

# OCEANOGRAPHICAL STATION LIST

## Volume 51

Coastal Hydrological Investigations  
in Eastern Australia, 1960

Compiled by A. D. Crooks



Division of Fisheries and Oceanography  
Commonwealth Scientific and Industrial  
Research Organization, Australia  
Melbourne 1963

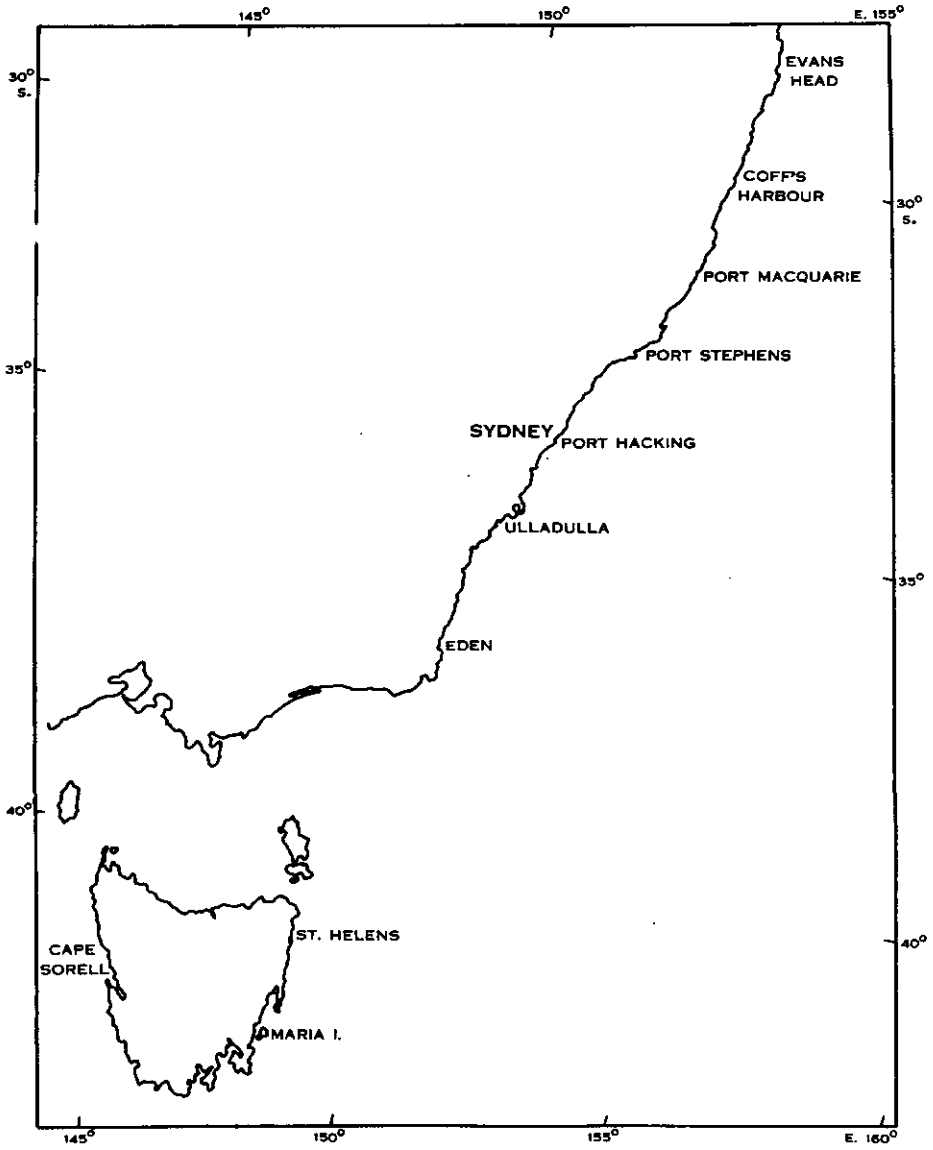


Fig. 1.—Station positions on the east Australian coast.

OCEANOGRAPHICAL STATION LIST  
COASTAL HYDROLOGICAL INVESTIGATIONS  
IN EASTERN AUSTRALIA, 1960

Compiled by A.D. Crooks

I. INTRODUCTION

The sampling programme along the coast of eastern Australia remained as in previous years. Figure 1 shows the positions of sampling stations. The data have been published as previously in three volumes, this volume contains data from all stations except Port Hacking, Jervis Bay, Bateman Bay, Bermagui, and Eden.

II. METHODS AND UNITS

The methods and units used are those described in C.S.I.R.O. Aust. (1959).

III. PERSONNEL

The sampling was done by Mr O. Miezitis at Hobart, and by Mr W. Prothero on the New South Wales Coast. The laboratory analyses were carried out in Hobart by O. Miezitis, and in Cronulla by Messrs Abbott-Smith, Brice, Dal Pont, Davies, Janovsky, Prothero, Staniforth, and Walker. Mrs Tarbett, Mrs Wood, and Misses Johnston, Lalor, Luce, and Wanstall were responsible for processing the data under the direction of Mr Crooks.

IV. REFERENCE

C.S.I.R.O. Aust. (1959).- Coastal hydrological investigations in the New South Wales tuna fishing area, 1958. C.S.I.R.O. Aust. Oceanogr. Sta. List 38: 1-96.

DATA  
HYDROLOGY

DATA SHEETS

HYDROLOGY

A blank in the Depth column indicates 0 m, in any other column a blank indicates that no analysis was done. A nought indicates a zero value. The short vertical lines below certain headings indicate the location of decimal points.

EXPLANATION OF HEADINGS

The following notes explain the headings on the data sheets.-

|                        |  |
|------------------------|--|
| STATION                | The following numbers are used to designate each station.                            |
|                        | 05 Evans Head  |
|                        | 00 Coff's Harbour  |
|                        | 10 Port Macquarie  |
|                        | 15 Port Stephens   |
|                        | 55 St Helens   |
|                        | 60 Maria I.  |
| DATE<br>YEAR MONTH DAY | The date is shown as year, month, day.   |
| TIME                   | Expressed in hours and minutes; the zone is always Eastern Australian Standard Time. |
| LATITUDE LONGITUDE     | The position of each station is given in degrees and minutes.                        |
| DEPTH                  | Actual sampling depth given in metres; a blank indicates 0 m.                        |
| TEMP.                  | Sea-water temperatures are recorded in degrees centigrade, to 2 decimal places.      |

|                          |   |
|--------------------------|---|
| Cl <sub>2</sub> /100     | Chlorinities are recorded in parts per thousand to 2 decimal places.  |
| σ <sub>t</sub>           | Sigma- <u>t</u> is recorded to 2 decimal places.                      |
| O <sub>2</sub>           | Oxygen is recorded in ml/l to 2 decimal places.                       |
| O <sub>2</sub><br>% Sat. | Oxygen percentage saturation.   |
| INORG.<br>P              | Inorganic phosphate values are given in μg at./l to 2 decimal places. |
| TOTAL<br>P               | Values given as μg at./l to 2 decimal places.                         |
| NITRATE                  | Values given as μg at./l to 1 decimal place.                          |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

00                      60 02 24                      3017 S    15316 E

| DEPTH | TEMP. | Cl ‰ | $\sigma_t$ | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|------------|----------------|-----------------------|----------|---------|---------|
| 10    | 2520  | 1974 | 2378       |                |                       |          | 33      |         |
| 20    | 2490  | 1972 | 2385       | 513            | 111                   |          | 45      |         |
| 30    | 2480  | 1972 | 2387       | 500            | 108                   |          | 38      |         |
| 40    | 2460  | 1971 | 2393       | 520            | 112                   |          | 39      |         |
| 50    | 2320  | 1969 | 2433       | 500            | 105                   |          | 40      |         |
|       | 2200  | 1968 | 2467       | 483            | 100                   |          | 63      |         |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

00                      60 04 03                      3017 S 15316 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 24 20 | 1980 | 24 17          | 4 53           | 97                    |          | 45      |         |
| 20    | 24 15 | 1980 | 24 19          | 5 19           | 111                   |          | 59      |         |
| 30    | 24 10 | 1979 | 24 19          | 5 07           | 109                   |          | 56      |         |
| 40    | 23 60 | 1977 | 24 31          | 4 98           | 106                   |          | 72      |         |
| 50    | 22 50 | 1972 | 24 59          | 4 97           | 104                   |          | 53      |         |
|       | 20 80 | 1972 | 25 06          | 4 97           | 101                   |          | 77      |         |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

00                      60 05 09                      3017 S 15316 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 21 00 | 1974 | 25 02          | 5 14           | 104                   |          | 61      |         |
| 20    | 21 05 | 1974 | 25 01          | 5 04           | 102                   |          | 47      |         |
| 30    | 20 85 | 1974 | 25 07          | 4 92           | 100                   |          | 56      |         |
| 40    | 20 70 | 1974 | 25 10          | 4 80           | 97                    |          | 58      |         |
| 50    | 20 35 | 1974 | 25 20          | 4 74           | 95                    |          | 59      |         |
|       | 20 30 | 1974 | 25 21          | 4 67           | 94                    |          | 113     |         |



|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

00 60 05 22 3017 S 15316 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 2195  | 1977 | 2479           | 602            | 124                   |          | 50      |         |
| 20    | 2195  | 1976 | 2478           | 502            | 104                   |          | 63      |         |
| 30    | 2175  | 1976 | 2484           | 492            | 101                   |          | 57      |         |
| 40    | 2165  | 1978 | 2489           | 489            | 101                   |          | 64      |         |
| 50    | 2060  | 1983 | 2425           | 490            | 99                    |          | 61      |         |
|       | 2040  | 1986 | 2534           | 480            | 97                    |          |         |         |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

00 60 06 19 3017 S 15316 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 2045  | 1975 | 2517           | 504            | 102                   |          | 71      |         |
| 20    | 2050  | 1975 | 2516           | 505            | 102                   |          | 65      |         |
| 30    | 2045  | 1974 | 2516           | 505            | 102                   |          | 71      |         |
| 40    | 1985  | 1976 | 2535           | 506            | 101                   |          | 63      |         |
| 50    | 1950  | 1979 | 2547           | 505            | 100                   |          | 57      |         |
|       |       | 1979 | 2548           | 507            | 101                   |          | 65      |         |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

00 60 07 23 110 3017 S 15316 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1945  | 1979 | 2549           | 501            | 99                    |          | 47      |         |
| 20    | 1945  | 1978 | 2548           | 501            | 99                    |          | 46      |         |
| 30    | 1945  | 1981 | 2551           | 501            | 99                    |          | 45      |         |
| 40    | 1940  | 1982 | 2554           | 575            | 114                   |          | 63      |         |
| 50    | 1940  | 1979 | 2550           | 575            | 114                   |          | 47      |         |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

00 60 08 25 3017 S 15316 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1850  | 1977 | 2571           | 533            | 104                   |          | 44      |         |
| 20    | 1815  | 1979 | 2582           | 533            | 103                   |          | 49      |         |
| 30    | 1815  | 1979 | 2582           | 535            | 104                   |          | 40      |         |
| 40    | 1800  | 1978 | 2581           | 535            | 104                   |          | 43      |         |
| 50    | 1790  | 1977 | 2583           | 527            | 102                   |          | 48      |         |
|       |       | 1976 | 2584           | 527            | 101                   |          | 53      |         |



|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

00                      60 11 25                      3017 S 15316 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
|       | 21 15 | 1976 | 2499           | 508            | 103                   |          | 44      |         |
| 10    | 21 15 | 1974 | 2497           | 501            | 102                   |          | 39      |         |
| 20    | 21 15 | 1974 | 2497           | 506            | 103                   |          | 46      |         |
| 30    | 20 00 | 1974 | 2507           | 506            | 103                   |          | 39      |         |
| 40    | 18 40 | 1970 | 2565           | 428            | 83                    |          | 71      |         |
| 50    | 18 40 | 1969 | 2564           | 417            | 81                    |          | 75      |         |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

00                      60 12 15                      3017 S 15316 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
|       | 1996  | 1972 | 2527           | 465            | 93                    |          | 66      |         |
| 10    | 1996  | 1972 | 2527           | 448            | 90                    |          | 67      |         |
| 20    | 1992  | 1971 | 2528           | 460            | 92                    |          | 84      |         |
| 30    | 18 75 | 1969 | 2555           | 420            | 82                    |          | 67      |         |
| 40    | 18 45 | 1969 | 2563           | 409            | 80                    |          | 68      |         |
| 50    | 18 40 | 1969 | 2564           | 400            | 78                    |          | 65      |         |

| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|------|----------|-----------|
|         | YEAR | MONTH |      |          |           |

5 60 02 25 2907 S 15338 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 2390  | 1969 | 2412           | 477            | 103                   |          | 46      |         |
| 20    | 2320  | 1970 | 2433           | 490            | 103                   |          | 44      |         |
| 30    | 2310  | 1973 | 2441           | 487            | 103                   |          | 52      |         |
| 40    | 2220  | 1975 | 2469           | 470            | 98                    |          | 51      |         |
| 50    | 2145  | 1973 | 2488           | 470            | 96                    |          | 51      |         |
|       | 2140  | 1973 | 2490           | 476            | 98                    |          | 51      |         |

| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|------|----------|-----------|
|         | YEAR | MONTH |      |          |           |

5 60 04 05 2907 S 15338 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 2345  | 1974 | 2432           | 452            | 96                    |          | 59      |         |
| 20    | 2340  | 1974 | 2434           | 446            | 94                    |          | 56      |         |
| 30    | 2310  | 1974 | 2442           | 502            | 106                   |          | 69      |         |
| 40    | 2160  | 1972 | 2483           | 514            | 106                   |          | 86      |         |
| 50    | 2080  | 1971 | 2505           | 513            | 104                   |          | 83      |         |
|       | 2080  | 1971 | 2505           | 509            | 103                   |          | 107     |         |

| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|-----|------|----------|-----------|
|         | YEAR | MONTH | DAY |      |          |           |

5 60 05 08 2907 S 15338 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 2030  | 1974 | 2520           | 551            | 111                   |          | 83      |         |
| 20    | 2015  | 1973 | 2525           | 533            | 107                   |          | 62      |         |
| 30    | 1985  | 1973 | 2522           | 522            | 105                   |          | 57      |         |
| 40    | 1945  | 1973 | 2533           | 466            | 93                    |          | 58      |         |
| 50    | 1945  | 1973 | 2542           | 473            | 94                    |          | 69      |         |
|       |       | 1973 | 2542           | 473            | 94                    |          | 73      |         |

| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|-----|------|----------|-----------|
|         | YEAR | MONTH | DAY |      |          |           |

5 60 05 23 2907 S 15338 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 2070  | 1972 | 2507           | 511            | 103                   |          | 57      |         |
| 20    | 2080  | 1973 | 2506           | 511            | 104                   |          | 34      |         |
| 30    | 2085  | 1974 | 2508           | 511            | 104                   |          | 46      |         |
| 40    | 2080  | 1976 | 2509           | 506            | 103                   |          | 40      |         |
| 50    | 2045  | 1975 | 2508           | 507            | 103                   |          | 44      |         |
|       |       | 1976 | 2519           | 470            | 95                    |          | 67      |         |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

5 60 06 21 2907 S 15338 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1955  | 1971 | 2537           | 522            | 104                   |          | 65      |         |
| 20    | 1920  | 1970 | 2544           | 520            | 103                   |          | 67      |         |
| 30    | 1880  | 1967 | 2554           | 522            | 102                   |          | 65      |         |
| 40    | 1845  | 1968 | 2561           | 534            | 104                   |          | 46      |         |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

5 60 07 25 2907 S 15338 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1870  | 1974 | 2562           | 520            | 102                   |          | 49      |         |
| 20    | 1865  | 1978 | 2569           | 520            | 102                   |          | 63      |         |
| 30    | 1860  | 1978 | 2570           | 520            | 102                   |          | 53      |         |
| 40    | 1855  | 1979 | 2572           | 521            | 102                   |          | 62      |         |
| 50    | 1720  | 1976 | 2602           | 510            | 101                   |          | 58      |         |
|       |       |      |                |                | 97                    |          | 71      |         |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

5 60 08 27 2907 S 15338 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1845  | 1974 | 2568           | 533            | 104                   |          | 60      |         |
| 20    | 1845  | 1975 | 2569           | 530            | 103                   |          | 42      |         |
| 30    | 1845  | 1975 | 2569           | 533            | 104                   |          | 50      |         |
| 40    | 1840  | 1975 | 2571           | 527            | 103                   |          | 56      |         |
| 50    | 1835  | 1975 | 2572           | 499            | 97                    |          | 53      |         |
|       |       |      |                |                |                       |          | 54      |         |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

5 60 09 28 2907 S 15338 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1860  | 1974 | 2564           | 505            | 98                    |          | 55      |         |
| 20    | 1855  | 1974 | 2565           | 499            | 97                    |          | 54      |         |
| 30    | 1850  | 1974 | 2566           | 496            | 96                    |          | 57      |         |
| 40    | 1845  | 1974 | 2568           | 496            | 96                    |          | 52      |         |
| 50    | 1855  | 1974 | 2565           | 494            | 96                    |          | 78      |         |
|       | 1850  | 1974 | 2566           | 498            | 97                    |          | 61      |         |



| STATION | DATE |           | TIME | LATITUDE | LONGITUDE |
|---------|------|-----------|------|----------|-----------|
|         | YEAR | MONTH DAY |      |          |           |
| 5       | 60   | 10 22     |      | 2907 S   | 15338 E   |

| DEPTH | TEMP. | CI ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1950  | 1970 | 2537           | 513            | 102                   |          | 37      |         |
| 20    | 1940  | 1972 | 2541           | 513            | 102                   |          | 35      |         |
| 30    | 1925  | 1976 | 2550           | 496            | 98                    |          | 49      |         |
| 40    | 1910  | 1976 | 2554           | 485            | 96                    |          | 55      |         |
| 50    | 1905  | 1975 | 2554           | 465            | 92                    |          | 51      |         |
|       | 1905  | 1975 | 2554           | 451            | 89                    |          | 62      |         |

| STATION | DATE |           | TIME | LATITUDE | LONGITUDE |
|---------|------|-----------|------|----------|-----------|
|         | YEAR | MONTH DAY |      |          |           |
| 5       | 60   | 11 29     |      | 2907 S   | 15338 E   |

| DEPTH | TEMP. | CI ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 2120  | 1970 | 2491           | 552            | 112                   |          | 61      |         |
| 20    | 2060  | 1970 | 2507           | 571            | 115                   |          | 58      |         |
| 30    | 2050  | 1970 | 2510           | 554            | 112                   |          | 62      |         |
| 40    | 1885  | 1970 | 2554           | 448            | 87                    |          | 83      |         |
| 50    | 1855  | 1969 | 2560           | 419            | 82                    |          | 86      |         |
|       | 1855  | 1969 | 2560           | 433            | 84                    |          | 80      |         |

| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|------|----------|-----------|
|         | YEAR | MONTH |      |          |           |

5 60 12 17 2907 S 15338 E

| DEPTH | TEMP. | Cl ‰  | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|-------|----------------|----------------|-----------------------|----------|---------|---------|
|       |       |       |                |                | 84                    |          |         |         |
| 10    | 18.45 | 19.67 | 25.59          | 4.31           |                       |          | 7.2     |         |
| 20    | 18.25 | 19.67 | 25.64          | 4.17           | 8.1                   |          | 2.4     |         |
| 30    | 17.23 | 19.67 | 25.89          | 4.03           | 7.7                   |          | 7.2     |         |
| 40    | 16.66 | 19.62 | 25.95          | 3.84           | 7.2                   |          | 7.2     |         |
| 50    | 16.50 | 19.77 | 26.19          | 4.26           | 8.0                   |          | 6.9     |         |
|       | 16.45 | 19.60 | 25.99          | 3.84           | 7.2                   |          | 5.2     |         |

| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|------|----------|-----------|
|         | YEAR | MONTH |      |          |           |

10 60 04 02 3130 S 15310 E

| DEPTH | TEMP. | Cl ‰  | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|-------|----------------|----------------|-----------------------|----------|---------|---------|
|       |       |       |                |                | 100                   |          |         |         |
| 10    | 24.15 | 19.77 | 24.14          | 4.68           |                       |          | 6.4     |         |
| 20    | 24.10 | 19.77 | 24.16          | 5.09           | 1.09                  |          | 6.9     |         |
| 30    | 22.50 | 19.73 | 24.59          | 4.98           | 1.04                  |          | 4.5     |         |
| 40    | 22.30 | 19.73 | 24.64          | 5.07           | 1.05                  |          | 7.5     |         |
| 50    | 20.70 | 19.72 | 25.07          | 4.89           | 9.9                   |          | 4.2     |         |
|       | 20.15 | 19.68 | 25.16          | 4.93           | 9.9                   |          | 6.8     |         |

| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|------|----------|-----------|
|         | YEAR | MONTH |      |          |           |

10

60 05 06

3130 S 153.0 E

| DEPTH | TEMP. | CI ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 2030  | 1973 | 2520           | 532            | 109                   |          | 58      |         |
|       | 1965  | 1973 | 2537           | 528            | 105                   |          | 60      |         |
| 20    | 1970  | 1973 | 2536           | 515            | 103                   |          | 70      |         |
| 30    | 1955  | 1973 | 2540           | 504            | 100                   |          | 52      |         |
| 40    | 1945  | 1973 | 2541           | 494            | 98                    |          | 64      |         |
| 50    | 1840  | 1968 | 2563           | 451            | 88                    |          | 69      |         |

| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|------|----------|-----------|
|         | YEAR | MONTH |      |          |           |

10

60 07 21

3130 S 15310 E

| DEPTH | TEMP. | CI ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1820  | 1973 | 2574           | 501            | 97                    |          | 58      |         |
|       | 1815  | 1974 | 2576           | 501            | 97                    |          | 58      |         |
| 20    | 1820  | 1975 | 2576           | 501            | 97                    |          | 47      |         |
| 30    | 1820  | 1976 | 2577           | 494            | 96                    |          | 51      |         |
| 40    | 1830  | 1976 | 2575           | 488            | 95                    |          | 46      |         |
| 50    | 1830  | 1975 | 2574           | 447            | 87                    |          | 55      |         |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

10 60 06 18 3130 S 15310 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1950  | 1977 | 2545           | 507            | 101                   |          | 65      |         |
| 20    | 1955  | 1976 | 2542           | 507            | 101                   |          | 71      |         |
| 30    | 1965  | 1976 | 2540           | 504            | 100                   |          | 52      |         |
| 40    | 1960  | 1976 | 2541           | 507            | 101                   |          | 61      |         |
| 50    | 1950  | 1974 | 2541           | 506            | 100                   |          | 48      |         |
|       | 1950  | 1974 | 2541           | 502            | 100                   |          | 69      |         |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

10 60 05 26 3130 S 15310 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 2015  | 1974 | 2525           | 477            | 96                    |          | 76      |         |
| 20    | 2010  | 1974 | 2526           | 467            | 94                    |          | 67      |         |
| 30    | 2005  | 1974 | 2528           | 457            | 92                    |          | 72      |         |
| 40    | 2005  | 1975 | 2530           | 454            | 91                    |          | 79      |         |
| 50    | 1995  | 1974 | 2531           | 440            | 88                    |          | 116     |         |
|       | 1995  | 1973 | 2530           | 448            | 90                    |          | 60      |         |

| STATION | DATE |           | TIME | LATITUDE | LONGITUDE |
|---------|------|-----------|------|----------|-----------|
|         | YEAR | MONTH DAY |      |          |           |

10 60 08 24 3130 S 15310 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1880  | 1977 | 2563           | 522            | 102                   |          | 55      |         |
| 20    | 1830  | 1977 | 2576           | 527            | 102                   |          | 49      |         |
| 30    | 1800  | 1976 | 2582           | 527            | 102                   |          | 54      |         |
| 40    | 1800  | 1976 | 2582           | 527            | 102                   |          | 44      |         |
| 50    | 1790  | 1976 | 2584           | 527            | 102                   |          | 48      |         |
|       | 1780  | 1977 | 2588           | 512            | 98                    |          | 53      |         |

| STATION | DATE |           | TIME | LATITUDE | LONGITUDE |
|---------|------|-----------|------|----------|-----------|
|         | YEAR | MONTH DAY |      |          |           |

10 60 10 26 3130 S 15310 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1905  | 1975 | 2554           | 519            | 102                   |          | 35      |         |
| 20    | 1890  | 1977 | 2560           | 519            | 102                   |          | 34      |         |
| 30    | 1860  | 1975 | 2564           | 508            | 99                    |          | 38      |         |
| 40    | 1855  | 1973 | 2565           | 462            | 90                    |          | 49      |         |
| 50    | 1845  | 1972 | 2565           | 434            | 84                    |          | 55      |         |
|       | 1840  | 1969 | 2564           | 440            | 86                    |          | 53      |         |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

10 60 09 24 3130 S 15310 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P. | TOTAL P. | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|-----------|----------|---------|
|       | 1815  | 1974 | 2576           | 506            | 102                   |           | 57       |         |
| 10    | 1800  | 1974 | 2580           | 502            | 97                    |           | 64       |         |
| 20    | 1795  | 1974 | 2581           | 504            | 97                    |           | 75       |         |
| 30    | 1795  | 1974 | 2581           | 502            | 97                    |           | 47       |         |
| 40    | 1795  | 1974 | 2581           | 501            | 96                    |           | 83       |         |
| 50    | 1790  | 1974 | 2582           | 498            | 96                    |           | 74       |         |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

10 60 11 24 3130 S 15310 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P. | TOTAL P. | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|-----------|----------|---------|
|       | 1800  | 1960 | 2560           | 552            | 97                    |           | 65       |         |
| 10    | 1740  | 1960 | 2575           | 539            | 103                   |           | 73       |         |
| 20    | 1650  | 1960 | 2598           | 429            | 80                    |           | 78       |         |
| 30    | 1575  | 1958 | 2612           | 419            | 77                    |           | 81       |         |
| 40    | 1540  | 1958 | 2620           | 419            | 77                    |           | 96       |         |
| 50    | 1515  | 1958 | 2625           | 429            | 78                    |           | 78       |         |

| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|-----|------|----------|-----------|
|         | YEAR | MONTH | DAY |      |          |           |

10 60 12 13 3130 S 15310 E

| DEPTH | TEMP. | Cl ‰  | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|-------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 20.65 | 19.74 | 25.10          | 4.54           | 9.2                   |          | 40      |         |
| 20    | 20.55 | 19.73 | 25.12          | 4.06           | 8.2                   |          | 75      |         |
| 30    | 17.45 | 19.65 | 25.80          | 4.12           | 7.9                   |          | 67      |         |
| 40    | 16.75 | 19.65 | 25.98          | 3.95           | 7.4                   |          | 75      |         |
| 50    | 16.50 | 19.63 | 26.02          | 3.98           | 7.5                   |          | 52      |         |
|       | 16.45 | 19.60 | 25.99          | 3.81           | 7.1                   |          | 39      |         |

| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|-----|------|----------|-----------|
|         | YEAR | MONTH | DAY |      |          |           |

15 60 04 01 3243 S 15218 E

| DEPTH | TEMP. | Cl ‰  | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|-------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 21.50 | 19.64 | 24.87          | 5.48           |                       |          | 43      |         |
| 20    | 20.75 | 19.64 | 24.95          | 5.78           | 117                   |          | 61      |         |
| 30    | 19.85 | 19.66 | 25.20          | 5.43           | 110                   |          | 61      |         |
| 40    | 18.65 | 19.69 | 25.57          | 4.99           | 99                    |          | 62      |         |
| 50    | 18.60 | 19.69 | 25.59          | 4.54           | 89                    |          | 66      |         |
|       |       |       |                | 4.46           | 87                    |          | 72      |         |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

15 59 11 14 0820 3243 S 15218 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1860  | 1950 | 2527           | 586            | 114                   |          | 42      |         |
| 20    | 1840  | 1956 | 2544           | 582            | 113                   |          | 32      |         |
| 30    | 1850  | 1957 | 2543           | 574            | 112                   |          | 39      |         |
| 40    | 1780  | 1960 | 2566           | 505            | 97                    |          | 57      |         |
| 50    | 1635  | 1957 | 2596           | 397            | 74                    |          | 86      |         |
|       | 1580  | 1956 | 2608           | 394            | 73                    |          | 86      |         |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

15 60 05 12 3243 S 15218 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1920  | 1976 | 2551           | 533            | 106                   |          | 56      |         |
| 20    | 1925  | 1976 | 2550           | 533            | 105                   |          | 48      |         |
| 30    | 1890  | 1976 | 2560           | 530            | 104                   |          | 86      |         |
| 40    | 1885  | 1976 | 2561           | 533            | 105                   |          | 49      |         |
| 50    | 1855  | 1976 | 2568           | 533            | 104                   |          | 50      |         |
|       | 1820  | 1978 | 2580           | 530            | 103                   |          | 55      |         |



|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

15 60 05 20 3243 S 15218 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1925  | 1978 | 2554           | 502            | 99                    |          | 47      |         |
| 20    | 1935  | 1979 | 2551           | 512            | 101                   |          | 46      |         |
| 30    | 1935  | 1980 | 2553           | 510            | 101                   |          | 50      |         |
| 40    | 1905  | 1981 | 2562           | 508            | 100                   |          | 47      |         |
| 50    | 1860  | 1983 | 2571           | 520            | 102                   |          | 47      |         |
|       | 1860  | 1990 | 2585           | 524            | 103                   |          | 67      |         |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

15 60 07 27 3243 S 15218 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1800  | 1972 | 2577           | 529            | 102                   |          | 48      |         |
| 20    | 1790  | 1975 | 2583           | 532            | 103                   |          | 51      |         |
| 30    | 1780  | 1977 | 2589           | 514            | 99                    |          | 53      |         |
| 40    | 1755  | 1976 | 2593           | 525            | 101                   |          | 53      |         |
| 50    | 1755  | 1977 | 2594           | 525            | 101                   |          | 53      |         |
|       | 1735  | 1984 | 2608           | 536            | 102                   |          | 60      |         |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

15 60 08 31 3243 S 15218 E

| DEPTH | TEMP. | CL. ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P. | TOTAL P | NITRATE |
|-------|-------|-------|----------------|----------------|-----------------------|-----------|---------|---------|
| 10    | 17.85 | 19.77 | 25.87          | 5.56           | 10.7                  |           | 60      |         |
| 20    | 17.70 | 19.77 | 25.88          | 5.59           | 10.7                  |           | 65      |         |
| 30    | 17.45 | 19.75 | 25.94          | 5.71           | 10.9                  |           | 55      |         |
| 40    | 17.25 | 19.75 | 26.00          | 5.58           | 10.7                  |           | 55      |         |
| 50    | 17.20 | 19.75 | 26.01          | 5.68           | 10.9                  |           | 50      |         |
|       | 17.10 | 19.74 | 26.02          | 5.51           | 10.5                  |           | 53      |         |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

15 60 10 01 3243 S 15218 E

| DEPTH | TEMP. | CL. ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P. | TOTAL P | NITRATE |
|-------|-------|-------|----------------|----------------|-----------------------|-----------|---------|---------|
| 10    | 17.05 | 19.71 | 26.00          | 5.41           | 10.3                  |           | 56      |         |
| 20    | 17.05 | 19.71 | 26.00          | 5.35           | 10.2                  |           | 59      |         |
| 30    | 17.00 | 19.71 | 26.01          | 5.13           | 9.7                   |           | 55      |         |
| 40    | 16.95 | 19.72 | 26.03          | 5.22           | 9.9                   |           | 53      |         |
| 50    | 16.95 | 19.73 | 26.04          | 5.29           | 10.0                  |           | 53      |         |
|       | 16.95 | 19.74 | 26.05          | 5.23           | 9.9                   |           | 52      |         |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

15 60 10 3 3243 S 15218 E

| DEPTH | TEMP. | Cl %. | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|-------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1955  | 1961  | 2522           | 539            | 107                   |          | 47      |         |
| 20    | 1945  | 1962  | 2527           | 541            | 107                   |          | 50      |         |
| 30    | 1925  | 1964  | 2535           | 519            | 103                   |          | 51      |         |
| 40    | 1850  | 1966  | 2556           | 485            | 94                    |          | 58      |         |
| 50    | 1805  | 1970  | 2574           | 451            | 87                    |          | 69      |         |
|       | 1775  | 1968  | 2579           | 451            | 87                    |          | 64      |         |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

15 60 11 23 3243 S 15218 E

| DEPTH | TEMP. | Cl %. | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|-------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1910  | 1961  | 2534           | 526            | 104                   |          | 48      |         |
| 20    | 1810  | 1963  | 2561           | 544            | 105                   |          | 48      |         |
| 30    | 1720  | 1964  | 2585           | 522            | 99                    |          | 56      |         |
| 40    | 1695  | 1964  | 2592           | 485            | 92                    |          | 65      |         |
| 50    | 1670  | 1963  | 2597           | 475            | 89                    |          | 67      |         |
|       | 1655  | 1962  | 2598           | 490            | 92                    |          | 77      |         |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

15 60 12 21 3243 S 15218 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1949  | 1951 | 2509           | 502            | 99                    |          | 66      |         |
| 20    | 1915  | 1956 | 2525           | 462            | 91                    |          | 58      |         |
| 30    | 1907  | 1956 | 2528           | 502            | 99                    |          | 60      |         |
| 40    | 1905  | 1956 | 2529           | 496            | 97                    |          | 42      |         |
| 50    | 1897  | 1958 | 2535           | 494            | 97                    |          | 81      |         |
|       | 1884  | 1958 | 2538           | 494            | 97                    |          | 73      |         |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

55 60 02 09 802 4113 S 14822 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1690  | 1949 | 2572           | 551            | 97                    |          | 35      | 00 0    |
| 20    | 1690  | 1949 | 2572           | 546            | 96                    |          | 29      | 00 0    |
| 30    | 1670  | 1949 | 2577           | 538            | 95                    |          | 32      | 00 0    |
| 40    | 1660  | 1949 | 2579           | 538            | 95                    |          | 35      | 00 0    |
| 50    | 1660  | 1949 | 2579           | 538            | 95                    |          | 35      | 00 0    |
|       | 1660  | 1949 | 2579           | 532            | 93                    |          | 35      | 00 0    |

| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|-----|------|----------|-----------|
|         | YEAR | MONTH | DAY |      |          |           |

55 60 03 09 918 4113 S 14822 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1795  | 1957 | 2557           | 551            | 99                    |          | 29      | 00 0    |
| 20    | 1780  | 1957 | 2561           | 551            | 99                    |          | 32      | 00 0    |
| 30    | 1730  | 1956 | 2572           | 538            | 96                    |          | 35      | 03 6    |
| 40    | 1710  | 1955 | 2575           | 538            | 95                    |          | 35      | 07 1    |
| 50    | 1700  | 1955 | 2577           | 533            | 94                    |          | 35      | 07 1    |
| 50    | 1690  | 1954 | 2579           | 533            | 94                    |          | 35      | 07 1    |

| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|-----|------|----------|-----------|
|         | YEAR | MONTH | DAY |      |          |           |

55 60 01 12 935 4113 S 14822 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1615  | 1949 | 2590           | 567            | 101                   |          | 42      | 00 0    |
| 20    | 1500  | 1945 | 2610           | 573            | 101                   |          | 42      | 17 9    |
| 30    | 1485  | 1945 | 2613           | 573            | 100                   |          | 52      | 17 9    |
| 40    | 1485  | 1945 | 2613           | 577            | 100                   |          | 45      | 17 9    |
| 50    | 1440  | 1943 | 2620           | 570            | 99                    |          | 48      | 28 6    |
| 50    | 1420  | 1943 | 2624           | 570            | 99                    |          | 52      | 28 6    |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

55 6:0 0:4 1:2 8:3:8 4:11:13 S 14822 E

| DEPTH | TEMP. | Cl. ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|-------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 17.20 | 19.62 | 25.82          | 5.46           | 9.7                   |          | 3.2     | 0.3 6   |
| 20    | 17.20 | 19.62 | 25.82          | 5.46           | 9.7                   |          | 3.5     | 0.3 6   |
| 30    | 17.20 | 19.62 | 25.82          | 5.46           | 9.7                   |          | 3.2     | 0.3 6   |
| 40    | 17.05 | 19.62 | 25.82          | 5.43           | 9.7                   |          | 3.2     | 0.3 6   |
| 50    | 16.85 | 19.60 | 25.88          | 5.35           | 9.5                   |          | 3.2     | 0.7 1   |
|       | 16.80 | 19.60 | 25.89          | 5.35           | 9.4                   |          | 3.5     | 1.0 7   |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

55 6:0 0:5 1:0 8:5:3 4:11:13 S 14822 E

| DEPTH | TEMP. | Cl. ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|-------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 14.10 | 19.05 | 25.72          | 5.53           | 9.3                   |          | 5.2     | 3.6     |
| 20    | 14.80 | 19.46 | 26.18          | 5.45           | 9.3                   |          | 4.5     | 0.0     |
| 30    | 14.80 | 19.48 | 26.21          | 5.45           | 9.3                   |          | 4.5     | 0.0     |
| 40    | 14.80 | 19.48 | 26.21          | 5.45           | 9.3                   |          | 4.5     | 0.0     |
| 50    | 14.80 | 19.48 | 26.21          | 5.45           | 9.3                   |          | 4.2     | 0.0     |
|       | 14.80 | 19.48 | 26.21          | 5.45           | 9.3                   |          | 4.5     | 0.0     |

| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|-----|------|----------|-----------|
|         | YEAR | MONTH | DAY |      |          |           |

55                      60 06 14                      054                      4 113 S                      14822 E

| DEPTH | TEMP. | CI ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1335  | 1947 | 2648           | 575            | 95                    |          | 52      | 357     |
| 20    | 1335  | 1947 | 2648           | 575            | 95                    |          | 48      | 357     |
| 30    | 1335  | 1947 | 2648           | 575            | 95                    |          | 48      | 357     |
| 40    | 1335  | 1947 | 2648           | 575            | 95                    |          | 48      | 321     |
| 50    | 1335  | 1947 | 2648           | 575            | 95                    |          | 52      | 266     |

| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|-----|------|----------|-----------|
|         | YEAR | MONTH | DAY |      |          |           |

55                      60 07 12                      943                      4 113 S                      14822 E

| DEPTH | TEMP. | CI ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1140  | 1929 | 2660           | 607            | 97                    |          | 52      | 286     |
| 20    | 1140  | 1930 | 2662           | 607            | 97                    |          | 48      | 321     |
| 30    | 1140  | 1927 | 2658           | 613            | 98                    |          | 48      | 357     |
| 40    | 1140  | 1929 | 2660           | 613            | 98                    |          | 48      | 357     |
| 50    | 1140  | 1930 | 2662           | 613            | 98                    |          | 48      | 357     |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

55 60 08 09 84 4113 S 14822 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 10.80 | 1903 | 2635           | 6.13           | 96                    |          | 42      | 25.0    |
| 20    | 11.20 | 1934 | 2671           | 6.16           | 98                    |          | 48      | 32.1    |
| 30    | 11.20 | 1934 | 2671           | 6.10           | 97                    |          | 48      | 28.6    |
| 40    | 11.20 | 1934 | 2671           | 6.13           | 97                    |          | 48      | 28.6    |
| 50    | 11.20 | 1934 | 2671           | 6.07           | 97                    |          | 45      | 25.0    |
|       |       | 1934 | 2671           |                |                       |          | 45      | 21.4    |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

55 60 09 13 845 4113 S 14822 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 11.30 | 1936 | 2672           | 6.28           | 100                   |          | 42      | 25.0    |
| 20    | 11.25 | 1936 | 2673           | 6.28           | 100                   |          | 42      | 25.0    |
| 30    | 11.25 | 1936 | 2673           | 6.28           | 100                   |          | 45      | 21.4    |
| 40    | 11.25 | 1936 | 2673           | 6.23           | 99                    |          | 42      | 21.4    |
| 50    | 11.25 | 1936 | 2673           | 6.23           | 99                    |          | 45      | 21.4    |



|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

55                                  60 10 11      0854                  4 11 3 S      14 8 22 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
|       |       |      |                |                |                       |          |         |         |
| 20    | 1160  | 1941 | 2673           | 583            | 94                    |          | 65      | 46 4    |
| 30    | 1160  | 1941 | 2673           | 583            | 94                    |          | 61      | 53 6    |
| 40    | 1160  | 1941 | 2673           | 583            | 94                    |          | 58      | 42 9    |
| 50    | 1160  | 1941 | 2673           | 583            | 94                    |          | 94      | 35 7    |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

55                                  60 11 08      911                          4 11 3 S      14 8 22 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
|       |       |      |                |                |                       |          |         |         |
| 20    | 1250  | 1941 | 2656           | 593            | 97                    |          | 45      | 21 4    |
| 30    | 1245  | 1941 | 2657           | 593            | 97                    |          | 45      | 21 4    |
| 40    | 1240  | 1941 | 2658           | 583            | 95                    |          | 48      | 21 4    |
| 50    | 1240  | 1941 | 2658           | 577            | 94                    |          | 48      | 25 0    |
|       |       |      |                |                |                       |          | 68      | 17 9    |

| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|-----|------|----------|-----------|
|         | YEAR | MONTH | DAY |      |          |           |

55                      60 12 12      813      4 113 S      14822 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1420  | 1943 | 2624           | 606            | 103                   |          | 45      | 000     |
| 20    | 1420  | 1945 | 2627           | 606            | 103                   |          | 42      | 000     |
| 30    | 1395  | 1945 | 2633           | 595            | 100                   |          | 39      | 036     |
| 40    | 1385  | 1945 | 2635           | 595            | 100                   |          | 45      | 107     |
| 50    | 1330  | 1945 | 2646           | 583            | 97                    |          | 45      | 214     |
|       | 1280  | 1946 | 2657           | 518            | 86                    |          | 68      | 464     |

| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|-----|------|----------|-----------|
|         | YEAR | MONTH | DAY |      |          |           |

60                      60 01 05      842      4236 S      14814 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1600  | 1937 | 2576           | 577            | 100                   | 29       | 35      | 000     |
| 20    | 1580  | 1937 | 2581           | 583            | 101                   | 29       | 39      | 000     |
| 30    | 1575  | 1937 | 2582           | 586            | 101                   | 29       | 39      | 000     |
| 40    | 1520  | 1937 | 2594           | 588            | 101                   | 35       | 42      | 366     |
| 50    | 1380  | 1938 | 2626           | 588            | 98                    | 39       | 42      | 000     |
|       | 1360  | 1938 | 2630           | 586            | 97                    | 45       | 45      | 71      |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

60 60 06 07 902 4236 S 14814 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1255  | 1927 | 2636           | 583            | 95                    | 48       | 52      | 35 7    |
| 20    | 1255  | 1927 | 2636           | 588            | 95                    | 45       | 52      | 28 6    |
| 30    | 1255  | 1927 | 2636           | 588            | 96                    | 48       | 58      | 35 7    |
| 40    | 1260  | 1929 | 2637           | 588            | 96                    | 45       | 52      | 35 7    |
| 50    | 1265  | 1931 | 2639           | 583            | 95                    | 55       | 61      | 35 7    |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

60 60 06 21 902 4236 S 14814 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1210  | 1933 | 2652           | 586            | 95                    | 52       | 52      | 35 7    |
| 20    | 1210  | 1933 | 2652           | 591            | 96                    | 52       | 52      | 39 3    |
| 30    | 1210  | 1933 | 2652           | 586            | 95                    | 52       | 52      | 28 6    |
| 40    | 1210  | 1933 | 2652           | 591            | 96                    | 55       | 55      | 25 0    |
| 50    | 1210  | 1933 | 2652           | 586            | 95                    | 55       | 55      | 32 1    |
|       |       |      |                | 591            | 96                    | 58       | 58      | 39 3    |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

60 60 07 07 0900 4236 S 14814 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1165  | 1937 | 2667           | 607            | 97                    | 48       | 52      | 357     |
| 20    | 1165  | 1937 | 2667           | 602            | 97                    | 48       | 58      | 357     |
| 30    | 1165  | 1937 | 2667           | 602            | 96                    | 48       | 48      | 321     |
| 40    | 1165  | 1937 | 2667           | 607            | 97                    | 52       | 52      | 286     |
| 50    | 1165  | 1937 | 2667           | 607            | 97                    | 55       | 58      | 321     |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

60 60 07 21 847 4236 S 14814 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1160  | 1941 | 2673           | 605            | 97                    | 45       | 45      | 321     |
| 20    | 1160  | 1941 | 2673           | 605            | 97                    | 45       | 45      | 357     |
| 30    | 1160  | 1941 | 2673           | 605            | 97                    | 45       | 45      | 321     |
| 40    | 1160  | 1940 | 2671           | 607            | 97                    | 48       | 48      | 357     |
| 50    | 1160  | 1940 | 2671           | 607            | 97                    | 48       | 48      | 357     |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

60                    60 08 03    857                    4236 S    14814 E

| DEPTH | TEMP. | CI ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1160  | 1937 | 2668           | 607            | 97                    | 45       | 48      | 32 1    |
| 20    | 1160  | 1937 | 2668           | 605            | 97                    | 45       | 45      | 32 1    |
| 30    | 1150  | 1939 | 2672           | 607            | 97                    | 45       | 45      | 14 3    |
| 40    | 1150  | 1939 | 2672           | 607            | 97                    | 45       | 45      | 32 1    |
| 50    | 1150  | 1939 | 2672           | 613            | 98                    | 45       | 48      | 32 1    |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

60                    60 08 16    1358                    4236 S    14814 E

| DEPTH | TEMP. | CI ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1120  | 1938 | 2677           | 618            | 98                    | 48       | 48      | 35 7    |
| 20    | 1120  | 1938 | 2677           | 618            | 98                    | 48       | 48      | 35 7    |
| 30    | 1120  | 1938 | 2677           | 618            | 98                    | 48       | 84      | 32 1    |
| 40    | 1120  | 1938 | 2677           | 618            | 98                    | 48       | 48      | 32 1    |
| 50    | 1120  | 1938 | 2677           | 618            | 98                    | 48       | 48      | 28 6    |



|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

60                      60 10 2                      851                      4236 S                      14814 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
|       | 1230  | 1933 | 2648           | 623            | 101                   | 42       | 42      | 10 7    |
| 10    | 1185  | 1933 | 2657           | 626            | 101                   | 45       | 45      | 14 3    |
| 20    | 1180  | 1933 | 2658           | 623            | 100                   | 42       | 42      | 14 3    |
| 30    | 1180  | 1933 | 2658           | 615            | 99                    | 42       | 42      | 14 3    |
| 40    | 1175  | 1934 | 2661           | 611            | 98                    | 42       | 42      | 17 9    |
| 50    | 1170  | 1934 | 2661           | 607            | 97                    | 45       | 48      | 21 4    |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

60                      60 11 03                      0840                      4236 S                      14814 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
|       | 1225  | 1936 | 2654           | 601            | 97                    | 42       | 45      | 14 3    |
| 10    | 1225  | 1936 | 2654           | 607            | 98                    | 42       | 45      | 14 3    |
| 20    | 1220  | 1936 | 2655           | 607            | 98                    | 45       | 45      | 17 9    |
| 30    | 1200  | 1936 | 2659           | 593            | 96                    | 48       | 48      | 21 4    |
| 40    | 1195  | 1936 | 2660           | 586            | 95                    | 48       | 48      | 21 4    |
| 50    | 1195  | 1936 | 2660           | 593            | 96                    | 52       | 52      | 21 4    |

| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|-----|------|----------|-----------|
|         | YEAR | MONTH | DAY |      |          |           |

60 60 12 20 856 4236 S 14614 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1530  | 1948 | 2607           | 605            | 105                   | 26       | 45      | 0       |
| 20    | 1525  | 1948 | 2608           | 605            | 105                   | 29       | 45      | 0       |
| 30    | 1490  | 1952 | 2622           | 588            | 101                   | 35       | 45      | 7       |
| 40    | 1420  | 1950 | 2634           | 588            | 99                    | 42       | 52      | 17      |
| 40    | 1395  | 1948 | 2636           | 577            | 97                    | 45       | 55      | 21      |
| 50    | 1360  | 1948 | 2643           | 566            | 95                    | 52       | 61      | 32      |



| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|------|----------|-----------|
|         | YEAR | MONTH |      |          |           |

60                      60 11 16                      843                      4236 S                      14814 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1230  | 1931 | 2646           | 604            | 98                    | 42       | 45      | 14 3    |
| 20    | 1225  | 1931 | 2647           | 607            | 98                    | 45       | 45      | 14 3    |
| 30    | 1225  | 1931 | 2647           | 613            | 99                    | 45       | 45      | 10 7    |
| 40    | 1225  | 1931 | 2647           | 613            | 99                    | 45       | 45      | 14 3    |
| 20    | 1225  | 1931 | 2647           | 613            | 99                    | 45       | 48      | 14 3    |
|       |       |      |                |                |                       | 45       | 48      | 14 3    |

| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|------|----------|-----------|
|         | YEAR | MONTH |      |          |           |

60                      60 12 06                      843                      4236 S                      14814 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1430  | 1936 | 2613           | 585            | 99                    | 56       | 45      | 0 0     |
| 20    | 1380  | 1936 | 2623           | 640            | 107                   | 26       | 39      | 0 0     |
| 30    | 1330  | 1936 | 2633           | 637            | 106                   | 32       | 45      | 0 0     |
| 40    | 1260  | 1935 | 2645           | 591            | 97                    | 45       | 52      | 25 0    |
| 20    | 1210  | 1935 | 2655           | 567            | 92                    | 55       | 61      | 53 6    |
| 50    | 1210  | 1935 | 2655           | 571            | 93                    | 55       | 61      | 57 1    |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

60 ) 60 04 21 838 4236 S 14814 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1510  | 1950 | 2614           | 548            | 94                    | 42       | 42      | 17 9    |
| 20    | 1510  | 1950 | 2614           | 548            | 94                    | 42       | 42      | 17 9    |
| 30    | 1520  | 1950 | 2612           | 543            | 93                    | 42       | 48      | 00 0    |
| 40    | 1520  | 1952 | 2615           | 543            | 93                    | 42       | 48      | 00 0    |
| 50    | 1520  | 1952 | 2615           | 543            | 93                    | 45       | 45      | 10 7    |

|         |      |       |      |          |           |
|---------|------|-------|------|----------|-----------|
| STATION | DATE |       | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH |      |          |           |

60 60 05 19 907 4236 S 14814 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1340  | 1936 | 2632           | 576            | 96                    | 42       | 42      | 25 0    |
| 20    | 1340  | 1936 | 2632           | 576            | 96                    | 42       | 42      | 26 6    |
| 30    | 1340  | 1936 | 2632           | 576            | 96                    | 42       | 42      | 25 0    |
| 40    | 1340  | 1936 | 2632           | 576            | 96                    | 45       | 45      | 21 4    |
| 50    | 1340  | 1936 | 2632           | 576            | 96                    | 48       | 48      | 25 0    |
|       |       |      |                |                |                       | 48       | 48      | 21 4    |

| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|-----|------|----------|-----------|
|         | YEAR | MONTH | DAY |      |          |           |

60                    60 03 15                    845                    4236 S                    14814 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1585  | 1941 | 2585           | 572            | 99                    | 29       | 35      | 36      |
| 20    | 1580  | 1940 | 2586           | 577            | 100                   | 29       | 35      | 00      |
| 30    | 1580  | 1940 | 2584           | 577            | 100                   | 32       | 35      | 71      |
| 40    | 1570  | 1939 | 2585           | 572            | 99                    | 32       | 35      | 107     |
| 50    | 1560  | 1939 | 2588           | 577            | 100                   | 35       | 35      | 107     |

| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|---------|------|-------|-----|------|----------|-----------|
|         | YEAR | MONTH | DAY |      |          |           |

60                    60 04 05                    837                    4236 S                    14814 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | O <sub>2</sub> % SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1560  | 1944 | 2595           | 548            | 95                    | 42       | 42      | 143     |
| 20    | 1555  | 1944 | 2595           | 548            | 95                    | 42       | 42      | 107     |
| 30    | 1555  | 1944 | 2596           | 548            | 95                    | 42       | 42      | 107     |
| 40    | 1550  | 1944 | 2596           | 548            | 95                    | 45       | 45      | 71      |
| 50    | 1540  | 1942 | 2597           | 548            | 95                    | 45       | 45      | 71      |
|       |       |      | 2596           | 548            | 95                    | 45       | 45      | 71      |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

60 60 02 16 845 4236 S 14814 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1600  | 1940 | 2580           | 556            | 97                    | 32       | 35      | 0 0     |
| 20    | 1600  | 1940 | 2580           | 556            | 97                    | 32       | 35      | 0 0     |
| 30    | 1595  | 1940 | 2581           | 561            | 98                    | 35       | 35      | 0 0     |
| 40    | 1590  | 1940 | 2582           | 556            | 97                    | 35       | 35      | 0 0     |
| 50    | 1590  | 1940 | 2582           | 556            | 97                    | 39       | 39      | 0 0     |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

60 60 03 01 843 4236 S 14814 E

| DEPTH | TEMP. | Cl ‰ | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 1610  | 1941 | 2579           | 566            | 99                    | 32       | 39      | 0 0     |
| 20    | 1585  | 1941 | 2585           | 571            | 99                    | 32       | 32      | 0 0     |
| 30    | 1580  | 1940 | 2584           | 571            | 99                    | 32       | 35      | 0 0     |
| 40    | 1560  | 1940 | 2589           | 561            | 97                    | 32       | 35      | 0 0     |
| 50    | 1555  | 1940 | 2590           | 558            | 97                    | 35       | 35      | 0 0     |
|       | 1540  | 1940 | 2593           | 556            | 96                    | 35       | 35      | 7 1     |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

60 60 01 21 0910 4236 S 14814 E

| DEPTH | TEMP. | Cl ‰  | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|-------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 17.40 | 19.36 | 25.42          | 5.58           | 100                   | 26       | 29      | 0.0     |
| 20    | 17.25 | 19.41 | 25.52          | 5.61           | 100                   | 26       | 29      | 0.0     |
| 30    | 16.40 | 19.41 | 25.53          | 5.67           | 101                   | 32       | 32      | 0.0     |
| 40    | 16.40 | 19.41 | 25.72          | 5.67           | 99                    | 32       | 32      | 0.0     |
| 50    | 16.40 | 19.41 | 25.72          | 5.67           | 99                    | 32       | 32      | 0.0     |
|       |       |       | 25.72          | 5.67           | 99                    | 32       | 35      | 0.0     |

|         |      |       |     |      |          |           |
|---------|------|-------|-----|------|----------|-----------|
| STATION | DATE |       |     | TIME | LATITUDE | LONGITUDE |
|         | YEAR | MONTH | DAY |      |          |           |

60 60 02 01 0847 4236 S 14814 E

| DEPTH | TEMP. | Cl ‰  | σ <sub>t</sub> | O <sub>2</sub> | % O <sub>2</sub> SAT. | INORG. P | TOTAL P | NITRATE |
|-------|-------|-------|----------------|----------------|-----------------------|----------|---------|---------|
| 10    | 16.90 | 19.49 | 25.72          | 5.51           | 97                    | 32       | 32      | 0.0     |
| 20    | 16.90 | 19.49 | 25.72          | 5.56           | 98                    | 32       | 32      | 0.0     |
| 30    | 16.80 | 19.49 | 25.72          | 5.56           | 98                    | 32       | 32      | 0.0     |
| 40    | 16.25 | 19.46 | 25.72          | 5.51           | 97                    | 35       | 35      | 0.0     |
| 50    | 15.90 | 19.45 | 25.90          | 5.42           | 95                    | 35       | 35      | 0.8     |
|       |       |       | 25.90          | 5.32           | 92                    | 42       | 42      | 0.8     |

## 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