

JAN's copy

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4 Jan 85

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 December 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,

P. E. BLACK
Acting Director

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

Copy to:
NAVPACENCCGM (Code 114)

CLW
0000004484

DATE	RAW WATER COLIFORMS (MFP)		MFP COLIFORMS per 100 ml.		FINISHED		MFP COLIFORMS per 100 ml.		AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	DISTRIBUTION SYSTEM					REPEAT SAMPLES	INCUBATOR TEMP.			
	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	TOTAL PLATE COUNT	TOTAL PLATE COUNT			COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.			COLIFORMS per 100 ml.		
3																				
4	34									9									35.0	
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26	34									9										35.0
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MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	COLIFORMS (MFP)	DISTRIBUTION SYSTEM					REPEAT SAMPLES	INCUBATOR TEMP.
			1	2	3	4	5		

Almond water system
DIST. SYSTEM
TOTAL NO. SAMPLES
SAMPLES EXCEEDING 3/50, 4/100, 7/200, 13/500ml
36
35.0

DATE	RAW WATER COLIFORMS (HFP)			FILTERED			FINISHED			DISTRIBUTION SYSTEM					REPEAT SAMPLES	INCUBATOR TEMP.											
	A	B	C	A	B	C	A	B	C	COLIFORMS (HFP)																	
	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	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	AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	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.	
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5	54																7	0	0	0	0	0	0	0	0	0	0
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26	54																7	0	0	0	0	0	0	0	0	0	0
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Sanitary Dept. 375-27
 Signol *Elizabeth Kelly*
 Cert. Grade B-Well No. 432-N

28

DATE	RAW WATER COLIFORMS (HFP)			FILTERED			FINISHED			DISTRIBUTION SYSTEM					REPEAT SAMPLES			INCUBATOR TEMP.
	A	B	C	NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	HFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	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.		
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11									3	0	0	0					85.0	
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18									3	0	0	0					35.0	
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Laboratory Code: 37502
 HFP MEDIA: BBL m-EMMS
 DACTERIAL DENSITY
 ARITH. MEAN
 GEO. MEAN
 1/2
 DIST. SYSTEM
 TOTAL NO. SAMPLES
 SAMPLES EXCEEDING 3/50 (4/100) 7/200, 13/500ml
 No. 4087-W

Signal: High/Low/Both
 Cori. Grade: B Well

RAW WATER COLIFORMS (HFP)

	FILTERED			FINISHED			DISTRIBUTION SYSTEM					INCUBATOR TEMP.						
	A	B	C	TOTAL PLATE COUNT		HFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT		HFP COLIFORMS per 100 ml.	COLIFORMS (HFP)								
DATE	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	HFP COLIFORMS per 100 ml.	AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1	2	3	4	5	REPEAT SAMPLES	
												COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	
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HE MEDIA	MFC MEDIA		BGL M-F-N-D		BACTERIAL DENSITY		ARITH. MEAN											
TPC MEDIA																		

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Laboratory Cert. No. 47507
Signal *Magnolia Hill Rd*
Cort. Grade B-Wells No. 4087-W

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

PARAMETER	HADNOT POINT	CAMP JOHNSON	TARAWA TERRACE	ONSLOW BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER
PH	8.8	7.3	8.6	7.4	8.6	8.3	8.7	8.7
PHENOLTHALEIN ALKALINITY	6	0	2	0	10	4	6	16
METHYL ORANGE ALKALINITY	68	202	58	162	194	160	66	218
BICARBONATES AS CaCO ₃	12	0	4	0	20	8	12	32
CHLORIDES AS Cl	8	42	12	22	18	30	18	82
HARDNESS AS CaCO ₃	70	74	80	82	50	50	68	50
IRON AS Fe	<0.04	0.42	<0.04	0.15	<0.04	<0.04	<0.04	<0.04
FLUORIDE $\mu\text{M}/\text{PM}$	0.69/0.66	0.14	1.05/1.00	0.13	0.12	0.09	1.03/0.97	0.90
CHLORINE RESIDUAL	1.0	1.3	1.0	1.3	1.3	1.2	0.9	1.3
TURBIDITY Am/PM	0.6/0.3	0.6	0.4/0.4	0.3	0.3	0.4	0.3/0.5	1.9
TOTAL PHOSPHATE		4.05			1.04			
ORTHO PHOSPHATE		1.32			0.19			
META PHOSPHATE		2.73			0.85			
STABILITY	+0.6	-0.8	+2.4	-0.8	+0.2	-0.1	+0.4	+0.1

DATE COLLECTED 4 DEC 84 DATE OF ANALYSIS 4 DEC 84

REMARKS
 OB POND pH 8.0

CLW

0000004493

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

Lachapelle, Honeycutt

(TKB)

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

PARAMETER	HADNOT POINT	CAMP JOHNSON	TARAWA TERRACE	ON SLOW BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER
PH	9.0	7.4	8.7	7.5	8.4	8.3	8.9	9.2
PHENOLTHALEIN ALKALINITY	6	0	4	0	2	0	6	20
METHYL ORANGE ALKALINITY	50	190	40	150	180	160	50	160
● CARBONATES AS CaCO ₃	12	0	8	0	4	0	12	40
BICARBONATES AS CaCO ₃	38	190	32	150	176	160	38	120
CHLORIDES AS Cl	10	36	10	16	10	30	6	110
HARDNESS AS CaCO ₃	60	74	80	60	60	54	62	56
IRON AS Fe	<0.04	0.33	<0.04	0.06	<0.04	<0.04	0.08	0.13
FLUORIDE $\mu\text{M}/\text{PM}$	1.01/0.98	0.15	1.06/1.11	0.15	0.09	0.09	1.00/0.93	0.63
CHLORINE RESIDUAL	1.0	1.4	1.0	1.0	1.4	1.0	0.8	1.3
● TURBIDITY KM/PM	0.34/0.33	0.67	0.30/0.40	0.32	0.52	0.37	0.60/0.20	1.08
TOTAL PHOSPHATE		2.05			0.96			
ORTHO PHOSPHATE		1.00			0.16			
META PHOSPHATE		1.05			0.80			
STABILITY	+0.7	-0.7	+0.5	-0.7	+0.1	0	+0.6	+0.2

DATE COLLECTED 11 DEC 84
 DATE OF ANALYSIS 11 DEC 84

OB Pond pH = 8.2

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COPY TO:

UTIL DIR

WATER TREATMENT

PMU MCAS PMU

NREAD FILE

LABORATORY ANALYSIS BY

BURNS, LACHAPPELLE

TKB

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.

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

PARAMETER	HADNOT POINT	CAMP JOHNSON	TARAWA TERRACE	ONSLow BEACH	COURTHOUSE BAY	RIFLE RANGE	DATE COLLECTED		NEW RIVER	DATE OF ANALYSIS	
							HOLCOMB BLVD				
PH	8.9	7.5	8.5	7.4	8.4	8.2	18	Dec 84	8.7	18	Dec 84
PHENOLTHALEIN ALKALINITY	6	0	4	0	6	6	6		14		
METHYL ORANGE ALKALINITY	56	206	58	156	188	172	74		184		
BONATES AS CaCO ₃	12	0	8	0	12	12	12		28		
BICARBONATES AS CaCO ₃	44	206	50	156	176	160	62		156		
CHLORIDES AS Cl	10	38	12	20	18	30	10		114		
HARDNESS AS CaCO ₃	60	86	80	70	74	60	80		50		
IRON AS Fe	<0.04	0.42	<0.04	0.26	0.10	<0.04	<0.04		<0.04		
FLUORIDE $\mu\text{M}/\text{PM}$	0.96/0.93	0.16	0.63/0.46	0.19	0.10	0.09	1.01/0.95		0.75		
CHLORINE RESIDUAL	1.0	1.4	1.0	1.5	1.2	1.0	0.9		1.4		
TURBIDITY Am/PM	0.2/0.2	0.9	0.5/0.4	0.4	0.5	0.3	0.1/0.1		0.4		
TOTAL PHOSPHATE		2.60			1.04						
ORTHO PHOSPHATE		1.09			0.22						
META PHOSPHATE		1.51			0.82						
STABILITY	+0.5	-0.6	+0.2	-0.9	0	-0.1	+0.2		+0.1		

REMARKS

OB Pond pH = 8.5

0000004495

CLW

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

LACHAPPELLE, BARBEE

TAB

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

DATE COLLECTED

26 DEC 84

DATE OF ANALYSIS

26 DEC 84

PARAMETER	HADNOT POINT	CAMP JOHNSON	TARAWA TERRACE	ONSLOW BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER
PH	8.9	7.3	8.8	7.4	8.4	8.1	8.7	7.8
PHENOLTHALEIN ALKALINITY	8	0	4	0	2	0	6	0
METHYL ORANGE ALKALINITY	56	216	44	170	160	186	56	268
BICARBONATES AS CaCO ₃	16	0	8	0	4	0	12	0
CHLORIDES AS Cl	40	216	36	170	156	186	44	268
HARDNESS AS CaCO ₃	6	40	10	12	12	30	10	124
IRON AS Fe	58	82	60	62	54	54	64	144
FLUORIDE $\mu\text{M}/\text{PM}$	<0.04	0.61	0.06	0.34	<0.04	0.10	<0.04	0.12
CHLORINE RESIDUAL	0.93/0.97	0.18	0.52/0.65	0.20	0.12	0.11	0.85/0.96	0.86
TURBIDITY $\mu\text{M}/\text{PM}$	1.0	1.3	1.4	1.4	1.4	1.0	0.9	1.4
TOTAL PHOSPHATE	0.20/0.70	0.70	0.30/0.33	0.29	0.30	0.27	0.30/0.30	0.60
ORTHO PHOSPHATE		2.18			1.04			
META PHOSPHATE		1.00			0.22			
STABILITY		1.18			0.82			
REMARKS	+0.7	-0.7	+0.7	-0.9	+0.2	-0.1	+0.5	0

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0000004496

COPY TO:

UTIL DIR

WATER TREATMENT

PMU MCAS PMU

NREAD FILE

LABORATORY ANALYSIS BY

BUENS, BARBIE

THS

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.