WATER QUALITY IN CHESAPEAKE BAY VIRGINIA PORTION

Water Year 1988

By
Kevin Curling
and
Bruce Neilson

A Report to
The Virginia Water Control Board

Data Report No. 38

Virginia Institute of Marine Science
School of Marine Science
The College of William and Mary in Virginia
Gloucester Point, Virginia 23062

April, 1992

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INTRODUCTION

In the summer of 1984 a comprehensive water quality monitoring program was initiated for the Chesapeake Bay system. Funding for monitoring of the main stem of Chesapeake Bay was provided by the U.S. Environmental Protection Agency, while monitoring of the tributaries to the bay was supported by the states of Virginia and Maryland, and the District of Columbia. This monitoring program had three goals:

(1) characterization of water quality conditions,
(2) detection of trends in water quality,
(3) creation of a data base that would allow scientists to propose hypotheses regarding the processes controlling water quality.

The purpose of this report is to characterize water quality conditions during the 1988 water year, October 1987 through September 1988. For the most part, the information is provided in graphical format. Only data for the Virginia portion of Chesapeake Bay is included. No data analysis or interpretation is included, since this is the stated purpose of several other reports.

This report will be useful to both scientists and managers who need ready access to some portion of the data on a regular basis. With this report it is possible to quickly examine seasonal patterns, compare conditions at two stations, or see if surface and bottom conditions differ significantly. Trends, inter-annual variations and other important considerations are treated in other reports.

DESCRIPTION OF THE MONITORING PROGRAM

The Chesapeake Bay monitoring program includes some fifty stations within the bay proper or at the confluence of a tributary and the bay. Twenty-eight of those stations are located in Virginia. The responsibility for the monitoring in Virginia is shared between the Virginia Institute of Marine Science (VIMS) and Old Dominion University (ODU). VIMS samples the mid-portion of the bay, Mobjack Bay, and at the mouths of the Great Wicomico, Rappahannock, Piankiatank, York, Poquoson, and Back Rivers. ODU samples the lower portion of the bay and at the mouth of the James River. Station locations and depths are listed in Table 1, and locations are shown in Figure 1.

Table 1. Location of Chesapeake Bay Water Quality Monitoring Stations

Sampled by VIMS

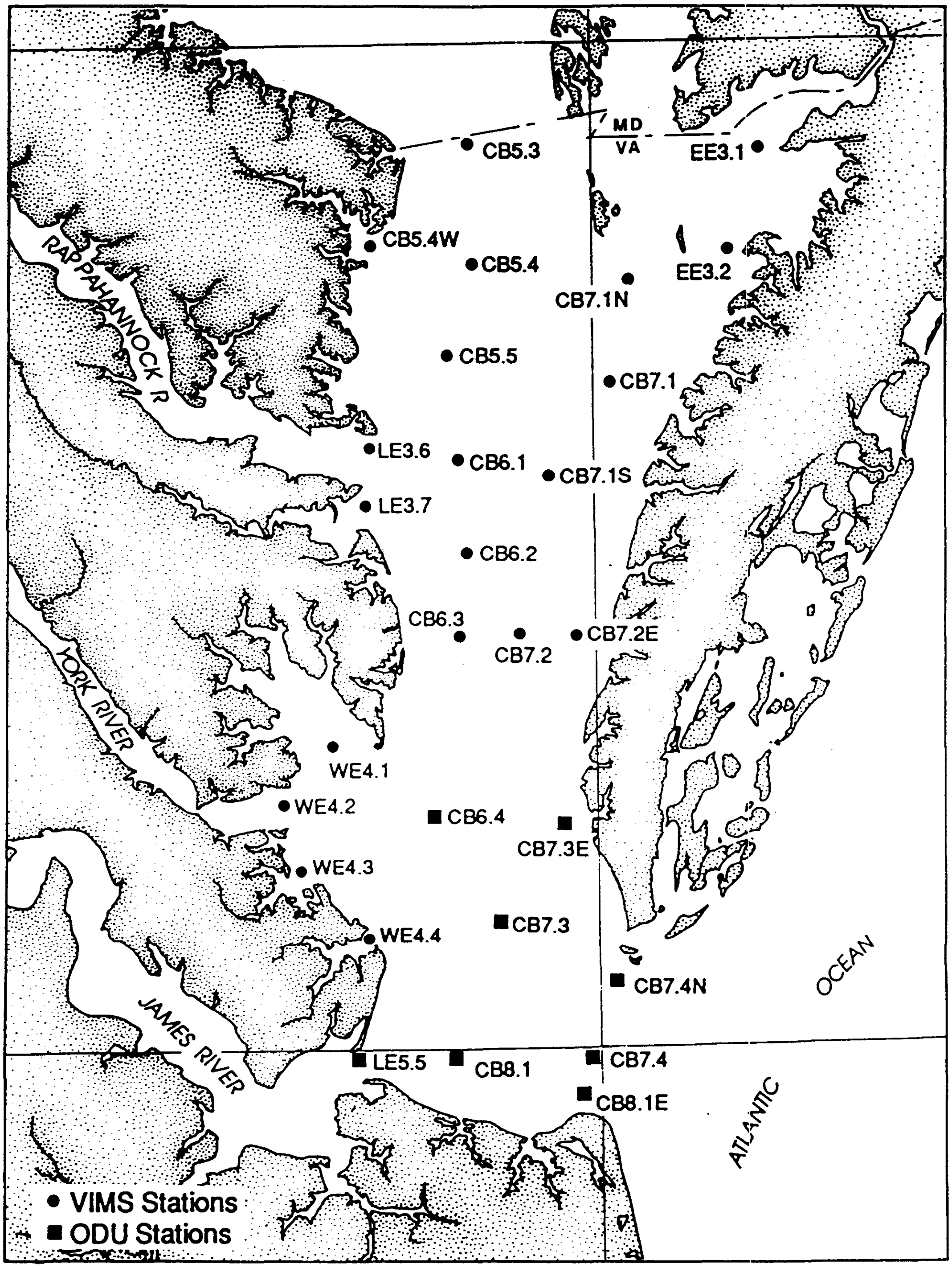
Station	Latitude	Longitude	Depth (M)
CB5.3	37 57.7	76 10.0	23
CB5.4	37 48.0	76 10.5	33
CB5.5	37 41.5	76 11.4	20
CB6.1	37 35.3	76 9.8	13
CB6.2	37 29.2	76 9.4	11
CB6.3	37 24.7	76 9.6	12
EE3.1 **	37 54.5	75 47.5	4
EE3.2 **	37 47.6	75 50.6	26
CB7.1N	37 46.5	75 58.5	32
CB7.1	37 41.0	75 59.4	25
CB7.1S	37 34.9	76 3.5	16
CB5.4W	37 48.8	76 17.7	5
CB7.2	37 24.7	76 4.8	23
CB7.2E	37 24.7	76 1.5	14
LE3.6	37 35.8	76 17.1	10
LE3.7	37 31.8	76 18.4	8
WE4.1	37 18.7	76 20.8	6
WE4.2	37 14.5	76 23.2	15
WE4.3	37 10.6	76 22.4	6
WE4.4	37 6.6	76 17.6	8

** These stations are referred to as EE3.4 and EE3.5 in Chesapeake Bay Program (CBP) reports.

Sampled by ODU

Station	Latitude	Longitude	Depth (M)
CB6.4	37 14.2	76 12.5	11
CB7.3	37 7.0	76 7.5	14
CB7.4	36 59.6	76 0.6	14
CB7.4N	37 3.5	75 58.4	13
CB8.1E	36 56.7	76 1.5	18
CB8.1	36 59.3	76 10.1	9
CB7.3E	37 13.7	76 3.3	20
LE5.5	36 59.8	76 18.2	21

Figure 1. Map of Monitoring Stations



This report covers the 1988 water year (October 1987 through September 1988). Sampling occurs twice per month during the warmer part of the year and once per month during colder months. During the 1988 water year, the once per month sampling occurred in November 1987 through March 1988 (see Table 2). All of the institutions attempt to complete the sampling at all bay and tributary stations within a three day window, typically Monday through Wednesday of the chosen week. These sampling periods are determined in advance with scheduling dictated in large part by the availability of research vessels. The time of sampling within the three day period is determined by each institution, with weather conditions frequently playing a major role in timing. No attempt is made to schedule the sampling at any lunar phase or to sample individual stations at particular tidal phases. Note that the twice per month frequency means that roughly the same stage of the lunar cycle will be captured, except when there is a three week interval, and the sampling switches to a different phase of the lunar cycle.

At each station, a standard protocol for sampling is followed. (See the Field Procedures Manual and the Instrument Calibration Manual for details.) Observations on sea state, weather conditions, and water clarity (Secchi depth reading) are made at each station when possible. The physical setting is monitored using continuous profiling instruments. Water temperature, conductivity, dissolved oxygen (DO), and pH readings are recorded at one meter intervals beginning at one meter below the surface (the surface sample) and continuing until one meter above the bottom (the bottom sample). At stations greater than 15 meters deep, measurements are recorded at one meter intervals for the first 15 meters, and two meters thereafter.

Water samples are collected at each station to determine water quality conditions. Each sample is analyzed for nutrients (carbon, nitrogen, phosphorus, silica), chlorophyll, and suspended solids. The complete list of analyses is given in Table 3 (See the Laboratory Procedures Manual for further details on nutrient analyses).

Samples are collected one meter below the surface and one meter above the bottom at all stations. Additional samples are collected at the deep "main stem" stations - CB5.3, CB5.4, CB5.5, CB6.1, CB6.2, CB6.3, CB6.4, CB7.3, and CB7.4. If the water column shows little density stratification, the additional samples are collected at 1/3rd and 2/3rd depths. If there is appreciable stratification, the samples are collected one meter above

Table 2. Date when each station was sampled during each month of the 1988 water year.

	Oct. 87	Nov. 87	Dec. 87	Jan. 88	Feb. 88	March 88
CB5.3	5, 19	16	14	13	22	22
CB5.4	5, 19	16	14	13	22	22
CB5.5	5, 19	16	14	12	22	22
CB6.1	5, 19	16	14	12	22	22
CB6.2	6, 20	17	18	12	23	23
CB6.3	6, 20	17	18	12	23	23
CB6.4	5, 23	16	14	12	22	22
CB7.3	5, 23	16	14	12	22	22
CB7.4	5, 21	16	14	12	22	22
CB7.4N	5, 21	16	14	12	22	22
CB8.1E	5, 21	16	14	12	22	22
CB8.1	5, 21	16	14	12	22	22
EE3.1	5, 19	16	14	13	23	22
EE3.2	5, 19	16	14	13	23	22
CB7.1N	5, 19	16	14	13	22	22
CB7.1	5, 19	16	14	12	22	22
CB7.1S	5, 19	16	14	12	22	22
CB5.4W	5, 19	16	14	13	22	22
CB7.2	6, 20	17	-	12	23	23
CB7.2E	6, 20	17	-	12	23	23
CB7.3E	5, 23	16	14	12	22	22
LE3.6	5, 19	16	14	12	23	23
LE3.7	6, 19	17	15	13	23	22
WE4.1	5, 19	16	14	11	23	23
WE4.2	5, 19	16	14,18	11	22	23
WE4.3	6, 20	17	18	12	23	23
WE4.4	6, 20	17	18	12	23	23
LE5.5	5, 23	16	14	12	22	22

Table 2 (cont.). Date when each station was sampled during each month of the 1988 water year.

	April 88	May 88	June 88	July 88	Aug. 88	Sep. 88
CB5.3	11, 25	11, 23	7, 20	5, 18	8, 23	9, 19
CB5.4	11, 25	11, 23	7, 20	5, 18	8, 23	9, 19
CB5.5	11, 25	11, 23	7, 20	5, 18	8, 23	9, 19
CB6.1	11, 25	11, 23	7, 20	5, 18	8, 23	9, 19
CB6.2	14, 26	12, 24	8, 21	6, 19	9, 24	9, 20
CB6.3	14, 26	12, 24	8, 21	6, 19	9, 24	9, 20
CB6.4	11, 25	10, 24	7, 20	6, 18	8, 23	9, 19
CB7.3	11, 25	10, 24	7, 20	6, 18	8, 23	9, 19
CB7.4	11, 25	9, 24	7, 20	6, 18	8, 23	9, 19
CB7.4N	11, 25	10, 24	7, 20	6, 18	8, 23	9, 19
CB8.1E	11, 25	9, 24	7, 20	6, 18	8, 23	9, 19
CB8.1	11, 25	9, 24	7, 20	6, 18	8, 23	9, 19
EE3.1	11, 25	9, 23	7, 20	5, 18	8, 23	-, 19
EE3.2	11, 25	9, 23	7, 20	5, 18	8, 23	9, 19
CB7.1N	11, 25	11, 23	7, 20	5, 18	8, 23	9, 19
CB7.1	11, 25	9, 23	7, 20	5, 18	8, 23	9, 19
CB7.1S	11, 25	9, 23	7, 20	5, 18	8, 23	9, 19
CB5.4W	11, 25	11, 23	7, 20	5, 18	8, 23	9, 19
CB7.2	14, 26	12, 24	8, 21	6, 20	9, 24	9, 20
CB7.2E	14, 26	12, 24	8, 21	6, 20	9, 24	9, 20
CB7.3E	11, 25	10, 24	7, 20	6, 18	8, 23	9, 19
LE3.6	11, 25	11, 23	7, 20	5, 18	8, 23	9, 19
LE3.7	11, 25	11, 23	7, 20	6, 19	9, 23	9, 19
WE4.1	11, 25	9, 23	8, 21	5, 18	8, 22	9, 20
WE4.2	11, 25	9, 23	8, 21	5, 18	8, 22	9, 20
WE4.3	14, 26	12, 24	8, 21	6, 22	9, 24	9, 20
WE4.4	14, 26	12, 24	8, 21	6, 22	9, 24	9, 20
LE5.5	11, 25	9, 24	8, 20	6, 18	8, 23	9, 19

and one meter below the pycnocline, the layer within which density changes rapidly. The precise depths for sample collection are determined using the algorithm in Table 4.

Table 3. Water Quality Analyses

- Carbon
  - Particulate carbon
  - Dissolved organic carbon
- Nitrogen
  - Particulate nitrogen
  - Total dissolved nitrogen
  - Ammonia-nitrogen
  - Nitrite-nitrogen
  - Nitrate+nitrite-nitrogen
- Phosphorus
  - Particulate phosphorus
  - Total dissolved phosphorus
  - Ortho-phosphate
- Silica
  - Dissolved silica
- Chlorophyll-A
- Total suspended solids

Table 4. Algorithm to determine pycnocline location and sampling depths

$$\frac{(\textit{Cond.at Bottom} - \textit{Cond.at Surface})}{(\textit{Total Depth} - 0.5)} \times 2 = \textit{Threshold value}$$

where cond. = conductivity.

If the threshold value is less then 0.5, then samples are taken at one-third and two-thirds depths.

If the threshold value is greater then 0.5, then a sample is taken one meter above the first occurrence (proceeding from the surface to the bottom) where the change in conductivity between depths is greater than the threshold value and another sample is taken one meter below the last occurrence where the change in conductivity between depths is greater than the threshold value.

RESULTS

The monitoring results are presented in tables and figures in the appendices and are arranged by water quality analysis. For each measure of water quality, the maximum, mean, and minimum values observed at each station during the year are listed in the table. These statistics are given for both the surface and bottom sampling points. These tables then show the range of values encountered during the year, the mean conditions, and they also show whether there are surface to bottom differences.

Following the table, the data for each station has been plotted, so that the seasonal cycle can be seen. When there were two cruises during a month, the data from the two cruises have been combined. The surface and bottom values are presented independently, along with the monthly maximum, minimum, and mean concentrations. The maximum and minimum values at the surface are presented as "whiskers" and the maximum and minimum values at the bottom are presented as "boxes".

Only data for the surface and bottom samples have been tabulated and plotted; no pycnocline results are included. This difference is noted so there is no confusion with surface mixed layer or bottom mixed layer values, which would be determined by averaging the surface and above pycnocline results, or the below pycnocline and bottom results.

Perhaps the single most important measure of water quality is the dissolved oxygen (DO) concentration. For estuarine waters in Virginia, state water quality standards specify that the daily average DO concentration should be 5.0 mg/l or greater, and that no observation should be below 4.0 mg/l. The portion of the observations below 5 mg/l and below 4 mg/l have been calculated for each station and are included in the DO section.

In addition to the water quality parameters measured directly, several other parameters have been calculated and plotted. Salinity is determined using water temperature and conductivity observations and the UNESCO Equations of State (UNESCO, 1983). Total phosphorus and total nitrogen have been calculated by summing the values for the particulate and total dissolved fractions. Chlorophyll-a has been calculated using a trichromatic formulate (ASTM method D 3731-79).

REFERENCES

Field Procedures Manual. 1989. Data Acquisition and Instrumentation Group, Physical Oceanography Division, VIMS.

Instrument Calibration Manual. 1989. Data Acquistion and Instrumentation Group, Physical Oceanography Division, VIMS.

Laboratory Procedures Manual. 1989. Nutrient Analysis Laboratory, Physical Oceanography Division, VIMS.

ASTM D 3731-79: Standard Practices for Measurement of Chlorophyll Content of Algae in Surface Waters. In: 1979 Annual Book of ASTM Standards, Part31, Water. American Society for Testing and Materials, Philadelphia, Pennslyvania.

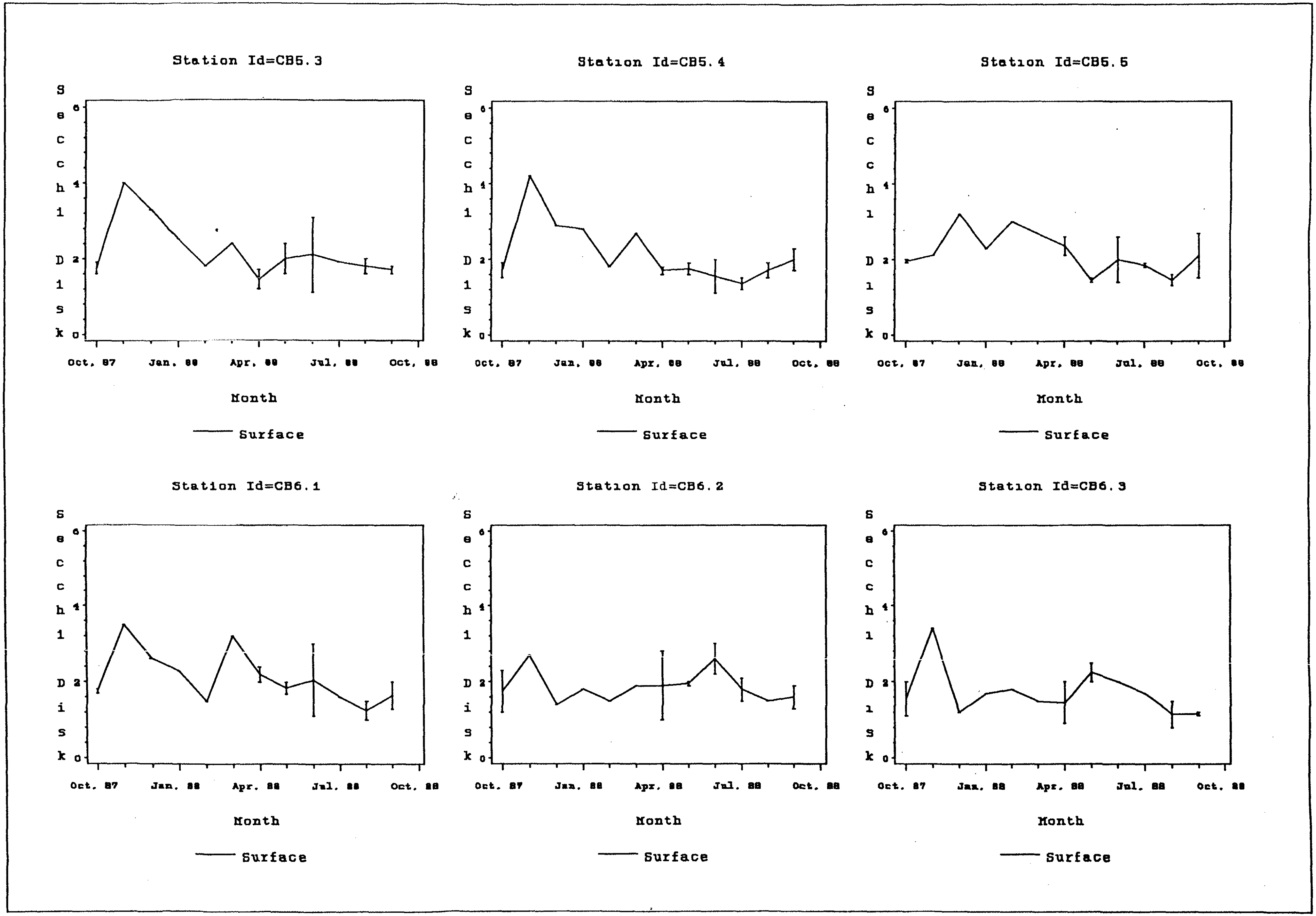
UNESCO, 1983. UNESCO Technical Papers in Marine Science 44. Algorithms for Computation of Fundamental Properities of Seawater.

SECCHI DISK

Values reported as meters.

Secchi Disk
October, 1987 - September, 1988

	Secchi Disk (M)		
	Max	Mean	Min
CB5.3............	4.00	2.07	1.10
CB5.4............	4.20	1.99	1.10
CB5.5............	3.20	2.05	1.30
CB6.1............	3.50	1.99	1.00
CB6.2............	3.00	1.87	1.00
CB6.3............	3.40	1.69	0.80
CB6.4............	3.40	2.07	1.30
CB7.3............	3.80	2.35	1.10
CB7.4............	6.00	2.96	2.00
CB7.4N...........	4.80	2.55	1.20
CB8.1E...........	4.00	2.25	1.00
CB8.1............	3.30	1.86	1.10
EE3.1............	2.80	1.23	0.30
EE3.2............	2.80	1.54	0.90
CB7.1N...........	2.90	1.79	1.10
CB7.1............	3.30	2.03	1.40
CB7.1S...........	3.50	2.10	1.10
CB5.4W...........	3.60	1.68	0.80
CB7.2............	3.00	2.16	1.30
CB7.2E...........	3.20	2.23	1.00
CB7.3E...........	4.00	2.32	1.40
LE3.6............	3.00	1.87	0.90
LE3.7............	2.90	1.81	1.10
WE4.1............	3.60	1.61	0.80
WE4.2............	2.30	1.54	1.00
WE4.3............	2.80	1.71	0.80
WE4.4............	2.60	1.30	0.80
LE5.5............	2.20	1.33	1.00



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2
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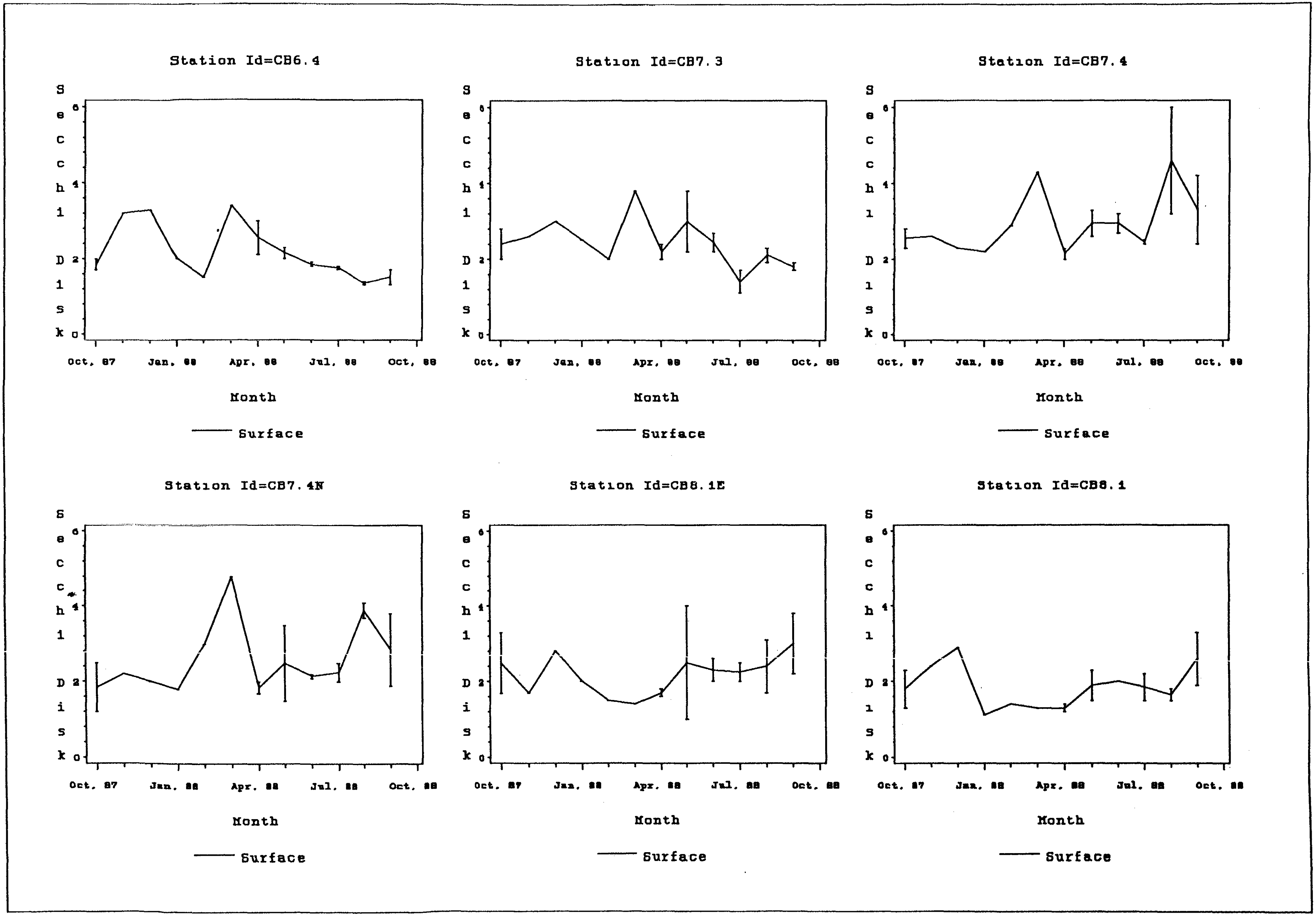
6
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface



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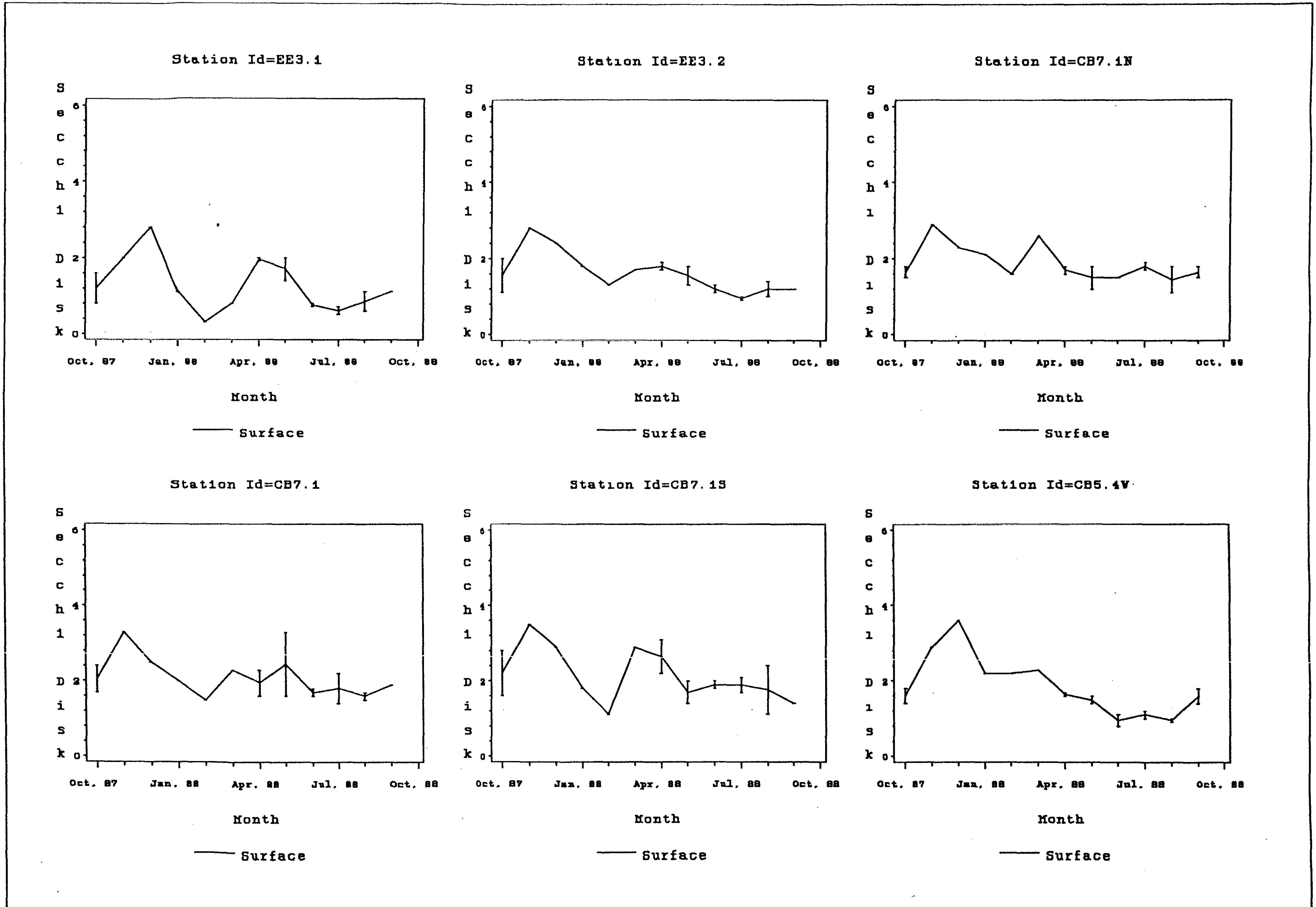
Jul. 88
Oct. 88
Month
Surface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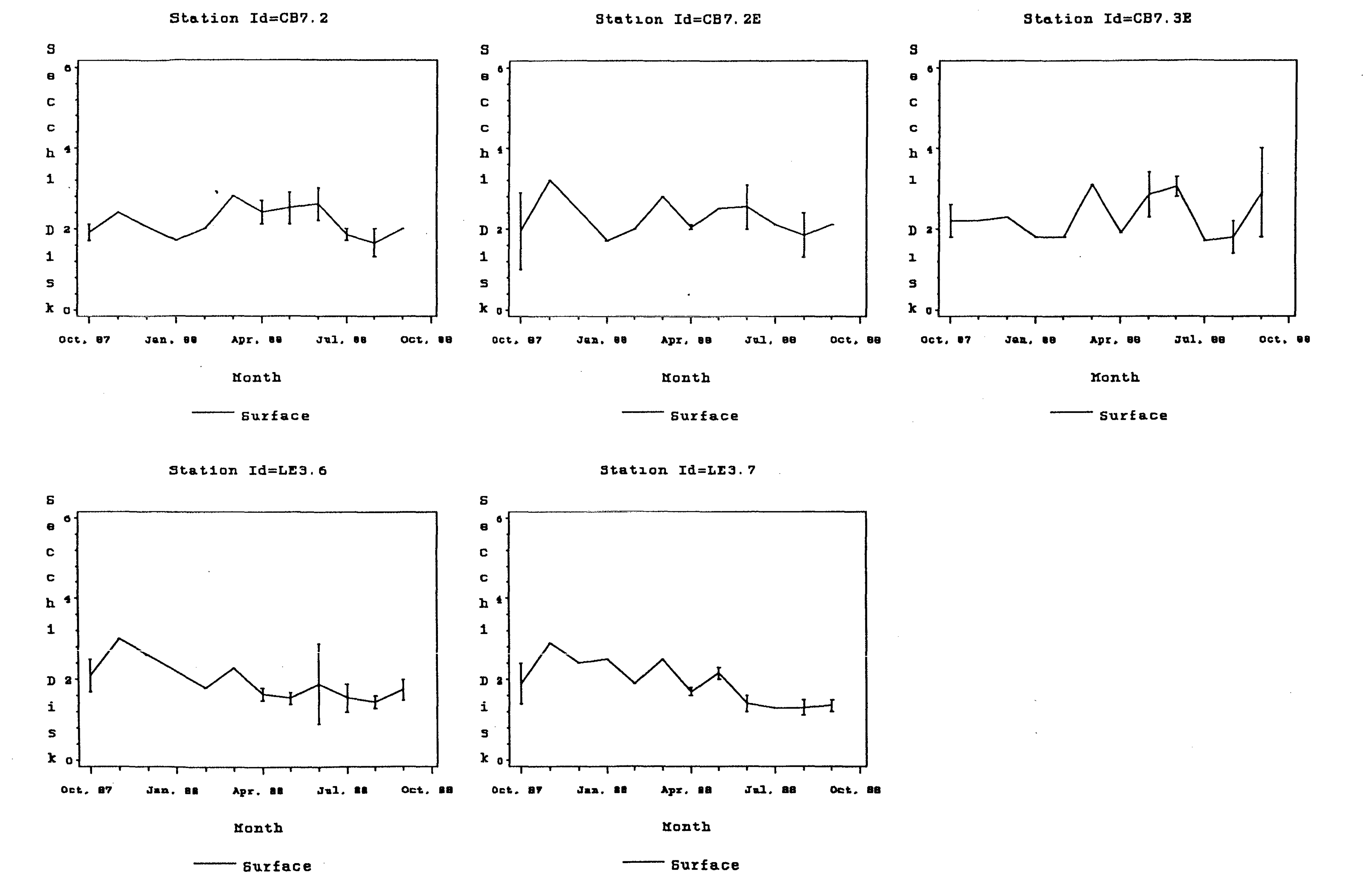
Jul. 88
Oct. 88
Month
Surface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Secchi Disk
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0
2
4
6
Oct. 87
Jan. 88
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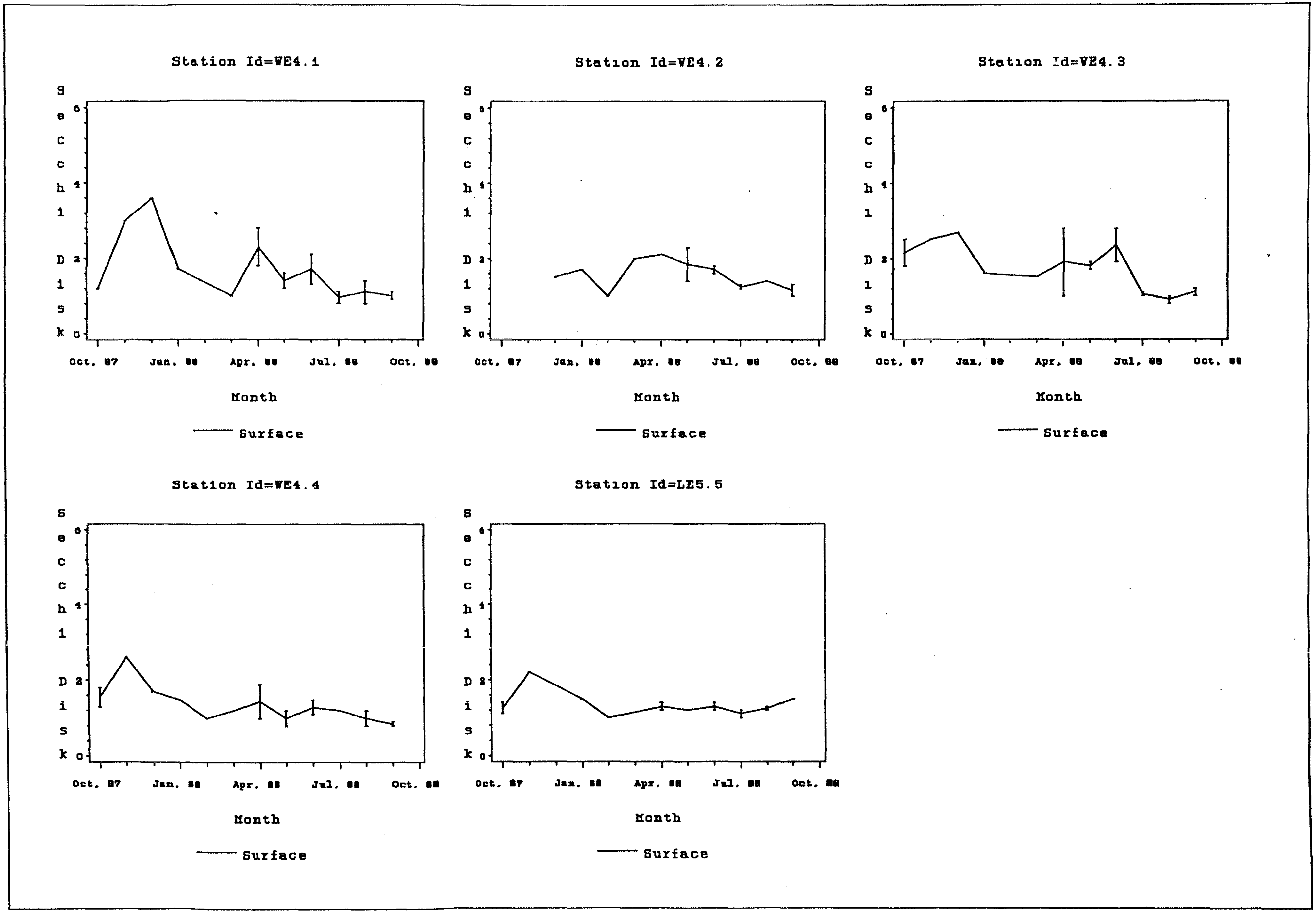
Jul. 88
Oct. 88
Month
Month
Month
Month
Month
Surface
Surface
Surface
Surface
Surface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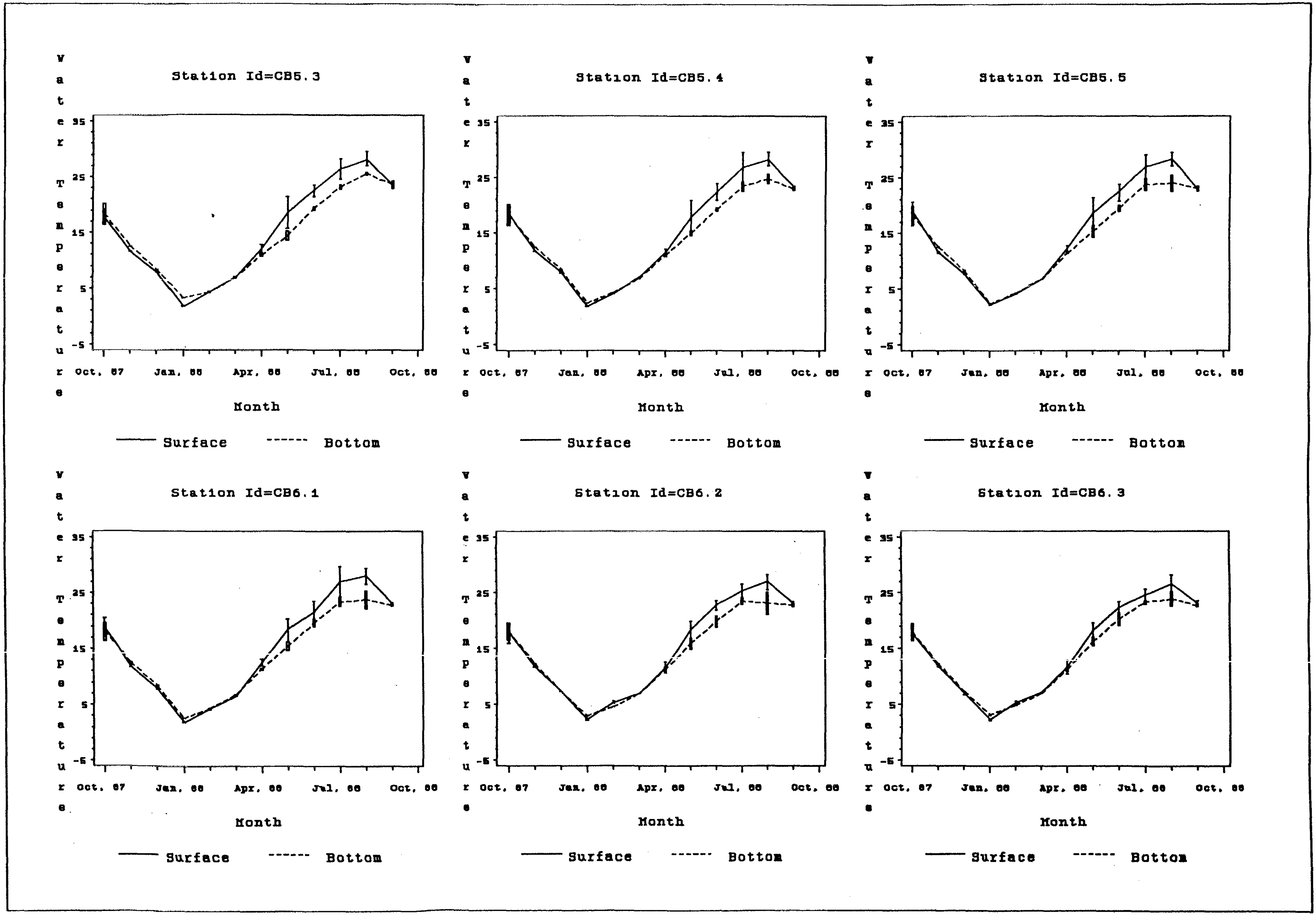
2
4
6
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface

WATER TEMPERATURE

Values reported as degrees Centigrade.

Water Temperature
October, 1987 - September, 1988

	Water Temperature (°C)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3............	29.53	18.66	1.70	25.75	16.02	3.18
CB5.4............	29.60	18.69	1.75	25.54	15.78	2.45
CB5.5............	29.55	18.86	2.12	25.49	16.02	2.24
CB6.1............	29.71	18.65	1.83	25.34	15.93	2.58
CB6.2............	28.25	18.40	2.20	25.00	15.91	2.86
CB6.3............	28.12	18.15	2.20	24.99	16.05	3.11
CB6.4............	27.73	17.31	2.69	23.97	15.69	2.48
CB7.3............	28.25	16.44	2.79	22.37	14.84	3.08
CB7.4............	25.17	15.74	2.75	21.50	14.28	2.99
CB7.4N...........	25.72	16.33	1.00	24.31	15.83	1.40
CB8.1E...........	26.11	16.54	1.86	21.01	14.22	3.68
CB8.1............	27.38	16.79	2.12	25.99	15.24	3.09
EE3.1............	29.85	18.76	0.22	29.24	16.57	0.22
EE3.2............	28.65	18.01	0.82	27.82	16.39	1.16
CB7.1N...........	29.16	18.35	1.30	26.79	15.47	2.87
CB7.1............	28.64	18.29	1.75	26.07	16.02	2.89
CB7.1S...........	28.55	18.47	1.70	25.05	16.02	2.93
CB5.4W...........	30.61	19.23	0.99	28.56	17.09	0.65
CB7.2............	28.68	18.75	2.44	24.89	16.38	3.07
CB7.2E...........	28.75	18.34	2.23	25.76	16.46	3.00
CB7.3E...........	27.48	16.83	2.66	25.57	15.95	2.31
LE3.6............	29.39	19.01	1.73	28.15	16.90	1.79
LE3.7............	28.80	19.15	1.07	28.73	17.00	0.96
WE4.1............	28.56	18.71	1.39	28.59	17.17	1.48
WE4.2............	28.75	18.36	1.77	25.04	15.96	3.26
WE4.3............	30.54	18.70	0.00	29.91	16.92	0.00
WE4.4............	30.00	18.76	-1.50	29.99	17.24	-1.50
LE5.5............	29.63	17.65	1.91	22.73	16.17	3.60



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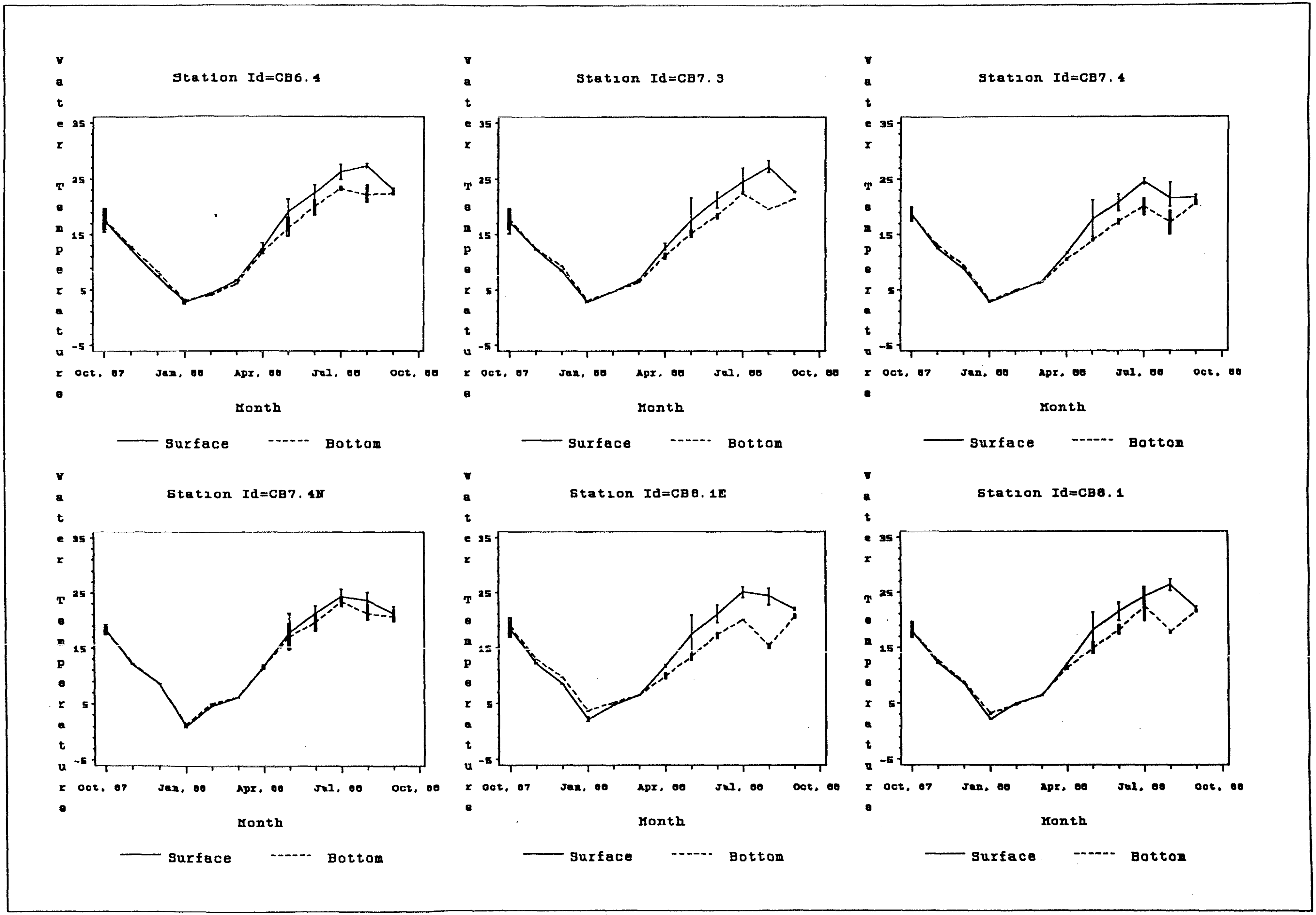
5
15
25
35
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom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Oct, 87
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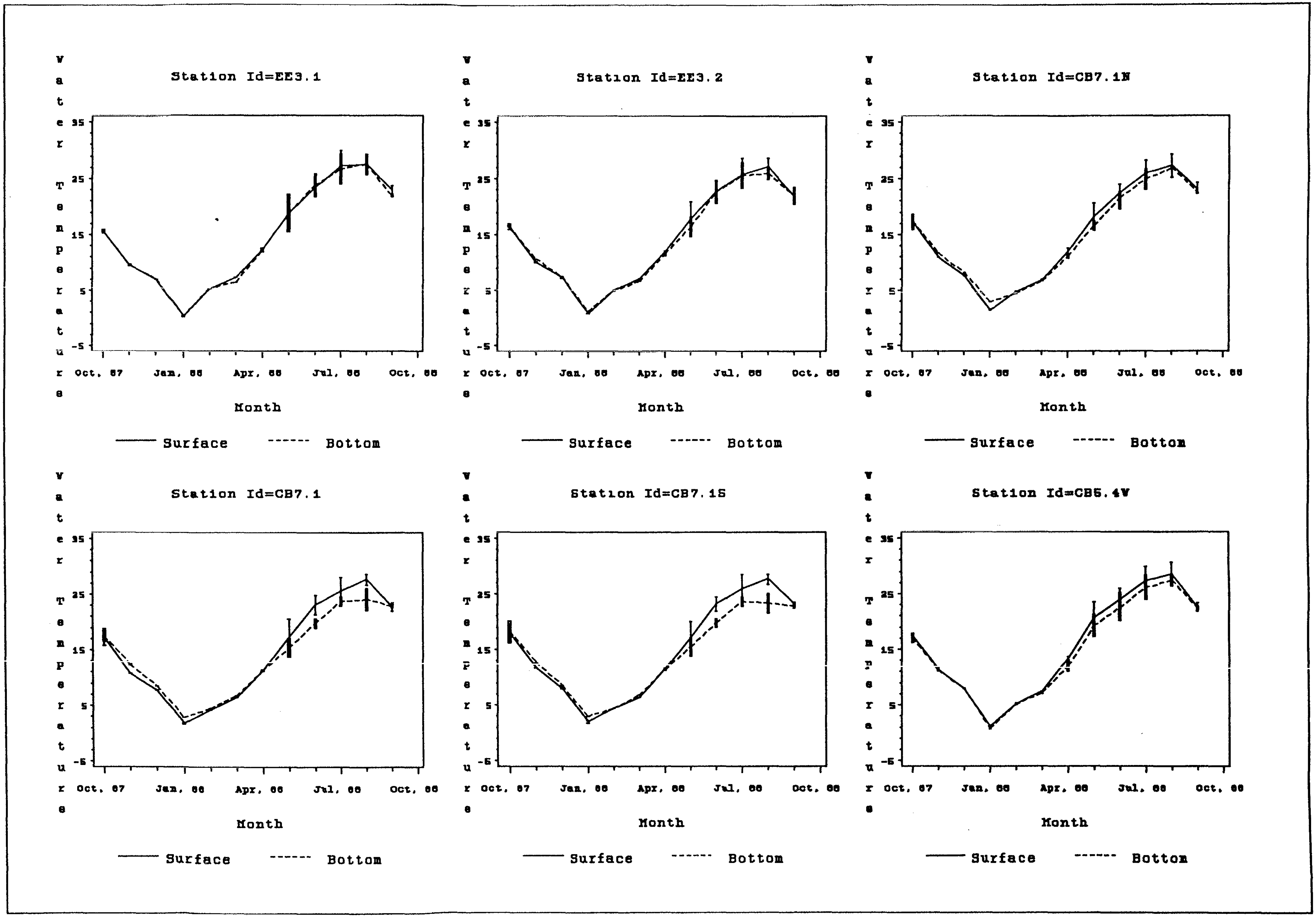
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom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Oct, 87
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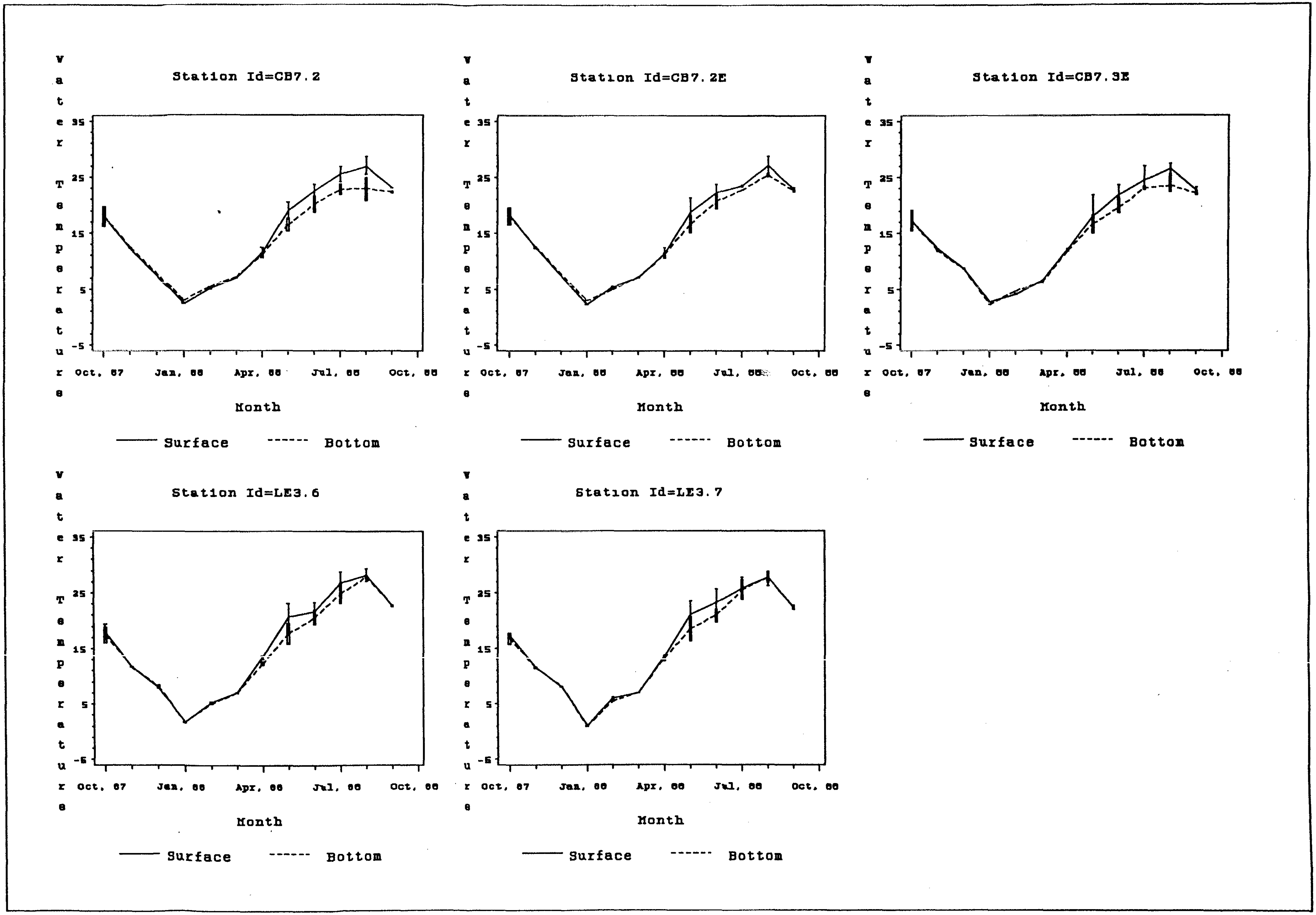
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom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Month
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Station Id=LE3.6
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Month
Surface
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Month
Surface
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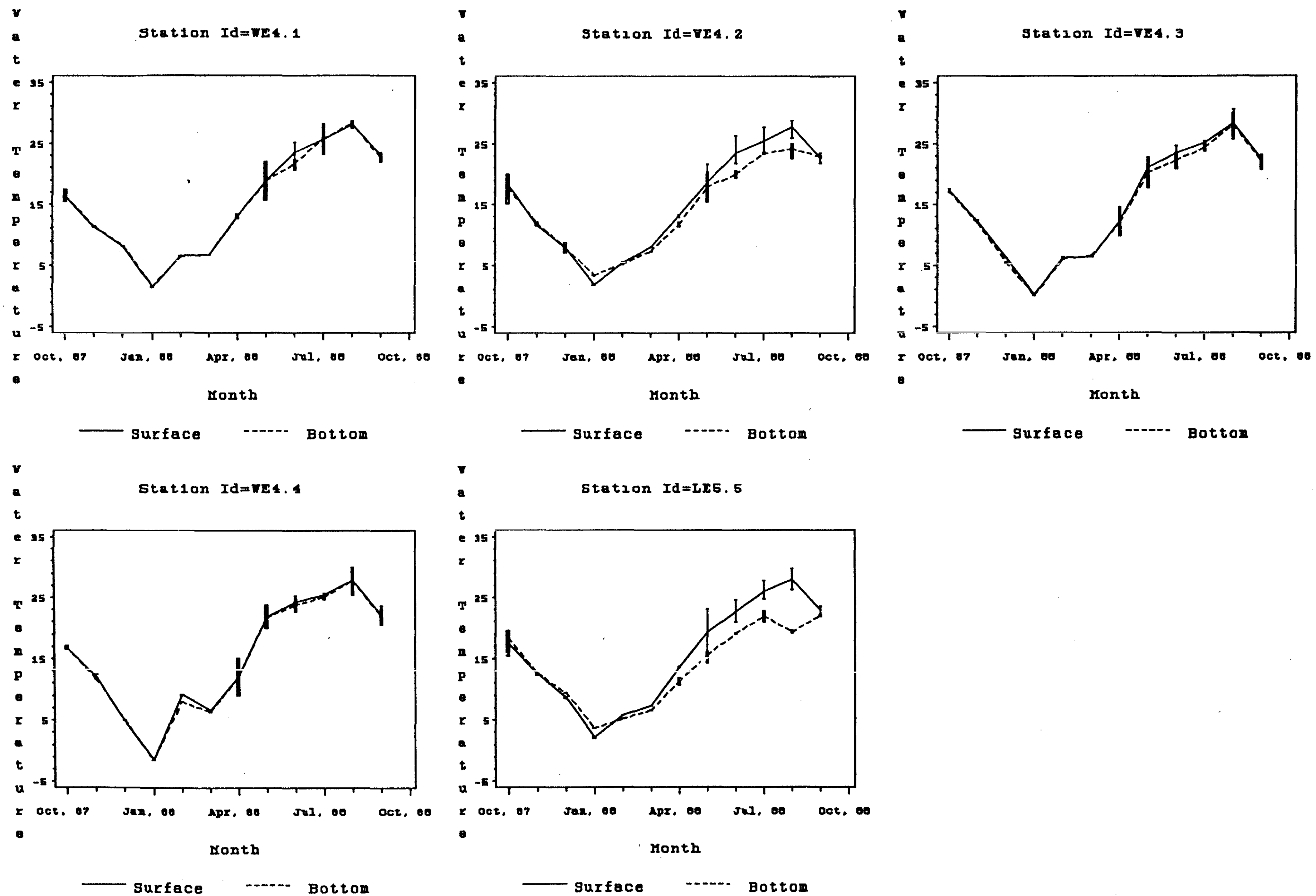

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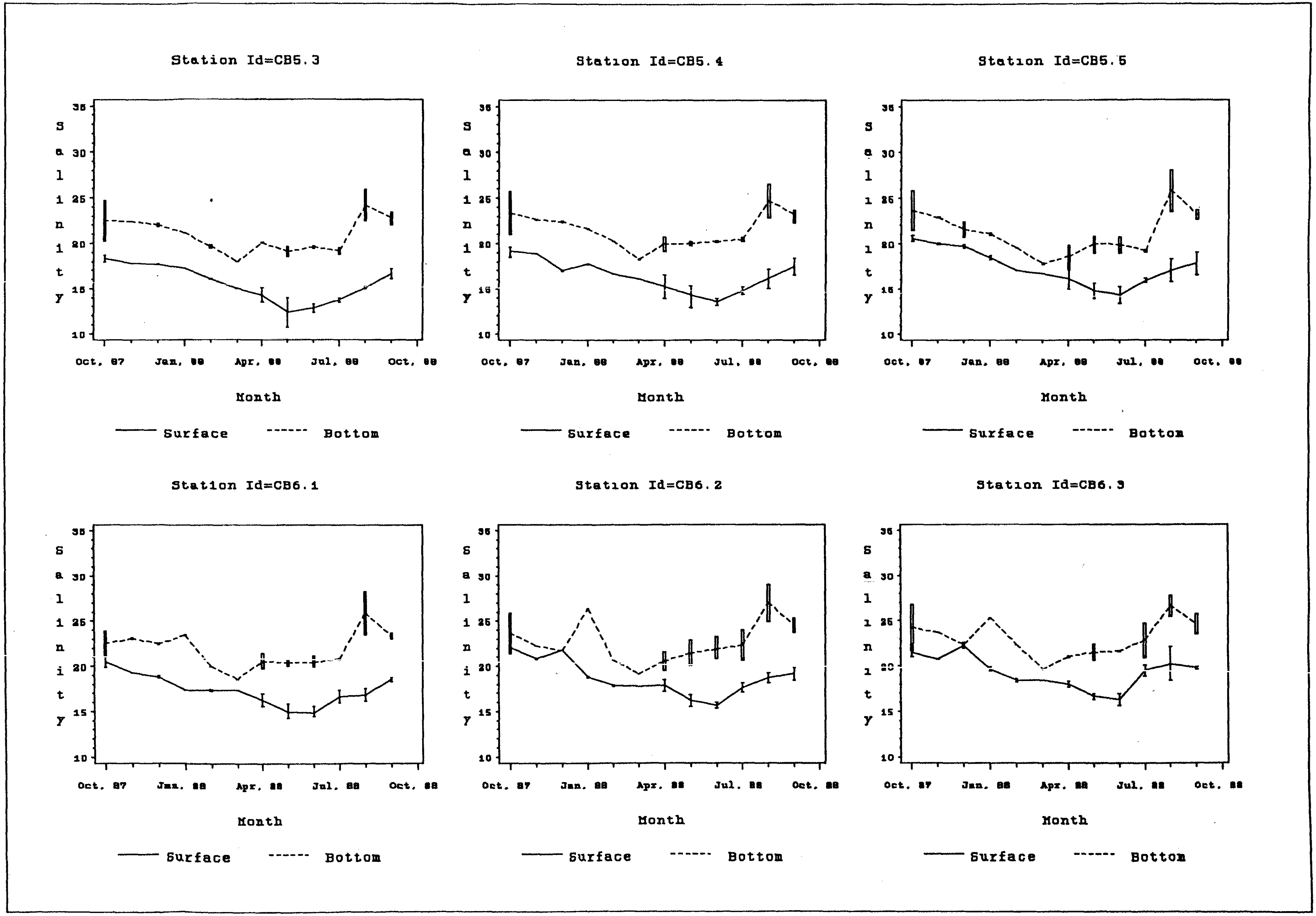
Station Id=WE4.3
Station Id=WE4.4
Station Id=LE5.5
Water Temperature
35
25
15
5
-5
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom

SALINITY

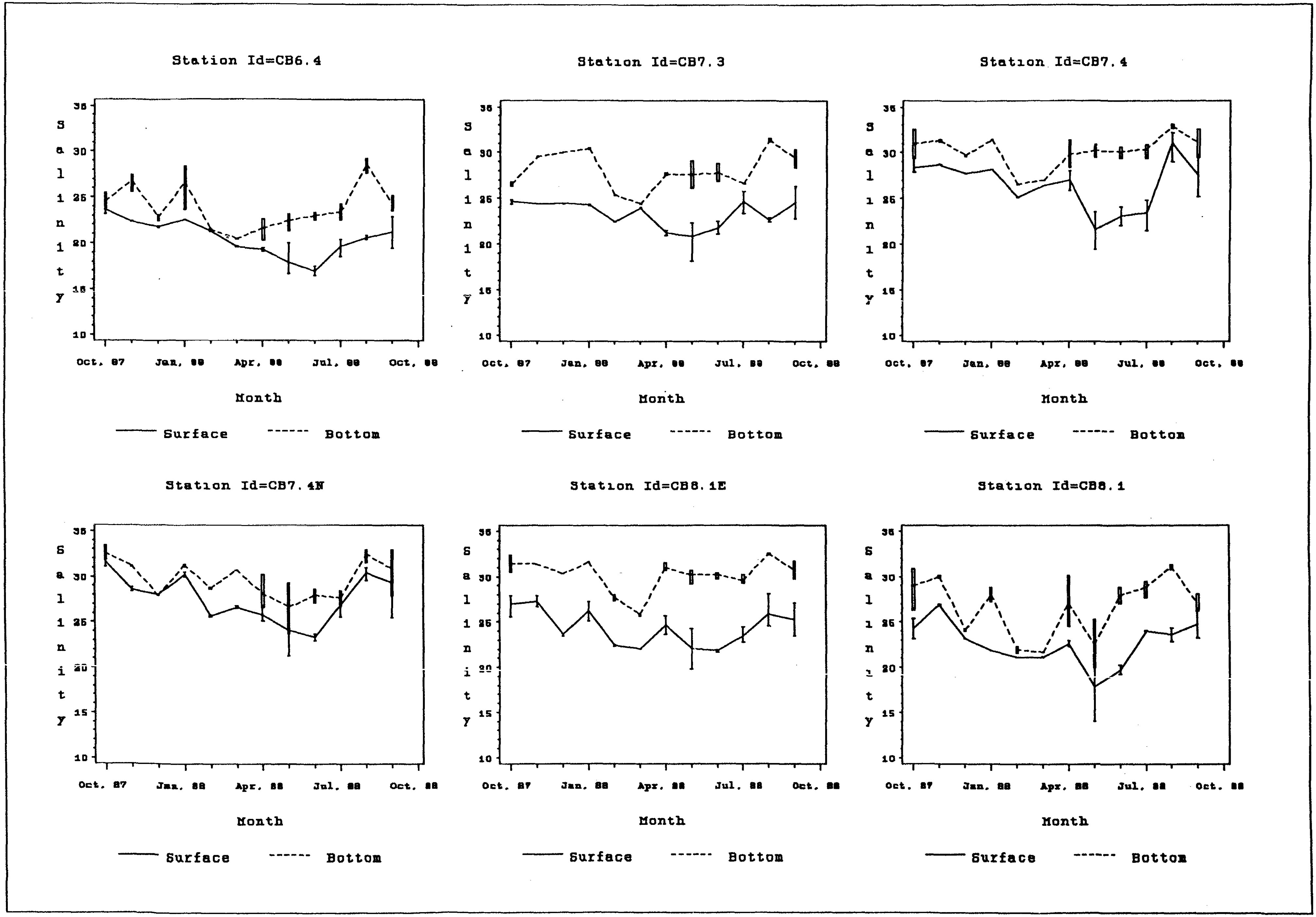
Salinity is calculated using UNESCO 83 EOS and is reported as practical salinity (PS).

Salinity
October, 1987 - September, 1988

	Salinity (PS)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3............	18.72	15.16	10.72	25.91	20.94	17.94
CB5.4............	19.59	16.08	12.92	26.61	21.52	18.29
CB5.5............	20.93	16.96	13.44	28.06	21.25	17.23
CB6.1............	21.12	17.23	14.32	28.31	21.91	18.65
CB6.2............	22.97	18.38	15.34	29.06	22.78	19.16
CB6.3............	22.56	19.11	15.62	27.87	23.11	19.65
CB6.4............	24.10	20.35	16.50	29.20	24.06	20.30
CB7.3............	26.30	23.18	18.10	31.50	28.15	24.40
CB7.4............	32.20	26.17	19.40	33.10	30.33	26.50
CB7.4N...........	32.70	27.49	21.30	33.40	29.60	23.70
CB8.1E...........	28.10	24.31	19.80	32.60	30.43	25.70
CB8.1............	27.00	22.46	14.10	31.40	26.88	20.00
EE3.1............	20.92	17.83	14.98	20.92	18.02	14.99
EE3.2............	21.58	18.62	16.76	26.54	19.92	17.02
CB7.1N...........	19.93	17.31	14.88	26.77	19.62	16.76
CB7.1............	21.25	18.54	16.00	28.83	22.33	18.64
CB7.1S...........	21.66	18.55	14.58	29.03	23.56	19.38
CB5.4W...........	19.49	15.81	12.87	19.61	16.29	13.59
CB7.2............	24.13	19.65	15.54	29.41	25.57	17.54
CB7.2E...........	24.61	20.81	15.84	27.06	23.84	20.89
CB7.3E...........	26.50	23.16	17.70	31.30	26.74	23.70
LE3.6............	19.70	16.56	11.15	20.63	17.57	13.56
LE3.7............	19.74	16.85	10.18	20.03	17.44	11.56
WE4.1............	22.69	20.64	18.01	23.93	20.84	18.15
WE4.2............	22.87	20.40	16.92	28.16	22.82	18.98
WE4.3............	23.62	20.92	16.92	24.56	21.00	17.60
WE4.4............	23.12	20.87	17.53	24.08	20.97	17.78
LE5.5............	25.00	21.06	16.50	30.60	26.36	20.40



Station Id=CB5.3
Station Id=CB5.4
Station Id=CB5.5
Station Id=CB6.1
Station Id=CB6.2
Station Id=CB6.3
Salinity
10
15
20
25
30
35
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom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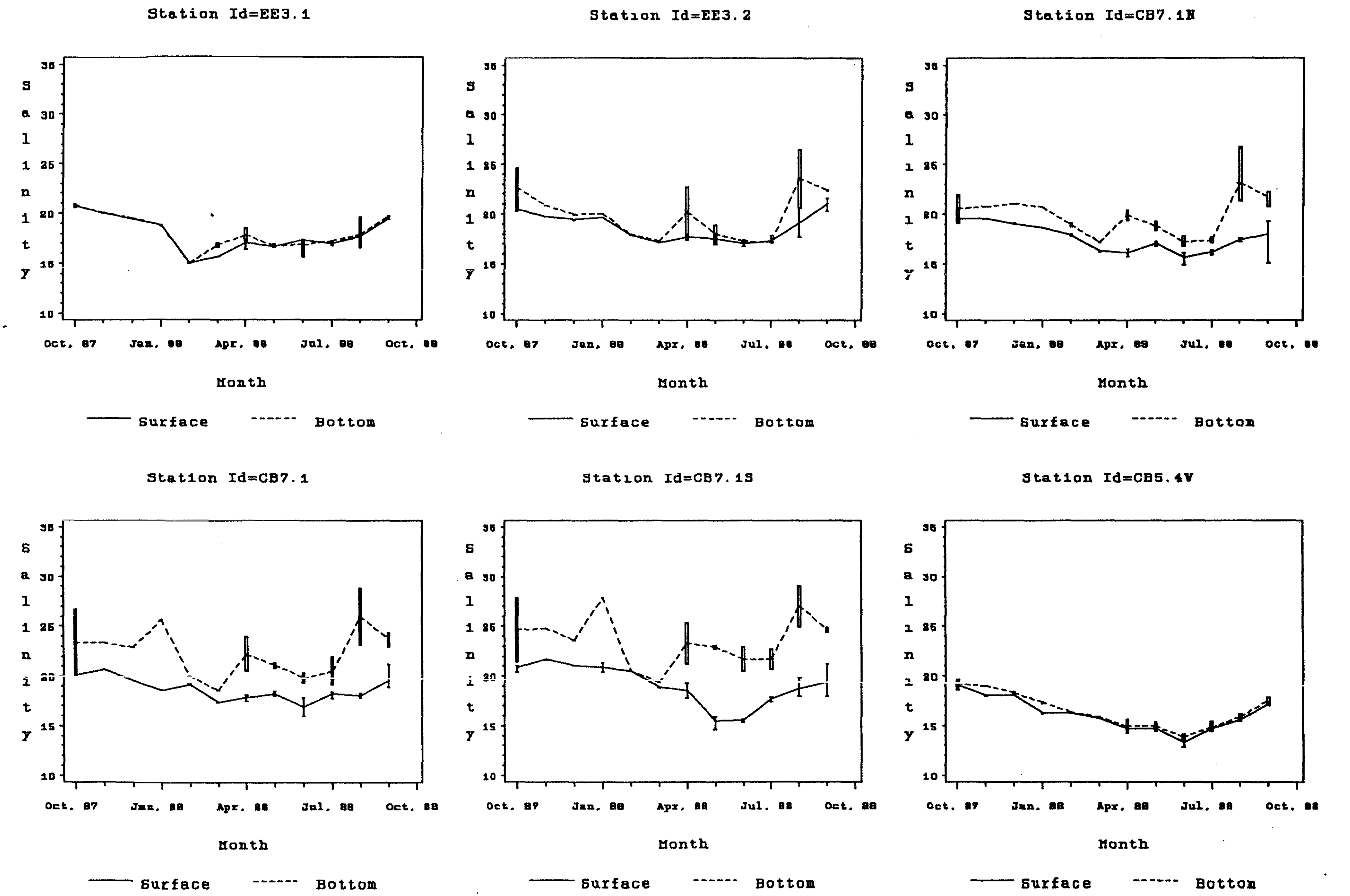
Station Id=CB7.4
Station Id=CB7.4N
Station Id=CB8.1E
Station Id=CB8.1
Salinity
35
30
25
20
15
10
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom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Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB5.4W
Salinity
Month
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
10
15
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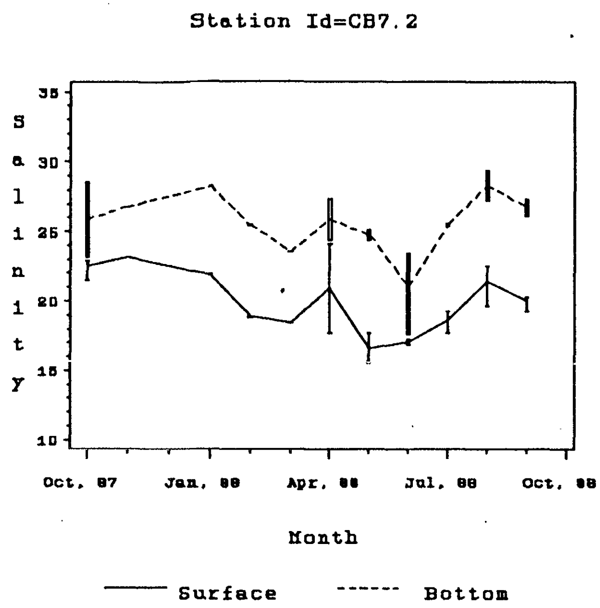
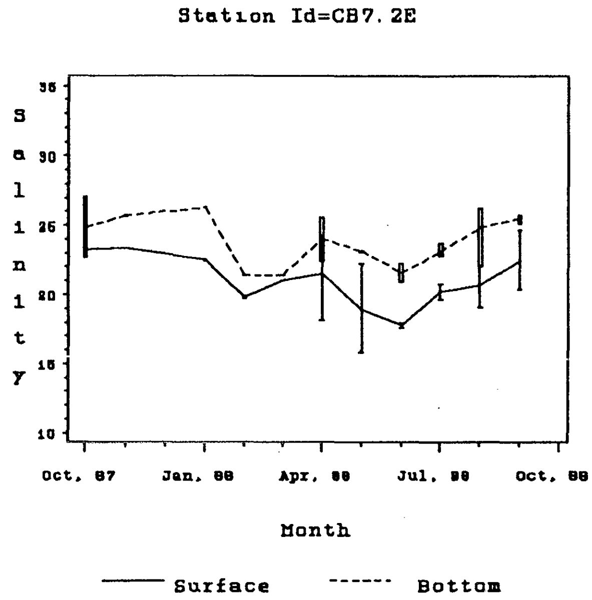
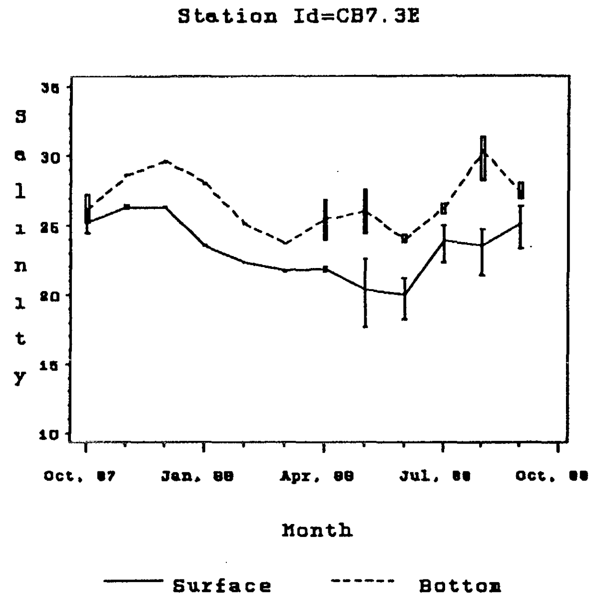
25
30
35
Surface
Bottom


Station Id=CB7.2
Salinity
35
30
25
20
15
10
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=CB7.2E
Salinity
35
30
25
20
15
10
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom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Salinity
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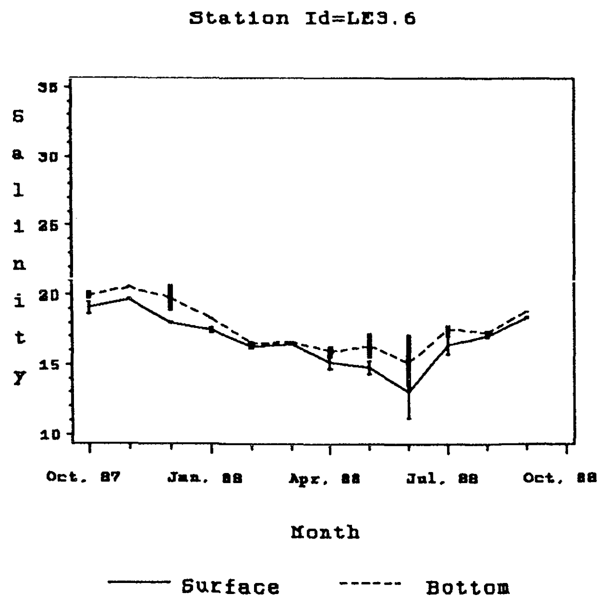
30
25
20
15
10
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=LE3.6
Salinity
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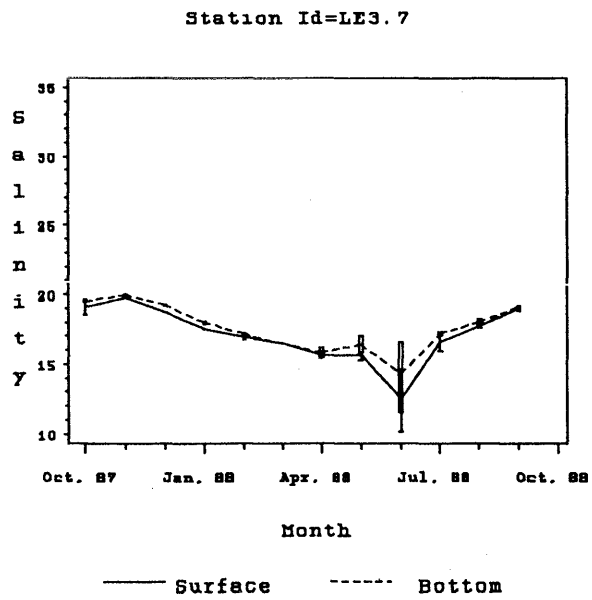
30
25
20
15
10
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom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Salinity
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30
25
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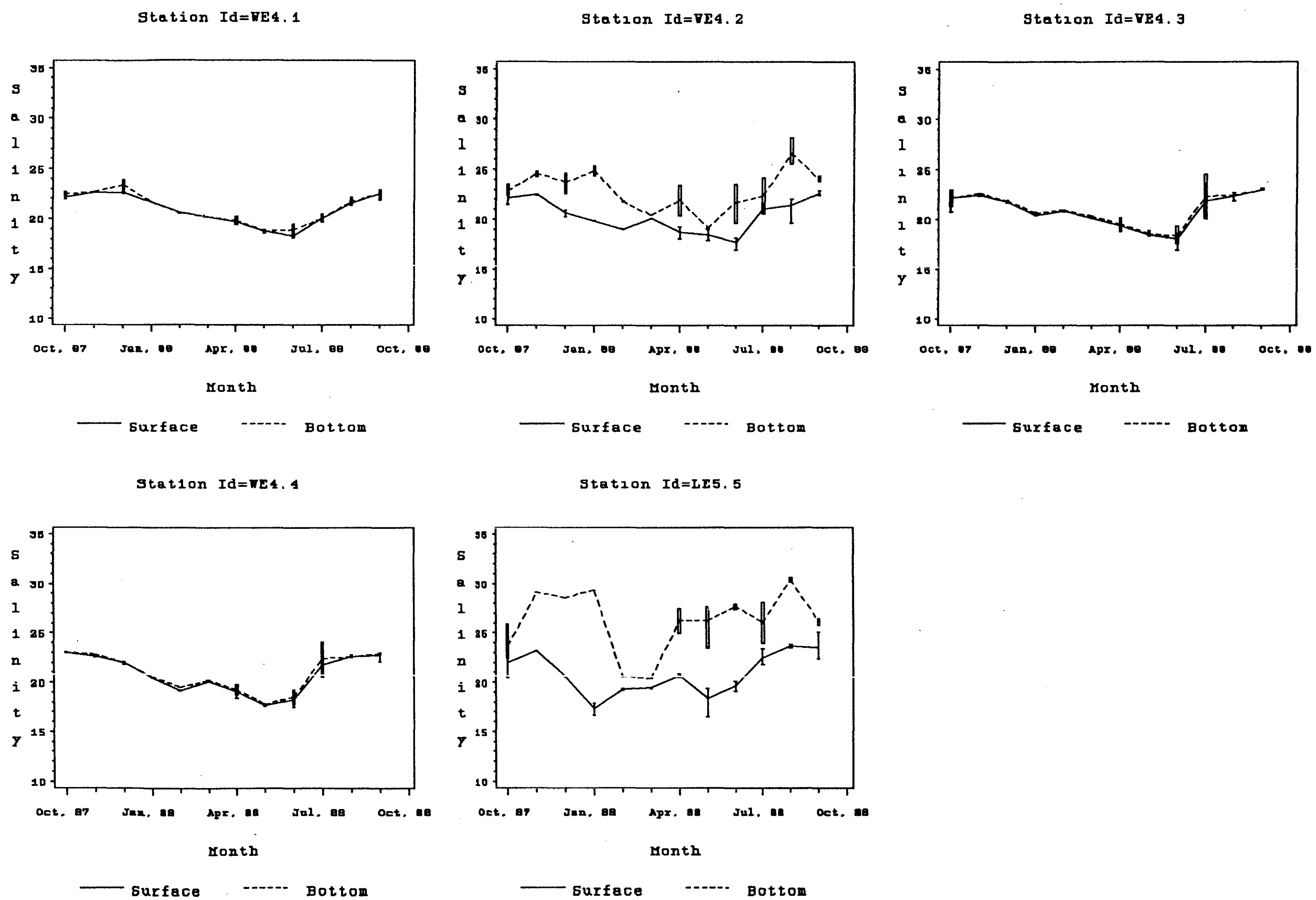
15
10
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom



Station Id=WE4.1
Station Id=WE4.2
Station Id=WE4.3
Station Id=WE4.4
Station Id=LE5.5
Salinity
35
30
25
20
15
10
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom

DISSOLVED OXYGEN

Values reported as mg/l.

* When no observations were made at a station (Total Obs. = 0) no percentages can be calculated.

Dissolved Oxygen
October, 1987 - September, 1988

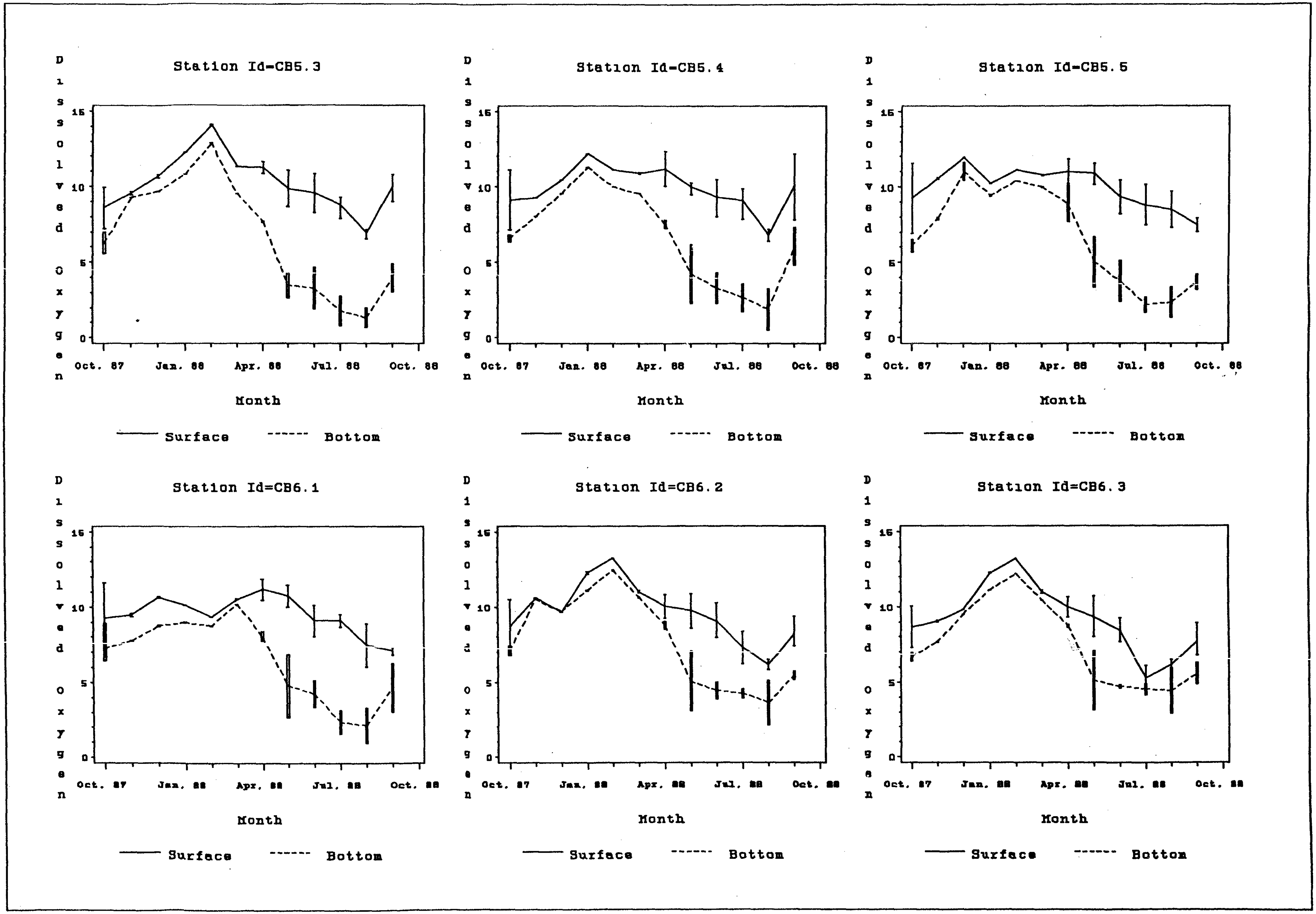
	Dissolved Oxygen (mg/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3...........	14.08	9.88	6.52	12.84	5.66	0.66
CB5.4...........	12.34	9.75	6.43	11.27	5.95	0.53
CB5.5...........	11.96	9.76	6.92	11.61	6.75	1.34
CB6.1...........	11.92	9.40	6.06	10.23	5.88	0.95
CB6.2...........	13.25	9.21	5.82	12.48	6.86	2.15
CB6.3...........	13.19	8.72	4.90	12.17	6.80	2.91
CB6.4...........	12.83	9.04	6.97	11.85	6.66	3.14
CB7.3...........	12.60	8.90	6.95	10.90	7.75	5.80
CB7.4...........	11.80	8.72	6.93	10.78	8.07	6.50
CB7.4N..........	12.63	8.48	7.07	11.40	8.10	6.85
CB8.1E..........	11.89	8.52	6.72	10.44	7.68	6.12
CB8.1...........	12.50	8.42	5.84	11.31	7.76	5.69
EE3.1...........	12.83	8.76	5.93	12.82	8.49	5.41
EE3.2...........	12.23	8.37	5.11	12.76	7.44	1.73
CB7.1N..........	13.80	9.03	6.71	12.94	7.13	1.28
CB7.1...........	12.04	8.99	7.23	10.42	6.38	2.45
CB7.1S..........	12.24	9.21	6.10	11.35	6.77	3.70
CB5.4W..........	12.85	9.05	6.62	12.76	8.47	3.02
CB7.2...........	13.08	9.05	6.68	11.41	7.20	4.36
CB7.2E..........	12.90	8.78	6.45	12.77	7.45	4.44
CB7.3E..........	12.64	8.41	6.27	11.27	7.55	4.90
LE3.6...........	13.20	9.10	5.99	13.10	7.71	3.60
LE3.7...........	12.86	9.04	6.01	13.01	7.89	2.35
WE4.1...........	12.72	8.34	5.98	12.72	7.93	4.30
WE4.2...........	11.76	8.30	5.99	10.82	6.64	2.03
WE4.3...........	13.14	8.58	5.29	13.12	8.07	4.21
WE4.4...........	12.10	8.29	5.43	12.23	8.13	5.13
LE5.5...........	13.67	9.19	6.59	11.84	7.02	5.34

Dissolved Oxygen
October, 1987 - September, 1988

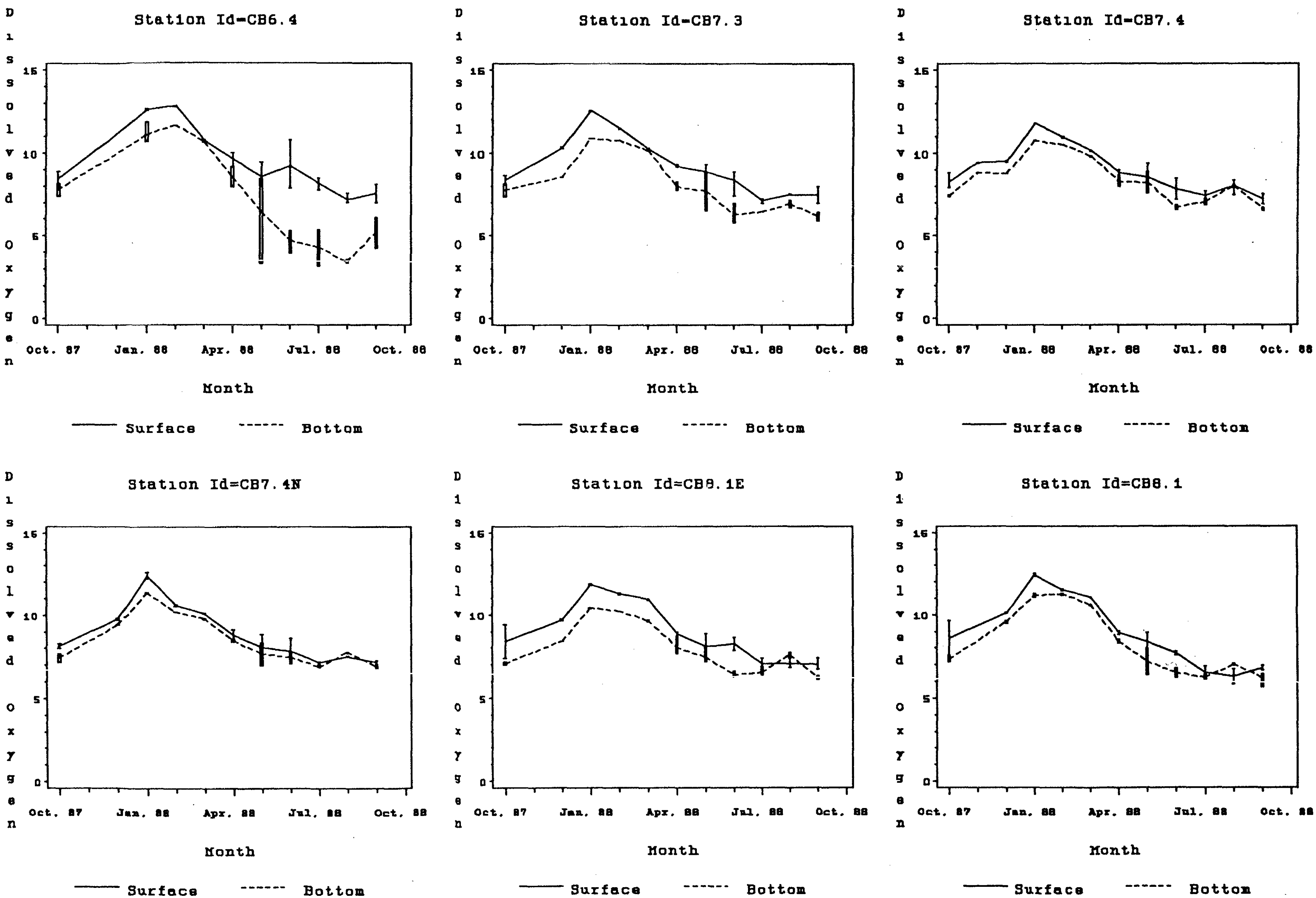
	CB7.4N	CB7.4	CB8.1E	CB8.1	CB7.3	CB7.3E	CB6.4	CB6.3	CB7.2	CB7.2E	CB6.2	CB6.1	CB5.5	CB5.4	CB5.3
Oct, 1987															
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Obs......	26	26	34	21	24	32	20	23	37	26	20	24	31	48	38
Nov, 1987															
% < 5..........	*	0.00	*	*	*	*	*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% < 4..........	*	0.00	*	*	*	*	*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Obs......	0	14	0	0	0	0	0	12	18	12	10	12	15	22	17
Dec, 1987															
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	*	0.00	*	*	0.00	0.00	0.00	0.00	0.00
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	*	0.00	*	*	0.00	0.00	0.00	0.00	0.00
Total Obs......	12	14	16	8	12	18	0	4	0	0	4	12	15	24	18
Jan, 1988															
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Obs......	10	11	16	7	12	12	10	13	19	13	11	13	15	22	21
Feb, 1988															
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Obs......	14	11	17	9	11	16	11	8	18	12	10	11	18	25	19
Mar, 1988															
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Obs......	15	16	17	9	14	16	11	12	18	12	9	12	15	23	18
Apr, 1988															
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Obs......	20	25	31	18	27	36	19	23	38	27	22	24	30	47	37
May, 1988															
% < 5..........	0.00	0.00	0.00	0.00	0.00	3.03	15.79	20.83	27.78	12.00	14.29	36.00	15.62	38.78	33.33
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	15.79	16.67	0.00	0.00	9.52	32.00	15.62	26.53	19.44
Total Obs......	24	26	34	18	25	33	19	24	36	25	21	25	32	49	36
Jun, 1988															
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	10.00	60.00	2.78	0.00	40.91	23.08	41.18	72.92	41.67
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	27.27	23.08	20.59	22.92	22.22
Total Obs......	25	25	32	16	24	32	20	25	36	24	22	26	34	48	36
Jul, 1988															
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	29.41	75.00	27.78	0.00	57.14	50.00	40.62	74.00	62.50
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	29.41	0.00	0.00	0.00	23.81	41.67	37.50	58.00	57.50
Total Obs......	27	25	34	18	23	28	17	24	36	15	21	24	32	50	40
Aug, 1988															
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	52.63	33.33	27.03	30.77	22.73	48.00	54.29	55.81	57.50
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	47.37	29.17	0.00	0.00	22.73	44.00	48.57	51.16	52.50
Total Obs......	22	25	35	18	32	34	19	24	37	26	22	25	35	43	40
Sep, 1988															
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	15.79	26.92	0.00	7.69	0.00	20.00	30.30	4.44	21.62
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	12.12	0.00	5.41
Total Obs......	29	24	34	19	23	34	19	26	37	26	20	25	33	45	37

Dissolved Oxygen
October, 1987 - September, 1988

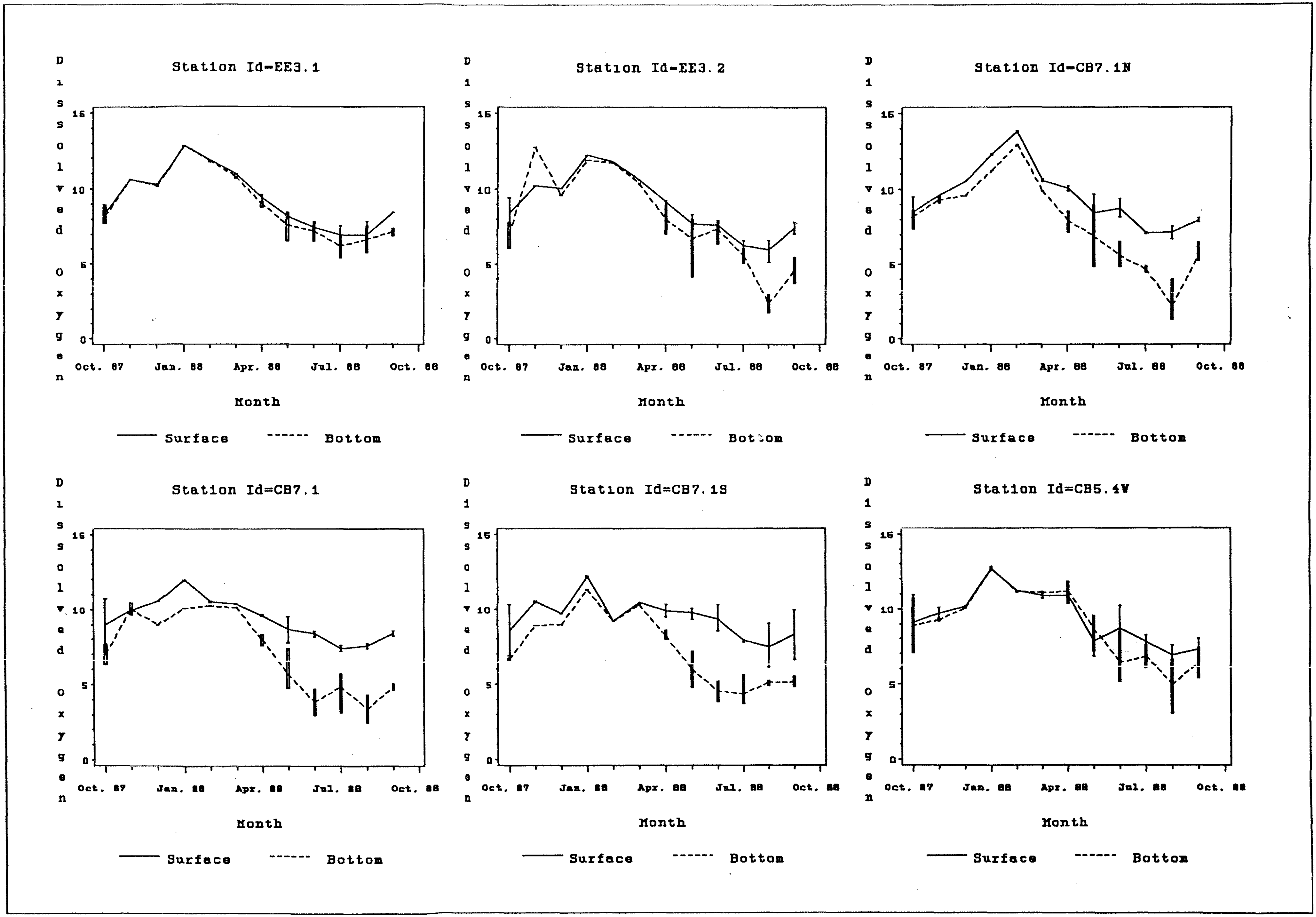
	CB7.1S	CB7.1	CB7.1N	EE3.2	EE3.1	CB5.4W	LE3.6	LE3.7	WE4.1	WE4.2	WE4.3	WE4.4	LE5.5
Oct, 1987													
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Obs......	32	40	45	41	8	8	17	14	8	14	10	15	37
Nov, 1987													
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*
Total Obs......	16	19	25	20	5	5	9	7	5	12	5	7	0
Dec, 1987													
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Obs......	8	13	15	12	3	5	5	8	6	15	3	3	19
Jan, 1988													
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Obs......	16	20	24	21	4	5	9	7	6	12	4	7	18
Feb, 1988													
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Obs......	13	20	23	21	4	5	8	7	5	16	4	7	17
Mar, 1988													
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Obs......	12	20	25	21	3	4	9	3	5	16	5	7	21
Apr, 1988													
% < 5..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Obs......	29	40	44	41	8	9	18	14	10	24	10	14	32
May, 1988													
% < 5..........	25.00	10.26	17.39	24.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% < 4..........	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Obs......	32	39	46	41	9	9	19	15	10	24	10	12	36
Jun, 1988													
% < 5..........	35.71	43.90	4.00	0.00	0.00	0.00	5.26	14.29	27.27	30.77	10.00	0.00	0.00
% < 4..........	17.86	31.71	0.00	0.00	0.00	0.00	5.26	0.00	0.00	26.92	0.00	0.00	0.00
Total Obs......	28	41	50	42	8	9	19	14	11	26	10	12	26
Jul, 1988													
% < 5..........	31.82	25.00	26.53	0.00	0.00	0.00	22.22	28.57	0.00	26.92	22.22	0.00	0.00
% < 4..........	27.27	20.00	0.00	0.00	0.00	0.00	0.00	7.14	0.00	23.08	0.00	0.00	0.00
Total Obs......	22	40	49	41	8	9	18	14	9	26	9	13	40
Aug, 1988													
% < 5..........	12.50	71.43	77.78	78.57	0.00	20.00	16.67	37.50	0.00	23.08	0.00	0.00	0.00
% < 4..........	0.00	54.76	64.44	69.05	0.00	20.00	0.00	0.00	0.00	15.38	0.00	0.00	0.00
Total Obs......	32	42	45	42	8	10	18	16	12	26	10	14	35
Sep, 1988													
% < 5..........	24.14	36.59	0.00	15.91	0.00	0.00	0.00	0.00	0.00	6.67	0.00	0.00	0.00
% < 4..........	0.00	0.00	0.00	6.82	0.00	0.00	0.00	0.00	0.00	3.33	0.00	0.00	0.00
Total Obs......	29	41	45	44	4	10	18	14	11	30	10	14	36

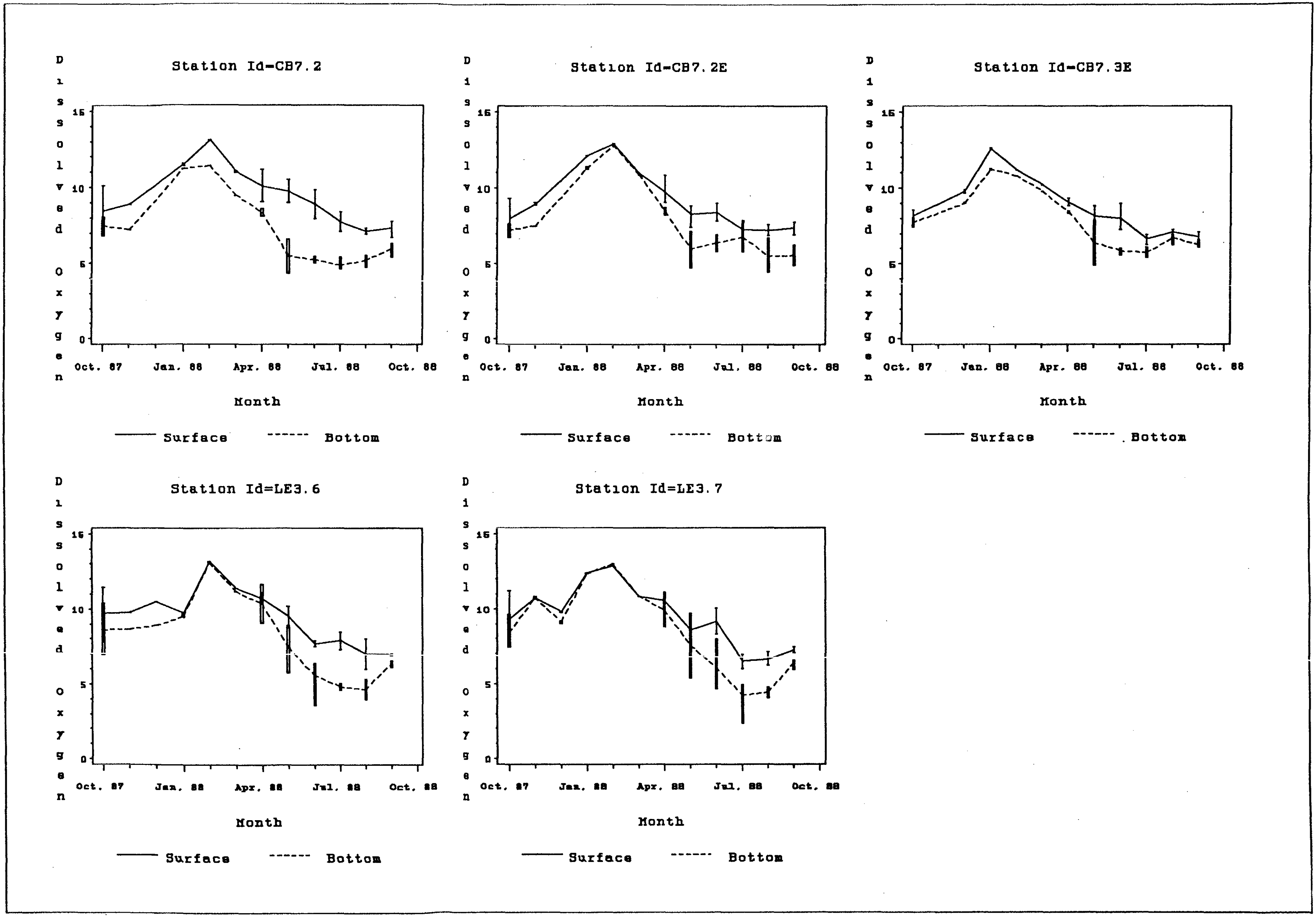


Station Id=CB5.3
Station Id=CB5.4
Station Id=CB5.5
Station Id=CB6.1
Station Id=CB6.2
Station Id=CB6.3
Dissolved Oxygen
Month
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
0
5
10
15
Surface
Bottom

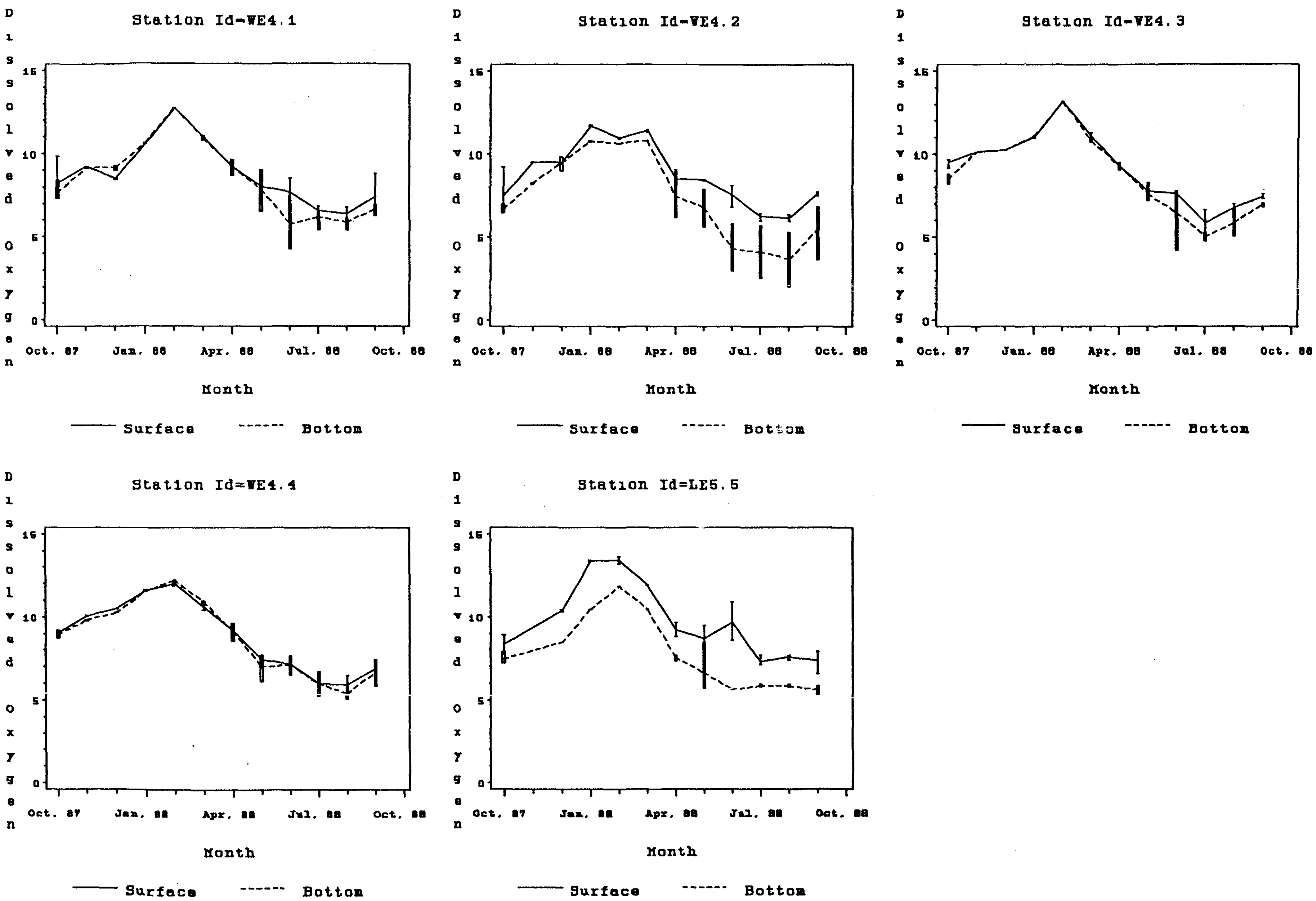


Station Id=CB6.4
Station Id=CB7.3
Station Id=CB7.4
Station Id=CB7.4N
Station Id=CB8.1E
Station Id=CB8.1
Dissolved Oxygen
0
5
10
15
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom


Station Id=EE3.1
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB5.4W
Dissolved Oxygen
0
5
10
15
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom



Station Id=CB7.2
Station Id=CB7.2E
Station Id=CB7.3E
Station Id=LE3.6
Station Id=LE3.7
Dissolved Oxygen
0
5
10
15
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

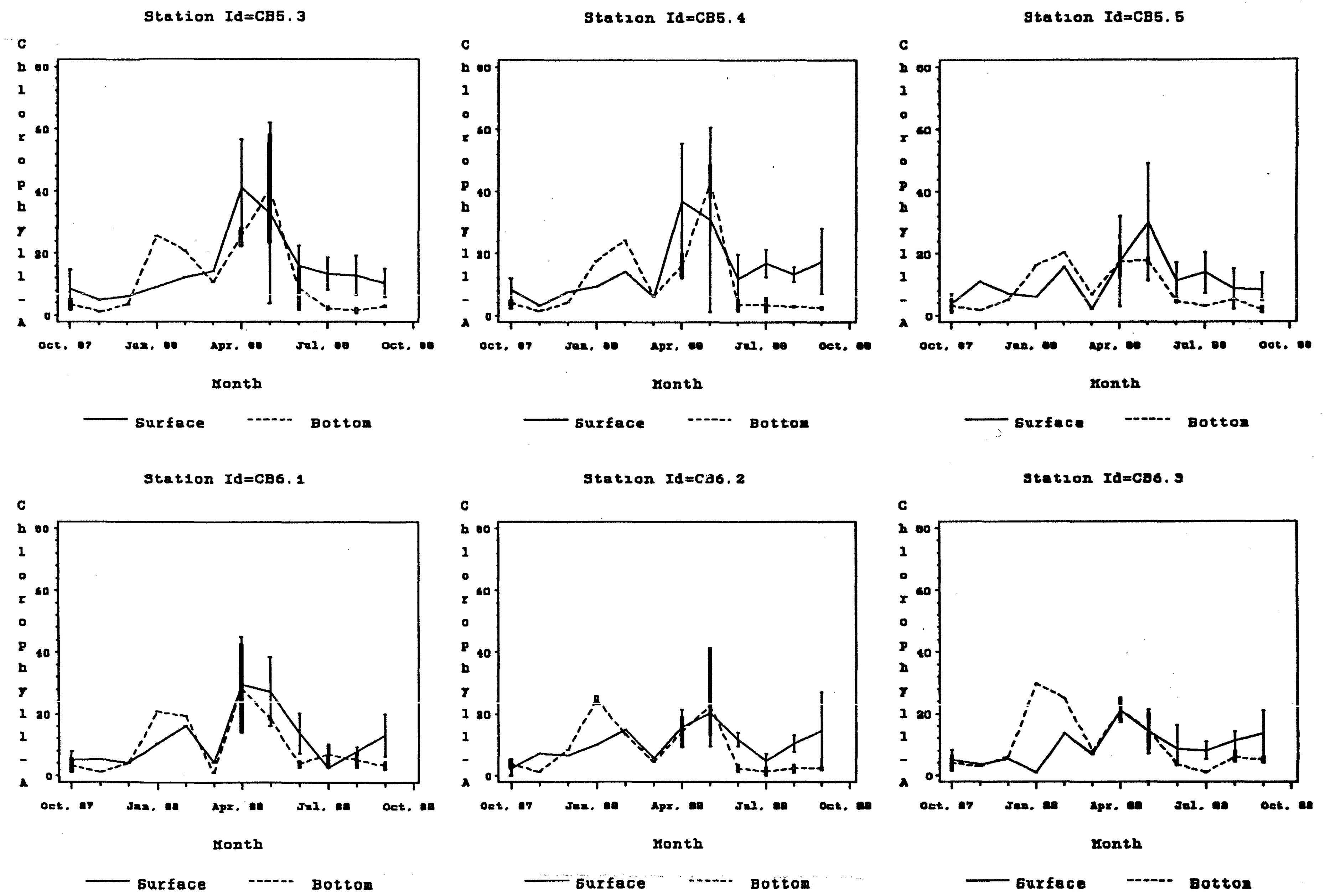

Station Id=WE4.1
Station Id=WE4.2
Station Id=WE4.3
Station Id=WE4.4
Station Id=LE5.5
Dissolved Oxygen
0
5
10
15
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

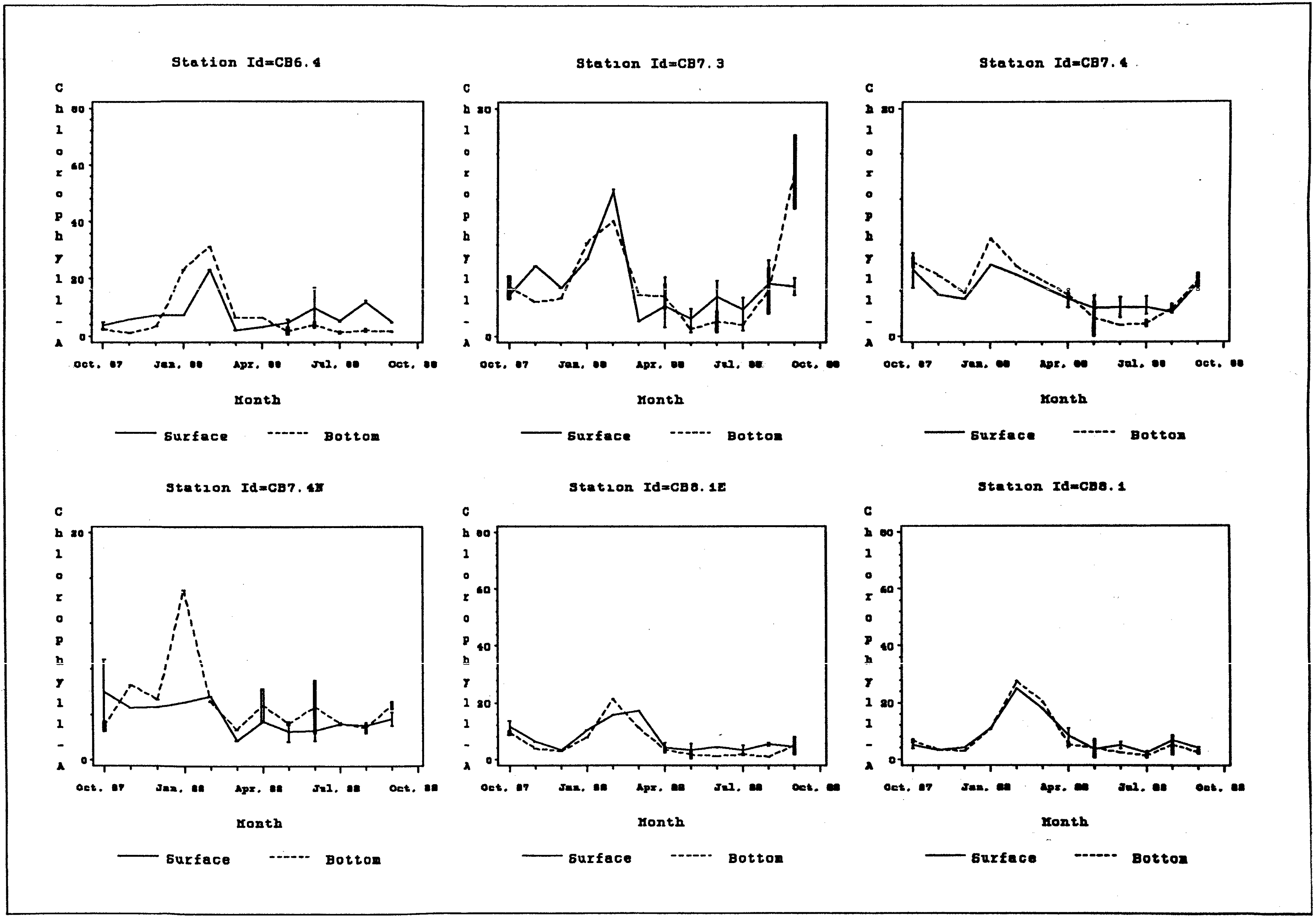
CHLOROPHYLL-A

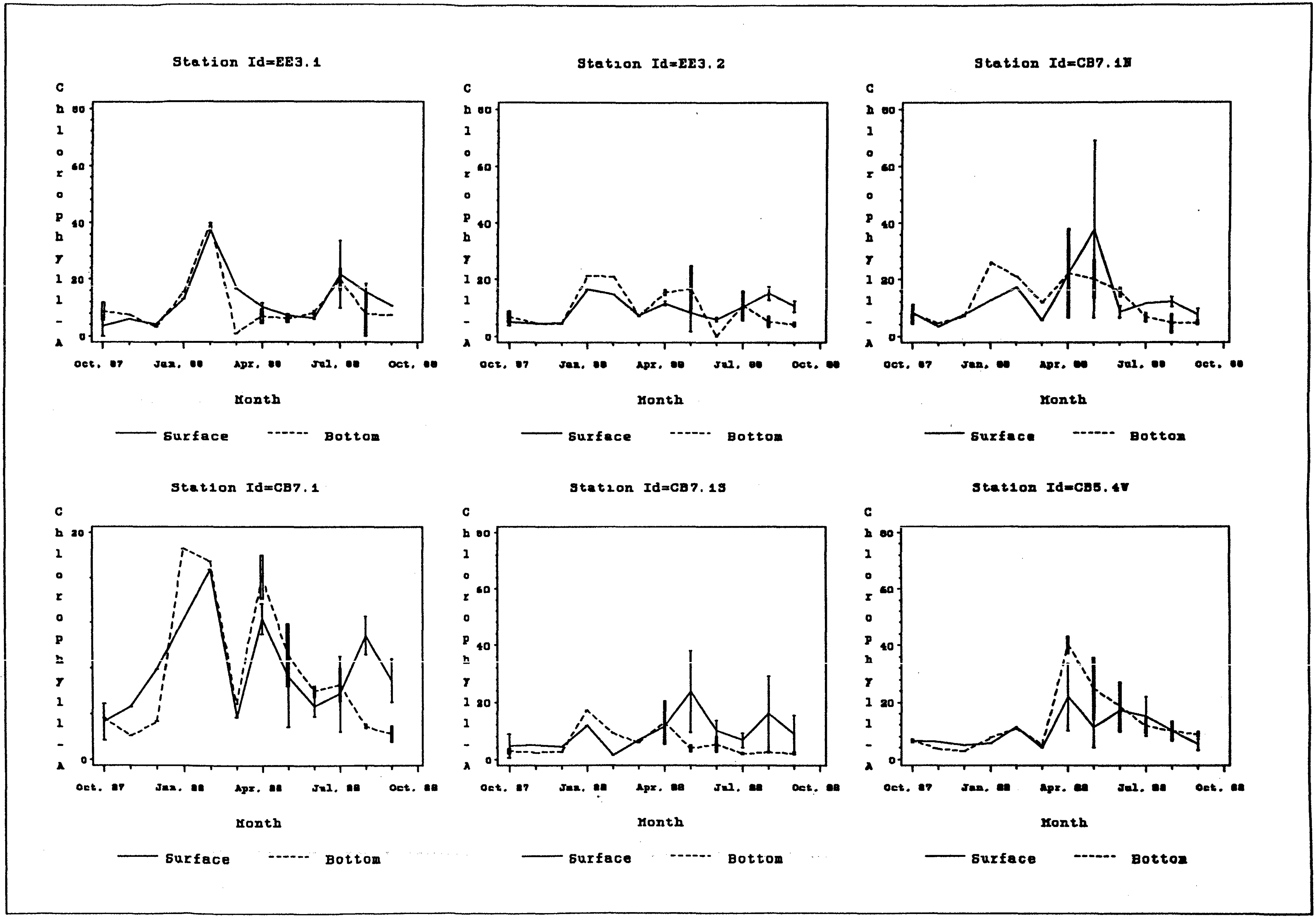
Values reported as ug/l.

Chlorophyll-A
October, 1987 - September, 1988

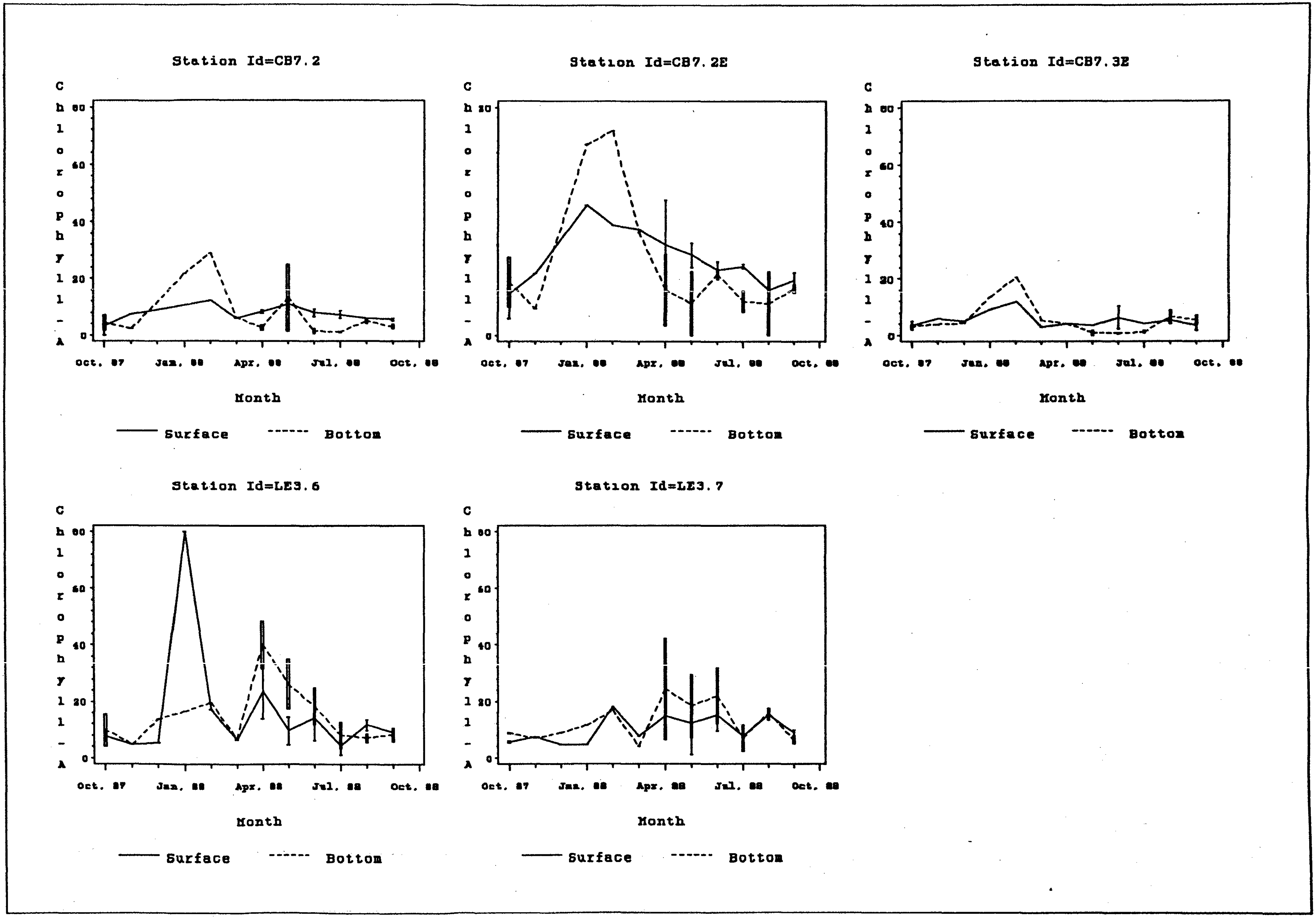
	Chlorophyll-A (ug/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3............	61.68	16.61	2.39	57.75	12.10	0.56
CB5.4............	60.52	16.01	1.04	48.60	10.76	0.93
CB5.5............	48.86	11.39	1.89	22.12	8.14	0.69
CB6.1............	45.05	13.20	1.91	42.65	9.78	1.00
CB6.2............	30.84	10.32	0.00	41.19	9.32	0.00
CB6.3............	21.31	9.84	0.91	29.80	9.54	0.71
CB6.4............	23.20	7.30	1.95	31.19	5.02	0.60
CB7.3............	12.91	4.14	0.31	17.70	4.99	0.34
CB7.4............	7.26	3.55	0.46	8.53	3.78	0.00
CB7.4N...........	8.86	3.71	1.62	14.95	4.64	2.35
CB8.1E...........	17.32	6.59	0.57	21.23	4.88	0.28
CB8.1............	24.99	6.92	1.67	27.42	6.21	0.62
EE3.1............	37.01	11.89	0.00	39.77	10.42	0.00
EE3.2............	17.35	9.54	1.58	24.78	9.76	0.00
CB7.1N...........	68.87	13.87	3.47	38.10	12.29	1.20
CB7.1............	16.74	7.51	1.73	18.60	7.34	1.52
CB7.1S...........	38.13	10.15	0.48	20.57	5.25	1.63
CB5.4W...........	33.64	10.88	3.23	43.15	14.24	2.94
CB7.2............	13.33	7.15	0.00	28.84	6.62	0.51
CB7.2E...........	11.96	6.39	1.49	17.97	5.55	0.00
CB7.3E...........	11.84	5.16	1.56	20.43	4.82	0.00
LE3.6............	79.83	14.44	1.26	48.56	15.68	3.59
LE3.7............	23.07	10.60	1.05	42.29	13.30	2.35
WE4.1............	16.30	7.96	0.59	15.38	7.45	1.36
WE4.2............	17.57	8.49	3.12	25.10	7.69	1.03
WE4.3............	17.71	7.01	3.36	17.03	8.96	3.04
WE4.4............	25.23	8.57	1.10	12.64	7.33	2.96
LE5.5............	30.86	10.03	2.92	32.27	6.31	0.00

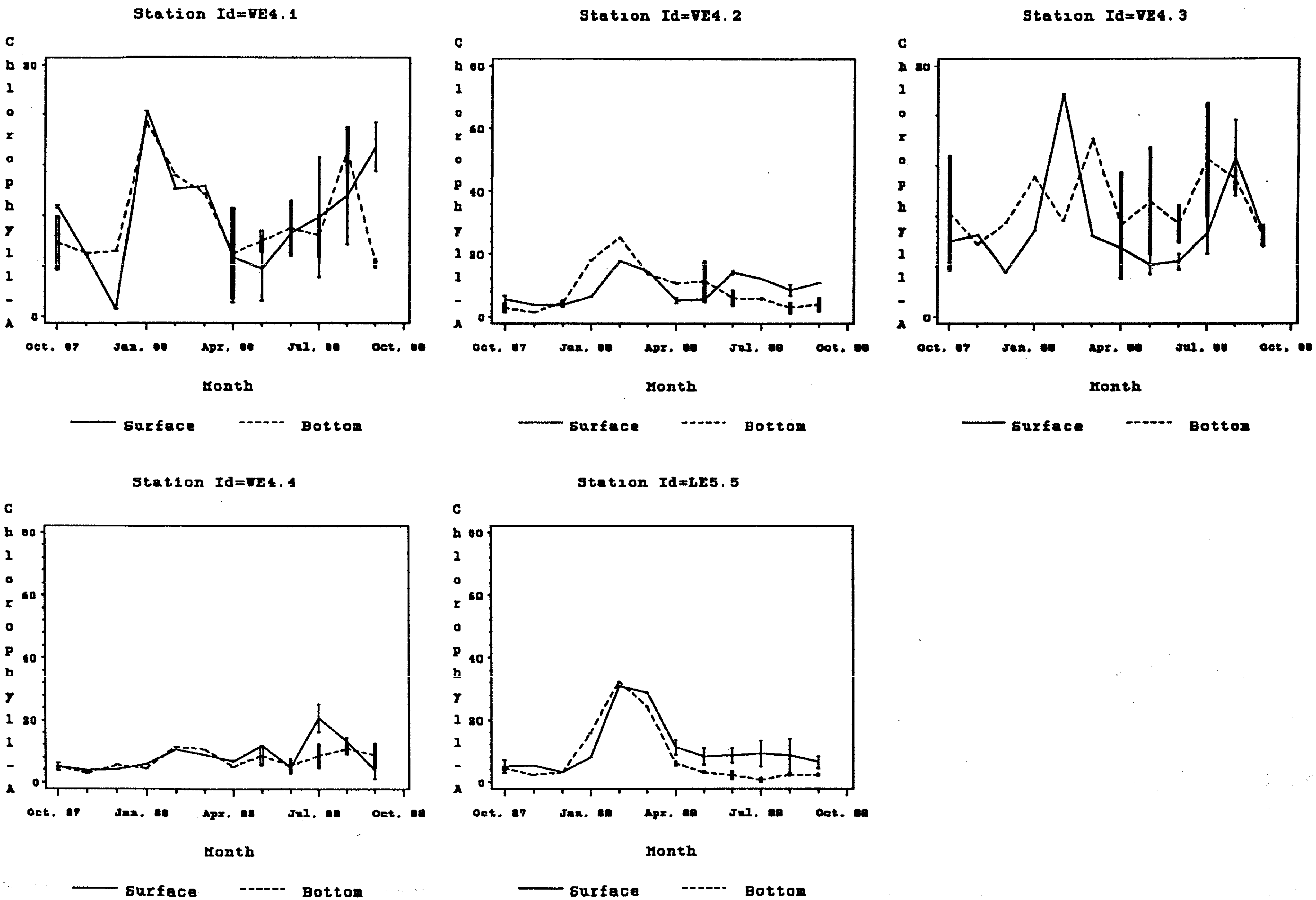

Station Id=CB5.3
Station Id=CB5.4
Station Id=CB5.5
Station Id=CB6.1
Station Id=CB6.2
Station Id=CB6.3
Chlorophyll-A
0
20
40
60
80
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=CB6.4
Chlorophyll-A
0
20
40
60
80
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB7.3
Chlorophyll-A
0
20
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB7.4
Chlorophyll-A
0
20
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB7.4N
Chlorophyll-A
0
20
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB8.1E
Chlorophyll-A
0
20
40
60
80
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB8.1
Chlorophyll-A
0
20
40
60
80
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom



Station Id=EE3.1
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB5.4W
Chlorophyll-A
0
20
40
60
80
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom


Station Id=CB7.2
Station Id=CB7.2E
Station Id=CB7.3E
Station Id=LE3.6
Station Id=LE3.7
Chlorophyll_A
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom



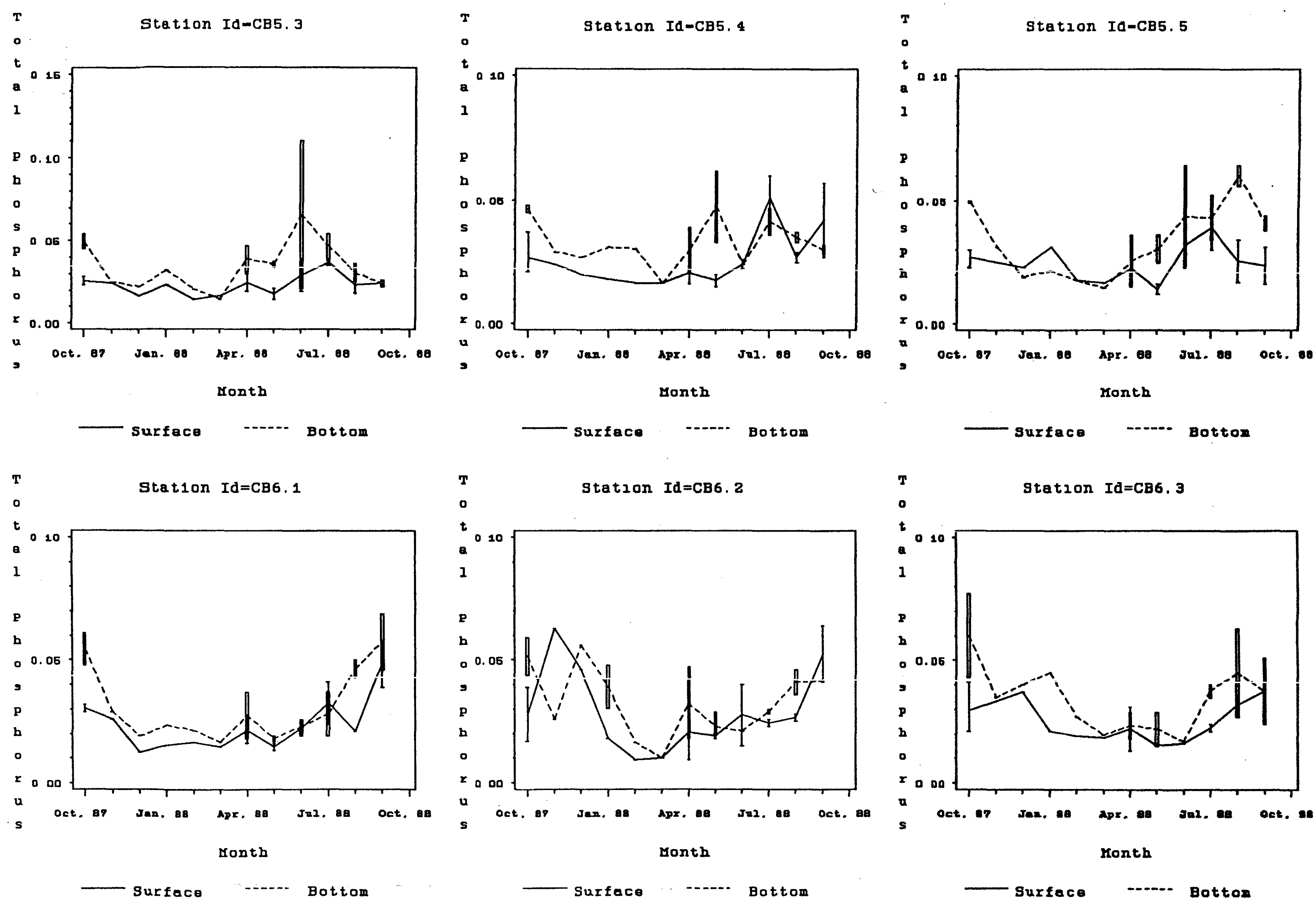
Station Id=WE4.1
Chlorophyll-A
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=WE4.2
Chlorophyll-A
60
40
20
0
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=WE4.3
Chlorophyll-A
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=WE4.4
Chlorophyll-A
60
40
20
0
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=LE5.5
Chlorophyll-A
60
40
20
0
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

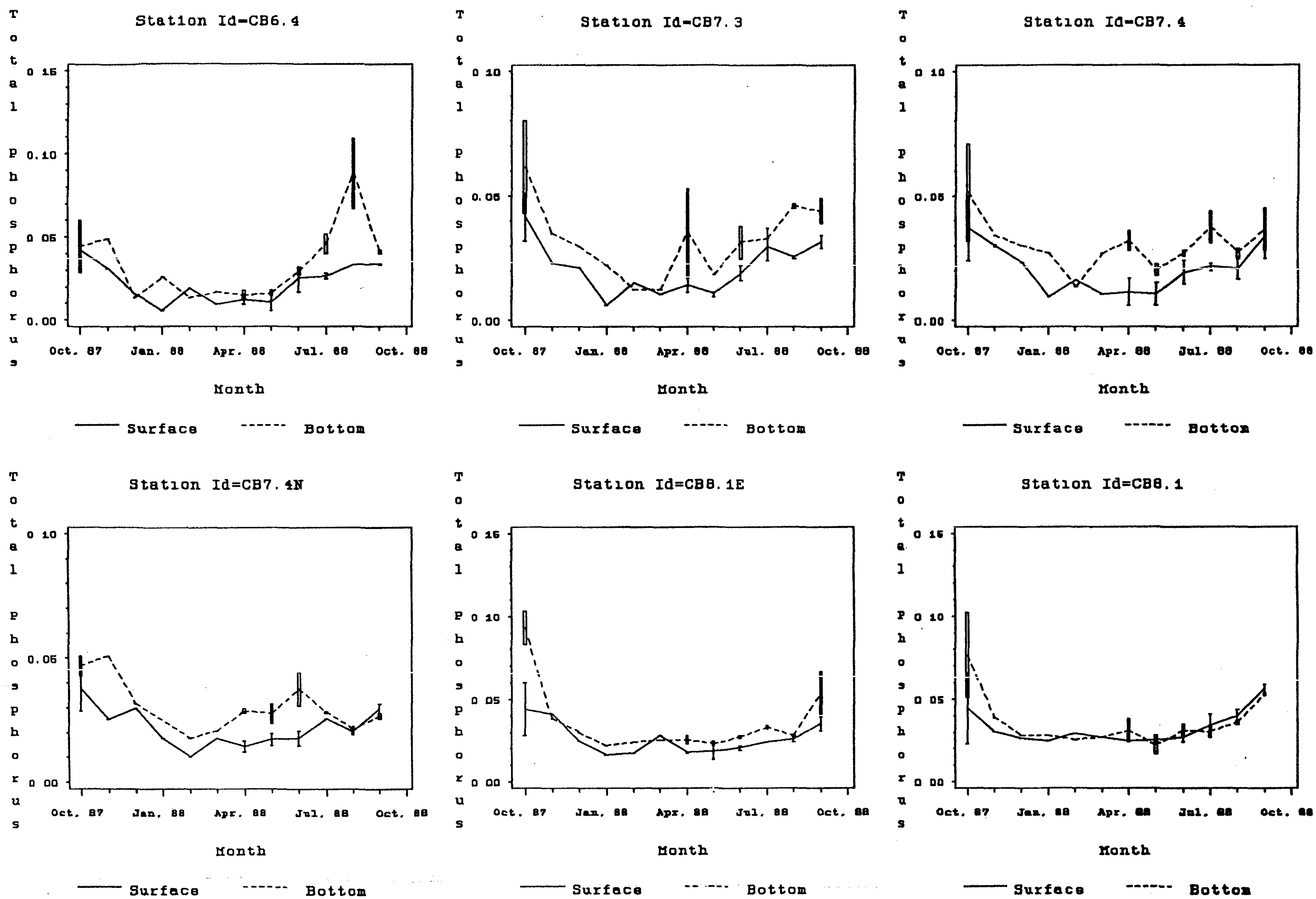
TOTAL PHOSPHORUS

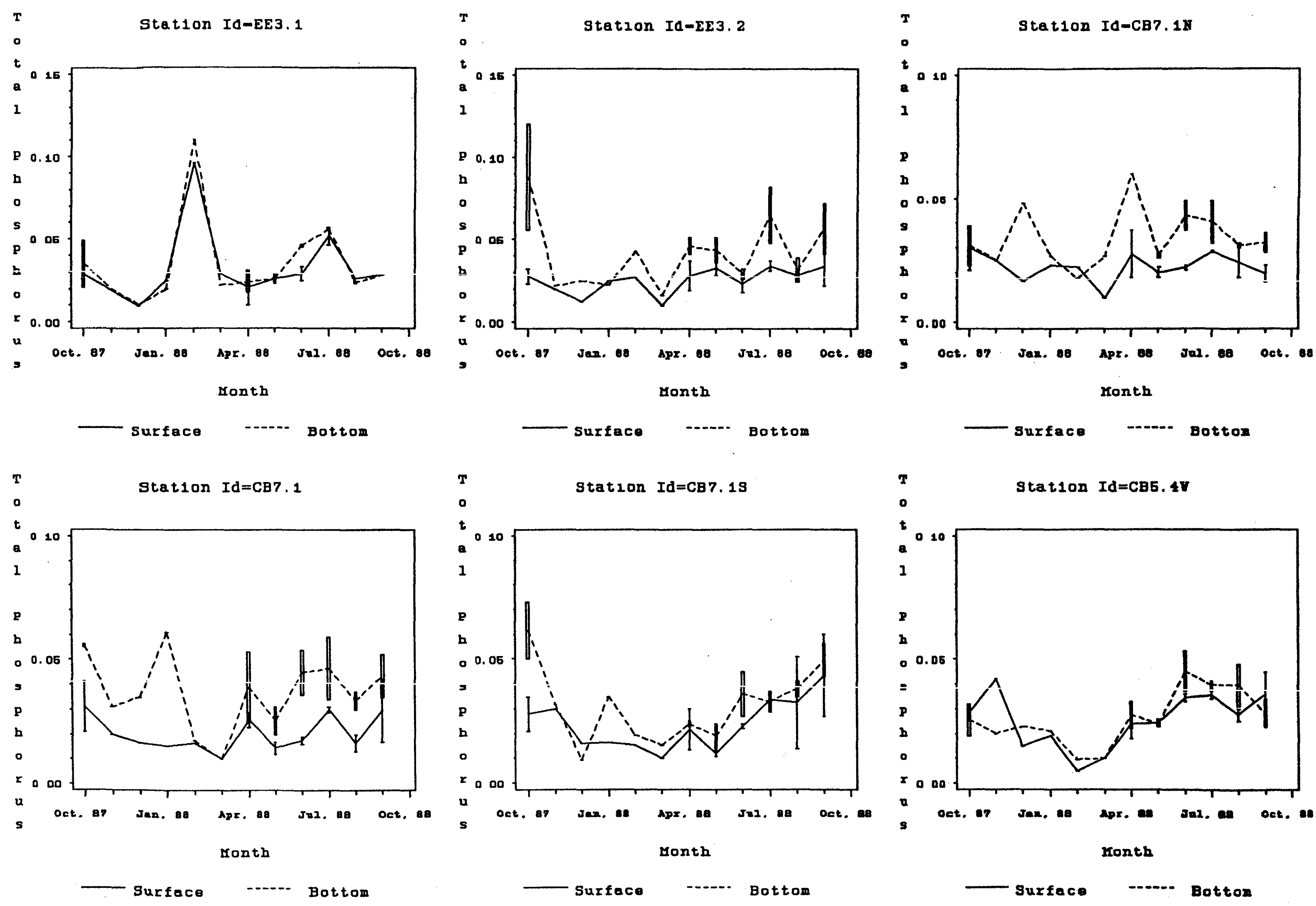
Total Phosphorus is the sum of Particulate Phosphorus and Total Dissolved Phosphorus. Values reported as mg/l.

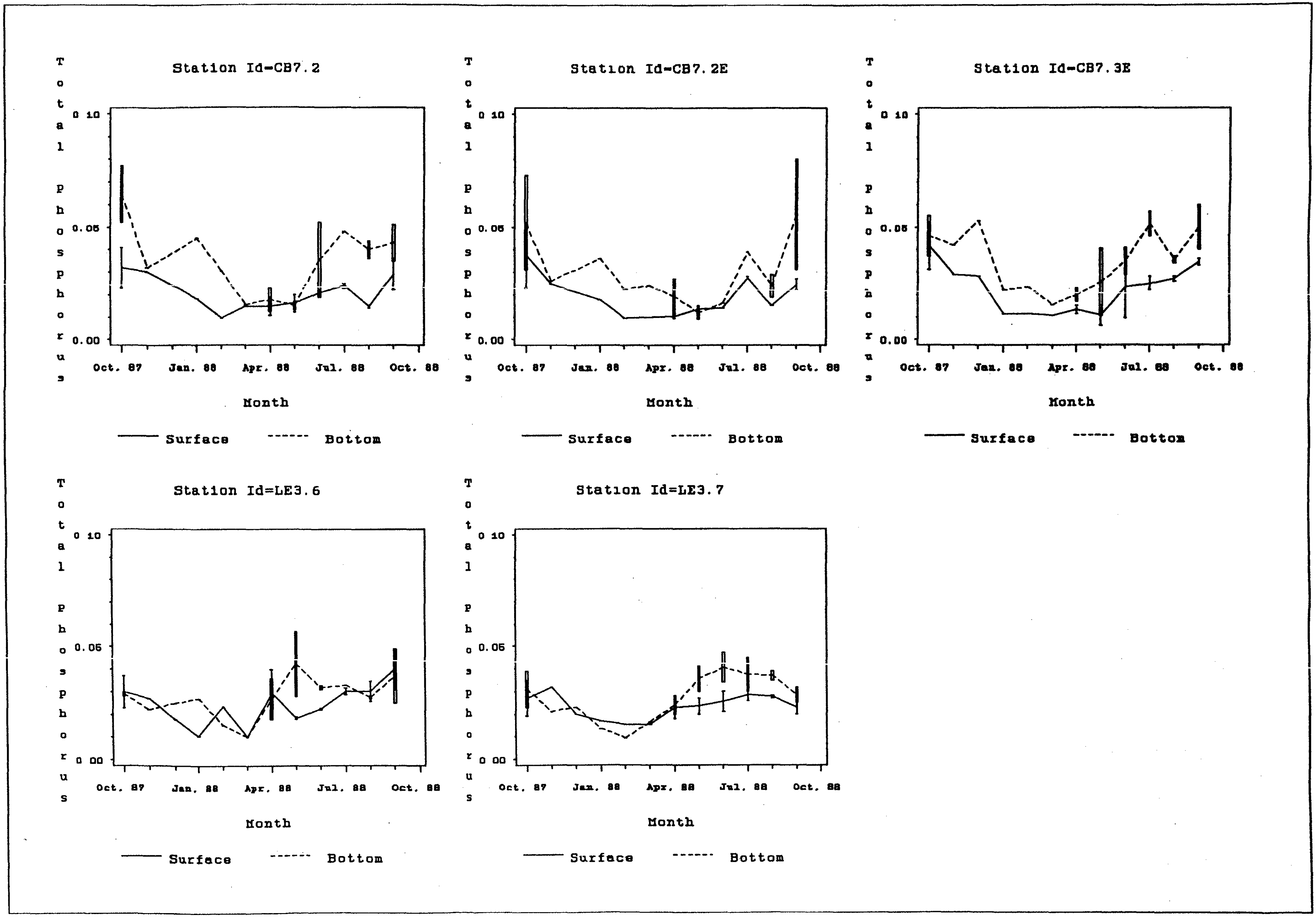
Total Phosphorus
October, 1987 - September, 1988

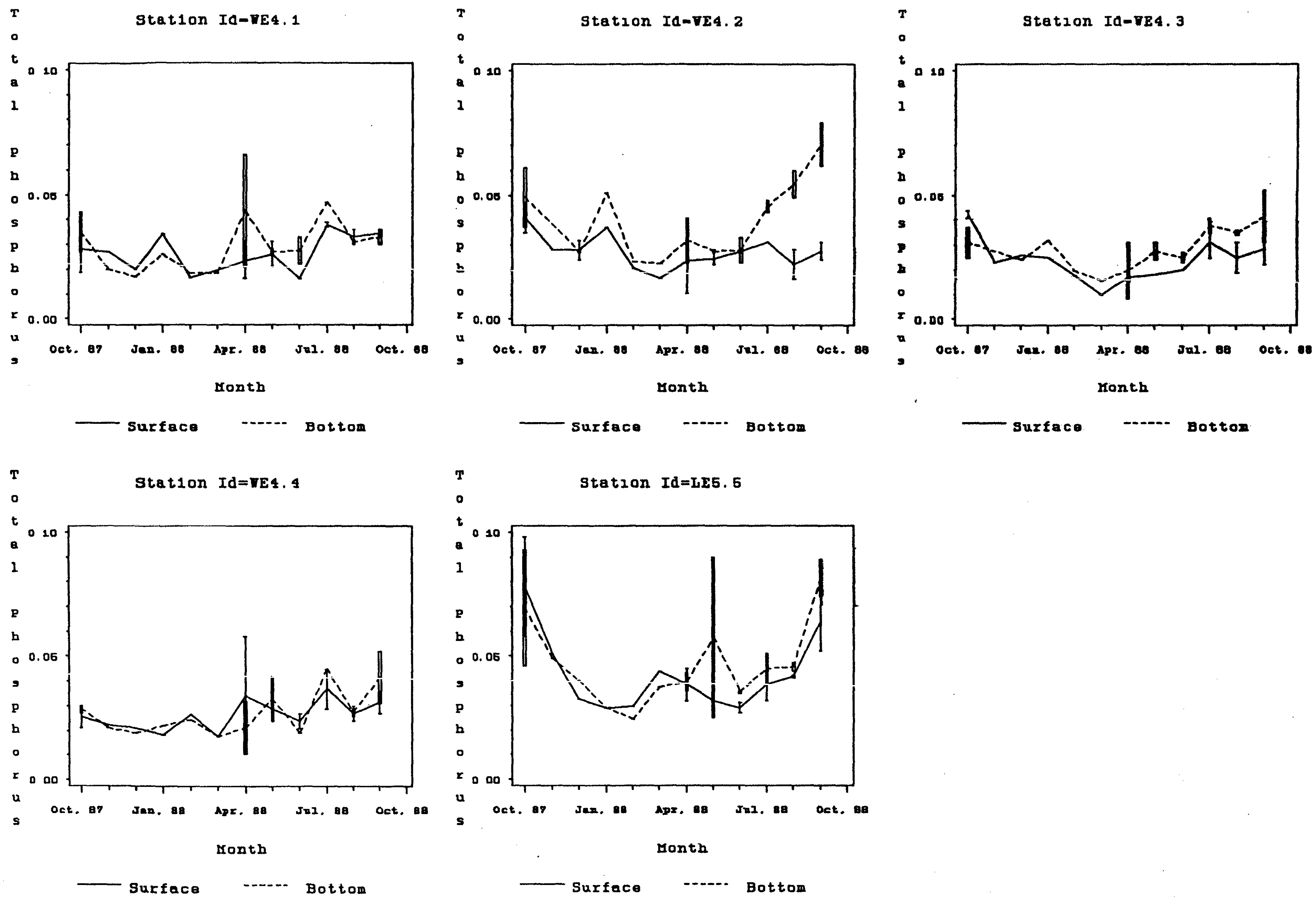
	Total Phosphorus (mg/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3............	0.0390	0.0239	0.0140	0.1100	0.0366	0.0145
CB5.4............	0.0600	0.0269	0.0150	0.0620	0.0338	0.0165
CB5.5............	0.0480	0.0249	0.0120	0.0640	0.0363	0.0145
CB6.1............	0.0580	0.0245	0.0125	0.0690	0.0326	0.0165
CB6.2............	0.0640	0.0284	0.0095	0.0590	0.0333	0.0100
CB6.3............	0.0500	0.0255	0.0130	0.0770	0.0352	0.0150
CB6.4............	0.0500	0.0233	0.0060	0.1090	0.0374	0.0125
CB7.3............	0.0510	0.0213	0.0060	0.0800	0.0353	0.0125
CB7.4............	0.0500	0.0209	0.0060	0.0710	0.0313	0.0135
CB7.4N...........	0.0470	0.0226	0.0105	0.0510	0.0311	0.0180
CB8.1E...........	0.0600	0.0263	0.0135	0.1030	0.0372	0.0220
CB8.1............	0.0660	0.0339	0.0230	0.1020	0.0373	0.0170
EE3.1............	0.0960	0.0325	0.0095	0.1100	0.0350	0.0105
EE3.2............	0.0460	0.0268	0.0100	0.1200	0.0446	0.0165
CB7.1N...........	0.0390	0.0231	0.0100	0.0600	0.0340	0.0175
CB7.1............	0.0420	0.0215	0.0100	0.0610	0.0385	0.0100
CB7.1S...........	0.0600	0.0251	0.0100	0.0730	0.0333	0.0095
CB5.4W...........	0.0450	0.0269	0.0050	0.0530	0.0286	0.0095
CB7.2............	0.0410	0.0207	0.0095	0.0770	0.0354	0.0125
CB7.2E...........	0.0520	0.0196	0.0095	0.0800	0.0306	0.0090
CB7.3E...........	0.0520	0.0232	0.0060	0.0600	0.0359	0.0105
LE3.6............	0.0490	0.0259	0.0100	0.0570	0.0292	0.0100
LE3.7............	0.0350	0.0240	0.0155	0.0470	0.0290	0.0095
WE4.1............	0.0390	0.0277	0.0160	0.0660	0.0309	0.0170
WE4.2............	0.0470	0.0276	0.0105	0.0790	0.0403	0.0225
WE4.3............	0.0440	0.0247	0.0100	0.0520	0.0292	0.0085
WE4.4............	0.0580	0.0275	0.0105	0.0520	0.0277	0.0105
LE5.5............	0.0980	0.0436	0.0250	0.0930	0.0488	0.0245


Station Id=CB5.3
Station Id=CB5.4
Station Id=CB5.5
Station Id=CB6.1
Station Id=CB6.2
Station Id=CB6.3
Total Phosphorus
Month
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Surface
Bottom


Station Id=CB6.4
Station Id=CB7.3
Station Id=CB7.4
Station Id=CB7.4N
Station Id=CB8.1E
Station Id=CB8.1
Total phosphorus
0.00
0.05
0.10
0.15
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom


Station Id=EE3.1
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB5.4W
Total phosphorus
Month
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
0.00
0.05
0.10
0.15
Surface
Bottom


Station Id=CB7.2
Station Id=CB7.2E
Station Id=CB7.3E
Station Id=LE3.6
Station Id=LE3.7
Total phosphorus
0.10
0.05
0.00
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

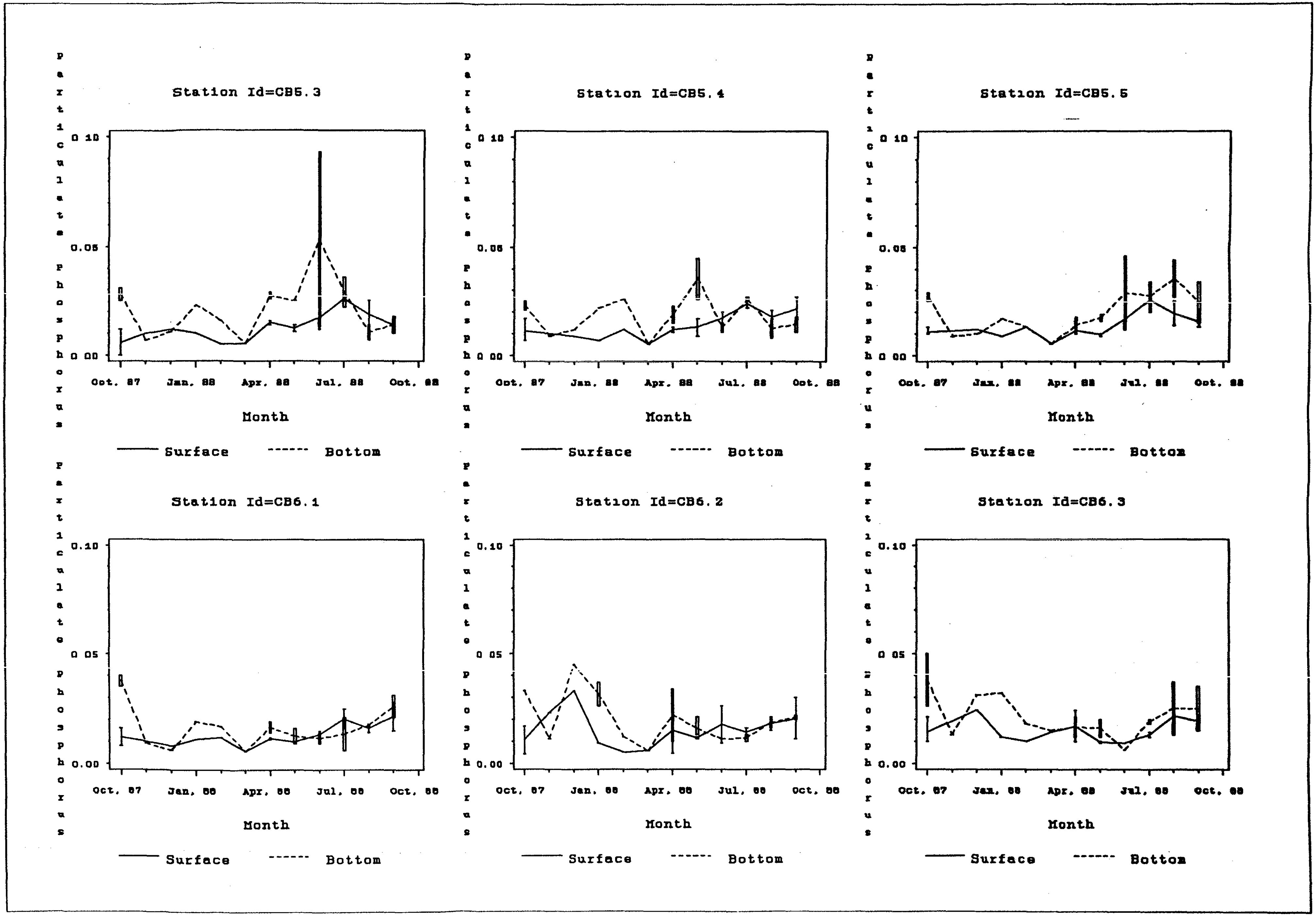

Station Id=WE4.1
Station Id=WE4.2
Station Id=WE4.3
Station Id=WE4.4
Station Id=LE5.5
Total phosphorus
0.10
0.05
0.00
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

PARTICULATE PHOSPHORUS

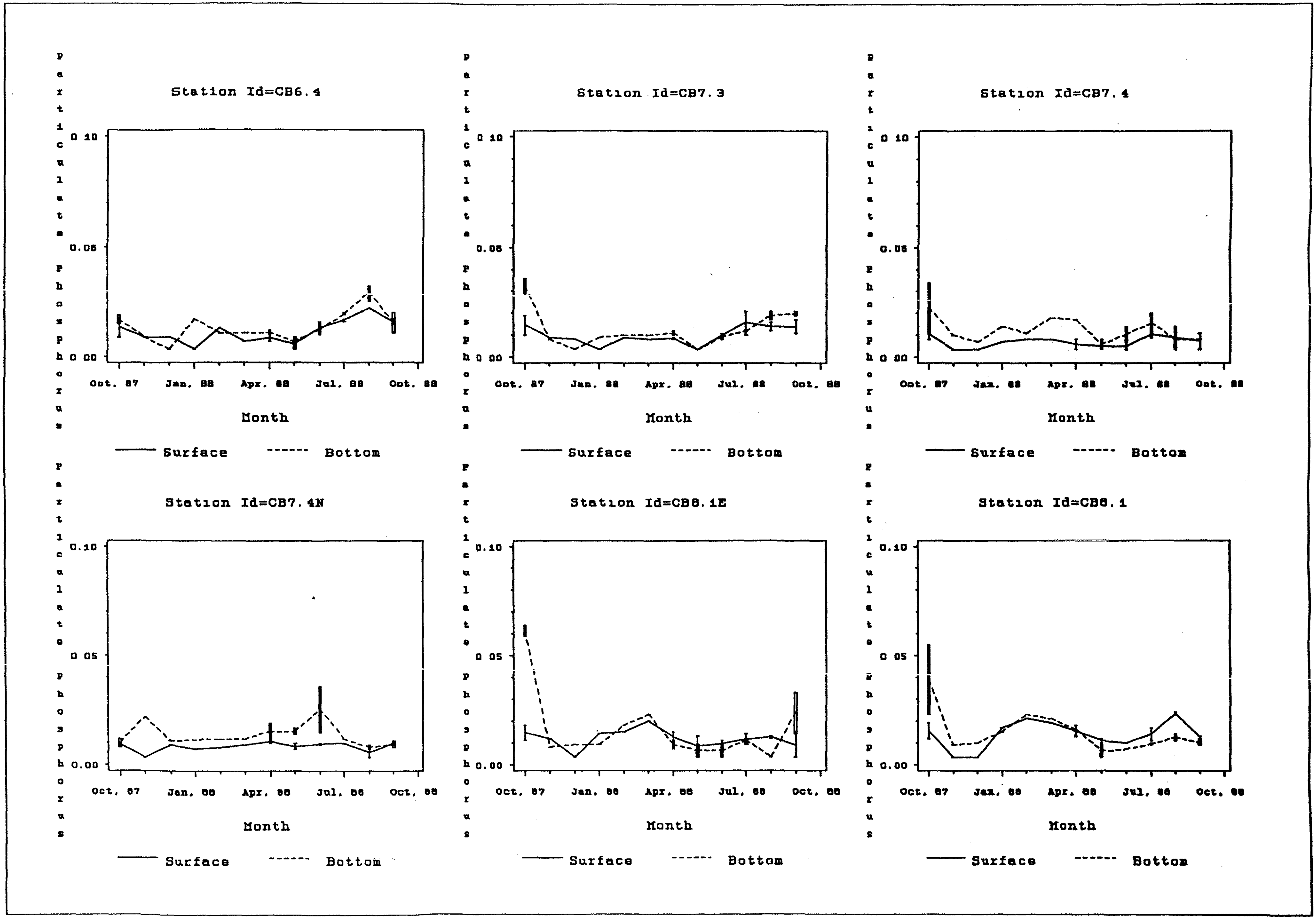
Values reported as mg/l.

Particulate Phosphorus
October, 1987 - September, 1988

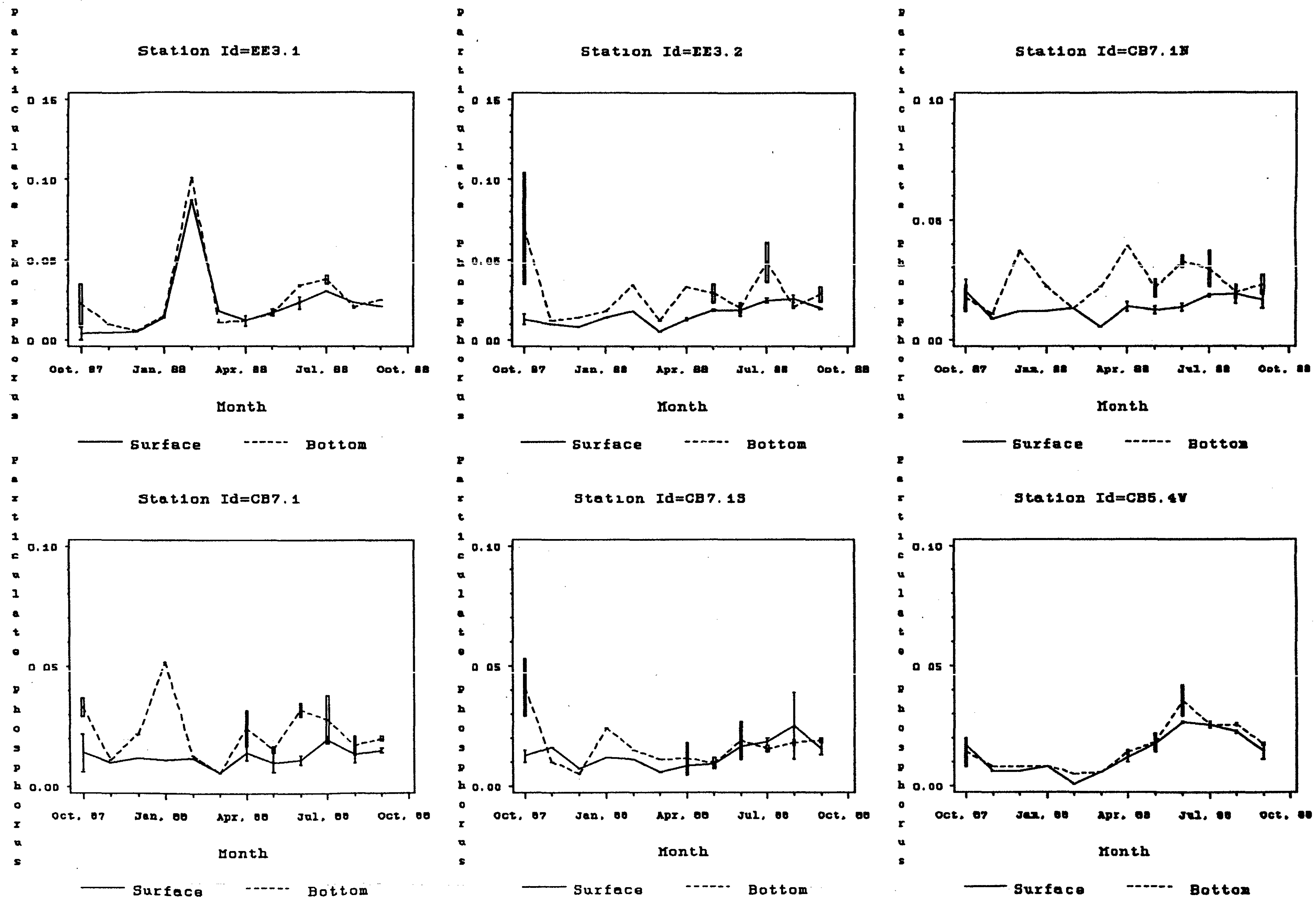
	Particulate Phosphorus (mg/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3............	0.0270	0.0138	0.0000	0.0930	0.0230	0.0055
CB5.4............	0.0270	0.0145	0.0055	0.0450	0.0190	0.0055
CB5.5............	0.0310	0.0141	0.0055	0.0460	0.0213	0.0055
CB6.1............	0.0280	0.0135	0.0055	0.0400	0.0172	0.0055
CB6.2............	0.0330	0.0152	0.0040	0.0450	0.0203	0.0055
CB6.3............	0.0240	0.0151	0.0090	0.0500	0.0219	0.0060
CB6.4............	0.0220	0.0118	0.0035	0.0320	0.0148	0.0035
CB7.3............	0.0210	0.0103	0.0035	0.0360	0.0141	0.0035
CB7.4............	0.0140	0.0070	0.0035	0.0340	0.0124	0.0035
CB7.4N...........	0.0110	0.0085	0.0035	0.0360	0.0138	0.0070
CB8.1E...........	0.0200	0.0116	0.0035	0.0640	0.0163	0.0035
CB8.1............	0.0240	0.0141	0.0035	0.0550	0.0147	0.0035
EE3.1............	0.0870	0.0214	0.0000	0.1010	0.0252	0.0060
EE3.2............	0.0280	0.0169	0.0055	0.1040	0.0309	0.0120
CB7.1N...........	0.0250	0.0147	0.0055	0.0390	0.0239	0.0110
CB7.1............	0.0220	0.0129	0.0055	0.0520	0.0233	0.0055
CB7.1S...........	0.0390	0.0138	0.0045	0.0530	0.0175	0.0050
CB5.4W...........	0.0270	0.0156	0.0005	0.0420	0.0176	0.0050
CB7.2............	0.0160	0.0101	0.0040	0.0530	0.0191	0.0045
CB7.2E...........	0.0280	0.0109	0.0045	0.0490	0.0143	0.0045
CB7.3E...........	0.0180	0.0106	0.0035	0.0250	0.0143	0.0035
LE3.6............	0.0270	0.0156	0.0055	0.0410	0.0178	0.0055
LE3.7............	0.0230	0.0144	0.0050	0.0330	0.0198	0.0050
WE4.1............	0.0270	0.0175	0.0080	0.0330	0.0186	0.0070
WE4.2............	0.0210	0.0128	0.0000	0.0420	0.0201	0.0090
WE4.3............	0.0310	0.0144	0.0045	0.0300	0.0174	0.0045
WE4.4............	0.0460	0.0180	0.0045	0.0300	0.0168	0.0045
LE5.5............	0.0380	0.0183	0.0035	0.0650	0.0231	0.0110

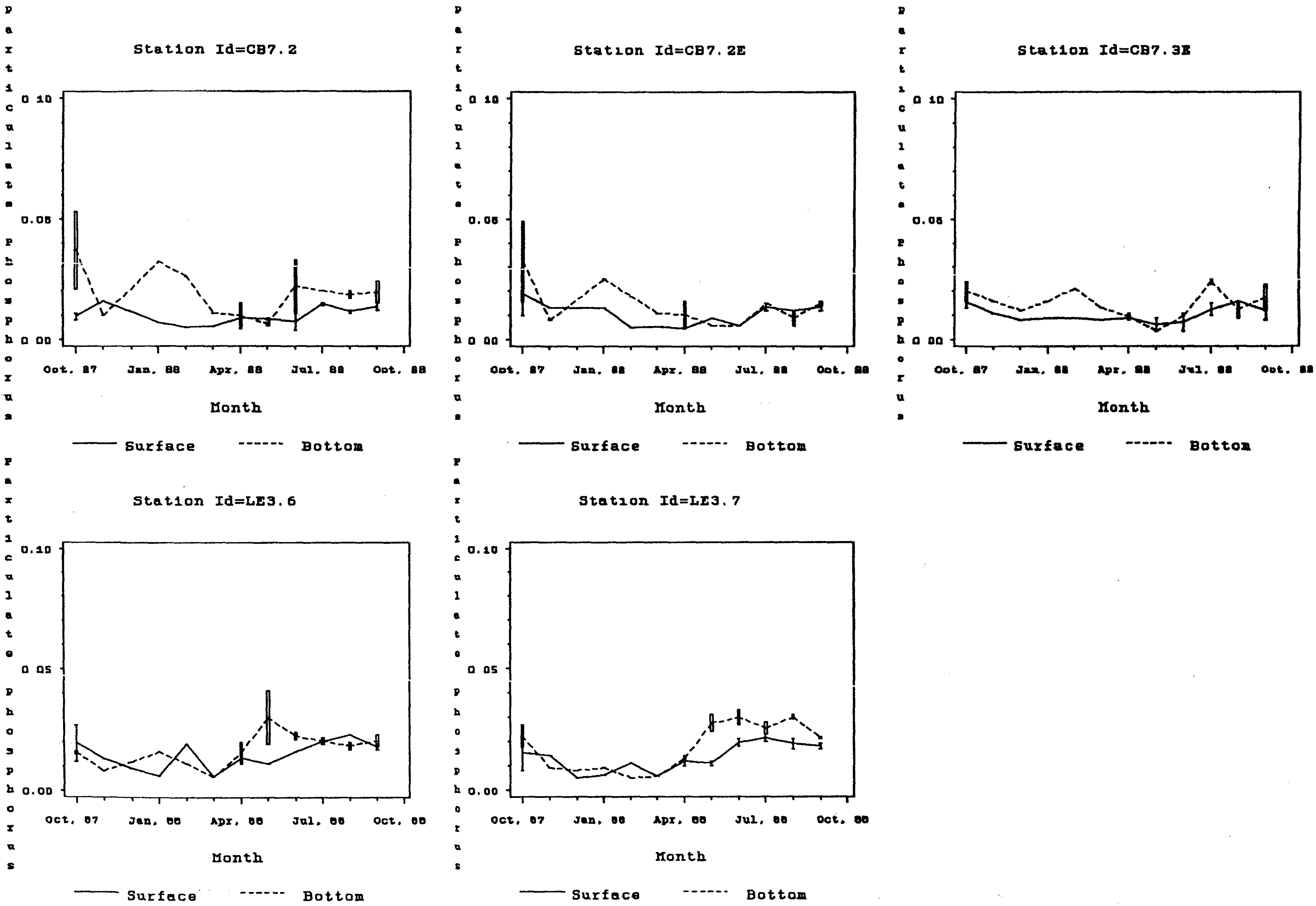


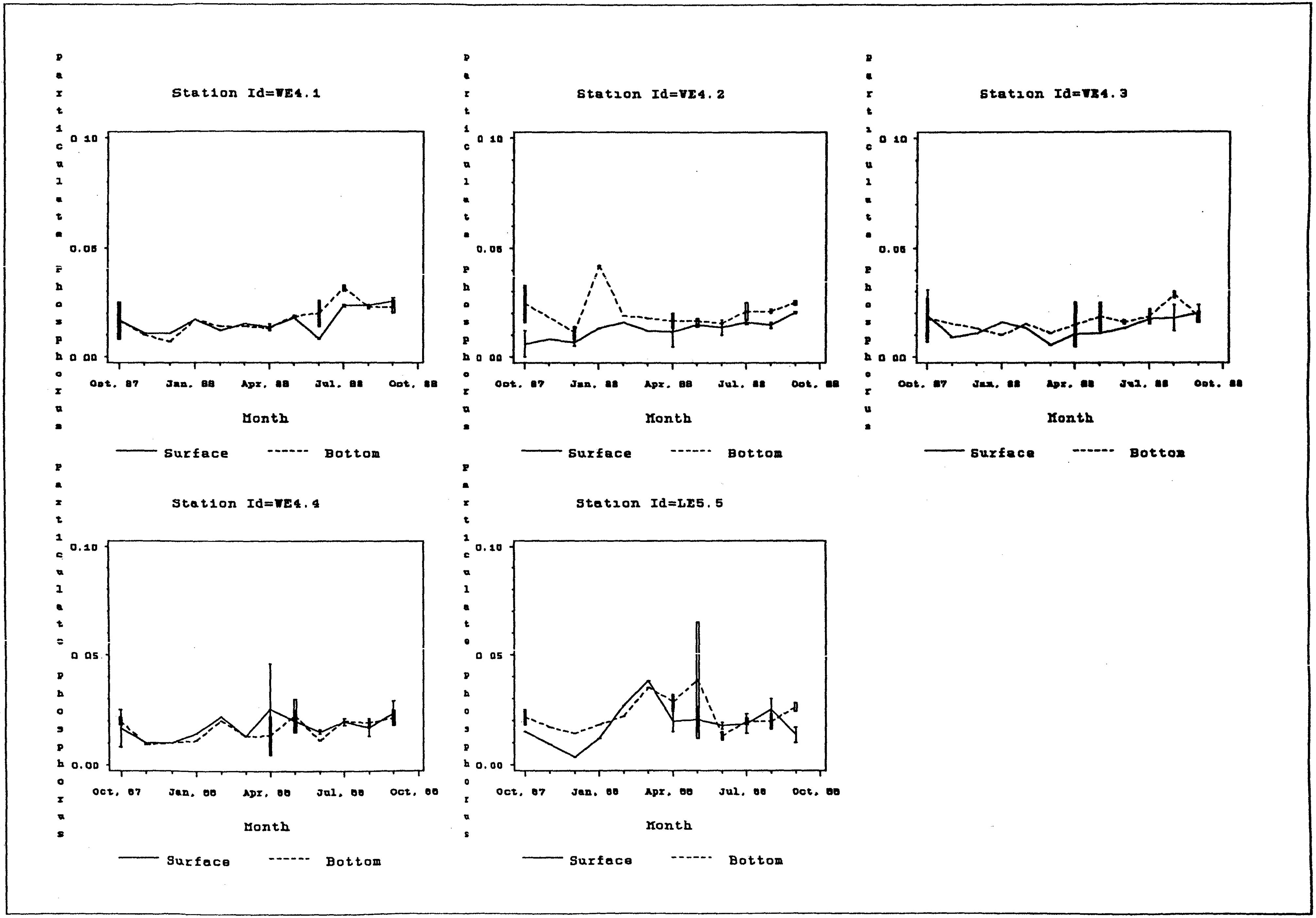
Station Id=CB5.3
particulate phosphorus
0.10
0.05
0.00
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB5.4
particulate phosphorus
0.10
0.05
0.00
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB5.5
particulate phosphorus
0.10
0.05
0.00
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB6.1
particulate phosphorus
0.10
0.05
0.00
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB6.2
particulate phosphorus
0.10
0.05
0.00
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB6.3
particulate phosphorus
0.10
0.05
0.00
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom



Station Id=CB6.4
Station Id=CB7.3
Station Id=CB7.4
Station Id=CB7.4N
Station Id=CB8.1E
Station Id=CB8.1
Particulate Phosphorus
0.00
0.05
0.10
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom


Station Id=EE3.1
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB5.4W
Particulate Phosphorus
Month
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
0.00
0.05
0.10
0.15
Surface
Bottom


Station Id=CB7.2
Station Id=CB7.2E
Station Id=CB7.3E
Station Id=LE3.6
Station Id=LE3.7
Particulate Phosphorus
0.10
0.05
0.00
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

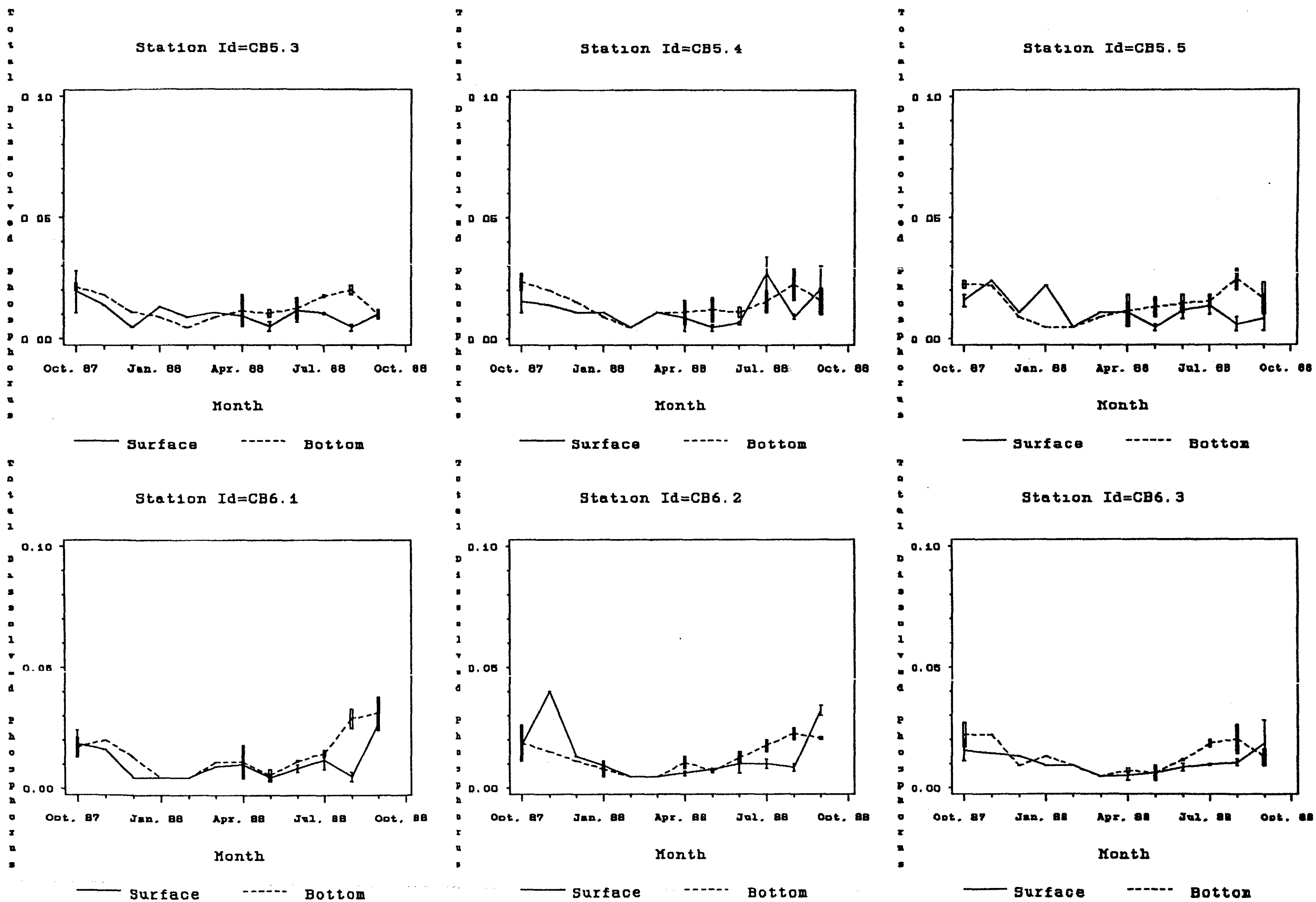

Station Id=WE4.1
Station Id=WE4.2
Station Id=WE4.3
Station Id=WE4.4
Station Id=LE5.5
Particulate Phosphorus
0.10
0.05
0.00
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

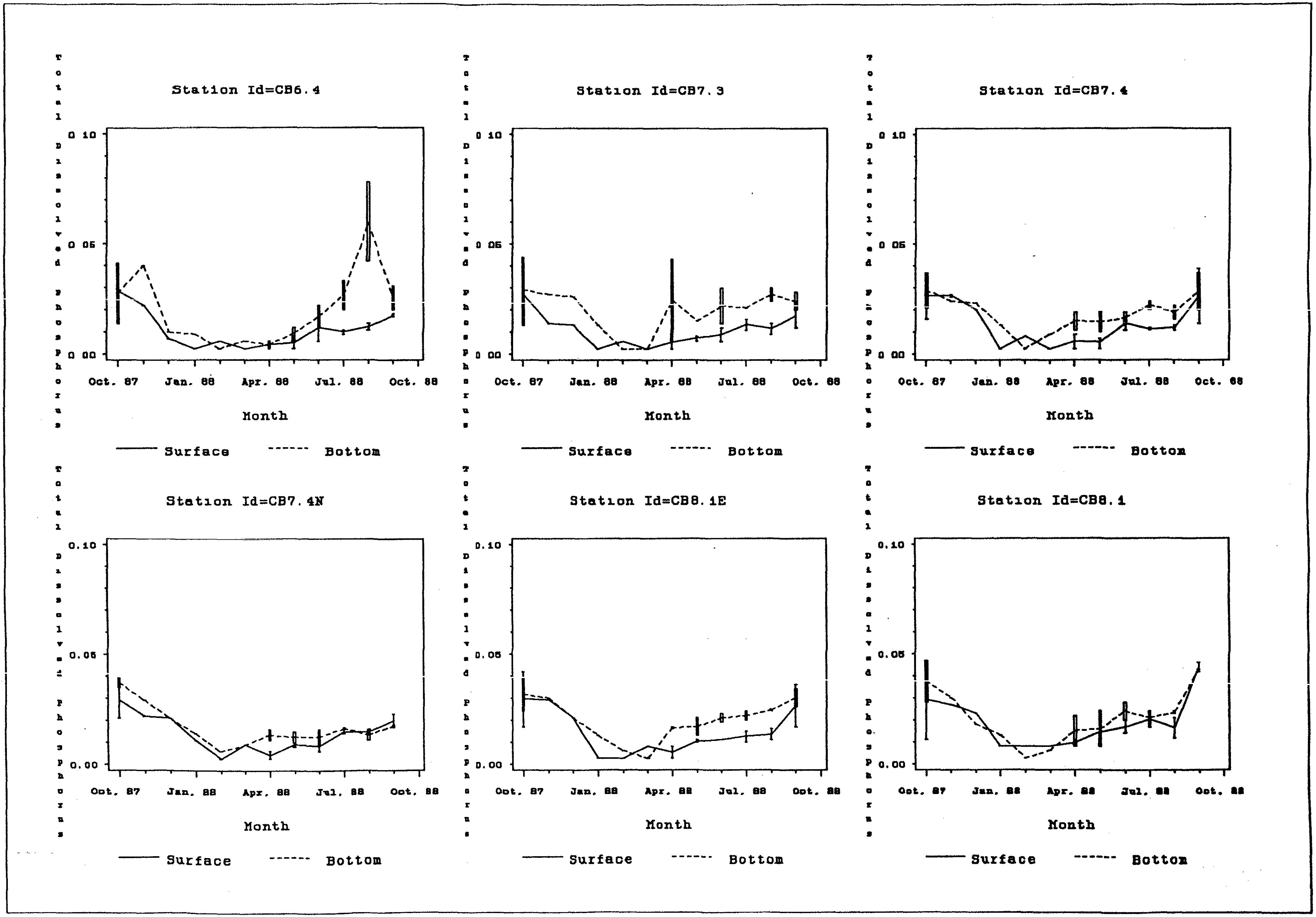
TOTAL DISSOLVED PHOSPHORUS

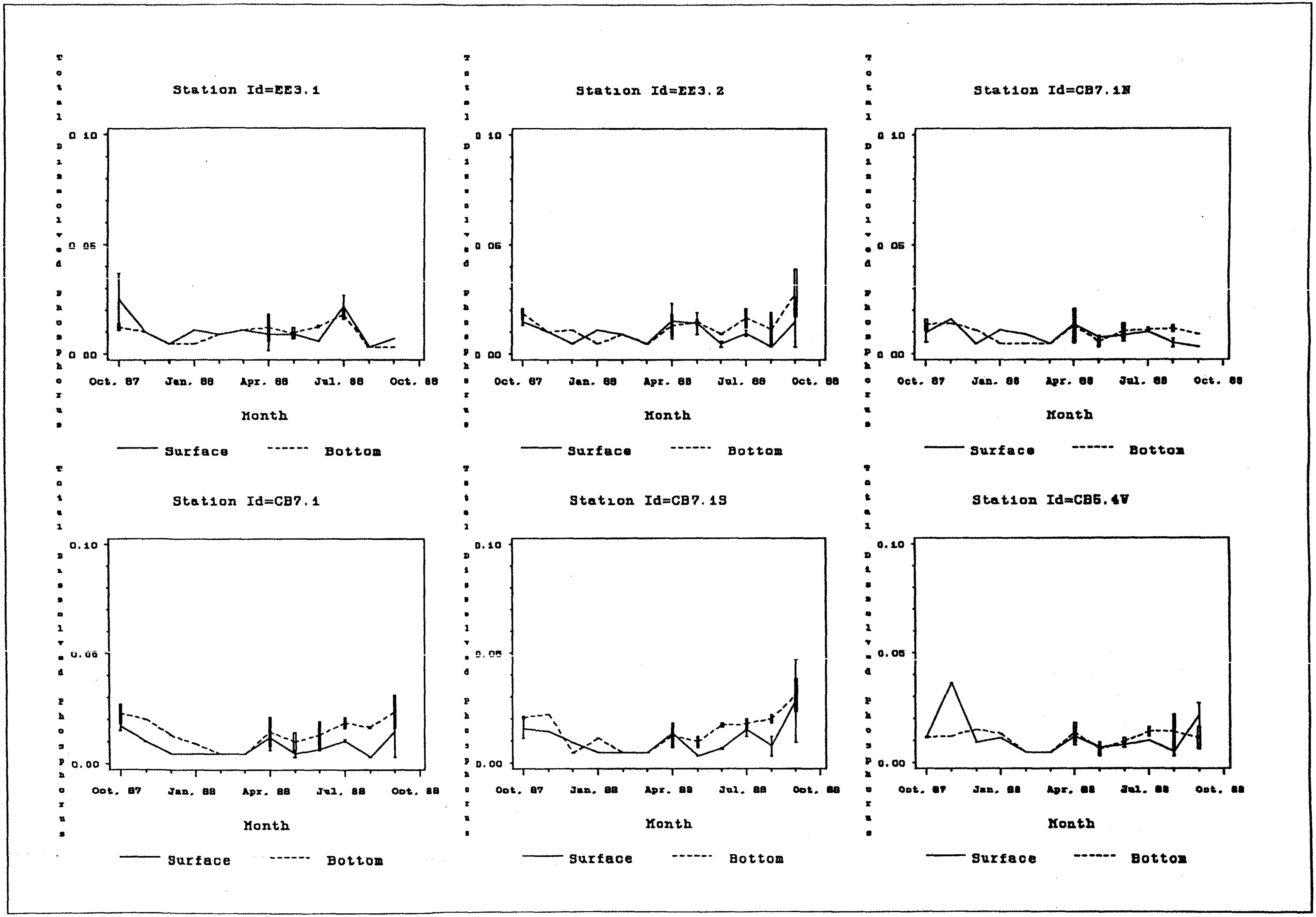
Values reported as mg/l.

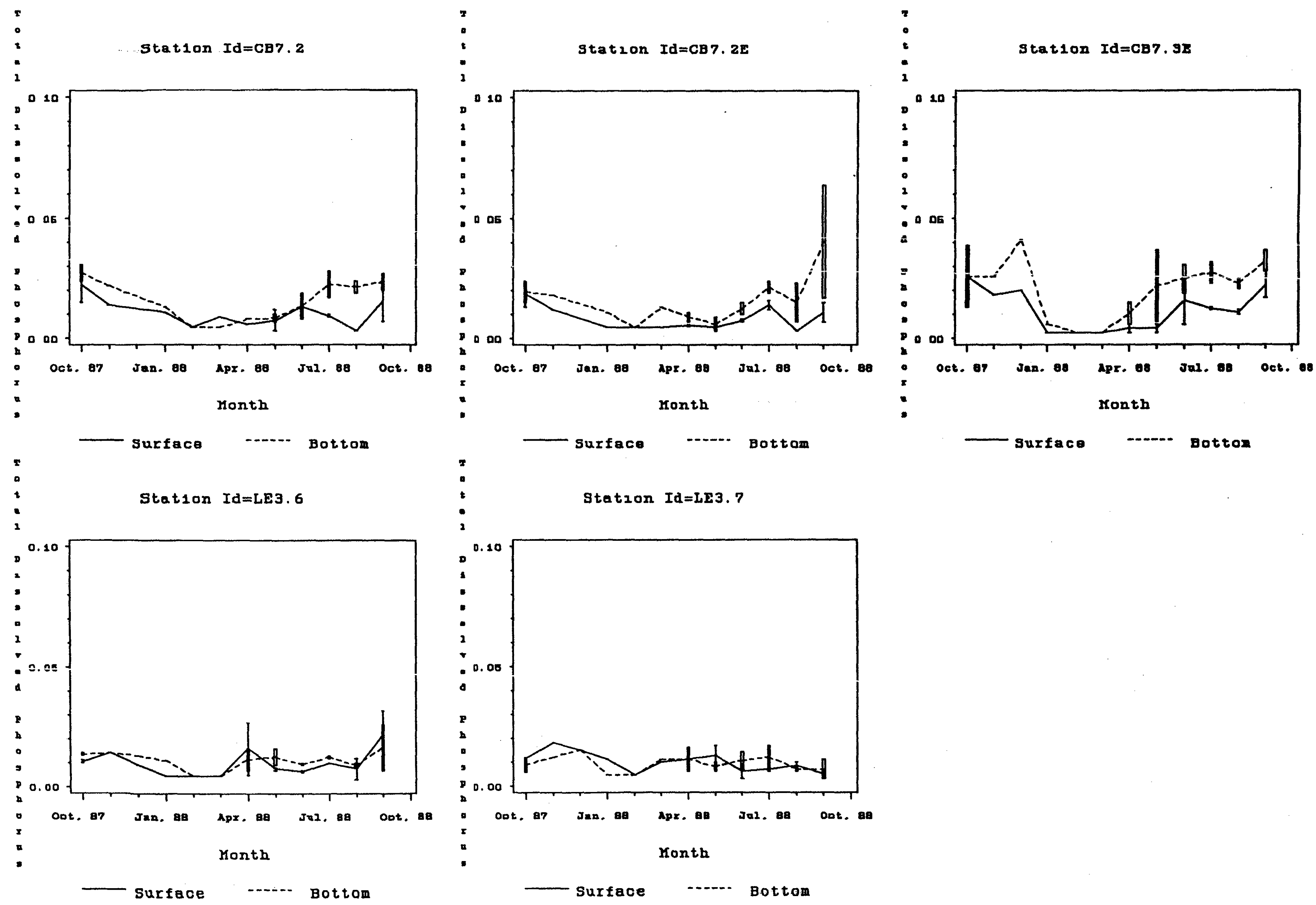
Total Dissolved Phosphorus
October, 1987 - September, 1988

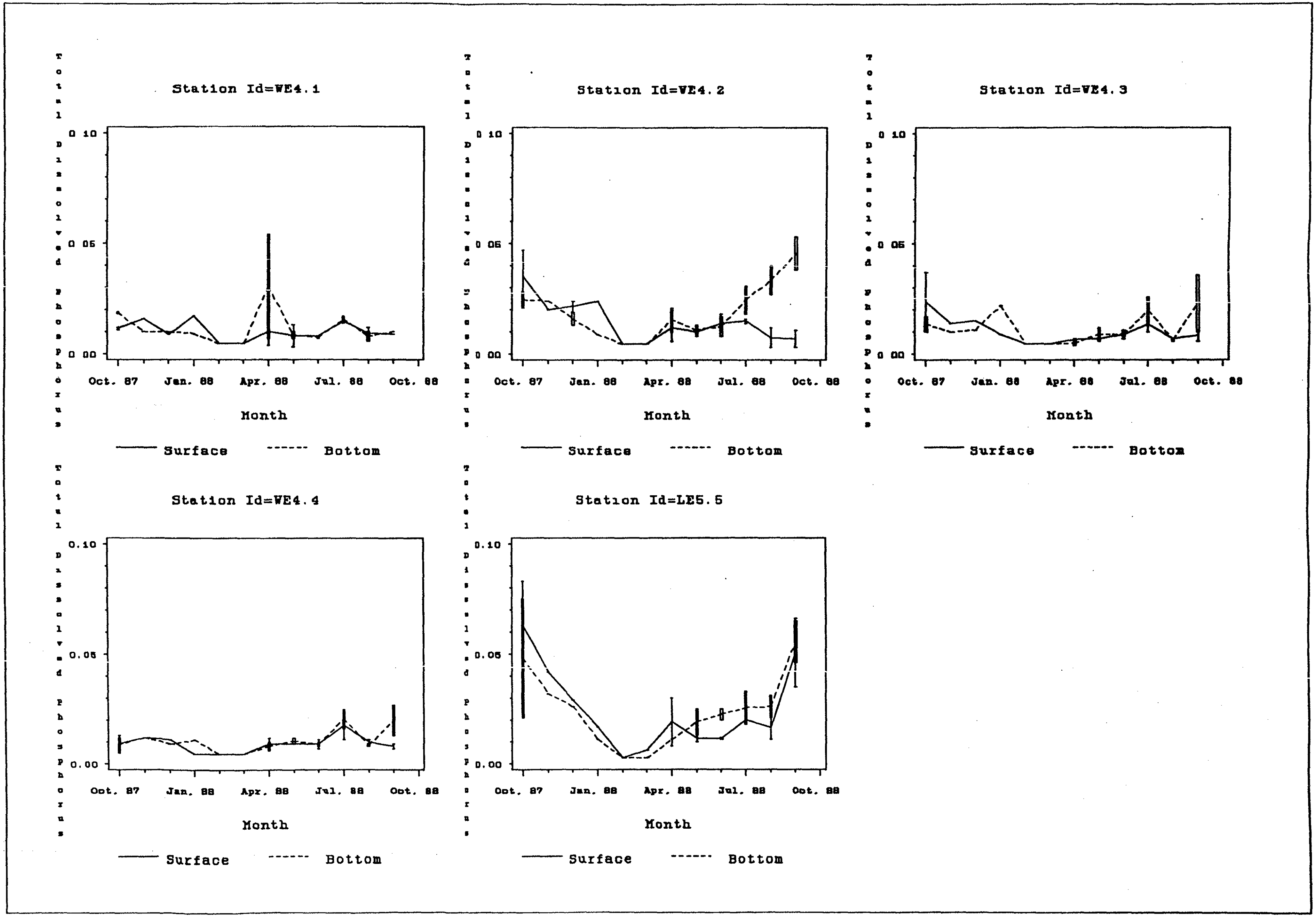
	Total Dissolved Phosphorus (mg/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3............	0.0280	0.0101	0.0030	0.0230	0.0136	0.0045
CB5.4............	0.0340	0.0125	0.0030	0.0290	0.0148	0.0045
CB5.5............	0.0240	0.0113	0.0030	0.0290	0.0150	0.0045
CB6.1............	0.0300	0.0110	0.0030	0.0380	0.0154	0.0030
CB6.2............	0.0400	0.0132	0.0045	0.0260	0.0131	0.0045
CB6.3............	0.0280	0.0105	0.0030	0.0270	0.0133	0.0030
CB6.4............	0.0410	0.0116	0.0025	0.0780	0.0226	0.0025
CB7.3............	0.0410	0.0110	0.0025	0.0440	0.0212	0.0025
CB7.4............	0.0390	0.0139	0.0025	0.0370	0.0190	0.0025
CB7.4N...........	0.0370	0.0141	0.0025	0.0390	0.0171	0.0060
CB8.1E...........	0.0420	0.0148	0.0025	0.0390	0.0209	0.0025
CB8.1............	0.0470	0.0198	0.0080	0.0470	0.0226	0.0025
EE3.1............	0.0370	0.0111	0.0015	0.0200	0.0098	0.0030
EE3.2............	0.0260	0.0099	0.0030	0.0390	0.0137	0.0030
CB7.1N...........	0.0210	0.0084	0.0030	0.0210	0.0098	0.0030
CB7.1............	0.0260	0.0086	0.0030	0.0310	0.0152	0.0045
CB7.1S...........	0.0470	0.0113	0.0030	0.0380	0.0159	0.0045
CB5.4W...........	0.0360	0.0113	0.0030	0.0220	0.0109	0.0030
CB7.2............	0.0300	0.0107	0.0030	0.0310	0.0163	0.0045
CB7.2E...........	0.0240	0.0085	0.0030	0.0640	0.0164	0.0030
CB7.3E...........	0.0390	0.0126	0.0025	0.0410	0.0216	0.0025
LE3.6............	0.0320	0.0103	0.0030	0.0260	0.0114	0.0045
LE3.7............	0.0180	0.0096	0.0030	0.0170	0.0092	0.0030
WE4.1............	0.0170	0.0101	0.0030	0.0540	0.0124	0.0045
WE4.2............	0.0470	0.0148	0.0030	0.0530	0.0204	0.0045
WE4.3............	0.0370	0.0104	0.0045	0.0360	0.0117	0.0040
WE4.4............	0.0240	0.0094	0.0045	0.0270	0.0111	0.0045
LE5.5............	0.0830	0.0253	0.0025	0.0750	0.0257	0.0025


Station Id=CB5.3
Station Id=CB5.4
Station Id=CB5.5
Station Id=CB6.1
Station Id=CB6.2
Station Id=CB6.3
Total Dissolved Phosphorus
0.00
0.05
0.10
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom


Station Id=CB6.4
Station Id=CB7.3
Station Id=CB7.4
Station Id=CB7.4N
Station Id=CB8.1E
Station Id=CB8.1
Total Dissolved Phosphorus
0.10
0.05
0.00
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom


Station Id=EE3.1
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB6.4W
Total Dissolved Phosphorus
0.00
0.05
0.10
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom


Station Id=CB7.2
Station Id=CB7.2E
Station Id=CB7.3E
Station Id=LE3.6
Station Id=LE3.7
Total Dissolved Phosphorus
0.00
0.05
0.10
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

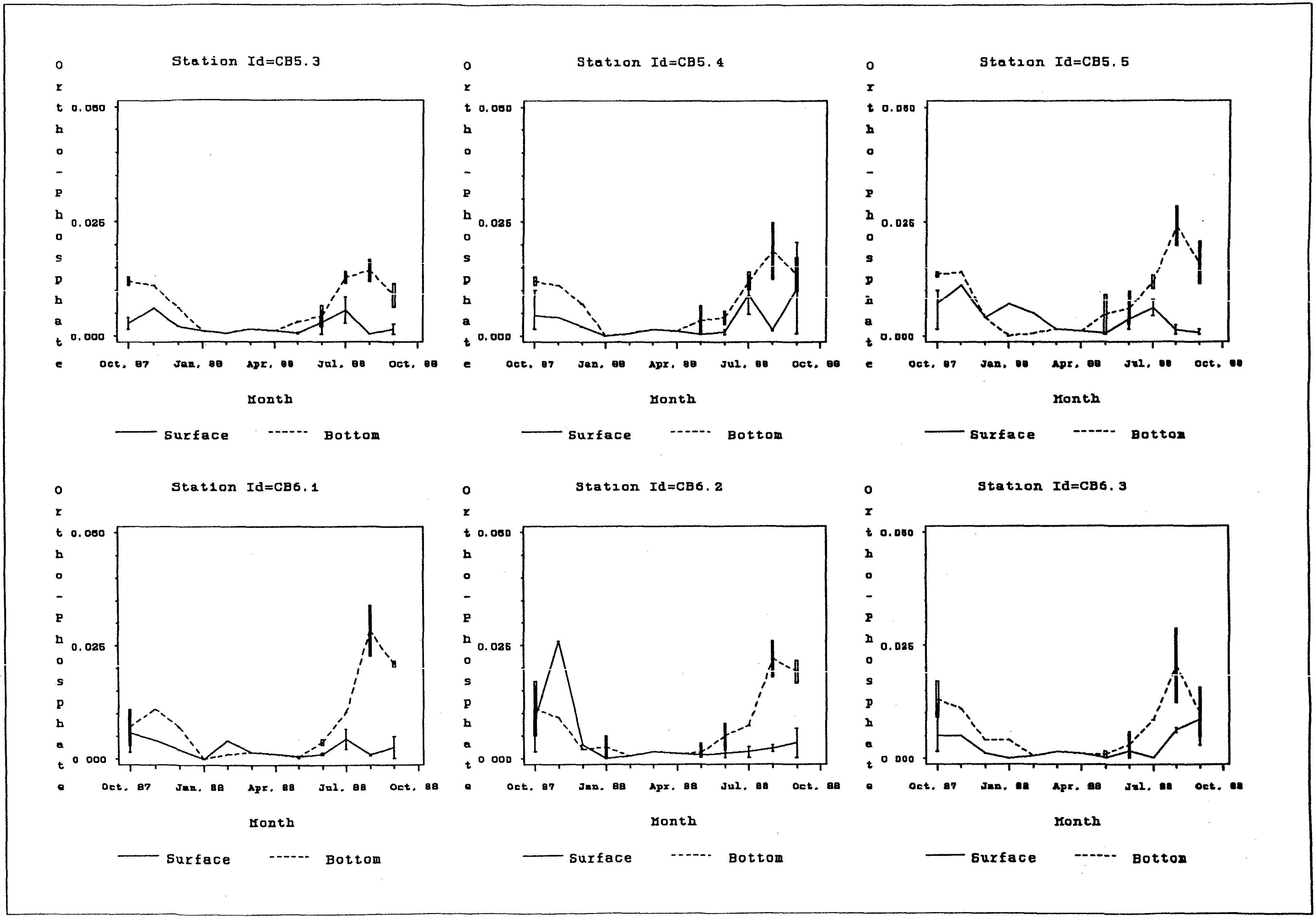

Station Id=WE4.1
Station Id=WE4.2
Station Id=WE4.3
Station Id=WE4.4
Station Id=LE5.5
Total Dissolved Phosphorus
0.00
0.05
0.10
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

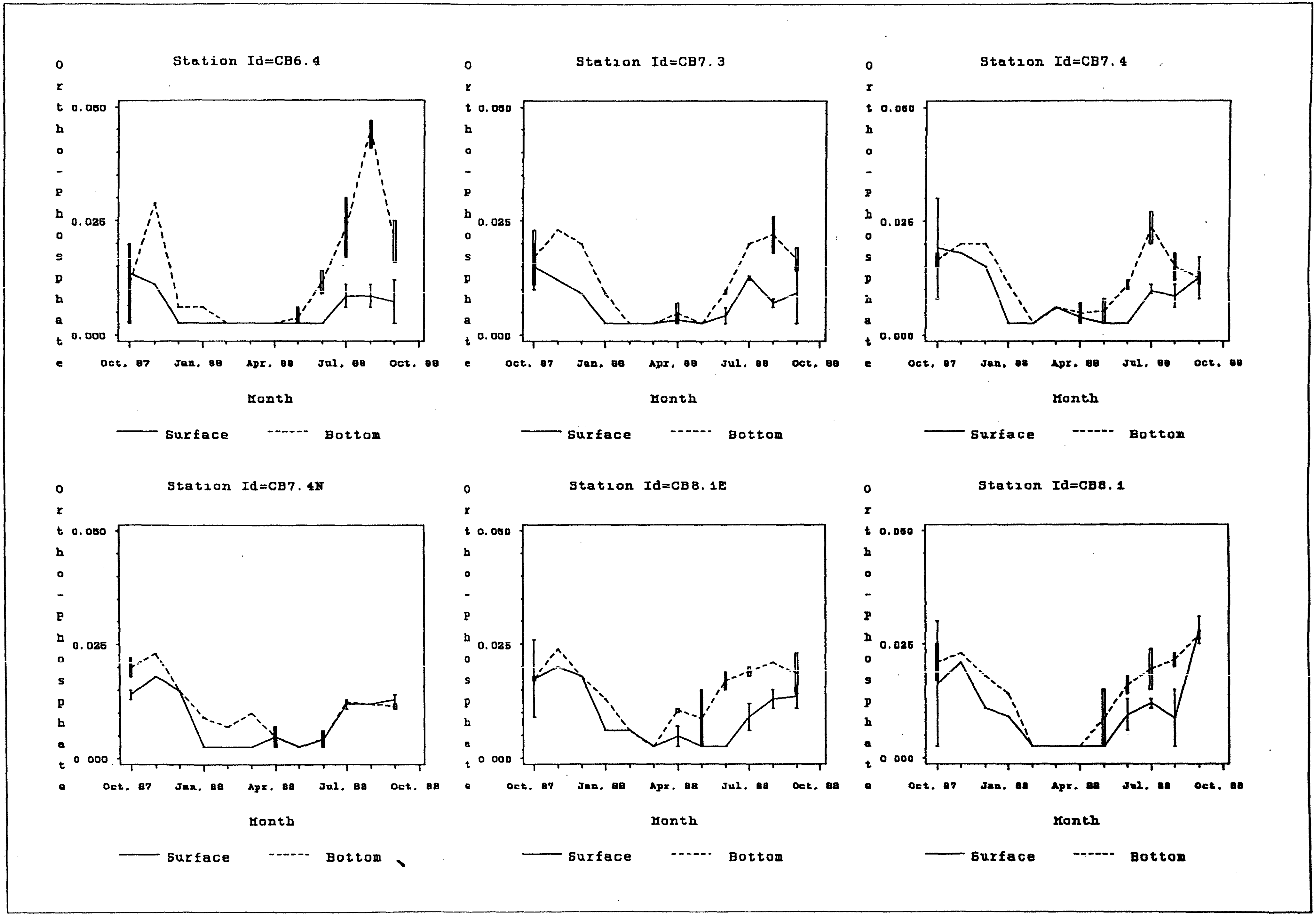
ORTHO-PHOSPHATE

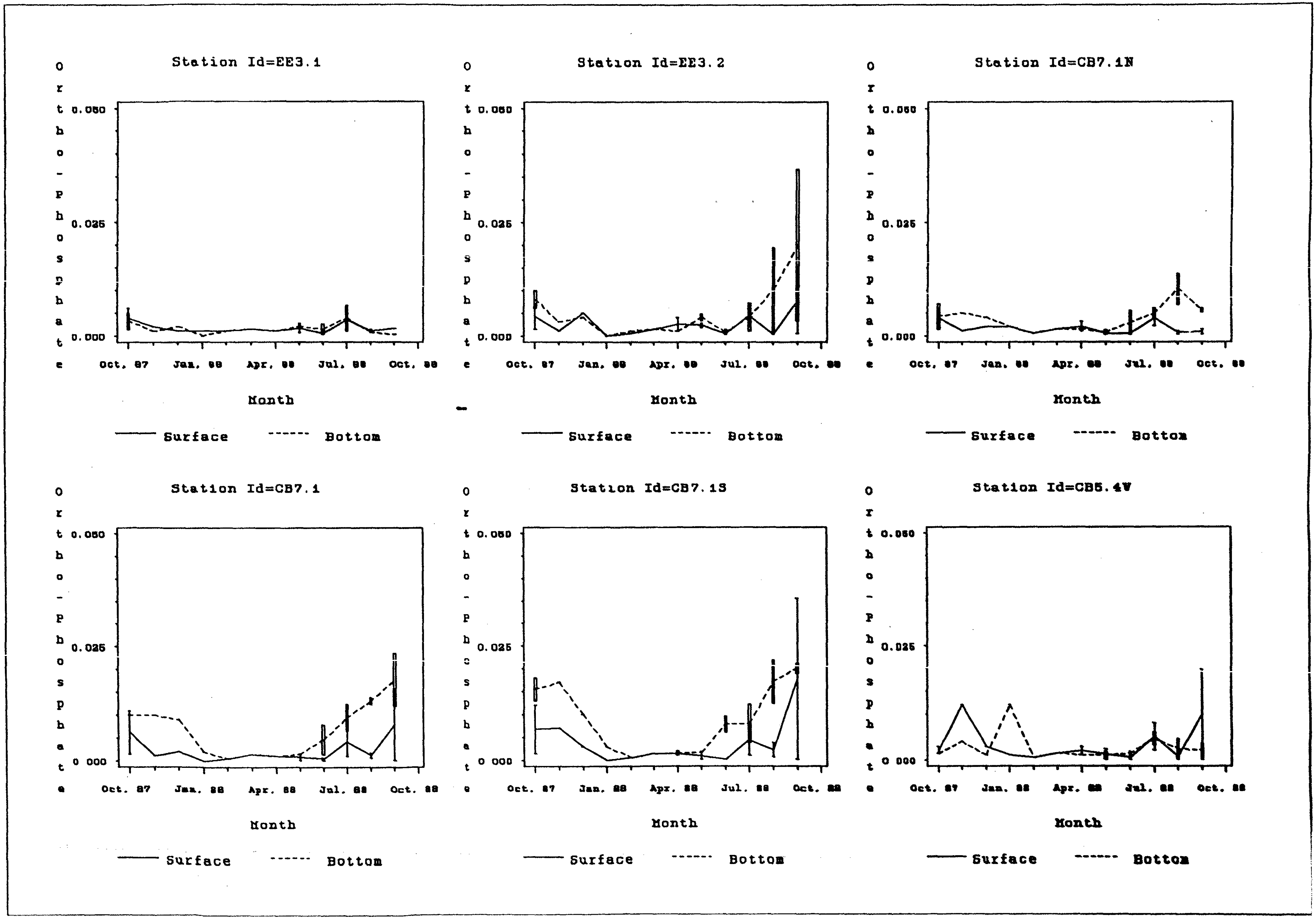
Values reported as mg/l.

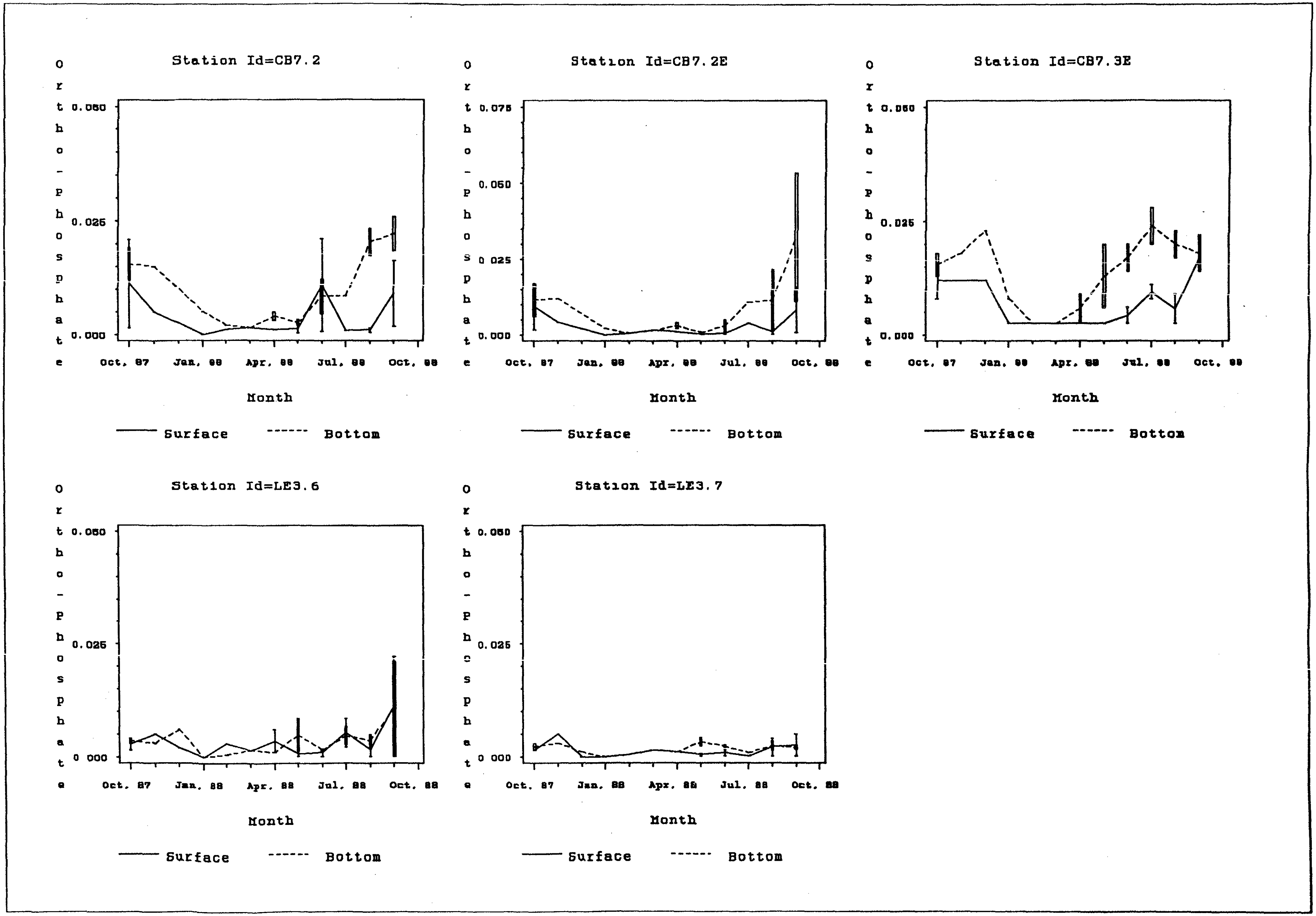
Ortho-phosphate
October, 1987 - September, 1988

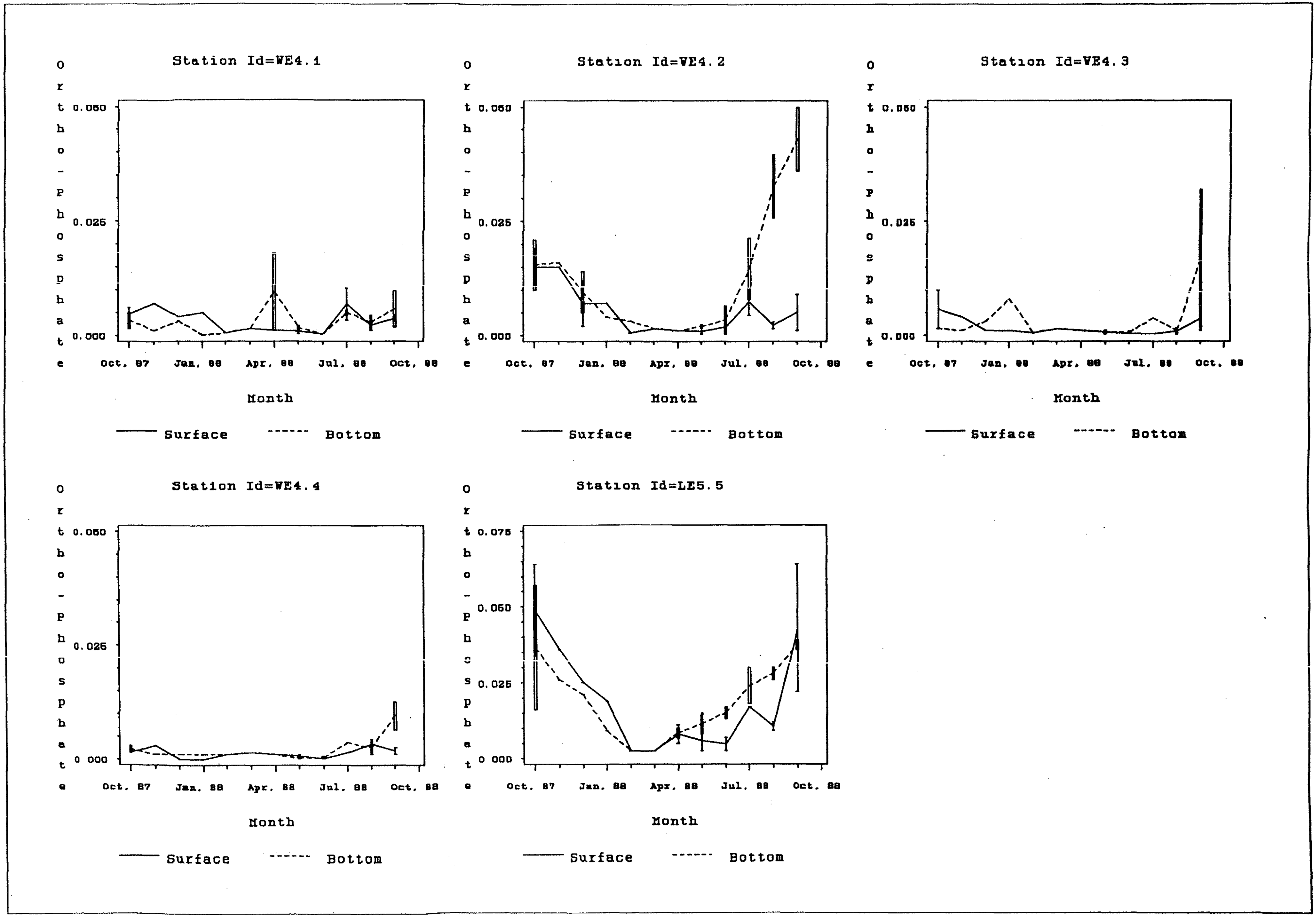
	Ortho-phosphate (mg/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3............	0.0085	0.0021	0.0002	0.0167	0.0070	0.0005
CB5.4............	0.0205	0.0033	0.0000	0.0248	0.0078	0.0000
CB5.5............	0.0110	0.0037	0.0002	0.0283	0.0092	0.0000
CB6.1............	0.0100	0.0023	0.0000	0.0340	0.0086	0.0000
CB6.2............	0.0260	0.0036	0.0000	0.0260	0.0073	0.0000
CB6.3............	0.0145	0.0030	0.0000	0.0287	0.0071	0.0002
CB6.4............	0.0200	0.0057	0.0025	0.0470	0.0157	0.0025
CB7.3............	0.0200	0.0068	0.0025	0.0260	0.0129	0.0025
CB7.4............	0.0300	0.0087	0.0025	0.0270	0.0124	0.0025
CB7.4N...........	0.0180	0.0087	0.0025	0.0230	0.0105	0.0025
CB8.1E...........	0.0260	0.0094	0.0025	0.0240	0.0152	0.0025
CB8.1............	0.0310	0.0108	0.0025	0.0280	0.0154	0.0025
EE3.1............	0.0060	0.0017	0.0002	0.0066	0.0017	0.0000
EE3.2............	0.0151	0.0027	0.0000	0.0367	0.0056	0.0000
CB7.1N...........	0.0060	0.0016	0.0002	0.0137	0.0039	0.0002
CB7.1............	0.0157	0.0026	0.0000	0.0235	0.0071	0.0005
CB7.1S...........	0.0355	0.0042	0.0000	0.0219	0.0092	0.0005
CB5.4W...........	0.0199	0.0033	0.0002	0.0120	0.0025	0.0002
CB7.2............	0.0211	0.0045	0.0000	0.0259	0.0105	0.0015
CB7.2E...........	0.0170	0.0030	0.0000	0.0535	0.0089	0.0002
CB7.3E...........	0.0170	0.0067	0.0025	0.0280	0.0148	0.0025
LE3.6............	0.0223	0.0034	0.0000	0.0211	0.0037	0.0000
LE3.7............	0.0050	0.0013	0.0000	0.0042	0.0019	0.0000
WE4.1............	0.0103	0.0030	0.0002	0.0180	0.0033	0.0000
WE4.2............	0.0190	0.0052	0.0002	0.0499	0.0134	0.0002
WE4.3............	0.0100	0.0018	0.0002	0.0319	0.0034	0.0002
WE4.4............	0.0045	0.0013	0.0000	0.0127	0.0023	0.0002
LE5.5............	0.0640	0.0190	0.0025	0.0570	0.0202	0.0025


Station Id=CB5.3
Ortho-phosphate
0.050
0.025
0.000
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB5.4
Ortho-phosphate
0.050
0.025
0.000
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB5.5
Ortho-phosphate
0.050
0.025
0.000
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB6.1
Ortho-phosphate
0.050
0.025
0.000
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB6.2
Ortho-phosphate
0.050
0.025
0.000
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB6.3
Ortho-phosphate
0.050
0.025
0.000
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom


Station Id=CB6.4
Station Id=CB7.3
Station Id=CB7.4
Station Id=CB7.4N
Station Id=CB8.1E
Station Id=CB8.1
Ortho-phosphate
0.050
0.025
0.000
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=EE3.1
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB5.4W
Ortho-phosphate
0.050
0.025
0.000
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom


Station Id=CB7.2
Station Id=CB7.2E
Station Id=CB7.3E
Station Id=LE3.6
Station Id=LE3.7
Ortho-phosphate
0.050
0.075
0.025
0.000
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom

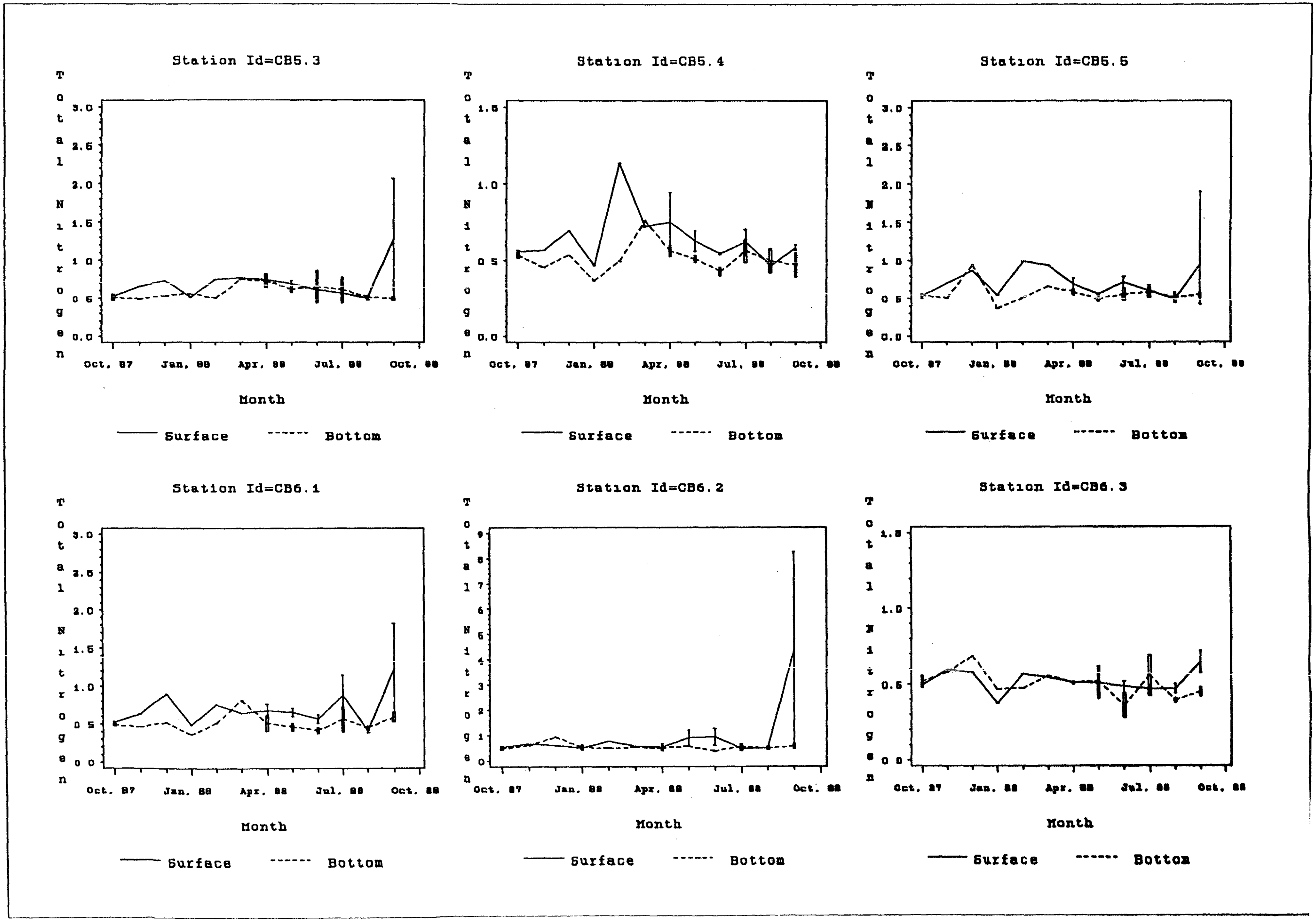

Station Id=WE4.1
Station Id=WE4.2
Station Id=WE4.3
Station Id=WE4.4
Station Id=LE5.5
Ortho-phosphate
0.050
0.025
0.000
0.075
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

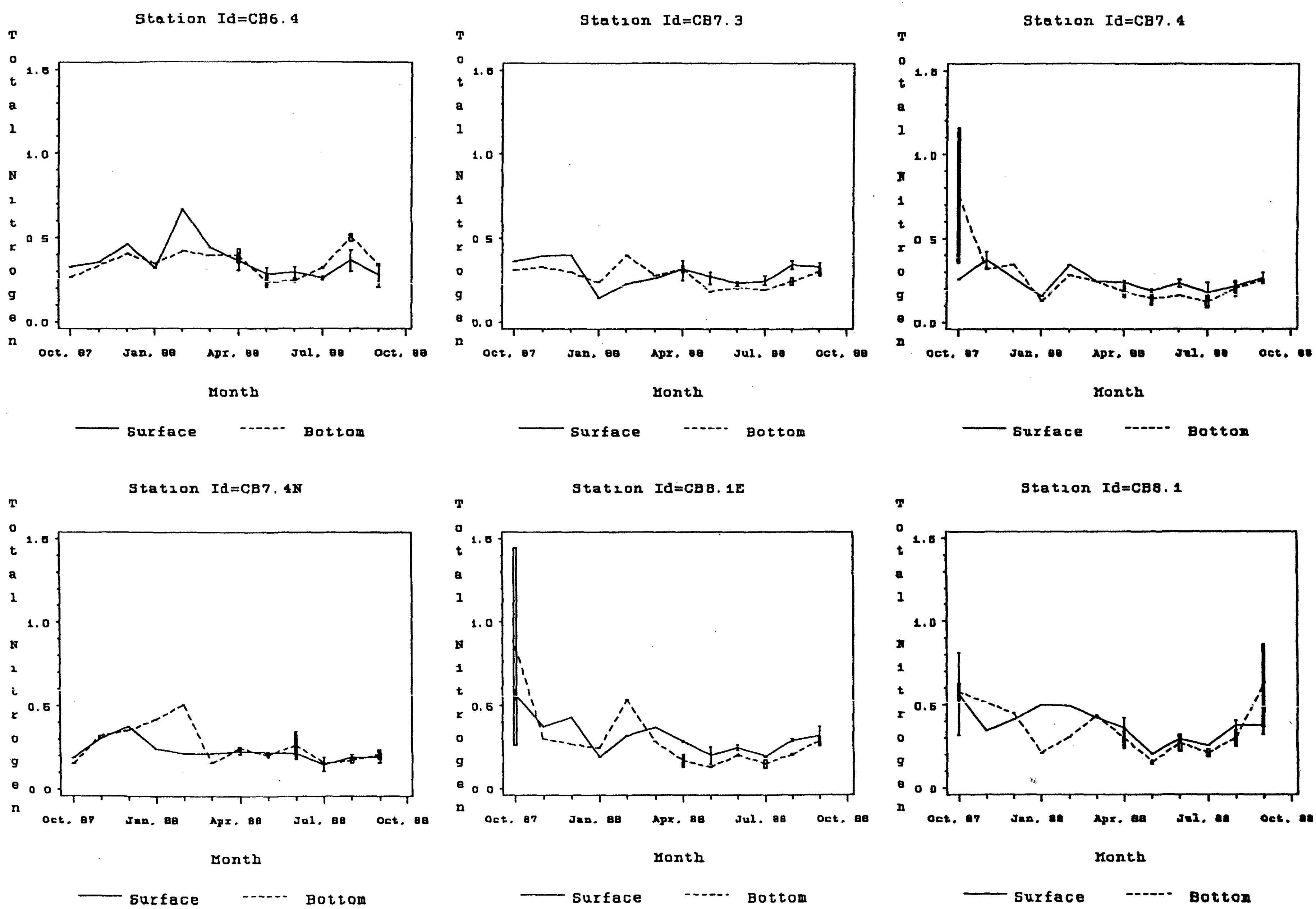
TOTAL NITROGEN

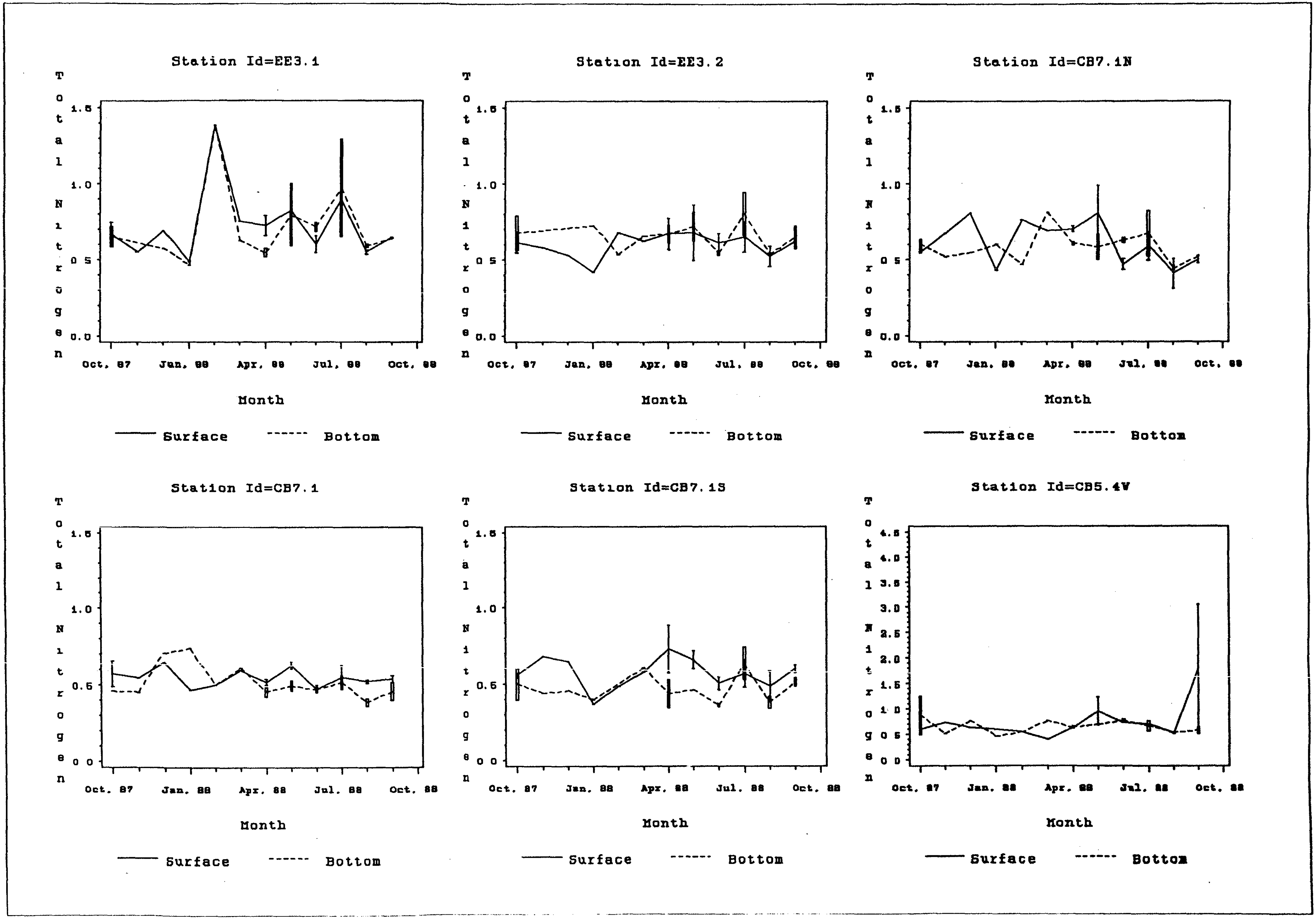
Total Nitrogen is the sum of Particulate Nitrogen and Total Dissolved Nitrogen. Values reported as mg/l.

Total Nitrogen
October, 1987 - September, 1988

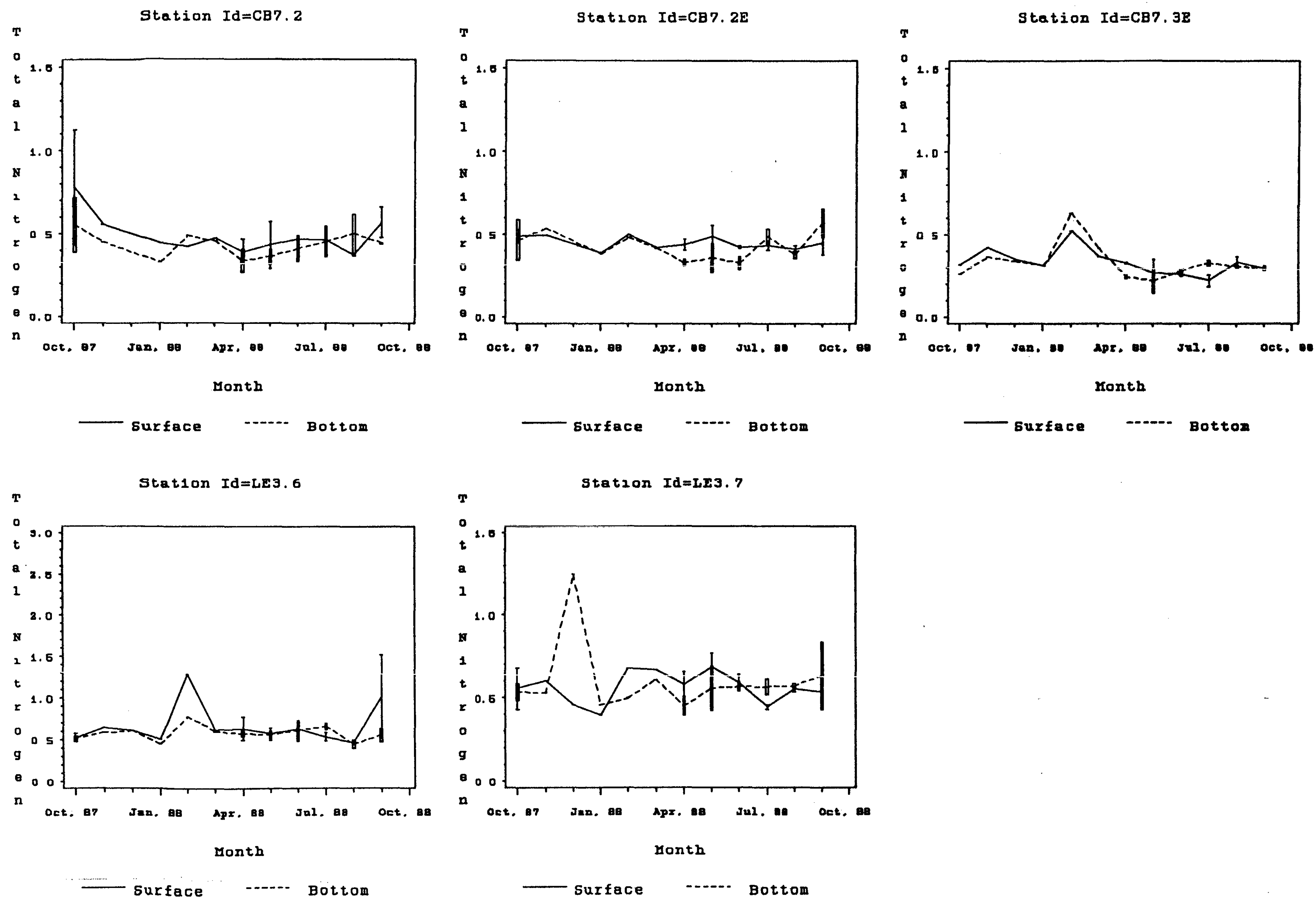
	Total Nitrogen (mg/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3...........	2.0700	0.6956	0.4750	0.8610	0.5827	0.4370
CB5.4...........	1.1330	0.6218	0.4330	0.7590	0.5130	0.3660
CB5.5...........	1.9000	0.6912	0.4230	0.9420	0.5563	0.3680
CB6.1...........	1.8250	0.7016	0.3930	0.8160	0.5091	0.3610
CB6.2...........	8.2420	1.0010	0.4090	0.9200	0.5294	0.3600
CB6.3...........	0.7200	0.5147	0.3700	0.6910	0.4925	0.2770
CB6.4...........	0.6640	0.3461	0.2050	0.5220	0.3491	0.2060
CB7.3...........	0.4010	0.2898	0.1450	0.3990	0.2719	0.1830
CB7.4...........	0.4230	0.2370	0.1300	1.1600	0.2597	0.0860
CB7.4N..........	0.3800	0.2203	0.1110	0.5100	0.2470	0.1530
CB8.1E..........	0.5970	0.3077	0.1450	1.4410	0.2942	0.1240
CB8.1...........	0.8110	0.3767	0.2060	0.8610	0.3484	0.1450
EE3.1...........	1.3780	0.7216	0.4840	1.3830	0.7172	0.4600
EE3.2...........	0.8630	0.6084	0.4180	0.9480	0.6525	0.5270
CB7.1N..........	0.9890	0.6008	0.3110	0.8220	0.5809	0.4150
CB7.1...........	0.6570	0.5461	0.4510	0.7380	0.5023	0.3620
CB7.1S..........	0.8880	0.5768	0.3690	0.7400	0.4698	0.3410
CB5.4W..........	3.0560	0.7811	0.4020	1.2570	0.6616	0.4600
CB7.2...........	1.1240	0.4899	0.2880	0.7170	0.4349	0.2650
CB7.2E..........	0.5540	0.4483	0.3750	0.6570	0.4249	0.2730
CB7.3E..........	0.5220	0.3156	0.1830	0.6310	0.3146	0.1450
LE3.6...........	1.5290	0.6569	0.4490	0.7820	0.5747	0.4030
LE3.7...........	0.7670	0.5616	0.3960	1.2480	0.5833	0.3950
WE4.1...........	0.7160	0.5007	0.2035	0.6370	0.4855	0.1020
WE4.2...........	0.8090	0.4812	0.0760	1.0370	0.5266	0.0800
WE4.3...........	0.8670	0.4805	0.3160	1.0640	0.4745	0.3570
WE4.4...........	0.8520	0.5033	0.3200	0.6720	0.4899	0.3400
LE5.5...........	1.8070	0.5174	0.2420	1.1530	0.4036	0.1720

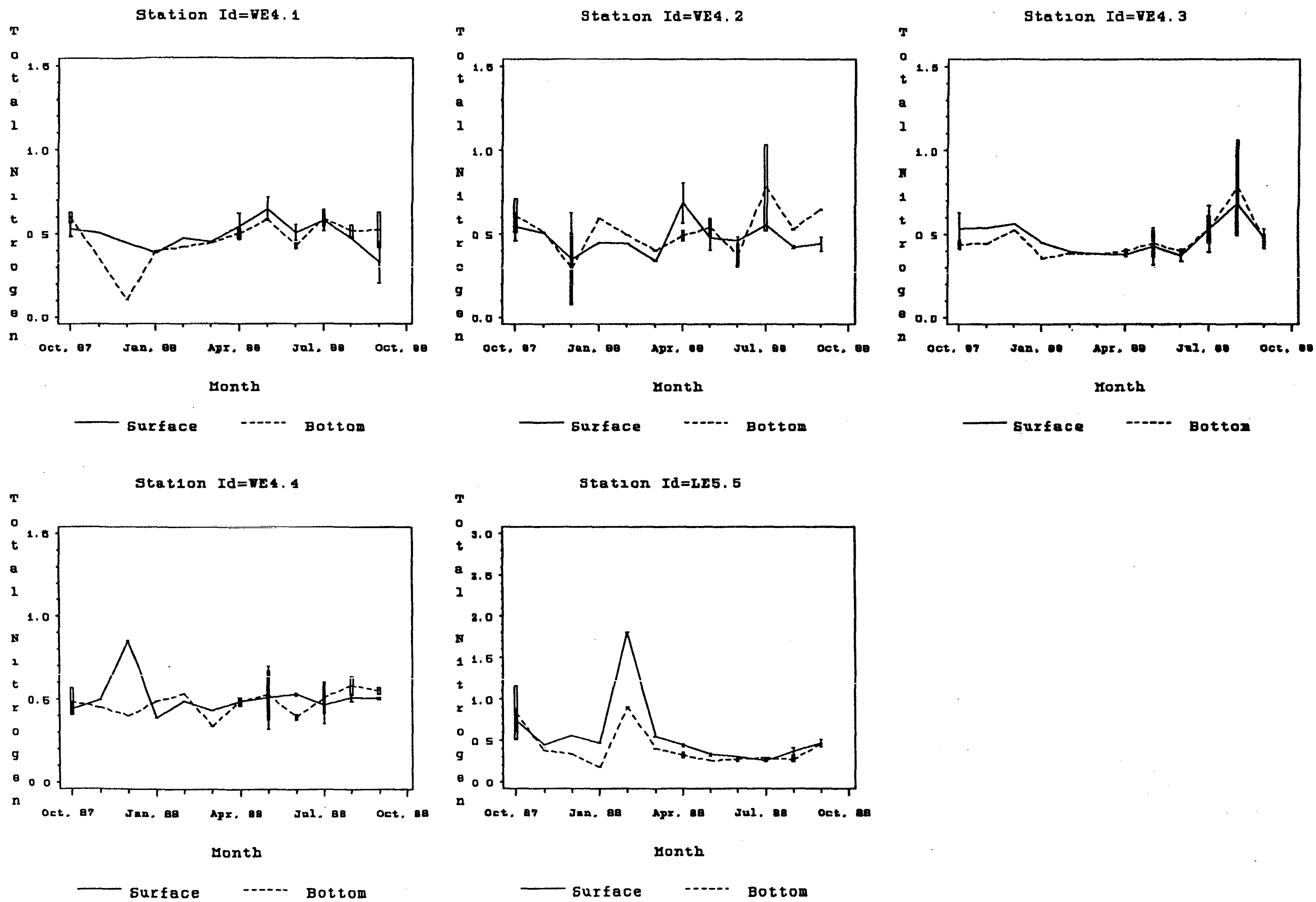

Station Id=CB5.3
Total Nitrogen
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB5.4
Total Nitrogen
1.5
1.0
0.5
0.0
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB5.5
Total Nitrogen
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB6.1
Total Nitrogen
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB6.2
Total Nitrogen
9
8
7
6
5
4
3
2
1
0
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB6.3
Total Nitrogen
1.5
1.0
0.5
0.0
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom


Station Id=CB6.4
Station Id=CB7.3
Station Id=CB7.4
Station Id=CB7.4N
Station Id=CB8.1E
Station Id=CB8.1
Total Nitrogen
0.0
0.5
1.0
1.5
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom



Station Id=EE3.1
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB5.4W
Total Nitrogen
Month
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
Surface
Bottom


Station Id=CB7.2
Station Id=CB7.2E
Station Id=CB7.3E
Station Id=LE3.6
Station Id=LE3.7
Total Nitrogen
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

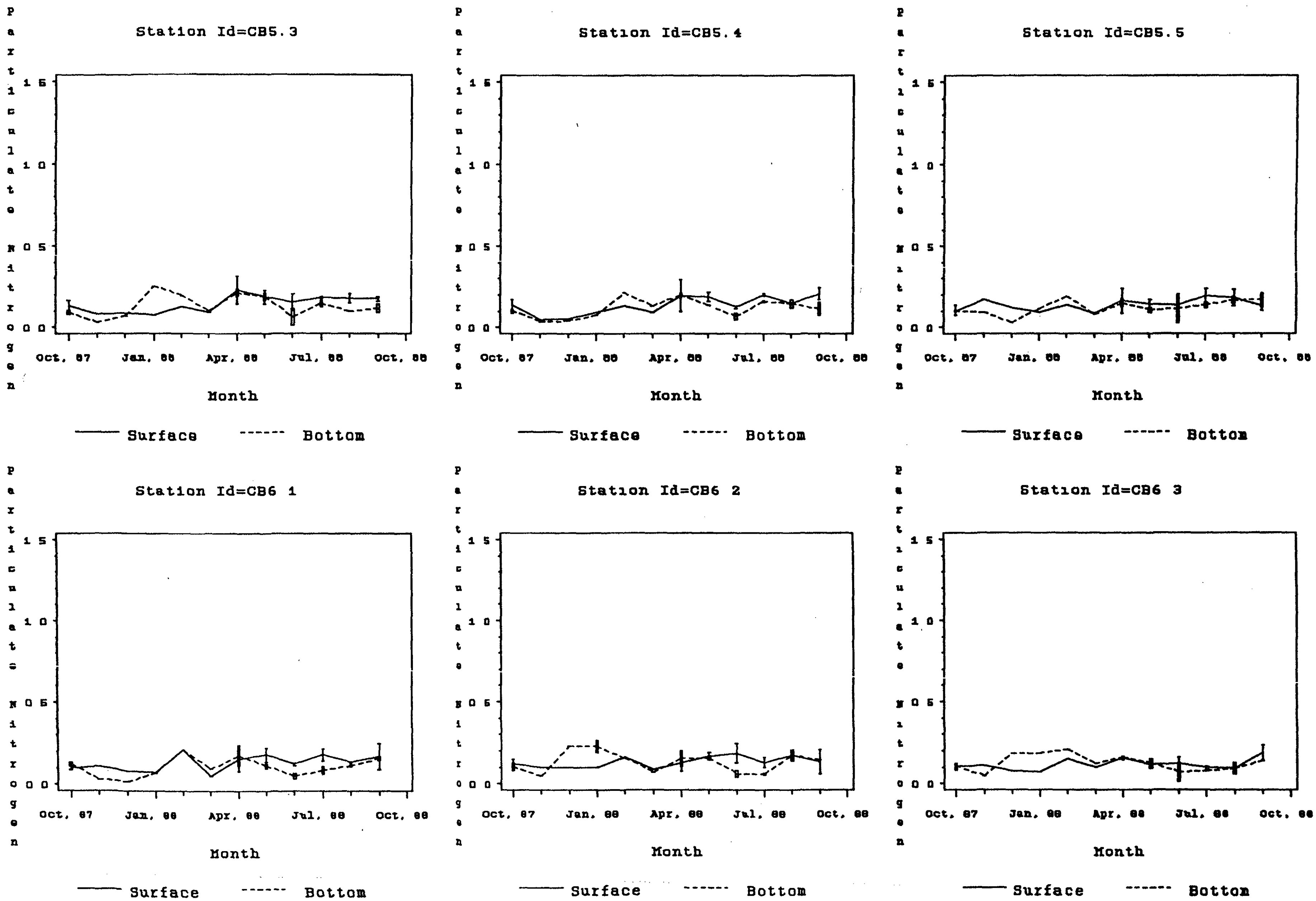

Station Id=WE4.1
Station Id=WE4.2
Station Id=WE4.3
Station Id=WE4.4
Station Id=LE5.5
Total Nitrogen
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

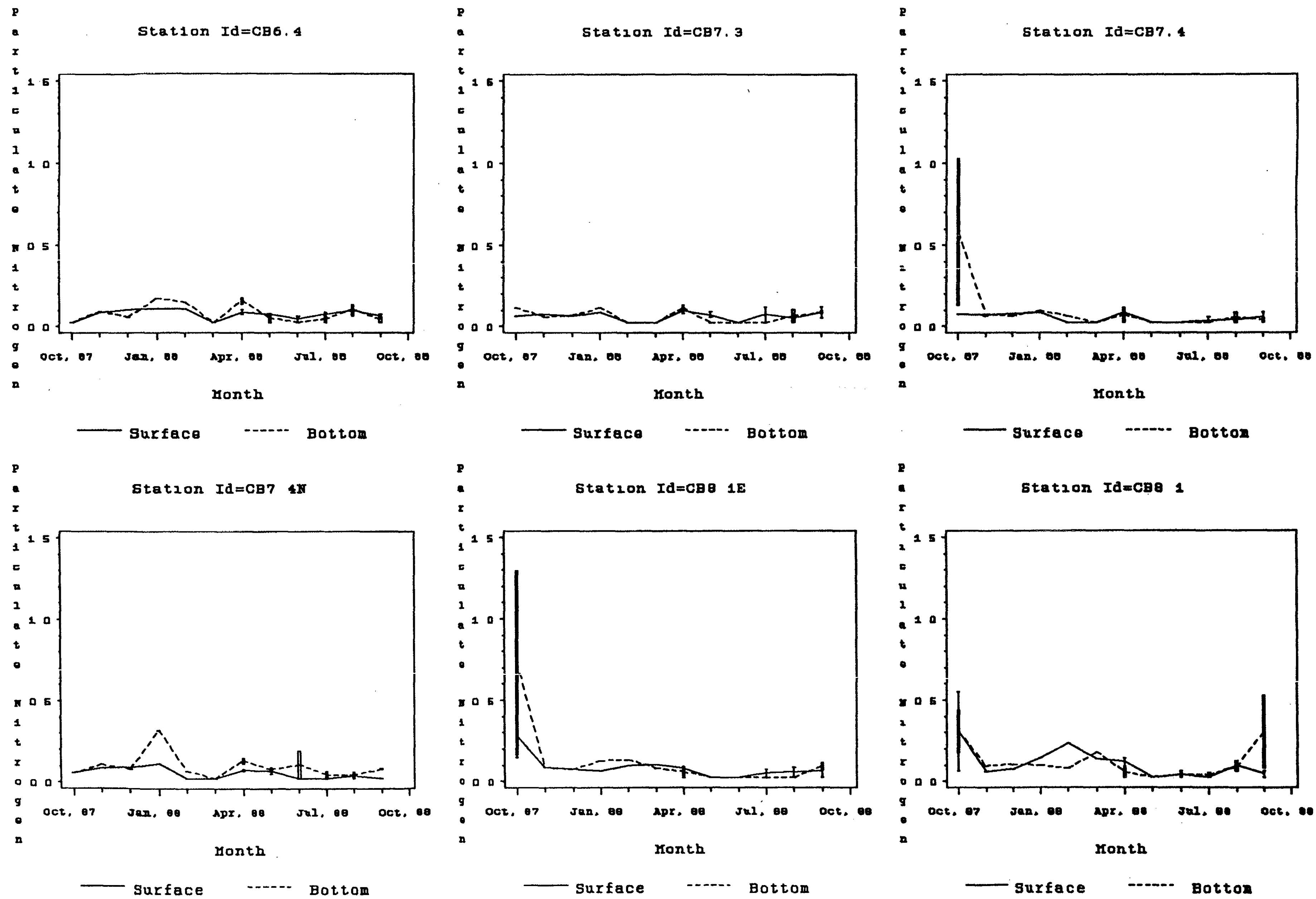
PARTICULATE NITROGEN

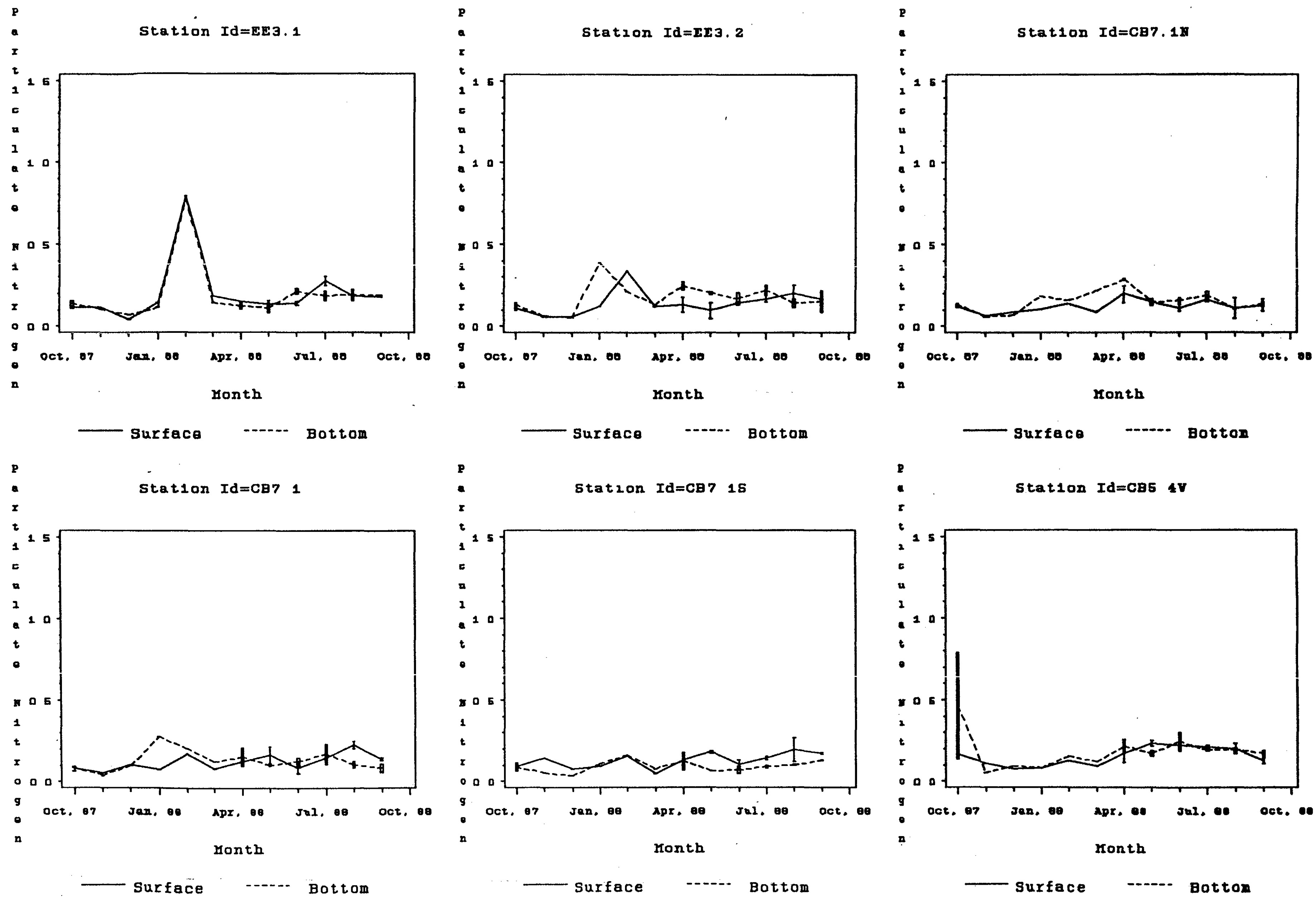
Values reported as mg/l.

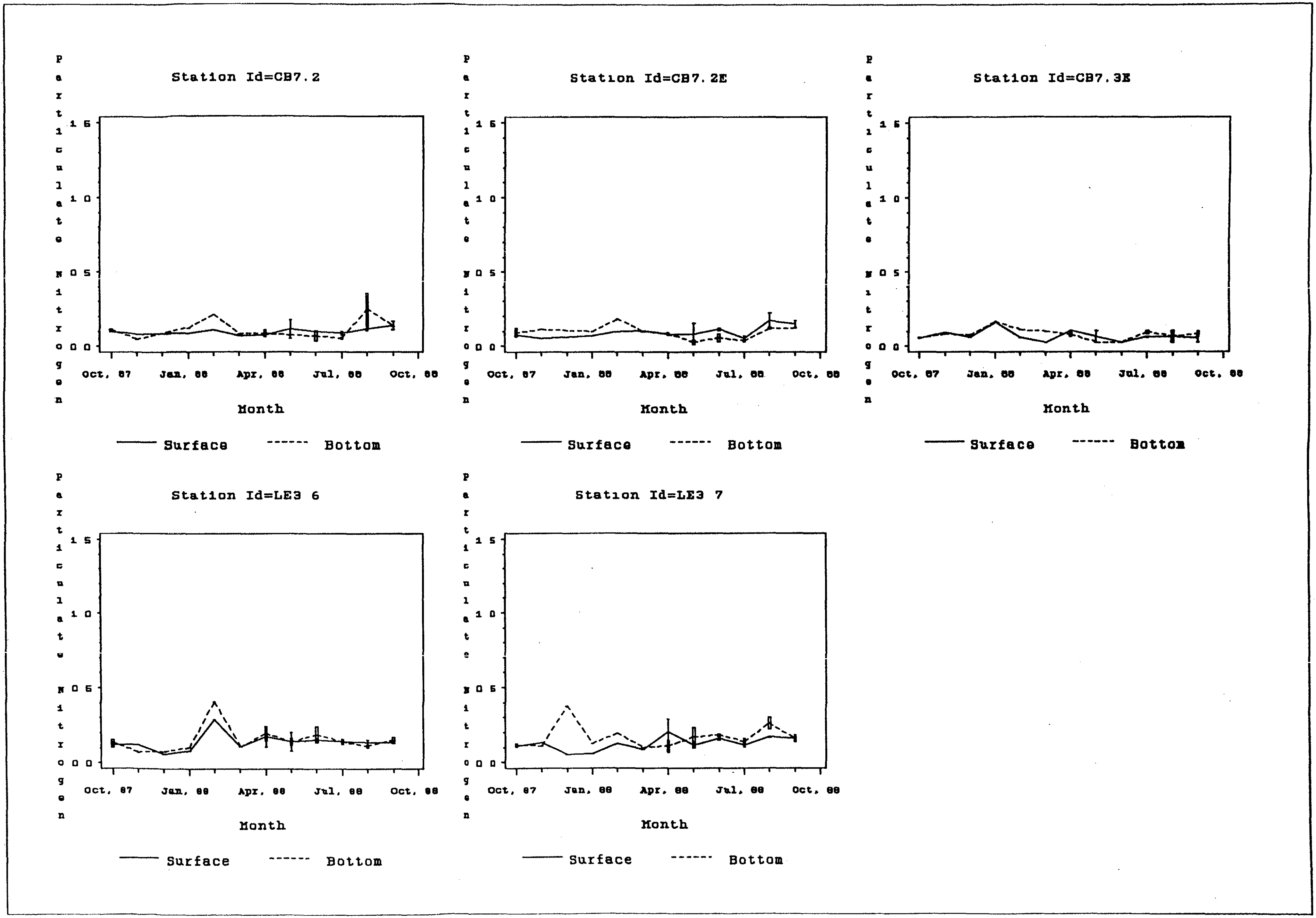
Particulate Nitrogen
October, 1987 - September, 1988

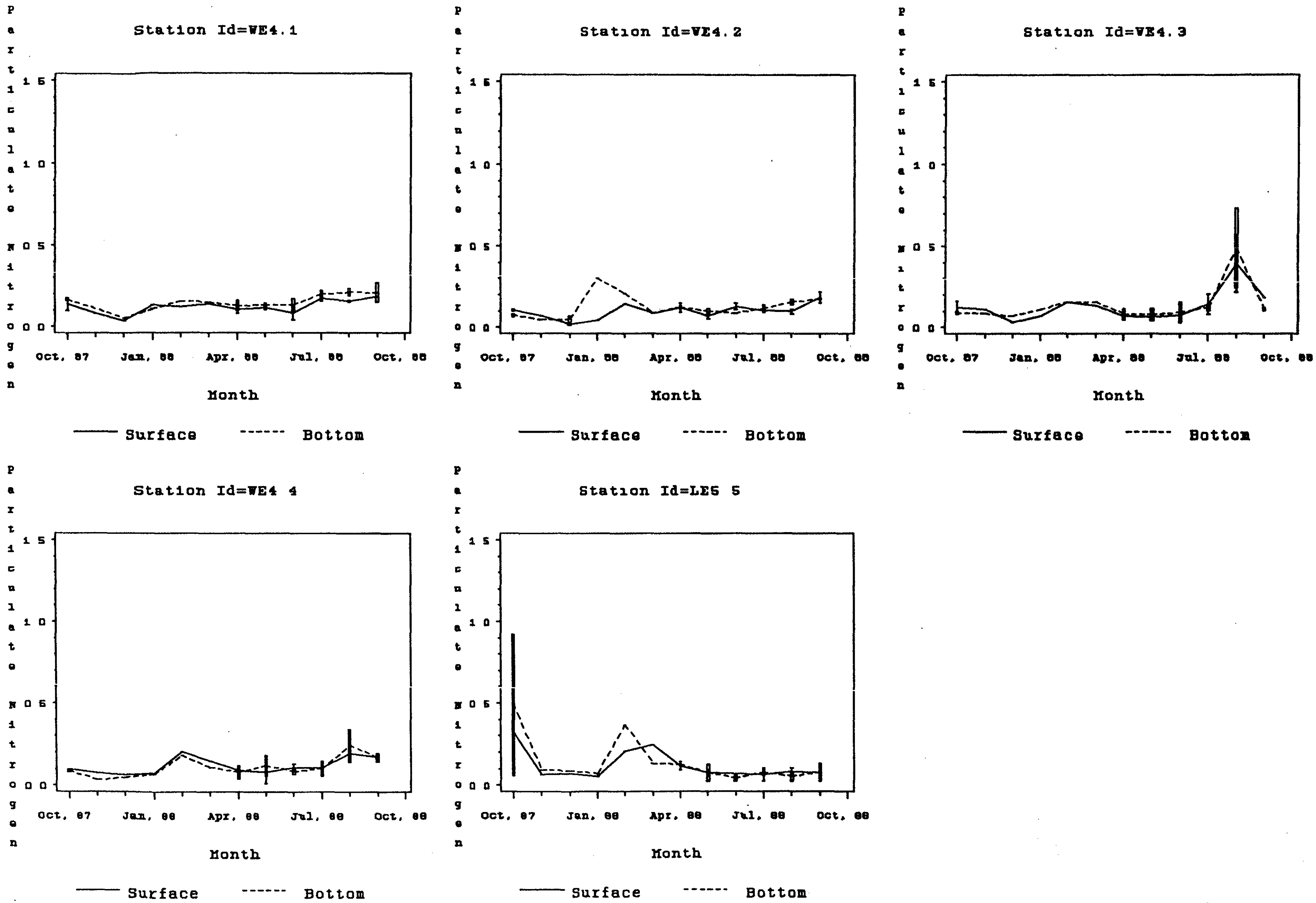
	Particulate Nitrogen (mg/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3...........	0.3130	0.1550	0.0770	0.2530	0.1299	0.0130
CB5.4...........	0.2940	0.1479	0.0470	0.2120	0.1230	0.0360
CB5.5...........	0.2420	0.1397	0.0770	0.2110	0.1268	0.0290
CB6.1...........	0.2500	0.1377	0.0500	0.2380	0.1087	0.0170
CB6.2...........	0.2470	0.1355	0.0560	0.2620	0.1311	0.0400
CB6.3...........	0.2360	0.1169	0.0650	0.2060	0.1189	0.0130
CB6.4...........	0.1280	0.0749	0.0250	0.1780	0.0766	0.0250
CB7.3...........	0.1340	0.0661	0.0250	0.1190	0.0646	0.0250
CB7.4...........	0.0960	0.0476	0.0250	1.0270	0.1034	0.0250
CB7.4N..........	0.1160	0.0508	0.0250	0.3210	0.0919	0.0250
CB8.1E..........	0.4060	0.0831	0.0250	1.2990	0.1298	0.0250
CB8.1...........	0.5530	0.1035	0.0250	0.5300	0.1197	0.0250
EE3.1...........	0.7920	0.1904	0.0380	0.7690	0.1824	0.0680
EE3.2...........	0.3350	0.1431	0.0470	0.3850	0.1769	0.0530
CB7.1N..........	0.2480	0.1278	0.0440	0.2910	0.1572	0.0590
CB7.1...........	0.2510	0.1279	0.0490	0.2770	0.1285	0.0380
CB7.1S..........	0.2660	0.1339	0.0470	0.1770	0.0922	0.0340
CB5.4W..........	0.2530	0.1658	0.0770	0.7910	0.2004	0.0490
CB7.2...........	0.1750	0.0994	0.0500	0.3550	0.1118	0.0340
CB7.2E..........	0.2200	0.0985	0.0130	0.1830	0.0870	0.0130
CB7.3E..........	0.1570	0.0658	0.0250	0.1640	0.0726	0.0250
LE3.6...........	0.2910	0.1408	0.0560	0.4110	0.1539	0.0720
LE3.7...........	0.2930	0.1326	0.0510	0.3760	0.1675	0.0710
WE4.1...........	0.1910	0.1262	0.0350	0.2670	0.1552	0.0520
WE4.2...........	0.2160	0.0993	0.0120	0.3000	0.1192	0.0300
WE4.3...........	0.5710	0.1364	0.0310	0.7340	0.1421	0.0290
WE4.4...........	0.2080	0.1189	0.0130	0.3410	0.1168	0.0340
LE5.5...........	0.5920	0.1212	0.0250	0.9240	0.1390	0.0250


Station Id=CB5.3
Station Id=CB5.4
Station Id=CB5.5
Station Id=CB6 1
Station Id=CB6 2
Station Id=CB6 3
Particulate Nitrogen
0 0
0 5
1 0
1 5
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=CB6.4
Station Id=CB7.3
Station Id=CB7.4
Station Id=CB7 4N
Station Id=CB8 1E
Station Id=CB8 1
Particulate Nitrogen
1 5
1 0
0 5
0 0
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=EE3.1
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7 1
Station Id=CB7 1S
Station Id=CB5 4W
Particulate Nitrogen
1 5
1 0
0 5
0 0
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=CB7.2
Station Id=CB7.2E
Station Id=CB7.3E
Station Id=LE3 6
Station Id=LE3 7
Particulate Nitrogen
1.5
1.0
0.5
0.0
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom



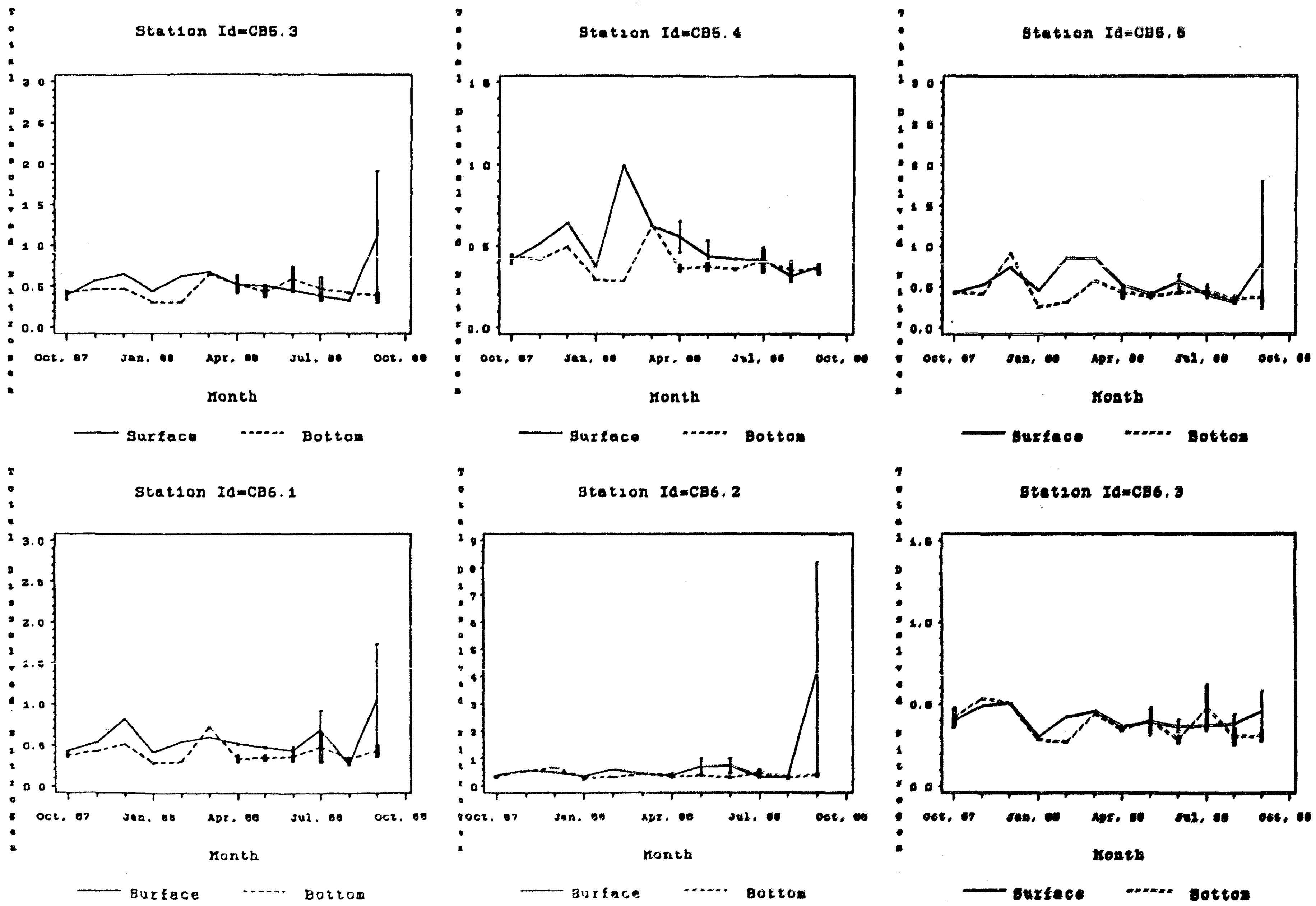
Station Id=WE4.1
Station Id=WE4.2
Station Id=WE4.3
Station Id=WE4 4
Station Id=LES 5
Particulate Nitrogen
1 5
1 0
0 5
0 0
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom

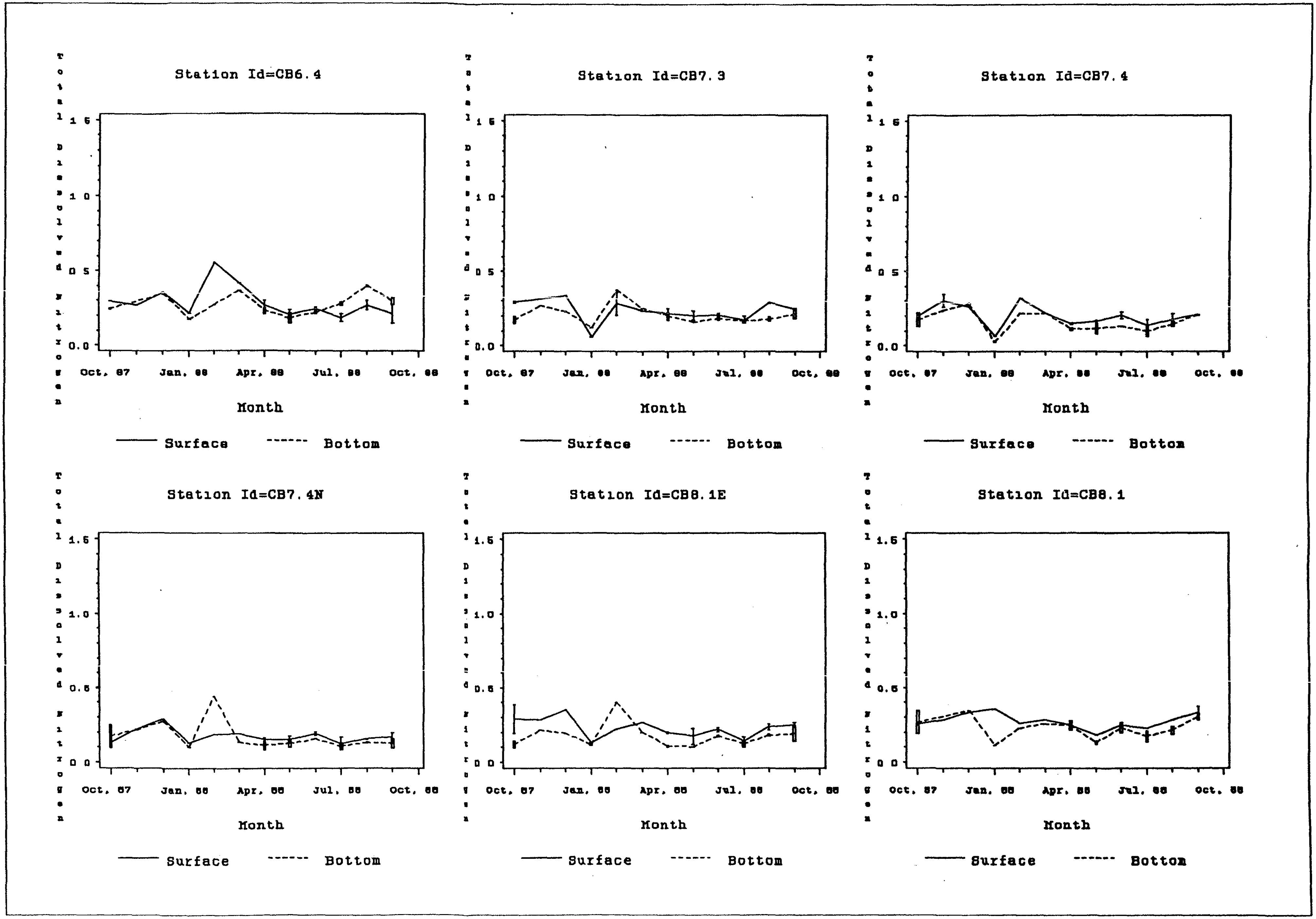
TOTAL DISSOLVED NITROGEN

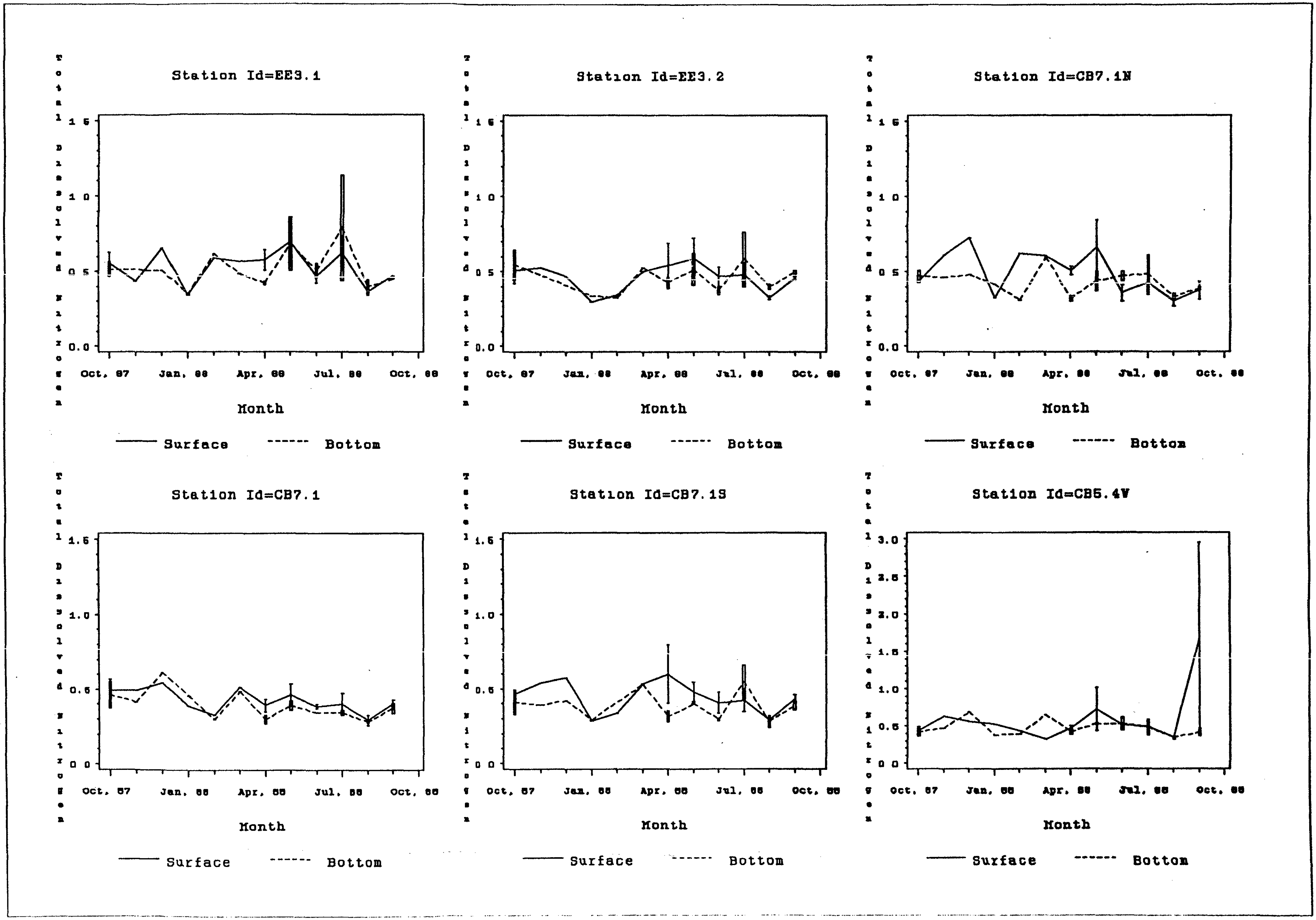
Values reported as mg/l.

Total Dissolved Nitrogen
October, 1987 - September, 1988

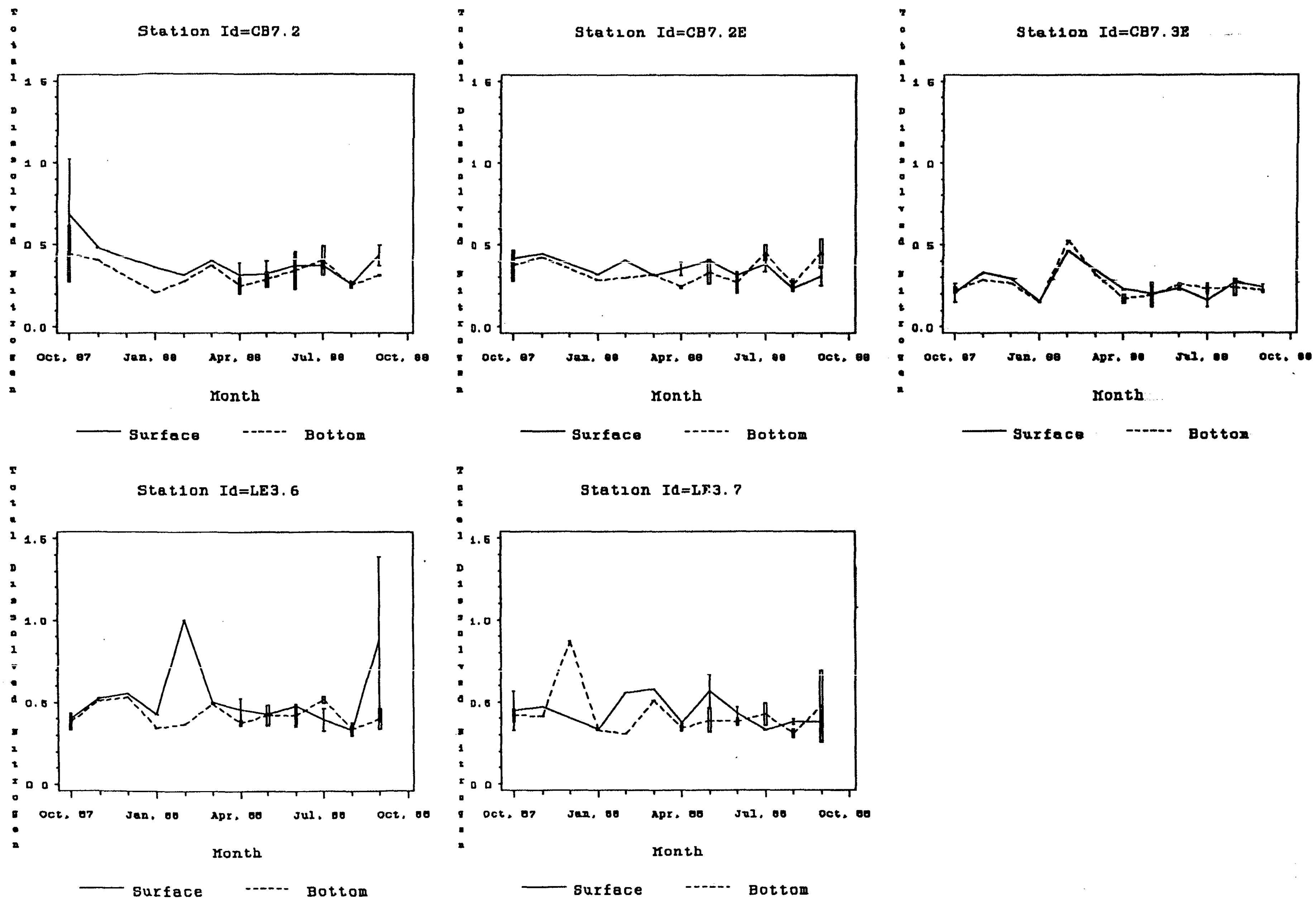
	Total Dissolved Nitrogen (mg/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3............	1.9080	0.5406	0.2940	0.7450	0.4528	0.2990
CB5.4............	1.0020	0.4738	0.2800	0.6270	0.3900	0.2850
CB5.5............	1.7950	0.5515	0.2410	0.9120	0.4295	0.2530
CB6.1............	1.7340	0.5639	0.2540	0.7210	0.4003	0.2890
CB6.2............	8.1860	0.8654	0.2600	0.6930	0.3970	0.2370
CB6.3............	0.5790	0.3978	0.3020	0.6150	0.3736	0.2540
CB6.4............	0.5540	0.2715	0.1510	0.4060	0.2721	0.1500
CB7.3............	0.3610	0.2323	0.0590	0.3740	0.2041	0.1220
CB7.4............	0.3460	0.1941	0.0660	0.2820	0.1564	0.0250
CB7.4N..........	0.2910	0.1671	0.0860	0.4420	0.1599	0.0860
CB8.1E..........	0.3850	0.2247	0.1180	0.4020	0.1644	0.0970
CB8.1............	0.3720	0.2688	0.1810	0.3470	0.2272	0.1150
EE3.1............	0.8490	0.5312	0.3400	1.1350	0.5301	0.3470
EE3.2............	0.7210	0.4653	0.2980	0.7620	0.4616	0.3220
CB7.1N..........	0.8420	0.4730	0.2670	0.6090	0.4237	0.3040
CB7.1............	0.5640	0.4182	0.2600	0.6120	0.3831	0.2720
CB7.1S..........	0.7930	0.4429	0.2600	0.6580	0.3814	0.2400
CB5.4W..........	2.9480	0.6153	0.3120	0.6760	0.4612	0.3370
CB7.2............	1.0230	0.3905	0.2340	0.6120	0.3231	0.1990
CB7.2E..........	0.4440	0.3498	0.2150	0.5340	0.3379	0.2050
CB7.3E..........	0.4620	0.2447	0.1180	0.5230	0.2418	0.1200
LE3.6............	1.3870	0.5162	0.3280	0.5390	0.4208	0.2990
LE3.7............	0.6700	0.4290	0.3090	0.8720	0.4158	0.2560
WE4.1............	0.5960	0.3694	0.0225	0.4690	0.3341	0.0500
WE4.2............	0.6590	0.3818	0.0500	0.9460	0.4073	0.0500
WE4.3............	0.5310	0.3442	0.2340	0.4750	0.3324	0.2280
WE4.4............	0.7910	0.3844	0.2820	0.4880	0.3731	0.2300
LE5.5............	1.6020	0.3881	0.1610	0.5370	0.2622	0.1010

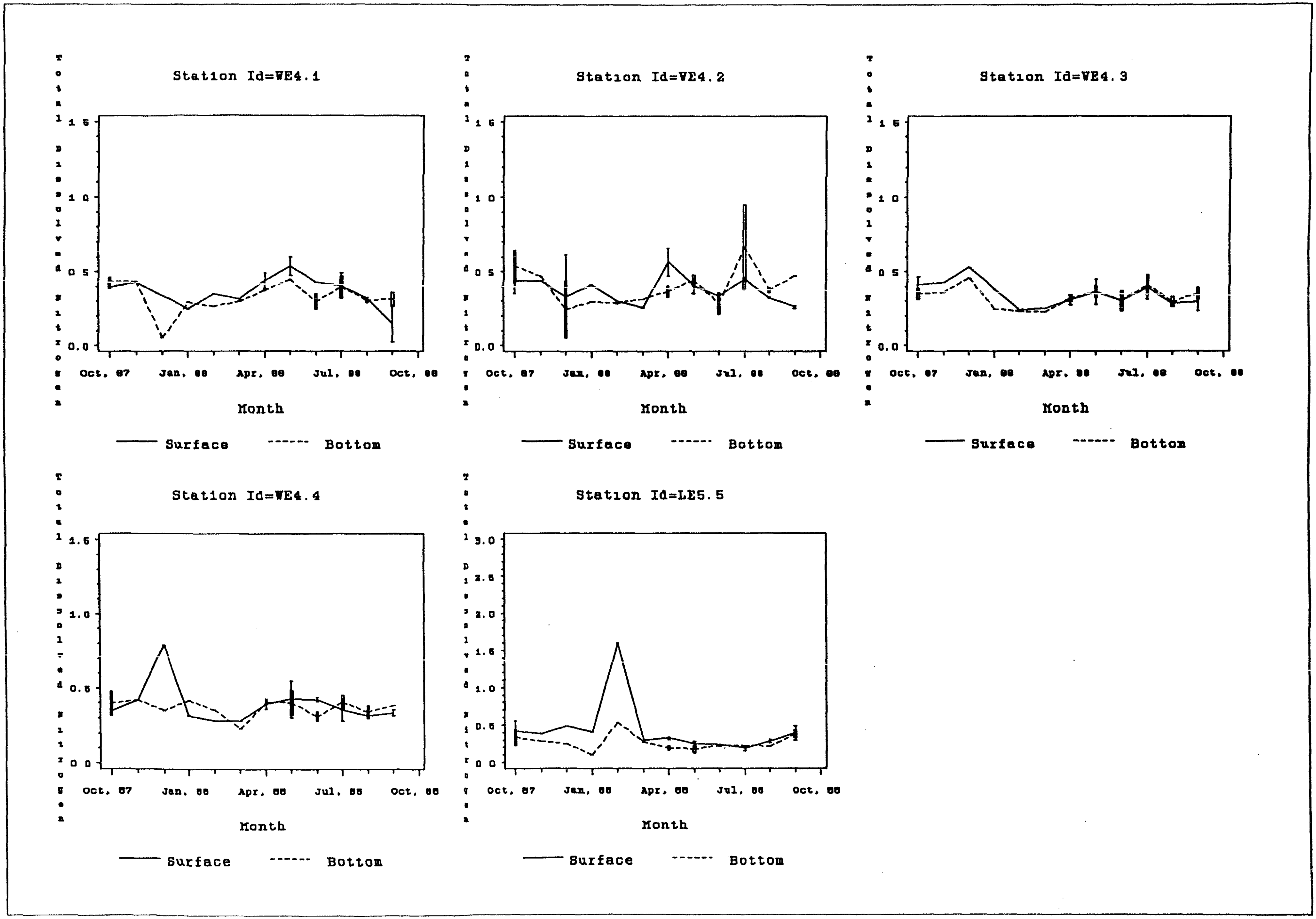

Station Id=CB5.3
Station Id=CB5.4
Station Id=CB5.5
Station Id=CB6.1
Station Id=CB6.2
Station Id=CB6.3
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=CB6.4
Station Id=CB7.3
Station Id=CB7.4
Station Id=CB7.4N
Station Id=CB8.1E
Station Id=CB8.1
Total Dissolved Nitrogen
0.0
0.5
1.0
1.5
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom



Station Id=EE3.1
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB5.4W
Total Dissolved Nitrogen
Month
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Surface
Bottom


Station Id=CB7.2
Station Id=CB7.2E
Station Id=CB7.3E
Station Id=LE3.6
Station Id=LE3.7
Total Dissolved Nitrogen
0.0
0.5
1.0
1.5
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom



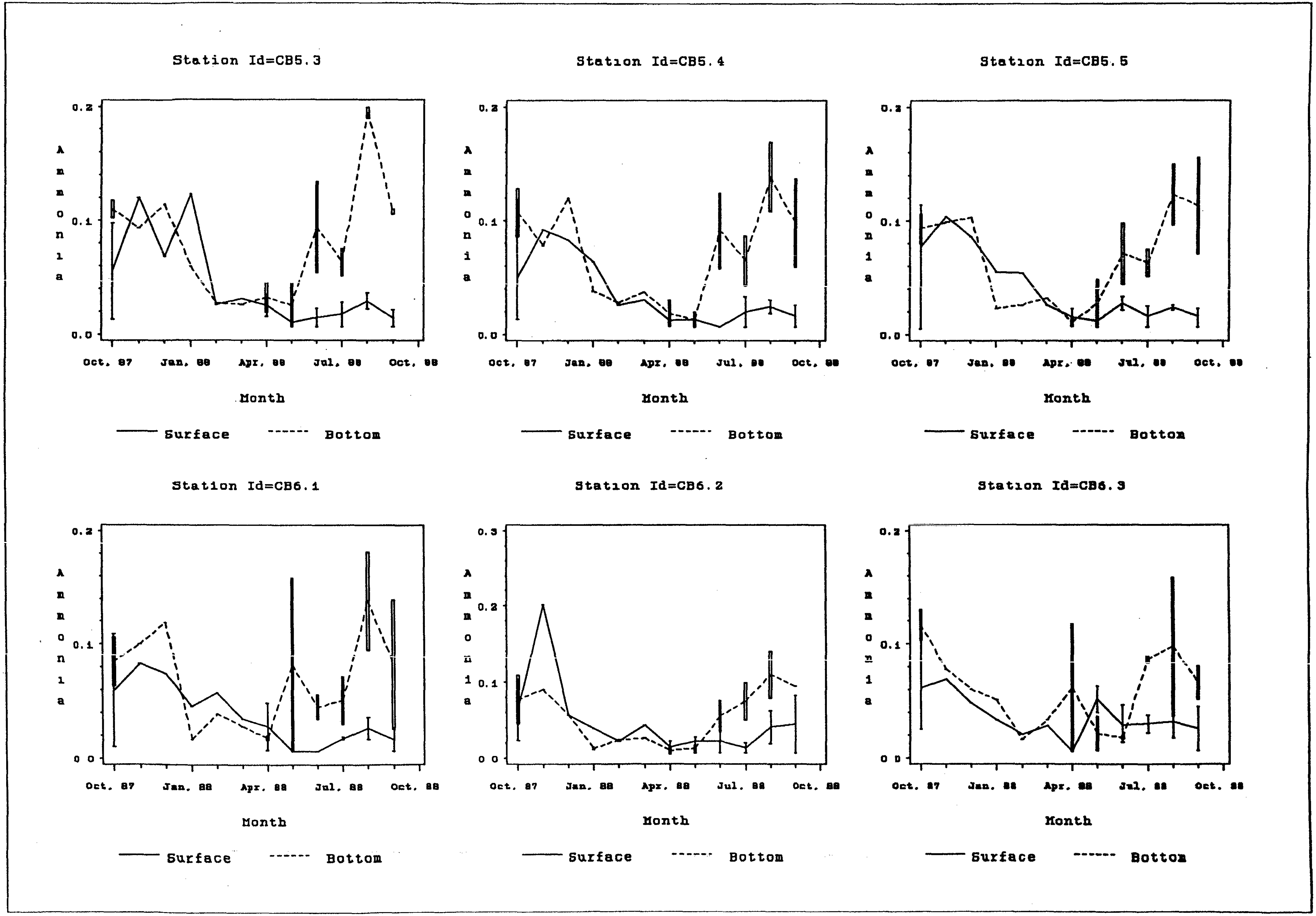
Station Id=VE4.1
Station Id=VE4.2
Station Id=VE4.3
Station Id=VE4.4
Station Id=LE5.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom

AMMONIA

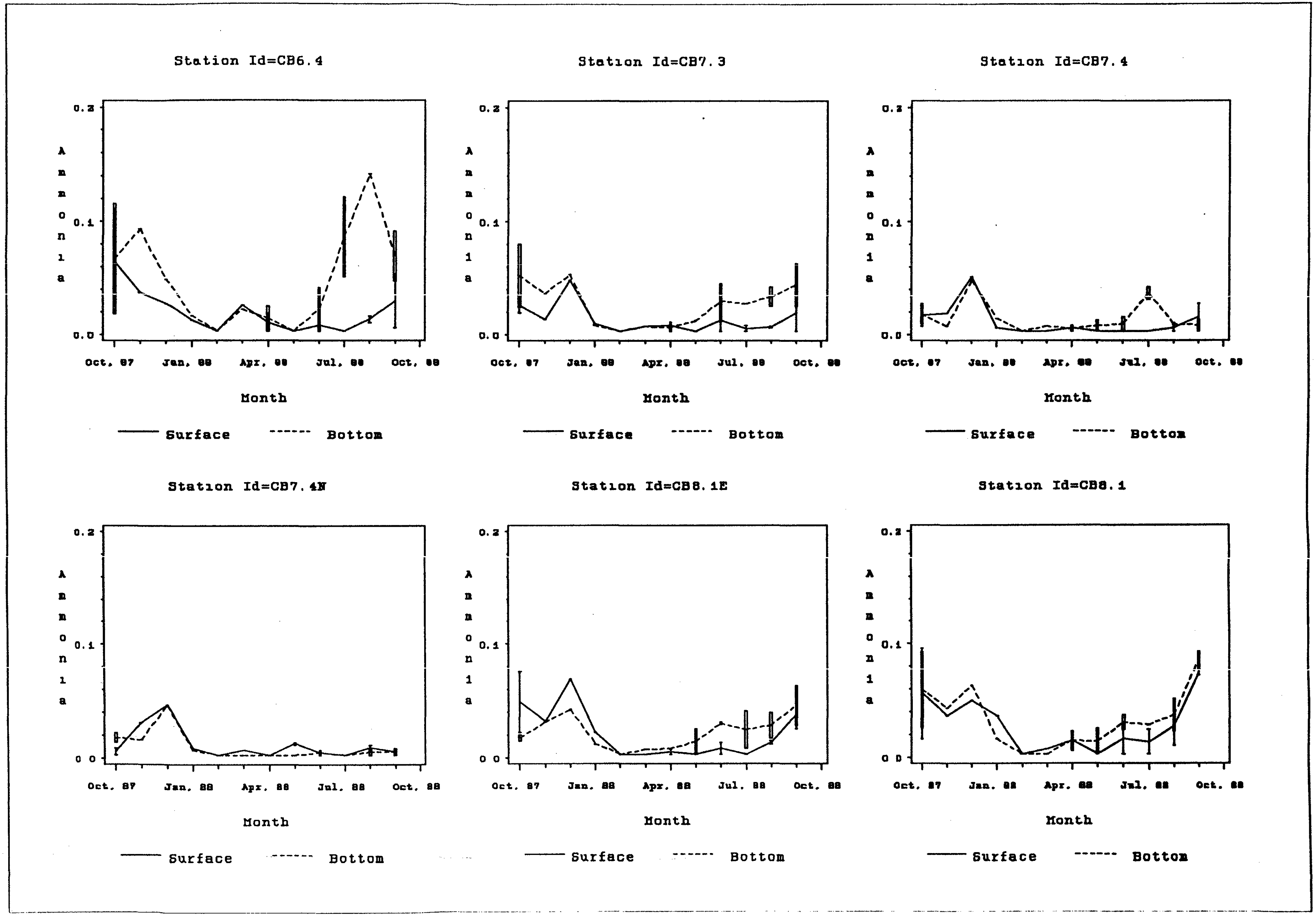
Values reported as mg/l.

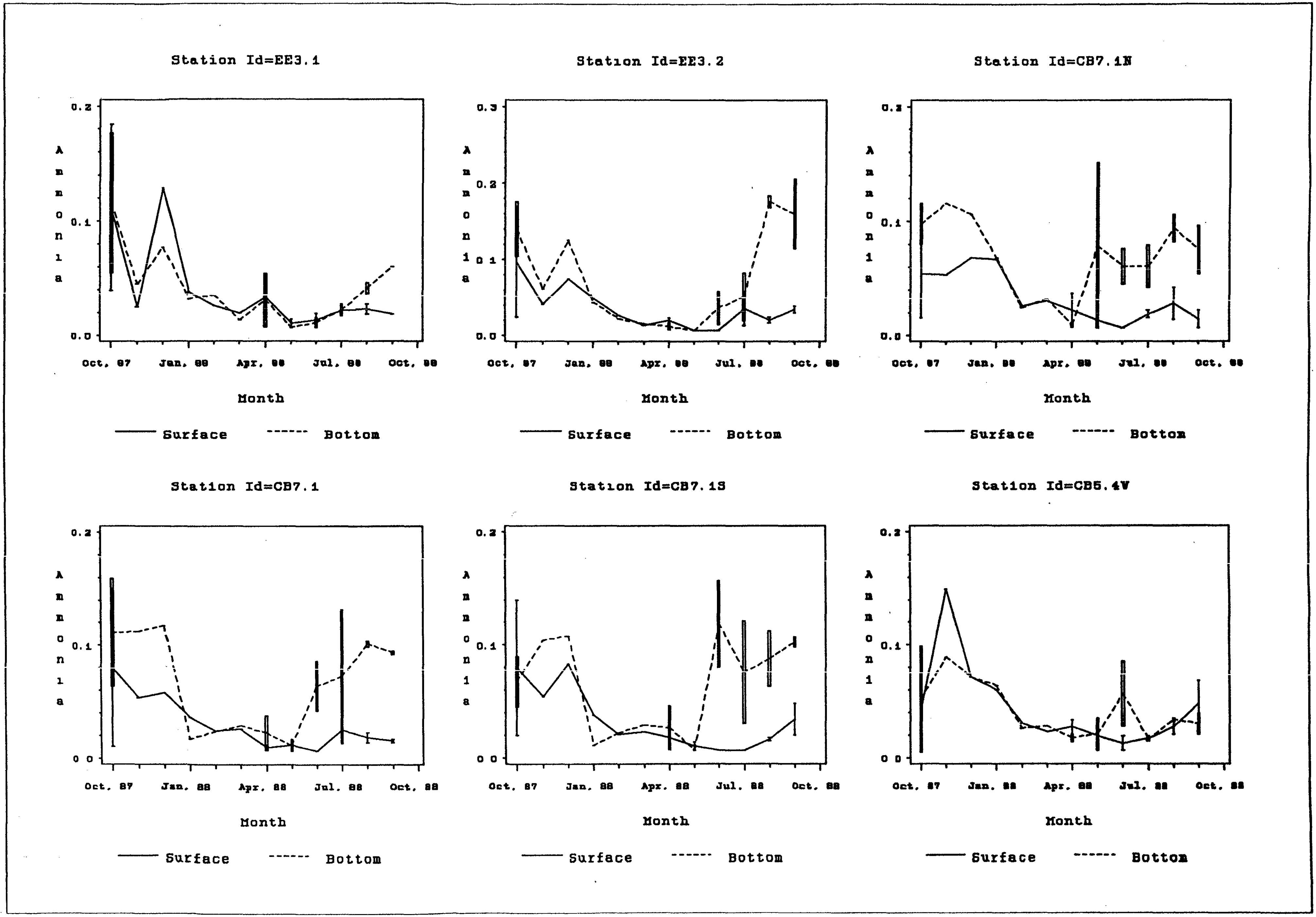
Ammonia
October, 1987 - September, 1988

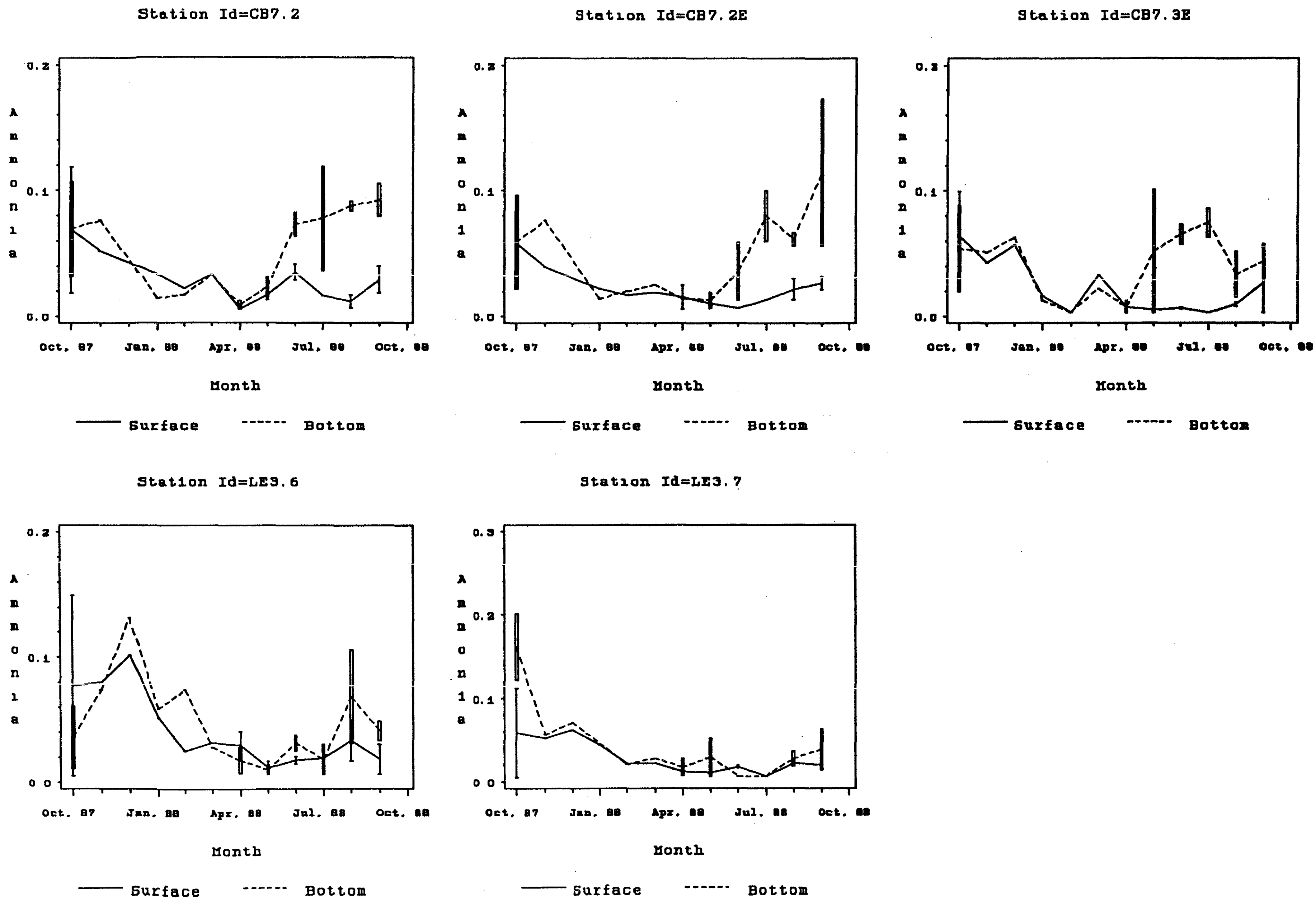
	Ammonia (mg/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3...........	0.1230	0.0367	0.0065	0.1990	0.0827	0.0065
CB5.4...........	0.1190	0.0313	0.0065	0.1690	0.0718	0.0065
CB5.5...........	0.1140	0.0376	0.0050	0.1560	0.0677	0.0065
CB6.1...........	0.1090	0.0326	0.0065	0.1810	0.0689	0.0065
CB6.2...........	0.2010	0.0422	0.0055	0.1400	0.0524	0.0055
CB6.3...........	0.1270	0.0361	0.0055	0.1580	0.0617	0.0055
CB6.4...........	0.1110	0.0188	0.0030	0.1420	0.0448	0.0030
CB7.3...........	0.0480	0.0112	0.0030	0.0800	0.0280	0.0030
CB7.4...........	0.0510	0.0095	0.0030	0.0480	0.0139	0.0030
CB7.4N..........	0.0470	0.0098	0.0030	0.0460	0.0085	0.0030
CB8.1E..........	0.0760	0.0194	0.0030	0.0630	0.0226	0.0030
CB8.1...........	0.0960	0.0286	0.0030	0.0930	0.0352	0.0030
EE3.1...........	0.1840	0.0376	0.0065	0.1770	0.0397	0.0065
EE3.2...........	0.1690	0.0337	0.0065	0.2060	0.0752	0.0065
CB7.1N..........	0.0930	0.0293	0.0065	0.1510	0.0683	0.0065
CB7.1...........	0.1500	0.0280	0.0065	0.1590	0.0659	0.0065
CB7.1S..........	0.1400	0.0296	0.0065	0.1570	0.0654	0.0065
CB5.4W..........	0.1490	0.0380	0.0050	0.0990	0.0385	0.0050
CB7.2...........	0.1190	0.0288	0.0055	0.1190	0.0557	0.0055
CB7.2E..........	0.0950	0.0238	0.0055	0.1730	0.0495	0.0065
CB7.3E..........	0.0990	0.0208	0.0030	0.1010	0.0427	0.0030
LE3.6...........	0.1490	0.0371	0.0050	0.1310	0.0427	0.0065
LE3.7...........	0.1120	0.0273	0.0050	0.2010	0.0439	0.0065
WE4.1...........	0.1570	0.0316	0.0050	0.1080	0.0274	0.0050
WE4.2...........	0.1600	0.0459	0.0050	0.2600	0.0844	0.0050
WE4.3...........	0.1080	0.0272	0.0050	0.1220	0.0361	0.0050
WE4.4...........	0.1660	0.0324	0.0065	0.0920	0.0345	0.0050
LE5.5...........	0.1260	0.0413	0.0030	0.1210	0.0489	0.0030

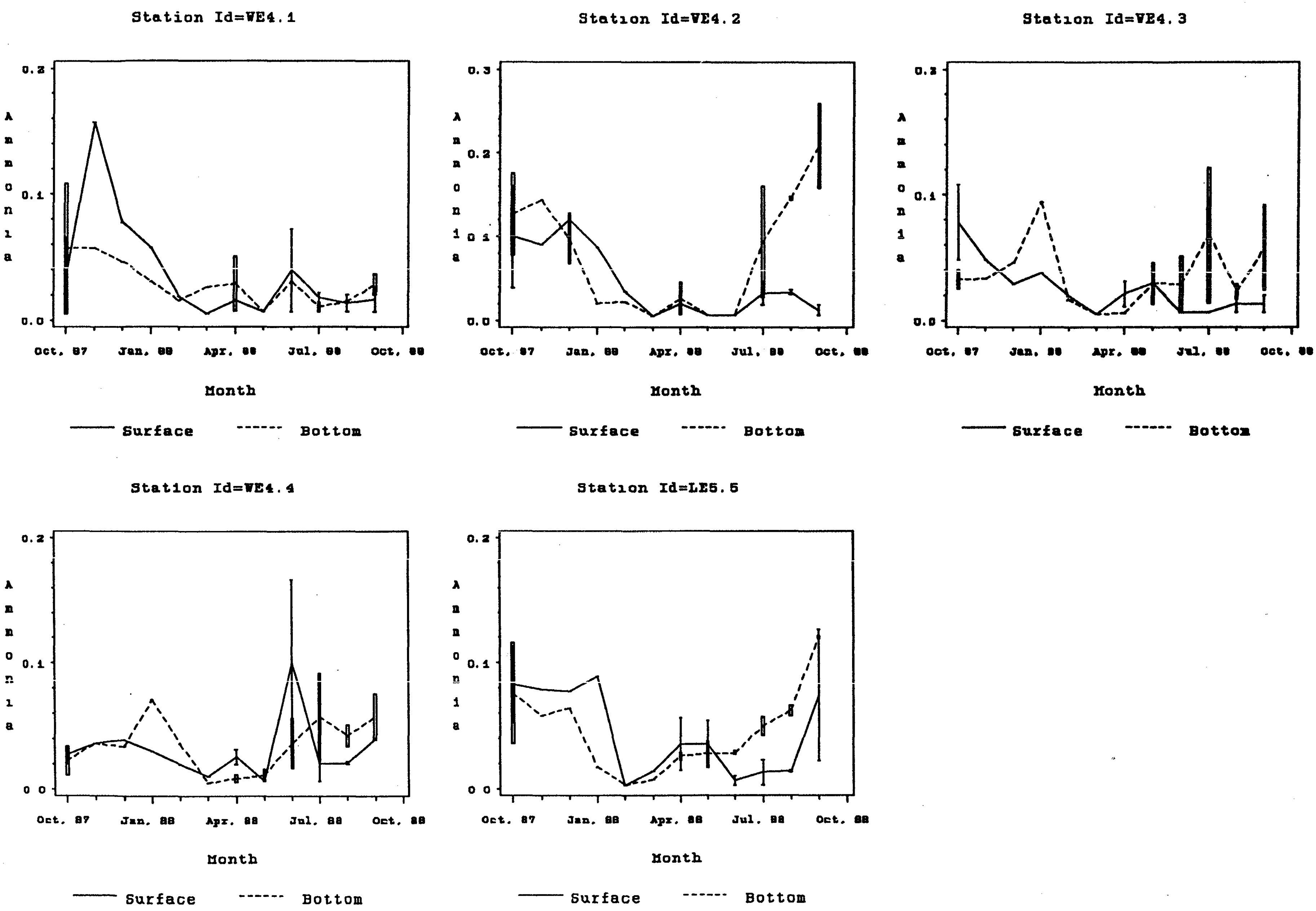


Station Id=CB5.3
Station Id=CB5.4
Station Id=CB5.5
Station Id=CB6.1
Station Id=CB6.2
Station Id=CB6.3
Ammonia
Month
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
0.0
0.1
0.2
0.3
Surface
Bottom


Station Id=CB6.4
Station Id=CB7.3
Station Id=CB7.4
Station Id=CB7.4N
Station Id=CB8.1E
Station Id=CB8.1
Ammonia
0.0
0.1
0.2
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=EE3.1
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB5.4W
Ammonia
0.0
0.1
0.2
0.3
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=CB7.2
Station Id=CB7.2E
Station Id=CB7.3E
Station Id=LE3.6
Station Id=LE3.7
Ammonia
Month
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Surface
Bottom

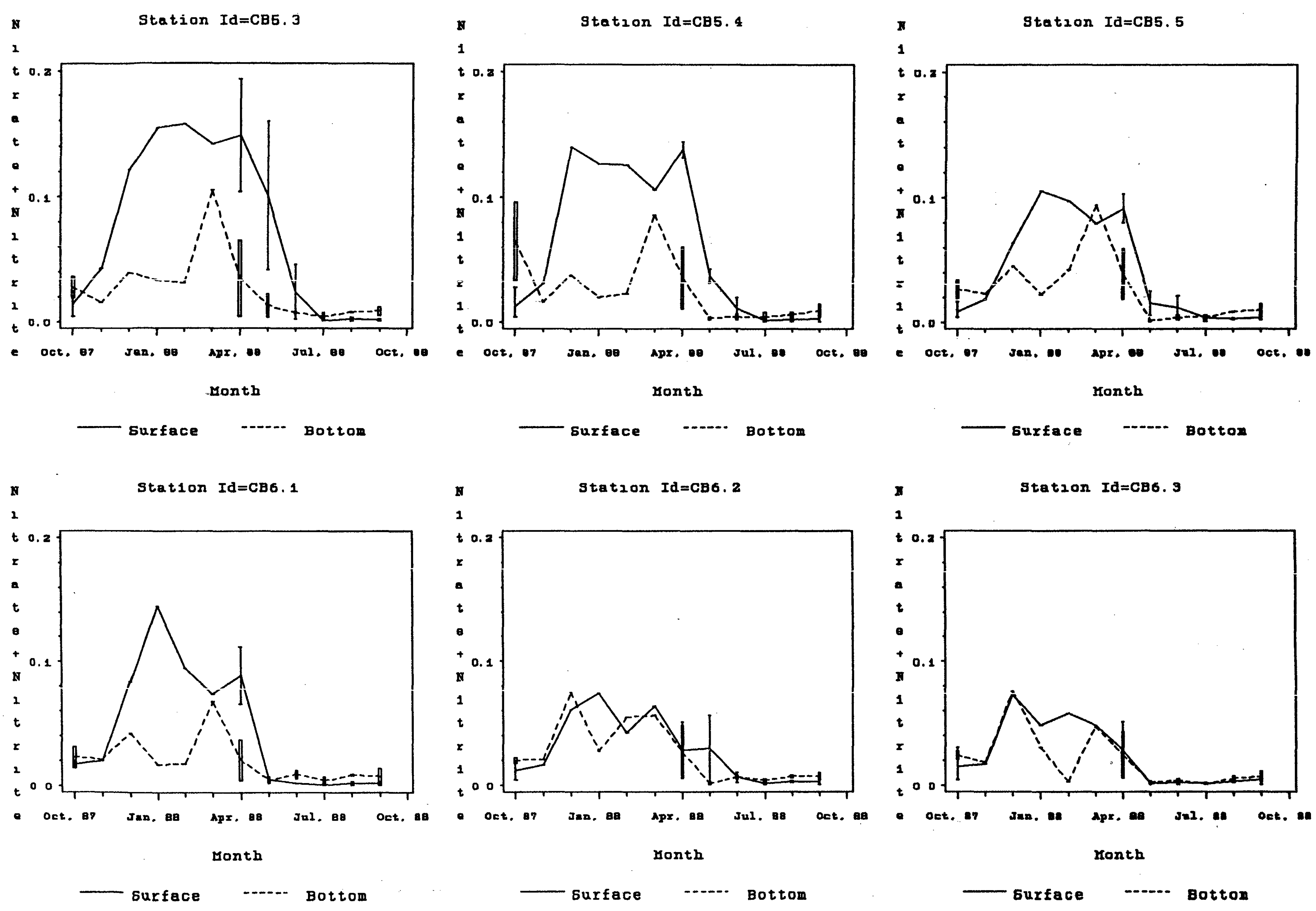

Station Id=WE4.1
Station Id=WE4.2
Station Id=WE4.3
Station Id=WE4.4
Station Id=LE5.5
Ammonia
Month
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
0.0
0.1
0.2
0.3
Surface
Bottom

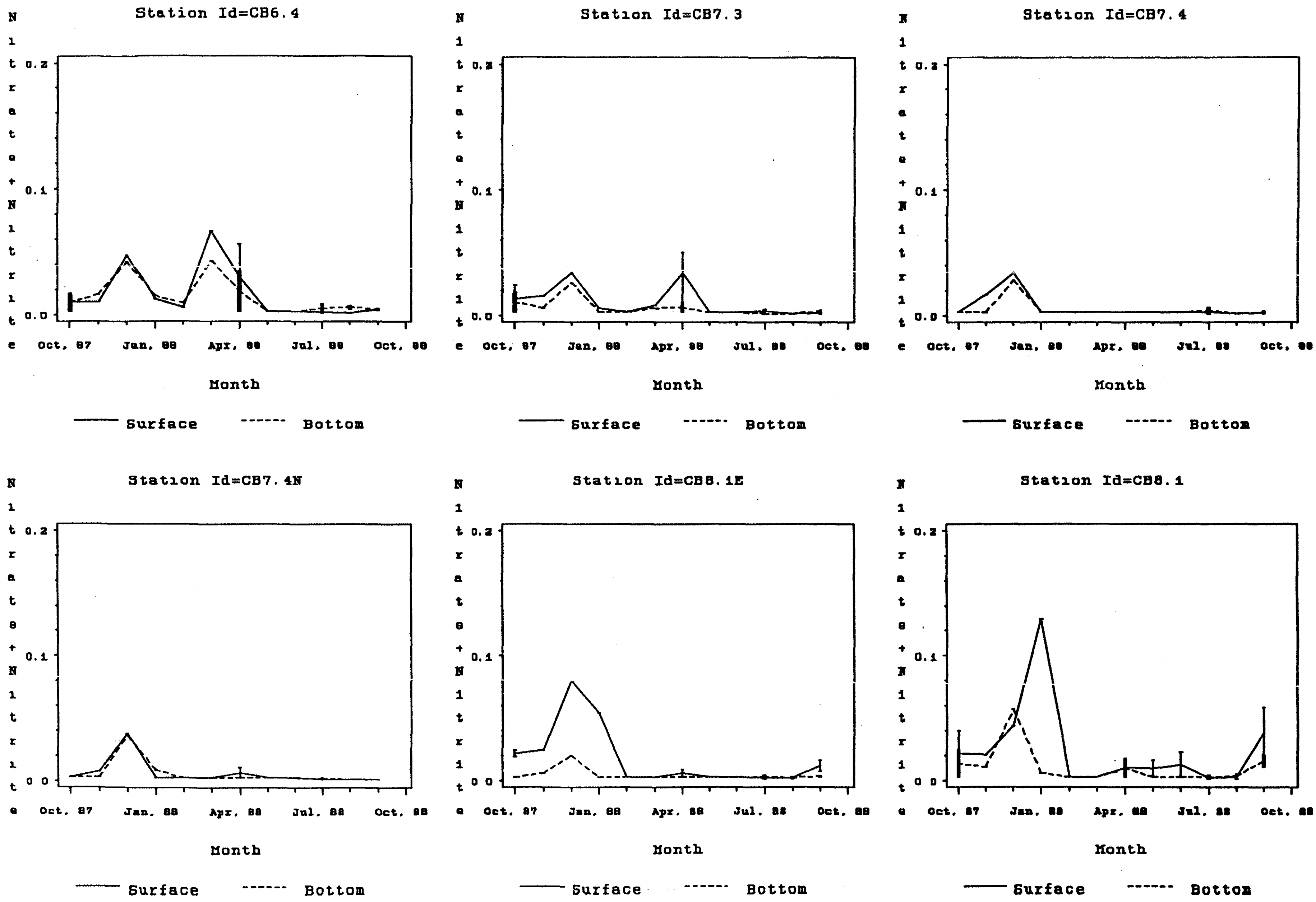
NITRATE + NITRITE

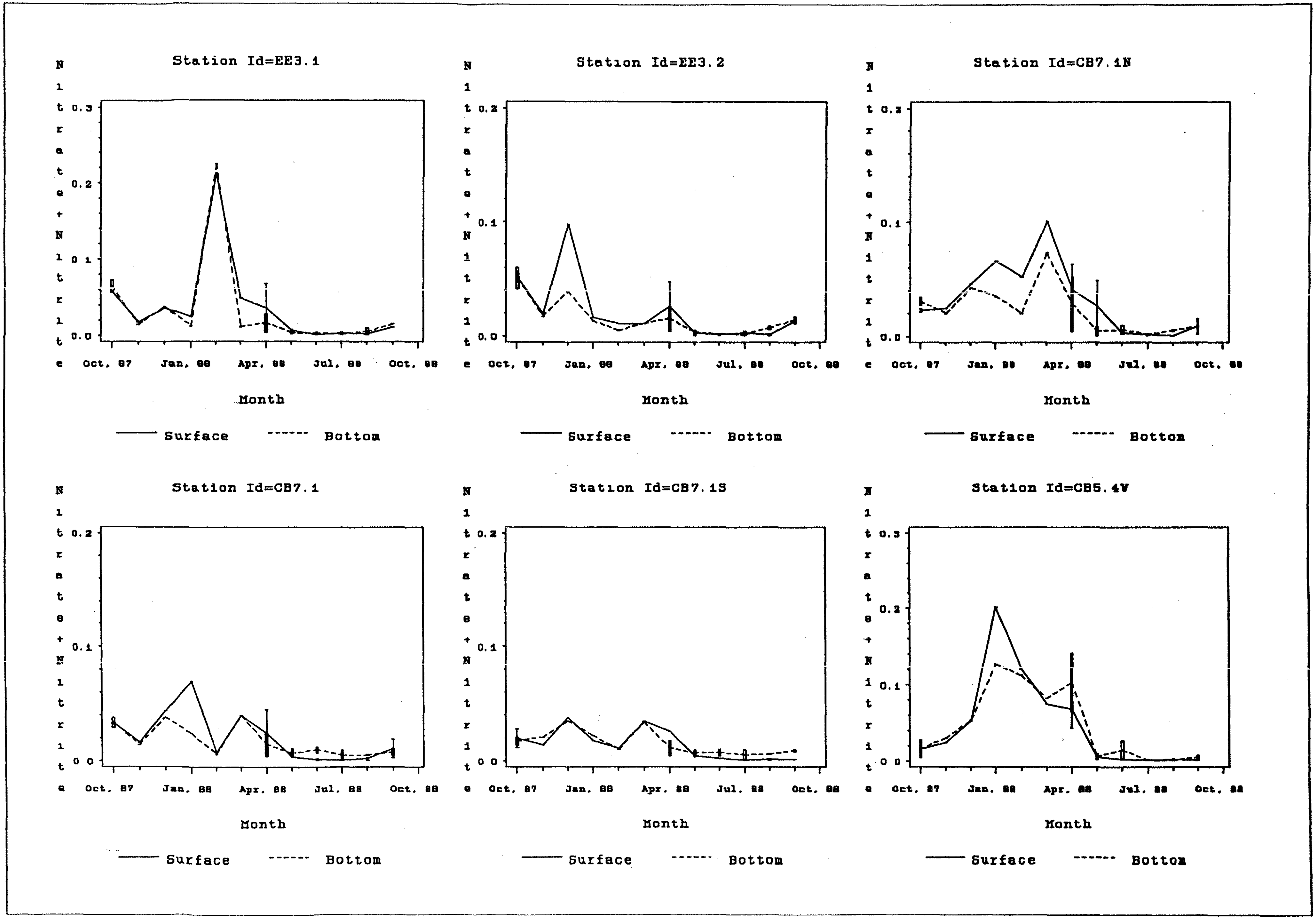
Values reported as mg/l.

Nitrate+Nitrite
October, 1987 - September, 1988

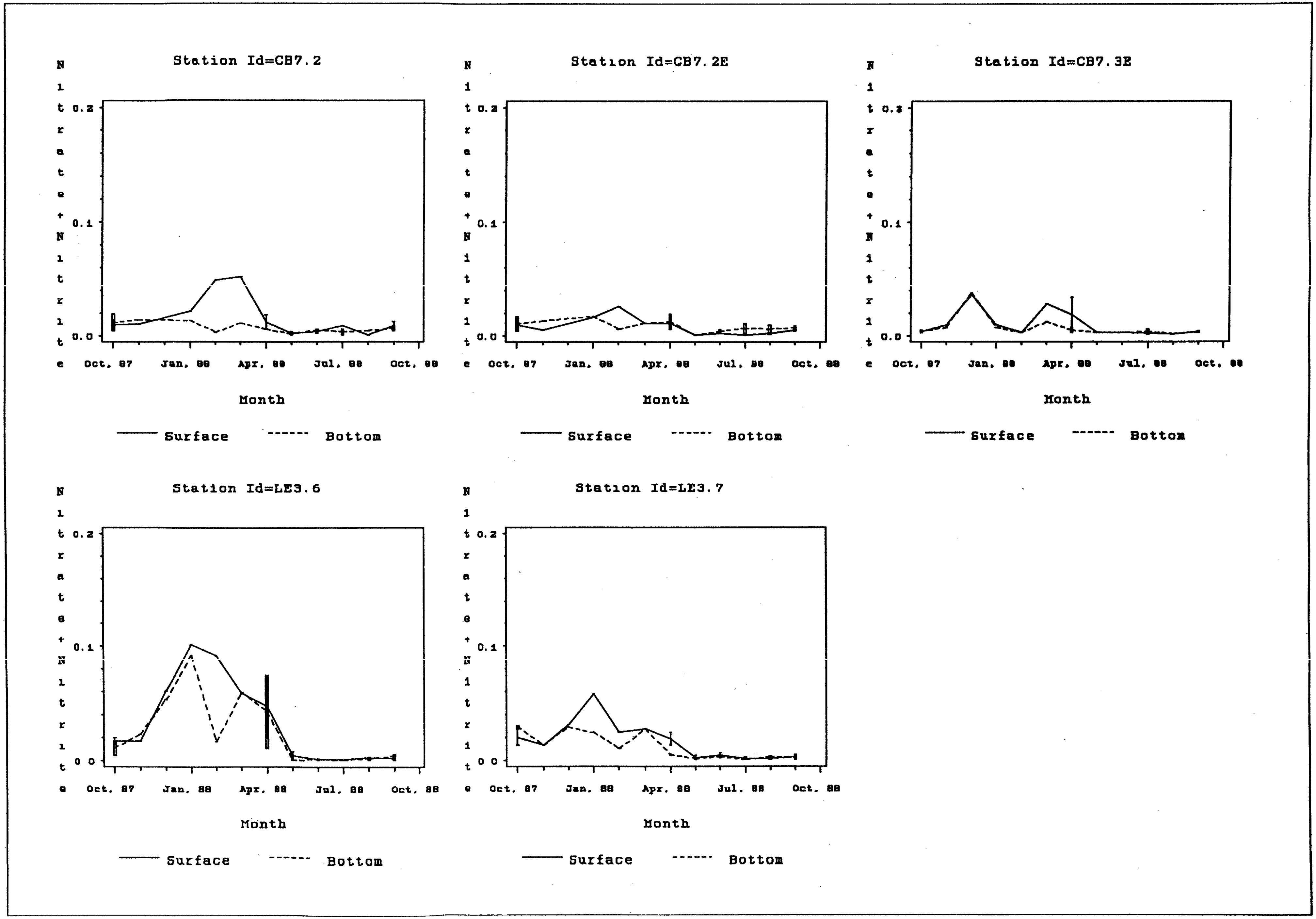
	Nitrate+Nitrite (mg/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3...........	0.1930	0.0631	0.0007	0.1050	0.0225	0.0007
CB5.4...........	0.1450	0.0476	0.0007	0.0960	0.0231	0.0007
CB5.5...........	0.1050	0.0308	0.0007	0.0940	0.0216	0.0007
CB6.1...........	0.1450	0.0344	0.0007	0.0680	0.0169	0.0007
CB6.2...........	0.0740	0.0212	0.0007	0.0750	0.0194	0.0007
CB6.3...........	0.0730	0.0177	0.0007	0.0760	0.0163	0.0007
CB6.4...........	0.0670	0.0124	0.0015	0.0430	0.0110	0.0015
CB7.3...........	0.0500	0.0098	0.0015	0.0260	0.0056	0.0015
CB7.4...........	0.0340	0.0052	0.0015	0.0280	0.0039	0.0015
CB7.4N..........	0.0380	0.0047	0.0015	0.0360	0.0044	0.0015
CB8.1E..........	0.0800	0.0136	0.0015	0.0200	0.0038	0.0015
CB8.1...........	0.1290	0.0207	0.0015	0.0570	0.0098	0.0015
EE3.1...........	0.2120	0.0310	0.0007	0.2250	0.0279	0.0007
EE3.2...........	0.0980	0.0185	0.0007	0.0600	0.0143	0.0007
CB7.1N..........	0.1010	0.0260	0.0007	0.0730	0.0188	0.0007
CB7.1...........	0.0700	0.0173	0.0007	0.0400	0.0152	0.0007
CB7.1S..........	0.0380	0.0120	0.0007	0.0350	0.0131	0.0007
CB5.4W..........	0.2010	0.0349	0.0007	0.1410	0.0367	0.0007
CB7.2...........	0.0520	0.0124	0.0007	0.0190	0.0064	0.0007
CB7.2E..........	0.0260	0.0067	0.0007	0.0190	0.0078	0.0007
CB7.3E..........	0.0360	0.0081	0.0015	0.0380	0.0058	0.0015
LE3.6...........	0.1020	0.0254	0.0007	0.0920	0.0195	0.0007
LE3.7...........	0.0580	0.0134	0.0007	0.0300	0.0102	0.0007
WE4.1...........	0.0420	0.0087	0.0007	0.0260	0.0084	0.0007
WE4.2...........	0.0820	0.0220	0.0007	0.0560	0.0190	0.0007
WE4.3...........	0.0510	0.0088	0.0007	0.0430	0.0086	0.0007
WE4.4...........	0.0170	0.0058	0.0015	0.0170	0.0062	0.0007
LE5.5...........	0.2450	0.0559	0.0015	0.1280	0.0197	0.0015

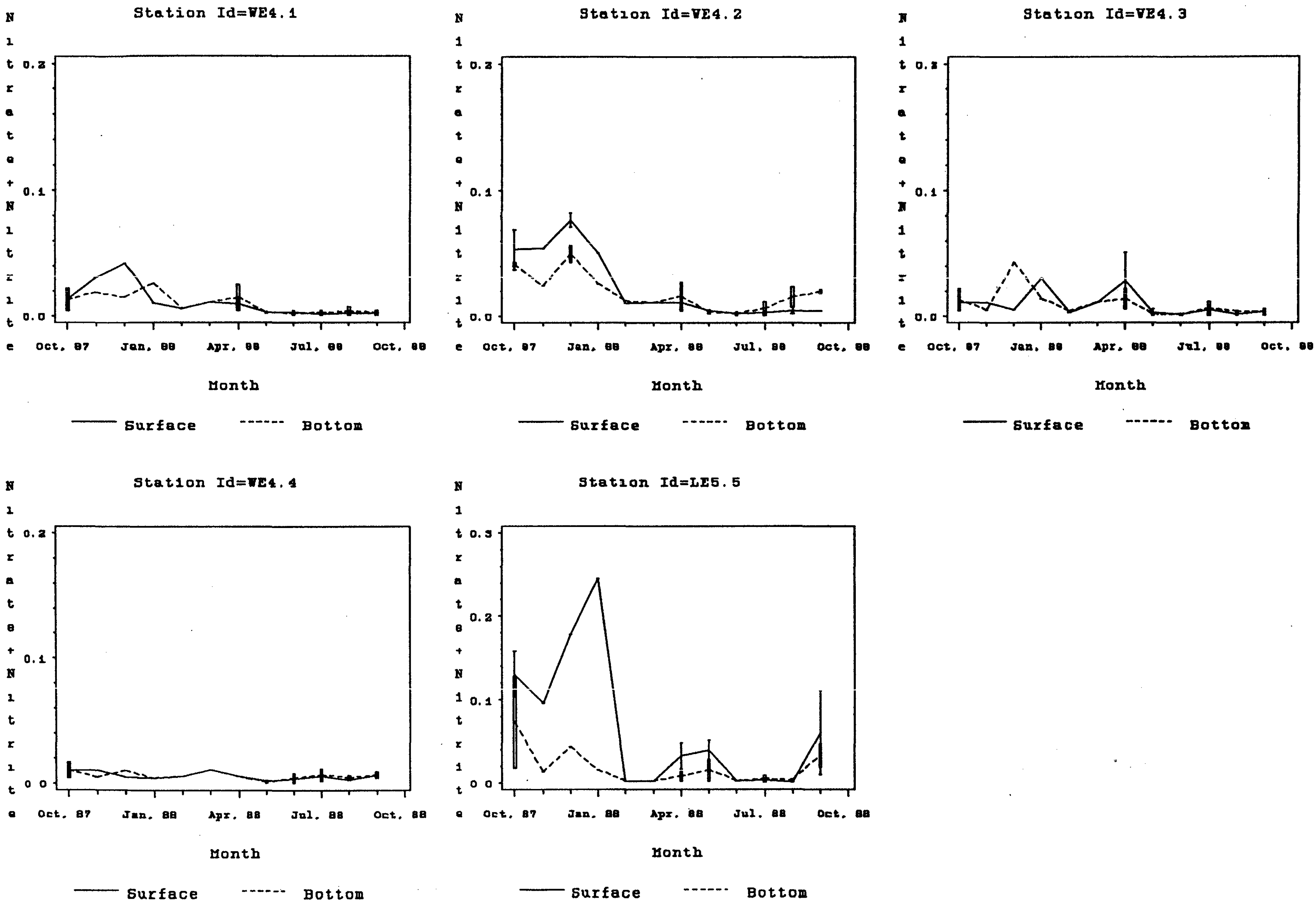

Station Id=CB5.3
Station Id=CB5.4
Station Id=CB5.5
Station Id=CB6.1
Station Id=CB6.2
Station Id=CB6.3
Nitrate+Nitrite
0.0
0.1
0.2
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=CB6.4
Station Id=CB7.3
Station Id=CB7.4
Station Id=CB7.4N
Station Id=CB8.1E
Station Id=CB8.1
Nitrate+Nitrite
0.0
0.1
0.2
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom



Station Id=EE3.1
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB5.4W
Nitrate+Nitrite
0.0
0.1
0.2
0.3
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=CB7.2
Nitrate+Nitrite
0.0
0.1
0.2
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB7.2E
Nitrate+Nitrite
0.0
0.1
0.2
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB7.3E
Nitrate+Nitrite
0.0
0.1
0.2
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=LE3.6
Nitrate+Nitrite
0.0
0.1
0.2
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=LE3.7
Nitrate+Nitrite
0.0
0.1
0.2
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

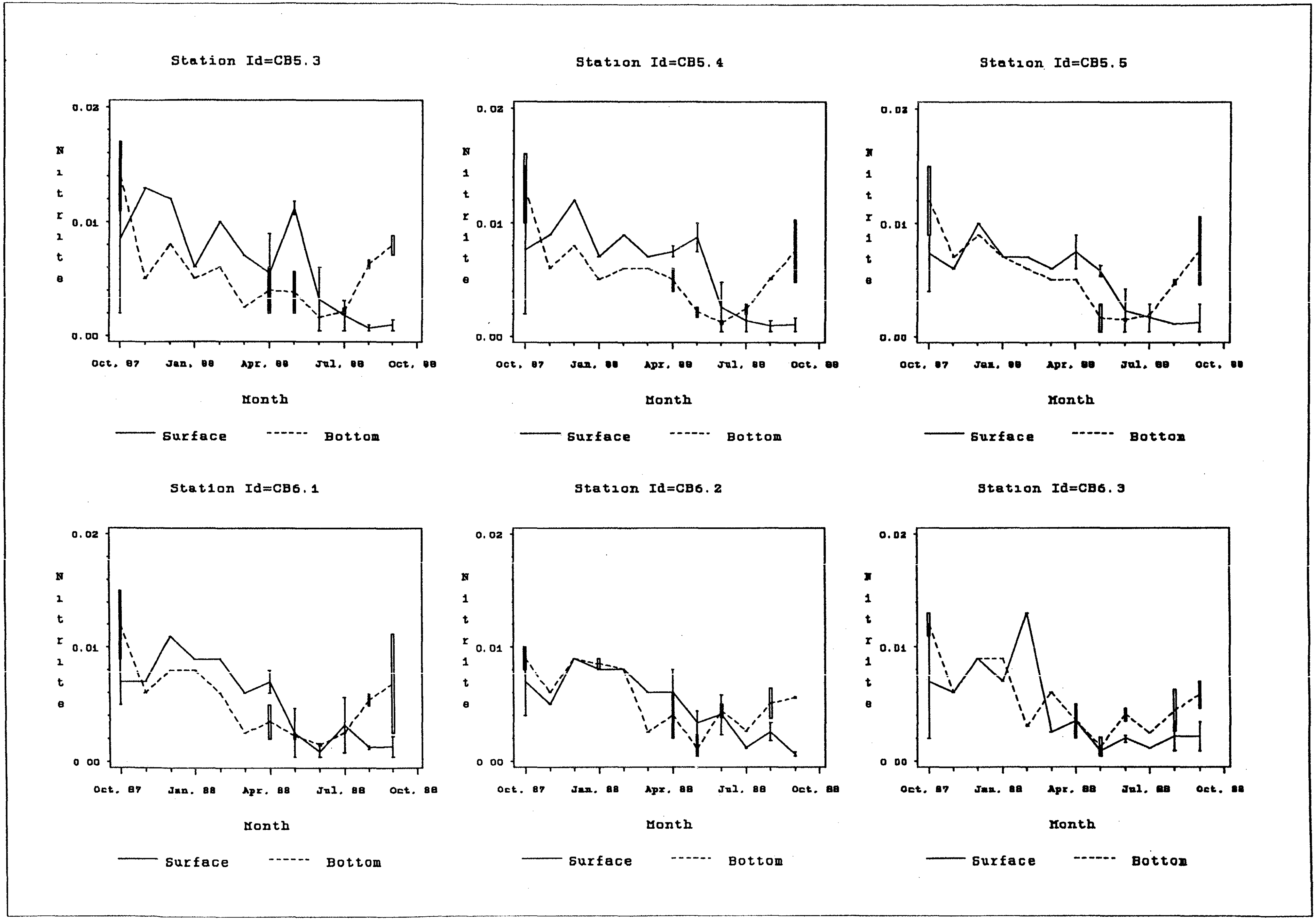

Station Id=WE4.1
Station Id=WE4.2
Station Id=WE4.3
Station Id=WE4.4
Station Id=LE5.5
Nitrate+Nitrite
0.0
0.1
0.2
0.3
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom

NITRITE

Values reported as mg/l.

Nitrite
October, 1987 - September, 1988

	Nitrite (mg/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3............	0.0150	0.0059	0.0004	0.0170	0.0056	0.0016
CB5.4............	0.0150	0.0056	0.0004	0.0160	0.0055	0.0011
CB5.5............	0.0100	0.0047	0.0004	0.0150	0.0054	0.0004
CB6.1............	0.0110	0.0047	0.0004	0.0150	0.0052	0.0014
CB6.2............	0.0100	0.0045	0.0004	0.0100	0.0052	0.0004
CB6.3............	0.0130	0.0041	0.0004	0.0130	0.0054	0.0004
CB6.4............	0.0100	0.0021	0.0005	0.0110	0.0030	0.0005
CB7.3............	0.0090	0.0017	0.0005	0.0070	0.0017	0.0005
CB7.4............	0.0050	0.0011	0.0005	0.0030	0.0010	0.0005
CB7.4N...........	0.0060	0.0010	0.0005	0.0050	0.0009	0.0005
CB8.1E...........	0.0080	0.0023	0.0005	0.0020	0.0009	0.0005
CB8.1............	0.0179	0.0038	0.0005	0.0111	0.0025	0.0005
EE3.1............	0.0200	0.0050	0.0004	0.0200	0.0052	0.0004
EE3.2............	0.0180	0.0050	0.0004	0.0200	0.0061	0.0004
CB7.1N...........	0.0175	0.0056	0.0004	0.0140	0.0049	0.0011
CB7.1............	0.0204	0.0050	0.0004	0.0150	0.0054	0.0004
CB7.1S...........	0.0120	0.0040	0.0004	0.0100	0.0045	0.0016
CB5.4W...........	0.0100	0.0037	0.0004	0.0120	0.0043	0.0004
CB7.2............	0.0120	0.0035	0.0004	0.0090	0.0038	0.0004
CB7.2E...........	0.0120	0.0034	0.0004	0.0070	0.0036	0.0014
CB7.3E...........	0.0060	0.0018	0.0005	0.0060	0.0017	0.0005
LE3.6............	0.0150	0.0041	0.0004	0.0100	0.0047	0.0004
LE3.7............	0.0110	0.0035	0.0004	0.0140	0.0038	0.0008
WE4.1............	0.0090	0.0030	0.0004	0.0090	0.0027	0.0008
WE4.2............	0.0200	0.0049	0.0004	0.0190	0.0074	0.0009
WE4.3............	0.0090	0.0024	0.0004	0.0090	0.0031	0.0004
WE4.4............	0.0100	0.0027	0.0012	0.0070	0.0025	0.0004
LE5.5............	0.0539	0.0078	0.0005	0.0310	0.0049	0.0005



Station Id=CB5.3
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0.01
0.00
Nitrite
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom
Station Id=CB5.4
0.02
0.01
0.00
Nitrite
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom
Station Id=CB5.5
0.02
0.01
0.00
Nitrite
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom
Station Id=CB6.1
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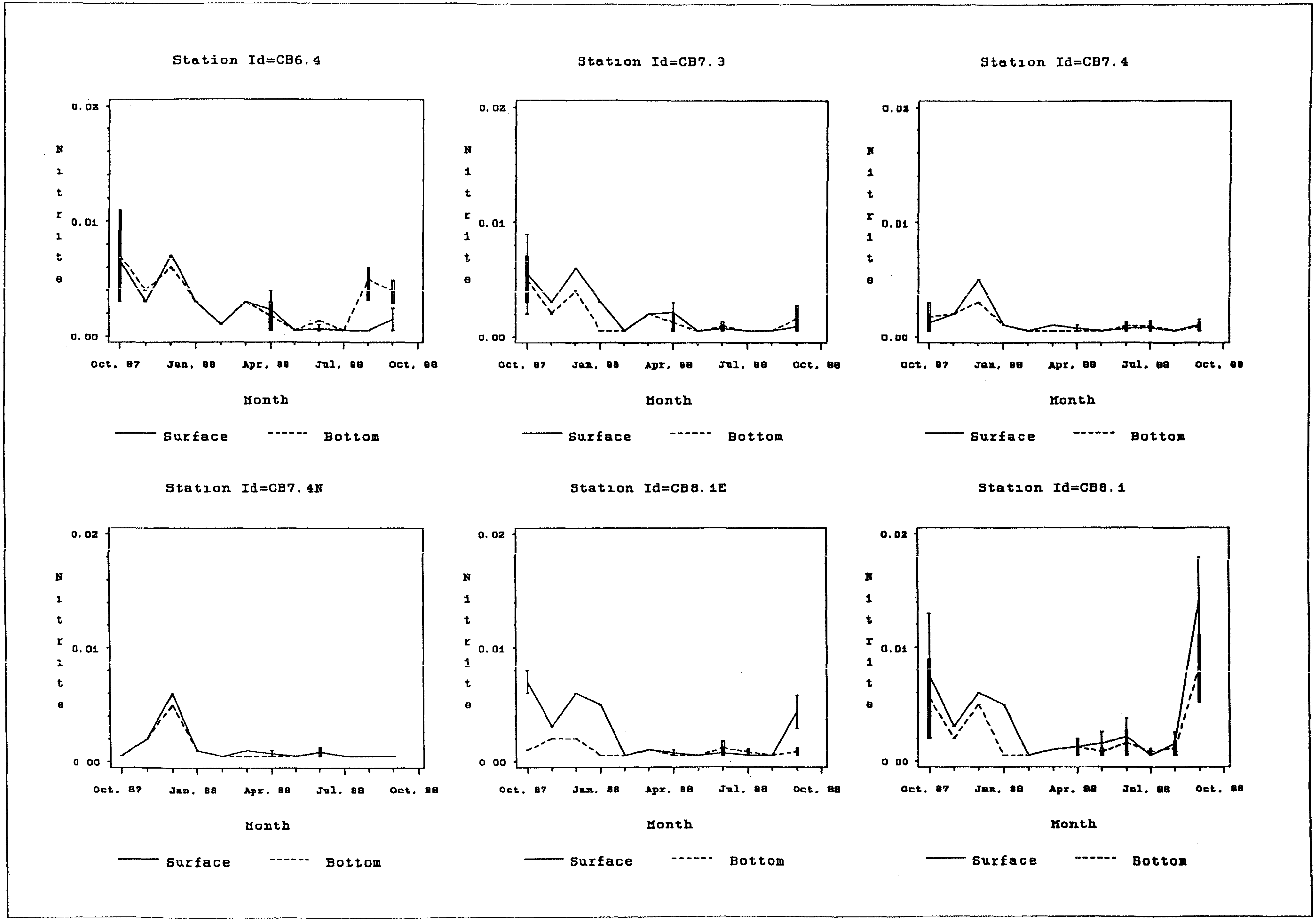
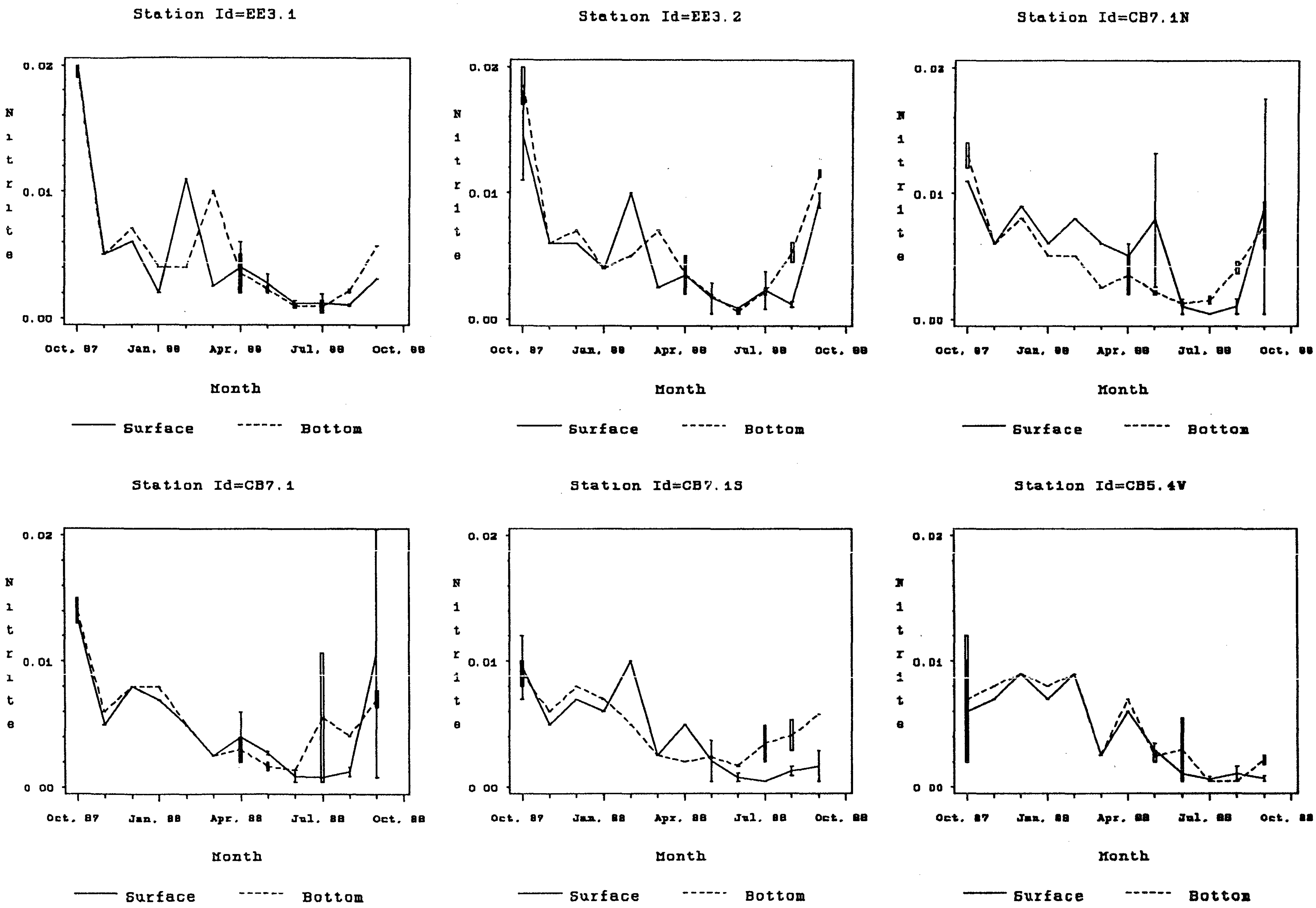
0.01
0.00
Nitrite
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom
Station Id=CB6.2
0.02
0.01
0.00
Nitrite
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom
Station Id=CB6.3
0.02
0.01
0.00
Nitrite
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom



Station Id=CB6.4
Station Id=CB7.3
Station Id=CB7.4
Station Id=CB7.4N
Station Id=CB8.1E
Station Id=CB8.1
Nitrite
0.00
0.01
0.02
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom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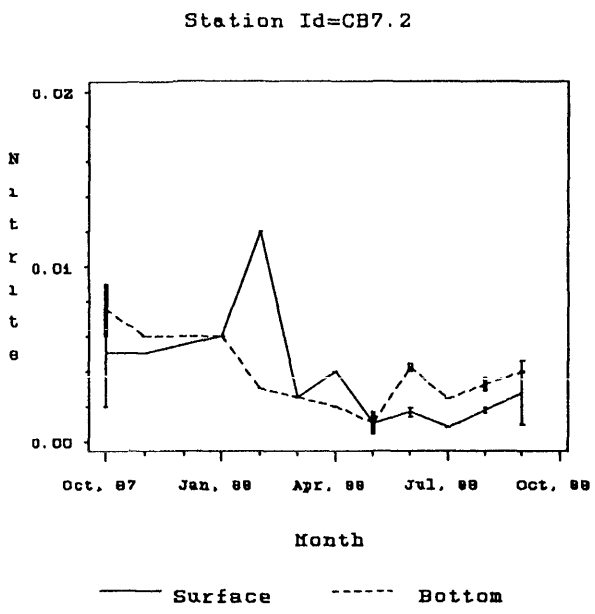
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB5.4W
Nitrite
0.00
0.01
0.02
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom



Station Id=CB7.2
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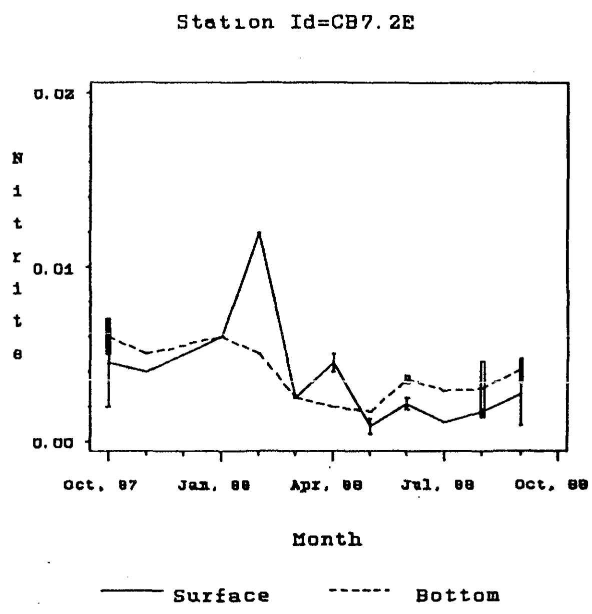
0.01
0.00
Nitrite
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom



Station Id=CB7.2E
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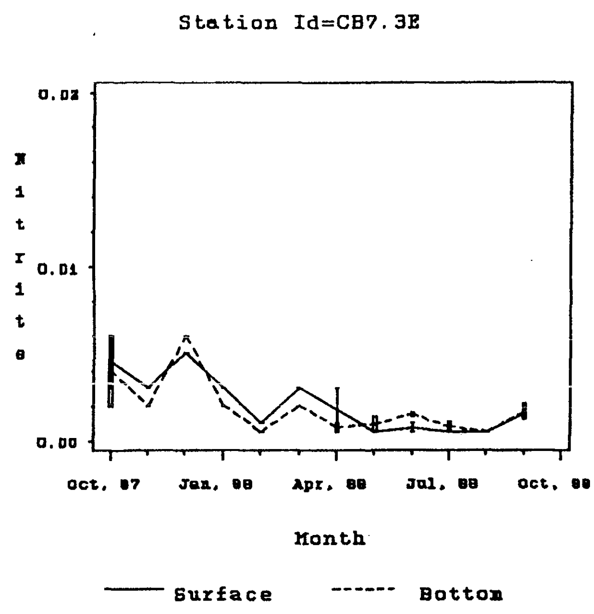
0.01
0.00
Nitrite
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom



Station Id=CB7.3E
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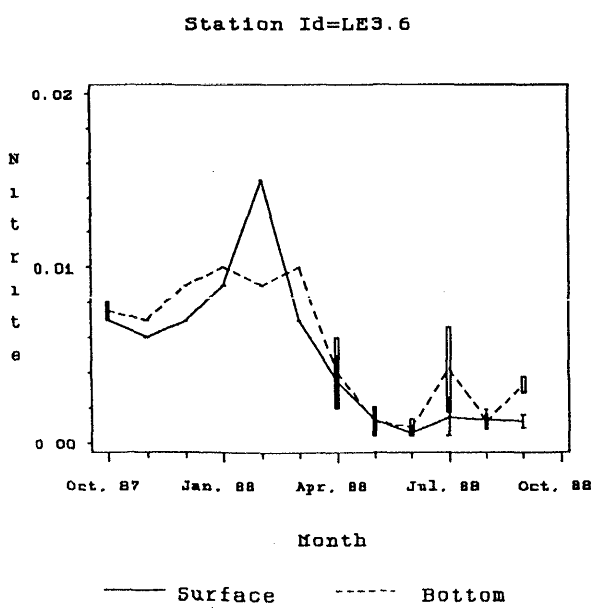
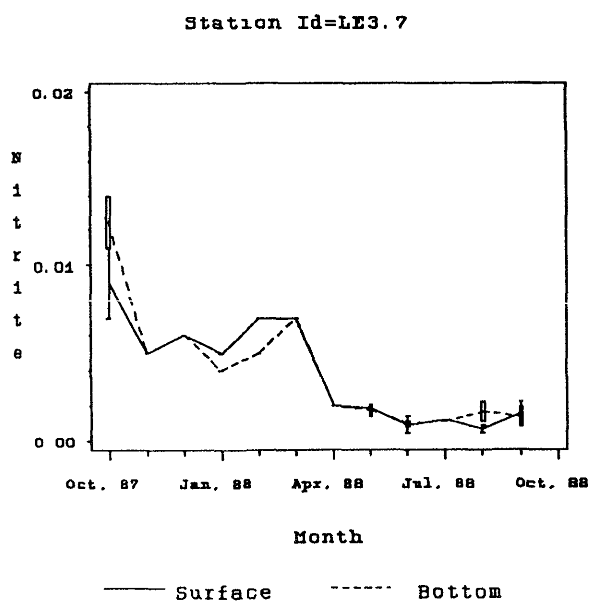
0.01
0.00
Nitrite
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom



Station Id=LE3.6
0.02
0.01
0 00
Nitrite
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom



Station Id=LE3.7
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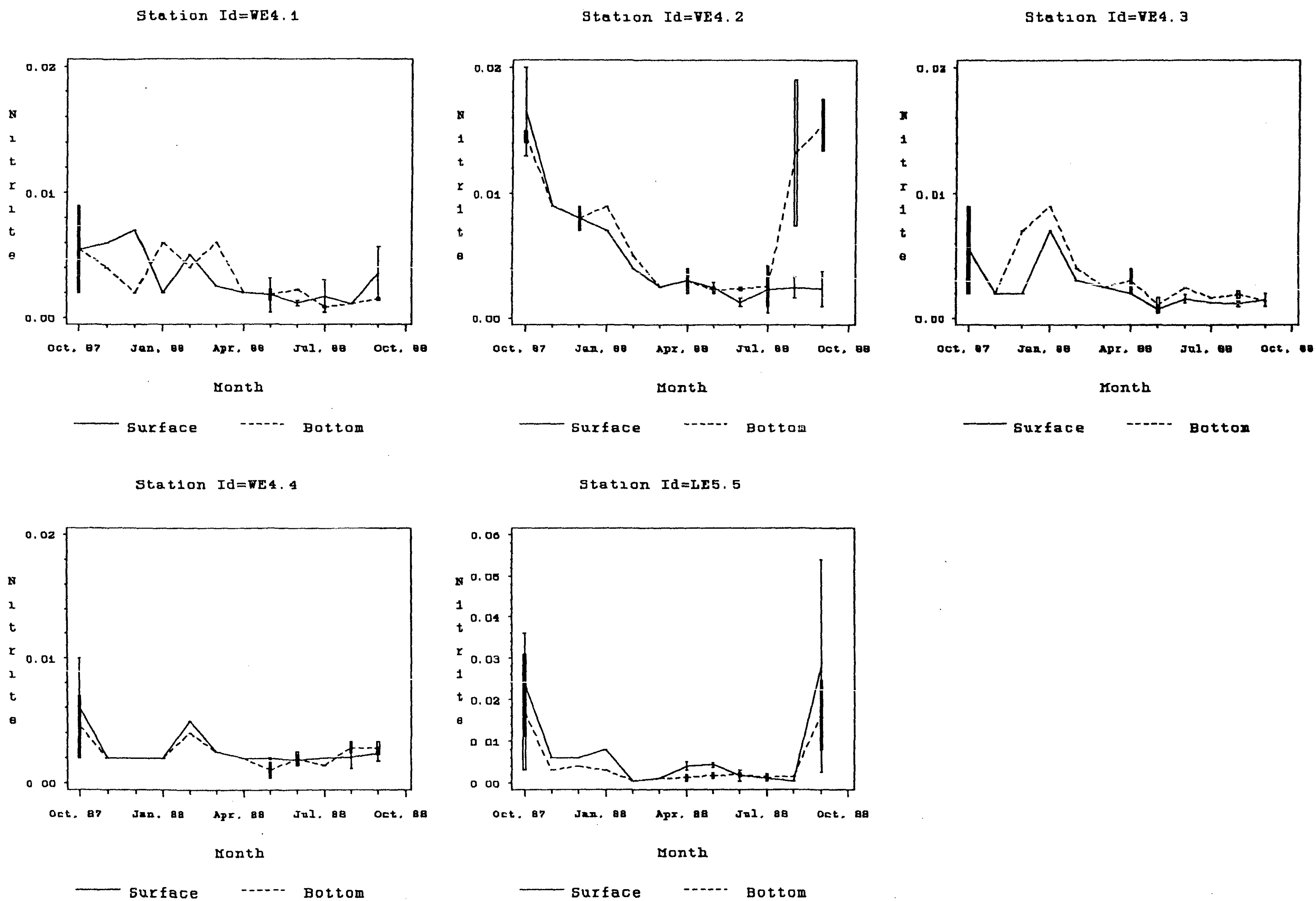
0.01
0 00
Nitrite
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom

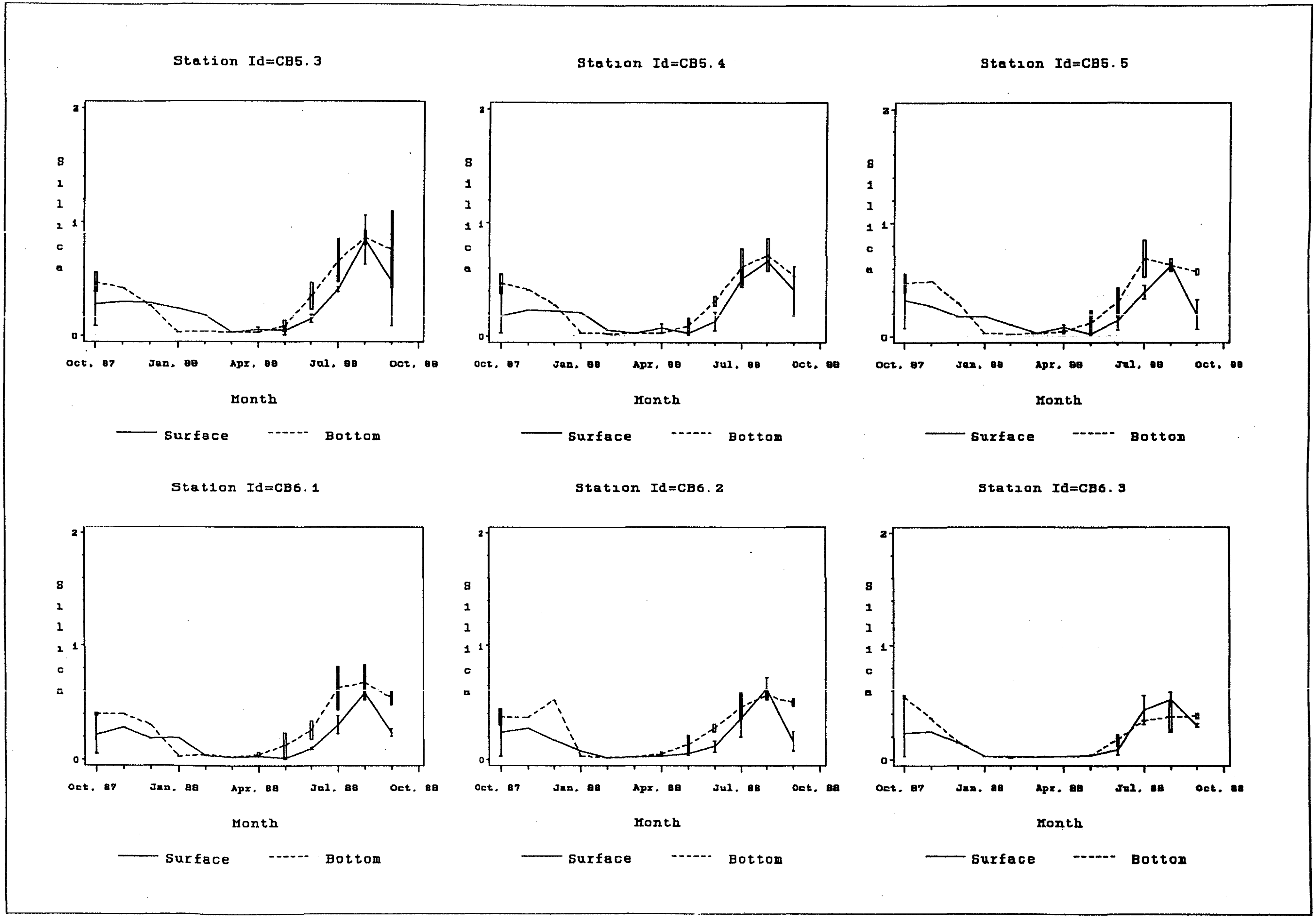

Station Id=WE4.1
Station Id=WE4.2
Station Id=WE4.3
Station Id=WE4.4
Station Id=LE5.5
Nitrite
0.00
0.01
0.02
0.03
0.04
0.05
0.06
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom

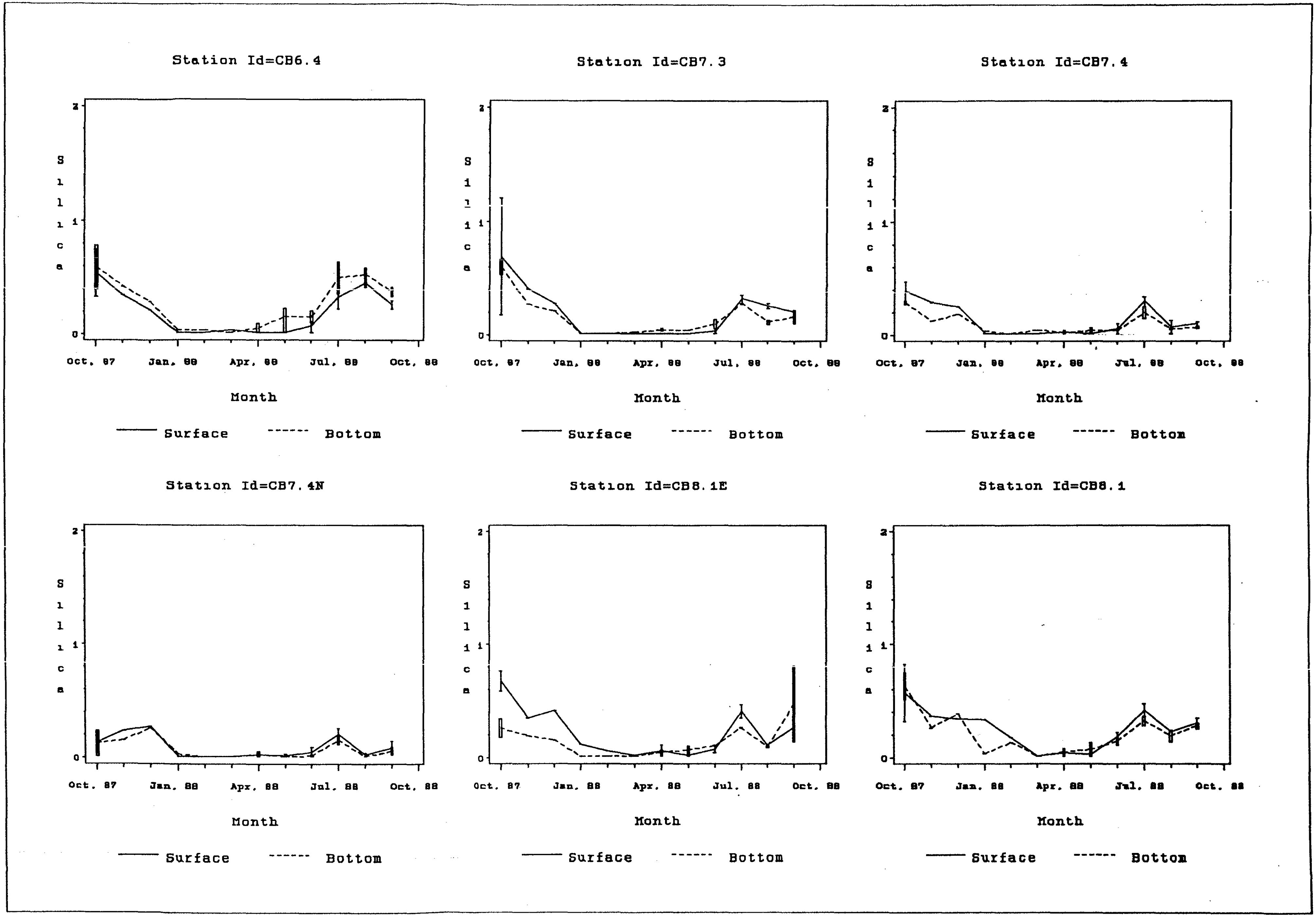
DISSOLVED SILICA

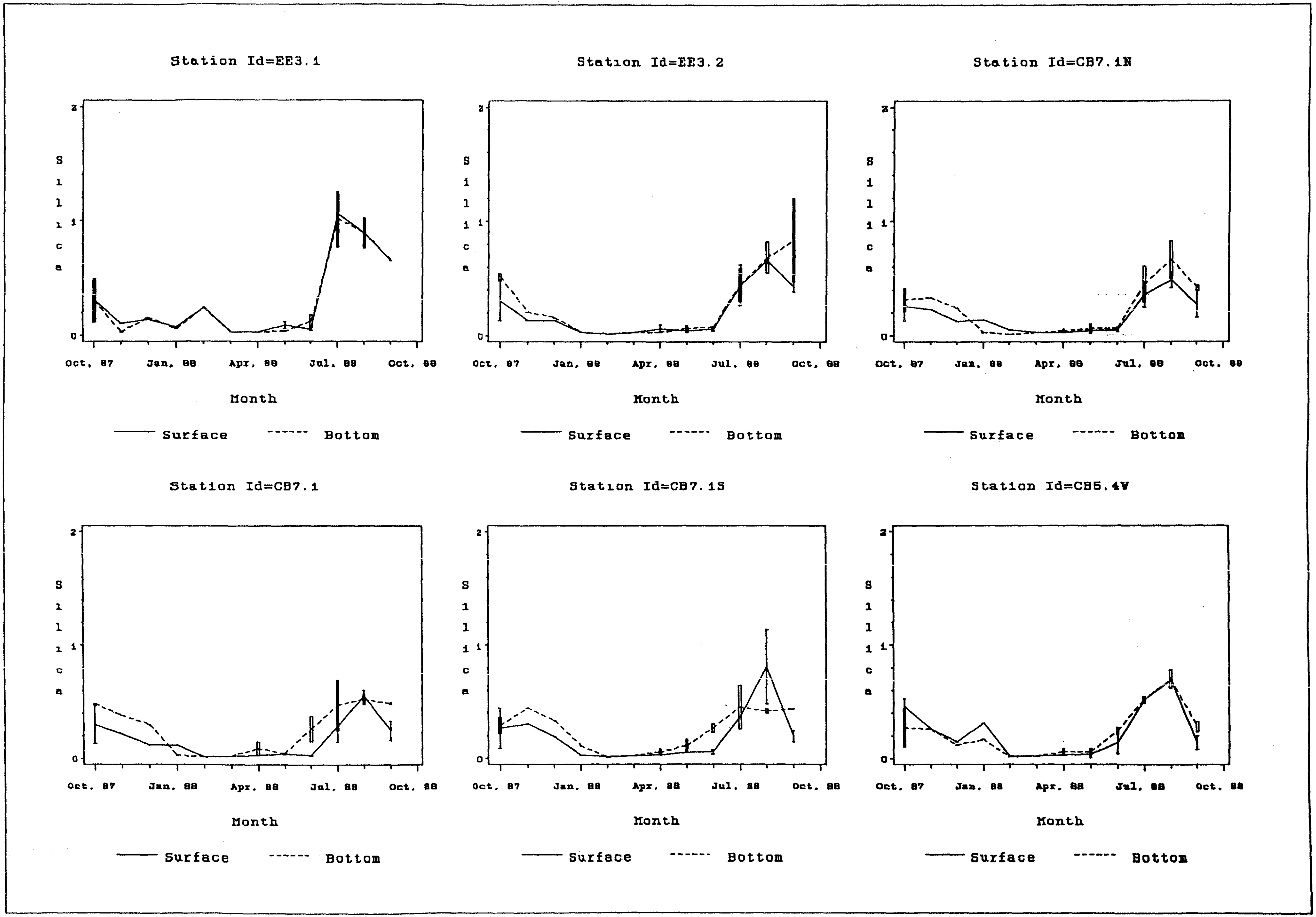
Values reported as mg/l.

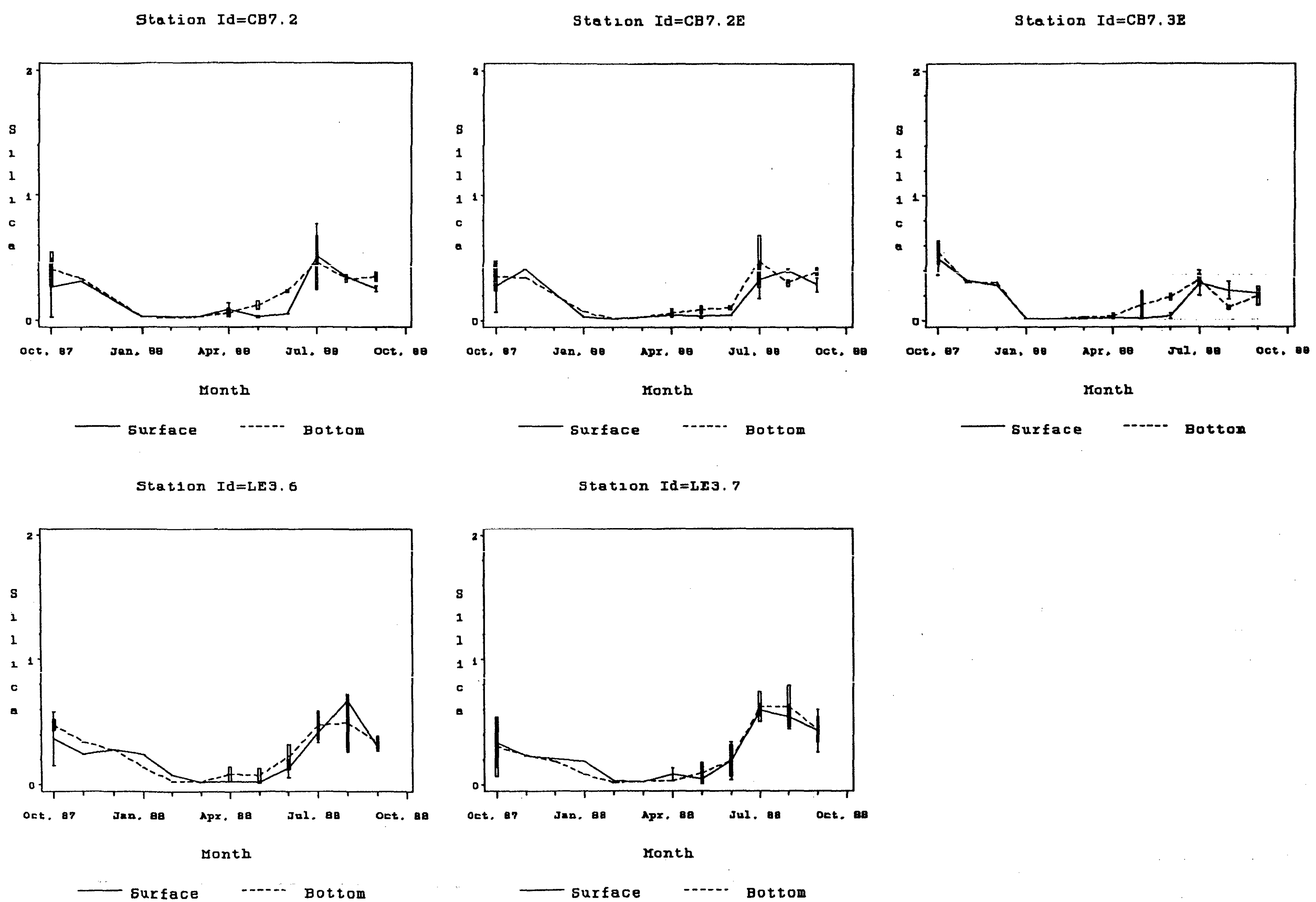
Silica
October, 1987 - September, 1988

	Silica (mg/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3...........	1.0570	0.2889	0.0045	1.0940	0.3779	0.0245
CB5.4...........	0.6750	0.2440	0.0120	0.8690	0.3305	0.0220
CB5.5...........	0.6530	0.2272	0.0170	0.8520	0.3423	0.0120
CB6.1...........	0.6280	0.1939	0.0045	0.8290	0.3240	0.0170
CB6.2...........	0.7170	0.2026	0.0130	0.5830	0.2774	0.0170
CB6.3...........	0.5900	0.1944	0.0245	0.5600	0.2298	0.0170
CB6.4...........	0.7480	0.2017	0.0115	0.7860	0.2934	0.0115
CB7.3...........	1.2080	0.1804	0.0115	0.6650	0.1696	0.0115
CB7.4...........	0.4740	0.1405	0.0115	0.3040	0.0956	0.0115
CB7.4N..........	0.2700	0.0868	0.0115	0.2620	0.0690	0.0115
CB8.1E..........	0.7610	0.2199	0.0115	0.8130	0.1579	0.0115
CB8.1...........	0.8230	0.2518	0.0115	0.7480	0.2217	0.0115
EE3.1...........	1.2010	0.3371	0.0245	1.2540	0.3295	0.0245
EE3.2...........	0.6740	0.2261	0.0130	1.1990	0.3013	0.0130
CB7.1N..........	0.5550	0.1875	0.0245	0.8310	0.2458	0.0100
CB7.1...........	0.6090	0.1829	0.0130	0.6980	0.2887	0.0170
CB7.1S..........	1.1340	0.2079	0.0130	0.6460	0.2620	0.0100
CB5.4W..........	0.7120	0.2534	0.0045	0.7840	0.2552	0.0130
CB7.2...........	0.7740	0.2003	0.0210	0.6760	0.2390	0.0170
CB7.2E..........	0.4750	0.1898	0.0130	0.6810	0.2199	0.0130
CB7.3E..........	0.6130	0.1696	0.0115	0.6350	0.1918	0.0115
LE3.6...........	0.7190	0.2519	0.0170	0.7260	0.2731	0.0170
LE3.7...........	0.6440	0.2681	0.0230	0.7940	0.2702	0.0045
WE4.1...........	3.7980	0.5124	0.0130	0.9380	0.3144	0.0220
WE4.2...........	0.8600	0.4314	0.0245	1.0060	0.3941	0.0245
WE4.3...........	0.6910	0.3062	0.0130	1.4600	0.3665	0.0130
WE4.4...........	0.8820	0.2553	0.0245	0.6130	0.2382	0.0245
LE5.5...........	1.0720	0.3903	0.0240	1.0040	0.2752	0.0310

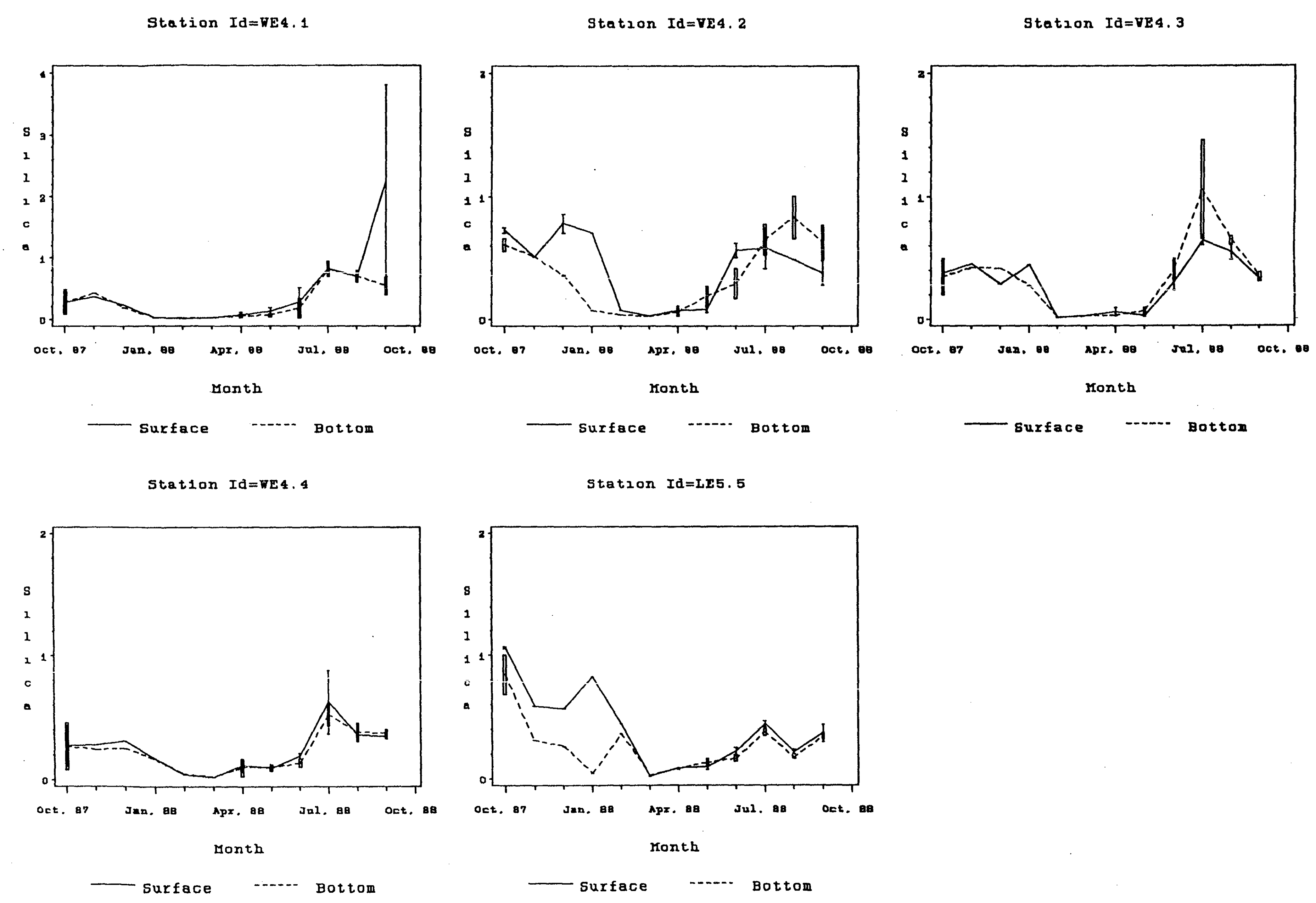

Station Id=CB5.3
Station Id=CB5.4
Station Id=CB5.5
Station Id=CB6.1
Station Id=CB6.2
Station Id=CB6.3
Silica
Month
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Surface
Bottom


Station Id=CB6.4
Station Id=CB7.3
Station Id=CB7.4
Station Id=CB7.4N
Station Id=CB8.1E
Station Id=CB8.1
Silica
0
1
2
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=EE3.1
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB5.4W
Silica
0
1
2
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom



Station Id=CB7.2
Station Id=CB7.2E
Station Id=CB7.3E
Station Id=LE3.6
Station Id=LE3.7
Silica
0
1
2
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom



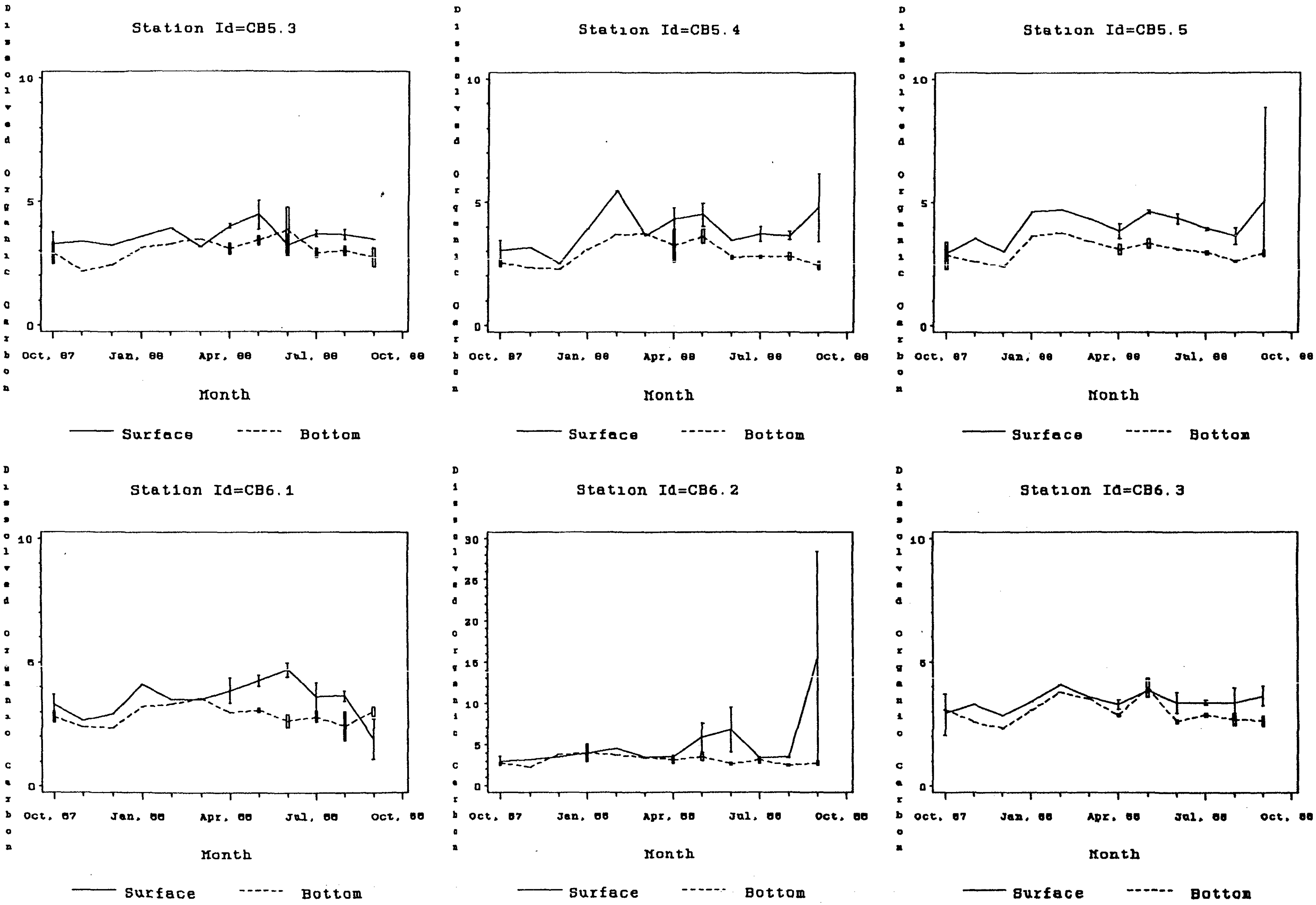
Station Id=WE4.1
Silica
0
1
2
3
4
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom
Station Id=WE4.2
Silica
0
1
2
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom
Station Id=WE4.3
Silica
0
1
2
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom
Station Id=WE4.4
Silica
0
1
2
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom
Station Id=LE5.5
Silica
0
1
2
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom

DISSOLVED ORGANIC CARBON

Values reported as mg/l.

Dissolved Organic Carbon
October, 1987 - September, 1988

	Dissolved Organic Carbon (mg/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3............	5.040	3.627	2.747	4.790	3.064	2.184
CB5.4............	6.165	3.852	2.396	3.900	2.922	2.280
CB5.5............	8.850	4.035	2.620	3.760	3.028	2.284
CB6.1............	5.000	3.540	1.079	3.545	2.860	1.845
CB6.2............	28.420	5.263	2.426	5.080	3.121	2.290
CB6.3............	4.070	3.383	2.054	4.330	2.973	2.312
CB6.4............	4.200	2.862	2.100	3.300	2.392	1.500
CB7.3............	4.940	2.604	1.600	4.830	2.245	1.400
CB7.4............	3.680	2.228	1.600	2.200	1.666	1.100
CB7.4N...........	3.100	1.984	1.100	2.500	1.834	1.300
CB8.1E...........	5.200	2.422	1.600	3.100	1.826	1.000
CB8.1............	5.200	2.785	1.900	7.700	2.432	1.400
EE3.1............	6.320	4.358	2.880	5.380	4.106	2.900
EE3.2............	5.160	3.808	2.813	4.243	3.477	2.310
CB7.1N...........	5.960	3.825	2.592	3.900	3.311	2.448
CB7.1............	4.480	3.471	2.660	4.010	3.053	2.120
CB7.1S...........	5.280	3.677	2.274	3.740	2.775	2.056
CB5.4W...........	12.170	4.519	2.744	7.690	3.909	2.638
CB7.2............	4.170	3.473	2.620	3.440	2.720	2.140
CB7.2E...........	3.910	3.224	2.210	3.920	2.784	2.050
CB7.3E...........	3.800	2.624	1.800	5.280	2.299	1.600
LE3.6............	8.050	3.905	2.665	4.860	3.349	2.364
LE3.7............	5.190	3.776	2.569	4.400	3.616	2.701
WE4.1............	4.590	3.438	2.827	3.880	3.194	2.537
WE4.2............	5.210	3.532	2.410	3.920	3.036	2.007
WE4.3............	4.430	3.376	2.650	3.890	3.191	2.668
WE4.4............	4.400	3.497	2.550	5.050	3.492	2.480
LE5.5............	5.000	3.083	2.100	3.700	2.265	1.200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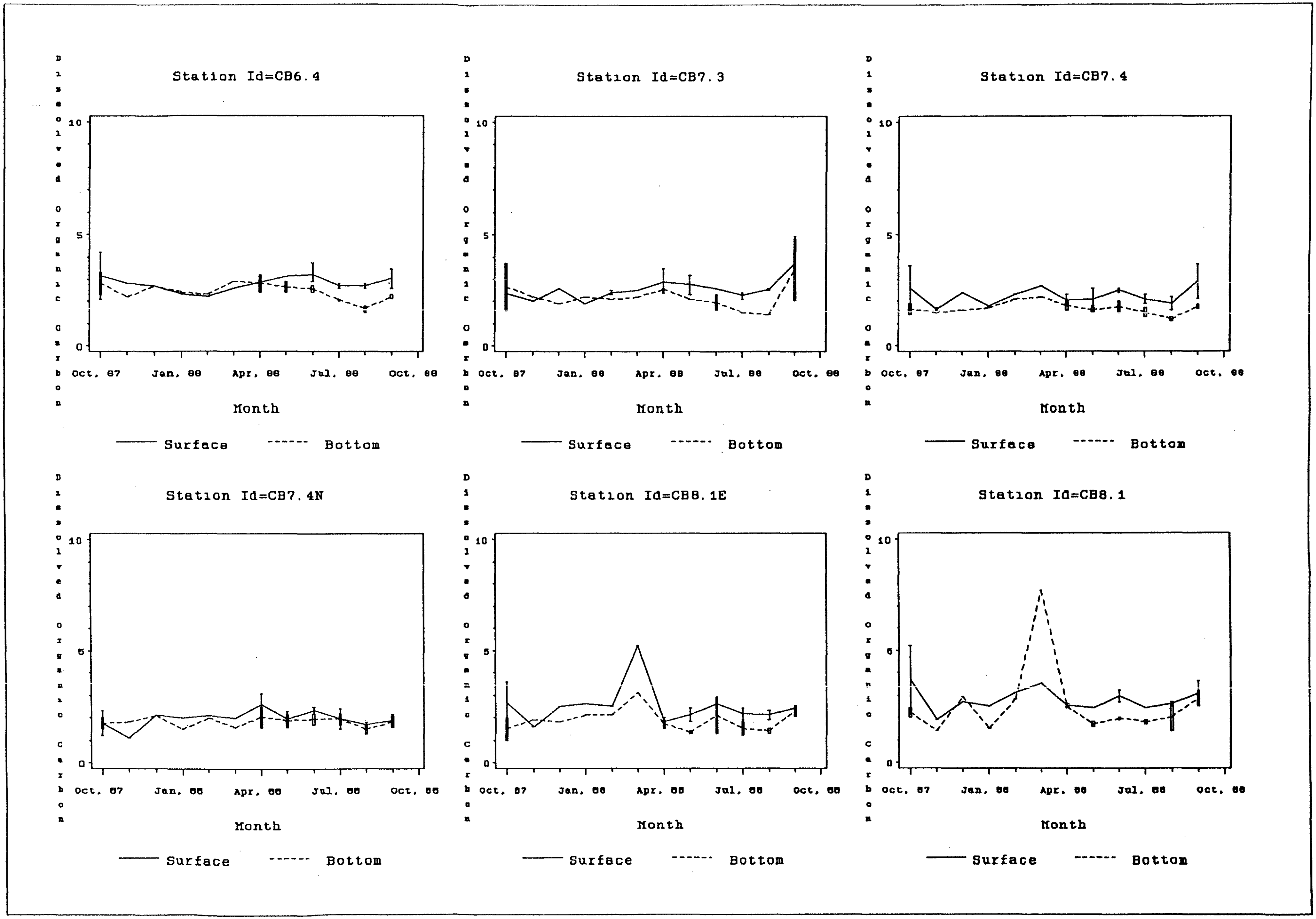
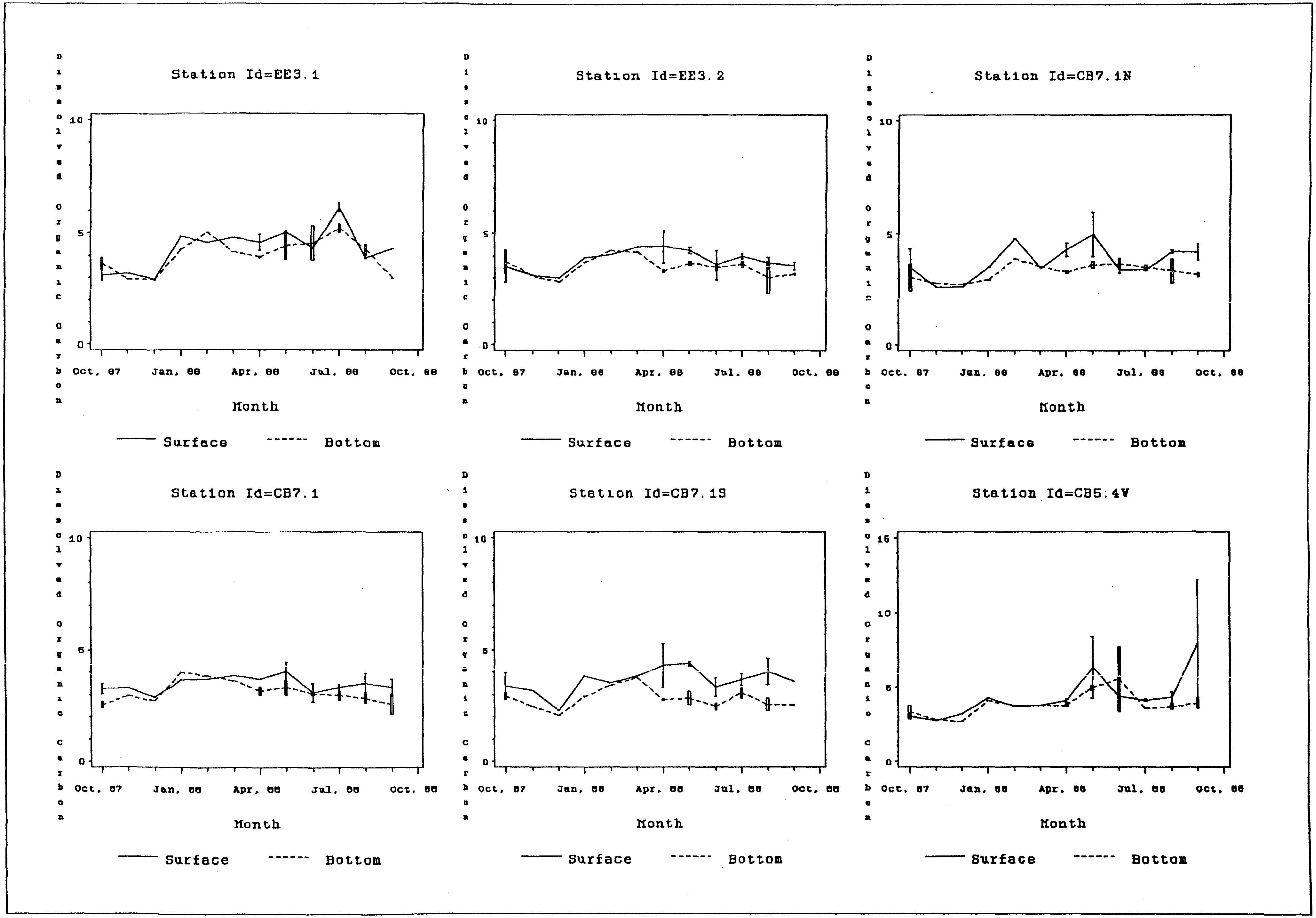
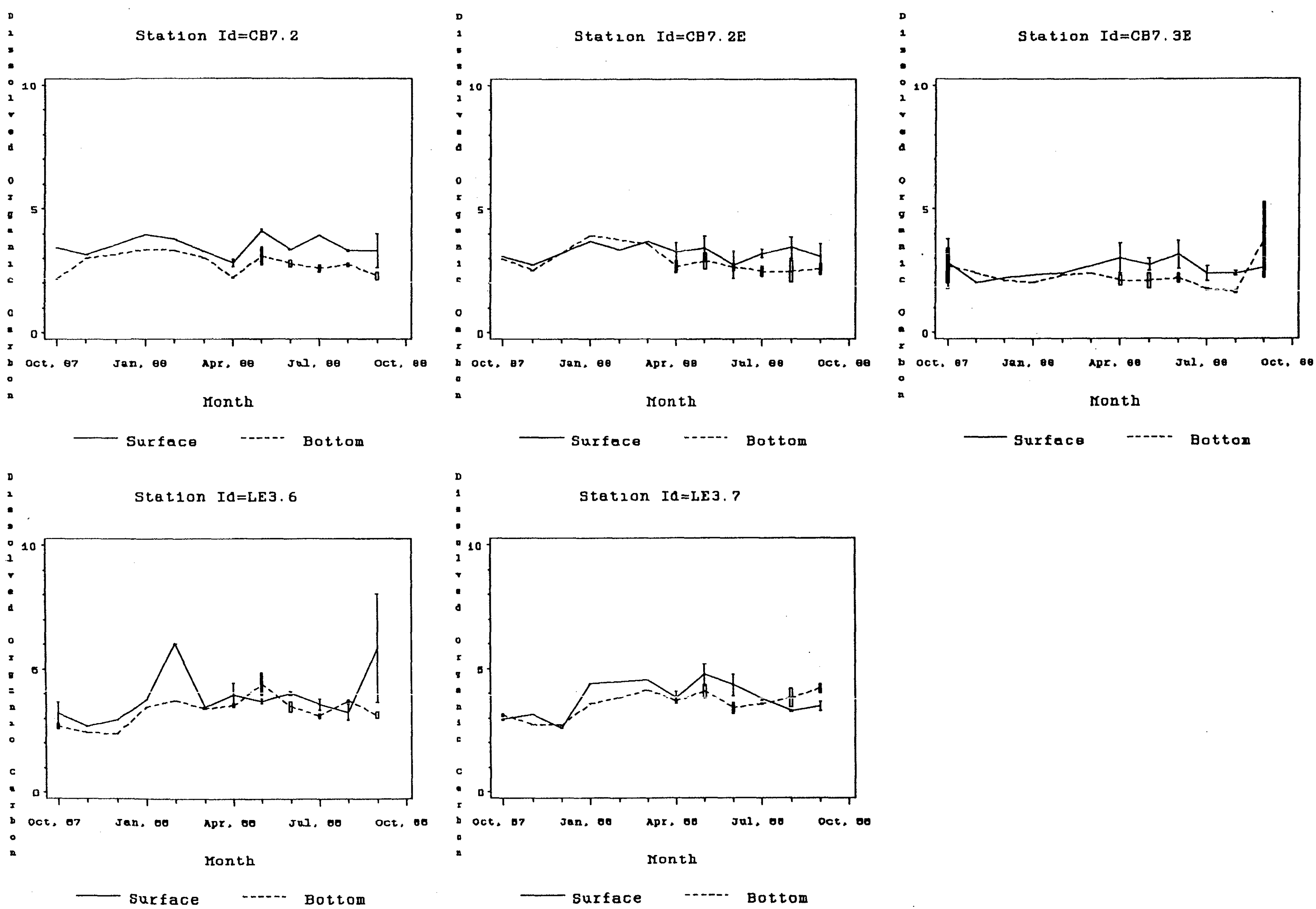
Station Id=CB5.4
Station Id=CB5.5
Station Id=CB6.1
Station Id=CB6.2
Station Id=CB6.3
Dissolved Organic Carbon
Month
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Surface
Bottom


Station Id=CB6.4
Station Id=CB7.3
Station Id=CB7.4
Station Id=CB7.4N
Station Id=CB8.1E
Station Id=CB8.1
Dissolved Organic Carbon
0
5
10
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=EE3.1
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB5.4W
Dissolved Organic Carbon
0
5
10
15
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=CB7.2
Station Id=CB7.2E
Station Id=CB7.3E
Station Id=LE3.6
Station Id=LE3.7
Dissolved Organic Carbon
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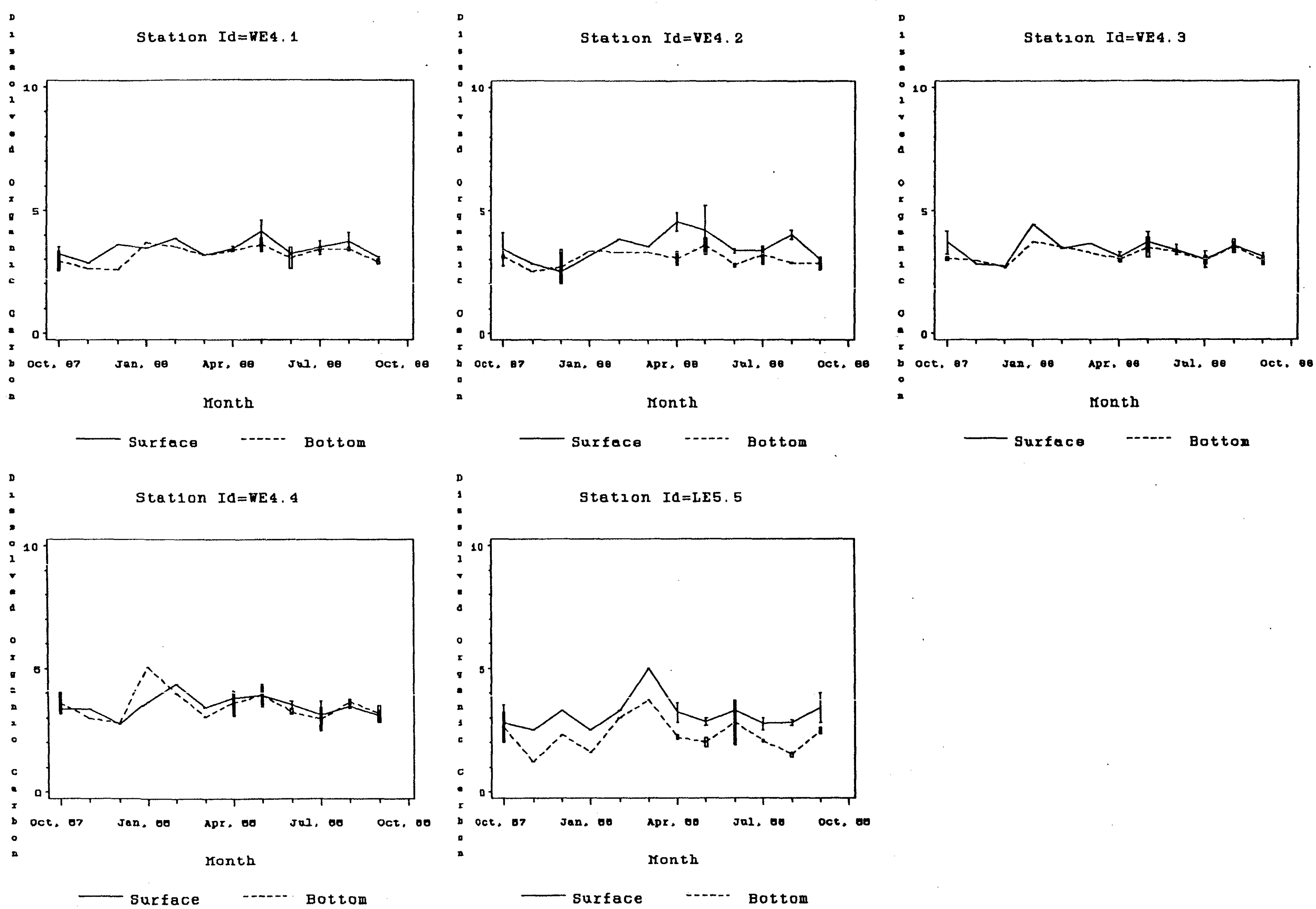
5
10
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom

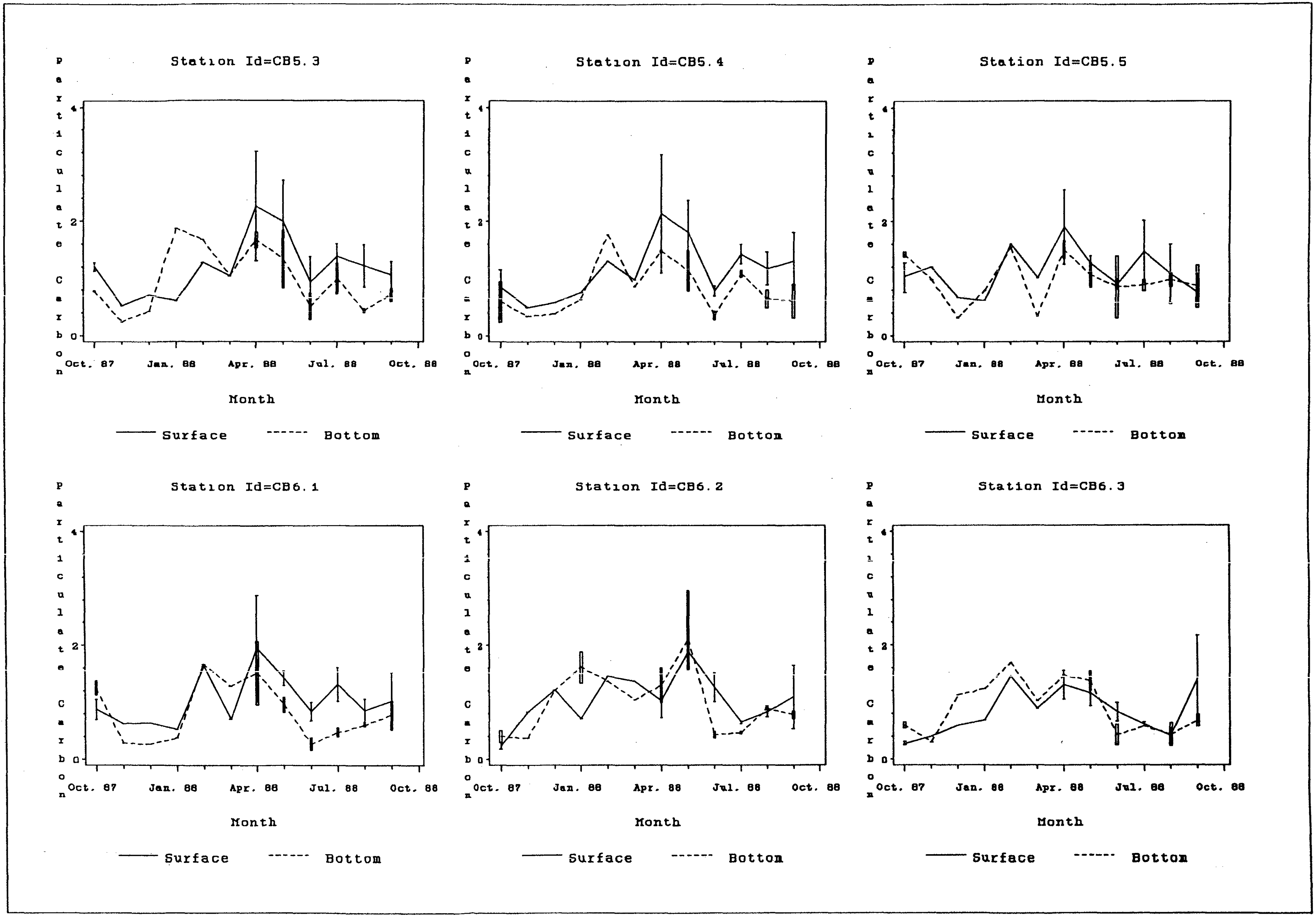

Station Id=WE4.1
Station Id=WE4.2
Station Id=WE4.3
Station Id=WE4.4
Station Id=LE5.5
Dissolved Organic Carbon
0
5
10
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

PARTICULATE CARBON

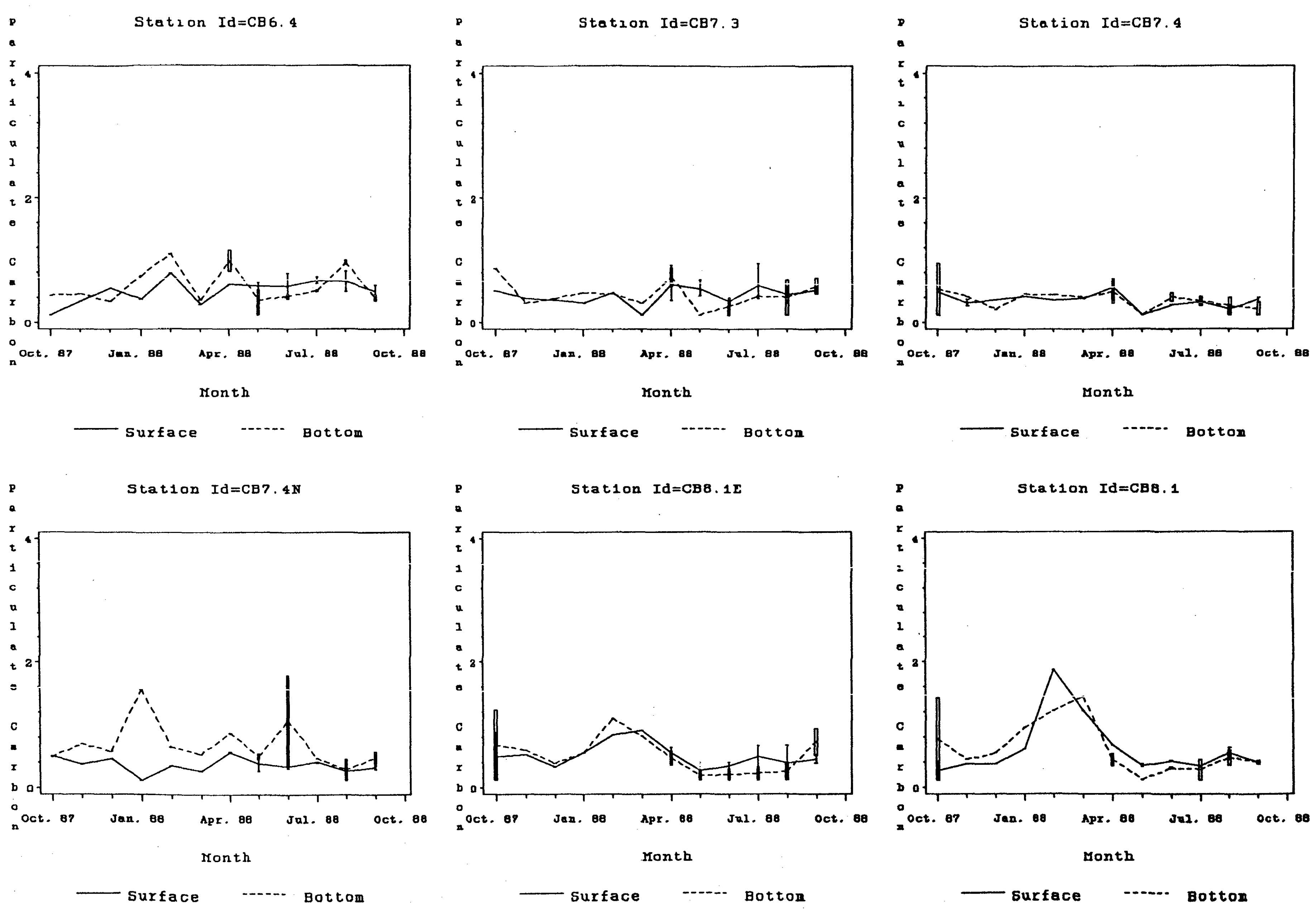
Values reported as mg/l.

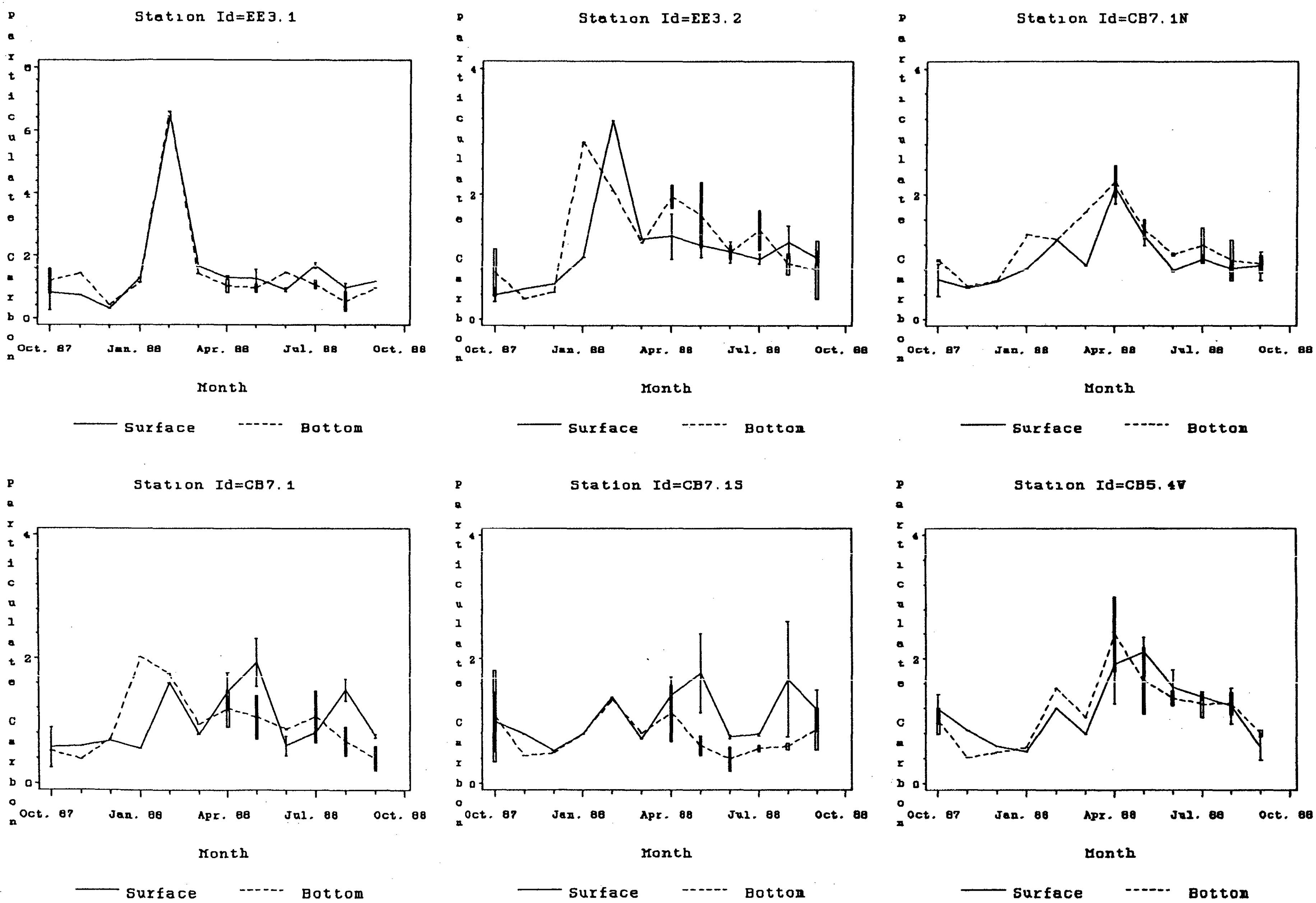
Particulate Carbon
October, 1987 - September, 1988

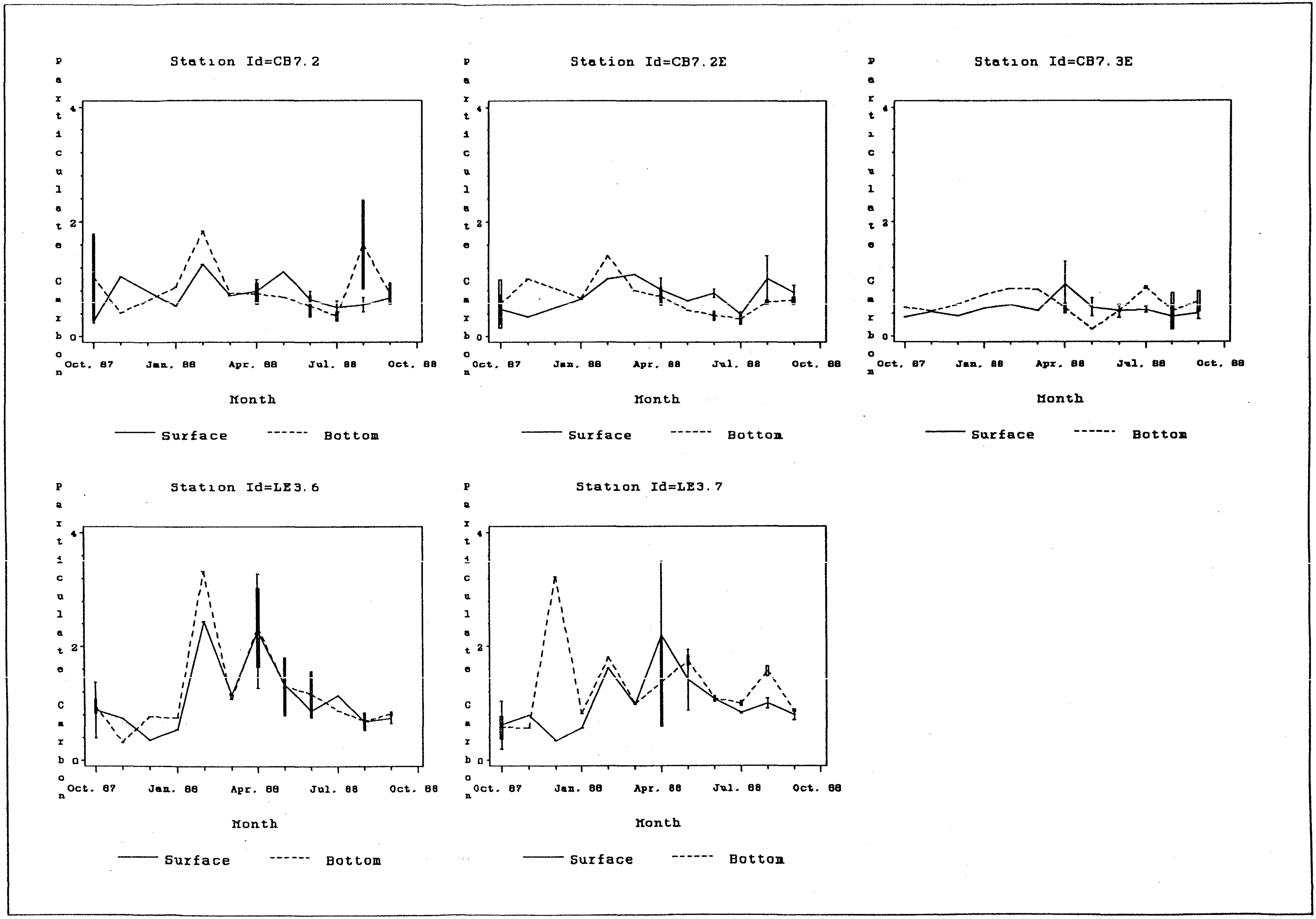
	Particulate Carbon (mg/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3............	3.2200	1.2719	0.4870	1.8690	0.9505	0.2380
CB5.4............	3.1810	1.1940	0.2910	1.7590	0.8287	0.2380
CB5.5............	2.5450	1.1253	0.5620	1.6590	1.0016	0.3090
CB6.1............	2.8890	1.0948	0.5150	2.0830	0.8228	0.1540
CB6.2............	2.0920	1.0098	0.1700	2.9550	1.0485	0.3010
CB6.3............	2.1630	0.8135	0.2440	1.6960	0.8674	0.2320
CB6.4............	0.8100	0.5284	0.1200	1.1500	0.5909	0.1200
CB7.3............	0.9500	0.4692	0.1200	0.8700	0.4519	0.1200
CB7.4............	0.6900	0.3183	0.1200	0.9500	0.3481	0.1200
CB7.4N...........	0.5700	0.3696	0.1200	1.8000	0.6615	0.1200
CB8.1E...........	0.9000	0.4756	0.1200	1.2270	0.4677	0.1200
CB8.1............	1.8690	0.5459	0.1200	1.4420	0.5346	0.1200
EE3.1............	6.4530	1.4209	0.2630	6.6050	1.3587	0.2250
EE3.2............	3.1700	1.0937	0.2720	2.8420	1.2631	0.3230
CB7.1N...........	2.3570	0.9993	0.3660	2.4590	1.1997	0.5280
CB7.1............	2.3260	1.0307	0.2430	2.0360	0.9385	0.2060
CB7.1S...........	2.5930	1.1156	0.5090	1.8100	0.7486	0.1940
CB5.4W...........	2.5470	1.2540	0.3620	3.0060	1.2401	0.4070
CB7.2............	1.2560	0.6737	0.2290	2.3730	0.8529	0.2620
CB7.2E...........	1.4030	0.7072	0.2220	1.4120	0.6250	0.1420
CB7.3E...........	1.3000	0.4788	0.1200	0.8700	0.5403	0.1200
LE3.6............	3.2820	1.1104	0.3470	3.3240	1.1884	0.3170
LE3.7............	3.4840	1.0576	0.1940	3.2290	1.2525	0.3730
WE4.1............	1.9890	0.9309	0.3150	1.8510	1.1488	0.6360
WE4.2............	1.5190	0.6944	0.1910	2.3670	0.7901	0.0495
WE4.3............	1.5360	0.7173	0.1350	1.6460	0.7406	0.1580
WE4.4............	2.1240	0.8606	0.1730	2.0140	0.8311	0.2060
LE5.5............	1.9160	0.7446	0.1200	2.4480	0.7108	0.1200

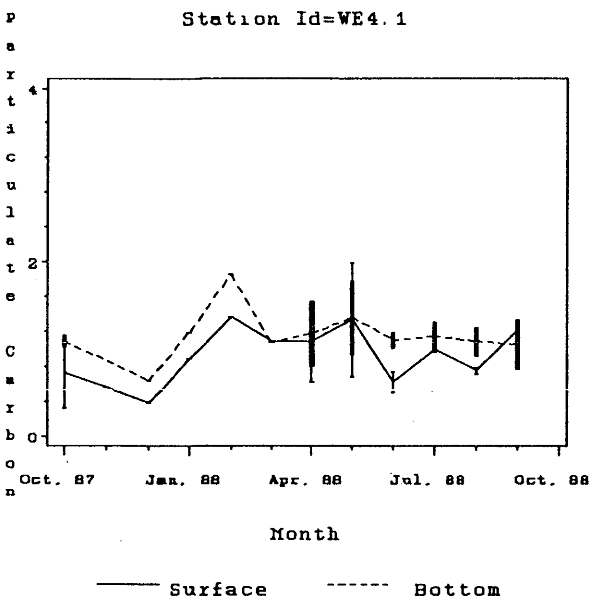


Station Id=CB5.3
Station Id=CB5.4
Station Id=CB5.5
Station Id=CB6.1
Station Id=CB6.2
Station Id=CB6.3
Particulate Carbon
0
2
4
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

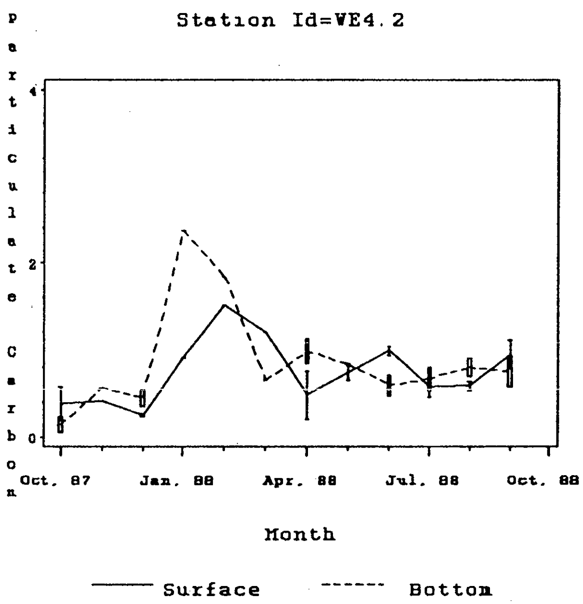

Station Id=CB6.4
Station Id=CB7.3
Station Id=CB7.4
Station Id=CB7.4N
Station Id=CB8.1E
Station Id=CB8.1
Particulate Carbon
0
2
4
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom


Station Id=EE3.1
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB5.4W
Particulate Carbon
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

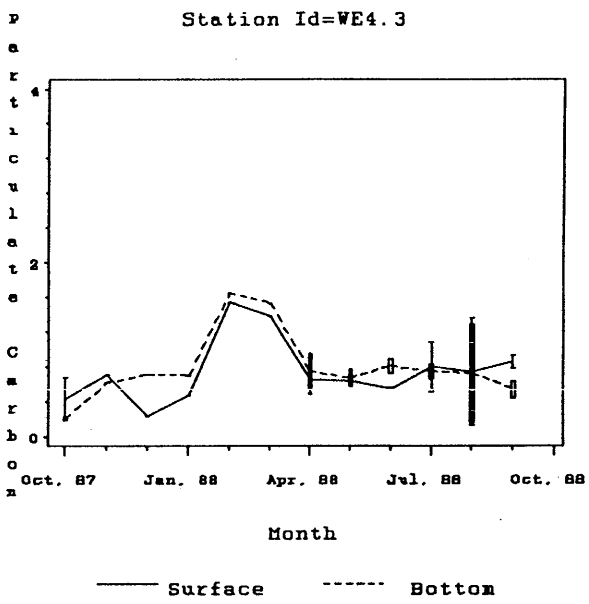

Station Id=CB7.2
Particulate Carbon
0
2
4
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB7.2E
Particulate Carbon
0
2
4
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=CB7.3E
Particulate Carbon
0
2
4
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=LE3.6
Particulate Carbon
0
2
4
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom
Station Id=LE3.7
Particulate Carbon
0
2
4
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom



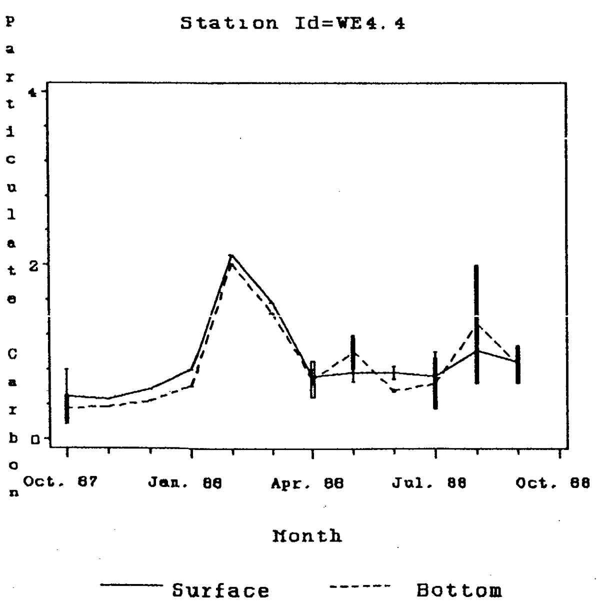
Station Id=WE4.1
Particulate Carbon
0
2
4
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom



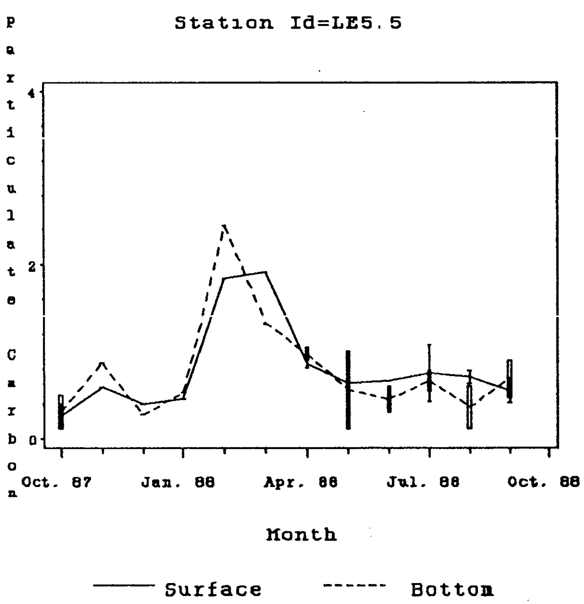
Station Id=WE4.2
Particulate Carbon
0
2
4
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom



Station Id=WE4.3
Particulate Carbon
0
2
4
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom



Station Id=WE4.4
Particulate Carbon
0
2
4
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom



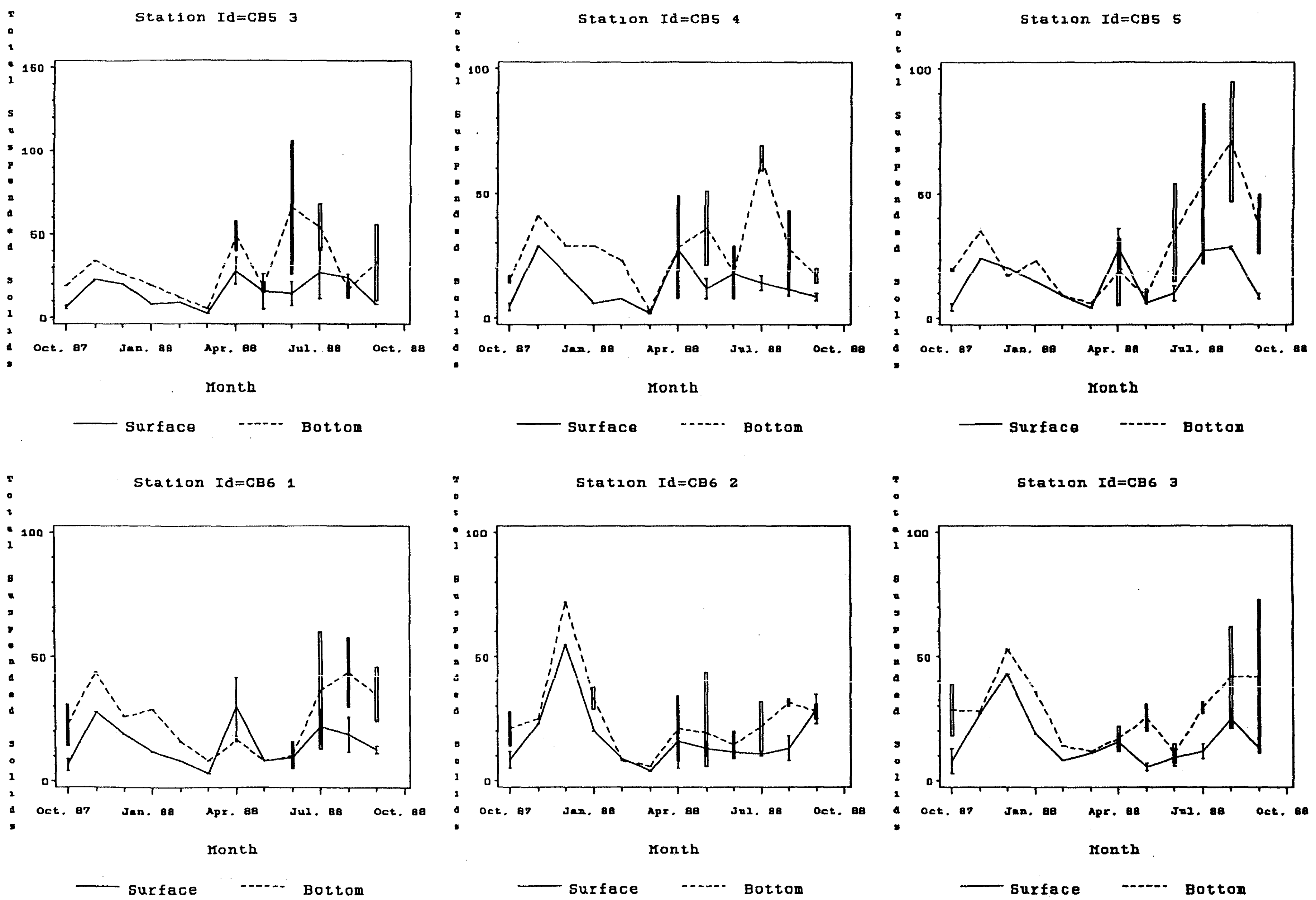
Station Id=LE5.5
Particulate Carbon
0
2
4
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

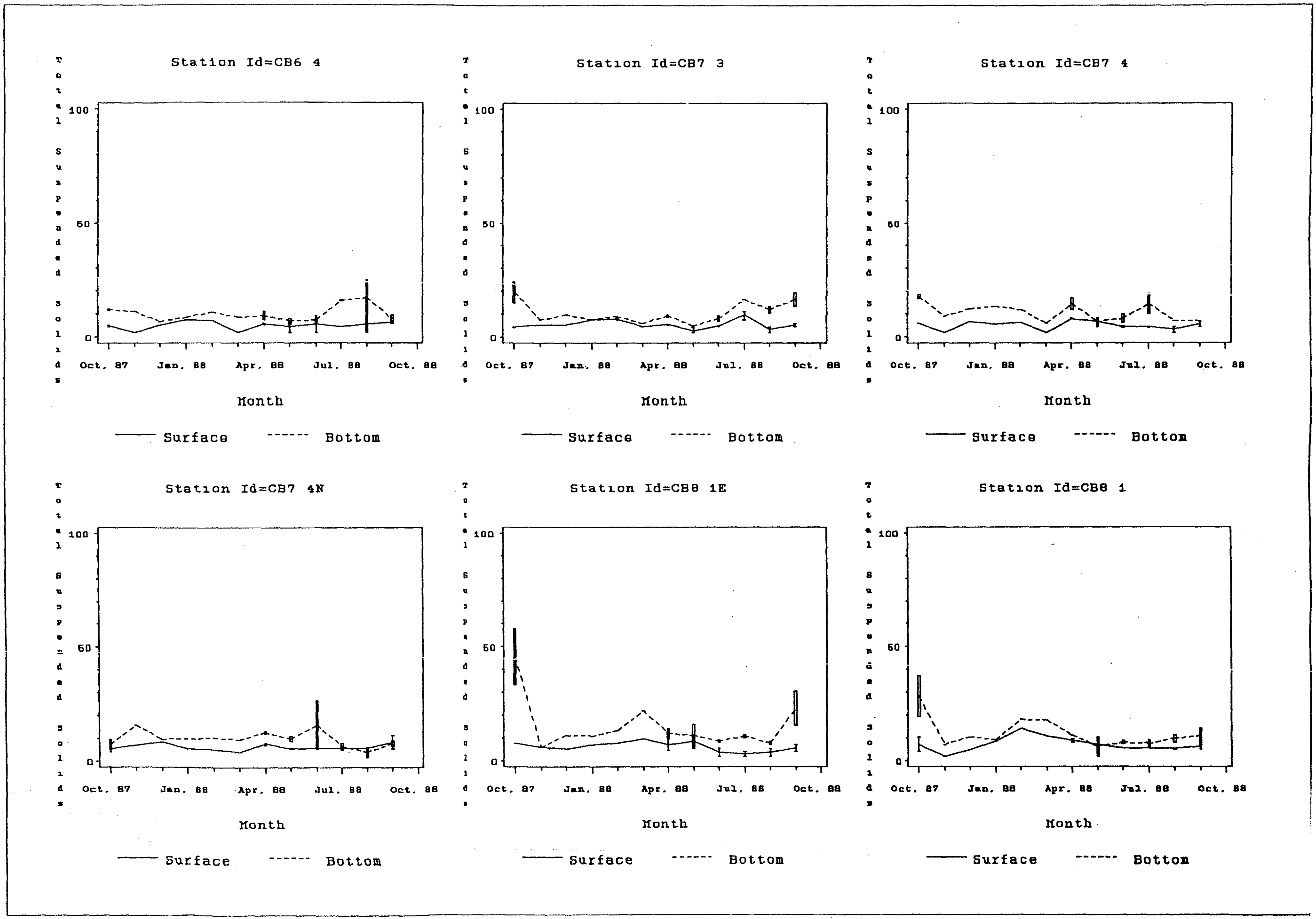
TOTAL SUSPENDED SOLIDS

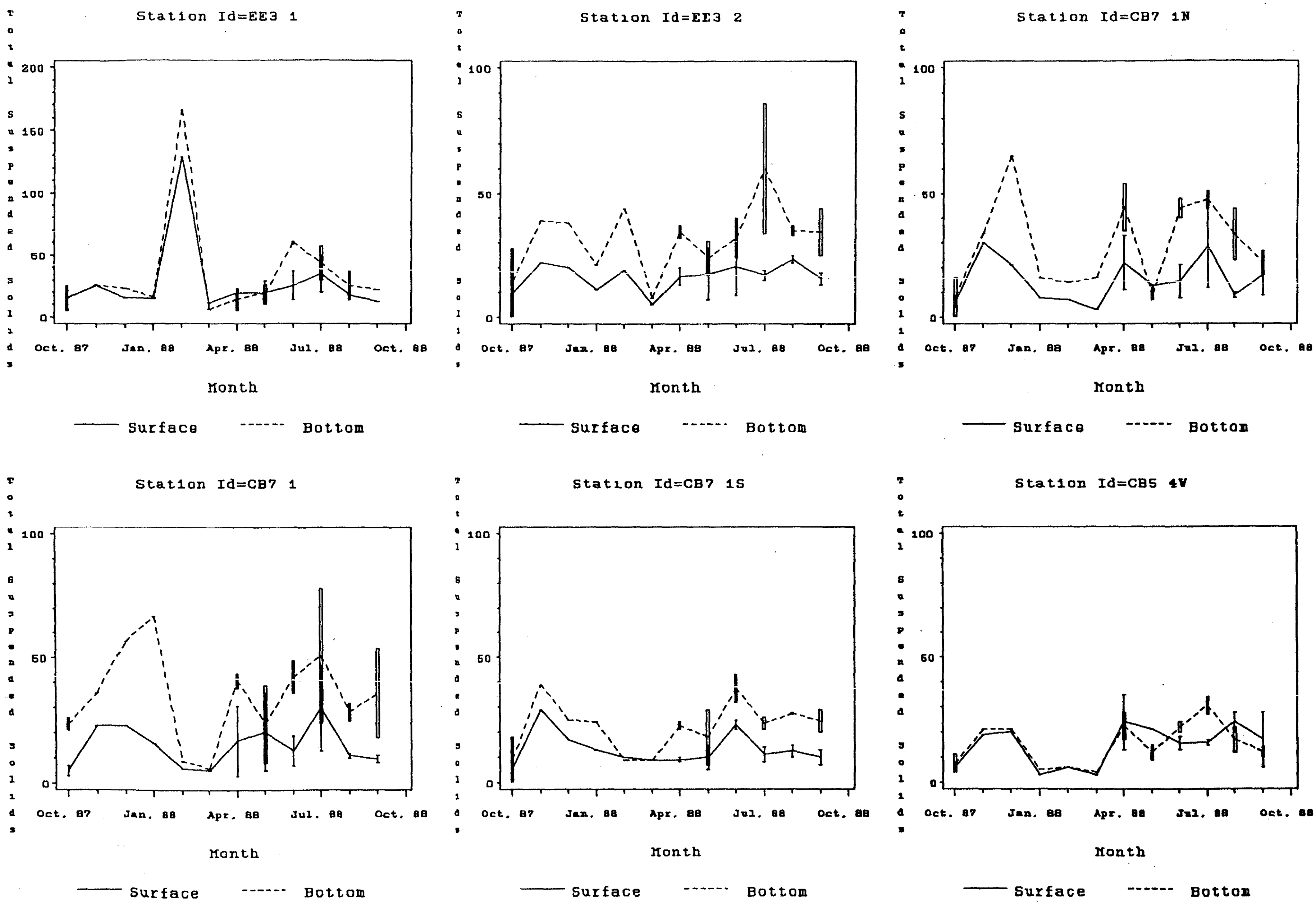
Values reported as mg/l.

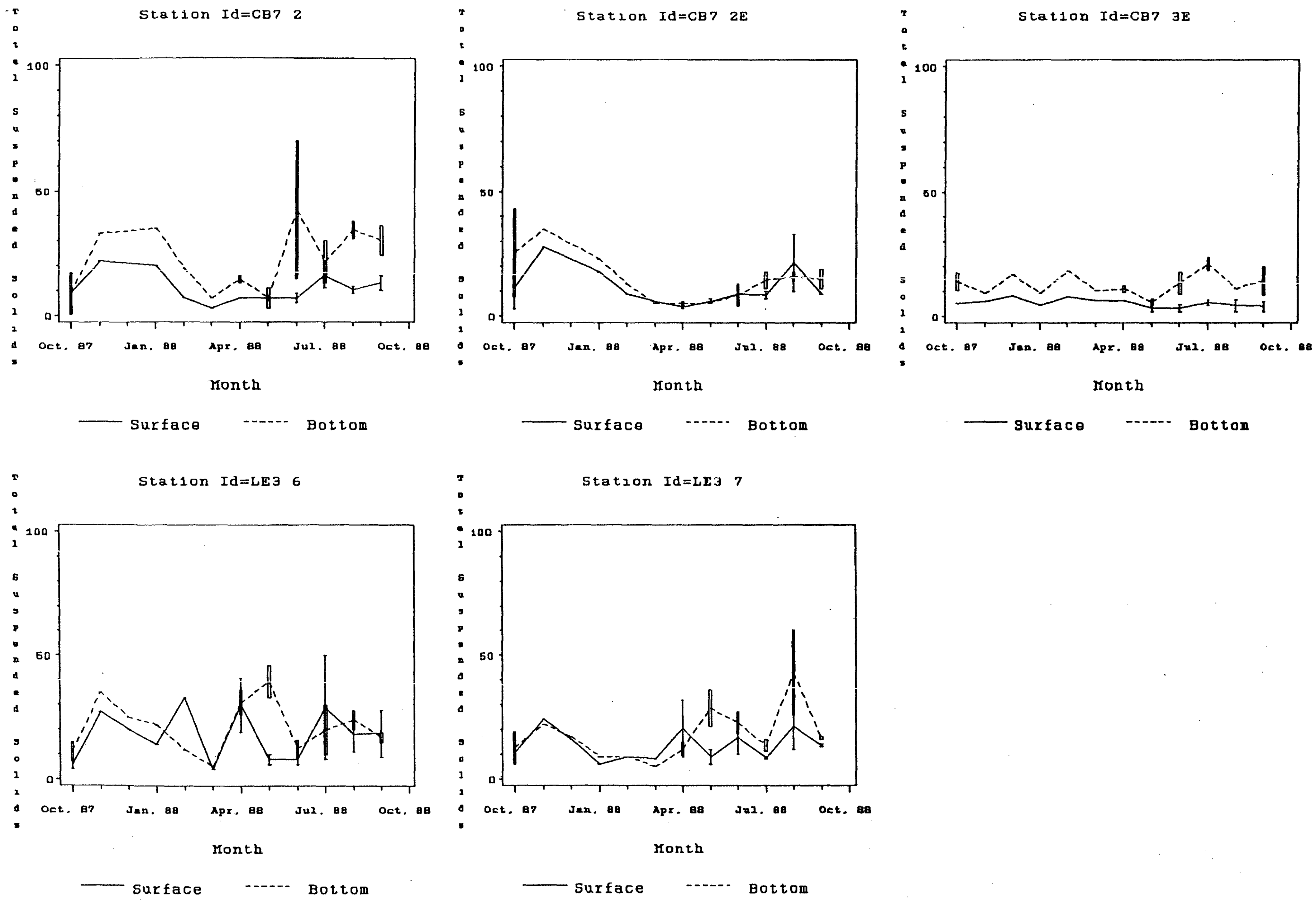
Total Suspended Solids
October, 1987 - September, 1988

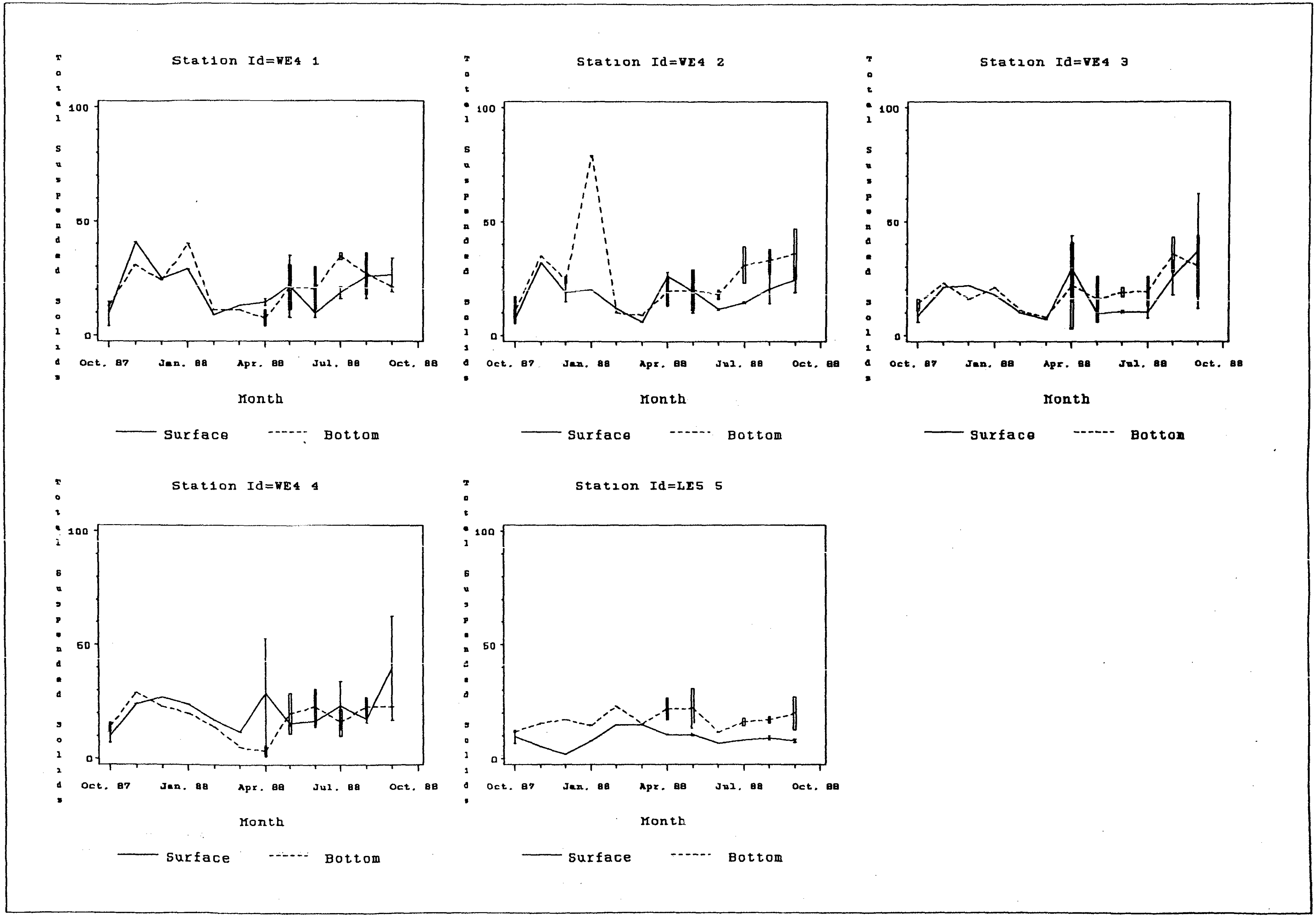
	Total Suspended Solids (mg/l)					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3...........	42.00	16.16	2.00	106.00	31.95	5.00
CB5.4...........	35.00	13.00	2.00	69.00	28.37	3.00
CB5.5...........	36.00	14.90	3.00	95.00	30.47	5.00
CB6.1...........	42.00	15.00	3.00	60.00	24.68	5.00
CB6.2...........	55.00	16.25	4.00	72.00	24.38	6.00
CB6.3...........	43.00	14.33	3.00	73.00	28.11	7.00
CB6.4...........	9.40	5.11	2.00	25.00	10.58	2.00
CB7.3...........	11.20	5.46	2.00	24.30	11.25	4.80
CB7.4...........	8.10	5.03	2.00	18.90	10.67	4.60
CB7.4N..........	11.40	6.34	4.00	26.90	9.76	2.00
CB8.1E..........	11.50	5.90	2.00	57.80	15.85	6.10
CB8.1...........	14.10	6.96	2.00	37.20	11.95	2.00
EE3.1...........	129.00	26.44	7.00	166.00	34.06	5.00
EE3.2...........	32.00	16.68	4.00	86.00	32.55	0.50
CB7.1N..........	45.00	15.16	3.00	65.00	29.61	0.50
CB7.1...........	47.00	15.00	3.00	78.00	35.11	6.00
CB7.1S..........	29.00	12.63	3.00	43.00	22.71	0.50
CB5.4W..........	35.00	15.68	3.00	34.00	16.00	4.00
CB7.2...........	22.00	10.61	3.00	70.00	22.86	0.50
CB7.2E..........	33.00	11.00	3.00	43.00	14.22	4.00
CB7.3E..........	8.30	5.10	2.00	23.90	12.95	4.60
LE3.6...........	50.00	17.53	4.00	46.00	21.53	5.00
LE3.7...........	32.00	13.79	6.00	60.00	18.89	5.00
WE4.1...........	41.00	19.37	4.00	40.00	21.37	4.00
WE4.2...........	32.00	17.75	5.00	79.00	25.95	5.00
WE4.3...........	62.00	17.89	6.00	44.00	20.63	3.00
WE4.4...........	63.00	21.47	5.00	31.00	17.68	1.00
LE5.5...........	15.00	8.99	2.00	30.80	17.53	11.60


Station Id=CB5 3
Station Id=CB5 4
Station Id=CB5 5
Station Id=CB6 1
Station Id=CB6 2
Station Id=CB6 3
Total Suspended Solids
Month
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Surface
Bottom


Station Id=CB6 4
Station Id=CB7 3
Station Id=CB7 4
Station Id=CB7 4N
Station Id=CB8 1E
Station Id=CB8 1
Total Suspended Solids
100
50
0
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom


Station Id=EE3 1
Station Id=EE3 2
Station Id=CB7 1N
Station Id=CB7 1
Station Id=CB7 1S
Station Id=CB5 4W
Total Suspended Solids
0
50
100
150
200
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom


Station Id=CB7 2
Station Id=CB7 2E
Station Id=CB7 3E
Station Id=LE3 6
Station Id=LE3 7
Total Suspended Solids
100
50
0
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

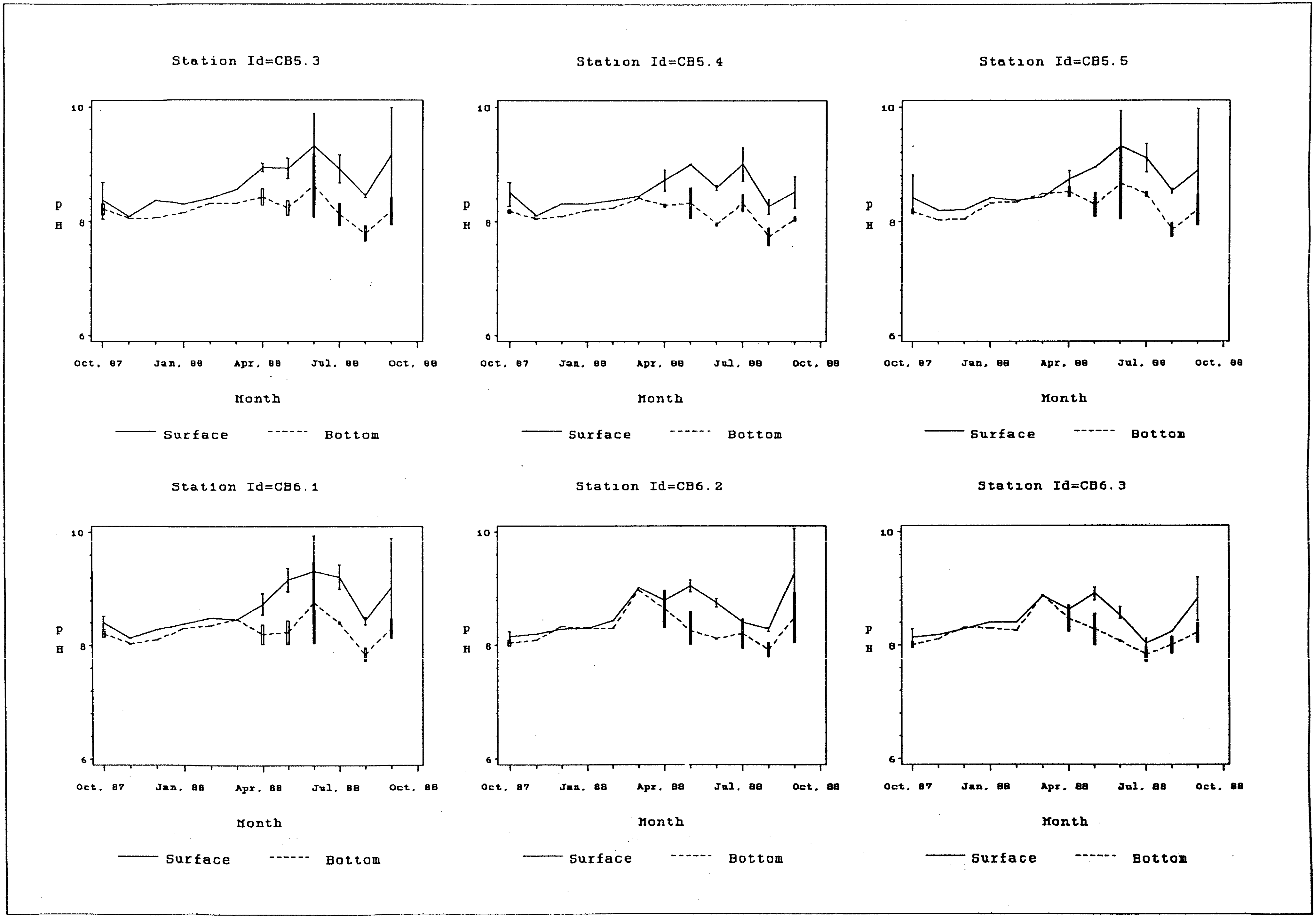


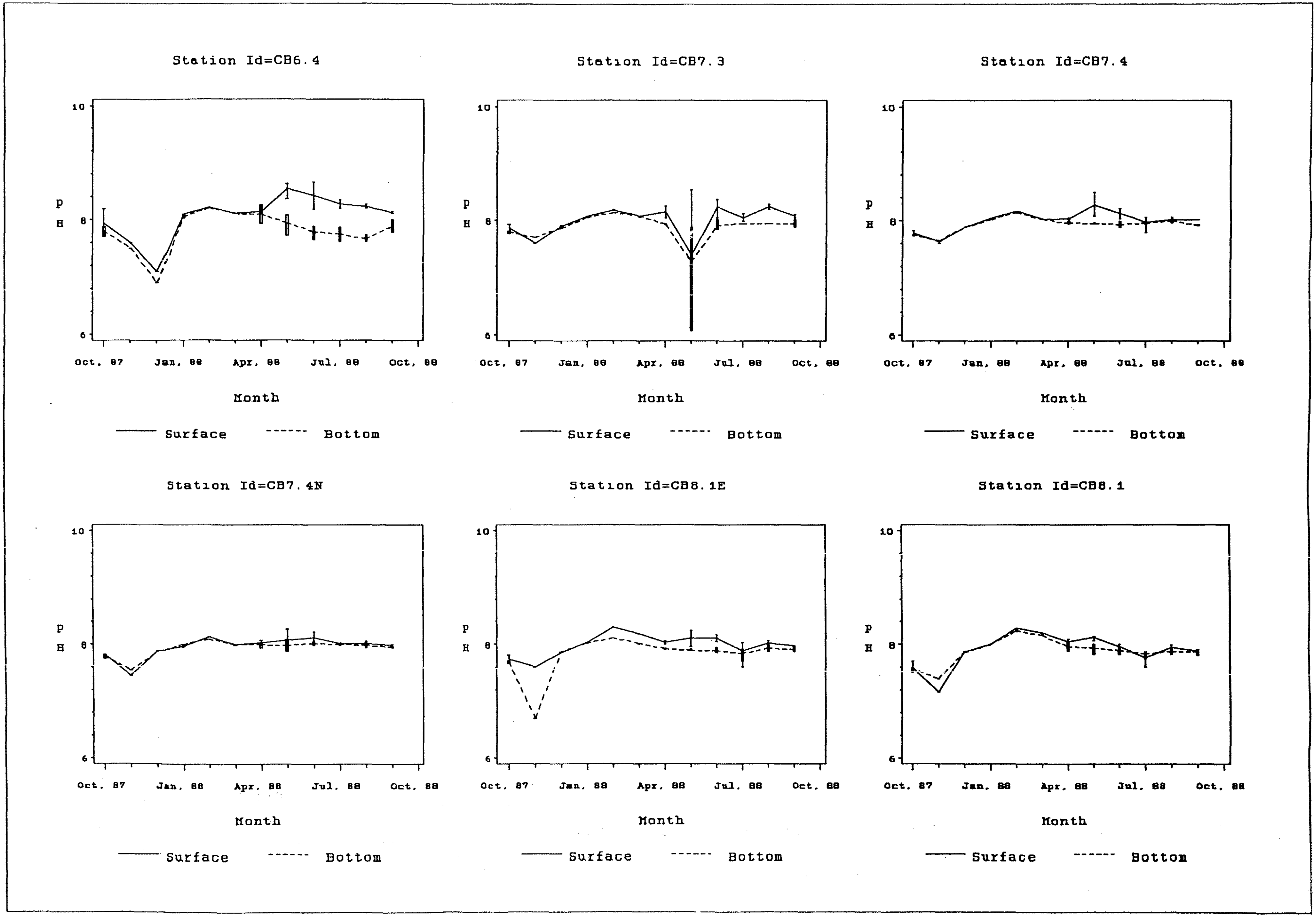
Station Id=WE4 1
Station Id=WE4 2
Station Id=WE4 3
Station Id=WE4 4
Station Id=LE5 5
Total Suspended Solids
100
50
0
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

pH

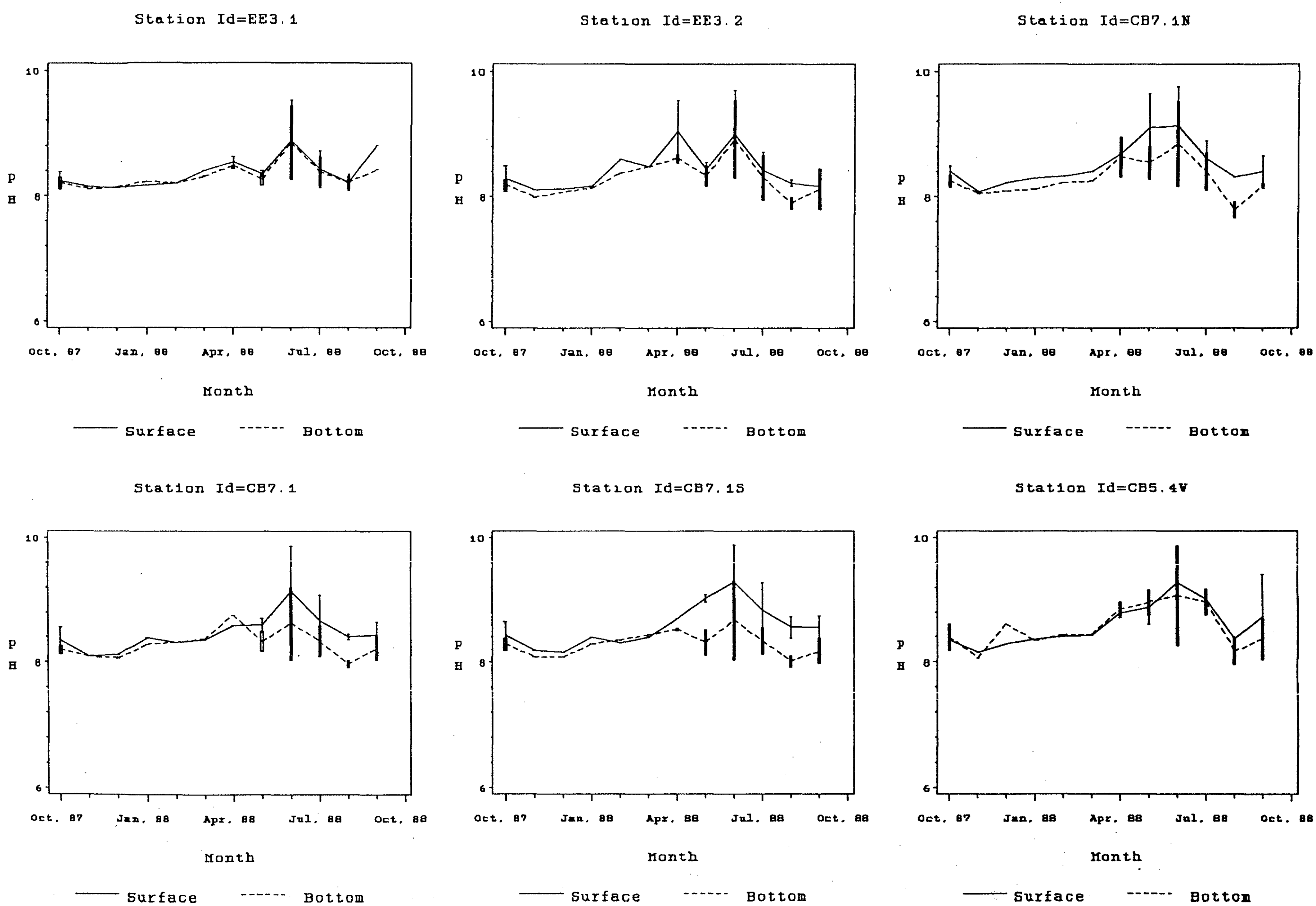
pH
October, 1987 - September, 1988

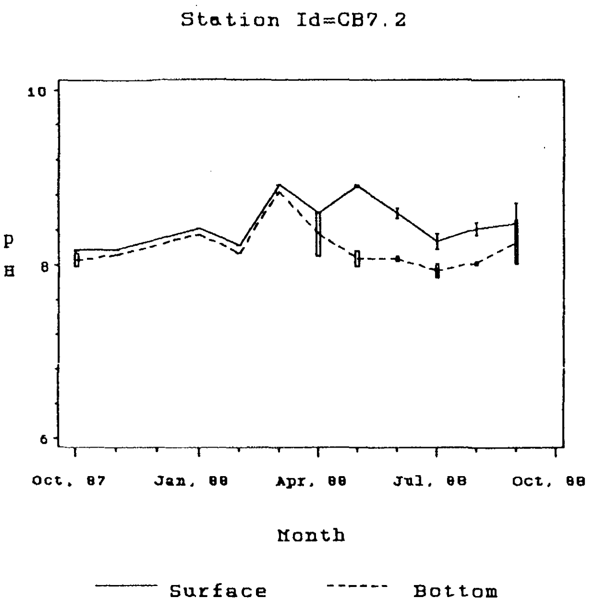
	pH					
	Surface			Bottom		
	Max	Mean	Min	Max	Mean	Min
CB5.3............	9.98	8.73	8.05	9.18	8.21	7.66
CB5.4............	9.29	8.56	8.10	8.60	8.14	7.58
CB5.5............	9.97	8.71	8.06	9.28	8.30	7.74
CB6.1............	9.94	8.76	8.14	9.47	8.28	7.73
CB6.2............	10.05	8.60	8.07	8.97	8.28	7.79
CB6.3............	9.20	8.45	7.95	8.88	8.19	7.70
CB6.4............	8.66	8.16	7.10	8.26	7.85	6.90
CB7.3............	8.53	8.01	6.77	8.14	7.88	6.07
CB7.4............	8.49	8.01	7.60	8.14	7.93	7.65
CB7.4N...........	8.27	7.99	7.45	8.10	7.96	7.55
CB8.1E...........	8.30	8.00	7.60	8.11	7.86	6.70
CB8.1............	8.29	7.92	7.15	8.27	7.88	7.40
EE3.1............	9.52	8.40	8.07	9.43	8.34	8.10
EE3.2............	9.69	8.45	7.98	9.54	8.32	7.79
CB7.1N...........	9.75	8.56	8.08	9.52	8.32	7.66
CB7.1............	9.87	8.50	8.09	9.20	8.29	7.92
CB7.1S...........	9.88	8.64	8.15	9.30	8.31	7.92
CB5.4W...........	9.87	8.64	8.03	9.87	8.60	7.96
CB7.2............	8.93	8.48	8.17	8.84	8.17	7.85
CB7.2E...........	8.88	8.45	8.10	9.08	8.27	7.96
CB7.3E...........	8.54	8.08	7.50	8.16	7.90	7.35
LE3.6............	9.78	8.65	8.14	9.36	8.56	8.08
LE3.7............	9.80	8.54	8.03	9.47	8.44	8.05
WE4.1............	8.72	8.30	7.89	8.70	8.25	7.99
WE4.2............	8.86	8.36	7.99	9.09	8.22	7.84
WE4.3............	8.47	8.21	7.93	8.52	8.16	7.83
WE4.4............	8.63	8.19	7.90	8.48	8.18	7.79
LE5.5............	8.61	8.05	7.69	8.39	7.87	7.65

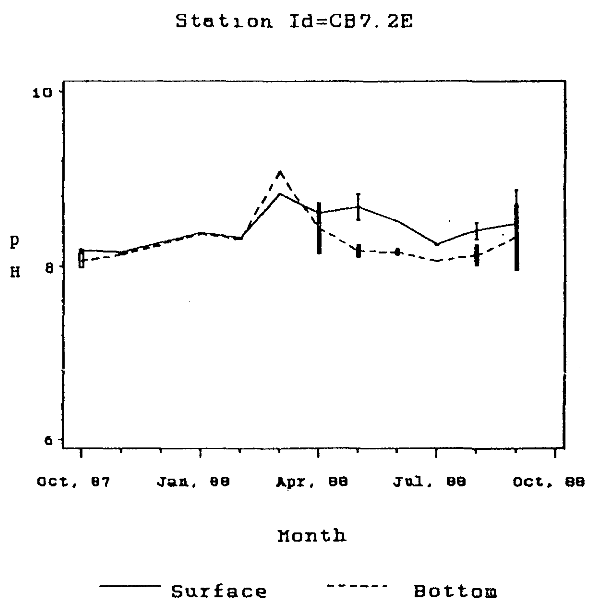

Station Id=CB5.3
Station Id=CB5.4
Station Id=CB5.5
Station Id=CB6.1
Station Id=CB6.2
Station Id=CB6.3
pH
10
8
6
Oct. 87
Jan. 88
Apr. 88
Jul. 88
Oct. 88
Month
Surface
Bottom

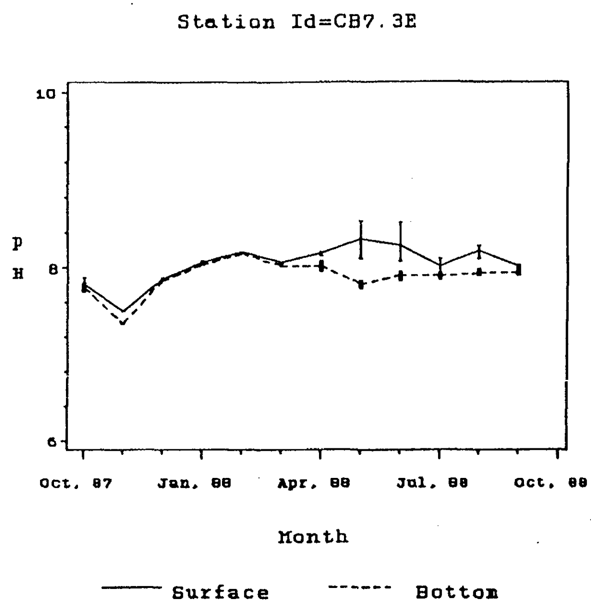


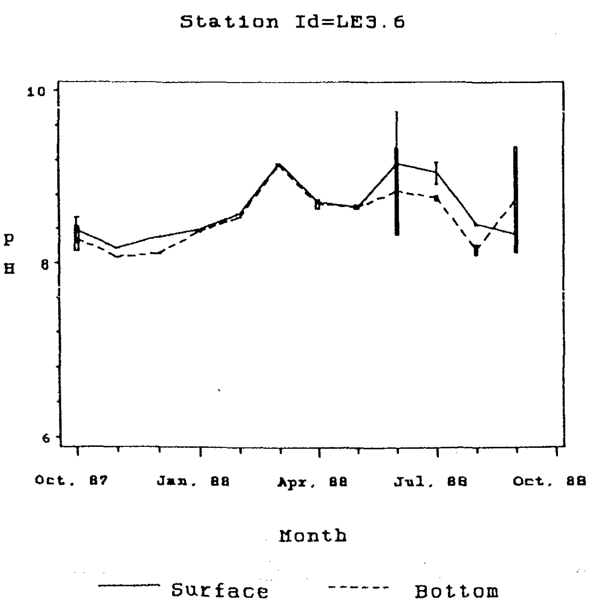
Station Id=CB6.4
Station Id=CB7.3
Station Id=CB7.4
Station Id=CB7.4N
Station Id=CB8.1E
Station Id=CB8.1
pH
10
8
6
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom

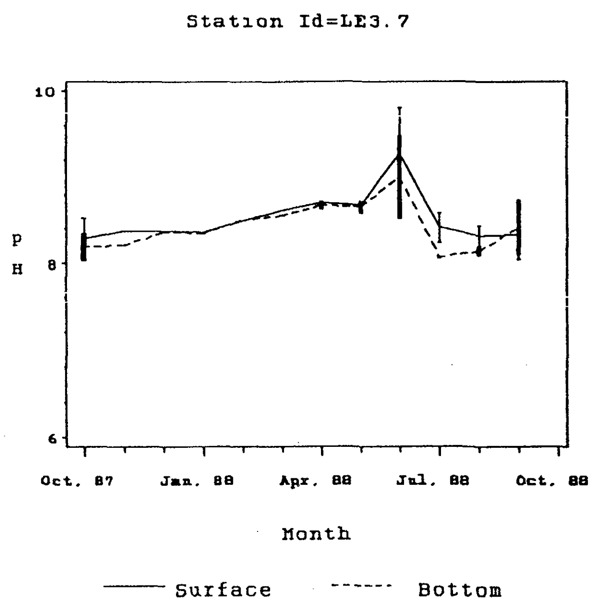

Station Id=EE3.1
Station Id=EE3.2
Station Id=CB7.1N
Station Id=CB7.1
Station Id=CB7.1S
Station Id=CB5.4W
10
8
6
pH
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom

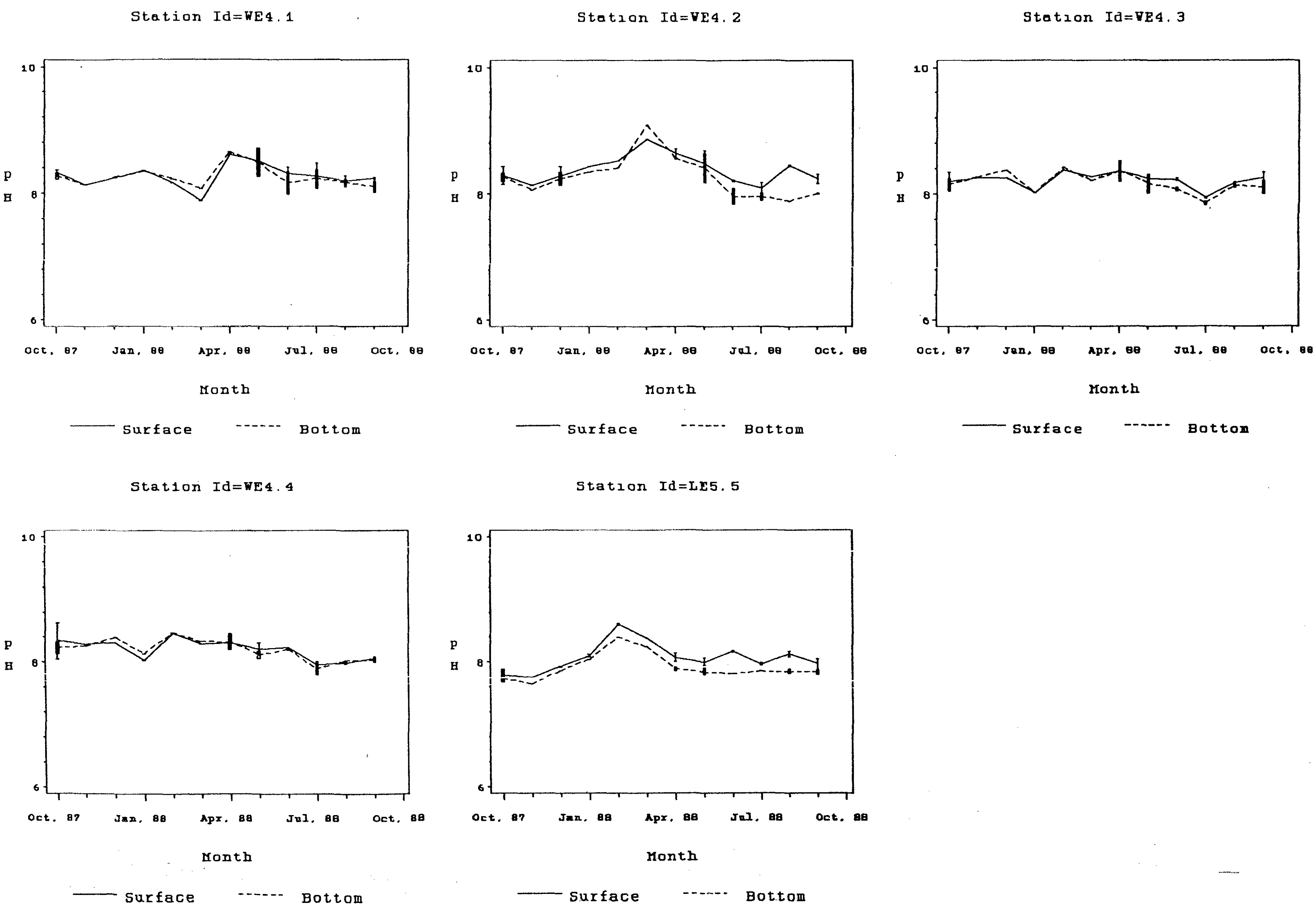

Station Id=CB7.2
10
8
6
p
H
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=CB7.2E
10
8
6
p
H
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=CB7.3E
10
8
6
p
H
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=LE3.6
10
8
6
p
H
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom


Station Id=LE3.7
10
8
6
p
H
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom



Station Id=WE4.1
10
p
H
8
6
Oct, 87
Jan, 88
Apr, 88
Jul, 88
Oct, 88
Month
Surface
Bottom
Station Id=WE4.2
Station Id=WE4.3
Station Id=WE4.4
Station Id=LE5.5