

11331
NREAD
3 Sep 87

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 August 1987. 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 Environmental Chemistry and Microbiology Laboratory, located in the Natural Resources and Environmental Affairs Division, Assistant Chief of Staff, Facilities. Ms. Betz, Supervisory Chemist, telephone (919) 451-5977, is the point of contact in this matter.

Sincerely,

JULIAN I. WOOTEN
Director, Natural Resources Division
By direction of the Commanding General

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

Copy to:
LANTNAVPACENGCOM (Code 114)

Blind copy to:
BMO (Attn: UTIL DIR)
Supvy Chem (2)

Writer/Typist

Date Typed

Word Processor Number

Betz/Quarada

2 Sep 87

11331

1951
1952

U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
BUREAU OF LABORATORY MEDICINE
WASHINGTON, D.C. 20201

Reference is made to the report of the Department of Health, Education and Welfare, Bureau of Laboratory Medicine, dated August 1951, regarding the results of the chemical analysis of the sample of lead (Pb) found in the blood of the patient.

The results of the analysis of the sample of lead (Pb) found in the blood of the patient are as follows: The concentration of lead (Pb) in the blood is 0.001 mg/ml.

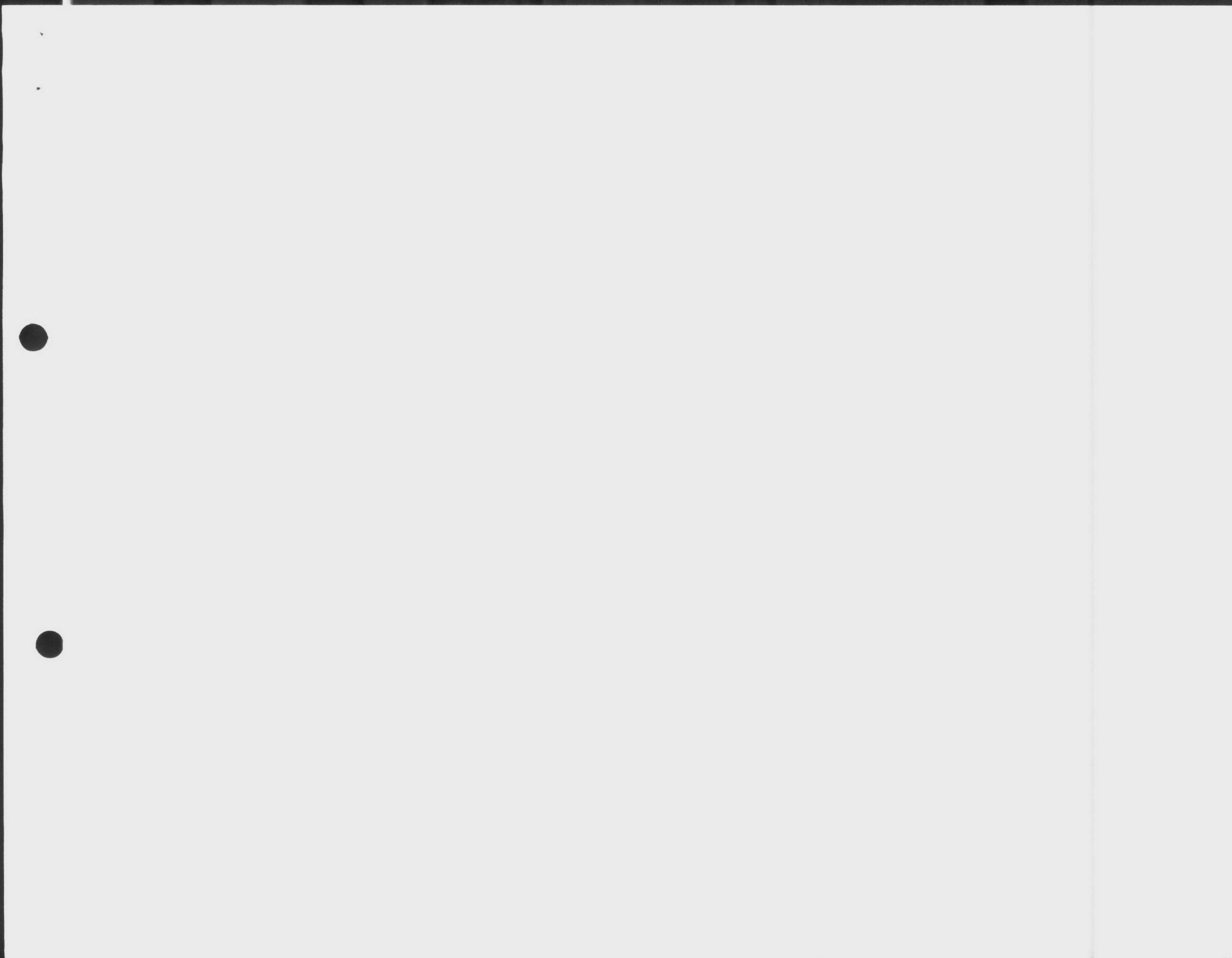
JOHN J. COYNE
Associate Director, Bureau of Laboratory Medicine
U.S. Department of Health, Education and Welfare

Enclosed are two copies of the report of the analysis of the sample of lead (Pb) found in the blood of the patient.

Very truly yours,
John J. Coyne

Hand copy to:
BIO (ATENT DRL DIR)
BIOVY (CIN 13)

Handwritten:
Word Processor
Date: 8/27
File: 1131



Month AUGUST
Year 1987

COURTHOUSE BAY

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

Serial # 04-67-047

N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	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 COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.
	A		B		C								1	2	3	4	5				
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES															
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31																					

MF MEDIA
TPC MEDIA

RBI mEndo

BACTERIAL DENSITY

ARITH. MEAN
GEO. MEAN

0

DISY.

TOTAL NO. SAMPLES

SAMPLES EXCEEDING 3/50 (4/100) 7/200 13/500 ml

LAB ID # 37807

16

0

1087-W



Month AUGUST
 Year 1987

CAMP JOHNSON

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

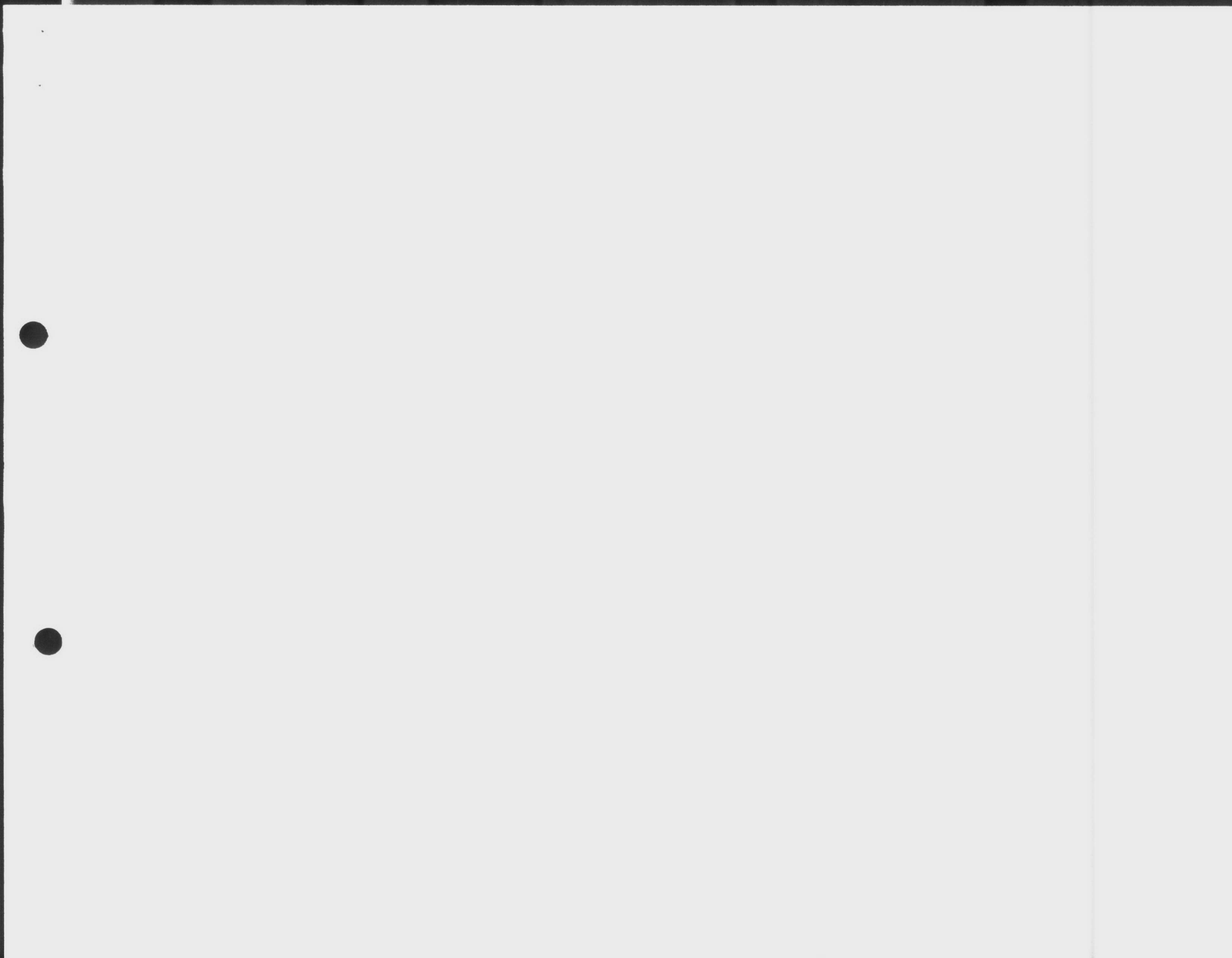
Serial # 04-67-045

U. S. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.																																		
	A		B		C							1	2	3	4	5	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															COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.																													
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MF MEDIA											BRI mEndo											BACTERIAL DENSITY											ARITH. MEAN											8										
TPC MEDIA																																	GEO. MEAN																					

LAB ID # 37807

DIST. SYSTEM TOTAL NO. SAMPLES SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500=1 0



AUGUST
1987

TARAWA TERRACE

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

Serial # 04-67-044

X. C. DEPARTMENT OF HUMAN RESOURCES

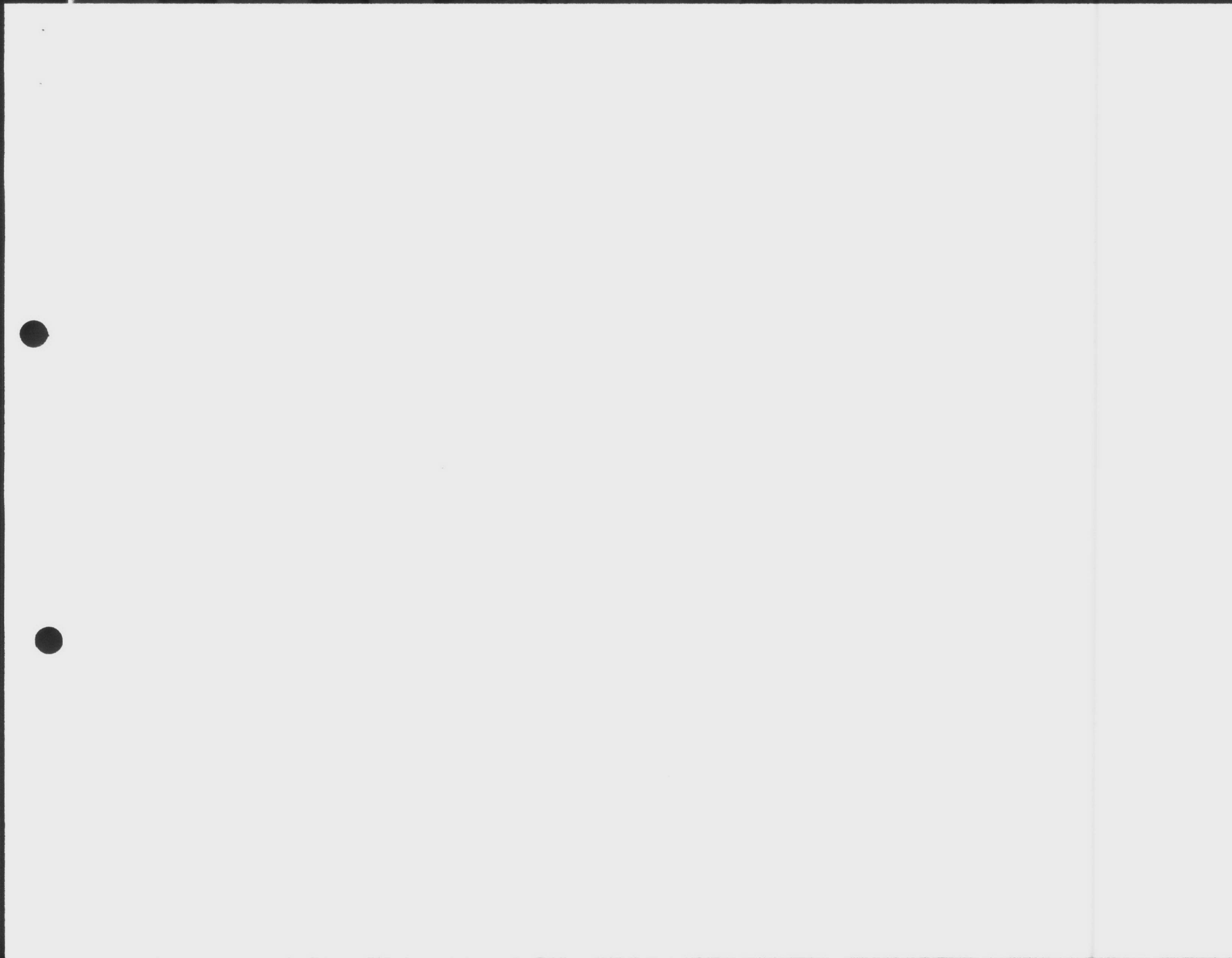
DATE	RAW WATER COLIFORMS (MFP)									NO. OF COLIFORMS PER 100 ml.	FILTERED		FINISHED		TOTAL PLATE COUNT	DISTRIBUTION SYSTEM						INCUBATOR TEMP.		
	A			B			C				TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.		COLIFORMS (MFP)					REPEAT SAMPLES			
	VOLUME FILTERED 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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4	7TH															0	4	0/0	0/0					35.4
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25	7 25TH															0	4	0/0				0/0		35.2
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31																								

MF MEDIA TPC MEDIA BBL mEndo BACTERIAL DENSITY ARITH. MEAN GEO. MEAN

0 1 DIST. SYSTEM TOTAL NO. SAMPLES 16 SAMPLES EXCEEDING 3/50. (4/100, 7/200, 13/500) 0

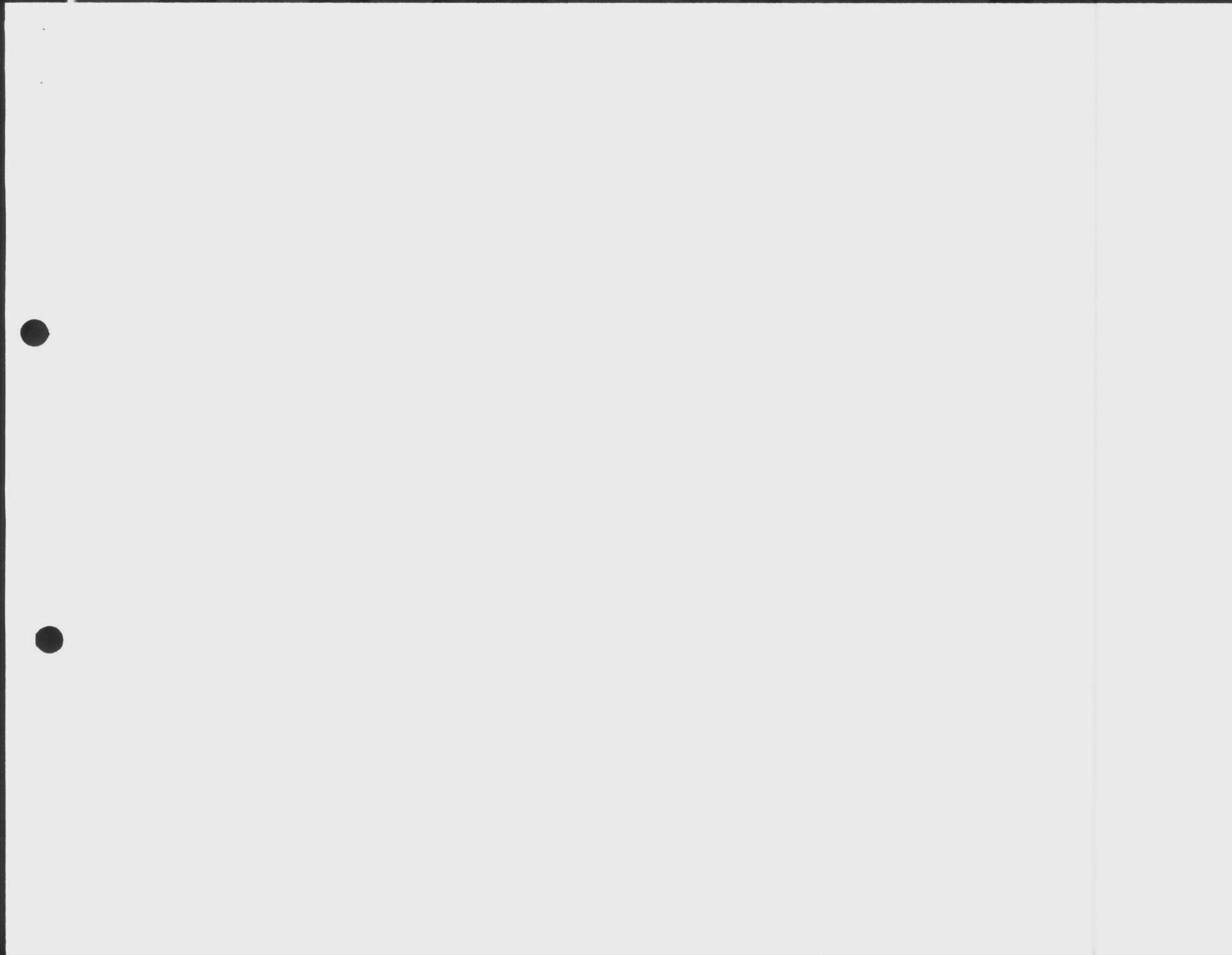
LAB ID # 37807

WATER TREATMENT PLANT AT Camp Lejeune # 4087-W



Serial # 04-67-042 U. S. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP)								NO. OF COLIFORMS PER 100 ml.	FILTERED TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.
	A		B		C		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.	
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES																
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11	<u>7TH</u>											0	7	0	0	1	0	1	0	0	0	35.0
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18	<u>18TH</u>											0	7	0	0	0	0	0			35.2	
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25	<u>25TH</u>											0	7	0	0	1	0	0			35.2	
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Month AUGUST
Year 1987

HOLCOMB BLVD

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

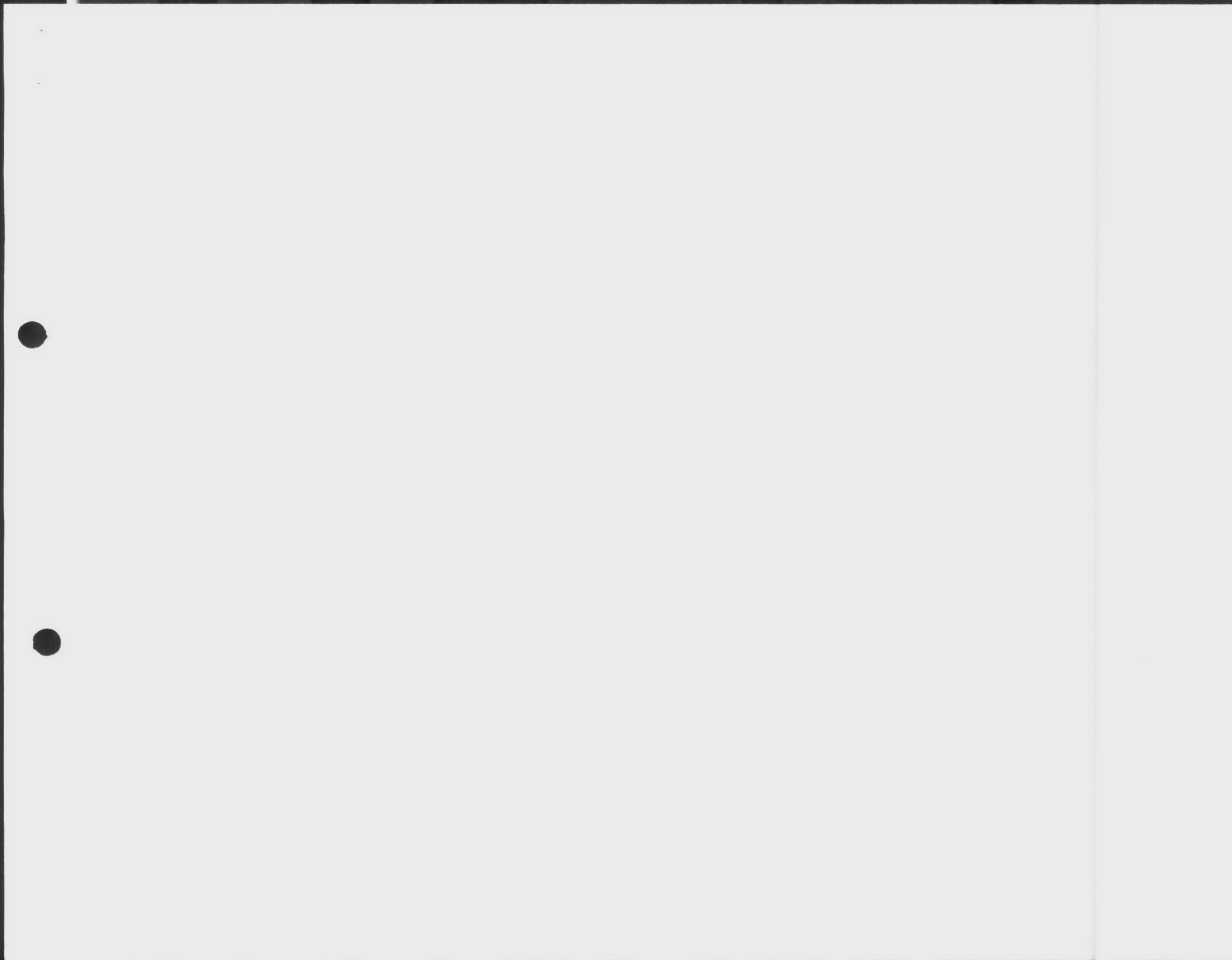
Serial # 04-67-043

N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	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					REPEAT SAMPLES			INCUBATOR TEMP.		
	A			B			C									COLIFORMS (MFP)										
	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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																0	DISTRIBUTION SYSTEM					TOTAL NO. SAMPLES			20	
																1	SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500=1					0				

LAB ID # 37807

W. J. B. B. B. TEST CODE B-W-LLC # 4087-W



Month AUGUST
Year 1987

RIFLE RANGE

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 300

Serial # 04-67-046

U. S. DEPARTMENT OF HUMAN RESOURCES

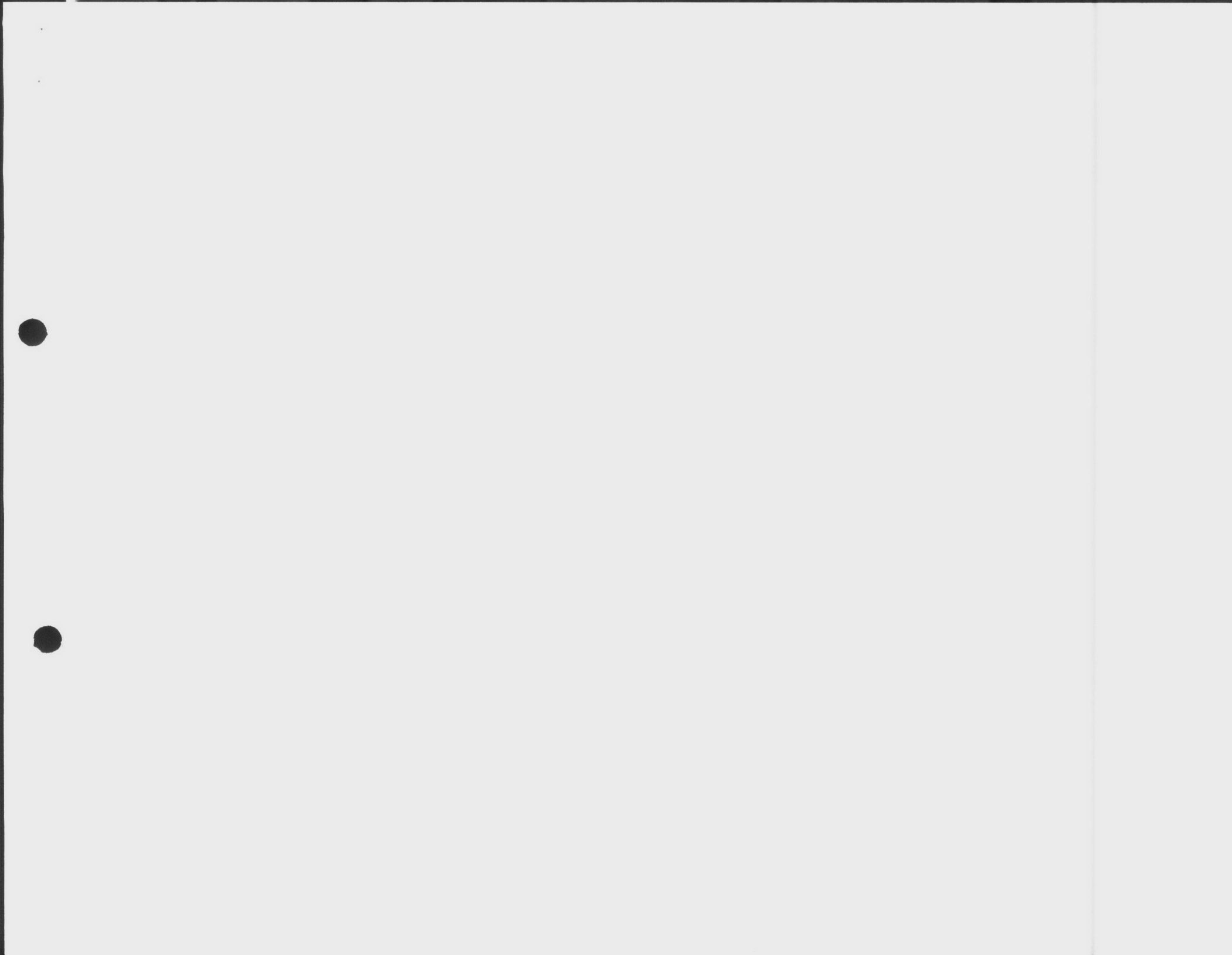
DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	FINISHED	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM					REPEAT SAMPLES			INCUBATOR TEMP.
	A		B		C									COLIFORMS (MFP)								
	VOLUME FILTERED ml.	TOTAL 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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MEDIA: BBL mEndo
BACTERIAL DENSITY: ARITH. MEAN
TPC MEDIA: GEO. MEAN

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

LAB ID # 37807

4087-W



Month AUGUST
Year 1987

HADNOT POINT

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

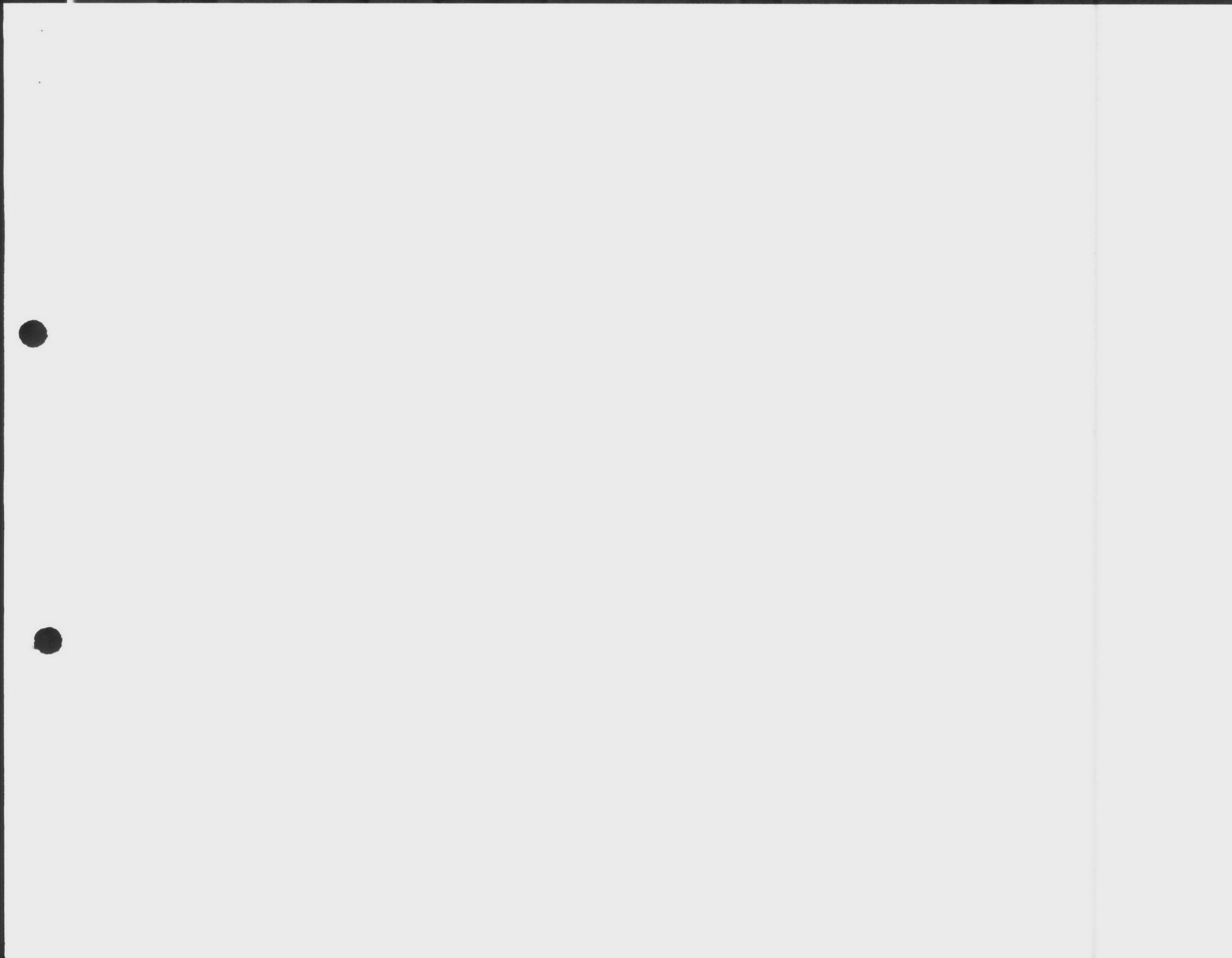
Serial # 04-G7-041

U. S. DEPARTMENT OF HUMAN RESOURCES

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 COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.																																																																
	A			B			C										1	2	3	4	5																																																																				
	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES																																																																																
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MFP MEDIA										BRI mEndo										BACTERIAL DENSITY										ARITH. MEAN										GEO. MEAN										DISTRIBUTION SYSTEM										TOTAL NO. SAMPLES										SAMPLES EXCEEDING 3/50, (4/100), 7/200, 13/500 ml										36									

LAB ID # 37807

WATER TREATMENT PLANT - CAMP LEJEUNE # 4087-W



ENVIRONMENTAL CHEMISTRY & MICROBIOLOGY LABORATORY REPORT
 CHEMICAL ANALYSIS - WATER TREATMENT PLANTS
 MCBCL 11330/3 (REV 7-87)

DATE COLLECTED: 8-4-87
 DATE(S) ANALYZED: 8-4-87

PLANT PARAMETER (UNITS)	HADNOT POINT 04-67-041	MCAS NEW RIVER 04-67-042	HOLCOMB BLVD 04-67-043	COURTHOUSE BAY 04-67-046	RIFLE RANGE 04-67-047	ONSLOW BEACH 04-67-048			
pH-LABORATORY	9.0	8.5	8.6	7.9	8.3	7.5			
STABILITY	+0.9	+0.1	+0.5	-0.4	-0.1	-0.7			
PHENOLTHALEIN ALKALINITY (PPM)	8	12	4	0	0	0			
METHYL ORANGE ALKALINITY (PPM)	54	152	60	170	160	150			
CARBONATES AS CaCO ₃ (PPM)	16	24	8	0	0	0			
BICARBONATES AS CaCO ₃ (PPM)	38	128	52	170	160	150			
CHLORIDES AS Cl (PPM)	16	80	14	16	26	14			1
HARDNESS AS CaCO ₃ (PPM)	60	56	66	54	54	82			
IRON AS Fe (PPM)	-	-	-						
FLUORIDE (PPM)	AM/PM 0.41/0.64	0.63	1.07/1.04	0.12	0.12	0.15			
TURBIDITY (NTUS)	AM/PM 0.3/0.2	0.2	0.1/0.2	0.1	0.1	0.1			
CHLORINE RESIDUAL (PPM)	1.1	0.8	1.2	1.2	1.0	1.5			

REMARKS:

- COPY TO:
- UTIL DIR, BMD
 - WATER TREATMENT, UTIL DIV, BMD
 - PMU, NAVHOSP PMU, MCAS-NR
 - DIVISION OF HEALTH SERVICES
N.C. DEPT OF HUMAN RESOURCES

REPORT DATE:
8-4-87

REPORT PREPARED BY:
H. J. BURNS

NREAD FILE (ATTACH WKST)
ENCLOSURE (2)



ENVIRONMENTAL CHEMISTRY & MICROBIOLOGY LABORATORY REPORT
 CHEMICAL ANALYSIS - WATER TREATMENT PLANTS
 MCBCL 11330/3 (REV 7-87)

DATE COLLECTED

8-11-87

DATE(S) ANALYZED

8-11-87

PLANT PARAMETER (UNITS)	HADNOT POINT 04-67-041	MCAS NEW RIVER 04-67-042	HOLCOMB BLVD 04-67-043	COURTHOUSE BAY 04-67-046	RIFLE RANGE 04-67-047	ONSLOW BEACH 04-67-048			
pH-LABORATORY	9.1	8.7	8.6	7.7	8.2	7.6			
STABILITY	-0.6	0.0	+0.2	-0.7	-0.3	-0.7			
PHENOLTHALEIN ALKALINITY (PPM)	8	12	2	0	0	0			
METHYL ORANGE ALKALINITY (PPM)	48	136	60	172	150	160			
CARBONATES AS CaCO ₃ (PPM)	16	24	4	0	0	0			
BICARBONATES AS CaCO ₃ (PPM)	32	112	56	172	150	160			
CHLORIDES AS Cl (PPM)	14	74	12	18	24	20			1
HARDNESS AS CaCO ₃ (PPM)	60	50	68	56	42	68			
IRON AS Fe (PPM)	-	-			-	-			
FLUORIDE (PPM)	AM/PM 1.50/1.00	0.57	AM/PM 1.00/0.94	0.12	0.10	0.14			
TURBIDITY (NTUS)	AM/PM 0.8/1.5	1.0	AM/PM 0.8/0.6	0.6	0.7	0.9			
CHLORINE RESIDUAL (PPM)	1.1	0.8	1.1	1.2	1.0	1.1			

REMARKS:

COPY TO:

- UTIL DIR, BMD
- WATER TREATMENT, UTIL DIV, BMD
- PMU, NAVHOSP PMU, MCAS-NR
- DIVISION OF HEALTH SERVICES
 N.C. DEPT OF HUMAN RESOURCES

REPORT DATE:

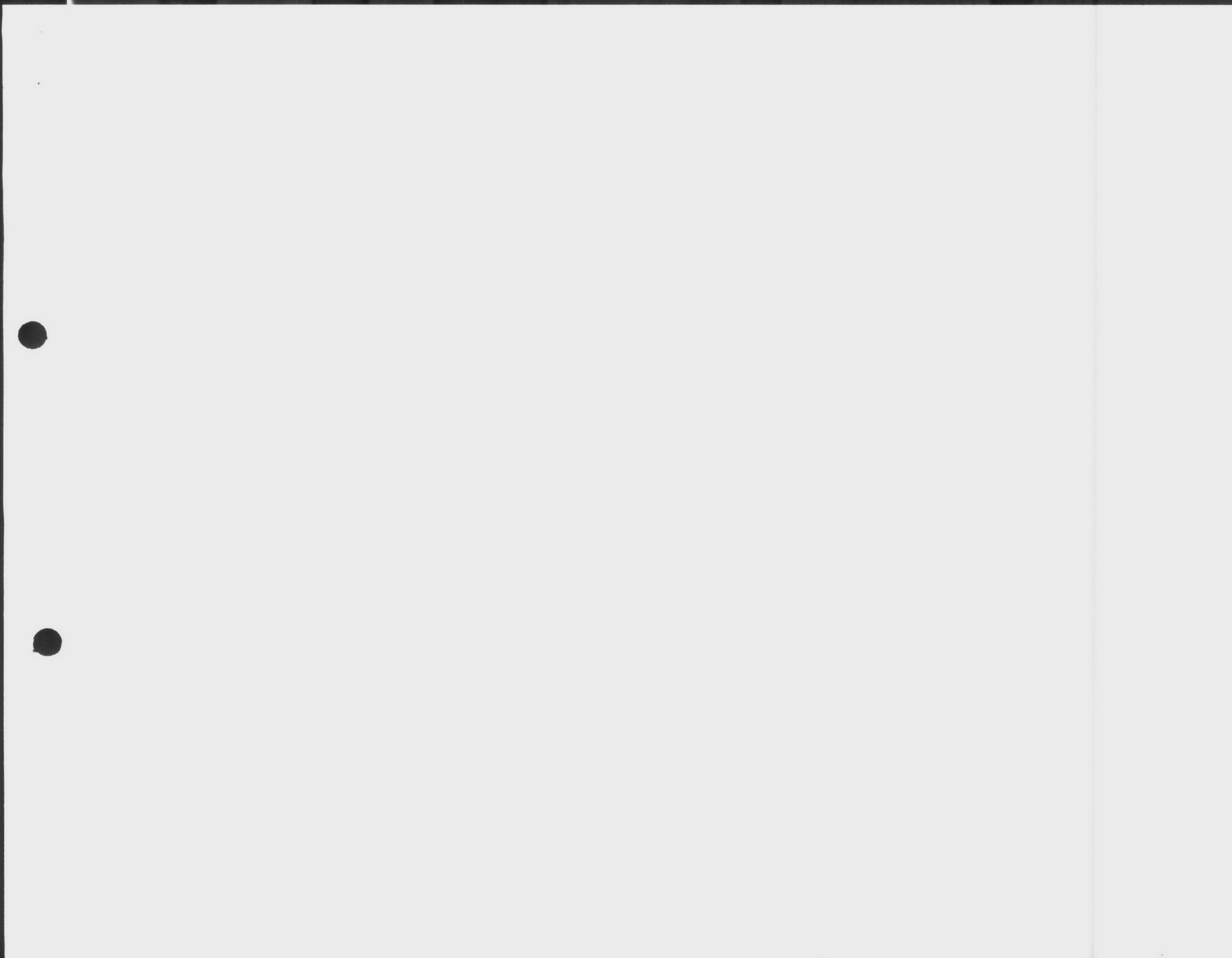
8-11-87

REPORT PREPARED BY:

H.J. BURNS

NREAD

FILE (ATTACH WKST)



ENVIRONMENTAL CHEMISTRY & MICROBIOLOGY LABORATORY REPORT
 CHEMICAL ANALYSIS - WATER TREATMENT PLANTS
 MCBCL 11330/3 (REV 7-87)

DATE COLLECTED: 8-25-87
 DATE(S) ANALYZED: 8-25-87

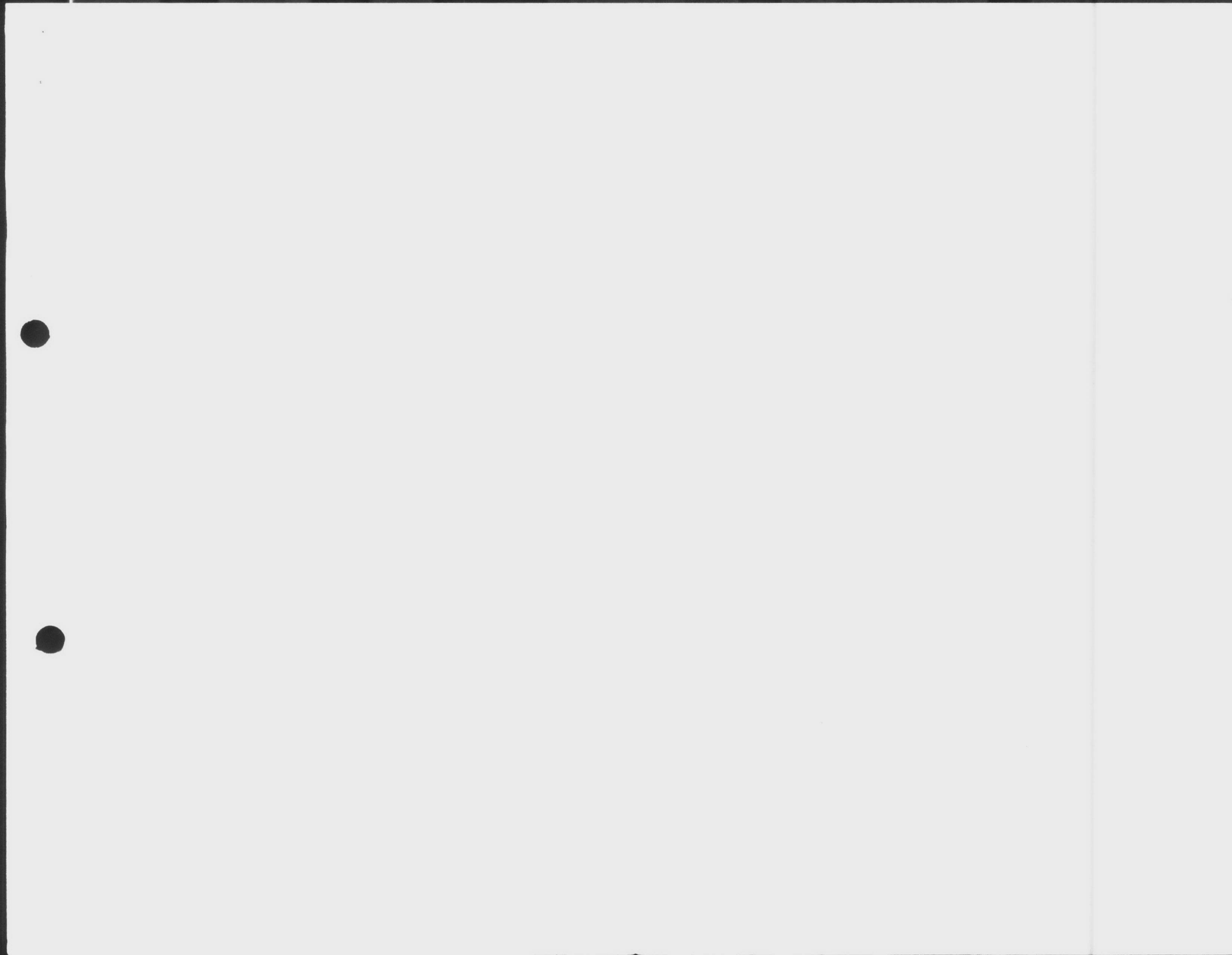
PLANT PARAMETER (UNITS)	HADNOT POINT 04-67-041	MCAS NEW RIVER 04-67-042	HOLCOMP BLVD 04-67-043	COURTHOUSE BAY 04-67-046	RIFLE RANGE 04-67-047	ON SLOW BEACH 04-67-048		
pH-LABORATORY	8.2	8.8	8.6	8.0	8.4	7.6		
STABILITY	-0.1	+0.2	0	-0.4	-0.1	-0.8		
PHENOLTHALEIN ALKALINITY (PPM)	0	8	4	0	0	0		
METHYL ORANGE ALKALINITY (PPM)	70	132	60	182	172	184		
CARBONATES AS CaCO ₃ (PPM)	0	16	8	0	0	0		
BICARBONATES AS CaCO ₃ (PPM)	70	116	52	182	172	184		
CHLORIDES AS Cl (PPM)	14	66	14	10	38	28		
HARDNESS AS CaCO ₃ (PPM)	72	92	74	78	82	60		
IRON AS Fe (PPM)								
FLUORIDE (PPM)	AM PM	0.65	0.96 1.14	0.14	0.11	0.15		
	0.70 0.61							
TURBIDITY (NTUS)	AM PM	1.3	0.8 0.9	0.7	0.8	0.8		
	0.7 0.7							
CHLORINE RESIDUAL (PPM)		0.7	1.4	1.2	1.1	1.1		

REMARKS:

- COPY TO:
- UTIL DIR, BMD
 - WATER TREATMENT, UTIL DIV, BMD
 - PMU, NAVHOSP PMU, MCAS-NR
 - DIVISION OF HEALTH SERVICES
 N.C. DEPT OF HUMAN RESOURCES
 - NREAD FILE (ATTACH WKST)

REPORT DATE:
8-25-87

REPORT PREPARED BY:
CAROL S. SHORIS



ENVIRONMENTAL CHEMISTRY & MICROBIOLOGY LABORATORY REPORT
 CHEMICAL ANALYSIS - WATER TREATMENT PLANTS
 MC8CL 11330/3 (REV 7-87)

DATE COLLECTED

8-18-87

DATE(S) ANALYZED

8-18-87

PLANT PARAMETER (UNITS)	HADNOT POINT 04-67-041	MCAS NEW RIVER 04-67-042	HOLCOMB BLVD 04-67-043	COURTHOUSE BAY 04-67-046	RIFLE RANGE 04-67-047	ON SLOW. BEACH 04-67-048			
pH-LABORATORY	9.2	8.5	8.6	7.9	8.2	7.7			
STABILITY	+0.4	0	+0.3	-0.4	-0.2	-0.6			
PHENOLTHALEIN ALKALINITY (PPM)	12	6	2	0	0	0			
METHYL ORANGE ALKALINITY (PPM)	56	142	62	192	152	174			
CARBONATES AS CaCO ₃ (PPM)	24	12	4	0	0	0			
BICARBONATES AS CaCO ₃ (PPM)	32	130	58	192	152	174			
CHLORIDES AS Cl (PPM)	14	78	16	18	10	26			
HARDNESS AS CaCO ₃ (PPM)	50	50	70	56	62	56			
IRON AS Fe (PPM)	—	—							
FLUORIDE (PPM)	AM PM 0.85 0.92	0.55	0.88 0.87	0.12	0.10	0.14			
TURBIDITY (NTUS)	AM PM 0.3 0.5	0.2	0.2 0.3	0.1	0.1	0.1			
CHLORINE RESIDUAL (PPM)	1.0	0.8	1.2	1.2	0.8	NONE RECORDED			

REMARKS:

COPY TO:

- UTIL Dir, BMD
- WATER TREATMENT, UTIL Div, BMD
- PMU, NAVHOSP PMU, MCAS-NR
- DIVISION OF HEALTH SERVICES
N.C. DEPT OF HUMAN RESOURCES
- NREAD FILE (ATTACH WKST)

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