

11330/1
NREAD
8 Oct 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 1-30 September 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:
BMO (Attn: UtilDir)

SupyChem

Writer: E. Betz, NREAD, 5977
Typist: J. Cross, 8Oct84, 5003

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Year 1984

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

CONTINUATION CODE: 30

SERIAL # 04-67-04

DATE	RAW WATER COLIFORMS (HFP)						NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	HFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	HFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM					REPEAT SAMPLES			INCUBATOR TEMP.		
	A		B		C								COLIFORMS (HFP)					COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.			
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES							1	2	3	4	5						
1																							
2																							
3																							
4	34												0	9	0	0	0	0	0	0	0	0	34.8
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18	510												0	9	0	0	0	0	0	0	0	0	35.0
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20																							
21																							
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25	225												0	13	0	0	0	0	0	0	0	0	35.0
26	225																						
27																							
28																							
29																							
30																							
31																							

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HF MEDIA	BAL m-ENDO	BACTERIAL DENSITY	ARITH. MEAN							0	DIST. SYSTEM	TOTAL NO. SAMPLES	31
TPC MEDIA			GEO. MEAN							10		SAMPLES EXCEEDING 3/50, (4/100) 7/200, 13/500ml	0

SERIAL # 04-67-043

NO.	RAW WATER COLIFORMS (MFP)									NO. OF COLIFORMS PER. 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM														
	A			B			C									COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.						
	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES							AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1	2	3	4	5	COLIFORMS per 100 ml.		COLIFORMS per 100 ml.	COLIFORMS per 100 ml.				
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4															0	7	0	0	0	0	0	0						34.8		
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18															0	7	0	0	0	0	0								55.0	
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24																														
25															0	7	0	0	0	0										35.1
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30																														
31																														
	HF MEDIA	BBL M-ENDO			DACTERIAL DENSITY	ARITH. MEAN																								21
	TPC MEDIA					GEO. MEAN																								0

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0
10

DIST. SYSTEM TOTAL NO. SAMPLES SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml

SERIAL # 04 67-044

N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED		FINISHED		TOTAL PLATE COUNT	DISTRIBUTION SYSTEM					INCUBATOR TEMP.		
	A		B		C			AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	COLIFORMS (MFP)					REPEAT SAMPLES					
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES				1	2		3	4	5					
										COLIFORMS per 100 ml.	COLIFORMS per 100 ml.		COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.		COLIFORMS per 100 ml.	COLIFORMS per 100 ml.
2																				
3																				
4												0	2	0	0	0			34.8	
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18												0	3	0	0		0		35.0	
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25												0	3	0	0			0	35.0	
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30																				
31																				
HF MEDIA	BBL m-ENDO						DACTERIAL DENSITY	ARITH. MEAN		GEO. MEAN			0	9	TOTAL NO. SAMPLES					9
TPC MEDIA													1.0	9	SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml.					0

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Year 1987

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

SERIAL # 04-67-046

NO.	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM					INCUBATOR TEMP.			
	A		B		C								COLIFORMS (MFP)						REPEAT SAMPLES		
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES							1	2	3	4	5		COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.
1																					
2																					
3																					
4										0	3	0	0	0				34.8			
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18										0	3	0	0	0				35			
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25										0	3	0	0		0			35			
26																					
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28																					
29																					
29																					
30																					
31																					
MF MEDIA	BBL M-ENDO		BACTERIAL DENSITY		ARITH. MEAN								0	DIST. SYSTEM	TOTAL NO. SAMPLES					9	
TPC MEDIA					GEO. MEAN								10		SAMPLES EXCEEDING 3/50, (4/100) 7/200, 13/500ml					C	

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#110

Signed [Signature] Cert. Grade B-WELL No. 4087-W

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

25 SEP 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)	9.0	7.6	9.2	7.5	8.5	8.4	8.7	8.7
PENOLTHALEIN ALKALINITY	12	0	10	0	2	6	6	14
METHYL ORANGE ALKALINITY	66	190	50	160	162	172	66	240
CARBONATES AS CaCO ₃	24	0	20	0	4	12	12	28
BICARBONATES AS CaCO ₃	42	190	30	160	158	160	54	212
CHLORIDES AS Cl	20	30	10	20	20	22	16	170
HARDNESS AS CaCO ₃	66	104	66	66	60	46	74	48
IRON AS Fe	<0.04	0.61	<0.04	0.16	<0.04	<0.04	<0.04	<0.04
FLUORIDE	AM 1.03	0.18	1.21	0.18	0.12	0.10	0.97	1.13
	PM 1.07		1.25				0.95	
CHLORINE RESIDUAL	1.0	1.5	1.2	1.3	1.3	1.0	0.9	1.2
TURBIDITY	AM 0.40	1.3	0.4	0.2	0.3	0.3	0.3	0.44
	PM 0.50		0.8				0.2	
TOTAL PHOSPHATE		0.81			0.52			
ORTHO PHOSPHATE		0.73			0.19			
META PHOSPHATE		0.08			0.33			
STABILITY	+0.5	-0.6	+0.6	-0.8	+0.1	-0.1	+0.3	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

BALBEE & BURNS ^{EDD}

DATE OF ANALYSIS

25 SEP 1984

18 SEP 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)	9.1	7.4	8.9	7.4	8.5	8.4	8.8	8.8
PENOLTHALEIN ALKALINITY	6	0	4	0	8	6	4	18
METHYL ORANGE ALKALINITY	54	192	52	166	150	152	62	240
CARBONATES AS CaCO ₃	12	0	8	0	16	12	8	36
BICARBONATES AS CaCO ₃	42	192	44	166	134	140	54	204
CHLORIDES AS Cl	10	36	10	18	16	16	10	162
HARDNESS AS CaCO ₃	62	76	66	56	56	40	66	56
IRON AS Fe	<0.04	0.46	<0.04	0.13	<0.04	<0.04	<0.04	<0.04
FLUORIDE	AM	0.78	1.02				0.97	
	PM	0.80	0.19	0.92	0.19	0.12	1.00	1.05
CHLORINE RESIDUAL	1.2	1.4	1.1	1.5	1.1	1.0	1.2	1.4
TURBIDITY	AM	0.2	0.7				0.4	
	PM	0.3	1.4	0.6	0.4	0.2	0.3	0.4
TOTAL PHOSPHATE		2.52			1.30			
ORTHO PHOSPHATE		0.96			0.28			
META PHOSPHATE		1.56			1.02			
STABILITY	+0.7	-0.7	+0.5	-0.9	+0.1	-0.1	+0.5	+0.2

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

LACHAPPELLE BARBER *CB*

DATE OF ANALYSIS

18 SEP 1984

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

DATE COLLECTED
 4 SEP 1984

PARAMETER SERIAL #04-67	HADNOT POINT -011	MONTFORD POINT -015	TARAWA TERRACE -011	ONSLow BEACH -018	COURTHOUSE DAY -017	RIFLE RANGE -016	HOLCOMB BLVD -013	NEW RIVER -012	
PH (IN LAB NOT PLANT)	8.9	7.4	8.5	7.4	8.4	8.1	8.8	8.9	
PENOLTHALEIN ALKALINITY	6	0	2	0	6	0	4	20	
METHYL ORANGE ALKALINITY	42	180	60	160	158	170	56	184	
CARBONATES AS CaCO ₃	12	0	4	0	12	0	8	40	
CARBONATES AS CaCO ₃	30	180	56	160	146	170	48	144	
CHLORIDES AS Cl	10	16	10	20	14	50	12	190	
HARDNESS AS CaCO ₃	56	164	80	60	56	50	58	58	
IRON AS Fe	<0.04	0.54	<0.04	0.15	<0.04	<0.04	<0.04	<0.04	
FLUORIDE	AM 1.02 PM 1.00	0.17	0.90 0.92	0.16	0.11	0.13	0.76 0.75	0.80	
CHLORINE RESIDUAL	1.1	1.4	1.1	1.5	1.4	0.6	0.8	1.20	
TURBIDITY	AM 0.4 PM 0.4	1.1	0.4 0.6	0.2	0.3	0.3	0.3 0.1	0.6	
TOTAL PHOSPHATE		2.70			1.09				
ORTHO PHOSPHATE		1.21			0.25				
META PHOSPHATE		1.49			0.76				
STABILITY	+0.6	-0.8	+0.2	-0.9	0.0	-0.3	+0.3	+0.2	

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

BURNS + HONEYCUTT ORB

DATE OF ANALYSIS

4 SEP 1984

SERIAL # 0467-048

DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	FILTERED		FINISHED		TOTAL PLATE COUNT	DISTRIBUTION SYSTEM						INCUBATOR TEMP.		
	A		B		C				MFP COLIFORMS per 100 ml.	MFP COLIFORMS per 100 ml.	COLIFORMS (MFP)					REPEAT SAMPLES						
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES					1	2		3	4	5	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.			
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25													0	N	0		0					
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30																						
31																						
													DIST. SYSTEM			TOTAL NO. SAMPLES			6			
HF MEDIA TPC MEDIA													BBL m-ENDO			BACTERIAL DENSITY			ARITH. MEAN GEO. MEAN			0 10
													SAMPLES EXCEEDING 3/50, <u>4/100</u> 7/200, 13/500ml			0						

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DATE	RAW WATER COLIFORMS (MFP)									NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	FINISHED	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM					INCUATOR TEMP.			
	A			B			C										COLIFORMS (MFP)						REPEAT SAMPLES		
	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES								1	2	3	4	5		COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.
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2																									
3																									
4														0	4	0	0	0	0						36.8
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25														0	4	0	0				0	0			35.0
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28																									
29																									
30																									
31																									
MF MEDIA	BAL M-ENDO			BACTERIAL DENSITY	ARITH. MEAN		GEO. MEAN							0	DIST. SYSTEM	TOTAL NO. SAMPLES					11				
TPC MEDIA													1/0		SAMPLES EXCEEDING 3/50, (4/100) 7/200, 13/500ml					0					

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