

NREAD/DDS/jc
6286/1
2 Mar 1984

From: Commanding General
To: Commanding Officer, Naval Hospital
Subj: Water Quality Monitoring and Related Environmental Health Considerations
Ref: (a) CG MCB CLWC 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 NMNC Ice Samples Bacteriological Analysis
(4) Miscellaneous Bacteriological Analysis of Water

1. In accordance with the reference, enclosures (1) through (4) are forwarded for information.

2. Questions regarding this matter should be forwarded to Mr. Danny Sharpe, Supervisory Ecologist, extensions 2083, 5003 or 1696.

J. I. WOOTEN
By direction

Blind copy to:
SupvChem

CLW
0000004088

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

Five

DATE COLLECTED
 1/17/84

PARAMETER	HADNOT POINT	MONTFORD POINT	TARAWA TERRACE	ONSLow BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER
PH	1.0	7.5	7.7	7.5	8.4	8.4	8.8	8.6
PENOLTHALEIN ALKALINITY	2	0	0	0	4	4	4	10
METHYL ORANGE ALKALINITY	44	180	120	110	110	114	64	20
CARBONATES AS CaCO ₃	4	0	0	0	8	8	8	20
BICARBONATES AS CaCO ₃	40	180	120	160	162	156	56	200
CHLORIDES AS Cl	10	30	10	20	20	4	14	170
HARDNESS AS CaCO ₃	50	80	136	60	56	54	70	54
IRON AS Fe	<0.04	0.57	0.08	0.22	<0.04	<0.04	<0.04	0.14
FLUORIDE	1.73		1.46				1.31	1.31
CHLORINE RESIDUAL	1.0	1.0	1.0	1.5	1.5	1.0	1.0	1.3
TURBIDITY	0.14	0.16	0.18	0.14	0.14	0.15	0.18	0.28
TOTAL PHOSPHATE		1.13			1.21			
ORTHO PHOSPHATE		1.00			1.02			
META PHOSPHATE		0.13			0.19			
STABILITY	+0.3	-0.5	-0.3	-2.6	0.0	0.0	+0.2	+0.1

REMARKS
 CLW
 0000004089

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
 H. J. [Signature]

DATE OF ANALYSIS
 1/17/84

PARAMETER	HADNOT POINT	MONTFORD POINT	TARAWA TERRACE	ONSLow BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER
PH	8.5	7.4	8.7	7.5	8.4	8.1	8.7	8.7
PENOLTHALEIN ALKALINITY	8	0	8	0	2	0	10	14
METHYL ORANGE ALKALINITY	70	186	54	154	174	176	76	250
CARBONATES AS CaCO ₃	16	0	16	0	4	0	20	28
BICARBONATES AS CaCO ₃	54	186	38	154	170	176	56	222
CHLORIDES AS Cl	10	24	4	14	24	14	14	110
HARDNESS AS CaCO ₃	54	96	80	66	70	66	72	54
IRON AS Fe	0.04	0.57	0.04	0.19	0.04	0.04	0.04	0.15
FLUORIDE	0.89 0.90	0.17	0.80 0.75	0.19	0.10	0.10	0.88 0.90	1.21
CHLORINE RESIDUAL	1.0	1.2	1.0	1.3	1.2	1.0	1.0	1.3
TURBIDITY	0.14 0.14	0.18	0.15 0.18	0.15	0.16	0.16	0.15 0.14	0.46
TOTAL PHOSPHATE		2.75			1.60			
ORTHO PHOSPHATE		1.10			0.22			
META PHOSPHATE		1.65			1.38			
STABILITY	0.1	0.4	0.2	0.6	0.2	0.1	0.3	0.3

REMARKS

CLW

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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

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DATE OF ANALYSIS

11/1/84

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MOBCL 11330/3 (REV. 3-82)

File

DATE COLLECTED

2/21/84

PARAMETER	HADNOT POINT	MONTFORD POINT	TARAWA TERRACE	ONSLow BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER
PH	8.4	7.4	8.4	7.6	8.4	8.1	8.4	8.4
PENOLTHALEIN ALKALINITY	6	0	2	0	4	0	4	8
METHYL ORANGE ALKALINITY	40	170	60	100	160	156	84	160
CARBONATES AS CaCO ₃	12	0	4	0	8	0	8	16
BICARBONATES AS CaCO ₃	28	170	56	100	152	156	76	144
CHLORIDES AS Cl	8	30	10	14	16	20	10	10
HARDNESS AS CaCO ₃	56	(64)	88	58	56	64	84	50
IRON AS Fe	40.04	0.65	40.04	0.26	40.04	0.07	40.04	0.14
FLUORIDE	0.14 0.13	0.15	0.83 0.77	0.17	0.10	0.09	0.33 0.26	0.64
CHLORINE RESIDUAL	1.0	1.4	1.0	1.0	1.2	1.0	0.7	1.4
TURBIDITY	1.0 1.0	< 3.0	1.0 1.0	1.0	< 1.0	1.0	1.0 1.0	< 3.0
TOTAL PHOSPHATE		3.65			16.2			
ORTHO PHOSPHATE		1.24			0.22			
META PHOSPHATE		2.41			1.40			
STABILITY	+0.3	-0.4	+0.1	-0.4	+0.2	-0.1	+0.2	0

REMARKS

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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

DATE OF ANALYSIS

2/21/84

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

DATE COLLECTED

PARAMETER	HADNOT POINT	MONTFORD POINT	TARAWA TERRACE	ONSLow BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER	
PH	5.7	1.1	1.6	1.6	1.3	2	2.6	2	
PENOLTHALEIN ALKALINITY	6	0	0	0	0	2	4	2	
METHYL ORANGE ALKALINITY	1.0	150	136	140	110	140	360	140	
CARBONATES AS CaCO ₃	12	0	0	0	0	4	8	16	
BICARBONATES AS CaCO ₃	48	180	106	140	110	156	58	44	
CHLORIDES AS Cl	10	30	8	20	18	24	18	14	
HARDNESS AS CaCO ₃	64	74	140	60	64	52	78	60	
IRON AS Fe	40.04	48	40.04	2.25	40.04	0.08	20.04	20	
FLUORIDE	0.14	0.14	0.17 0.58	0.11	0.11	0.01	0.17	0.56	
CHLORINE RESIDUAL	0.8	1.3	1.0	1.3	1.5	1.1	1.1	1.4	
TURBIDITY	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	
TOTAL PHOSPHATE		1.95			0.25				
ORTHO PHOSPHATE		1.26			0.10				
META PHOSPHATE		2.19			0.25				
STABILITY	10.3	-0.5	-0.3	-0.4	-0.3	0.0	10.2	10.1	

REMARKS

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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

Lochpelle

DATE OF ANALYSIS

5/1/84

7 FEB 84

14 FEB 84

BACTERIOLOGICAL ANALYSIS OF WATER

NON-REPORTABLE

WATER SAMPLES	MARKED	COLIFORM COUNT M-ENDO MEDIUM	RESIDUAL CHLORINE	pH	TIME
BB-97		φ	1.0		0700
FC-19		I	1.2		1014
SH-8		I	0.5		1000
M.P. POOL		φ	0.5	7.6	1030
#2 POOL		I	0.6	7.4	0900
#5 POOL		I	1.5	7.6	0915
P. P. POOL					
P. P. BABY POOL					
MCAS E-POOL					
MCAS O-POOL					
MCAS BABY POOL					
		φ			1153

REMARKS

BACTERIOLOGICAL ANALYSIS OF WATER

NON-REPORTABLE

WATER SAMPLES	MARKED	COLIFORM COUNT M-ENDO MEDIUM	RESIDUAL CHLORINE	pH	TIME
BB-97		φ	0.8		0850
FC-19		φ	1.5		1025
SH-8		φ	TRACE		1010
M.P. POOL		φ	0.3	7.4	1100
#2 POOL		φ	0.5	7.4	0915
#5 POOL		φ	0.8	7.6	0930
P. P. POOL					
P. P. BABY POOL					
MCAS E-POOL					
MCAS O-POOL					
MCAS BABY POOL					
ICE - BLDG. 13W		(NO ICE)			

REMARKS

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0000004093

21 FEB 84

BACTERIOLOGICAL ANALYSIS OF WATER NON-REPORTABLE

WATER SAMPLES	MARKED	COLIFORM COUNT M-ENDO MEDIUM	RESIDUAL CHLORINE	pH	TIME
BB-97		✓	0.2		0900
FC-19		I	0.0		1030
SH-8		I	0.1		1020
M.P. POOL		✓	1.0	7.2	1115
#2 POOL		I	0.5	7.0	1023
#5 POOL		I	1.0	7.6	1035
P. P. POOL					
P. P. BABY POOL					
MCAS E-POOL					
MCAS O-POOL					
MCAS BABY POOL					
ICE Sample Bld 1300		✓			1110

REMARKS

File 28 FEB 84

BACTERIOLOGICAL ANALYSIS OF WATER NON-REPORTABLE

WATER SAMPLES	MARKED	COLIFORM COUNT M-ENDO MEDIUM	RESIDUAL CHLORINE	pH	TIME
BB-97		∅	1.3		1015
FC-19		∅	1.5		0949
SH-8		∅	0.4		0940
M.P. POOL		∅	0.9	7.4	1115
#2 POOL		∅	0.6	7.4	1051
#5 POOL		∅	0.8	7.6	1015
P. P. POOL					
P. P. BABY POOL					
MCAS E-POOL					
MCAS O-POOL					
MCAS BABY POOL					
ICE Sample Bld 1300		∅			0850

REMARKS

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

DATE COLLECTED

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 - 9	1	✓	1.0	1:45	MCAS - 3502	24	✓	0.9	1:10	TIME RECEIVED
RR - 15	2	I	0.8	1:50	MCAS - 2002	25	I	0.6	1:54	DATE RECEIVED 7/25/94
RR - 2	3	I	0.8	1:35	MCAS - 2111	26	I	0.6	1:30	ACCEPTED BY
	4				MCAS - 2123	27	I	0.7	1:10	DATE ANALYZED 7/25/94
A-1	5	✓	1.5	1:10		28				ANALYSIS STARTED
BB - 7	6	I	1.4	1:15	NRMC - 1111	29	✓	0.8	1:22	ANALYSIS FINISHED
BB - 49	7	I	1.1	1:10	PP - 2615	30	I	0.6	1:11	INCUBATOR TEMP 25.0 C
BB - 15	8	I	1.5	1:10	PP - 111	31	I	0.6	1:08	PROCESSED BY 7/25/94
	9				BM - 5400	32	I	0.1	1:14	
BA - 103	10	✓	1.4	1:15	BM - 110	33	I	0.6	1:16	CUSTODY DATA
BA - 111	11	I	1.4	1:30	LCH - 4022	34	I	0.5	1:30	DATE
	12				LCH - 4115	35	I	0.5	1:10	TIME
TT - 38	13	✓	1.0	1:30		36				SIGNATURE
TT - 43	14	I	1.0	1:45	H - 1	37	✓	0.1	1:15	DATE
T - 111	15	I	1.1	1:45	H - 2	38	I	0.6	1:10	TIME
	16				FC - 303	39	I	0.1	1:50	SIGNATURE
CK -	17	✓	0.3	1:10	FC - 420	40	I	0.2	1:10	
M - 139	18	I	1.1	1:10	FC - 400	41	I	0.1	1:05	COPY TO:
M -	19	I	1.3	1:10	HP - 236	42	I	0.1	1:10	<input type="checkbox"/> UTIL DIR
	20				HP - 540	43	I	0.1	1:10	<input type="checkbox"/> WATER TREATMENT
CG - 1	21	✓	0.1	1:10	HP - 1300	44	I	0.1	1:10	<input type="checkbox"/> PMU <input type="checkbox"/> MCAS PMO
TC - 830	22	I	1	1:10	HP -	45	I	0.6	1:15	<input type="checkbox"/> NREAD <input checked="" type="checkbox"/> FILE
TC -	23	I	0.3	1:10						<input type="checkbox"/>

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REMARKS

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BACTERIOLOGICAL ANALYSIS OF WATER

MCBCL 11330/4 (REV. 7-83)

DATE COLLECTED

2/11/84

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	1.0	1000	MCAS - 3502	24	0	0.4	0717	TIME RECEIVED 2/11/84
RR - 15	2		0.7	1154	MCAS - 2002	25		0.6	1138	DATE RECEIVED 2/14/84
RR - 15	3		1.0	1005	MCAS - 2018	26		0.7	0727	ACCEPTED BY 30003
A-1	4				MCAS - 4157	27		0.7	1107	DATE ANALYZED 2/14/84
BB - 7	6		1.2	0815	NRMC - FOOD SERVICE	29		0.6	1045	ANALYSIS STARTED 1230
BB - 49	7		1.2	0810	PP - 2615	30		0.5	1120	ANALYSIS FINISHED 1100
BB - 45	8		1.2	0810	PP - 2600	31		0.4	1130	INCUBATOR TEMP 25
	9				BM - 5400	32		0.5	1055	PROCESSED BY 13003
BA - 103	10		1.2	1105	BM - 4185	33		0.4	1110	CUSTODY DATA
BA - 101	11		1.2	1110	LCH - 4022	34		0.5	1230	DATE
	12				LCH - 4002	35		0.6	1300	TIME
TT - 38	13		1.0	0915		36				SIGNATURE
TT - 43	14		0.9	0925	H - 1	37		0.5	1140	DATE
TT - 43	15		1.0	0945	H - 16	38		0.6	1200	TIME
	16				FC - 303	39		1.0	0910	SIGNATURE
CK - 1100	17		0.8	1015	FC - 420	40		0.8	0930	
M - 139	18		1.1	1100	FC - 260	41		0.1	1100	COPY TO:
M - 503	19		0.7	1030	HP - 236	42		0.6	0915	<input type="checkbox"/> UTIL DIR
	20				HP - 540	43		0.6	0930	<input type="checkbox"/> WATER TREATMENT
CG - 1	21		0.4	1150	HP - 1300	44		0.5	0900	<input type="checkbox"/> PMU <input type="checkbox"/> MCAS PMO
TC - 830	22	✓	1.3	1144	HP - 20	45		0.8	1210	<input type="checkbox"/> NREAD <input type="checkbox"/> FILE
TC - 701	23	✓	0.5	0857		46	CLW			<input type="checkbox"/>

REMARKS

(1) water samples from RR. 3 = 0000004098

SIGNATURE

H. J. Burns

2/15/84

Further
 INFECTION CONTROL Naval Hospital

WATER TYPE ICE SAMPLE COLLECTED BY Am 2 Buet DATE COLLECTED 28 Feb 84

LOCATION	MARKED	COLIFORM	
		TOTAL	FECAL
4A	0915	0	
4W	}	0	
3W		0	
3E		0	
CCU		OUT OF ORDER	
ICU		0	
2E		0	
2W		0	
LED		0	
NSG		0	
R.R.		0935	0
ER	0915	0	

REMARKS

Red. - Lab 1010 2/28/84 115H
 Set up 2/28/84 115H

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0000004097

SIGNATURE

16. J. Buet

DATE

29 Feb 84

COPY TO

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

QUALITY CONTROL LABORATORY REPORT
MISCELLANEOUS BACTERIOLOGICAL ANALYSIS OF WATER

MCBCL 11330/8 (REV. 4/78)

WATER TYPE	SAMPLE COLLECTED BY	DATE COLLECTED	
LOCATION	MARKED	COLIFORM	
		TOTAL	FECAL
TC 1110	12 6 7 12 132	4	

REMARKS

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0000004098

SIGNATURE *H. Bennett* DATE *1/2/74*

COPY TO

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

QUALITY CONTROL LABORATORY REPORT
MISCELLANEOUS BACTERIOLOGICAL ANALYSIS OF WATER

MCBCL 11330/8 (REV. 4/78)

WATER TYPE	SAMPLE COLLECTED BY		DATE COLLECTED	
LOCATION	MARKED	COLIFORM		FECAL
		TOTAL		
559		/		

16 FEB 84

REMARKS

0755
 1038 6-8-84
 1045

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 0000004099

SIGNATURE *H. J. [Signature]* DATE 7 FEB 84

COPY TO

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