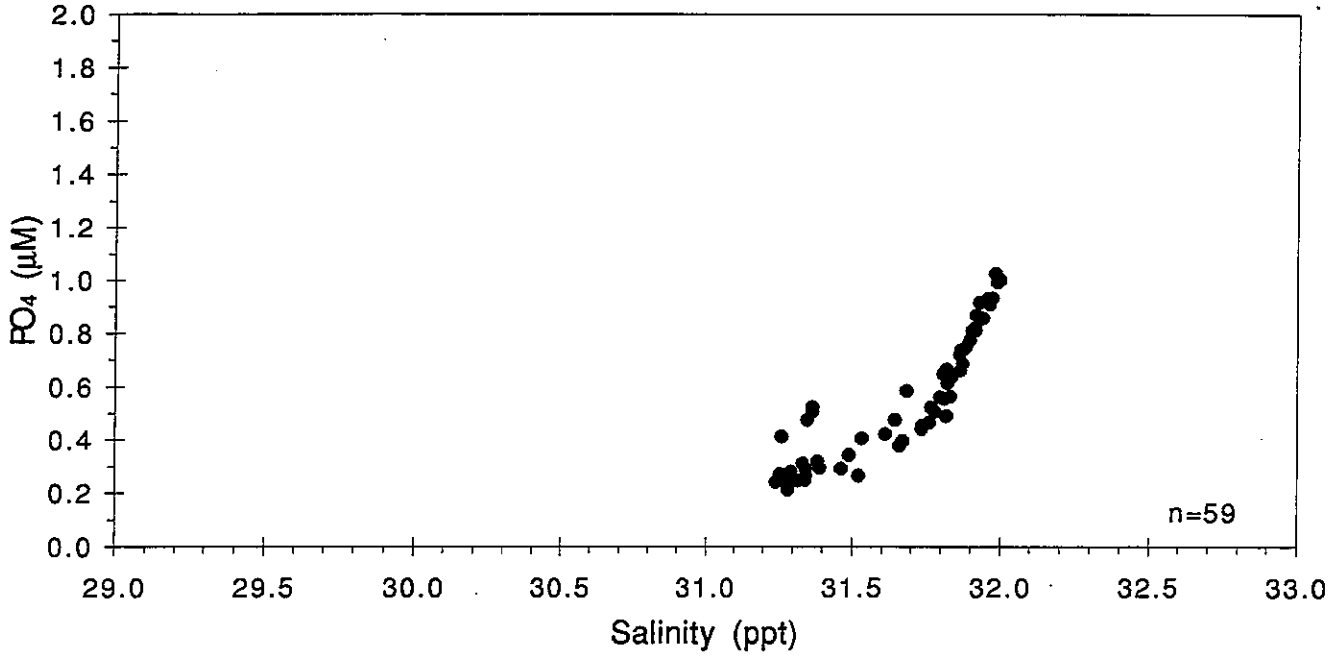
W9507 .


2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
PO4 (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

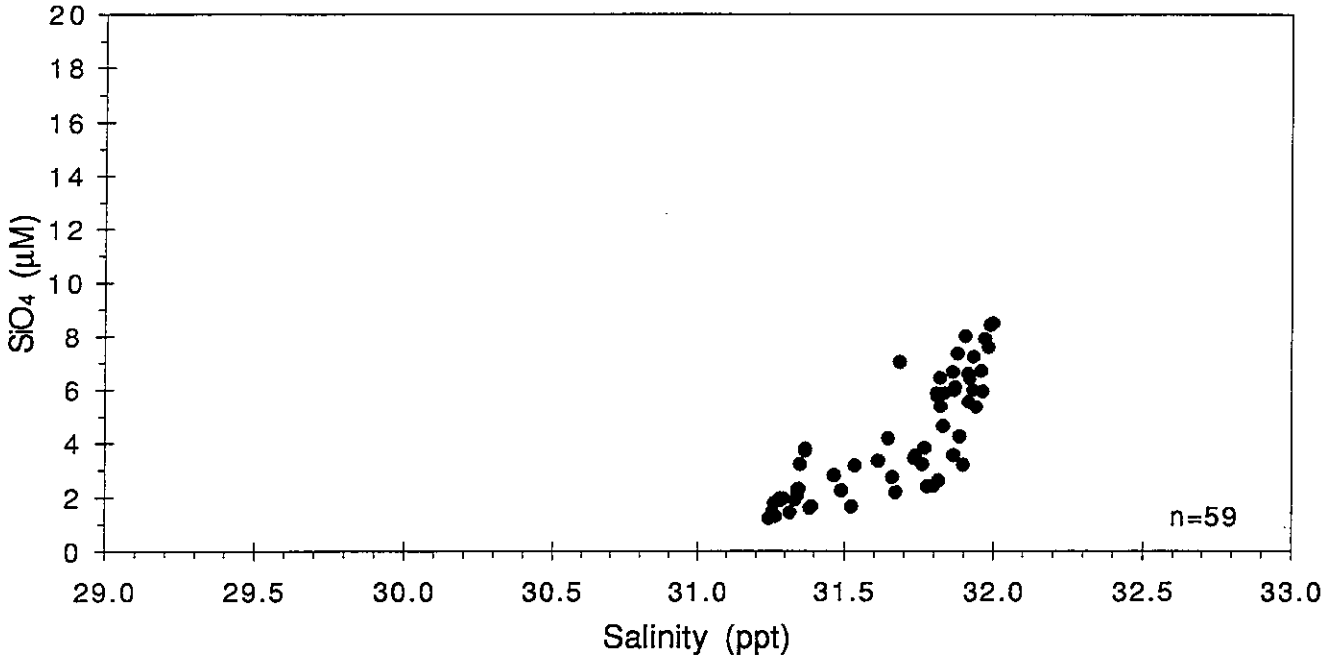
W9507 .


20
18
16
14
12
10
8
6
4
2
0
SiO4 (µM)
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

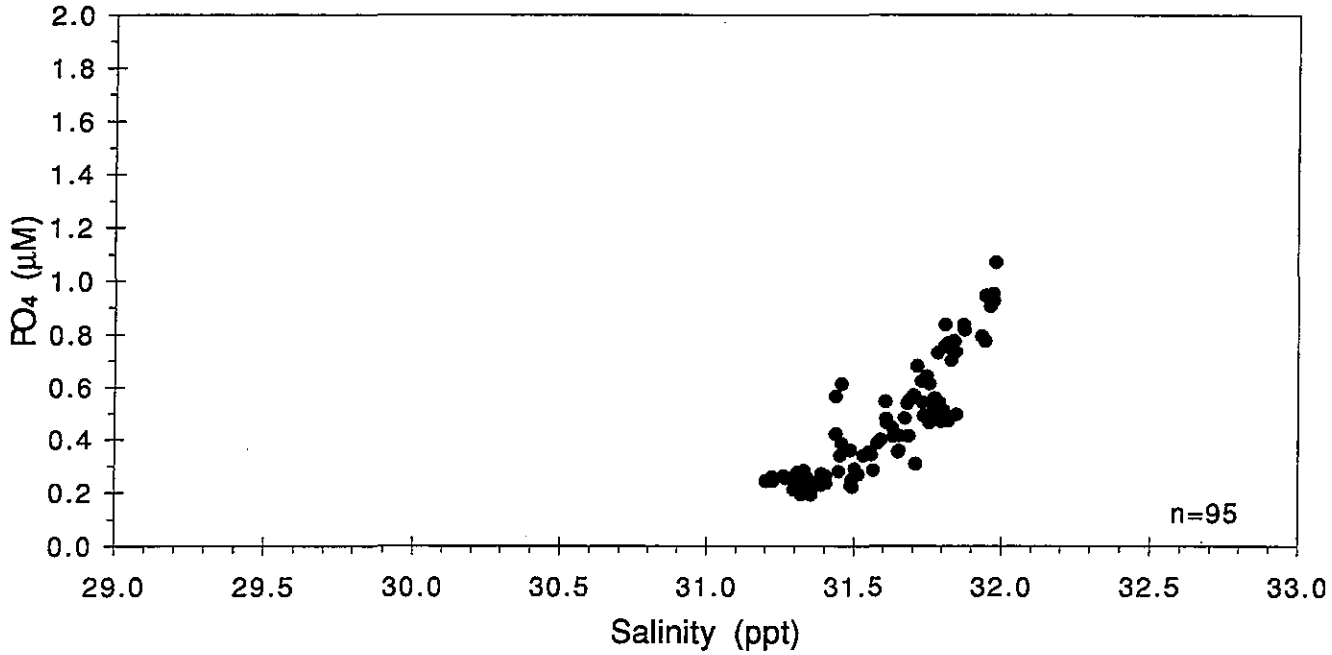
W9508 .


2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
PO4 (µM)
n=59
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

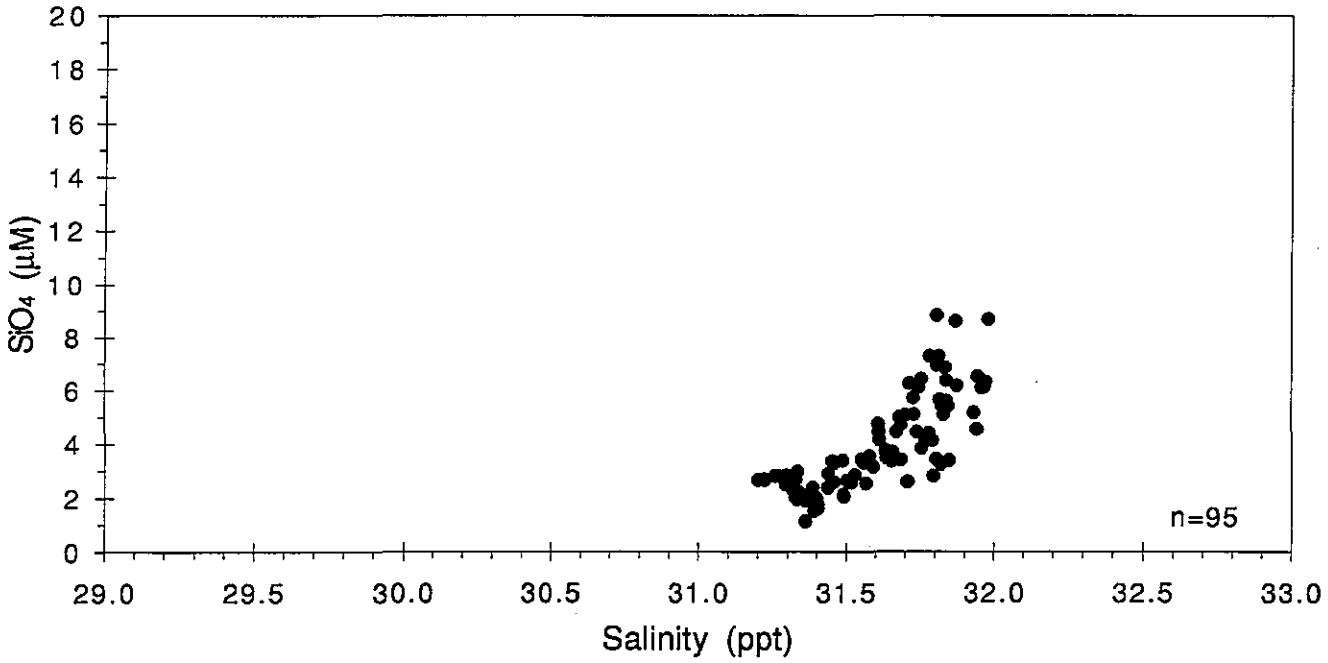
W9508 .


20
18
16
14
12
10
8
6
4
2
0
SiO4 (µM)
n=59
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

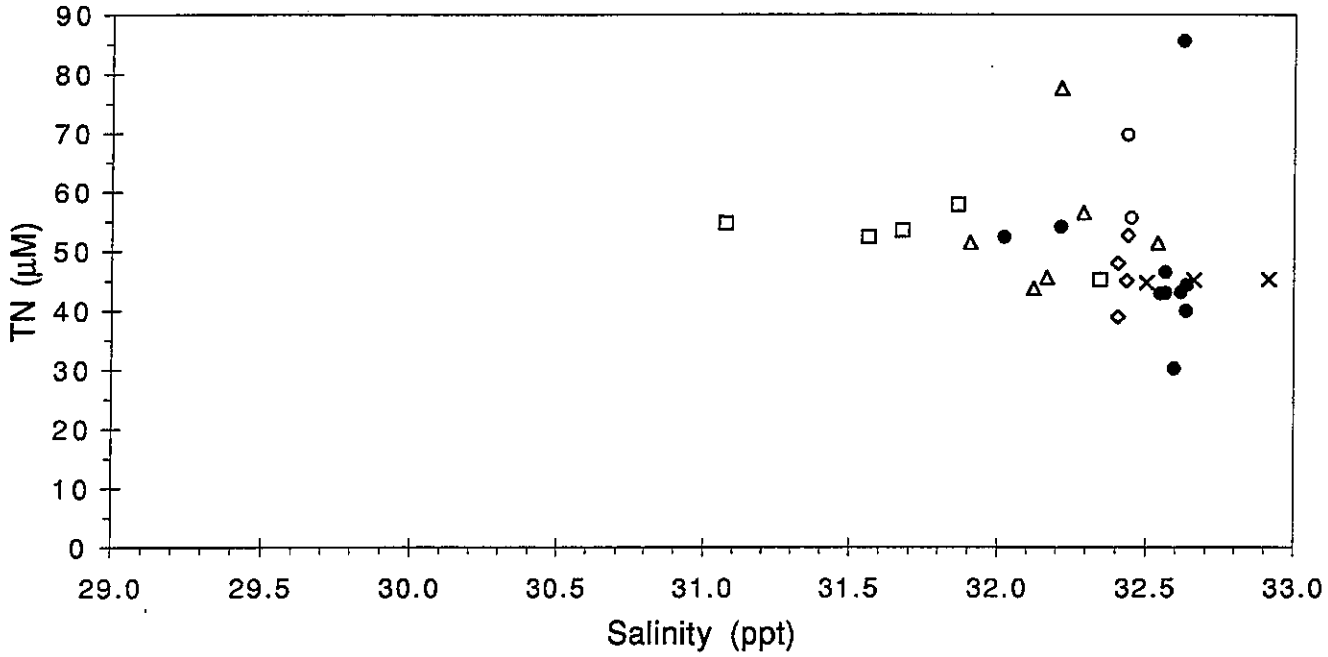
W9509 .


2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
PO4 (µM)
n=95
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

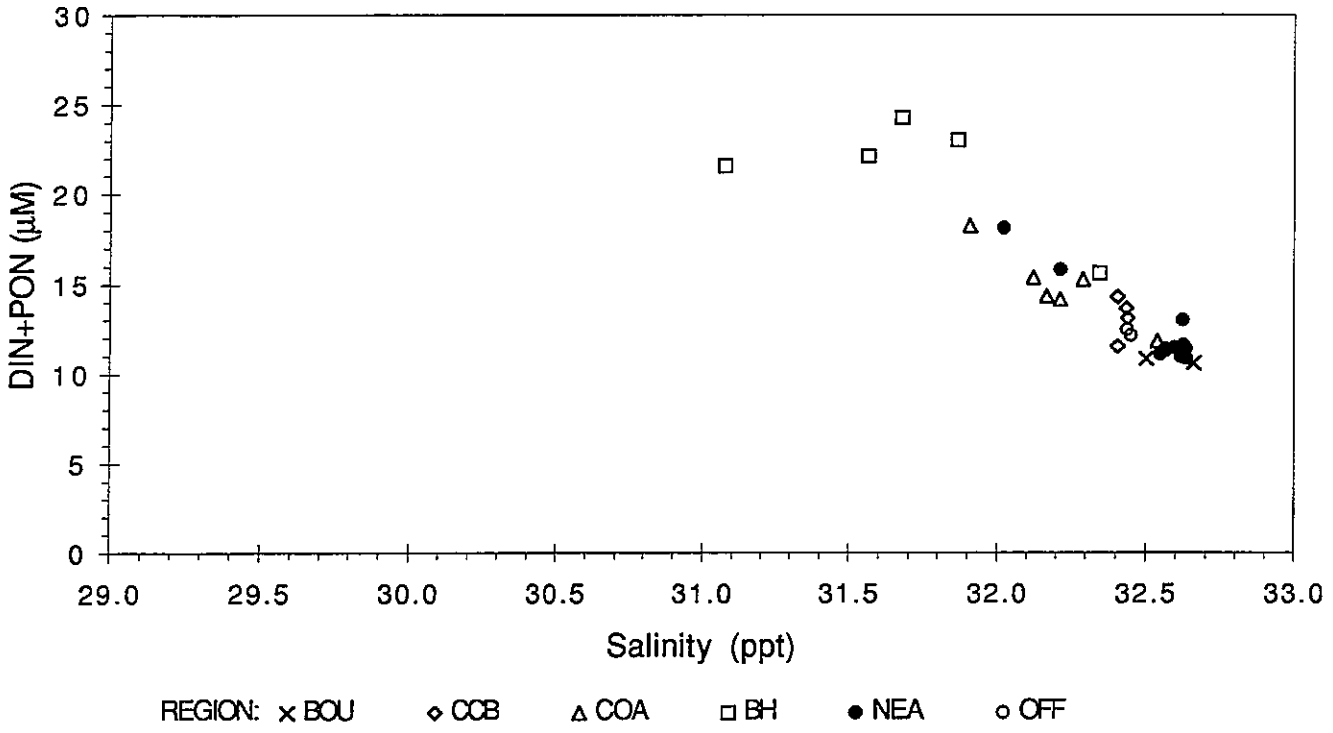
W9509 .

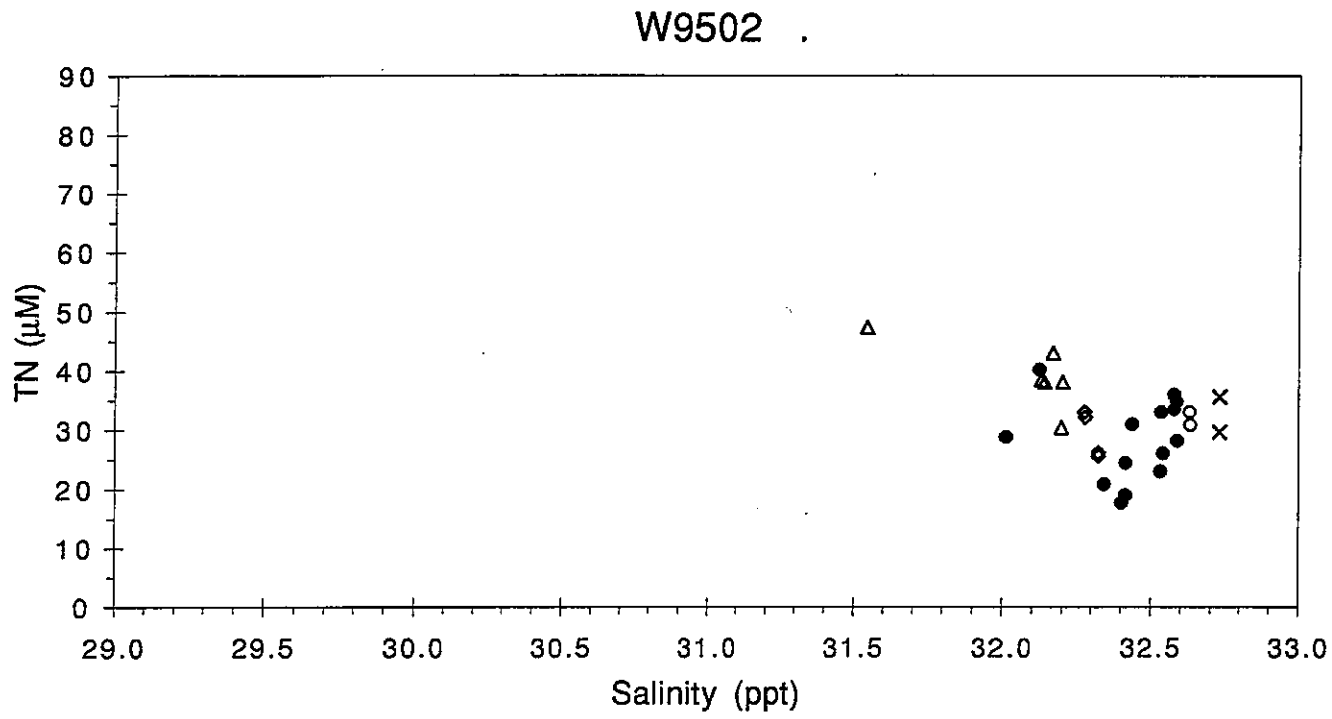

20
18
16
14
12
10
8
6
4
2
0
SiO4 (µM)
n=95
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

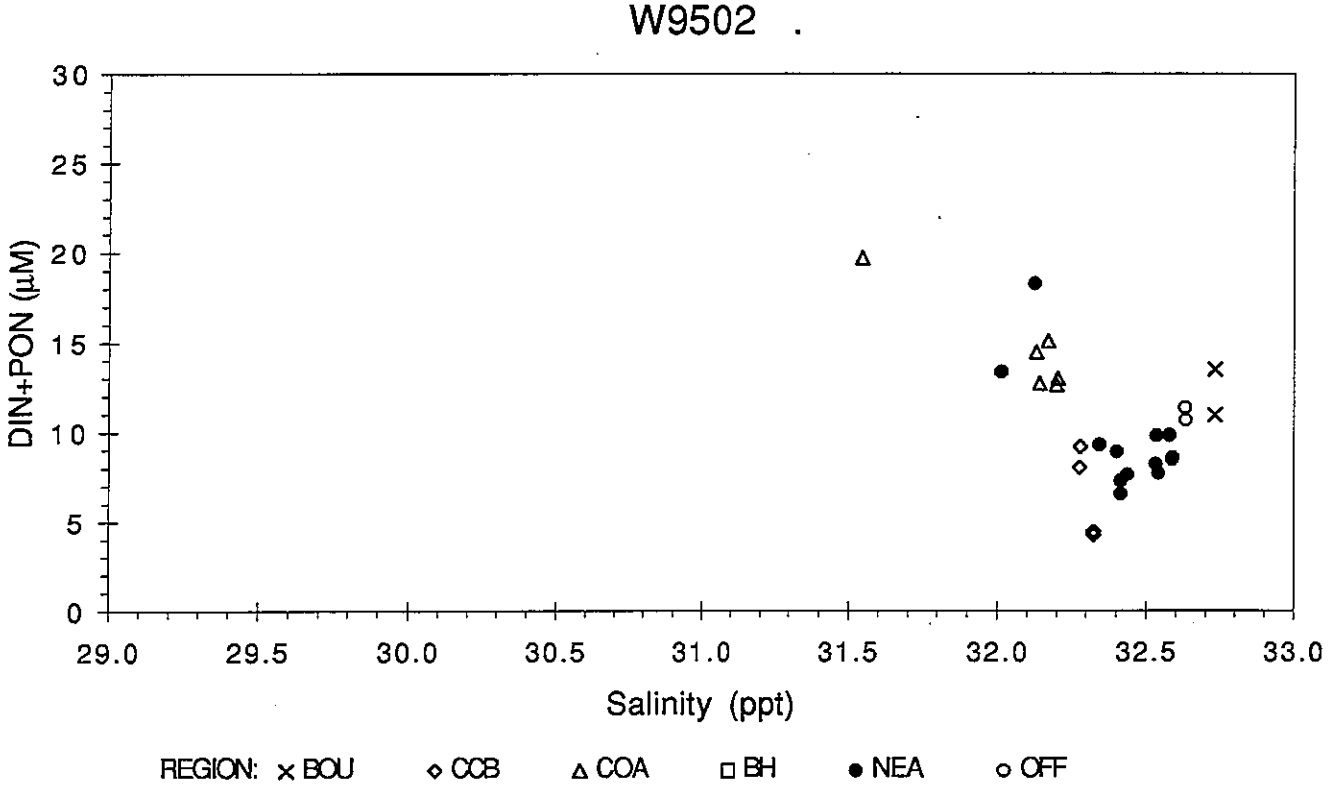
W9501 .


TN (µM)
90
80
70
60
50
40
30
20
10
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

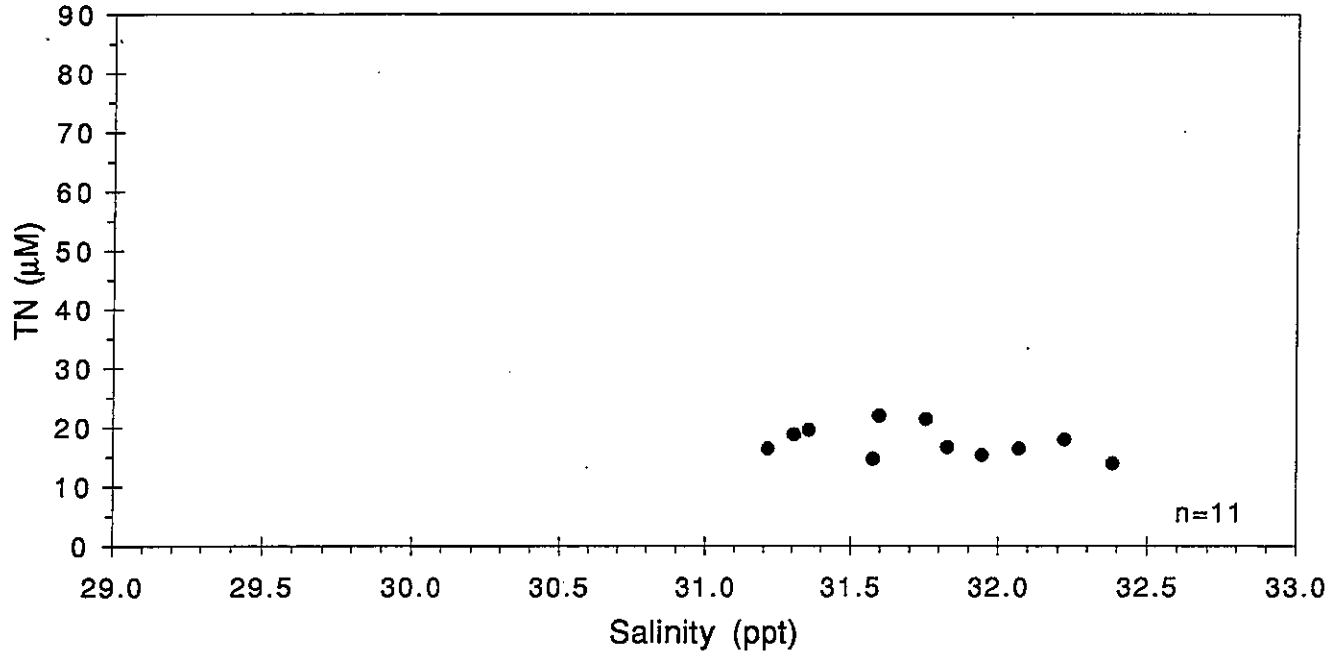
W9501 .


DIN+PON (µM)
30
25
20
15
10
5
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

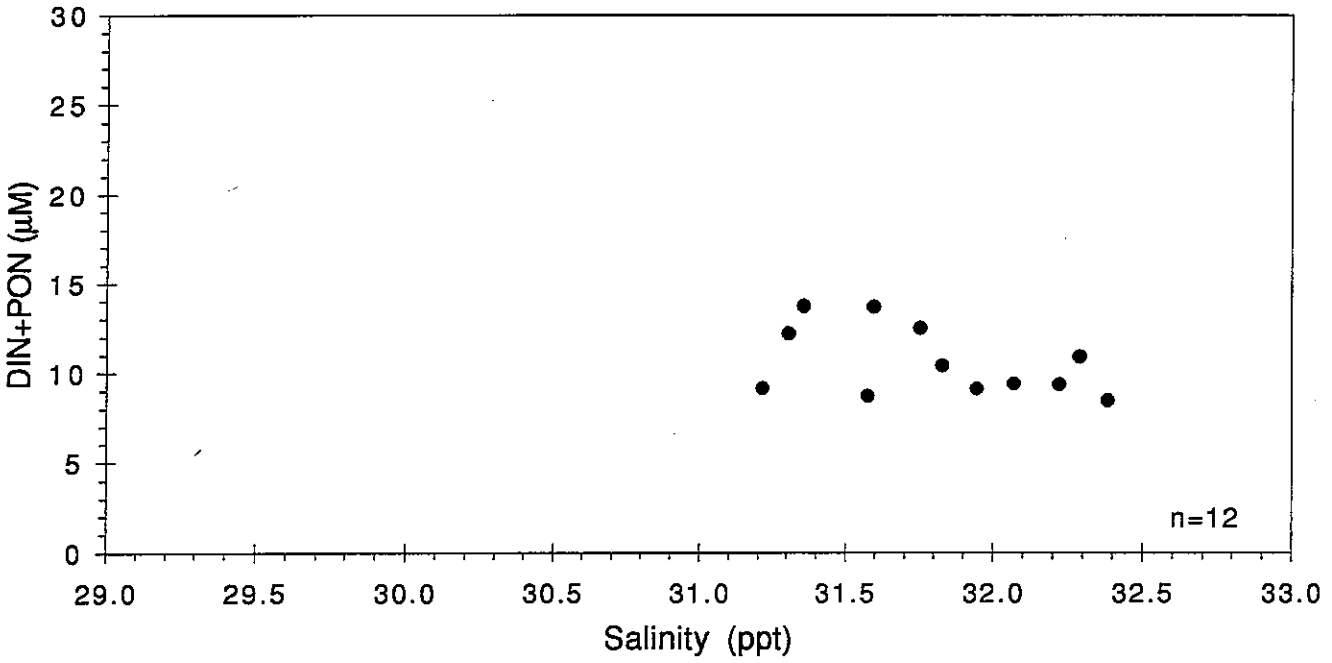

W9502 .
TN (µM)
90
80
70
60
50
40
30
20
10
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

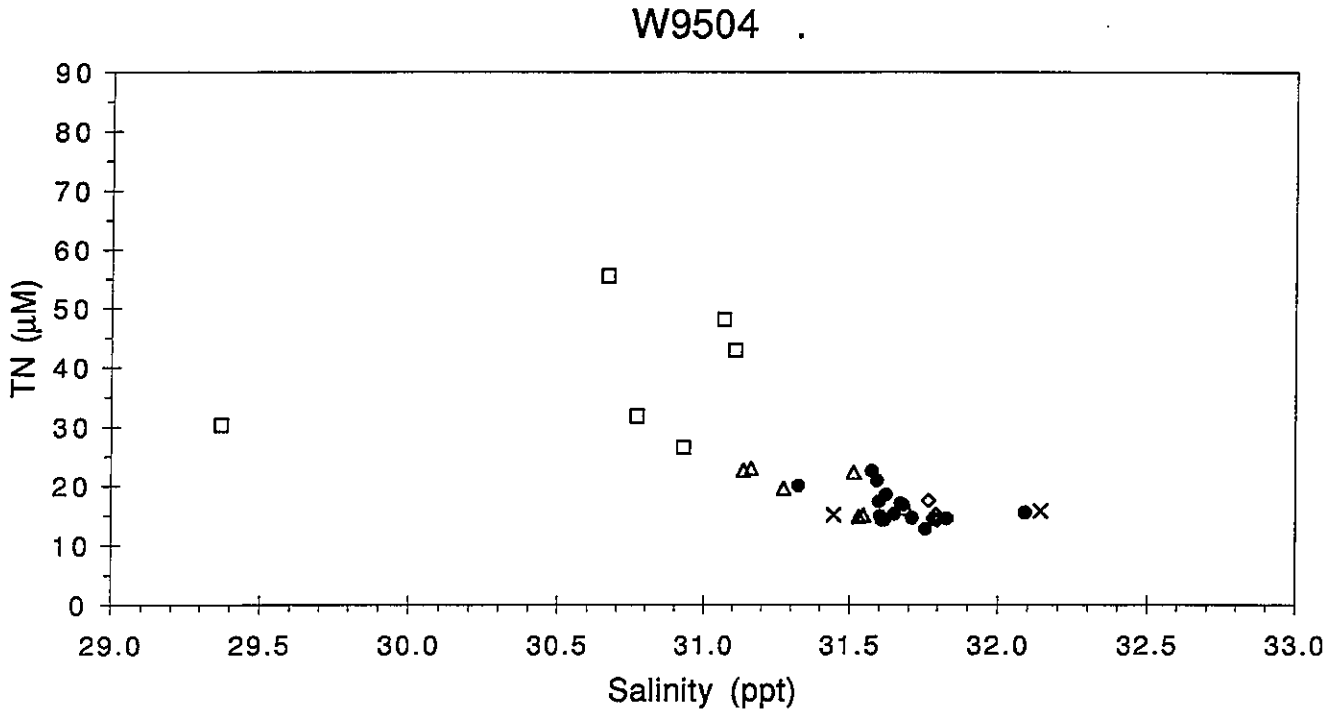

W9502 .
DIN+PON (µM)
30
25
20
15
10
5
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

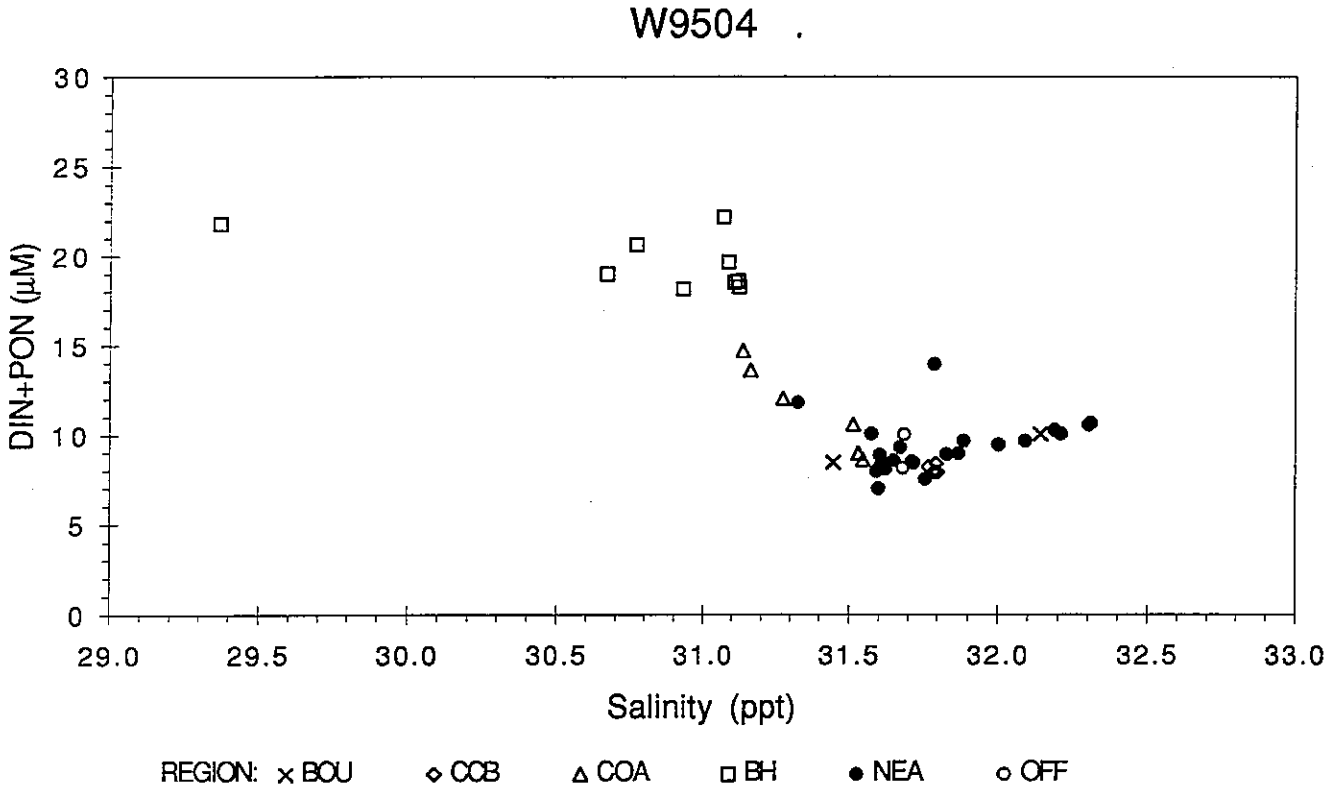
W9503 .


TN (µM)
90
80
70
60
50
40
30
20
10
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=11

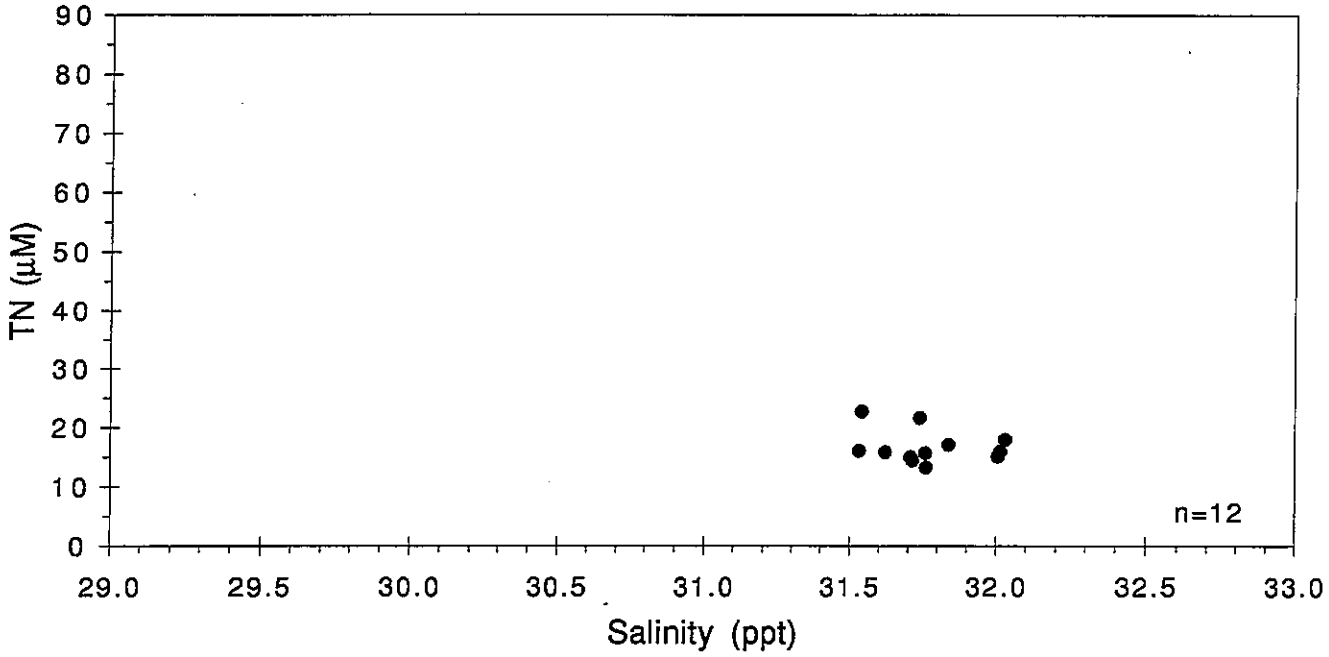
W9503 .


DIN+PON (µM)
30
25
20
15
10
5
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=12

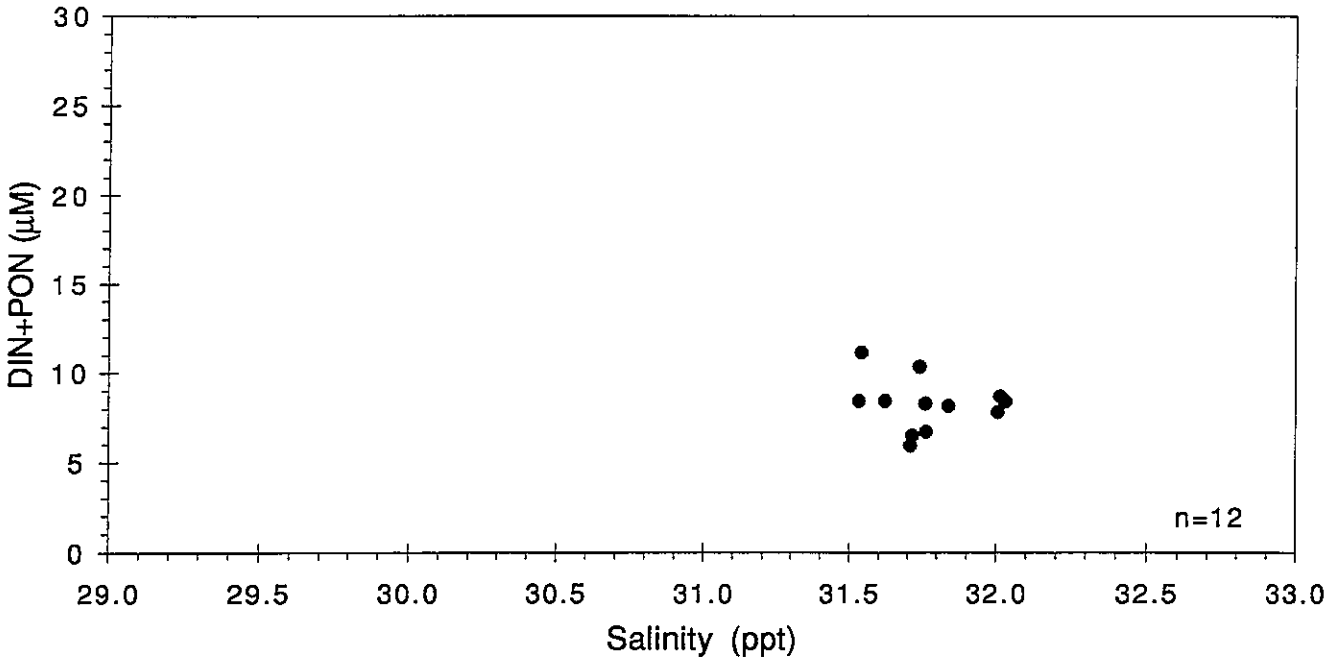

W9504 .
TN (µM)
Salinity (ppt)
0
10
20
30
40
50
60
70
80
90
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0


W9504 .
DIN+PON (µM)
Salinity (ppt)
0
5
10
15
20
25
30
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
REGION: × BOU ◇ COB △ COA □ BH ● NEA ○ OFF

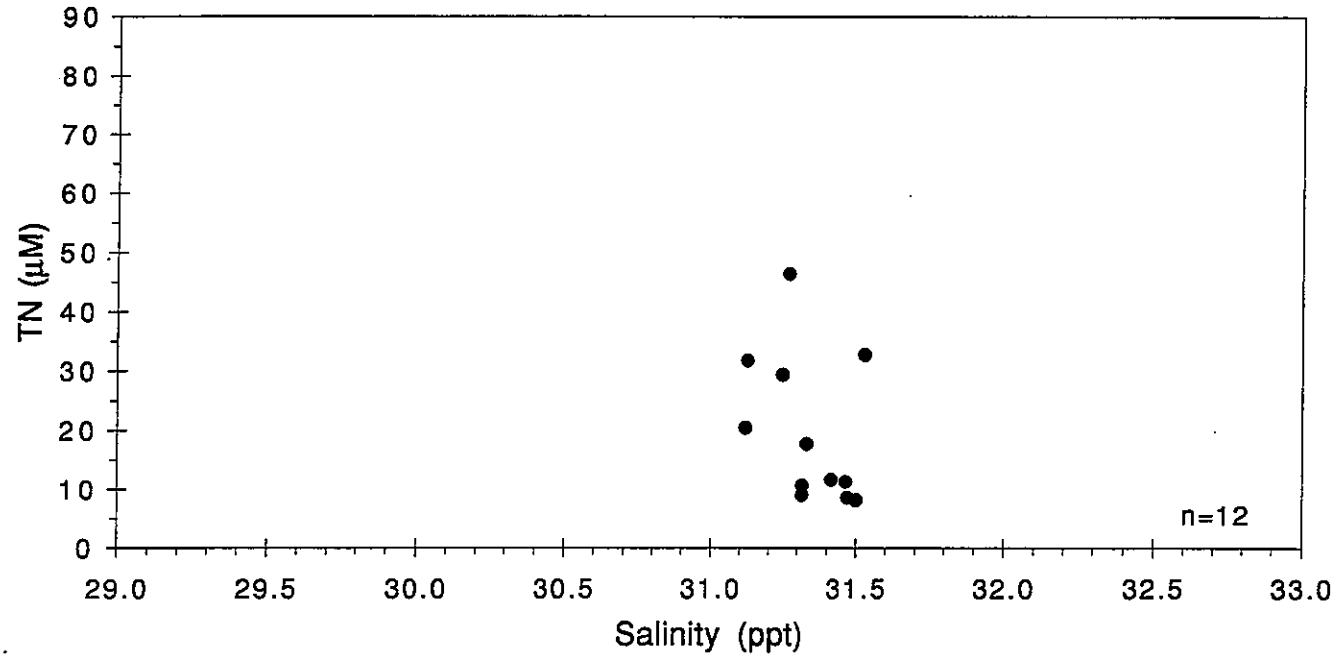
W9505 .


90
80
70
60
50
40
30
20
10
0
TN (µM)
n=12
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

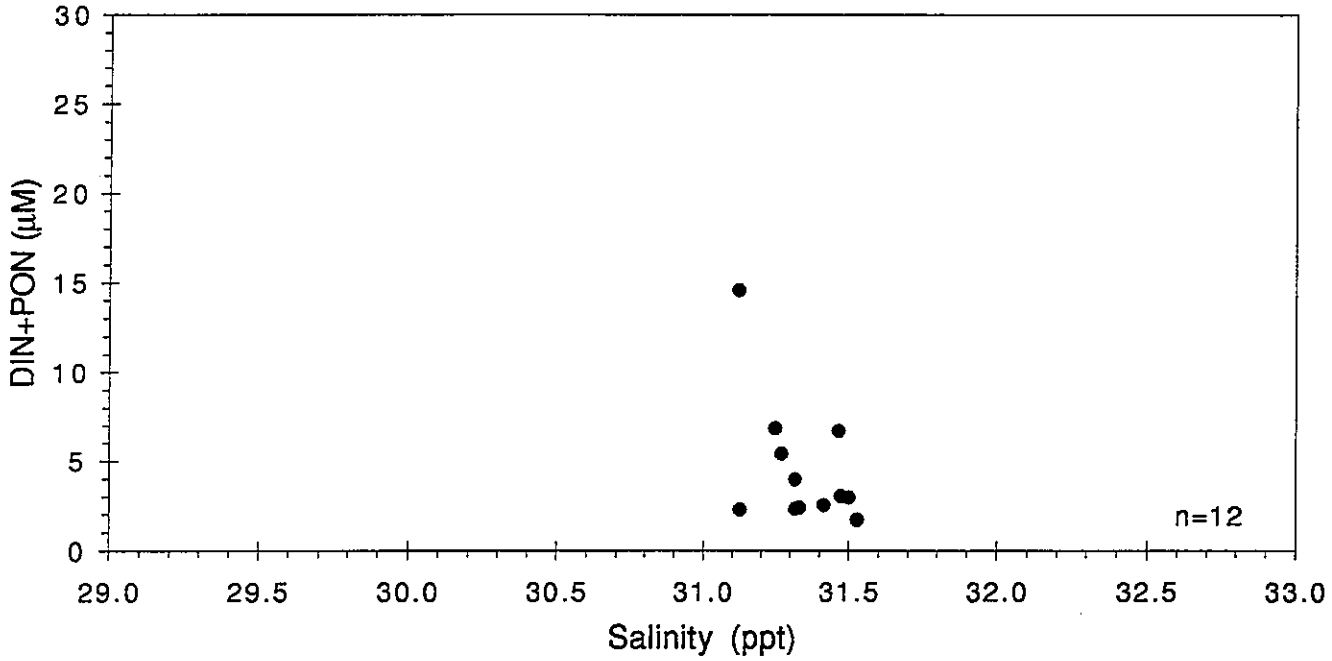
W9505 .


30
25
20
15
10
5
0
DIN+PON (µM)
n=12
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

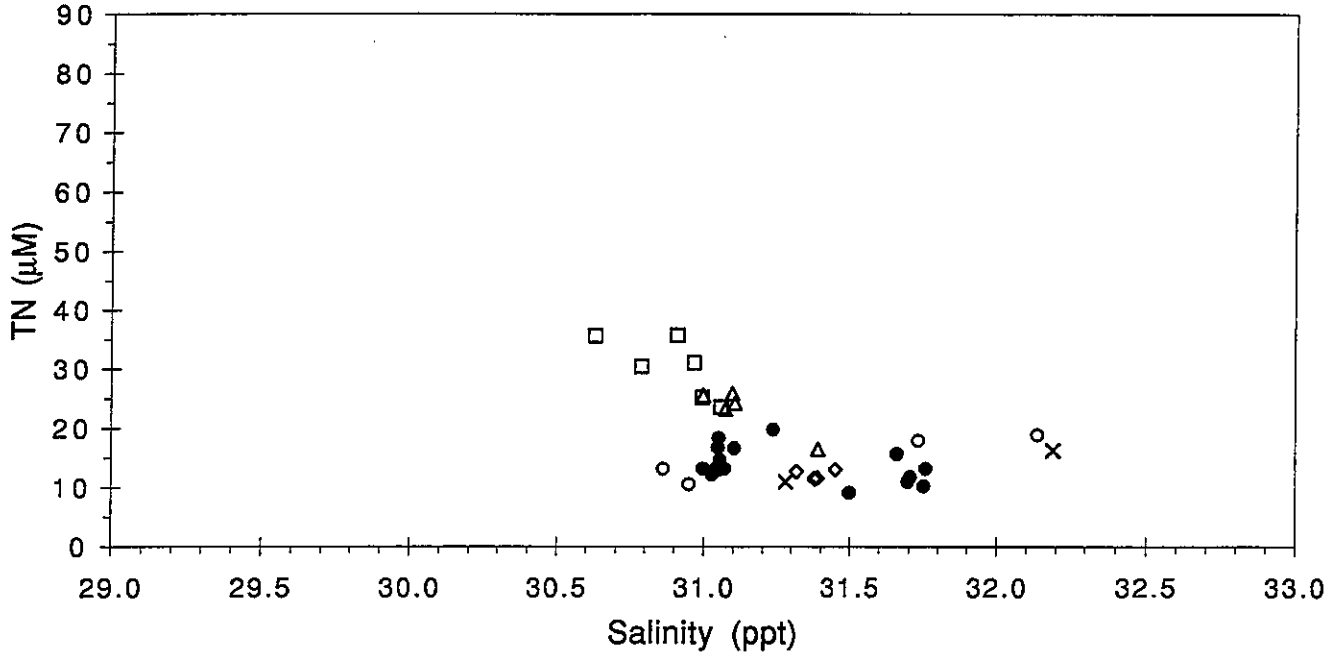
W9506 .


TN (µM)
90
80
70
60
50
40
30
20
10
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=12

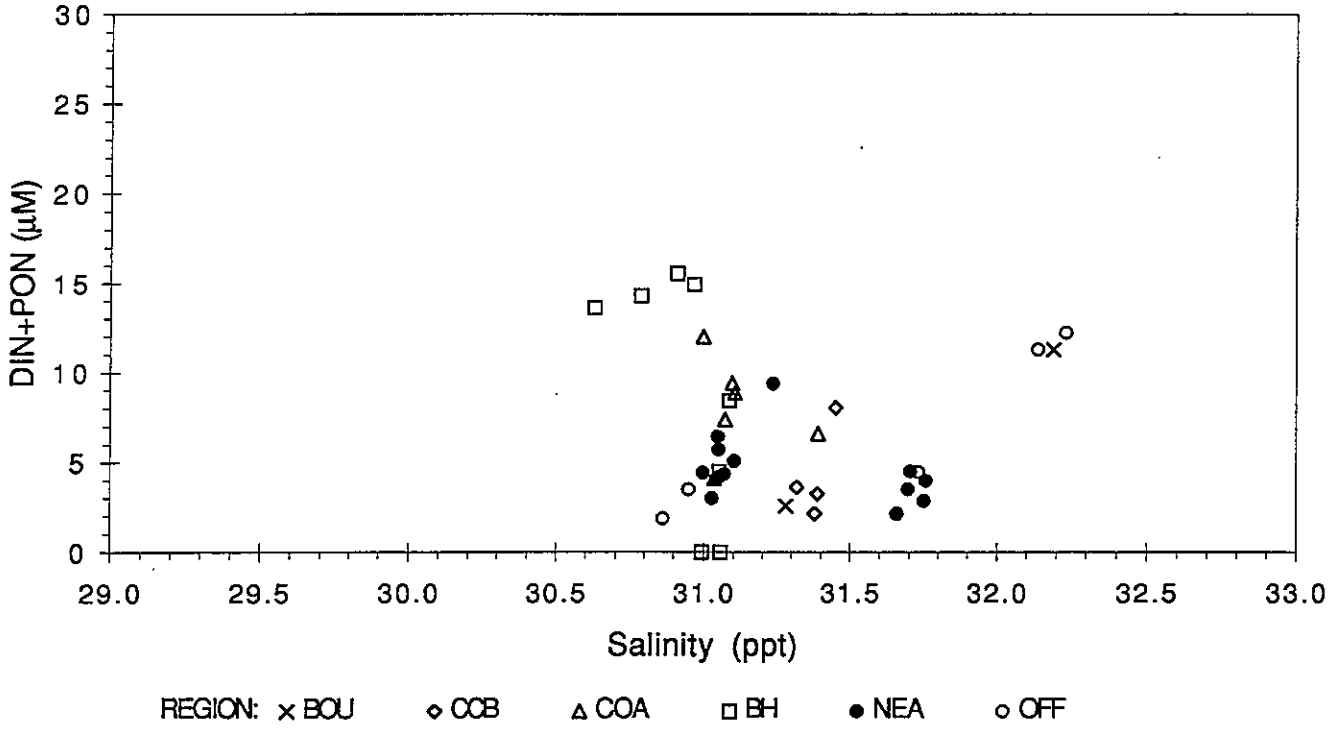
W9506 .


DIN+PON (µM)
30
25
20
15
10
5
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=12

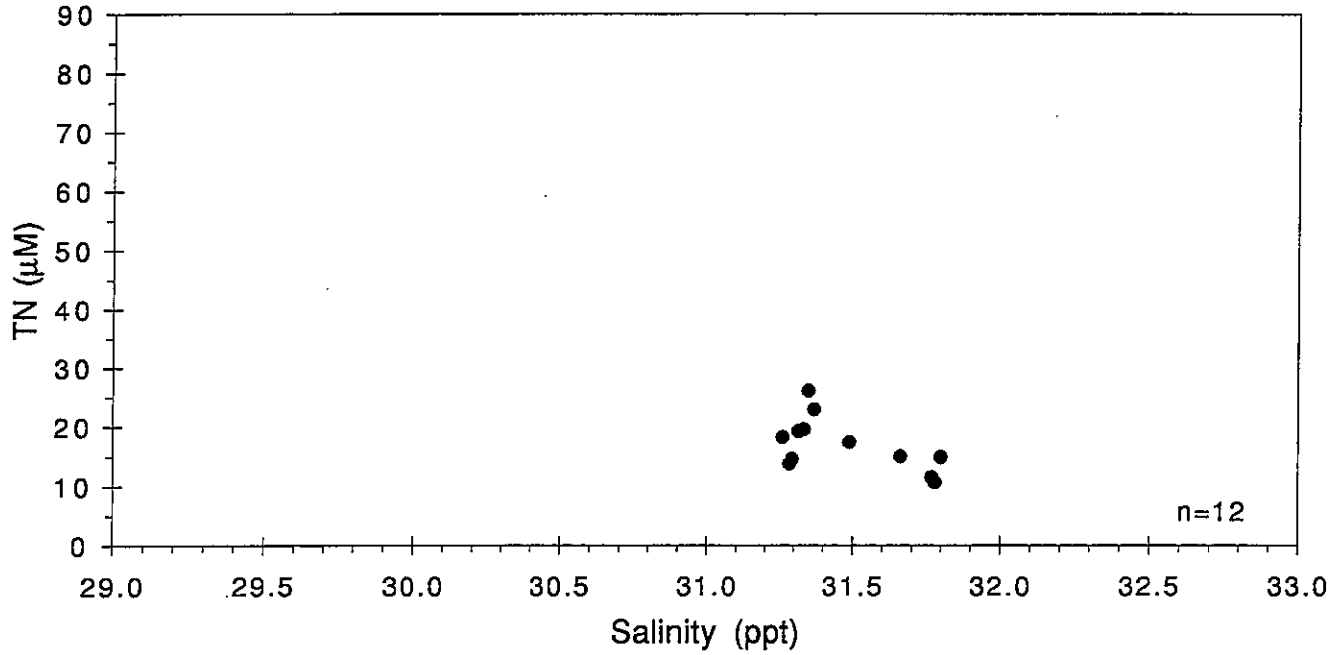
W9507 .


TN (µM)
90
80
70
60
50
40
30
20
10
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)

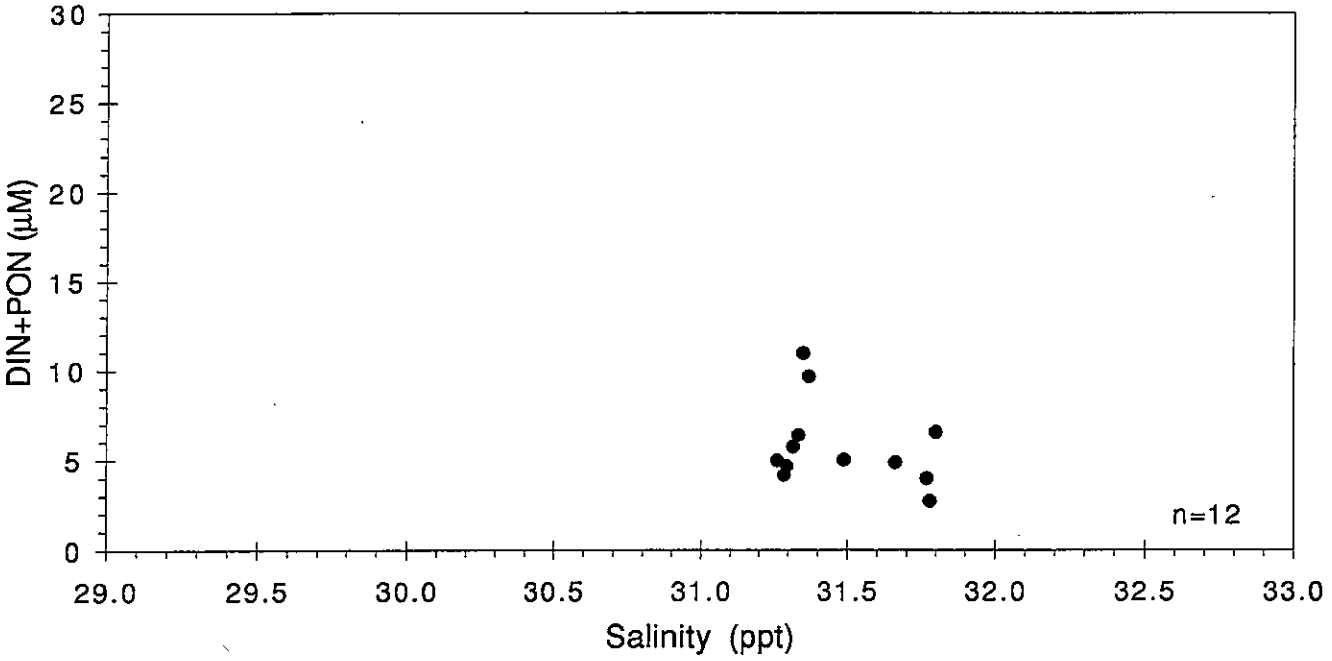
W9507 .


DIN+PON (µM)
30
25
20
15
10
5
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

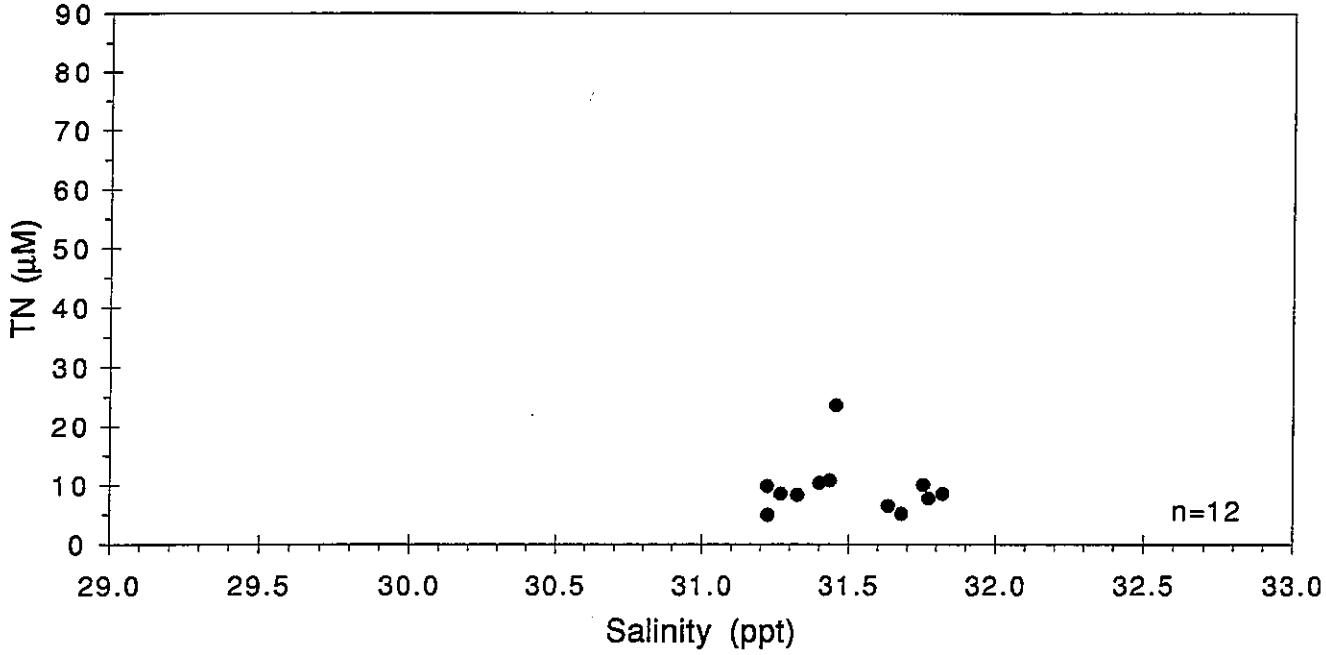
W9508 .


TN (µM)
90
80
70
60
50
40
30
20
10
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=12

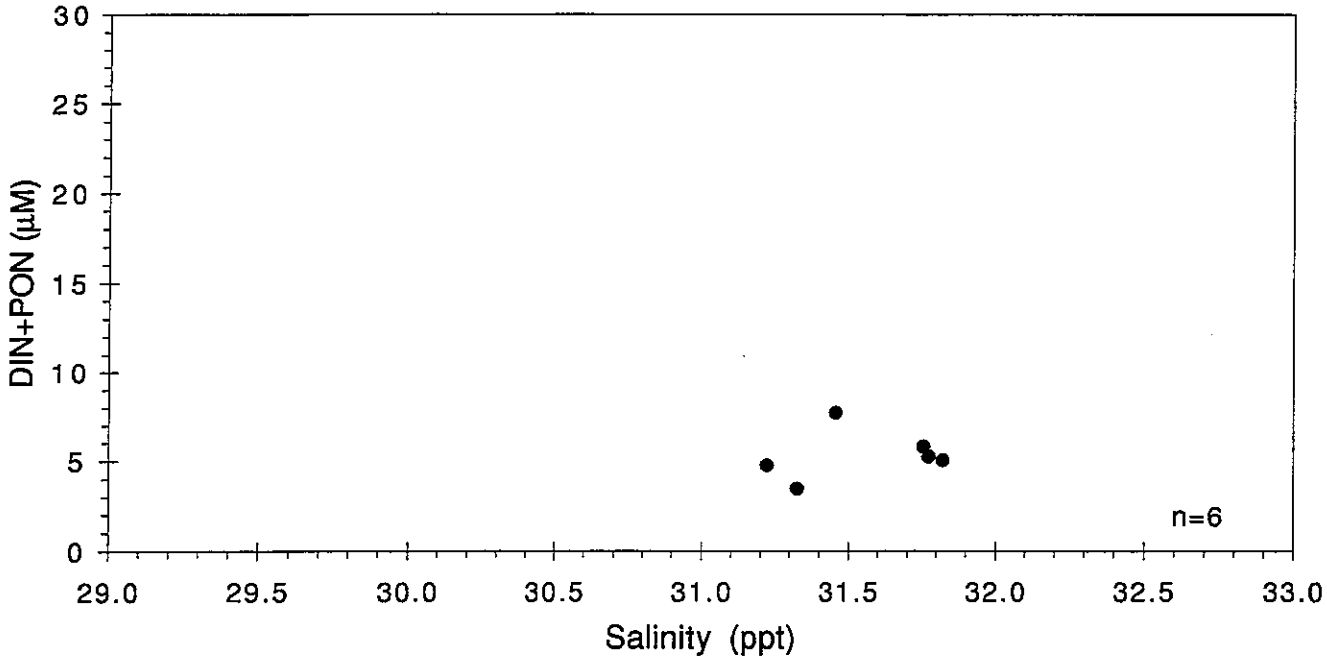
W9508 .

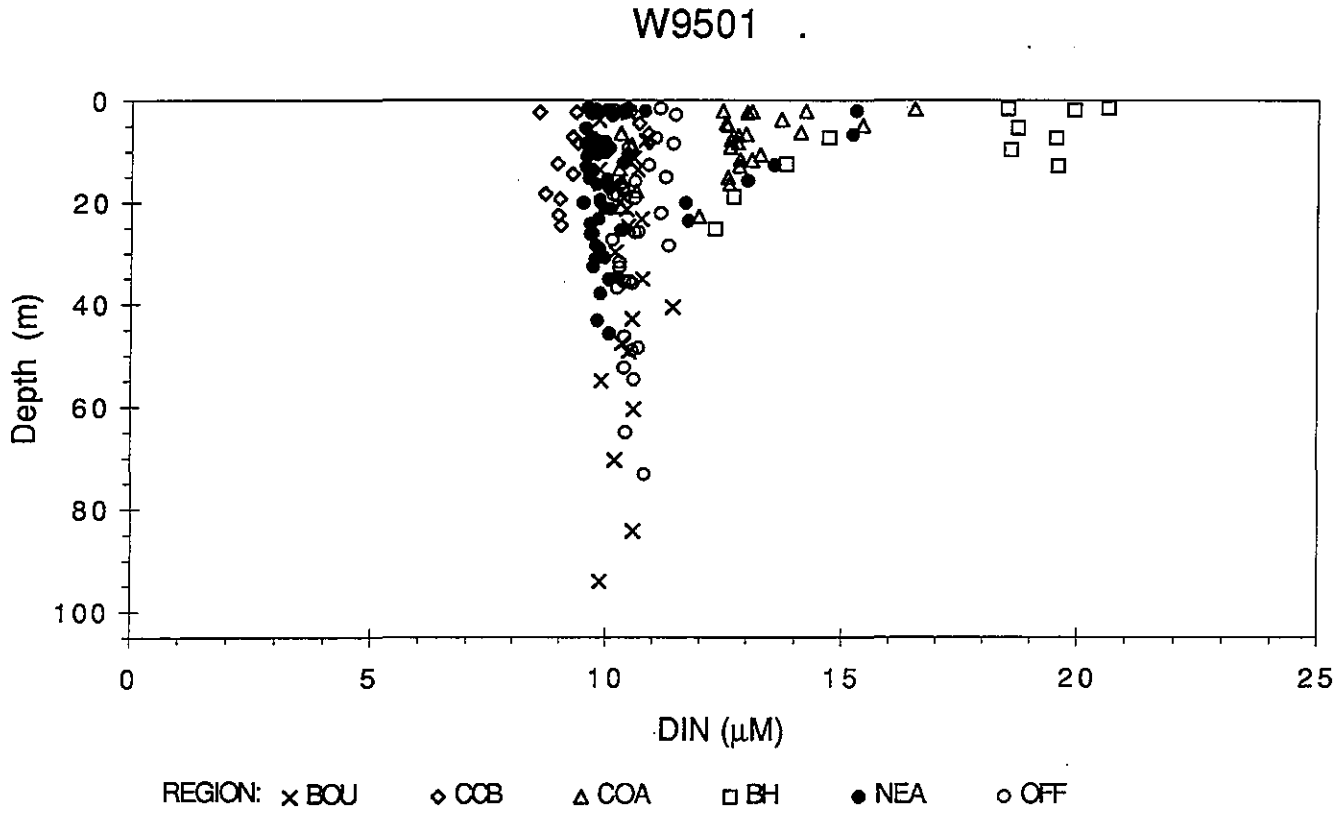

DIN+PON (µM)
30
25
20
15
10
5
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=12

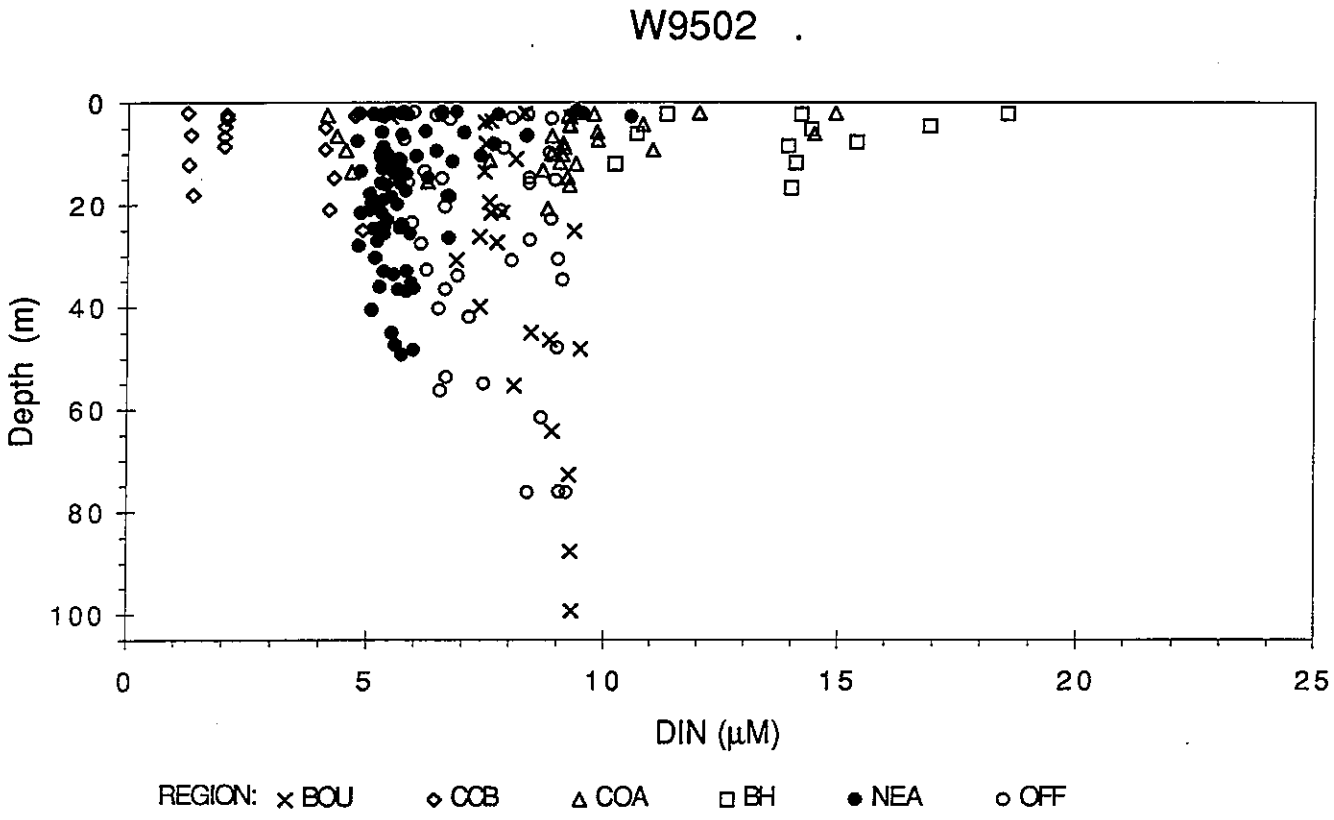
W9509 .


TN (µM)
90
80
70
60
50
40
30
20
10
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=12

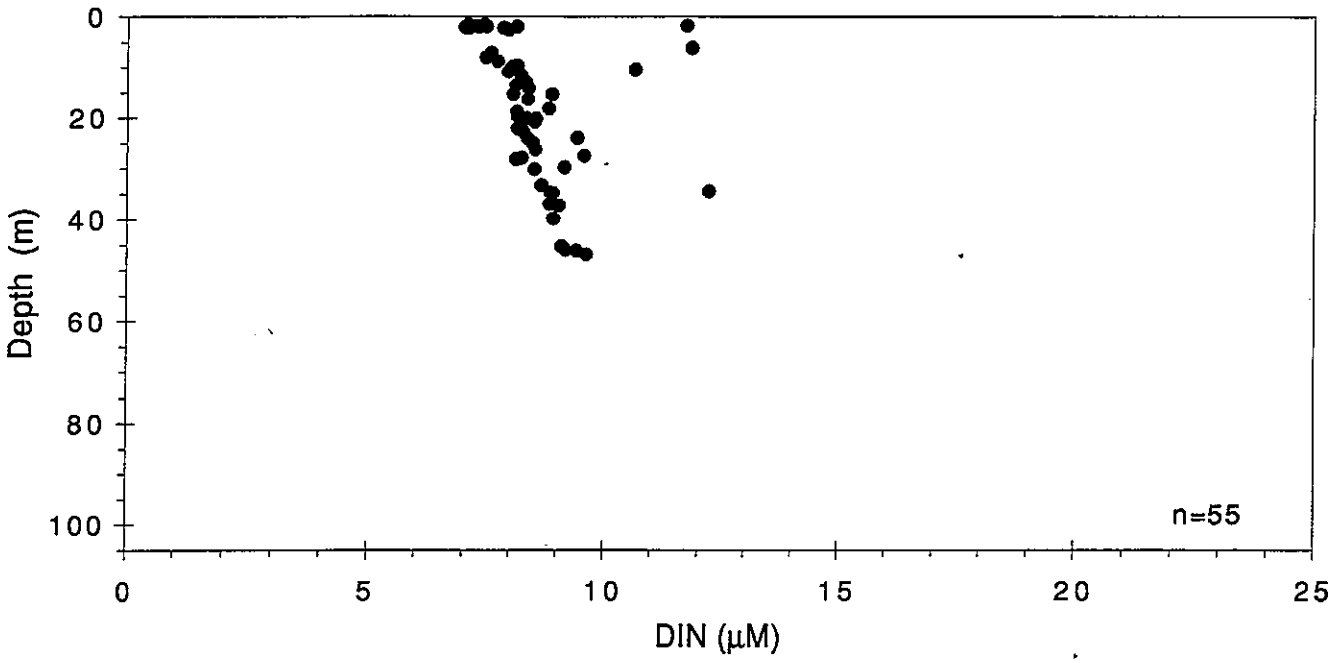
W9509 .


DIN+PON (µM)
30
25
20
15
10
5
0
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
33.0
Salinity (ppt)
n=6

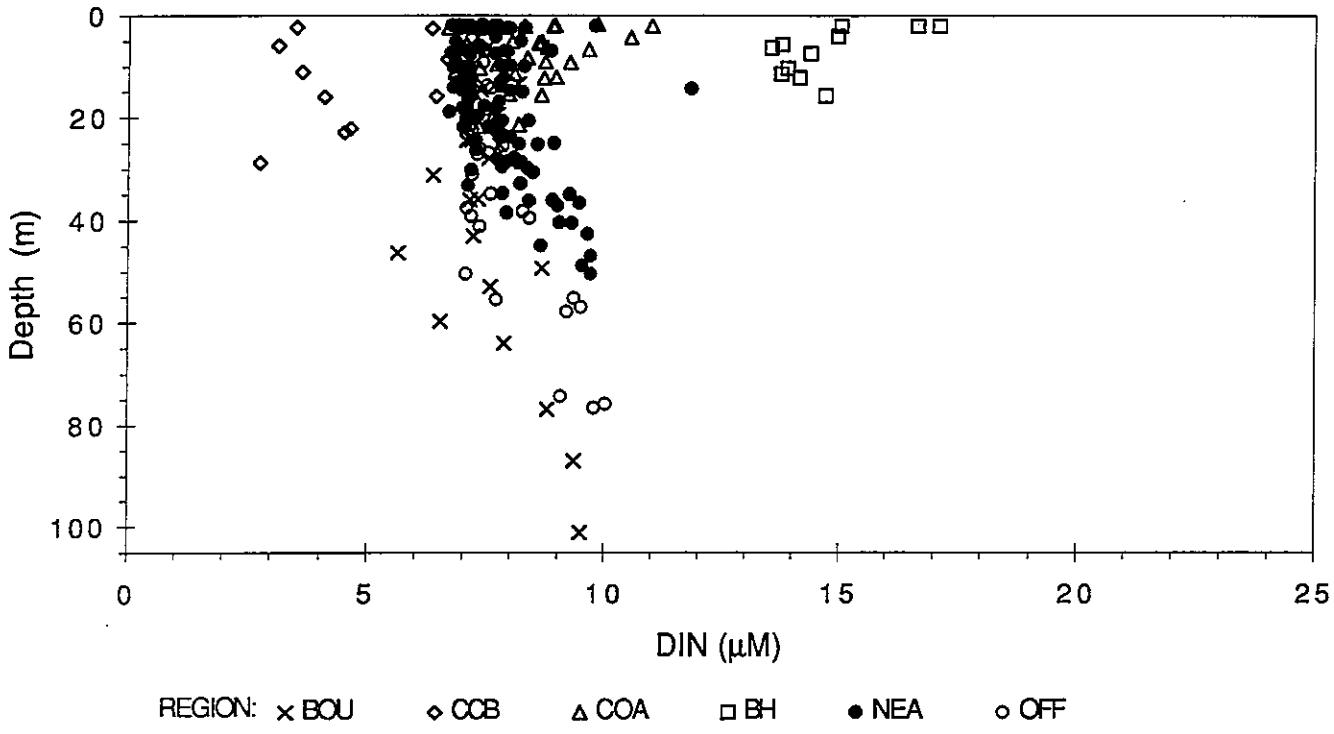

W9501
Depth (m)
0
20
40
60
80
100
0
5
10
15
20
25
DIN (µM)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF


W9502
Depth (m)
0
20
40
60
80
100
0
5
10
15
20
25
DIN (µM)
REGION: × BOU ◇ COB △ COA □ BH ● NEA ○ OFF

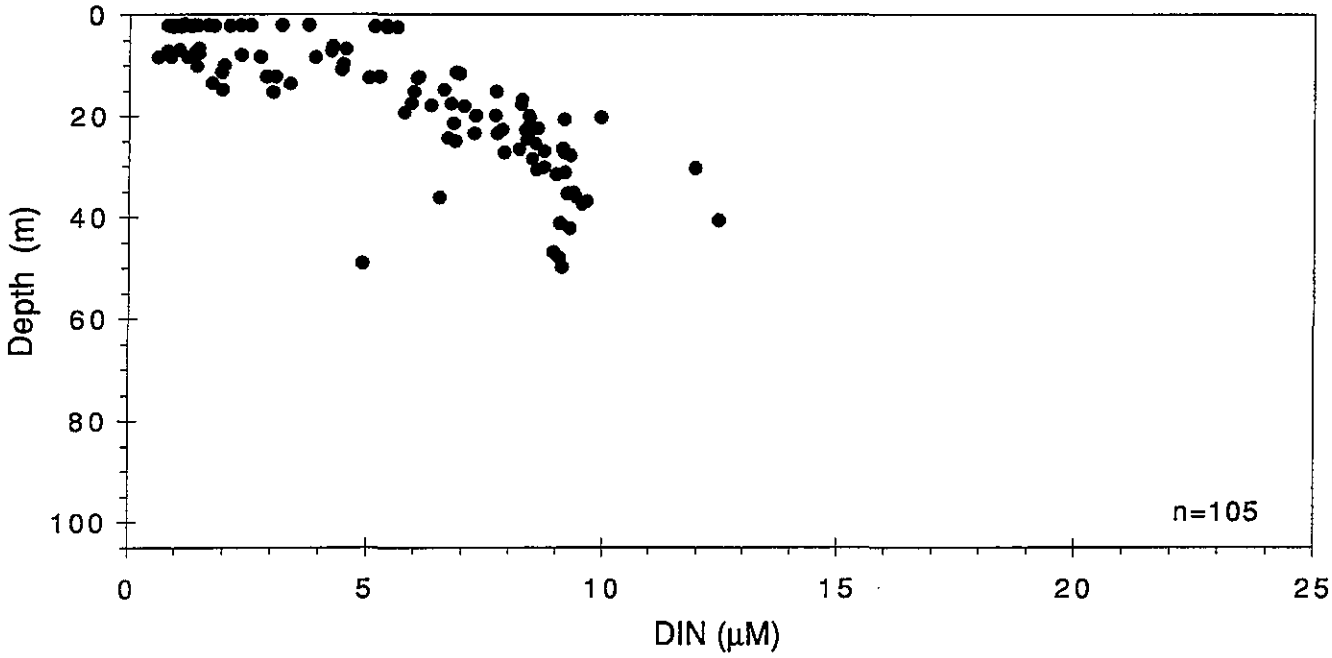
W9503



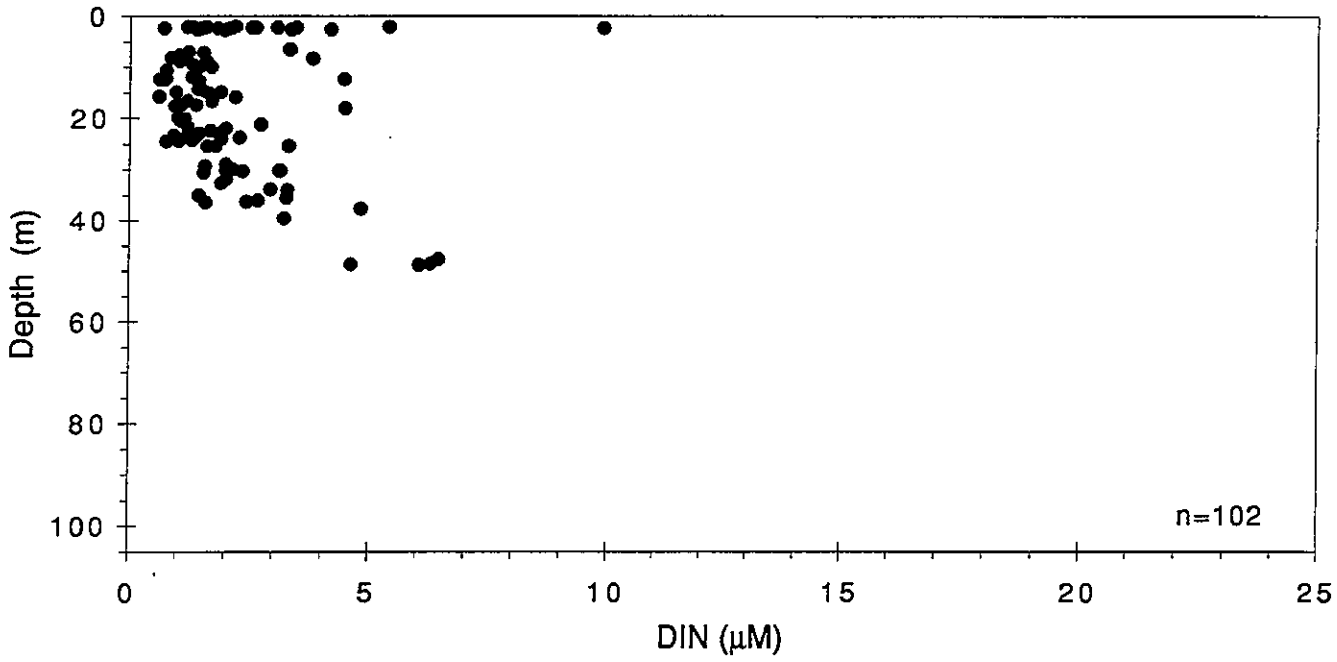
W9504 .


0
20
40
60
80
100
Depth (m)
0
5
10
15
20
25
DIN (µM)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

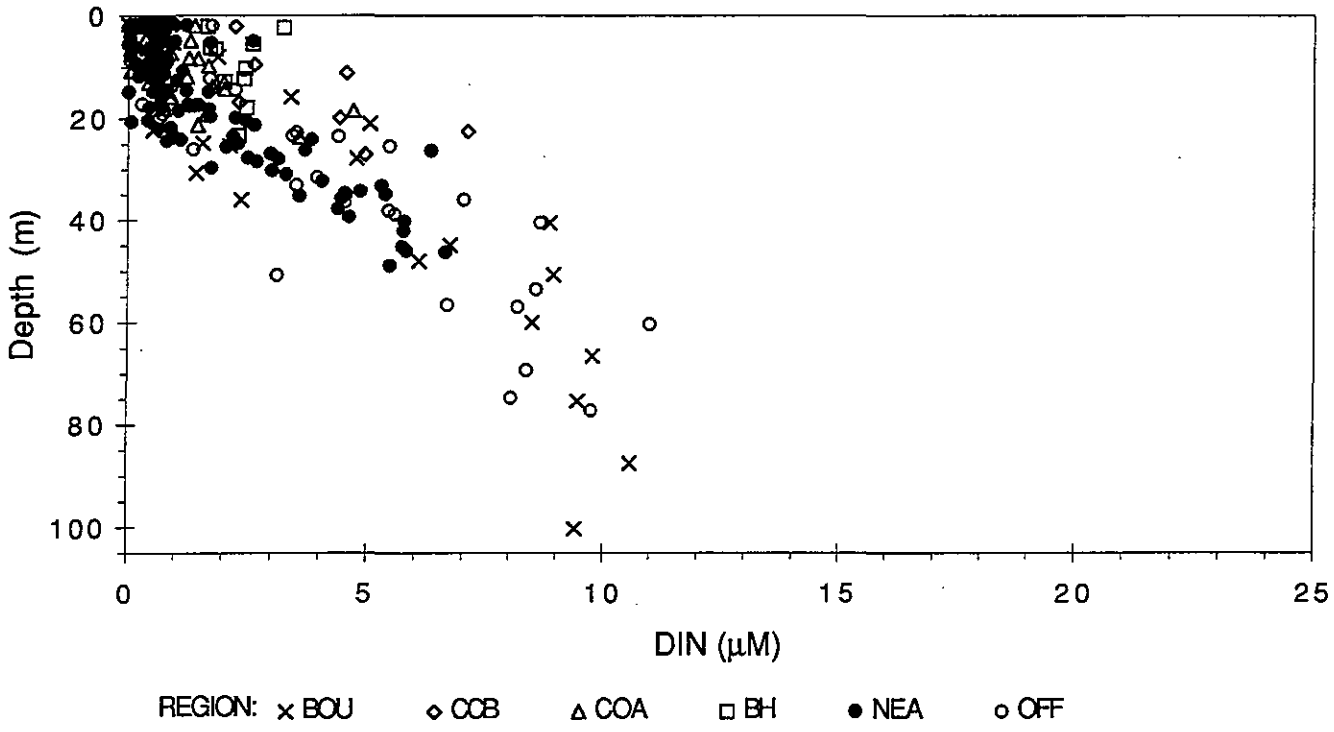
W9505 .



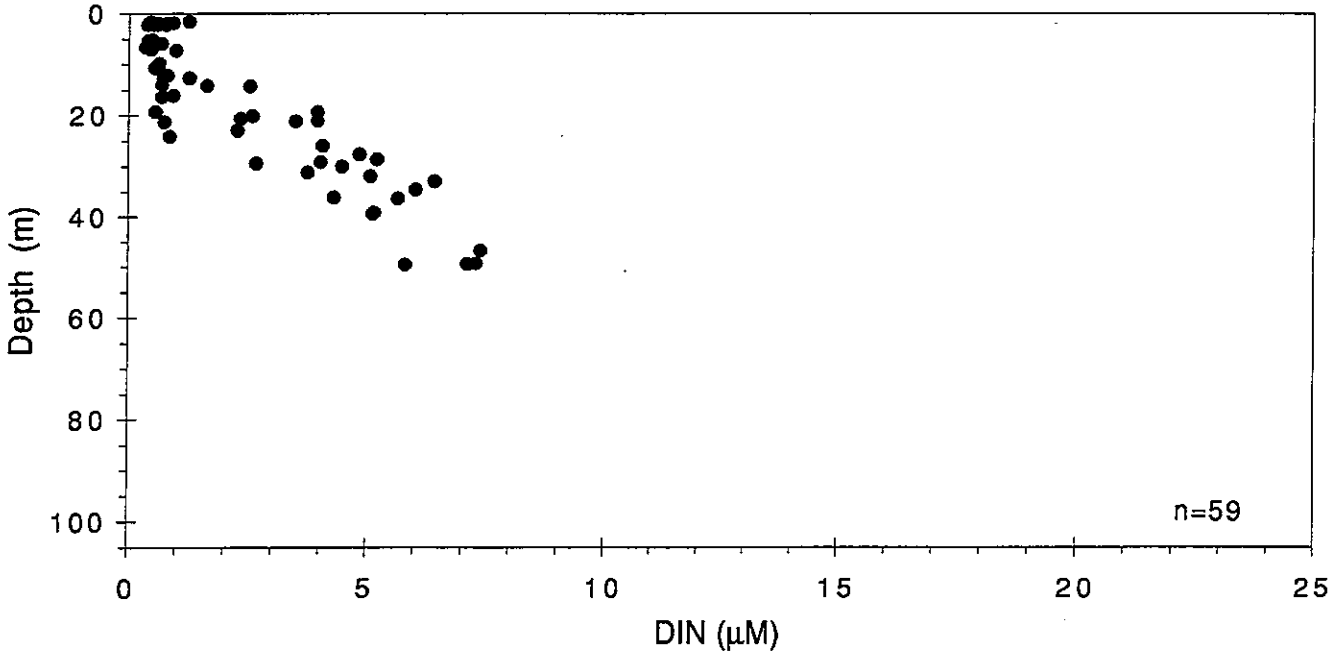
W9506 .



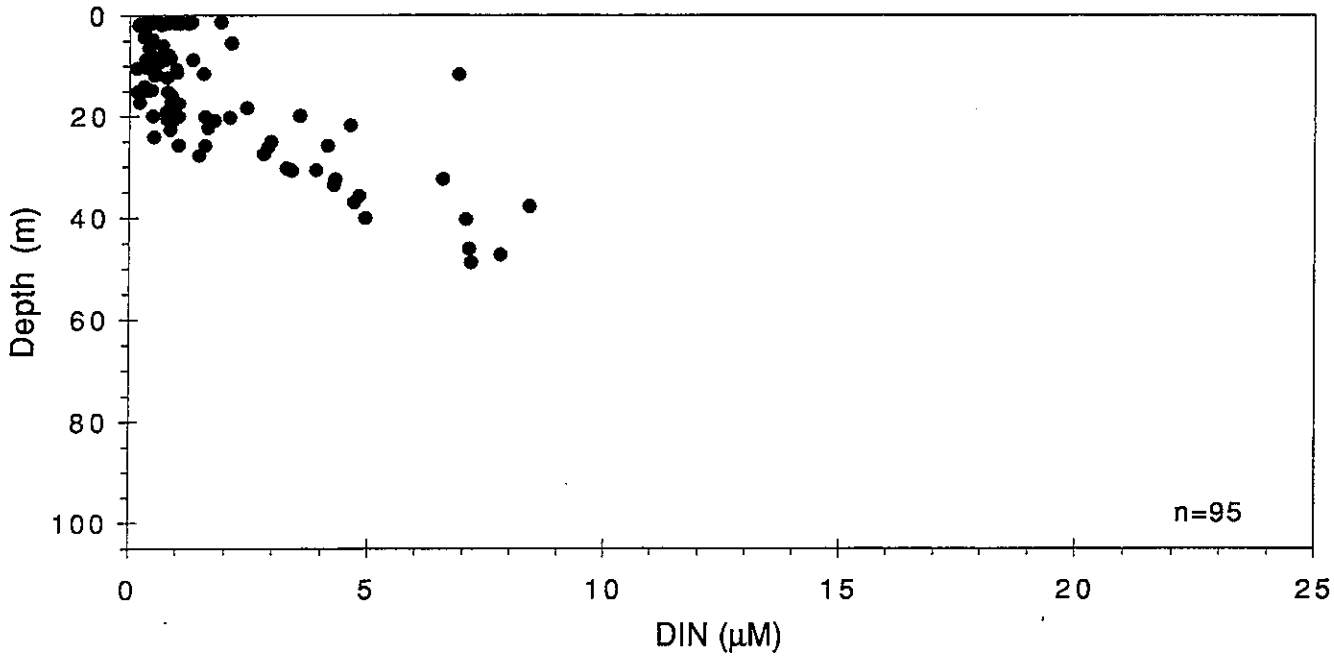
W9507 .

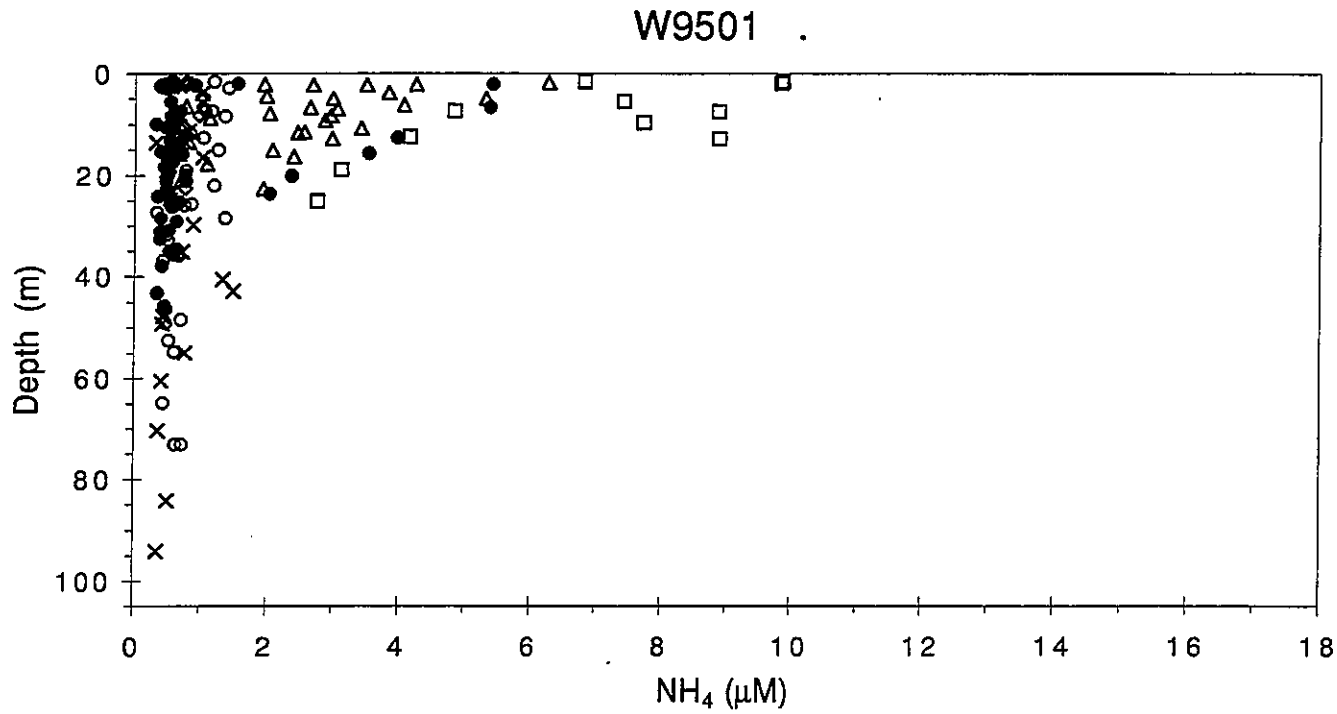

Depth (m)
0
20
40
60
80
100
0
5
10
15
20
25
DIN (µM)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

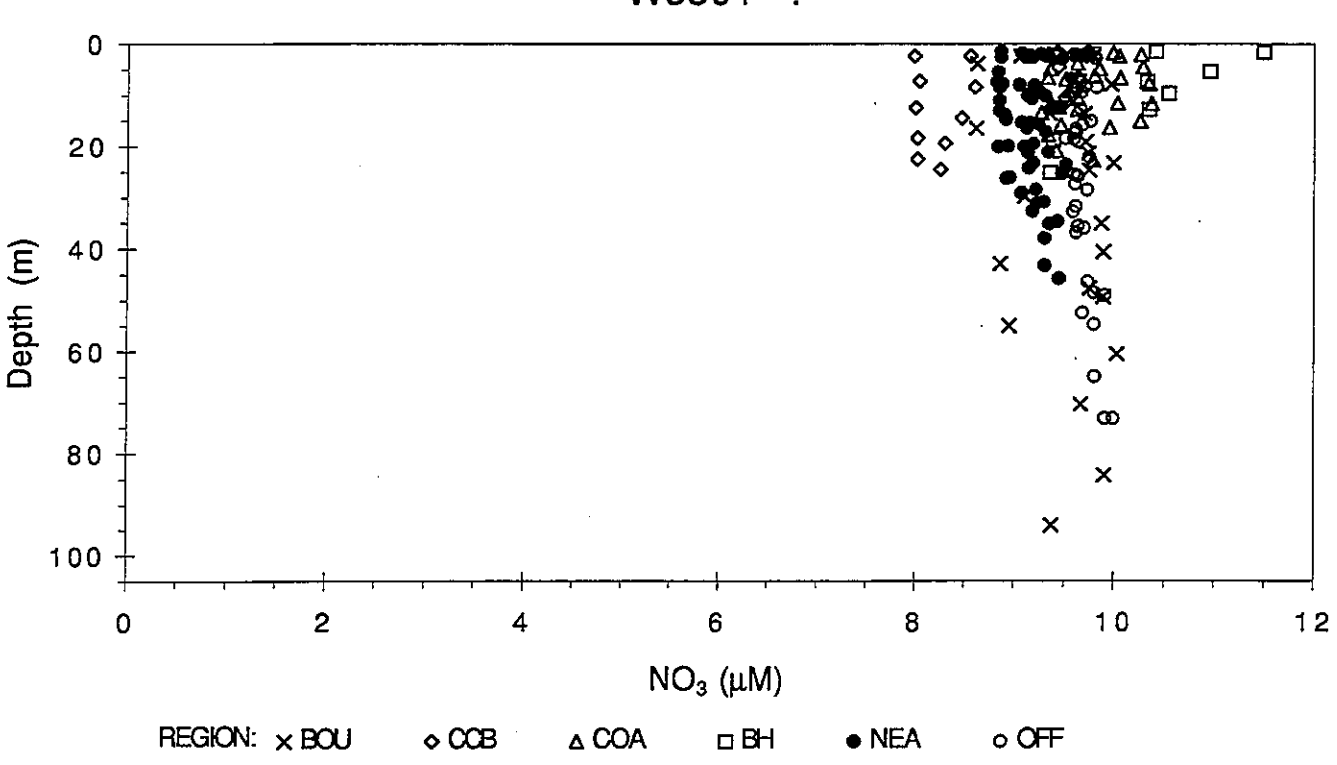
W9508 .

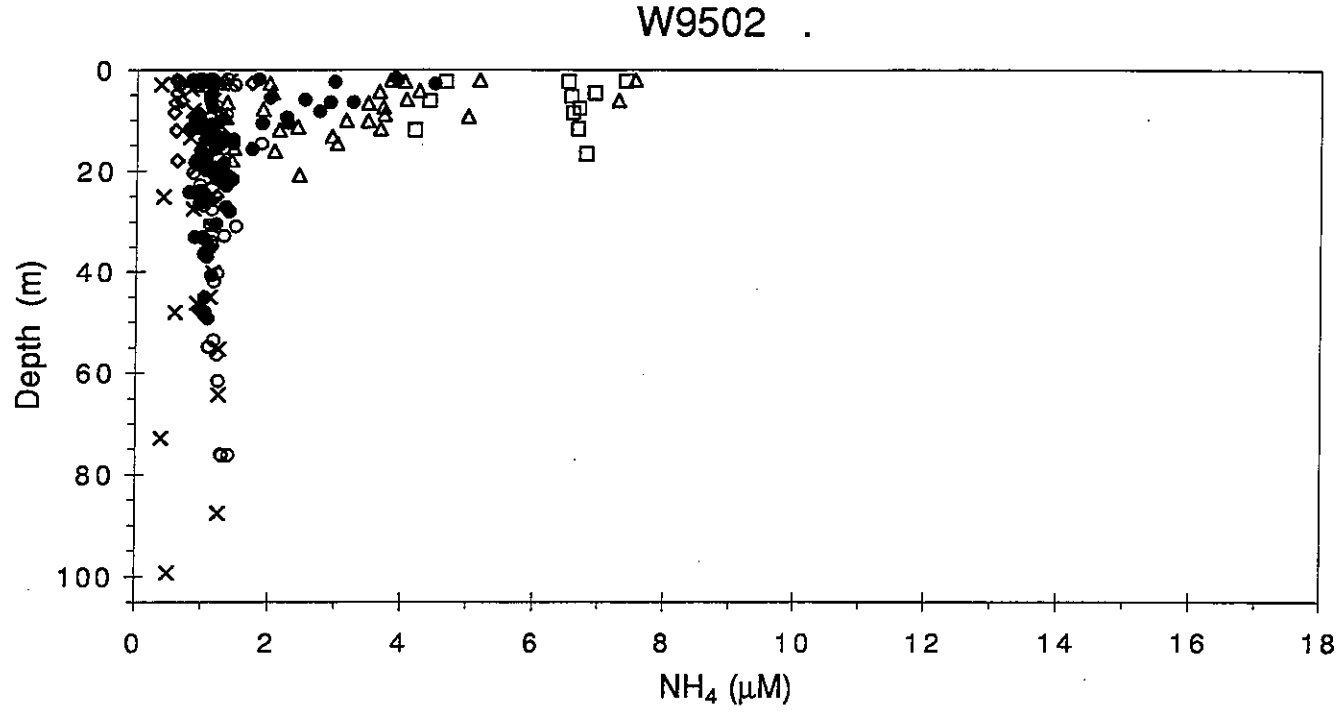


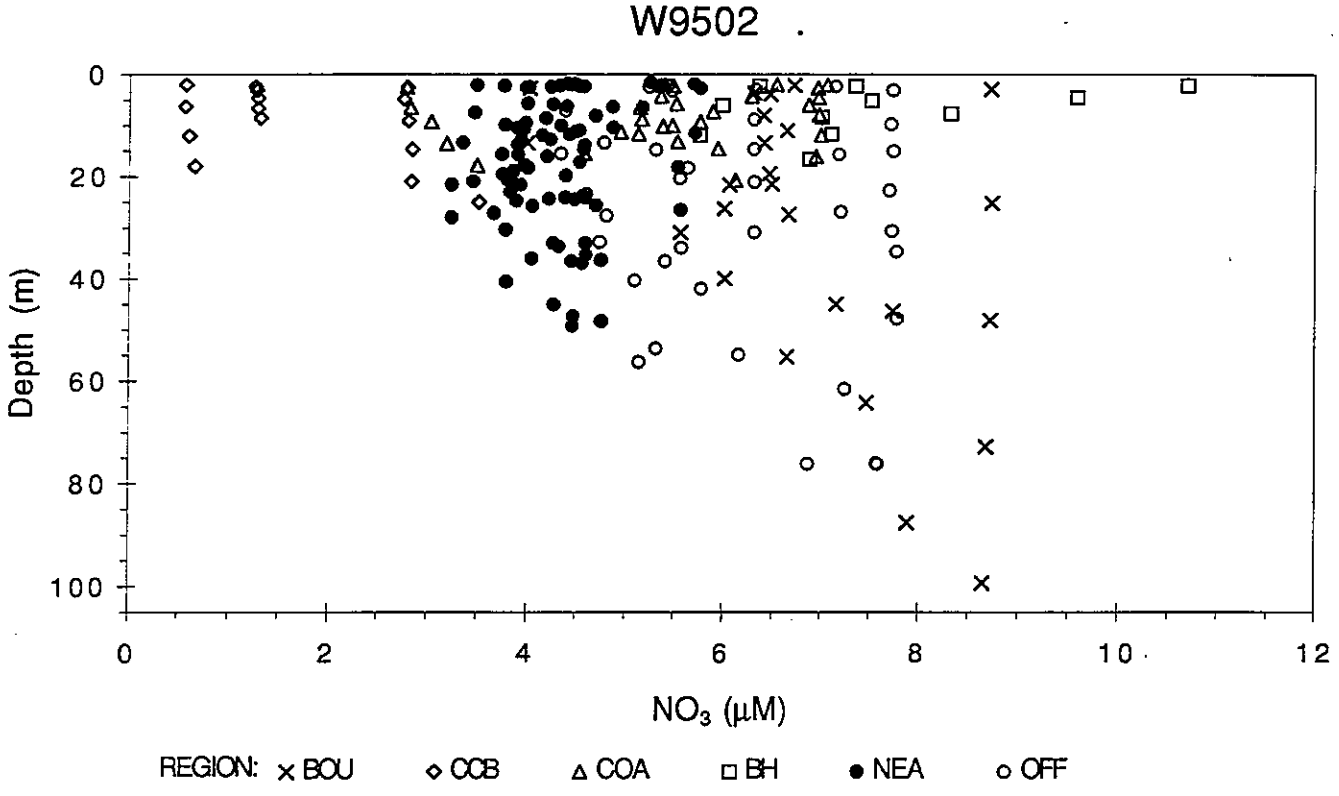
W9509 .



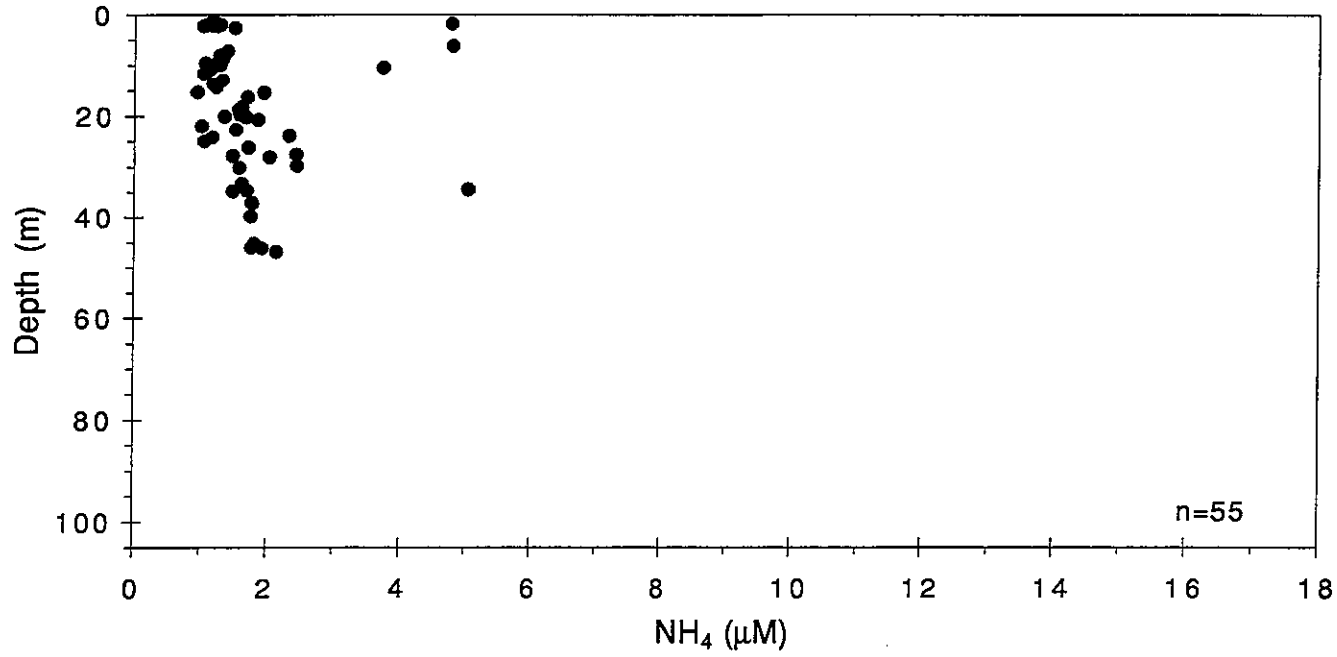

W9501 .
Depth (m)
0
20
40
60
80
100
0
2
4
6
8
10
12
14
16
18
NH4 (µM)


W9501 .
Depth (m)
0
20
40
60
80
100
0
2
4
6
8
10
12
NO3 (µM)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

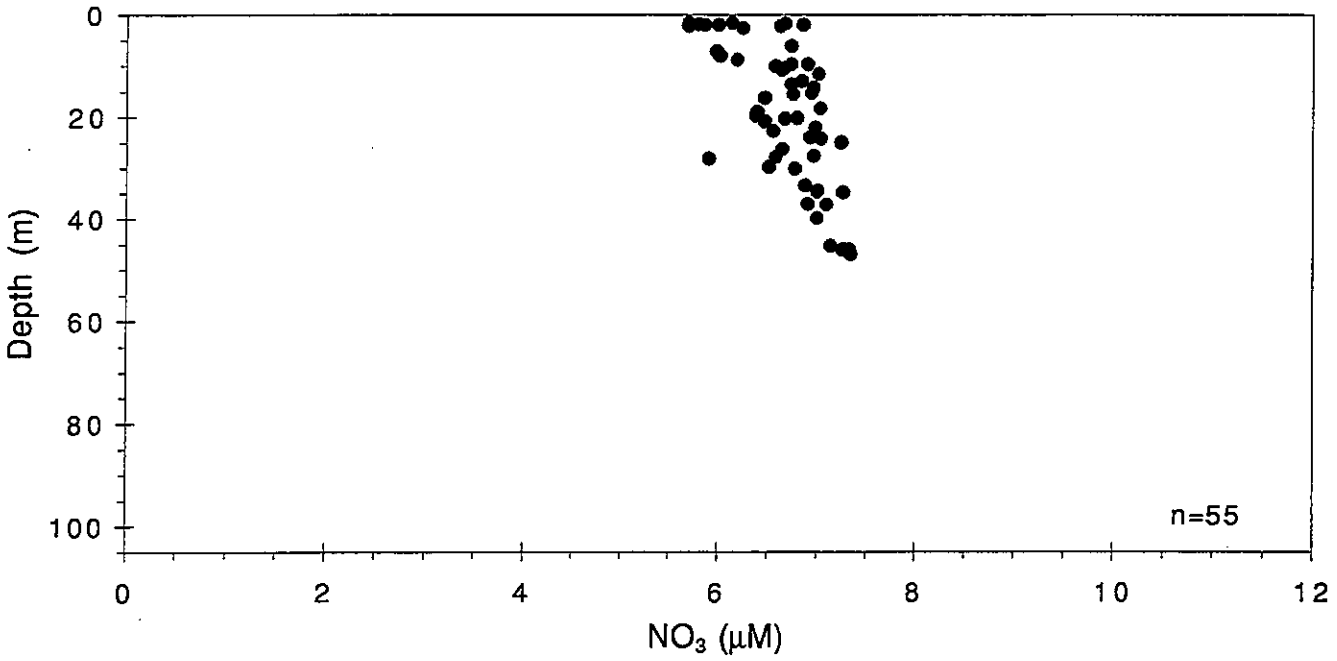

W9502 .
Depth (m)
0
20
40
60
80
100
0
2
4
6
8
10
12
14
16
18
NH4 (µM)

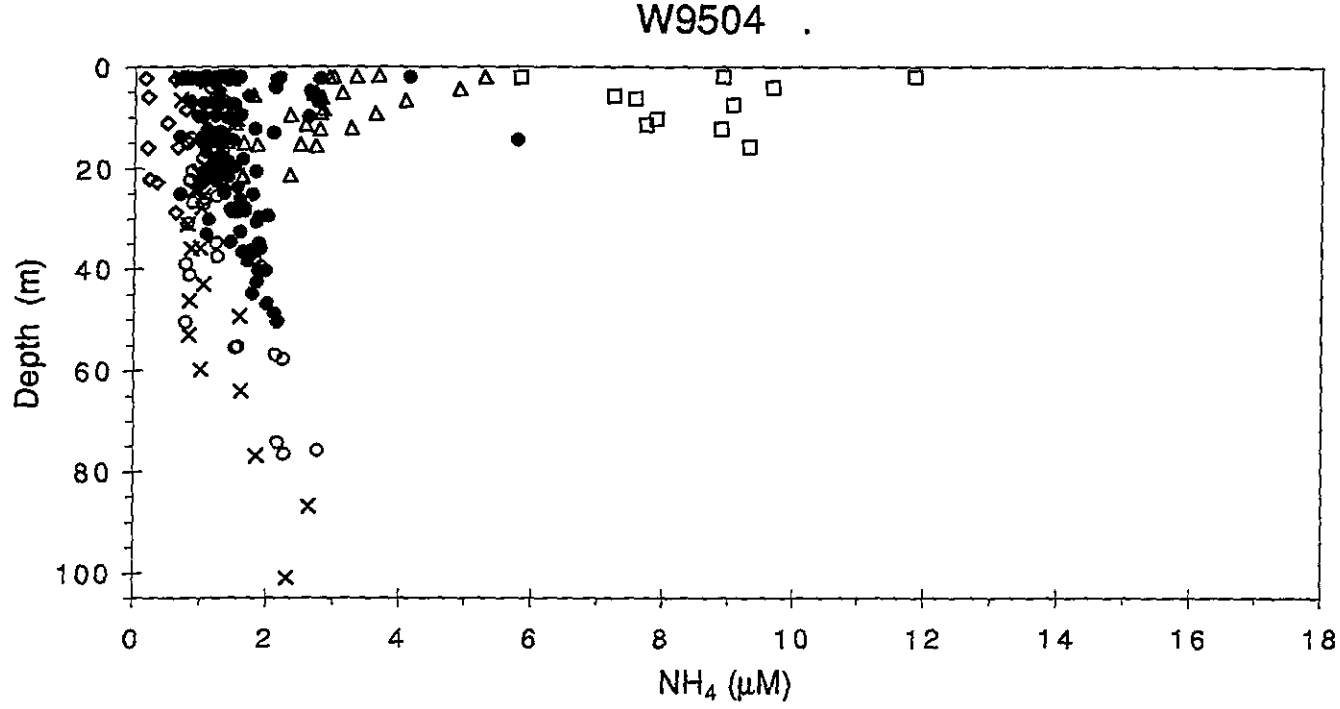

W9502 .
Depth (m)
0
20
40
60
80
100
0
2
4
6
8
10
12
NO3 (µM)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

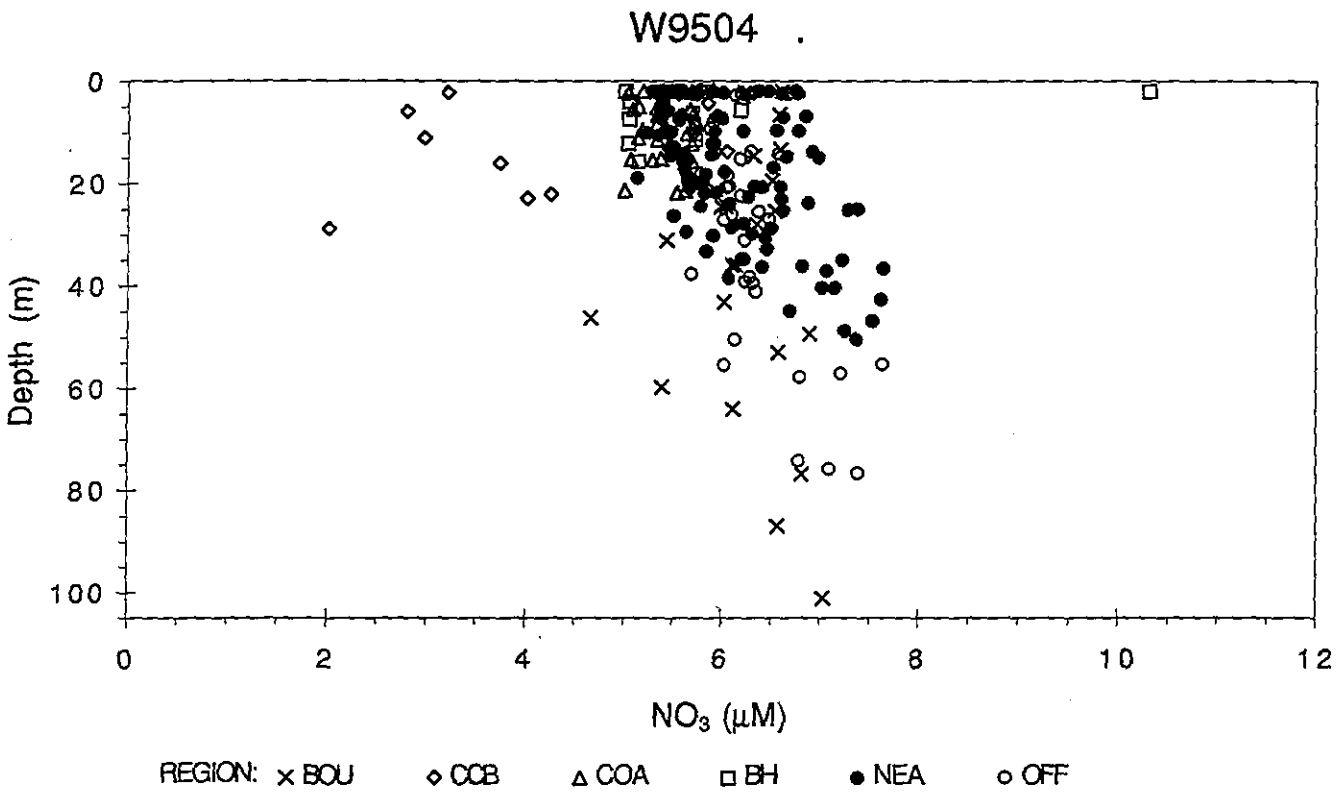
W9503 .

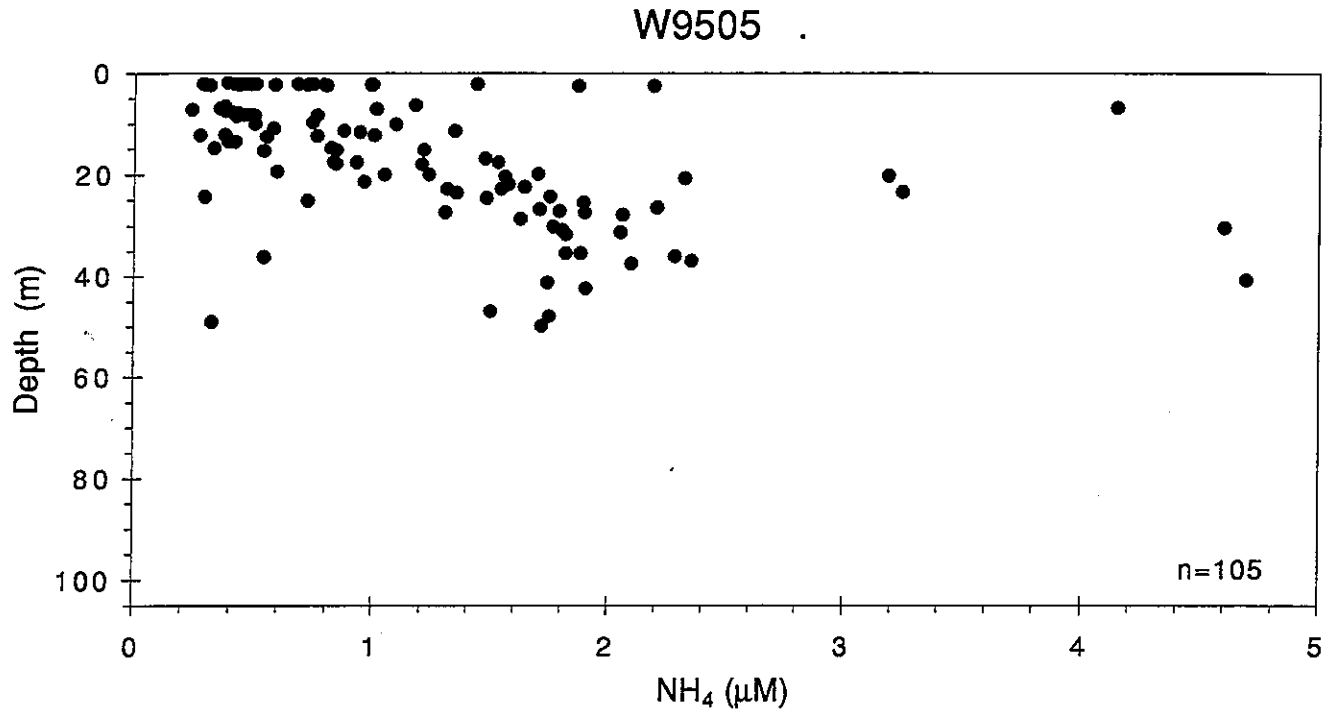

0
20
40
60
80
100
Depth (m)
n=55
0
2
4
6
8
10
12
14
16
18
NH4 (µM)

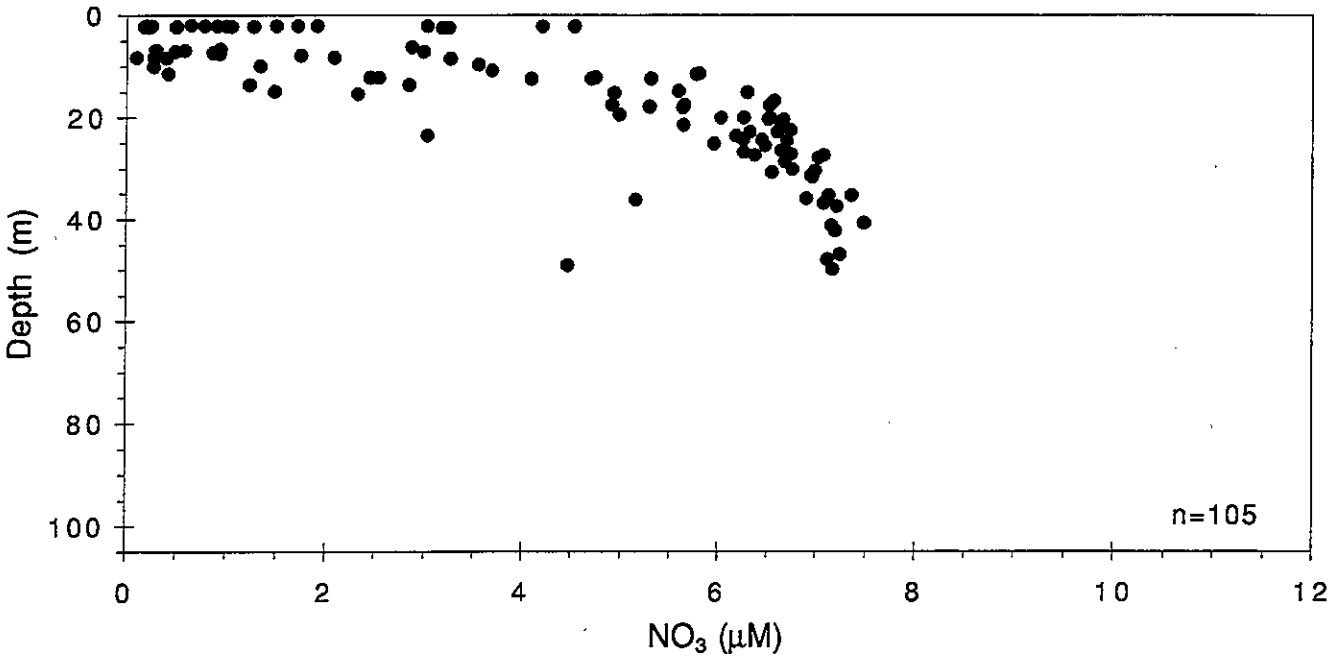
W9503 .


0
20
40
60
80
100
Depth (m)
n=55
0
2
4
6
8
10
12
NO3 (µM)

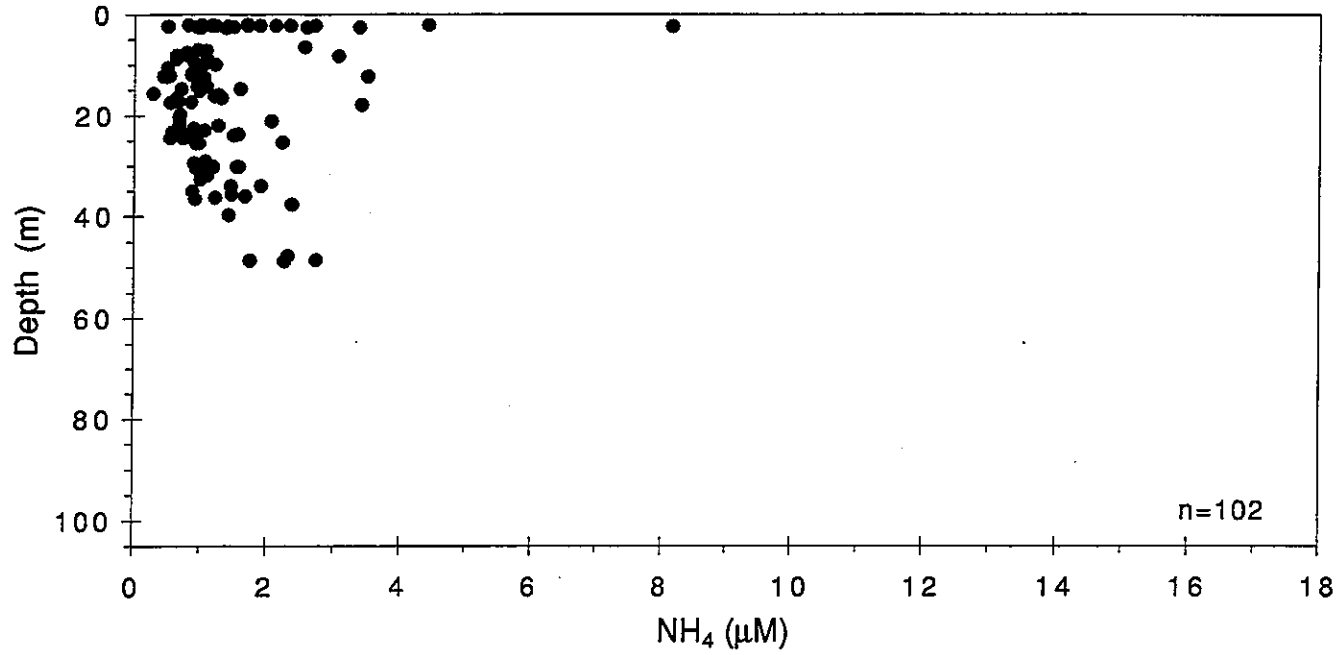

W9504 .
Depth (m)
0
20
40
60
80
100
0
2
4
6
8
10
12
14
16
18
NH4 (µM)


W9504 .
Depth (m)
0
20
40
60
80
100
0
2
4
6
8
10
12
NO3 (µM)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF


W9505 .
Depth (m)
0
20
40
60
80
100
n=105
0
1
2
3
4
5
NH4 (µM)


W9505 .
Depth (m)
0
20
40
60
80
100
n=105
0
2
4
6
8
10
12
NO3 (µM)

W9506 .


Depth (m)
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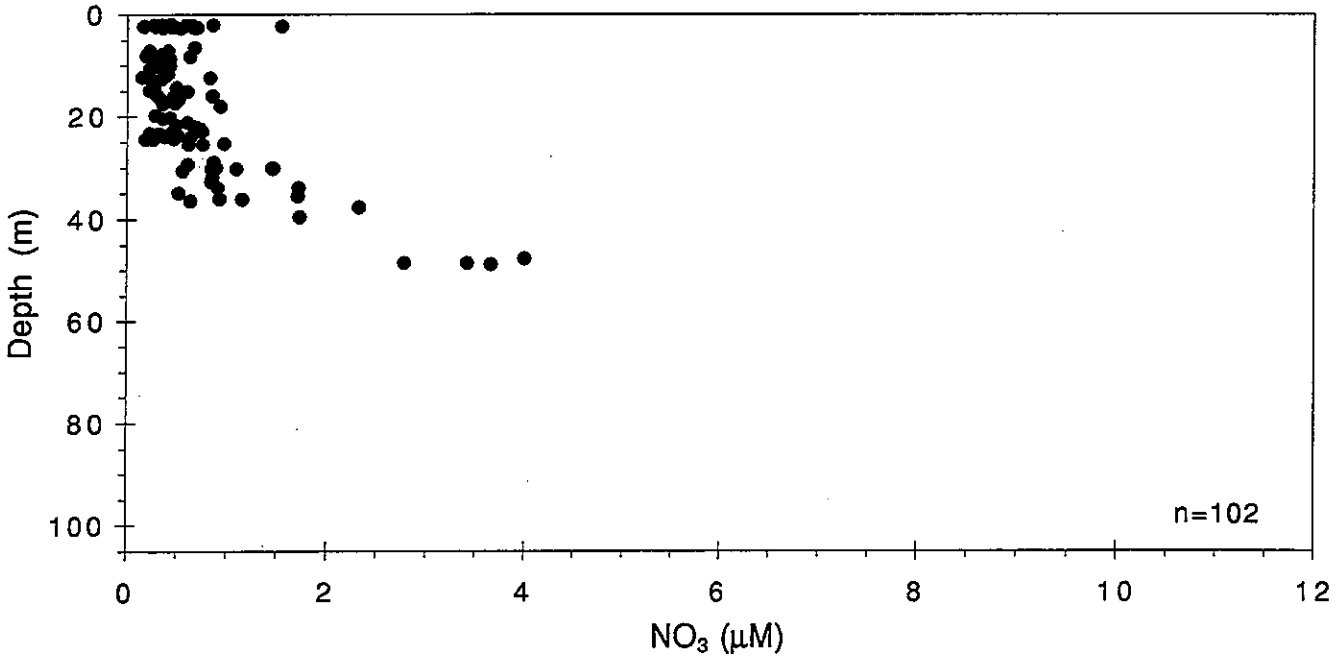
80
100
0
2
4
6
8
10
12
14
16
18
n=102
NH4 (µM)

W9506 .


Depth (m)
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40
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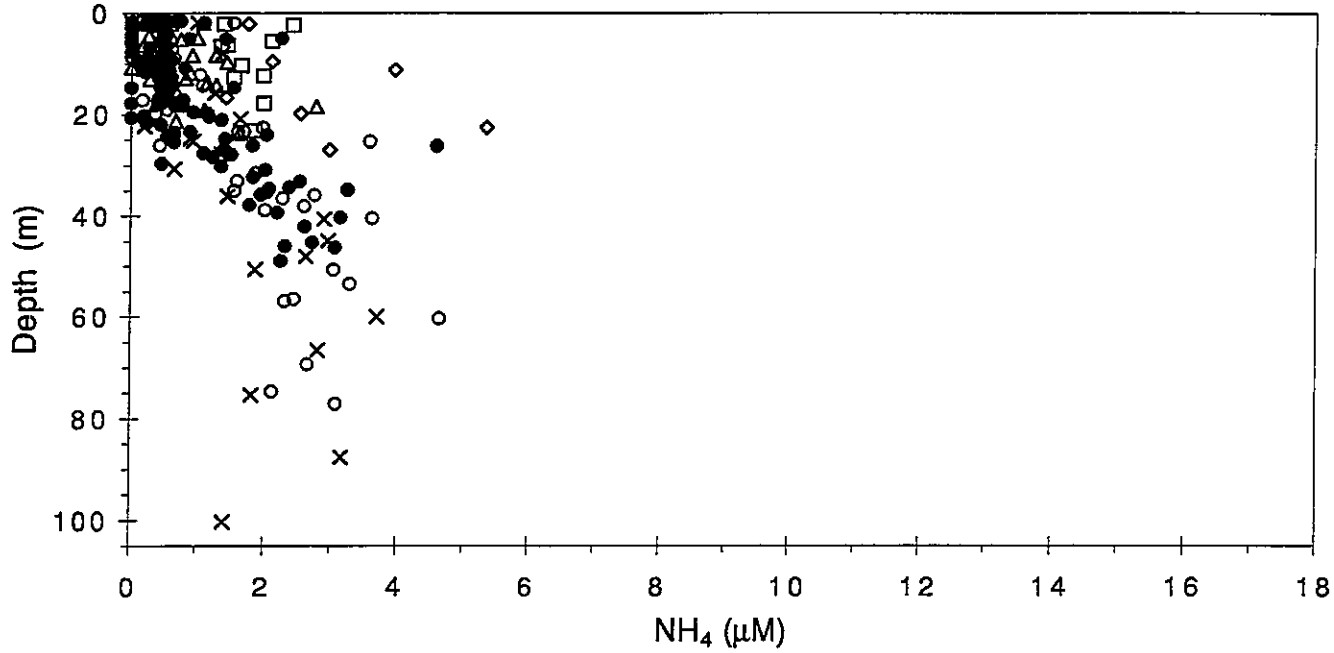
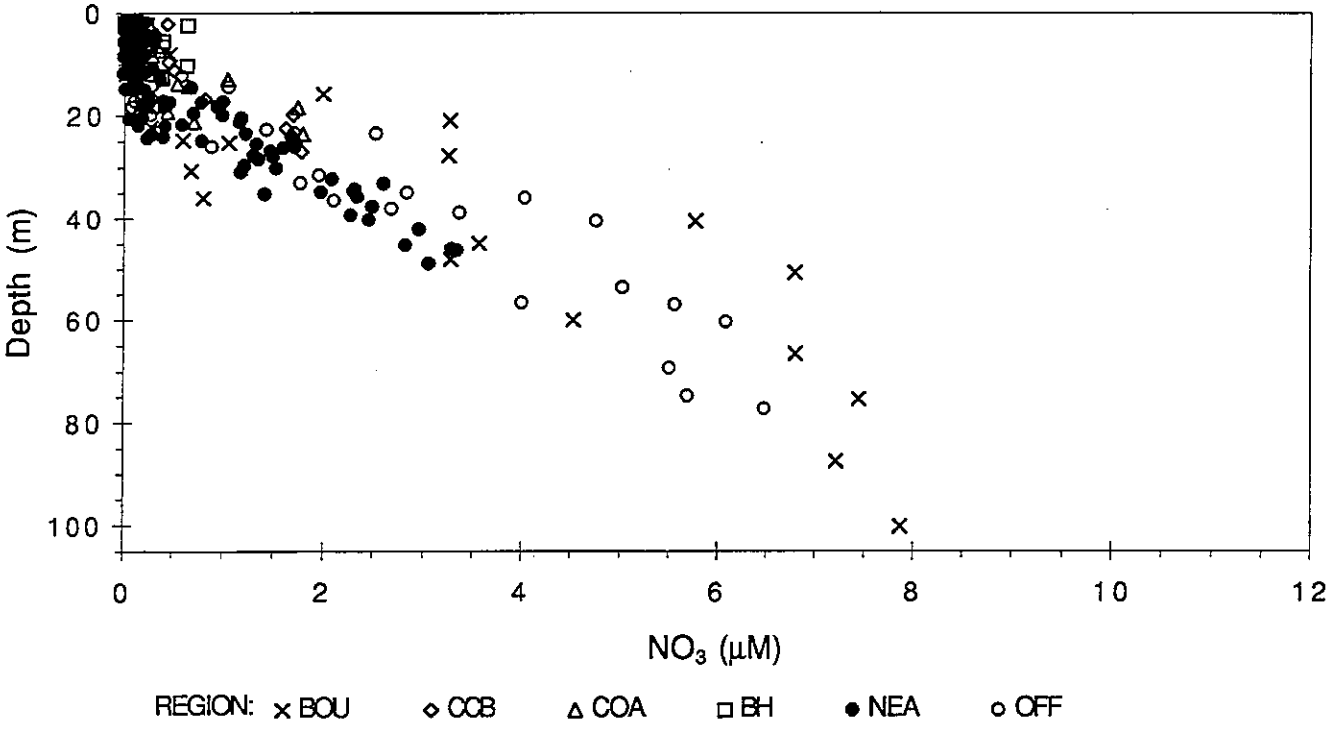
80
100
0
2
4
6
8
10
12
n=102
NO3 (µM)

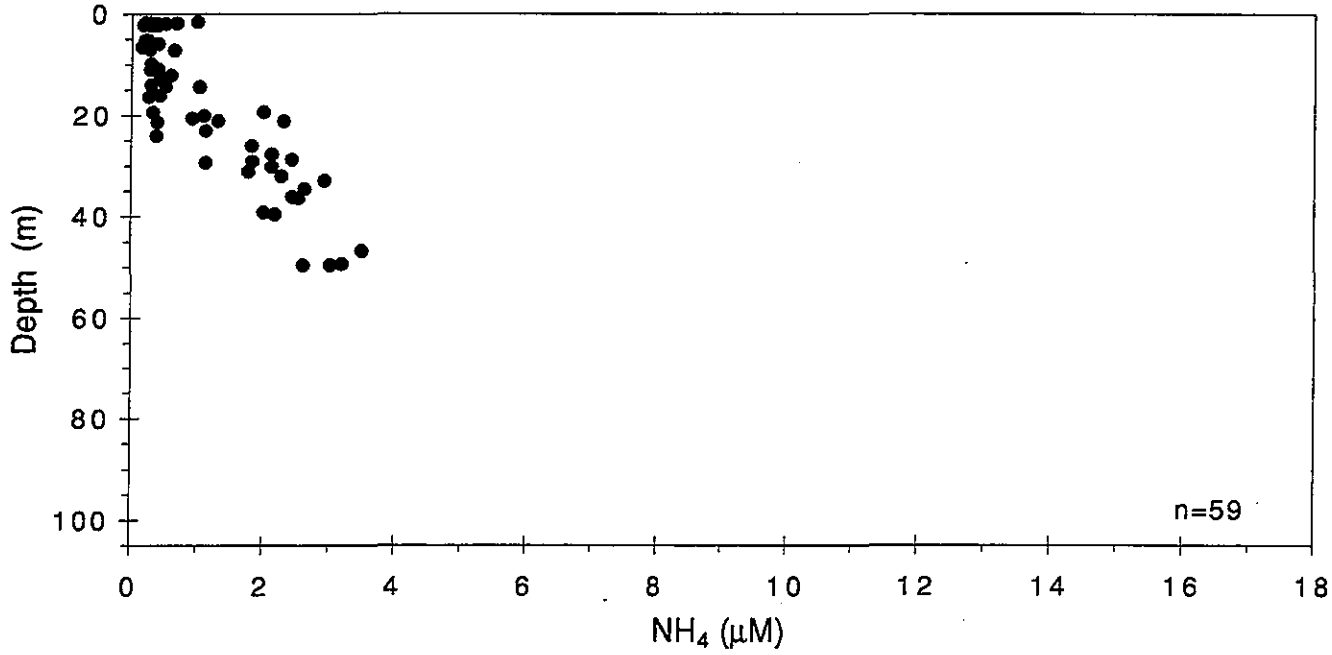
W9507 .


Depth (m)
0
20
40
60
80
100
0
2
4
6
8
10
12
14
16
18
NH4 (µM)

W9507 .


Depth (m)
0
20
40
60
80
100
0
2
4
6
8
10
12
NO3 (µM)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

W9508 .


Depth (m)
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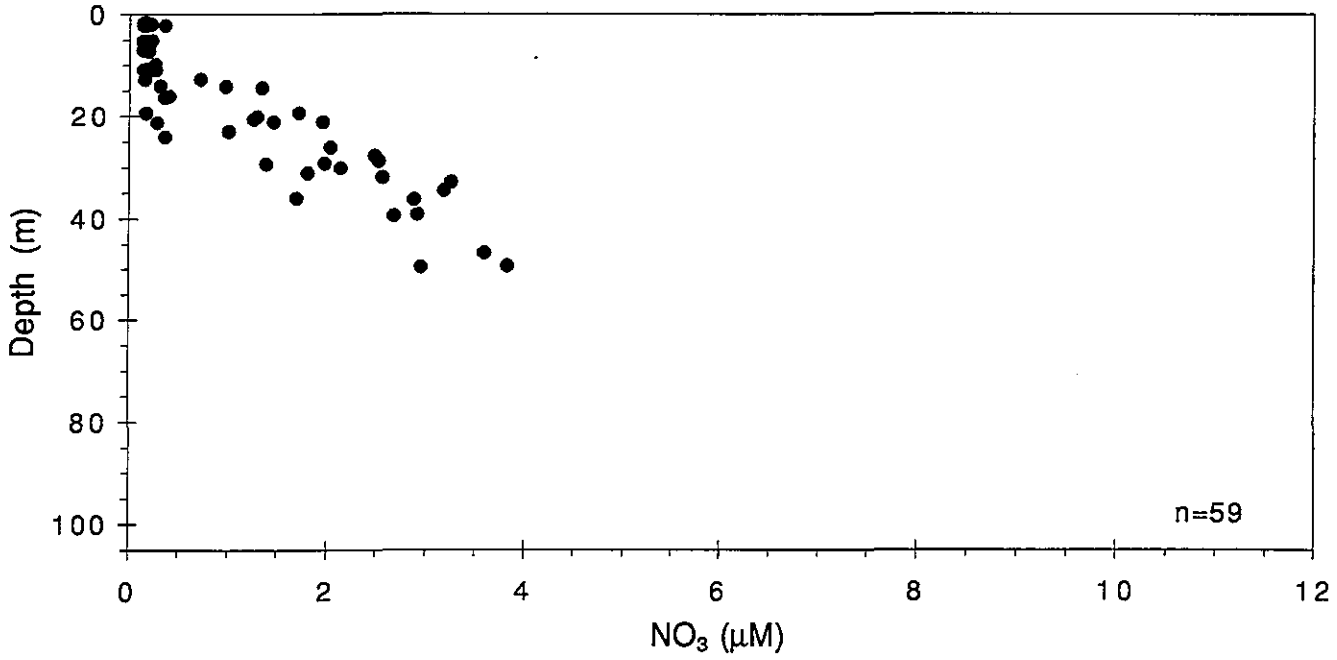
60
80
100
0
2
4
6
8
10
12
14
16
18
n=59
NH4 (µM)

W9508 .


Depth (m)
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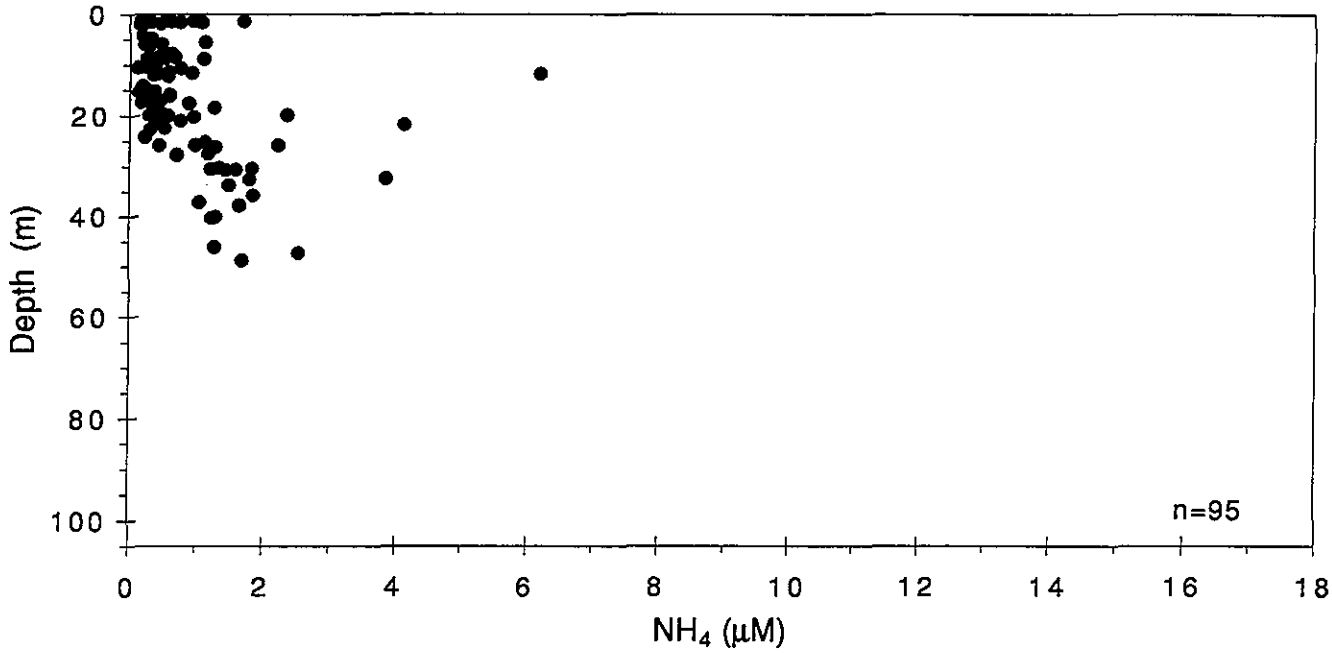
60
80
100
0
2
4
6
8
10
12
n=59
NO3 (µM)

W9509 .


Depth (m)
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20
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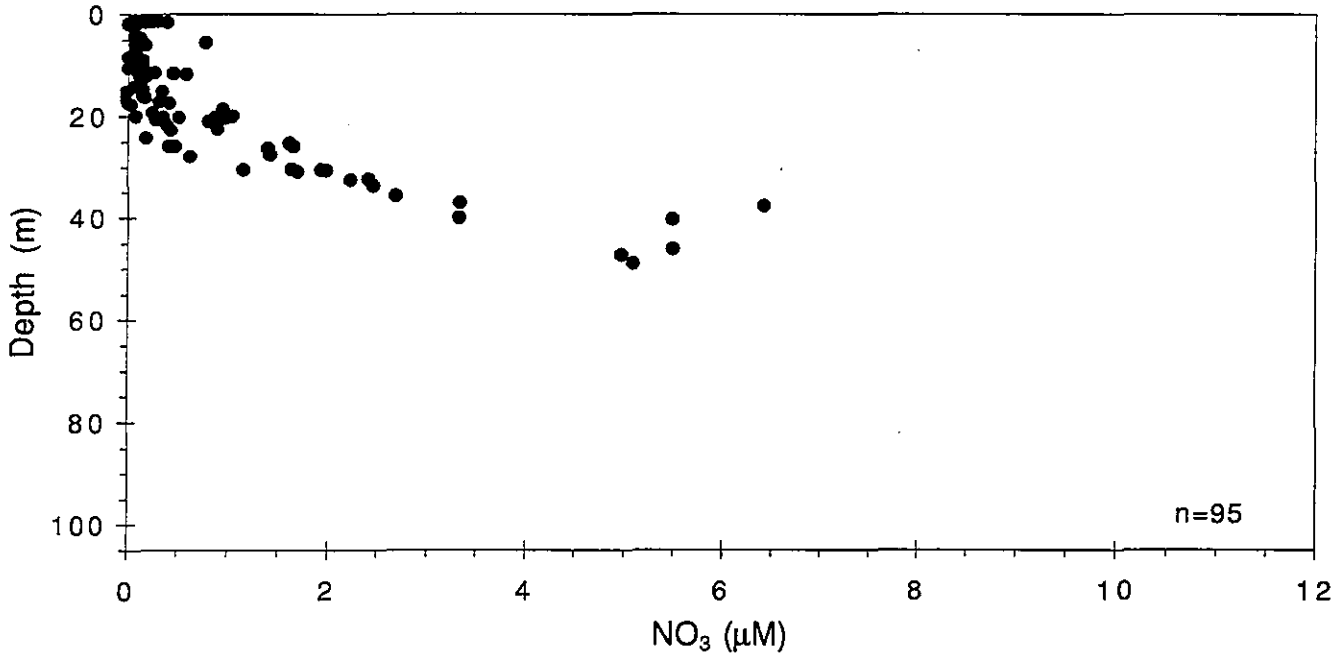
60
80
100
0
2
4
6
8
10
12
14
16
18
NH4 (µM)
n=95

W9509 .


Depth (m)
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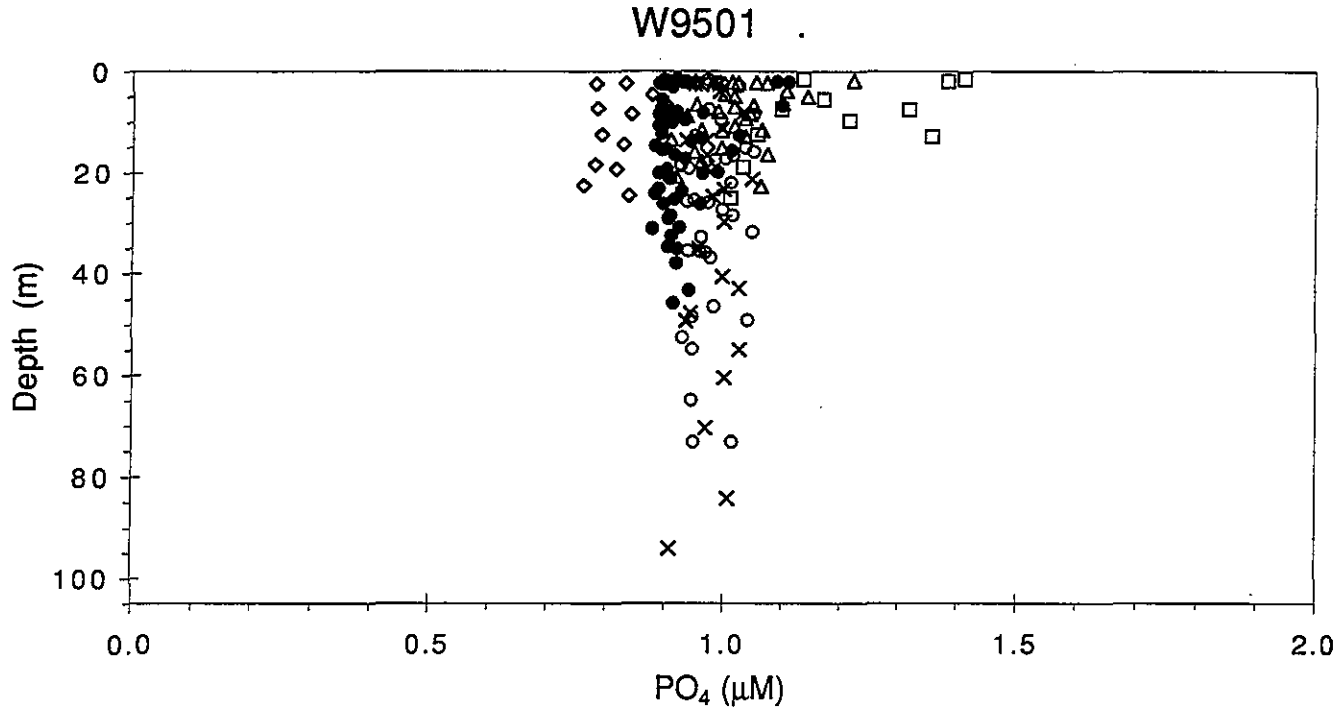
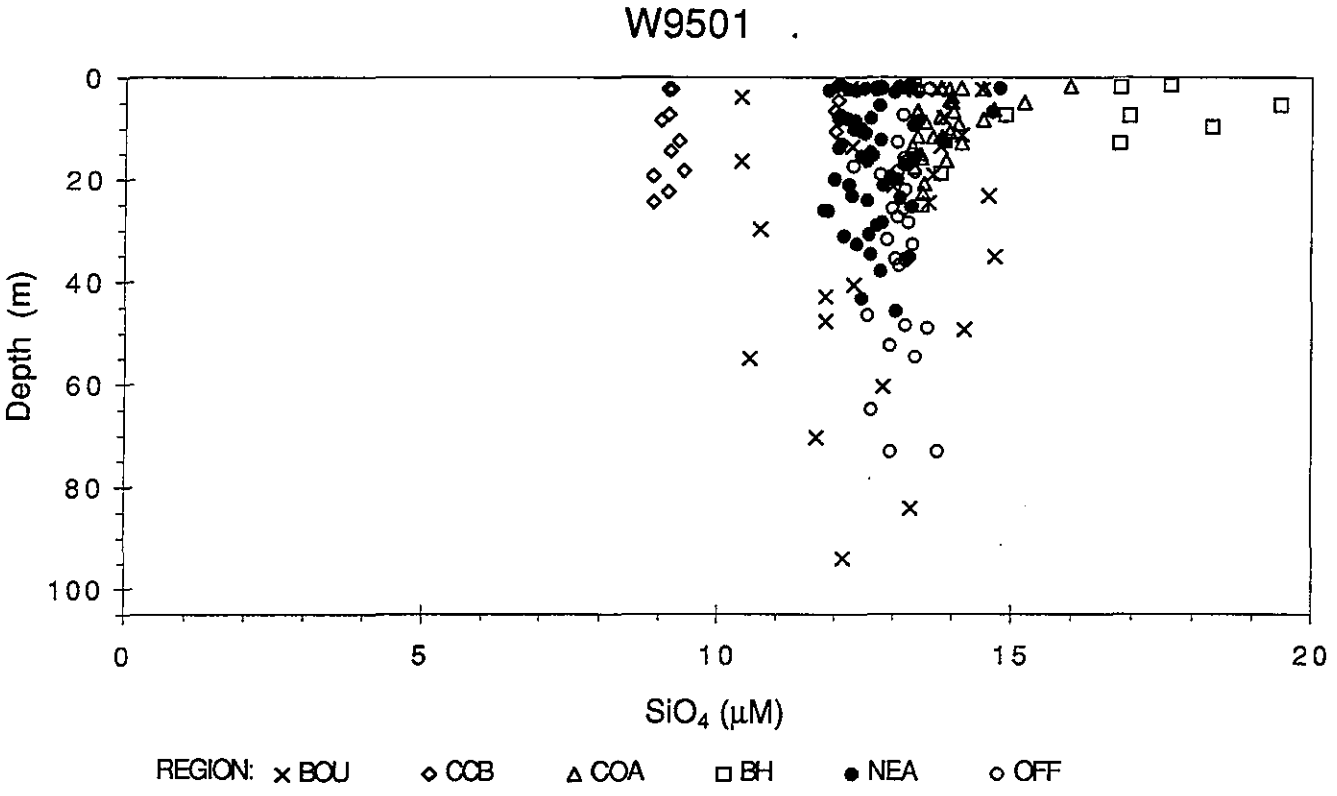
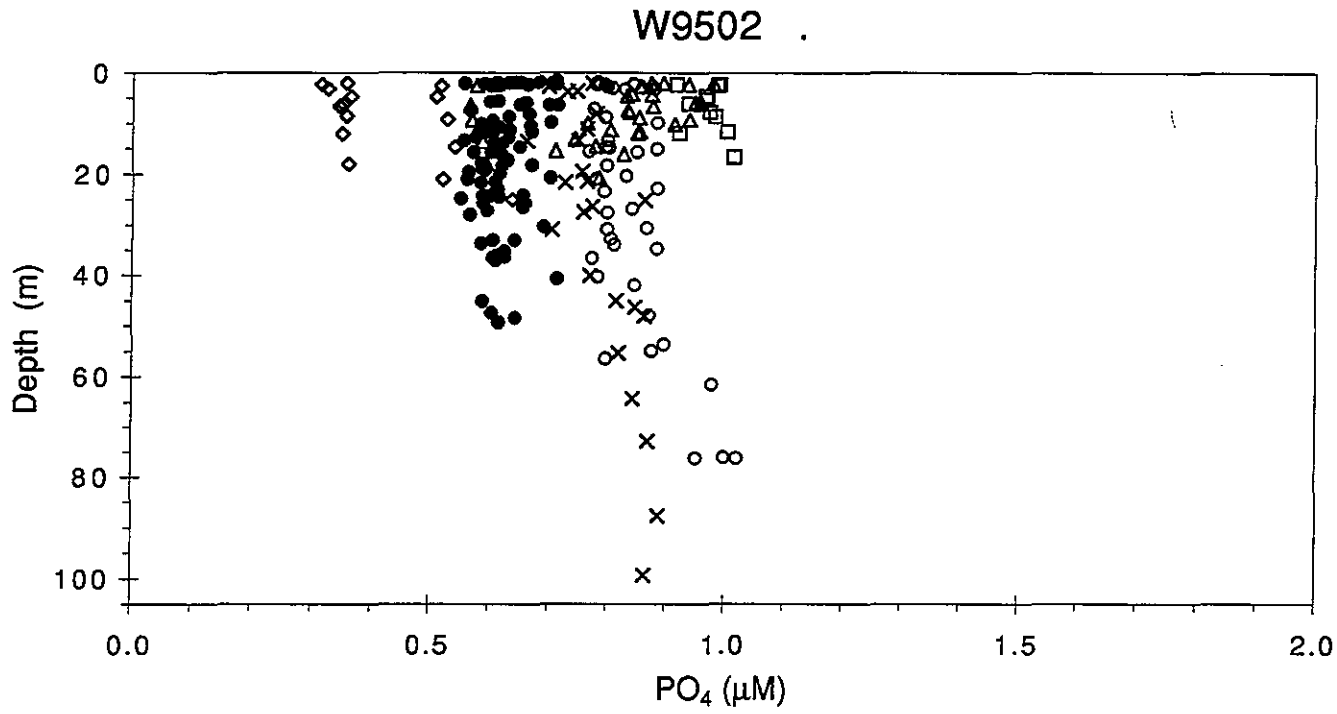
60
80
100
0
2
4
6
8
10
12
NO3 (µM)
n=95


W9501
Depth (m)
0
20
40
60
80
100
0.0
0.5
1.0
1.5
2.0
PO4 (µM)


W9501
Depth (m)
0
20
40
60
80
100
0
5
10
15
20
SiO4 (µM)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF


W9502 .
Depth (m)
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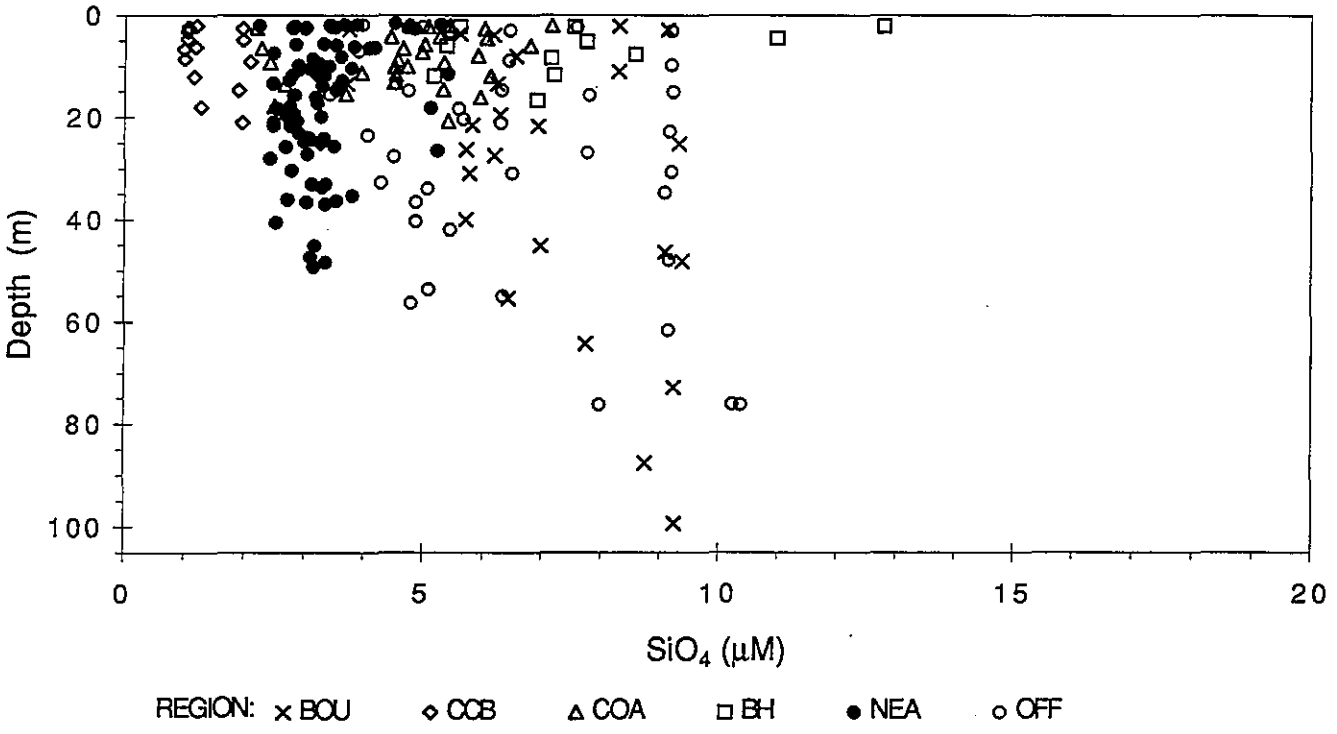
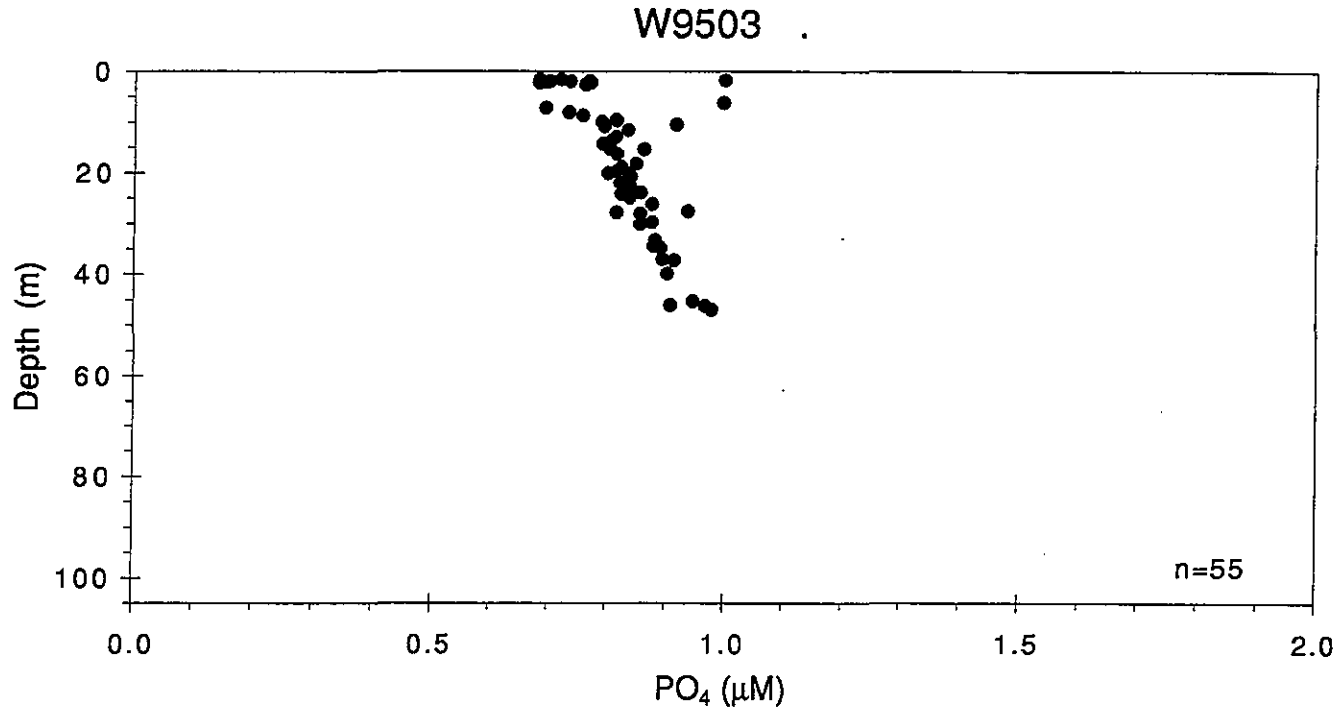
20
40
60
80
100
0.0
0.5
1.0
1.5
2.0
PO4 (µM)


W9502 .
Depth (m)
0
20
40
60
80
100
0
5
10
15
20
SiO4 (µM)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF


W9503
Depth (m)
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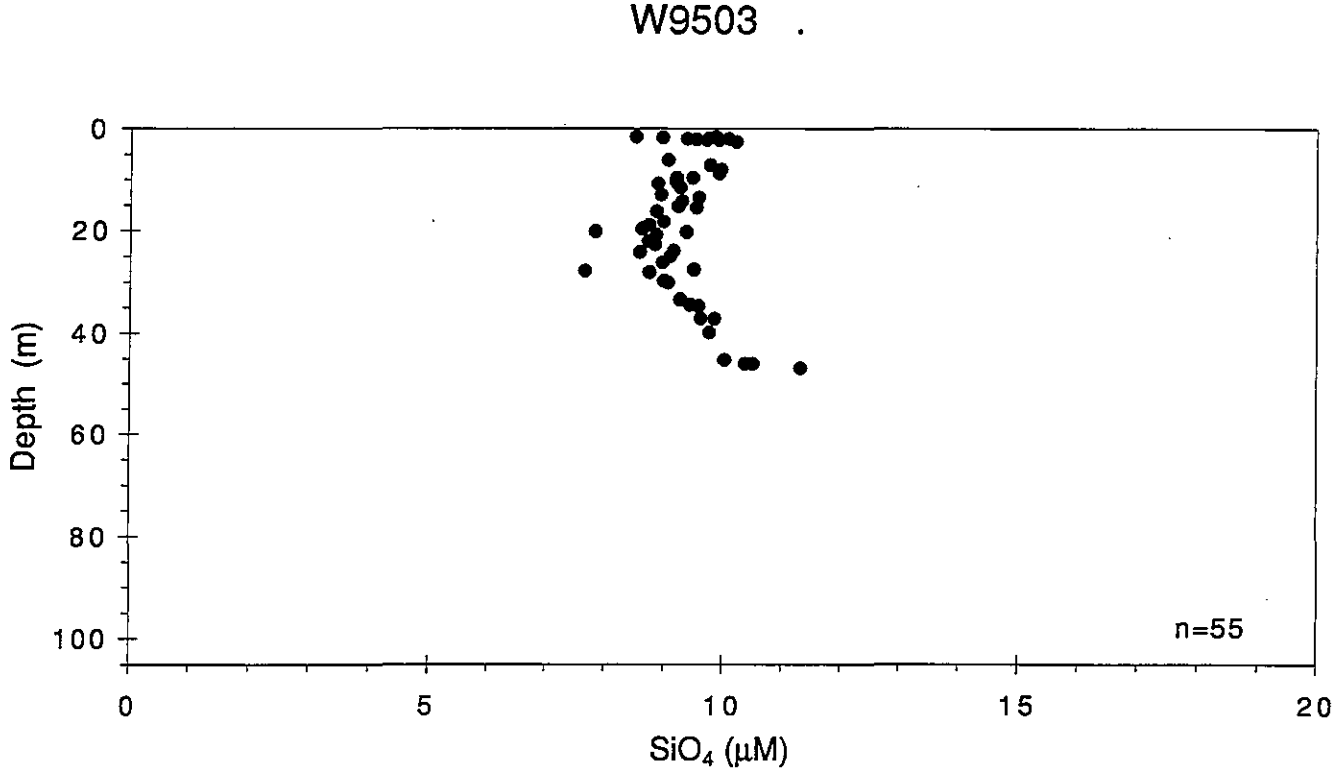
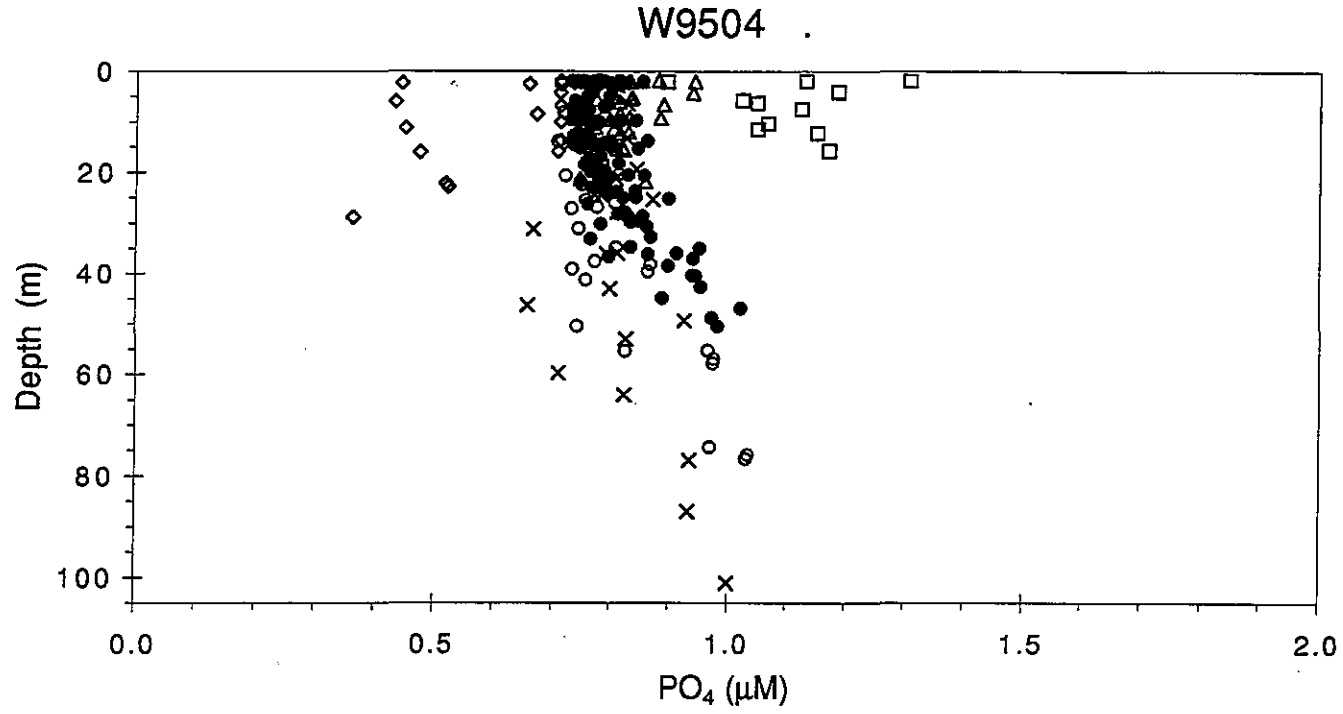
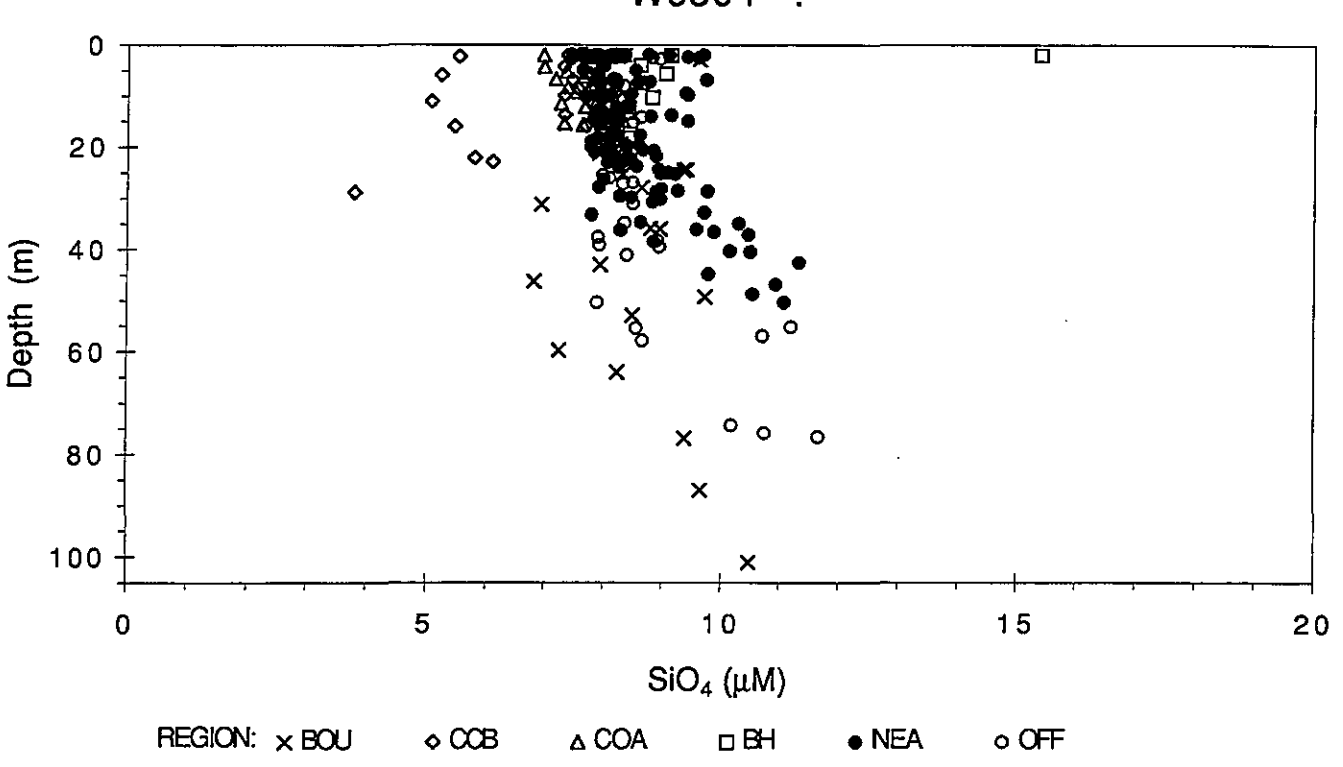
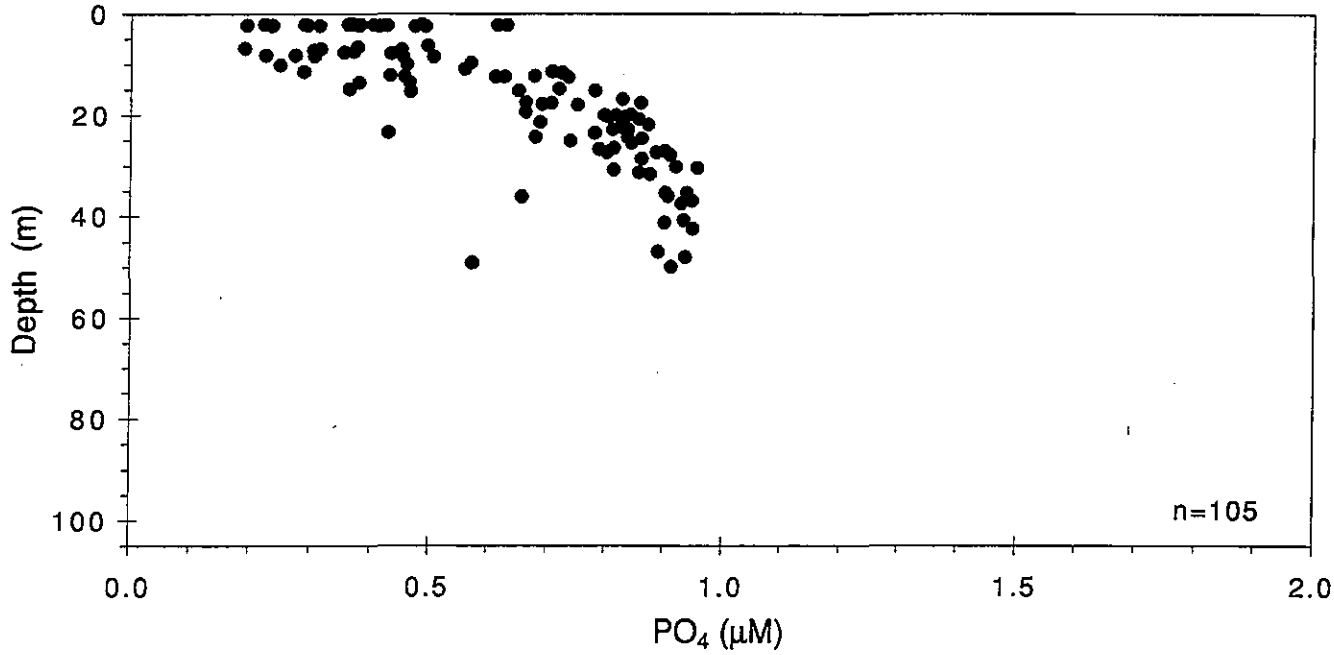
20
40
60
80
100
n=55
0.0
0.5
1.0
1.5
2.0
PO4 (µM)


W9503
Depth (m)
0
20
40
60
80
100
n=55
0
5
10
15
20
SiO4 (µM)

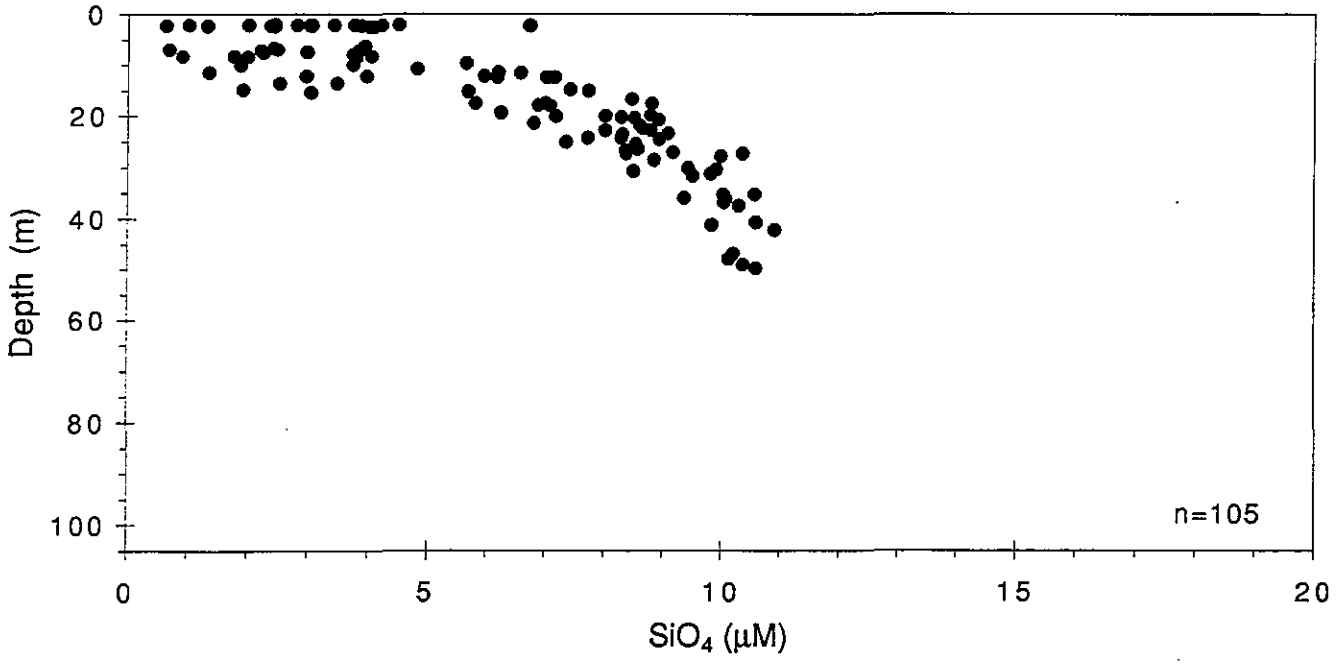

W9504 .
Depth (m)
0
20
40
60
80
100
0.0
0.5
1.0
1.5
2.0
PO4 (µM)


W9504 .
Depth (m)
0
20
40
60
80
100
0
5
10
15
20
SiO4 (µM)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

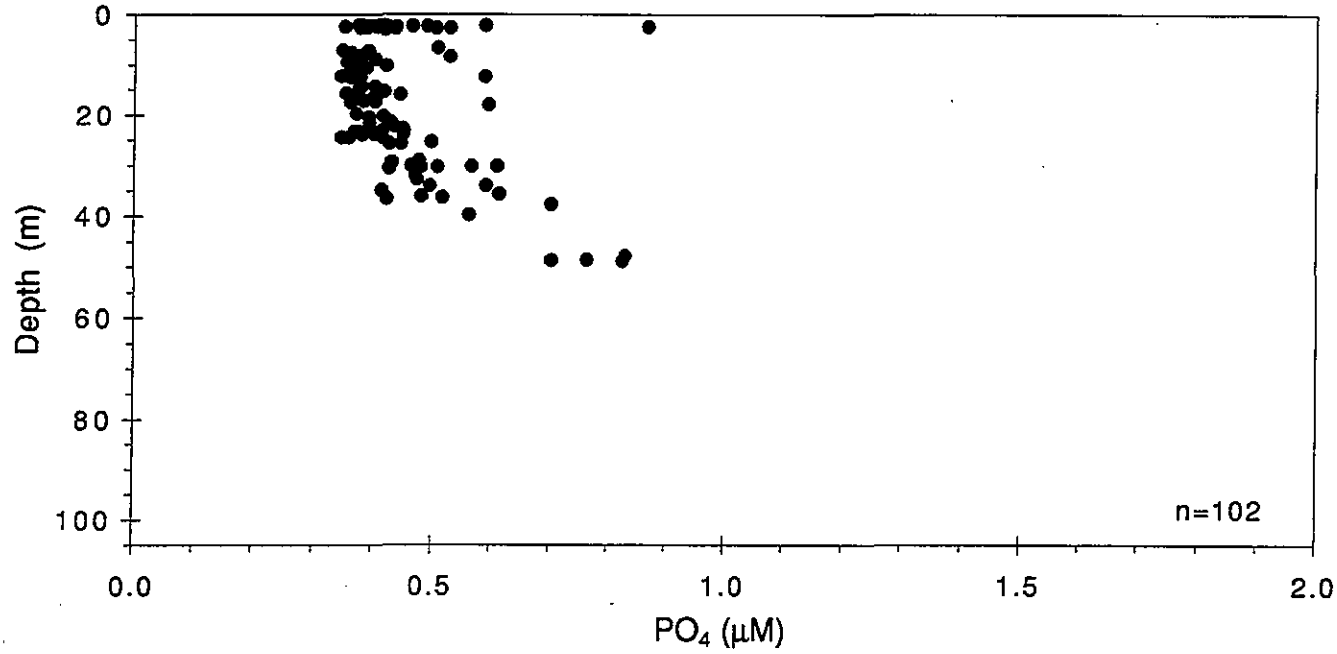
W9505 .


0
20
40
60
80
100
Depth (m)
n=105
0.0
0.5
1.0
1.5
2.0
PO4 (µM)

W9505 .


0
20
40
60
80
100
Depth (m)
n=105
0
5
10
15
20
SiO4 (µM)

W9506


0
20
40
60
80
100
Depth (m)
n=102
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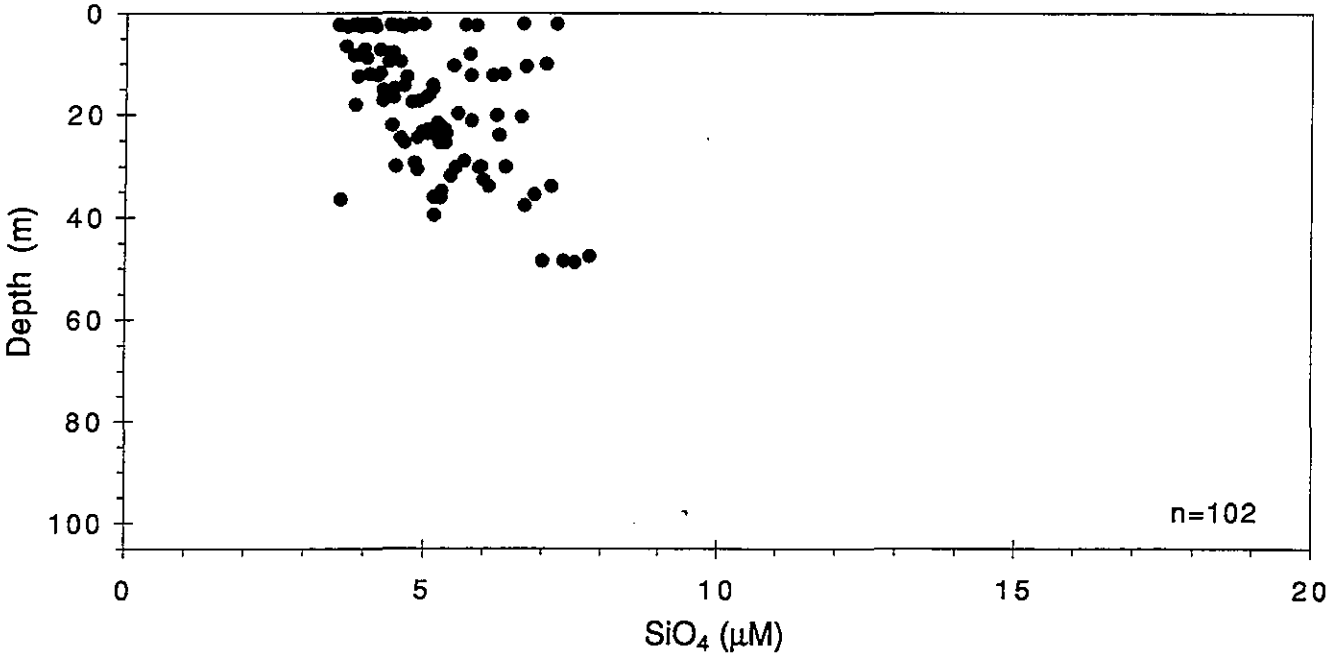
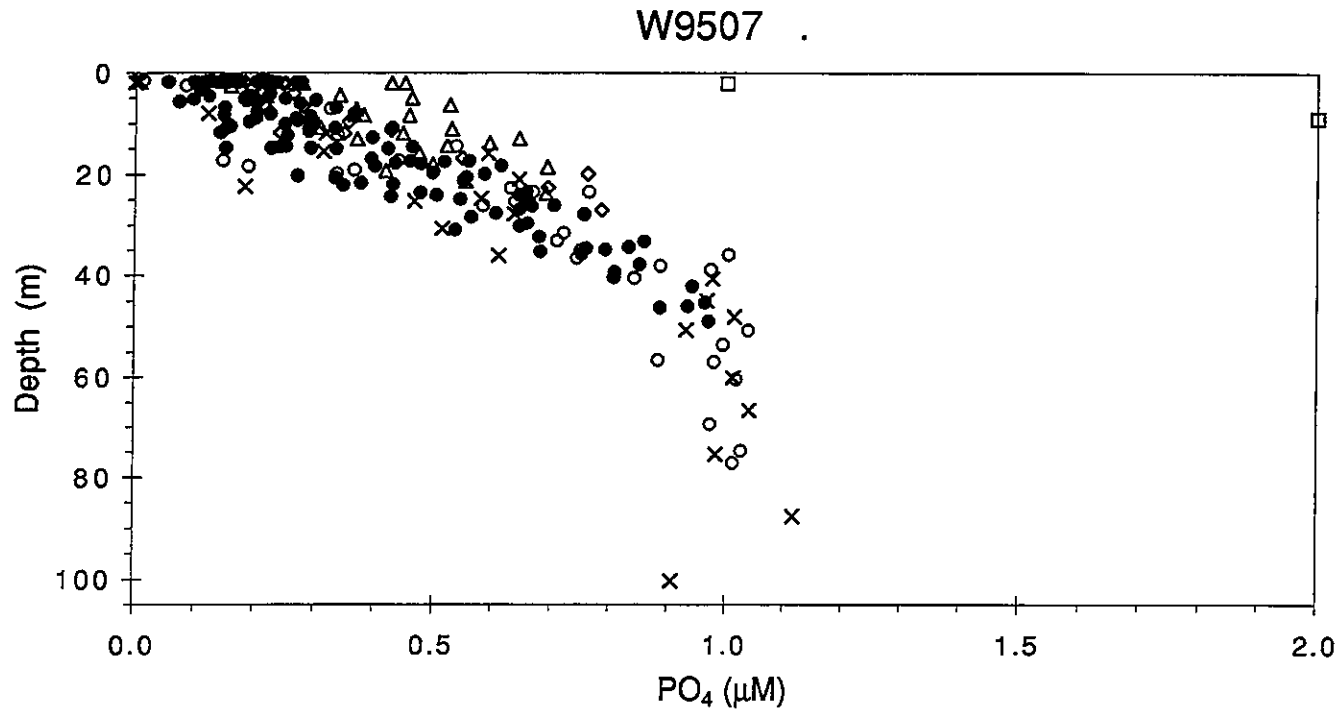
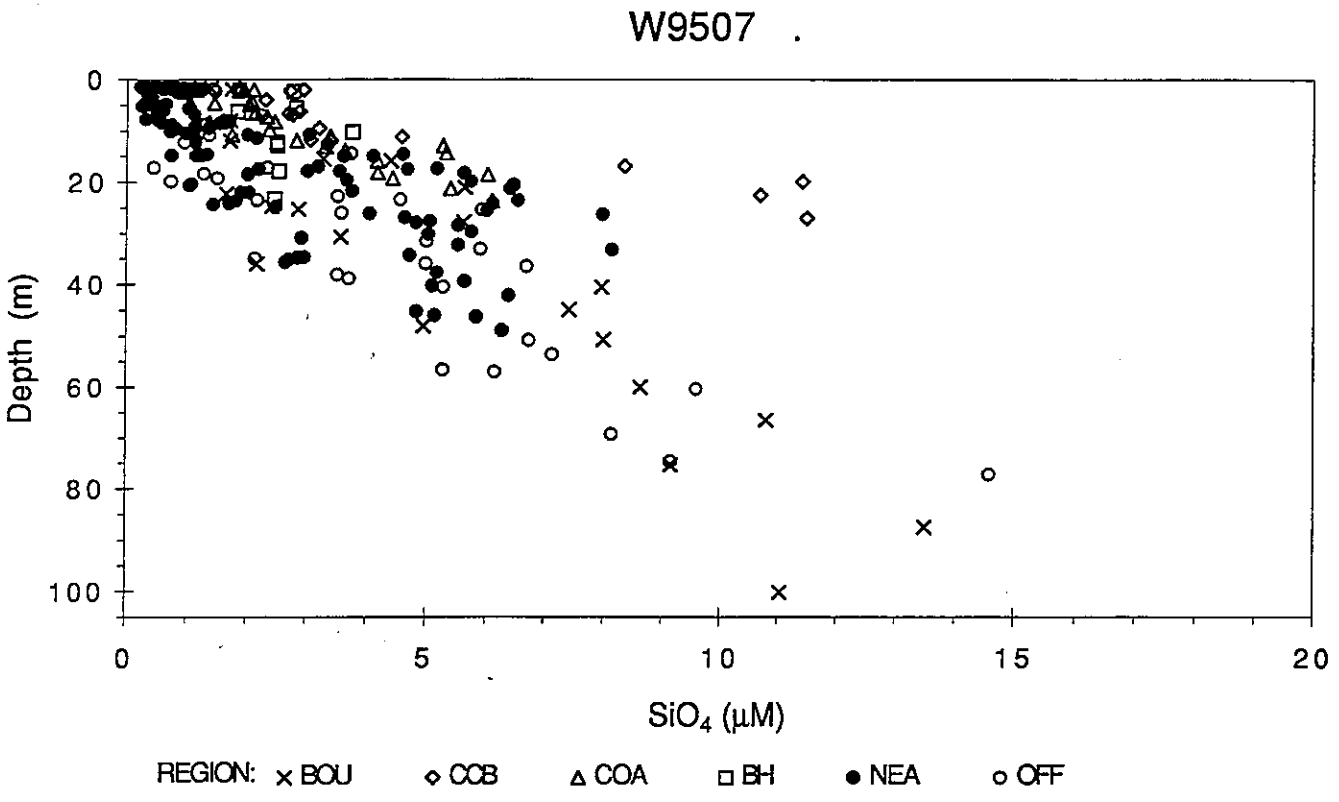
0.5
1.0
1.5
2.0
PO4 (µM)

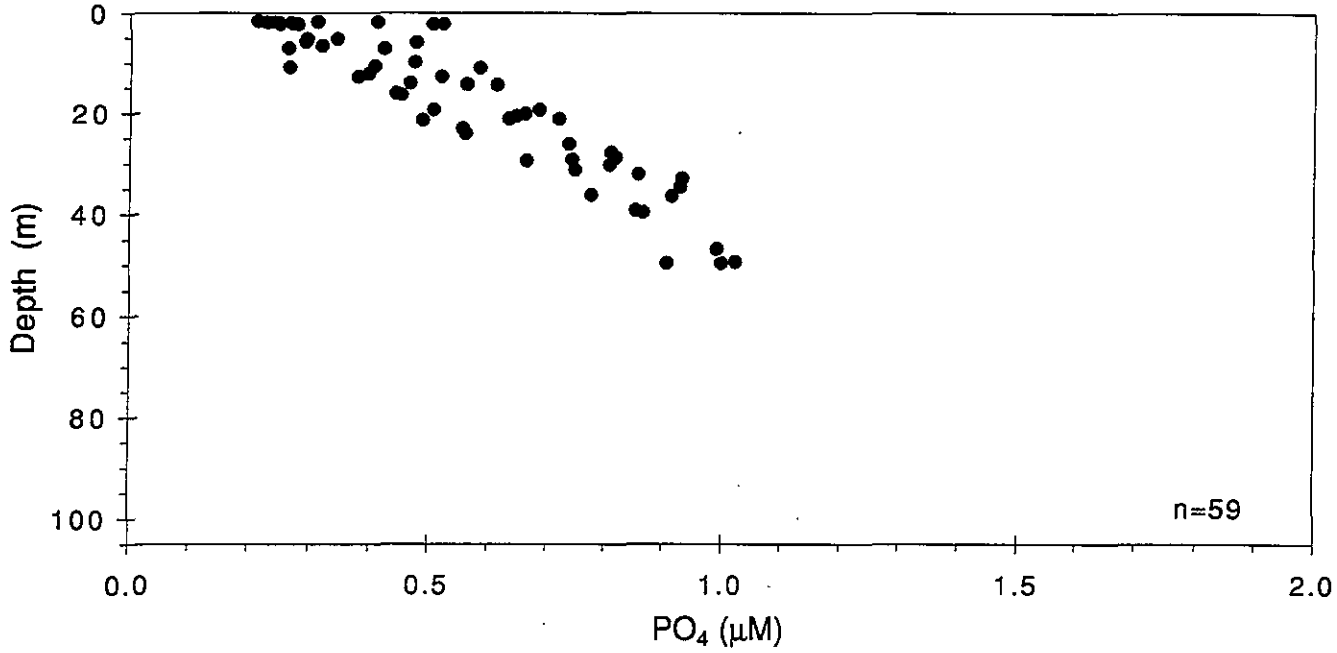
W9506


0
20
40
60
80
100
Depth (m)
n=102
0
5
10
15
20
SiO4 (µM)

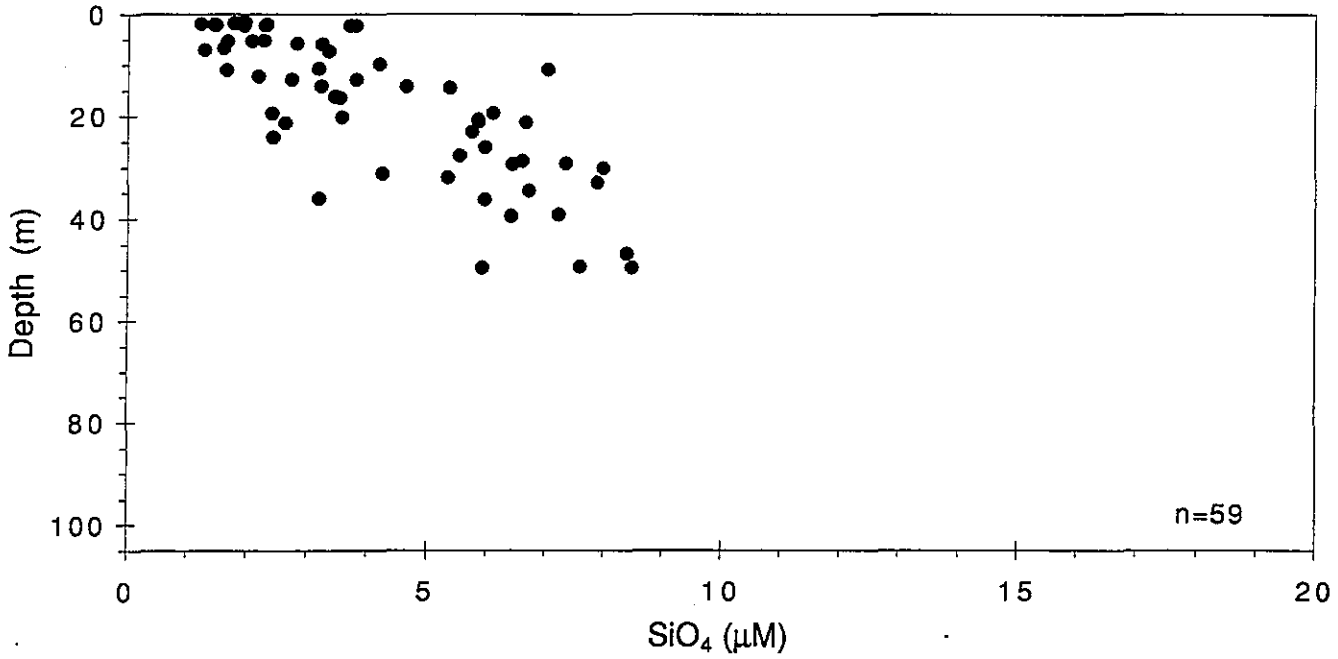

W9507 .
Depth (m)
0
20
40
60
80
100
0.0
0.5
1.0
1.5
2.0
PO4 (µM)


W9507 .
Depth (m)
0
20
40
60
80
100
0
5
10
15
20
SiO4 (µM)
REGION: × BOU ◇ CCB △ COA □ BH ● NEA ○ OFF

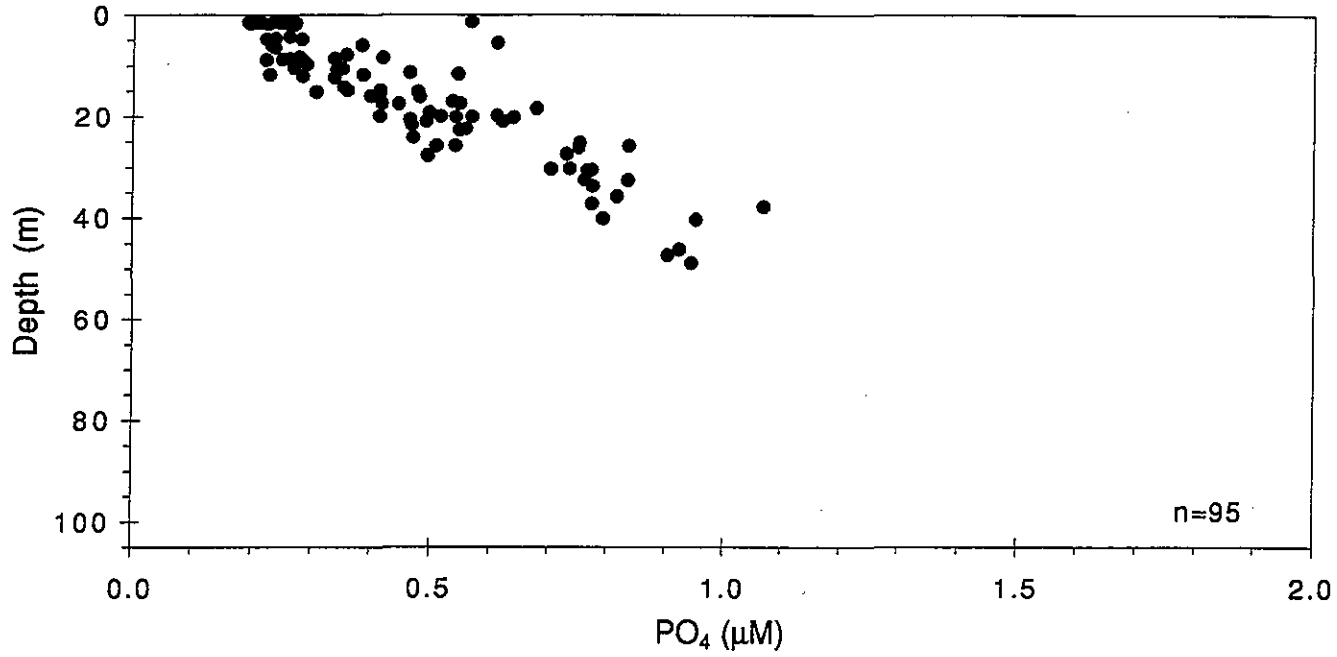
W9508 .


0
20
40
60
80
100
Depth (m)
n=59
0.0
0.5
1.0
1.5
2.0
PO4 (µM)

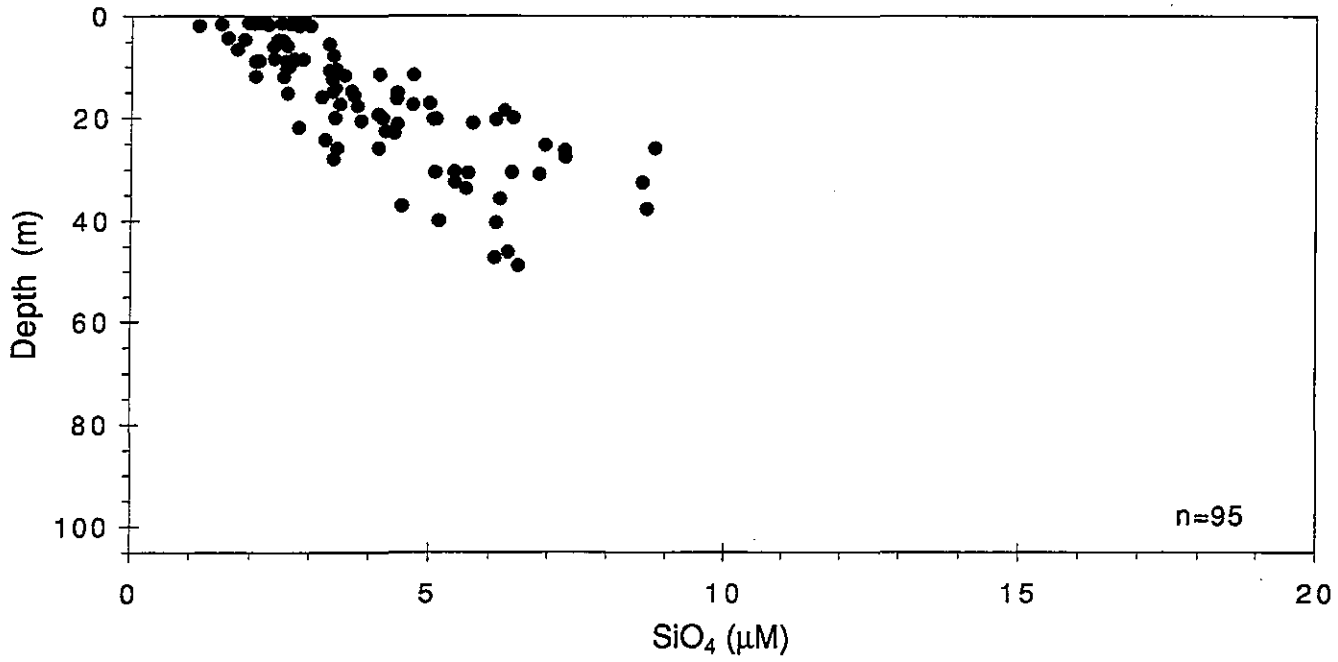
W9508 .


0
20
40
60
80
100
Depth (m)
n=59
0
5
10
15
20
SiO4 (µM)

W9509 .


0
20
40
60
80
100
Depth (m)
n=95
0.0
0.5
1.0
1.5
2.0
PO4 (µM)

W9509 .


0
20
40
60
80
100
Depth (m)
n=95
0
5
10
15
20
SiO4 (µM)

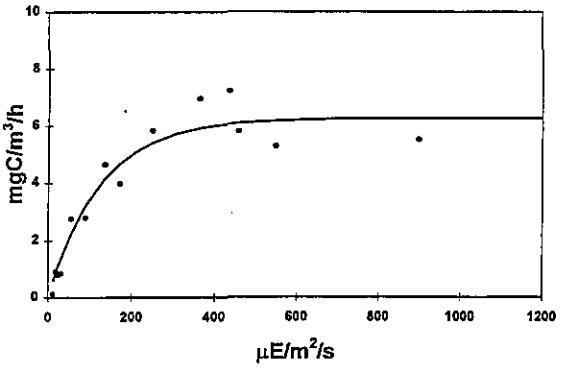
APPENDIX E

PHOTOSYNTHESIS-INTENSITY (P-I) CURVES

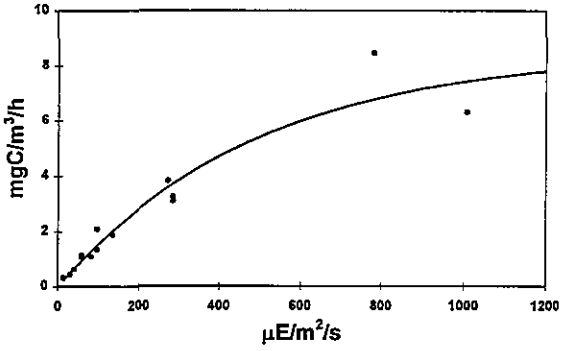
APPENDIX E

Productivity calculations (Appendix A) utilized light attenuation data from a CTD-mounted 4π sensor and incident light time-series data from an on-deck 2π irradiance sensor. After collection of the productivity samples, they were incubated in a temperature-controlled incubator. The resulting productivity ($mgC/m^3/h$) versus light intensity ($\mu E/m^2/s$, P-I) curves are comprehensively presented in this appendix. These data were used to determine hourly production at intervals throughout the day for each sampling depth.

Surface



Mid Surface



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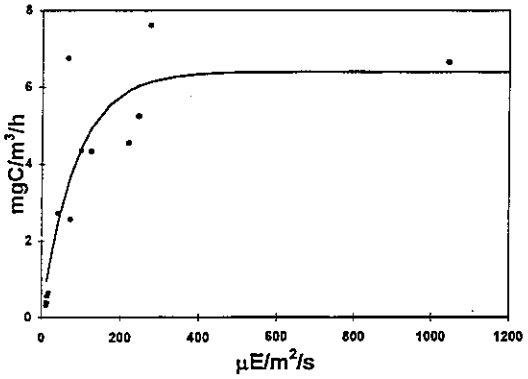

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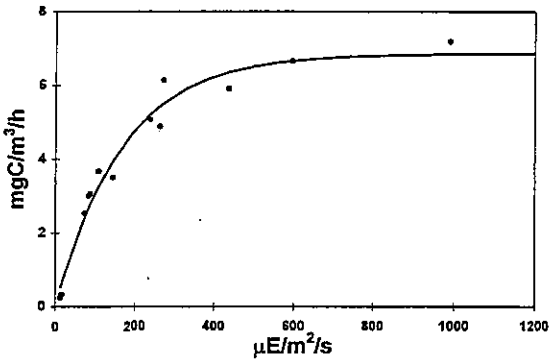

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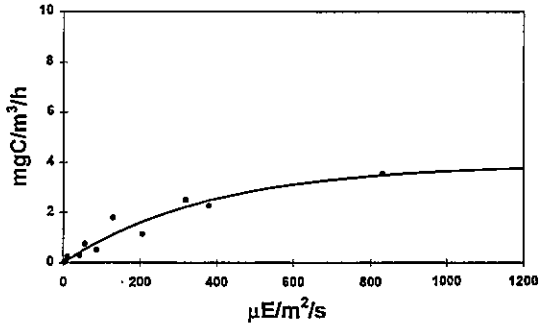

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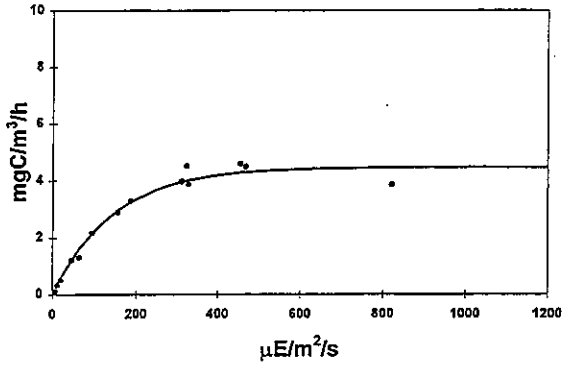

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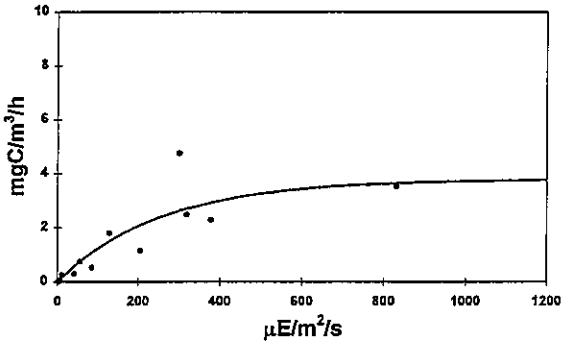

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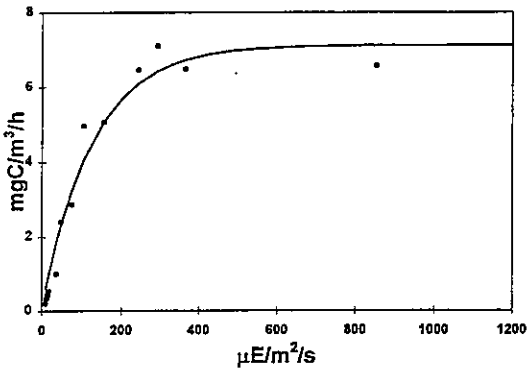

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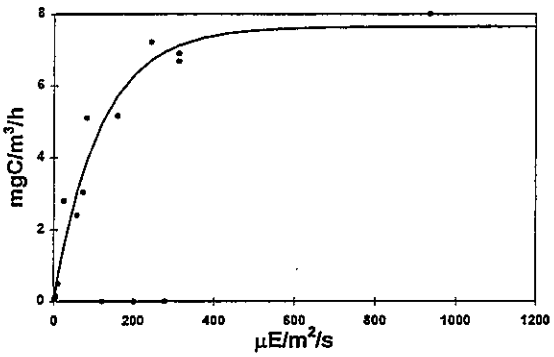

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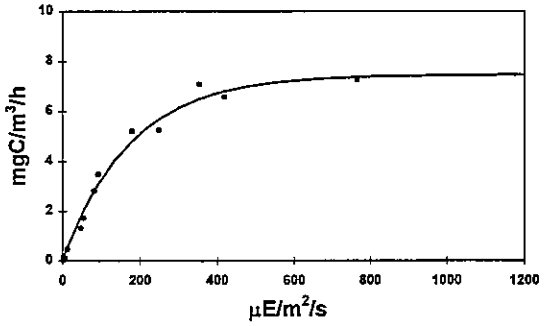

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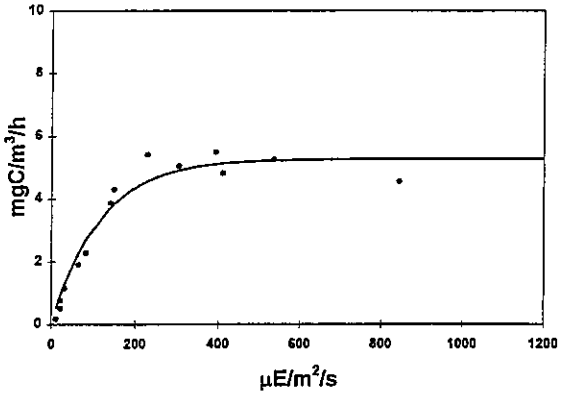

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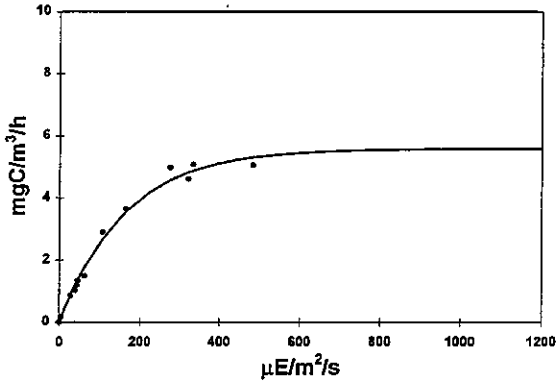

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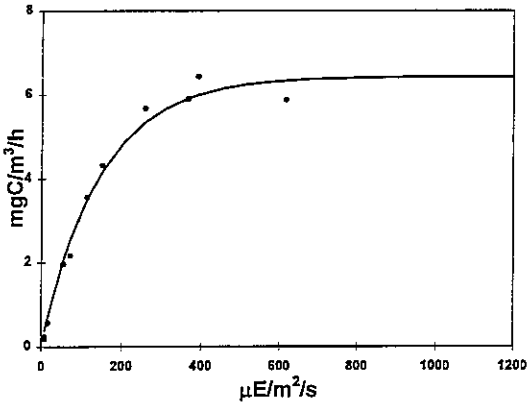

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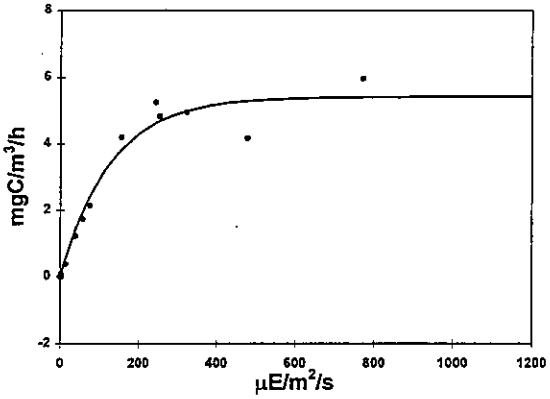

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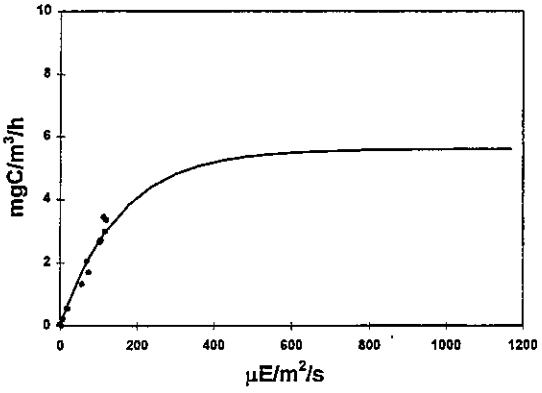

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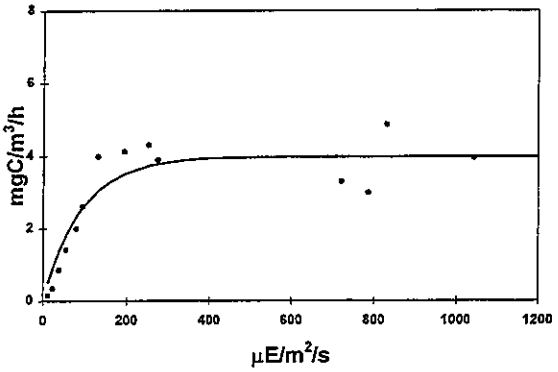

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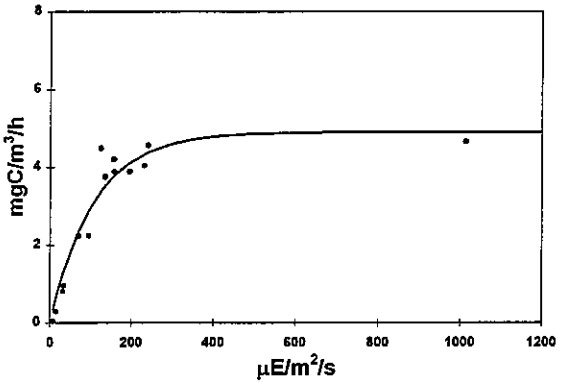

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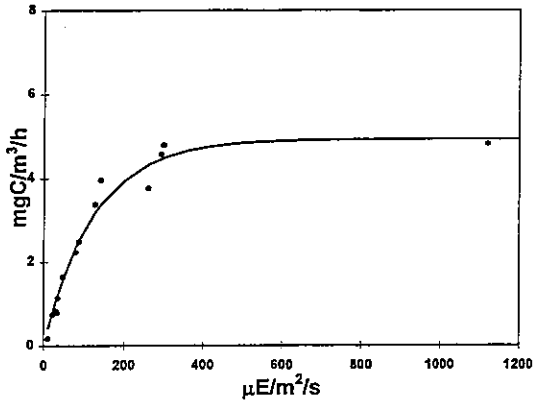

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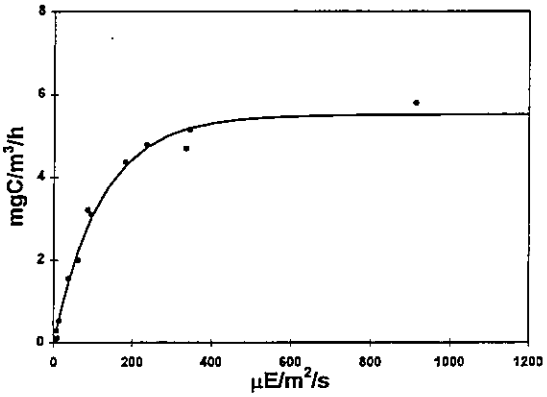

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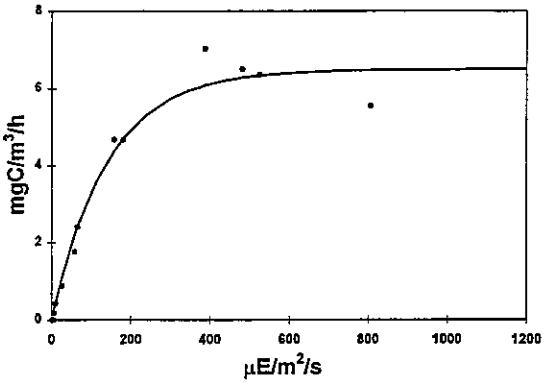

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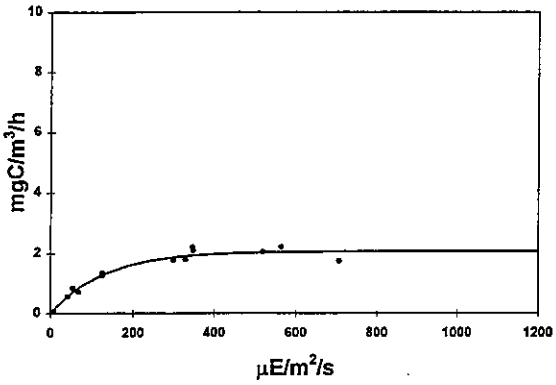

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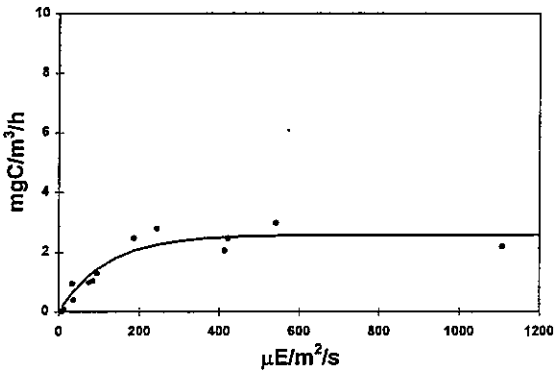

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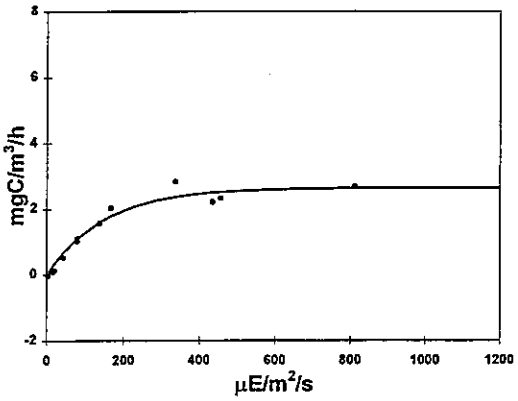

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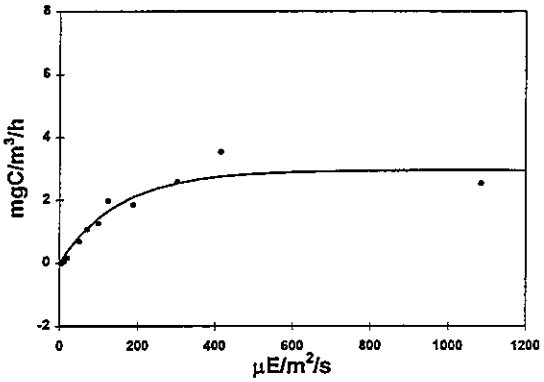

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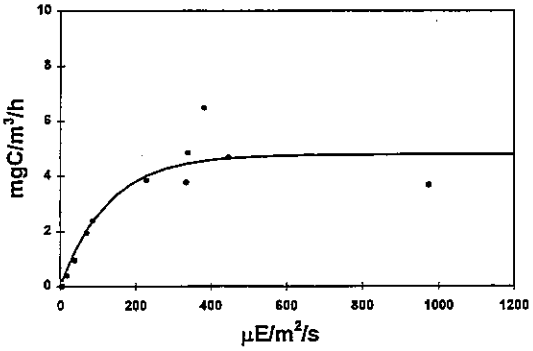

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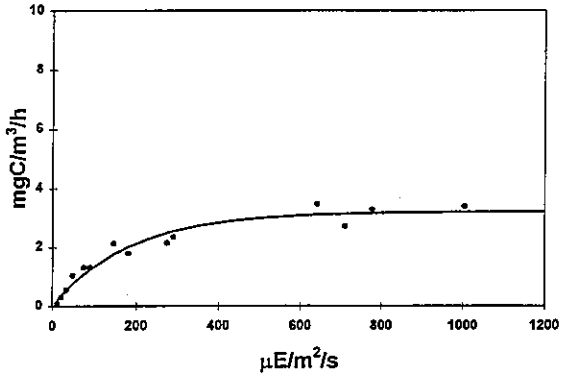

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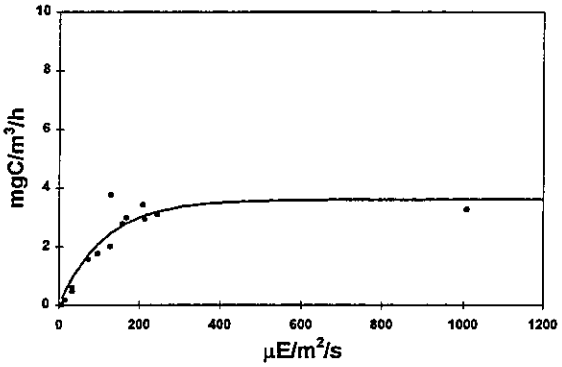

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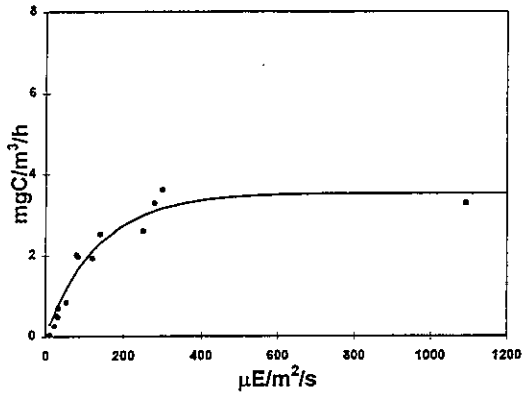

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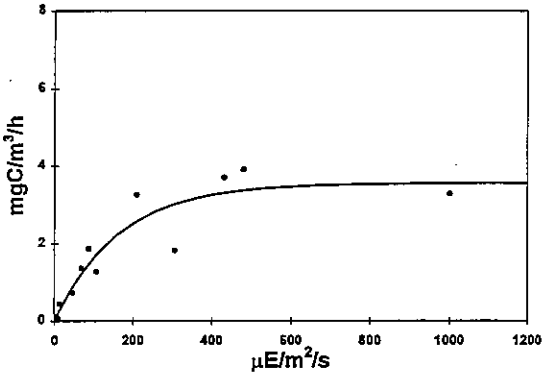

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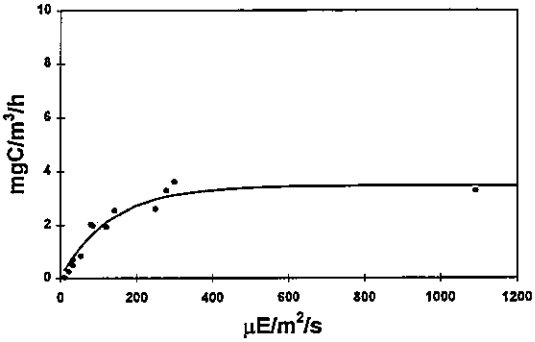

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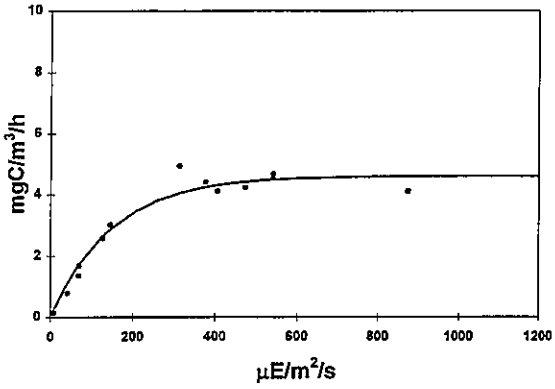

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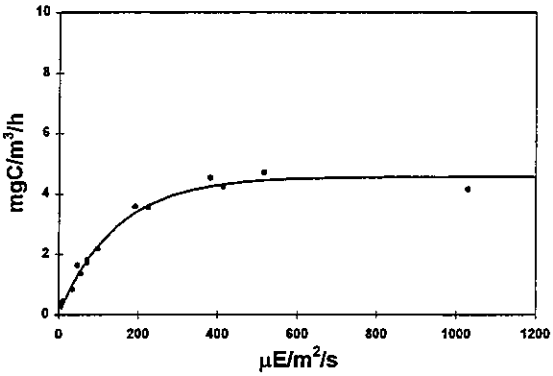

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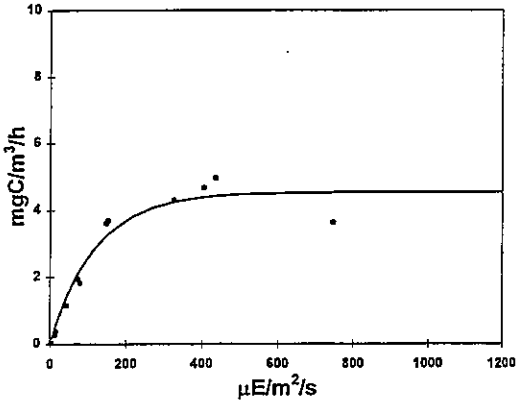

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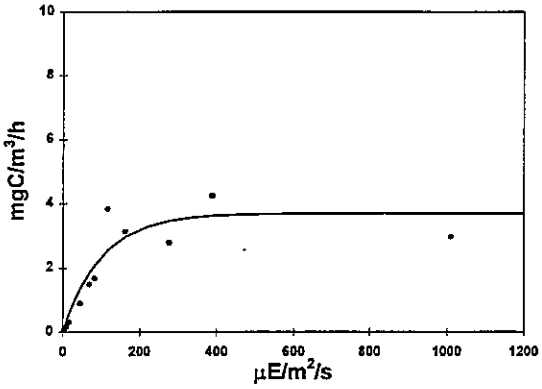

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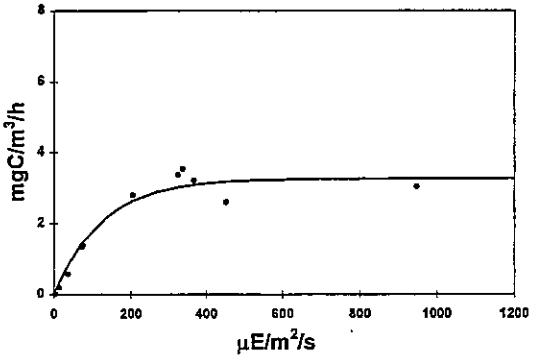
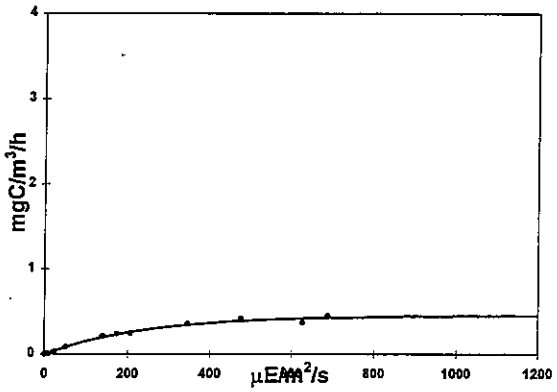
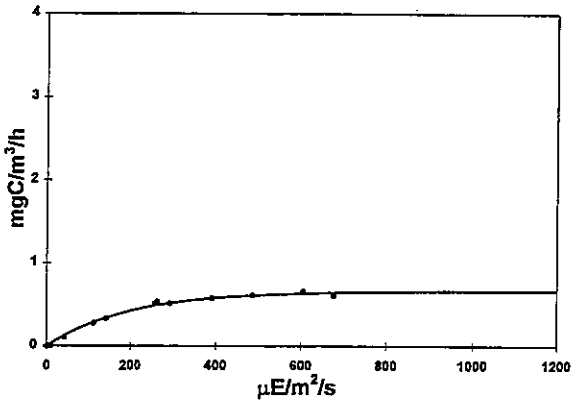


W9503 Station N04

Surface



Mid Surface



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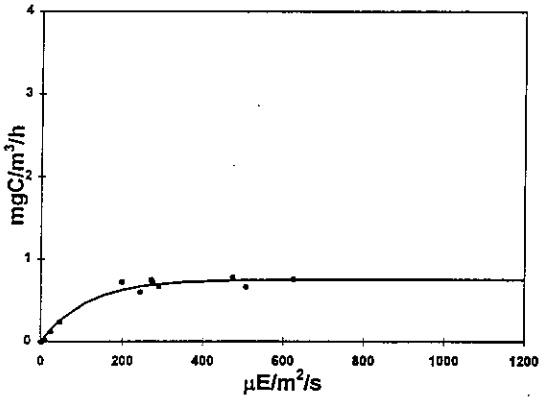

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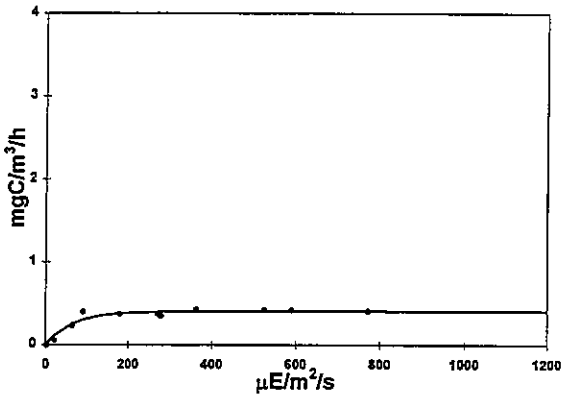

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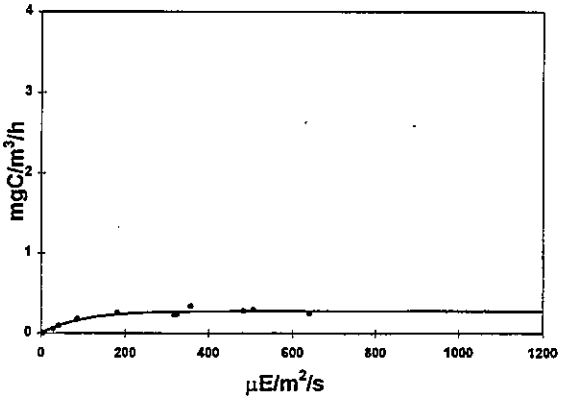
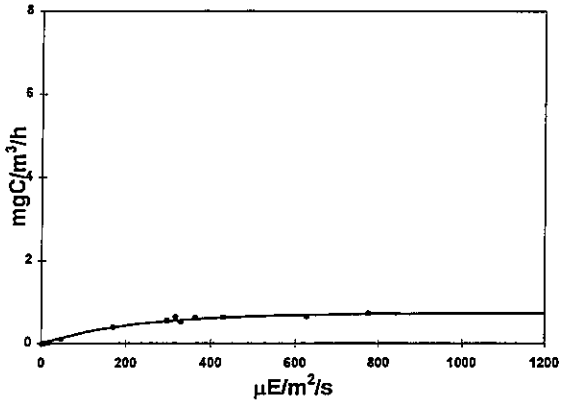


W9503 Station N16

Surface



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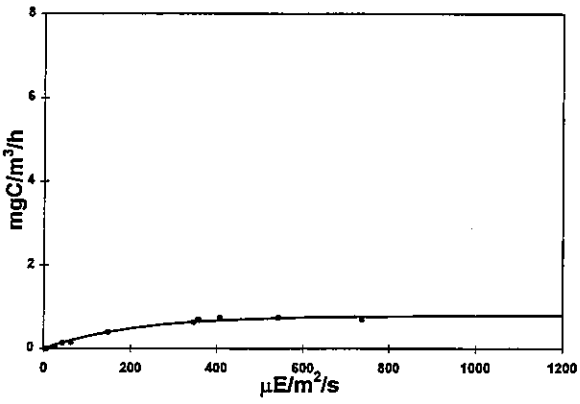

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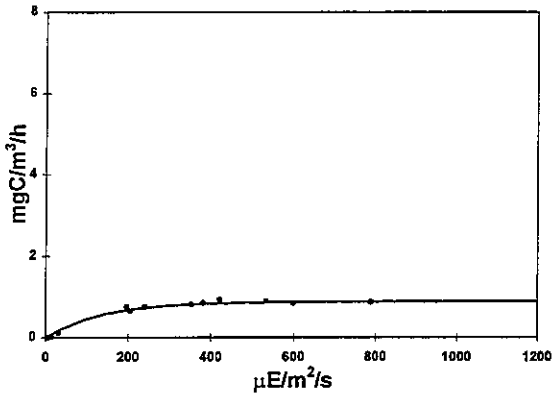

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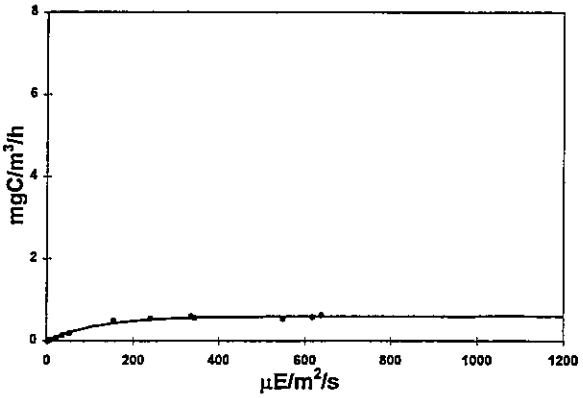

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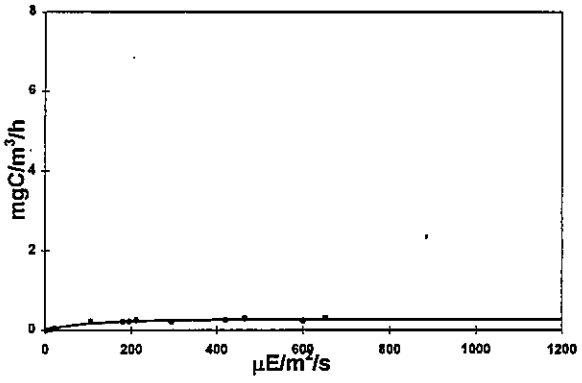

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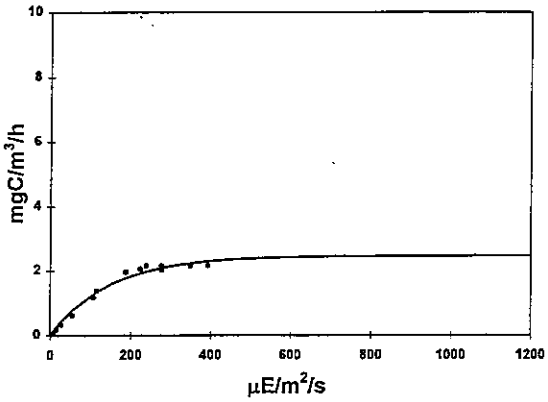

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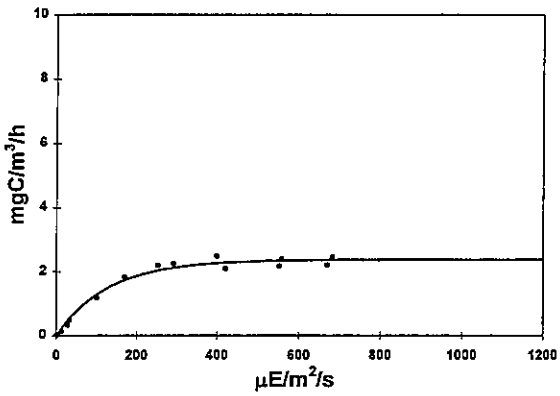

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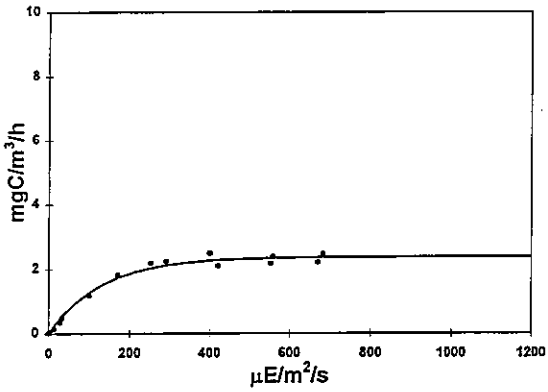

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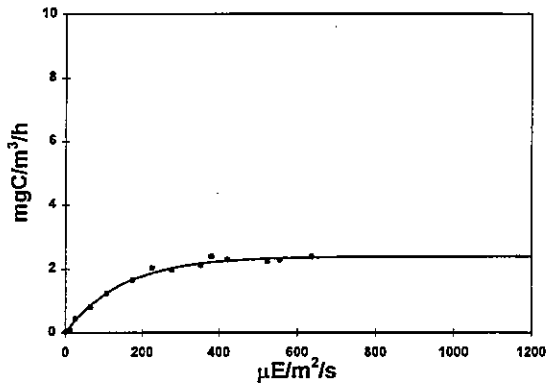

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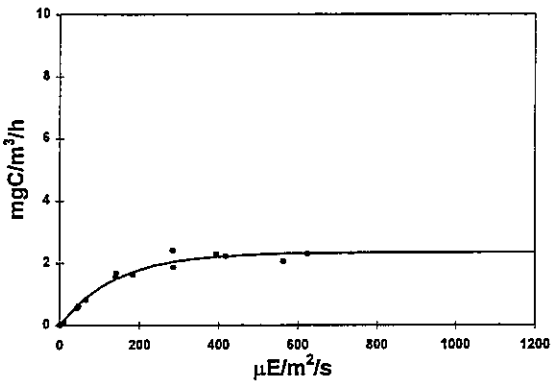
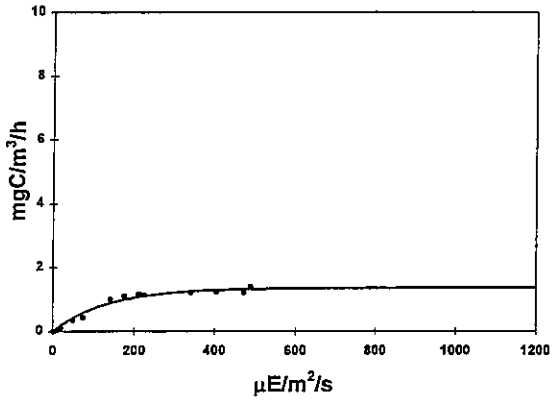
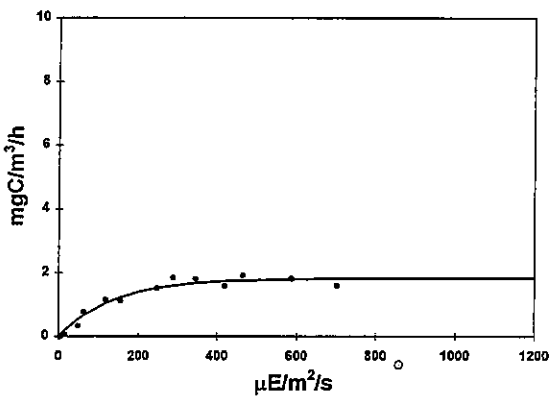


W9504 Station N16

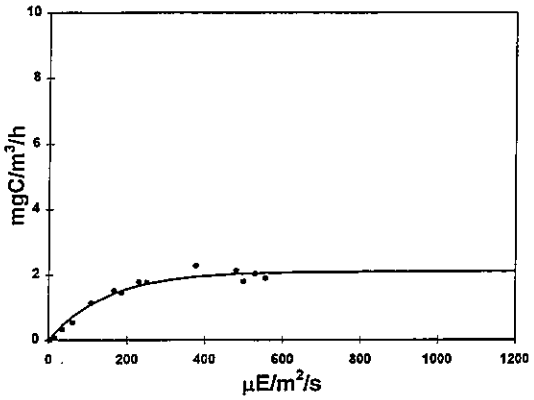
Surface



Mid Surface



Middle



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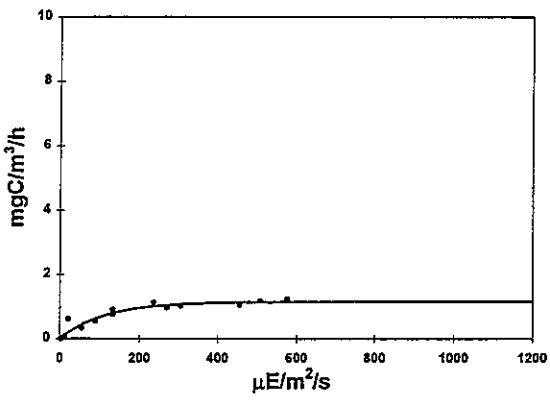

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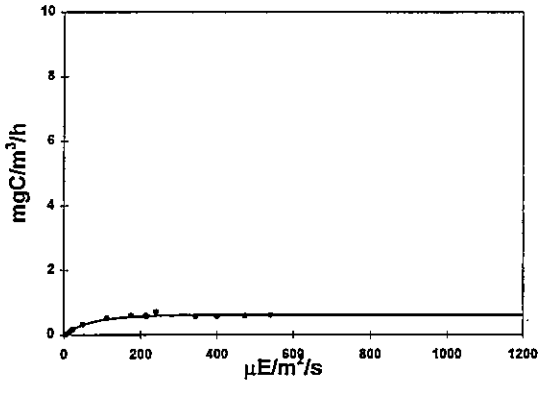
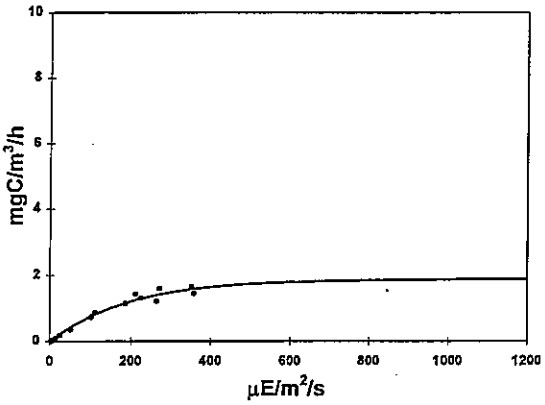
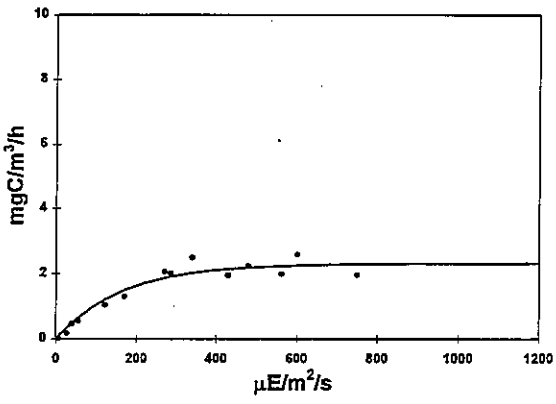


W9504 Station N04

Surface



Mid Surface



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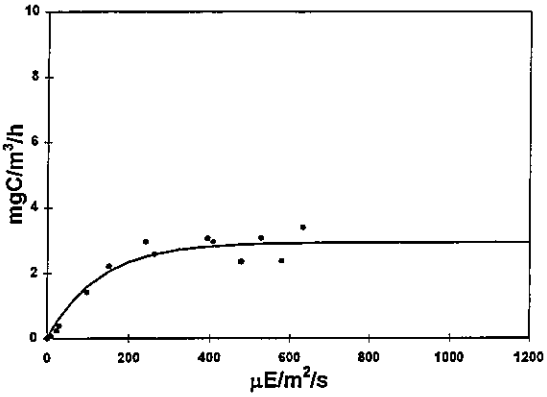

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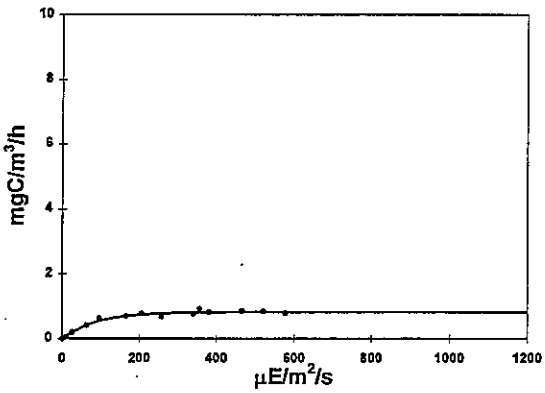

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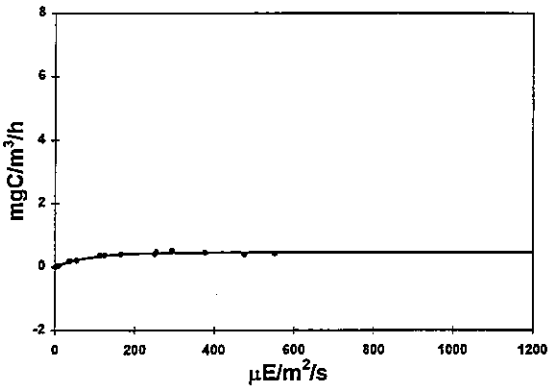
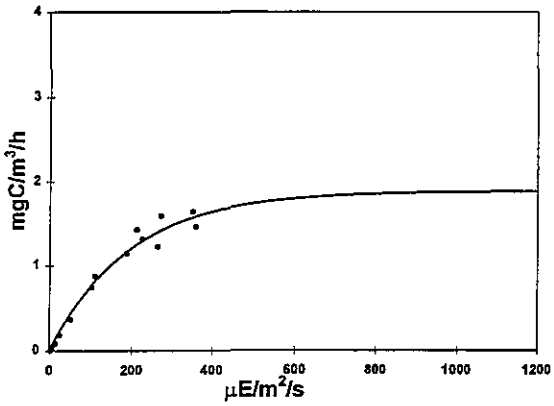


W9504 Station N07

Surface



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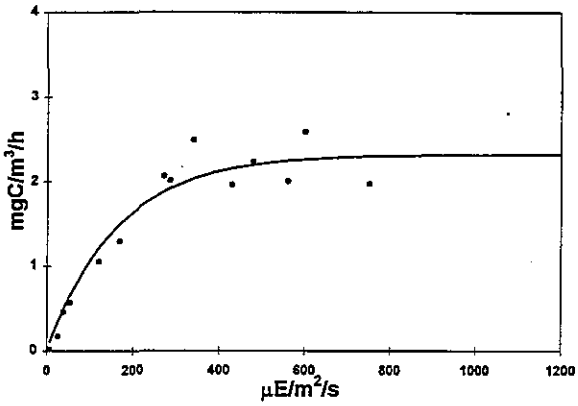

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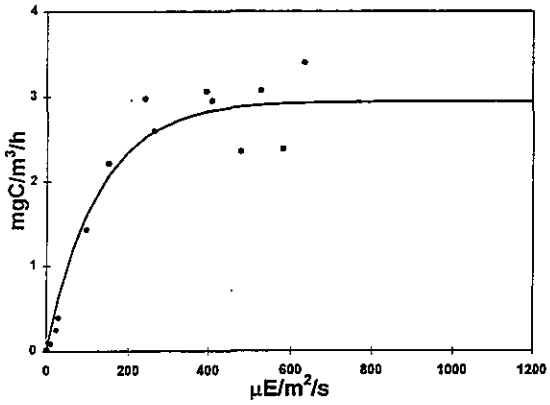

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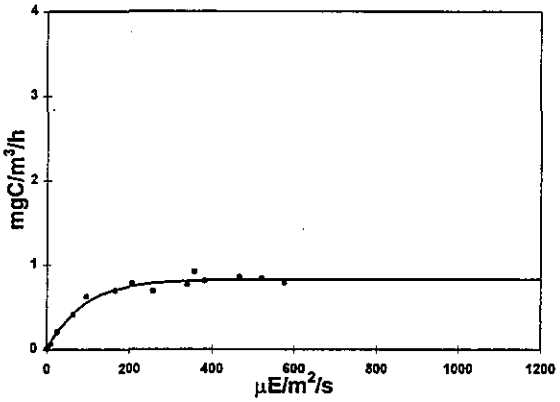

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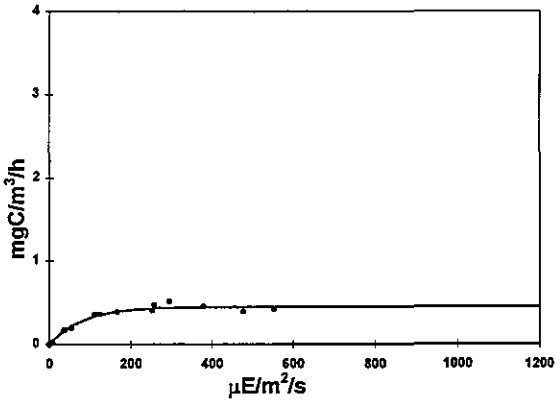
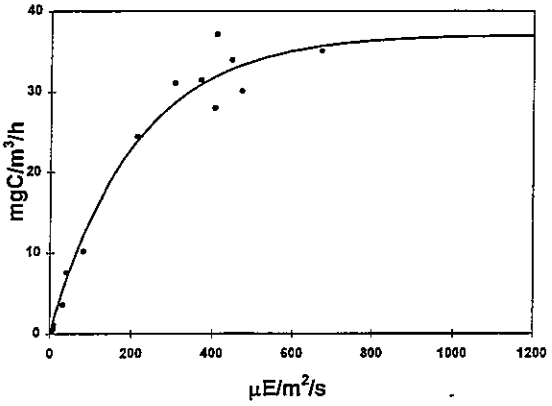


W9505 Station N16

Surface



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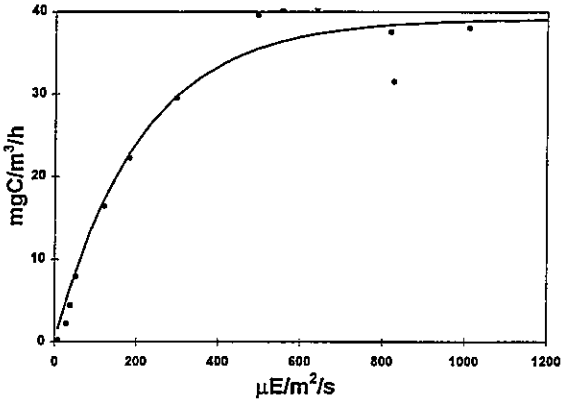

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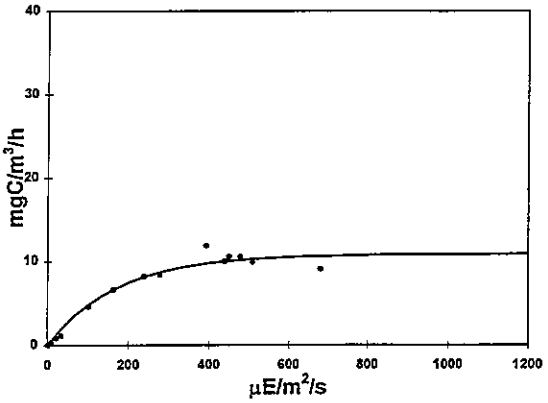

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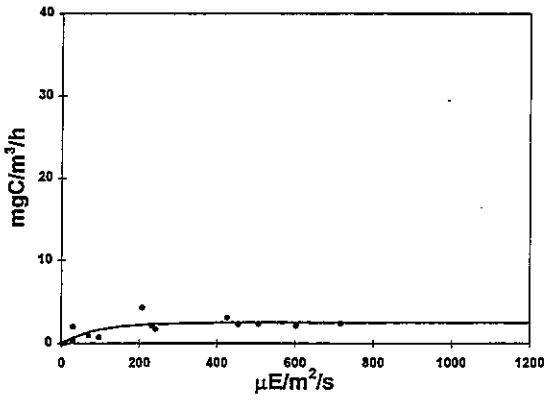

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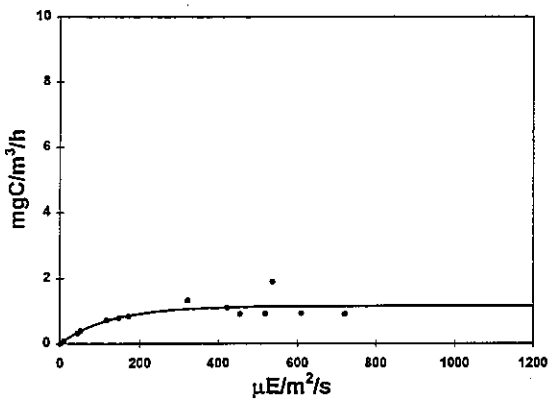
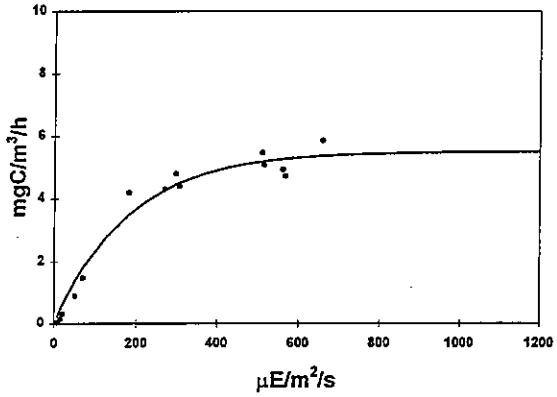


W9505 Station N04

Surface



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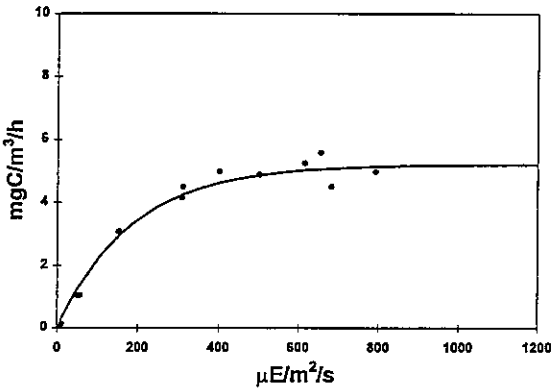

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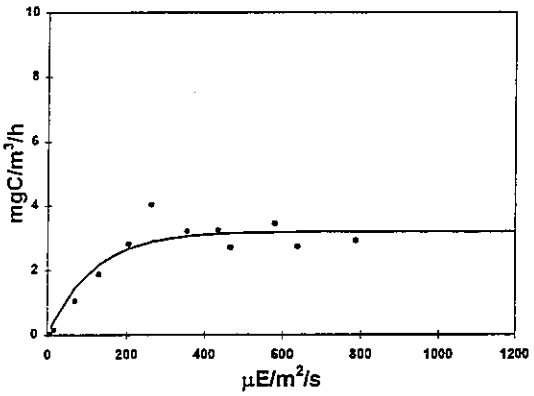

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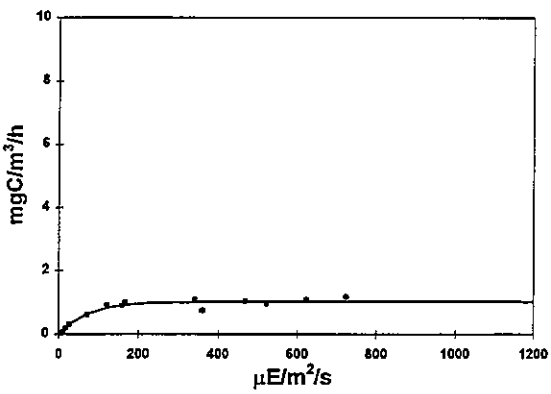

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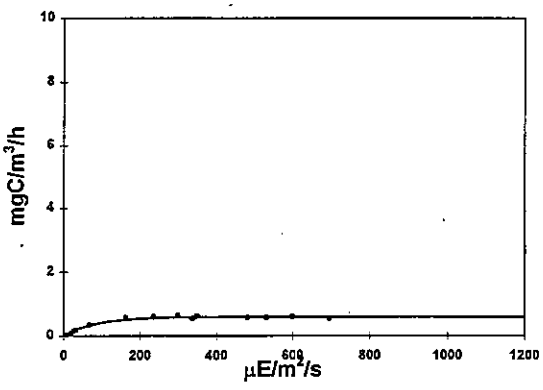
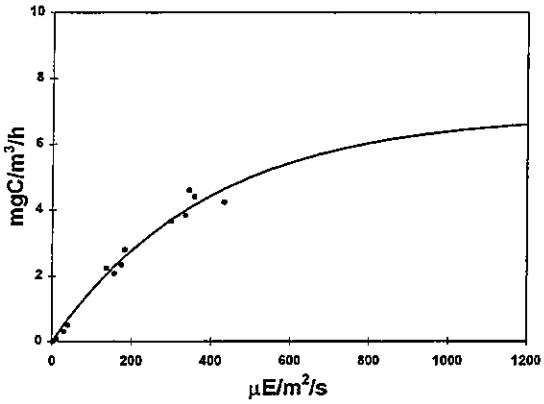


W9506 Station N04

Surface



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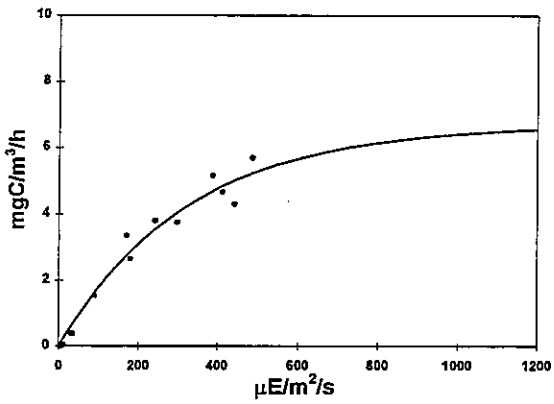

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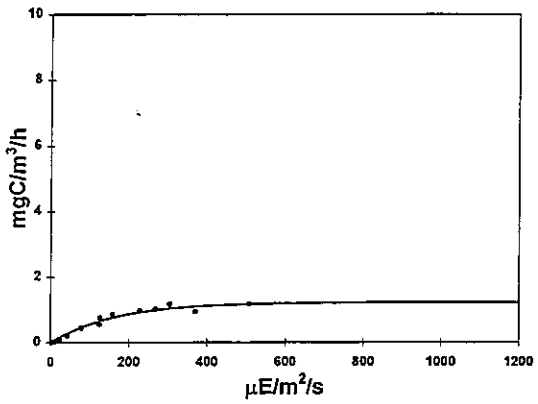

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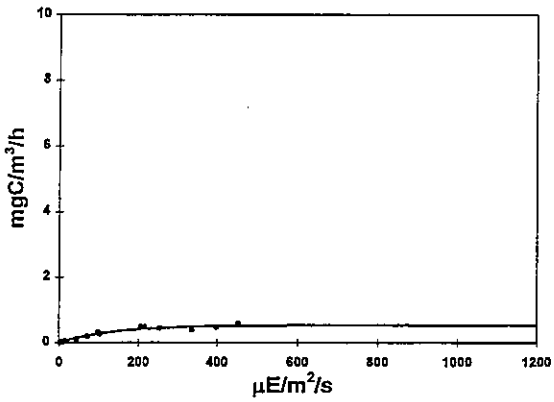

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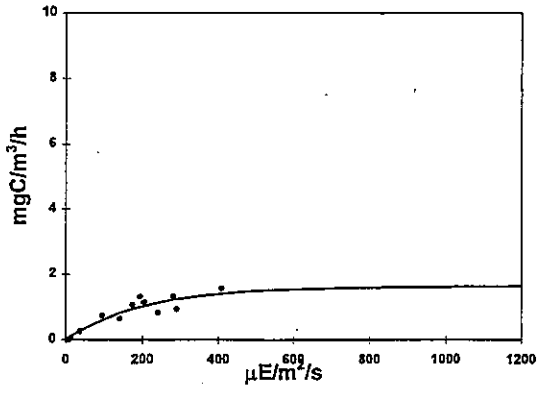
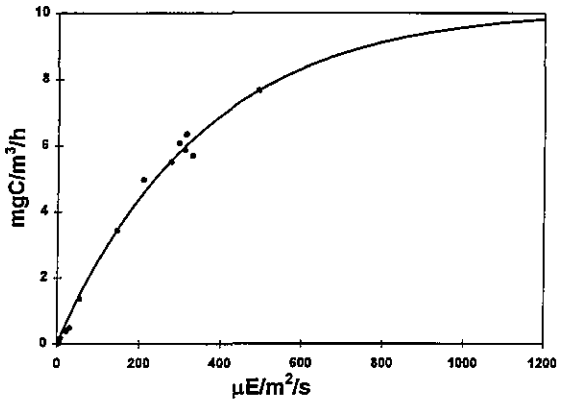


W9506 Station N16

Surface



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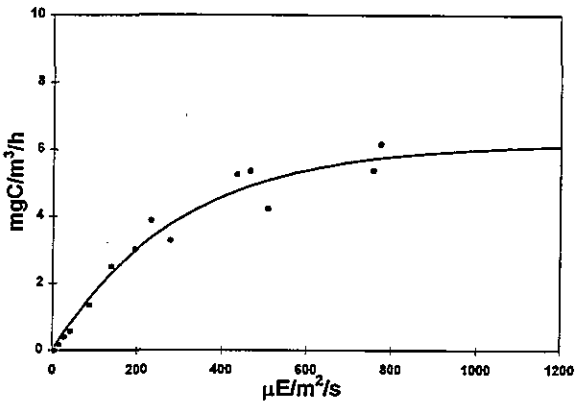

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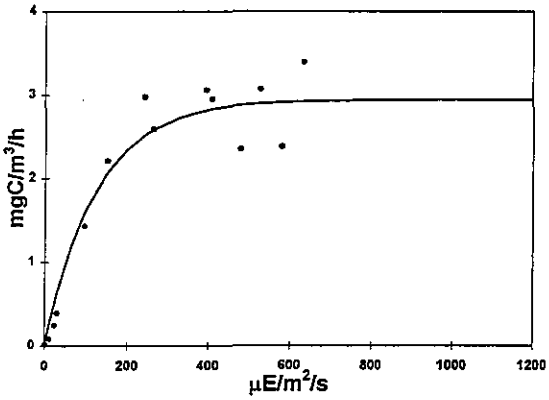

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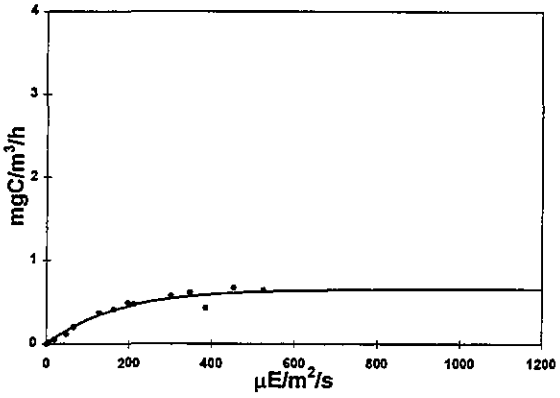

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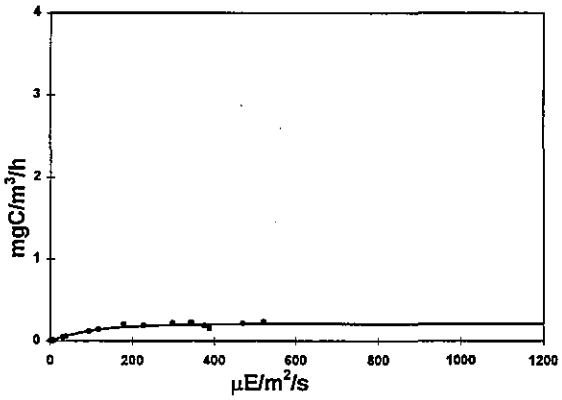

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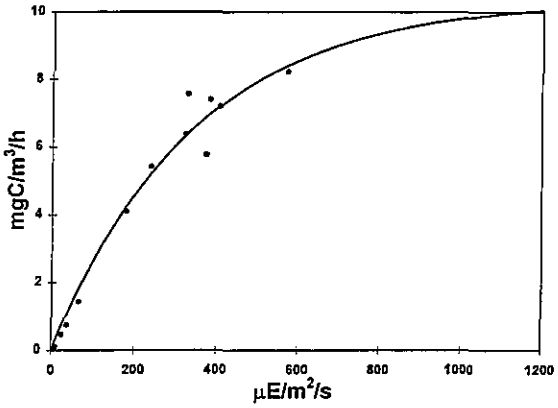

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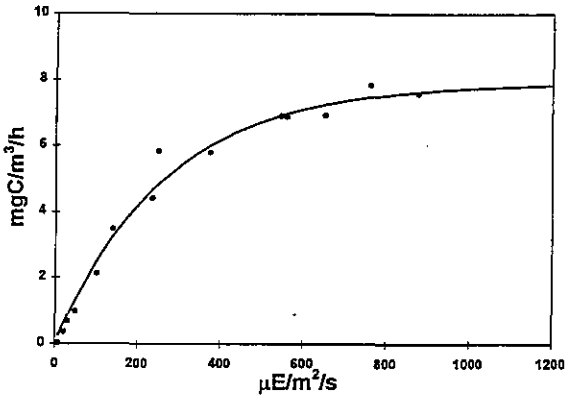

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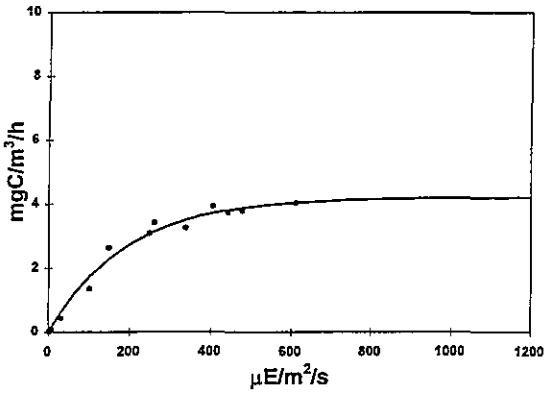

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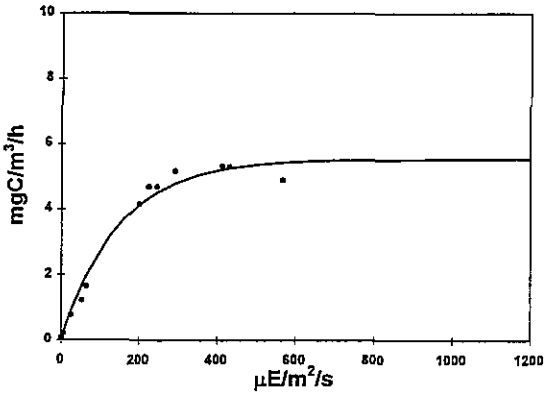

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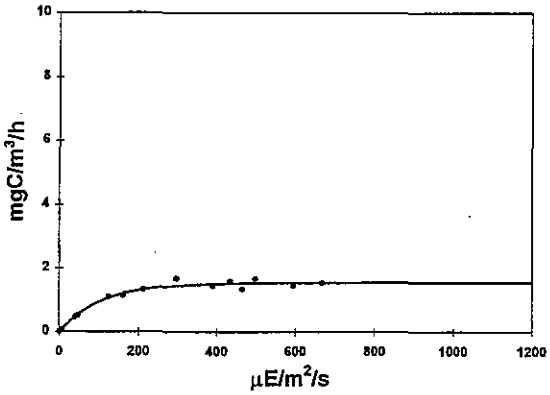
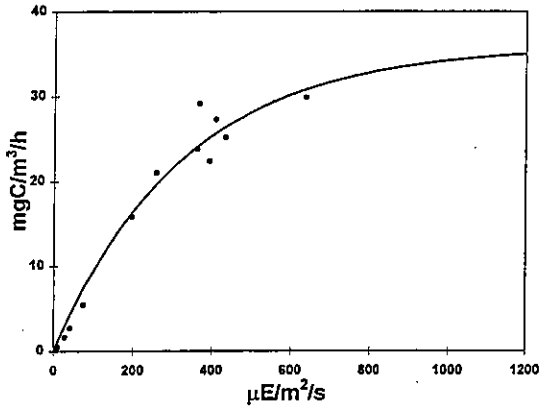


W9507 Station F23

Surface



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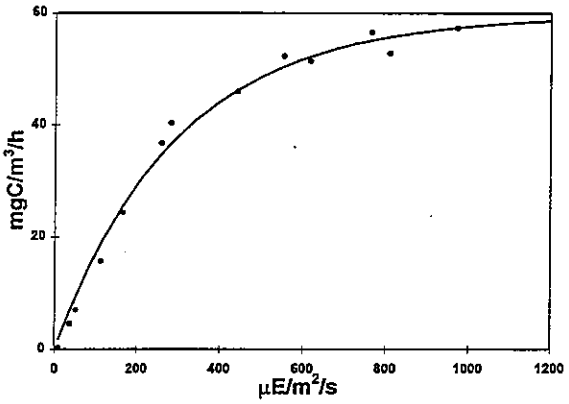

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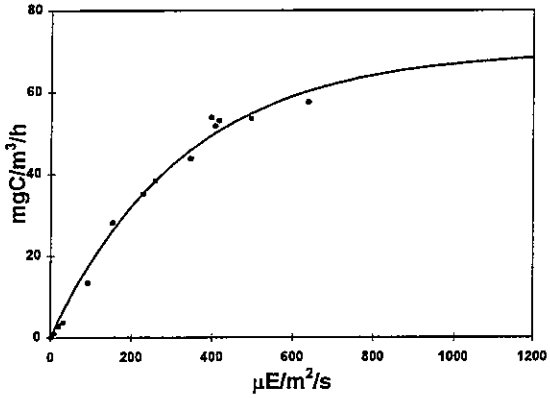

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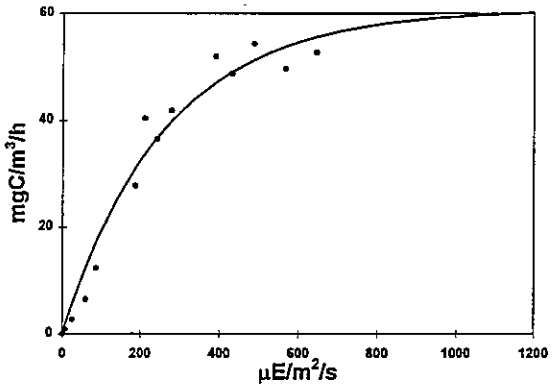

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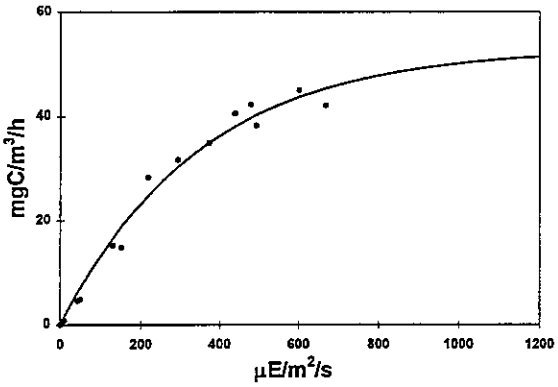

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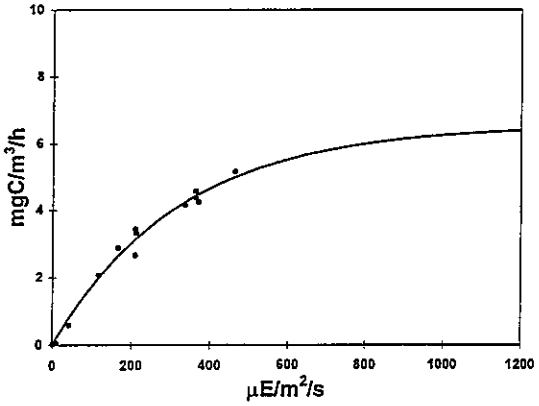

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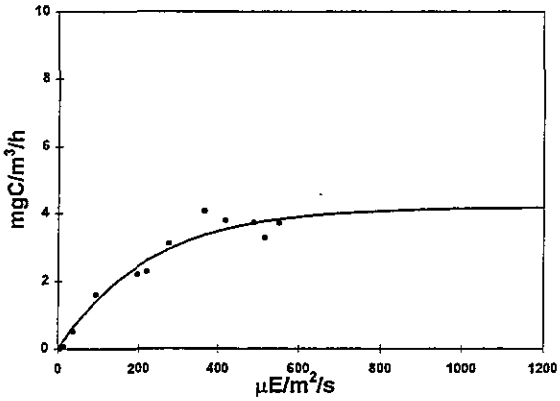

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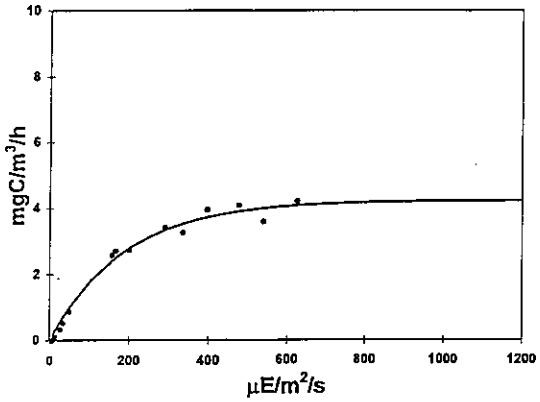

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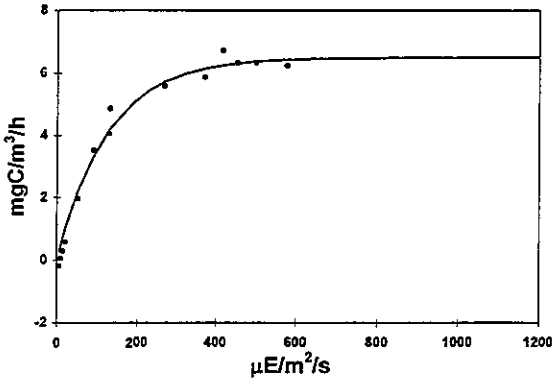

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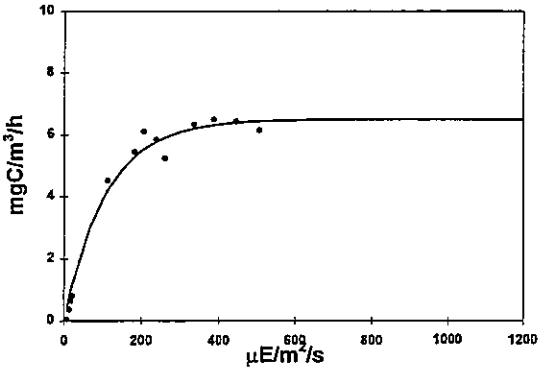
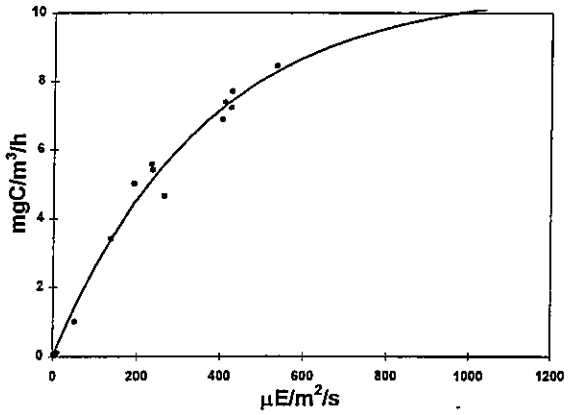
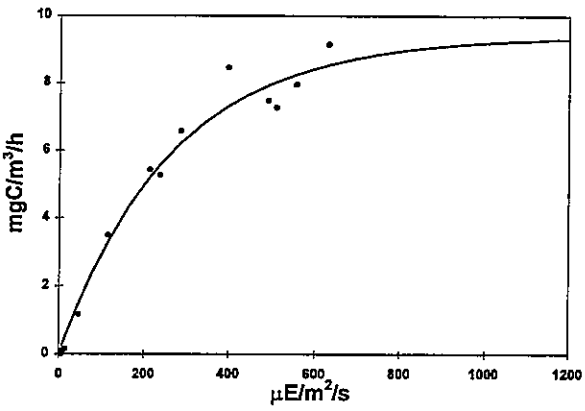


W9507 Station N16

Surface



Mid Surface



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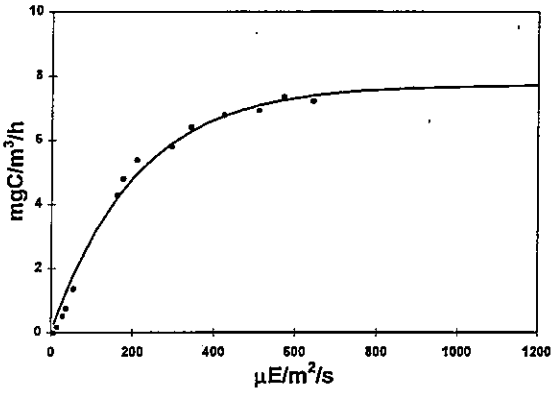

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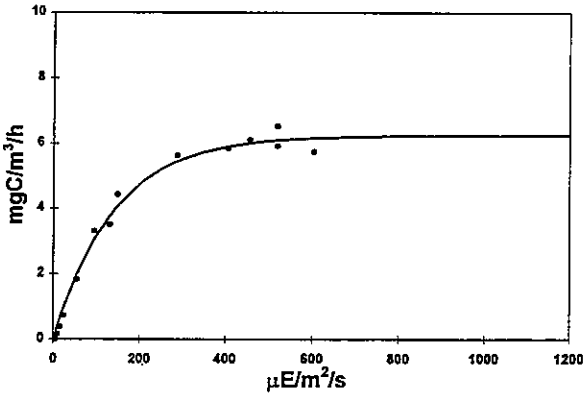

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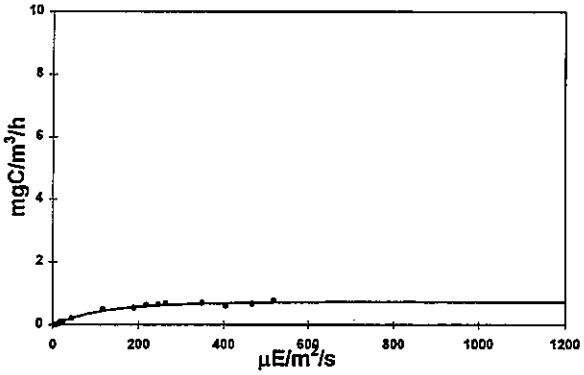

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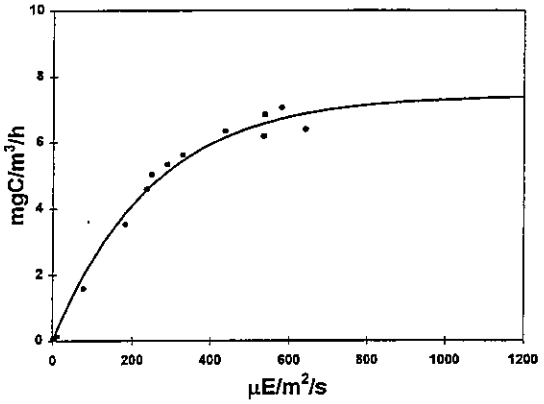

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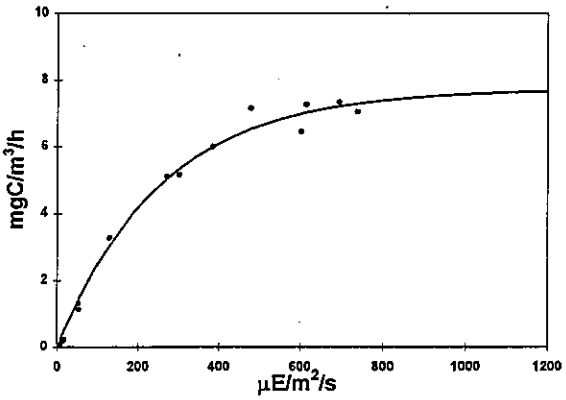

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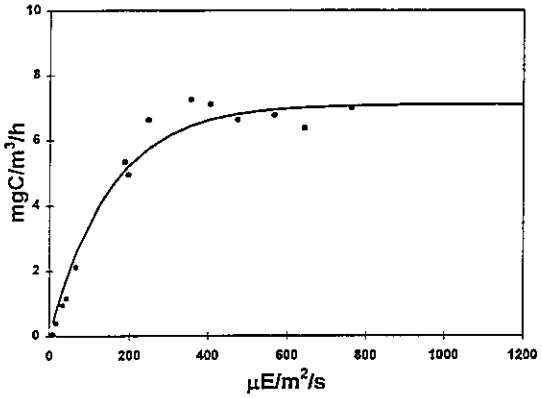

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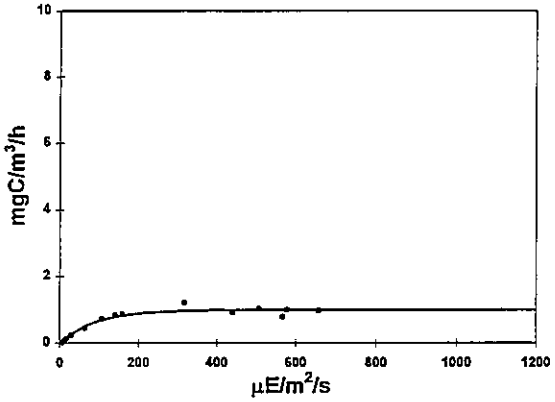

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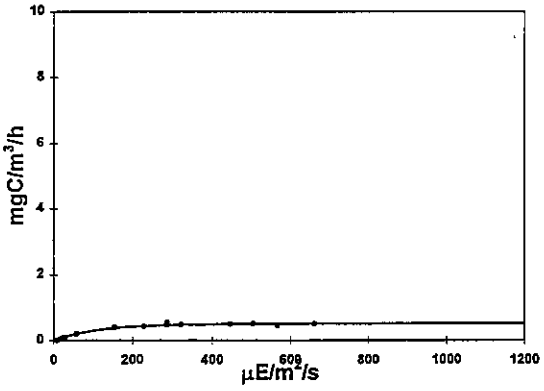
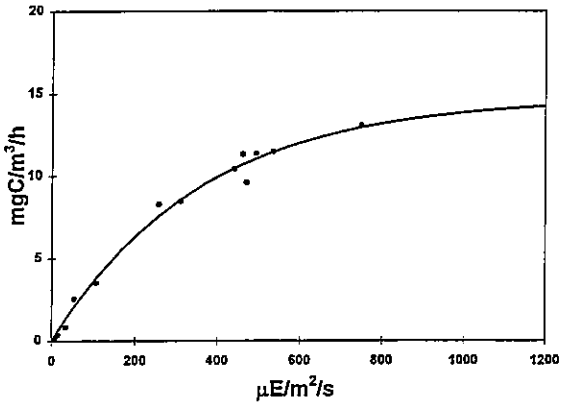


W9508 Station N04

Surface



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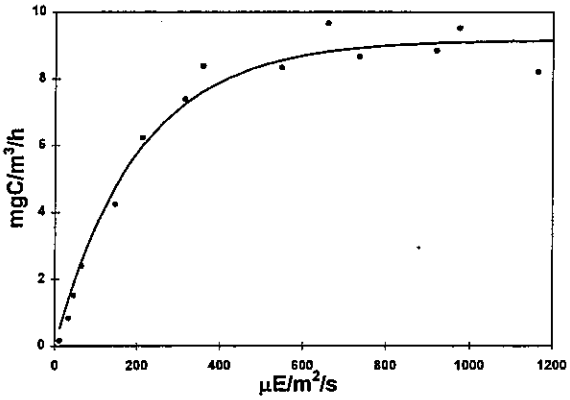

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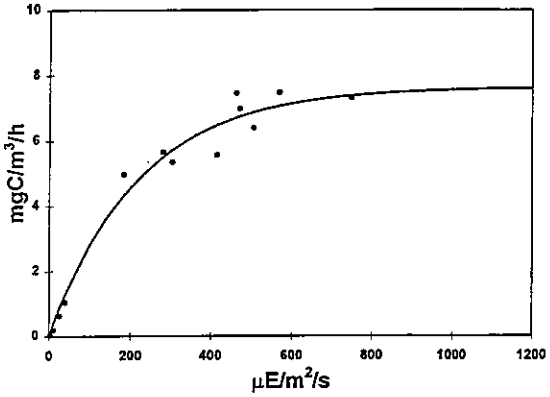

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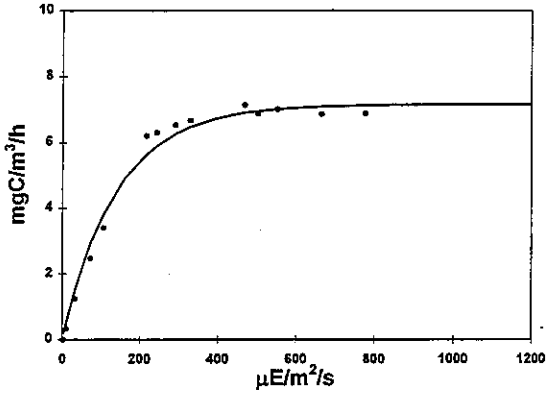

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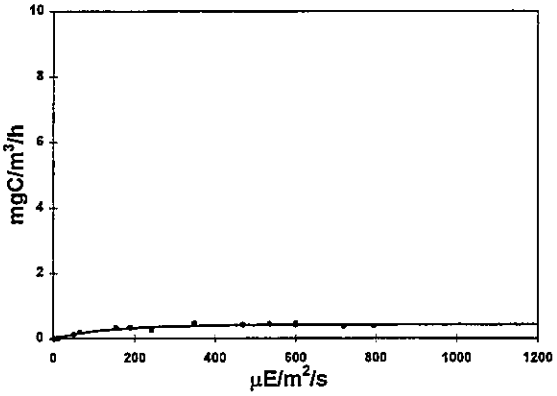

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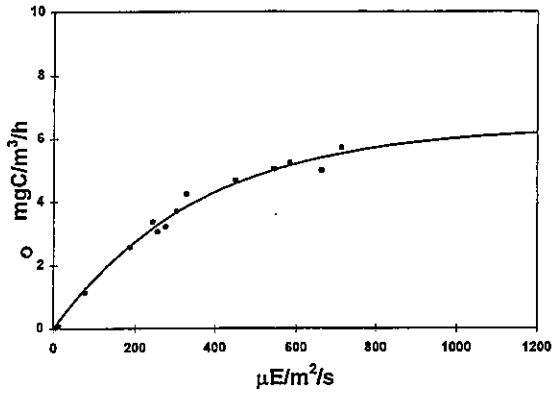

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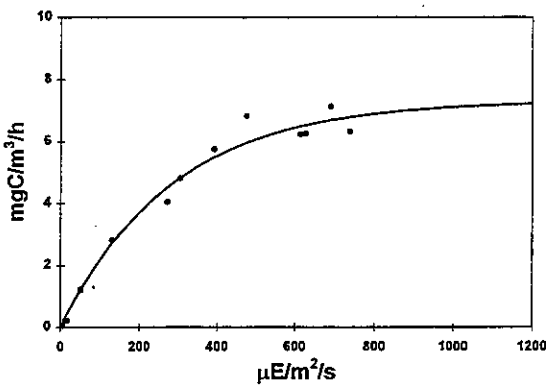

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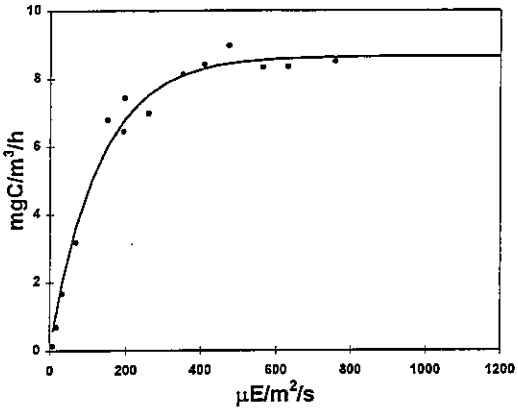

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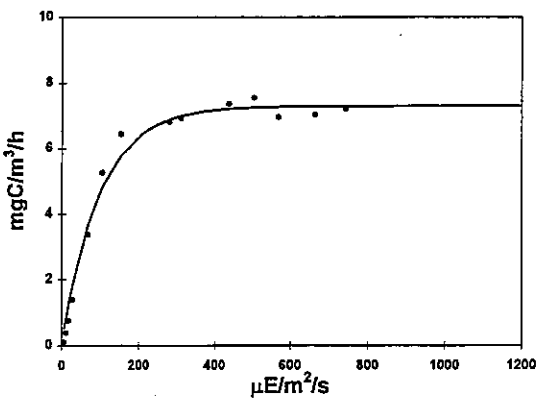

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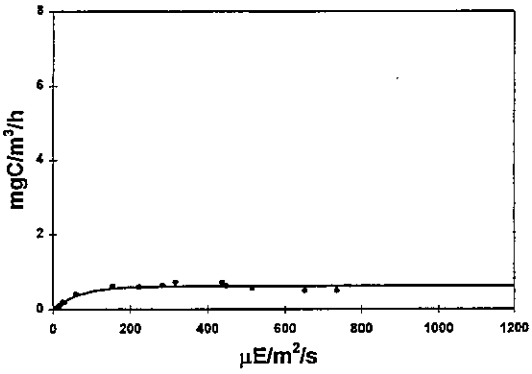

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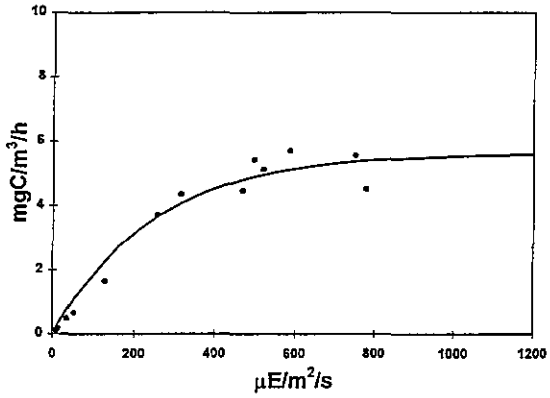

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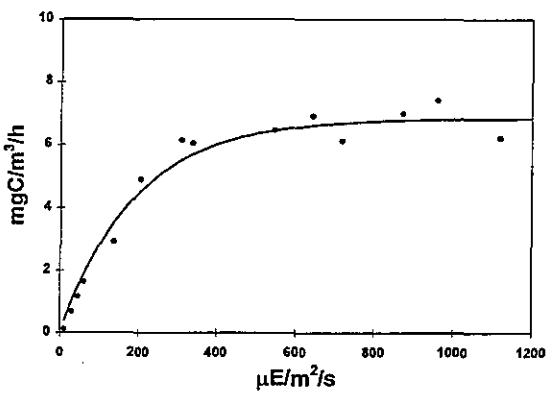

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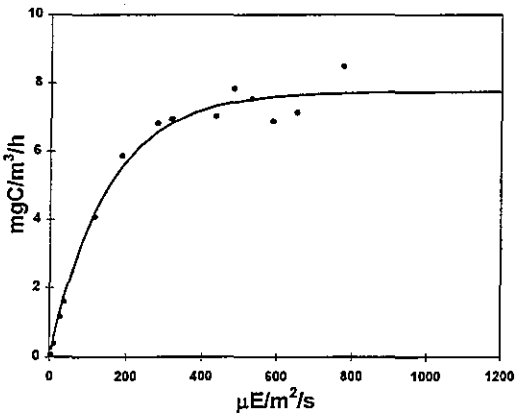

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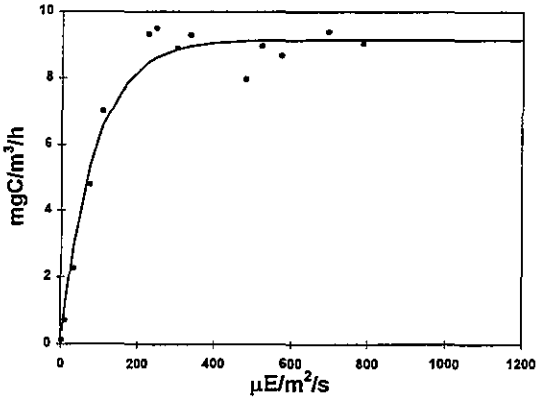

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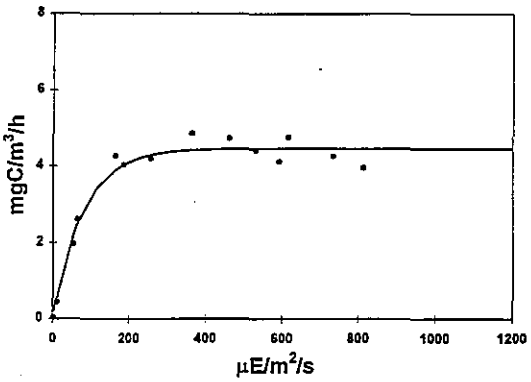

APPENDIX F-1

ABUNDANCE OF PREVALENT SPECIES IN SURFACE SAMPLE
WHOLE WATER PHYTOPLANKTON
FEBRUARY 6-14, 1995

Abundance of Prevalent Species (> 5% Total Count) in Surface Sample
Whole Water Phytoplankton, February 6 - 14, 1995 (W9501)

Species	Group	Parameter	Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
			1F23	1F30	1F31	1F13	1F24	1F25	1N10	1N16	2N16	1F06	1F27	1F01	1F02
CRYPTOMONAS SP#1 LENGTH <10 MICRONS	MF	10^6 Cells/L	0.031	0.037	0.068					0.066	0.046	0.032	0.045	0.077	0.085
		%	7	6	7					10	8	6	9	19	17
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L								0.064	0.033				
		%								10	6				
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	10^6 Cells/L									0.029		0.028		
		%									5		6		
OSCILLATORIA CELLS #1 DIAM <5UM	O	10^6 Cells/L	0.313	0.133	0.341										
		%	67	22	37										
THALASSIOSIRA GRAVIDA	CD	10^6 Cells/L	0.033		0.068		0.024	0.023						0.113	0.124
		%	7		7		5	6						27	24
THALASSIOSIRA NORDENSKIOLDII	CD	10^6 Cells/L													0.031
		%													6
UNID. BLUE GREEN SINGLE SPHERE	O	10^6 Cells/L		0.053											
		%		9											
UNID. BLUE GREEN TRICHOME (CELL)	O	10^6 Cells/L			0.081										
		%			9										
UNID. CHOANOFLAGELLATE	MF	10^6 Cells/L												0.022	
		%												5	
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L		0.202	0.207	0.463	0.251	0.237	0.330	0.369	0.306	0.343	0.317	0.032	0.144
		%		33	22	70	55	58	96	57	56	67	65	8	28
UNID. MICRO-PHYTOFLAG LENGTH >10 MICRONS	MF	10^6 Cells/L		0.072											
		%		12											

Group Definitions:

CD	Centric Diatom
DF	Dinoflagellate
MF	Microflagellate
O	Other
PD	Pennate Diatom

Abundance of Prevalent Species (> 5% Total Count) in Surface Sample
Whole Water Phytoplankton, February 28 - March 5, 1995, 1995 (W9502)

Species	Group	Parameter	Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
			1F23	1F30	1F31	1F13	1F24	1F25	1N10	1N16	2N16	1F06	1F27	1FO1	1F02
CHAETOCEROS SP#1 DIAM <10 MICRONS	CD	10^6 Cells/L													0.057
		%													7
CRYPTOMONAS SP#1 LENGTH <10 MICRONS	MF	10^6 Cells/L		0.026								0.035	0.024		0.086
		%		10								23	8		10
CYLINDROTHECA CLOSTERIUM	PD	10^6 Cells/L										0.010			
		%										7			
FRAGILARIA SP#2 LENGTH 30-60 MICRONS	PD	10^6 Cells/L			0.026									0.051	
		%			9									6	
GRAMMATOPHORA SP.	PD	10^6 Cells/L			0.021										
		%			7										
GYMNODINIUM SP.#1 6-20UM W 10-20UM L	DF	10^6 Cells/L										0.012	0.025		0.133
		%										8	8		16
MELOSIRA SP#1 DIAM <20 MICRONS	CD	10^6 Cells/L			0.025			0.038							
		%			8			10							
RHIZOSOLENIA DELICATULA	CD	10^6 Cells/L												0.053	0.084
		%												6	10
THALASSIONEMA NITZSCHIOIDES	PD	10^6 Cells/L										0.010			
		%										7			
THALASSIOSIRA GRAVIDA	CD	10^6 Cells/L		0.017											
		%		6											
THALASSIOSIRA SP#1 DIAM <20 MICRONS	CD	10^6 Cells/L		0.035										0.081	0.043
		%		13										9	5
THALASSIOSIRA SP#2 DIAM >20 MICRONS	CD	10^6 Cells/L	0.034		0.021		0.041	0.027		0.030	0.024	0.015		0.073	
		%	9		7		10	7		8	7	10		8	
UNID. BLUE GREEN SINGLE SPHERE	O	10^6 Cells/L	0.023		0.015		0.032	0.024	0.025						0.127
		%	6		5		8	6	7						15
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L	0.028		0.019		0.026			0.021	0.048				0.082
		%	7		7		7			5	14				10
UNID. CENTRIC DIATOM DIAM 10-30 MICRONS	CD	10^6 Cells/L		0.017								0.011			
		%		6								7			
UNID. CHOANOFLAGELLATE	MF	10^6 Cells/L		0.046											
		%		18											
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.240	0.049	0.130	0.308	0.230	0.226	0.250	0.172	0.152	0.023	0.169	0.361	0.094
		%	63	19	44	70	59	57	67	44	45	15	56	41	11

Group Definitions:

CD	Centric Diatom
DF	Dinoflagellate
MF	Microflagellate
O	Other
PD	Pennate Diatom

Abundance of Prevalent Species (> 5% Total Count) in Surface Sample
Whole Water Phytoplankton, March 20 - 22, 1995 (W9503)

Species	Group	Parameter	Nearfield Stations	
			1N10	1N16
CRYPTOMONAS SP#1 LENGTH <10 MICRONS	MF	10^6 Cells/L	0.0683	0.0559
		%	46	72
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L	0.0095	
		%	6	
UNID. CHOANOFLAGELLATE	MF	10^6 Cells/L	0.0102	
		%	7	
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.0402	0.0092
		%	27	12
Group Definitions:	CD	Centric Diatom		
	DF	Dinoflagellate		
	MF	Microflagellate		
	O	Other		
	PD	Pennate Diatom		

Abundance of Prevalent Species (> 5% Total Count) In Surface Sample
Whole Water Phytoplankton, April 3 - 10, 1995 (W9504)

Species	Group	Parameter	Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
			1F23	1F30	1F31	1F13	1F24	1F25	1N10	1N16	2N16	1F06	1F27	1F01	1F02
CHAETOCEROS SP#2 DIAM 10-30 MICRONS	CD	10^6 Cells/L												0.707	0.155
		%												37	15
CRYPTOMONAS SP#1 LENGTH <10 MICRONS	MF	10^6 Cells/L									0.026	0.031			
		%									5	6			
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L	0.181	0.468	0.240	0.061	0.069	0.122	0.072	0.040	0.060	0.043	0.028	0.143	0.114
		%	23	37	25	8	12	16	11	11	12	8	7	7	11
FRAGILARIA SP#3 LENGTH >60 MICRONS	PD	10^6 Cells/L								0.028					
		%								7					
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	10^6 Cells/L								0.040	0.057	0.046	0.041		
		%								10	11	8	11		
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L		0.107	0.072										
		%		8	8										
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.473	0.501	0.455	0.632	0.427	0.493	0.451	0.210	0.275	0.402	0.272	0.579	0.584
		%	60	39	48	83	76	68	68	55	55	71	71	30	55

Group Definitions:

CD	Centric Diatom
DF	Dinoflagellate
MF	Microflagellate
O	Other
PD	Pennate Diatom

Abundance of Prevalent Species (> 5% Total Count) in Surface Sample Whole Water Phytoplankton, April 24 - 27, 1995 (W9505)

Species	Group	Parameter	Nearfield Stations 1N10	Nearfield Stations 1N16
CHAETOCEROS SP#2 DIAM 10-30 MICRONS	CD	10^6 Cells/L	0.4634	0.4025
		%	22	25
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L	0.7379	0.2561
		%	36	16
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	10^6 Cells/L		
		%		
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L	0.1677	0.2165
		%	8	14
UNID. CENTRIC DIATOM DIAM 10-30 MICRONS	CD	10^6 Cells/L		
		%		
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.4208	0.3842
		%	20	24

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

Abundance of Prevalent Species (> 5% Total Count) in Surface Sample Whole Water Phytoplankton, May 15 - 17, 1995 (W9506)

Species	Group	Parameter	Nearfield Stations 1N10	1N16
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L	0.3093	0.1719
		%	31	22
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	10^6 Cells/L		
		%		
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRON	MF	10^6 Cells/L	0.5532	0.4527
		%	56	58

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

Abundance of Prevalent Species (> 5% Total Count) in Surface Sample
Whole Water Phytoplankton, June 20 - 25, 1995 (W9507)

			Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
Species	Group	Parameter	2F23	1F30	1F31	1F13	1F24	1F25	1N10	1N16	3N16	1F06	1F27	1F01	1F02
Calycomonas Wulfii	O	10^6 Cells/L	0.132												
		%	6												
Cryptomonas Sp#1 Length <10 Microns	MF	10^6 Cells/L				0.159									
		%				5									
Cryptomonas Sp#2 Length >10 Microns	MF	10^6 Cells/L				0.213	0.564					0.351			
		%				7	6					16			
Fragilaria Sp#2 Length 30-60 Microns	PD	10^6 Cells/L													0.137
		%													6
Rhizosolenia Fragillssima	CD	10^6 Cells/L	0.132												
		%	6												
Unid. Centric Diatom Diam <10 Microns	CD	10^6 Cells/L		3.720	7.531		2.561	1.936	2.555	0.503	0.281				
		%		24	43		28	20	21	8	6				
Unid. Micro-Phytoflag Length <10 Microns	MF	10^6 Cells/L	1.307	10.001	8.019	2.006	3.903	6.052	7.056	4.787	3.267	1.601	0.507	1.217	1.504
		%	64	63	46	67	42	61	58	73	72	73	86	78	68
Unid. Micro-Phytoflag Length >10 Microns	MF	10^6 Cells/L					1.265								
		%					14								

Group Definitions:

CD	Centric Diatom
DF	Dinoflagellate
MF	Microflagellate
O	Other
PD	Pennate Diatom

Abundance of Prevalent Species (> 5% Total Count) in Surface Sample
Whole Water Phytoplankton, July 5 - 7, 1995 (W9508)

Species	Group	Parameter	Nearfield Stations	
			1N10	2N16
Rhizosolenia Fragilissima	CD	10^6 Cells/L	3.1100	
		%	15	
Unid. Centric Diatom Diam <10 Microns	CD	10^6 Cells/L	2.7136	1.1098
		%	13	15
Unid. Micro-Phytoflag Length <10 Microns	MF	10^6 Cells/L	11.3423	4.7930
		%	55	65
Group Definitions:	CD	Centric Diatom		
	DF	Dinoflagellate		
	MF	Microflagellate		
	O	Other		
	PD	Pennate Diatom		

Abundance of Prevalent Species (> 5% Total Count) in Surface Sample
Whole Water Phytoplankton, July 24 - 26, 1995 (W9509)

Species	Group	Parameter	Nearfield Stations 1N10	3N16
Cryptomonas Sp#2 Length >10 Microns	MF	10^6 Cells/L	0.7623	
		%	8	
Unid. Centric Diatom Diam <10 Microns	CD	10^6 Cells/L	4.1466	
		%	45	
Unid. Micro-Phytoflag Length <10 Microns	MF	10^6 Cells/L	3.2015	1.8396
		%	34	86

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

APPENDIX F-2

ABUNDANCE OF PREVALENT SPECIES IN CHLOROPHYLL *a* MAXIMUM SAMPLE WHOLE WATER PHYTOPLANKTON FEBRUARY 6-14, 1995

Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll *a* Maximum Sample
Whole Water Phytoplankton, February 6 - 14, 1995 (W9501)

Species	Group		Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
			1F23	1F30	1F31	1F13	1F24	1F25	1N10	1N16	2N16	1F06	1F27	1F01	1F02
COSCINOSIRA POLYCHORDA	CD	10^6 Cells/L													0.026
		%													6
CRYPTOMONAS SP#1 LENGTH <10 MICRONS	MF	10^6 Cells/L	0.029							0.057	0.058		0.043	0.083	0.063
		%	5							5	9		8	15	13
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L	0.034				0.032				0.056	0.035	0.101		
		%	6				6				9	7	19		
FRAGILARIA SP#2 LENGTH 30-60 MICRONS	PD	10^6 Cells/L						0.035							
		%						6							
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	10^6 Cells/L									0.037		0.052		
		%									6		10		
RHIZOSOLENIA DELICATULA	CD	10^6 Cells/L													0.029
		%													6
THALASSIONEMA NITZSCHIOIDES	PD	10^6 Cells/L												0.028	0.044
		%												5	9
THALASSIOSIRA GRAVIDA	CD	10^6 Cells/L	0.030									0.026		0.122	0.086
		%	6									5		22	18
THALASSIOSIRA SP#2 DIAM >20 MICRONS	CD	10^6 Cells/L													0.025
		%													5
UNID. BLUE GREEN TRICHOME (CELL)	O	10^6 Cells/L		0.030											
		%		5											
UNID. CHOANOFLAGELLATE	MF	10^6 Cells/L												0.037	
		%												7	
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRON	MF	10^6 Cells/L	0.285	0.389	0.395	0.556	0.334	0.343	0.279	0.519	0.294	0.290	0.203	0.145	0.095
		%	53	64	63	76	64	56	66	48	46	58	38	27	20
UNID. MICRO-PHYTOFLAG LENGTH >10 MICRON	MF	10^6 Cells/L		0.043	0.061						0.037				
		%		7	10						6				

Group Definitions:

CD	Centric Diatom
DF	Dinoflagellate
MF	Microflagellate
O	Other
PD	Pennate Diatom

Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll *a* Maximum Sample
Whole Water Phytoplankton, February 28 - March 5, 1995 (W9502)

Species	Group	Parameter	Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
			1F23	1F30	1F31	1F13	1F24	1F25	1N10	1N16	2N16	1F06	1F27	1F01	1F02
ANABAENA SP.	O	10^6 Cells/L											0.030		
		%											11		
CRYPTOMONAS SP#1 LENGTH <10 MICRONS	MF	10^6 Cells/L									0.058	0.017		0.065	0.070
		%									19	6		8	8
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L				0.020			0.023			0.021			
		%				6			7			7			
FRAGILARIA SP#2 LENGTH 30-60 MICRONS	PD	10^6 Cells/L												0.094	
		%												11	
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	10^6 Cells/L									0.020		0.022		0.475
		%									7		8		52
GYMNODINIUM SP.#2 21-40UM W 21-50UM L	DF	10^6 Cells/L									0.015				
		%									5				
MELOSIRA SP#1 DIAM <20 MICRONS	CD	10^6 Cells/L						0.203					0.015		
		%						41					5		
RHIZOSOLENIA DELICATULA	CD	10^6 Cells/L												0.061	0.070
		%												7	8
THALASSIOSIRA SP#1 DIAM <20 MICRONS	CD	10^6 Cells/L								0.046	0.020			0.065	
		%								8	7			8	
THALASSIOSIRA SP#2 DIAM >20 MICRONS	CD	10^6 Cells/L	0.045		0.019	0.022	0.044			0.054		0.016	0.015		
		%	7		6	7	12			10		5	5		
UNID. BLUE GREEN SINGLE SPHERE	O	10^6 Cells/L		0.047							0.022				
		%		6							7				
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L		0.043		0.020			0.020	0.028	0.017	0.016			
		%		5		6			6	5	6	5			
UNID. CHOANOFLAGELLATE	MF	10^6 Cells/L												0.057	
		%												6	
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.427	0.579	0.210	0.199	0.213	0.149	0.194	0.261	0.069	0.146	0.133	0.298	
		%	69	70	63	59	56	30	59	48	23	46	48	35	

Group Definitions:

CD	Centric Diatom
DF	Dinoflagellate
MF	Microflagellate
O	Other
PD	Pennate Diatom

Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll *a* Maximum Sample
Whole Water Phytoplankton, March 20 - 22, 1995 (W9503)

Species	Group	Parameter	Nearfield Stations	
			1N10	1N16
CRYPTOMONAS SP#1 LENGTH <10 MICRONS	MF	10^6 Cells/L	0.0338	0.0215
		%	50	49
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	10^6 Cells/L		0.0038
		%		9
GYRODINIUM SP#1 5-20UM W 10-20UM L	DF	10^6 Cells/L		0.0024
		%		5
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L	0.0034	
		%	5	
UNID. CHOANOFLAGELLATE	MF	10^6 Cells/L	0.0048	
		%	7	
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.0140	0.0123
		%	21	28
Group Definitions:	CD	Centric Diatom		
	DF	Dinoflagellate		
	MF	Microflagellate		
	O	Other		
	PD	Pennate Diatom		

Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll *a* Maximum Sample
Whole Water Phytoplankton, April 3 - 10, 1995 (W9504)

Species	Group	Parameter	Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
			1F23	1F30	1F31	1F13	1F24	1F25	1N10	1N16	2N16	1F06	1F27	1F01	1F02
CHAETOCEROS SP#2 DIAM 10-30 MICRONS	CD	10^6 Cells/L												1.223	0.142
		%												51	12
CRYPTOMONAS SP#1 LENGTH <10 MICRONS	MF	10^6 Cells/L							0.076	0.025					
		%							13	7					
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L	0.108	0.246	0.254	0.055	0.035	0.118	0.077	0.034	0.032	0.075		0.201	0.102
		%	16	31	24	11	8	16	13	9	7	13		8	9
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	10^6 Cells/L				0.057	0.023		0.030	0.045	0.084	0.070	0.040		
		%				11	5		5	12	18	12	12		
KATODINIUM ROTUNDATUM	DF	10^6 Cells/L												0.125	
		%												5	
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L		0.047	0.068										
		%		6	6										
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.474	0.335	0.556	0.345	0.318	0.484	0.294	0.248	0.306	0.370	0.262	0.564	0.650
		%	68	42	52	67	74	65	50	65	64	63	75	24	56

Group Definitions:

CD	Centric Diatom
DF	Dinoflagellate
MF	Microflagellate
O	Other
PD	Pennate Diatom

Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll *a* Maximum Sample
Whole Water Phytoplankton, April 24 - 27, 1995 (W9505)

Species	Group	Parameter	Nearfield Stations 1N10	1N16
CHAETOCEROS SP#2 DIAM 10-30 MICRONS	CD	10^6 Cells/L	0.0774	0.0488
		%	8	7
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L	0.1243	0.0427
		%	13	6
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	10^6 Cells/L	0.1009	0.1860
		%	11	26
UNID. CENTRIC DIATOM DIAM <10 MICRONS	CD	10^6 Cells/L	0.1079	0.0457
		%	11	6
UNID. CENTRIC DIATOM DIAM 10-30 MICRONS	CD	10^6 Cells/L	0.0563	
		%	6	
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRONS	MF	10^6 Cells/L	0.3846	0.2973
		%	40	41

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll *a* Maximum Sample
Whole Water Phytoplankton, May 15 - 17, 1995 (W9506)

Species	Group	Parameter	Nearfield Stations 1N10	1N16
CRYPTOMONAS SP#2 LENGTH >10 MICRONS	MF	10^6 Cells/L	0.4955	0.0146
		%	43	5
GYMNODINIUM SP.#1 5-20UM W 10-20UM L	DF	10^6 Cells/L		0.0444
		%		16
UNID. MICRO-PHYTOFLAG LENGTH <10 MICRON	MF	10^6 Cells/L	0.5387	0.1929
		%	47	68

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

Abundance of Prevalent Species (> 5% Total Count) In Chlorophyll *a* Maximum Sample
Whole Water Phytoplankton, June 20 - 25, 1995 (W9507)

			Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
Species	Group	Parameter	2F23	1F30	1F31	1F13	1F24	1F25	1N10	1N16	3N16	1F06	1F27	1F01	1F02
Cryptomonas Sp#1 Length <10 Microns	MF	10^6 Cells/L									0.224				
		%									5				
Cryptomonas Sp#2 Length >10 Microns	MF	10^6 Cells/L				0.183				0.232	0.335	0.118			
		%				6				7	8	7			
Katodinium Rotundatum	DF	10^6 Cells/L				0.402									
		%				13									
Unid. Centric Diatom Diam <10 Microns	CD	10^6 Cells/L	2.744	4.330	3.598		3.217		1.890				0.019		
		%	28	23	24		30		25				8		
Unid. Micro-Phytoflag Length <10 Microns	MF	10^6 Cells/L	5.473	12.166	9.679	2.067	6.113	5.625	4.223	2.728	3.445	1.488	0.199	2.567	1.414
		%	57	65	65	64	58	77	56	82	81	81	79	78	76

Group Definitions:

CD	Centric Diatom
DF	Dinoflagellate
MF	Microflagellate
O	Other
PD	Pennate Diatom

Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll *a* Maximum Sample Whole Water Phytoplankton, July 5 - 7, 1995 (W9508)

Species	Group	Parameter	Nearfield Stations 1N10	2N16
Rhizosolenia Fragilissima	CD	10^6 Cells/L	2.8965	
		%	15	
Unid. Centric Diatom Diam <10 Microns	CD	10^6 Cells/L	2.3782	
		%	13	
Unid. Micro-Phytoflag Length <10 Microns	MF	10^6 Cells/L	10.9764	4.2808
		%	59	75
Group Definitions:	CD	Centric Diatom		
	DF	Dinoflagellate		
	MF	Microflagellate		
	O	Other		
	PD	Pennate Diatom		

Abundance of Prevalent Species (> 5% Total Count) in Chlorophyll *a* Maximum Sample
Whole Water Phytoplankton, July 24 - 26, 1995 (W9509)

Species	Group	Parameter	Nearfield Stations	
			1N10	3N16
Cryptomonas Sp#2 Length >10 Microns	MF	10^6 Cells/L	0.4574	
		%	6	
Unid. Centric Diatom Diam <10 Microns	CD	10^6 Cells/L	1.8751	
		%	25	
Unid. Micro-Phytoflag Length <10 Microns	MF	10^6 Cells/L	4.2686	4.3174
		%	57	92

Group Definitions:		
	CD	Centric Diatom
	DF	Dinoflagellate
	MF	Microflagellate
	O	Other
	PD	Pennate Diatom

APPENDIX G-1

ABUNDANCE OF ALL IDENTIFIED TAXA IN SCREENED SAMPLES COLLECTED NEAR THE SURFACE FEBRUARY 6-14, 1995

Abundance of all identified taxa in screened samples collected near the surface February 6 - 14, 1995 (W9501)

		Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
		1F23A	1F30A	1F31A	1F13A	1F24A	1F25A	1N10A	1N16A	2N16A	1F06A	1F27A	1F01A	1F02A
Species	**Group**													
Amphidinium Sp. Syn. Phalacroma Sp.	DF						0.038							
Ceratium Fusus	DF					0.005	0.002		0.004		0.013	0.002	0.004	0.002
Ceratium Lineatum	DF					0.002					0.004			0.007
Ceratium Longipes	DF								0.008				0.006	
Ceratium Macroceros	DF					0.002	0.002				0.004			
Ceratium Sp.	DF													
Ceratium Tripos	DF				0.002					0.002	0.009			
Diplopsalis Lenticula	DF													
Gymnodinium Sp.#2 21-40Um W 21-50Um L	DF						0.113					0.058		0.134
Prorocentrum Micans	DF	0.063	0.030	0.013	0.107	0.214	0.075	0.116	0.228	0.098		0.115	0.271	0.134
Prorocentrum Minimum	DF						0.038			0.196				0.004
Protoperidinium Brevipes	DF						0.038							
Protoperidinium Divergens	DF													
Protoperidinium Sp.#1 10-30W 10-40L	DF											0.058	0.090	
Protoperidinium Sp.#2 31-75W 41-80L	DF									0.098		0.004		
Protoperidinium Sp.#3 76-150W 81-150L	DF							0.116			0.013			
Unid. Dinoflagellate Cyst	DF	0.063		0.002					0.057					
Ochromonas Sp.	MF													0.134
Unid. Choanoflagellate	MF				0.132									
Unid. Silicoflagellate	MF				0.002	0.357					0.017			
Distephanus Speculum	O	0.002							0.171	0.002		0.288	0.090	0.011
Ebria Tripartita	O													
Oocystis Sp.	O													
Oscillatoria Cells #1 Diam <5Um	O			0.510					2.570					
Unid. Blue Green Trichome (Cell)	O													

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Abundance of all identified taxa in screened samples collected near the surface March 20 - March 22, 1995 (W9503)

Species	Group	Nearfield Stations	
		1N10A	1N16A
Ceratium Longipes	DF	0.006	0.006
Ceratium Massiliense	DF		
Ceratium Sp.	DF		0.035
Gymnodinium Sp.#1 5-20Um W 10-20Um L	DF		
Gymnodinium Sp.#3 41-70Um W 51-70Um L	DF		
Prorocentrum Micans	DF	0.002	
Prorocentrum Minimum	DF		
Protoperidinium Sp.#1 10-30W 10-40L	DF		
Protoperidinium Sp.#2 31-75W 41-80L	DF		
Eutreptia Sp.	MF		
Pyramimonas Sp.	MF		
Distephanus Speculum	O	0.146	0.423
Unid. Blue Green Single Sphere	O	0.474	

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Abundance of all identified taxa in screened samples collected near the surface February 28 - March 5, 1995 (W9502)

Species	Group	Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
		1F23A	1F30A	1F31A	1F13A	1F24A	1F25A	1N10A	1N16A	2N16A	1F06A	1F27A	1F01A	1F02A
Ceratium Fusus	DF										0.002			0.002
Ceratium Lineatum	DF													
Ceratium Longipes	DF			0.002								0.068		
Ceratium Massiliense	DF													
Ceratium Tripos	DF								0.003	0.002				
Dinophysis Sp.	DF				0.002					0.141				
Diplopsalis Sp.	DF													
Gymnodinium Sp.#1 5-20Um W 10-20Um L	DF			0.340	0.425		0.136	0.056	1.093	0.986	0.656	0.002	0.700	26.424
Gymnodinium Sp.#2 21-40Um W 21-50Um L	DF	0.116	0.215	0.227	0.425	0.191	0.272	0.394	1.822	0.986	0.328		0.544	
Gymnodinium Sp.#3 41-70Um W 51-70Um L	DF			0.002		0.096								
Prorocentrum Micans	DF		0.005	0.002	0.085	0.003			0.045	0.021	0.328	0.068	0.013	0.019
Prorocentrum Minimum	DF	0.002		0.113			0.002	0.006	0.012			0.002	0.078	
Protoperidinium Leonis	DF													
Protoperidinium Pellucidum	DF							0.002						
Protoperidinium Sp.#1 10-30W 10-40L	DF	0.002								0.002	0.002	0.068	0.003	0.002
Protoperidinium Sp.#2 31-75W 41-80L	DF			0.002			0.136	0.113	0.009	0.002	0.002		0.003	0.317
Unid. Dinoflagellate	DF													
Cryptomonas Sp#1 Length <10 Microns	MF													
Cryptomonas Sp#2 Length >10 Microns	MF													
Eutreptia Lanowil	MF													
Unid. Choanoflagellate	MF	0.116		0.113	0.425	1.626	0.136	0.113		0.282		0.136	0.156	0.106
Unid. Micro-Phytoflag Length >10 Microns	MF													
Distephanus Speculum	O		0.003		0.002			0.002	0.182	0.141	0.328		0.078	
Ebria Tripartita	O						0.136							
Oscillatoria Cells #1 Diam <5Um	O	3.471												

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Abundance of all identified taxa in screened samples collected near the surface April 3 - 10, 1995 (W9504)

		Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
		1F23A	1F30A	1F31A	1F13A	1F24A	1F25A	1N10A	1N16A	2N16A	1F06A	1F27A	1F01A	1F02A
Species	Group													
Ceratium Fusus	DF	0.001		0.001		0.002		0.005				0.002		
Ceratium Lineatum	DF								0.001					
Ceratium Longipes	DF	0.003	0.004		0.010	0.018			0.031	0.146	0.046	0.015	0.024	0.052
Ceratium Macroceros	DF													
Ceratium Sp.	DF						0.003	0.007		0.013				
Ceratium Tripos	DF	0.001						0.069						0.003
Dinophysis Acuminata	DF								0.001		0.002			
Dinophysis Norvegica	DF													
Dinophysis Sp.	DF									0.001				
Gonyaulax Spinifera	DF										0.061			
Gymnodinium Sp.#1 5-20Um W 10-20Um L	DF					0.055				0.109				
Gymnodinium Sp.#2 21-40Um W 21-50Um L	DF	0.049												
Katodinium Rotundatum	DF	0.097			0.039						0.061			
Prorocentrum Balticum	DF		0.124								0.304			
Prorocentrum Micans	DF							0.069						
Prorocentrum Minimum	DF			0.002			0.001		0.001					
Protoperidinium Depressum	DF										0.002			
Protoperidinium Pallidum	DF													
Protoperidinium Pyriforme	DF				0.001				0.004		0.061			
Protoperidinium Sp.#1 10-30W 10-40L	DF							0.007			0.011			
Protoperidinium Sp.#2 31-75W 41-60L	DF	0.001			0.039	0.055			0.001		0.002	0.094		
Dinobryon Sp.	MF		0.025									0.094		0.103
Eutreptia Lanowii	MF													0.207
Pyramimonas Sp.	MF	0.049												0.774
Unid. Choanoflagellate	MF	0.049		0.073			0.126	0.480				0.234		
Unid. Micro-Phytoflag Length >10 Microns	MF													
Agmenellum Sp.	O				0.141									
Dictyocha Fibula	O													
Distephanus Speculum	O	0.194	0.248	0.146	0.078	0.109	0.063	0.137	0.097	0.328	0.121	0.281	0.002	0.103
Gloeocystis Sp.	O		0.070										0.119	0.207
Oscillatoria Sp. (Trichome)	O		0.248											
Pediastrum Simplex	O		0.007											
Rhabdosphaera Longistylis	O	0.097				0.002						0.140		
Scenedesmus Quadricauda	O		0.007											
Scenedesmus Sp.	O													
Staurastrum Sp.	O		0.002											
Unid. Blue Green Trichome (Cell)	O											0.515		

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Abundance of all identified taxa in screened samples collected near the surface April 24 - April 27, 1995 (W9505)

Species	Group	Nearfield Stations	
		1N10A	2N16A
Ceratium Lineatum	DF		0.027
Ceratium Longipes	DF	0.100	0.699
Ceratium Sp.	DF	0.020	
Ceratium Tripos	DF		0.015
Dinophysis Norvegica	DF		0.009
Gymnodinium Sp.#2 21-40Um W 21-50Um L	DF		
Protoperidinium Pyriforme	DF		0.009
Protoperidinium Sp.#2 31-75W 41-80L	DF	0.004	0.063
Unid. Choanoflagellate	MF		
Distephanus Speculum	O	2.673	4.139

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Abundance of all identified taxa in screened samples collected near the surface May 15 - 17, 1995 (W9506)

Species	Group	Nearfield Stations	
		1N10A	2N16A
Ceratium Fusus	DF	0.002	0.004
Ceratium Lineatum	DF		0.024
Ceratium Longipes	DF	0.015	0.462
Ceratium Sp.	DF	0.002	
Ceratium Tripos	DF	0.002	0.002
Dinophysis Acuminata	DF		0.035
Dinophysis Norvegica	DF	0.013	0.112
Dinophysis Punctata	DF		0.002
Dinophysis Sp.	DF		
Gonyaulax Digitalis	DF		
Gymnodinium Sp.#3 41-70Um W 51-70Um L	DF		
Prorocentrum Balticum	DF		
Protoperidinium Depressum	DF		0.007
Protoperidinium Sp.#1 10-30W 10-40L	DF	0.007	0.004
Protoperidinium Sp.#2 31-75W 41-80L	DF	0.051	
Protoperidinium Sp.#3 76-150W 81-150L	DF	0.002	
Unid. Choanoflagellate	MF		
Distephanus Speculum	O	0.051	0.002
Pseudopedinella Pyriforme	O		
Unid. Blue Green Trichome (Cell)	O	0.044	

Group Definitions:

CD	Centric Diatom
DF	Dinoflagellate
MF	Microflagellate
O	Other
PD	Pennate Diatom

Abundance of all Identified taxa in screened samples collected near the surface June 20 - June 25, 1995 (W9507)

Species	Group	Harbor Stations			Coastal Stations			Nearfield Stations				Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
		2F23A	1F30A	1F31A	1F13A	1F24A	1F25A	1N10A	1N16A	2N16A	3N16A	1F06A	1F27A	1F01A	1F02A
Amylax Triacantha Gonyaulax Triacantha	DF												0.032		
Ceratium Fusus	DF	0.019		0.003	0.016		0.004		0.016		0.020	0.002	0.010	0.050	0.019
Ceratium Lineatum	DF	0.004			0.005	0.005	0.011		0.013		0.005				
Ceratium Longipes	DF	0.131	0.048	0.036	0.484	0.080	0.109	0.090	0.208		0.242	0.315	0.079	0.217	
Ceratium Macroceros	DF				0.044				0.085		0.016				
Ceratium Sp.	DF				0.002			0.003	0.002		0.002				
Ceratium Tripos	DF										0.003	0.005	0.004	0.013	0.243
Dinophysis Acuminata	DF	0.007		0.009	0.091	0.040	0.088	0.021			0.032				0.029
Dinophysis Norvegica	DF	0.074	0.288		0.093	0.911	0.049		0.005		0.036	0.055	0.036	0.001	0.007
Dinophysis Punctata	DF	0.002		0.038				0.009			0.003	0.001		0.003	
Dinophysis Sp.	DF														
Diplopsalis Lenticula	DF		0.024												
Gonyaulax Digitalis	DF	0.002													
Gonyaulax Verior G. Diacantha	DF										0.095				
Gymnodinium Sp.#1 5-20Um W 10-20Um L	DF	0.241					0.213	0.182					0.032		0.053
Gymnodinium Sp.#2 21-40Um W 21-50Um L	DF		0.024	0.006	0.221										
Heterocapsa Triquetra	DF														
Katodinium Rotundatum	DF								1.264			0.033	0.875		
Miniscula Bipes = Protoperidinium Bipes	DF														
Prorocentrum Balticum	DF														
Prorocentrum Micans	DF												0.001		
Protoperidinium Depressum	DF	0.005		0.003		0.005	0.004	0.003			0.001	0.004			0.002
Protoperidinium Pallidum	DF													0.001	
Protoperidinium Pyriforme	DF												0.001	0.003	
Protoperidinium Sp.#1 10-30W 10-40L	DF	0.002												0.003	
Protoperidinium Sp.#2 31-75W 41-80L	DF			0.003			0.007				0.001				0.002
Protoperidinium Sp.#3 76-150W 81-150L	DF														
Scrippsiella Trochoidea	DF			0.009											
Euglena Sp.	MF	0.121						0.182							
Eutreptia Lanowii	MF														
Eutreptia Sp.	MF										0.047				
Pyramimonas Sp.	MF	1.328	1.656	0.176									0.227		
Unid. Choanoflagellate	MF														
Unid. Micro-Phytoflag Length >10 Microns	MF	0.121											0.324		
Crucigenia Tetrapedia	O														
Distephanus Speculum	O			0.006	0.111		0.011	0.364	0.003			0.002	0.032	0.043	0.003
Emiliania Huxleyi	O														
Micractinium Pusillum	O														
Oscillatoria Sp. (Trichome)	O					0.005									
Pediastrum Duplex V. Clathratum	O														
Pediastrum Duplex V. Gracilimum	O														
Pediastrum Simplex	O												0.015		
Rhabdosphaera Claviger	O														
Scenedesmus Quadricauda	O					0.020									
Scenedesmus Sp.	O														
Staurastrum Sp.	O														
Unid. Blue Green Single Sphere	O														0.316
Unid. Blue Green Trichome	O														0.053
Unid. Blue Green Trichome (Cell)	O			3.523				0.078							

Group Definitions:

DF Dinoflagellate
MF Microflagellate
O Other

Abundance of all identified taxa in screened samples collected near the surface July 5 - 7, 1995 (W9508)

Species	Group	Nearfield Stations	
		1N10A	2N16A
Ceratium Fusus	DF	0.007	0.021
Ceratium Longipes	DF	0.101	0.111
Ceratium Macroceros	DF		0.014
Ceratium Sp.	DF		0.002
Ceratium Tripos	DF		
Dinophysis Acuminata	DF	0.007	
Dinophysis Norvegica	DF	0.014	0.002
Gymnodinium Sp.#1 5-20Um W 10-20Um L	DF		0.499
Protoperidinium Depressum	DF		
Scrippsiella Trochoidea	DF		0.125
Euglena Sp.	MF		
Unid. Choanoflagellate	MF		0.249

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Abundance of all identified taxa in screened samples collected near the surface July 24 - 26, 1995 (W9509)

Species	Group	Nearfield Stations	
		1N10A	3N16A
Ceratium Fusus	DF	0.002	
Ceratium Longipes	DF	0.010	0.062
Ceratium Tripos	DF	0.003	0.004
Dinophysis Norvegica	DF		0.001
Dinophysis Punctata	DF		
Diplopsalis Sp.	DF	0.275	
Gymnodinium Sp.#2 21-40Um W 21-50Um L	DF	0.004	
Gymnodinium Sp.#3 41-70Um W 51-70Um L	DF	0.005	
Heterocapsa Triquetra	DF	0.001	
Prorocentrum Rotundatum	DF	0.017	
Protoperidinium Depressum	DF	0.001	
Protoperidinium Sp.#2 31-75W 41-80L	DF	0.013	
Scrippsiella Trochoidea	DF	0.071	

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

APPENDIX G-2

ABUNDANCE OF ALL IDENTIFIED TAXA IN SCREENED SAMPLES NEAR THE CHLOROPHYLL MAXIMUM FEBRUARY 6-14, 1995

Abundance of all identified taxa in screened samples collected near the Chlorophyll maximum February 6 - 14, 1995 (W9501)

		Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
Species	Group	1F23C	1F30C	1F31C	1F13C	1F24C	1F25C	1N10C	1N16C	2N16C	1F06C	1F27B	1F01C	1F02C
Amphidinium Sp. Syn. Phalacroma Sp.	DF													
Ceratium Fusus	DF					0.002			0.001			0.001		0.002
Ceratium Lineatum	DF								0.002		0.004		0.003	0.002
Ceratium Longipes	DF								0.001			0.001		0.002
Ceratium Macroceros	DF											0.002		
Ceratium Sp.	DF											0.001		
Ceratium Tripos	DF					0.002			0.001				0.003	
Diplopsalis Lenticula	DF												0.198	
Gymnodinium Sp.#2 21-40Um W 21-50Um L	DF								0.001					
Prorocentrum Micans	DF	0.315		0.048	0.969	0.353	0.211	0.061	0.265	0.077	0.059	0.058	0.198	0.105
Prorocentrum Minimum	DF		0.077						0.007	0.003	0.258			0.105
Protoperidinium Brevipes	DF													
Protoperidinium Divergens	DF										0.004			
Protoperidinium Sp.#1 10-30W 10-40L	DF												0.003	
Protoperidinium Sp.#2 31-75W 41-80L	DF	0.002								0.003		0.055		
Protoperidinium Sp.#3 76-150W 81-150L	DF													
Unid. Dinoflagellate Cyst	DF													
Ochromonas Sp.	MF													
Unid. Choanoflagellate	MF		0.077					0.061						
Unid. Silicoflagellate	MF											0.166		
Distephanus Speculum	O	0.158	0.004			0.283	0.005		0.133	0.077			0.007	0.105
Ebria Tripartita	O					0.002								
Oocystis Sp.	O			0.193										
Oscillatoria Cells #1 Diam <5Um	O													
Unid. Blue Green Trichome (Cell)	O	0.709												

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Abundance of all identified taxa in screened samples collected near the Chlorophyll maximum February 28 - March 5, 1995 (W9502)

		Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
		1F23C	1F30C	1F31C	1F13C	1F24C	1F25C	1N10C	1N16C	2N16C	1F06C	1F27C	1F01C	1F02C
Species	Group													
Ceratium Fusus	DF						0.002	0.002		0.003	0.002		0.002	
Ceratium Lineatum	DF				0.135			0.002		0.003			0.002	
Ceratium Longipes	DF					0.002		0.002		0.006				
Ceratium Massiliense	DF								0.002					
Ceratium Tripos	DF							0.002	0.006	0.003	0.002			
Dinophysis Sp.	DF							0.002						
Diplopsalis Sp.	DF							0.248						
Gymnodinium Sp.#1 5-20Um W 10-20Um L	DF	0.294	0.228	0.007	1.614	0.437	0.026	0.165	1.803	1.225	0.202	0.103	8.248	22.211
Gymnodinium Sp.#2 21-40Um W 21-50Um L	DF	0.147	0.228	0.401	0.135	0.875	0.729	1.817	0.515	1.400	0.506		1.356	0.079
Gymnodinium Sp.#3 41-70Um W 51-70Um L	DF				0.538		0.010		0.129					
Prorocentrum Micans	DF		0.002	0.004	0.012	0.146	0.012	0.008	0.030	0.009			0.011	0.003
Prorocentrum Minimum	DF	0.019	0.002		0.135		0.002		0.006		0.046			
Protoperidinium Leonis	DF							0.083						
Protoperidinium Pellucidum	DF													
Protoperidinium Sp.#1 10-30W 10-40L	DF			0.002	0.404		0.002	0.002	0.129	0.175			0.004	0.001
Protoperidinium Sp.#2 31-75W 41-80L	DF				0.003		0.005			0.175	0.002	0.002		0.001
Unid. Dinoflagellate	DF						0.243							
Cryptomonas Sp#1 Length <10 Microns	MF						0.364							
Cryptomonas Sp#2 Length >10 Microns	MF					0.146								
Eutreptia Lanowii	MF									0.350				
Unid. Choanoflagellate	MF	0.588			2.287	0.146	0.607	0.496			0.405		0.678	
Unid. Micro-Phytoflag Length >10 Microns	MF				0.135									
Distephanus Speculum	O				0.009		0.002	0.083	0.129		0.304	0.005	0.113	0.079
Ebria Tripartita	O													
Oscillatoria Cells #1 Diam <5Um	O													

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Abundance of all screened samples near the Chlorophyll maximum March 20 - 22, 1995 (W9503)

Species	Group	Nearfield Stations 1N10C	1N16C
Ceratium Longipes	DF	0.087	0.001
Ceratium Massiliense	DF	0.003	
Ceratium Sp.	DF		
Gymnodinium Sp.#1 5-20Um W 10-20Um L	DF	0.044	0.045
Gymnodinium Sp.#3 41-70Um W 51-70Um L	DF		0.045
Prorocentrum Micans	DF	0.004	0.001
Prorocentrum Minimum	DF		0.045
Protoperidinium Sp.#1 10-30W 10-40L	DF	0.044	0.001
Protoperidinium Sp.#2 31-75W 41-80L	DF	0.044	0.045
Eutreptia Sp.	MF		0.090
Pyramimonas Sp.	MF	0.044	
Distephanus Speculum	O	0.175	0.090
Unid. Blue Green Single Sphere	O	1.356	

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Abundance of all identified taxa in screened samples collected near the Chlorophyll maximum April 3 - 10, 1995 (W9504)

		Harbor Stations			Coastal Stations			Nearfield Stations			Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
		1F23C	1F30C	1F31C	1F13C	1F24C	1F25C	1N10C	1N16C	2N16C	1F06C	1F27C	1F01C	1F02C
Species	Group													
Ceratium Fusus	DF	0.001		0.001		0.002			0.003				0.002	
Ceratium Lineatum	DF													
Ceratium Longipes	DF	0.008	0.003	0.002	0.012	0.014	0.005	0.026	0.149	0.007	0.024	0.001	0.005	0.037
Ceratium Macroceros	DF												0.109	
Ceratium Sp.	DF	0.001		0.004				0.004		0.002	0.067		0.007	
Ceratium Tripos	DF			0.002		0.005						0.001		
Dinophysis Acuminata	DF				0.001	0.002						0.001		
Dinophysis Norvegica	DF								0.003					
Dinophysis Sp.	DF													
Gonyaulax Spinifera	DF													
Gymnodinium Sp.#1 5-20Um W 10-20Um L	DF					0.104		0.265		0.134	0.334		0.547	
Gymnodinium Sp.#2 21-40Um W 21-50Um L	DF						0.001	0.066	0.002	0.002	0.067			
Katodinium Rotundatum	DF							0.066						
Prorocentrum Balticum	DF				0.034	0.157		0.199						0.090
Prorocentrum Micans	DF													
Prorocentrum Minimum	DF							0.002		0.004				
Protoperidinium Depressum	DF													
Protoperidinium Pallidum	DF		0.002											
Protoperidinium Pyriforme	DF		0.002		0.034	0.002		0.009						
Protoperidinium Sp.#1 10-30W 10-40L	DF		0.002	0.002					0.149					
Protoperidinium Sp.#2 31-75W 41-80L	DF	0.001				0.002	0.042		0.100	0.134	0.011	0.002		
Dinobryon Sp.	MF													
Eutreptia Lanowii	MF										0.067		0.164	
Pyramimonas Sp.	MF							0.066				0.035	0.328	
Unid. Choanoflagellate	MF			0.031		0.157	0.253	0.861	0.050	0.401		0.208	0.656	
Unid. Micro-Phytoflag Length >10 Microns	MF									0.067			0.109	0.090
Agmenellum Sp.	O													
Dictyocha Fibula	O				0.034									0.090
Distephanus Speculum	O	0.092	0.197	0.031	0.035	0.009	0.042	0.728	0.100	0.134	0.200	0.003	0.328	0.181
Gloeocystis Sp.	O													
Oscillatoria Sp. (Trichome)	O													
Pediastrum Simplex	O													1.085
Rhabdosphaera Longistylis	O						0.126	0.066		0.668		0.104		
Scenedesmus Quadricauda	O		0.006											
Scenedesmus Sp.	O	0.006		0.003										
Staurastrum Sp.	O													
Unid. Blue Green Trichome (Cell)	O						0.379							

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Abundance of all identified screened samples collected near the Chlorophyll maximum April 24 - April 27, 1995 (W9505)

Species	Group	Nearfield Stations	
		1N10C	2N16C
Ceratium Lineatum	DF		
Ceratium Longipes	DF	0.009	0.011
Ceratium Sp.	DF		
Ceratium Tripos	DF		0.001
Dinophysis Norvegica	DF		
Gymnodinium Sp.#2 21-40Um W 21-50Um L	DF		0.050
Protoperidinium Pyriforme	DF	0.237	
Protoperidinium Sp.#2 31-75W 41-80L	DF		
Unid. Choanoflagellate	MF		0.050
Distephanus Speculum	O	0.031	0.150

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Abundance of all identified taxa in screened samples collected near the Clorophyll maximum May 15 - 17, 1995 (W9506)

Species	Group	Nearfield Stations	
		1N10C	2N16C
Ceratium Fusus	DF	0.004	
Ceratium Lineatum	DF	0.006	
Ceratium Longipes	DF	0.233	0.022
Ceratium Sp.	DF		
Ceratium Tripos	DF		
Dinophysis Acuminata	DF	0.064	
Dinophysis Norvegica	DF	0.070	0.011
Dinophysis Punctata	DF	0.064	0.004
Dinophysis Sp.	DF		0.002
Gonyaulax Digitalis	DF		0.002
Gymnodinium Sp.#3 41-70Um W 51-70Um L	DF		0.002
Prorocentrum Balticum	DF	0.064	0.062
Protoperidinium Depressum	DF	0.004	0.009
Protoperidinium Sp.#1 10-30W 10-40L	DF		0.007
Protoperidinium Sp.#2 31-75W 41-80L	DF	0.064	0.009
Protoperidinium Sp.#3 76-150W 81-150L	DF		0.011
Unid. Choanoflagellate	MF	0.322	
Distephanus Speculum	O	0.004	0.062
Pseudopedinella Pyriforme	O		0.062
Unid. Blue Green Trichome (Cell)	O		

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Abundance of all identified taxa in screened samples collected near the Chlorophyll maximum June 20 - 25, 1995 (W9507)

Species	Group	Harbor Stations			Coastal Stations			Nearfield Stations				Offshore Stations	Boundary Stations	Cape Cod Bay Stations	
		2F23C	1F30C	1F31C	1F13C	1F24C	1F25C	1N10B	1N16C	2N16C	3N16C	1F06C	1F27C	1F01C	1F02C
Amylax Triacantha Gonyaulax Triacantha	DF														
Ceratium Fusus	DF	0.005				0.022		0.004	0.005		0.006	0.006	0.001	0.054	0.021
Ceratium Lineatum	DF	0.001				0.009		0.007			0.004	0.005		0.002	0.001
Ceratium Longipes	DF	0.113	0.040	0.040	0.133	0.307	0.088	0.237	0.847		0.545	0.231	0.019	0.481	0.428
Ceratium Macroceros	DF				0.004			0.019	0.002		0.074			0.002	
Ceratium Sp.	DF							0.004							0.001
Ceratium Tripos	DF	0.002										0.001	0.001	0.026	
Dinophysis Acuminata	DF			0.011	0.340	0.423	0.092	0.081	0.003		0.004		0.007		0.048
Dinophysis Norvegica	DF	0.112	0.180	0.021	2.867	0.583	0.072	0.074	0.128		0.019	0.673	0.008	0.176	0.027
Dinophysis Punctata	DF	0.006		0.042	0.008			0.211				0.002		0.006	
Dinophysis Sp.	DF			0.004											
Diplopsalis Lenticula	DF		0.020												
Gonyaulax Digitalis	DF											0.001			
Gonyaulax Verior G. Diacantha	DF														
Gymnodinium Sp.#1 5-20Um W 10-20Um L	DF	0.610			0.462		0.243		0.116		0.236			0.039	0.087
Gymnodinium Sp.#2 21-40Um W 21-50Um L	DF				0.116								0.028		0.029
Heterocapsa Triquetra	DF	0.073													
Katodinium Rotundatum	DF				0.231						0.118			0.039	
Miniscula Bipes = Protoperidinium Bipes	DF		0.020												
Prorocentrum Balticum	DF													0.039	
Prorocentrum Micans	DF	0.001													
Protoperidinium Depressum	DF	0.004			0.006	0.018		0.004	0.007		0.016	0.032	0.002		
Protoperidinium Pellidum	DF														
Protoperidinium Pyriforme	DF	0.001							0.115			0.009		0.001	
Protoperidinium Sp.#1 10-30W 10-40L	DF		0.040						0.115						
Protoperidinium Sp.#2 31-75W 41-80L	DF	0.004	0.020	0.004	0.008	0.004	0.004	0.004	0.002		0.002		0.005		0.058
Protoperidinium Sp.#3 76-150W 81-150L	DF			0.002											
Scrippsiella Trochoidea	DF			0.002											
Euglena Sp.	MF	0.291													
Eutreptia Lanowii	MF			0.128		0.541									
Eutreptia Sp.	MF														
Pyramimonas Sp.	MF	0.437	1.380						0.229		0.118				
Unid. Choanoflagellate	MF										0.118				
Unid. Micro-Phytoflag Length > 10 Microns	MF	0.291										0.040		0.156	
Crucigenia Tetrapedia	O	2.330													
Distephanus Speculum	O	0.073	0.020	0.128	0.231		0.024	0.011				0.040		0.117	0.029
Emiliania Huxleyi	O													0.039	
Micractinium Pusillum	O														0.039
Oscillatoria Sp. (Trichome)	O														
Pediastrum Duplex V. Clathratum	O														0.023
Pediastrum Duplex V. Gracilimum	O											0.016			
Pediastrum Simplex	O														
Rhabdosphaera Claviger	O										0.118				
Scenedesmus Quadricauda	O		0.080												
Scenedesmus Sp.	O					0.036									
Staurastrum Sp.	O														0.001
Unid. Blue Green Single Sphere	O														0.018
Unid. Blue Green Trichome	O														
Unid. Blue Green Trichome (Cell)	O						14.336								

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Abundance of all identified taxa in screened samples collected near the Chlorophyll maximum July 5 - 7, 1995 (W9508)

Species	Group	Nearfield Stations
		1N10B
Ceratium Fusus	DF	0.004
Ceratium Longipes	DF	0.128
Ceratium Tripos	DF	0.002
Dinophysis Acuminata	DF	0.004
Dinophysis Norvegica	DF	0.147
Protoperidinium Depressum	DF	0.002
Euglena Sp.	MF	0.002

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

Abundance of all identified taxa in screened samples collected near the Chlorophyll maximum July 24 - 26, 1995 (W9509)

Species	Group	Nearfield Stations	
		1N10B	3N16C
Ceratium Fusus	DF		0.002
Ceratium Longipes	DF	0.023	0.405
Ceratium Tripos	DF	0.006	0.005
Dinophysis Norvegica	DF		0.003
Dinophysis Punctata	DF	0.001	
Diplopsalis Sp.	DF	0.025	
Gymnodinium Sp.#2 21-40Um W 21-50Um L	DF	0.001	
Gymnodinium Sp.#3 41-70Um W 51-70Um L	DF		
Heterocapsa Triquetra	DF		
Prorocentrum Rotundatum	DF		
Protoperidinium Depressum	DF	0.008	0.004
Protoperidinium Sp.#2 31-75W 41-80L	DF	0.003	
Scrippsiella Trochoidea	DF		0.001

Group Definitions:

DF	Dinoflagellate
MF	Microflagellate
O	Other

APPENDIX H

ZOOPLANKTON SPECIES DATA (IND/M^3)
W9501-W9509

Zooplankton Species Data (ind/m^3)
W9501 - W9509

Event	Species	Life Stage	Group	Station Cast													
				1F01Z	1F02Z	1F06Z	1F13Z	1F23Z	1F24Z	1F25Z	1F27Z	1F30Z	1F31Z	1N10Z	1N16Z	2F23Z	2N16Z	3N16Z
W9501	ACARTIA HUDSONICA	C	C									24						
W9501	ACARTIA HUDSONICA	F	C				19	34				36						
W9501	ACARTIA HUDSONICA	M	C					17				36						
W9501	BIVALVIA SPP.	L	O			24			105	40				22				
W9501	BRYOZOA SPP.	-	O		20													
W9501	CALANUS FINMARCHICUS	C	C								26							
W9501	CALANUS FINMARCHICUS	F	C								26							
W9501	CENTROPAGES TYPICUS	C	C		400	73									44		55	
W9501	CENTROPAGES TYPICUS	F	C		80				35		26							
W9501	CENTROPAGES TYPICUS	M	C			24											18	
W9501	CHAETOGNATHIA SPP.	-	O					17		20								
W9501	CIRRIPEDE SPP.	N	B	64		219	493	122	279	360		1477		944	22		55	
W9501	COPEPOD SPP.	-	C			24	76		35	560				88				
W9501	COPEPOD SPP.	C	C	64		24			663								18	
W9501	COPEPOD SPP.	N	C	2675	3140	4750	3908	3238	7332	3880	6257	2131		2679	2836		6544	
W9501	EURYTEMORA HERDMANI	M	C							40								
W9501	GASTROPODA;MOLLUSCA	L	O		120					20	51				87		37	
W9501	HARPACTICOIDA SPP.	-	C	16		49	19		70			36		44				
W9501	MICROSETELLA NORVEGICA	-	C	193	20	24	76	244	314	60	51	61		527	131		92	
W9501	MICROSETELLA NORVEGICA	F	C				38											
W9501	MICROSETELLA NORVEGICA	M	C				19											
W9501	NEMATODA SPP.	-	O					17										
W9501	OIKOPLEURA DIOICA	-	O	177	180	1632	360	209	1222	160	129	85		263	589		533	
W9501	OITHONA ATLANTICA	-	C			73												
W9501	OITHONA SIMILIS CLAUS	C	C	1048	860	1949	778	400	3177	520	1596	448		1427	611		1213	
W9501	OITHONA SIMILIS CLAUS	F	C	548	300	390	360	226	489	140	386	85		483	175		129	
W9501	OITHONA SIMILIS CLAUS	M	C					34			26	109		44				
W9501	PARACALANUS PARVUS	C	C							120								
W9501	PLATYHELMINTHES:TURBELLARIA	-	O							20								
W9501	POLYCHAETE SPP.	L	O	113	60	24	360	313	594	760		182		615	502		423	
W9501	POLYCHAETE SPP.	T	O	16			228	70		200		133		88	65		18	
W9501	PSEUDOCALANUS NEWMANI	C	C	790	100	24	493	122	314	60	103	182		461	349		147	
W9501	PSEUDOCALANUS NEWMANI	F	C	226	60	24	38		35	100	26	61		22	65		37	
W9501	PSEUDOCALANUS NEWMANI	M	C	16	40	24	19											
W9501	TEMORA LONGICORNIS	C	C	32														
W9501	TEMORA LONGICORNIS	F	C	16					35									
W9501	TEMORA LONGICORNIS	M	C	16														
W9501	TORTANUS DISCAUDATUS	C	C														18	
W9501	TORTANUS DISCAUDATUS	M	C														18	

Zooplankton Species Data (ind/m^3)
W9501 - W9509

Event	Species	Life Stage	Group	Station Cast														
				1F01Z	1F02Z	1F06Z	1F13Z	1F23Z	1F24Z	1F25Z	1F27Z	1F30Z	1F31Z	1N10Z	1N16Z	2F23Z	2N16Z	3N16Z
W9501	UNIDENTIFIED LARVAE	L	O	161		24	38		140			48		66			312	
W9502	ACARTIA HUDSONICA	C	C	103				90				85						
W9502	ACARTIA HUDSONICA	F	C	205				107				355	27					
W9502	ACARTIA HUDSONICA	M	C						42			70						
W9502	BIVALVIA SPP.	L	O	51	41	19		18						28				
W9502	CALANUS FINMARCHICUS	C	C	51	81	564	825	143	211	151	377	31	896	809	217		264	
W9502	CALANUS FINMARCHICUS	F	C				26						54					
W9502	CALANUS FINMARCHICUS	M	C		41		26											
W9502	CENTROPAGES TYPICUS	C	C			155	103							84	72		22	
W9502	CENTROPAGES TYPICUS	F	C			78	26										22	
W9502	CENTROPAGES TYPICUS	M	C			39						8		28	36			
W9502	CIRRIPEDE SPP.	-	B			19												
W9502	CIRRIPEDE SPP.	N	B	820	162	175	2293	1397	1644	1045	24	1205	2660	2984	615		176	
W9502	COPEPOD SPP.	C	C	51		19	26	36				15	27	112	36			
W9502	COPEPOD SPP.	N	C	10660	4944	7132	8554	3545	5270	1842	5771	1097	2361	6357	6225		3083	
W9502	ECHINODERM PLUTEI	-	O	51	81	39	77			27	47		27	195	977		352	
W9502	EURYTEMORA HERDMANI	F	C									15						
W9502	EURYTEMORA HERDMANI	M	C									23						
W9502	FISH SPP.	-	O									8						
W9502	GASTROPODA;MOLLUSCA	L	O	154	41	97	309	18	126	206	94		109	418	109		132	
W9502	HARPACTICOIDA SPP.	-	C			19		36	42			46			36			
W9502	MICROSETELLA NORVEGICA	-	C	154	162	136	180	36	84	27	24	23	109					
W9502	NEMATODA SPP.	-	O					18										
W9502	OIKOPLEURA DIOICA	-	O	410	608	797	773	125	675	302	188	15	136	1311	1122		1189	
W9502	OITHONA ATLANTICA	-	C		41					14							22	
W9502	OITHONA ATLANTICA	C	C														22	
W9502	OITHONA ATLANTICA	F	C					18		14								
W9502	OITHONA SIMILIS CLAUS	-	C	51	405	136				41		15	27		36		22	
W9502	OITHONA SIMILIS CLAUS	C	C	564	1013	2176	3015	716	970	660	966	162	1086	1701	1592		1035	
W9502	OITHONA SIMILIS CLAUS	F	C	564	284	214	593	125	211	234	306	62	380	195	145		220	
W9502	OITHONA SIMILIS CLAUS	M	C	154	81	155	103	36	211		71	8	109	84			22	
W9502	PARACALANUS PARVUS	M	C												36			
W9502	POLYCHAETE SPP.	-	O	51														
W9502	POLYCHAETE SPP.	L	O	820	446	525	361	537	1223	385	71	46	679	586	181		198	
W9502	POLYCHAETE SPP.	T	O	564	81	97	52	304	42	41		54	353	139	109			
W9502	PSEUDOCALANUS NEWMANI	C	C	1025	1054	466	309	161	211	55	165	131	543	56	36		66	
W9502	PSEUDOCALANUS NEWMANI	F	C	308	324	97	52	36				15	190	84	36		22	
W9502	PSEUDOCALANUS NEWMANI	M	C		243							15	27				22	
W9502	TEMORA LONGICORNIS	C	C	51			26						54					

Zooplankton Species Data (ind/m^3)
W9501 - W9509

Event	Species	Life Stage	Group	Station Cast														
				1F01Z	1F02Z	1F06Z	1F13Z	1F23Z	1F24Z	1F25Z	1F27Z	1F30Z	1F31Z	1N10Z	1N16Z	2F23Z	2N16Z	3N16Z
W9502	TEMORA LONGICORNIS	F	C	51				18										
W9502	TEMORA LONGICORNIS	M	C									15						
W9502	TORTANUS DISCAUDATUS	M	C					18				15	27					
W9502	UNIDENTIFIED LARVAE	L	O	410	81	78	77	72	84		24	8					22	
W9503	ACARTIA HUDSONICA	C	C											46				
W9503	BIVALVIA SPP.	L	O											91				
W9503	CALANUS FINMARCHICUS	C	C											777	2967			
W9503	CALANUS FINMARCHICUS	F	C												52			
W9503	CENTROPAGES TYPICUS	C	C												208			
W9503	CENTROPAGES TYPICUS	F	C												52			
W9503	CENTROPAGES TYPICUS	M	C											46				
W9503	CIRRIPEDE SPP.	N	B											3109	208			
W9503	CIRRIPEDE SPP.	Y	B											46	52			
W9503	COPEPOD SPP.	C	C												156			
W9503	COPEPOD SPP.	N	C											5531	10515			
W9503	ECHINODERM PLUTEI	-	O											46	52			
W9503	GASTROPODA;MOLLUSCA	L	O											46	625			
W9503	HARPACTICOIDA SPP.	-	C											46				
W9503	METRIDIA LUCENS	M	C											46				
W9503	OIKOPLEURA DIOICA	-	O											823	1614			
W9503	OITHONA SIMILIS CLAUS	-	C											46	52			
W9503	OITHONA SIMILIS CLAUS	C	C											1691	2707			
W9503	OITHONA SIMILIS CLAUS	F	C											183	208			
W9503	OITHONA SIMILIS CLAUS	M	C											46	312			
W9503	POLYCHAETE SPP.	L	O											183	52			
W9503	POLYCHAETE SPP.	T	O											183	104			
W9503	PSEUDOCALANUS NEWMANI	C	C											229	260			
W9503	PSEUDOCALANUS NEWMANI	F	C											137	52			
W9503	PSEUDOCALANUS NEWMANI	M	C												104			
W9503	UNIDENTIFIED LARVAE	L	O											46				
W9504	ACARTIA HUDSONICA	C	C	55			30	14		30		134	176					
W9504	ACARTIA HUDSONICA	F	C					14				19						
W9504	ACARTIA HUDSONICA	M	C							30		38						
W9504	BIVALVIA SPP.	L	O	304	480	227	151	14		241	1023	77	132	315	45		250	
W9504	CALANUS FINMARCHICUS	C	C	994	2280	1285	1448	335	3402	662	585	403	132	1828	1310		849	
W9504	CALANUS FINMARCHICUS	F	C					14										
W9504	CALANUS FINMARCHICUS	M	C		80	38		14	81			38					150	
W9504	CENTROPAGES TYPICUS	C	C	166	40	302	121		486		341	19	44	189	361			
W9504	CENTROPAGES TYPICUS	F	C			38								63				

Zooplankton Species Data (ind/m^3)
W9501 - W9509

Event	Species	Life Stage	Group	Station Cast														
				1F01Z	1F02Z	1F06Z	1F13Z	1F23Z	1F24Z	1F25Z	1F27Z	1F30Z	1F31Z	1N10Z	1N16Z	2F23Z	2N16Z	3N16Z
W9504	CENTROPAGES TYPICUS	M	C						81						45			
W9504	CIRRIPEDE SPP.	N	B	193	640	1512	694	196	1134	693	1218	230	528	630	226		699	
W9504	CIRRIPEDE SPP.	Y	B	28							49	19			45			
W9504	COPEPOD SPP.	-	C			76				30							50	
W9504	COPEPOD SPP.	C	C	55		76		14			49	19	44				50	
W9504	COPEPOD SPP.	N	C	5052	7760	6880	2836	1216	7775	3643	5944	3143	3737	9896	8041		6541	
W9504	CRUSTACEA:UNIDED CRUSTACEAN	-	O			38			81									
W9504	DECAPODA SPP.	-	O											63				
W9504	ECHINODERM PLUTEI	-	O	28											45		50	
W9504	EURYTEMORA HERDMANI	C	C					252		783		134	528	126				
W9504	EURYTEMORA HERDMANI	M	C					14				19	44					
W9504	GASTROPODA;MOLLUSCA	L	O	55	680	113	121	56	405	181	438	173	44	1198	361		549	
W9504	HARPACTICOIDA SPP.	-	C					154		60		192	132	63			50	
W9504	METRIDIA LUCENS	-	C											126				
W9504	MICROSETELLA NORVEGICA	-	C		40	38		28	243	30	97	38		378			250	
W9504	MICROSETELLA NORVEGICA	M	C					14										
W9504	OIKOPLEURA DIOICA	-	O		80	756	30		486	120	828			630	632		499	
W9504	OITHONA ATLANTICA	C	C						1296				176	504				
W9504	OITHONA ATLANTICA	F	C						81	60			396		45			
W9504	OITHONA ATLANTICA	M	C										88					
W9504	OITHONA SIMILIS CLAUS	-	C	276	40						146	19		189	136		100	
W9504	OITHONA SIMILIS CLAUS	C	C	1104	1960	3213	1388	783	5831	1174	4482	997	1671	5799	5466		3445	
W9504	OITHONA SIMILIS CLAUS	F	C	359	480	491	211	168	729	331	731	173	176	1450	452		399	
W9504	OITHONA SIMILIS CLAUS	M	C	55	240	265	60	98		60	341	134		126	136		50	
W9504	POLYCHAETE SPP.	L	O		120	38	60	783	162	1265	244	690	2242	126				
W9504	POLYCHAETE SPP.	T	O	28	80	38	60	126		211	97	134	132	63			100	
W9504	PSEUDOCALANUS NEWMANI	C	C	773	680	1550	422	293	1539	933	1949	345	352	1324	587		1698	
W9504	PSEUDOCALANUS NEWMANI	F	C	28	120	38	30	14	81	120				252	90		100	
W9504	PSEUDOCALANUS NEWMANI	M	C	28		38	30		324	60	49	19			45			
W9504	TEMORA LONGICORNIS	C	C	28	40		151	14		90	195	96	88	63	226		100	
W9504	TEMORA LONGICORNIS	M	C								49							
W9504	UNIDENTIFIED LARVAE	L	O	28	40	76	60	56	648	30	97	58	132	189			50	
W9505	ACARTIA HUDSONICA	C	C														58	
W9505	BIVALVIA SPP.	L	O											342			467	
W9505	CALANUS FINMARCHICUS	C	C											958			758	
W9505	CENTROPAGES TYPICUS	C	C											68				
W9505	CIRRIPEDE SPP.	N	B											2259			292	
W9505	CIRRIPEDE SPP.	Y	B											68			117	
W9505	COPEPOD SPP.	C	C											68			58	

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Event	Species	Life Stage	Group	Station Cast													
				1F01Z	1F02Z	1F06Z	1F13Z	1F23Z	1F24Z	1F25Z	1F27Z	1F30Z	1F31Z	1N10Z	1N16Z	2F23Z	2N16Z	3N16Z
W9505	COPEPOD SPP.	N	C											9514			4667	
W9505	CRUSTACEA:UNIDED CRUSTACEAN	-	O											68			117	
W9505	ECHINODERM PLUTEI	-	O											137			58	
W9505	EVADNE SPP.	-	O											68				
W9505	GASTROPODA;MOLLUSCA	L	O											684			2392	
W9505	MICROSETELLA NORVEGICA	-	C											205			292	
W9505	OIKOPLEURA DIOICA	-	O											2190			350	
W9505	OITHONA ATLANTICA	C	C											205			467	
W9505	OITHONA SIMILIS CLAUS	-	C											68			350	
W9505	OITHONA SIMILIS CLAUS	C	C											5818			3383	
W9505	OITHONA SIMILIS CLAUS	F	C											890			875	
W9505	OITHONA SIMILIS CLAUS	M	C											205			117	
W9505	POLYCHAETE SPP.	-	O											68				
W9505	POLYCHAETE SPP.	L	O											68			117	
W9505	POLYCHAETE SPP.	T	O											137				
W9505	PSEUDOCALANUS NEWMANI	C	C											1711			992	
W9505	PSEUDOCALANUS NEWMANI	F	C											137				
W9505	TEMORA LONGICORNIS	C	C											548				
W9505	TEMORA LONGICORNIS	F	C											68				
W9505	UNIDENTIFIED LARVAE	L	O											68			58	
W9506	ACARTIA HUDSONICA	C	C											269			84	
W9506	ACARTIA HUDSONICA	F	C														84	
W9506	ACARTIA HUDSONICA	M	C											135				
W9506	BIVALVIA SPP.	L	O											1480			9036	
W9506	CALANUS FINMARCHICUS	C	C											1480			1689	
W9506	CENTROPAGES TYPICUS	C	C											135			253	
W9506	CENTROPAGES TYPICUS	F	C											135			84	
W9506	CENTROPAGES TYPICUS	M	C											135				
W9506	CIRRIPEDE SPP.	N	B											404			591	
W9506	CIRRIPEDE SPP.	Y	B											538			84	
W9506	COPEPOD SPP.	-	C														84	
W9506	COPEPOD SPP.	N	C											16684			9289	
W9506	CRUSTACEA:UNIDED CRUSTACEAN	-	O														760	
W9506	ECHINODERM PLUTEI	-	O											135			1013	
W9506	EURYTEMORA HERDMANI	C	C											1884				
W9506	EURYTEMORA HERDMANI	F	C											807				
W9506	EURYTEMORA HERDMANI	M	C											1211				
W9506	EVADNE SPP.	-	O											538			169	
W9506	GASTROPODA;MOLLUSCA	L	O											807			84	

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Event	Species	Life Stage	Group	Station Cast														
				1F01Z	1F02Z	1F06Z	1F13Z	1F23Z	1F24Z	1F25Z	1F27Z	1F30Z	1F31Z	1N10Z	1N16Z	2F23Z	2N16Z	3N16Z
W9506	HARPACTICOIDA SPP.	-	C											404				
W9506	MICROSETELLA NORVEGICA	-	C											135			422	
W9506	OIKOPLEURA DIOICA	-	O											538			929	
W9506	OITHONA ATLANTICA	C	C														84	
W9506	OITHONA ATLANTICA	F	C														84	
W9506	OITHONA SIMILIS CLAUS	C	C											4978			6502	
W9506	OITHONA SIMILIS CLAUS	F	C											1749			1436	
W9506	OITHONA SIMILIS CLAUS	M	C											1076			591	
W9506	PODON SPP.	-	O											269				
W9506	POLYCHAETE SPP.	L	O											1076			169	
W9506	POLYCHAETE SPP.	T	O											673				
W9506	PSEUDOCALANUS NEWMANI	C	C											1884			1689	
W9506	PSEUDOCALANUS NEWMANI	F	C											269			84	
W9506	PSEUDOCALANUS NEWMANI	M	C											135			253	
W9506	TEMORA LONGICORNIS	C	C											1480			253	
W9506	TEMORA LONGICORNIS	F	C														84	
W9506	UNIDENTIFIED LARVAE	L	O											135				
W9507	ACARTIA HUDSONICA	C	C									4700	342		407	1003		
W9507	ACARTIA HUDSONICA	F	C						139			188				167		
W9507	ACARTIA HUDSONICA	M	C										171			502		
W9507	ACARTIA TONSA	C	C			152			139									
W9507	BIVALVIA SPP.	L	O		53	152			2773	568	73	2256	427	2678	813	1338		4070
W9507	BRYOZOA SPP.	-	O	115					139					223	136			
W9507	CALANUS FINMARCHICUS	C	C			1213			139		877			223	3795	836		1707
W9507	CALANUS FINMARCHICUS	F	C															656
W9507	CALANUS FINMARCHICUS	M	C			152					292					167		131
W9507	CENTROPAGES TYPICUS	C	C	231	53				139		2338				136			
W9507	CENTROPAGES TYPICUS	F	C		53	152					73							
W9507	CENTROPAGES TYPICUS	M	C								146							
W9507	CIRRIPEDE SPP.	N	B						277	568		752	1195					
W9507	CIRRIPEDE SPP.	Y	B										85					
W9507	COPEPOD SPP.	-	C	115	53				139	114	73		85			167		131
W9507	COPEPOD SPP.	C	C	346	53	303			555				342			167		
W9507	COPEPOD SPP.	N	C	15811	8552	21537			13728	19537	7306	25192	18614	36602	41201	46646		30064
W9507	CRUSTACEA:UNIDED CRUSTACEAN	-	O			152			139						136			
W9507	EURYTEMORA HERDMANI	C	C		53					227		2632	939			669		919
W9507	EURYTEMORA HERDMANI	F	C										85			167		
W9507	EURYTEMORA HERDMANI	M	C		53							188	427			836		
W9507	EVADNE SPP.	-	O						832	795		752	171	670	136	669		

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Event	Species	Life Stage	Group	Station Cast														
				1F01Z	1F02Z	1F06Z	1F13Z	1F23Z	1F24Z	1F25Z	1F27Z	1F30Z	1F31Z	1N10Z	1N16Z	2F23Z	2N16Z	3N16Z
W9507	GASTROPODA;MOLLUSCA	L	O		53				416	568		564	256	446		334		131
W9507	HARPACTICOIDA SPP.	-	C												271			263
W9507	MEDUSA	-	O			152			139	227				223		167		
W9507	METRIDIA LUCENS	C	C			303			139									263
W9507	MICROSETELLA NORVEGICA	-	C	115	321	303			139	114	365		85		813			131
W9507	OITHONA ATLANTICA	F	C	692											136			
W9507	OITHONA SIMILIS CLAUS	-	C			152									136			
W9507	OITHONA SIMILIS CLAUS	C	C	6463	5185	12588			5547	3521	13151	2632	1281	6026	18703	5016		12997
W9507	OITHONA SIMILIS CLAUS	F	C	2077	1710	2123			1387	1022	877	1880	598	1562	2711	1338		1575
W9507	OITHONA SIMILIS CLAUS	M	C	231	53	455			139	114	73		171	223	271	167		525
W9507	PARACALANUS PARVUS	F	C												407			
W9507	PODON POLYPHEMOIDES	-	O										427					
W9507	PODON SPP.	-	O							568		376		446				
W9507	POLYCHAETE SPP.	L	O						139	454		4324	1366	223		1505		
W9507	PSEUDOCALANUS NEWMANI	C	C	2654	1871	5763			6379	2499	73	752	683	5803	1762	669		1969
W9507	PSEUDOCALANUS NEWMANI	F	C	1385	1710	303			971	1249			342	670	678	836		919
W9507	PSEUDOCALANUS NEWMANI	M	C	231	107	152			277	227			85	223	271			
W9507	TEMORA LONGICORNIS	C	C	115		1668			10261	1931	2119	188	768	1785	813	1003		131
W9507	TEMORA LONGICORNIS	F	C	692					277	454	73		427	2455		669		
W9507	TEMORA LONGICORNIS	M	C	808	53				416	454	146		171	2232		836		
W9507	TORTANUS DISCAUDATUS	C	C	115					139									
W9507	TORTANUS DISCAUDATUS	F	C						139					223				
W9507	TORTANUS DISCAUDATUS	M	C	115					277									
W9507	UNIDENTIFIED LARVAE	L	O		53	152			139			376	171	223	271			131
W9508	ACARTIA TONSA	C	C											135			59	
W9508	BRYOZOA SPP.	-	O														59	
W9508	CALANUS FINMARCHICUS	C	C											808			1179	
W9508	CALANUS FINMARCHICUS	F	C											135			59	
W9508	CALANUS FINMARCHICUS	M	C											404			118	
W9508	COPEPOD SPP.	N	C											20749			10257	
W9508	MICROSETELLA NORVEGICA	-	C											674			59	
W9508	OITHONA ATLANTICA	C	C											135				
W9508	OITHONA SIMILIS CLAUS	-	C											269				
W9508	OITHONA SIMILIS CLAUS	C	C											8893			3891	
W9508	OITHONA SIMILIS CLAUS	F	C											3503			884	
W9508	OITHONA SIMILIS CLAUS	M	C											135			59	
W9508	PSEUDOCALANUS NEWMANI	C	C											5389			1238	
W9508	PSEUDOCALANUS NEWMANI	F	C											2425			472	
W9508	PSEUDOCALANUS NEWMANI	M	C											404			118	

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Event	Species	Life Stage	Group	Station Cast													
				1F01Z	1F02Z	1F06Z	1F13Z	1F23Z	1F24Z	1F25Z	1F27Z	1F30Z	1F31Z	1N10Z	1N16Z	2F23Z	2N16Z	3N16Z
W9508	TEMORA LONGICORNIS	C	C											1213				
W9508	TEMORA LONGICORNIS	F	C											539			59	
W9508	TEMORA LONGICORNIS	M	C											539				
W9508	TORTANUS DISCAUDATUS	C	C											135				
W9508	TORTANUS DISCAUDATUS	F	C											135				
W9508	TORTANUS DISCAUDATUS	M	C											135				
W9509	ACARTIA TONSA	C	C											1625				
W9509	BIVALVIA SPP.	L	O											1625				3168
W9509	CALANUS FINMARCHICUS	C	C											1219				3335
W9509	CALANUS FINMARCHICUS	M	C											813				667
W9509	COPEPOD SPP.	N	C											53634				29683
W9509	CRUSTACEA:UNIDED CRUSTACEAN	-	O											406				
W9509	EURYTEMORA HERDMANI	C	C											1219				
W9509	GASTROPODA;MOLLUSCA	L	O											406				
W9509	METRIDIA LUCENS	C	C															167
W9509	MICROSETELLA NORVEGICA	-	C											1219				167
W9509	OITHONA SIMILIS CLAUS	C	C											18691				12674
W9509	OITHONA SIMILIS CLAUS	F	C											2032				1501
W9509	OITHONA SIMILIS CLAUS	M	C											2032				334
W9509	PSEUDOCALANUS NEWMANI	C	C											6907				12007
W9509	PSEUDOCALANUS NEWMANI	F	C											7314				1001
W9509	PSEUDOCALANUS NEWMANI	M	C											2032				334
W9509	TEMORA LONGICORNIS	C	C											4063				667
W9509	TEMORA LONGICORNIS	F	C											1219				
W9509	TEMORA LONGICORNIS	M	C											406				

Life Stage Definitions:			Group Definitions:	
	C	Copepodite stages I-V	B	Barnacle
	F	Copepoda adult female	C	Copepod
	L	Larva	OZ	Other Zooplankton
	M	Copepoda adult male		
	N	Nauplii		
	T	Trochophore (larval stage of polychaete		
	Y	Cypris Larva of Barnacle		