

Crosby

# OCEANOGRAPHICAL STATION LIST

VOLUME 52

COASTAL INVESTIGATIONS AT PORT HACKING,  
NEW SOUTH WALES, 1960

DIVISION OF FISHERIES AND OCEANOGRAPHY  
COMMONWEALTH SCIENTIFIC AND INDUSTRIAL  
RESEARCH ORGANIZATION, AUSTRALIA 1963

# OCEANOGRAPHICAL STATION LIST

Volume 52

Coastal Investigations at Port Hacking,  
New South Wales, 1960

Compiled by A. D. Crooks



Division of Fisheries and Oceanography

Commonwealth Scientific and Industrial

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Melbourne 1963

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When citing this station list, abbreviate as follows:-  
C.S.I.R.O. Aust. Oceanogr. Sta. List 52

OCEANOGRAPHICAL STATION LIST

COASTAL INVESTIGATIONS AT PORT HACKING, NEW SOUTH WALES, 1960

Compiled by A.D. Crooks

I. INTRODUCTION

The data presented in this volume were obtained from the regular working of two stations off Port Hacking, by F.R.V. Jay Bee. The position of the Port Hacking 50 m station, is latitude  $34^{\circ}05'S$ . and longitude  $151^{\circ}13'E$ .; the depth of water is between 50 and 60 m. The 100 m station is in latitude  $34^{\circ}05'30''S$ . and longitude  $151^{\circ}15'30''E$ .; the depth of water is between 100 and 120 m. On July 27, 1960 F.R.V. Derwent Hunter worked stations at greater depths than 100 m. The analyses of the samples taken are listed on the sheets for that date.

II. METHODS AND UNITS

(a) Hydrology

See C.S.I.R.O. Aust. (1961).

(b) Phytoplankton

Water samples were taken with a plastic sampler. In the laboratory the samples were centrifuged, and the phytoplankton examined and counted in two size groups, above and below  $20\mu$ . The counts are given as log numbers per litre for each sampling depth. Counts of organisms were made with a Petroff Hausser bacterial counting chamber using a Wild BG fluorescence filter, a Wild OGI exclusion filter, an immersed condenser, and a high power incandescent lamp. The chloroplasts appeared bright red in the blue-violet light. Total particles were counted with ordinary illumination.

(c) Pigments

See C.S.I.R.O. Aust. (1961).

(d) Zooplankton

The sampler used was a Clarke-Bumpus sampler fitted with a flowmeter and with a net of No. 4 mesh nylon (62 meshes per inch). The duration of hauls at coastal stations was 10-30 minutes, and the usual volume filtered was  $5-10\text{ m}^3$ .

### III. REFERENCE

C.S.I.R.O. Aust. (1961).- Coastal investigations at Port Hacking, New South Wales, 1959. C.S.I.R.O. Aust. Oceanogr. Sta. List 47

### IV. PERSONNEL

F.R.V. Jay Bee was the laboratory's launch, based on Cronulla, from which the observations were made, except those on July 27, 1960, made from F.R.V. Derwent Hunter. Sampling was done on Jay Bee by Messrs W. Hebels, C.W. Irving, W. Prothero, and M. Wootton, and on Derwent Hunter by M. Wootton.

The hydrological laboratory analyses were done by Messrs G. Dal Pont, F. Davies, W. Prothero, and C. Walker. The phytoplankton counts were made by Mr E.J.F. Wood. The routine pigment determinations were made by Mr M. Wootton. The zooplankton samples were weighed by Mr D.J. Tranter.

Under the general direction of Mr A.D. Crooks, the data were processed by Mrs Derrick, Mrs Tarbett, Mrs Wood, and Misses M. Johnson, L. Lalor, F. Luce, and E. Wanstall.

### V. DATA SHEETS

The data sheets are arranged in four parts. Part 1 shows the hydrology data, Part 2 records the phytoplankton data, Part 3 shows the data for pigments, and Part 4 shows the zooplankton biomass.

The short vertical lines below certain of the headings indicate the positions of decimal places.

The headings on the data sheets are explained at the beginning of each part.

DATA

PART 1

HYDROLOGY

EXPLANATION OF HEADINGS

Part 1 Hydrology

STATION	The Port Hacking station is designated by the figures 20.
DATE YEAR MONTH DAY	The date is shown as year, month, and day.
TIME	Expressed in hours and minutes; the zone is Eastern Australian Standard Time.
LATITUDE LONGITUDE	The position of each station is given in degrees and minutes.
DEPTH	Actual sampling depth given in m. A blank at the top of this column indicates 0 m.
TEMP.	Sea-water temperatures are recorded in degrees centigrade, to 2 decimal places.
Cl <sup>2</sup> / <sub>100</sub>	Chlorinities are recorded in parts per thousand to 2 decimal places.
$\sigma_t$	Sigma-t recorded to 2 decimal places.
O <sub>2</sub>	Oxygen recorded in ml/l to 2 decimal places.
O <sub>2</sub> % Sat.	Oxygen percentage saturation.

A blank in any of the next four columns indicates that the sample was not taken or was lost.

If required a salt correction of 1.15 should be applied to the figures given in the next three columns,

INORG. P	Inorganic phosphate values are given in $\mu\text{g at./l}$ to 2 decimal places.
PARTIC. P	Particulate phosphate values are given in $\mu\text{g at./l}$ to 2 decimal places.
TOTAL P	Total phosphorus values are given in $\mu\text{g at./l}$ to 2 decimal places.
NITRATE	Nitrate values are given in $\mu\text{g at./l}$ to 1 decimal place.

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	01	05	940	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	O <sub>2</sub> % SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	2190	1962	2460	435	90	24	44	68	0
20	2190	1963	2462	487	101	22	00	32	0
30	2160	1964	2464	449	93	23	00	36	0
40	1955	1964	2472	497	102	24	00	36	0
50	1750	1962	2528	449	89	44	00	60	4
			2575	430	82	63	00	76	4

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	01	27	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	O <sub>2</sub> % SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	2090	1962	2488	485	98	13	11	51	0
20	2010	1962	2488	521	105	17	00	31	0
30	1950	1963	2510	510	102	15	07	40	0
40	1920	1961	2525	457	90	24	00	41	0
50	1970	1961	2533	484	95	24	00	64	0
				484					2



STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	02	02	0900	3405 S	15113 E

20 60 02 02 0900 3405 S 15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	21.10	1960	2480	462	94	14	00	46	0
10	2095	1963	2490	391	79	17	13	30	0
20	2050	1963	2500	391	79	19	00	39	0
30	1870	1963	2547	435	85	30	19	77	0
40	1675	1963	2595	360	68	43	00	62	1
50	1600	1962	2610	373	69	57	00	60	4

1  
0  
1

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	02	08	1005	3405 S	15113 E

20 60 02 08 1005 3405 S 15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	2280	1969	2445	512	107	20	03	61	0
10	2260	1969	2451	520	109	16	00	74	0
20	2230	1967	2455	512	106	15	13	67	0
30	2120	1964	2485	512	104	21	09	67	0
40	1910	1964	2538	517	102	26	00	92	0
50	1830	1964	2559	497	96	33	00	92	0



STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	03	08	1000	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	2200	1969	2469	527	109	22	14	41	00
20	2210	1969	2465	513	106	17	12	39	00
30	2200	1968	2467	530	110	16	44	62	00
40	2200	1969	2468	523	108	22	34	64	00
50	2200	1968	2467	513	106	18	73	91	00
50	1920	1965	2537	450	89	27	57	98	18

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	03	14	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	2170	1972	2480	532	109	18	05	48	00
20	2180	1971	2476	528	109	16	27	52	00
30	2170	1970	2475	529	109	18	29	52	00
40	2130	1970	2477	533	110	15	18	52	00
50	1860	1968	2487	521	106	21	14	48	00
50		1962	2547	430	84	55	05	62	50

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	03	29	1015	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	2160	1967	2475	493	101	12	26	57	
20	2160	1968	2477	519	107	20	05	33	
30	2150	1968	2481	514	105	15	00	31	
40	2120	1968	2481	514	105	19	14	38	
50	1930	1964	2490	514	105	43	12	43	
			2535	514	101		00	66	

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	04	05	0945	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	2120	1970	2491	514	105	21	56	105	0
20	2120	1970	2491	514	105	21	20	60	0
30	2110	1969	2493	514	104	22	21	60	0
40	2120	1969	2491	504	103	18	44	86	0
50	2100	1969	2496	500	102	20	16	65	0
	2040	1967	2508	498	100	29	48	90	0

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20 5	60	04	14	1135	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	2080	1970	2502	511	104	34	13	69	0 0
20	2015	1968	2517	497	100	48	34	83	0 0
30	1925	1967	2538	452	89	56	18	83	0 0
40	1850	1967	2557	414	81	87	22	109	2 4
50	1845	1967	2558	442	86	62	14	76	1 4
	1780	1964	2571	401	77	82	00	99	3 6

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	04	20	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	2035	1979	2526	465	94	41	11	60	0 0
20	2025	1979	2529	492	99	49	07	56	0 0
30	2040	1980	2526	446	90	45	10	56	0 0
40	1963	1974	2538	452	90	48	24	77	0 0
50	1960	1974	2539	458	91	79			0 0
	1960	1975	2540	446	89	112			0 0

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
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20 60 04 27 0900 3405 S 15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1920	1974	2550	469	93	41	18	80	0 4
20	1920	1974	2550	469	93	38	21	101	0 4
30	1922	1974	2550	474	94	37	22	86	0 2
40	1918	1972	2548	477	94	37	32	94	0 2
50	1880	1970	2555	477	94	40	23	94	0 4
	1555	1970	2633	477	88	44	15	75	0 4

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
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20 60 05 03 0900 3405 S 15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1840	1974	2570	469	91	31	26	88	1 4
20	1840	1975	2571	490	95	31	28	84	0 8
30	1835	1974	2571	486	94	31	26	99	1 0
40	1820	1975	2576	477	92	31	28	113	1 0
50	1820	1972	2572	458	89	27	30	84	1 4
	1820	1972	2572	477	92	37	11	101	1 2

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	05	11	0921	3405 S	15113 E

20 60 05 11 0921 3405 S 15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	2160	1978	2490	489	99	23			
20	2155	1980	2494	483	99	18			
30	2150	1981	2496	474	97	18			
40	2120	1980	2495	471	97	13			
50	2080	1981	2504	504	103	17			
			2515	513	104	23			

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	05	31	0900	3405 S	15113 E

20 60 05 31 0900 3405 S 15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1825	1976	2575	533	103	37	00	43	00
20	1825	1980	2580	529	103	44	00	45	00
30	1830	1977	2576	511	99	45	05	50	00
40	1820	1977	2577	511	98	39	10	49	02
50	1770	1976	2577	508	98	30	16	54	02
		1775	2588	511	98	38	08	58	04

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	06	08	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	17.58	1977	2593	540	103	35	38	73	0.4
20	17.62	1979	2595	535	103	34	19	75	0.4
30	17.60	1979	2596	503	96	35	22	77	0.6
40	17.60	1978	2595	534	102	33	12	71	0.6
50	17.40	1977	2593	519	99	43	46	110	0.6
		1977	2597	535	102	45	16	102	0.6

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STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	06	15	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	16.55	1975	2617	526	99	28	56	92	1.4
20	16.60	1976	2616	530	100	28	62	99	1.2
30	16.60	1975	2615	543	102	29	44	97	1.8
40	16.55	1975	2617	526	99	38	42	88	1.8
50	16.55	1975	2617	473	89	30	39	92	1.8
		1975	2517	538	101	31	42	76	1.0



STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	07	19	0900	3405 S	15113 E

20 60 07 19 0900 3405 S 15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1770	1980	2594	442	85	26	17	61	0 4
20	1740	1977	2597	507	97	26	19	71	0 6
30	1702	1977	2607	482	91	25	33	63	0 2
40	1700	1978	2610	514	97	21	33	69	0 4
50	1685	1976	2610	501	95	23	16	67	0 4
	1660	1975	2615	501	94	28	33	71	0 6

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	07	26	0900	3405 S	15113 E

20 60 07 26 0900 3405 S 15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1790	1979	2589	494	95	24	28	61	0 2
20	1780	1979	2591	532	102	25	16	76	0 6
30	1770	1979	2594	482	93	25	29	130	0 4
40	1750	1978	2597	507	97	24	17	58	0 6
50	1720	1978	2605	501	95	34	33	80	1 0
	1740	1975	2596			34	27	71	1 4

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	08	03	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1692	1974	2606	520	98	28	20	69	24
20	1695	1974	2605	454	86	35	23	65	22
30	1687	1975	2609	465	88	36	07	61	26
40	1680	1973	2608	488	92	36	09	67	24
40	1675	1974	2610	482	91	33	10	95	24

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	08	17	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1680	1970	2604	502	95	47	25	88	36
20	1670	1970	2607	502	94	50	12	126	42
30	1660	1970	2609	498	93	46	28	94	39
40	1660	1970	2609	512	96	47	41	126	35
50	1646	1968	2610	518	97	48	12	194	29
				502	94	50	30	114	31

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	08	24	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1740	1973	2593	522	100	31	36	67	21
20	1730	1973	2596	516	98	28	38	66	14
30	1720	1973	2599	519	99	25	43	74	14
40	1710	1971	2599	510	97	31	37	72	17
50	1690	1970	2602	519	98	26	40	62	19
	1680	1970	2605	519	98	26	40	74	14

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	08	31	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1740	1971	2591	547	104	31	30	61	08
20	1700	1972	2602	540	102	31	21	56	14
30	1680	1971	2606	518	98	32	41	73	23
40	1655	1967	2605	540	101	46	12	80	42
50	1635	1965	2610	470	88	48	26	88	47
	1610	1964	2613	463	86	52	22	94	49

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	09	07	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1670	1967	2602	546	103	52	00	58	12
20	1660	1967	2604	546	103	44	08	64	16
30	1657	1967	2605	539	101	35	21	62	11
40	1628	1969	2615	589	110	57	00	57	11
50	1598	1962	2612	477	88	52	14	70	55
	1495	1955	2624	449	81	89	04	93	68

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	09	13	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1675	1971	2606	552	104	27	33	60	05
20	1662	1972	2611	558	105	32	22	54	11
30	1642	1970	2614	538	101	39	07	60	15
40	1619	1969	2619	519	97	42	08	60	20
50	1574	1965	2622	498	92	58	15	73	20
	1550	1968	2633	530	97	41	07	64	33

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	09	22	0900	3405 S	15113 E

20 60 09 22 0900 3405 S 15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	17.10	1967	2592	543	103	29	35	64	1
1650	1969	2610	543	102	27	23	68	1	4
20	1640	1968	2611	528	99	31	23	74	1
30	1635	1967	2610	525	98	31	31	84	2
40	1625	1966	2611	516	96	34	24	76	2
50	1630	1966	2610	520	97	28	44	76	2

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	09	27	0900	3405 S	15113 E

20 60 09 27 0900 3405 S 15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1705	1972	2600	558	106	23	21	48	0
1710	1971	2598	567	108	23	19	42	0	0
20	1630	1966	2610	548	102	37	25	74	1
30	1550	1961	2621	520	95	48	28	80	2
40	1480	1956	2628	471	85	65	03	88	3
50	1410	1952	2637	425	76	82	18	100	3

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	10	04	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1730	1974	2596	565	108	12	26	64	08
20	1730	1974	2596	565	108	13	21	46	06
30	1730	1973	2595	534	102	30	12	74	07
40	1730	1974	2596	551	105	15	23	38	05
50	1710	1973	2600	551	105			41	05
	1695	1973	2604	565	107	24	02	44	06

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	10	11	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1755	1972	2597	529	101	19	25	64	
20	1750	1972	2589	561	107	17	35	58	07
30	1730	1969	2591	499	95	20	32	60	08
40	1665	1968	2605	545	102	38	14	58	18
50	1625	1967	2608	492	92	41	21	68	22
		1964	2609	485	90	52	00	72	30

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	10	26	0900	3405 S	15113 E

60 10 26 0900 3405 S 15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1885	1951	2526	532	104	23	13	46	
20	1855	1960	2546	519	101	24	18	50	08
30	1845	1960	2549	532	103	30	10	44	
40	1768	1961	2569	485	93	39	17	76	13
50	1570	1961	2617	408	75	72	00	100	76
	1561	1959	2616	404	74			98	64

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	11	01	0900	3405 S	15113 E

60 11 01 0900 3405 S 15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1895	1961	2539	527	103	18	59	77	
20	1865	1966	2552	533	104	24	00	56	
30	1834	1965	2559	477	92	23	00	70	
40	1754	1963	2576	463	89	31	00	74	52
50	1658	1963	2599	429	80	50	00	88	52
	1550	1956	2614	410	75	61	00	70	92

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	11	08	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	19 15	197 1	2547	536	106	20	14	58	
10	1895	197 1	2552	539	106	21	13	70	
20	1895	197 0	2551	530	104	18	20	62	
30	1890	197 0	2552	530	106	18	20	58	
40	1880	197 0	2555	533	105	18	20	56	
50	1880	196 8	2552	519	102	20	18	54	

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	11	15	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	1930	196 9	2541	530	105	14	24	62	
10	1882	197 1	2555	524	103	15	40	55	
20	1875	197 0	2556	506	99	16	42	58	
30	1760	196 5	2577	467	89	35	29	66	3 0
40	1741	197 0	2589	525	100	18	44	78	
50	1680	197 1	2556	524	99	17	29	46	



STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	11	22	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1900	1963	2540	460	90	21	09	54	0 0
20	1855	1969	2560	496	97	20	20	58	0 0
30	1690	1967	2597	455	86	46	00	50	4 6
40	1620	1965	2611	444	83	56	18	92	7 2
50	1580	1964	2619	450	83	58	20	94	6 3
	1495	1958	2628	449	81	62	26	90	8 3

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	12	07	0900	3405 S	15113 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1905	1972	2551	548	108	13	00	49	0 0
20	1823	1968	2566	558	105	13	00	83	0 0
30	1827	1968	2565	548	106	15	03	47	0 4
40	1815	1967	2566	543	105	15	10	40	0 2
50	1810	1966	2565	543	105	17	00	45	0 3
	1796	1966	2569	528	102	21	04	47	0 4



STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	01	06	1040	3405 S	15115 E

20 60 01 06 1040 3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	22.48	1971	2458	500	104	13	09	22	00
20	22.12	1973	2471	496	103	22	16	38	02
30	22.07	1974	2473	496	103	21	00	21	00
40	21.80	1975	2482	484	100	17	00	17	00
50	17.12	1963	2587	439	83	56	22	86	42
75	15.97	1962	2612	439	81	55		95	58
100	15.15	1956	2620	400	73	78			98
	14.97	1955	2623	394	71	79			98

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	01	27	900	3405 S	15115 E

20 60 01 27 900 3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	21.65	1963	2470	515	106	10	42	78	00
20	21.42	1963	2485	505	103	10	47	57	00
30	20.06	1964	2487	490	98	12	43	55	00
40	19.70	1960	2516	493	98	14	47	61	00
50	18.22	1960	2555	512	99	20	60	82	00
75	17.00	1960	2585	493	93	25	41	71	00
100	15.20	1953	2615	312	57	61	23	94	88
	14.30	1950	2630	311	56	73	23	100	108

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	02	03	0900	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	2180	1963	2465	520	106	25	30	55	0
20	2170	1963	2468	512	105	22	29	51	0
30	2040	1963	2503	535	108	24	29	53	0
40	1890	1962	2540	520	102	46	11	57	0
50	1900	1962	2538	525	103	28	12	65	0
75	1810	1961	2559	450	87	36	33	87	0
100	1640	1961	2600	435	81	58	21	79	2
	1530	1958	2620	435	79	65	17	96	5

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	02	10	1025	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	2210	1971	2468	529	110	14	03	58	0
20	2200	1971	2471	531	110	14	00	54	0
30	2190	1971	2471	520	108	15	00	51	0
40	2180	1970	2474	520	107	14	00	64	0
50	1980	1968	2475	517	107	16	00	52	0
75	1770	1966	2527	539	107	21	00	48	0
100	1640	1963	2576	486	93	34	08	64	0
			2604	423	79	67	00	70	5

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	02	17	0900	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10		197.1		494		10	04	39	00
20	2190	197.2	2474	512	106	12	37	66	00
30	2170	197.1	2479	450	93	12	00	50	00
40	2080	196.9	2500	450	91	14	12	39	00
50	1995	196.8	2522	485	97	25	00	45	02
75	1790	196.6	2571	456	88	47	11	58	02
100	1620	196.3	2609	429	80	64	24	88	46

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	02	23	1125	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10		247.0							
20		255.0							
30		264.0							
40		260.0							
50		252.0							
75		250.0							
100		230.0							

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	03	09	1030	3405 S	15115 E

20 60 03 09 1030 3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	2250	1972	2457	512	107	25	14	39	0
10	2220	1971	2465	491	102	18	02	27	0
20	2220	1970	2464	507	105	14	09	32	0
30	2230	1970	2461	518	108	15	18	27	0
40	2090	1969	2499	492	100	15	30	51	0
50	1780	1965	2572	457	88	30	20	66	1
75	1570	1958	2613	420	77	54		54	6
100	1340	1951	2651	464	82	66		68	7

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	03	15	0920	3405 S	15115 E

20 60 03 15 0920 3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	2180	1970	2475	538	111	15	16	34	0
10	2180	1969	2473	521	107	20	00	32	0
20	2180	1971	2476	518	107	20	00	34	0
30	2140	1972	2489	521	107	15	00	34	0
40	1840	1966	2558	453	88	47	00	47	1
50	1660	1959	2593	427	80	63	00	63	4
75	1490	1956	2626	427	77	83	00	83	8
100	1420	1953	2536	423	76	83		105	9

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	03	24	1015	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	O <sub>2</sub> % SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	2180	1971	2477	519	107	10	12	43	0
20	2170	1971	2479	525	108	15	00	50	0
30	2175	1972	2478	519	107	05	09	38	0
40	2170	1972	2480	519	107	06	00	33	0
50	2050	1973	2513	519	105	10	09	40	0
75	1855	1968	2560	457	89	21	17	52	0
100	1530	1961	2625	430	79	48	00	71	1
100	1410	1956	2643	433	77	50	26	90	1

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	03	30	0900	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	O <sub>2</sub> % SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	2180	1970	2475	514	106	17	26	43	0
20	2160	1969	2480	504	103	17	16	35	0
30	2170	1970	2478	514	106	15	14	31	0
40	2160	1970	2480	504	103	15	00	28	0
50	1980	1966	2523	463	92	25	15	43	0
75	1850	1966	2557	457	89	34	09	52	0
100	1710	1962	2585	404	77	60	00	71	0
100	1600	1958	2607	410	76	75	20	95	0

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	04	13	0854	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	2090	1968	2499	505	102	34	10	49	00
10	2090	1968	2499	505	102	05	14	53	00
20	2030	1968	2514	502	101	32	43	83	06
30	1890	1970	2552	432	85	32	47	105	24
40	1840	1969	2564	407	79	45	09	79	36
50	1834	1968	2564	414	80	41	42	114	42
75	1715	1964	2587	395	75	61	00	171	78
100	1560	1956	2615	401	74	46	17	105	88

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	04	19	1020	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	2210	1984	2483	477	99	037	000	048	00
10	2210	1984	2483	477	99	029	000	047	00
20	2200	1984	2486	482	100	37	007	046	00
30	2180	1979	2486	492	102	026	015	047	00
40	2090	1979	2510	477	97	041	006	047	00
50	1990	1976	2534	458	92	052	018	070	00
75	1980	1972	2532	417	83	061	009	070	32
100	1760	1967	2579	401	77	074	007	084	38



STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	04	26	1000	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	2020	1978	2530	499	100	19	19	48	00
20	2010	1976	2530	510	102	19	33	88	00
30	2000	1976	2532	510	102	23	14	59	00
40	2000	1976	2532	499	100	26	29	84	00
50	1940	1974	2545	486	96	38	08	67	02
75	1885	1971	2555	463	91	40	10	65	06
100	1780	1966	2574	428	82	57	16	94	26
	1640	1962	2602	424	79	73	03	76	42

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	05	1	0914	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	2115	1981	2507	502	102	32			
20	2115	1981	2507	502	102	14			
30	2100	1981	2511	504	103	19			
40	2020	1979	2531	502	101	12			
50	1980	1979	2540	502	100	14			
75	1860	1973	2564	477	93	21			
100	1855	1972	2564	455	89	22			

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	05	04	0900	3405 S	15115 E

20 60 05 04 0900 3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1960	1977	2542	499	99	19	20	90	0
1950	1977	2545	517	103	21	09	63	0	
20	1930	1977	2550	523	103	19	09	65	0
30	1935	1977	2549	523	103	19	00	63	0
40	1925	1975	2550	510	101	16	12	43	0
50	1870	1972	2560	474	93	31	23	93	1
75	1740	1965	2582	477	91	48	13	87	1
100	1700	1962	2588	452	86	53	00	84	3

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	05	24	1030	3405 S	15115 E

20 60 05 24 1030 3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1930	1968	2540	480	95	42	53	95	0
1930	1982	2556	480	95	16	63	79	0	
20	1930	1982	2556	491	97	20	60	80	0
30	1920	1985	2563	468	92	28	51	87	0
40	1910	1983	2563	486	96	24	60	108	0
50	1920	1981	2559	468	92	16	76	133	0
75	1910	1980	2560	480	95	19	92	116	0
100	1920	1978	2525	486	96	14	94	130	0

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
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20 60 06 02 1030 3405 S 15115 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	1830	1976	2575	507	98	20	35	58	10
10	1835	1976	2573	502	97	33	13	55	10
20	1820	1975	2576	507	98	24	38	73	08
30	1820	1975	2576	518	100	31	20	64	12
40	1820	1974	2575	542	105	22	22	68	12
50	1820	1977	2578	534	103	30	18	66	08
75	1820	1975	2576	537	104	39	09	57	10
100	1600	1961	2610	411	76	56	12	84	64

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
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20 60 06 07 1025 3405 S 15115 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	1775	1978	2591	498	96	39	46	93	00
10	1770	1980	2594	526	101	40	05	85	00
20	1770	1977	2590	503	97	35	12	132	88
30	1770	1977	2590	524	101	34	00	91	00
40	1770	1977	2590	505	97	50	09	122	04
50	1770	1976	2589	514	99	35	28	106	06
75	1770	1973	2585	506	97	44	01	47	10
100	1560	1962	2620	458	84	63	16	87	74

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	06	14	0900	3405 S	15115 E

20 60 06 14 0900 3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1670	1972	2609	526	99	31	49	117	00
10	1665	1974	2612	526	99	28	45	130	00
20	1670	1974	2511	530	100	23	57	105	14
30	1670	1974	2611	521	98	31	38	96	14
40	1670	1975	2613	526	99	37	28	76	08
50	1670	1975	2613	526	99	26	43	99	00
75	1665	1974	2612	530	100	25	32	237	00
100	1665	1976	2615	545	102	23	34	96	08

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	06	30	0957	3405 S	15115 E

20 60 06 30 0957 3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1800	1985	2584	545	105	30	02	61	04
10	1800	1979	2586	543	105	27	08	48	04
20	1825	1980	2581	542	105	31	14	58	04
30	1810	1980	2594	554	107	21	16	97	02
40	1720	1979	2606	549	104	32	09	69	02
50	1670	1978	2617	552	104	30	15	02	04
75	1615	1976	2628	555	104	33	00	52	06
100	1580	1976	2635	554	102	37	00	65	06

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	06	23	0945	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1620	1974	2624	543	101			86	06
20	1620	1973	2623	545	101			76	12
30	1620	1973	2623	549	102			94	10
40	1620	1972	2621	543	101			97	14
50	1620	1972	2621	545	101			113	08
75	1620	1971	2620	538	100			90	10
100	1620	1972	2621	542	101			155	14
				534	99			107	10

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	07	07	0945	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1690			553		31	25	97	02
20	1680			553		22	15	56	00
30	1690			568		22	08	58	04
40	1660			541		23	16	54	06
50	1610			525		43	11	58	26
75	1580			494		46		74	38
100	1660			539		42	01	52	12
				482		53	00	61	62

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	07	22	0950	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	1820	1979	2581	507	98	27	21	65	0.6
10	1800	1977	2583	517	100	35	17	61	0.6
20	1780	1976	2587	514	99	34	14	58	0.6
30	1770	1975	2589	514	99	34	18	63	0.6
40	1760	1975	2591	520	100	33	00	61	0.4
50	1735	1973	2595	514	98	34	09	43	0.6
75	1620	1970	2619	507	94	43	02	56	1.6
100	1540	1967	2632	494	91	57	01	74	2.2

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	07	27		3405 S	15134 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	1880	1983	2570	512	100	70		49	
25	1880	1983	2570	508	100	43		49	
50	1800	1977	2584	496	96	55		63	
75	1700	1969	2599	464	88	67		84	
100	1420	1952	2634	429	77	151		117	
150	1380	1952	2642	464	82	83		117	
200	1380	1955	2646	461	82	85		99	
300	1285	1949	2659	461	80	89		119	
375	1060	1934	2681	442	73	281			

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
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20 0 60 07 27 3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1850	1980	2565	512	99	43		52	
20	1830	1980	2580	517	101	43		62	
30	1835	1980	2578			40		59	
40	1780	1973	2583	505	97	71		86	
50	1730	1970	2592	479	91	63		71	
75	1620	1964	2610	461	86	103		97	
100	1620	1964	2610	499	86	77		84	
	1610	1969	2620	502	93	107		84	

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
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20 2 60 07 27 3405 S 15121 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1850	1983	2577	514	100	35		74	
20	1860	1982	2576	514	100	65		53	
30	1810	1975	2575	505	99	34		53	
40	1790	1974	2584	517	100	50		62	
50	1750	1971	2587	491	94	46		68	
75	1570	1963	2595	473	90	61		61	
100	1530	1967	2620	434	80	94		108	
125	1530	1965	2636	471	86	81		90	
			2631	482	88	92		80	

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	3	60	07	27	3405 S	15125 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	1865	1981	2571	512	100	43		65	
10	1870	1981	2570	517	101	55		53	
20	1865	1979	2569	517	101	50		58	
30	1730	1974	2596	520	99	40		59	
40	1800	1974	2580	485	94	59		68	
50	1770	1961	2569	482	92	76		103	
75	1570	1961	2617	429	79	76		107	
100	1490	1963	2634	467	84	94		95	
135	1490	1963	2634	471	85	70		114	

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	0	60	07	27	3405 S	15130 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	1870	1981	2570	505	99	84		55	
25	1880	1983	2570	509	100	61		66	
50	1840	1977	2574	509	99	98		58	
75	1800	1973	2584	473	91	90		71	
100	1700	1955	2575	429	81	84		111	
125	1760	1953	2559	435	83	70		116	
150	1700	1953	2575	444	84	88		105	
175	1760	1953	2559	479	90	92		95	
200	1730	1953	2567	455	87	98		105	



STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
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20                      60 07 27 0900                      3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1830	1981	2581	525	102	07	32	82	00
20	1840	1980	2577	521	101	07	47	71	00
30	1830	1980	2577	514	100	09	21	43	00
40	1755	1971	2587	575	112	09	26	48	02
50	1690	1968	2600	468	91	28	15	43	12
75	1600	1968	2621	464	88	40	12	53	40
100	1580	1966	2622	507	94	40	21	76	28
						54	00	54	30

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
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20                      60 08 02 0950                      3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1690	1979	2613	575	109	22	30	62	24
20	1680	1973	2609	575	108	32	09	52	24
30	1680	1973	2609	520	98	36	07	50	24
40	1670	1971	2606	464	88	32	07	50	26
50	1650	1972	2609	507	95	35	08	52	28
75	1640	1968	2614	501	94	50	00	63	36
100	1530	1962	2612	494	92	50	00	69	36
			2627	454	83	53	03	82	70

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
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20 60 08 23 0900 3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	1680	1971	2606	511	96	32	30	64	010
10	1680	1971	2606	533	101	42	14	68	010
20	1680	1971	2606	524	99	45	21	68	011
30	1680	1971	2606	524	99	36	30	68	015
40	1680	1971	2606	519	98	43	30	73	014
50	1675	1970	2606	510	96	50	15	65	012
75	1675	1966	2600	478	90	46	18	68	035
100	1540	1960	2622	438	80	66	04	84	037

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
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20 60 08 23 1012 3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	1820	1978	2580	526	102	23	00	42	08
10	1830	1978	2578	526	102	24	10	42	08
20	1925	1978	2579	526	102	24	14	38	08
30	1795	1976	2583	520	100	26	12	52	10
40	1740	1971	2591	515	98	28	42	76	16
50	1720	1977	2603	590	112	19	35	56	06
75	1670	1968	2605	518	97	29	21	58	22
100	1600	1968	2609	518	97	29	29	62	16

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	09	06	0900	3404 S	15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1685	1968	2601	547	103	25	35	60	00
20	1685	1970	2603	549	104	23	33	56	00
30	1675	1970	2606	552	104	22	26	58	00
40	1680	1969	2604	528	100	27	19	52	00
50	1670	1969	2606	546	103	27	29	56	00
75	1630	1966	2610	492	92	42	14	66	31
	1515	1957	2623	432	79	65	21	94	37

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	09	14	0900	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1655	1966	2604	564	106	40	02	48	10
20	1670	1972	2610	552	104	64	00	64	13
30	1655	1970	2610	584	109	41	05	50	21
40	1640	1969	2613	520	97	67	00	67	25
50	1610	1966	2615	507	94	47	09	56	35
75	1555	1960	2619	474	87	77	02	79	39
	1519	1955	2619	454	83	101	00	101	40
100	1380	1950	2641	428	76	105	00	105	46

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	09	21	0900	3405 S	15115 E

20 60 09 21 0900 3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	18.10	1973	2576	536	104	29	23	52	1.1
20	17.80	1975	2586	533	103	30	16	46	1.3
30	17.65	1975	2590	548	105	28	16	46	1.1
40	17.30	1972	2594	543	103	32	14	58	1.3
50	16.90	1970	2602	543	100	30	16	48	1.3
75	16.40	1967	2609	533	100	36	18	62	1.6
100	16.15	1965	2613	525	98	43	23	72	2.5
	15.10	1960	2628	454	83	67	17	84	3.8

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	09	29	0900	3405 S	15115 E

20 60 09 29 0900 3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	17.60	1973	2588	585	112	10	32	44	0.0
20	17.55	1973	2589	582	111	13	31	58	0.0
30	17.35	1973	2594	584	111	17	31	50	0.0
40	17.30	1973	2596	580	110	18	68	94	0.0
50	16.40	1969	2613	545	102	29	29	70	0.8
75	16.10	1966	2615	514	96	36	34	78	2.0
100	14.30	1953	2634	435	78	79	21	100	3.8
	13.60	1950	2645	422	75	59	45	116	4.0

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
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20                      60 10 05 0900                      3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	17 50	197 5	2593	545	104	20	12	62	0 2
20	17 40	197 4	2595	548	105	19	15	52	0 6
30	17 35	197 4	2595	546	104	17	29	48	0 4
40	17 38	197 5	2596	538	103	17	21	48	0 4
50	17 35	197 4	2595	546	104	18	26	52	0 4
75	15 58	196 2	2620	557	106	18	24	46	0 6
100	13 12	194 6	2650	470	66	50	06	68	4 4
				425	74	80	17	97	11 4

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
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20                      60 10 12 0900                      3405 S 15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	17 45	197 5	2595	545	104	25	00	36	
20	17 37	197 2	2593	551	105	24	00	46	
30	17 30	197 2	2594	545	104	27	03	36	
40	17 35	197 2	2594	551	105	28	10	38	
50	17 20	197 1	2596	539	102	31	03	42	0 5
75	16 02	196 4	2614	445	83	55	00	62	4 4
100	14 45	195 4	2632	415	75	88	00	88	9 0
	13 25	195 0	2652	435	76	92	00	94	8 9

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	10	27	0900	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	1960	1958	2516	539	107	15	41	60	1 8
10	1930	1963	2533	539	107	18	37	55	
20	1880	1966	2549	545	107	16	64	80	
30	1840	1966	2559	529	103	17	71	88	
40	1780	1967	2575	483	93	38	12	74	1 3
50	1675	1964	2596	455	86	38	44	88	4 4
75	1580	1957	2609	415	76	68	16	108	7 5
100	1480	1955	2626	393	71	84	20	110	9 8

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	11	02	0900	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	1872	1960	2542	542	106	18	06	56	
10	1880	1962	2543	527	103	19	03	70	
20	1880	1967	2550	530	104	19	15	54	
30	1780	1966	2574	507	98	27	00	56	
40	1680	1962	2593	429	81	55	00	98	6 4
50	1675	1962	2594	429	81	55	17	80	5 4
75	1525	1955	2618	403	74	71	00	71	8 7
100	1510	1954	2618	398	72	79	00	122	7 6

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	11	09	0900	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1905	1968	2546	550	108	22	02	42	
20	1895	1968	2549	543	107	24	08	52	
30	1865	1968	2556	536	105	27	00	40	
40	1860	1968	2557	530	103	22	08	54	
50	1855	1968	2557	530	103	30	00	64	
75	1760	1962	2572	472	90	43	00	74	20
100	1515	1952	2615	395	72	76	00	108	82

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	11	16	0900	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	$\sigma_t$	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1990	1972	2530	533	107	21	00	40	
20	1881	1973	2558	530	104	23	09	36	
30	1880	1972	2557	524	103	17	00	48	
40	1870	1973	2561	524	103	20	00	32	
50	1800	1968	2572	484	93	27	00	44	
75	1630	1961	2604	430	80	53	00	82	54
100	1590	1962	2614	455	84	54	00	64	53
	1555	1959	2618	439	81	63	00	80	69

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	11	23	0900	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	1940	1962	2528	470	93	14	46	74	
10	1900	1964	2541	519	102	15	37	52	
20	1810	1967	2567	524	101	21	05	54	
30	1710	1969	2595	472	90	34	08	46	3 4
40	1630	1966	2610	455	85	51	00	108	6 3
50	1585	1963	2616	449	83	53	24	77	5 3
75	1460	1957	2633	449	81	64	00	106	8 3
100	1415	1954	2639	449	80	72	00	162	8 2

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	12	08	0900	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
	1870	1978	2566	548	107	23	06	49	0 0
10	1860	1977	2568	556	109	21	00	40	0 0
20	1852	1977	2570	543	106	16	00	49	0 0
30	1841	1976	2571	536	104	16	09	38	0 0
40	1730	1973	2595	483	92	40	00	78	3 0
50	1670	1973	2610	471	89	47	00	47	3 7
75	1570	1967	2626	459	85	59	00	90	5 7
100	1471	1964	2642	440	79	59	00	87	8 7



STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	12	14	0900	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1895	1961	2538	543	106	11	27	54	00
20	1810	1963	2562	536	104	12	08	56	00
30	1820	1963	2560	519	101	16	04	65	00
40	1760	1964	2575	510	98	21	01	52	03
50	1730	1965	2584	474	90	33	16	63	12
75	1665	1966	2602	457	86	39	00	69	24
100	1570	1965	2623	454	84	51	00	87	36
	1380	1955	2648	457	81	69		72	55

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	60	12	22	0900	3405 S	15115 E

DEPTH	TEMP.	Cl ‰	σ <sub>t</sub>	O <sub>2</sub>	% O <sub>2</sub> SAT.	INORG. P	PARTIC. P	TOTAL P	NITRATE
10	1880	1913	2476	549	107	27			8
20	1820	1960	2556	540	105	18			
30	1791	1958	2560	530	102	31			
40	1780	1958	2563	520	100	31			
50	1780	1958	2563	526	101	25			
75	1790	1954	2568	524	101	35			
100	1540	1960	2622	453	83	69			10
	1425	1958	2643	484	87	78			22



DATA

PART 2

PHYTOPLANKTON



EXPLANATION OF HEADINGS

Part 2    Phytoplankton

STATION	The Port Hacking station is designated by the figures 20.
DATE YEAR MONTH DAY	The date is shown as year, month, and day.
LATITUDE    LONGITUDE	The position of each station is given in degrees and minutes.
DEPTH	Actual sampling depths are given in m. A blank at the top of this column indicates 0 m.
ORGANISMS <20 $\mu$ >20 $\mu$	Counts are recorded of organisms under 20 $\mu$ and over 20 $\mu$ as log numbers per l for each sampling depth.
TOTAL PARTICLES	Counts are recorded of all observable particles, as log numbers per l for each sampling depth.

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	2	16	3405 S	15113 E

60 2 16 3405 S 15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	5000	5780	7400
50	5300	6600	6880
	5000	6040	6480

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	2	22	3405 S	15113 E

60 2 22 3405 S 15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	5300	6110	6380
50	5000	6280	7040
	5000	6110	6800

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	3	08	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	4300	4470	5680
50	4700		5600
			5480

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	3	30	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20		5300	6970
50			5740
			6150

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	4	20	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20		5480	6910
50		5700	6480
		5950	5150

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	4	27	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20/μ	> 20/μ	
20			5200
50			5150
			5110

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	5	03	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20/μ	> 20/μ	
20			6690
50			5180
			6430

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	5	11	3409 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20/μ	> 20/μ	
20	5400	5040	5040
50	5600	6380	6380
	4300	6460	6460

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	06	3409 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20/μ	> 20/μ	
20	6480	6610	6610
50	6690	6560	6560
	7110	6820	6820



STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	15	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	6580	6740	6740
50	6580	6860	6860
	6600	6420	6420

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	7	19	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	6450	6040	6040
50	5280	6590	6590
	6590	5280	5280

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	7	25	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20/μ	>20/μ	
20	6940	6730	6730
50	6890	6670	6670
	6800	5800	5800

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	03	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20/μ	>20/μ	
20	5780	5700	6300
50	6000	5480	6110
	6000	5300	6000

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	8	17	3405 S	15113 E

20                      60   8   17                      3405 S   15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20/μ	> 20/μ	
20	5000	6720	6510
50		6630	6610
		6580	6580

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	8	24	3405 S	15113 E

20                      60   8   24                      3405 S   15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20/μ	> 20/μ	
20		5950	6760
50		5080	6640
		5740	6040

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	8	30	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20	6420	5720	6940
50	5880	5880	5880

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	9	07	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20	5000	6540	6880
50	5480	5300	6810
	5000	5600	6950

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	9	13	3405 8	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20/ $\mu$	>20/ $\mu$	
20	5250	6970	6970
50	6390	5200	5200
	5980	5260	5260

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	9	21	3405 8	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20/ $\mu$	>20/ $\mu$	
20	5000	6860	6860
50	5000	6320	6320
	5480	6170	6170

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	9	27	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	5000	5000	6590
50	5970	5040	6660
			6640

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	10	04	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	5000	5460	6810
50	5000	6810	6460
		5150	6830

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	10	12	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	6850	5570	5570
50	5230	6690	6690
	6970	6700	6700

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	10	26	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	5870	6620	6620
50	5200	5900	5900
	5600	6830	6830

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	11	01	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20	5230	6040	6040
50	6760	6140	6570
	5140		

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	11	22	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20	4070	5900	5900
50	4690	6040	6040
	4300	5690	5690



STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	12	08	3409 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20/ $\mu$	>20/ $\mu$	
50	3390	4690	6870
	3690	5740	6390

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	12	13	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20/ $\mu$	>20/ $\mu$	
20	5300	5380	6550
50	5600	5810	6490
	5300	5810	6780

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	2	10	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20	4530	6320	6470
50	4470	5170	6470
	4000	5600	6440

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	2	17	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20	5470	6110	6690
50	5300	6510	6040
	4000	5770	6690

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	2	23	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20/μ	>20/μ	
20	5600	6110	6770
50	5000	6270	6690
		5000	5770

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	3	09	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20/μ	>20/μ	
20	5300	5950	5950
50	5640	6390	6390
	5170	6110	6110

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	3	15	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	5170	4390	6000
50		5790	6230
		4230	6840

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	3	29	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	5390		6040
50	5690	5000	6110
			6460

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	4	05	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	5650	6820	
50	5170	6520	
		6900	

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	4	13	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20		6410	
50		6440	
		6410	

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	4	19	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
0	5540	6630	

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20'	60	4	26	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20			6660
50			6360
			5000

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	5	04	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20			6110
50			5200
			5040

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	5	10	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20			6490
50			5170
			6660

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	5	24	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	5410		6320
50	6440		6590
	6490		6730

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	02	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	5170		6490
50	5950		6320
	6410		6360



STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	07	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	6500		6320
50	6440	6530	6490
			6640

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	14	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	6390		5690
50	6710	6460	6390
			5140

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	23	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20/ $\mu$	>20/ $\mu$	
20		6360	6910
50		6440	6490
		6410	6570

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	30	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20/ $\mu$	>20/ $\mu$	
20		6930	6440
50		6110	6660
		5270	6040

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	7	07	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20/μ	> 20/μ	
20	6360	5840	5840
50	6800	6340	6340
	5690	5680	5680

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	7	22	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20/μ	> 20/μ	
20	5280	6650	6650
50	6740	6430	6430
	6680	6700	6700

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	7	27	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20		6950	6540
50		6740	6560
		5690	6590

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	02	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20		5470	6540
50		5470	6250
		5690	6470

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	8	06	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	5300	6320	6380
50		5140	6530
		6430	6680

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	8	16	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20		6440	7200
50		6670	6830
		6630	6460

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	8	23	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	5000	5250	6460
50	5000	6550	6700
		5040	5920

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	8	31	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20		5040	6950
50		5900	6410
		5870	6910

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	9	06	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20/μ	> 20/μ	
20	5300	6320	6380
50	5000	5140	6550
50	5000	6510	6680

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	9	14	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20/μ	> 20/μ	
20	5300	6510	5950
50	5000	6680	6440
50	5040	5040	6610

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	9	22	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	5000	5770	6970
50	5600	5230	6140
		6360	6980

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	9	29	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	< 20 $\mu$	> 20 $\mu$	
20	5300	5540	6900
50	5600	6550	6950
	5300	6630	6780



STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	10	05	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20/μ	>20/μ	
20	5000	6740	6040
50	5000	5040	6970
		6430	6710

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	10	11	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20/μ	>20/μ	
20	5000	5490	6730
50		5380	6660
		6360	6660

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	10	27	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20		5470	
		5170	

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	11	02	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20		6390	6940
50		5040	6790
		5650	6040

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	11	23	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20	5300	5690	5690
50	5650	5710	5710
	5000	5470	5470

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	12	08	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20 $\mu$	>20 $\mu$	
20	5690	5900	6740
50	5670	5680	6980
	5440		6470

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	12	14	3405 S	15115 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20/μ	>20/μ	
0	5000	5040	5230
20	5690	5410	6880
50	5690	5540	6710

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	2	02	3405 S	15113 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	<20/μ	>20/μ	
20	4600	5930	6650
50	5300	5440	6600
	3300	5170	6620

DATA

PART 3

PIGMENTS

EXPLANATION OF HEADINGS

Part 3 Pigments

STATION	The Port Hacking station is designated by the figures 20.
DATE YEAR MONTH DAY	The date is shown as year, month, and day.
LATITUDE LONGITUDE	The position of each station is given in degrees and minutes.
DEPTH	Actual sampling depths are given in m. A blank at the top of this column indicates 0 m.
CHLOROPHYLL <u>a</u> <u>b</u> <u>c</u>	Chlorophyll <u>a</u> and <u>b</u> are given in $\text{mg/m}^3$ , and chlorophyll <u>c</u> in $\text{MSPU/m}^3$ , to 2 decimal places.
ASTACIN NON-ASTACIN	Astacin and non-astacin are given in $\text{MSPU/m}^3$ to 2 decimal places.

An asterisk in the body of the table indicates that a negative value was found. A blank indicates that the value was zero.

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	1	05	3405 S	15113 E

20 60 1 05 3405 S 15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	55	10	67	8	21
20	57	10	89	13	14
30	53	10	99	15	11
40	35	10	9	14	8
50	37	10	43	11	8
	44	18	78	22	3

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	1	27	3405 S	15113 E

20 60 1 27 3405 S 15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	77	48	256	38	30
20	70	38	225	35	30
30	43	32	178	24	23
40	199	11	209	26	34
50	120	15	204	26	10
	149	26	252	33	13

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STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	2	02	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	54	9	68	9	11
20	99	12	84	16	28
30	66	14	73	11	19
40	57	2*	114	4	24
50	45	7*	104	7	14
	39	2*	98	7	10

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	2	08	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
30	45	38	239	10	5
40	30	18	103	7	2
50	53	23	123	7	14
	59	30	100	8	8



STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	2	16	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	d	b	c		
10	25	8	37	8	4
20	37	7	42	11	8
30	59	6	64	9	15
40	67	10	81	8	25
50	63	13	76	12	17
	42	9	67	7	10

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	2	22	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	d	b	c		
10	67	13	38	11	24
20	37	7	40	5	17
30	35	6	45	8	10
40	34	5	29	4	14
50	37	5	39	5	12
	44	9	54	11	14

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	3	08	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	23	4	38	9	3
20	16	4	20	6	4
30	18	1	20	5	7
40	18	5	27	5	5
50	57	7	64	8	18
	45	7	42	7	14

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	3	17	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	434	22*	300	25	112
20	552	25*	383	36	131
30	483	23*	269	35	115
40	484	14*	335	33	125
50	224	1*	162	25	52
	185	4	138	28	37

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	3	29	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	87	16	68	13	28
20	90	10	51	16	29
30	110	18	96	24	32
40	137	15	117	19	43
50	130	18	88	23	37
	97	17	92	24	22

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	4	05	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	87	3*	112	6	36
20	84	5*	125	7	35
30	87	5*	128	7	33
40	83	10	66	7	28
50	83	9	60	7	28
	68	11	58	9	15

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	4	20	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	45	5	25	1	17
20	73	7	26	4	25
30	55	8	26	6	19
40	67	11	49	8	21
50	71	14	45	8	17
	88	22	89	12	19

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	4	27	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	55	6	48	8	18
20	56	6	28	6	18
30	54	8	36	8	14
40	50	8	44	6	13
50	41	8	56	8	8
	42	10	39	8	10

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	5	03	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	98	22	71	9	19
20	91	19	70	7	20
30	90	21	56	7	19
40	105	23	67	8	23
50	100	25	92	11	16
	98	24	94	11	19

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	5	11	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	36	4	37	2	17
20	36	5	31	3	14
30	41	6	35	3	17
40	81	10	48	7	29
50	81	14	77	9	25
	54	9	37	5	18

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	01	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	92	15	78	4	31
20	92	16	44	3	30
30	80	20	64	4	31
40	69	15	53	7	23
50	62	15	43	7	19
			38	6	15

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	08	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	79	15	75	2	32
30	52	11	58	3	27
40	57	10	66	2	27
50	62	12	52	2	25
			105	9	18

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	15	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	83	12	46	5	28
20	73	10	41	6	23
30	66	12	41	6	22
40	71	8	38	5	24
	63	9	36	6	18

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	22	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	72	3	46	3	23
20	102	13	104	13	20
30	103	11	123	11	22
40	87	12	112	6	32
50	95	9	95	7	24
	84	12	105	12	18

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	7	26	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	61	3	59	5	19
20	76	2	70	5	29
30	58	4	66	6	22
40	72	1	61	4	24
50	61	3	63	6	19
	34	5	43	5	10

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	8	03	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	76	6	47	7	21
20	73	4	40	6	22
30	76	6	46	6	20
40	98	1*	64	8	24
50	111	3	84	10	25
	118	3	89	11	25



STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	8	17	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	167	13*	131	4	61
20	204	2*	150	10	60
30	283	5*	193	14	80
40	137	3*	103	5	46
50	147	5*	96	3	44
	213	2*	142	13	51

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	8	24	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	80	3	58	7	22
20	101		61	9	23
30	128	4	86	14	23
40	124		89	14	24
50	136	2*	90	14	25
	136	2	95	15	23

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	8	31	3405 S	15113 E

3405 S 15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	109	1*	88	9	31
20	135		86	13	32
30	126	1	97	11	31
40	79		59	10	19
50	42	4	38	9	6
	36	5	38	9	4

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	9	07	3405 S	15113 E

3405 S 15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	169		138	16	42
20	185	3*	122	17	45
30	177		141	17	45
40	153		113	21	32
50	98	3	87	17	15
	114	1*	80	17	20

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	9	13	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	168	3	157	8	64
20	170	4	148	8	64
30	163	3	137	10	56
40	74	5	70	12	20
50	60	9	58	12	13
	59	9	90	14	11

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	9	22	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	173	3	146	18	36
20	165	4	141	19	34
30	172	3	130	17	37
40	174	4	135	20	39
50	180	10	176	24	42
	180	14	182	22	39

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	10	11	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	95		89	11	36
20	125	2	104	12	91
30	320	30	75	16	55
40	129	13	204	17	43
50	89	12	133	13	28
	70	10	120	13	22

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	10	26	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	47	5	17	6	18
20	44	2	75	13	10
30	41	3	80	8	11
40	33	5	86	11	4
50	28	6	55	9	6
	35	7	80	13	2

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	11	01	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	153	4	151	17	55
20	154	1*	126	16	54
30	106	3	114	3	74
40	82	3	90	8	36
50	42	2	57	6	16
	16	2	38	5	2

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	11	08	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	87	30	190	5	29
20	77	26	124	8	23
30	101	34	114	8	38
40	120	16	88	22	18
50	127	18	94	15	27
	97	12	57	9	22

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	11	22	3405 S	15113 E

60 11 22 3405 S 15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	96	8	100	11	30
20	80	3	75	10	22
30	54	11	86	12	11
40	29	5	49	10	4
50	23	5	44	8	2
	22	7	55	9	1

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	12	07	3405 S	15113 E

60 12 07 3405 S 15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	119	4	124	9	40
20	166	3	171	18	48
30	246	3*	226	24	60
40	284	4*	276	26	62
50	298	3*	311	28	61
	260		239	21	61

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	12	13	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	193	10	121	23	86
20	241		196	35	82
30	184	3*	149	30	52
40	191	17*	147	22	72
50	169	4*	153	20	51
	156	8*	157	19	48

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	12	21	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	158	18	235	31	18
20	57	19	133	18	
30	82	14	137	16	6
40	68	2	125	12	9
50	32	10	77	11	1
	55	8	68	8	6

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	1	06	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	18	2	37	6	8
14	14		25	2	10
17	17	2*	43	3	8
30	13	2	19	4	6
40	46	8	67	6	16
50	31	2	36	5	11
75	16	3	27	8	1
100	18	1*	28	6	*

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
	60	1	28	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	31	10	168	18	6
20	30	6	84	16	2
30	19	22	133	20	2
40	47	22	127	18	*
50	73	24	183	23	5
75	222	45	407	88	22
100	45	23	38	15	4
	15	13	9	8	2



STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	2	03	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN	*
	a	b	c			
10	20	7 *	123	9	2	
20	25	1 *	139	12	4	
30	43	1 *	139	12	4	
40	90	27	174	4	39	
50	66	20	124	2	31	
100	72	19	134	2	37	
	6	8	2	2	2	

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	2	10	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN	*
	a	b	c			
10	22	5	31	7	4	
20	23	5	45	8	3	
30	27	5	48	8	4	
40	32	10	49	18	1	
50	32	8	40	5	12	
75	39	9	60	8	7	
100	33	11	50	9	3	
	17	8	42	9	1	

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	2	17	3405 S	15115 E

60 2 17 3405 S 15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	42	10	49	7	16
20	58	7	62	8	23
30	52	9	48	8	17
40	44	10	59	7	14
50	41	8	48	7	15
75	37	10	67	9	11
100	15	7	37	6	1
	12	7	47	8	1

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	2	23	3405 S	15115 E

60 2 23 3405 S 15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	26	5	36	6	6
20	21	4	27	5	6
30	26	6	37	5	8
40	28	7	34	6	7
50	34	10	45	8	7
75	28	10	45	7	5
100	11	3	24	5	
	8	5	20	11	3

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STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	3	09	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	12	5	21	4	2
20	8	5	17	4	1
30	9	4	15	4	2
40	17	6	34	4	4
50	50	8	44	6	13
75	58	7	67	8	14
100	9	5	33	4	1
	5	5	18	4	*

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	3	15	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	194	3*	125	9	59
20	221	5*	167	9	62
30	32	4	44	3	12
40	74	4	63	4	28
50	70	11	59	5	27
75	55	12	49	6	17
100	14	3	25	4	1
	4	3	31	4	*

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	3	24	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	29	7	43	6	11
20	33	6	42	5	13
30	29	8	36	3	12
40	46	15	45	4	16
50	89	18	62	4	32
75	89	30	91	8	30
100	14	7	23	3	3
	10	4	17	4	

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	3	30	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	37	7	47	8	8
20	36	7	46	7	10
30	38	7	48	7	9
40	40	8	46	4	11
50	98	18	96	10	25
75	59	12	63	11	10
100	12	8	36	4	1
	13	3	25	3	1

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	4	12	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	44	8	31	7	18
20	29	6	52	8	7
30	153	19	121	16	50
40	107	5	93	11	26
50	71	6	72	15	16
75	45	8	62	11	3
100	23	6	36	11	2
	16	8	55	11	5

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	4	19	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	24	3	49	1	12
20	22	3	19	1	10
30	22	2	38	2	11
40	21	5	22	2	11
50	75	16	79	3	35
75	51	15	56	2	22
100	10	6	39	7	3
	15	7	50	6	2

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	4	26	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	47	5	24	6	19
20	46	3	39	6	16
30	51	8	43	6	16
40	44	12	30	7	12
20	46	11	20	7	11
75	40	11	36	7	11
100	10	7	47	1 #	10
	7	12	56	3	3

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	5	04	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	101	14	88	8	24
20	76	13	59	4	24
30	92	12	58	5	22
40	82	12	55	6	19
50	56	10	39	5	15
75	29	10	19	4	7
100	12	5	24	6	1
	14	6	29	6	1

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	5	10	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	46	7	31	1	21
20	40	2	39	3	18
30	62	5	44	4	25
40	66	7	40	1	32
50	28	5	21	1	13
75	37	6	31	1	12
100	23	1*	26	3	4
	39	1	36	6	6

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	5	14	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	77	7	75	5	29
20	76	9	54	3	30
30	71	11	55	4	28
40	74	4	79	9	23
50	60	8	23	6	17
75	48	8	41	6	13
100	45	9	85	9	9
	62	16	79	8	18

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	02	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	50	9	30	2	19
20	59	11	21	4	20
30	51	10	28	3	15
40	46	10	24	4	15
50	46	10	30	4	13
75	52	9	16	3	12
100	18	4	23	3	4
	15	5	28	4	2

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	07	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	47	11	13	5	15
20	44	10	10	5	16
30	43	11	10	6	14
40	31	10	57	2	17
50	44	10	62	5	15
75	66	20	139	11	15
100	21	11	61	4	13
	13	8	51	6	



STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	14	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	60	8	37	4	14
20	60	6	22	4	16
30	61	7	27	4	18
40	58	9	39	4	15
50	45	6	33	3	12
75	46	7	37	3	13
100	36	7	20	4	9
	51	9	35	9	10

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	23	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	56	2	52	5	19
20	57	3	46	6	16
30	60	3	50	6	16
40	56	6	40	5	17
50	50	7	42	5	13
75	62	6	41	6	16
100	52	8	46	4	18
	53	8	56	6	16

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	6	30	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	63	7	86	4	32
20	98	8	78	6	37
30	95	5	83	4	35
40	90	5	79	4	36
50	80	7	66	3	31
75	48	9	62	5	18
100	39	9	50	5	9
	43	11	49	5	10

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	7	07	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	81	7	63	6	28
20	77	3	37	2	31
30	71	7	42	3	28
40	65	2	60	2	27
50	24	3	25	3	8
75	14	1*	28	3	4
100	20	3	19	2	7
	50	8	45	7	16

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	7	22	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	60	7	81	8	10
20	67	6	59	8	17
30	63	3	64	5	18
40	60	8	58	3	16
50	64	9	82	6	14
75	54	6	60	5	13
	4	6	20	4	1
100	18	13	73	10	3

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STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	7	27	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	58	11	89	10	6
20	58	11	89	10	6
30	77	16	104	14	11
40	51	16	75	12	5
50	31	5	51	9	5
	18	5	42	7	2
100	14	7	72	12	

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	08	02	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON-ASTACIN
	a	b	c		
10	66	3	65	8	15
20	77	6	50	6	22
30	72	4	61	8	19
40	69	8	81	9	18
50	54	3	55	7	11
75	33	6	40	8	3
100	24	6	21	5	4
	18	4	20	5	2

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	08	16	3405 S	15113 E

DEPTH	CHLOROPHYLL			ASTACIN	NON-ASTACIN
	a	b	c		
10	77	2	67	6	20
20	102	1	79	8	26
30	90	2	75	8	24
40	85	2	86	9	21
50	79	2	60	7	24
75	78	2	69	10	21
100	49	7	62	7	12
	13	7	116	10	1

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	8	23	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	85	1*	56	10	26
10	87	1*	62	9	23
20	84	3	79	9	22
30	99	3	78	13	21
40	88	2	66	13	19
50	248		175	22	44
75	152	2*	118	15	25
100	242	2*	197	22	43

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	8	30	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	88	1	89	12	17
10	86	2*	68	11	17
20	92		82	13	16
30	80	2*	64	9	16
40	85		61	10	19
50	16	1	16	4	2
75	6	4	3	4	1
100	11	4	19	7	3

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	9	06	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	110	4*	75	7	34
20	137	2	85	16	31
30	155	5	139	22	34
40	151		109	16	37
50	146	1*	115	17	32
75	152	5*	131	18	35
	74		52	9	17
100	33	1	32	15	1

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	9	14	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	215	9	170	10	67
20	216	2*	164	14	66
30	192	3	159	9	64
40	120	3	107	11	36
50	61	4	68	12	14
75	47	4	57	10	10
100	23	3	23	6	4
	29	5	47	7	3

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	9	21	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	89	3	104	9	34
20	112	6	98	11	33
30	137	4	109	11	36
40	157	9	150	14	33
50	172	8	173	15	36
75	150	13	151	17	32
100	177	13	154	11	48
	169	15	176	14	41

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	10	12	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	46	5	60	10	12
20	55	7	60	11	17
30	60	7	61	12	15
40	61	4	87	13	15
50	59	5	71	12	15
75	59	3	81	13	11
100	20	6*	10	13	12
	5	1*	4	1	4

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	10	27	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	139	17*	127	12	48
20	75	1	78	11	27
30	34	38	38	6	16
40	30	4	44	6	11
50	22	5	43	6	6
75	31	2	66	9	5
	5	2	29	4	1
100	9	1	50	7	2

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	11	02	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	139		130	18	51
20	106	4	111	18	37
30	89	4	122	16	31
40	86	4	114	12	37
50	42	5	60	8	17
75	39	5	70	5	15
	27	4	44	5	9
100	25	6	66	8	1



STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	11	09	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	71	5	60	10	22
20	62	15	143	28	16
30	109	9	131	24	29
40	94	22	175	17	25
50	71	19	106	21	16
75	63	31	154	25	8
100	51	22	68	11	12
	22	21	36	18	5

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	11	16	3405 S	15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	35	4	48	6	13
20	34	6	57	10	12
30	60	11	87	11	22
40	76	14	131	10	25
50	79	7	97	10	29
75	33	9	88	18	7
100	11	4	62	11	1
	19	3	23	10	2

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	11	23	3405 S	15115 E

20 60 11 23 3405 S 15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	20	4*	9	5	7
20	23	1	22	5	10
30	31	3	41	6	10
40	06	6	96	10	28
50	60	3	63	6	27
75	28	4	41	9	7
100	7	1	23	6	1
	12	4	31	12	2

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	12	08	3405 S	15115 E

20 60 12 08 3405 S 15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	50	5	62	7	20
20	60	11	105	19	23
30	143	14	166	28	43
40	95	6	131	16	31
50	60	12	127	23	17
75	46	9	85	10	17
100	15	7	31	14	1
	29	7	92	22	6

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	12	14	3405 S	15115 E

3405 S 15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	104	13	39	16	45
20	277	27	204	30	89
30	207	1	139	16	70
40	130	1	100	16	34
50	85	2	74	14	22
75	75	8	82	13	19
100	10	2	35	10	3
	17	3	43	8	2

STATION	YEAR	MONTH	DAY	LATITUDE	LONGITUDE
20	60	12	22	3405 S	15115 E

3405 S 15115 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
10	152	17	205	25	22
20	112	5	220	22	15
30	179	9	166	18	10
40	49	14	84	16	1
50	42	19	87	18	2
75	39	14	91	13	2
100	11	9	56	13	1
	8	11	51	13	2

\* \*

DATA

PART 4

ZOOPLANKTON

ZOOPLANKTON BIOMASS

PORT HACKING 100 m STATION

OBLIQUE HAULS

LATITUDE 34°05'30"S.  
LONGITUDE 151°15'30"E.

DATE	TIME	DEPTH m	WATER FILTERED m <sup>3</sup>	BIOMASS mg/m <sup>3</sup>
4.2.60	1113	100-50	7.5	59
	1113	50-0	8.3	68
24.2.60	1100	100-50	5.3	195
	1100	50-0	6.3	32
18.3.60	1047	100-50	8.3	77
	1047	50-0	8.5	26
23.3.60	1120	100-50	4.7	130
31.3.60	1111	100-50	3.3	260
	1111	50-0	5.4	120
14.4.60	1012	100-50	7.0	332
	1012	50-0	8.5	77
21.4.60	1040	100-50	15.5	6
	1040	50-0	16.7	17
28.4.60	0940	100-50	6.8	41
	0940	50-0	8.6	23
5.5.60	1045	100-50	4.1	114
	1045	50-0	4.9	27

ZOOPLANKTON BIOMASS

PORT HACKING 100 m STATION

OBLIQUE HAULS

LATITUDE 34°05'30"S.  
LONGITUDE 151°15'30"E.

DATE	TIME	DEPTH m	WATER FILTERED m <sup>3</sup>	BIOMASS mg/m <sup>3</sup>
10.5.60	1024	100-50	5.0	469
	1024	50-0	8.0	122
25.5.60	1020	100-50	4.8	150
	1038	100-50	5.3	117
16.6.60	1038	50-0	5.9	53
	1013	100-50	4.9	41
	1013	50-0	4.3	47
	1050	100-50	4.2	81
24.6.60	1050	50-0	4.1	76
	1045	100-50	4.3	165
6.7.60	1017	100-50	6.1	103
	1017	50-0	5.6	55
28.7.60	1100	100-50	5.0	74
	1100	50-0	4.3	26
5.8.60	1010	100-50	6.1	321
11.8.60	1017	100-50	6.0	213
	1017	50-0	5.5	102

ZOOPLANKTON BIOMASS

PORT HACKING 100 m STATION      OBLIQUE HAULS      LATITUDE 34°05'30"S.  
 LONGITUDE 151°15'30"E.

DATE	TIME	DEPTH m	WATER FILTERED m <sup>3</sup>	BIOMASS mg/m <sup>3</sup>
17.8.60	1032	50-0	8.4	12
24.8.60	1023	100-50	3.7	143
	1023	50-0	5.4	141
31.8.60	1019	100-50	4.6	304
	1019	50-0	6.4	167
14.9.60	1145	100-50	2.5	879*
	1145	50-0	3.3	148+30*
22.9.60	1132	100-50	2.4	10,233*
	1132	50-0	3.3	304*
29.9.60	1111	100-50	3.4	310*
	1111	50-0	2.0	165
4.10.60	1133	100-50	2.0	2111*
	1133	50-0	2.8	278
11.10.60	1119	100-50	1.2	808*
	1119	50-0	0.7	571*
26.10.60	1100	100-50	2.8	306*
	1100	50-0	3.1	113

\* Indicates salp swarm

ZOOPLANKTON BIOMASS

PORT HACKING 100 m STATION

OBLIQUE HAULS

LATITUDE 34°05'30"S.  
LONGITUDE 151°15'30"E.

DATE	TIME	DEPTH m	WATER FILTERED m <sup>3</sup>	BIOMASS mg/m <sup>3</sup>
1.11.60	1104	100-50	3.1	74
	1104	50-0	3.4	120
8.11.60	1111	100-50	2.4	63
	1111	50-0	2.4	46
15.11.60	1048	100-50	2.1	352+242*
	1048	50-0	3.0	120+69*
21.11.60	1124	100-50	2.3	334
	1124	50-0	2.0	110
7.12.60	1130	100-50	2.4	204
	1130	50-0	3.0	164
13.12.60	1130	100-50	2.4	76
	1130	50-0	3.4	41
21.12.60	1129	100-50	4.5	13
	1129	50-0	2.7	37
30.12.60	1130	100-50	4.3	116
	1130	50-0	5.0	68



ZOOPLANKTON BIOMASS

PORT HACKING 100 m STATION

HORIZONTAL HAULS

LATITUDE 34°05'30"S.  
LONGITUDE 151°15'30"E.

DATE	TIME	DEPTH m	WATER FILTERED m <sup>3</sup>	BIOMASS mg/m <sup>3</sup>
4.2.60	1024	0	9.7	9
24.2.60	1010	0	7.1	39
18.3.60	0954	50	10.6	4
	1023	100	12.2	3
23.3.60	0940	0	7.3	120
	0955	50	5.2	150
	1015	100	5.5	79
31.3.60	1018	0	4.0	7
	1018	50	3.6	210
	1045	100	8.5	68
14.4.60	0918	0	7.6	173
	0918	50	8.7	45
	0945	100	11.6	61
21.4.60	0945	0	9.1	6
	0945	50	10.4	32
	1015	100	10.2	30

ZOOPLANKTON BIOMASS

LATITUDE 34°05'30"S.  
LONGITUDE 151°15'30"E.

HORIZONTAL HAULS

PORT HACKING 100 m STATION

DATE	TIME	DEPTH m	WATER FILTERED m <sup>3</sup>	BIOMASS mg/m <sup>3</sup>
28.4.60	1008	0	4.1	29
	1008	50	4.6	4
	1100	100	9.2	4
5.5.60	0934	0	4.7	150
	0955	50	6.4	23
	1020	100	5.8	38
	0934	0	4.3	297
10.5.60	0934	50	7.5	147
	0957	100	10.6	143
	0924	0	7.7	108
25.5.60	0954	100	6.8	77
	0940	0	7.0	94
9.6.60	0940	50	7.9	91
	1013	100	9.5	85
16.6.60	0945	0	7.1	28
	0945	50	7.6	50
	1037	100	10.0	54

ZOOPLANKTON BIOMASS

PORT HACKING 100 m STATION

HORIZONTAL HAULS

LATITUDE 34°05'30"S.  
LONGITUDE 151°15'30"E.

DATE	TIME	DEPTH m	WATER FILTERED m <sup>3</sup>	BIOMASS mg/m <sup>3</sup>
24.6.60	0944	0	6.9	45
	0944	50	7.3	71
	1014	100	7.9	61
6.7.60	0924	0	6.8	131
	0927	0	7.9	33
21.7.60	0927	50	6.8	50
	0953	100	6.0	17
	0950	0	8.7	16
28.7.60	1010	50	6.9	45
	1032	100	5.9	10
	0918	0	9.0	281
5.8.60	0943	100	7.2	67
	0923	0	7.9	101
	0923	50	8.5	146
11.8.60	0948	100	8.7	39
	0940	50	7.8	5
	1004	100	9.5	20

ZOOPLANKTON BIOMASS

LATITUDE 34°05'30"S.  
LONGITUDE 151°15'30"E.

PORT HACKING 100 m STATION

HORIZONTAL HAULS

DATE	TIME	DEPTH m	WATER FILTERED m <sup>3</sup>	BIOMASS mg/m <sup>3</sup>
24.8.60	0927	0	8.4	94
	0927	50	6.8	129
	0955	100	7.1	94
31.8.60	0923	0	6.7	413*
	0923	50	7.9	119
	0943	100	10.0	64
7.9.60	1045	0	3.6	272*
	1045	50	3.8	47
	1112	100	3.9	139
14.9.60	1050	0	3.6	4596*
	1050	50	6.7	78
	1115	100	6.4	63
22.9.60	1034	0	5.0	2092*
	1034	50	4.7	92*
	1105	100	2.3	187
29.9.60	1014	0	3.7	366*
	1014	50	7.0	209*
	1041	100	5.8	102

ZOOPLANKTON BIOMASS

PORT HACKING 100 m STATION

HORIZONTAL HAULS

LATITUDE 34°05'30"S.  
LONGITUDE 151°15'30"E.

DATE	TIME	DEPTH m	WATER FILTERED m <sup>3</sup>	BIOMASS mg/m <sup>3</sup>
4.10.60	1037	0	3.1	884*
	1037	50	3.5	87*
	1105	100	3.0	353
11.10.60	1023	0	4.3	251
	1023	50	3.2	256
	1049	100	3.4	106
	1000	0	4.5	457*
26.10.60	1000	50	5.0	148
	1030	100	5.7	162
	1007	0	3.9	21
	1007	50	5.0	58
1.11.60	1036	100	5.9	135
	1018	0	5.1	35
	1018	50	3.9	33
8.11.60	1043	100	4.1	32
	0954	0	6.2	97
15.11.60	0954	50	6.6	177
	1022	100	4.9	110

ZOOPLANKTON BIOMASS

PORT HACKING 100 m STATION

HORIZONTAL HAULS

LATITUDE 34°05'30"S.  
LONGITUDE 151°15'30"E.

DATE	TIME	DEPTH m	WATER FILTERED m <sup>3</sup>	BIOMASS mg/m <sup>3</sup>
21.11.60	1028	0	4.9	53
	1028	50	6.1	156
	1056	100	6.3	76
7.12.60	1032	0	6.0	7
	1032	50	5.9	76
	1101	100	6.6	68
13.12.60	1038	0	6.1	7
	1038	50	5.1	75
	1103	100	4.8	52
21.12.60	1029	0	9.2	25
	1029	50	5.1	39
	1100	100	4.1	27
30.12.60	1025	0	8.3	19
	1025	50	11.1	103
	1059	100	7.0	59

ZOOPLANKTON BIOMASS

LATITUDE 34°05'30"S.  
LONGITUDE 151°15'30"E.

PORT HACKING 100 m STATION

OBLIQUE HAULS

DATE	TIME	DEPTH m	WATER FILTERED m <sup>3</sup>	BIOMASS mg/m <sup>3</sup>
7.1.60	0959	100-0	6.0	442*
	0959	100-0	8.8	383*
	1030	100-0	5.2	375*
	1030	100-0	8.3	181*
4.2.60	1140	100-0	9.7	48
24.2.60	1213	100-0	6.7	151
23.3.60	1040	100-0	9.2	25
31.3.60	1135	100-0	6.5	120
14.4.60	1030	100-0	10.2	149
21.4.60	1110	100-0	20.7	23
28.4.60	1125	100-0	10.7	50
5.5.60	1125	100-0	12.3	27
10.5.60	1113	100-0	10.8	159
25.5.60	1056	100-0	10.6	81
9.6.60	1110	100-0	10.1	144
16.6.60	1106	100-0	10.3	67
24.6.60	1116	100-0	6.0	72
6.7.60	1115	100-0	8.2	171
21.7.60	1049	100-0	10.2	55
28.7.60	1132	100-0	8.4	50

ZOOPLANKTON BIOMASS

PORT HACKING 100 m STATION

OBLIQUE HAULS

LATITUDE 34°05'30"S.  
LONGITUDE 151°15'30"E.

DATE	TIME	DEPTH m	WATER		BIOMASS mg/m <sup>3</sup>
			FILTERED m <sup>3</sup>		
5.8.60	1037	100-0	15.1		31
11.8.60	1044	100-0	12.6		157
17.8.60	1100	100-0	11.0		33
24.8.60	1054	100-0	9.9		166
31.8.60	1046	100-0	9.0		142
7.9.60	1200	100-0	5.7		100
14.9.60	1210	100-0	7.8		515*
22.9.60	1155	100-0	3.6		611.2*
29.9.60	1127	100-0	2.8		369*
4.10.60	1156	100-0	3.7		827*
11.10.60	1139	100-0	3.5		122+60*
26.10.60	1118	100-0	4.7		234
1.11.60	1121	100-0	6.7		63
8.11.60	1124	100-0	2.7		56
15.11.60	1105	100-0	4.7		157+105*
21.11.60	1153	100-0	4.6		144
7.12.60	1148	100-0	5.0		182
13.12.60	1152	100-0	5.3		92
21.12.60	1149	100-0	8.1		38
30.12.60	1148	100-0	8.3		131



## OCEANOGRAPHICAL STATION LISTS

1. Hydrological and planktological observations by F.R.V. *Warreen* in south-eastern Australian waters, 1938-39
2. Hydrological and planktological observations by F.R.V. *Warreen* in south-eastern Australian waters, 1940-42
3. Hydrological and planktological observations by F.R.V. *Warreen* in south-western Australian waters, 1947-50
4. Onshore hydrological investigations in eastern Australia, 1942-50
5. Estuarine hydrological investigations in eastern Australia, 1940-50. Queensland: Nerang and Coomera Rivers, Moreton Bay and Brisbane River, Logan River, Dunwich Oyster Lease; New South Wales: Richmond River, Clarence River, Macleay River, Hastings River, Manning River, Port Stephens, Tilligerry Creek, Hawkesbury River
6. Estuarine hydrological investigations in eastern Australia, 1940-50. New South Wales: Middle Harbour and Port Jackson, Georges River-Botany Bay
7. Estuarine hydrological investigations in eastern Australia, 1940-50. New South Wales: Port Hacking, Lake Illawarra, Shoalhaven River, Jervis Bay, Clyde River, Moruya River, Tuross River, Wagonga Inlet; Victoria: Port Phillip; Tasmania: Tamar River, Derwent River, Huon River, D'Entrecasteaux Channel, Pittwater, Lake Dobson (freshwater), Penna Dam (freshwater)
8. Hydrological investigations in south-western Australia, 1944-50
9. Records of twenty-four hourly hydrological observations at selected stations in eastern Australian estuarine systems, 1942-50. Queensland: Logan River; New South Wales: Richmond River, Clarence River, Macleay River, Hastings River, Manning River, Port Stephens, Hawkesbury River, Georges River, Port Hacking, Clyde River, Tuross River; Tasmania: Tamar River. Derwent River
10. Records of twenty-four hourly hydrological observations at Shell Point, Georges River, New South Wales, 1942-50
11. Analyses of bottom deposits in eastern Australia, 1946-50
12. Estuarine hydrological investigations in eastern and south-western Australia, 1951
13. Analysis of bottom deposits in eastern and south-western Australia, 1951 and records of twenty-four hourly hydrological observations at selected stations in eastern Australian estuarine systems, 1951
14. Onshore hydrological investigations in eastern and south-western Australia, 1951
15. Estuarine hydrological investigations in eastern and south-western Australia, 1952
16. Analysis of bottom deposits in eastern and south-western Australia, 1952 and records of twenty-four hourly hydrological observations at selected stations in eastern Australian estuarine systems, 1952
17. Onshore hydrological investigations in eastern and south-western Australia, 1952
18. Onshore hydrological investigations in eastern and south-western Australia, 1953
19. Onshore planktological investigations in eastern Australia, 1945-54
20. Surface sampling in the Tasman Sea, 1953
21. Estuarine hydrological investigations in eastern and south-western Australia, 1953
22. Further onshore planktological investigations in eastern Australia, 1945-54
23. Planktological investigations made by F.R.V. *Derwent Hunter* in eastern Australian waters, 1952-54
24. Onshore hydrological investigations in eastern and south-western Australia, 1954
25. Surface sampling in the Tasman Sea, 1954
26. Estuarine hydrological investigations in eastern and south-western Australia, 1954

## OCEANOGRAPHICAL STATION LISTS

(Continued)

27. Onshore and oceanic hydrological investigations in eastern and south-western Australia, 1955
28. Surface sampling in the Tasman and Coral Seas, 1955
29. Estuarine hydrological investigations in eastern and south-western Australia, 1955
30. Onshore and oceanic hydrological investigations in eastern and south-western Australia, 1956
31. Surface sampling in the Tasman and Coral Seas and the south-eastern Indian Ocean, 1956
32. Estuarine hydrological investigations in eastern and south-western Australia, 1956
33. Coastal hydrological investigations in eastern and south-western Australia, 1957
34. Coastal hydrological investigations at Port Hacking, New South Wales, 1957
35. Coastal hydrological investigations at Eden, New South Wales, 1957
36. Surface sampling in the Tasman and Coral Seas, 1957
37. Hydrological investigations from F.R.V. *Derwent Hunter*, 1957
38. Coastal hydrological investigations in the New South Wales tuna fishing area, 1958
39. Surface sampling in the Coral and Tasman Seas, 1958
40. Coastal hydrological investigations in south-eastern Australia, 1958
41. Oceanic investigations in eastern Australian waters, F.R.V. *Derwent Hunter*, 1958
42. Coastal investigations at Port Hacking, New South Wales, 1958
43. Oceanic investigations in eastern Australia, H.M.A. Ships *Queenborough*, *Quickmatch*, and *Warrego*, 1958
44. Oceanic observations in Antarctic waters, M.V. *Magga Dan*, 1959
45. Coastal hydrological investigations in eastern Australia, 1959
46. Coastal hydrological investigations in the New South Wales tuna fishing area, 1959
47. Coastal investigations at Port Hacking, New South Wales, 1959
48. Oceanic investigations in eastern Australian waters, F.R.V. *Derwent Hunter*, 1959
49. Coastal hydrological sampling at Rottneest Island, W.A., and Port Moresby, Papua, during the I.G.Y. (1957-58), and surface sampling in the Tasman and Coral Seas, 1959
50. Surface sampling in the Coral and Tasman Seas, 1960
51. Coastal hydrological investigations in eastern Australia, 1960
52. Coastal investigations at Port Hacking, New South Wales, 1960