

6280/1  
NREAD  
6 Nov 1984

From: Commanding General, Marine Corps Base, Camp Lejeune  
To: Commanding Officer, Naval Hospital, Marine Corps Base,  
Camp Lejeune

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 Naval Hospital Ice Samples Bacteriological  
Analysis  
(4) Analysis of Complaints  
(5) Standard Plate Counts at Naval Hospital  
(6) Water Plant Maintenance Check Samples

1. In accordance with the reference, enclosures (1) through (6)  
are forwarded for information.

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

J. I. WOOTEN  
By direction

Blind copy to:  
SupvChem

Writer: E. Betz, NREAD, 5977  
Typist: J. Cross, 6 Nov 84

CLW

0000004228

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

DATE COLLECTED  
 2 OCTOBER 84

PARAMETER	HADNOT POINT	MONTFORD POINT	TARAWA TERRACE	ONSLow BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER
PH	8.9	7.3	8.7	7.4	8.5	8.3	7.0	8.6
PENOLTHALEIN ALKALINITY	6	0	2	0	4	0	8	8
METHYL ORANGE ALKALINITY	52	174	40	160	150	152	56	164
CARBONATES AS CaCO <sub>3</sub>	12	0	4	0	8	0	16	16
BICARBONATES AS CaCO <sub>3</sub>	40	174	36	160	142	152	40	148
CHLORIDES AS Cl	10	20	10	20	10	16	10	90
HARDNESS AS CaCO <sub>3</sub>	60	50	62	56	60	42	60	0.58
IRON AS Fe	20.04	(0.4)	20.04	0.17	20.04	20.04	0.15	0.12
FLUORIDE	<del>0.94</del> 0.75	0.14	<del>0.97</del> 1.05	0.13	0.09	0.07	<del>0.96</del> 0.70	0.81
CHLORINE RESIDUAL	1.0	1.2	1.0	1.3	1.3	1.0	0.9	1.3
TURBIDITY	<del>0.3</del> 0.30	1.00	<del>0.3</del> 8.00	0.40	0.40	0.30	<del>0.3</del> 8.10	3.90
TOTAL PHOSPHATE		3.85			0.69			
ORTHO PHOSPHATE		1.32			0.19			
META PHOSPHATE		2.53			0.50			
STABILITY	40.7	-0.9	+0.3	-0.7	+0.0	0.0	+0.7	+0.1

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0.3, PAND: pH = 8.2

COPY TO  
 UTIL DIR

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  
 13/10/84 J.S.

DATE OF ANALYSIS  
 2 OCTOBER 84

9 OCTOBER 1984

PARAMETER	HADNOT POINT -041	MONTFORD POINT -045	TARAWA TERRACE -044	ONSLow BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLYD -043	NEW RIVER -046
PH (IN LAB NOT PLANT)	8.8	7.8	8.9	7.6	8.3	8.3	8.9	8.7
PENOLTHALEIN ALKALINITY	6	0	6	0	4	2	6	12
METHYL ORANGE ALKALINITY	82	196	52	166	172	196	60	220
CARBONATES AS CaCO <sub>3</sub>	12	0	12	0	8	4	12	24
BICARBONATES AS CaCO <sub>3</sub>	70	196	40	166	164	192	48	196
CHLORIDES AS Cl	10	20	18	18	20	52	20	94
HARDNESS AS CaCO <sub>3</sub>	74	66	76	56	50	52	66	48
IRON AS Fe	0.04	0.34	0.04	0.15	0.04	0.09	0.04	0.04
FLUORIDE	Am 0.93		1.24				0.98	
	Pm 0.95	0.16	1.19	0.16	0.11	0.10	0.84	0.87
CHLORINE RESIDUAL	0.9	1.4	1.0	1.5	1.1	1.0	0.9	1.3
TURBIDITY	Am 0.33		0.46				0.40	
	Pm 0.31	0.94	0.75	0.25	0.21	0.46	0.35	0.63
TOTAL PHOSPHATE		2.75			0.81			
ORTHO PHOSPHATE		1.04			0.22			
META PHOSPHATE		1.71			0.59			
STABILITY	+0.3	-0.3	+0.5	-0.8	-0.2	-0.2	+0.2	+0.1

CLW

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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 *BARBER + HUNECOTT* *OB*

DATE OF ANALYSIS *9 Oct 1984*

CHEMICAL ANALYSIS - WATER TREATMENT PLANTS  
 MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED

10-16-84

DATE OF ANALYSIS

10-16-84

PARAMETER	HADNOT POINT	CAMP JOHNSON	TARAWA TERRACE	ONSLow BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER		
PH	9.1	7.4	7.8	7.5	8.5	8.1	8.8	8.5		
PHENOLTHALEIN ALKALINITY	8	0	0	0	4	0	4	6		
METHYL ORANGE ALKALINITY	56	182	134	168	142	176	66	244		
CARBONATES AS CaCO <sub>3</sub>	16	0	0	0	8	0	8	12		
BICARBONATES AS CaCO <sub>3</sub>	40	182	134	168	134	176	58	232		
CHLORIDES AS Cl	10	24	18	22	16	20	8	116		
HARDNESS AS CaCO <sub>3</sub>	64	68	144	56	50	60	66	58		
IRON AS Fe	<0.04	0.43	0.06	0.14	<0.04	<0.04	<0.04	<0.04		
FLUORIDE	0.97/0.95	0.16	1.10/1.16	0.15	0.10	0.09	1.05/0.84	0.89		
CHLORINE RESIDUAL	1.1	1.3	1.0	1.5	1.4	1.0	1.0	1.3		
TURBIDITY	0.30/0.40	0.96	0.40/0.42	0.20	0.29	0.33	0.20/0.28	0.50		
TOTAL PHOSPHATE		3.30			1.32					
ORTHO PHOSPHATE		1.17			0.16					
META PHOSPHATE		2.13			1.16					
STABILITY	+0.5	-0.6	-0.1	-0.8	0	-0.3	+0.2	0		

REMARKS

PH OB POND - 8.3

CLW

0000004231

COPY TO:

- UTIL DIR  \_\_\_\_\_
- WATER TREATMENT
- PMU  MCAS PMU
- NREAD  FILE

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. Barber* *L. Hargrett*

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS  
 MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED  
 10/23/84

DATE OF ANALYSIS  
 10/23/84

PARAMETER	HADNOT POINT	CAMP JOHNSON	TARAWA TERRACE	ONSIOW BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER		
PH	8.9	7.3	8.5	7.4	8.3	8.3	8.7	8.5		
PHENOLTHALEIN ALKALINITY	4	0	2	0	0	0	4	6		
METHYL ORANGE ALKALINITY	50	174	60	160	142	144	60	210		
CARBONATES AS CaCO <sub>3</sub>	8	0	4	0	0	0	8	12		
BICARBONATES AS CaCO <sub>3</sub>	42	174	56	160	142	144	52	198		
CHLORIDES AS Cl	10	10	10	14	12	14	10	90		
HARDNESS AS CaCO <sub>3</sub>	54	80	80	60	70	46	70	48		
IRON AS Fe	<0.04	0.36	<0.04	0.13	<0.04	<0.04	<0.04	<0.04		
FLUORIDE	<del>1.00</del> 1.07	0.17	<del>0.78</del> 0.72	0.15	0.11	0.09	<del>0.83</del> 0.79	0.93		
CHLORINE RESIDUAL	1.0	1.5	1.0	1.3	1.3	1.0	1.0	1.3		
TURBIDITY	<del>0.34</del> 0.55	1.03	<del>0.47</del> 0.64	0.26	0.30	0.29	<del>0.23</del> 0.26	0.47		
TOTAL PHOSPHATE		1.92			1.54					
ORTHO PHOSPHATE		0.84			0.28					
META PHOSPHATE		1.08			1.26					
STABILITY	+0.6	-0.8	+0.3	-0.7	+0.1	0.0	+0.4	+0.1		

REMARKS

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COPY TO:

UTIL DIR     \_\_\_\_\_

WATER TREATMENT

PMU     MCAS PMU

NREAD     FILE

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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CHEMICAL ANALYSIS — WATER TREATMENT PLANTS  
 MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED

30 Oct 84

DATE OF ANALYSIS

30 Oct 84

PARAMETER	HADNOT POINT	CAMP JOHNSON	TARAWA TERRACE	ONSLow BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER		
PH	9.0	7.5	9.0	7.5	8.5	8.5	9.5	8.8		
PHENOLTHALEIN ALKALINITY	4	0	6	0	4	2	8	10		
METHYL ORANGE ALKALINITY	48	184	46	160	160	152	48	238		
CARBONATES AS CaCO <sub>3</sub>	8	0	12	0	8	4	16	20		
BICARBONATES AS CaCO <sub>3</sub>	40	184	34	160	152	148	32	218		
CHLORIDES AS Cl	10	12	12	18	18	16	12	88		
HARDNESS AS CaCO <sub>3</sub>	64	66	66	72	68	52	50	46		
IRON AS Fe	<0.04	0.41	<0.04	0.13	<0.04	<0.04	0.04	0.06		
FLUORIDE	AM 1.03 PM 0.99	0.16	AM 0.91 PM 0.89	0.15	0.11	0.10	AM 0.91 PM 0.93	0.98		
CHLORINE RESIDUAL	1.0	1.3	1.0	1.5	1.3	1.0	1.0	1.3		
TURBIDITY	AM 0.3 PM 0.3	1.5	AM 0.7 PM 1.2	0.3	0.2	0.2	AM 0.2 PM 0.3	0.3		
TOTAL PHOSPHATE		2.08			1.00					
ORTHO PHOSPHATE		1.00			0.25					
META PHOSPHATE		1.08			0.75					
STABILITY	+0.6	-0.8	+0.4	-0.8	+0.1	0.0	+0.6	+0.2		

REMARKS

Resample HB/pH = 9.4 "High pH due to Meter malfunction at Water Plant"  
 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

*R.P.D.*

COPY TO:

- UTIL DIR
- WATER TREATMENT
- PMU  MCAS PMU
- NREAD  FILE

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	Ø	0.7	1010	MCAS - 3502	24	Ø	0.2	0945	TIME RECEIVED 1218-1312
RR - 15	2		0.8	1020	MCAS - 2002	25		0.2	0955	DATE RECEIVED 10-2-84
RR - 72	3		0.7	1040	MCAS - 4157	26		0.9	0930	ACCEPTED BY J
	4				MCAS - 2030	27		0.6	1010	DATE ANALYZED 10-2-84
A-1	5		0.8	0954		28				ANALYSIS STARTED 1235-1330
BB - 7	6		0.9	0900	NRMC - Food Ser.	29		0.7	1145	ANALYSIS FINISHED 1250-1405
BB - 49	7		0.8	0935	PP - 2615	30		0.5	1122	INCUBATOR TEMP 35.5°C
BB - 9	8		0.8	0930	PP - 2604	31		0.5	1130	PROCESSED BY J
	9				BM - 5400	32		0.6	1151	
BA - 103	10		0.9	1110	BM - 825	33		0.5	1200	CUSTODY DATA
BA - 144	11		1.0	1115	LCH - 4022	34		0.5	1233	DATE
	12				LCH - 4025	35		0.5	1241	TIME
TT - 38	13		1.0	0900		36				SIGNATURE
TT - 43	14		0.9	0920	H - 1	37		0.5	1106	DATE
TT - 3540	15		0.8	0945	H - 16	38		0.5	1113	TIME
	18				FC - 303	39		0.7	0942	SIGNATURE
CK - 1006	17		0.8	1030	FC - 420	40		0.7	0934	
M - 139	18		1.2	1115	FC - E-Club	41		0.8	0927	COPY TO:
M - 103	19		1.1	1130	HP - 236	42		0.5	1050	<input type="checkbox"/> UTIL DIR
	20				HP - 540	43		0.6	1040	<input type="checkbox"/> WATER TREATMENT
CG - 1	21		0.2	0840	HP - 1300	44		0.4	0900	<input type="checkbox"/> PMU <input type="checkbox"/> MCAS PMO
TC - 830	22		1.2	0920	HP - 1006	45	Ø	0.5	0915	<input type="checkbox"/> NREAD <input checked="" type="checkbox"/> FILE
TC - 6560	23	Ø	0.5	0905		46				<input type="checkbox"/>

REMARKS

Samples 5, 6, 7, 8, 15, 21, SH-8 + Ice Sample showed non-coliform growth.

SIGNATURE

Robert J. Lebonelle

**BACTERIOLOGICAL ANALYSIS OF WATER**

**NON-REPORTABLE**

WATER SAMPLES	MARKED	COLIFORM COUNT M-ENDO MEDIUM	RESIDUAL CHLORINE	pH	TIME
BB-97		Ø	0.6		0915
FC-19		Ø	0.6		1010
SH-8		Ø	0.4		0957
T.T. Pool		Closed			
M.P. POOL		Closed			
#2 POOL		Ø	0.8	7.6	1055
#5 POOL		Ø	1.5	7.3	1030
P. P. POOL					
P. P. BABY POOL					
MCAS E-POOL					
MCAS O-POOL					
MCAS BABY POOL					

REMARKS

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

*Fitz*

DATE COLLECTED  
10/1/84

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	0.7	1110	MCAS - 3502	24	0	0.6	1030	TIME RECEIVED 12/11-13-84
RR - 15	2		0.8	1130	MCAS - 2002	25		0.7	1000	DATE RECEIVED 10/1/84
RR - 10	3		0.9	1120	MCAS - 4157	26		0.6	1015	ACCEPTED BY
	4				MCAS - 1182	27		0.7	0900	DATE ANALYZED 10/9/84
A-1	5		0.9	1045		28				ANALYSIS STARTED 1245
BB - 7	6		1.2	0820	NRMC - 2000	29		0.8	1135	ANALYSIS FINISHED 1130
BB - 49	7		0.9	0900	PP - 2615	30		0.5	1120	INCUBATOR TEMP 35
BB - 245	8		0.9	0830	PP - 2600	31		0.5	1125	PROCESSED BY <i>h. g. ...</i>
	9				BM - 5400	32		0.8	1145	CUSTODY DATA
BA - 103	10		0.8	0950	BM - 1985	33		0.8	1155	
BA - 102	11		0.8	1011	LCH - 4022	34		0.4	1345	DATE
	12				LCH - 4114	35		0.6	1240	TIME
TT - 38	13		1.0	0920		36				SIGNATURE
TT - 43	14		0.9	0945	H-14, 0.7, 10, 3	37		0.8	1110	DATE
TT - 3369	15		0.6	1015	H - 16	38		0.8	1100	TIME
	16				FC - 303	39		1.2	0950	SIGNATURE
CK - 1413	17		0.5	1145	FC - 420	40		0.8	0940	COPY TO:
M - 100 136	18		0.7	1145	FC - 540	41		0.8	0935	
M - 19	19		1.3	1115	HP - 236	42		0.8	1045	<input type="checkbox"/> UTIL DIR
	20				HP - 540	43		0.8	0925	<input type="checkbox"/> WATER TREATMENT
CG - 1	21		0.6	0915	HP - 1300	44	V	0.3	0910	<input type="checkbox"/> PMU <input type="checkbox"/> MCAS PMO
TC - 830	22	V	0.7	0930	HP - 1500	45	0	1.0	1030	<input type="checkbox"/> NREAD <input type="checkbox"/> FILE
TC - 834	23	0	0.5	0915		46				<input type="checkbox"/> _____

REMARKS

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SIGNATURE

*H. J. ...*

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BACTERIOLOGICAL ANALYSIS OF WATER

NON-REPORTABLE

WATER SAMPLES	MARKED	COLIFORM COUNT M-ENDO MEDIUM	RESIDUAL CHLORINE	pH	TIME	
BB-97		∅	0.5		0845	
FC-19		∅	0.2		1015	
SH-8		CONFLUENT GROWTH 0.2			1000	
M.P. POOL		CLOSED FOR REPAIR				
#2 POOL		∅	0.5	7.0	1045	
#5 POOL		∅	0.8	7.2	0925	
P. P. POOL		/				
P. P. BABY POOL						
MCAS E-POOL						
MCAS O-POOL						
MCAS BABY POOL						
ICE PLANT			∅			0910
BLAG 1300						

REMARKS

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MCBCL 1138/4 (A)

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

DATE COLLECTED  
16 Oct 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	Ø	1.0	1040	MCAS - 3502	24	Ø	0.2	0910	TIME RECEIVED 1222
RR - 15	2		0.9	1020	MCAS - 2002	25		0.6	0920	DATE RECEIVED 10-16-84
RR - 6	3		1.0	1035	MCAS - 4157	26		0.5	0900	ACCEPTED BY J
	4				MCAS - 2116	27		0.6	0930	DATE ANALYZED 10-16-84
A-1	5		0.8	0940		28				ANALYSIS STARTED 1300
BB - 7	6		1.0	0845	NRMC - Food Service	29		0.8	1125	ANALYSIS FINISHED 1430
BB - 265	7		1.0	0920	PP - 2615	30		0.5	1110	INCUBATOR TEMP 35.0°C
BB - 245	8		1.0	0900	PP - 2613	31		0.6	1113	PROCESSED BY J
	9				BM - 5400	32		0.8	1132	
BA - 103	10		1.1	1045	BM - MCX	33		0.4	1143	CUSTODY DATA
BA - 101	11		1.1	1050	LCH - 4022	34		0.5	1200	DATE
	12				LCH - 4025	35		0.6	1206	TIME
TT - 38	13		1.0	0845		36				SIGNATURE
TT - 43	14		1.0	0900	H - 1	37		0.8	1050	DATE
TT - 221	15		0.9	0930	H - 18	38		0.4	1058	TIME
	16				FC - 303	39		1.0	0933	SIGNATURE
CK - 1603	17		0.8	1000	FC - 420	40		0.5	0925	
M - 136	18		0.9	1100	FC - 540	41		0.5	0920	COPY TO:
M - 104	19		0.9	1045	HP - 236	42		0.9	1030	<input checked="" type="checkbox"/> UTIL DIR
	20				HP - 540	43		0.7	0910	<input type="checkbox"/> WATER TREATMENT
CG - 1	21		0.2	0850	HP - 1300	44		0.5	0850	<input type="checkbox"/> PMU <input type="checkbox"/> MCAS PMO
TC - 830	22		1.2	0835	HP - 1407	45		0.8	0855	<input type="checkbox"/> NREAD <input type="checkbox"/> FILE
TC - 650	23	Ø	0.8	0825		46	Ø			<input type="checkbox"/>

REMARKS #23 Numerous Non-coliform

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SIGNATURE

0000004238

Robert J. Tebrake

**BACTERIOLOGICAL ANALYSIS OF WATER**

**NON-REPORTABLE**

WATER SAMPLES	MARKED	COLIFORM COUNT M-ENDO MEDIUM	RESIDUAL CHLORINE	pH	TIME
BB-97		Ø	0.9		0910
FC-19					
SH-8		Ø	0.2		1000
M.P. POOL		Cloud			
#2 POOL		Ø	0.5	7.2	1030
#5 POOL		Ø	0.8	7.2	0910
P. P. POOL					
P. P. BABY POOL					
MCAS E-POOL					
MCAS O-POOL					
MCAS BABY POOL					
Ice Sample		Ø	0.5		0850

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REMARKS

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

Fit

DATE COLLECTED  
 2/20/84

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	1.0	0912	MCAS - 3502	24	φ	0.1	0914	TIME RECEIVED
RR-15	2		1.0	0910	MCAS - 2002	25		0.8	0921	DATE RECEIVED 2/23/84
RR-6	3		1.0	0915	MCAS - 1151	26		0.3	0902	ACCEPTED BY
	4				MCAS - 1250	27		0.4	0929	DATE ANALYZED 11/23/84
A-1	5		1.2	0855		28				ANALYSIS STARTED
BB-7	6		1.2	0820	NRMC - Food Service	29		0.6	1220	ANALYSIS FINISHED
BB-270	7		1.2	0845	PP-2615	30		0.6	1200	INCUBATOR TEMP 35.5°C
BB-45	8		1.2	0815	PP-2600	31		0.6	1105	PROCESSED BY Hineigutt
	9				BM-5400	32		0.6	1230	
BA-103	10		1.3	0945	BM-1985	33		0.5	1240	CUSTODY DATA
BA-101	11		1.3	0950	LCH-4022	34		0.6	1250	DATE
	12				LCH-4025	35		0.5	1255	TIME
TT-38	13		1.0	0845		36				SIGNATURE
TT-43	14		0.9	0900	H-1000 125	37		0.8	1150	DATE
TT-1004	15		0.7	0920	H-16	38		0.8	1145	TIME
	16				FC-303	39		1.0	0955	SIGNATURE
CK-1414	17		0.8	1000	FC-420	40		1.0	0950	
M-400 136	18		1.1	1045	FC-318	41		1.0	1000	COPY TO:
M-924	19		1.2	1100	HP-236	42		1.0	1115	<input type="checkbox"/> UTIL DIR
	20				HP-540	43		0.8	0730	<input type="checkbox"/> WATER TREATMENT
CG-1	21	✓	0.1	0550	HP-1300	44	✓	0.5	0915	<input type="checkbox"/> PMU <input type="checkbox"/> MCAS PMO
TC-830	22		1.5	0844	HP-1400	45	φ	0.8	0905	<input type="checkbox"/> NREAD <input type="checkbox"/> FILE
TC-F-150	23	φ	0.5	0830		46				<input type="checkbox"/>

REMARKS

CLW

SIGNATURE

0000004240

**BACTERIOLOGICAL ANALYSIS OF WATER**

**NON-REPORTABLE**

WATER SAMPLES	MARKED	COLIFORM COUNT M-ENDO MEDIUM	RESIDUAL CHLORINE	pH	TIME
BB-97		-ϕ	0.6		0830
FC-19					
SH-8		ϕ	1.0		1045
M.P. POOL					
#2 POOL		ϕ	0.7	7.0	1125
#5 POOL		ϕ	0.8	7.0	0930
P. P. POOL					
P. P. BABY POOL					
MCAS E-POOL					
MCAS O-POOL					
MCAS BABY POOL					
Ice Unit 51st 1300		ϕ			0915

REMARKS

CLW

0000004241

MCBC 119974 (A)

30 OCT 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	0954	MCAS - 3502	24	φ	0.3	0930	TIME RECEIVED
RR - 15	2	*	0.8	1000	MCAS - 2002	25	I	0.3	1000	DATE RECEIVED 10/15/84
RR - 10	3	I	0.6	1010	MCAS - 4157	26	I	0.4	0945	ACCEPTED BY
	4				MCAS - 2077	27	I	0.4	0945	DATE ANALYZED 10/30/84
A-1	5	φ	0.8	0930		28				ANALYSIS STARTED
BB - 7	6	I	0.9	0900	NRMC South Mountain	29	φ	0.9	1115	ANALYSIS FINISHED
BB - 49	7	I	0.8	0910	PP - 2815	30	I	0.4	1025	INCUBATOR TEMP 35.5°C
BB - 54	8	3	0.9	0927	PP - 2600 Fire House	31	I	0.6	1100	PROCESSED BY <i>Therese</i>
	9				BM - 5400 Nurse OHS	32	I	0.8	1125	1
BA - 103	10	φ	1.0	1100	BM - 1985	33	I	0.5	1135	CUSTODY DATA
BA - 101	11	I	1.0	1110	LCH - 4022	34	I	0.6	1205	DATE - 1
	12				LCH - 4025	35	I	0.8	1135	TIME
TT - 38	13	φ	1.0	0930		36				SIGNATURE
TT - 43	14	I	1.0	0940	H-1 Dev Sup off	37	φ	1.0	1030	DATE
TT - 2465	15	I	0.9	0920	H-18 Hood	38	I	0.4	1035	TIME
	16				FC - 303	39	I	1.3	0925	SIGNATURE
CK - 1610	17	φ	0.7	1000	FC - 420	40	I	1.0	0915	
M - 120-156	18	I	0.7	1010	FC - 540	41	I	1.2	0910	COPY TO:
M - 231	19	I	1.1	1045	HP - 236	42	I	0.4	1010	<input type="checkbox"/> UTIL DIR
	20				HP - 540	43	I	0.8	0830	<input type="checkbox"/> WATER TREATMENT
CG - 1	21	φ	0.2	0900	HP - 1300	44	I	0.5	0830	<input type="checkbox"/> PMU <input type="checkbox"/> MCAS PMO
TC - 830	22	I	1.0	0845	HP - 1407	45	I	1.0	0840	<input type="checkbox"/> NREAD <input checked="" type="checkbox"/> FILE
40-6-650	23	*	0.5	0830		46				<input type="checkbox"/>

REMARKS

\*Numerous non-coliform colonies.

CLW

SIGNATURE

000004242

BACTERIOLOGICAL ANALYSIS OF WATER

NON-REPORTABLE

WATER SAMPLES	MARKED	COLIFORM COUNT M-ENDO MEDIUM	RESIDUAL CHLORINE	pH	TIME
BB-97	✓	φ	0.0		0915
FC-19					
SH-8		φ	1.0		1140
M.P. POOL	closed for repairs				
#2 POOL		φ	0.5	1.0	1000
#5 POOL		φ	1.0	7.2	0855
P. P. POOL					
P. P. BABY POOL					
MCAS E-POOL					
MCAS O-POOL					
MCAS BABY POOL					
Tric Mt. 1300		No Ice			0830

REMARKS

A line stopped up.

CLW



**QUALITY CONTROL LABORATORY REPORT**  
**MISCELLANEOUS BACTERIOLOGICAL ANALYSIS OF WATER**  
 MCBCL 11220/8 (REV. 4/78)

*File*

WATER TYPE		SAMPLE COLLECTED BY		DATE COLLECTED	
POTABLE (RE-SAMPLE)		WPO		31 OCT 84	
LOCATION	MARKED	COLIFORM			
		TOTAL	FECAL		
BB-54	sta 1.2	∅			

REMARKS

BLD # BB54  
 STA 1.2  
 TIME 10:45

CLW  
 0000004244

SIGNATURE *B. ...* DATE 11/1/84

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

- BASE PREVENTIVE MEDICINE
- MCAS PREVENTIVE MEDICINE
- File*

QUALITY CONTROL LABORATORY REPORT  
 MISCELLANEOUS BACTERIOLOGICAL ANALYSIS OF WATER  
 MCBCL 11390/8 (REV. 4/78)

*File*

WATER TYPE		SAMPLE COLLECTED BY		DATE COLLECTED	
POTABLE (RESAMPLE)		WFO		11/1/84	
LOCATION	MARKED	COLIFORM			
		TOTAL	FECAL		
RR-15	CL-0.9	Ø			
13B-54	CL-1.1	Ø			

RR-15  
 CL-0.9  
 TIME 0930

- BB-54  
 - CL-1.1  
 - TIME 1130

REMARKS RECULAS 1250 11/1/84

CLW  
 0000004245

SIGNATURE *BJANS* DATE *11/2/84*

- 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 11226/3 (REV. 4/78)

WATER TYPE	SAMPLE COLLECTED BY	DATE COLLECTED		
ice	Jonathan Amundson	16 Oct 84	COLIFORM	
LOCATION	MARKED	TOTAL	FECAL	
2E		0		
2W		0		
ER		0		

REMARKS Recd. LAB 1115 16 Oct 84 -13

2W Oct 16, 1984 1015  
 2E Oct 16, 1984 1015  
 ER 1015 Oct 16, 1984

CLW  
 0000004246

SIGNATURE Robert J. Schmidt

DATE 10/17/84

- 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 11220/8 (REV. 4/78)

WATER TYPE	SAMPLE COLLECTED BY		DATE COLLECTED	
	LOCATION	MARKED	COLIFORM	
			TOTAL	FECAL
Ice		Shiffers		30 Oct 84
3E			Ø	
Peels			Ø	
3W			Ø	
PT			Ø	

REMARKS

CLW  
0000004247

SIGNATURE: *Steven H. Hertz* DATE: 31 OCT 84

- COPY TO:
- INREAD
  - UTILITIES DIRECTOR
  - WATER TREATMENT PLANT (GENERAL FOREMAN)
  - BASE PREVENTIVE MEDICINE
  - MCAS PREVENTIVE MEDICINE
  - Lik*

**QUALITY CONTROL LABORATORY REPORT**  
**MISCELLANEOUS BACTERIOLOGICAL ANALYSIS OF WATER**

MCBCL 11220/8 (REV. 4/78)

LOCATION	MARKED	COLIFORM	
		TOTAL	FECAL
FC-19	1	Ø	
	2	Ø	
	3	7	
	4	2	
	5	Ø	
	6	Ø	

**REMARKS**  
*Samples 1, 3, 4, 5 + 6 showed Non-coli form growth.*  
*Confirmed colonies 1 on #3 + 2 on #4.*

CLW  
 0000004248

SIGNATURE *Robert Schaefer* DATE *9 Oct 1984*

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

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 6-84)

FC-19

18

DATE COLLECTED

10-3-84

DATE OF ANALYSIS

10-3-84

PARAMETER	HADNOT POINT	CAMP JOHNSON	TARAWA TERRACE	ONSLow BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER		
PH	8.1 7.6									
PHENOLTHALEIN ALKALINITY	0									
METHYL ORANGE ALKALINITY	176									
CARBONATES AS CaCO <sub>3</sub>	0									
BICARBONATES AS CaCO <sub>3</sub>	176									
CHLORIDES AS Cl	30									
HARDNESS AS CaCO <sub>3</sub>	188									
IRON AS Fe mg/l.	0.96									
FLUORIDE	0.15									
CHLORINE RESIDUAL	-									
TURBIDITY	2.6									
TOTAL PHOSPHATE	-									
ORTHO PHOSPHATE	-									
META PHOSPHATE	-									
STABILITY	-0.5									

REMARKS

CLW

0000004249

COPY TO:

UTIL DIR

WATER TREATMENT

PMU  MCAS-PMU

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 Barber

QUALITY CONTROL LABORATORY REPORT  
MISCELLANEOUS BACTERIOLOGICAL ANALYSIS OF WATER  
MCBCL 11890/8 (REV. 4/78)

File

WATER TYPE FC-19	SAMPLE COLLECTED BY PMJ	DATE COLLECTED 10 OCT 84			
		LOCATION	MARKED	COLIFORM	
		TOTAL	FECAL		
FC-19 IMMEDIATE					
CATCH		Ø			
FC-19 10 MIN CATCH		Ø			

REMARKS PLATE COUNT 48 HRS = FC-19 IMMEDIATE CATCH 6/1ML  
FC-19 10 MIN. CATCH 3/1ML

CLW

0000004250

SIGNATURE H.J. Burns DATE 12 OCT 84

COPY TO

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

**QUALITY CONTROL LABORATORY REPORT**  
**MISCELLANEOUS BACTERIOLOGICAL ANALYSIS OF WATER**

MCBCL 11896/8 (REV. 4/78)

WATER TYPE	SAMPLE COLLECTED BY		DATE COLLECTED	
POTABLE	PMU		10/22/84	
LOCATION	MARKED	COLIFORM		
		TOTAL	FECAL	
C.J. BLDG. 319 (HEAD)	1	φ *		
UNBIASED				
C.J. BLDG. 319	2	φ		
BIASED				
MOQ 3107	3	φ		
UNBIASED				
MOQ 3107	4	φ		
BIASED				

REMARKS Recd. LAB 1350 10/22/84 B  
 \* 111 non-coliform colonies.

CLW  
 0000004251

SIGNATURE *Brian Hernandez* DATE 10/23/84  
 COPY TO

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



**QUALITY CONTROL LABORATORY REPORT  
MISCELLANEOUS BACTERIOLOGICAL ANALYSIS OF WATER**

MCBCL 11390/8 (REV. 4/78)

WATER TYPE	SAMPLE COLLECTED BY	DATE COLLECTED	
		TOTAL	FECAL
LOCATION	MARKED	COLIFORM	
<i>Potable</i>	<i>Water Plant Personnel</i>	<i>10/19/84</i>	
<i>1104 2210</i>	<i>Time 1011 Ch. 0.1</i>	<i>0</i>	

REMARKS  
*\* 724 non-coliform colonies  
 Resampled on 10/21/84*

CLW  
 0000004252

SIGNATURE *James Hennessey* DATE *10/20/84*

COPY TO

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

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS  
 MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED 19 OCT 84 DATE OF ANALYSIS 19 OCT 84

PARAMETER	HADNOT POINT	CAMP JOHNSON	TARAWA TERRACE	ON SLOW BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER	2210 MOQ
PH	/								8.7
PHENOLTHALEIN ALKALINITY									4
METHYL ORANGE ALKALINITY									58
CARBONATES AS CaCO <sub>3</sub>									8
BICARBONATES AS CaCO <sub>3</sub>									50
CHLORIDES AS Cl									6
HARDNESS AS CaCO <sub>3</sub>									60
IRON AS Fe									0.05
FLUORIDE									0.71
CHLORINE RESIDUAL									0.4
TURBIDITY									1.81
TOTAL PHOSPHATE									
ORTHO PHOSPHATE									
META PHOSPHATE									
STABILITY	0								

REMARKS CLW  
0000004253

- COPY TO:
- UTIL DIR     \_\_\_\_\_
- WATER TREATMENT
- PMU     MCAS-PMU

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  
*Ar R...*

**QUALITY CONTROL LABORATORY REPORT**  
**MISCELLANEOUS BACTERIOLOGICAL ANALYSIS OF WATER**

MCBCL 11200/0 (REV. 4/78)

WERTYPE		SAMPLE COLLECTED BY		DATE COLLECTED	
Potable		Water Plant Personnel		10/21/84	
LOCATION	MARKED	COLIFORM			
		TOTAL	FECAL		
MOG 2210 Time 1420 Ch 0.4		4 #			

**REMARKS**  
*Recd. in lab 10/22/84*  
*#145 non-coliform colonies*

CLW  
0000004254

SIGNATURE: *James B. Spry* DATE: 10/23/84

- 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 11830/8 (REV. 4/78)

*File*

WATER TYPE	SAMPLE COLLECTED BY		DATE COLLECTED	
<i>Palatka</i>	<i>Water Plant Personnel</i>		<i>10/23/84</i>	
LOCATION	MARKED	COLIFORM		
		TOTAL	FECAL	
<i>MOQ 2210</i>	<i>Time 1330 CL 0.5</i>	$\phi$		
<i>* NOTE 140 NON-COLIFORM COLONIES COUNTED</i>				
		<i>MPN = NO</i>	<i>GROWTH</i>	

REMARKS *Rec'd Lab 10/23/84 1345*  
*MPN Set up on Sample also m.f. #*

**MOQ 2210** *CL 0.5  
1330 23 OCT 84*

CLW  
0000004255

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

- 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 11229/3 (REV. 4/78)

*File*

WATER TYPE <i>POTABLE</i>	SAMPLE COLLECTED BY <i>WPP</i>		DATE COLLECTED <i>10/25/84</i>	
LOCATION	MARKED	COLIFORM		
		TOTAL	FECAL	
<i>2210 OUTSIDE</i>	<i>Ch2-0.5</i>	<i>0</i>		
<i>2212 FIRE HYDRANT</i>	<i>Ch2-0.4</i>	<i>0</i>		

**REMARKS**  
*Recd Lab 1230 10/25/84 - B*  
*Set up 1230 10/25/84 - X*

*CF 0.5 OUTSIDE 2210 TIME 1100 35M*  
*2212 0.4 "X" FIRE HYDRANT TIME 1030*

**CLW**  
0000004256

**SIGNATURE** *H. J. Burns* **DATE** *10/26/84*

**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**

*File*

MCBCL 11890/8 (REV. 4/78)

WATER TYPE	SAMPLE COLLECTED BY	DATE COLLECTED	
<i>Potable</i>	<i>PMU</i>	<i>25 OCT 84</i>	
LOCATION	MARKED	COLIFORM	
		TOTAL	FECAL
<i>MOR 2506</i>	<i>Time 0947 Cl<sub>2</sub> 0.2</i>	<i>ϕ</i>	
<i>MOR 2403</i>	<i>Time 1036 Cl<sub>2</sub> 0.2</i>	<i>ϕ</i>	
<i>MOR 2219</i>	<i>Time 1028 Cl<sub>2</sub> 0.2</i>	<i>ϕ</i>	
<i>MOR 2204</i>	<i>Time 1010 Cl<sub>2</sub> 0.4</i>	<i>ϕ</i>	
<i>MOR 2310</i>	<i>Time 0951 Cl<sub>2</sub> 0.2</i>	<i>ϕ</i>	
<i>MOR 2205</i>	<i>Time 1020 Cl<sub>2</sub> 0.4</i>	<i>ϕ</i>	
<i>MOR 2214</i>	<i>Time 1001 Cl<sub>2</sub> 0.2</i>	<i>ϕ</i>	

REMARKS \* SAMPLE # 1 MOR 2506 BIASED SAMPLE TITC - NO COLIF.  
 " # 3 MOR 2219 BIASED SAMPLE TITC - NO COLIF.  
 " # 7 MOR 2214 BIASED SAMPLE 6 - NO COLIF.

CLW

0000004257

SIGNATURE *H. J. Burns* DATE *26 Oct 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 11890/8 (REV. 4/78)

File

WATER TYPE	SAMPLE COLLECTED BY	DATE COLLECTED
POTABLE	BANGS @ PMU	3 OCT 1984
LOCATION	MARKED	COLIFORM
		TOTAL PLATE COUNT <del>FECAL</del>
SHOWER HEAD 304	1	0/1ML
H-23 F.A.C. 0.1	2	
3-E STAFF MULE HEAD	2	0/1ML
HEAD F.A.C. 0.2		
COOLING TOWER	3	TITE/1ML
N.H. 100 F.A.C. 0.2		
SCUTTLEBUTT H-23	4	0/1ML
F.A.C. 1.0		
RM 158-HEAD	5	0/1ML
F.A.C. 0.1		
INCUBATED 48 HRS @ 37°		

Shower Head 304 H-23  
 3 OCT 84 1255 FAC: .1 (7)

REMARKS

RWD - 1355 30 OCT 1984  
 3-E STAFF Mule Head  
 2 OCT 84 1330 FAC 0.20 (2)

H-23 RM 158-Head 304 Sink  
 3 OCT 84 1255 FAC: .1  
 5

Scuttlebutt H-23  
 2 OCT 84 1300  
 FAC: 0.0 (4)

CLW  
 0000004258

SIGNATURE

H. J. Burns

DATE

5 OCT 84

COPY TO

- INREAD
- 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)

*File*

WATER TYPE <i>Potable</i>	SAMPLE COLLECTED BY <i>Water Plant Personnel</i>	DATE COLLECTED <i>9/28/84</i>	COLIFORM	
			TOTAL	FECAL
LOCATION <i>FILTER # 3</i>	MARKED <i>Ch-1.0</i>		<i>φ</i>	

REMARKS

*BLD # 2*  
*1.0*  
*FILTER # 3*

**CLW**  
**0000004259**

SIGNATURE *B. J. Davis* DATE *9/29/84*

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 11380/8 (REV. 4/78)

File

WATER TYPE		SAMPLE COLLECTED BY		DATE COLLECTED	
Potable		W.P.		10/17/84	
LOCATION	MARKED	COLIFORM			
		TOTAL	FECAL		
BLOG 20 #1 Filter	ch 0.3	0			

REMARKS

CLW  
0000004260

SIGNATURE [Signature] DATE 10/18/84

COPY TO

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