Encl

11330/1
NREAD
7 June 1984

Mr. John McFadyen
Water Supply Branch
Division of Health Services
North Carolina Department of
Human Resources
Post Office Box 2091
Raleigh, North Carolina 27602

Dear Mr. McFadyen:

Enclosed are the completed Department of Health Forms (DHS 1942 2/74) for all water treatment plants aboard Marine Corps Base, Camp Lejeune, for the period 1-31 May 1984. Also enclosed are the weekly Chemical Analysis Forms (MCBCL 11330/3 Rev 3-82) for the same period, as requested in the 25 October 1982 letter from Mr. Charles Rundgren of your office.

The analysis is run by the Quality Control Laboratory located in the Natural Resources and Environmental Affairs Division, Assistant Chief of Staff, Facilities. Ms. Elizabeth Betz, Supervisory Chemist, Quality Control Laboratory, telephone (919) 451-5977 is the point of contact in this matter.

Sincerely,

J. I. WOOTEN
Director

Encl.
(1) Dept of Health Forms
(2) Chemical Analysis Forms

Copy to:
LANTDIV (Code 114)

Blind copy to:
QCL

CLW

0000004354

Writer: E. Betz, NREAD, ext. 5977
Typist: T. Owens, 7 Jun 84

Year 1984

CONTAMINANT CODE: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES
N. C. DEPARTMENT OF HUMAN RESOURCES

SERIAL #: 04-67-041

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1: COLIFORMS per 100 ml.	2: COLIFORMS per 100 ml.	3: COLIFORMS per 100 ml.	4: COLIFORMS per 100 ml.	5: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
1	51						1									0	9	0 0	0 0	0 0	0	0				35.0
2																										
4				1																						
5																										
6																										
7																										
8	58															0	9	0 0	0 0	0 0		0				35.0
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15	315															0	9	0 0	0 0	0 0	0					35.0
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22	322															0	9	0 0	0 0	0 0						35.0
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28																										
29	329															0	9	0 0	0 0	0 0		0				35.0
30																		0 0								
31																										

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MF MEDIA	BBL m-ENDO	BACTERIAL DENSITY	ARITH. MEAN			0	DIST. SYSTEM	TOTAL NO. SAMPLES 45
TPC MEDIA			GEO. MEAN			1.0		SAMPLES EXCEEDING 3/50, 4/100, 7/200, 13/500ml 0

Laboratory Clerk: [illegible]

Signed: [illegible] Clerk Grade [illegible] No. [illegible]

CERTIFICATION (T)

Year 1984

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

CONTAMINANT CO

SERIAL #: 04-67-042

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	1: COLIFORMS per 100 ml.	2: COLIFORMS per 100 ml.	3: COLIFORMS per 100 ml.	4: COLIFORMS per 100 ml.	5: COLIFORMS per 100 ml.	REPEAT SAM: COLIFORMS per 100 ml.	COLIFORMS per 100 ml.
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2	31																							
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8																0	7	0 0	0 0	0	0	0		
9	38																							
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15	315															0	7	0 0	0 0	0		0		
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22	322															0	7	0 0	0 0					
23																		0	0 0					
24																								
25																								
26																								
	329															0	7	0 0	0 0	0				

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Year [illegible]

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

SERIAL #: 04-67-043

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1: COLIFORMS per 100 ml.	2: COLIFORMS per 100 ml.	3: COLIFORMS per 100 ml.	4: COLIFORMS per 100 ml.	5: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
1																0	7	0 0	0 0	0 0	0					35
2	3/1																									
[illegible]																										
[illegible]																										
5																										
6																										
7																										
8																0	7	0 0	0 0		0	0 0				35
9	3/8																									
10																										
11																										
12																										
13																										
14																										
15	3/15															0	7	0 0	0 0							35
16																		0 0	0							
17																										
[illegible]																										
[illegible]																										
20																										
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22	3/22															0	7	0 0	0 0							35
23																			0	0 0						
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26																										
27																										
28																										
29	3/29															0	7	0 0	0 0		0	0				35
30																					0					
31																										

MF MEDIA / TPC MEDIA	BBL m-ENDO	BACTERIAL DENSITY	ARITH. MEAN / GEO. MEAN		0 / 7.5	DIST. SYSTEM	TOTAL NO. SAMPLES / SAMPLES EXCEEDING 3/50, (4/100), 7/200, 13/500ml

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0000004357

Laboratory Cert. #100
ID # 37/3(?)7

Signed [signature] Cert. Grade [illegible] No. [illegible]

SEE ALSO '84-87-04

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES ON 5/16: COLIFORMS per 100 ml.	REPEAT SAMPLES ON 5/17: COLIFORMS per 100 ml.	REPEAT SAMPLES ON 5/18 & 5/19: COLIFORMS per 100 ml.	INCUBATOR TEMP.
1																0	3	0 | 0	0							35.0
2																										
3																										
4																										
5																										
6																										
7																										
8																0	3	0 | 0		0						35.0
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13																										
14																										
15																2	5	0 | 0		0 | 10	0			0*	0*	0 | 0	35.0
16																0	1				0						35.0
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19																										
20																										
21																										
22																0	3	0 | 0				0				55
23																										
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26																										
27																										
28																										
29																0	3	0 | 0					0			35.0
30																										
31																										

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MF MEDIA	BBL m-ENDO	BACTERIAL DENSITY	ARITH. MEAN				0.56	DIST. SYSTEM	TOTAL NO. SAMPLES				18
TPC MEDIA			GEO. MEAN				1.14		SAMPLES EXCEEDING 3/50. 4/100 7/200. 13/500ml				1

Laboratory Cert. #100

Signed Elizabeth A Bott Cert. Grade B-LVEL No. 4087-W

* NON REPRESENTATIVE NON COLIFORMS

SERIAL #: 04-67-045

N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	COLIFORMS (MFP): NO. OF SAMPLES EXAMINED	COLIFORMS (MFP): 1 COLIFORMS per 100 ml.	COLIFORMS (MFP): 2 COLIFORMS per 100 ml.	COLIFORMS (MFP): 3 COLIFORMS per 100 ml.	COLIFORMS (MFP): 4 COLIFORMS per 100 ml.	COLIFORMS (MFP): 5 COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
1																0	3	0 0	0							35.0
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5																										
6																										
7																										
8																0	3	0	0	0						35.0
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22																0	3	0				0	0			35.0
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26																										
27																										
28																										
29																0	3	0			0		0			35.0
30																										
31																										
MF MEDIA / *TPC MEDIA			BBL m-Endo			DACTERIAL DENSITY		ARITH. MEAN / GEO. MEAN								0 / 1.0	DIST. SYSTEM	TOTAL NO. SAMPLES								15
																		SAMPLES EXCEEDING 3/50. 4/100 7/200. 13/500ml								0

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0000004359

Laboratory Cert. #100

TD # 378807

Signed Elizabeth B. Body Cert. Grade B-well No. 4087-W

Month MAY COURTHOUSE BAY WATER TREATMENT PLANT AT [illegible] METHOD CODE [illegible]

Year 1984

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES
N. C. DEPARTMENT OF HUMAN RESOURCES

CONTAMINANT CODE : 3000

SERIAL# 04-67-047

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1: COLIFORMS per 100 ml.	2: COLIFORMS per 100 ml.	3: COLIFORMS per 100 ml.	4: COLIFORMS per 100 ml.	5: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	REPEAT SAMPLES: COLIFORMS per 100 ml.	INCUBATOR TEMP.
1																0	4	0	0	0	0					350
2																										
3																										
4																										
5																										
6																										
7																										
8																0	4	0	0	0	0					350
9																										
10																										
11																										
12																										
13																										
14																										
15																0	4	0	0	0		0				350
16																										
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19																										
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21																										
22																0	4	0	0	0			0			35.1
23																										
24																										
25																										
26																										
27																										
28																										
29																0	4	0	0	0	0					350
30																										
31																										

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MF MEDIA		BAL m-ENDO	BACTERIAL DENSITY	ARITH. MEAN				0	DIST. SYSTEM	TOTAL NO. SAMPLES	22
TPC MEDIA				GEO. MEAN				1.0		SAMPLES EXCEEDING 3/50 (4/100) 7/200. 13/500ml	2

Laboratory Cert. #102

Signed Elizabeth O'Bell Cert. Grade B-WELL No. 4087-W

Year 1984

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES
N. C. DEPARTMENT OF HUMAN RESOURCES

CONTAMINANT CODE: 3000

SERIAL#: 04-67-046

DATE	RAW WATER COLIFORMS (MFP) A: VOLUME FILTERED ml.	A: TOTAL COLONIES	A: COLIFORM COLONIES	B: VOLUME FILTERED ml.	B: TOTAL COLONIES	B: COLIFORM COLONIES	C: VOLUME FILTERED ml.	C: TOTAL COLONIES	C: COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED: TOTAL PLATE COUNT	FILTERED: MFP COLIFORMS per 100 ml.	FINISHED: TOTAL PLATE COUNT	FINISHED: MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM: TOTAL PLATE COUNT	COLIFORMS (MFP): AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	.1 COLIFORMS per 100 ml.	2 COLIFORMS per 100 ml.	3 COLIFORMS per 100 ml.	4 COLIFORMS per 100 ml.	5 COLIFORMS per 100 ml.	REPEAT SAMPLES COLIFORMS per 100 ml.	REPEAT SAMPLES COLIFORMS per 100 ml.	REPEAT SAMPLES COLIFORMS per 100 ml.	INCUBATOR TEMP.
1																0	3	0	0	0						35
2																										
3																										
4																										
5																										
6																										
7																										
8																0	3	0	0		0					36
9																										
10																										
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13																										
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15																0	3	0	0		0					35
16																										
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22																0	3	0	0		0					35
23																										
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26																										
27																										
28																										
29																0	3	0	0	0						35
30																										
31																										

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MF MEDIA	BBL m-ENDO	BACTERIAL DENSITY	ARITH. MEAN				0	DIST. SYSTEM	TOTAL NO. SAMPLES 15
TPC MEDIA			GEO. MEAN				1.0		SAMPLES EXCEEDING 3/50. 4/100 7/200. 13/500ml 0

Laboratory Cert. #100

Signed Elizabeth O Betz Cert. Grade B-WELL No. 4087-W

DATE	RAW WATER COLIFORMS (MFP) A VOLUME FILTERED ml.	A TOTAL COLONIES	A COLIFORM COLONIES	B VOLUME FILTERED ml.	B TOTAL COLONIES	B COLIFORM COLONIES	C VOLUME FILTERED ml.	C TOTAL COLONIES	C COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	FILTERED TOTAL PLATE COUNT	FILTERED MFP COLIFORMS per 100 ml.	FINISHED TOTAL PLATE COUNT	FINISHED MFP COLIFORMS per 100 ml.	DISTRIBUTION SYSTEM TOTAL PLATE COUNT	AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	COLIFORMS (MFP) 1 COLIFORMS per 100 ml.	2 COLIFORMS per 100 ml.	3 COLIFORMS per 100 ml.	4 COLIFORMS per 100 ml.	5 COLIFORMS per 100 ml.	REPEAT SAMPLES COLIFORMS per 100 ml.	REPEAT SAMPLES COLIFORMS per 100 ml.	REPEAT SAMPLES COLIFORMS per 100 ml.	INCUBATOR TEMP.
1																0	2	0	0							35.0
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8																0	2	0	0							35.0
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14																										
15																0	2	0		0						35.0
16																										
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19																										
20																										
21																										
22																0	2	0	0							35.1
23																										
24																										
25																										
26																										
27																										
28																										
29																0	2	0	0							35.0
30																										
31																										

MF MEDIA	BBL m-ENDO	BACTERIAL DENSITY	ARITH. MEAN	0	DIST. SYSTEM	TOTAL NO. SAMPLES: 10
TPC MEDIA			GEO. MEAN	1.0		SAMPLES EXCEEDING 3/50, 4/100, 7/200, 13/500ml: 0

Laboratory Cert. #101

ID #47607

Signed [illegible] Cert. Grade [illegible] No. [illegible]

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 3-82)

DATE COLLECTED: 1 MAY 1984

PARAMETER (SERIAL #04-61)		HADNOT POINT -041	MONTFORD POINT -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042
PH (IN LAB NOT PLANT)		8.5	7.1	8.3	7.2	8.1	8.3	8.6	8.5
PENOLTHALEIN ALKALINITY		4	0	4	0	4	4	6	10
METHYL ORANGE ALKALINITY		56	186	58	164	160	134	62	142
CARBONATES AS $CaCO_3$		8	0	8	0	8	8	12	20
BICARBONATES AS $CaCO_3$		48	186	50	164	152	126	50	122
CHLORIDES AS Cl		10	34	12	24	22	24	12	108
HARDNESS AS $CaCO_3$		62	74	78	80	52	38	62	58
IRON AS Fe		0.04	0.55	0.04	0.17	0.08	0.09	0.04	0.14
FLUORIDE	AM	1.20		1.13				0.99	
	PM	1.06		1.06				0.79	0.83
CHLORINE RESIDUAL		1.1	1.4	1.0	0.9	1.5	1.1	1.0	1.5
TURBIDITY	AM	0.2		0.6				0.3	
	PM	0.6	0.6	0.6	0.4	0.4	0.5	0.2	1.1
TOTAL PHOSPHATE			1.52			1.76			
ORTHO PHOSPHATE			1.21			0.25			
META PHOSPHATE			0.31			1.51			
STABILITY		+0.1	-0.6	+0.1	-0.7	+0.1	0.0	+0.3	+0.2

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: LACHAPELLE QB

DATE OF ANALYSIS: 1 MAY 1984

ENCLOSURE (2)

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 3-82)

DATE COLLECTED: 8 MAY 1984

PARAMETER (SERIAL # 04-67)		HADNOT POINT -041	MONTFORD POINT -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042
PH (IN LAB NOT PLANT)		8.4	7.2	8.6	7.3	8.2	8.1	8.6	8.2
PENOLTHALEIN ALKALINITY		2	0	4	0	0	0	4	2
METHYL ORANGE ALKALINITY		60	174	46	144	166	140	54	144
CARBONATES AS $CaCO_3$		4	0	8	0	0	0	8	4
BICARBONATES $CaCO_3$		56	174	38	144	166	140	46	140
CHLORIDES AS C1		10	30	10	18	14	16	10	160
HARDNESS AS $CaCO_3$		78	76	68	60	68	50	56	76
IRON AS Fe		<0.04	0.55	<0.04	0.15	0.09	0.06	0.05	0.07
FLUORIDE	AM	1.06		1.09					
	PM	1.09		1.09				0.91	0.83
CHLORINE RESIDUAL		1.0	1.3	1.0	1.2	1.3	1.0	0.9	1.2
TURBIDITY	AM	0.20		0.50				3.60	
	PM	0.42	1.60	0.90	0.30	0.35	0.51	2.14	0.61
TOTAL PHOSPHATE			2.95			1.13			
ORTHO PHOSPHATE			1.54			0.32			
META PHOSPHATE			1.41			0.81			
STABILITY		+0.3	-0.5	+0.2	-0.4	+0.2	0.0	+0.3	0.0

REMARKS

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0000004364

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: BUENS &

DATE OF ANALYSIS: 8 MAY 1984

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 3-82)

DATE COLLECTED: 15 MAY 1984

PARAMETER (SERIAL # 04-61)		HADNOT POINT -041	MONTFORD POINT -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042
PH (IN LAB NOT PLANT)		8.6	7.1	8.3	7.3	8.1	8.2	8.6	8.5
PENOLTHALEIN ALKALINITY		4	0	2	0	0	0	4	14
METHYL ORANGE ALKALINITY		50	180	60	164	150	136	60	140
CARBONATES AS $CaCO_3$		8	0	4	0	0	0	8	28
BICARBONATES AS $CaCO_3$		42	180	56	164	150	136	52	112
CHLORIDES AS Cl		10	26	10	20	14	20	10	160
HARDNESS AS $CaCO_3$		56	72	70	70	68	54	60	60
IRON AS Fe		<0.04	0.85	<0.04	0.08	0.16	0.05	<0.04	0.10
FLUORIDE	AM	0.95		0.91				0.95	
	PM	0.99		1.13				1.09	0.83
CHLORINE RESIDUAL		1.0	1.3	1.0	1.2	1.3	1.0	0.9	1.3
TURBIDITY	AM	0.31		0.29				0.20	
	PM	0.76	1.15	0.46	0.32	0.41	0.39	0.30	0.55
TOTAL PHOSPHATE			4.05			1.84			
ORTHO PHOSPHATE			1.62			0.32			
META PHOSPHATE			2.43			1.52			
STABILITY		+0.1	-0.7	0.0	-0.6	0.0	+0.1	+0.2	+0.1

REMARKS

CLW

0000004365

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: BURNS + LACHAPELLE

DATE OF ANALYSIS: 15 MAY 1984

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 3-82)

DATE COLLECTED: 22 MAY 1984

PARAMETER (SERIAL # 04-67)	HADNOT POINT -041	MONTFORD POINT -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042
PH (IN LAB NOT PLANT)	8.5	7.1	8.5	7.2	8.3	8.1	8.6	8.4
PENOLTHALEIN ALKALINITY	6	0	6	0	6	2	4	4
METHYL ORANGE ALKALINITY	50	180	52	160	144	150	64	136
CARBONATES AS $CaCO_3$	12	0	12	0	12	4	8	8
BICARBONATES AS $CaCO_3$	38	180	40	160	132	146	56	128
CHLORIDES AS Cl	6	26	10	10	10	20	10	126
HARDNESS AS $CaCO_3$	54	70	60	60	52	60	70	58
IRON AS Fe	<0.04	0.57	<0.04	0.10	<0.04	0.06	<0.04	0.07
FLUORIDE AM	1.09		0.99				0.79	
FLUORIDE PM	0.99		0.91				0.99	1.09
CHLORINE RESIDUAL	1.0	1.4	1.2	1.3	1.5	1.0	0.9	1.3
TURBIDITY AM	0.50		0.20				0.30	
TURBIDITY PM	0.50	0.70	1.41	0.30	0.20	0.54	0.30	0.50
TOTAL PHOSPHATE		1.46			1.00			
ORTHO PHOSPHATE		0.88			0.01			
META PHOSPHATE		0.58			0.99			
STABILITY	+0.3	-0.6	+0.1	-0.8	0.0	+0.1	+0.2	+0.1

REMARKS

CLW

0000004366

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: BURNS, LACHAPELLE EOS

DATE OF ANALYSIS: 22 MAY 1984

CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 3-82)

DATE COLLECTED: 29 MAY 1984

PARAMETER — SERIAL # 04-61		HADNOT POINT -041	MONTFORD POINT -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042
PH (IN LAB NOT PLANT)		9.0	7.4	8.1	7.5	8.4	8.4	9.0	8.8
PENOLTHALEIN ALKALINITY		8	0	0	0	4	2	6	14
METHYL ORANGE ALKALINITY		50	180	80	160	160	156	56	160
CARBONATES AS $CaCO_3$		16	0	0	0	8	4	12	28
BICARBONATES AS $CaCO_3$		34	180	80	160	152	152	44	132
CHLORIDES AS Cl		10	30	10	16	18	20	10	120
HARDNESS AS $CaCO_3$		50	82	98	60	56	38	54	50
IRON AS Fe		<0.04	0.62	<0.04	0.08	<0.04	0.06	<0.04	0.07
FLUORIDE	AM	0.72		0.89				0.70	
	PM	0.75	0.18	0.68	0.17	0.11	0.10	0.72	0.72
CHLORINE RESIDUAL		1.0	1.4	1.1	1.6	1.5	0.8	0.7	1.2
TURBIDITY	AM	0.15		0.22				0.20	
	PM	0.31	0.68	0.40	0.37	0.29	0.57	0.26	0.88
TOTAL PHOSPHATE			1.62			1.40			
ORTHO PHOSPHATE			0.96			0.04			
META PHOSPHATE			0.66			1.36			
STABILITY		+0.3	-0.6	-0.1	-0.7	+0.1	-0.1	+0.3	+0.1

REMARKS

CLW

0000004367

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: BUENS, HUNEYCUTT & [illegible]

DATE OF ANALYSIS: 29 MAY 1984