

NREAD/DDS/jc  
6280/1  
9 May 1984

From: Commanding General  
To: Commanding Officer, Naval Hospital  
Subj: Water Quality Monitoring and Related Environmental Health Considerations

Ref: (a) CG MCB CLNC ltr NREAD/DDS/th 11330/2 of 19 May 1983

Encl: (1) Weekly Chemical Analysis of Drinking Water  
(2) Weekly Bacteriological Analysis of Drinking Water  
(3) Weekly NPMC Ice Samples Bacteriological Analysis  
(4) Analysis of Complaint Samples  
(5) Analysis of Triangle Outpost Well

1. In accordance with the reference, enclosures (1) through (5) are forwarded for information.

2. Questions regarding this matter should be forwarded to Mr. Danny Sharpe, Supervisory Ecologist, extensions 2083/5003/1690.

J. I. WOOTEN  
By direction

Blind copy to:  
SupvChemist

CLW  
0000004310

**CHEMICAL ANALYSIS — WATER TREATMENT PLANTS**  
 MCBCL 11330/3 (REV. 3-82)

File  
 DATE COLLECTED  
 3/17/84

| PARAMETER                       | HADNOT POINT            | MONTFORD POINT | TARAWA TERRACE          | ONSLOW BEACH | COURTHOUSE BAY | RIFLE RANGE | HOLCOMB BLVD            | NEW RIVER |
|---------------------------------|-------------------------|----------------|-------------------------|--------------|----------------|-------------|-------------------------|-----------|
| PH                              | 8.8                     | 7.4            | 8.2                     | 7.7          | 8.3            | 8.3         | 8.3                     | 8.5       |
| PENOLTHALEIN ALKALINITY         | 4                       | 0              | 8                       | 0            | 8              | 8           | 18                      | 24        |
| METHYL ORANGE ALKALINITY        | 16                      | 170            | 56                      | 156          | 180            | 176         | 58                      | 166       |
| CARBONATES AS CaCO <sub>3</sub> | 8                       | 0              | 16                      | 0            | 16             | 16          | 36                      | 48        |
| BICARBONATES CaCO <sub>3</sub>  | 8                       | 170            | 40                      | 156          | 114            | 110         | 22                      | 118       |
| CHLORIDES AS Cl                 | 14                      | 36             | 14                      | 20           | 20             | 20          | 20                      | 104       |
| HARDNESS AS CaCO <sub>3</sub>   | 6.2                     | 76             | 66                      | 58           | 64             | 54          | 66                      | 78        |
| IRON AS Fe                      | 0.04                    | 0.55           | 0.04                    | 0.32         | 0.04           | 0.08        | 0.04                    | 0.08      |
| FLUORIDE                        | <del>1.00</del><br>0.87 | 0.16           | <del>0.87</del><br>0.88 | 0.18         | 0.10           | 0.09        | <del>0.98</del><br>0.53 | 0.55      |
| CHLORINE RESIDUAL               | 1.1                     | 1.3            | 1.0                     | 1.1          | 1.3            | 1.0         | 0.9                     | 1.3       |
| TURBIDITY                       | 0.30                    | 1.20           | <del>0.20</del><br>0.70 | 0.30         | 0.20           | 0.50        | <del>0.20</del><br>0.20 | 1.40      |
| TOTAL PHOSPHATE                 |                         | 3.85           |                         |              | 1.30           |             |                         |           |
| ORTHO PHOSPHATE                 |                         | 1.54           |                         |              | 0.32           |             |                         |           |
| META PHOSPHATE                  |                         | 2.31           |                         |              | 0.98           |             |                         |           |
| STABILITY                       | 0.3                     | 0.5            | 0.1                     | 0.4          | 0.0            | 0.1         | CLW 2                   | 0.0       |

REMARKS  
 000004311

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY  
*[Signature]*

DATE OF ANALYSIS  
 3/16/84

Encl (1)

**CHEMICAL ANALYSIS — WATER TREATMENT PLANTS**

MCBCL 11330/3 (REV. 3-82)

*White Deer*

DATE COLLECTED  
10 April 1984

| PARAMETER                         | HADNOT POINT       | MONTFORD POINT | TARAWA TERRACE | ONSLow BEACH | COURTHOUSE BAY | RIFLE RANGE | HOLCOMB BLVD | NEW RIVER |  |
|-----------------------------------|--------------------|----------------|----------------|--------------|----------------|-------------|--------------|-----------|--|
| PH                                | 9.1                | 7.3            | 8.9            | 7.4          | 8.2            | 8.2         | 8.7          | 9.0       |  |
| PENOLTHALEIN ALKALINITY           | 8                  | 0              | 4              | 0            | 2              | 4           | 6            | 16        |  |
| METHYL ORANGE ALKALINITY          | 60                 | 190            | 54             | 160          | 176            | 170         | 70           | 154       |  |
| CARBONATES AS CaCO <sub>3</sub>   | 16                 | 0              | 8              | 0            | 4              | 8           | 12           | 32        |  |
| BICARBONATES AS CaCO <sub>3</sub> | 44                 | 190            | 46             | 160          | 172            | 162         | 58           | 122       |  |
| CHLORIDES AS Cl                   | 8                  | 32             | 8              | 16           | 14             | 14          | 10           | 98        |  |
| HARDNESS AS CaCO <sub>3</sub>     | 62                 | 84             | 64             | 58           | 62             | 64          | 70           | 48        |  |
| IRON AS Fe                        | 0.04               | 0.58           | 0.04           | 1.27         | 0.04           | 0.06        | 0.04         | 0.14      |  |
| FLUORIDE                          | AM 0.85<br>PM 0.99 | 0.14           | 1.05<br>0.98   | 0.17         | 0.10           | 0.09        | 0.76<br>0.76 | 0.64      |  |
| CHLORINE RESIDUAL                 | 1.1                | 1.3            | 1.0            | 1.4          | 1.5            | 1.0         | 1.1          | 1.2       |  |
| TURBIDITY                         | AM 1.40<br>PM 1.40 | 0.76           | 0.29<br>0.38   | 1.2          | 0.30           | 0.30        | 0.18<br>0.20 | 1.30      |  |
| TOTAL PHOSPHATE                   |                    | 2.60           |                |              | 1.40           |             |              |           |  |
| ORTHO PHOSPHATE                   |                    | 1.26           |                |              | 0.25           |             |              |           |  |
| META PHOSPHATE                    |                    | 1.34           |                |              | 1.15           |             |              |           |  |
| STABILITY                         | +0.5               | -0.6           | +0.3           | -0.8         | -0.1           | -0.1        | +0.3         | +0.1      |  |

REMARKS

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0000004312

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

*Lachapelle + Burns*

DATE OF ANALYSIS

10 April 1984

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS  
 MCBCL 11330/3 (REV. 3-82)

DATE COLLECTED

17 April 1988

File

| PARAMETER                         | HADNOT POINT | MONTFORD POINT<br><i>Camp Johnson</i> | TARAWA TERRACE | ONSLow BEACH | COURTHOUSE BAY | RIFLE RANGE | HOLCOMB BLVD | NEW RIVER | GWB TT |      |
|-----------------------------------|--------------|---------------------------------------|----------------|--------------|----------------|-------------|--------------|-----------|--------|------|
|                                   |              |                                       |                |              |                |             |              |           | PLATE  | 1539 |
| PH                                | 9.0          | 7.3                                   | 8.5            | 7.4          | 8.2            | 8.2         | 8.9          | 8.6       | 8.3    | 8.6  |
| PENOLTHALEIN ALKALINITY           | 6            | 0                                     | 2              | 0            | 4              | 4           | 8            | 10        | 4      | 4    |
| METHYL ORANGE ALKALINITY          | 54           | 184                                   | 64             | 138          | 170            | 170         | 60           | 130       | 174    | 64   |
| CARBONATES AS CaCO <sub>3</sub>   | 12           | 0                                     | 4              | 0            | 8              | 8           | 16           | 20        | 8      | 8    |
| BICARBONATES AS CaCO <sub>3</sub> | 42           | 184                                   | 60             | 138          | 162            | 162         | 44           | 130       | 166    | 56   |
| CHLORIDES AS Cl                   | 8            | 36                                    | 12             | 18           | 14             | 20          | 8            | 64        | 16     | 10   |
| HARDNESS AS CaCO <sub>3</sub>     | 58           | 78                                    | 74             | 68           | 60             | 56          | 58           | 50        | 60     | 76   |
| IRON AS Fe                        | 0.03         | 0.60                                  | 0.04           | 0.27         | 0.04           | 0.07        | 0.04         | 0.13      | 0.04   | 0.04 |
| FLUORIDE                          | AM           | 1.15                                  | 0.98           | 0.98         | 0.12           | 0.10        | 0.98         | 0.60      | 0.12   | 1.01 |
|                                   | PM           | 1.16                                  | 0.16           | 0.01         | 0.14           | 0.10        | 0.87         | 0.60      | 0.12   | 1.01 |
| CHLORINE RESIDUAL                 | 1.0          | 1.2                                   | 1.1            | 1.0          | 0.9            | 1.0         | 0.9          | 1.2       | 0.8    | 1.0  |
| TURBIDITY                         | AM           | 1.1                                   | 0.3            | 0.3          | 0.4            | 0.6         | 0.2          | 1.0       | 0.3    | 0.3  |
|                                   | PM           | 2.2                                   | 1.1            | 0.4          | 0.3            | 0.6         | 0.2          | 1.0       | 0.3    | 0.3  |
| TOTAL PHOSPHATE                   |              | 4.20                                  |                |              | 1.34           |             |              |           |        |      |
| ORTHO PHOSPHATE                   |              | 1.54                                  |                |              | 0.23           |             |              |           |        |      |
| META PHOSPHATE                    |              | 2.66                                  |                |              | 1.29           |             |              |           |        |      |
| STABILITY                         | +0.4         | -0.5                                  | +0.1           | -0.5         | +0.1           | +0.1        | +0.4         | +0.2      |        |      |

REMARKS

CLW

000004313

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

*L. Schaefer*

DATE OF ANALYSIS

17 April 1988

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS  
 MCBCL 11330/3 (REV. 3-82)

*Per Mill*  
 DATE COLLECTED  
 24 APRIL 1984

| PARAMETER                         | HADNOT POINT       | MONTFORD POINT | TARAWA TERRACE | ONSLow BEACH | COURTHOUSE BAY | RIFLE RANGE | HOLCOMB BLVD | NEW RIVER | CR 115 |
|-----------------------------------|--------------------|----------------|----------------|--------------|----------------|-------------|--------------|-----------|--------|
| PH                                | 8.8                | 7.2            | 8.5            | 7.4          | 8.1            | 8.2         | 8.7          | 8.8       | 7.2    |
| PENOLTHALEIN ALKALINITY           | 6                  | 0              | 4              | 0            | 6              | 2           | 6            | 14        | 0      |
| METHYL ORANGE ALKALINITY          | 56                 | 190            | 56             | 174          | 176            | 160         | 60           | 124       | 140    |
| CARBONATES AS CaCO <sub>3</sub>   | 12                 | 0              | 8              | 0            | 12             | 4           | 12           | 28        | 0      |
| BICARBONATES AS CaCO <sub>3</sub> | 44                 | 190            | 48             | 174          | 164            | 156         | 48           | 96        | 140    |
| CHLORIDES AS Cl                   | 8                  | 36             | 10             | 14           | 22             | 20          | 16           | 134       | 8      |
| HARDNESS AS CaCO <sub>3</sub>     | 60                 | 76             | 86             | 92           | 62             | 42          | 60           | 58        | 138    |
| IRON AS Fe                        | 0.04               | 0.54           | 0.04           | 0.24         | 0.06           | 0.07        | 0.04         | 0.31      | 0.51   |
| FLUORIDE                          | AM 1.30<br>PM 1.26 | 0.79           | 1.3<br>1.33    | 0.58         | 0.58           | 0.34        | 1.13<br>0.83 | 1.06      | 0.34   |
| CHLORINE RESIDUAL                 | 1.0                | 1.3            | 1.0            | 1.2          | 1.2            | 1.0         | 1.0          | 1.3       | —      |
| TURBIDITY                         | AM 1.5<br>PM 0.5   | 0.7            | 0.4<br>0.5     | 0.3          | 0.4            | 0.4         | 0.3<br>0.3   | 1.4       | 3.3    |
| TOTAL PHOSPHATE                   |                    | 4.60           |                |              | 1.92           |             |              |           |        |
| ORTHO PHOSPHATE                   |                    | 1.54           |                |              | 0.32           |             |              |           |        |
| META PHOSPHATE                    |                    | 3.06           |                |              | 1.60           |             |              |           |        |
| STABILITY                         | +0.4               | -0.5           | +0.2           | -0.4         | 0.0            | -0.1        | +0.2         | +0.2      | —      |

REMARKS

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000004314

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY

*Locke & Burns*

DATE OF ANALYSIS

24 APRIL 1984

BACTERIOLOGICAL ANALYSIS OF WATER  
 MCBCL 11330/4 (REV. 7-83)

DATE COLLECTED  
 3 April 1984

REPORTABLE POINTS FOR SDWA

| WATER SAMPLES | MARKED | COLIFORM MF/100 ML | RESIDUAL CHLORINE | TIME | WATER SAMPLES       | MARKED | COLIFORM MF/100 ML | RESIDUAL CHLORINE | TIME | LABORATORY DATA  |
|---------------|--------|--------------------|-------------------|------|---------------------|--------|--------------------|-------------------|------|--|
| RR - 2<br>XX  | 1      | ∅                  | 0.9               | 0935 | MCAS - 3502         | 24     | ∅                  | 0.2               | 0920 | TIME RECEIVED 1235-1355  |
| RR - 15       | 2      |                    | 0.9               | 0920 | MCAS - 2002         | 25     |                    | 0.5               | 0940 | DATE RECEIVED 4/3/84   |
| RR - 10       | 3      |                    | 0.9               | 0930 | MCAS - 2037         | 26     |                    | 0.6               | 0930 | ACCEPTED BY Lachapelle   |
|               | 4      |                    |                   |      | MCAS - 1184         | 27     |                    | 0.9               | 1005 | DATE ANALYZED 4/3/84   |
| A-1           | 5      |                    | 1.0               | 0850 |                     | 28     |                    |                   |      | ANALYSIS STARTED 1300-1355                                     |
| BB - 7        | 6      |                    | 1.2               | 0815 | NRMC - food Service | 29     |                    | 0.6               | 1050 | ANALYSIS FINISHED 1320-1420                                    |
| BB - 19       | 7      |                    | 1.0               | 0830 | PP - 2615           | 30     |                    | 0.6               | 1015 | INCUBATOR TEMP 35.0° C   |
| BB - 245      | 8      |                    | 1.0               | 0820 | PP - 2600           | 31     |                    | 0.5               | 1020 | PROCESSED BY Lachapelle  |
|               | 9      |                    |                   |      | BM - 5400           | 32     |                    | 0.7               | 1035 |  |
| BA - 103      | 10     |                    | 1.0               | 1045 | BM - 1985           | 33     |                    | 0.6               | 1030 | CUSTODY DATA   |
| BA - 101      | 11     |                    | 1.0               | 1050 | LCH - 4022          | 34     |                    | 0.6               | 1100 | DATE   |
|               | 12     |                    |                   |      | LCH - 4002          | 35     |                    | 0.5               | 1105 | TIME   |
| TT - 38       | 13     |                    | 1.0               | 0900 |                     | 36     |                    |                   |      | SIGNATURE  |
| TT - 43       | 14     |                    | 0.9               | 0915 | H - 1               | 37     |                    | 1.0               | 1000 | DATE   |
| TT - 2888     | 15     |                    | 0.9               | 0930 | H - 16              | 38     |                    | 0.8               | 1005 | TIME   |
|               | 16     |                    |                   |      | FC - 303            | 39     |                    | 1.0               | 0850 | SIGNATURE  |
| 1407          | 17     |                    | 0.8               | 1000 | FC - 420            | 40     |                    | 1.0               | 0900 |  |
| M - 139       | 18     |                    | 1.0               | 1115 | FC - 540            | 41     |                    | 1.0               | 0910 | COPY TO:   |
| M - 422       | 19     |                    | 1.1               | 1030 | HP - 236            | 42     |                    | 0.8               | 0950 | <input checked="" type="checkbox"/> UTIL DIR                   |
|               | 20     |                    |                   |      | HP - 540            | 43     |                    | 0.7               | 0840 | <input type="checkbox"/> WATER TREATMENT                       |
| CG - 1        | 21     |                    | 0.3               | 0830 | HP - 1300           | 44     |                    | 0.5               | 0830 | <input type="checkbox"/> PMU <input type="checkbox"/> MCAS PMO |
| TC - 830      | 22     |                    | 0.6               | 0910 | HP - 15             | 45     |                    | 1.0               | 1145 | <input type="checkbox"/> NREAD <input type="checkbox"/> FILE   |
| TC - 501      | 23     | ∅                  | 0.8               | 0900 |                     | 146    | CLW                |                   |      | <input type="checkbox"/>                                       |

REMARKS

Resample from MCAS 1277 Negative

000004315

SIGNATURE

*Robert Lachapelle*

BACTERIOLOGICAL ANALYSIS OF WATER

NON-REPORTABLE

| WATER SAMPLES        | MARKED | COLIFORM COUNT<br>M-ENDO MEDIUM | RESIDUAL<br>CHLORINE | pH  | TIME |
|----------------------|--------|---------------------------------|----------------------|-----|------|
| BB-97                |        | ∅                               | 0.5                  |     | 0845 |
| FC-19                |        | ∅                               | trace                |     | 0935 |
| SH-8                 |        | ∅                               | 2.0+                 |     | 0920 |
| M.P. POOL            |        | ∅                               | 1.0                  | 7.0 | 1115 |
| #2 POOL              |        | ∅                               | 0.9                  | 7.6 | 0950 |
| #5 POOL              |        | ∅                               | 0.8                  | 7.6 | 0840 |
| P. P. POOL           |        |                                 |                      |     |      |
| P. P. BABY POOL      |        |                                 |                      |     |      |
| MCAS E-POOL          |        |                                 |                      |     |      |
| MCAS O-POOL          |        |                                 |                      |     |      |
| MCAS BABY POOL       |        |                                 |                      |     |      |
| Ice Sample bldg 1300 |        | ∅                               |                      |     | 0830 |
|                      |        |                                 |                      |     |      |
|                      |        |                                 |                      |     |      |
|                      |        |                                 |                      |     |      |

REMARKS

FC-19-9 Non-coliform

CLW

000004316

**BACTERIOLOGICAL ANALYSIS OF WATER**  
MCBCL 11330/4 (REV. 7-83)

DATE COLLECTED  
**10 APR 84**

**REPORTABLE POINTS FOR SDWA**

| WATER SAMPLES | MARKED | COLIFORM MF/100 ML | RESIDUAL CHLORINE | TIME | WATER SAMPLES                | MARKED | COLIFORM MF/100 ML | RESIDUAL CHLORINE | TIME | LABORATORY DATA  |
|---------------|--------|--------------------|-------------------|------|------------------------------|--------|--------------------|-------------------|------|--|
| RR - 3        | 1      | ∅                  | 1.0               | 0925 | MCAS - 3502                  | 24     | ∅                  | 0.2               | 0925 | TIME RECEIVED  |
| RR - 15       | 2      | I                  | 1.0               | 0920 | MCAS - 2002                  | 25     | I                  | 0.9               | 0935 | DATE RECEIVED 10 APR 84  |
| RR - 6        | 3      | I                  | 1.0               | 0930 | MCAS - 4157                  | 26     | I                  | 0.7               | 0915 | ACCEPTED BY  |
|               | 4      |                    |                   |      | MCAS - 1191                  | 27     | I                  | 0.7               | 0945 | DATE ANALYZED 10 APR 84  |
| A-1           | 5      | ∅                  | 1.0               | 0900 |                              | 28     |                    |                   |      | ANALYSIS STARTED   |
| B             | 6      | I                  | 1.2               | 0825 | NRMC - Food Service          | 29     | ∅                  | 0.7               | 1222 | ANALYSIS FINISHED  |
| BB - 49       | 7      | I                  | 1.2               | 0850 | PP - 2615                    | 30     | I                  | 0.6               | 1210 | INCUBATOR TEMP 35.0°C  |
| BB - 45       | 8      | I                  | 1.2               | 0820 | PP - 2602                    | 31     | I                  | 0.6               | 1200 | PROCESSED BY Huneycutt   |
|               | 9      |                    |                   |      | BM - 5400                    | 32     |                    | 0.5               | 1240 |  |
| BA - 103      | 10     | ∅                  | 1.3               | 1030 | BM - 5670                    | 33     |                    | 0.5               | 1252 | CUSTODY DATA   |
| BA - 101      | 11     | I                  | 1.3               | 1040 | LCH - 4022                   | 34     | I                  | 0.7               | 1303 | DATE   |
|               | 12     |                    |                   |      | LCH - 4023                   | 35     | I                  | 0.6               | 1317 | TIME   |
| TT - 38       | 13     | ∅                  | 1.0               | 0830 |                              | 36     |                    |                   |      | SIGNATURE  |
| TT - 43       | 14     | I                  | 1.0               | 0845 | H - 1 <sup>st</sup> Fl. Head | 37     | ∅                  | 0.5               | 1142 | DATE   |
| TT - 1373     | 15     | I                  | 0.9               | 0915 | H - 16                       | 38     | I                  | 0.5               | 1134 | TIME   |
|               | 16     |                    |                   |      | FC - 303                     | 39     |                    | 0.7               | 1037 | SIGNATURE  |
| CR - 1502     | 17     | ∅                  | 0.7               | 1015 | FC - 420                     | 40     |                    | 0.6               | 1028 |  |
| M - 139       | 18     | I                  | 1.2               | 1100 | FC New Snack Bar             | 41     |                    | 0.6               | 1022 | COPY TO:   |
| M - 324       | 19     | I                  | 1.1               | 0945 | HP - 236                     | 42     |                    | 0.5               | 1149 | <input checked="" type="checkbox"/> UTIL DIR                   |
|               | 20     |                    |                   |      | HP - 540                     | 43     |                    | 0.6               | 1122 | <input type="checkbox"/> WATER TREATMENT                       |
| CG - 1        | 21     | ∅                  | 0.2               | 0905 | HP - 1300                    | 44     | I                  | 0.4               | 1005 | <input type="checkbox"/> PMU <input type="checkbox"/> MCAS PMO |
| TC - 830      | 22     | I                  | 1.0               | 0850 | HP - 1301                    | 45     | I                  | 0.5               | 1016 | <input type="checkbox"/> NREAD <input type="checkbox"/> FILE   |
| TC - 650      | 23     | I                  | 1.0               | 0840 |                              | 46     |                    |                   |      | <input type="checkbox"/>                                       |

REMARKS  
#2 had 137 non-coliform colonies  
#23 had 3 non-coliform colonies

CLW  
0000004317  
SIGNATURE  
*Huneycutt* 4/11/84



BACTERIOLOGICAL ANALYSIS OF WATER

NON-REPORTABLE

| WATER SAMPLES   | MARKED | COLIFORM COUNT<br>M-ENDO MEDIUM | RESIDUAL<br>CHLORINE | pH  | TIME |
|-----------------|--------|---------------------------------|----------------------|-----|------|
| BB-97           |        | Ø                               | 0.6                  |     | 0840 |
| FC-19           |        | I                               | 2.0                  |     | 1103 |
| SH-8            |        | I                               | 1.5                  |     | 1047 |
| M.P.            |        | Ø                               | 1.5                  | 7.4 | 1115 |
| F2 POOL         |        | I                               | 0.7                  | 7.4 | 1156 |
| F5 POOL         |        | I                               | 1.3                  | 7.2 | 1115 |
| P. P. POOL      |        |                                 |                      |     |      |
| P. P. BABY POOL |        |                                 |                      |     |      |
| MCAS E-POOL     |        |                                 |                      |     |      |
| MCAS O-POOL     |        |                                 |                      |     |      |
| MCAS BABY POOL  |        |                                 |                      |     |      |
| CE 8/d 1300     |        | Ø                               |                      |     | 1000 |

REMARKS CLW

0000004318

BACTERIOLOGICAL ANALYSIS OF WATER  
MCBCL 11330/4 (REV. 7-83)

*File*

DATE COLLECTED  
4/17/84

REPORTABLE POINTS FOR SDWA

| WATER SAMPLES | MARKED | COLIFORM MF/100 ML | RESIDUAL CHLORINE | TIME | WATER SAMPLES     | MARKED | COLIFORM MF/100 ML | RESIDUAL CHLORINE | TIME | LABORATORY DATA  |
|---------------|--------|--------------------|-------------------|------|-------------------|--------|--------------------|-------------------|------|--|
| RR - 3        | 1      | φ                  | 0.8               | 0910 | MCAS - 3502       | 24     | φ                  | 0.3               | 0940 | TIME RECEIVED 12 35 - 1345                                     |
| RR - 15       | 2      | ↓                  | 0.4               | 0900 | MCAS - 2002       | 25     | ↓                  | 0.6               | 0949 | DATE RECEIVED 4/17/84  |
| RR - 6        | 3      | φ                  | 0.8               | 0915 | MCAS - 4157       | 26     | ↓                  | 0.5               | 0932 | ACCEPTED BY 13 v. v. s   |
|               | 4      |                    |                   |      | MCAS - E-1012     | 27     | φ                  | 0.6               | 0958 | DATE ANALYZED 4/17/84  |
| A-1           | 5      | φ                  | 0.6               | 0935 |                   | 28     |                    |                   |      | ANALYSIS STARTED 1245  |
| BB - 49       | 6      | ↓                  | 0.8               | 1105 | NRMC Food SERVICE | 29     | φ                  | 0.6               | 1130 | ANALYSIS FINISHED 1420   |
| BB - 9        | 7      | ↓                  | 0.5               | 1050 | PP - 2615         | 30     | ↓                  | 0.6               | 1050 | INCUBATOR TEMP 35°   |
|               | 8      | φ                  | 0.8               | 1115 | PP - 2600         | 31     | ↓                  | 0.7               | 1100 | PROCESSED BY 13 v. v. s  |
|               | 9      |                    |                   |      | BM - 5400         | 32     | ↓                  | 0.6               | 1120 |  |
| BA - 103      | 10     | φ                  | 0.8               | 1025 | BM - 1485         | 33     | ↓                  | 0.5               | 1110 | CUSTODY DATA   |
| BA - 101      | 11     | φ                  | 0.9               | 1035 | LCH - 4022        | 34     | ↓                  | 0.6               | 1140 | DATE   |
|               | 12     |                    |                   |      | LCH - 4002        | 35     | φ                  | 0.5               | 1145 | TIME   |
| TT - 38       | 13     | φ                  | 1.1               | 0845 |                   | 36     |                    |                   |      | SIGNATURE  |
| TT - 43       | 14     | ↓                  | 1.0               | 0900 | H-1 12A WARD      | 37     | φ                  | 0.6               | 1040 | DATE   |
| TT - 1545     | 15     | φ                  | 0.9               | 0915 | H - 16            | 38     | ↓                  | 0.5               | 1030 | TIME   |
|               | 16     |                    |                   |      | FC - 303          | 39     | ↓                  | 0.8               | 0920 | SIGNATURE  |
| 1005          | 17     | φ                  | 0.8               | 0945 | FC - 420          | 40     | ↓                  | 0.7               | 0925 |  |
| M - 139       | 18     | ↓                  | 1.2               | 1100 | FC - 540          | 41     | ↓                  | 0.8               | 0935 | COPY TO:   |
| M - 424       | 19     | φ                  | 1.2               | 1130 | HP - 236          | 42     | ↓                  | 0.7               | 1070 | <input type="checkbox"/> UTIL DIR                              |
|               | 20     |                    |                   |      | HP - 540          | 43     | ↓                  | 0.9               | 0910 | <input type="checkbox"/> WATER TREATMENT                       |
| CG - 1        | 21     | φ                  | 0.3               | 0921 | HP - 1300         | 44     | ↓                  | 0.2               | 0845 | <input type="checkbox"/> PMU <input type="checkbox"/> MCAS PMO |
| TC - 830      | 22     | ↓                  | 1.3               | 0908 | HP - 15           | 45     | φ                  | 0.8               | 1020 | <input type="checkbox"/> NREAD <input type="checkbox"/> FILE   |
| TC - 640      | 23     | φ                  | 0.5               | 0859 |                   | 46     |                    |                   |      | <input type="checkbox"/>                                       |

REMARKS  
EXTRA SAMPLE: R.R. 15 = φ  
COMPLAINT: TT 1539 Cl 1.0 = φ  
0000004319

CLW

SIGNATURE  
16 J. Burns  
4/18/84

BACTERIOLOGICAL ANALYSIS OF WATER

NON-REPORTABLE

| WATER SAMPLES   | MARKED | COLIFORM COUNT<br>M-ENDO MEDIUM | RESIDUAL<br>CHLORINE | pH  | TIME |
|-----------------|--------|---------------------------------|----------------------|-----|------|
| BB-97           |        | ϕ                               | 0.2                  |     | 1120 |
| FC-19           |        | ϕ                               | TRACE                |     | 0955 |
| SH-8            |        | ϕ                               | 2.0 <sup>+</sup>     |     | 0945 |
| M.P. POOL       |        | ϕ                               | 0.5                  | 7.4 | 1115 |
| #2 POOL         |        | ϕ                               | 0.5                  | 7.6 | 1010 |
| #5 POOL         |        | ϕ                               | 1.5                  | 8.0 | 0910 |
| P. P. POOL      |        |                                 |                      |     |      |
| P. P. BABY POOL |        |                                 |                      |     |      |
| MCAS E-POOL     |        |                                 |                      |     |      |
| MCAS O-POOL     |        |                                 |                      |     |      |
| MCAS BABY POOL  |        |                                 |                      |     |      |
| BLDG 1300       |        | ϕ                               |                      |     | 0850 |
| ICE             |        |                                 |                      |     |      |
|                 |        |                                 |                      |     |      |
|                 |        |                                 |                      |     |      |

REMARKS

FC-19 : NON-COLIFORM TNTC

CLW

000004320

CL 11000/4 (A)

BACTERIOLOGICAL ANALYSIS OF WATER

MCBCL 11330/4 (REV. 7-83)

DATE COLLECTED

24 APR 84

REPORTABLE POINTS FOR SDWA

| WATER SAMPLES | MARKED | COLIFORM MF/100 ML | RESIDUAL CHLORINE | TIME | WATER SAMPLES                | MARKED | COLIFORM MF/100 ML | RESIDUAL CHLORINE | TIME | LABORATORY DATA  |
|---------------|--------|--------------------|-------------------|------|------------------------------|--------|--------------------|-------------------|------|--|
| RR - 3        | 1      | 0                  | 0.8               | 0845 | MCAS - 3502                  | 24     | 0                  | 0.7               | 1000 | TIME RECEIVED  |
| RR - 15       | 2      | I                  | 0.6               | 0855 | MCAS - 2002                  | 25     | I                  | 0.7               | 1030 | DATE RECEIVED  |
| RR - 10       | 3      | I                  | 0.7               | 0900 | MCAS - 4157                  | 26     | I                  | 0.7               | 0950 | ACCEPTED BY  |
|               | 4      |                    |                   |      | MCAS - E-1142                | 27     | I                  | 0.8               | 1020 | DATE ANALYZED 4/24/84  |
| A-1           | 5      | 0                  | 0.6               | 0915 |                              | 28     |                    |                   |      | ANALYSIS STARTED   |
| 7             | 6      | I                  | 1.0               | 1055 | NRMC - Food Service          | 29     | 0                  | 0.8               | 1130 | ANALYSIS FINISHED  |
| BB - 49       | 7      | I                  | 0.6               | 1020 | PP - 2615                    | 30     | I                  | 0.5               | 1107 | INCUBATOR TEMP 35.0  |
| BB - 255      | 8      | I                  | 0.8               | 1105 | PP - 2604                    | 31     | I                  | 0.5               | 1116 | PROCESSED BY Huneault  |
|               | 9      |                    |                   |      | BM - 5400                    | 32     |                    | 0.5               | 1143 |  |
| BA - 103      | 10     | 0                  | 0.9               | 0955 | BM - 5662                    | 33     |                    | 0.5               | 1150 | CUSTODY DATA   |
| BA - 113      | 11     | I                  | 0.8               | 0945 | LCH - 4022                   | 34     | I                  | 0.4               | 1230 | DATE   |
|               | 12     |                    |                   |      | LCH - 4000                   | 35     | I                  | 0.5               | 1241 | TIME   |
| TT - 38       | 13     | 0                  | 1.0               | 1100 |                              | 36     |                    |                   |      | SIGNATURE  |
| TT - 43       | 14     | I                  | 0.9               | 1045 | H - 1 <sup>st</sup> Fl. Head | 37     | 0                  | 0.5               | 1050 | DATE   |
| TT - 1538     | 15     | I                  | 1.0               | 1030 | H - 23                       | 38     | I                  | 0.5               | 1056 | TIME   |
|               | 16     |                    |                   |      | FC - 303                     | 39     |                    | 0.7               | 0947 | SIGNATURE  |
| 1509          | 17     | 0                  | 0.9               | 1000 | FC - 420                     | 40     | I                  | 0.7               | 0941 |  |
| M - 139       | 18     | I                  | 1.2               | 0945 | FC - E-Club                  | 41     |                    | 0.7               | 0936 | COPY TO:   |
| M - 522       | 19     | I                  | 1.1               | 0930 | HP - 236                     | 42     |                    | 0.5               | 1043 | <input checked="" type="checkbox"/> UTIL DIR                   |
|               | 20     |                    |                   |      | HP - 540                     | 43     |                    | 0.6               | 1032 | <input type="checkbox"/> WATER TREATMENT                       |
| CG - 1        | 21     | 0                  | 0.5               | 1100 | HP - 1300                    | 44     | I                  | 0.4               | 0905 | <input type="checkbox"/> PMU <input type="checkbox"/> MCAS PMO |
| TC - 830      | 22     | I                  | 0.7               | 0915 | HP - 1504                    | 45     | I                  | 0.7               | 0913 | <input type="checkbox"/> NREAD <input type="checkbox"/> FILE   |
| TC - G - 640  | 23     | I                  | 0.7               | 0900 |                              | 46     |                    |                   |      | <input type="checkbox"/>                                       |

REMARKS

CLW

SIGNATURE

0000004321

Huneault, J. 4/29/84

BACTERIOLOGICAL ANALYSIS OF WATER

NON-REPORTABLE

| WATER SAMPLES   | MARKED | COLIFORM COUNT<br>M-ENDO MEDIUM | RESIDUAL<br>CHLORINE | pH  | TIME |
|-----------------|--------|---------------------------------|----------------------|-----|------|
| BB-97           |        | Ø                               | 1.2                  |     | 1035 |
| FC-19           |        | I                               | 2.0 <sup>+</sup>     |     | 1016 |
| SH-8            |        | I                               | 2.0                  |     | 1000 |
| M.P. POOL       |        | Ø                               | 1.0                  | 7.3 | 0945 |
| #2 POOL         |        | Secured                         |                      |     |      |
| #5 POOL         |        | Ø                               | 0.9                  | 7.2 | 1027 |
| P. P. POOL      |        |                                 |                      |     |      |
| P. P. BABY POOL |        |                                 |                      |     |      |
| MCAS E-POOL     |        |                                 |                      |     |      |
| MCAS O-POOL     |        |                                 |                      |     |      |
| MCAS BABY POOL  |        |                                 |                      |     |      |
| ICE Plant       |        | Ø                               |                      |     | 0910 |
|                 |        |                                 |                      |     |      |
|                 |        |                                 |                      |     |      |
|                 |        |                                 |                      |     |      |

REMARKS

CLW

0000004322

QUALITY CONTROL LABORATORY REPORT  
 MISCELLANEOUS BACTERIOLOGICAL ANALYSIS OF WATER

NCBCL 11390/6 (REV. 4/78)

Infection Control Naval Hospital

| WATER TYPE |        | SAMPLE COLLECTED BY |  | DATE COLLECTED |  |
|------------|--------|---------------------|--|----------------|--|
| ICE        |        | Mr. Z. Bueh         |  | 24 APR 84      |  |
| LOCATION   | MARKED | COLIFORM            |  |                |  |
|            |        | TOTAL               |  | FECAL          |  |
| EP         |        |                     |  |                |  |
| TCU        |        |                     |  |                |  |
| LFO        |        |                     |  |                |  |
| R.P.       |        |                     |  |                |  |
| 4A         |        |                     |  |                |  |
| 4W         |        |                     |  |                |  |
| 3W         |        |                     |  |                |  |
| 3E         |        |                     |  |                |  |
| CCU        |        |                     |  |                |  |
| 2E         |        |                     |  |                |  |
| 2W         |        |                     |  |                |  |

REMARKS  
 Res. 1220 4/24/84 H

CLW

000004323

SIGNATURE *[Signature]* DATE 4/25/84

- COPY TO
- NREAD
  - UTILITIES DIRECTOR
  - WATER TREATMENT PLANT (GENERAL FOREMAN)
  - BASE PREVENTIVE MEDICINE
  - MCAS PREVENTIVE MEDICINE
  - File

encl (5)

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS  
 MCBCL 11330/3 (REV. 3-82)

DATE COLLECTED  
 26 Apr 84

| PARAMETER                            | HADNOT<br>POINT<br>17.135 | MONTFORD<br>POINT | TARAWA<br>TERRACE | ONSLow<br>BEACH | COURTHOUSE<br>BAY | RIFLE<br>RANGE | HOLCOMB<br>BLVD | NEW<br>RIVER |  |
|--------------------------------------|---------------------------|-------------------|-------------------|-----------------|-------------------|----------------|-----------------|--------------|--|
| PH                                   | 8.6                       |                   |                   |                 |                   |                |                 |              |  |
| PENOLTHALEIN<br>ALKALINITY           | 6                         |                   |                   |                 |                   |                |                 |              |  |
| METHYL ORANGE<br>ALKALINITY          | 52                        |                   |                   |                 |                   |                |                 |              |  |
| CARBONATES AS CaCO <sub>3</sub>      | 7.2                       |                   |                   |                 |                   |                |                 |              |  |
| BICARBONATES<br>AS CaCO <sub>3</sub> | 40                        |                   |                   |                 |                   |                |                 |              |  |
| CHLORIDES AS Cl                      | 8                         |                   |                   |                 |                   |                |                 |              |  |
| HARDNESS AS CaCO <sub>3</sub>        | 58                        |                   |                   |                 |                   |                |                 |              |  |
| IRON AS Fe                           | 10.04                     |                   |                   |                 |                   |                |                 |              |  |
| FLUORIDE                             |                           |                   |                   |                 |                   |                |                 |              |  |
| CHLORINE RESIDUAL                    | 0.4                       |                   |                   |                 |                   |                |                 |              |  |
| TURBIDITY                            | 1.4                       |                   |                   |                 |                   |                |                 |              |  |
| TOTAL PHOSPHATE                      |                           |                   |                   |                 |                   |                |                 |              |  |
| MO PHOSPHATE                         |                           |                   |                   |                 |                   |                |                 |              |  |
| META PHOSPHATE                       |                           |                   |                   |                 |                   |                |                 |              |  |
| STABILITY                            |                           |                   |                   |                 |                   |                |                 |              |  |

REMARKS

CLW  
 0000004324

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY  
*L. Boyle*

DATE OF ANALYSIS  
 26 Apr 84

Encl (4)

QUALITY CONTROL LABORATORY REPORT  
 MISCELLANEOUS BACTERIOLOGICAL ANALYSIS OF WATER  
 MCBCL 11320/8 (REV. 4/78)

WATER TYPE: *P.L. 116*  
 SAMPLE COLLECTED BY: *W. G. 1113*  
 DATE COLLECTED: *4/24/81*

| LOCATION      | MARKED | COLIFORM |       |
|---------------|--------|----------|-------|
|               |        | TOTAL    | FECAL |
| <i>CR 115</i> |        | <i>0</i> |       |
|               |        |          |       |
|               |        |          |       |
|               |        |          |       |
|               |        |          |       |
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|               |        |          |       |

REMARKS

*Due to turbidity of sample MPN was performed with dilutions of 10ml, 0.1ml, 0.01ml/100ml and all tubes were negative.*

CLW

0000004325

SIGNATURE

DATE

COPY TO

- NREAD
- UTILITIES DIRECTOR
- WATER TREATMENT PLANT (GENERAL FOREMAN)

- BASE PREVENTIVE MEDICINE
- MCAS PREVENTIVE MEDICINE
- Safety

*CR 115*



DATE COLLECTED  
24 APRIL 1984

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS  
MCBCL 11330/3 (REV. 3-82)

| PARAMETER                         | HADNOT POINT | MONTFORD POINT | TARAWA TERRACE | ONSLow BEACH | COURTHOUSE BAY | RIFLE RANGE | HOLCOMB BLVD | NEW RIVER | CR. 115 |
|-----------------------------------|--------------|----------------|----------------|--------------|----------------|-------------|--------------|-----------|---------|
| PH                                | 8.8          | 7.2            | 8.5            | 7.4          | 8.1            | 8.2         | 8.7          | 8.8       | 7.2     |
| PENOLTHALEIN ALKALINITY           | 6            | 0              | 4              | 0            | 6              | 2           | 6            | 14        | 0       |
| METHYL ORANGE ALKALINITY          | 56           | 190            | 56             | 174          | 176            | 160         | 60           | 124       | 140     |
| CARBONATES AS CaCO <sub>3</sub>   | 12           | 0              | 8              | 0            | 12             | 4           | 12           | 28        | 0       |
| BICARBONATES AS CaCO <sub>3</sub> | 44           | 190            | 48             | 174          | 164            | 156         | 48           | 96        | 140     |
| CHLORIDES AS Cl                   | 8            | 36             | 10             | 14           | 22             | 20          | 16           | 134       | 8       |
| HARDNESS AS CaCO <sub>3</sub>     | 60           | 76             | 86             | 92           | 62             | 42          | 60           | 58        | 138     |
| IRON AS Fe                        | 0.04         | 0.54           | 0.04           | 0.24         | 0.06           | 0.07        | 0.04         | 0.31      | 0.51    |
| FLUORIDE                          | AM           | 1.30           | 1.3            | 0.58         | 0.58           | 0.34        | 1.13         | 1.06      | 0.34    |
|                                   | PM           | 1.26           | 0.79           | 1.33         | 0.58           | 0.58        | 0.83         | 1.06      | 0.34    |
| CHLORINE RESIDUAL                 | 1.0          | 1.3            | 1.0            | 1.2          | 1.2            | 1.0         | 1.0          | 1.3       | —       |
| TURBIDITY                         | AM           | 1.5            | 0.4            | 0.4          | 0.4            | 0.4         | 0.3          | 1.4       | 3.3     |
|                                   | PM           | 0.5            | 0.7            | 0.5          | 0.3            | 0.4         | 0.3          | 1.4       | 3.3     |
| TOTAL PHOSPHATE                   |              | 4.60           |                |              | 1.92           |             |              |           |         |
| ORTHO PHOSPHATE                   |              | 1.54           |                |              | 0.32           |             |              |           |         |
| META PHOSPHATE                    |              | 3.06           |                |              | 1.60           |             |              |           |         |
| STABILITY                         | +0.4         | -0.5           | +0.2           | -0.4         | 0.0            | -0.1        | +0.2         | +0.2      | —       |

REMARKS

CLW

000004526

NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.

LABORATORY ANALYSIS BY  
*T. J. Burns*

DATE OF ANALYSIS  
24 APRIL 1984