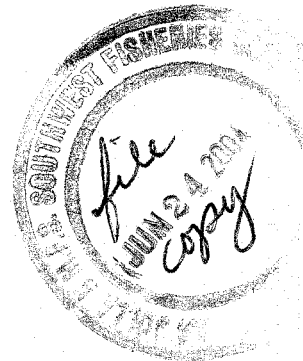


NOAA Technical Memorandum NMFS



DECEMBER 1987

MICROPATCH SAMPLER DATA

R. W. Owen
Carol A. Kimbrell

NOAA-TM-NMFS-SWFC-91

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
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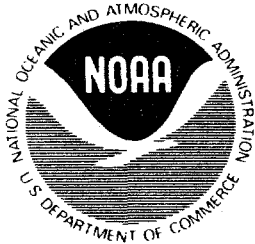
NOAA Technical Memorandum NMFS

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CONTENTS

	Page
INTRODUCTION	1
METHODS	1
Sampling	1
Microplankton	2
Phytoplankton Pigments	2
Particulates	2
Nutrients	2
Salinity	3
THE TABLES	3
LITERATURE CITED	3

TABLES

Table 1. MPS cast sequence number, cast time, location, depth and measured characteristics of the site environment.	4
Table 2. MPS cast sequence number, ship and measured characteristics of the cast environment, here meaning parameters unique to the position of the sampler in the water column.	6
Table 3. Organism names, volume conversion factors and ecological functions. Function is classed in terms of trophism, degree of motility, form of occurrence (whether or not colonial and whether or not gelatinous), and the type of potential interaction with larval anchovies.	8
Table 4. MPS sample data from analyses for phytoplankton pigment concentration, Coulter particle concentrations, nutrient concentrations, and salinity.	12
Table 5. Enumerations of small, non-colonial plankton in unaliquoted MPS samples. Concentration factor converts counts to concentrations in numbers per liter.	24
Table 6. Enumerations of small, non-colonial plankton in aliquoted MPS samples. Concentration factor converts counts to concentrations in numbers per liter.	30

Table 7.	Duplicate enumerations of small, non-colonial plankton in MPS samples.	39
Table 8.	Enumerations of small, non-colonial plankton in parallel MPS samples.	41
Table 9.	Replicate and duplicate determinations of sample environmental characteristics: phytoplankton pigments, particulates, nutrient species and salinity.	48

MICROPATCH SAMPLER DATA

R. W. OWEN and CAROL A. KIMBRELL

INTRODUCTION

Seawater samples were obtained from 65 deployments of a device known as the Micropatch Sampler (Owen 1981) for analyses to determine spatial variability of small plankton, phytoplankton pigments, particulates, nutrient species and salinity at the short intervals appropriate to small organism interactions. This report defines and presents the results of sampling with the MPS off Southern California and Perú in the period from 1975 through 1979.

METHODS

Sampling: The Micropatch Sampler (MPS) consists of a linear array of 4cm i.d. sampler tubes spaced along a vaned frame fitted with cable clamps and a lanyard release mechanism. Water samples are retained by ball valves seated at either end of each tube and held by elastic cord connecting the valves through the tube center. Prior to deployment of the MPS, the ball valves are held clear of the tube mouths by lanyards hooked onto pins on the release mechanism.

To sample vertical variations, the MPS was clamped to the ship's hydro-wire, lowered with open sample tubes to the target depth and towed at about 20 cm/s so that its vanes oriented the tube mouths into the induced current for complete flushing. To sample horizontal variations, the MPS was clamped sideways on the hydro-wire (tubes vertical), lowered below the target depth and retrieved slowly upward through the target depth. A messenger weight sent down the hydro-wire triggered the simultaneous release of lanyards that restrained the ball valves, whereupon the valves seated in the tube mouths to capture 0.6 l of seawater.

Upon retrieval of the MPS, water samples obtained from each tube were transferred to covered beakers, mixed thoroughly, and then aliquoted for various combinations of analyses. Particular combinations depended on availability of people and equipment, and included plankton enumerations, phytoplankton pigments (chlorophyll-a and phaeo-pigments), Coulter particle counts, nutrient salts, and salinity.

To contrast variations along the sampler frame with variations at the same position on the frame, parallel samples were obtained from 40 of the 65 MPS casts by additional tubes strapped alongside the originals at 2-5 positions in the array. Parallel tube centers were 5cm apart.

The first 37 casts were made with a 10-depth array of sampling tubes spaced at 20cm intervals between tube centers. The remaining 28

casts were made with an array of sampling tubes spaced at five 20cm intervals and two 40cm intervals: the interval sequence was 20, 40, 20, 20, 20, 20, 40cm. This arrangement permitted interspersed use of fine-mesh plankton nets among the sampling tubes in the array; the results of their use are to be reported separately.

Microplankton: Plankton preserved in 3% formalin prepared according to Beers and Stewart (1970) was concentrated by sedimentation overnight from known initial sample volumes and enumerated using the inverted microscope method of Utermöhl (1931). Counting was done by either of two methods; the entire slide surface was enumerated, or 20-35 randomly chosen fields were enumerated. Populous organisms usually were enumerated along single transects of the slide. Identical procedures were used when duplicating counts of the same sample to establish error of determination. Original sample volumes were usually 100ml for enumerating phytoplankton and 400-600ml for enumerating microzooplankton and rarer phytoplankton species. Organisms selected for counting exceeded 20 μ m in longest dimension unless easily seen and identified at 100x using phase contrast on the Zeiss inverted microscope. Identification to species was not always possible, in which case organisms were classified to genus or higher taxon within defined size classes. This report treats only those species that usually occur as individuals except when dividing; colonial forms are ignored.

Phytoplankton Pigments: Phytoplankton pigments were determined following the method and equations of Holm-Hansen et al. (1965). Water samples allocated for pigment analysis were filtered through Whatman GF/C glass fiber filters previously de-sized with distilled water. The filters were placed in vials with 10ml of 90% aqueous acetone, sealed and extracted in cold and dark for 22-28h. Fluorescence of phytoplankton pigments was measured before and after acidification of the extracts with dilute HCl. The fluorometer was a Turner model 111 with Sylvania F4T5 lamp behind Corning 5-60 excitation filter and red-sensitive Hamamatsu photomultiplier behind Corning 2-64 emission filter.

Particulates: Particle concentrations were determined within an hour after sampling using a Coulter Counter model Ta with a 280 μ m sensing pore to describe their variations in three size categories; 16-160 μ m, 32-50 μ m, and 51-160 μ m equivalent spherical diameter, corresponding to Coulter channels 7-16, 10 and 11, and 12-16 respectively in Tables 4 and 9. Total counts usually exceeded 50,000 per sample. By overriding the Counter manometer, larger sample volumes (20-100cc) could be analyzed to achieve higher total count levels.

Nutrients: Nutrient salt concentrations were determined by Technicon autoanalyzer or Beckman DU spectrophotometer using procedures of the Physical and Chemical Oceanographic Data Facility (PACODF) of the Scripps Institution of Oceanography (Atlas et al., 1971). Samples either were analyzed within a few hours of collection, or were filtered and frozen for analysis ashore.

Salinity: Salinity determinations were made ashore after each cruise with the Plessey or Autosal salinometers. Wormley water was used for primary standardization. Duplicate or triplicate determinations were averaged.

THE TABLES

Tables were constructed to minimize the need for cross-referencing. Table 1 assigns a chronological sequence number to each MPS cast, and gives the time, location and measured characteristics of the site of MPS deployment. This sequence number is used subsequently to identify each MPS cast. Table 2 gives measured characteristics unique to the position of the MPS in the water column at the time of sampling, i.e. the cast environment. Table 3 gives names to organisms enumerated in MPS samples, assigns to each a volume conversion factor (μm^3) and classifies the ecological function of each in terms of trophism mode, motility, form of occurrence, and potential for interaction with larval anchovies. Table 4 lists measured values of the sample environment. Table 5 gives enumerations of microplankton in unaliquoted MPS samples, and Table 6 gives enumerations of microplankton in aliquoted samples. Concentration factors to convert counts to concentrations in situ are provided in Tables 5 and 6. Tables 7 to 9 give values obtained from sample pairs from the same depth ("parallel samples") and from independent determinations on the same sample ("duplicate determinations").

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Table 1. MPS cast sequence number, cast time, location, depth and measured characteristics of the site environment.

CAST SEQ.	DATE yyymmdd	TIME ^a	LATITUDE	LONGITUDE	MIXED		LAYER DEPTH m	BOTTOM DEPTH m	SHORE DIST. mi	WIND SPEED kt	LOCATION DESCRIPTION	SUN POSITION
					CAST DEPTH m	DEPTH						
1	750725	0700	32.880°N	117.000°W	12	<2	<2	(183)	1	3	Off SIO pier	crepuscular
2	750725	0920	32.880	117.000	12	5	5	(183)	1	3	Off SIO pier	day
3	750924	0845	33.022	117.333	22	4	4	183	1	3	Cardiff Sta. A	day
4	750924	0940	33.022	117.333	23	3	3	183	1	2	Cardiff Sta. A	day
5	750924	1031	33.022	117.333	22	<2	<2	183	1	2	Cardiff Sta. A	day
6	750925	1320	33.022	117.333	25	<2	<2	183	1	2	Cardiff Sta. A	day
7	750925	1405	33.022	117.333	29	<5	<5	183	1	2	Cardiff Sta. A	day
8	750926	1926	33.022	117.333	28	<3	<3	183	1	2	Cardiff Sta. A	crepuscular
9	750926	2340	33.022	117.333	29	<2	<2	183	1	2	Cardiff Sta. A	night
10	750927	1935	33.022	117.333	23	<2	<2	183	1	2	Cardiff Sta. A	night
11	750927	2015	33.022	117.333	24	2	2	183	1	2	Cardiff Sta. A	night
12	760319	1406	33.022	117.333	15	10	10	183	1	2	Cardiff Sta. A	day
13	760317	1815	32.972	117.317	20	4	4	48	1	2	Off Del Mar	crepuscular
14	760318	2001	32.790	117.335	10	5	5	73	1	3	Cardiff Sta. A	night
15	760319	0729	33.022	117.333	17	7	7	183	1	2	Cardiff Sta. A	day
16	760319	1406	33.022	117.333	15	10	10	183	1	2	Cardiff Sta. A	day
17	760319	2035	33.022	117.333	20	15	15	183	1	2	Cardiff Sta. A	night
18	760320	0600	33.022	117.333	20	10	10	183	1	2	Cardiff Sta. A	crepuscular
19	760322	1918	33.022	117.333	19	11	11	183	1	2	Cardiff Sta. A	crepuscular
20	760323	1404	33.022	117.333	18	12	12	183	1	2	Cardiff Sta. A	night
21	760323	1825	33.022	117.333	10	2	2	183	1	2	Cardiff Sta. A	crepuscular
22	760324	1110	33.022	117.333	18	2	2	183	1	2	Cardiff Sta. A	night
23	760324	1247	33.022	117.333	21	2	2	183	1	2	Cardiff Sta. A	night
24	760325	0615	33.022	117.333	16	7	7	183	1	2	Cardiff Sta. A	crepuscular
25	760325	1233	33.022	117.333	28	3	3	183	1	2	Cardiff Sta. A	crepuscular
26	770330	0955	34.000	118.767	9	20	20	57	1	1	E of Pt Dume	day
27	770330	1310	33.967	118.517	14	15	15	37	1	2	Off Marina del Rey	day
28	770810	1142	32.700	117.300	20	4	4	65	1	2	Pt Loma kelp	day
29	770921	1920	32.617	117.580	25	10	10	1200	4	20	Pt Loma Trough	crepuscular
30	770922	0945	32.617	117.580	25	14	14	1200	4	20	Pt Loma Trough	day
31	771106	0900	-08.907°S	79.473°W	6	4	4	108	1	42	Chimbote Shelf, Peru	day
32	771106	2130	-09.122	80.067	15	19	19	1310	1	81	Chimbote Shelf, Peru	night
33	771107	1810	-09.383	78.498	15	2	2	75	1	3	Chimbote Shelf, Peru	day
34	771109	0315	-09.470	78.972	0	4	4	133	1	25	Chimbote Shelf, Peru	night
35	771109	1545	-09.485	78.000	0	6	6	145	1	29	Chimbote Shelf, Peru	day
36	771110	2340	-09.460	78.995	20	9	9	135	1	28	Chimbote Shelf, Peru	day
37	771111	0015	-09.152	78.873	10	4	4	60	3	12	Chimbote Slope, Peru	night
38	790609	1335	33.022°N	117.333°W	12	0	0	183	1	2	Cardiff Sta. A	day
39	790610	1030	33.553	117.997	10	6	6	200	1	4	Off Newport Beach	day
40	790610	1855	33.508	118.067	10	2	2	460	4	9	San Pedro Basin	crepuscular
41	790611	1130	33.232	118.330	10	5	5	1130	4	4	Catalina Basin nr Isl	day
42	790612	0852	33.738	118.993	22	20	20	900	4	19	Ste Monica Basin	day

Table 1. Cont'd.

CAST SEQ.	DATE YYMMDD	TIME ^a	LATITUDE	LONGITUDE	CAST DEPTH (m)	MIXED LAYER		BOTTOM DEPTH (m)	SLOPE	SHORE DIST. (mi)	WIND SPEED (kt)	LOCATION DESCRIP.	SUN POSITION
						DEPTH (m)	DEPTH (m)						
43	790612	1755	33.990 ⁰ N	118.710 ⁰ W	10	5	90	1	3	17	SE of Pt Dume	crepuscular	
44	790613	1850	34.010	119.517	10	14	37	1	2	7	Anacapa Passage	crepuscular	
45	790614	1004	33.957	119.567	12	42	450	3	3	3	S of Ste Cruz Isl	day	
46	790614	1616	34.017	119.533	0	.2	20	1	0	3	E end Ste Cruz Isl	day	
47	790619	1850	33.033	117.350	20	10	200	1	2	6	Cardiff Sta. A	crepuscular	
48	790620	1145	33.052	118.568	23	10	201	3	1	8	N end San Clemente Isl	day	
49	790914	2230	33.022	117.330	26	3	183	1	2	0	Cardiff Sta. A	night	
50	790916	1010	33.290	118.393	6	12	183	2	2	4	S of Ste Catalina Isl	day	
51	790917	1588	33.288	118.388	23	21	186	2	2	17	S of Ste Catalina Isl	day	
52	790917	1934	33.288	118.388	29	11	183	2	2	20	S of Ste Catalina Isl	day	
53	790918	1004	33.245	118.635	28	12	1240	4	9	3	Catalina Basin	day	
54	790918	1640	33.992	118.543	10	3	31	1	2	5	E of Pt Dume	day	
55	790918	2029	33.912	118.583	16	5	151	2	7	10	Ste Monica Bay	night	
56	790919	1040	33.485	118.533	15	9	188	1	1	5	N of Catalina Isl	day	
57	790919	1451	33.693	118.855	18	5	875	4	19	8	Ste Monica Basin	day	
58	790919	1905	34.005	118.758	8	5	36	1	1	18	E of Pt Dume	crepuscular	
59	790920	1022	33.973	118.595	11	6	113	1	4	6	Ste Monica Bay	day	
60	790920	1447	33.018	118.853	9	11	36	1	1	10	NW of Pt Dume	day	
61	790920	1946	33.978	118.977	12	8	277	2	5	20	NW of Pt Dume	night	
62	790921	1015	33.520	119.052	27	13	93	1	3	0	N of Ste Barbara Isl	day	
63	790921	1541	33.463	119.002	20	6	73	1	2	10	SE of Ste Barbara Isl	day	
64	790922	0926	33.940	119.762	12	14	91	2	2	5	S of Ste Cruz Isl	day	
65	790922	1939	34.088	119.862	10	24	91	1	1	22	N of Ste Cruz Isl	crepuscular	

^a Local standard time

^b Bottom slope: 1 = shelf, 2 = shelf/slope break, 3 = slope, 4 = abyssal plain or borderland basin.

Table 2. MPS cast sequence number, ship and measured characteristics of the cast environment, here meaning parameters unique to the position of the sampler in the water column.

CAST SEQ.	DATE yy-mm	SHIP	MPS CAST NO.	VERTICAL TEMPERATURE GRADIENT °C/m	AVERAGE CHLOROPHYLL CONCENTRATION μ/l	SAMPLER ORIENTATION	NUTRIENT LEVEL NO ₂ +NO ₃	PARTICLE CONCENTRATION ^a
1	7506	R/V JORDAN	1	<0.1	<1.0	vertical	<2	<72
2	7506	R/V JORDAN	2	<0.1	<1.0	vertical	<2	72-165
3	7509	R/V JORDAN	1	>0.18	<1.0	vertical	2-5	<72
4	7509	R/V JORDAN	2	<0.1	<1.0	vertical	<2	<72
5	7509	R/V JORDAN	3	0.1-0.18	<1.0	vertical	<2	<72
6	7509	R/V JORDAN	4	>0.18	<1.0	vertical	<2	72-165
7	7509	R/V JORDAN	5	<0.1	<1.0	vertical	2-5	72-165
8	7509	R/V JORDAN	6	<0.1	--	vertical	2-5	<72
9	7509	R/V JORDAN	7	0.1-0.18	--	vertical	<2	<72
10	7509	R/V JORDAN	8	<0.1	<1.0	vertical	2-5	<72
11	7509	R/V JORDAN	9	<0.1	<1.0	vertical	2-5	<72
12	7603	R/V CROMWELL	1	<0.1	>2.5	vertical	--	72-165
13	7603	R/V JORDAN	1	0.1-0.18	>2.5	vertical	--	--
14	7603	R/V JORDAN	2	<0.1	>2.5	vertical	--	--
15	7603	R/V JORDAN	3	<0.1	--	horizontal	--	--
16	7603	R/V JORDAN	4	0.1-0.18	<1.0	vertical	--	<72
17	7603	R/V JORDAN	5	0.1-0.18	1.0-2.5	vertical	--	--
18	7603	R/V JORDAN	6	0.1-0.18	1.0-2.5	vertical	--	--
19	7063	R/V JORDAN	7	<0.1	1.0-2.5	vertical	--	72-165
20	7603	R/V JORDAN	8	0.1-0.18	1.0-2.5	vertical	--	72-165
21	7603	R/V JORDAN	9	<0.1	<1.0	horizontal	--	<72
22	7603	R/V JORDAN	10	<0.1	--	horizontal	--	--
23	7603	R/V JORDAN	11	<0.1	1.0-2.5	horizontal	--	<72
24	7603	R/V JORDAN	13	0.1-0.18	1.0-2.5	vertical	<2	--
25	7603	R/V JORDAN	14	0.1-0.18	1.0-2.5	vertical	--	--
26	7703	R/V JORDAN	1	<0.1	--	vertical	>5	--
27	7703	R/V JORDAN	2	>0.18	1.0-2.5	vertical	2-5	>165
28	7708	UTILITY BOAT (SIO)	1	<0.1	--	vertical	--	>165
29	7709	R/V JORDAN	1	0.1-0.18	--	vertical	2-5	72-165
30	7709	R/V JORDAN	2	<0.1	--	vertical	2-5	72-165
31	7711	R/V BAFFIN	1	0.1-0.18	--	vertical	>5	>165
32	7711	R/V BAFFIN	2	<0.1	<1.0	vertical	>5	>165
33	7711	R/V BAFFIN	3	<0.1	--	vertical	>5	>165
34	7711	R/V BAFFIN	4	<0.1	--	vertical	<2	--
35	7711	R/V BAFFIN	5	<0.1	--	vertical	<2	--
36	7711	R/V BAFFIN	6	<0.1	--	vertical	--	--
37	7711	R/V BAFFIN	7	<0.1	<1.0	vertical	--	>165
38	7906	R/V JORDAN	1	0.1-0.18	<1.0	vertical	--	>165
39	7906	R/V JORDAN	2	>0.18	<1.0	vertical	--	>165
40	7906	R/V JORDAN	3	>0.18	--	vertical	--	>165
41	7906	R/V JORDAN	4	0.1-0.18	<1.0	vertical	--	<72
42	7906	R/V JORDAN	5	0.1-0.18	<1.0	vertical	--	<72
43	7906	R/V JORDAN	6	>0.18	1.0-2.5	vertical	--	>165
44	7906	R/V JORDAN	7	<0.1	1.0-2.5	vertical	--	>165
45	7906	R/V JORDAN	8	<0.1	1.0-2.5	vertical	--	>165
46	7906	R/V JORDAN	9	0.1-0.18	1.0-2.5	vertical	--	>165
47	7906	R/V JORDAN	10	<0.1	1.0-2.5	vertical	--	72-165
48	7906	R/V JORDAN	11	>0.18	1.0-2.5	vertical	--	72-165
49	7909	R/V JORDAN	1	<0.1	1.0-2.5	vertical	--	--
50	7909	R/V JORDAN	2	<0.1	<1.0	vertical	--	--
51	7909	R/V JORDAN	3	>0.18	<1.0	vertical	--	--
52	7909	R/V JORDAN	4	<0.1	<1.0	vertical	--	--
53	7909	R/V JORDAN	5	<0.1	<1.0	vertical	--	--
54	7909	R/V JORDAN	6	0.1-0.18	>2.5	vertical	--	--
55	7909	R/V JORDAN	7	0.1-0.18	>2.5	vertical	--	--

Table 2. Cont'd.

CAST SEQ.	DATE yymm	SHIP	MPS CAST NO.	VERTICAL TEMPERATURE GRADIENT °C/m	AVERAGE CHLOROPHYLL CONCENTRATION µ/l	SAMPLER ORIENTATION	NUTRIENT LEVEL NO ₂ +NO ₃	PARTICLE CONCENTRATION ^a
56	7909	R/V JORDAN	8	0.1-0.18	1.0-2.5	vertical	--	--
57	7909	R/V JORDAN	9	<0.1	<1.0	vertical	--	--
58	7909	R/V JORDAN	10	>0.18	>2.5	vertical	--	--
59	7909	R/V JORDAN	11	>0.18	>2.5	vertical	--	--
60	7909	R/V JORDAN	12	<0.1	>2.5	vertical	--	--
61	7909	R/V JORDAN	13	>0.18	1.0-2.5	vertical	--	--
62	7909	R/V JORDAN	14	>0.18	>2.5	vertical	--	--
63	7909	R/V JORDAN	15	0.1-0.18	1.0-2.5	vertical	--	--
64	7909	R/V JORDAN	16	<0.1	1.0-2.5	vertical	--	--
65	7909	R/V JORDAN	17	<0.1	>2.5	vertical	--	--

^a Coulter counter channels 7-12.

Table 3. Organism names, volume conversion factors and ecological functions. Function is classed in terms of trophism, degree of motility, form of occurrence (whether or not colonial and whether or not gelatinous), and the type of potential interaction with larval anchovies.

DESCRIPTOR: species name or type of particle

PARTICLE CLASSIFICATION CODES:

A	Trophic mode class	1	Autotroph
		2	Auto/heterotroph
		3	Heterotroph
		4	Sex product
		5	Detrital
B	Larval fish interaction class	1	Not interactive
		2	Prey
		3	Competitor with prey
		4	Competitor for prey
		5	Predator on larvae
C	Motility	1	Passive
		2	Weakly motile (m/day)
		3	Motile (m/hr)
		4	Fast (m/min)
D	Occurrence mode	1	Solo individuals
		2	Pairs of individuals
		3	Strings of individuals
		4	Clusters of individuals
E	Wet/dry weight	1	Solid
		2	Watery
F	Plasma volume conversion factor (Size in cubic microns/cell) [e.g., 3.17×10^3 cubic microns reads: 3.17E03]		
G	Organism identifiability	1	Clear
		2	Confusable
H	Organism countability	1	Easy
		2	Difficult

Table 3. Cont'd.

DESCRIPTOR	PARTICLE							
	CLASSIFICATION CODES							
	A	B	C	D	E	F	G	H
<i>Calciosolenia murrayi</i>	1	3	1	1	1	1.44E03	1	1
<i>Ceratium azoricum</i>	1	3	3	1	1	2.24E04	2	1
<i>Ceratium breve</i>	1	3	3	1	1	4.77E04	2	1
<i>Ceratium declinatum</i>	1	3	3	1	1	2.24E04	2	1
<i>Ceratium deflexum</i>	1	3	3	1	1	5.00E03	2	1
<i>Ceratium dens</i>	1	3	3	1	1	1.41E04	2	1
<i>Ceratium extensum</i>	1	3	3	1	1	8.18E03	2	1
<i>Ceratium furca</i>	1	3	3	1	1	1.41E04	2	1
<i>Ceratium fusus</i>	1	3	3	1	1	2.24E04	2	1
<i>Ceratium horridum</i>	1	3	3	1	1	2.06E04	2	1
<i>Ceratium kofoidii</i>	1	3	3	1	1	5.53E03	2	1
<i>Ceratium lineatum</i>	1	3	3	1	1	3.35E04	2	1
<i>Ceratium macroceros</i>	1	3	3	1	1	2.24E04	2	1
<i>Ceratium semipulchilla</i>	1	3	3	1	1	8.18E03	2	1
<i>Ceratium spp</i>	1	3	3	1	1	9.90E03	1	1
<i>Ceratium teres</i>	1	3	3	1	1	2.24E04	2	1
<i>Chaetoceros sp A</i>	1	3	1	3	1	5.00E02	2	2
<i>Chaetoceros sp B</i>	1	3	1	3	1	9.00E02	2	2
CHAETOGNATHS	3	5	4	1	1	2.80E06	1	1
CLADOCERANS	3	4	4	1	1	1.41E07	1	1
CLAM LARVAE	3	1	2	1	1	2.00E05	1	1
COCCOLITHOPHORIDS	1	1	1	1	1	8.00E03	2	1
<i>Cochlodinium catenatum</i>	1	2	3	2	1	3.35E04	1	1
COPEPOD NAUPLII	3	2	3	1	1	5.00E05	1	1
COPEPODS/POST-NAUPLIAR	3	4	4	1	1	5.00E07	1	1
<i>Corethron hystrix</i>	1	3	1	1	1	9.56E04	1	1
<i>Corycaeus spp</i>	3	5	4	1	1	4.00E06	1	1
<i>Coscinodiscus sp A</i>	1	3	1	1	1	3.93E04	2	1
<i>Coscinodiscus wailesii</i>	1	3	1	1	1	9.80E06	1	1
CRUSTACEAN EGGS (15-25 μ)	4	1	1	1	1	3.26E04	1	2
CRUSTACEAN EGGS (25-50 μ)	4	2	1	1	1	1.78E04	1	1
CRUSTACEAN EGGS (50-150 μ)	4	2	1	1	1	1.81E05	1	1
CRUSTACEAN EGGS (5-15 μ)	4	1	1	1	1	1.80E03	1	2
<i>Cylindrotheca closterium</i>	1	3	2	3	1	1.80E02	1	1
CYPHONAUTES LARVAE	3	4	4	1	1	7.00E05	1	1
DETRITUS (100-500 μ)	5	1	1	1	2	1.71E06	1	1
DETRITUS (15-30 μ)	5	1	1	1	2	3.82E03	1	2
DETRITUS (30-50 μ)	5	1	1	1	2	2.63E04	1	1
DETRITUS (50-100 μ)	5	1	1	1	2	1.42E05	1	1
DINOFLAGELLATE SP A	1	2	3	1	1	3.35E04	2	1
DINOFLAGELLATE SP B	1	2	3	1	1	1.41E04	2	1
DINOFLAGELLATE SP C	1	2	3	1	1	4.19E03	2	1
DINOFLAGELLATE SP D	1	2	3	1	1	1.44E05	2	1
DINOFLAGELLATE SP E	1	2	3	1	1	6.54E04	2	1
DINOFLAGELLATE SPP (5x10 μ)	1	3	3	1	1	1.13E02	1	2
<i>Dinophysis acuminata</i>	1	2	3	2	1	1.72E04	1	1
DOLIOLIDS	3	4	2	1	2	1.13E08	1	1
EGG CLUSTERS	4	1	1	1	1	2.00E05	1	1

Table 3. Cont'd.

DESCRIPTOR	PARTICLE CLASSIFICATION CODES							
	A	B	C	D	E	F	G	H
<i>Eucampia zoodiacus</i>	1	3	2	3	1	1.23E03	1	1
<i>Eutreptiella gymnastica</i>	1	2	3	1	1	1.00E04	1	1
<i>Exuviaella</i> sp C = <i>Prorocentrum</i> sp C	1	2	3	1	1	4.19E03	2	1
FISH EGGS	4	1	1	1	1	2.76E07	1	1
FORAMINIFERS	3	1	1	1	1	1.15E06	1	1
<i>Glenodinium</i> sp A	1	2	3	1	1	4.00E04	2	1
<i>Glenodinium</i> sp B	1	2	3	1	1	1.13E05	2	1
<i>Gonyaulax polyedra</i>	1	3	3	1	1	4.77E04	1	1
<i>Gymnodinium</i> sp A	1	2	3	1	1	5.61E04	1	1
<i>Gymnodinium</i> sp S (5x10 μ)	1	3	3	1	1	2.70E02	2	1
<i>Gymnodinium splendens</i>	1	2	3	1	1	2.24E04	1	1
<i>Leptocylindrus danicus</i>	1	3	1	3	1	1.77E03	1	1
<i>Limacina</i> spp	3	4	4	1	1	3.00E06	1	1
MEDUSAE	3	5	4	1	2	2.46E08	1	1
<i>Microsetella rosea</i>	3	4	3	1	1	8.00E06	1	1
NAKED CILIATES	3	2	3	1	1	4.00E04	1	2
<i>Nitzschia seriata</i> GROUP	1	3	2	1	1	7.00E01	1	2
NON-COPEPOD NAUPLII	3	1	3	1	1	3.00E07	1	1
OIKOPLEURANS	3	1	4	1	1	4.19E06	1	1
<i>Oxytoxum constrictum</i>	1	3	3	1	1	2.00E03	1	1
<i>Oxytoxum laticeps</i>	1	2	3	1	1	2.24E04	1	1
<i>Oxytoxum sceptrum</i>	1	3	3	1	1	5.24E02	1	1
<i>Oxytoxum scolopax</i>	1	2	3	1	1	4.19E03	1	1
PAWN BALL CLUSTER	4	1	1	1	1	6.73E04	1	1
<i>Penilia</i> sp	3	4	4	1	2	1.41E07	1	1
PENNATE DIATOM SP (150-200 μ)	1	3	2	1	1	2.00E04	1	1
PENNATE DIATOM SP (40-100 μ)	1	3	2	1	1	7.00E03	1	1
PENNATE DIATOM SPP (30-40 μ)	1	3	2	3	1	9.66E02	1	2
<i>Peridinium brevipes</i>	3	2	3	1	1	5.58E03	2	1
<i>Peridinium conicum</i>	3	2	3	1	1	6.54E04	2	1
<i>Peridinium depressum</i>	3	2	3	1	1	1.34E05	1	1
<i>Peridinium divergens</i>	3	2	3	1	1	8.71E04	2	1
<i>Peridinium globulus</i>	3	2	3	1	1	8.71E04	1	1
<i>Peridinium granii</i>	3	2	3	1	1	2.65E04	2	1
<i>Peridinium minisculum</i>	3	3	3	1	1	3.78E03	2	2
<i>Peridinium minutum</i>	3	3	3	1	1	4.19E03	2	1
<i>Peridinium ovum</i>	3	2	3	1	1	3.92E04	1	1
<i>Peridinium pellucidum</i>	3	2	3	1	1	1.03E04	2	1
<i>Peridinium pentagonum</i>	3	2	3	1	1	1.13E05	2	1
<i>Peridinium sinaicum</i>	3	2	3	1	1	9.20E03	2	1
<i>Peridinium somma</i>	3	2	3	1	1	4.77E04	2	1
<i>Peridinium</i> sp A	3	2	3	1	1	1.13E05	2	1
<i>Peridinium</i> sp B	3	2	3	1	1	5.24E05	2	1
<i>Peridinium</i> sp C	3	2	3	1	1	6.54E04	2	1
<i>Peridinium</i> sp D	3	2	3	1	1	1.80E05	1	1
<i>Peridinium</i> spp (15x20 μ)	3	3	3	1	1	1.15E03	1	1
<i>Peridinium</i> spp (30-60 μ)	3	2	3	1	1	6.54E04	1	1
<i>Peridinium stenii</i>	3	2	3	1	1	5.58E03	2	1

Table 3. Cont'd.

DESCRIPTOR	PARTICLE CLASSIFICATION CODES							
	A	B	C	D	E	F	G	H
	Phalachroma lens = Dinophysis lens	1	2	3	1	1	1.41E04	1
Pleurosigma elongatum	1	3	2	1	1	5.00E04	1	1
Pleurosigma nicobaricum	1	3	2	1	1	3.00E04	1	1
PLUTEUS LARVAE	3	1	2	1	1	5.24E05	1	1
POLLEN GRAINS	5	1	1	1	1	6.55E04	1	1
POLYCHAETE LARVAE	3	3	4	1	1	1.00E06	2	2
Polykrikos sp A	1	2	1	1	1	1.13E05	1	1
Procentrum gracile	1	2	3	1	1	4.19E03	1	1
Procentrum micans	1	2	3	1	1	4.77E04	1	1
Prorocentrum spp	1	2	3	1	1	4.77E04	1	1
Pseudoeunotia doliolus	1	3	1	4	1	2.57E03	1	1
Pyrocystis lunula = Dissodinium l.	1	3	3	1	1	3.00E03	1	1
Pyrocystis noctiluca	3	5	2	1	2	2.57E06	1	1
RADIOLARIANS	3	1	1	1	1	2.00E05	1	1
Rhizosolenia alata	1	3	2	1	1	5.77E03	1	1
Rhizosolenia stolterfothii	1	3	2	1	2	1.41E04	1	1
SILICOFLAGELLATES	1	1	3	1	1	2.57E03	1	1
Skeletonema costatum	1	3	1	3	1	1.50E03	1	1
Thalassionema nitzschioides	1	3	1	3	1	1.15E03	1	1
Thalassiosira sp A	1	3	1	3	1	8.18E03	2	1
Thalassiosira sp B	1	3	1	3	1	1.41E04	1	1
Thalassiosira sp C	1	3	1	3	1	3.14E04	1	1
Thalassiosira subtilis	1	3	1	4	1	3.00E03	1	1
Thalassiothrix frauenfeldii	1	3	1	4	1	8.30E02	1	1
TINTINNID CILIATES	3	2	3	1	1	3.35E04	1	1
Torodinium robustum	1	2	3	1	1	1.72E04	1	1

Table 4. MPS sample data from analyses for phytoplankton pigment concentration, Coulter particle concentrations, nutrient concentrations, and salinity.

CAST SEQ.	DEPTH m	CHLA µg/l	PHAEO µg/l	COULTER COUNTER CHANNEL			NO ₃ µM	NH ₃ µM	SiO ₄ µM		
				7-16 no/ml	10,11 no/ml	12-16 no/ml					
1	12.0	0.82	0.32	100	19.2	9.3	0.30	0.50	4.10		
	12.2	0.85	0.45	98	21.4	14.9	0.30	0.58	4.30		
	12.4	0.94	0.43	91	18.3	11.8	0.40	0.53	4.30		
	12.6	1.03	0.45	207	38.7	27.3	0.30	0.72	4.50		
	12.8	1.01	0.45	127	16.6	18.3	0.60	0.62	4.40		
	13.0	0.94	0.41	82	13.5	16.6	---	---	---		
	13.2	0.98	0.44	88	15.6	14.7	0.58	0.58	4.30		
	13.4	0.98	0.45	80	10.0	8.4	0.50	0.48	3.48		
	13.6	0.85	0.44	94	16.4	15.7	0.72	0.73	4.30		
	13.8	1.03	0.54	69	7.4	4.3	0.66	0.66	4.10		
	2	12.0	0.85	0.41	72	10.8	12.8	0.10	0.42	3.42	
		12.2	0.82	0.36	102	9.0	3.6	0.20	0.51	3.40	
		12.4	0.82	0.35	94	8.9	4.0	0.20	0.42	3.40	
12.6		0.78	0.35	734	57.4	43.7	0.20	0.51	3.51		
12.8		0.85	0.39	169	32.4	35.3	0.20	0.47	3.10		
13.0		0.89	0.42	95	14.6	11.9	0.20	0.46	3.60		
13.2		0.92	0.42	69	5.7	3.4	0.20	0.43	3.50		
13.4		0.97	0.40	100	13.2	5.7	0.20	0.43	3.70		
13.6		1.08	0.45	94	17.5	17.5	0.46	0.46	3.90		
13.8		1.02	0.42	74	12.1	9.9	0.44	0.44	3.80		
3		22.0	0.38	0.86	61	6.6	2.3	1.30	0.63	0.63	
		22.2	0.45	0.97	39	4.5	2.2	1.10	0.43	0.43	
		22.4	0.43	0.84	23	2.4	1.2	1.10	0.43	0.43	
	22.6	0.39	0.82	57	6.6	9.2	1.36	0.69	0.69		
	22.8	0.55	0.99	36	6.4	6.5	1.35	0.68	0.68		
	23.0	0.63	1.02	84	5.7	5.0	1.64	0.72	0.72		
	23.2	0.58	1.02	105	13.2	7.4	2.23	0.72	1.51		
	23.4	0.44	0.86	76	13.2	5.3	3.16	0.81	0.81		
	23.6	0.46	0.84	63	7.2	3.5	3.95	0.84	0.84		
	23.8	0.40	0.84	54	3.8	5.4	3.27	0.84	0.84		
								NO ₂ µM	NO ₃ µM	NH ₃ µM	SiO ₄ µM
								1.30	0.67	0.46	0.63
								1.10	0.67	0.30	0.43
							1.10	0.67	0.30	0.43	
							1.36	0.67	0.49	0.69	
							1.35	0.67	0.49	0.68	
							1.64	0.92	0.57	0.72	
							2.23	1.51	0.59	0.72	
							3.16	2.35	0.60	0.81	
							3.95	3.11	0.65	0.84	
							3.27	2.43	0.62	0.84	

Table 4. Cont'd.

CAST SEQ.	DEPTH m	CHLA µg/l	PHAEO µg/l	COULTER COUNTER CHANNEL			NO ₂ +NO ₃ µM	NO ₂ µM	NO ₃ µM	NH ₃ µM	SIO ₄ µM	SALINITY o/oo
				7-16 no/ml	10,11 no/ml	12-16 no/ml						
4	23.0	0.52	0.90	34	4.4	4.0	---	---	---	---	---	33.586
	23.2	0.44	0.86	41	7.3	7.5	1.38	0.71	0.67	0.47	2.82	33.578
	23.4	0.52	0.96	32	5.1	5.4	1.30	0.63	0.67	0.43	2.32	33.578
	23.6	0.48	0.88	31	4.7	5.6	---	---	---	---	---	33.580
	23.8	0.61	0.93	33	4.9	5.3	1.25	0.58	0.67	0.38	1.33	33.574
	24.0	0.59	0.97	50	5.2	6.8	1.35	0.68	0.67	0.47	2.65	33.573
	24.2	0.64	1.08	43	3.0	0.8	1.61	0.69	0.92	0.62	2.82	33.577
	24.4	0.48	0.94	39	5.1	2.6	---	---	---	---	---	33.561
	24.6	0.48	0.87	54	8.9	9.0	---	---	---	---	---	33.538
	24.8	0.45	0.91	22	2.1	1.1	---	---	---	---	---	33.531
	5	22.0	0.49	0.81	34	4.3	1.8	2.97	0.71	2.26	0.53	0.00
22.2		0.52	0.89	6	1.8	0.5	3.06	0.72	2.34	0.46	0.66	---
22.4		0.39	0.84	46	4.2	1.3	2.95	0.69	2.26	0.41	2.82	---
22.6		0.45	0.90	48	8.4	5.3	3.14	0.72	2.42	0.50	3.15	---
22.8		0.42	0.82	33	4.4	1.0	3.33	0.75	2.58	0.50	3.32	---
23.0		0.39	0.80	53	9.6	6.0	3.30	0.72	2.58	0.45	3.15	---
23.2		0.31	0.64	47	9.3	5.1	3.54	0.72	2.82	0.38	2.99	---
23.4		0.39	0.78	29	6.1	8.8	2.66	0.48	2.18	0.33	2.16	---
23.6		0.17	0.36	60	13.2	13.2	4.20	0.81	3.39	0.49	4.32	---
23.8		0.37	0.75	39	3.6	2.4	3.11	0.53	2.58	0.34	2.82	---
6		25.0	0.73	1.00	112	30.5	13.7	1.43	0.62	0.81	0.44	3.15
	25.2	0.75	1.00	85	22.5	17.7	1.47	0.66	0.81	0.52	4.15	---
	25.4	0.85	1.11	18	7.3	4.9	1.43	0.62	0.81	0.49	4.15	---
	25.6	0.87	1.57	70	14.4	15.1	1.21	0.48	0.73	0.45	2.82	---
	25.8	0.93	1.27	88	16.2	14.5	1.38	0.65	0.73	0.56	4.15	---
	26.0	0.96	1.18	64	8.0	2.3	1.41	0.60	0.81	0.51	4.32	---
	26.2	0.56	0.83	79	13.1	8.4	1.64	0.60	1.04	0.54	4.48	---
	26.4	1.07	1.12	96	15.0	15.9	---	---	---	---	---	---
	26.6	0.93	1.16	77	10.4	4.3	1.62	0.58	1.04	0.50	3.82	---
	26.8	0.89	1.30	106	18.2	13.6	1.39	0.50	0.89	0.43	3.32	---

Table 4. Cont'd.

CAST SEQ.	DEPTH m	CHLA µg/l	PHEBO µg/l	COULTER COUNTER CHANNEL			NO ₂ +NO ₃ µM	NO ₂ µM	NO ₃ µM	NO ₂ µM	NH ₃ µM	SIO ₄ µM	SALINITY o/oo
				7-16 no/ml	10,11 no/ml	12-16 no/ml							
7	29.0	0.68	1.08	109	16.4	8.8	1.98	0.69	1.29	0.70	4.48	—	
	29.2	0.73	1.12	113	18.0	11.5	2.05	0.68	1.37	2.16	4.15	33.586	
	29.4	0.72	1.21	74	10.6	8.0	2.03	0.66	1.37	0.65	4.15	33.568	
	29.6	0.81	1.33	109	12.7	8.3	—	—	—	—	—	33.558	
	29.8	0.61	1.11	133	16.8	7.3	2.81	0.63	2.18	0.53	3.65	33.559	
	30.0	0.58	1.21	107	18.1	14.2	2.02	0.65	1.37	0.54	4.48	33.565	
	30.2	0.73	1.23	115	13.8	11.9	2.40	0.71	1.69	0.67	6.14	33.552	
	30.4	0.70	1.33	96	6.9	1.3	2.98	0.72	2.26	0.66	4.98	33.552	
	30.6	0.57	1.23	148	23.0	15.1	2.35	0.66	1.69	0.60	5.81	33.550	
	30.8	0.72	1.31	223	24.3	28.4	2.21	0.68	1.53	0.63	4.82	33.547	
	8	28.0	210	19.2	9.4	2.24	0.69	1.55	0.47	2.84	0.47	2.84	33.473
		28.2	15	3.5	1.4	2.43	0.71	1.72	0.47	2.34	0.47	2.34	33.474
28.4		45	9.8	6.2	2.59	0.71	1.88	0.47	2.50	0.47	2.50	33.475	
28.6		42	6.1	3.5	2.93	0.72	2.21	0.50	2.50	0.50	2.50	33.462	
28.8		25	3.1	1.4	3.18	0.73	2.45	0.52	2.67	0.52	2.67	33.462	
29.0		47	9.7	8.5	3.43	0.73	2.70	0.50	2.34	0.50	2.34	33.481	
29.2		46	11.5	6.6	3.90	0.79	3.11	0.53	2.67	0.53	2.67	33.475	
29.4		33	4.0	1.7	4.03	0.84	3.19	0.56	2.67	0.56	2.67	33.469	
29.6		29	2.7	1.7	4.08	0.81	3.27	0.55	2.67	0.55	2.67	33.477	
29.8		61	13.7	10.6	4.01	0.82	3.19	0.56	2.67	0.56	2.67	33.477	
9		29.0	49	6.3	1.5	1.94	0.71	1.23	0.45	1.50	0.45	1.50	33.509
		29.2	58	11.0	4.2	1.69	0.63	1.06	0.43	1.50	0.43	1.50	33.501
	29.4	77	18.1	4.0	1.71	0.65	1.06	0.47	1.84	0.47	1.84	33.495	
	29.6	66	14.1	5.6	2.11	0.72	1.39	0.63	4.51	0.63	4.51	33.485	
	29.8	—	—	—	1.93	0.62	1.31	0.46	5.01	0.46	5.01	33.489	
	30.0	87	15.3	7.5	2.19	0.72	1.47	0.53	2.17	0.53	2.17	33.486	
	30.2	64	10.4	3.5	1.86	0.63	1.23	0.43	1.34	0.43	1.34	33.482	
	30.4	69	13.9	5.1	—	—	—	—	—	—	—	33.480	
	30.6	77	16.6	7.3	1.89	0.66	1.23	0.45	1.34	0.45	1.34	33.476	
	30.8	94	23.0	8.8	2.02	0.55	1.47	0.42	1.34	0.42	1.34	33.473	

Table 4. Cont'd.

CAST SEQ.	DEPTH m	CHLA PHAEO µg/l	COULTER COUNTER CHANNEL 7-16 no/ml	10,11 no/ml	12-16 no/ml	NO ₂ +NO ₃ µM	NO ₂ µM	NO ₃ µM	NH ₃ µM	SIO ₄ µM	CAST SEQ.	DEPTH m	CHLA PHAEO µg/l	COULTER COUNTER CHANNEL 7-16 no/ml	10,11 no/ml	12-16 no/ml	CAST SEQ.	DEPTH m	CHLA PHAEO µg/l	PHAEO µg/l				
																					NO ₂ µM	NO ₃ µM	NO ₂ µM	NO ₃ µM
10	23.0	0.68	45	8.8	2.3	2.18	0.71	1.47	0.37	2.17	13	20.0	2.87	0.14	13	20.0	2.87	0.14	13	20.0	2.87	0.14		
	23.2	0.67	70	20.9	5.4	2.94	0.73	2.21	0.41	2.00		20.2	3.29	0.12		20.2	3.29	0.12		20.2	3.29	0.12		
	23.4	0.71	54	14.4	5.3	3.23	0.78	2.45	0.50	2.00		20.4	3.34	0.18		20.4	3.34	0.18		20.4	3.34	0.18		
	23.6	0.68	43	10.2	4.4	3.41	0.79	2.62	0.44	1.84		20.6	3.25	0.22		20.6	3.25	0.22		20.6	3.25	0.22		
	23.8	0.66	55	16.5	5.6	3.57	0.79	2.78	0.39	1.67		21.0	3.42	0.25		21.0	3.42	0.25		21.0	3.42	0.25		
	24.0	0.68	78	16.8	10.0	3.72	0.78	2.94	0.51	1.67		21.2	3.48	0.19		21.2	3.48	0.19		21.2	3.48	0.19		
	24.2	0.60	73	21.8	9.6	3.89	0.78	3.11	0.37	2.34		21.4	2.70	0.24		21.4	2.70	0.24		21.4	2.70	0.24		
	24.4	0.55	81	16.9	8.0	—	—	—	—	—		21.6	1.16	0.10		21.6	1.16	0.10		21.6	1.16	0.10		
	24.6	0.65	52	15.0	7.2	3.89	0.78	3.11	0.47	1.67		—	—	—		—	—	—		—	—	—	—	—
	24.8	0.61	66	19.3	10.7	4.06	0.79	3.27	0.41	2.00		—	—	—		—	—	—		—	—	—	—	—
11	24.0	0.35	47	9.2	3.9	3.83	0.72	3.11	0.51	4.14	13	20.0	2.87	0.14	13	20.0	2.87	0.14	13	20.0	2.87	0.14		
	24.2	0.51	81	13.8	2.5	4.54	0.85	3.69	0.56	6.13		20.2	3.29	0.12		20.2	3.29	0.12		20.2	3.29	0.12		
	24.4	0.42	38	7.4	4.4	3.01	0.58	2.43	0.39	2.65		20.4	3.34	0.18		20.4	3.34	0.18		20.4	3.34	0.18		
	24.6	0.48	90	16.3	6.0	4.02	0.75	3.27	0.57	4.14		20.6	3.25	0.22		20.6	3.25	0.22		20.6	3.25	0.22		
	24.8	0.41	43	8.5	4.6	3.32	0.63	2.69	0.38	2.98		21.0	3.42	0.25		21.0	3.42	0.25		21.0	3.42	0.25		
	25.0	0.39	52	9.4	4.9	4.89	0.86	4.03	0.62	4.64		21.2	3.48	0.19		21.2	3.48	0.19		21.2	3.48	0.19		
	25.2	0.36	102	22.6	11.7	—	—	—	—	—		21.4	2.70	0.24		21.4	2.70	0.24		21.4	2.70	0.24		
	25.4	0.33	51	8.4	4.4	—	—	—	—	—		21.6	1.16	0.10		21.6	1.16	0.10		21.6	1.16	0.10		
	25.6	0.38	29	5.3	3.0	5.38	0.94	4.44	0.62	5.30		—	—	—		—	—	—		—	—	—	—	—
	25.8	0.38	24	3.8	3.9	5.51	0.81	4.70	0.51	6.30		—	—	—		—	—	—		—	—	—	—	—
12	15.0	2.15	—	8.9	2.8	—	—	—	—	—	13	20.0	2.87	0.14	13	20.0	2.87	0.14	13	20.0	2.87	0.14		
	15.2	2.54	—	10.4	2.9	—	—	—	—	—		20.2	3.29	0.12		20.2	3.29	0.12		20.2	3.29	0.12		
	15.4	2.50	—	20.2	6.9	—	—	—	—	—		20.4	3.34	0.18		20.4	3.34	0.18		20.4	3.34	0.18		
	15.6	1.93	—	5.9	3.2	—	—	—	—	—		20.6	3.25	0.22		20.6	3.25	0.22		20.6	3.25	0.22		
	16.0	3.97	—	4.3	3.2	—	—	—	—	—		21.0	3.42	0.25		21.0	3.42	0.25		21.0	3.42	0.25		
	16.2	2.71	—	9.1	4.4	—	—	—	—	—		21.2	3.48	0.19		21.2	3.48	0.19		21.2	3.48	0.19		
	16.4	3.34	—	6.3	2.9	—	—	—	—	—		21.4	2.70	0.24		21.4	2.70	0.24		21.4	2.70	0.24		
	16.6	2.86	—	6.3	2.2	—	—	—	—	—		21.6	1.16	0.10		21.6	1.16	0.10		21.6	1.16	0.10		
	16.8	3.66	—	7.9	4.2	—	—	—	—	—		21.8	2.47	0.28		21.8	2.47	0.28		21.8	2.47	0.28		

Table 4. Cont'd.

CAST SEQ.	DEPTH m	CHLA PHAEO		DEPTH m	CHLA PHAEO		CAST SEQ.	DEPTH m	CHLA PHAEO		COULTER COUNTER CHANNEL							
		µg/l	µg/l		µg/l	µg/l			7-16 no/ml	10,11 no/ml	12-16 no/ml							
14	10.0	3.32	0.28	17	20.0	1.26	0.16	18	20.0	1.22	0.06	19	18.0	1.53	0.42	99	10.4	3.1
	10.2	2.67	0.27		20.2	1.36	0.21		20.2	1.39	0.04		18.2	—	—	102	13.1	9.9
	10.4	3.14	0.48		20.4	1.49	0.18		20.4	1.52	0.15		18.4	1.59	0.86	109	13.1	4.0
	10.6	3.03	0.31		20.6	1.62	0.27		20.6	1.73	0.18		18.6	2.28	0.24	128	15.9	4.4
	10.8	2.89	0.35		20.8	2.00	0.27		20.8	1.71	0.28		18.8	2.45	0.42	111	12.1	3.7
	11.0	3.07	0.35		21.0	2.53	0.00		21.0	1.70	0.24		19.0	2.18	0.42	113	15.1	5.9
	11.2	2.71	0.52		21.2	2.62	0.05		21.2	1.48	0.31		19.2	1.90	0.40	141	17.7	7.0
	11.4	2.97	0.54		21.4	2.34	0.31		21.4	1.82	0.42		19.4	2.41	0.23	111	8.5	1.9
	11.6	2.71	0.63		21.6	2.63	0.46		21.6	1.92	0.33		19.6	2.17	0.37	125	12.7	2.0
	11.8	2.96	0.69		21.8	1.83	0.66		21.8	1.88	0.25		19.8	2.14	0.39	150	19.5	5.5
15	17.0	0.16	0.14	15	17.0	0.16	0.02	16	15.0	0.64	0.09	16	15.0	0.64	0.09	40	3.4	0.9
	17.0	0.11	0.00		17.0	0.11	0.00		17.0	0.11	0.00		15.2	0.67	0.13	47	4.7	1.3
	17.0	0.15	0.05		17.0	0.15	0.05		17.0	0.15	0.05		15.4	0.71	0.12	71	6.3	2.6
	17.0	0.10	0.05		17.0	0.10	0.05		17.0	0.10	0.05		15.6	0.74	0.10	82	10.6	3.0
	17.0	0.08	0.05		17.0	0.08	0.05		17.0	0.08	0.05		15.8	0.69	0.15	55	6.2	2.3
	17.0	0.28	0.07		17.0	0.28	0.07		17.0	0.28	0.07		16.0	0.82	0.14	55	5.1	1.7
	17.0	0.16	0.07		17.0	0.16	0.07		17.0	0.16	0.07		16.2	0.74	0.14	44	3.3	0.8
	17.0	0.13	0.08		17.0	0.13	0.08		17.0	0.13	0.08		16.4	0.88	0.13	106	9.1	1.4
	17.0	0.15	0.11		17.0	0.15	0.11		17.0	0.15	0.11		16.6	0.65	0.11	53	4.5	1.1
	17.0	0.26	0.04		17.0	0.26	0.04		17.0	0.26	0.04		16.8	0.80	0.17	52	3.9	0.7
16	15.0	0.64	0.09	16	15.0	0.64	0.09	16	15.0	0.64	0.09	16	15.0	0.64	0.09	40	3.4	0.9
	15.2	0.67	0.13		15.2	0.67	0.13		15.2	0.67	0.13		15.2	0.67	0.13	47	4.7	1.3
	15.4	0.71	0.12		15.4	0.71	0.12		15.4	0.71	0.12		15.4	0.71	0.12	71	6.3	2.6
	15.6	0.74	0.10		15.6	0.74	0.10		15.6	0.74	0.10		15.6	0.74	0.10	82	10.6	3.0
	15.8	0.69	0.15		15.8	0.69	0.15		15.8	0.69	0.15		15.8	0.69	0.15	55	6.2	2.3
	16.0	0.82	0.14		16.0	0.82	0.14		16.0	0.82	0.14		16.0	0.82	0.14	55	5.1	1.7
	16.2	0.74	0.14		16.2	0.74	0.14		16.2	0.74	0.14		16.2	0.74	0.14	44	3.3	0.8
	16.4	0.88	0.13		16.4	0.88	0.13		16.4	0.88	0.13		16.4	0.88	0.13	106	9.1	1.4
	16.6	0.65	0.11		16.6	0.65	0.11		16.6	0.65	0.11		16.6	0.65	0.11	53	4.5	1.1
	16.8	0.80	0.17		16.8	0.80	0.17		16.8	0.80	0.17		16.8	0.80	0.17	52	3.9	0.7

Table 4. Cont'd.

CAST SEQ.	DEPTH m	CHLA PHAE µg/l	COULTER COUNTER CHANNEL			DEPTH m	CHLA PHAE µg/l	NO2 +NO3 µM	NO2 µM	NO3 µM
			7-16 no/ml	10,11 no/ml	12-16 no/ml					
20	18.0	1.24	88	5.8	0.5	16.0	1.36	1.25	0.08	1.17
	18.2	1.88	101	11.6	4.1	16.2	1.00	0.91	0.07	0.84
	18.4	2.23	177	15.9	6.0	16.4	1.15	0.88	0.06	0.82
	18.6	2.33	95	5.9	1.1	16.6	1.80	1.00	0.07	0.93
	18.8	2.29	114	11.1	4.4	16.8	1.11	1.01	0.06	0.95
	19.0	1.36	96	12.7	6.0	17.0	1.05	1.15	0.07	1.08
	19.2	2.69	123	12.7	5.4	17.2	1.06	1.20	0.08	1.12
	19.4	2.85	102	5.6	1.0	17.4	1.24	1.30	0.09	1.21
	19.6	3.90	130	11.1	6.0	17.6	0.99	1.20	0.07	1.13
	19.8	3.24	150	16.2	6.8	17.8	1.15	1.27	0.11	1.16

CAST SEQ.	DEPTH m	CHLA PHAE µg/l	COULTER COUNTER CHANNEL			DEPTH m	CHLA PHAE µg/l	NO2 +NO3 µM	NO2 µM	NO3 µM
			7-16 no/ml	10,11 no/ml	12-16 no/ml					
21	10.0	0.65	70	7.2	2.2	28.0	1.42	0.20	0.20	0.20
	10.0	0.84	65	6.3	1.5	28.2	1.32	0.30	0.30	0.30
	10.0	0.84	62	6.6	2.0	28.4	1.14	0.32	0.32	0.32
	10.0	0.62	65	4.5	0.8	28.6	1.32	0.28	0.28	0.28
	10.0	0.68	74	5.5	1.1	28.8	1.35	0.12	0.12	0.12
	10.0	0.75	75	8.9	3.3	29.0	1.35	0.19	0.19	0.19
	10.0	0.70	67	6.4	1.8	29.2	1.39	0.10	0.10	0.10
	10.0	0.73	66	5.8	1.5	29.4	1.23	0.31	0.31	0.31
	10.0	0.62	70	6.1	1.7	29.6	0.98	0.17	0.17	0.17
	10.0	0.49	61	4.7	1.2	29.8	1.00	0.22	0.22	0.22

CAST SEQ.	DEPTH m	CHLA PHAE µg/l	COULTER COUNTER CHANNEL			DEPTH m	CHLA PHAE µg/l	NO2 +NO3 µM	NO2 µM	NO3 µM
			7-16 no/ml	10,11 no/ml	12-16 no/ml					
23	21.0	1.29	146	17.7	6.8	9.0	7.95	8.22	8.22	8.22
	21.0	1.72	122	15.5	7.5	9.2	6.72	7.92	7.92	7.92
	21.0	1.58	123	14.3	4.9	9.4	7.58	7.80	7.80	7.80
	21.0	1.73	113	13.8	5.7	9.6	8.04	7.75	7.75	7.75
	21.0	1.49	131	16.3	6.2	9.8	6.92	7.75	7.75	7.75
	21.0	1.42	116	14.1	5.0	10.0	6.92	7.60	7.60	7.60
	21.0	1.74	106	8.1	1.5	10.2	8.00	7.62	7.62	7.62
	21.0	1.52	128	12.8	4.4	10.4	6.83	7.62	7.62	7.62
	21.0	1.49	128	14.7	5.8	10.6	6.39	7.62	7.62	7.62
	21.0	1.64	128	15.3	6.9	10.8	7.02	7.62	7.62	7.62

Table 4. Cont'd.

CAST SEQ.	DEPTH m	CHLA µg/l	PHAEO µg/l	COULTER COUNTER CHANNEL			NO ₂ +NO ₃ µM	SIO ₄ µM	CAST SEQ.	DEPTH m	COULTER COUNTER CHANNEL		
				7-16 no/ml	10,11 no/ml	12-16 no/ml					7-16 no/ml	10,11 no/ml	12-16 no/ml
27	14.0	2.40	0.64	174	22.5	7.4	4.46	6.18	28	20.0	144	2.0	6.7
	14.2	2.46	0.54	138	11.2	5.4	4.48	6.32		20.2	203	1.8	7.0
	14.4	2.32	0.55	120	9.2	4.0	4.56	6.18		20.4	116	28.8	7.6
	14.6	2.44	0.58	160	13.0	5.8	4.36	6.20		20.6	365	28.6	8.2
	14.8	2.23	0.48	176	11.6	4.1	4.14	6.10		20.8	138	15.3	5.4
	15.0	2.30	0.62	132	8.0	2.4	4.31	6.45					
	15.2	2.34	0.51	217	16.5	4.8	4.46	6.55					
	15.4	2.43	0.44	227	14.5	3.5	4.21	6.35					
	15.6	2.38	0.52	167	13.6	5.1	4.36	6.20					
	15.8	2.53	0.41	131	6.8	2.2	4.02	6.25					
	29	25.0	148	18.0	6.2	2.46	0.16	2.30		1.50	SIO ₄ µM	3.14	7.36
25.2		98	15.5	5.6	1.39	0.14	1.26	1.22	PO ₄ µM	1.60	6.82		
25.4		50	4.6	1.0	1.80	0.14	1.66	1.34	NH ₃ µM	1.26	4.39		
25.6		62	7.7	3.4	3.06	0.19	2.87	1.19		1.83	6.16		
25.8		--	--	--	2.36	0.20	2.16	1.45		1.74	5.56		
26.0		--	--	--	2.55	0.18	2.37	2.37		15.18	7.65		
26.2		--	--	--	2.36	0.20	2.16	2.29		11.47	7.48		
26.4		--	--	--	2.39	0.19	2.20	2.15		11.06	6.53		
26.6		--	--	--	2.27	0.17	2.10	1.70		11.57	4.71		
26.8		--	--	--	2.34	0.23	2.11	1.89		11.84	5.36		
30		25.0	47	6.2	2.2	3.11	0.22	2.89	0.74		0.79	7.76	
	25.2	40	4.7	1.8	3.09	0.22	2.87	0.72		1.01	6.85		
	25.4	50	4.6	2.0	3.07	0.22	2.85	0.72		2.04	6.79		
	25.6	60	3.4	1.0	3.15	0.22	2.93	0.78		0.80	5.54		
	25.8	50	3.0	0.8	3.46	0.22	3.24	0.72		1.12	5.82		
	26.0	56	7.0	2.9	--	--	--	--		--	--		
	26.2	66	4.1	1.3	--	--	--	--		--	--		
	26.4	130	11.3	2.0	--	--	--	--		--	--		
	26.6	147	12.9	3.4	--	--	--	--		--	--		
	26.8	91	8.2	2.6	--	--	--	--		--	--		

Table 4. Cont'd.

CAST SEQ.	DEPTH m	COULTER COUNTER CHANNEL				NO ₂ +NO ₃ µM	NH ₃ µM	PO ₄ µM	SiO ₄ µM
		7-16 no/ml	10,11 no/ml	12-16 no/ml	12-16 no/ml				
31	6.0	256	17.4	13.5	14.01	1.25	0.32	7.90	
	6.2	232	15.2	11.0	12.86	1.27	0.15	7.73	
	6.4	285	24.4	8.6	13.06	1.30	0.19	7.62	
	6.6	294	24.0	10.5	13.10	1.17	0.17	7.73	
	6.8	316	18.8	15.0	13.20	1.26	0.22	7.62	
	7.0	193	21.8	17.8	13.50	1.22	0.18	7.73	
	7.2	217	33.8	10.2	13.54	1.26	0.27	7.61	
	7.4	162	24.2	3.2	13.55	1.24	0.21	7.72	
7.6	154	19.5	14.5	13.84	1.21	0.18	7.83		
7.8	278	29.8	6.2	15.18	1.39	0.40	7.74		

CAST SEQ.	DEPTH m	CHLA µg/l	PHAEO µg/l	COULTER COUNTER CHANNEL				NO ₂ +NO ₃ µM	NH ₃ µM	PO ₄ µM	SiO ₄ µM
				7-16 no/ml	10,11 no/ml	12-16 no/ml	12-16 no/ml				
32	15.0	0.50	0.13	184	9.9	1.8	15.60	1.20	0.56	6.25	
	15.2	0.25	0.38	181	8.5	1.7	15.20	1.10	0.43	5.60	
	15.4	0.48	0.18	143	5.9	2.0	15.20	1.10	0.40	5.10	
	15.6	0.57	0.26	167	6.5	2.0	15.20	1.00	0.40	5.00	
	15.8	0.55	0.10	205	7.2	2.0	14.95	1.00	0.29	4.80	
	16.0	0.50	0.11	102	5.8	2.4	15.10	1.00	0.15	5.20	
	16.2	0.58	0.11	181	9.2	3.0	15.50	1.00	0.14	5.30	
	16.4	0.42	0.23	134	8.5	2.6	15.15	1.00	0.05	4.70	
	16.6	0.50	0.20	215	19.4	3.2	15.30	1.00	0.06	5.60	
	16.8	0.50	0.18	232	23.8	4.0	15.18	1.10	0.15	4.95	

CAST SEQ.	DEPTH m	COULTER COUNTER CHANNEL				NO ₂ +NO ₃ µM	NH ₃ µM	PO ₄ µM	SiO ₄ µM
		7-16 no/ml	10,11 no/ml	12-16 no/ml	12-16 no/ml				
33	15.0	1639	492.8	119.2	32.40	2.70	0.36	26.30	
	15.2	1532	486.0	110.1	31.93	2.65	0.28	26.75	
	15.4	1440	448.5	101.1	32.28	2.65	0.29	26.05	
	15.6	1066	334.3	75.5	32.28	2.60	0.21	25.75	
	15.8	836	269.4	45.4	32.08	2.45	0.19	25.90	
	16.0	826	243.2	42.5	32.40	2.55	0.18	25.90	
	16.2	1210	324.3	61.4	32.30	2.55	0.19	25.75	
	16.4	754	213.6	36.5	32.13	2.50	0.20	25.65	
	16.6	714	205.9	50.2	32.15	2.55	0.18	26.05	
	16.8	673	184.0	34.0	32.20	2.50	0.12	25.58	

Table 4. Cont'd.

CAST SEQ.	DEPTH m	NO ₂ +NO ₃ µM	NH ₃ µM	PO ₄ µM	SiO ₄ µM	CAST SEQ.	DEPTH m	CHLA µg/l	PHAEO µg/l	COULTER COUNTER CHANNEL		SALINITY o/oo	
										7-16 no/ml	10,11 no/ml		
34	0.0	0.82	0.62	4.85	4.40	37	10.0	0.86	1.27	653	46.4	6.3	
	0.2	0.16	0.52	4.65	2.81		10.2	1.11	0.96	326	24.8	3.8	
	0.4	0.12	0.53	4.49	3.30		10.4	0.85	1.10	252	11.8	3.3	
	0.6	0.07	0.51	4.39	3.02		10.6	0.84	0.97	775	59.2	9.9	
	0.8	0.05	0.50	4.20	2.46		10.8	1.04	1.06	328	28.2	3.8	
	1.0	0.08	0.49	4.12	2.91		11.0	1.08	0.99	574	43.7	7.5	
	1.2	0.05	0.49	3.92	3.01		11.2	1.13	0.89	240	13.0	4.4	
	1.4	0.03	0.48	3.85	3.01		11.4	0.98	0.75	147	6.9	2.5	
1.6	0.00	0.46	3.72	2.73	11.6	0.72	1.01	226	11.0	3.1			
1.8	0.00	0.46	3.64	3.00	11.8	1.06	1.06	315	12.9	2.6			
35	0.0	0.35	0.85	2.80	5.78	38	12.0	0.34	0.06	224	53.7	31.6	
	0.2	0.31	0.83	2.37	4.48		12.2	0.32	0.07	181	55.4	65.0	
	0.4	0.20	0.78	2.69	4.79		12.6	0.32	0.07	175	42.8	48.3	
	0.6	0.08	0.69	0.25	5.10		12.8	0.31	0.07	182	44.5	56.4	
	0.8	0.10	0.82	1.27	4.53		13.0	0.25	0.09	185	57.8	38.3	
	1.0	0.15	0.72	1.07	4.14		13.2	0.28	0.08	154	40.4	24.2	
	1.2	0.01	0.72	0.88	6.04		13.4	0.28	0.08	164	33.2	30.7	
	1.4	0.00	0.72	0.97	4.00		13.8	0.25	0.09	153	46.9	27.0	
1.6	0.00	0.69	1.02	3.95	39	10.0	0.64	0.35	267	14.4	5.1		
1.8	0.00	0.70	0.94	4.07		10.2	0.50	0.37	206	18.5	8.6		
36	20.0	35.053	35.025	20.2		35.042	10.6	0.64	0.36	276	19.1	9.5	
	20.4	35.035		10.8		0.58	0.40	276	16.9	11.0	33.487		
	20.6	35.025		11.0		0.44	0.25	195	25.8	17.7	33.492		
	20.8	35.021		11.2		0.55	0.35	303	40.0	23.2	33.488		
	21.0	35.025		11.4		0.56	0.39	259	14.4	8.2	33.489		
	21.2	35.028		11.8		0.79	0.21	221	24.9	13.4	33.478		
	21.4	35.016		35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000
	21.6	34.975											
21.8	35.000												

Table 4. Cont'd.

CAST SEQ.	DEPTH m	COULTER COUNTER CHANNEL		DEPTH m	CHLA µg/l	PHAEO µg/l	COULTER COUNTER CHANNEL		CAST SEQ.	DEPTH m	CHLA µg/l	PHAEO µg/l	COULTER COUNTER CHANNEL				
		7-16 no/ml	10,11 no/ml				12-16 no/ml	7-16 no/ml					10,11 no/ml	12-16 no/ml			
40	10.0	199	18.4	20.1	1.25	0.64	348	18.3	8.1	43	10.0	1.25	0.64	348	18.3	8.1	
	10.2	212	27.4	23.4	1.25	0.60	317	14.4	6.4		10.2	1.25	0.60	317	14.4	6.4	
	10.6	245	43.4	43.2	1.24	0.56	324	15.2	7.4		10.6	1.24	0.56	324	15.2	7.4	
	10.8	277	50.9	54.6	1.19	0.55	301	14.7	4.8		10.8	1.19	0.55	301	14.7	4.8	
	11.0	214	43.8	35.3	1.14	0.57	221	15.7	11.1		11.0	1.14	0.57	221	15.7	11.1	
	11.2	294	53.1	54.4	1.34	0.54	263	12.7	8.6		11.2	1.34	0.54	263	12.7	8.6	
11.4	314	67.0	42.8	1.32	0.62	260	16.2	9.0	11.4	1.32	0.62	260	16.2	9.0			
11.8	283	55.3	39.2	1.51	0.79	249	17.0	11.3	11.8	1.51	0.79	249	17.0	11.3			
41	10.0	0.10	0.05	89	1.34	0.54	270	16.3	5.2	44	10.0	1.34	0.54	270	16.3	5.2	
	10.2	0.11	0.04	72	1.35	0.56	256	13.4	7.6		10.2	1.35	0.56	256	13.4	7.6	
	10.6	0.10	0.04	59	1.33	0.57	264	18.8	9.8		10.6	1.33	0.57	264	18.8	9.8	
	10.8	0.11	0.03	49	1.58	0.52	212	19.1	11.9		10.8	1.58	0.52	212	19.1	11.9	
	11.0	0.10	0.03	38	1.36	0.56	197	21.9	17.1		11.0	1.36	0.56	197	21.9	17.1	
	11.2	0.14	0.02	60	1.43	0.64	272	11.4	7.4		11.2	1.43	0.64	272	11.4	7.4	
	11.4	0.10	0.03	54	1.42	0.58	254	12.6	8.4		11.4	1.42	0.58	254	12.6	8.4	
	11.8	0.10	0.04	62	1.39	0.62	278	20.9	17.8		11.8	1.39	0.62	278	20.9	17.8	
	12.0	0.11	0.04	72	1.78	0.54	257	13.1	2.3		45	12.0	1.78	0.54	257	13.1	2.3
	10.2	0.10	0.04	59	1.66	0.56	225	9.9	3.4			12.2	1.66	0.56	225	9.9	3.4
10.8	0.11	0.03	49	1.64	0.56	260	10.4	4.5	12.6	1.64		0.56	260	10.4	4.5		
11.0	0.10	0.03	38	1.90	0.47	256	12.0	4.6	12.8	1.90		0.47	256	12.0	4.6		
11.2	0.14	0.02	60	1.66	0.50	189	8.2	3.5	13.0	1.66		0.50	189	8.2	3.5		
11.4	0.10	0.03	54	1.66	0.58	157	7.7	4.7	13.2	1.66		0.58	157	7.7	4.7		
11.8	0.10	0.04	62	1.58	0.57	206	8.2	2.8	46	13.4	1.58	0.57	206	8.2	2.8		
12.0	0.10	0.04	62	1.54	0.62	207	11.6	5.1		13.8	1.54	0.62	207	11.6	5.1		
22.0	0.41	0.11	79	1.51	0.37	248	9.4	4.4		0.2	1.51	0.37	248	9.4	4.4		
22.2	0.40	0.10	54	1.38	0.42	274	10.4	5.4	0.4	1.38	0.42	274	10.4	5.4			
22.6	0.40	0.12	57	1.30	0.43	300	21.0	13.9	0.8	1.30	0.43	300	21.0	13.9			
22.8	0.40	0.10	53	1.27	0.44	321	13.7	10.1	1.0	1.27	0.44	321	13.7	10.1			
23.0	0.40	0.11	66	1.24	0.42	210	23.1	23.5	1.2	1.24	0.42	210	23.1	23.5			
23.2	0.43	0.12	59	1.45	0.32	261	10.4	10.1	1.4	1.45	0.32	261	10.4	10.1			
23.4	0.40	0.13	49	1.34	0.36	264	15.4	14.0	1.6	1.34	0.36	264	15.4	14.0			
23.8	0.43	0.12	40	1.27	0.39	274	21.6	22.5	2.0	1.27	0.39	274	21.6	22.5			

Table 4. Cont'd.

CAST SEQ.	DEPTH m	CHLA µg/l	PHAEO µg/l	COULTER COUNTER CHANNEL			SALINITY ‰	CAST SEQ.	DEPTH m	CHLA µg/l	PHAEO µg/l	SALINITY ‰
				7-16 no/ml	10,11 no/ml	12-16 no/ml						
47	20.0	1.36	0.47	55	7.5	2.0	33.421	50	6.0	0.57	0.23	33.574
	20.2	1.52	0.47	143	35.0	39.0	33.418		6.2	0.66	0.32	33.563
	20.6	1.82	0.64	163	39.2	50.0	33.414		6.6	0.59	0.38	33.573
	20.8	2.06	0.60	142	34.4	29.0	33.412		6.8	0.62	0.31	33.574
	21.0	2.10	0.68	136	26.2	40.1	33.417		7.0	0.55	0.26	33.586
	21.2	2.16	0.74	140	20.0	35.9	33.415		7.2	0.69	0.15	33.567
	21.4	2.23	0.76	161	23.7	22.5	33.417		7.4	0.66	0.17	33.580
	21.8	2.91	0.73	210	15.1	21.4	33.420		7.8	0.73	0.23	33.573
48	23.0	0.74	0.33	119	10.4	18.8	33.520	51	23.0	0.49	0.09	33.533
	23.2	0.65	0.30	168	18.6	33.2	33.527		23.2	0.44	0.12	33.519
	23.6	0.66	0.52	144	17.8	27.0	33.532		23.6	0.41	0.12	33.519
	23.8	1.34	0.06	100	13.3	14.1	33.531		23.8	0.40	0.11	33.516
	24.0	1.30	0.18	108	14.2	23.5	33.527		24.0	0.36	0.13	33.495
	24.2	1.26	0.39	112	16.5	25.3	33.523		24.2	0.39	0.09	33.476
	24.4	1.50	0.60	127	21.4	29.1	33.520		24.4	0.70	0.19	33.490
	24.8	1.61	0.88	128	20.5	27.3	33.514		24.8	1.29	0.28	33.482
49	26.0	1.32	0.80	33.369				52	29.0	0.18	0.24	
	26.2	1.46	0.70	33.369					29.2	0.35	0.10	
	26.6	2.50	1.25	33.363					29.6	0.41	0.10	
	26.8	2.67	1.32	33.361					29.8	0.44	0.08	
	27.0	2.51	1.18	33.380					30.0	0.45	0.09	
	27.2	2.64	1.17	33.367					30.2	0.44	0.08	
	27.4	2.18	1.16	33.372					30.4	0.42	0.10	
	27.8	1.68	0.84	33.367					30.8	0.40	0.10	

Table 4. Cont'd.

CAST SEQ.	DEPTH m	CHLA		SALINITY ‰	DEPTH m	CHLA		SALINITY ‰	DEPTH m	CHLA		SALINITY ‰	CAST SEQ.	DEPTH m	CHLA		SALINITY ‰	
		µg/l	PHAE µg/l			µg/l	PHAE µg/l			µg/l	PHAE µg/l				µg/l	PHAE µg/l		
53	28.0	0.28	0.08	33.454	8.0	6.60	2.63	33.433	20.0	2.04	0.56	33.433	63	20.0	2.04	0.56	33.433	
	28.2	0.26	0.08	33.460	8.2	6.87	2.36	33.487	20.2	1.96	0.49	33.487		20.2	1.96	0.49	33.487	
	28.6	0.28	0.10	33.445	8.6	7.35	1.90	33.471	20.6	1.84	0.66	33.471		20.6	1.84	0.66	33.471	
	28.8	0.30	0.09	33.442	8.8	8.09	1.28	33.476	20.8	2.06	0.37	33.476		20.8	2.06	0.37	33.476	
	29.0	0.41	0.00	33.445	9.0	8.18	1.19	33.468	21.0	2.29	0.17	33.468		21.0	2.29	0.17	33.468	
	29.2	0.27	0.11	33.440	9.2	8.95	1.19	33.478	21.2	1.96	0.37	33.478		21.2	1.96	0.37	33.478	
	29.4	0.28	0.12	33.446	9.4	7.14	2.22	33.485	21.4	1.40	0.36	33.485		21.4	1.40	0.36	33.485	
	29.8	0.26	0.11	33.443	9.8	6.47	2.16	33.465	21.8	2.13	0.53	33.465		21.8	2.13	0.53	33.465	
	54	10.0	5.47	0.72	33.498	11.0	5.70	2.68	33.472	12.0	0.28	0.28		33.472	64	12.0	0.28	0.28
10.2	5.95	1.26	33.501	11.2	5.13	2.13	33.473	12.2	1.57	0.32	33.473	12.2	1.57	0.32		33.473		
10.6	4.62	1.08	33.519	11.6	5.74	3.00	33.475	12.6	1.75	0.53	33.475	12.6	1.75	0.53		33.475		
10.8	4.02	0.18	33.512	11.8	5.70	2.06	33.473	12.8	1.80	0.57	33.473	12.8	1.80	0.57		33.473		
11.0	3.04	0.37	33.516	12.0	4.97	1.84	33.460	13.0	1.84	0.61	33.460	13.0	1.84	0.61		33.460		
11.2	2.13	0.27	33.519	12.2	5.83	2.32	33.464	13.2	1.90	0.59	33.464	13.2	1.90	0.59		33.464		
11.4	1.86	0.30	33.520	12.4	5.54	1.80	33.452	13.4	1.64	0.98	33.452	13.4	1.64	0.98		33.452		
11.8	2.35	0.55	33.501	12.8	5.25	1.39	33.462	13.8	1.71	0.50	33.462	13.8	1.71	0.50		33.462		
55	16.0	6.47	1.68	33.470	9.0	7.46	2.93	33.475	65	10.0	2.63	1.39	33.475	65		10.0	2.63	1.39
16.2	5.54	2.22	33.451	9.2	6.96	3.02	33.495	10.2		2.76	1.42	33.495	10.2		2.76	1.42	33.495	
16.6	5.32	1.40	33.456	9.6	7.76	2.97	33.448	10.6		2.86	1.18	33.448	10.6		2.86	1.18	33.448	
16.8	6.01	0.00	33.425	9.8	9.72	1.57	33.451	10.8		4.16	0.33	33.451	10.8		4.16	0.33	33.451	
17.0	5.09	0.77	33.455	10.0	10.27	1.30	33.499	11.0		3.01	1.14	33.499	11.0		3.01	1.14	33.499	
17.2	2.81	0.76	33.475	10.2	6.60	1.78	33.477	11.2		2.84	1.00	33.477	11.2		2.84	1.00	33.477	
17.4	3.19	1.35	33.451	10.4	9.08	1.77	33.477	11.4		2.20	1.78	33.477	11.4		2.20	1.78	33.477	
17.8	3.16	0.86	33.464	10.8	8.59	1.63	33.480	11.8		2.97	0.13	33.480	11.8		2.97	0.13	33.480	
56	15.0	1.16	0.28	33.523	12.0	1.91	0.36	33.479		66	12.0	1.91	0.36		33.479	66	12.0	1.91
15.2	1.16	0.28	33.523	12.2	1.86	0.46	33.559	12.2	1.86		0.46	33.559	12.2	1.86	0.46		33.559	
15.6	1.20	0.25	33.513	12.6	1.43	0.44	33.521	12.6	1.43		0.44	33.521	12.6	1.43	0.44		33.521	
15.8	1.11	0.26	33.512	12.8	1.26	0.20	33.539	13.0	2.17		0.65	33.539	13.0	2.17	0.65		33.539	
16.0	1.44	0.08	33.506	13.0	2.17	0.65	33.504	13.2	1.30		0.40	33.504	13.2	1.30	0.40		33.504	
16.2	1.17	0.29	33.510	13.2	1.30	0.40	33.514	13.4	0.88		0.69	33.514	13.4	0.88	0.69		33.514	
16.4	1.02	0.25	33.502	13.4	0.88	0.69	33.505	13.8	0.77		0.91	33.505	13.8	0.77	0.91		33.505	
16.8	0.92	0.33	33.475	13.8	0.77	0.91	33.492	27.0	2.50		0.74	33.492	27.0	2.50	0.74		33.492	
57	18.0	0.65	0.07	33.541	27.0	2.50	0.74	33.504	67		27.0	2.50	0.74	33.504	67		27.0	2.50
18.2	0.69	0.20	33.541	27.2	2.46	0.66	33.445	27.2		2.46	0.66	33.445	27.2	2.46		0.66	33.445	
18.6	0.58	0.18	33.569	27.6	2.34	0.66	33.464	27.6		2.34	0.66	33.464	27.6	2.34		0.66	33.464	
18.8	0.77	0.21	33.592	27.8	3.03	0.19	33.480	27.8		3.03	0.19	33.480	27.8	3.03		0.19	33.480	
19.0	0.63	0.17	33.526	28.0	2.32	0.64	33.402	28.0		2.32	0.64	33.402	28.0	2.32		0.64	33.402	
19.2	0.68	0.20	33.577	28.2	2.72	0.39	33.406	28.2		2.72	0.39	33.406	28.2	2.72		0.39	33.406	
19.4	0.70	0.21	33.574	28.4	2.28	0.38	33.342	28.4		2.28	0.38	33.342	28.4	2.28		0.38	33.342	
19.8	0.53	0.16	33.589	28.8	2.65	0.05	33.435	28.8		2.65	0.05	33.435	28.8	2.65		0.05	33.435	

Table 5. Enumerations of small, non-colonial plankton in unaliquoted MPS samples. Concentration factor converts counts to concentrations in numbers per liter.

CAST SEQ. 1	DEPTH	12.0		12.6	
		CONCENTRATION FACTOR		10.53	10.53
DESCRIPTOR					
Ceratium kofoidii		0		3	
Ceratium furca		1		4	
Ceratium spp		1		0	
COCCOLITHOPHORIDS		1		1	
COPEPODS/POST-NAUPLIAR		0		1	
Coscinodiscus sp A		2		1	
CRUSTACEAN EGGS (15-25u)		2		0	
CRUSTACEAN EGGS (50-150u)		0		1	
CRUSTACEAN EGGS (25-50u)		0		3	
Cylindrotheca closterium		2		0	
DINOFLLAGELLATE SP A		1		1	
DINOFLLAGELLATE SP B		0		2	
DINOFLLAGELLATE SP D		1		0	
DINOFLLAGELLATE SP E		0		1	
Dinophysis acuminata		7		9	
FORAMINIFERS		1		0	
Gonyaulax polyedra		0		1	
NAKED CILIATES		1		1	
Nitzschia seriata GROUP		1		4	
OIKOPLEURANS		1		0	
Peridinium sp A		0		1	
Peridinium depressum		1		1	
Procentrum micans		0		1	
Pyrocystis lunula = Dissodinium l.		1		1	
RADIOLARIANS		3		3	
Rhizosolenia alata		0		1	
SILICOFLAGELLATES		3		3	
Thalassiosira sp C		0		1	
Thalassiothrix frauenfeldii		0		2	
TINTINNID CILIATES		0		3	

CAST SEQ. 2	DEPTH	12.2		12.6		13.6	
		CONCENTRATION FACTOR		10.53	10.53	10.53	
DESCRIPTOR							
Ceratium fusus		0		1		0	
Ceratium dens		0		1		0	
Ceratium kofoidii		4		6		7	
Ceratium furca		2		5		1	
COCCOLITHOPHORIDS		0		3		0	
COPEPOD NAUPLII		1		2		1	
COPEPODS/POST-NAUPLIAR		0		0		1	
CRUSTACEAN EGGS (25-50u)		3		3		0	
CRUSTACEAN EGGS (50-150u)		0		0		1	
DINOFLLAGELLATE SP B		5		6		4	
DINOFLLAGELLATE SP D		0		3		0	
Dinophysis acuminata		7		4		8	
Exuviaella sp C = Prorocentrum sp C		0		0		1	
Gonyaulax polyedra		2		0		0	
Gymnodinium splendens		0		0		1	
NAKED CILIATES		1		3		0	
Nitzschia seriata GROUP		0		1		0	
Oxytoxum sceptrum		1		0		0	
Peridinium spp (30-60u)		7		5		5	
Peridinium stenii		1		1		0	
Phalachroma lens = Dinophysis lens		2		0		0	
Procentrum micans		0		1		1	

Table 5. Cont'd.

CAST SEQ. 2 cont'd.

	DEPTH	12.2	12.6	13.6
	CONCENTRATION FACTOR	10.53	10.53	10.53
DESCRIPTOR				
Pyrocystis lunula = Dissodinium l.		1	1	0
RADIOLARIANS		5	5	2
Rhizosolenia alata		0	0	2
SILICOFLAGELLATES		2	1	3
Thalassiothrix frauenfeldii		0	0	0
TINTINNID CILIATES		2	3	1

CAST SEQ. 13

	DEPTH	20.0	20.2	20.4	20.6	20.8	21.0	21.2	21.4	21.6	21.8
	CONCENTRATION FACTOR	2.22	2.82	2.30	2.38	2.26	2.36	2.32	2.24	2.26	2.23
DESCRIPTOR											
CHAETOGNATHS		1	0	1	0	0	0	0	0	1	0
CLADOCERANS		1	3	4	4	3	6	4	6	2	5
COPEPOD NAUPLII		7	10	22	20	14	15	22	19	16	26
COPEPODS/POST-NAUPLIAR		5	2	5	0	8	4	6	3	1	3
FORAMINIFERS		1	1	2	1	1	2	3	0	0	2
NAKED CILIATES		41	62	72	117	153	174	343	397	323	379
NON-COPEPOD NAUPLII		6	0	0	0	0	0	0	0	0	0
OIKOPLEURANS		0	5	4	4	8	6	8	8	6	7
PLUTEUS LARVAE		0	0	3	0	0	0	0	1	0	3
POLYCHAETE LARVAE		1	0	0	4	1	1	0	7	6	4
Pyrocystis noctiluca		13	17	39	32	30	35	45	34	39	30
RADIOLARIANS		3	1	0	2	1	1	0	1	0	1
TINTINNID CILIATES		1	1	2	2	4	2	3	7	9	16

CAST SEQ. 14

	DEPTH	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8
	CONCENTRATION FACTOR	2.27	2.70	2.28	2.23	2.14	2.38	4.02	2.39	2.24	2.20
DESCRIPTOR											
CHAETOGNATHS		1	0	1	0	2	0	0	1	3	1
CLADOCERANS		0	2	4	5	4	4	3	4	3	4
COPEPOD NAUPLII		37	21	35	35	33	35	18	31	37	35
COPEPODS/POST-NAUPLIAR		3	2	4	2	10	5	4	5	8	4
FORAMINIFERS		2	2	0	1	0	0	0	0	2	0
MEDUSAE		0	0	0	0	0	0	0	0	0	1
NAKED CILIATES		455	480	445	402	463	428	258	465	453	470
OIKOPLEURANS		2	4	5	4	5	5	7	8	10	4
PLUTEUS LARVAE		1	0	0	2	1	0	0	2	2	2
POLYCHAETE LARVAE		7	3	7	6	11	9	9	6	8	11
Pyrocystis noctiluca		34	33	42	62	34	40	26	32	53	46
RADIOLARIANS		0	1	2	2	0	0	1	1	0	2
TINTINNID CILIATES		115	101	142	206	131	106	89	171	182	138

CAST SEQ. 15

	DEPTH	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
	CONCENTRATION FACTOR	10.25	10.25	10.25	10.25	10.25	10.26	10.26	10.27	10.28
DESCRIPTOR										
TINTINNID CILIATES		2	2	2	2	2	0	0	0	3
NAKED CILIATES		60	60	60	60	60	25	25	34	54

Table 5. Cont'd.

CAST SEQ. 17											
	DEPTH	20.0	20.2	20.4	20.6	20.8	21.0	21.2	21.4	21.6	21.8
DESCRIPTOR	CONCENTRATION FACTOR	3.00	2.92	2.87	2.93	2.54	2.67	2.67	2.91	2.9	2.62
CHAETOGNATHS		0	0	0	0	0	0	2	1	0	1
CLADOCERANS		1	2	4	0	3	1	2	4	0	1
COPEPOD NAUPLII		15	10	9	8	15	12	9	15	13	17
COPEPODS/POST-NAUPLIAR		6	7	9	7	8	4	4	3	3	4
CYTHONAUTES LARVAE		0	0	0	0	0	0	0	0	0	1
FISH EGGS		0	0	0	0	1	0	0	0	0	0
FORAMINIFERS		1	0	3	5	2	3	3	1	1	1
MEDUSAE		0	0	0	0	0	0	2	0	0	1
NAKED CILIATES		208	253	224	195	248	237	225	211	161	209
OIKOPLEURANS		0	2	3	2	0	4	1	1	2	2
POLYCHAETE LARVAE		0	1	2	0	1	0	0	2	2	0
Pyrocystis noctiluca		33	37	26	43	42	25	30	33	30	29
RADIOLARIANS		2	1	0	1	3	1	1	0	1	0
TINTINNID CILIATES		4	1	0	0	2	8	10	10	8	21
CAST SEQ. 22											
	DEPTH	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
DESCRIPTOR	CONCENTRATION FACTOR	2.13	2.25	2.27	2.28	2.34	2.40	2.43	2.45	2.51	2.56
CHAETOGNATHS		0	0	1	0	1	1	40	1	2	2
CLADOCERANS		0	0	0	0	0	0	1	0	0	0
COPEPOD NAUPLII		9	15	6	12	8	13	13	10	11	6
COPEPODS/POST-NAUPLIAR		1	0	3	0	0	0	0	1	0	0
FORAMINIFERS		1	4	0	2	2	2	0	2	0	0
NAKED CILIATES		250	302	267	344	295	245	212	218	218	255
OIKOPLEURANS		2	2	1	2	2	1	1	4	2	3
Pyrocystis noctiluca		24	25	24	22	30	20	32	24	13	16
RADIOLARIANS		1	4	0	5	2	1	1	4	0	3
TINTINNID CILIATES		5	1	1	1	0	3	3	3	2	2
CAST SEQ. 23											
	DEPTH	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
DESCRIPTOR	CONCENTRATION FACTOR	10.23	10.24	10.24	10.24	10.24	10.25	10.25	10.25	10.25	10.31
NAKED CILIATES		41	42	42	42	42	70	70	70	70	47
TINTINNID CILIATES		3	9	9	9	9	2	2	2	2	1
CAST SEQ. 26											
	DEPTH	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8
DESCRIPTOR	CONCENTRATION FACTOR	2.515	2.275	1.805	2.515	2.04	2.09	1.71	1.71	1.77	1.81
COPEPOD NAUPLII		11	12	14	6	13	10	12	18	18	20
COPEPODS/POST-NAUPLIAR		0	4	2	1	1	2	3	3	3	5
FISH EGGS		0	2	0	0	1	0	0	0	0	0
FORAMINIFERS		1	1	1	2	0	0	1	2	1	2
MEDUSAE		0	0	0	0	0	0	1	0	0	0
NAKED CILIATES		55	56	49	38	52	61	73	82	68	95
OIKOPLEURANS		4	2	3	5	5	9	9	3	8	11
PLUTEUS LARVAE		0	0	0	0	0	0	0	0	1	0
Pyrocystis noctiluca		0	1	0	1	0	0	0	1	0	1
TINTINNID CILIATES		7	6	4	89	19	14	8	11	12	8

Table 5. Cont'd.

DESCRIPTOR	CAST SEQ. 27										
	DEPTH CONCENTRATION FACTOR	14.0 10.43	14.2 10.45	14.4 10.43	14.6 10.43	14.8 10.415	15.0 10.42	15.2 10.42	15.4 10.43	15.6 10.42	15.8 10.42
NAKED CILIATES		57	137	126	51	63	43	33	31	46	43
TINTINNID CILIATES		4	8	5	4	3	5	1	1	6	3

DESCRIPTOR	CAST SEQ. 28					
	DEPTH CONCENTRATION FACTOR	20.0 10.45	20.2 10.465	20.4 11.89	20.6 10.6	20.8 10.425
NAKED CILIATES		120	106	100	93	110

DESCRIPTOR	CAST SEQ. 32										
	DEPTH CONCENTRATION FACTOR	15.0 9.55	15.2 9.56	15.4 9.56	15.6 9.56	15.8 9.56	16.0 9.57	16.2 9.57	16.4 9.57	16.6 9.55	16.8 9.56
COPEPOD NAUPLII		1	2	1	9	0	3	1	4	4	3
COPEPODS/POST-NAUPLIAR		0	0	0	0	0	1	0	1	4	0
Corethron bystrix		83	69	31	27	47	3	53	68	53	84
CRUSTACEAN EGGS (15-25u)		181	59	57	48	110	92	73	43	61	88
CRUSTACEAN EGGS (50-150u)		2	3	1	3	4	4	23	9	2	3
NAKED CILIATES		301	280	259	203	129	150	265	91	79	299
OIKOPLEURANS		1	0	0	0	3	0	2	0	2	0
PENNATE DIATOM SP (40-100u)		0	0	5	2	0	0	0	0	0	0

DESCRIPTOR	CAST SEQ. 33										
	DEPTH CONCENTRATION FACTOR	15.0 8.35	15.2 7.83	15.4 9.45	15.6 8.02	15.8 8.28	16.0 7.77	16.2 8.87	16.4 7.53	16.6 7.65	16.8 7.66
COPEPOD NAUPLII		1	0	1	0	0	0	0	0	0	0
CRUSTACEAN EGGS (25-50u)		48	52	23	33	25	26	18	21	33	39
TINTINNID CILIATES		46	3	26	58	33	22	19	29	34	41

DESCRIPTOR	CAST SEQ. 35										
	DEPTH CONCENTRATION FACTOR	0.0 2.079	0.2 1.538	0.4 1.718	0.6 1.675	0.8 1.761	1.0 1.73	1.2 1.669	1.4 1.689	1.6 1.727	1.8 1.793
Ceratium spp		115	26	108	65	87	80	66	179	113	117
COPEPOD NAUPLII		78	79	55	51	55	71	45	89	58	78
COPEPODS/POST-NAUPLIAR		18	19	17	14	15	10	10	21	13	11
CRUSTACEAN EGGS (25-50u)		112	133	121	64	152	89	117	464	344	124
CRUSTACEAN EGGS (50-150u)		30	37	195	99	112	72	77	157	78	59
Dinophysis acuminata		67	38	62	94	46	35	23	65	69	77
EGG CLUSTERS		7	0	0	0	0	0	0	0	0	0
FISH EGGS		0	0	1	1	2	0	0	2	4	2
NAKED CILIATES		1327	1524	2051	2758	1567	2147	1039	4155	4348	3542
NON-COPEPOD NAUPLII		0	1	0	1	0	2	4	1	4	3
OIKOPLEURANS		54	43	112	102	99	83	96	95	75	78
Peridinium sp B		14	14	57	47	24	12	9	29	33	29
Peridinium spp (30-60u)		23	20	71	60	70	11	2	15	57	99
Peridinium sp D		121	31	6	143	0	69	16	99	123	134
Prorocentrum spp		210	959	419	460	491	407	218	544	599	541
Pyrocystis noctiluca		9	9	53	37	24	9	8	19	20	15
TINTINNID CILIATES		24	4	111	47	65	15	21	72	65	40

Table 5. Cont'd.

CAST SEQ. 49	DEPTH									
	26.0	26.2	26.6	26.8	27.0	27.2	27.4	27.8		
DESCRIPTOR	CONCENTRATION	FACTOR	12.5	14.355	14.07	13.33	12.05	13.7	13.065	14.08
Ceratium teres	2	1	3	1	3	1	1	1		
Ceratium horridum	2	0	1	1	4	1	1	1		
COPEPOD NAUPLII	6	4	4	2	8	8	6	4		
COPEPODS/POST-NAUPLIAR	0	1	1	0	1	2	2	2		
CRUSTACEAN EGGS (50-150u)	16	25	33	20	13	17	10	11		
Dinophysis acuminata	1	3	6	13	7	8	3	1		
FISH EGGS	0	0	1	0	0	1	0	0		
FORAMINIFERS	0	0	1	0	0	0	0	0		
NAKED CILIATES	80	26	104	2	95	68	64	33		
NON-COPEPOD NAUPLII	0	0	0	0	0	1	0	0		
OIKOPLEURANS	0	0	1	0	2	0	0	0		
Peridinium sinaicum	24	34	27	31	27	24	14	14		
Peridinium sp B	6	3	5	6	3	3	2	2		
Peridinium sp A	2	4	5	4	2	1	3	3		
Pleurosigma elongatum	1	1	1	2	0	0	0	0		
Pleurosigma nicobaricum	3	4	3	0	3	8	1	0		
POLYCHAETE LARVAE	0	1	0	0	0	0	0	0		
Polykrikos sp A	0	0	4	5	8	3	7	5		
Prorocentrum spp	32	36	49	42	27	20	17	7		
Pyrocystis noctiluca	0	0	2	1	1	0	0	2		
RADIOLARIANS	0	1	0	1	1	0	1	2		
TINTINNID CILIATES	4	1	1	7	2	3	2	3		

CAST SEQ. 56	DEPTH									
	15.0	15.2	15.6	15.8	16.0	16.2	16.4	16.8		
DESCRIPTOR	CONCENTRATION	FACTOR	13.25	12.35	14.84	14.18	13.99	14.81	12.845	13.99
Ceratium extensum	0	0	0	0	0	0	0	1		
Ceratium horridum	0	2	0	1	0	2	2	0		
Ceratium teres	0	0	1	2	2	0	2	5		
COPEPOD NAUPLII	8	4	3	2	5	3	2	1		
COPEPODS/POST-NAUPLIAR	0	1	2	2	0	2	2	0		
CRUSTACEAN EGGS (50-150u)	20	11	12	9	10	8	9	5		
Dinophysis acuminata	4	3	3	0	1	4	3	1		
EGG CLUSTERS	0	0	2	0	0	0	0	0		
FORAMINIFERS	0	0	0	0	0	2	0	0		
Microsetella rosea	0	1	0	0	0	0	1	0		
NAKED CILIATES	36	45	30	22	39	32	16	17		
OIKOPLEURANS	1	0	0	0	1	1	1	0		
Peridinium sinaicum	12	10	12	13	8	10	4	4		
Peridinium sp B	4	0	2	1	2	0	1	0		
Peridinium sp A	4	4	2	1	1	5	1	0		
Pleurosigma nicobaricum	1	0	0	0	0	0	1	1		
Prorocentrum spp	1	4	4	3	5	4	3	2		
Pyrocystis noctiluca	2	1	0	2	1	0	0	0		
RADIOLARIANS	0	1	0	0	2	0	0	1		
TINTINNID CILIATES	4	3	4	4	3	0	4	3		

CAST SEQ. 57	DEPTH						
	18.0	18.2	18.6	18.8	19.0	19.2	
DESCRIPTOR	CONCENTRATION	FACTOR	15.5	13.79	14.46	13.24	14.18
Ceratium teres	0	1	0	0	3	3	
Ceratium horridum	2	2	2	0	0	0	
COPEPOD NAUPLII	3	11	5	4	3	18	
COPEPODS/POST-NAUPLIAR	0	0	0	0	1	1	
CRUSTACEAN EGGS (50-150u)	13	25	13	17	10	31	

Table 5. Cont'd.

CAST SEQ. 57 cont'd.

DESCRIPTOR	DEPTH	18.0	18.2	18.6	18.8	19.0	19.2
	CONCENTRATION FACTOR	15.5	13.79	14.46	13.24	14.18	14.18
Dinophysis acuminata		3	1	3	0	0	2
FORAMINIFERS		0	0	1	0	0	0
Limacina spp		0	0	1	0	0	0
Microsetella rosea		0	0	1	0	0	0
NAKED CILIATES		24	32	19	2	1	31
OTKOPLEURANS		0	1	0	0	0	0
Peridinium sp A		2	5	0	0	1	5
Peridinium sinaicum		5	22	10	10	8	21
Peridinium sp B		0	2	0	2	0	1
Pleurosigma nicobaricum		1	0	1	0	0	1
Prorocentrum spp		5	4	4	4	4	9
Pyrocystis noctiluca		0	1	0	0	0	1
RADIOLARIANS		1	3	1	1	0	1
TINTINNID CILIATES		3	6	2	5	1	6

CAST SEQ. 65

DESCRIPTOR	DEPTH	10.0	10.2	10.6	10.8	11.0	11.2	11.4	11.8
	CONCENTRATION FACTOR	13.61	12.66	14.285	12.27	13.07	14.6	13.015	13.42
Ceratium horridum		4	2	2	2	1	0	2	1
Ceratium teres		2	9	7	2	3	0	8	8
CHAETOGNATHS		0	0	0	0	0	0	1	0
CLAM LARVAE		0	1	0	0	0	0	0	0
COPEPOD NAUPLII		7	14	3	8	7	10	10	12
COPEPODS/POST-NAUPLIAR		2	0	1	1	0	1	2	1
CRUSTACEAN EGGS (50-150u)		43	58	62	58	43	43	39	61
CYPHONAUTES LARVAE		0	0	0	0	1	0	0	0
Dinophysis acuminata		0	2	5	4	1	1	2	5
Limacina spp		0	0	0	0	1	0	0	0
MEDUSAE		1	0	0	0	0	0	0	0
Microsetella rosea		1	0	2	0	1	0	0	0
NAKED CILIATES		24	49	48	40	68	54	58	46
OTKOPLEURANS		1	4	2	5	1	5	2	5
Peridinium sp A		13	14	13	9	5	7	12	13
Peridinium sp D		0	0	0	0	0	0	1	1
Peridinium sinaicum		10	14	36	14	21	12	27	8
Peridinium sp B		2	1	2	1	2	6	4	1
Pleurosigma elongatum		0	0	0	1	0	0	0	0
POLYCHAETE LARVAE		0	0	0	0	1	0	1	1
Prorocentrum spp		1	3	6	2	9	8	7	9
Pyrocystis noctiluca		0	1	0	0	0	0	1	1
RADIOLARIANS		2	1	1	1	0	4	7	1
TINTINNID CILIATES		1	2	2	4	1	1	1	3

Table 6. Enumerations of small, non-colonial plankton in aliquoted MPS samples. Concentration factor converts counts to concentrations in numbers per liter.

CAST SEQ. 3	DEPTH	22.0	22.2	22.4	22.6	22.8	23.0	23.2	23.4	23.6	23.8
DESCRIPTOR	CONCENTRATION FACTOR	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00
Ceratium declinatum		0	0	0	0	0	0	0	1	0	0
Ceratium extensum		0	0	0	0	0	0	0	1	0	0
Ceratium fusus		1	0	0	0	0	0	0	2	0	0
Ceratium kofoidii		0	0	0	0	0	0	3	1	2	0
Ceratium semipulchilla		0	0	0	1	0	0	0	0	0	0
COCCOLITHOPHORIDS		0	0	0	0	2	0	0	0	0	0
Cochlodinium catenatum		18	28	31	33	20	19	25	26	24	37
COPEPOD NAUPLII		0	2	2	3	0	1	0	0	0	0
COPEPODS/POST-NAUPLIAR		0	0	0	1	0	0	1	0	0	0
CRUSTACEAN EGGS (25-50u)		1	5	6	4	2	4	6	4	6	3
CRUSTACEAN EGGS (50-150u)		0	1	1	2	1	1	0	1	0	0
Cylindrotheca closterium		0	0	1	0	0	1	0	0	0	0
DETRITUS (15-30u)		296	634	411	739	387	610	514	312	417	547
DETRITUS (30-50u)		80	155	90	159	88	146	116	57	106	141
DETRITUS (50-100u)		16	34	17	56	24	51	18	16	37	25
DINOFLAGELLATE SP A		0	0	0	0	0	0	0	3	0	0
DINOFLAGELLATE SP C		0	2	0	0	0	1	0	0	0	0
DINOFLAGELLATE SP D		0	0	0	0	0	0	0	1	0	0
Dinophysis acuminata		0	0	1	2	1	3	0	0	0	0
Eutreptiella gymnastica		0	0	0	0	0	0	2	1	0	0
Glenodinium sp A		0	0	1	0	0	0	0	0	0	0
Gonyaulax polyedra		0	0	0	0	0	0	0	1	0	3
Gymnodinium sp S (5x10u)		0	0	0	0	0	0	2	0	0	0
Gymnodinium splendens		1	1	0	0	0	0	0	0	0	0
NAKED CILIATES		1	3	3	1	3	1	2	1	2	0
Nitzschia seriata GROUP		3	4	6	5	1	7	7	1	4	3
Oxytoxum laticeps		1	0	0	0	3	0	0	0	1	0
Oxytoxum scolopax		0	0	2	2	0	0	0	0	0	1
PENNATE DIATOM SPP (30-40u)		0	0	5	1	0	7	2	4	3	2
PENNATE DIATOM SP (40-100u)		0	1	0	6	1	4	4	0	1	6
PENNATE DIATOM SP (150-200u)		0	0	1	0	0	0	0	0	0	0
Peridinium brevipes		0	0	0	0	0	0	1	0	0	0
Peridinium globulus		0	0	0	0	0	1	0	0	0	0
Peridinium granii		0	0	0	0	1	0	0	0	0	0
Peridinium pellucidum		0	0	0	1	0	0	0	0	0	0
Peridinium sinaicum		0	0	0	0	0	0	1	1	0	0
Peridinium spp (15x20u)		0	0	0	0	1	0	3	2	1	0
Phalachroma lens = Dinophysis lens		0	0	1	0	0	0	0	0	0	0
Procentrum gracile		5	5	4	10	12	0	9	14	2	4
Procentrum micans		1	0	0	1	0	9	0	0	0	0
Pseudoeunotia doliolus		0	7	0	8	3	20	11	4	4	5
RADIOLARIANS		1	0	0	0	2	0	0	2	1	0
Rhizosolenia alata		1	0	1	0	1	0	0	0	1	0
Rhizosolenia stolterfothii		0	0	0	0	0	0	1	0	0	0
SILICOFLAGELLATES		1	3	2	1	4	5	5	6	4	1
Skeletonema costatum		0	0	0	2	0	1	0	0	0	0
Thalassionema nitzschioides		0	0	0	0	0	0	0	2	0	0
Thalassiosira sp B		0	0	0	0	0	1	0	0	0	0
TINTINNID CILIATES		1	1	0	1	0	0	0	0	0	1

CAST SEQ. 4	DEPTH	23.0	23.2	23.4	23.6	23.8	24.0	24.2	24.4	24.6	24.8
DESCRIPTOR	CONCENTRATION FACTOR	317.00	317.00	317.00	317.00	317.00	317.00	317.00	317.00	317.00	317.00
Ceratium azoricum		0	0	0	0	1	0	0	0	0	0
Ceratium breve		0	1	0	0	0	0	0	0	0	0
Ceratium furca		4	1	0	0	0	0	0	0	0	1

Table 6. Cont'd.

CAST SEQ. 4 cont'd.

DESCRIPTOR	DEPTH	23.0	23.2	23.4	23.6	23.8	24.0	24.2	24.4	24.6	24.8
	CONCENTRATION FACTOR	317.00	317.00	317.00	317.00	317.00	317.00	317.00	317.00	317.00	317.00
Ceratium kofoidii		0	0	0	1	0	1	1	12	2	0
COCCOLITHOPHORIDS		1	1	1	2	1	0	0	0	0	0
Cochlodinium catenatum		0	0	0	6	5	7	1	0	4	8
COPEPOD NAUPLII		0	0	1	1	1	1	1	1	1	0
Coscinodiscus sp A		0	0	0	0	0	1	0	0	0	0
CRUSTACEAN EGGS (25-50u)		4	3	4	2	2	3	0	0	1	1
CRUSTACEAN EGGS (50-150u)		1	0	0	3	0	0	1	0	0	0
Cylindrotheca closterium		0	0	0	0	0	0	4	0	0	0
DETRITUS (15-30u)	1151	1707	1295	551	492	537	289	213	236	266	
DETRITUS (30-50u)	149	261	177	87	68	104	50	51	46	56	
DETRITUS (50-100u)	53	99	60	24	29	36	16	18	24	22	
DETRITUS (100-500u)	15	26	12	3	4	8	4	6	4	6	
DINOFLLAGELLATE SP B	0	1	0	0	0	0	0	0	0	0	
DINOFLLAGELLATE SP D	0	0	0	2	0	0	0	0	0	0	
DINOFLLAGELLATE SP E	1	0	0	0	0	0	0	0	0	0	
Dinophysis acuminata	0	1	1	1	1	4	3	2	0	2	
Nitzschia seriata GROUP	7	6	5	7	6	4	2	0	1	0	
Oxytoxum scolopax	1	0	0	0	1	0	0	1	0	0	
PENNATE DIATOM SPP (30-40u)	4	2	2	5	1	6	3	2	3	1	
PENNATE DIATOM SP (40-100u)	3	2	3	4	5	2	3	1	0	0	
Peridinium depressum	1	0	0	0	0	0	0	0	0	0	
Peridinium divergens	0	0	0	1	0	0	0	0	0	0	
Peridinium pellucidum	0	0	0	0	0	0	0	0	0	1	
Peridinium somma	0	0	1	0	0	0	0	0	0	0	
Peridinium spp (15x20u)	0	0	0	0	0	1	0	0	0	0	
Procentrum gracile	5	8	4	7	4	10	11	17	12	4	
Procentrum micans	1	0	0	0	0	0	0	0	0	0	
Pseudoceunotia doliolus	3	8	4	0	14	8	3	0	3	0	
RADIOLARIANS	0	0	0	0	1	0	0	0	0	0	
Rhizosolenia alata	1	1	0	0	0	0	0	0	2	0	
SILICOFLAGELLATES	3	3	0	0	1	3	6	1	2	1	
Skeletonema costatum	1	0	0	0	0	0	0	0	0	0	
Thalassiosira sp B	1	4	1	0	0	4	0	0	1	0	
Thalassiosira sp C	0	0	0	3	2	0	0	0	0	0	

CAST SEQ. 5

DESCRIPTOR	DEPTH	22.0	22.2	22.4	22.6	22.8	23.0	23.2	23.4	23.6	23.8
	CONCENTRATION FACTOR	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00
Ceratium furca		2	0	2	0	0	0	0	1	0	0
COPEPODS/POST-NAUPLIAR		0	1	0	0	0	0	0	0	0	0
CRUSTACEAN EGGS (25-50u)		1	3	1	1	2	0	3	4	1	0
Cylindrotheca closterium		1	3	0	0	1	1	0	5	0	4
DETRITUS (15-30u)	223	349	203	173	128	294	317	342	240	211	
DETRITUS (30-50u)	82	101	60	33	33	65	78	95	71	58	
DETRITUS (50-100u)	17	26	16	16	13	9	15	29	18	20	
DETRITUS (100-500u)	6	9	7	5	6	9	7	11	6	14	
DINOFLLAGELLATE SP D	0	0	0	0	1	0	0	0	0	0	
Dinophysis acuminata	1	2	0	1	0	0	1	2	0	0	
Eucampia zoodiacus	0	4	0	0	0	0	0	0	0	0	
Gonyaulax polyedra	1	0	0	0	0	0	0	0	0	0	
Nitzschia seriata GROUP	0	0	0	0	0	0	2	0	0	0	
PENNATE DIATOM SPP (30-40u)	0	1	0	0	0	0	1	0	0	0	
PENNATE DIATOM SP (40-100u)	1	0	0	0	2	1	0	2	0	0	
Peridinium divergens	0	0	1	0	0	0	0	0	0	0	
Peridinium minutum	0	0	0	0	0	1	0	1	0	0	
Peridinium sinaicum	0	0	0	0	0	0	0	1	0	0	
Phalacroma lens = Dinophysis lens	1	1	0	0	0	0	0	0	0	0	
Procentrum gracile	1	0	2	4	0	0	0	0	0	0	

Table 6. Cont'd.

CAST SEQ. 5 cont'd.

DESCRIPTOR	DEPTH	22.0	22.2	22.4	22.6	22.8	23.0	23.2	23.4	23.6	23.8
	CONCENTRATION FACTOR	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00
<i>Pseudoeunotia doliolus</i>		0	3	0	4	0	0	0	0	0	0
<i>Rhizosolenia alata</i>		1	0	0	0	1	0	0	0	0	1
SILICOFLAGELLATES		2	1	0	1	0	1	1	1	1	2
<i>Thalassiothrix frauenfeldii</i>		0	0	1	0	1	1	0	0	0	0
TINTINNID CILIATES		0	1	0	0	0	0	0	0	0	0

CAST SEQ. 6

DESCRIPTOR	DEPTH	25.0	25.2	25.4	25.6	25.8	26.0	26.2	26.4	26.6	26.8
	CONCENTRATION FACTOR	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00
<i>Ceratium azoricum</i>		1	0	0	0	0	0	0	1	0	1
<i>Ceratium deflexum</i>		0	0	0	0	0	0	0	0	1	0
<i>Ceratium furca</i>		1	0	0	0	0	0	0	0	0	0
<i>Ceratium fusus</i>		0	0	0	0	0	0	0	0	0	1
<i>Ceratium kofoidii</i>		3	3	0	0	3	1	0	1	0	0
<i>Ceratium macroceros</i>		0	0	1	0	0	0	0	0	0	0
<i>Ceratium semipulchilla</i>		1	0	0	0	0	1	0	0	0	1
<i>Ceratium teres</i>		0	0	0	0	0	0	1	0	0	0
<i>Chaetoceros</i> sp B		1	0	0	0	0	0	0	0	0	0
COCCOLITHOPHORIDS		2	2	2	0	0	0	0	0	0	0
<i>Cochlodinium catenatum</i>		42	30	18	44	22	36	12	13	25	15
COPEPOD NAUPLII		1	3	1	0	0	0	0	0	1	0
COPEPODS/POST-NAUPLIAR		0	0	0	0	0	0	2	0	0	0
CRUSTACEAN EGGS (25-50u)		7	6	4	8	7	5	7	4	1	5
CRUSTACEAN EGGS (50-150u)		0	0	0	0	0	2	0	0	1	2
<i>Cylindrotheca closterium</i>		3	1	1	0	1	6	0	9	0	7
DETRITUS (15-30u)		296	777	359	688	617	556	1089	513	732	523
DETRITUS (30-50u)		106	135	82	190	181	230	374	155	306	179
DETRITUS (50-100u)		26	21	30	34	33	31	115	16	59	18
DETRITUS (100-500u)		3	2	7	6	6	7	54	7	22	8
DINOFLAGELLATE SP A		0	1	1	2	1	0	1	1	1	0
DINOFLAGELLATE SP E		0	0	1	4	0	1	2	3	1	1
<i>Dinophysis acuminata</i>		0	0	1	0	0	1	0	1	1	1
EGG CLUSTERS		0	0	0	0	0	0	0	0	1	0
<i>Glenodinium</i> sp A		0	1	0	0	0	0	0	0	1	0
<i>Gonyaulax polyedra</i>		0	0	0	1	0	0	0	0	0	0
<i>Gymnodinium splendens</i>		0	0	2	0	0	0	0	0	0	0
MEDUSAE		3	0	0	0	0	0	0	0	0	0
NAKED CILIATES		5	16	10	11	3	4	3	10	9	10
<i>Nitzschia seriata</i> GROUP		0	1	0	1	4	2	0	0	0	0
<i>Oxytoxum constrictum</i>		0	0	0	0	0	1	0	0	0	0
<i>Oxytoxum scolopax</i>		1	0	2	1	0	0	0	0	2	1
PENNATE DIATOM SPP (30-40u)		4	0	0	0	0	0	3	5	3	10
PENNATE DIATOM SP (40-100u)		0	2	0	0	2	2	3	4	7	5
PENNATE DIATOM SP (150-200u)		0	1	0	0	0	0	0	0	1	0
<i>Peridinium divergens</i>		0	0	1	0	0	0	0	0	0	0
<i>Peridinium minutum</i>		0	0	0	0	0	1	0	0	0	0
<i>Peridinium pellucidum</i>		0	3	0	0	0	0	0	0	0	1
<i>Peridinium pentagonum</i>		0	0	1	0	0	0	0	0	0	0
<i>Peridinium somma</i>		0	0	2	0	0	0	0	0	0	0
<i>Peridinium</i> spp (15x20u)		3	0	0	0	0	0	0	0	0	0
<i>Procentrum gracile</i>		0	2	3	2	1	1	0	1	5	13
<i>Procentrum micans</i>		0	0	0	1	0	0	0	0	0	0
<i>Pseudoeunotia doliolus</i>		5	4	11	10	9	4	5	8	0	4
RADIOLARIANS		0	3	4	4	0	2	0	0	3	1
<i>Rhizosolenia alata</i>		0	0	0	1	0	0	0	0	1	1
SILICOFLAGELLATES		6	4	6	2	2	5	0	5	7	3
<i>Skeletonema costatum</i>		5	0	1	0	0	0	0	0	0	0

Table 6. Cont'd.

CAST SEQ. 6 cont'd.

	DEPTH	25.0	25.2	25.4	25.6	25.8	26.0	26.2	26.4	26.6	26.8
DESCRIPTOR	CONCENTRATION FACTOR	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00
Thalassionema nitzschioides		0	0	0	0	2	0	0	0	0	0
TINTINNID CILIATES		3	3	3	1	2	0	2	4	3	4

CAST SEQ. 7

	DEPTH	29.0	29.2	29.4	29.6	29.8	30.0	30.2	30.4	30.6	30.8
DESCRIPTOR	CONCENTRATION FACTOR	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00	158.00
Ceratium azoricum		0	1	0	0	0	0	0	0	0	0
Ceratium declinatum		0	1	0	0	0	0	0	0	0	0
Ceratium dens		0	0	0	0	1	0	0	0	0	0
Ceratium furca		0	0	1	1	0	1	1	0	1	1
Ceratium kofoidii		1	1	1	1	0	3	1	4	4	3
Ceratium macroceros		0	0	1	0	0	0	0	0	0	0
Ceratium teres		0	0	0	1	0	0	1	0	0	0
COCCOLITHOPHORIDS		4	5	0	1	3	3	3	2	3	3
Cochlodinium catenatum		50	42	31	53	53	19	10	26	24	28
COPEPOD NAUPLII		1	2	0	0	2	0	1	0	0	0
COPEPODS/POST-NAUPLIAR		0	0	0	0	1	0	0	0	0	0
Coscinodiscus sp A		0	0	0	0	0	0	2	1	0	0
CRUSTACEAN EGGS (25-50u)		5	2	5	3	4	2	5	5	3	3
CRUSTACEAN EGGS (50-150u)		0	2	0	0	0	1	1	1	1	2
Cylindrotheca closterium		5	0	0	0	0	0	2	0	0	0
DETRITUS (15-30u)		548	455	478	568	528	438	462	420	318	352
DETRITUS (30-50u)		127	120	113	96	85	64	103	72	41	65
DETRITUS (50-100u)		41	16	30	15	11	13	26	20	16	23
DETRITUS (100-500u)		7	3	13	6	4	5	8	4	2	7
DINOFLAGELLATE SP A		1	0	0	1	8	0	0	2	0	1
DINOFLAGELLATE SP B		4	0	0	2	0	0	0	0	0	0
DINOFLAGELLATE SP C		0	0	0	1	0	0	0	0	0	0
Dinophysis acuminata		0	0	1	0	0	1	0	0	1	0
Eutreptiella gymnastica		1	0	0	0	0	0	0	0	0	0
Gymnodinium sp S (5x10u)		0	0	0	0	1	0	0	2	0	0
NAKED CILIATES		14	16	3	26	24	21	21	9	6	12
Nitzschia seriata GROUP		5	4	9	2	8	4	7	1	2	2
Oxytoxum sceptrum		0	0	0	3	0	0	1	0	0	0
Oxytoxum scolopax		0	2	0	0	0	0	0	0	0	0
PENNATE DIATOM SPP (30-40u)		2	3	4	8	15	5	1	1	3	8
PENNATE DIATOM SP (40-100u)		2	2	6	4	2	2	3	4	0	1
Peridinium brevipes		0	0	0	0	0	0	0	2	0	0
Peridinium conicum		1	0	0	0	0	0	0	0	0	0
Peridinium minutum		1	0	0	0	0	0	0	0	1	0
Peridinium ovum		0	0	0	0	0	1	0	0	0	0
Peridinium somma		0	0	0	0	0	0	0	0	0	1
Peridinium spp (15x20u)		1	1	0	1	2	1	1	1	1	1
Procentrum gracile		0	4	8	5	3	6	6	5	4	6
Pseudoeunotia doliolus		0	7	0	0	4	0	4	0	6	2
RADIOLARIANS		0	0	0	1	0	0	1	0	0	0
Rhizosolenia alata		3	3	2	1	2	3	0	0	1	2
Rhizosolenia stolterfothii		0	0	0	0	0	0	1	0	0	0
SILICOFLAGELLATES		9	3	6	3	11	4	3	3	2	5
Skeletonema costatum		0	0	0	0	0	0	0	0	0	1
Thalassiosira sp A		0	0	1	1	0	0	5	0	1	1
Thalassiosira sp C		0	0	0	0	0	2	0	0	2	0
TINTINNID CILIATES		0	3	4	2	1	2	0	0	0	1

Table 6. Cont'd.

CAST SEQ. 13	DEPTH	20.0	20.2	20.4	20.6	20.8	21.0	21.2	21.4	21.6	21.8
		CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION
DESCRIPTOR	FACTOR	275.00	278.00	275.00	276.00	275.00	276.00	276.00	276.00	276.00	276.00
Ceratium fusus		4	0	0	0	0	0	0	2	0	1
Ceratium horridum		0	0	0	0	1	0	0	0	0	0
Ceratium kofoidii		13	6	10	3	6	5	2	6	4	3
Cochlodinium catenatum		2	1	3	1	3	6	2	0	1	3
Coscinodiscus sp A		0	0	0	1	0	0	0	0	1	0
CRUSTACEAN EGGS (5-15u)		23	9	10	6	6	10	6	15	20	13
CRUSTACEAN EGGS (15-25u)		13	8	12	12	14	9	15	14	8	11
CRUSTACEAN EGGS (25-50u)		3	13	8	5	8	7	5	3	3	1
DINOFLLAGELLATE SP A		5	9	7	10	5	5	4	5	10	8
DINOFLLAGELLATE SPP (5x10u)		0	42	54	35	34	33	31	27	28	22
Dinophysis acuminata		0	0	0	1	0	0	0	0	0	0
Eucampia zoodiacus		0	4	2	4	1	2	2	2	1	1
Eutreptiella gymnastica		0	0	0	0	0	0	0	0	1	0
Exuviaella sp C = Prorocentrum sp C		115	102	99	77	98	84	99	83	55	57
Gonyaulax polyedra		3	0	2	0	2	2	1	1	0	0
Gymnodinium sp A		0	7	0	0	0	0	0	0	0	0
Gymnodinium sp S (5x10u)		7	13	20	17	15	17	19	18	16	17
Gymnodinium splendens		6	1	4	2	4	0	3	2	0	2
Leptocylindrus danicus		0	0	0	1	0	0	0	0	0	0
Nitzschia seriata GROUP		2	12	12	10	7	8	3	3	7	6
Oxytoxum sceptrum		0	0	0	0	0	0	0	0	3	2
Oxytoxum scolopax		1	1	0	0	0	0	0	0	0	0
PENNATE DIATOM SP (40-100u)		1	6	9	1	2	2	4	4	6	6
Peridinium conicum		1	0	0	0	0	0	0	0	0	0
Peridinium minutum		19	1	23	0	0	0	0	0	0	0
Peridinium pentagonum		0	0	2	0	0	0	0	0	0	0
Peridinium somma		3	0	0	0	1	1	0	1	1	0
Peridinium spp (15x20u)		48	0	25	11	26	24	27	33	25	30
POLYCHAETE LARVAE		0	0	0	0	0	0	0	0	1	0
Polykrikos sp A		1	0	0	0	0	0	0	0	0	0
Procerentrum gracile		8	3	4	7	6	2	6	10	6	3
Rhizosolenia alata		2	0	3	1	0	3	2	0	1	1
Skeletonema costatum		2	1	0	2	0	3	2	1	2	1
Thalassionema nitzschioides		2	0	0	0	0	0	0	0	0	0
Thalassiosira sp A		5	1	4	0	0	3	0	1	5	4
Thalassiosira sp B		0	0	2	3	6	1	4	1	5	1
Thalassiosira sp C		0	2	0	0	0	0	0	0	0	0
Thalassiothrix frauenfeldii		2	0	2	0	0	1	1	2	1	2
TINTINNID CILIATES		0	0	0	0	0	0	1	0	0	0

CAST SEQ. 14

CAST SEQ. 14	DEPTH	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8
		CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION
DESCRIPTOR	FACTOR	275.00	278.00	275.00	275.00	275.00	276.00	284.00	276.00	275.00	274.00
Ceratium azoricum		0	0	0	1	0	0	0	0	0	0
Ceratium furca		1	0	0	4	0	4	4	0	0	0
Ceratium fusus		1	4	2	2	1	0	0	1	0	1
Ceratium kofoidii		5	2	4	9	6	7	5	4	7	3
Ceratium lineatum		0	0	0	0	0	0	0	0	2	4
Chaetoceros sp A		58	43	58	57	35	54	68	12	50	25
Chaetoceros sp B		36	15	4	3	0	0	7	0	0	2
Cochlodinium catenatum		2	6	0	0	4	0	1	1	6	2
CRUSTACEAN EGGS (5-15u)		5	6	5	8	7	7	7	12	10	8
CRUSTACEAN EGGS (15-25u)		9	9	10	12	11	13	12	14	9	13
CRUSTACEAN EGGS (25-50u)		3	1	3	2	2	1	3	2	2	3
Cylindrotheca closterium		0	0	0	4	2	1	5	5	5	6
DINOFLLAGELLATE SP A		5	4	6	4	3	6	7	4	4	4
DINOFLLAGELLATE SP B		0	0	0	0	0	0	7	7	5	6
DINOFLLAGELLATE SP D		0	0	0	0	0	1	0	0	0	0

Table 6. Cont'd.

CAST SEQ. 14 cont'd.

DESCRIPTOR	DEPTH	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.8
	CONCENTRATION FACTOR	275.00	278.00	275.00	275.00	275.00	276.00	284.00	276.00	275.00	274.00
DINOFLLAGELLATE SPP (5x10u)		8	12	12	10	9	12	14	13	7	6
Dinophysis acuminata		0	0	2	0	2	2	1	0	3	1
Eucampia zoodiacus		6	6	26	2	33	33	29	12	44	35
Eutreptiella gymnastica		2	2	0	1	1	3	0	0	2	0
Exuviaella sp C = Prorocentrum sp C		28	26	32	27	30	30	28	35	24	23
Gonyaulax polyedra		9	8	5	5	3	3	3	3	3	1
Gymnodinium sp S (5x10u)		0	1	0	0	4	4	3	2	0	1
Nitzschia seriata GROUP		117	165	233	285	17	191	201	198	97	174
Oxytoxum sceptrum		0	1	2	0	1	2	3	0	0	1
Oxytoxum scolopax		0	0	0	0	0	0	0	1	1	0
PENNATE DIATOM SP (40-100u)		8	3	6	0	5	0	1	10	3	0
Peridinium minutum		4	7	5	7	9	10	4	11	7	4
Peridinium pentagonum		0	1	0	0	0	0	2	1	0	0
Peridinium somma		0	0	1	0	0	0	0	0	2	1
Peridinium sp C		1	0	3	3	1	2	1	5	2	0
Peridinium spp (15x20u)		15	16	13	8	10	15	19	17	13	11
Peridinium stenii		0	0	0	0	0	0	0	1	2	0
Pleurosigma elongatum		0	0	1	0	0	2	0	3	0	0
Procentrum gracile		18	17	22	16	11	6	11	12	9	9
Rhizosolenia alata		2	3	3	3	0	0	3	2	3	2
SILICOFLAGELLATES		1	0	0	1	0	1	0	0	0	0
Skeletonema costatum		7	9	16	35	26	42	30	16	6	33
Thalassiosira sp A		14	10	12	17	13	10	10	11	11	8
Thalassiosira sp C		2	6	5	13	0	4	0	3	0	2
Thalassiothrix frauenfeldii		29	21	21	38	26	56	51	40	25	37

CAST SEQ. 15

DESCRIPTOR	DEPTH	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
	CONCENTRATION FACTOR	115.00	115.00	115.00	115.00	115.00	115.00	115.00	115.00	116.00	116.00
Ceratium furca		4	4	4	4	4	4	4	4	3	3
Ceratium fusus		7	7	7	7	7	7	7	7	8	8
Ceratium kofoidii		8	8	8	8	8	8	8	8	12	12
Cochlodinium catenatum		8	8	8	8	8	8	8	8	12	12
DINOFLLAGELLATE SP A		13	13	13	13	13	13	13	13	7	7
Dinophysis acuminata		2	2	2	2	2	2	2	2	4	4
Exuviaella sp C = Prorocentrum sp C		28	28	28	28	28	28	28	28	24	24
Gymnodinium splendens		6	6	6	6	6	6	6	6	4	4
Oxytoxum scolopax		9	9	9	9	9	9	9	9	6	6
Procentrum gracile		8	8	8	8	8	8	8	8	7	7
Thalassiosira sp B		6	6	6	6	6	6	6	6	6	6
Torodinium robustum		7	7	7	7	7	7	7	7	6	6

CAST SEQ. 17

DESCRIPTOR	DEPTH	20.0	20.2	20.4	20.6	20.8	21.0	21.2	21.4	21.6	21.8
	CONCENTRATION FACTOR	186.00	186.00	186.00	186.00	184.00	185.00	185.00	186.00	186.00	185.00
Calciosolenia murrayi		0	6	5	6	4	7	6	6	3	7
Ceratium furca		0	0	0	0	0	0	0	0	1	0
Ceratium fusus		1	2	0	0	3	1	1	0	0	1
Ceratium kofoidii		4	3	6	2	4	7	3	1	3	3
Ceratium macroceros		1	1	0	2	0	0	0	0	0	0
Cochlodinium catenatum		2	3	4	1	8	0	1	0	0	5
CRUSTACEAN EGGS (5-15u)		9	9	9	9	8	7	6	7	8	5
CRUSTACEAN EGGS (15-25u)		11	17	8	8	8	9	9	9	8	10
CRUSTACEAN EGGS (25-50u)		2	1	1	3	2	1	2	1	1	2
Cylindrotheca closterium		1	2	2	1	2	4	2	2	0	2

Table 6. Cont'd.

CAST SEQ. 17 cont'd.

DESCRIPTOR	DEPTH										
	20.0	20.2	20.4	20.6	20.8	21.0	21.2	21.4	21.6	21.8	
	CONCENTRATION FACTOR										
	186.00	186.00	186.00	186.00	184.00	185.00	185.00	186.00	186.00	185.00	
DINOFLLAGELLATE SP A	2	6	2	5	3	2	1	1	3	4	
DINOFLLAGELLATE SP B	9	5	8	4	5	6	7	7	7	9	
DINOFLLAGELLATE SP C	2	2	1	0	1	0	2	0	1	4	
DINOFLLAGELLATE SPP (5x10u)	6	8	5	5	4	6	6	4	8	8	
Dinophysis acuminata	0	0	0	2	0	1	3	0	0	1	
Eucampia zoodiacus	0	0	0	0	0	1	0	0	0	13	
Eutreptiella gymnastica	0	1	0	1	3	2	0	1	0	0	
Exuviaella sp C = Prorocentrum sp C	32	30	29	32	39	35	46	42	43	46	
Gonyaulax polyedra	0	1	2	0	0	1	0	0	0	0	
Gymnodinium sp A	0	0	0	0	0	0	0	1	0	0	
Gymnodinium sp S (5x10u)	0	0	0	2	3	2	1	6	1	1	
Nitzschia seriata GROUP	8	15	19	26	13	16	10	7	13	11	
Oxytoxum sceptrum	5	13	9	13	13	17	11	11	10	14	
Oxytoxum scolopax	2	0	2	1	0	0	0	1	4	1	
PENNATE DIATOM SPP (30-40u)	0	0	0	0	0	0	0	1	0	0	
PENNATE DIATOM SP (40-100u)	0	1	0	2	0	1	2	0	2	0	
Peridinium granii	6	0	0	0	0	0	0	0	1	0	
Peridinium minutum	4	6	5	3	4	2	7	6	9	5	
Peridinium pentagonum	0	0	1	0	0	0	0	0	0	0	
Peridinium somma	0	0	0	0	0	0	1	0	1	1	
Peridinium sp C	0	0	0	0	0	2	2	1	0	0	
Peridinium spp (15x20u)	12	15	15	7	6	9	4	7	11	14	
Procentrum gracile	4	1	1	7	0	3	2	4	5	3	
Rhizosolenia alata	1	0	0	0	0	0	0	3	0	1	
Skeletonema costatum	0	0	0	0	0	0	12	0	0	0	
Thalassiosira sp A	6	7	7	4	6	4	4	5	5	5	
Thalassiosira sp C	1	0	0	0	0	0	0	3	1	4	
Thalassiothrix frauenfeldii	7	1	4	6	4	2	5	0	0	5	

CAST SEQ. 22

DESCRIPTOR	DEPTH										
	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
	CONCENTRATION FACTOR										
	117.00	117.00	117.00	117.00	118.00	118.00	118.00	118.00	118.00	118.00	118.00
Calciosolenia murrayi	0	0	0	0	0	0	0	0	0	0	0
Ceratium azoricum	0	0	0	0	1	1	1	1	1	1	1
Ceratium furca	0	0	0	0	1	1	1	1	1	1	1
Ceratium fusus	0	0	0	0	0	0	0	0	0	0	0
Ceratium kofoidii	1	1	1	1	1	1	1	1	1	1	1
Ceratium macroceros	3	3	3	3	1	1	1	1	1	1	1
Chaetoceros sp A	0	0	0	0	0	0	0	0	0	0	0
Cochlodinium catenatum	0	0	0	0	1	1	1	1	1	1	1
CRUSTACEAN EGGS (5-15u)	6	6	6	6	6	6	6	6	6	6	6
CRUSTACEAN EGGS (15-25u)	10	10	10	10	9	9	9	9	9	9	9
CRUSTACEAN EGGS (25-50u)	0	0	0	0	3	3	3	3	3	3	3
Cylindrotheca closterium	0	0	0	0	2	2	2	2	2	2	2
DINOFLLAGELLATE SP A	8	8	8	8	13	13	13	13	13	13	13
DINOFLLAGELLATE SP B	0	0	0	0	0	0	0	0	0	0	0
DINOFLLAGELLATE SPP (5x10u)	8	8	8	8	13	13	13	13	13	13	13
Dinophysis acuminata	2	2	2	2	0	0	0	0	0	0	0
Eucampia zoodiacus	2	2	2	2	0	0	0	0	0	0	0
Eutreptiella gymnastica	0	0	0	0	1	1	1	1	1	1	1
Exuviaella sp C = Prorocentrum sp C	38	38	38	38	40	40	40	40	40	40	40
Gymnodinium sp S (5x10u)	2	2	2	2	3	3	3	3	3	3	3
Gymnodinium splendens	0	0	0	0	1	1	1	1	1	1	1
Nitzschia seriata GROUP	11	11	11	11	9	9	9	9	9	9	9
Oxytoxum sceptrum	2	2	2	2	2	2	2	2	2	2	2
Oxytoxum scolopax	0	0	0	0	0	0	0	0	0	0	0
Peridinium granii	0	0	0	0	0	0	0	0	0	0	0
Peridinium minisculum	0	0	0	0	0	0	0	0	0	0	0

Table 6. Cont'd.

CAST SEQ. 22 cont'd.

	DEPTH	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
DESCRIPTOR	CONCENTRATION FACTOR	117.00	117.00	117.00	117.00	118.00	118.00	118.00	118.00	118.00	118.00
Peridinium minutum		6	6	6	6	10	10	10	10	10	10
Peridinium somma		0	0	0	0	0	0	0	0	0	0
Peridinium spp (15x20u)		12	12	12	12	11	11	11	11	11	11
Procentrum gracile		2	2	2	2	2	2	2	2	2	2
Procentrum micans		0	0	0	0	1	1	1	1	1	1
Rhizosolenia alata		1	1	1	1	2	2	2	2	2	2
SILICOFLLAGELLATES		0	0	0	0	1	1	1	1	1	1
Skeletonema costatum		0	0	0	0	0	0	0	0	0	0
Thalassiosira sp A		6	6	6	6	3	3	3	3	3	3
Thalassiosira sp B		0	0	0	0	0	0	0	0	0	0
Thalassiosira sp C		2	2	2	2	2	2	2	2	2	2
Thalassiothrix frauenfeldii		4	4	4	4	1	1	1	1	1	1
Torodinium robustum		3	3	3	3	1	1	1	1	1	1

CAST SEQ. 23

	DEPTH	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
DESCRIPTOR	CONCENTRATION FACTOR	115.00	115.00	115.00	115.00	115.00	115.00	115.00	115.00	115.00	116.00
Ceratium kofoidii		3	3	3	3	3	3	3	3	3	5
DINOFLLAGELLATE SP A		10	10	10	10	10	10	10	10	10	10
Dinophysis acuminata		1	1	1	1	1	1	1	1	1	2
Exuviaella sp C = Prorocentrum sp C		8	8	8	8	8	8	8	8	8	11
Gonyaulax polyedra		0	0	0	0	0	0	0	0	0	0
Gymnodinium splendens		2	2	2	2	2	2	2	2	2	2
Oxytoxum scolopax		1	1	1	1	1	1	1	1	1	3
Peridinium minutum		6	6	6	6	6	6	6	6	6	7
Procentrum gracile		5	5	5	5	5	5	5	5	5	1
Thalassiosira sp B		12	12	12	12	12	12	12	12	12	5

CAST SEQ. 26

	DEPTH	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8
DESCRIPTOR	CONCENTRATION FACTOR	118.00	117.50	116.00	118.50	117.00	117.00	116.00	116.00	116.00	116.00
Cochlodinium catenatum		9	13	6	2	6	5	8	5	1	0
Coscinodiscus wailesii		2	1	1	1	0	0	0	0	0	1
DINOFLLAGELLATE SP A		10	7	5	8	4	2	4	9	7	5
Exuviaella sp C = Prorocentrum sp C		9	7	5	2	2	2	1	2	0	1
Nitzschia seriata GROUP		1	0	1	1	4	3	1	3	4	5
Peridinium minutum		32	25	28	36	38	28	38	29	19	24
POLLEN GRAINS		3	5	10	8	4	6	2	0	1	3
Thalassiosira sp B		3	2	3	3	2	0	2	1	0	1

CAST SEQ. 27

	DEPTH	14.0	14.2	14.4	14.6	14.8	15.0	15.2	15.4	15.6	15.8
DESCRIPTOR	CONCENTRATION FACTOR	117.00	117.50	117.00	117.00	117.00	117.00	117.00	117.00	117.00	117.00
Cochlodinium catenatum		0	1	0	0	1	3	2	0	0	0
Coscinodiscus wailesii		0	0	0	1	0	2	0	1	0	1
DINOFLLAGELLATE SP A		3	3	2	2	2	4	3	1	3	2
Euampia zoodiacus		2	33	4	12	2	0	0	21	0	4
Exuviaella sp C = Prorocentrum sp C		2	1	2	1	6	3	3	2	1	0
Nitzschia seriata GROUP		6	6	6	8	7	5	8	4	5	3
Peridinium minutum		16	21	18	18	27	22	15	16	26	32
POLLEN GRAINS		0	0	0	0	0	1	0	0	0	0

Table 6. Cont'd.

CAST SEQ. 27 cont'd.

	DEPTH	14.0	14.2	14.4	14.6	14.8	15.0	15.2	15.4	15.6	15.8
DESCRIPTOR	CONCENTRATION FACTOR	117.00	117.50	117.00	117.00	117.00	117.00	117.00	117.00	117.00	117.00
Thalassiosira sp A		28	52	48	49	68	39	36	38	44	39
Thalassiosira sp B		2	3	2	1	5	1	2	2	2	1

CAST SEQ. 28

	DEPTH	20.0	20.2	20.4	20.6	20.8
DESCRIPTOR	CONCENTRATION FACTOR	117.50	118.00	133.50	119.00	117.00
Cochlodinium catenatum		28	25	22	36	32
DINOFLLAGELLATE SP A		15	14	15	15	19
Dinophysis acuminata		3	2	1	1	4
Oxytoxum scolopax		2	0	0	0	1
Thalassiosira sp B		6	11	5	8	10
Torodinium robustum		5	6	5	5	10

CAST SEQ. 33

	DEPTH	15.0	15.2	15.4	15.6	15.8	16.0	16.2	16.4	16.6	16.8
DESCRIPTOR	CONCENTRATION FACTOR	83.50	78.28	94.56	80.16	82.81	77.67	88.69	75.30	76.48	76.59
CRUSTACEAN EGGS (15-25u)		68	114	80	85	89	63	47	78	68	41
Pleurosigma elongatum		93	96	81	56	50	41	27	23	30	21
Pleurosigma nicobaricum		41	31	27	16	10	5	5	4	10	5
Procentrum micans		52	178	156	274	353	127	140	201	111	136
TINTINNID CILIATES		4	4	1	6	3	2	3	3	1	6

CAST SEQ. 56

	DEPTH	15.0	15.2	15.6	15.8	16.0	16.2	16.4	16.8
DESCRIPTOR	CONCENTRATION FACTOR	374.00	465.50	369.00	329.00	461.00	418.00	367.50	263.00
Skeletonema costatum		280	218	250	202	216	260	216	336

CAST SEQ. 57

	DEPTH	18.0	18.2	18.6	18.8	19.0	19.2
DESCRIPTOR	CONCENTRATION FACTOR	340.00	271.00	408.00	308.00	373.00	800.00
Skeletonema costatum		202	317	261	232	216	220

CAST SEQ. 65

	DEPTH	10.0	10.2	10.6	10.8	11.0	11.2	11.4	11.8
DESCRIPTOR	CONCENTRATION FACTOR	792.00	666.50	644.00	212.00	291.00	442.00	285.50	325.00
Skeletonema costatum		195	80	112	107	104	114	154	131

Table 7. Duplicate enumerations of small, non-colonial plankton in MPS samples.

CAST SEQ.	DEPTH	BOTTLE SEQ.	DESCRIPTOR	N ₁	N ₂
22	18.0	1	Ceratium kofoidii	1	1
			Cochlodinium catenatum	1	1
			CRUSTACEAN EGGS (25-50u)	3	2
			CRUSTACEAN EGGS (15-25u)	7	10
			CRUSTACEAN EGGS (5-15u)	6	5
			Cylindrotheca closterium	3	1
			DINOFLAGELLATE SP A	10	15
			DINOFLAGELLATE SPP (5x10u)	12	13
			Exuviaella sp C = Prorocentrum sp C	37	43
			Gymnodinium sp S (5x10u)	2	3
			Gymnodinium splendens	1	1
			Nitzschia seriata GROUP	9	9
			Peridinium minutum	9	10
			Peridinium spp (15x20u)	11	10
			Procerium gracile	2	2
			Thalassiosira sp C	1	2
			Thalassiosira sp A	5	1
22	18.0	2	CRUSTACEAN EGGS (5-15u)	5	6
			CRUSTACEAN EGGS (15-25u)	9	10
			DINOFLAGELLATE SP A	7	9
			Exuviaella sp C = Prorocentrum sp C	37	39
			Nitzschia seriata GROUP	10	12
			Peridinium minutum	6	6
			Peridinium spp (15x20u)	10	14
			Torodinium robustum	4	2
DINOFLAGELLATE SPP (5x10u)	8	9			
22	18.0	3	CRUSTACEAN EGGS (15-25u)	9	9
			CRUSTACEAN EGGS (5-15u)	6	6
			DINOFLAGELLATE SP A	8	9
			DINOFLAGELLATE SPP (5x10u)	4	7
			Exuviaella sp C = Prorocentrum sp C	29	31
			Nitzschia seriata GROUP	15	18
			Peridinium minutum	7	6
			Peridinium spp (15x20u)	13	15
Torodinium robustum	3	5			
22	18.0	4	CRUSTACEAN EGGS (25-50u)	0	1
			CRUSTACEAN EGGS (5-15u)	10	11
			CRUSTACEAN EGGS (15-25u)	10	9
			DINOFLAGELLATE SP A	10	9
			DINOFLAGELLATE SPP (5x10u)	7	6
			Exuviaella sp C = Prorocentrum sp C	26	28
			Nitzschia seriata GROUP	15	18
			Peridinium minutum	4	4
			Peridinium spp (15x20u)	11	11
Torodinium robustum	3	4			
22	18.0	5	CRUSTACEAN EGGS (5-15u)	11	10
			CRUSTACEAN EGGS (15-25u)	9	11
			CRUSTACEAN EGGS (25-50u)	2	2
			Cylindrotheca closterium	8	7
			DINOFLAGELLATE SP A	9	9
			DINOFLAGELLATE SPP (5x10u)	9	7
			Exuviaella sp C = Prorocentrum sp C	31	30
			Nitzschia seriata GROUP	27	23
			Peridinium minutum	6	9
			Peridinium spp (15x20u)	17	15
Torodinium robustum	3	2			

Table 7. Cont'd.

CAST SEQ.	DEPTH	BOTTLE SEQ.	DESCRIPTOR	N ₁	N ₂
32	16.4	8	Corethron hystrix	65	70
32	16.6	9	Corethron hystrix	59	51
			CRUSTACEAN EGGS (15-25u)	58	63
			CRUSTACEAN EGGS (50-150u)	2	2
			NAKED CILIATES	77	82
35	0.0	1	CRUSTACEAN EGGS (50-150u)	56	30
			Dinophysis acuminata	42	60
			Peridinium spp (30-60u)	33	54
			Prorocentrum spp	233	210
49	26.0	1	Ceratium horridum	2	1
			Ceratium teres	2	2
			COPEPOD NAUPLII	6	5
			CRUSTACEAN EGGS (50-150u)	20	11
			Dinophysis acuminata	1	1
			NAKED CILIATES	86	72
			Peridinium sinaicum	24	24
			Peridinium sp A	3	1
			Peridinium sp B	5	6
			Pleurosigma nicobaricum	5	4
			Prorocentrum spp	29	34
			TINTINNID CILIATES	5	3
56	16.8	8	Ceratium horridum	2	2
			Ceratium teres	1	1
			COPEPOD NAUPLII	1	1
			COPEPODS/POST-NAUPLIAR	1	1
			CRUSTACEAN EGGS (50-150u)	9	10
			Dinophysis acuminata	4	6
			NAKED CILIATES	18	20
			Peridinium sinaicum	4	5
			Pleurosigma nicobaricum	2	1
			Prorocentrum spp	2	2
			Pyrocystis noctiluca	1	1
			TINTINNID CILIATES	3	3
65	11.8	8	COPEPOD NAUPLII	8	8
			CRUSTACEAN EGGS (50-150u)	43	32
			NAKED CILIATES	62	53
			Peridinium sinaicum	29	29
			Peridinium sp A	11	14
65	11.8	18	COPEPOD NAUPLII	12	10
			COPEPODS/POST-NAUPLIAR	3	3

Table 8. Enumerations of small, non-colonial plankton in parallel MPS samples.

CAST SEQ.	DEPTH	BOTTLE SEQ.	DESCRIPTOR	N ₁	N ₂
26	9.0	1	Cochlodinium catenatum	10	8
			COPEPOD NAUPLII	9	13
			Coscinodiscus wailesii	3	1
			DINOFLAGELLATE SP A	10	9
			Exuviaella sp C = Prorocentrum sp C	10	8
			FORAMINIFERS	0	1
			NAKED CILIATES	49	60
			Nitzschia seriata GROUP	2	0
			OIKOPLEURANS	3	5
			Peridinium minutum	30	34
			POLLEN GRAINS	3	2
			Pyrocystis noctiluca	1	0
			Thalassiosira sp B	3	2
			TINTINNID CILIATES	7	7
26	9.2	2	Cochlodinium catenatum	9	16
			COPEPOD NAUPLII	11	13
			Coscinodiscus wailesii	0	1
			DETRITUS (50-100u)	5	4
			DINOFLAGELLATE SP A	6	8
			Exuviaella sp C = Prorocentrum sp C	7	6
			FORAMINIFERS	2	0
			NAKED CILIATES	51	59
			OIKOPLEURANS	3	5
			Peridinium minutum	28	23
			POLLEN GRAINS	5	6
			Pyrocystis noctiluca	0	2
			Thalassiosira sp B	2	2
			TINTINNID CILIATES	8	4
26	9.4	3	Cochlodinium catenatum	6	6
			COPEPOD NAUPLII	14	14
			COPEPODS/POST-NAUPLIAR	2	2
			Coscinodiscus wailesii	1	1
			DINOFLAGELLATE SP A	4	6
			Exuviaella sp C = Prorocentrum sp C	4	6
			FORAMINIFERS	2	0
			NAKED CILIATES	42	55
			Nitzschia seriata GROUP	0	2
			OIKOPLEURANS	6	0
			Peridinium minutum	26	30
			POLLEN GRAINS	15	4
			Thalassiosira sp B	2	4
			TINTINNID CILIATES	4	4
26	9.6	4	Cochlodinium catenatum	1	3
			COPEPOD NAUPLII	5	7
			COPEPODS/POST-NAUPLIAR	0	4
			Coscinodiscus wailesii	1	1
			DINOFLAGELLATE SP A	8	7
			Exuviaella sp C = Prorocentrum sp C	1	3
			FORAMINIFERS	1	4
			NAKED CILIATES	38	39
			Nitzschia seriata GROUP	1	0
			OIKOPLEURANS	4	6
			Peridinium minutum	34	38
			POLLEN GRAINS	10	5
			Pyrocystis noctiluca	1	0
			Thalassiosira sp B	3	2
TINTINNID CILIATES	9	9			

Table 8. Cont'd.

CAST SEQ.	DEPTH	BOTTLE SEQ.	DESCRIPTOR	N ₁	N ₂
26	9.8	5	Cochlodinium catenatum	9	2
			COPEPOD NAUPLII	14	12
			COPEPODS/POST-NAUPLIAR	1	1
			DINOFLAGELLATE SP A	7	2
			Exuviaella sp C = Prorocentrum sp C	1	3
			NAKED CILIATES	49	55
			Nitzschia seriata GROUP	3	5
			OIKOPLEURANS	6	6
			Peridinium minutum	33	44
			POLLEN GRAINS	3	6
			Thalassiosira sp B	2	2
TINTINNID CILIATES	8	30			
27	14.0	1	Cochlodinium catenatum	0	1
			DINOFLAGELLATE SP A	3	3
			Eucampia zoodiacus	1	2
			Exuviaella sp C = Prorocentrum sp C	2	2
			NAKED CILIATES	97	16
			Nitzschia seriata GROUP	7	4
			Peridinium minutum	16	16
			POLLEN GRAINS	1	0
			Thalassiosira sp A	25	30
			Thalassiosira sp B	2	3
TINTINNID CILIATES	4	4			
27	14.2	2	Cochlodinium catenatum	2	1
			DINOFLAGELLATE SP A	3	3
			Eucampia zoodiacus	51	15
			Exuviaella sp C = Prorocentrum sp C	1	2
			NAKED CILIATES	122	152
			Nitzschia seriata GROUP	4	9
			Peridinium minutum	21	20
			Thalassiosira sp B	2	3
			Thalassiosira sp A	48	56
			TINTINNID CILIATES	9	6
27	14.4	3	Coscinodiscus wailesii	1	0
			DINOFLAGELLATE SP A	2	1
			Eucampia zoodiacus	2	7
			Exuviaella sp C = Prorocentrum sp C	2	1
			NAKED CILIATES	99	152
			Peridinium minutum	16	20
			Thalassiosira sp B	1	3
			Thalassiosira sp A	50	45
TINTINNID CILIATES	3	7			
27	14.6	4	Coscinodiscus wailesii	0	2
			DINOFLAGELLATE SP A	1	4
			Eucampia zoodiacus	18	7
			Exuviaella sp C = Prorocentrum sp C	0	1
			NAKED CILIATES	12	89
			Nitzschia seriata GROUP	9	6
			Peridinium minutum	19	16
			Thalassiosira sp A	44	54
			Thalassiosira sp B	0	2
			TINTINNID CILIATES	2	5
27	14.8	5	Cochlodinium catenatum	2	0
			Coscinodiscus wailesii	0	1
			DINOFLAGELLATE SP A	3	1
			Eucampia zoodiacus	0	3
			Exuviaella sp C = Prorocentrum sp C	5	6

Table 8. Cont'd.

CAST SEQ.	DEPTH	BOTTLE SEQ.	DESCRIPTOR	N ₁	N ₂
27	14.8 (cont'd.)	5	NAKED CILIATES	78	48
			Nitzschia seriata GROUP	9	5
			Peridinium minutum	27	27
			Thalassiosira sp A	64	73
			Thalassiosira sp B	5	6
			TINTINNID CILIATES	3	4
28	20.0	1	Cochlodinium catenatum	23	32
			DINOFLLAGELLATE SP A	15	14
			Dinophysis acuminata	3	2
			NAKED CILIATES	117	123
			NAKED CILIATES	117	123
			Oxytoxum scolopax	3	1
			Thalassiosira sp B	6	6
			Torodinium robustum	6	5
28	20.2	2	Cochlodinium catenatum	16	23
			DINOFLLAGELLATE SP A	12	26
			Dinophysis acuminata	1	3
			NAKED CILIATES	104	107
			NAKED CILIATES	104	107
			Thalassiosira sp B	9	13
			Torodinium robustum	5	7
28	20.4	3	Cochlodinium catenatum	22	21
			DINOFLLAGELLATE SP A	15	15
			Dinophysis acuminata	0	3
			NAKED CILIATES	89	114
			NAKED CILIATES	89	114
			Oxytoxum scolopax	0	1
			Thalassiosira sp B	4	6
			Torodinium robustum	4	6
28	20.6	4	Cochlodinium catenatum	44	28
			DINOFLLAGELLATE SP A	15	16
			Dinophysis acuminata	1	1
			NAKED CILIATES	86	101
			NAKED CILIATES	86	101
			Oxytoxum scolopax	0	1
			Thalassiosira sp B	8	9
			Torodinium robustum	5	5
28	20.8	5	Cochlodinium catenatum	36	27
			DINOFLLAGELLATE SP A	20	18
			Dinophysis acuminata	3	4
			NAKED CILIATES	104	117
			NAKED CILIATES	104	117
			Oxytoxum scolopax	1	1
			Thalassiosira sp B	9	10
			Torodinium robustum	10	9
29	25.0	1	Ceratium furca	0	4
			Ceratium kofoidii	0	4
			COPEPODS/POST-NAUPLIAR	8	6
			Coscinodiscus sp A	0	4
			FORAMINIFERS	0	4
			PENNATE DIATOM SP (40-100u)	44	68
			RADIOLARIANS	0	4
			SILICOFLAGELLATES	7	1

Table 8. Cont'd.

CAST SEQ.	DEPTH	BOTTLE SEQ.	DESCRIPTOR	N ₁	N ₂
32	16.8	10	COPEPOD NAUPLII	3	3
			Corethron hystrix	79	88
			CRUSTACEAN EGGS (15-25u)	80	96
			CRUSTACEAN EGGS (50-150u)	3	2
			NAKED CILIATES	293	306
33	16.8	10	COPEPOD NAUPLII	0	1
			CRUSTACEAN EGGS (15-25u)	40	42
			CRUSTACEAN EGGS (25-50u)	38	40
			Pleurosigma elongatum	21	21
			Pleurosigma nicobaricum	5	6
			Procentrum micans	132	140
			TINTINNID CILIATES	41	41
			TINTINNID CILIATES	7	5
35	1.8	10	Ceratium spp	95	138
			COPEPOD NAUPLII	95	63
			COPEPODS/POST-NAUPLIAR	12	11
			CRUSTACEAN EGGS (25-50u)	84	161
			CRUSTACEAN EGGS (50-150u)	60	58
			Dinophysis acuminata	59	94
			FISH EGGS	4	0
			NAKED CILIATES	3275	3548
			NON-COPEPOD NAUPLII	2	3
			OIKOPLEURANS	63	92
			Peridinium sp B	33	25
			Peridinium sp D	116	151
			Peridinium spp (30-60u)	92	138
			Peridinium spp (30-60u)	62	133
			Prorocentrum spp	503	576
Pyrocystis noctiluca	11	19			
TINTINNID CILIATES	30	50			
49	26.2	2	Ceratium teres	1	2
			COPEPOD NAUPLII	1	8
			COPEPODS/POST-NAUPLIAR	2	0
			CRUSTACEAN EGGS (50-150u)	20	30
			Dinophysis acuminata	2	5
			NAKED CILIATES	91	55
			Peridinium sinaicum	44	23
			Pleurosigma nicobaricum	4	6
			POLYCHAETE LARVAE	1	0
			Prorocentrum spp	35	37
			TINTINNID CILIATES	1	1
49	26.4	4	Ceratium horridum	2	0
			Ceratium teres	2	3
			COPEPOD NAUPLII	6	2
			COPEPODS/POST-NAUPLIAR	0	2
			CRUSTACEAN EGGS (50-150u)	32	34
			Dinophysis acuminata	4	7
			FORAMINIFERS	2	0
			MEDUSAE	1	0
			NAKED CILIATES	111	98
			OIKOPLEURANS	2	0
			Peridinium sinaicum	37	19
			Peridinium sp A	3	6
			Peridinium sp B	3	6
Pleurosigma nicobaricum	3	5			

Table 8. Cont'd.

CAST SEQ.	DEPTH	BOTTLE SEQ.	DESCRIPTOR	N ₁	N ₂
49	26.4	4	Polykrikos sp A	5	3
			(cont'd.)		
			Prorocentrum spp	61	38
			Pyrocystis noctiluca	1	2
			TINTINNID CILIATES	0	1
49	27.8	8	Ceratium horridum	0	1
			Ceratium teres	2	0
			COPEPOD NAUPLII	7	6
			COPEPODS/POST-NAUPLIAR	3	1
			CRUSTACEAN EGGS (50-150u)	12	9
			Dinophysis acuminata	3	3
			NAKED CILIATES	71	58
			Peridinium sinaicum	21	8
			Peridinium sp A	1	4
			Peridinium sp B	3	2
			Pleurosigma nicobaricum	3	0
			Polykrikos sp A	10	4
			Prorocentrum spp	15	18
			RADIOLARIANS	0	1
			TINTINNID CILIATES	4	1
56	15.2	2	Ceratium horridum	2	1
			COPEPOD NAUPLII	3	6
			COPEPODS/POST-NAUPLIAR	2	0
			CRUSTACEAN EGGS (50-150u)	10	13
			CYPHONAUTES LARVAE	0	1
			Dinophysis acuminata	3	2
			Microsetella rosea	1	0
			NAKED CILIATES	45	28
			Peridinium sinaicum	10	9
			Peridinium sp A	5	2
			Pleurosigma nicobaricum	0	1
			Prorocentrum spp	5	3
			Pyrocystis noctiluca	1	2
			RADIOLARIANS	1	1
			TINTINNID CILIATES	3	2
56	15.8	4	Ceratium teres	0	2
			COPEPOD NAUPLII	3	3
			COPEPODS/POST-NAUPLIAR	2	2
			CRUSTACEAN EGGS (50-150u)	17	7
			CYPHONAUTES LARVAE	0	1
			Dinophysis acuminata	5	1
			EGG CLUSTERS	4	0
			FISH EGGS	0	1
			NAKED CILIATES	23	39
			OIKOPLEURANS	0	1
			Peridinium sinaicum	9	15
			Peridinium sp B	3	0
			Peridinium sp A	2	1
			POLLEN GRAINS	0	1
			Prorocentrum spp	5	3
RADIOLARIANS	0	1			
TINTINNID CILIATES	2	7			
56	16.8	8	Ceratium horridum	2	2
			Ceratium teres	1	2
			COPEPOD NAUPLII	1	3
			COPEPODS/POST-NAUPLIAR	1	2
			CRUSTACEAN EGGS (50-150u)	9	8
			Dinophysis acuminata	4	2
			Microsetella rosea	0	1

Table 8. Cont'd.

CAST SEQ.	DEPTH	BOTTLE SEQ.	DESCRIPTOR	N ₁	N ₂
56	16.8 (cont'd.)	8	NAKED CILIATES	18	13
			OIKOPLEURANS	0	1
			Peridinium sinaicum	4	4
			Peridinium sp A	0	1
			Peridinium sp B	0	2
			Pleurosigma nicobaricum	2	1
			Prorocentrum spp	2	3
			Pyrocystis noctiluca	1	0
			TINTINNID CILIATES	3	4
57	18.2	2	Ceratium horridum	2	2
			Ceratium teres	2	0
			COPEPOD NAUPLII	20	3
			CRUSTACEAN EGGS (50-150u)	26	24
			Dinophysis acuminata	1	0
			NAKED CILIATES	37	26
			OIKOPLEURANS	1	1
			Peridinium sinaicum	24	20
			Peridinium sp A	4	5
			Peridinium sp B	4	0
			Prorocentrum spp	5	3
			Pyrocystis noctiluca	0	2
			RADIOLARIANS	4	2
			TINTINNID CILIATES	4	7
57	18.8	4	Ceratium horridum	2	2
			COPEPOD NAUPLII	5	4
			CRUSTACEAN EGGS (50-150u)	14	11
			Dinophysis acuminata	3	2
			FORAMINIFERS	2	0
			Limacina spp	1	0
			MEDUSAE	0	1
			Microsetella rosea	1	0
			NAKED CILIATES	21	16
			Peridinium sinaicum	9	11
			Peridinium sp B	0	1
			Pleurosigma nicobaricum	0	2
			Prorocentrum spp	5	3
			RADIOLARIANS	1	1
TINTINNID CILIATES	2	3			
65	10.2	2	Ceratium horridum	1	3
			Ceratium teres	3	14
			CLAM LARVAE	1	1
			COPEPOD NAUPLII	20	9
			CRUSTACEAN EGGS (50-150u)	66	51
			Dinophysis acuminata	2	2
			NAKED CILIATES	42	55
			OIKOPLEURANS	3	4
			Peridinium sinaicum	11	16
			Peridinium sp A	9	18
			Peridinium sp B	1	1
			Prorocentrum spp	7	4
			Pyrocystis noctiluca	2	1
			RADIOLARIANS	0	1
TINTINNID CILIATES	2	2			
65	10.8	4	Ceratium horridum	3	1
			COPEPOD NAUPLII	2	5
			COPEPODS/POST-NAUPLIAR	0	2
			CRUSTACEAN EGGS (50-150u)	59	66
			CYPHONAUTES LARVAE	0	1

Table 8. Cont'd.

CAST SEQ.	DEPTH	BOTTLE SEQ.	DESCRIPTOR	N ₁	N ₂			
65	10.8	4 (cont'd.)	Dinophysis acuminata	8	2			
			MEDUSAE	0	1			
			Microsetella rosea	3	0			
			NAKED CILIATES	44	52			
			OIKOPLEURANS	3	0			
			Peridinium sinaicum	59	12			
			Peridinium sp A	14	12			
			Peridinium sp B	1	3			
			Prorocentrum spp	6	6			
			RADIOLARIANS	1	0			
			TINTINNID CILIATES	3	1			
			65	11.8	8	Ceratium horridum	2	2
						Ceratium teres	6	10
CHAETOGNATHS	0	1						
COPEPOD NAUPLII	8	12						
COPEPODS/POST-NAUPLIAR	0	3						
CRUSTACEAN EGGS (50-150u)	43	46						
Dinophysis acuminata	3	1						
DOLIOLIDS	1	0						
FORAMINIFERS	1	0						
NAKED CILIATES	62	55						
OIKOPLEURANS	3	2						
Peridinium sinaicum	29	26						
Peridinium sp D	0	1						
Peridinium sp A	11	12						
Peridinium sp B	1	6						
POLYCHAETE LARVAE	0	1						
Prorocentrum spp	8	6						
Pyrocystis noctiluca	0	1						
RADIOLARIANS	4	2						
TINTINNID CILIATES	2	1						

Table 9. Replicate and duplicate determinations of sample environmental characteristics: phytoplankton pigments, particulates, nutrient species and salinity.

CAST SEQ.	DEPTH m	R E P	D U P	CHLA $\mu\text{g/l}$	PHAEO $\mu\text{g/l}$	COULTER 7-17 n/ml	COUNTER 10,11 n/ml	CHANNEL 12-16 n/ml	NO ₂ +NO ₃ μM	NO ₂ μM	NO ₃ μM	PO ₄ μM	NH ₃ μM	SIO ₄ μM
18	20.0	-	*	1.320	0.100	--	--	--	--	--	--	--	--	--
	20.0	-	*	1.130	0.010	--	--	--	--	--	--	--	--	--
	20.2	-	*	1.480	0.000	--	--	--	--	--	--	--	--	--
	20.2	-	*	1.300	0.090	--	--	--	--	--	--	--	--	--
	20.4	-	*	1.550	0.080	--	--	--	--	--	--	--	--	--
	20.4	-	*	1.500	0.220	--	--	--	--	--	--	--	--	--
	20.6	-	*	1.800	0.050	--	--	--	--	--	--	--	--	--
	20.6	-	*	1.660	0.300	--	--	--	--	--	--	--	--	--
	20.8	-	*	1.780	0.360	--	--	--	--	--	--	--	--	--
	20.8	-	*	1.640	0.210	--	--	--	--	--	--	--	--	--
	21.0	-	*	1.700	0.280	--	--	--	--	--	--	--	--	--
	21.0	-	*	1.700	0.190	--	--	--	--	--	--	--	--	--
	21.4	-	*	1.740	0.630	--	--	--	--	--	--	--	--	--
	21.4	-	*	1.900	0.220	--	--	--	--	--	--	--	--	--
	21.6	-	*	2.040	0.420	--	--	--	--	--	--	--	--	--
	21.6	-	*	1.810	0.240	--	--	--	--	--	--	--	--	--
	21.8	-	*	1.990	0.310	--	--	--	--	--	--	--	--	--
	21.8	-	*	1.780	0.190	--	--	--	--	--	--	--	--	--
26	9.0	*	-	--	--	--	--	--	7.22	--	--	--	--	8.40
	9.0	*	-	--	--	--	--	--	8.68	--	--	--	--	8.05
	9.2	*	-	--	--	--	--	--	6.53	--	--	--	--	7.90
	9.2	*	-	--	--	--	--	--	6.92	--	--	--	--	7.95
	9.4	*	-	--	--	--	--	--	6.97	--	--	--	--	7.80
	9.4	*	-	--	--	--	--	--	8.19	--	--	--	--	7.80
	9.6	*	-	--	--	--	--	--	8.39	--	--	--	--	7.85
	9.6	*	-	--	--	--	--	--	7.70	--	--	--	--	7.65
	9.8	*	-	--	--	--	--	--	7.22	--	--	--	--	7.75
	9.8	*	-	--	--	--	--	--	6.63	--	--	--	--	7.75
27	14.0	*	-	2.390	0.700	142	10.0	3.0	4.41	--	--	--	--	6.20
	14.0	*	-	2.410	0.570	207	35.0	11.9	4.51	--	--	--	--	6.15
	14.2	*	-	2.450	0.610	166	14.0	6.9	4.70	--	--	--	--	6.20
	14.2	*	-	2.470	0.470	111	8.3	3.9	4.26	--	--	--	--	6.45
	14.4	*	-	2.320	0.580	127	9.9	3.8	4.56	--	--	--	--	6.20
	14.4	*	-	2.320	0.530	114	8.4	4.2	4.56	--	--	--	--	6.15
	14.6	*	-	2.430	0.540	139	11.1	5.2	4.56	--	--	--	--	6.30
	14.6	*	-	2.450	0.620	181	15.0	6.4	4.15	--	--	--	--	6.10
	14.8	*	-	2.240	0.470	216	13.9	4.7	4.12	--	--	--	--	6.10
	14.8	*	-	2.220	0.480	135	9.3	3.5	4.17	--	--	--	--	6.10
28	20.0	*	-	--	--	168	2.3	7.8	--	--	--	--	--	--
	20.0	*	-	--	--	120	1.6	5.6	--	--	--	--	--	--
	20.2	*	-	--	--	160	2.0	7.4	--	--	--	--	--	--
	20.2	*	-	--	--	246	1.7	6.6	--	--	--	--	--	--
	20.4	*	-	--	--	116	43.6	10.6	--	--	--	--	--	--
	20.4	*	-	--	--	116	14.1	4.6	--	--	--	--	--	--
	20.6	*	-	--	--	355	39.0	11.3	--	--	--	--	--	--
	20.6	*	-	--	--	175	18.2	5.2	--	--	--	--	--	--
	20.8	*	-	--	--	137	12.6	4.5	--	--	--	--	--	--
	20.8	*	-	--	--	140	18.0	6.3	--	--	--	--	--	--
29	25.0	*	-	--	--	147	18.8	6.4	3.13	0.19	2.94	3.11	1.47	9.15
	25.0	*	-	--	--	150	17.3	6.1	1.79	0.14	1.65	3.17	1.52	5.56
	25.2	*	-	--	--	97	16.9	5.2	1.44	0.13	1.31	1.60	1.30	7.50
	25.2	*	-	--	--	98	14.1	6.0	1.34	0.14	1.20	1.60	1.14	6.15
	25.4	*	-	--	--	55	4.5	2.0	1.62	0.14	1.48	1.27	1.33	4.53
	25.4	*	-	--	--	46	4.8	1.8	1.97	0.14	1.83	1.24	1.36	4.25
	25.6	*	-	--	--	69	9.4	4.3	3.63	0.18	3.45	1.53	1.33	7.77

TABLE 9. Cont'd.

CAST SEQ.	DEPTH m	R	D	CHLA µg/l	PHAEO µg/l	COULTER COUNTER CHANNEL			NO ₂ +NO ₃ µM	NO ₂ µM	NO ₃ µM	PO ₄ µM	NH ₃ µM	SIO ₄ µM	SAL. ‰
		E	U			7-17 n/ml	10,11 n/ml	12-16 n/ml							
29	25.6	*	-	--	--	54	6.0	2.6	2.49	0.20	2.29	2.13	1.05	4.56	--
	25.8	*	-	--	--	--	--	--	2.38	0.20	2.18	1.15	1.94	5.62	--
	25.8	*	-	--	--	--	--	--	2.33	0.20	2.13	2.32	0.96	5.50	--
30	25.0	*	-	--	--	48	6.3	2.0	3.21	0.22	2.99	0.73	0.74	6.87	--
	25.0	*	-	--	--	46	6.2	2.3	3.02	0.22	2.80	0.85	0.73	8.66	--
	25.2	*	-	--	--	42	4.8	1.9	3.02	0.21	2.81	1.07	0.73	8.01	--
	25.2	*	-	--	--	39	4.6	1.7	3.16	0.23	2.93	0.95	0.72	5.69	--
	25.4	*	-	--	--	45	3.1	0.7	3.05	0.22	2.83	1.75	0.72	5.63	--
	25.4	*	-	--	--	56	6.2	3.2	3.09	0.22	2.87	2.34	0.71	7.95	--
	25.6	*	-	--	--	52	3.0	0.9	3.14	0.22	2.92	0.83	0.77	5.89	--
	25.6	*	-	--	--	67	3.9	1.1	3.16	0.22	2.94	0.78	0.78	5.20	--
	25.8	*	-	--	--	48	3.4	0.6	3.37	0.22	3.15	1.55	0.74	5.84	--
	25.8	*	-	--	--	51	2.6	1.0	3.54	0.22	3.32	0.68	0.69	5.81	--
31	7.8	*	*	--	--	338	33.7	8.0	16.48	--	--	0.60	1.40	7.94	--
	7.8	-	*	--	--	344	42.4	--	--	--	--	--	--	--	--
	7.8	*	-	--	--	219	25.9	4.4	13.88	--	--	0.19	1.38	7.55	--
32	15.0	*	-	0.513	0.105	261	14.0	2.3	16.10	--	--	1.10	0.64	7.20	--
	15.0	*	-	0.487	0.161	181	5.8	1.2	15.10	--	--	1.30	0.47	5.30	--
	16.8	*	*	0.500	0.190	299	28.9	4.7	15.10	--	--	0.11	1.10	5.10	--
	16.8	-	*	--	--	317	24.8	4.5	--	--	--	--	--	--	--
	16.8	*	-	0.510	0.170	166	18.7	3.4	15.25	--	--	0.19	1.10	4.80	--
33	15.2	-	*	--	--	1532	486.0	110.1	31.93	--	--	0.28	2.65	26.75	--
	15.2	-	*	--	--	1500	510.2	110.8	--	--	--	--	--	--	--
	16.8	*	-	--	--	692	188.4	34.6	32.23	--	--	0.14	2.50	25.65	--
	16.8	*	-	--	--	654	179.6	33.5	32.18	--	--	0.10	2.50	25.50	--
34	0.0	*	-	--	--	--	--	--	0.96	--	--	4.93	0.66	4.70	--
	0.0	*	-	--	--	--	--	--	0.68	--	--	4.77	0.58	4.09	--
	1.8	*	-	--	--	--	--	--	0.00	--	--	3.64	0.45	3.01	--
	1.8	*	-	--	--	--	--	--	0.00	--	--	3.65	0.47	3.00	--
35	1.8	*	-	--	--	--	--	--	--	--	--	1.03	0.72	4.09	--
	1.8	*	-	--	--	--	--	--	0.00	--	--	0.86	0.67	4.05	--
37	10.0	*	*	--	--	656	43.2	4.5	--	--	--	--	--	--	--
	10.0	-	*	--	--	628	45.4	5.9	--	--	--	--	--	--	--
	10.0	*	-	0.860	1.270	650	49.7	8.1	--	--	--	--	--	--	--
	11.2	-	*	1.130	0.890	240	13.0	4.4	--	--	--	--	--	--	--
	11.2	-	*	--	--	266	13.3	2.9	--	--	--	--	--	--	--
	11.8	*	*	1.070	1.040	397	15.1	2.6	--	--	--	--	--	--	--
	11.8	-	*	--	--	435	37.2	5.0	--	--	--	--	--	--	--
	11.8	*	-	1.040	1.080	233	10.7	2.5	--	--	--	--	--	--	--
38	12.2	*	-	0.340	0.060	183	53.6	61.4	--	--	--	--	--	--	33.481
	12.2	*	-	0.300	0.080	179	57.3	68.6	--	--	--	--	--	--	33.475
	12.6	*	-	0.320	0.070	160	46.7	32.3	--	--	--	--	--	--	33.461
	12.6	*	-	0.310	0.070	190	38.9	64.3	--	--	--	--	--	--	33.506
	13.4	*	-	0.290	0.080	139	30.3	31.7	--	--	--	--	--	--	33.438
	13.4	*	-	0.270	0.090	189	36.2	29.7	--	--	--	--	--	--	33.487
39	10.2	*	-	0.550	0.430	236	16.6	5.7	--	--	--	--	--	--	33.488
	10.2	*	-	0.440	0.310	176	20.4	11.6	--	--	--	--	--	--	33.495
	10.6	*	-	0.640	0.390	276	19.1	9.5	--	--	--	--	--	--	33.490
	10.6	*	-	0.640	0.340	275	14.8	12.5	--	--	--	--	--	--	33.497
	11.4	*	-	0.560	0.390	259	14.4	8.2	--	--	--	--	--	--	33.484

TABLE 9. Cont'd.

CAST SEQ.	DEPTH m	R D		CHLA µg/l	PHAEO µg/l	COULTER COUNTER CHANNEL			SALINITY ‰
		E P	U P			7-17 n/ml	10,11 n/ml	12-16 n/ml	
39	11.4	*	-	0.550	0.390	243	35.4	18.7	33.493
	11.8	-	*	0.790	0.210	267	11.1	6.3	33.478
	11.8	-	*	--	--	225	33.2	12.2	--
40	10.2	*	-	--	--	197	21.8	15.2	--
	10.2	*	-	--	--	226	32.9	31.7	--
	10.6	*	-	--	--	248	35.1	45.9	--
	10.6	*	-	--	--	242	51.6	40.4	--
	11.4	*	-	--	--	273	52.0	30.0	--
	11.4	*	-	--	--	354	82.0	55.5	--
41	10.2	*	-	0.110	0.040	85	25.8	11.4	33.456
	10.2	*	-	0.110	0.030	60	18.3	7.3	33.460
	10.6	*	-	0.110	0.040	61	19.9	8.7	33.451
	10.6	*	-	0.100	0.040	57	15.8	6.4	33.462
	11.4	*	-	0.100	0.030	53	13.4	6.4	33.455
	11.4	*	-	0.110	0.030	55	14.8	6.4	33.434
42	22.2	*	-	0.400	0.110	56	10.7	4.1	--
	22.2	*	-	0.400	0.090	51	9.3	4.1	--
	22.6	*	-	0.390	0.140	67	9.0	4.9	--
	22.6	*	-	0.400	0.100	47	8.1	4.3	--
	23.4	*	-	0.410	0.130	56	17.7	6.6	--
	23.4	*	-	0.400	0.130	42	6.5	3.4	--
43	10.2	*	-	1.280	0.610	312	14.3	6.5	--
	10.2	*	-	1.220	0.600	322	14.6	6.4	--
	10.6	*	-	1.220	0.590	332	16.2	8.4	--
	10.6	*	-	1.260	0.530	315	14.3	6.5	--
	11.4	*	-	1.290	0.540	261	14.6	7.0	--
	11.4	*	-	1.340	0.690	259	17.7	10.9	--
44	10.2	*	-	1.310	0.590	254	9.8	4.7	--
	10.2	*	-	1.390	0.520	258	17.1	10.5	--
	10.6	*	-	1.370	0.530	271	20.8	11.7	--
	10.6	*	-	1.290	0.610	256	16.9	7.9	--
	11.4	*	-	1.390	0.610	264	14.2	11.2	--
	11.4	*	-	1.450	0.550	245	11.1	5.6	--
45	12.2	*	-	1.630	0.600	243	11.3	3.7	--
	12.2	*	-	1.680	0.530	207	8.5	3.2	--
	12.6	*	-	1.640	0.570	257	10.4	4.2	--
	12.6	*	-	1.630	0.560	262	10.4	4.8	--
	13.4	*	-	1.600	0.600	238	10.0	3.5	--
	13.4	*	-	1.570	0.540	173	6.3	2.1	--
46	0.2	*	-	1.410	0.430	269	8.8	5.0	--
	0.2	*	-	1.360	0.420	278	11.9	5.8	--
	0.6	*	-	1.290	0.440	306	19.8	14.4	--
	0.6	*	-	1.310	0.420	294	22.3	13.4	--
	1.4	*	-	1.340	0.340	285	16.3	15.0	--
	1.4	*	-	1.350	0.380	244	14.5	13.0	--
47	20.2	*	-	1.520	0.490	124	24.5	32.2	33.418
	20.2	*	-	1.510	0.450	162	45.4	45.8	33.418
	20.6	*	-	1.870	0.610	185	40.7	46.8	33.413
	20.6	*	-	1.780	0.680	141	37.8	53.2	33.415
	21.4	*	-	2.190	0.820	175	30.1	24.6	33.415
	21.4	*	-	2.270	0.710	147	17.3	20.4	33.418

TABLE 9. Cont'd.

CAST SEQ.	DEPTH m	R E P	D U P	CHLA µg/l	PHAEO µg/l	COULTER COUNTER CHANNEL			SALINITY ‰
						7-17 n/ml	10,11 n/ml	12-16 n/ml	
48	23.2	*	-	0.660	0.210	171	15.3	39.4	33.525
	23.2	*	-	0.640	0.390	165	21.9	27.1	33.529
	23.6	*	-	0.700	0.520	156	20.5	31.5	33.522
	23.6	*	-	0.630	0.530	132	15.0	22.4	33.541
	24.4	*	-	1.420	0.520	117	18.0	28.2	33.520
	24.4	*	-	1.570	0.680	137	24.7	30.0	33.519
49	26.2	*	-	1.510	0.650	--	--	--	33.369
	26.2	*	-	1.410	0.750	--	--	--	--
	26.6	*	-	2.560	1.200	--	--	--	33.363
	26.6	*	-	2.450	1.300	--	--	--	--
	27.4	*	-	2.100	1.090	--	--	--	33.372
	27.4	*	-	2.260	1.240	--	--	--	--
50	6.2	*	-	0.720	0.300	--	--	--	33.563
	6.2	*	-	0.590	0.330	--	--	--	--
	6.6	*	-	0.560	0.510	--	--	--	33.573
	6.6	*	-	0.620	0.250	--	--	--	--
	7.4	*	-	0.690	0.140	--	--	--	33.580
	7.4	*	-	0.640	0.200	--	--	--	--
51	23.2	*	-	0.460	0.120	--	--	--	33.519
	23.2	*	-	0.410	0.110	--	--	--	--
	23.6	*	-	0.390	0.120	--	--	--	33.519
	23.6	*	-	0.430	0.120	--	--	--	--
	24.4	*	-	0.410	0.090	--	--	--	33.490
	24.4	*	-	0.990	0.290	--	--	--	--
52	29.2	*	-	0.380	0.100	--	--	--	--
	29.2	*	-	0.320	0.110	--	--	--	--
	29.6	*	-	0.370	0.110	--	--	--	--
	29.6	*	-	0.450	0.090	--	--	--	--
	30.4	*	-	0.460	0.090	--	--	--	--
	30.4	*	-	0.390	0.120	--	--	--	--
53	28.2	*	-	0.270	0.080	--	--	--	33.460
	28.2	*	-	0.240	0.090	--	--	--	--
	28.6	*	-	0.250	0.090	--	--	--	33.445
	28.6	*	-	0.310	0.100	--	--	--	--
	29.4	*	-	0.290	0.130	--	--	--	33.446
	29.4	*	-	0.280	0.100	--	--	--	--
54	10.2	*	-	6.290	1.100	--	--	--	33.501
	10.2	*	-	5.610	1.430	--	--	--	--
	10.6	*	-	4.480	1.070	--	--	--	33.519
	10.6	*	-	4.750	1.100	--	--	--	--
	11.4	*	-	1.910	0.290	--	--	--	33.520
	11.4	*	-	1.800	0.320	--	--	--	--
55	16.2	*	-	5.420	2.060	--	--	--	33.451
	16.2	*	-	5.670	2.370	--	--	--	--
	16.6	*	-	5.130	1.580	--	--	--	33.456
	16.6	*	-	5.510	1.230	--	--	--	--
	17.4	*	-	2.780	1.680	--	--	--	33.451
	17.4	*	-	3.600	1.020	--	--	--	--
56	15.2	*	-	1.160	0.290	--	--	--	33.523
	15.2	*	-	1.160	0.280	--	--	--	--
	15.6	*	-	1.070	0.320	--	--	--	33.513
	15.6	*	-	1.340	0.180	--	--	--	--
	16.4	*	-	1.000	0.260	--	--	--	33.502
	16.4	*	-	1.040	0.240	--	--	--	--

TABLE 9. Cont'd.

CAST SEQ.	DEPTH m	R E P	D U P	CHLA µg/l	PHAEO µg/l	SALINITY ‰
57	18.2	*	-	0.680	0.250	33.541
	18.2	*	-	0.700	0.150	--
	18.6	*	-	0.600	0.180	33.569
	18.6	*	-	0.560	0.170	--
	19.4	*	-	0.690	0.190	33.574
	19.4	*	-	0.700	0.230	--
58	8.2	*	-	6.690	2.390	33.487
	8.2	*	-	7.050	2.320	--
	8.6	*	-	7.190	2.010	33.471
	8.6	*	-	7.510	1.800	--
	9.4	*	-	7.420	2.030	33.485
	9.4	*	-	6.870	2.400	--
59	11.2	*	-	5.060	2.020	33.473
	11.2	*	-	5.200	2.240	--
	11.6	*	-	5.830	2.850	33.475
	11.6	*	-	5.650	3.150	--
	12.4	*	-	5.560	2.220	33.452
	12.4	*	-	5.520	1.370	--
60	9.2	*	-	7.050	2.970	33.495
	9.2	*	-	6.870	3.080	--
	9.6	*	-	7.100	3.570	33.448
	9.6	*	-	8.410	2.380	--
	10.4	*	-	9.040	1.580	33.477
	10.4	*	-	9.130	1.960	--
61	12.2	*	-	2.170	0.590	33.559
	12.2	*	-	1.550	0.330	--
	12.6	*	-	1.400	0.420	33.521
	12.6	*	-	1.460	0.470	--
	13.4	*	-	1.350	0.100	33.505
	13.4	*	-	0.420	1.280	--
62	27.2	*	-	2.530	0.550	33.445
	27.2	*	-	2.390	0.780	--
	27.6	*	-	2.260	0.730	33.464
	27.6	*	-	2.420	0.600	--
	28.4	*	-	2.290	0.360	33.342
	28.4	*	-	2.280	0.410	--
63	20.2	*	-	1.960	0.540	--
	20.2	*	-	1.950	0.440	--
	20.6	*	-	1.880	0.680	--
	20.6	*	-	1.800	0.650	--
	21.4	*	-	1.950	0.310	--
	21.4	*	-	2.400	0.850	--
64	12.2	*	-	1.570	0.270	--
	12.2	*	-	1.570	0.370	--
	12.6	*	-	1.600	0.540	--
	12.6	*	-	1.900	0.520	--
	13.4	*	-	1.410	1.260	--
	13.4	*	-	1.870	0.690	--
65	10.2	*	-	2.590	1.590	33.562
	10.2	*	-	2.930	1.250	--
	10.6	*	-	2.930	1.120	33.538
	10.6	*	-	2.800	1.250	--
	11.4	*	-	2.330	1.670	33.548
	11.4	*	-	2.080	1.890	--

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