

FILE FOLDER

DESCRIPTION ON TAB:

6281/1A State Reports

Jan - Jun 87

Outside/inside of actual folder did not contain hand written information

Outside/inside of actual folder did contain hand written information

***Scanned as next image**

11331 MICROBIOLOGY

GENERAL (TEMPORARY) SECNAVINST
5212.5B, PART II, CHAP 11, PAR
11300(2) 2 YRS

11331
NREAD
4 Jan 88

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 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,

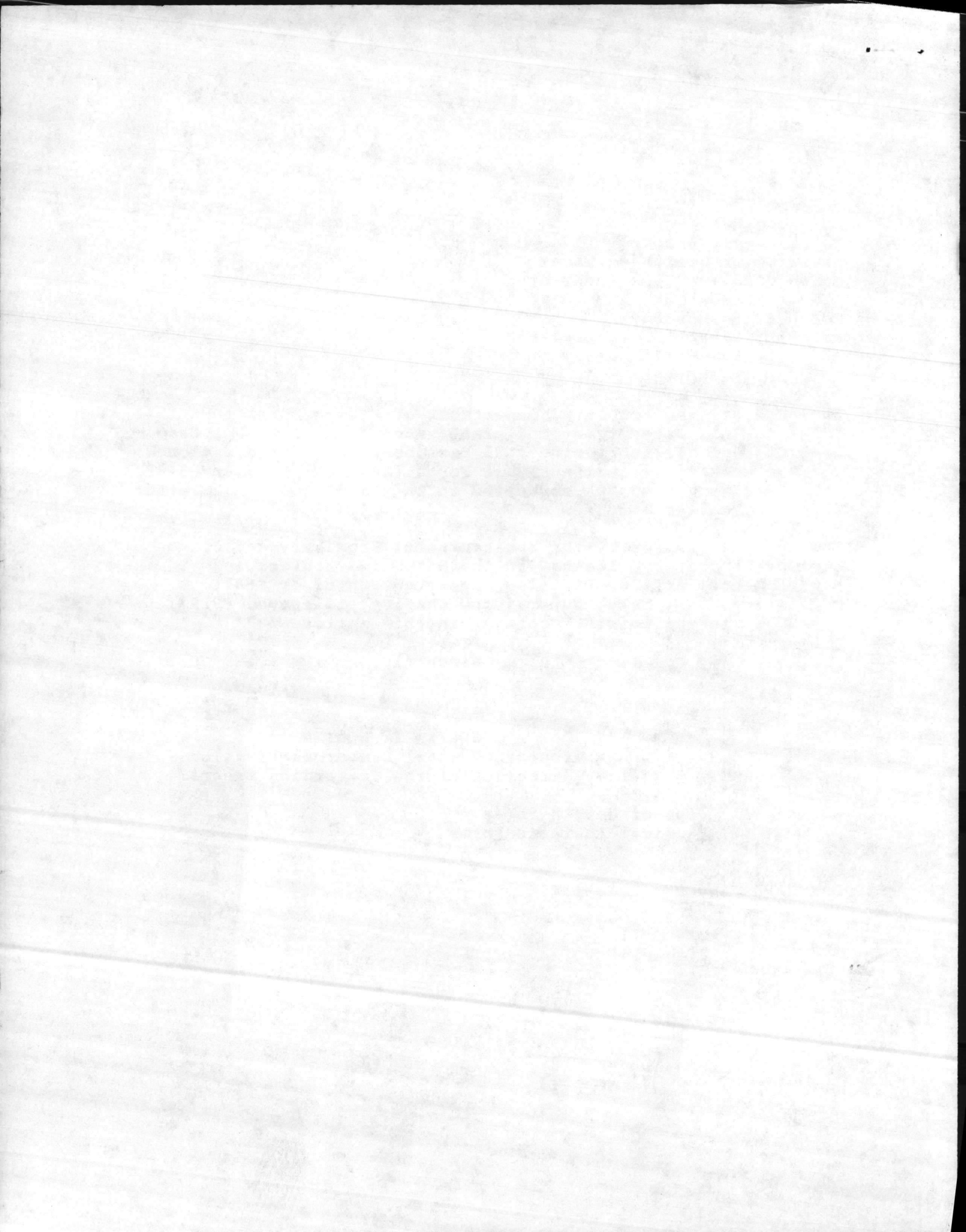
JULIAN I. WOOTEN
Director, Natural Resources Division
By direction of the Commanding General

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

Copy to:
LANTNAVFACENGCOM (Code 114)

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

Writer/Typist Betz/Ski
Date Typed 4 Jan 88
Word Processor Number 11331



Month DECEMBER
Year 1987

HADNOT POINT

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

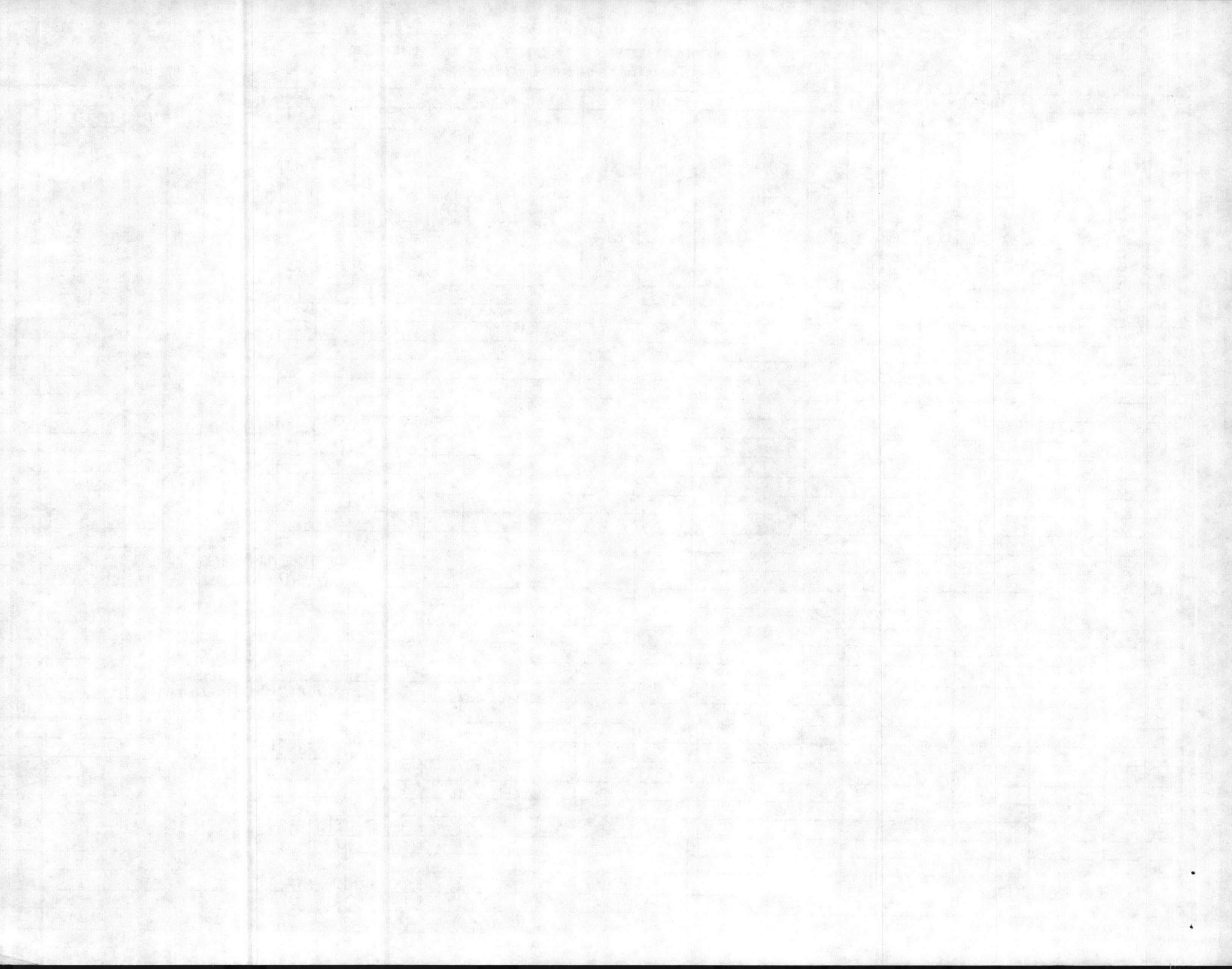
Serial #: 04-67-041

DATE	RAW WATER COLIFORMS (MFP)						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					INCUBATOR TEMP.	PLANKTON				
	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	10 ¹										0	9	0/0	0/0	0/0	0/0	0/0				35.6			
2																								
3																								
4																								
5																								
6																								
7																								
8	7 TH										0	9	0/0	0/0	10	0/0	10							35.5
9																								
10																								
11																								
12																								
13																								
14																								
15	7 TH										0	9	0/0	0/0	10	0/0								35.8
16																								
17																								
18																								
19																								
20																								
21																								
22	7 TH										0	9	0/0	0/0	0/0	0/0	0/0							35.8
23																								
24																								
25																								
26																								
27																								
28																								
29	7 TH										0	9	0/0	0/0	10	0/0	10							35.6
30																								
31																								
	HF MEDIA	BBL mEndo		BACTERIAL DENSITY	ARITH. MEAN	GEO. MEAN					0	DIST. SYSTEM	TOTAL NO. SAMPLES					45						
	TPC MEDIA										1		SAMPLES EXCEEDING 3/50, 4/100, 7/200, 13/500ml					0						

Laboratory Cert. 37807

Signat Elizabeth A. Bety Cert. Grade B-Well No. 4087-W

ENCLOSURE (1)



Month DECEMBER
Year 1987

MARINE CORPS AIR STATION WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303
Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

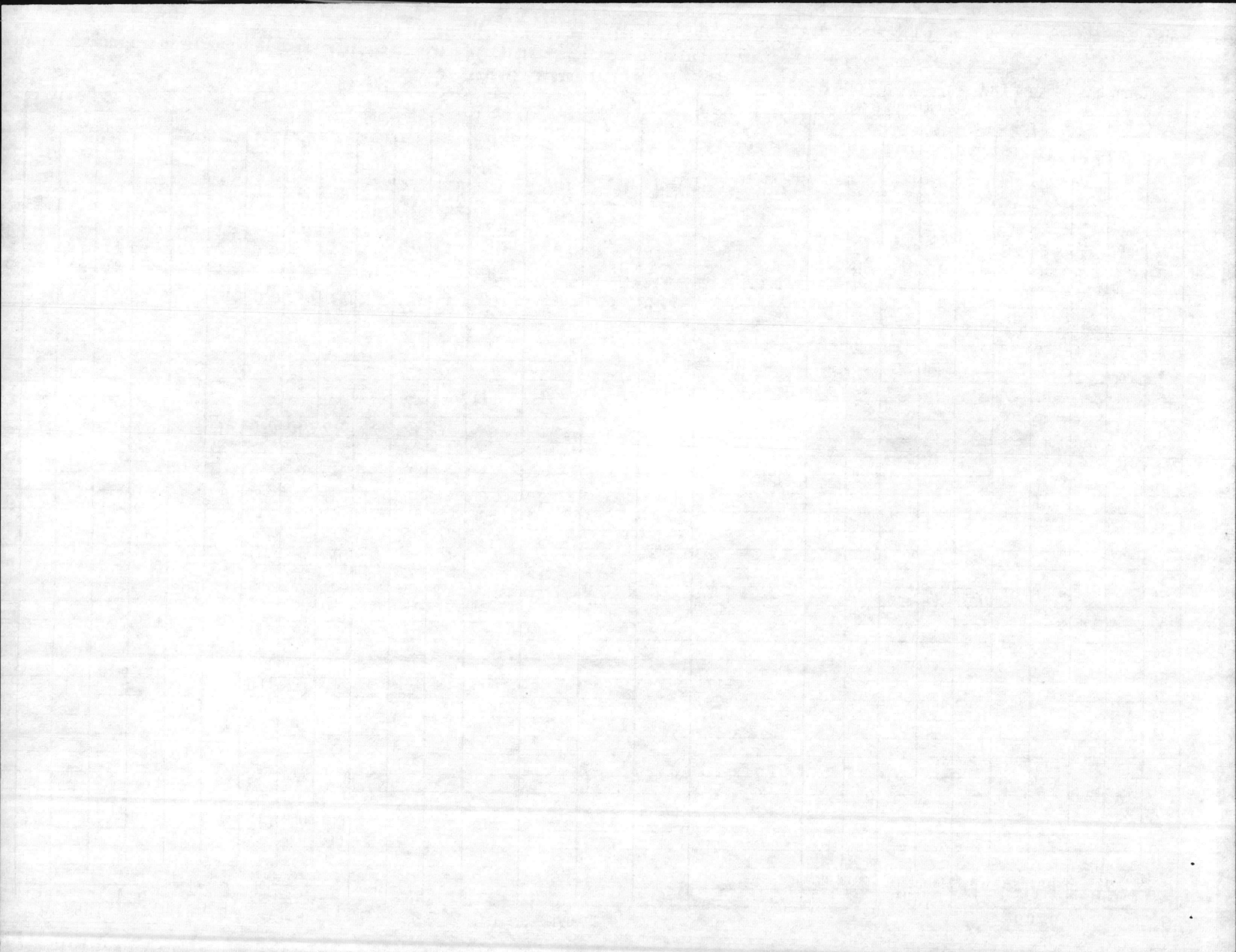
Serial #: 04-67-042

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.	PLANKTON						
	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.	
1	1 1/2											0	7	0	0	0	0									35.6		
2																												
3																												
4																												
5																												
6																												
7																												
8	2 8TH											0	7	0	0	0	0	10										35.5
9																												
10																												
11																												
12																												
13																												
14																												
15	2 15TH											0	7	0	0	0	0		0									35.8
16																												
17																												
18																												
19																												
20																												
21																												
22	2 22ND											0	7	0	0	0	0		10									35.8
23																												
24																												
25																												
26																												
27																												
28																												
29	2 29TH											0	7	0	0	0	0											35.6
30																												
31																												
HF MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN						0	DIST. SYSTEM	TOTAL NO. SAMPLES					35									
TPC MEDIA														SAMPLES EXCEEDING 3/50, 4/100, 7/200, 13/500ml					0									

Laboratory Cert. 37807

Signed Elyabeth A. B... Cert. Grade B-Well No. 4087-W

ENCLOSURE (1)



Month DECEMBER
Year 1987

HOLCOMB BLVD.

WATER TREATMENT PLANT AT Camp Lejeune

Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

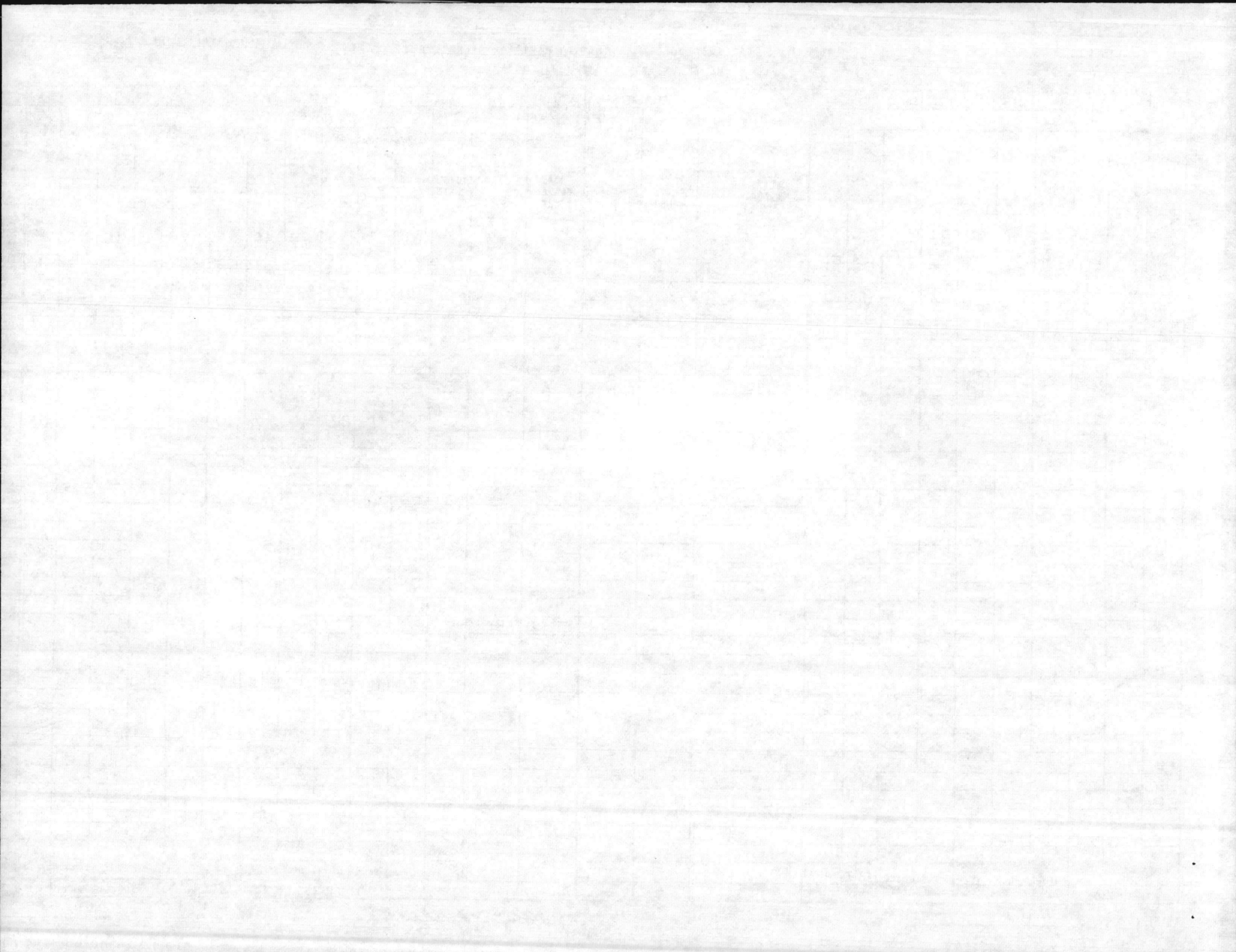
Serial #: 04-67-043

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.	DISTRIBUTION SYSTEM					INCUBATOR TEMP.	PLANKTON			
	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	15										0	7	0/0	0/0	0/0	0/1				35.6		
2																						
3																						
4																						
5																						
6																						
7																						
8	7											0	7	0/0	1/0	0/0	1/0	0/1			35.5	
9																						
10																						
11																						
12																						
13																						
14																						
15	7											0	7	0/0	1/0	1/0		1/0			35.8	
16																						
17																						
18																						
19																						
20																						
21																						
22	7											0	6	0/0	1/0	0/0	0/0				35.8	
23																						
24																						
25																						
26																						
27																						
28																						
29	7											0	7	0/0	1/0	0/0	1/0	0/0			35.6	
30																						
31																						
MF MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN						0		DIST. SYSTEM		TOTAL NO. SAMPLES					34	
TPC MEDIA						GEO. MEAN						1				SAMPLES EXCEEDING 3/50, (4/100) 7/200, 13/500ml					0	

Laboratory Cert. 37807

Signed Elizabeth A. Bely Cert. Grade B-Well No. 4087-W

ENCLOSURE (1)



Month DECEMBER
Year 1987

TARAWA TERRACE WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303
Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

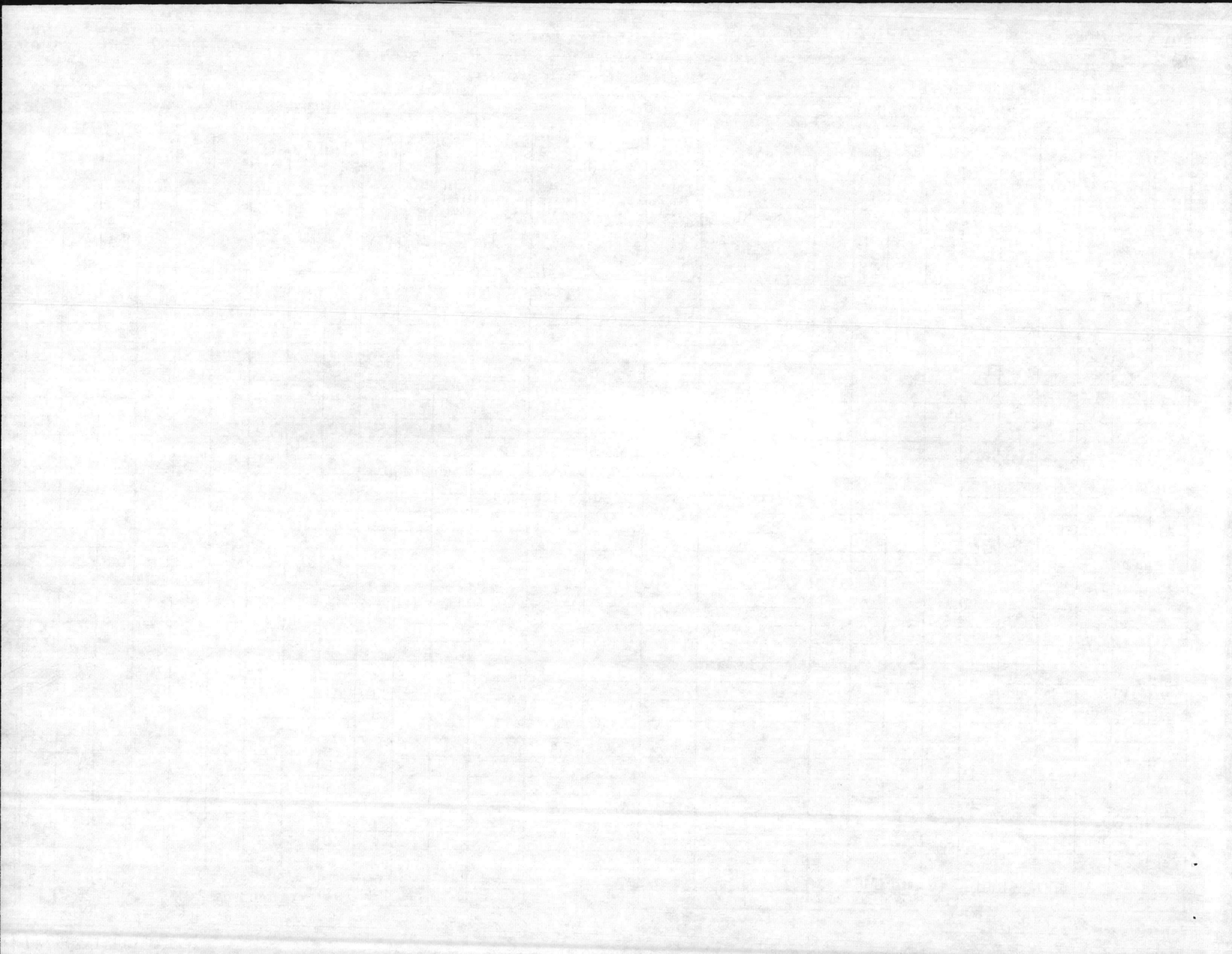
Serial #: 04-67-044

DATE	RAW WATER COLIFORMS (MFP)								NO. OF COLIFORMS PER 100 ml.	FILTEREE TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.	PLANKTON RAW WATER
	A		B		C		AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED				1	2	3	4	5	COLIFORMS 12-2-87 per 100 ml.	COLIFORMS 12-3-87 per 100 ml.	COLIFORMS per 100 ml.		
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES															
1	1ST						275	4	0	0	0	0	0	0	0	0	0	35.6			
2																					
3																					
4																					
5																					
6																					
7																					
8	7 8TH						0	4	0	0	0	0	0	0	0	0	0	35.5			
9																					
10																					
11																					
12																					
13																					
14																					
15	7 15TH						0	4	0	0	0	0	0	0	0	0	0	35.8			
16																					
17																					
18																					
19																					
20																					
21																					
22	7 22ND						0	4	0	0	0	0	0	0	0	0	0	35.8			
23																					
24																					
25																					
26																					
27																					
28																					
29	7 29TH						0	4	0	0	0	0	0	0	0	0	0	35.6			
30																					
31																					
HF MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN						.55		DIST. SYSTEM		TOTAL NO. SAMPLES		20			
TPC MEDIA												1.13		SAMPLES EXCEEDING		3/50, (4/100) 7/200, 13/500ml		1			

Laboratory Cert. 37807

Signed Elizabeth B. B... Cert. Grade B-Well No. 4087-W

ENCLOSURE (1)



Month DECEMBER
Year 1987

CAMP JOHNSON

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303
Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

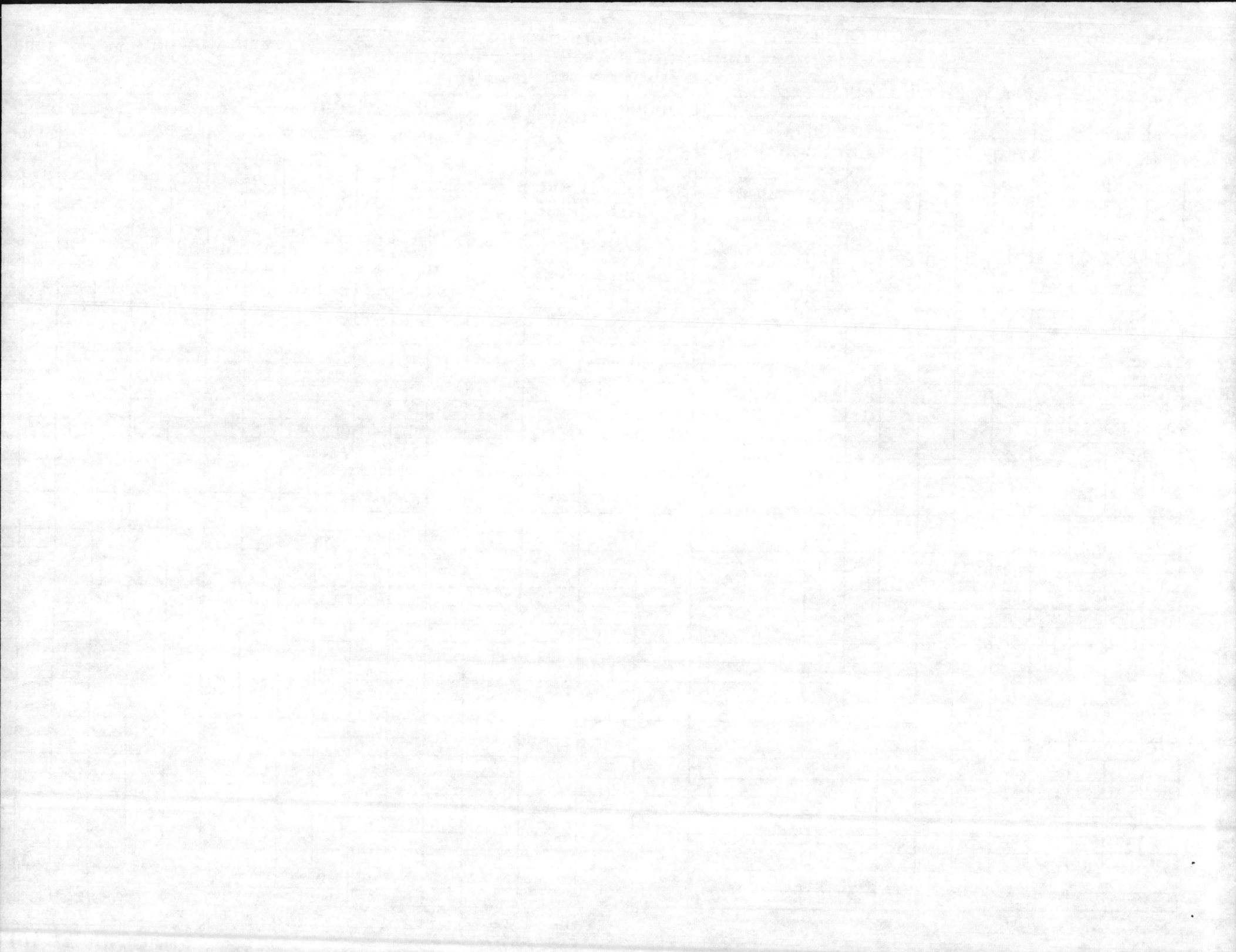
Serial #: 04-67-045

DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.	PLANKTON		
	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														AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED
1	10 TH										0	2	0	0						35.6	
2																					
3																					
4																					
5																					
6																					
7																					
8	7 8 TH										0	2	0	0							35.5
9																					
10																					
11																					
12																					
13																					
14																					
15	7 15 TH										0	2	0	10							35.8
16																					
17																					
18																					
19																					
20																					
21																					
22	7 22 ND										0	2	0	0							35.8
23																					
24																					
25																					
26																					
27																					
28																					
29	7 29 TH										0	2	0	10							35.6
30																					
31																					
MF MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN						0		DIST. SYSTEM		TOTAL NO. SAMPLES				10	
TPC MEDIA						GEO. MEAN						1				SAMPLES EXCEEDING 3/50, 4/100, 7/200, 13/500ml				0	

Laboratory Cert. 37807

Signed Elizabeth A. B. B. Cert. Grade B-Well No. 4087-W

ENCLOSURE (1)



Month DECEMBER
Year 1987

RIFLE RANGE

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 300

Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

Serial #: 04-67-046

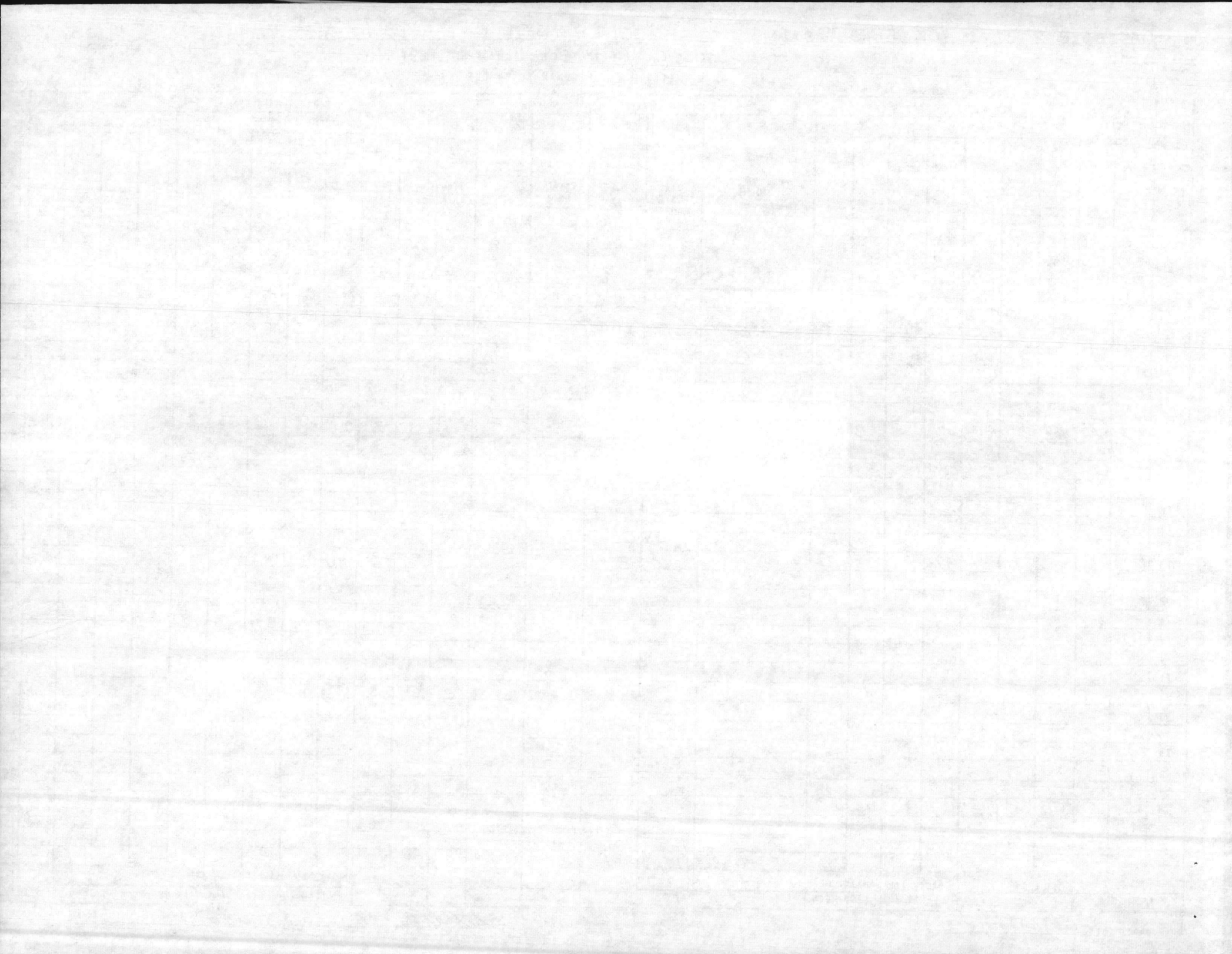
DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM					INCUBATOR TEMP.	PLANKTON RAW WATER			
	A		B		C								COLIFORMS (MFP)							REPEAT SAMPLES		
	VOLUME FILTERED 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 <u>1ST</u>										0	3	0	0	0				35.6				
2																						
3																						
4																						
5																						
6																						
7																						
8 <u>7 8TH</u>										0	3	0	0	0				35.5				
9																						
10																						
11																						
12																						
13																						
14																						
15 <u>7 15TH</u>										0	3	0	0	0				35.8				
16																						
17																						
18																						
19																						
20																						
21																						
22 <u>7 22ND</u>										0	3	0	0	0				35.8				
23																						
24																						
25																						
26																						
27																						
28																						
29 <u>7 29TH</u>										0	3	0	0	0				35.6				
30																						
31																						
HF MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN				0		DIST. SYSTEM		TOTAL NO. SAMPLES				15				
TPC MEDIA						GEO. MEAN				1		SAMPLES EXCEEDING		3/50, (4/100) 7/200, 13/500ml				0				

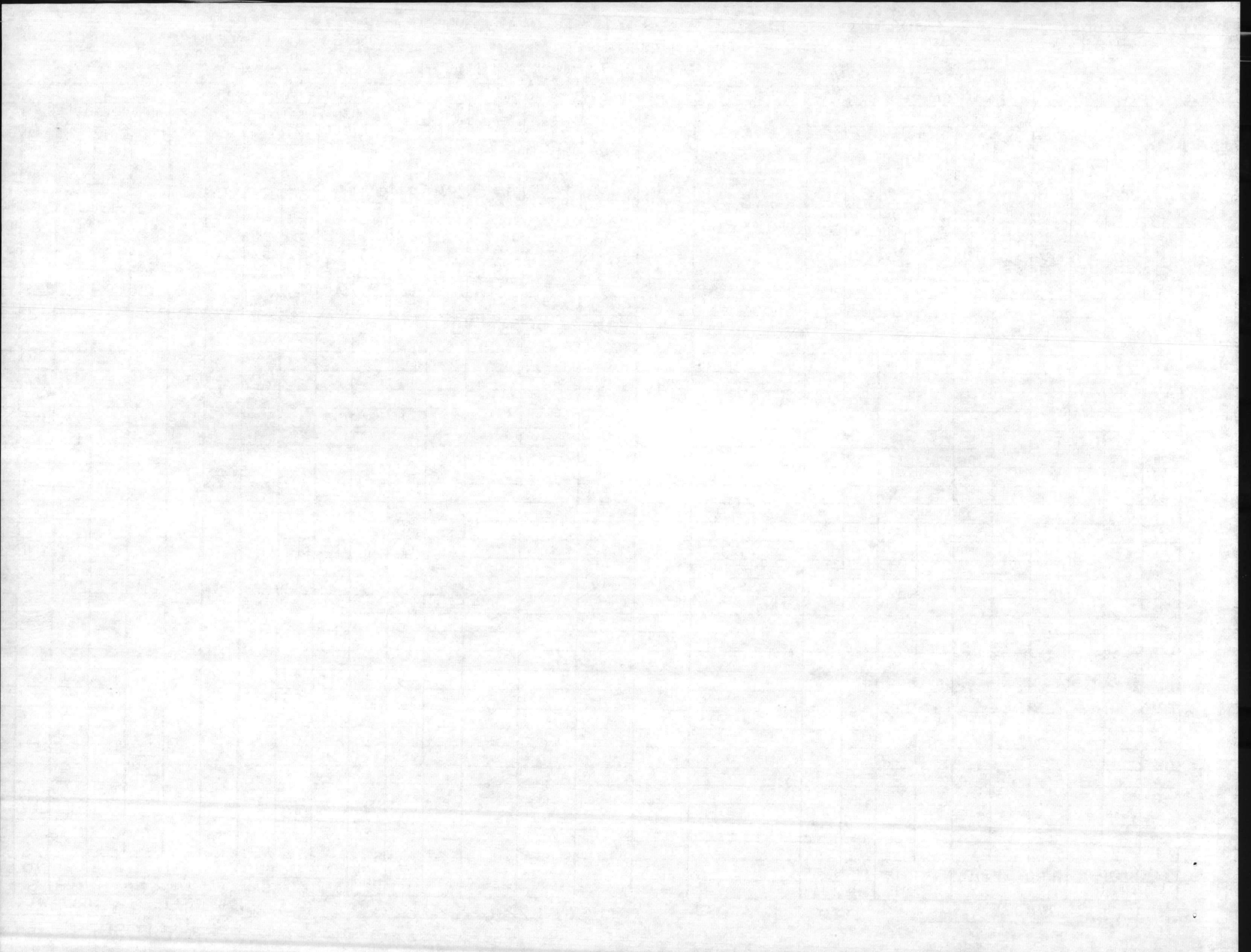
Laboratory Cert. 37807

Signat Elizabeth O. Bay

Cert. Grade B-Well No. 4087-W

ENCLOSURE (11)





Month DECEMBER
Year 1987

ONSHLOW BEACH WATER TREATMENT PLANT AT Camp Lejeune

Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

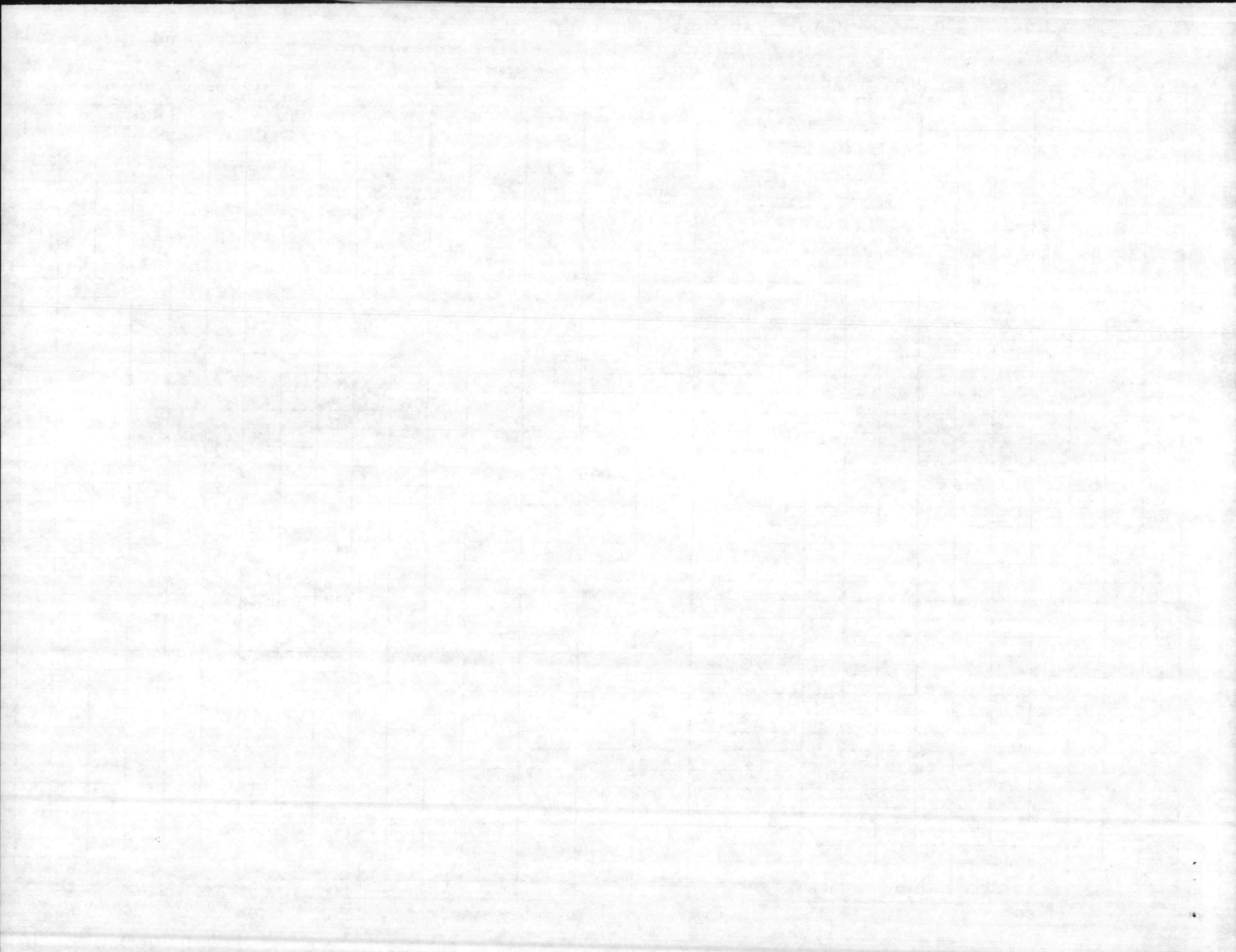
Serial #: 04-67-048

DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.	PLANKTON	
	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															
1	21ST										0	2	010							35.6	
2																					
3																					
4																					
5																					
6																					
7																					
8	8TH										0	2	010								35.5
9																					
10																					
11																					
12																					
13																					
14																					
15	15TH										0	2	010								35.8
16																					
17																					
18																					
19																					
20																					
21																					
22	22ND										0	2	010								35.8
23																					
24																					
25																					
26																					
27																					
28																					
29	29TH										0	2	010								35.6
30																					
31																					
MF MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN				0		DIST. SYSTEM		TOTAL NO. SAMPLES						10	
TPC MEDIA						GEO. MEAN				1				SAMPLES EXCEEDING 3/50, (4/100) 7/200, 13/500ml						0	

Laboratory Cert. 37807

Signed Elizabeth A. Betty Cert. Grade B-Well No. 4087-W

ENCLOSURE (1)



ENVIRONMENTAL CHEMISTRY & MICROBIOLOGY LABORATORY REPORT

CHEMICAL ANALYSIS - WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 11-87)

DATE COLLECTED

12-1-87

DATE(S) ANALYZED

12-1-87

PARAMETER (UNITS)	PLANT	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		8.3	8.3	8.6	7.9	8.0	7.3		
STABILITY		+0.5	+0.2	+0.6	+0.1	+0.1	-0.3		
PHENOLTHALEIN ALKALINITY (PPM)		6	4	8	0	0	0		
METHYLORANGE ALKALINITY (PPM)		66	150	60	168	156	164		
CARBONATES AS $CaCO_3$ (PPM)		12	8	16	0	0	0		
BICARBONATES AS $CaCO_3$ (PPM)		54	142	44	168	156	164		
CHLORIDES AS Cl (PPM)		14	68	12	20	44	22		
HARDNESS AS $CaCO_3$ (PPM)		78	60	58	56	50	54		
IRON AS Fe (PPM)									
FLOURIDE (PPM)	AM / PM	0.80 / 0.88	0.64	1.02 / 1.14	0.15	0.12	0.13		
TURBIDITY (NTUS)	AM / PM	/		/					
CHLORINE RESIDUAL (PPM)		0.9	1.0	1.0	1.4	0.8	0.7		

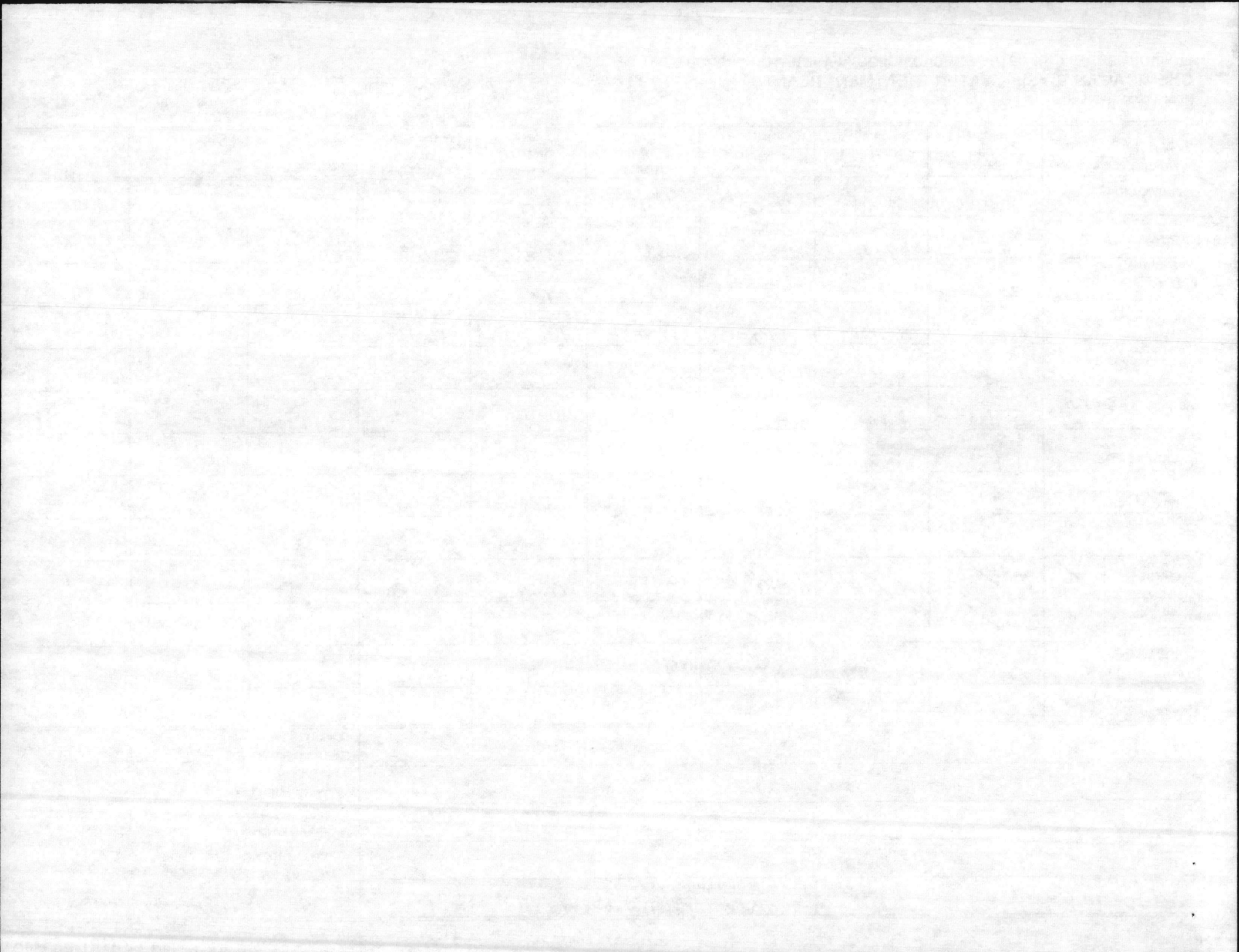
REMARKS:

- 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 (ATTACHWKST)

REPORT DATE:
12-1-87

REPORT PREPARED BY:
ROBERT G. DEMPEN

ENCLOSURE (2)



ENVIRONMENTAL CHEMISTRY & MICROBIOLOGY LABORATORY REPORT
CHEMICAL ANALYSIS - WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 11-87)

DATE COLLECTED

12-8-87

DATE(S) ANALYZED

12-8-87

PARAMETER (UNITS)	PLANT	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		8.2	8.4	8.6	8.2	8.1	7.3		
STABILITY		+0.3	+0.2	+0.6	+0.2	+0.1	-0.4		
PHENOLTHALEIN ALKALINITY (PPM)		4	10	6	0	0	0		
METHYL ORANGE ALKALINITY (PPM)		80	140	60	164	160	166		
CARBONATES AS CACO ₃ (PPM)		8	20	12	0	0	0		
BICARBONATES AS CACO ₃ (PPM)		72	120	48	164	160	166		
CHLORIDES AS CI (PPM)		8	54	12	8	36	14		
HARDNESS AS CACO ₃ (PPM)		80	54	62	48	52	58		
IRON AS FE (PPM)									
FLOURIDE (PPM)	AM PM	0.86 0.88	0.64	1.21 1.14	0.16	0.11	0.15		
TURBIDITY (NTUS)	AM PM	/		/					
CHLORINE RESIDUAL (PPM)		1.0	1.1	1.4	1.3	1.0	1.1		

REMARKS:

COPY TO:

UTIL DIR, BMD _____

WATER TREATMENT, UTIL DIV. BMD

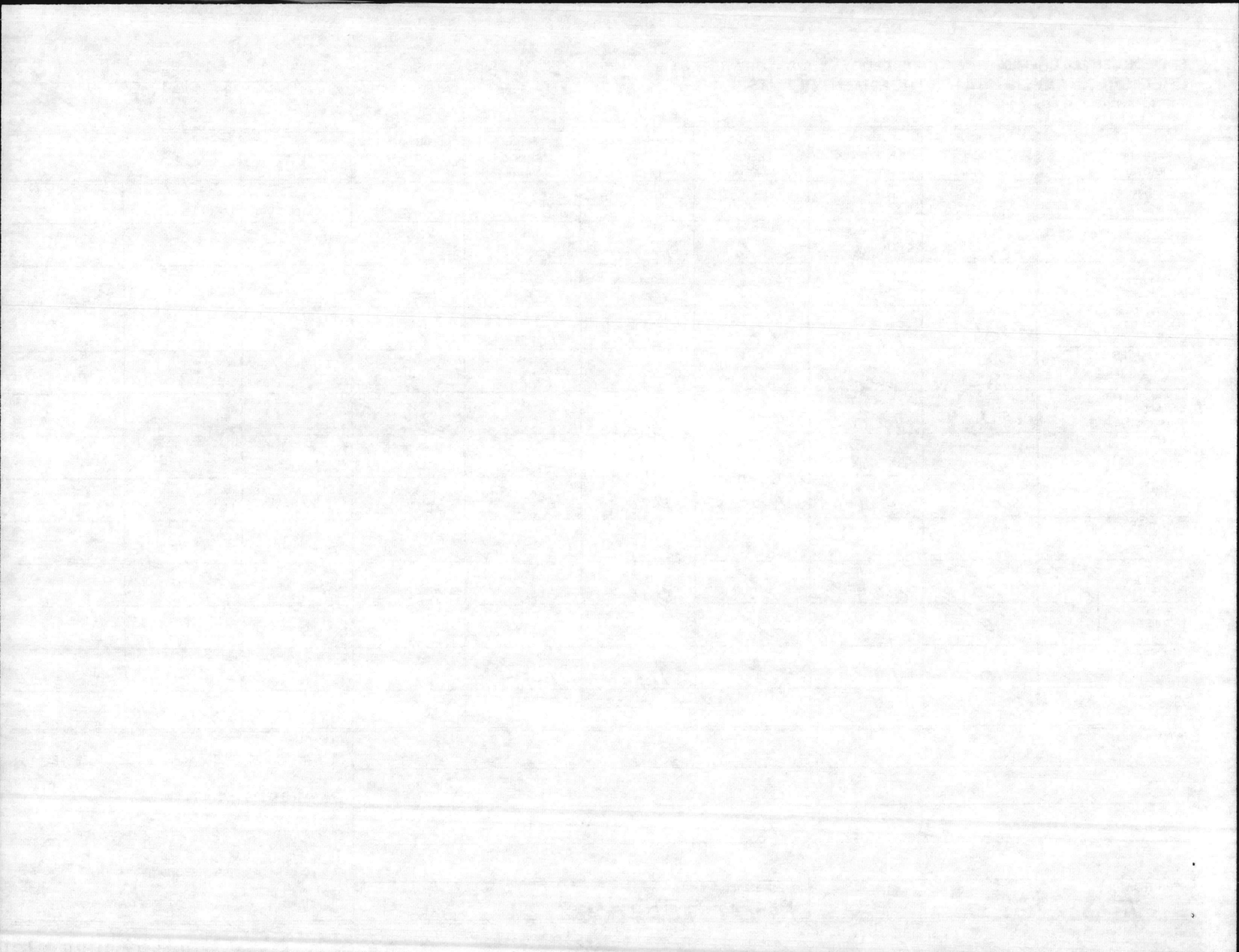
PMU, NAVHOSP PMU, MCAS-NR

DIVISION OF HEALTH SERVICES
 N.C. DEPT OF HUMAN RESOURCES

NREAD FILE (ATTACHWKST)

REPORT DATE: 12-8-87

REPORT PREPARED BY: ROBERT G. DEPPEN



ENVIRONMENTAL CHEMISTRY & MICROBIOLOGY LABORATORY REPORT
CHEMICAL ANALYSIS - WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 11-87)

DATE COLLECTED

12-15-87

DATE(S) ANALYZED

12-15-87

PARAMETER (UNITS)	PLANT	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		8.5	8.5	8.3	8.3	8.2	7.3		
STABILITY		+0.4	+0.2	+0.3	+0.2	+0.1	-0.4		
PHENOLTHALEIN ALKALINITY (PPM)		4	10	2	4	2	0		
METHYL ORANGE ALKALINITY (PPM)		60	124	60	156	130	156		
CARBONATES ASCACO ₃ (PPM)		8	20	4	8	4	0		
BICARBONATES ASCACO ₃ (PPM)		52	104	56	148	126	156		
CHLORIDES ASCI (PPM)		10	64	14	28	38	20		
HARDNESS ASCACO ₃ (PPM)		64	50	66	56	44	58		
IRON AS FE (PPM)									
FLOURIDE (PPM)	AM PM	0.97 / 1.05	0.64	0.98 / 1.03	0.17	0.13	0.16		
TURBIDITY (NTUS)	AM PM	/		/					
CHLORINE RESIDUAL (PPM)		1.0	1.0	1.0	1.7	0.8	1.3		

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)

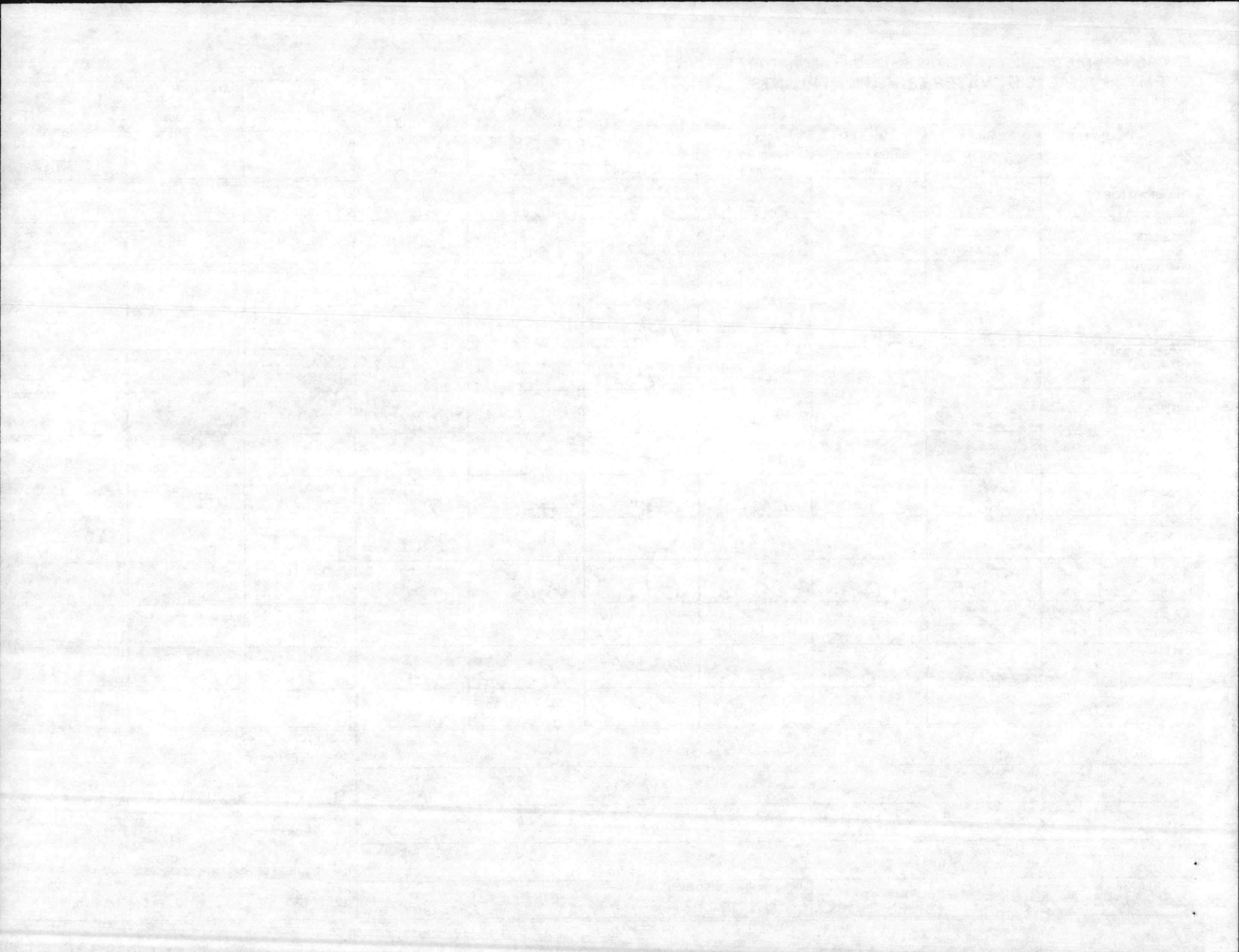
REPORT DATE:

12-15-87

REPORT PREPARED BY:

H. J. BURNS

ENCLOSURE 2



ENVIRONMENTAL CHEMISTRY & MICROBIOLOGY LABORATORY REPORT

CHEMICAL ANALYSIS - WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 11-87)

DATE COLLECTED

12-22-87

DATE(S) ANALYZED

12-22-87

PARAMETER (UNITS)	PLANT	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		8.2	8.6	8.4	8.2	8.3	7.4		
STABILITY		+0.3	+0.4	+0.4	0.0	+0.2	-0.5		
PHENOLTHALEIN ALKALINITY (PPM)		0	10	4	0	6	0		
METHYLORANGE ALKALINITY (PPM)		72	142	68	160	158	168		
CARBONATES AS CaCO ₃ (PPM)		0	20	8	0	12	0		
BICARBONATES AS CaCO ₃ (PPM)		72	122	60	160	146	168		
CHLORIDES AS Cl (PPM)		14	70	18	22	36	24		
HARDNESS AS CaCO ₃ (PPM)		76	54	72	60	48	54		
IRON AS Fe (PPM)									
FLOURIDE (PPM)	AM / PM	0.98 / 1.18	0.67	0.94 / 1.00	0.16	0.11	0.16		
TURBIDITY (NTUS)	AM / PM	/		/					
CHLORINE RESIDUAL (PPM)		1.0	1.0	1.2	1.3	1.0	1.4		

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)

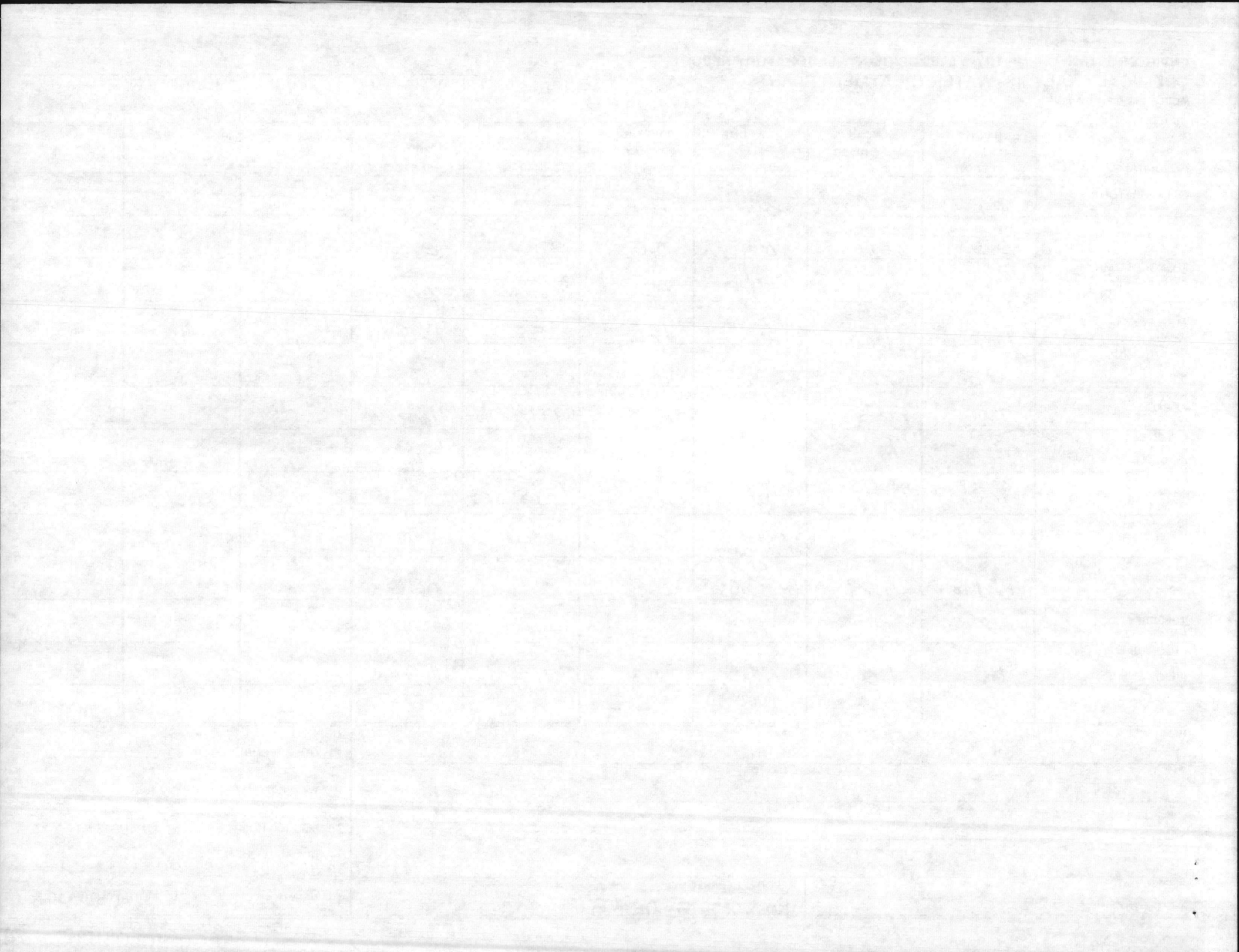
REPORT DATE:

12-22-87

REPORT PREPARED BY:

ROBERT G. DEPPEN

ENCLOSURE 121



ENVIRONMENTAL CHEMISTRY & MICROBIOLOGY LABORATORY REPORT

CHEMICAL ANALYSIS - WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 11-87)

DATE COLLECTED

12-29-87

DATE(S) ANALYZED

12-29-87

PARAMETER (UNITS)	PLANT	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		8.2	8.6	8.4	8.3	8.1	7.5			
STABILITY		+0.4	+0.3	+0.5	+0.1	0.0	-0.3			
PHENOLTHALEIN ALKALINITY (PPM)		0	12	4	8	0	0			
METHYLORANGE ALKALINITY (PPM)		68	146	70	180	164	178			
CARBONATES AS CaCO ₃ (PPM)		0	24	8	16	0	0			
BICARBONATES AS CaCO ₃ (PPM)		68	122	62	164	164	178			
CHLORIDES AS Cl (PPM)		12	70	26	20	34	26			
HARDNESS AS CaCO ₃ (PPM)		96	68	72	50	42	62			
IRON AS FE (PPM)										
FLOURIDE (PPM)	AM PM	1.14 1.27	0.72	0.91 0.92	0.14	0.12	0.16			
TURBIDITY (NTUS)	AM PM	/		/						
CHLORINE RESIDUAL (PPM)		1.1	1.1	1.1	1.5	1.0	1.2			

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)

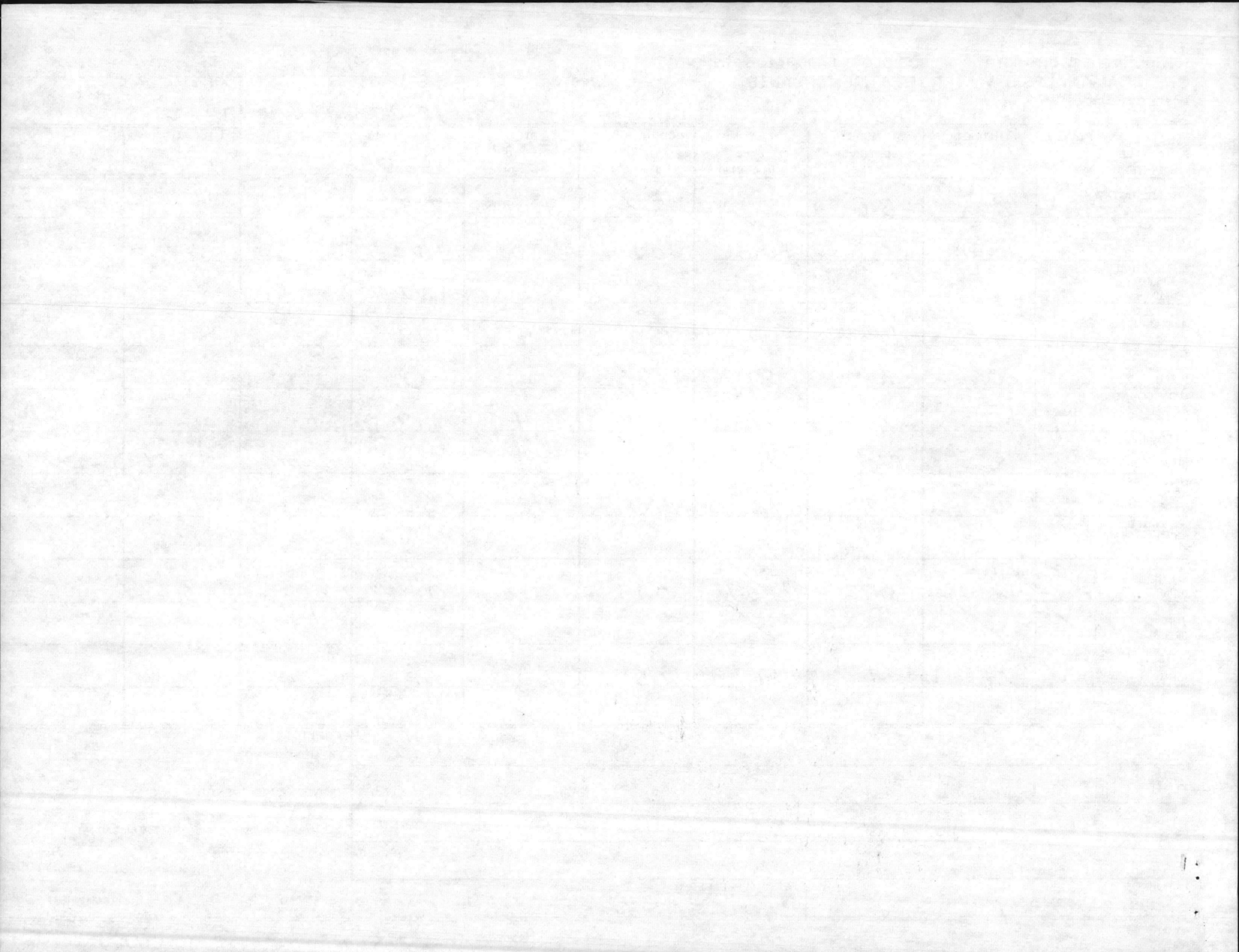
REPORT DATE:

12-29-87

REPORT PREPARED BY:

CAROL S. SNORIS

ENCLOSURE (2)



11331

NREAD

2 Dec 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 1-30 November 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,

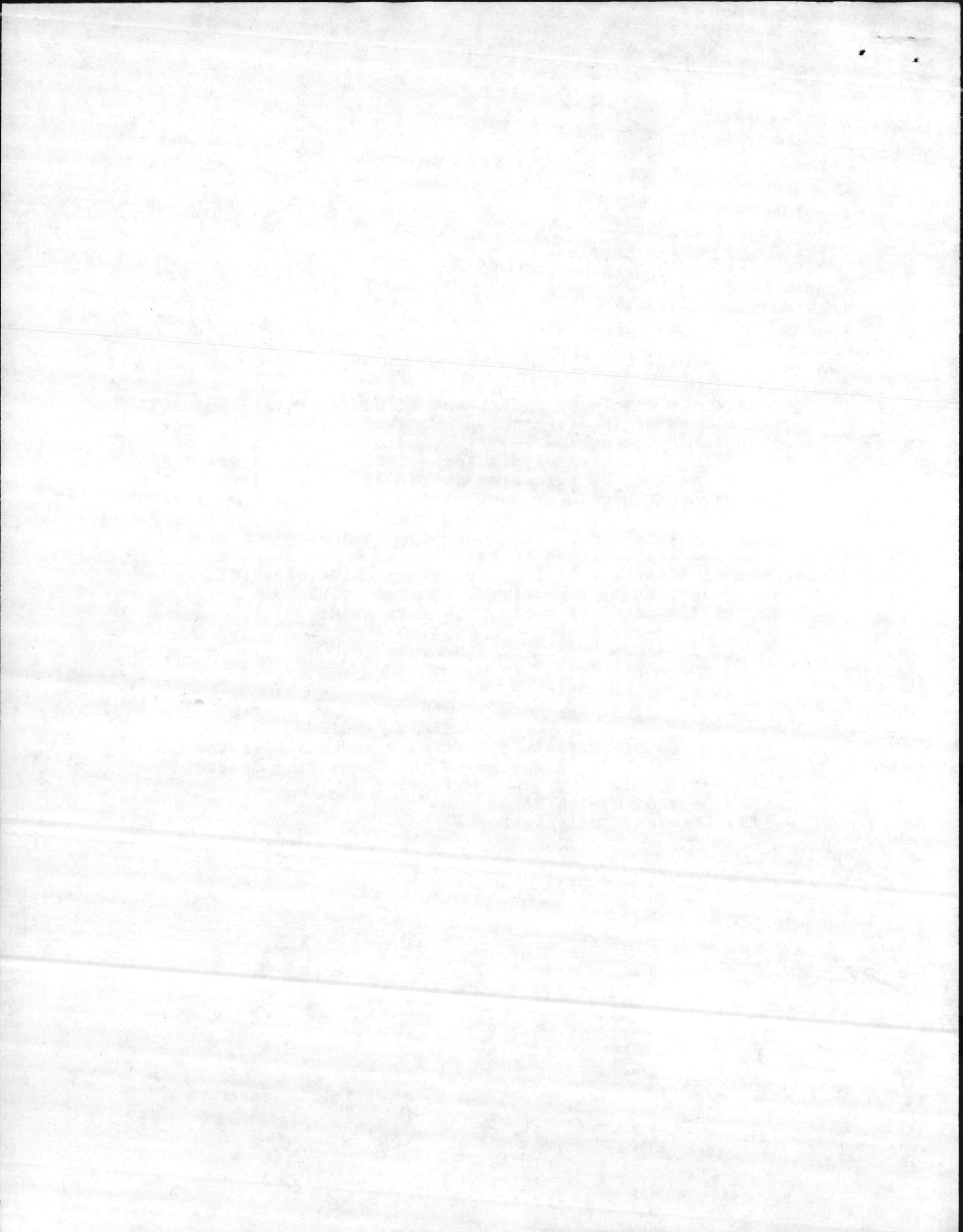
JULIAN I. WOOTEN
Director, Natural Resources Division
By direction of the Commanding General

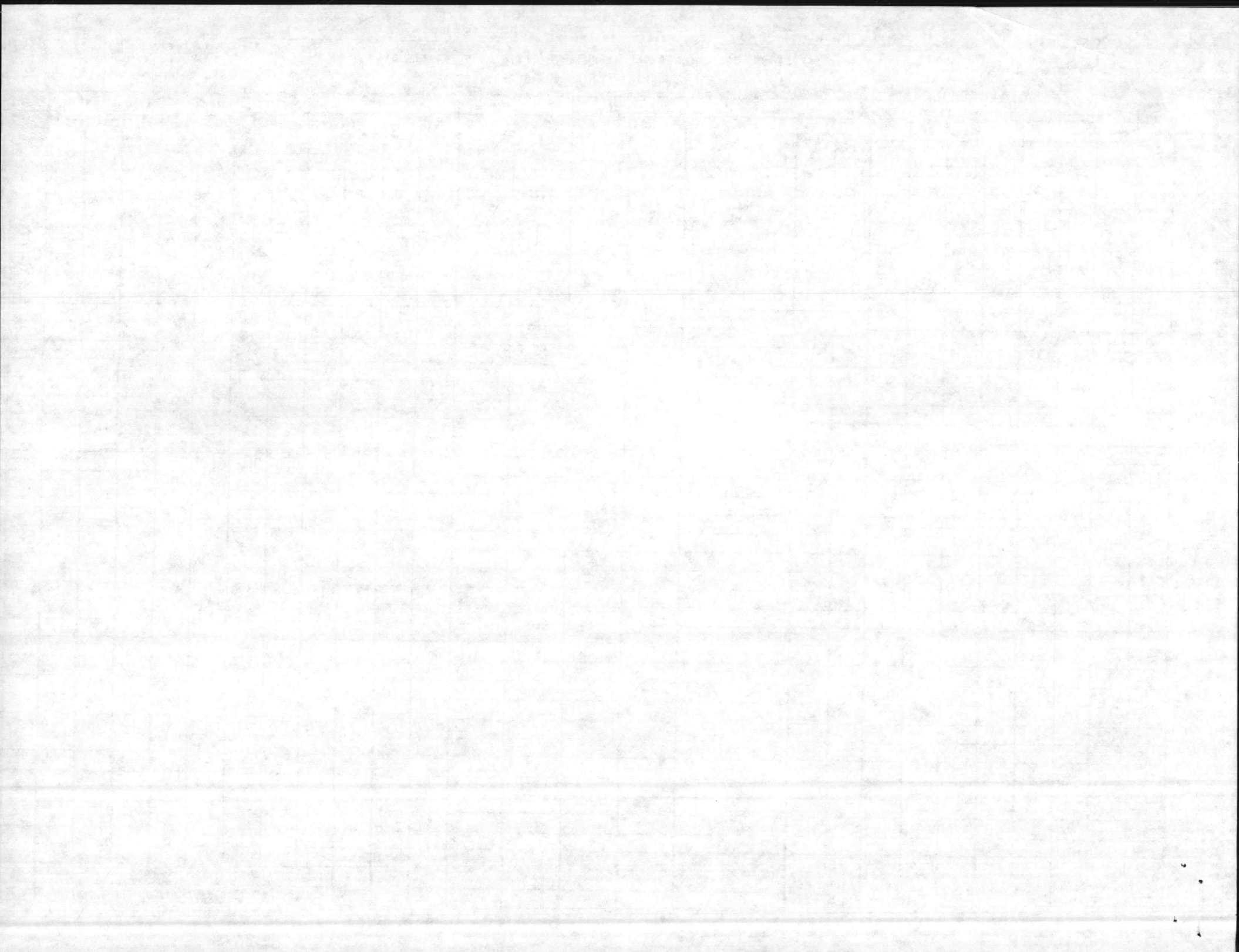
Encls: (1) Dept of Health Forms
(2) Chemical Analysis Forms

Copy to:
LANTNAVFACENCOM (Code 114)

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

Writer/Typist Betz/MA
Date Typed 2 Dec 87
Word Processor Number 11331





Month NOVEMBER
Year 1987

MARINE CORPS AIR STATION WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 3037
Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

U. S. DEPARTMENT OF HUMAN RESOURCES

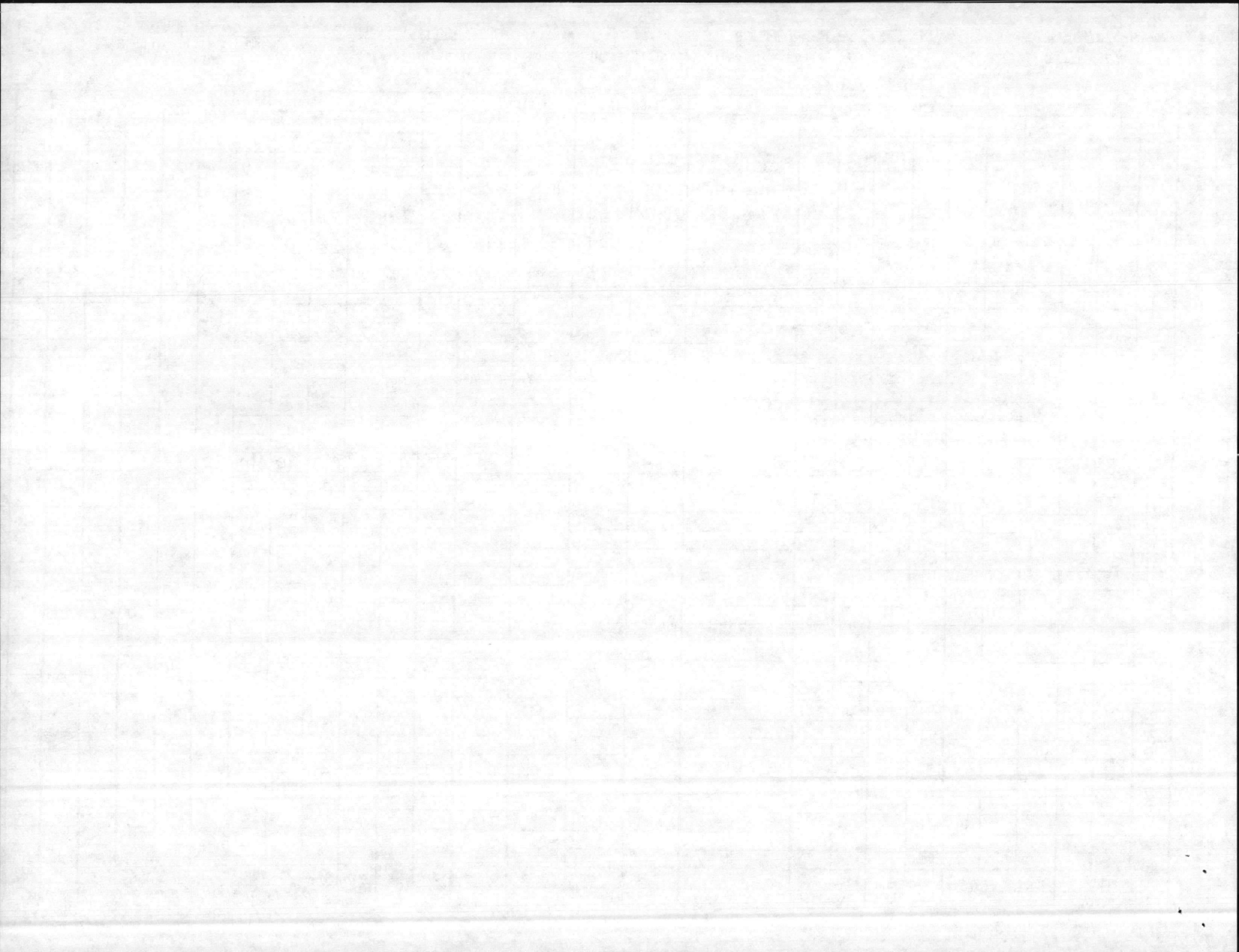
Serial #: 04-67-042

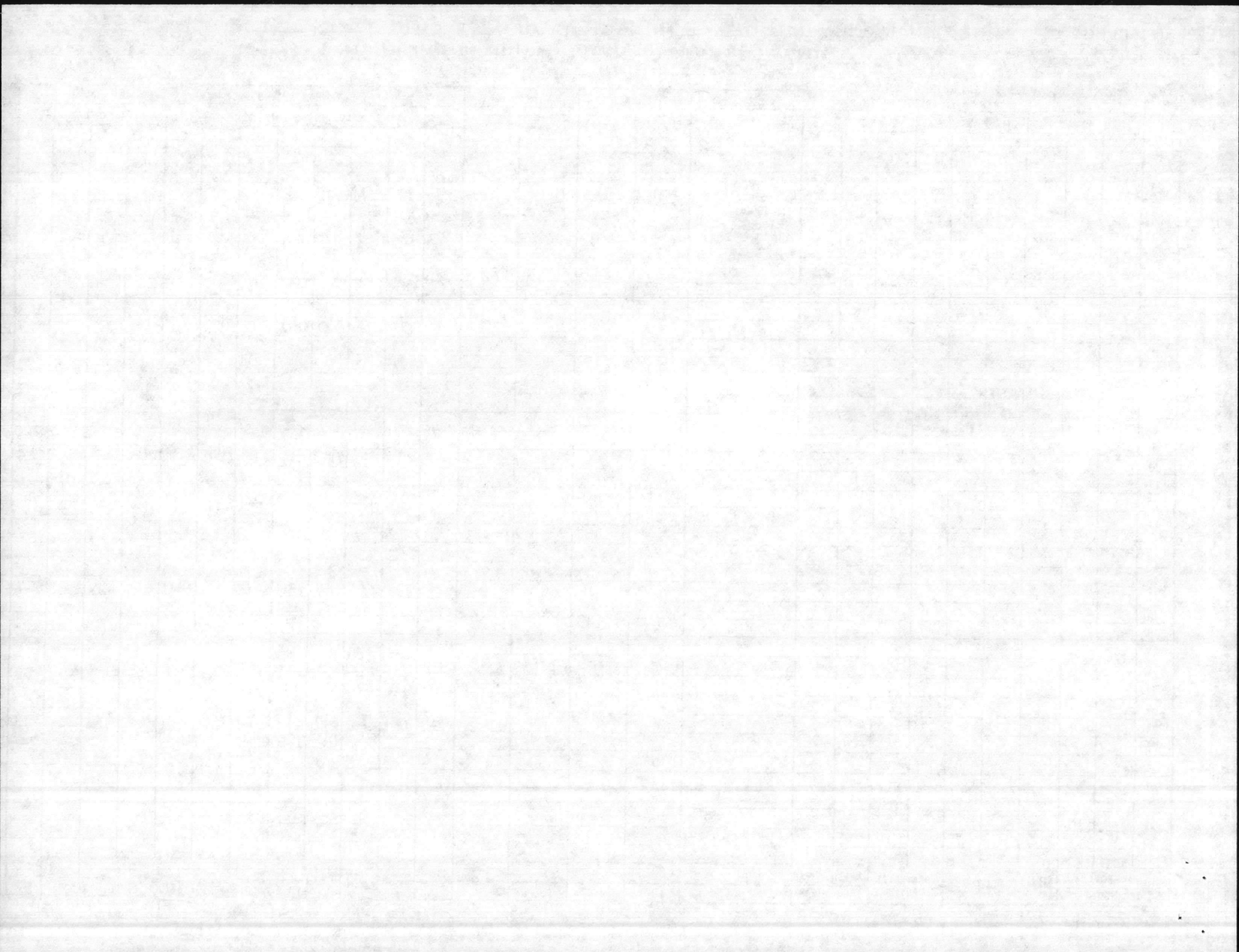
DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.		
	A		B		C					AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1	2	3	4	5	COLIFORMS per 100 ml.		COLIFORMS per 100 ml.	COLIFORMS per 100 ml.
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES														
1																				
2																				
3	<u>3rd</u>										0	7	0	0	0	0			35.7	
4																				
5																				
6																				
7																				
8																				
9	<u>7th</u>										0	7	0	0	10	0	10	0	35.5	
10																				
11																				
12																				
13																				
14																				
15																				
16	<u>7th</u>										0	7	0	0	10	0	10	10	35.7	
17																				
18																				
19																				
20																				
21																				
22																				
23	<u>7th</u>										0	7	0	0	10	0	10		35.9	
24																				
25																				
26																				
27																				
28																				
29																				
30																				
31																				
HF MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN GEO. MEAN						0		DIST. SYSTEM		TOTAL NO. SAMPLES		28		
TPC MEDIA												1				SAMPLES EXCEEDING 3/50, (4/100) 7/200, 13/500ml		0		

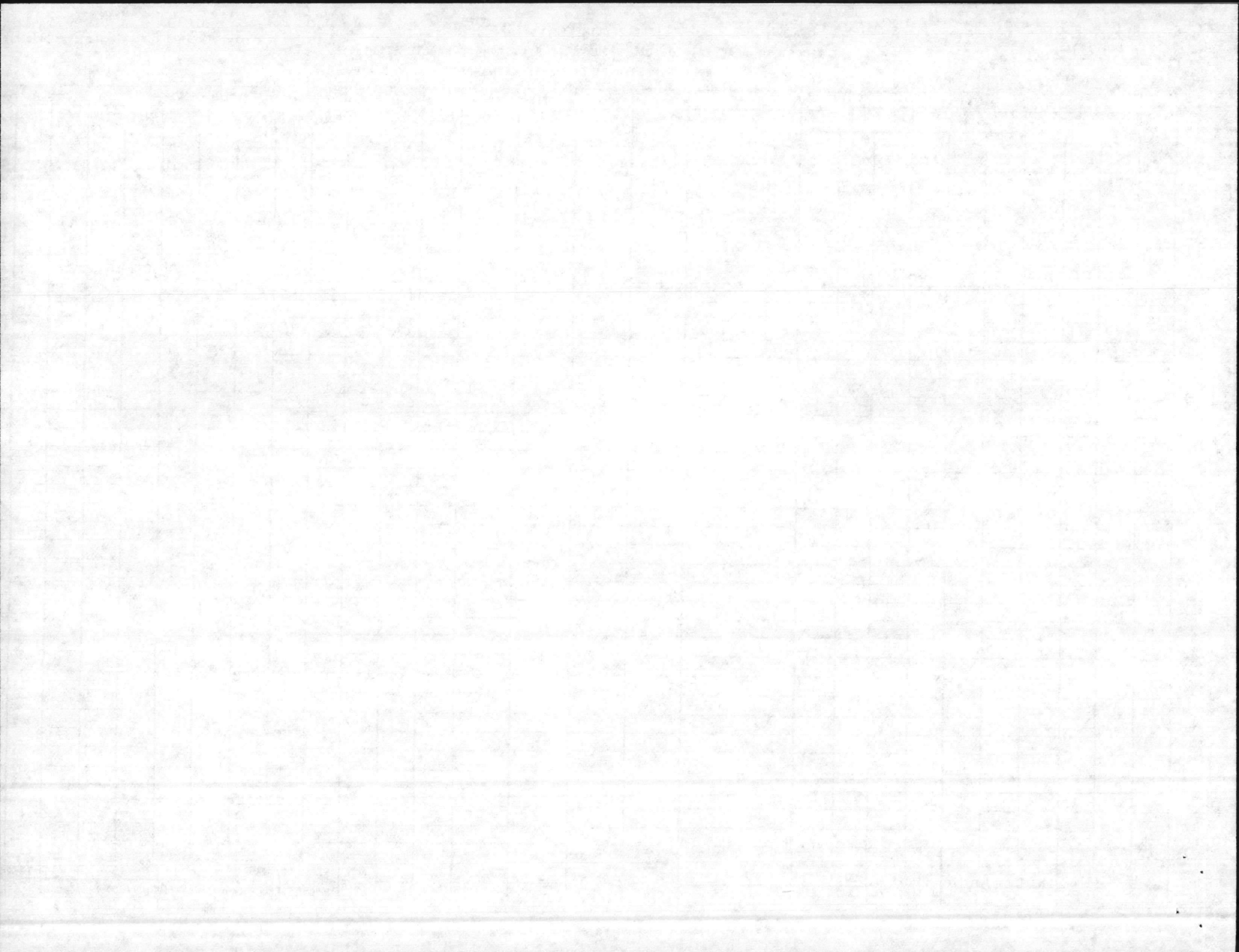
Laboratory Cert. 37807

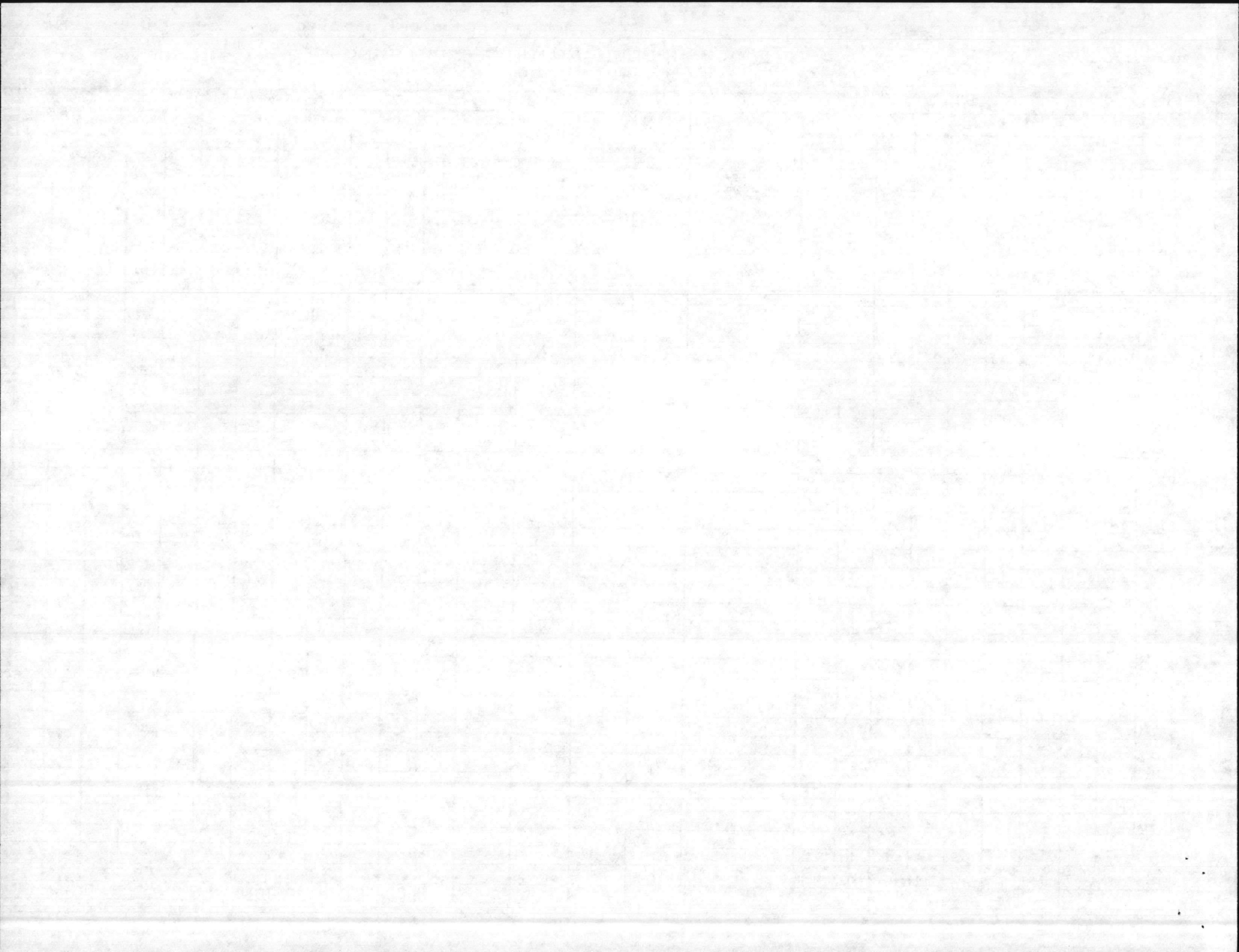
Signed Elmyra H. Betty Cert. Grade B-Well No. 4087-W

ENCLOSURE









Month NOVEMBER
Year 1987

RIBLE RANGE

WATER TREATMENT PLANT AT Camp Lejeune

Contaminant Code: 3000

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

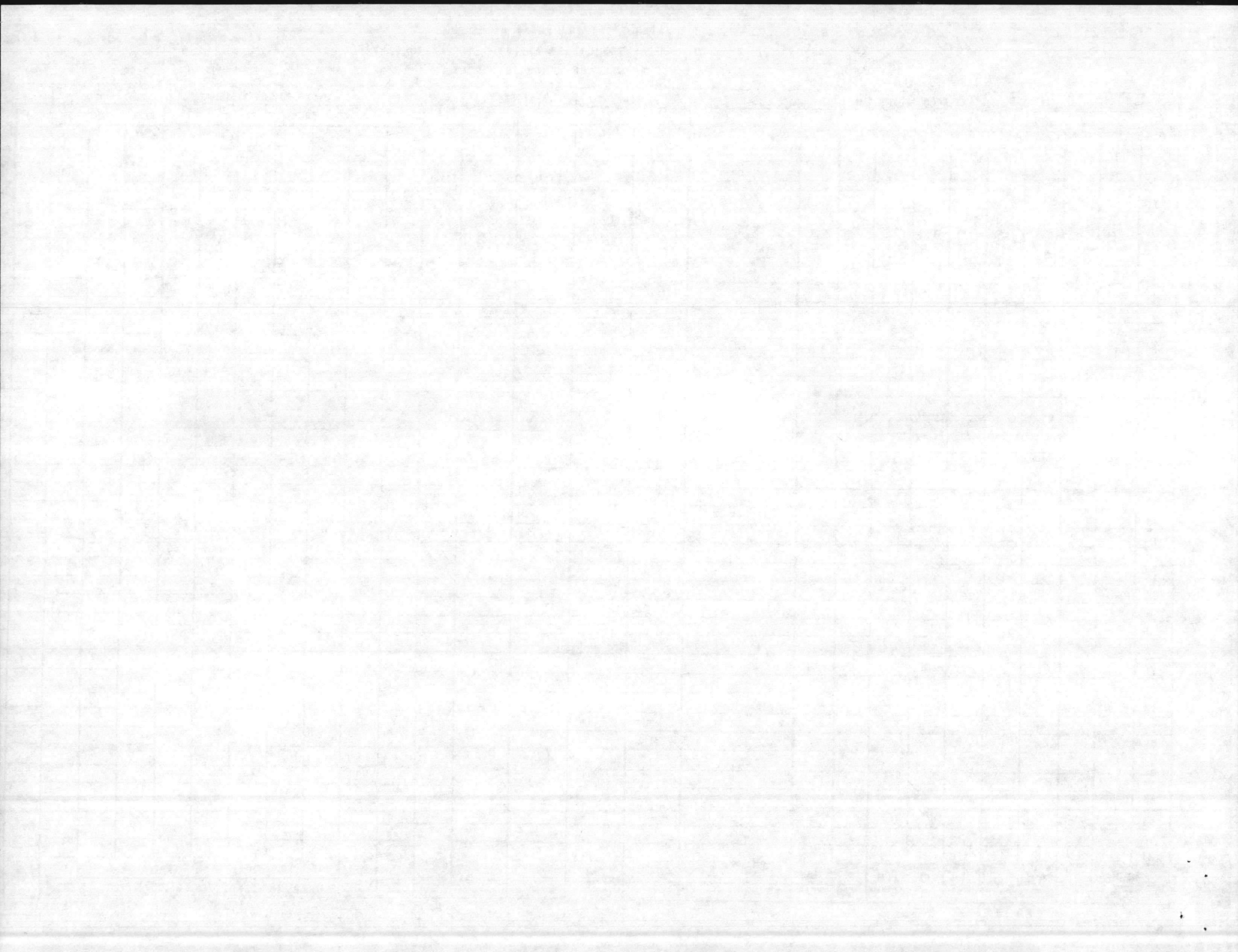
Serial #: 04-67-046

DATE	RAW WATER COLIFORMS (MFP)									NO. OF COLIFORMS PER 100 ml.	FILTERED TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES	INCUBATOR TEMP.			
	A			B			C						AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	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													
1																						
2																						
3	<u>7</u> <u>3RD</u>												0	3	0	0	0				35.7	
4																						
5																						
6																						
7																						
8																						
9																						
10	<u>7</u> <u>10TH</u>												0	3	0	0	0				35.5	
11																						
12																						
13																						
14																						
15																						
16																						
17	<u>7</u> <u>17TH</u>												0	3	0	0	10				35.7	
18																						
19																						
20																						
21																						
22																						
23																						
24	<u>7</u> <u>24TH</u>												0	3	0	0	0				35.9	
25																						
26																						
27																						
28																						
29																						
30																						
31																						
MF MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN		GEO. MEAN				0		DIST. SYSTEM		TOTAL NO. SAMPLES					12	
TPC MEDIA												1				SAMPLES EXCEEDING 3/50, (4/100), 7/200, 13/500ml					0	

Laboratory Cert. 37807

Signal Elizabeth R. B... Cert. Grade B-Well No. 4087-W

ENCLOSURE



Month NOVEMBER
Year 1987

COURTHOUSE BAY

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

Contaminant Code: 3006

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

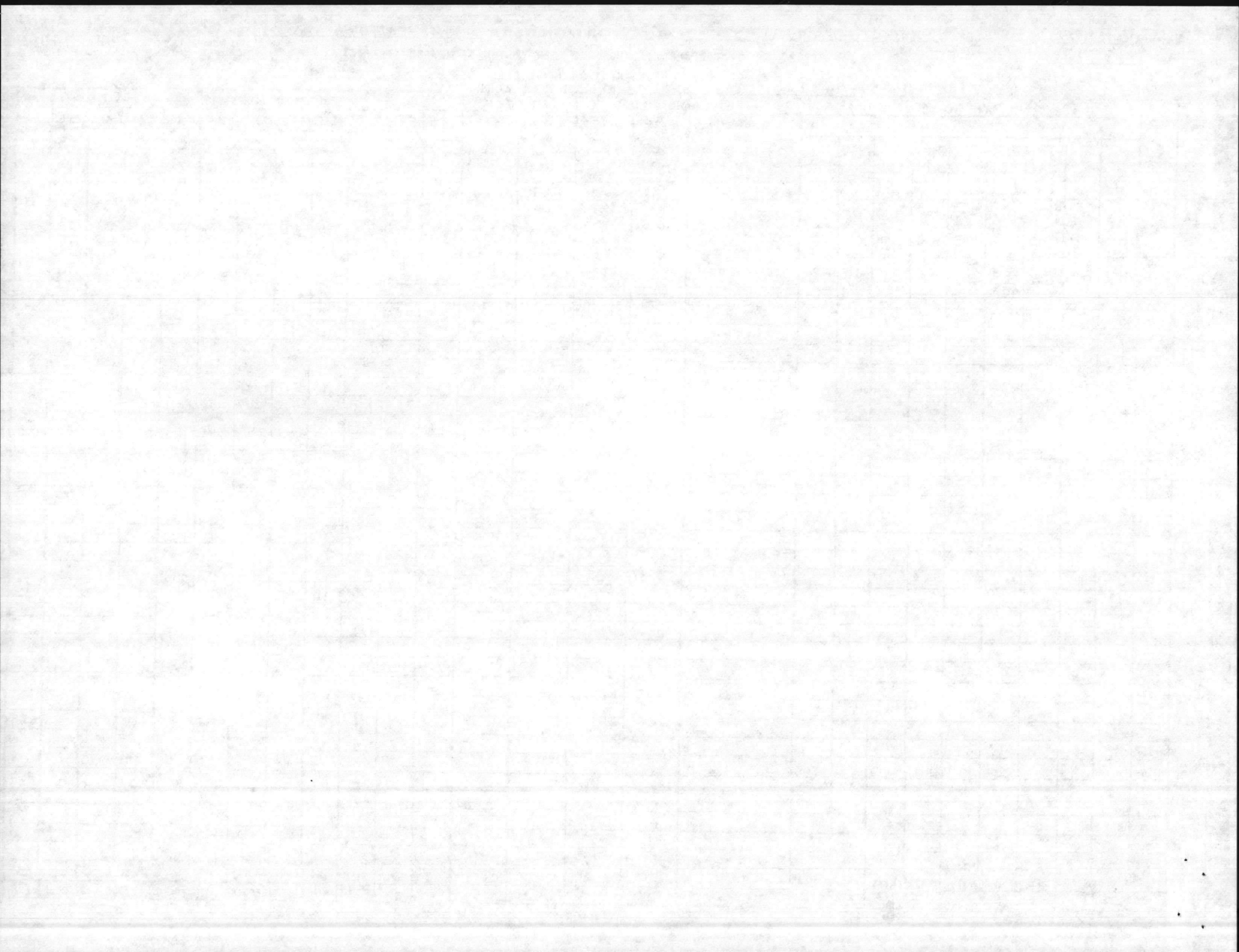
N. C. DEPARTMENT OF HUMAN RESOURCES

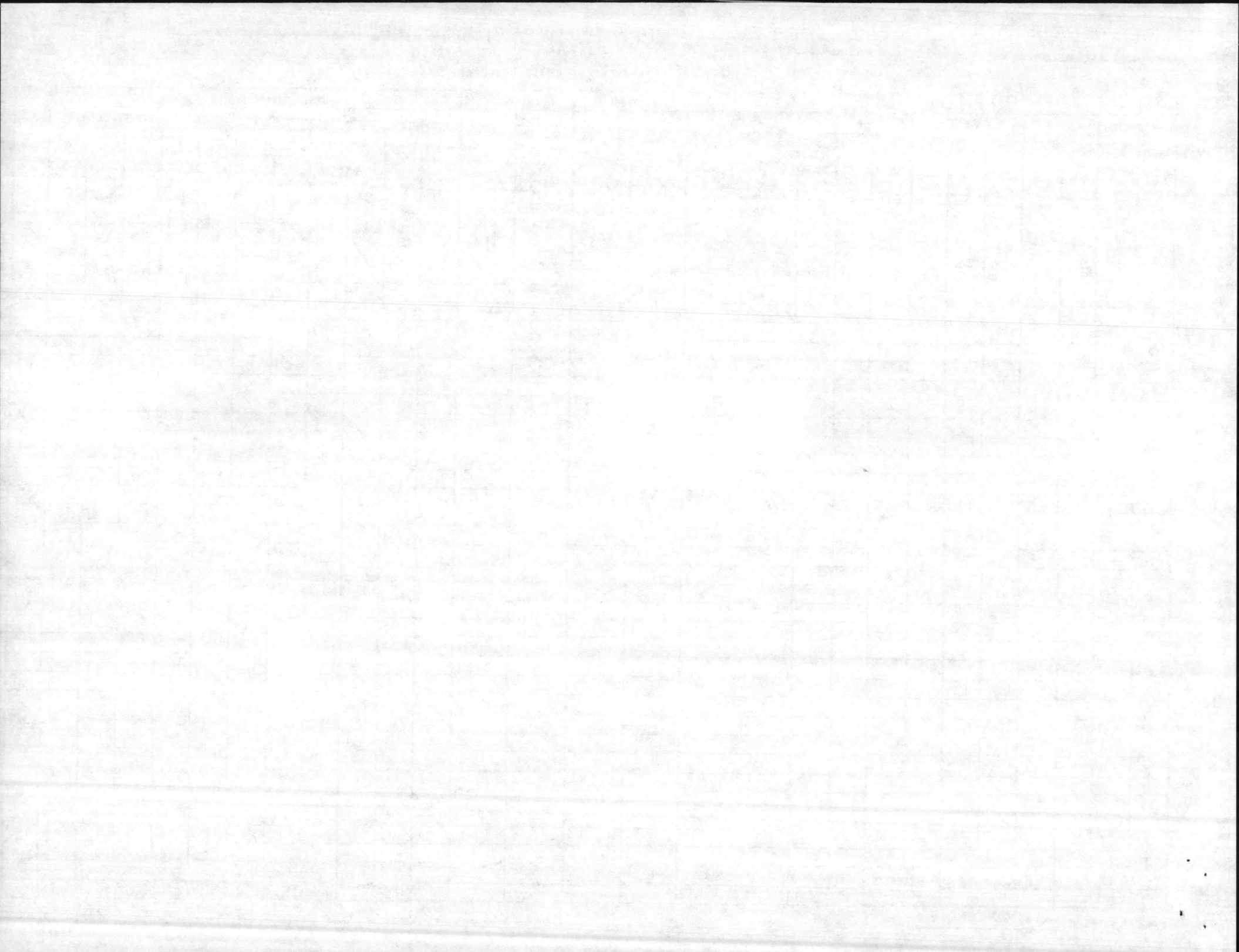
Serial #: 04-67-047

DATE	RAW WATER COLIFORMS (MFP)							NO. OF COLIFORMS PER 100 ml.	FILTERED TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.				
	A		B		C						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.		
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	TOTAL COLONIES						COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.						
1																							
2																							
3												0	4	00	00							35.7	
4																							
5																							
6																							
7																							
8																							
9																							
10												0	3	10	00								35.5
11																							
12																							
13																							
14																							
15																							
16																							
17												0	4	10		010	01						35.7
18																							
19																							
20																							
21																							
22																							
23																							
24												0	4	010	01								35.9
25																							
26																							
27																							
28																							
29																							
30																							
31																							
	MF MEDIA	BBL mEndo		BACTERIAL DENSITY	ARITH. MEAN	GEO. MEAN						0	DIST. SYSTEM	TOTAL NO. SAMPLES					15				
	TPC MEDIA											1		SAMPLES EXCEEDING 3/50, (4/100), 7/200, 13/500ml					0				

Laboratory Cert. 37807

Signor Elizabeth Bay Cert. Grade B-Well No. 4087-W





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

DATE COLLECTED
 11-3-87

DATE(S) ANALYZED
 11-3-87

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	8.2	8.9	8.5	8.1	8.2	7.4			
STABILITY	+0.3	+0.2	+0.5	0.0	+0.1	-0.4			
PHENOLTHALEIN ALKALINITY (PPM)	0	12	6	0	4	0			
METHYL ORANGE ALKALINITY (PPM)	44	140	62	164	156	164			
CARBONATES AS CaCO ₃ (PPM)	0	24	12	0	8	0			
BICARBONATES AS CaCO ₃ (PPM)	44	116	50	164	148	164			
CHLORIDES AS Cl (PPM)	20	80	20	20	50	20			
HARDNESS AS CaCO ₃ (PPM)	56	50	64	64	54	58			
IRON AS Fe (PPM)									
FLUORIDE (PPM)	AM/PM 1.02/1.02	0.58	0.96/1.18	0.11	0.10	0.13			
TURBIDITY (NTUS)	AM/PM 0.5/0.7	1.1	1.4/1.4	0.7	0.8	1.1			
CHLORINE RESIDUAL (PPM)	1.1	1.0	1.1	1.1	1.2	0.9			

ENCLOSURE

REMARKS:

COPY TO:

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

REPORT DATE:

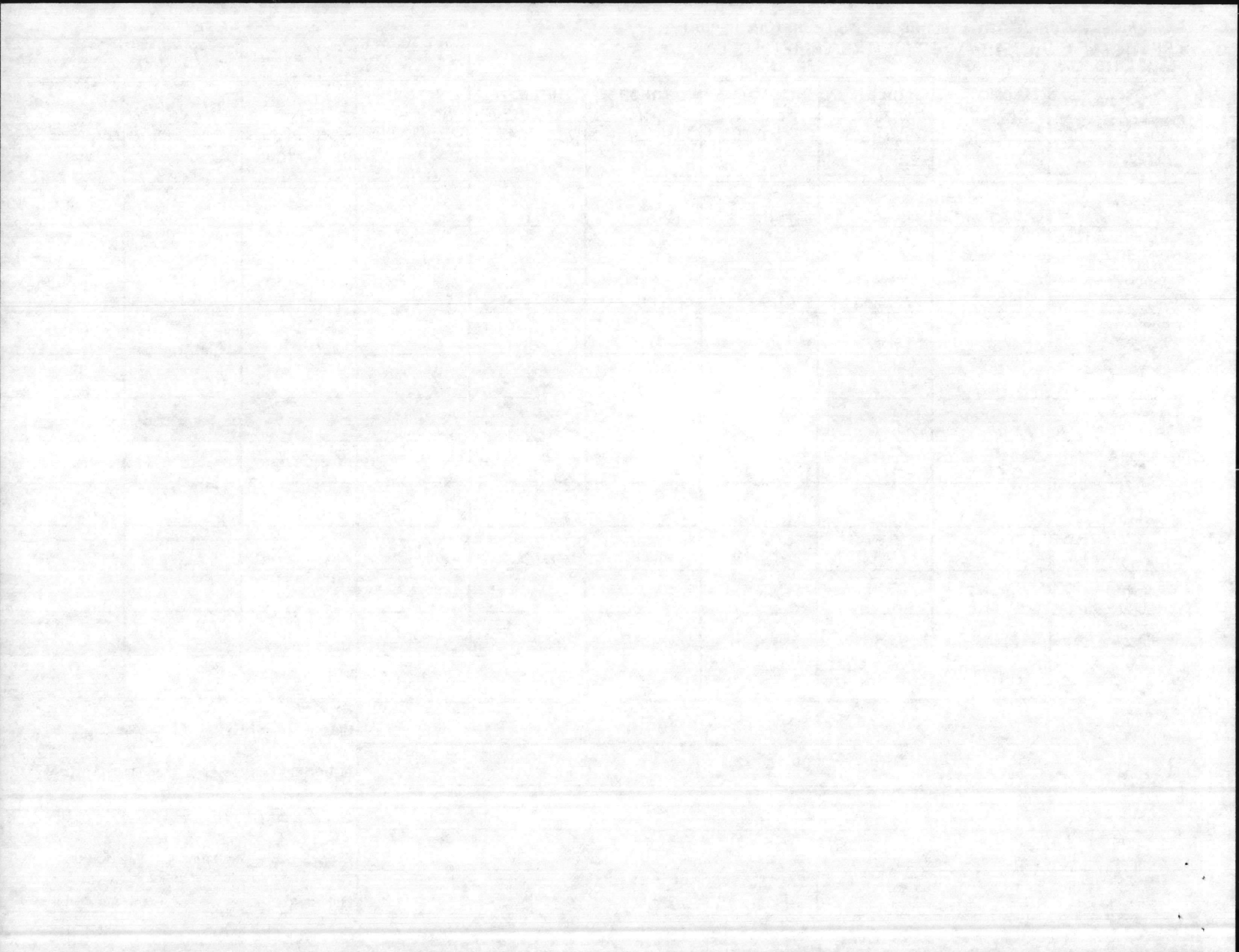
11-3-87

REPORT PREPARED BY:

H. J. Bvens

NREAD

FILE (ATTACH WKST)



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

DATE COLLECTED

11-10-87

DATE(S) ANALYZED

11-10-87

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	8.1	8.4	8.7	8.3	8.0	7.5			
STABILITY	+0.6	+0.3	+0.6	+0.2	+0.2	-0.2			
PHENOLTHALBIN ALKALINITY (PPM)	0	12	14	18	4	0			
METHYL ORANGE ALKALINITY (PPM)	54	160	68	182	168	172			
CARBONATES AS CaCO ₃ (PPM)	0	24	28	36	8	0			
BICARBONATES AS CaCO ₃ (PPM)	54	136	40	146	160	172			
CHLORIDES AS Cl (PPM)	20	88	14	22	48	24			
HARDNESS AS CaCO ₃ (PPM)	68	48	62	72	54	52			
IRON AS Fe (PPM)									
FLUORIDE (PPM)	AM/PM 1.12 / 1.06	0.63	1.29 / 1.24	0.13	0.10	0.17			
TURBIDITY (NTUS)	AM/PM 0.5 / 0.5	0.5	0.7 / 0.6	0.2	0.3	0.4			
CHLORINE RESIDUAL (PPM)	1.0	1.1	1.3	1.4	0.8	1.1			

REMARKS:

COPY TO:

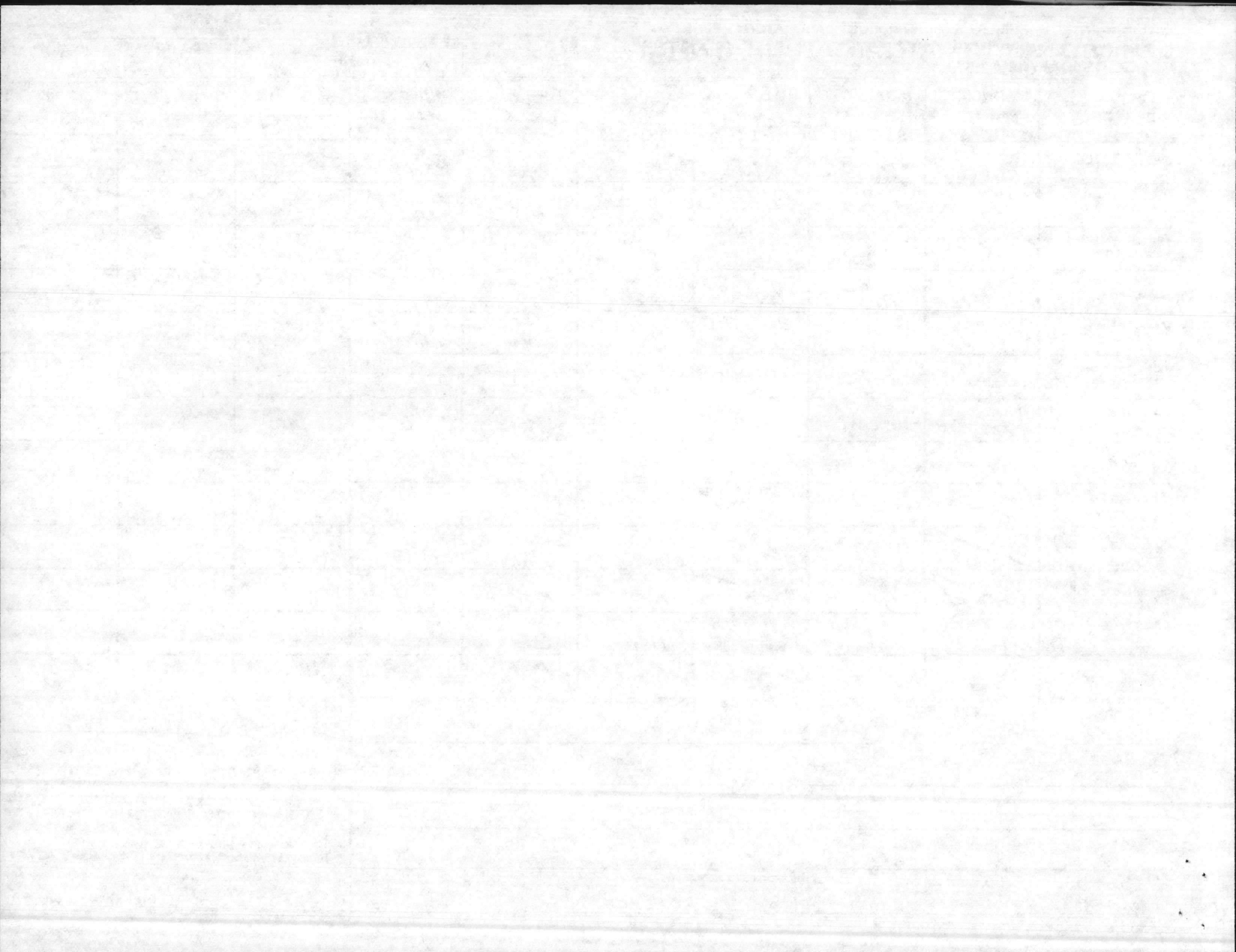
- UTIL Dir, BMD _____
- WATER TREATMENT, UTIL DIV, BMD
- PMU, NAVHOSP PMU, MCAS-NR
- DIVISION OF HEALTH SERVICES
 N.C. DEPT OF HUMAN RESOURCES
- NREAD FILE (ATTACH WKST)

REPORT DATE:

11-10-87

REPORT PREPARED BY:

CAROL S. SHORES



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

DATE COLLECTED
 11-17-87

DATE(S) ANALYZED
 11-17-87

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	8.1	8.4	8.4	7.9	7.9	7.2			
STABILITY	+0.6	+0.3	+0.6	+0.2	+0.2	-0.3			
PHENOLTHALEIN ALKALINITY (PPM)	2	18	12	0	0	0			
METHYL ORANGE ALKALINITY (PPM)	56	146	58	156	124	160			
CARBONATES AS CaCO ₃ (PPM)	4	36	24	0	0	0			
BICARBONATES AS CaCO ₃ (PPM)	52	110	34	156	124	160			
CHLORIDES AS Cl (PPM)	20	84	20	18	54	22			
HARDNESS AS CaCO ₃ (PPM)	60	66	58	56	64	62			
IRON AS Fe (PPM)									
FLUORIDE (PPM)	AM/PM 0.56 / 0.52	0.64	0.97 / 1.07	0.12	0.10	0.17			
TURBIDITY (NTUS)	AM/PM 0.1 / 0.1	0.2	0.3 / 0.1	0.1	0.1	0.1			
CHLORINE RESIDUAL (PPM)	1.0	1.0	1.4	1.3	1.0	1.2			

REMARKS:

COPY TO:

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

REPORT DATE:

11-17-87

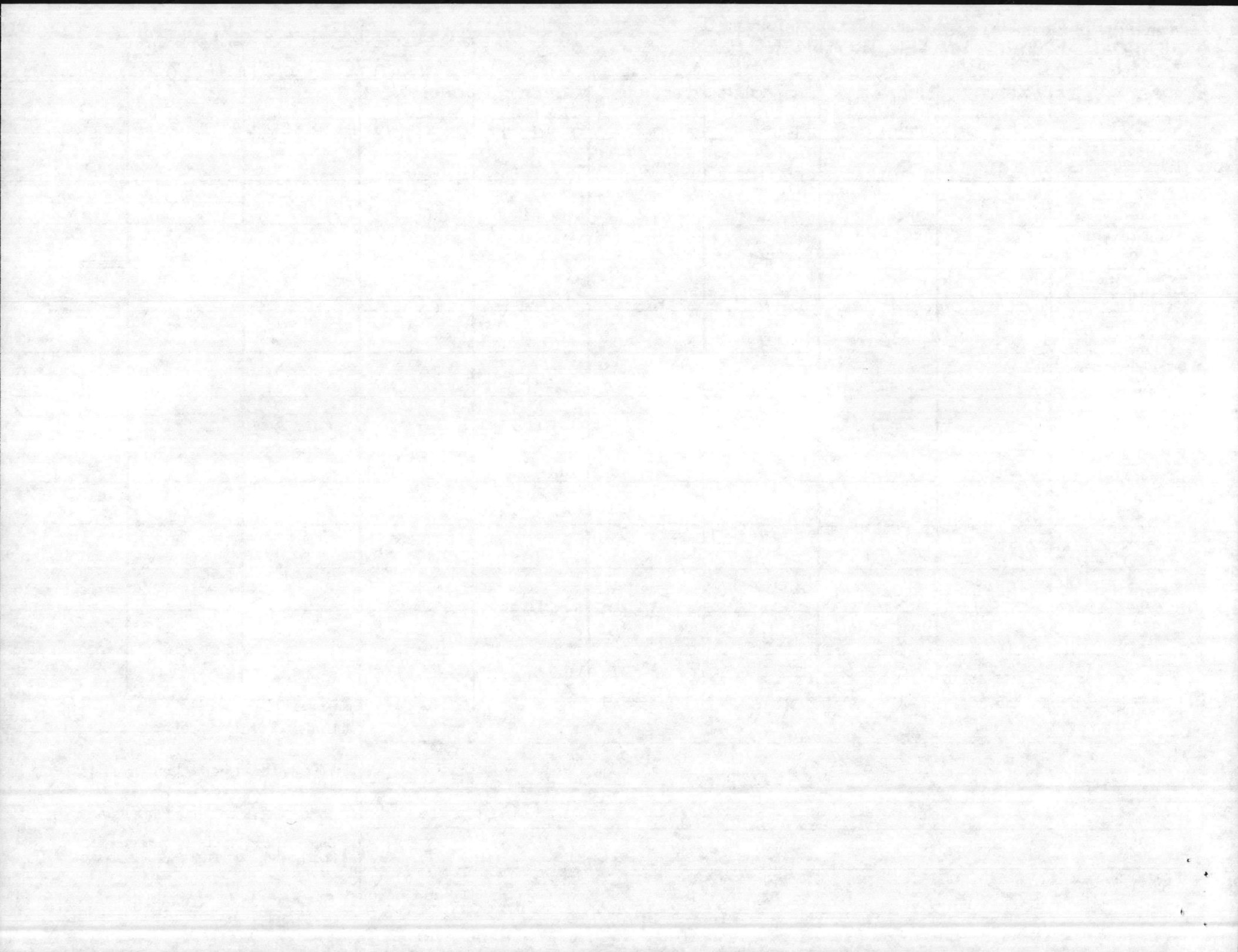
REPORT PREPARED BY:

CAROL S. SHORPS

NREAD

FILE (ATTACH WKST)

ENCLOSURE



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

DATE COLLECTED
 11-24-87

DATE(S) ANALYZED
 11-24-87

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	8.1	8.4	8.6	8.1	8.3	7.4			
STABILITY	+0.2	+0.1	+0.6	0.0	+0.2	-0.4			
PHENOLTHALEIN ALKALINITY (PPM)	0	8	6	0	4	0			
METHYL ORANGE ALKALINITY (PPM)	62	150	72	164	168	170			
CARBONATES AS CaCO ₃ (PPM)	0	16	12	0	8	0			
BICARBONATES AS CaCO ₃ (PPM)	62	134	60	164	160	170			
CHLORIDES AS Cl (PPM)	4	66	4	16	48	12			
HARDNESS AS CaCO ₃ (PPM)	60	58	68	60	56	50			
IRON AS Fe (PPM)									
FLUORIDE (PPM)	AM/PM 0.18/0.19	0.66	1.04/1.04	0.15	0.13	0.19			
TURBIDITY (NTUS)	AM/PM								
CHLORINE RESIDUAL (PPM)	1.1	1.2	1.2	1.3	1.0	1.3			

REMARKS:

COPY TO:

- UTIL Div, 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)

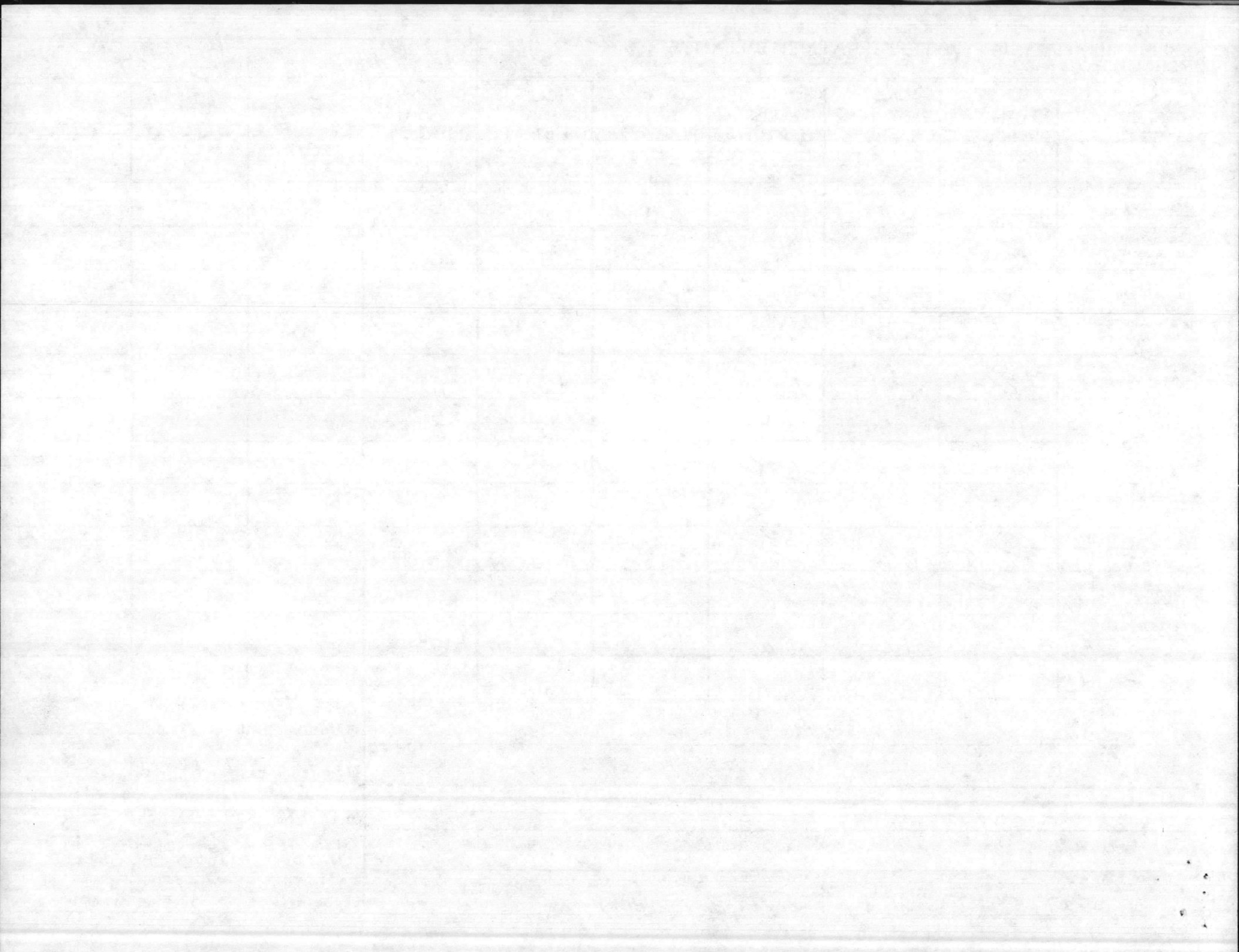
REPORT DATE:

11-24-87

REPORT PREPARED BY:

ROBERT G. DEYDEN

ENCLOSURE



11331

NREAD

3 Nov 87

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

Dear Mr. McPadyen:

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 October 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.

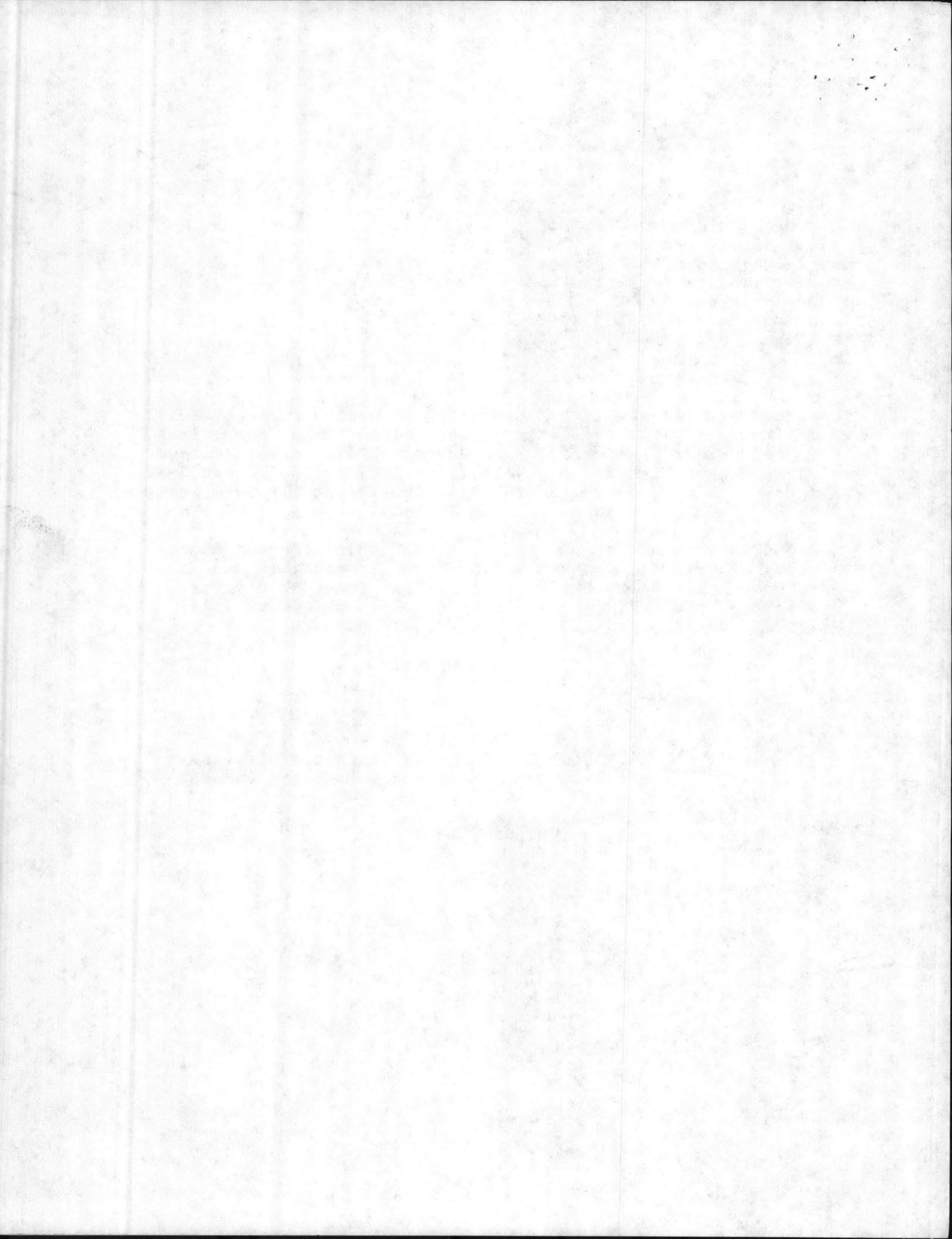
Sincerely,

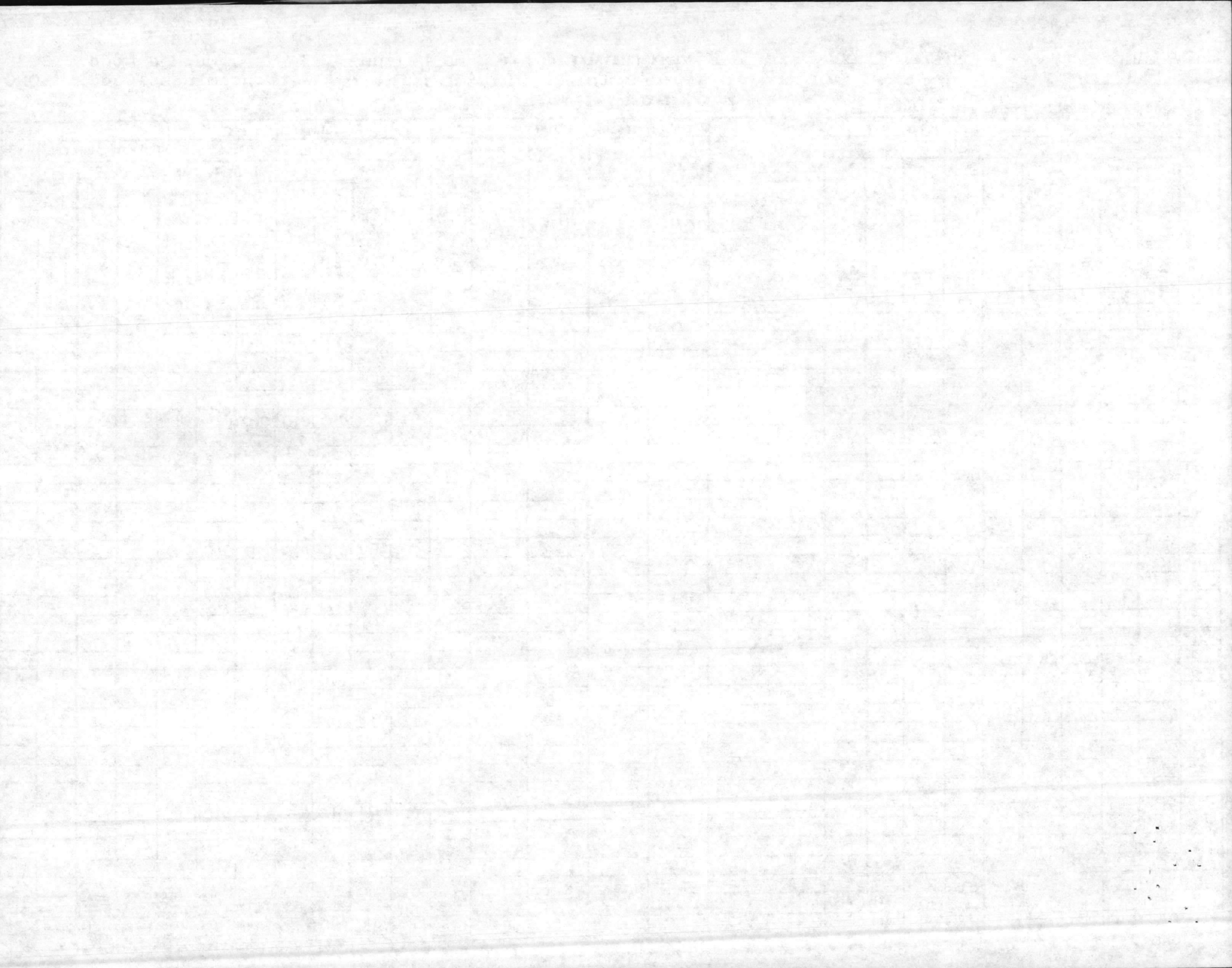
JULIAN I. NOOTEN
Director, Natural Resources Division
By direction of the Commanding General

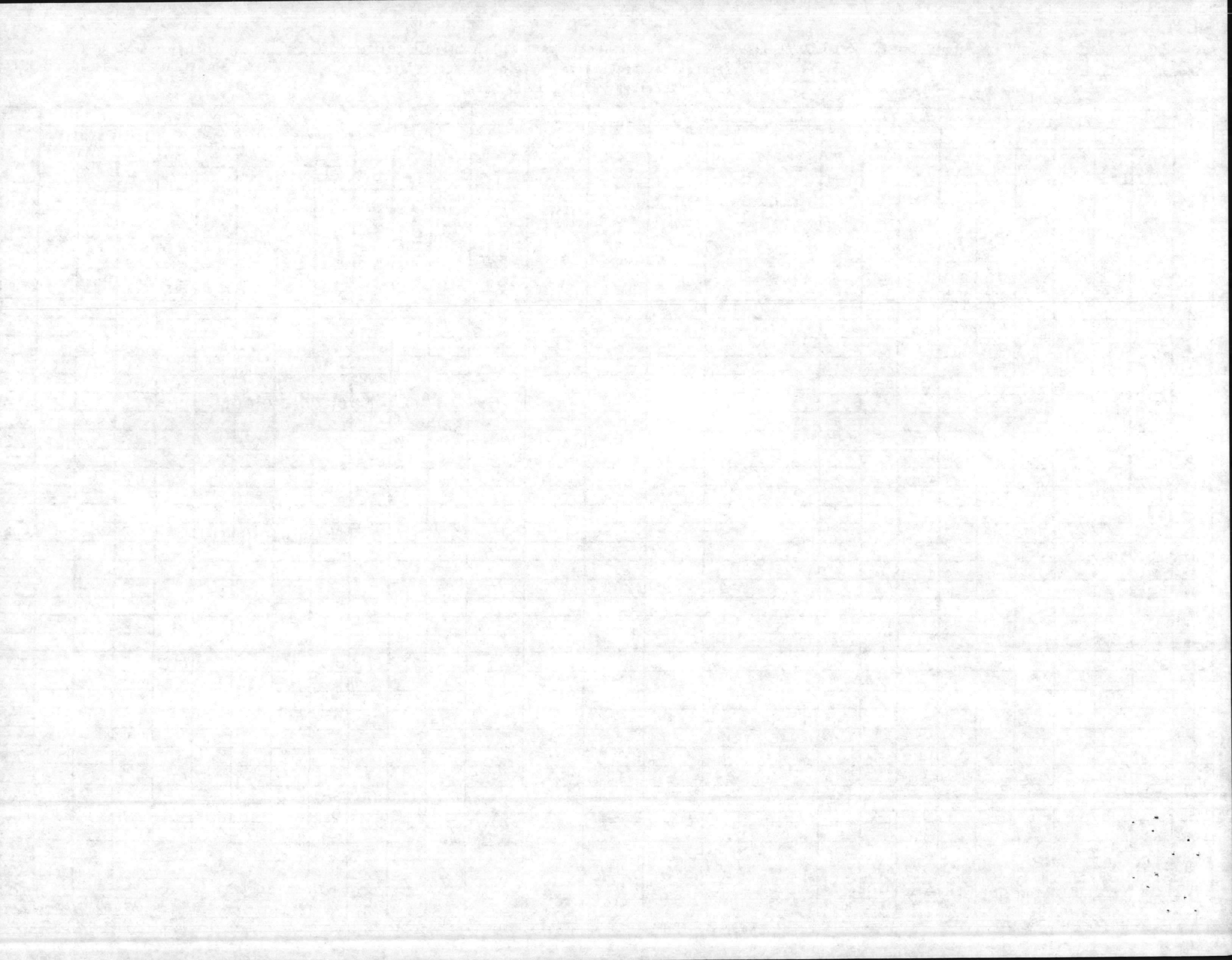
Encls: (1) Dept of Health Forms
(2) Chemical Analysis Forms

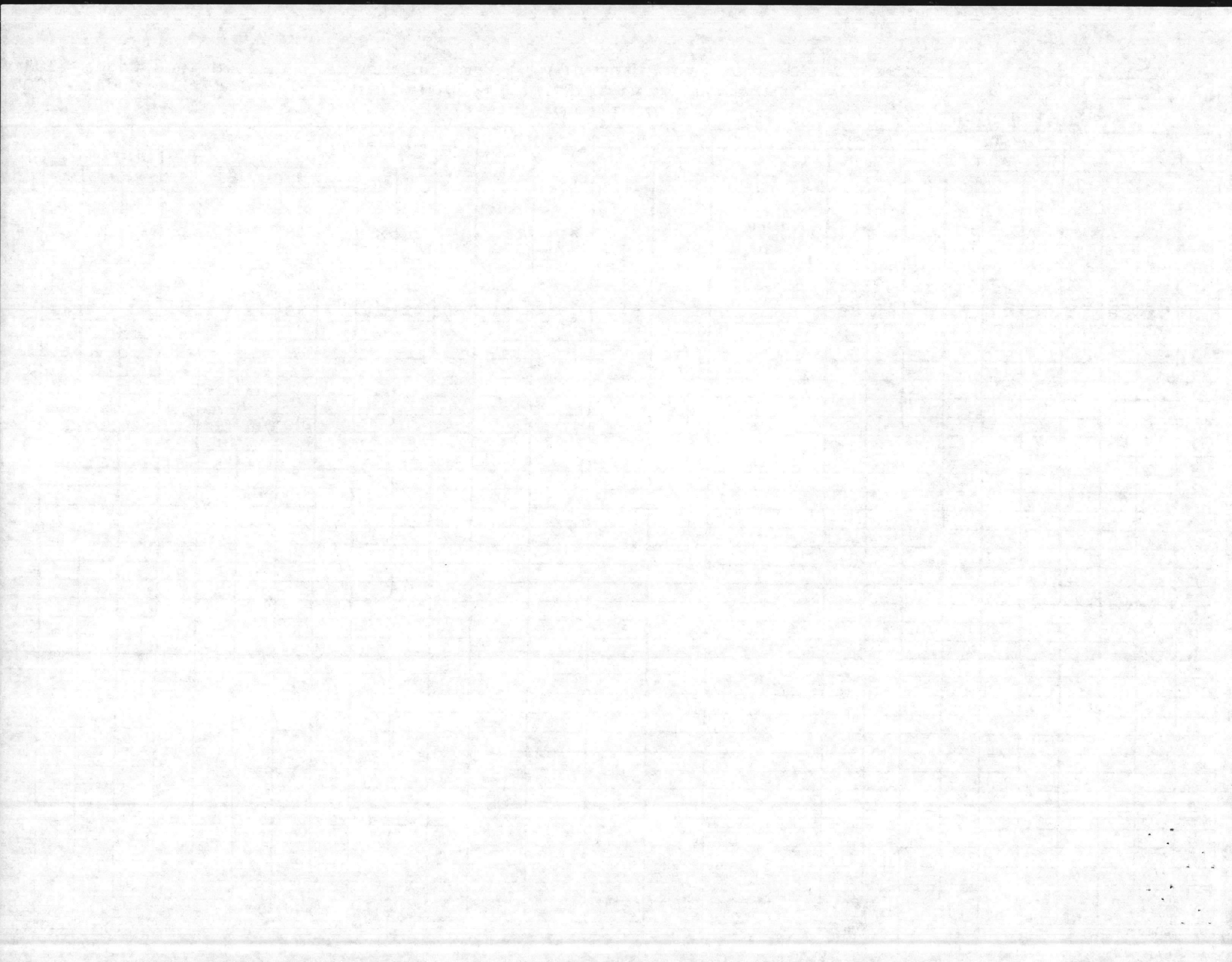
Copy to:
LANTNAVPACENGCOW (Code 114)

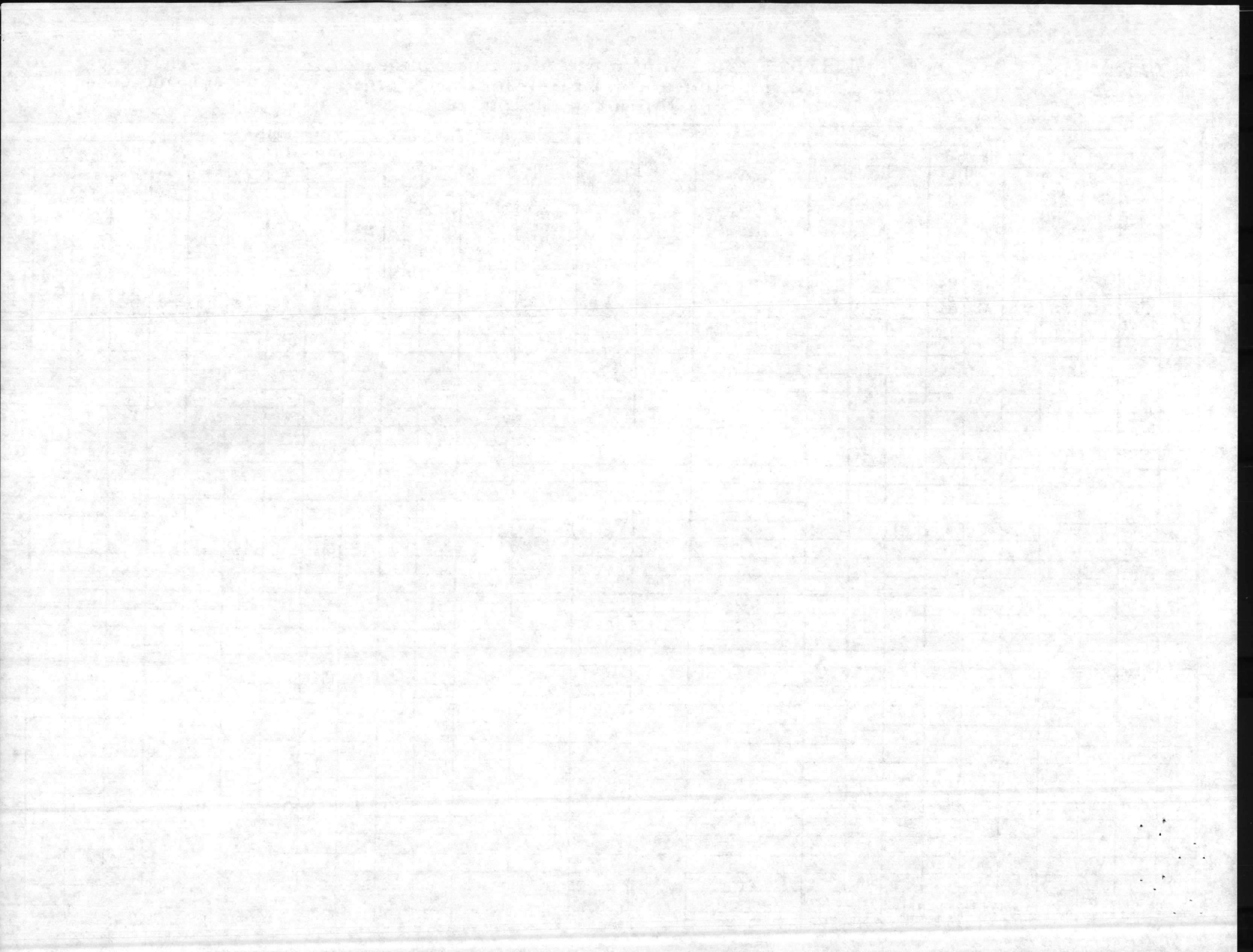
Blind copy to:
BMO (Attn: UTIL DIR)
→ Supvy Chem (2)











Month OCTOBER
Year 1987

CAMP JOHNSON

WATER TREATMENT PLANT AT CAMP LEJENNE

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

N. C. DEPARTMENT OF HUMAN RESOURCES

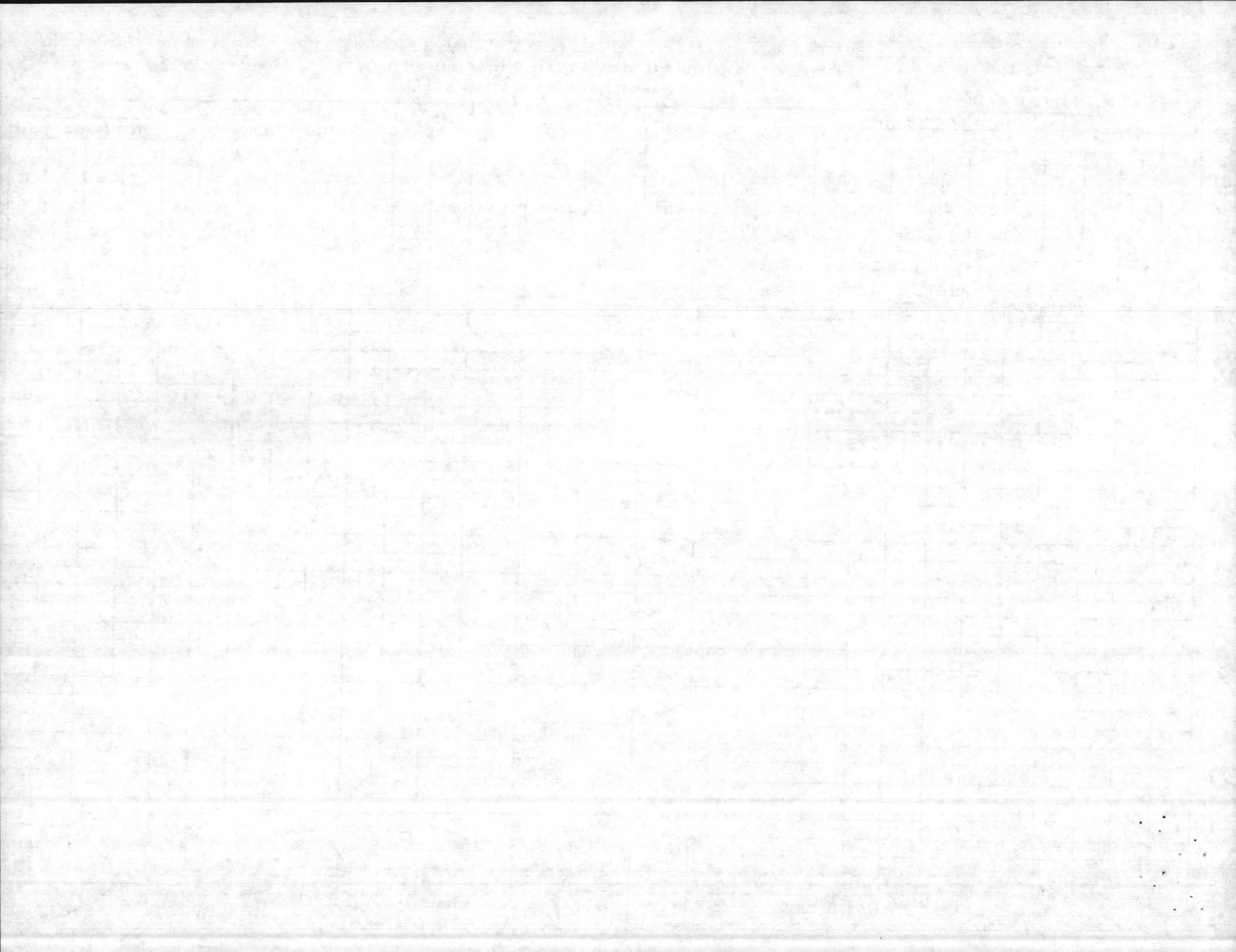
Serial # 04-67-045

DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	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														AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED
1																					
2																					
3																					
4																					
5																					
6												0	2	0	0					35.2	
7																					
8																					
9																					
10																					
11																					
12																					
13												0	2	0	0					35.2	
14																					
15																					
16																					
17																					
18																					
19																					
20												0	2	0	0					35.2	
21																					
22																					
23																					
24																					
25																					
26																					
27												0	2	0	0					35.2	
28																					
29																					
30																					
31																					
MFP MEDIA		BRL mEndo		BACTERIAL DENSITY		ARITH. MEAN		GEO. MEAN		0		DIST. SYSTEM		TOTAL NO. SAMPLES		SAMPLES EXCEEDING 3/50 (4/100) 7/200 13/500ml		8		0	

LAB ID # 37807

Elizabeth Bay

CERT. GRADE B-WELL # 4087-W



Month OCTOBER
Year 1987

RIFLE RANGE

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

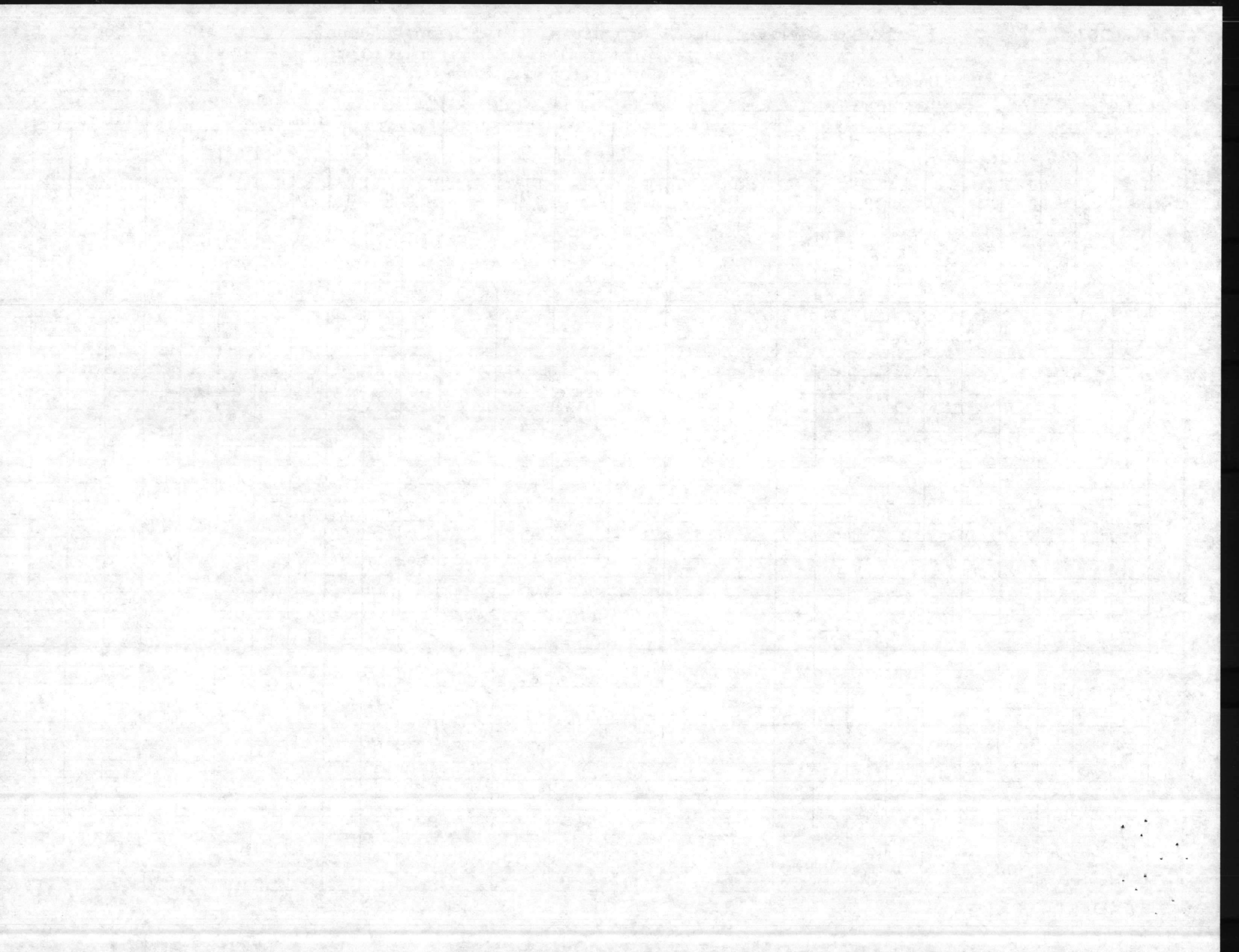
N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-046

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					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																					
5																					
6	7 6TH											0	3	0	0	0			35.2		
7																					
8																					
9																					
10																					
11																					
12																					
13	7 13TH											0	3	0	0	0			35.2		
14																					
15																					
16																					
17																					
18																					
19																					
20	7 20TH											0	3	0	0	0			35.2		
21																					
22																					
23																					
24																					
25																					
26																					
27	7 27TH											0	3	0	0	0			35.2		
28																					
29																					
30																					
31																					
HF MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN						0		DIST. SYSTEM		TOTAL NO. SAMPLES		12			
TPC MEDIA						GEO. MEAN						1				SAMPLES EXCEEDING 3/50 (4/100) 7/200, 13/500=1		0			

LAB ID 37807

Elizabeth A. Bay



Month JUN 1987
 Year 1987

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

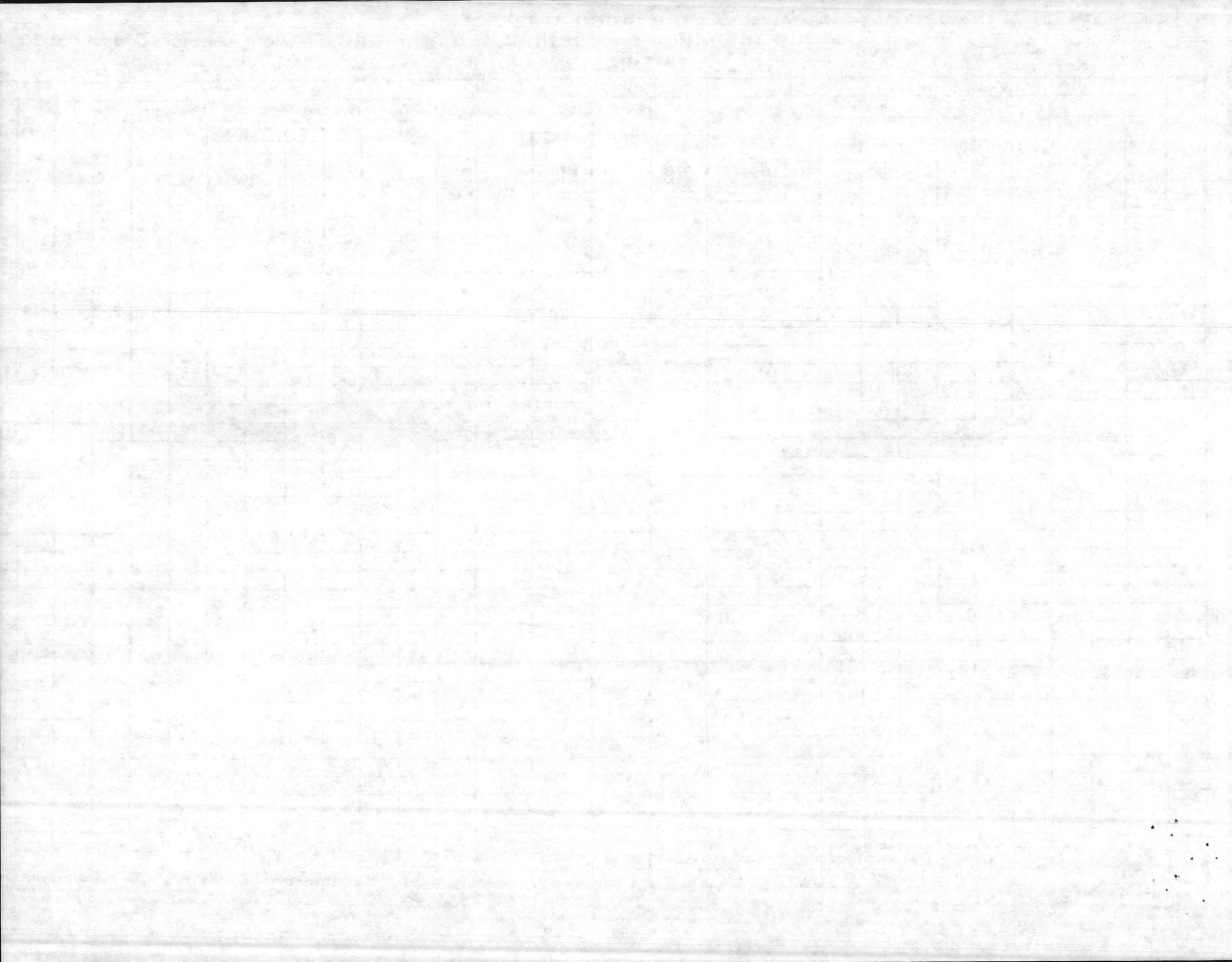
N. C. DEPARTMENT OF HUMAN RESOURCES

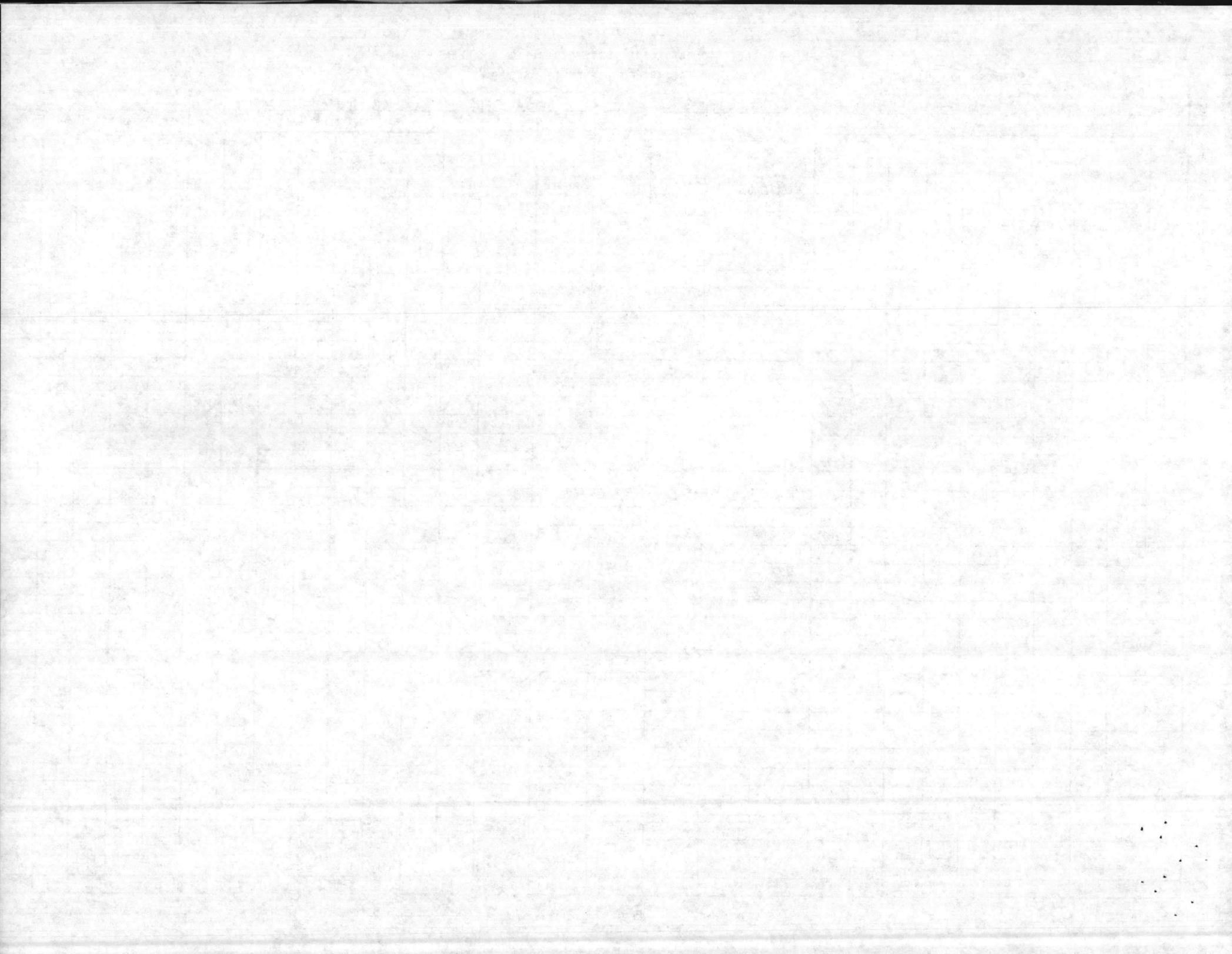
Serial # 04-67-047

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					INCUBATOR TEMP.			
	A		B		C								COLIFORMS (MFP)						REPEAT SAMPLES		
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES							AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1	2	3		4	5	COLIFORMS per 100 ml.
1																					
2																					
3																					
4																					
5																					
6	<u>7TH</u>												0	4	0	0		35.2			
7																					
8																					
9																					
10																					
11																					
12																					
13	<u>13TH</u>												0	4	0	0	0	35.2			
14																					
15																					
16																					
17																					
18																					
19																					
20	<u>20TH</u>												0	4	0	0		35.2			
21																					
22																					
23																					
24																					
25																					
26																					
27	<u>27TH</u>												0.5	4	2	10	10	0	35.2		
28																					
29																					
30																					
31																					
MFP MEDIA		RBL mEndo		BACTERIAL DENSITY		ARITH. MEAN		GEO. MEAN		0.125		DIST. SYSTEM		TOTAL NO. SAMPLES		16					
TPC MEDIA										1.04				SAMPLES EXCEEDING 3/50 (4/100) 7/200 13/500=1		0					

LAB ID # 37807

Elizabeth B. J. CERT. GRADE B - WELL # 4087-W





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

DATE COLLECTED

10-6-87

DATE(S) ANALYZED

10-6-87

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	8.3	8.8	8.7	7.8	8.3	7.7			
STABILITY	+0.3	+0.3	+0.3	-0.5	-0.1	-0.5			
PHENOLTHALEIN ALKALINITY (PPM)	0	8	4	0	2	0			
METHYL ORANGE ALKALINITY (PPM)	74	138	62	172	144	166			
CARBONATES AS CaCO ₃ (PPM)	0	16	8	0	4	0			
BICARBONATES AS CaCO ₃ (PPM)	74	122	54	172	140	166			
CHLORIDES AS Cl (PPM)	12	66	12	16	18	14			
HARDNESS AS CaCO ₃ (PPM)	78	60	68	60	92	70			
IRON AS Fe (PPM)									
FLUORIDE (PPM)	AM / PM 0.83 / 0.84	0.42	0.94 / 0.98	0.09	0.08	0.13			
TURBIDITY (NTUS)	AM / PM 0.7 / 0.5	1.3	0.8 / 1.4	0.9	0.8	2.6			
CHLORINE RESIDUAL (PPM)	1.0	1.0	1.0	1.4	1.0	1.2			

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

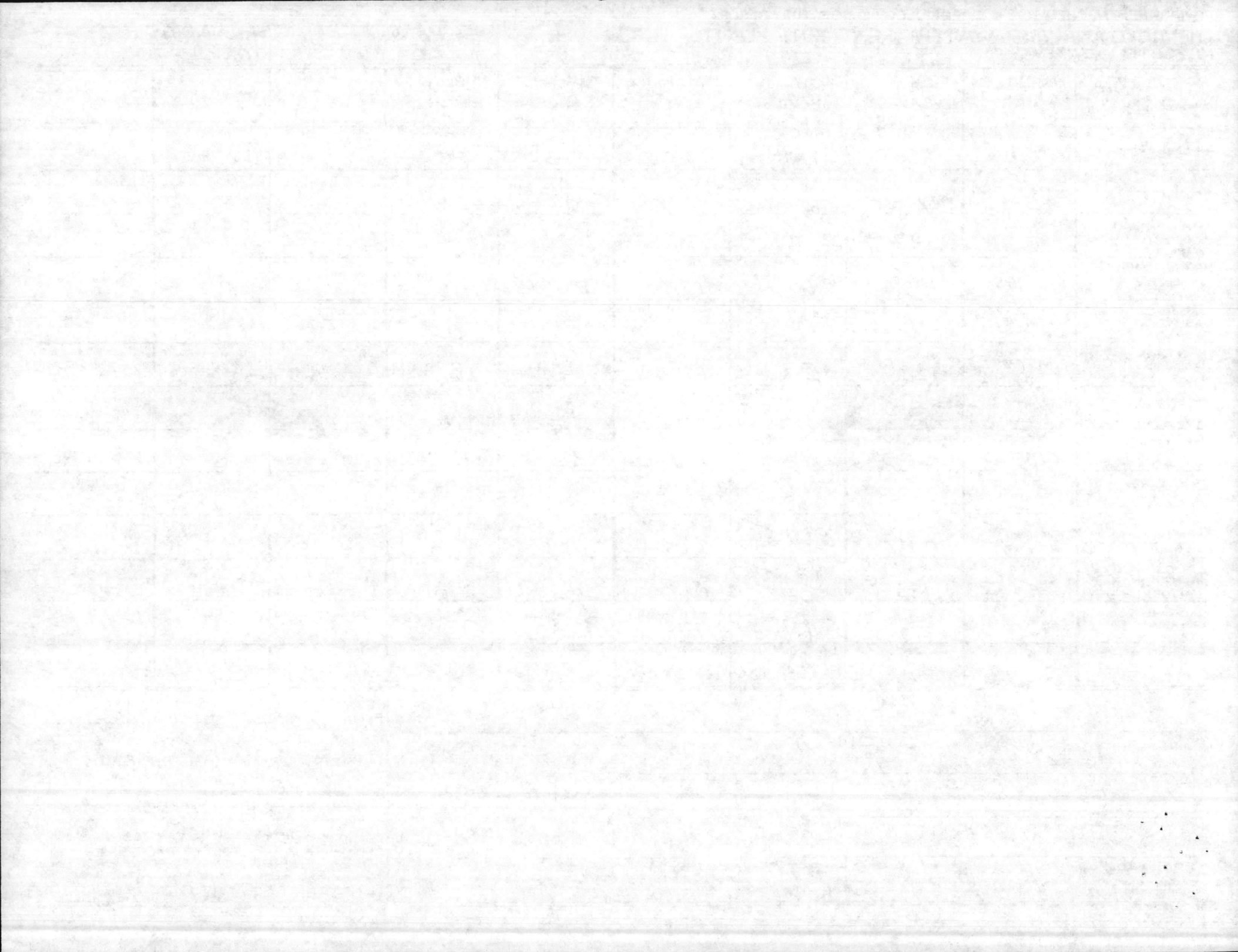
FILE (ATTACH WKST)

REPORT DATE:

10-7-87

REPORT PREPARED BY:

ROBERT G. DEPPEN



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

DATE COLLECTED
 10-13-87

DATE(S) ANALYZED
 10-13-87

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	8.7	8.5	8.5	7.6	8.2	7.5			
STABILITY	+0.4	+0.3	+0.4	-0.4	0.0	-0.5			
PHENOLTHALEIN ALKALINITY (PPM)	4	10	2	0	2	0			
METHYL ORANGE ALKALINITY (PPM)	50	130	60	170	146	154			
CARBONATES AS CaCO ₃ (PPM)	8	20	4	0	4	0			
BICARBONATES AS CaCO ₃ (PPM)	42	110	56	170	142	154			
CHLORIDES AS Cl (PPM)	12	70	12	14	32	24			
HARDNESS AS CaCO ₃ (PPM)	68	46	64	50	50	50			
IRON AS Fe (PPM)									
FLUORIDE (PPM)	AM PM 1.14 1.21	0.67	1.18 1.28	0.14	0.12	0.17			
TURBIDITY (NTUS)	AM PM 0.7 2.2	1.9	1.1 1.9	0.6	0.7	0.7			
CHLORINE RESIDUAL (PPM)	1.0	1.0	1.2	1.3	0.9	1.3			

REMARKS:

COPY TO:

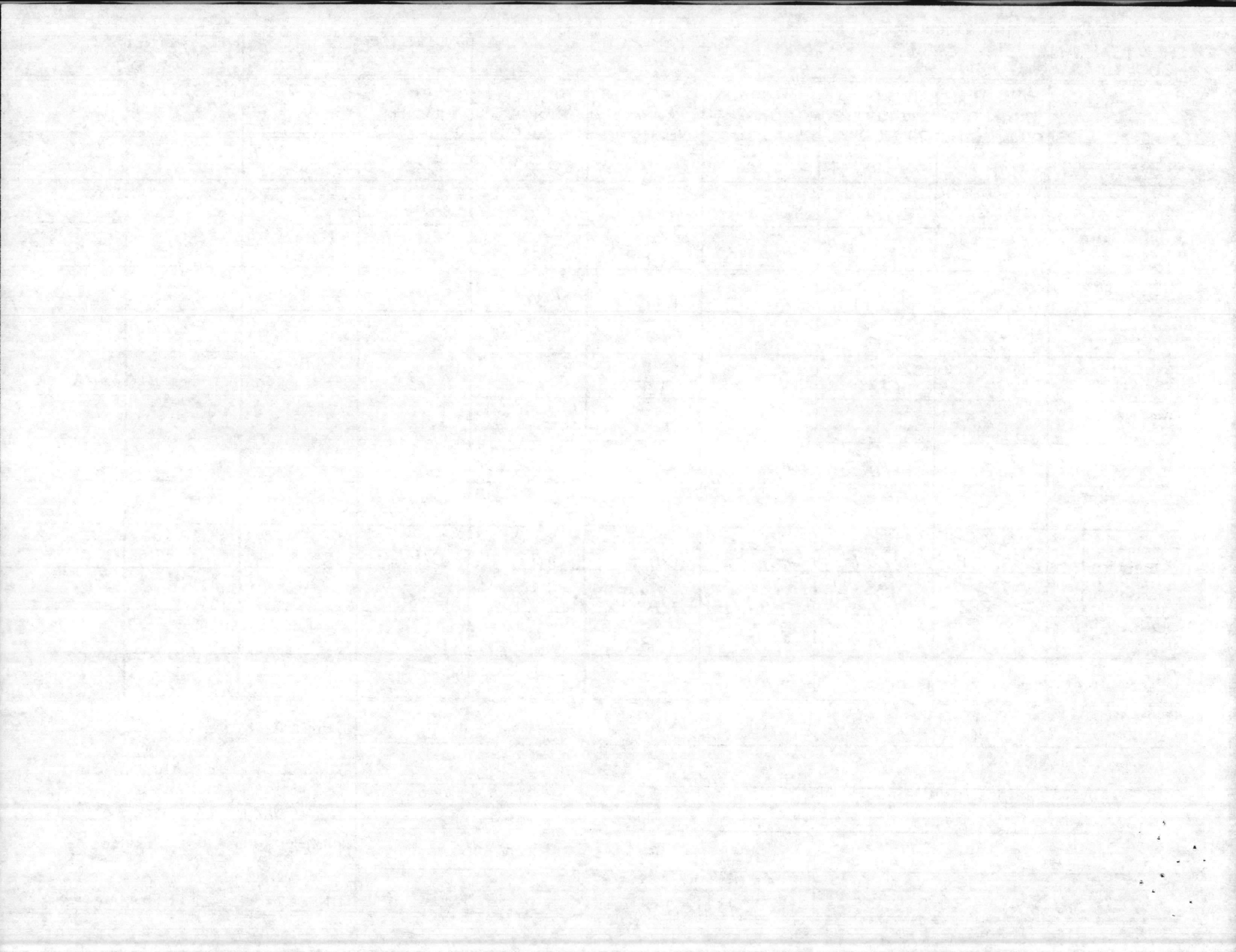
- UTIL DIR, BMD _____
- WATER TREATMENT, UTIL DIV, BMD
- PMU, NAYHOSP PMU, MCAS-NR
- DIVISION OF HEALTH SERVICES
N.C. DEPT OF HUMAN RESOURCES
- NREAD FILE (ATTACH WKST)

REPORT DATE:

10-14-87

REPORT PREPARED BY:

H. J. BURNS



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

DATE COLLECTED

10-20-87

DATE(S) ANALYZED

10-20-87

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	8.7	8.5	8.5	7.6	8.2	7.4			
STABILITY	+0.4	+0.1	+0.3	-0.5	-0.1	-0.3			
PHENOLTHALEIN ALKALINITY (PPM)	6	8	4	0	0	0			
METHYL ORANGE ALKALINITY (PPM)	60	136	56	160	144	160			
CARBONATES AS CaCO ₃ (PPM)	12	16	8	0	0	0			
BICARBONATES AS CaCO ₃ (PPM)	48	120	48	160	144	160			
CHLORIDES AS Cl (PPM)	16	70	14	16	48	20			
HARDNESS AS CaCO ₃ (PPM)	64	46	64	50	52	80			
IRON AS Fe (PPM)									
FLUORIDE (PPM)	AM	0.61	1.06	0.15	0.11	0.15			
	PM								
TURBIDITY (NTUS)	AM	0.8	0.9	0.7	0.5	9.0			
	PM								
CHLORINE RESIDUAL (PPM)	1.0	1.0	1.2	1.0	0.8	1.1			

REMARKS:

COPY TO:

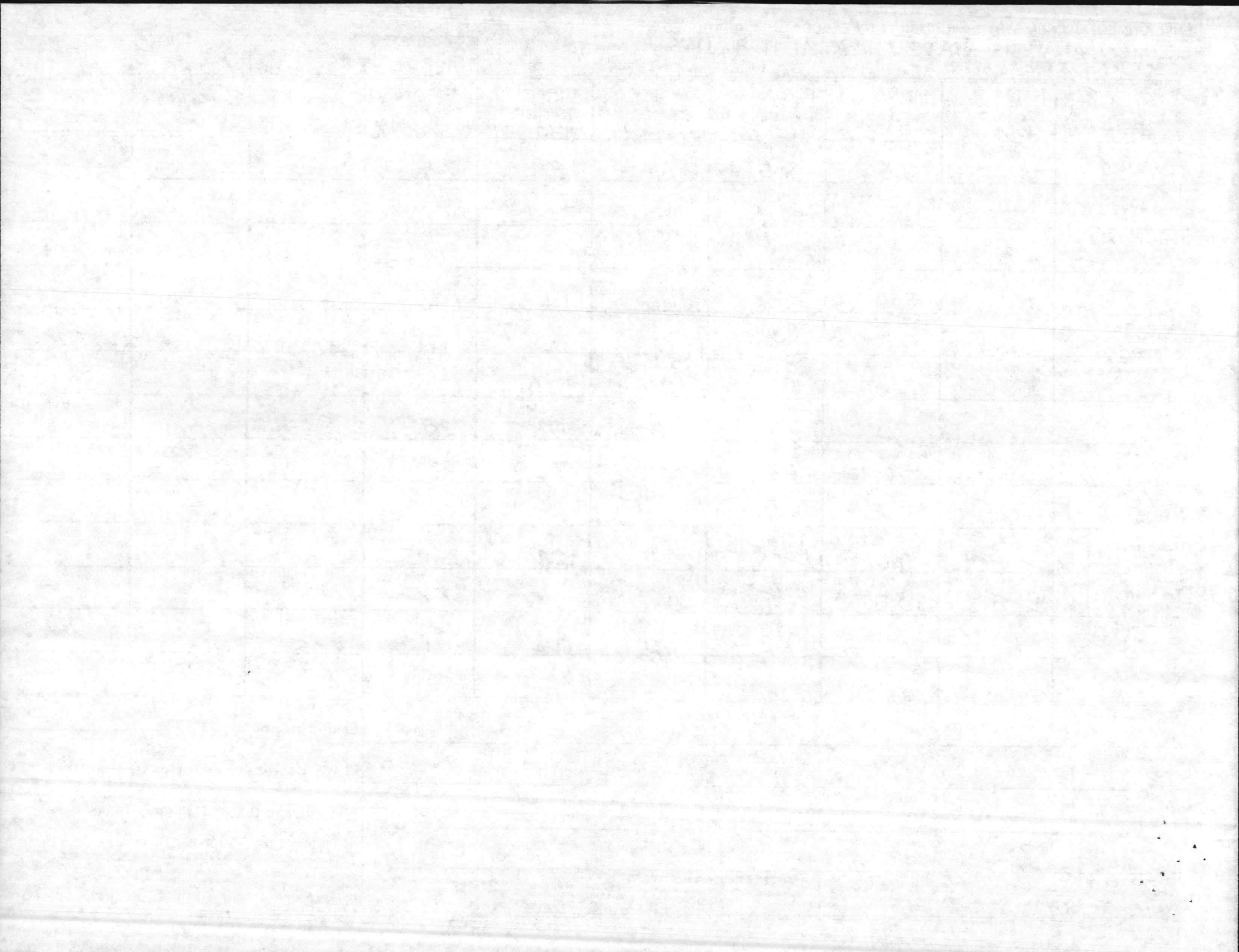
- UTIL Div, BMD
- WATER TREATMENT, UTIL Div, BMD
- PMU, NAVHOSP
- PMU, MCAS-NR
- DIVISION OF HEALTH SERVICES
N.C. DEPT OF HUMAN RESOURCES
- NREAD
- FILE (ATTACH WKST)

REPORT DATE:

10-20-87

REPORT PREPARED BY:

H. J. BURNS



ENVIRONMENTAL CHEMISTRY & MICROBIOLOGY LABORATORY REPORT
 CHEMICAL ANALYSIS - WATER TREATMENT PLANTS
 MCBCCL 11830/3 (REV 7-87)

DATE COLLECTED
 10-27-87

DATE(S) ANALYZED
 10-27-87

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	8.6	8.6	8.5	7.9	8.3	7.6			
STABILITY	+0.5	+0.1	+0.4	-0.3	-0.1	-0.4			
PHENOLTHALEIN ALKALINITY (PPM)	2	10	2	0	0	0			
METHYL ORANGE ALKALINITY (PPM)	50	130	66	156	156	150			
CARBONATES AS CaCO ₃ (PPM)	4	20	4	0	0	0			
BICARBONATES AS CaCO ₃ (PPM)	46	110	62	156	156	150			
CHLORIDES AS Cl (PPM)	16	80	20	18	38	26			
HARDNESS AS CaCO ₃ (PPM)	58	50	72	58	58	96			
IRON AS Fe (PPM)									
FLUORIDE (PPM)	AM PM	1.01 1.08	0.64	1.02 1.12	0.16	0.14	0.17		
	AM PM	0.6 0.6	0.9	0.6 0.8	1.2	0.7	0.4		
TURBIDITY (NTUS)									
CHLORINE RESIDUAL (PPM)	1.1	1.1	1.2	1.0	1.0	1.5			

REMARKS:

COPY TO:

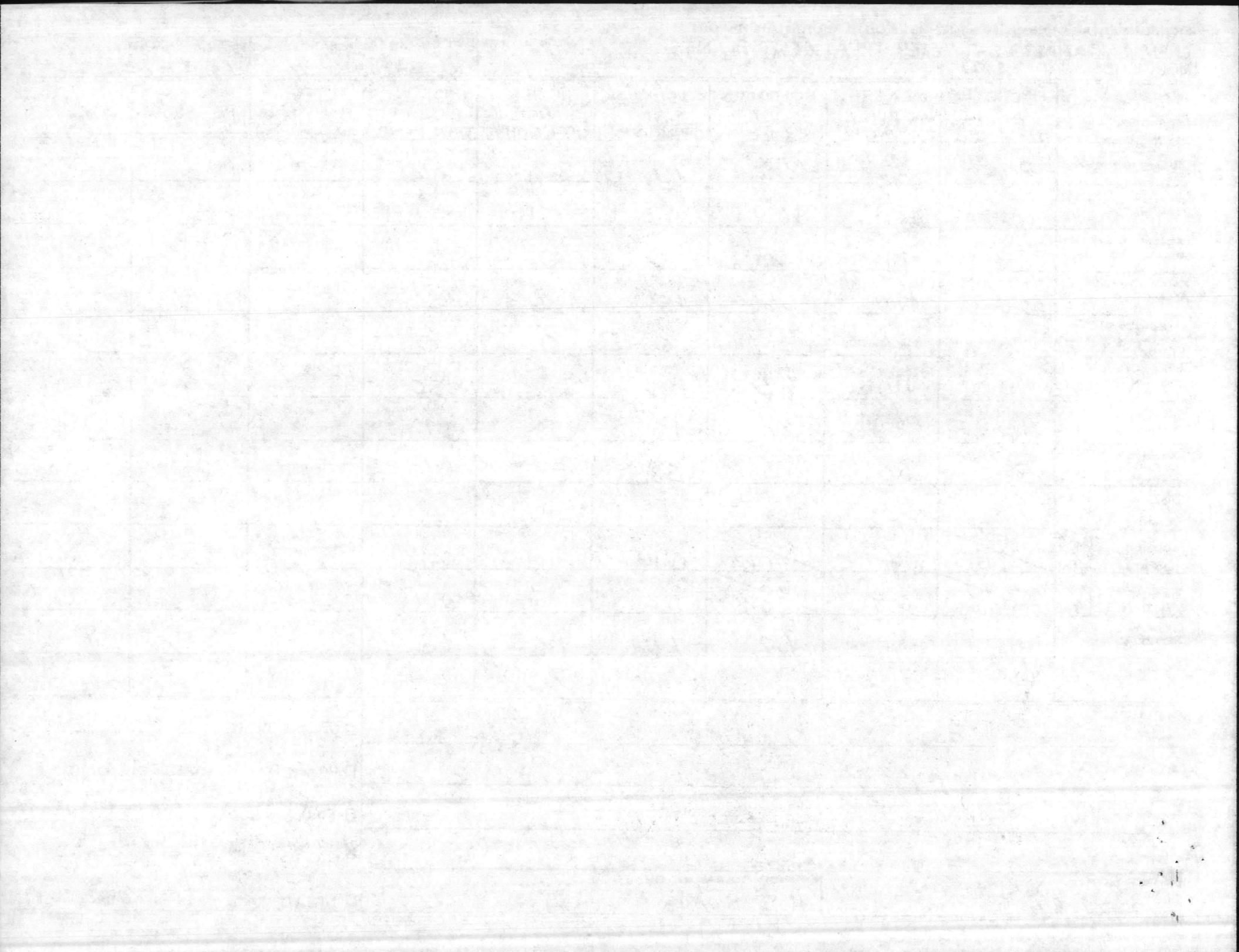
- UTIL DIR, BMD _____
- WATER TREATMENT, UTIL DIV, BMD
- PMU, NAYHOSP PMU, MCAS-NR
- DIVISION OF HEALTH SERVICES
 N.C. DEPT OF HUMAN RESOURCES
- NREAD FILE (ATTACH WKST)

REPORT DATE:

10-27-87

REPORT PREPARED BY:

H. J. BURNS



11331
NREAD
2 Oct 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 1-30 September 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. Bets, 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

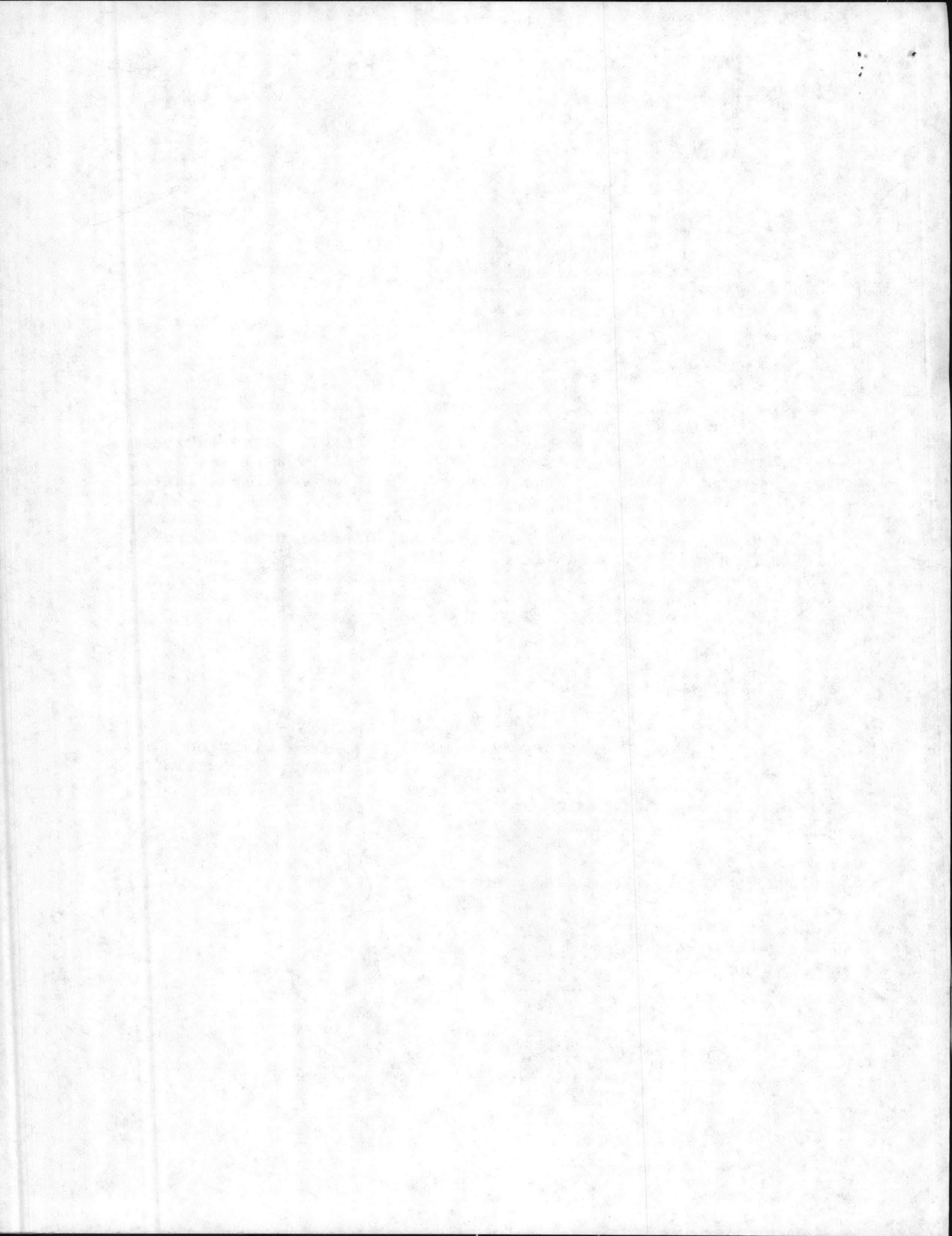
Copy to:
LANTNAVFACENGCOM (Code 114)

Blind copy to:
BMO (Attn: Util Dir)
Supvy Chem (2)

Writer/Typist Betz/Thianaki

Date Typed 2 Oct 87

Word Processor Number 11331



Month SEPTEMBER
Year 1987

HADNOT POINT WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 3000
Contaminant Code: 3000

Serial # 04-67-041

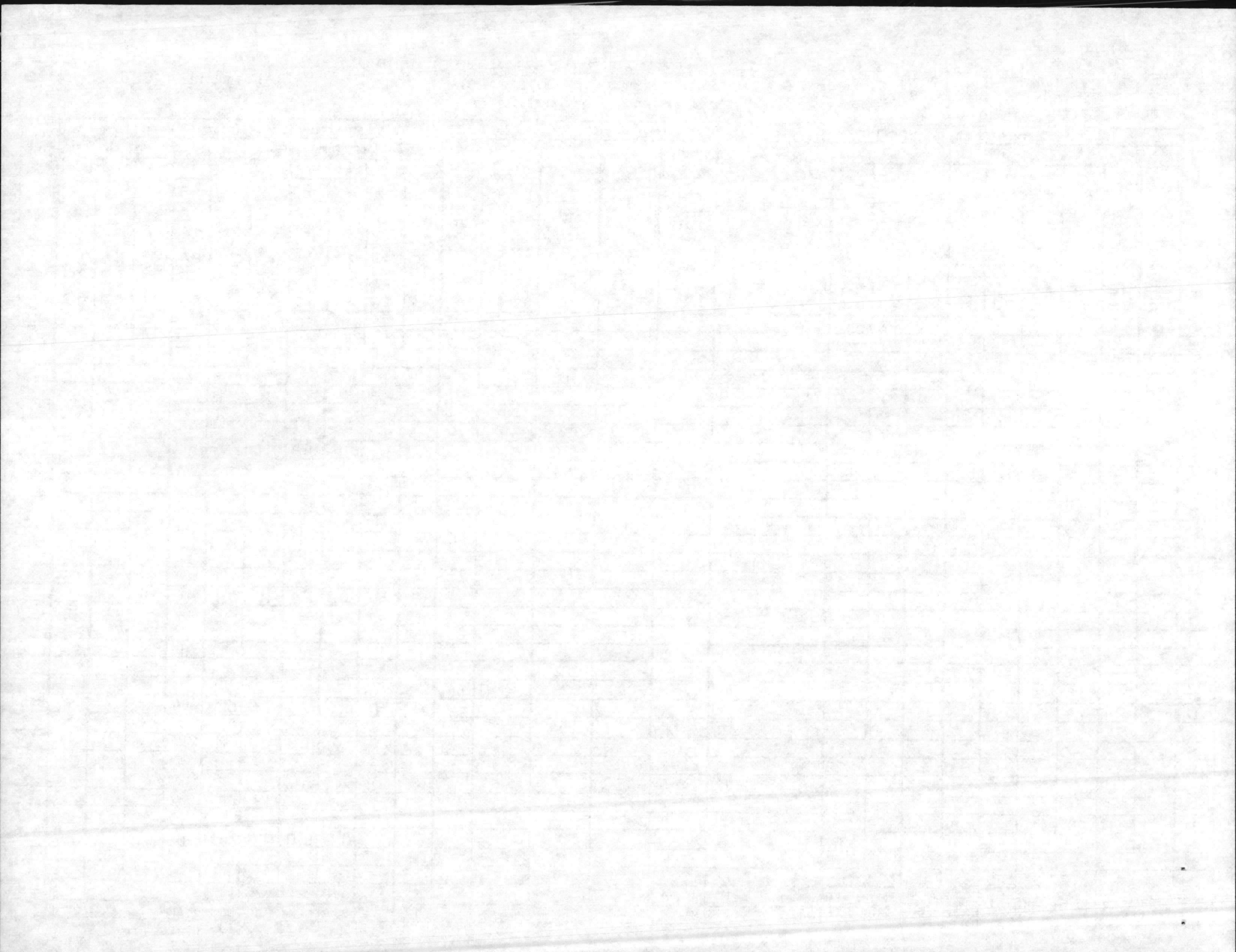
REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES
N. C. DEPARTMENT OF HUMAN RESOURCES

ENCLOSURE 111

DATE	RAW WATER COLIFORMS (MFP)								NO. OF COLIFORMS PER 100 ml.	FILTERED		FINISHED		DISTRIBUTION SYSTEM					REPEAT SAMPLES			INCUBATOR TEMP.
	A		B		C		TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.		TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	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.			
1	71ST									0	9	0	0	0	0	0				35.2		
2																						
3																						
4																						
5																						
6																						
7																						
8	8TH									0	8	0	0	0	0	10	10			35.2		
9																						
10																						
11																						
12																						
13																						
14																						
15																						
16	16TH									0	9	0	0	0	10	0	0			35.5		
17																						
18																						
19																						
20																						
21																						
22	22ND									0	9	0	0	0	0	0	0			35.5		
23																						
24																						
25																						
26																						
27																						
28																						
29	29TH									0	9	0	0	0	0	0	10			35.2		
30																						
31																						
MFP MEDIA		RBI mEndo		BACTERIAL DENSITY		ARITH. MEAN GEO. MEAN				0	DIST. SYSTEM		TOTAL NO. SAMPLES					44				
TPC MEDIA										1	SAMPLES EXCEEDING 3/50. (4/100). 7/200. 13/500=1					0						

LAB ID # 37807

CERT GRADE B-WELL # 4087-W



Month SEPTEMBER
Year 1987

COURTHOUSE BAY WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303
Contaminant Code: 3000

Serial # 04-67-047

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

U. S. DEPARTMENT OF HUMAN RESOURCES

ENCLOSURE 1/1

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.		COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	
1	7/10													0	4	0	0	0								35.2	
2																											
3																											
4																											
5																											
6																											
7																											
8	7/8													0	4	10	0	0	0								35.2
9																											
10																											
11																											
12																											
13																											
14																											
15	7/15													0	4	10	10	0	0								35.6
16																											
17																											
18																											
19																											
20																											
21																											
22	7/22													0	4	0	0	0	0								35.5
23																											
24																											
25																											
26																											
27																											
28																											
29	7/29													0	4	0	0	0									35.2
30																											
31														0													
														0	DISTR. SYSTEM					TOTAL NO. SAMPLES			20				
HF MEDIA														1	SAMPLES EXCEEDING 3/50. (4/100). 7/200. 13/500 ml					0							
TPC MEDIA																											
BRI mEndo																											
BACTERIAL DENSITY																											
ARITH. MEAN																											
GEO. MEAN																											



Month SEPTEMBER
Year 1987

ONSLow BEACH

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 3003
Contaminant Code: 3000

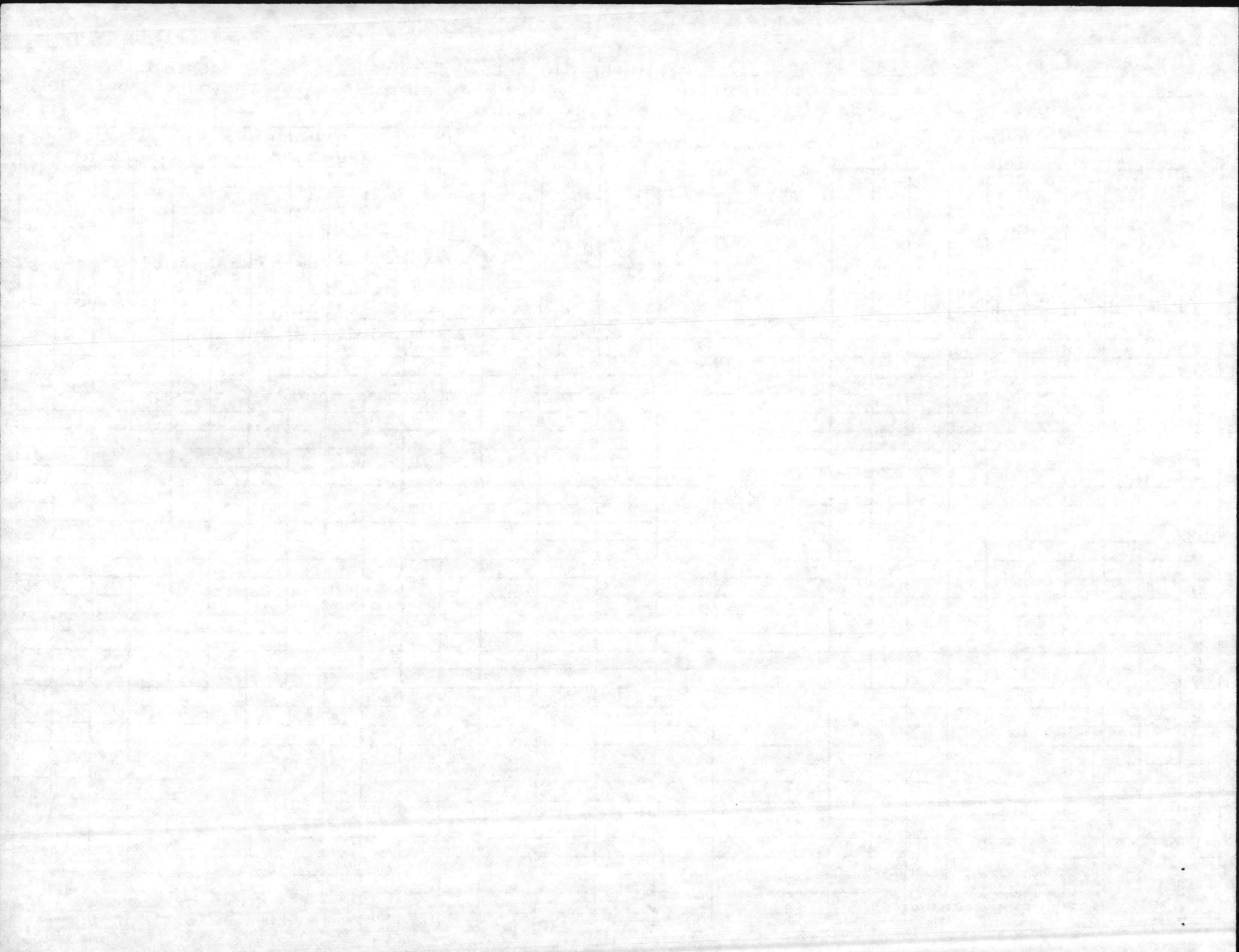
REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

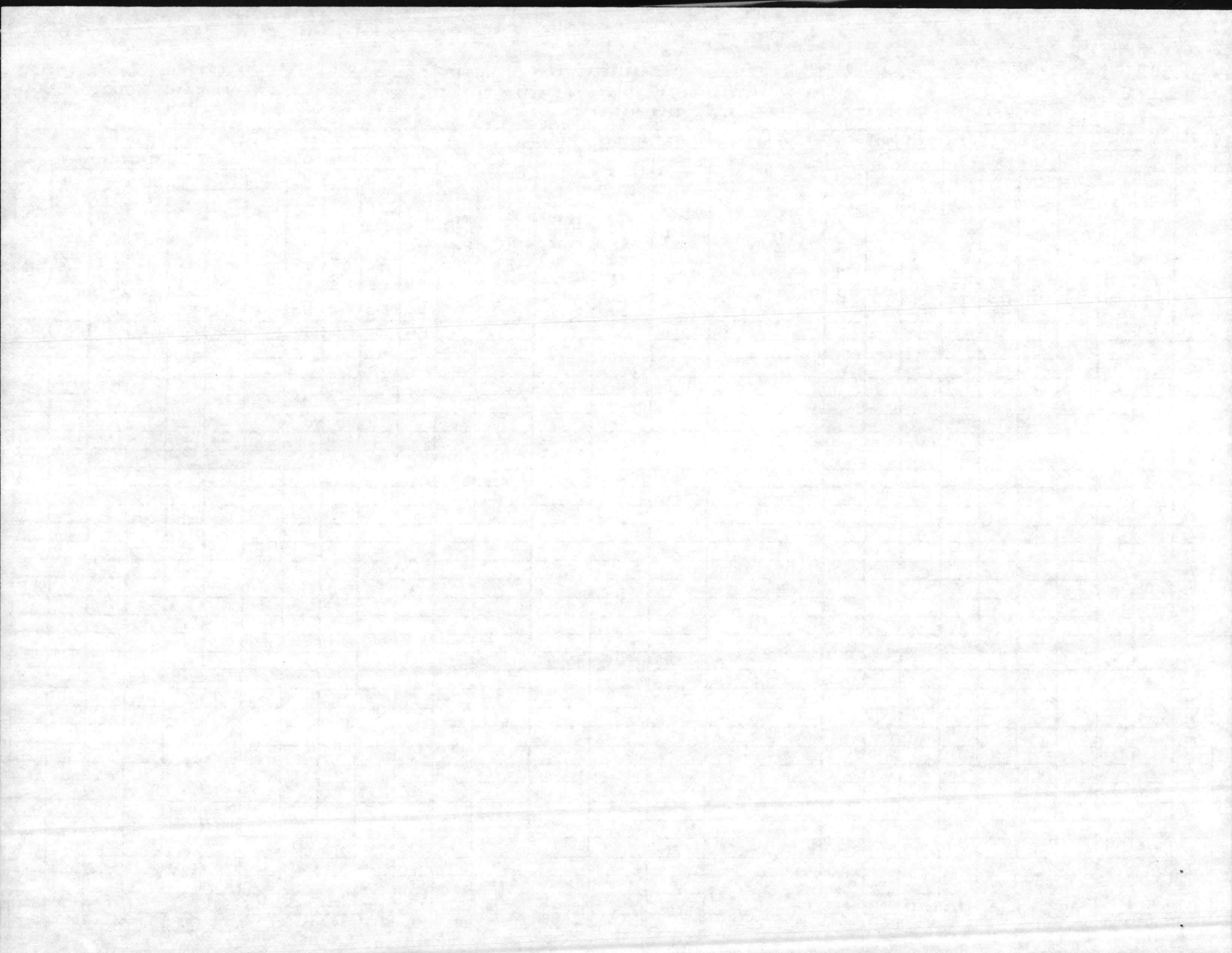
N. C. DEPARTMENT OF HUMAN RESOURCES

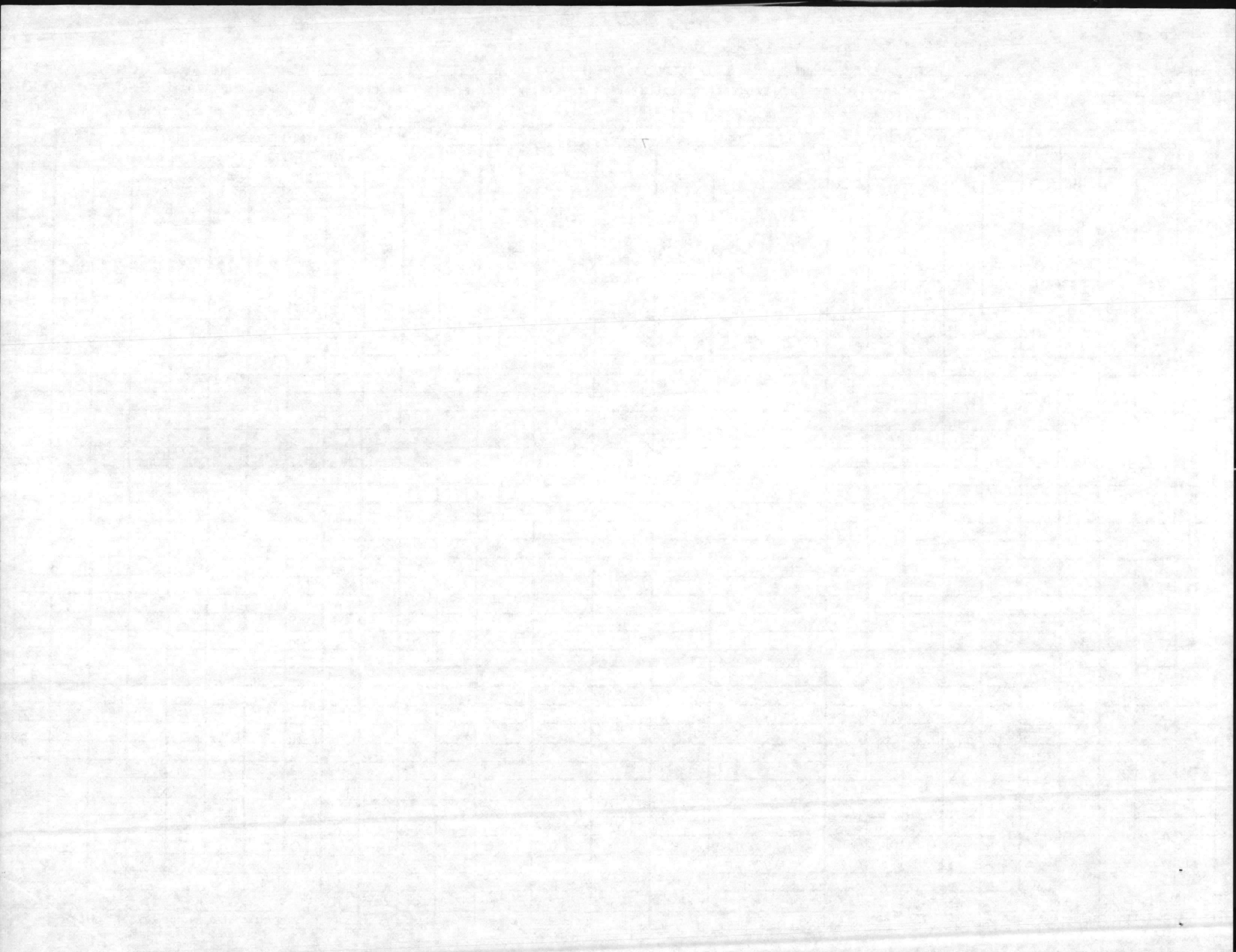
Serial # 04-67-048

ENCLOSURE (1)

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.	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.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.							
1	21 ST												0	2	0	0								35.2					
2																													
3																													
4																													
5																													
6																													
7																													
8	8 TH												0	2	0	0										35.2			
9																													
10																													
11																													
12																													
13																													
14																													
15	15 TH												0	2	0	0											35.4		
16																													
17																													
18																													
19																													
20																													
21																													
22	22 ND												0	2	0	0												35.5	
23																													
24																													
25																													
26																													
27																													
28																													
29	29 TH												0	2	0	0													35.2
30																													
31																													
MFP MEDIA		BRI. mEndo		BACTERIAL DENSITY		ARITH. MEAN		GEO. MEAN		DISTR. SYSTEM		TOTAL NO. SAMPLES		SAMPLES EXCEEDING 3/50.		4/100.		7/200.		13/500-1						10		0	







Month SEPTEMBER
Year 1987

TARAWA TERRACE

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303
Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

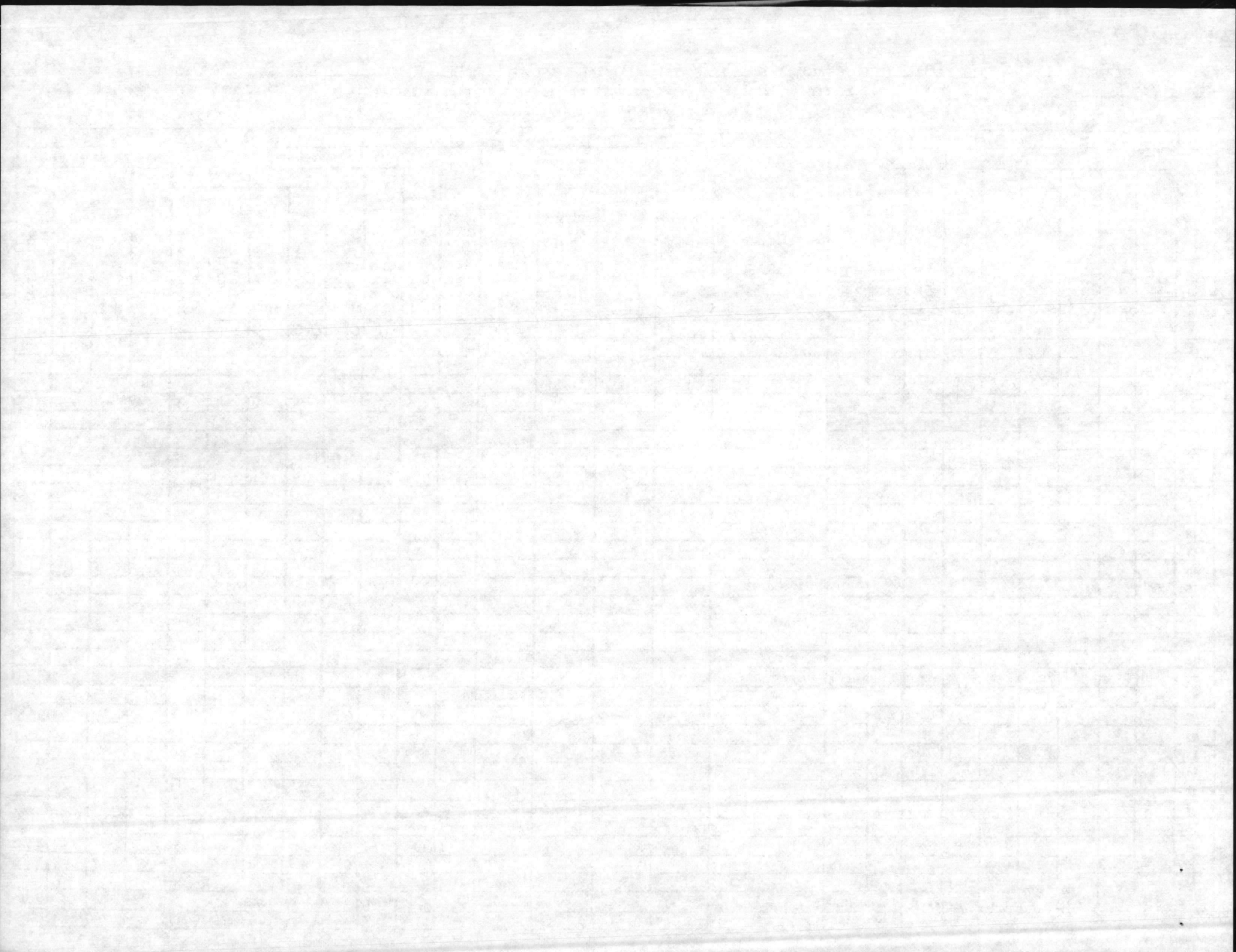
A. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-044

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	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.		COLIFORMS per 100 ml.	COLIFORMS per 100 ml.
1	71st													0	4	0/0	0/0									35.2	
2																											
3																											
4																											
5																											
6																											
7																											
8	7 8th													0	4	0/0		0/0									35.2
9																											
10																											
11																											
12																											
13																											
14																											
15	7 15th													0	4	0/0		0/0									35.6
16																											
17																											
18																											
19																											
20																											
21	7 22nd													0	4	0/0											35.5
22																											
23																											
24																											
25																											
26																											
27																											
28	7 29th													0	4	0/0											35.2
29																											
30																											
31																											
MF MEDIA														0	TOTAL NO. SAMPLES										20		
TPC MEDIA														1	DISTR. SYSTEM										0		
BBL mEndo														SAMPLES EXCEEDING 3/50. (4/100, 7/200, 13/500) ml										0			

LAB ID # 37807

TCD303011



Month SEPTEMBER
Year 1987

WATER TREATMENT PLANT AT Camp Lejeune
REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

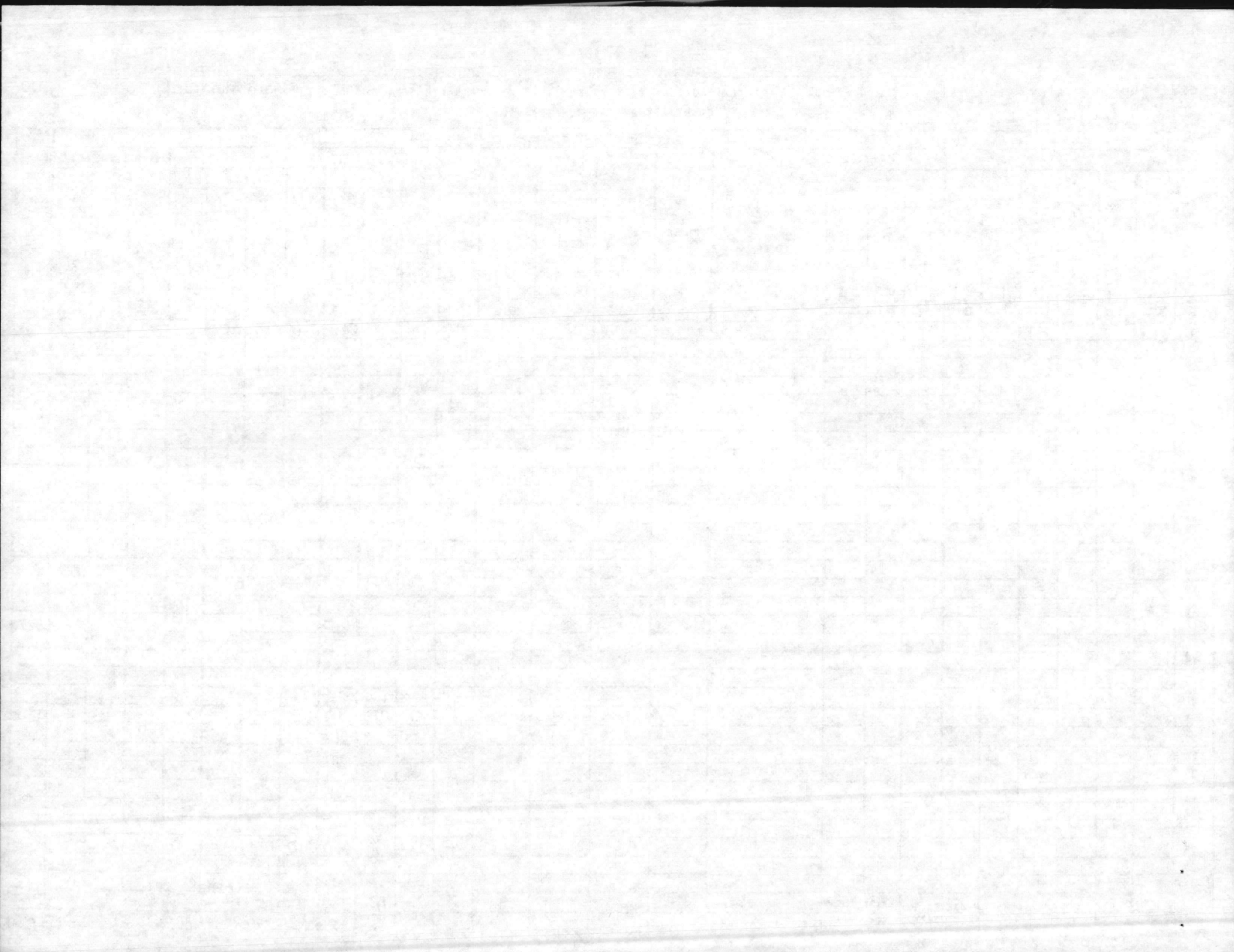
Method Code: 303
Contaminant Code: 3000

Serial # 04-67-043

U. S. DEPARTMENT OF HUMAN RESOURCES

ENCLOSURE (4)

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.		COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	
1	7/1st											0	7	0/0	0/0	0/0	0/1						35.2		
2																									
3																									
4																									
5																									
6																									
7																									
8	7/8th											0	7	0/0	0/0	0/0	0/0							35.2	
9																									
10																									
11																									
12																									
13																									
14																									
15																									
16	7/16th											0	7	0/0	0/0	0/0	0/0							35.5	
17																									
18																									
19																									
20																									
21																									
22	7/22nd											0	7	0/0	0/0	0/0	0/0							35.5	
23																									
24																									
25																									
26																									
27																									
28																									
29	7/29th											0	7	0/0	0/0	0/0	0/0							35.2	
30																									
31																									
MFP MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN						0		DIST. SYSTEM		TOTAL NO. SAMPLES							35		
JPC MEDIA						GEO. MEAN						1				SAMPLES EXCEEDING 3/50, 4/100, 7/200, 13/500=1							0		



Month SEPTEMBER
Year 1987

MARINE CORPS AIR STATION WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303
Contaminant Code: 3000

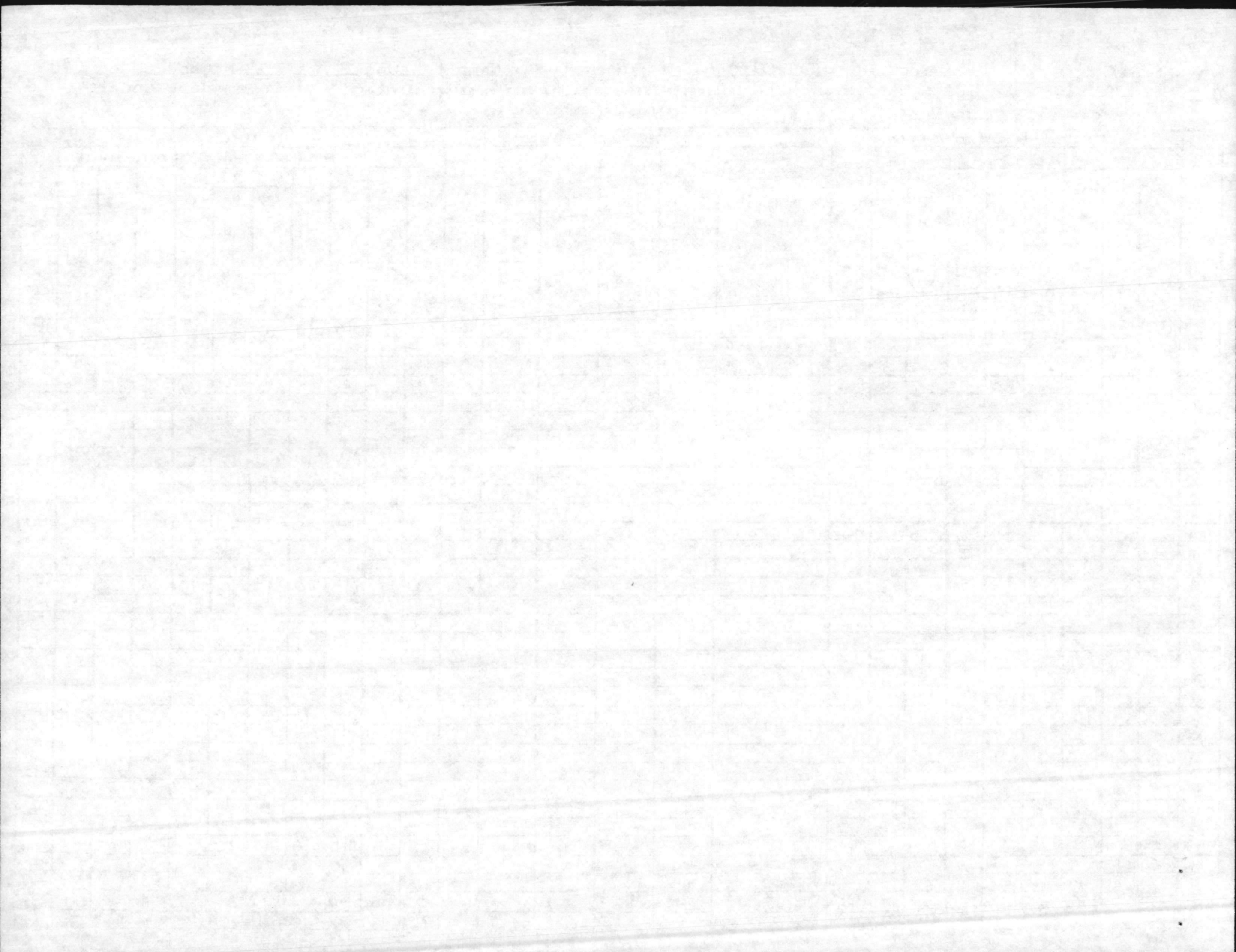
Serial # 04-67-042

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

U. S. DEPARTMENT OF HUMAN RESOURCES

BUREAU OF WATER SUPPLY

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	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																			
1	7107											0	7	0	0	0	0							35.2	
2																									
3																									
4																									
5																									
6																									
7																									
8	7307											0	7	0	0	10	0	10	0	10	0				35.2
9																									
10																									
11																									
12																									
13																									
14																									
15	7157											0	7	0	0	10	0	10	0	10	0				35.6
16																									
17																									
18																									
19																									
20																									
21																									
22	7227											0	7	0	0	10	0	0	10	0					35.5
23																									
24																									
25																									
26																									
27																									
28																									
29	7297											0	7	0	0	10	0	0	10	0					35.2
30																									
31																									
MF MEDIA												0	TOTAL NO. SAMPLES										28		
TPC MEDIA												1	SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500-1										0		



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

DATE COLLECTED
 9-29-87

DATE(S) ANALYZED
 9-29-87

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	8.9	8.7	8.0	8.5	7.8			
STABILITY	+0.8	+0.2	+0.5	-0.3	+0.1	-0.4			
PHENOLTHALEIN ALKALINITY (PPM)	8	14	2	0	4	0			
METHYL ORANGE ALKALINITY (PPM)	64	144	76	172	174	148			
CARBONATES AS CaCO ₃ (PPM)	16	28	4	0	8	0			
BICARBONATES AS CaCO ₃ (PPM)	48	116	72	172	166	148			
CHLORIDES AS Cl (PPM)	20	92	18	22	26	30			
HARDNESS AS CaCO ₃ (PPM)	94	50	82	80	54	52			
IRON AS Fe (PPM)									
FLUORIDE (PPM)	AM PM 0.89 1.03	0.58	1.23 1.42	0.10	0.08	0.17			
TURBIDITY (NTUS)	AM PM 0.6 0.9	0.9	0.9 1.2	0.9	0.8	1.2			
CHLORINE RESIDUAL (PPM)	1.0	1.0	1.1	1.0	1.0	1.7			

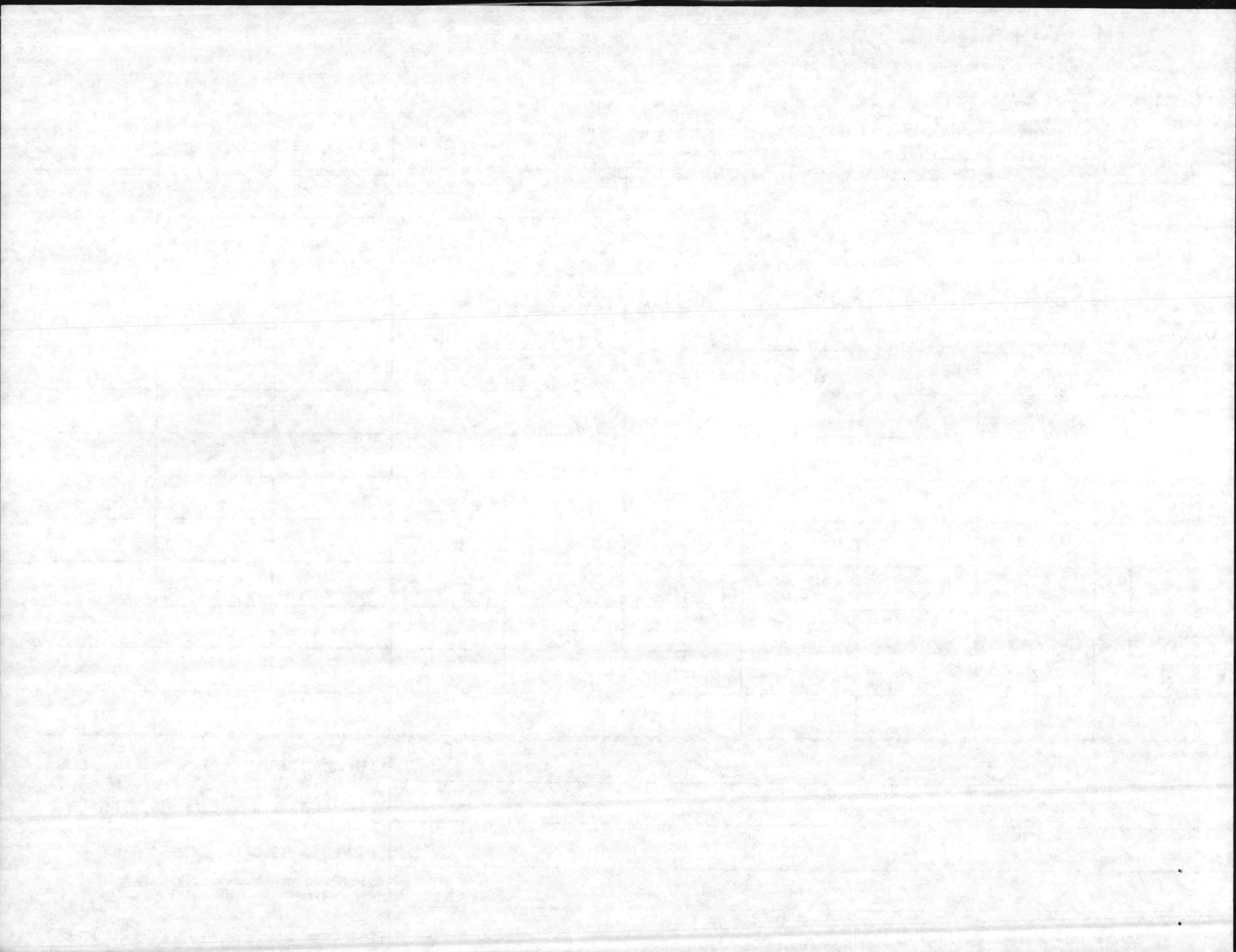
ENCLOSURE (2)

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:
 9-29-87

REPORT PREPARED BY:
 CAROL S. SHORIS



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

DATE COLLECTED

9-22-87

DATE(S) ANALYZED

9-22-87

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	8.3	8.9	8.8	8.3	8.3	7.9			
STABILITY	0.0	+0.1	+0.3	-0.1	-0.2	-0.3			
PHENOLTHALEIN ALKALINITY (PPM)	0	6	2	0	4	0			
METHYL ORANGE ALKALINITY (PPM)	60	138	56	172	180	170			
CARBONATES AS CaCO ₃ (PPM)	0	12	4	0	8	0			
BICARBONATES AS CaCO ₃ (PPM)	60	126	52	172	172	170			
CHLORIDES AS Cl (PPM)	16	68	14	18	40	22			
HARDNESS AS CaCO ₃ (PPM)	76	50	60	74	64	56			
IRON AS Fe (PPM)									
FLUORIDE (PPM)	AM PM	0.98 1.02	0.49	1.16 1.16	0.11	0.09	0.12		
	AM PM	1.4 0.6	0.8	1.3 1.1	0.7	0.8	0.9		
TURBIDITY (NTUS)									
CHLORINE RESIDUAL (PPM)	1.0	1.0	1.5	1.3	1.1	1.4			

ENCLOSURE (2)

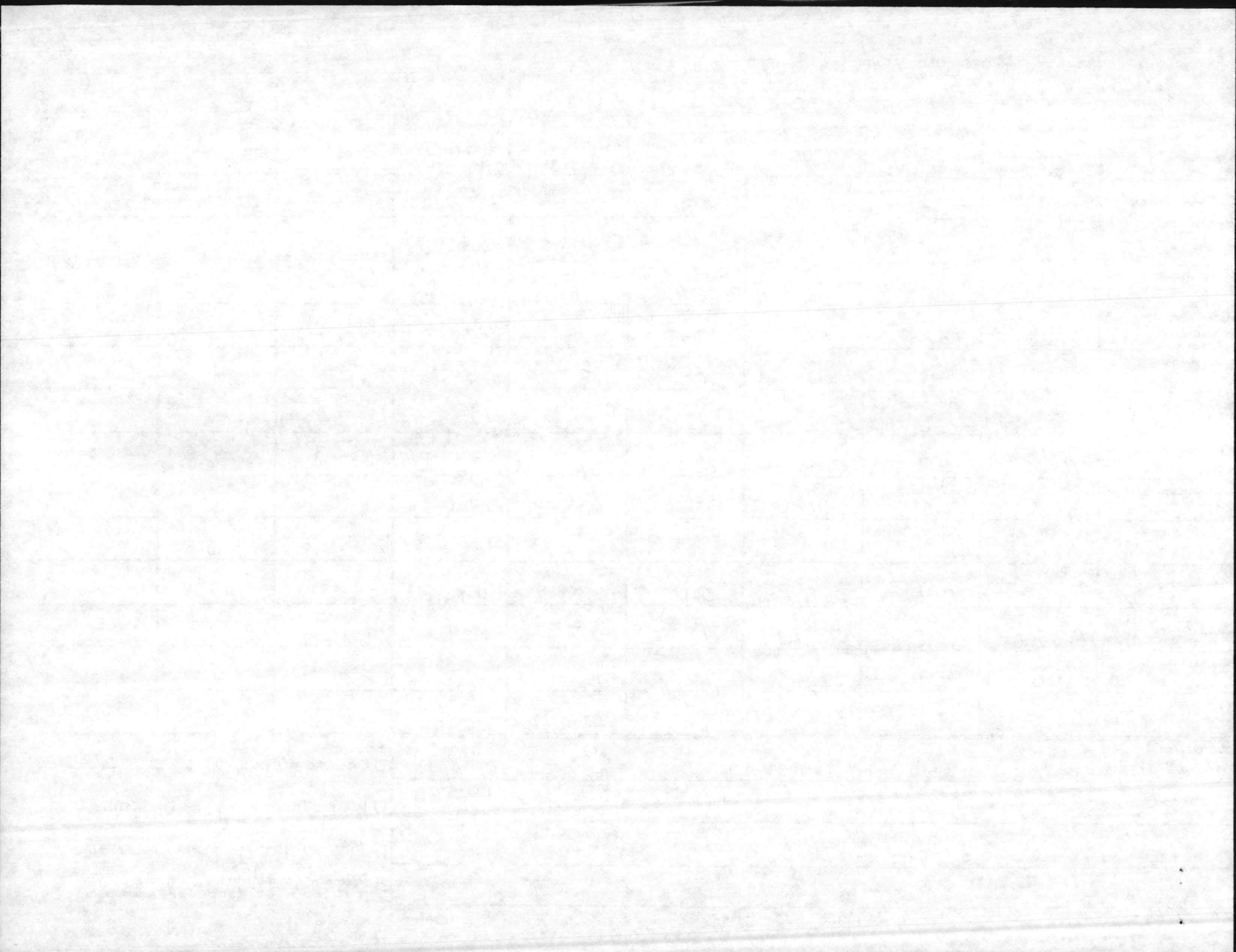
REMARKS:

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

REPORT DATE:
9-22-87

REPORT PREPARED BY:
ROBERT G. DEPPEN

- NREAD FILE (ATTACH WKST)



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

DATE COLLECTED

9-15-87

DATE(S) ANALYZED

9-15-87

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	8.0	8.5	8.0	7.9	7.8	7.6			
STABILITY	+0.2	+0.1	0.0	-0.1	-0.2	-0.3			
PHENOLTHALEIN ALKALINITY (PPM)	0	6	0	0	0	0			
METHY. ORANGE ALKALINITY (PPM)	76	130	72	170	174	160			
CARBONATES AS CaCO ₃ (PPM)	0	12	0	0	0	0			
BICARBONATES AS CaCO ₃ (PPM)	76	118	72	170	174	160			
CHLORIDES AS Cl (PPM)	4	52	6	12	32	16			
HARDNESS AS CaCO ₃ (PPM)	70	58	86	76	68	94			
IRON AS Fe (PPM)									
FLUORIDE (PPM)	AM PM	1.0 1.1	0.52	1.04 0.90	0.12	0.10	0.11		
	AM PM	0.4 0.4	0.8	0.5 0.6	0.4	0.4	0.7		
TURBIDITY (NTUS)									
CHLORINE RESIDUAL (PPM)	1.0	0.1	1.2	1.3	1.0	1.1			

ENCLOSURE

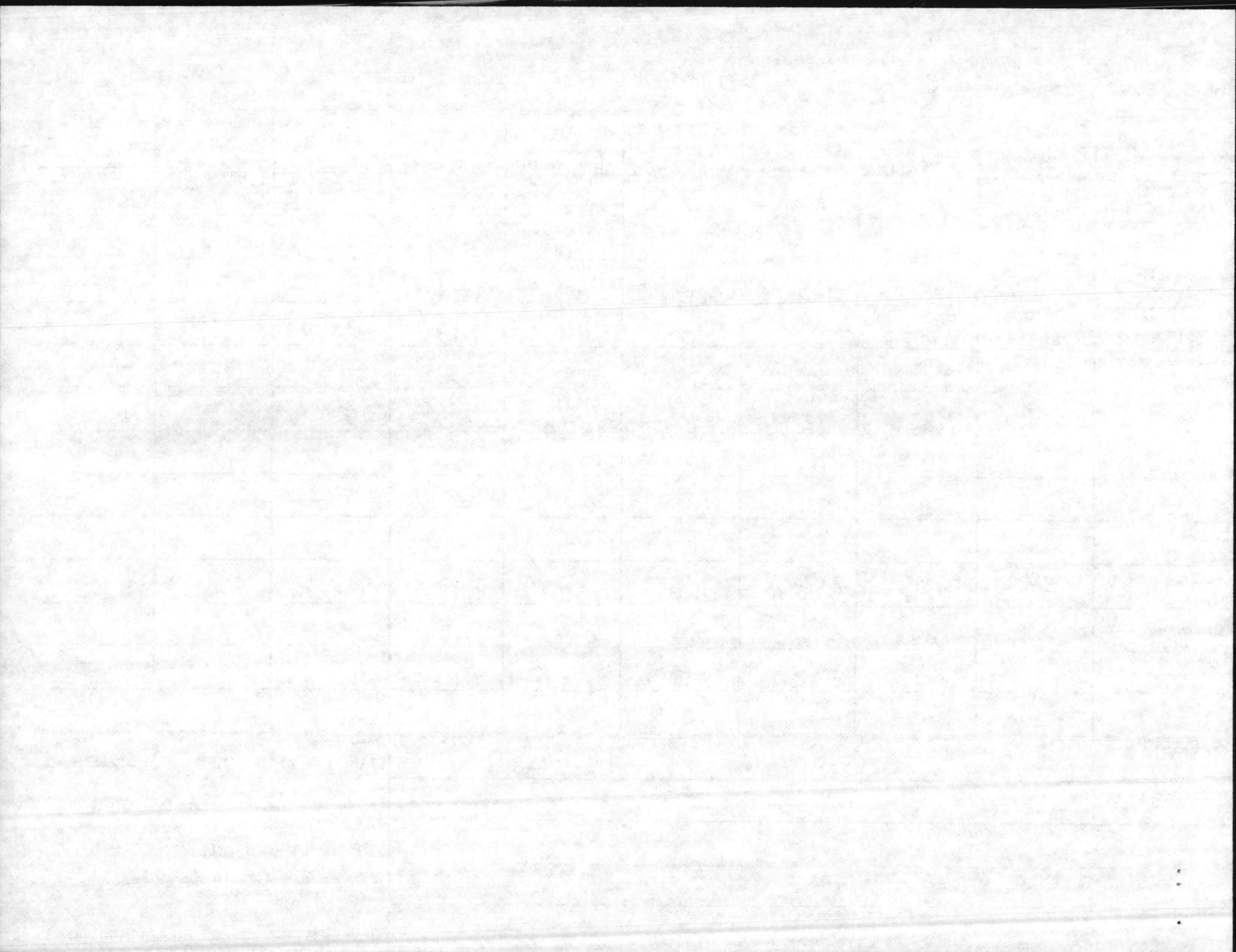
REMARKS:

- 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:
9-16-87

REPORT PREPARED BY:
ROBERT G. DAPPEN

- NREAD FILE (ATTACH WKST)



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

DATE COLLECTED: 9-8-87
 DATE(S) ANALYZED: 9-8-87

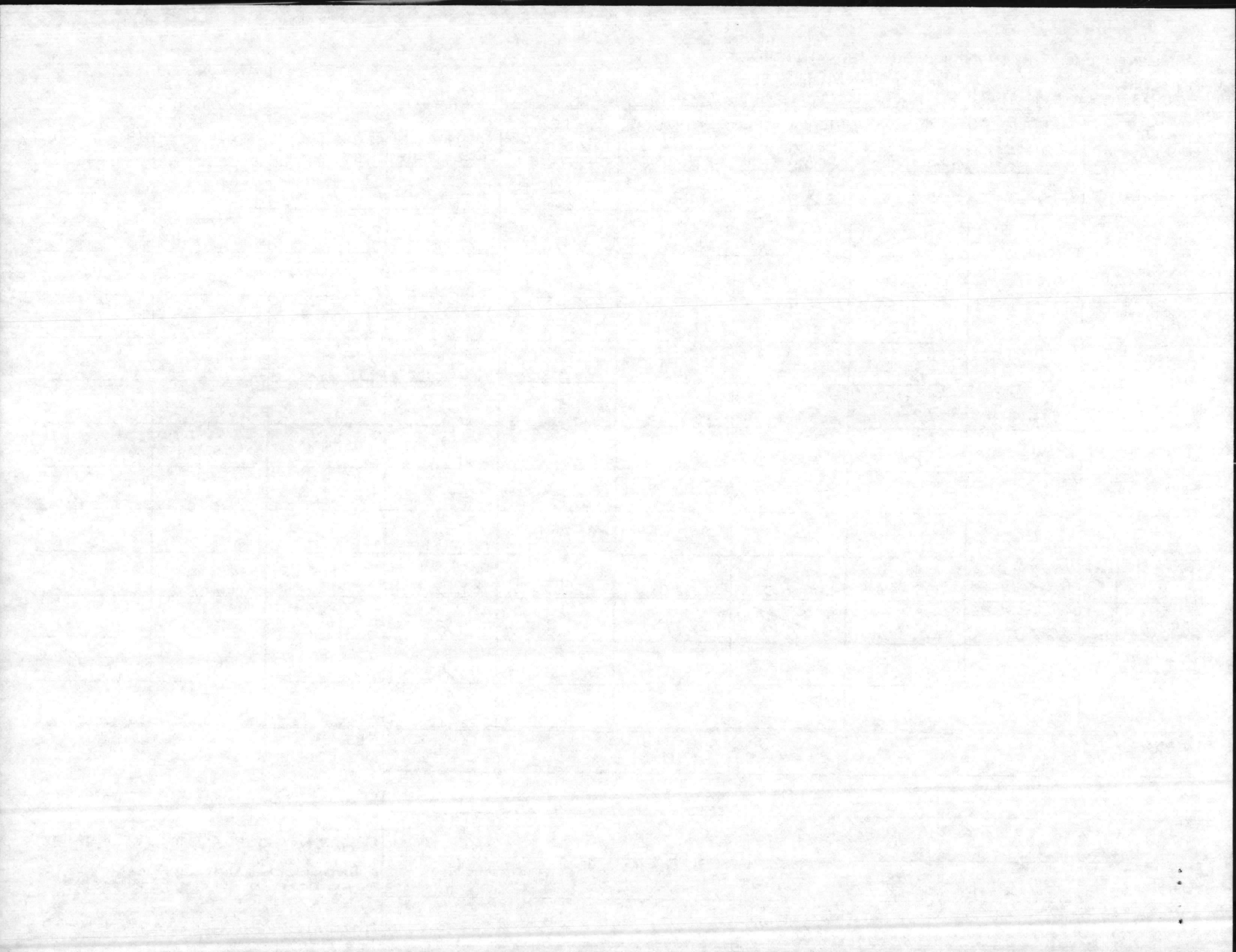
PLANT PARAMETER (UNITS)	HADNOT POINT 04-67-041	MCAS NEW RIVER 04-67-042	HOLCOMB BLVD 04-67-043	COURTHOUSE BAY 04-67-046	RIFLE RANGE 04-67-047	ONSLow BEACH 04-67-048			
pH-LABORATORY	8.2	8.8	8.8	7.9	8.2	7.5			
STABILITY	+0.1	+1.1	+0.7	-0.3	0.0	-0.6			
PHENOLTHALEIN ALKALINITY (PPM)	0	6	4	0	0	0			
METHYL ORANGE ALKALINITY (PPM)	64	104	64	168	168	162			
CARBONATES AS CaCO ₃ (PPM)	0	12	8	0	0	0			
BICARBONATES AS CaCO ₃ (PPM)	64	92	56	168	168	162			
CHLORIDES AS Cl (PPM)	8	50	12	16	40	24		1	
HARDNESS AS CaCO ₃ (PPM)	68	52	68	70	58	48			
IRON AS Fe (PPM)									
FLUORIDE (PPM)	AM PM 0.92 1.1	0.5	0.96 1.3	0.13	0.10	0.12			
TURBIDITY (NTUS)	AM PM 0.3 0.4	0.7	0.4 0.4	0.4	0.3	1.8			
CHLORINE RESIDUAL (PPM)	1.0	0.8	1.1	1.3	0.6	1.2			

ENCLOSURE

REMARKS:

- COPY TO:
- UTIL Div, 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: 9-8-87
 REPORT PREPARED BY: ROBERT G. DEPPEN



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

DATE COLLECTED: 9-1-87
 DATE(S) ANALYZED: 9-1-87

ENCLOSURE

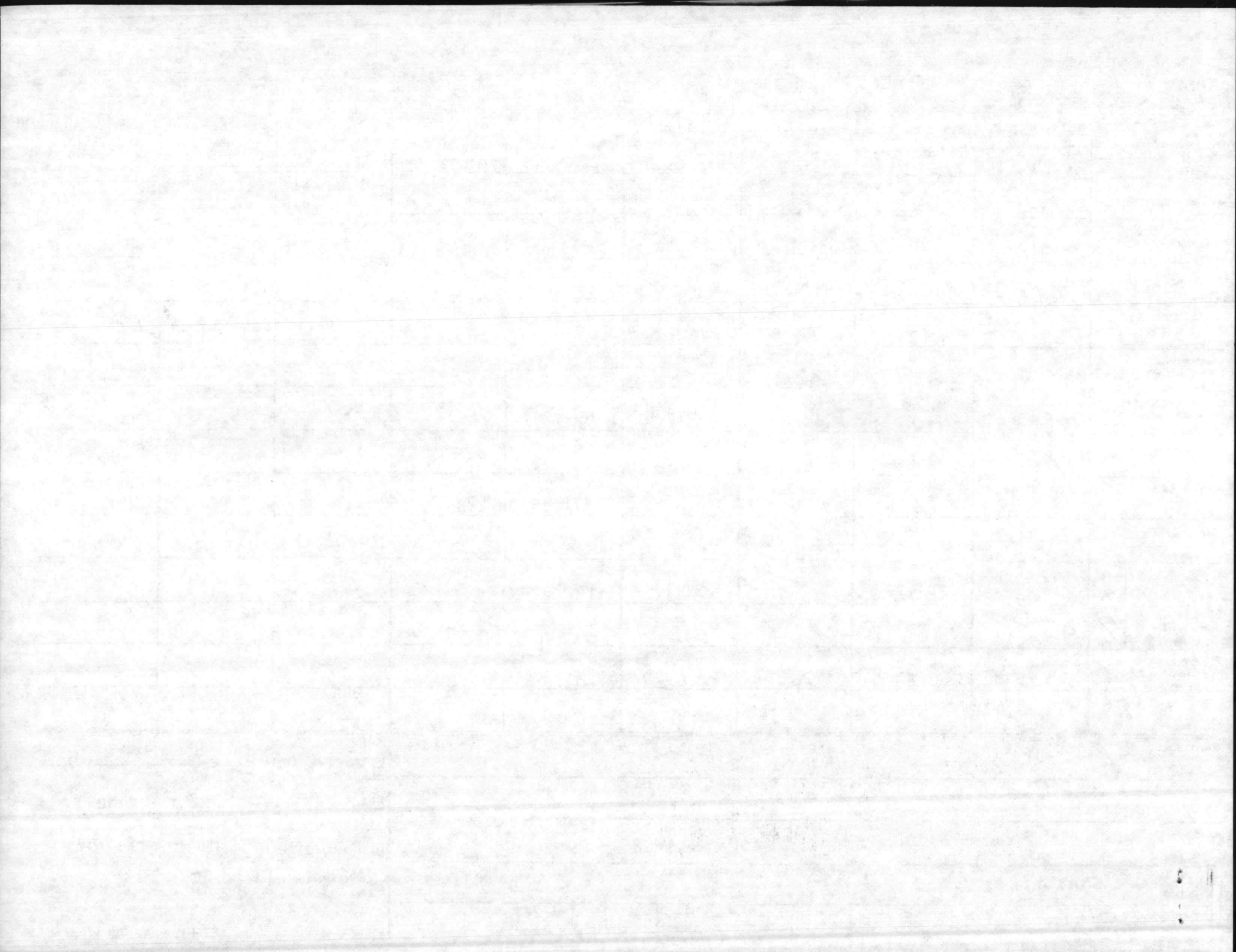
PLANT PARAMETER (UNITS)	HADNOT POINT 04-67-041	MCAS. NEW RIVER 04-67-042	HOLCOMB BLVD 04-67-043	COURTHOUSE BAY 04-67-046	RIFLE RANGE 04-67-047	ONSLow BEACH 04-67-048			
pH-LABORATORY	8.2	8.8	8.8	8.2	8.4	7.7			
STABILITY	-0.2	+0.1	+0.4	-0.3	-0.1	-0.8			
PHENOLTHALEIN ALKALINITY (PPM)	0.0	16	18	0	2	0			
METHYL ORANGE ALKALINITY (PPM)	66	142	72	184	184	172			
CARBONATES AS CaCO ₃ (PPM)	0	32	36	0	4	0			
BICARBONATES AS CaCO ₃ (PPM)	66	110	36	184	180	172			
CHLORIDES AS Cl (PPM)	14	64	16	18	46	26			
HARDNESS AS CaCO ₃ (PPM)	90	72	112	86	74	82			
IRON AS Fe (PPM)									
FLUORIDE (PPM)	AM PM	0.52	0.33 0.31	0.11	0.09	0.14			
	0.12 0.15								
TURBIDITY (NTUS)	AM PM	0.6	1.0 0.6	0.3	0.5	2.8			
	0.7 0.3								
CHLORINE RESIDUAL (PPM)		0.9	1.2	1.7	1.0	1.2			

REMARKS:

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

REPORT DATE: 9-1-87

REPORT PREPARED BY: CAROL S. SHORES



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:
LANTNAVFACENGCOM (Code 114)

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

Writer/Typist Betz/Tranah
Date Typed 2 Sep 87
Word Processor Number 11331

7

AUGUST
1987

ONslow BEACH

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

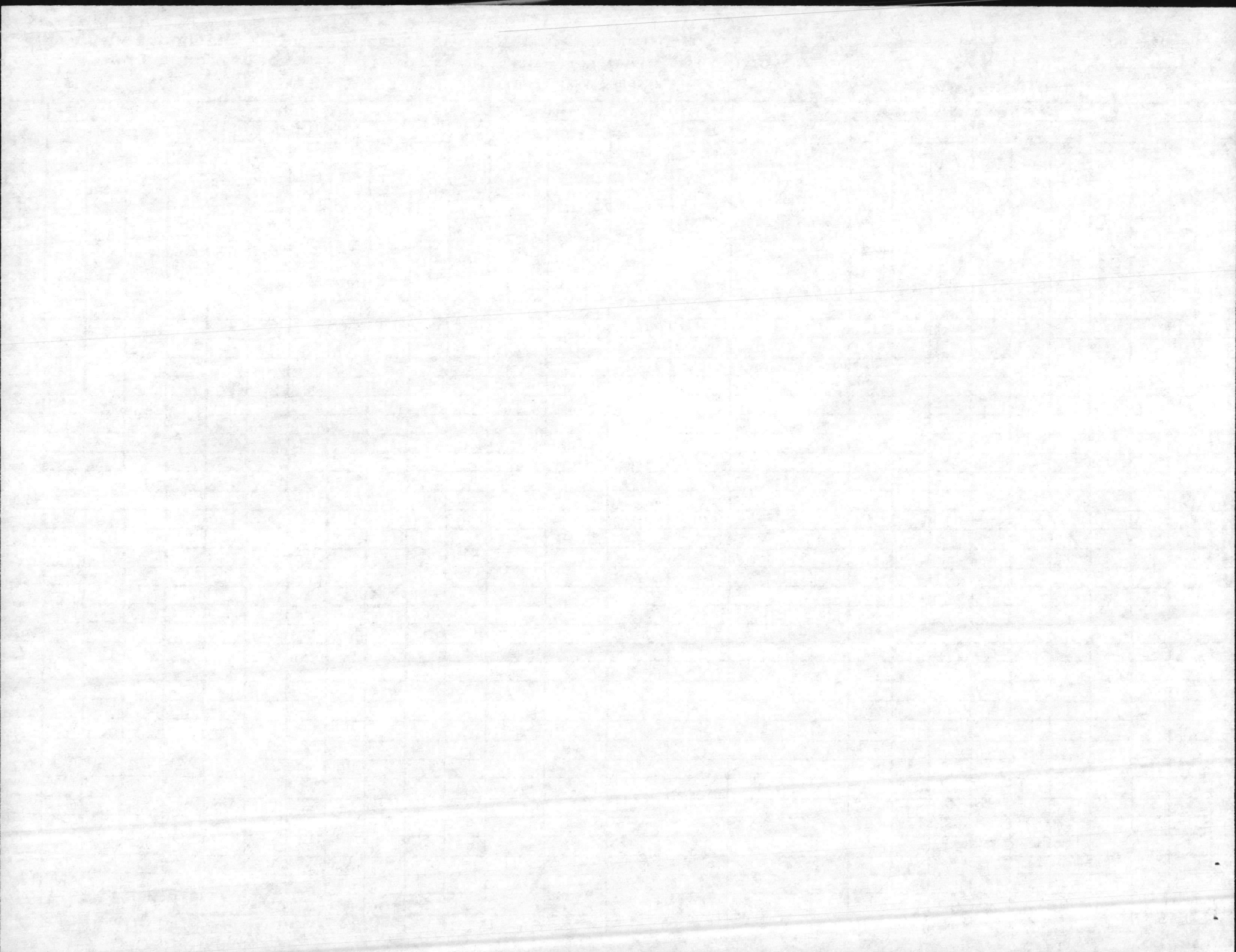
Serial # 04-67-048

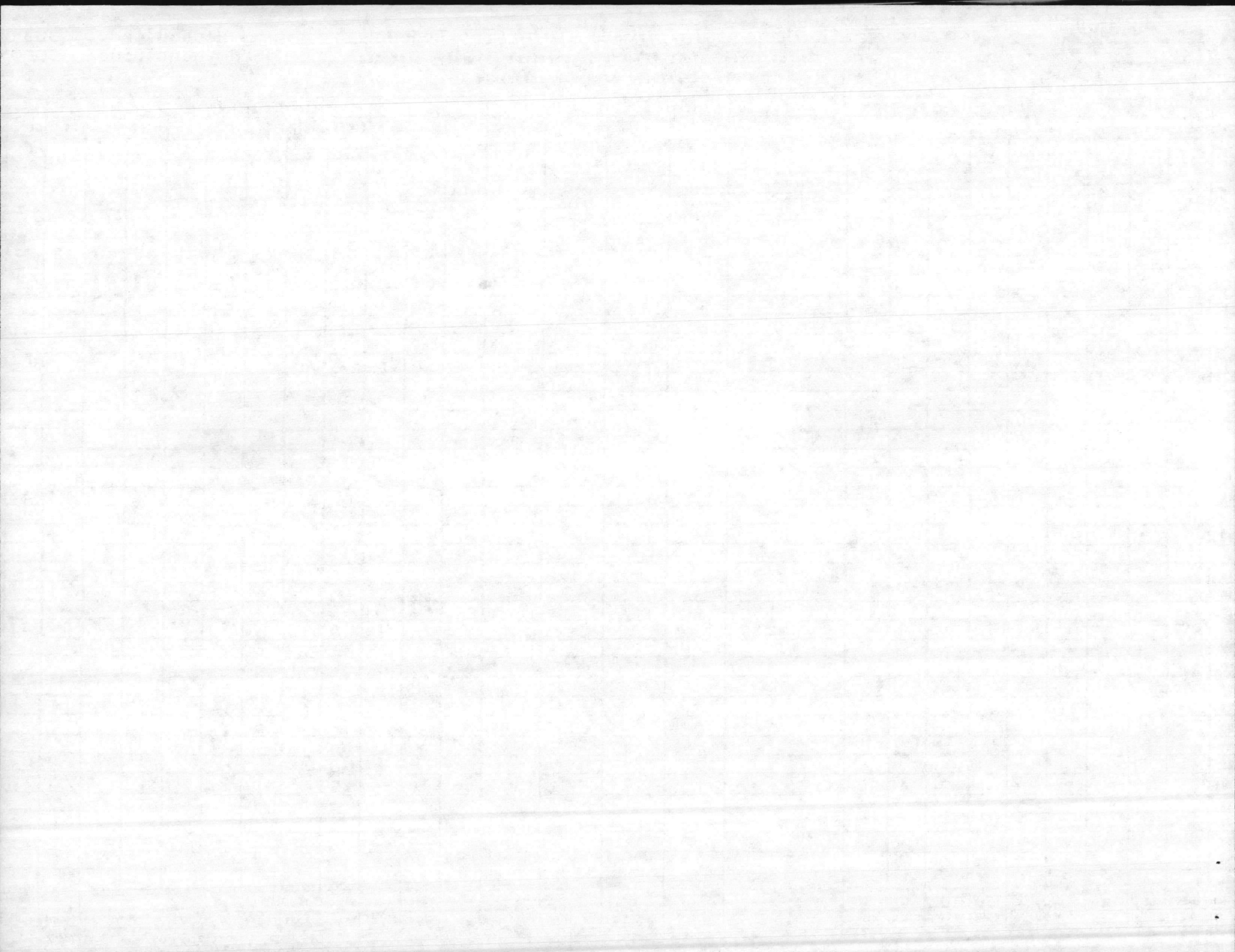
U. S. DEPARTMENT OF HUMAN RESOURCES

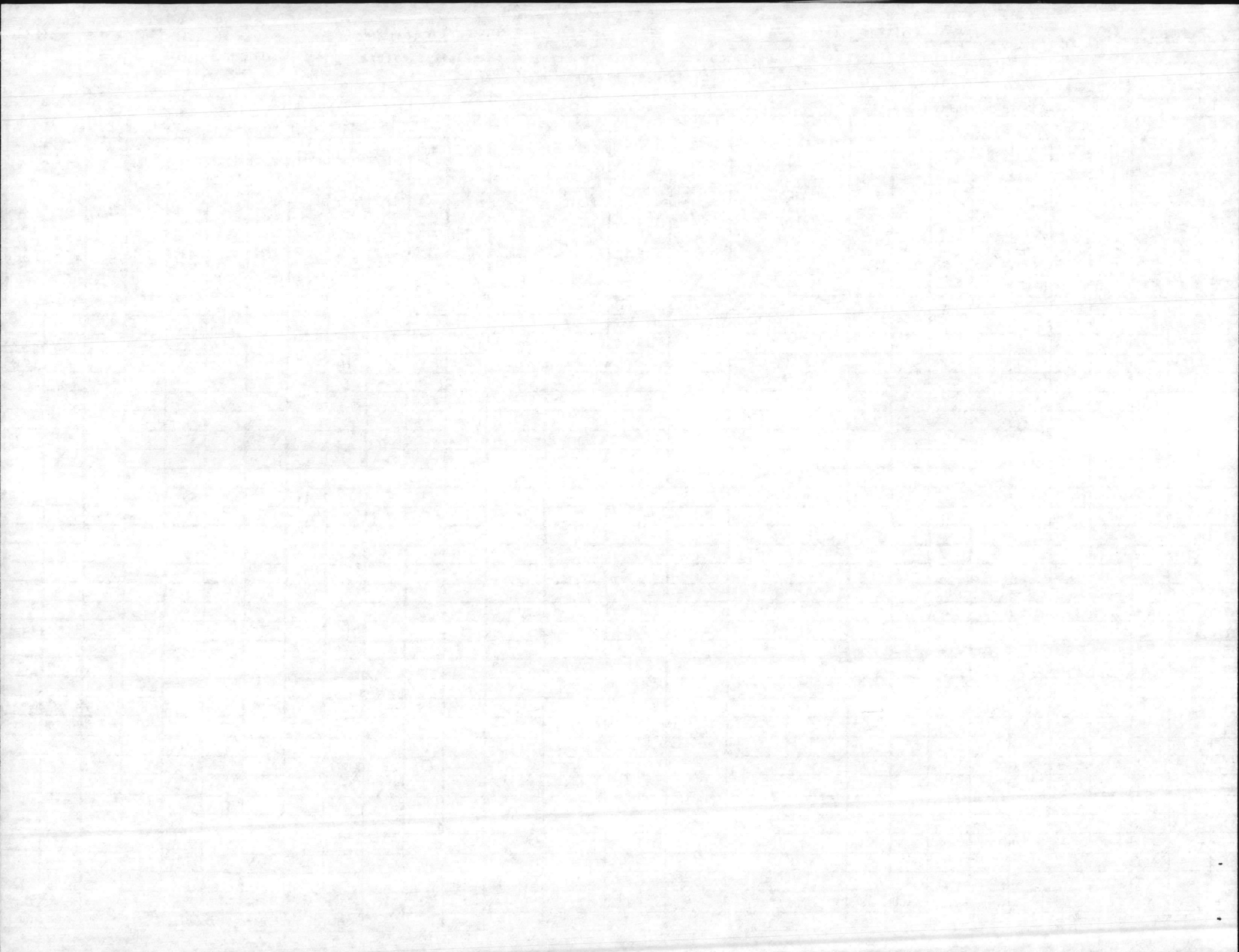
DATE	RAW WATER COLIFORMS (MFP)									NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.					
	A			B			C									1	2	3	4	5	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.						
	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES																				
1																													
2																													
3																													
4	7 4TH															0	2	0	0								35.4		
5																													
6																													
7																													
8																													
9																													
10	7 11TH															0	2	0	0								35.0		
11																													
12																													
13																													
14																													
15																													
16																													
17	7 18TH															0	2	0	0								35.2		
18																													
19																													
20																													
21																													
22																													
23																													
24																													
25	7 25TH															0	2	0	0								35.2		
26																													
27																													
28																													
29																													
30																													
31																													
																0	ENCLOSURE					111	8						
MFC MEDIA		BBI mEndo		BACTERIAL DENSITY		ARITH. MEAN		GEO. MEAN								DIST. SYSTEM		TOTAL NO. SAMPLES		SAMPLES EXCEEDING 3/50.		4/100.		7/200.		13/500-ml		0	

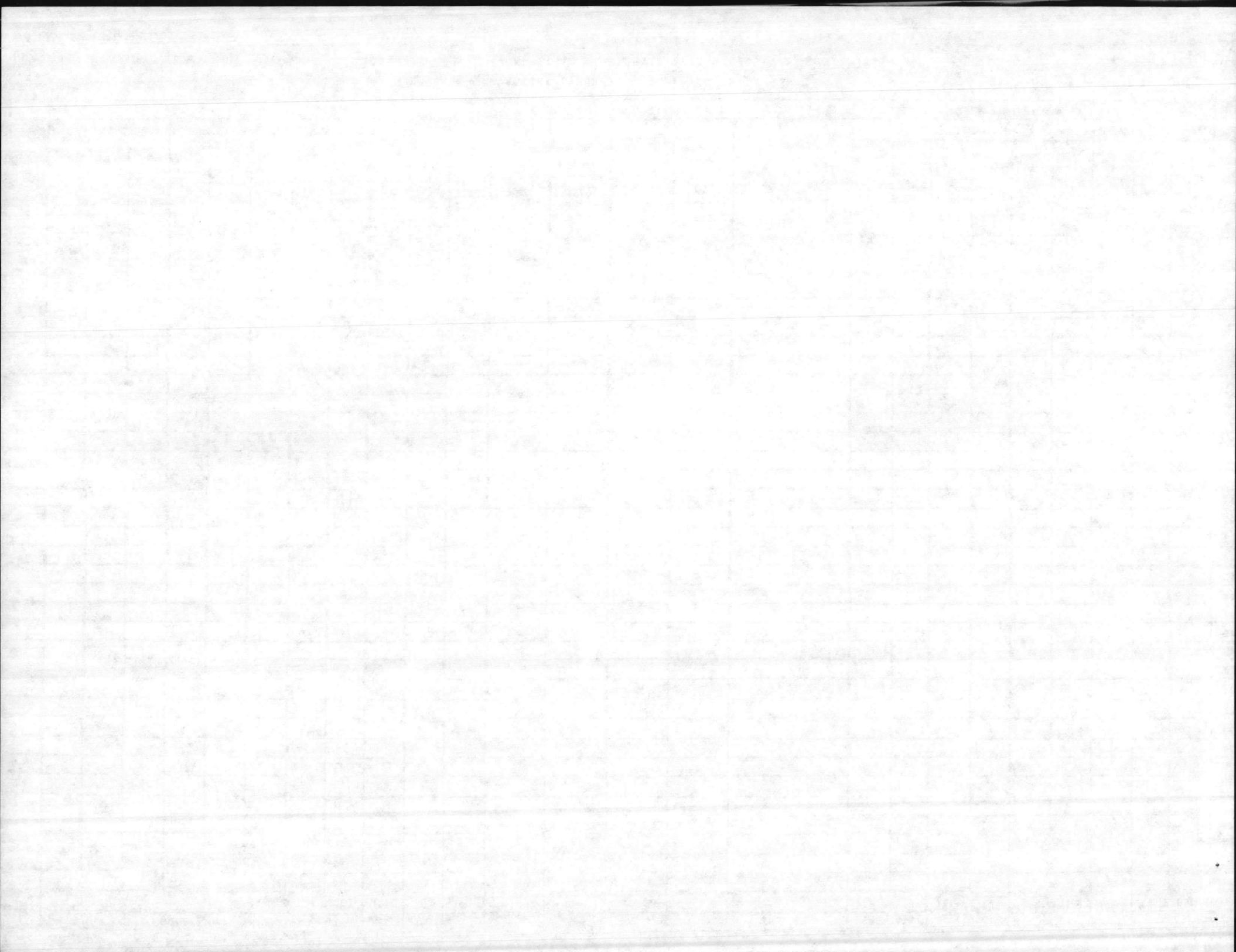
LAB ID # 37807

W. 15TH FEB 1987
POST OFFICE BOX - WELLS # 1087-W









AUGUST
1987

MARINE CORPS AIR STATION

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

Serial # 04-67-042

U. S. DEPARTMENT OF HUMAN RESOURCES

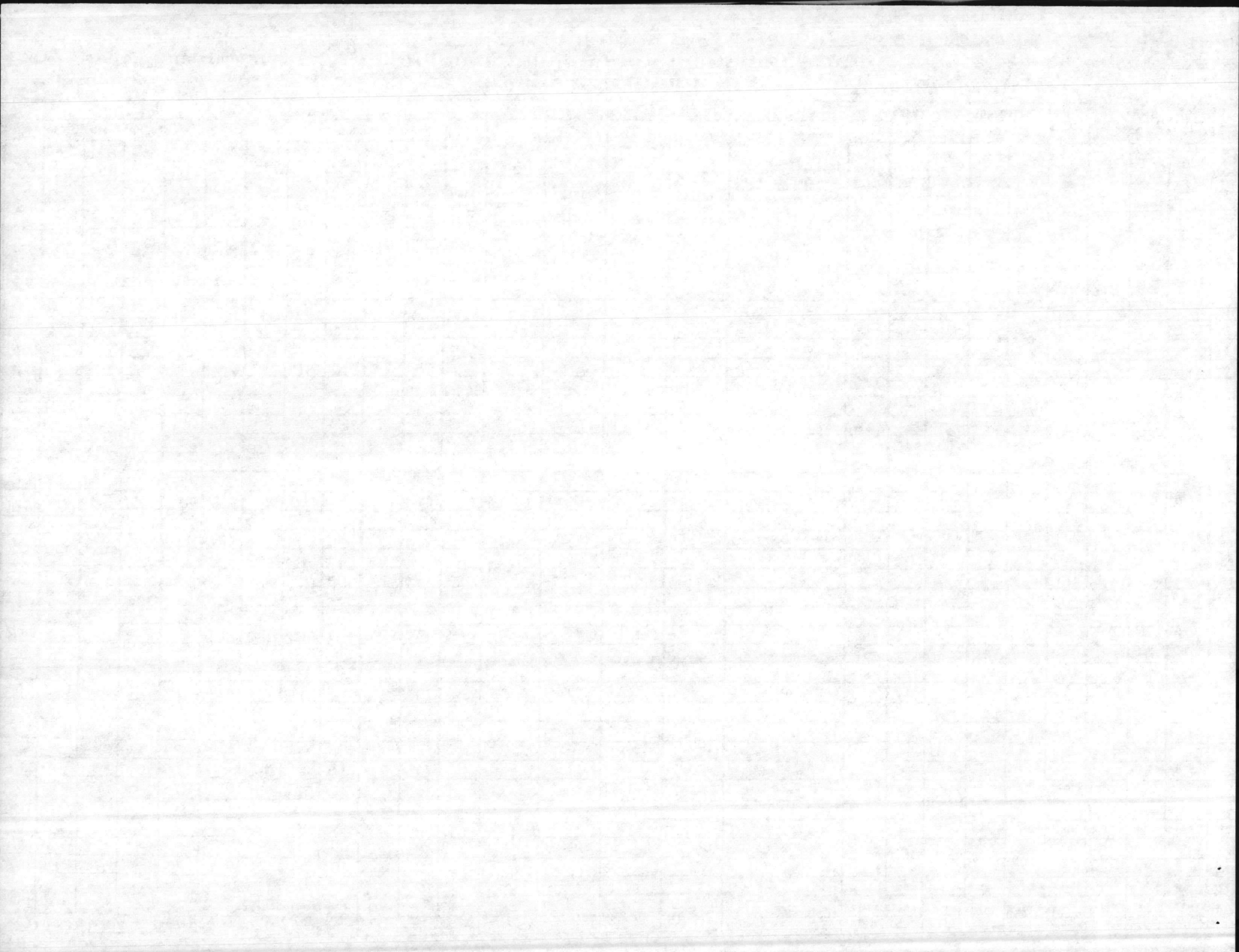
DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED		FINISHED		DISTRIBUTION SYSTEM					TOTAL PLATE COUNT	INCUBATOR TEMP.			
	A		B		C			MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	COLIFORMS (MFP)							REPEAT SAMPLES		
	VOLUME FILTERED 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	7	0	0	0	0	0	35.4		
5																					
6																					
7																					
8																					
9																					
10																					
11												0	7	0	0	1	0	0	35.0		
12																					
13																					
14																					
15																					
16																					
17																					
18												0	7	0	0	0	0	0	35.2		
19																					
20																					
21																					
22																					
23																					
24																					
25												0	7	0	0	1	0	0	35.2		
26																					
27																					
28																					
29																					
30																					
31																					

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

0 1 DIST. SYSTEM TOTAL NO. SAMPLES 28 SAMPLES EXCEEDING 3/50. (4/100, 7/200, 13/500) 0

LAB ID # 37807

DATE: 8/25/87



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

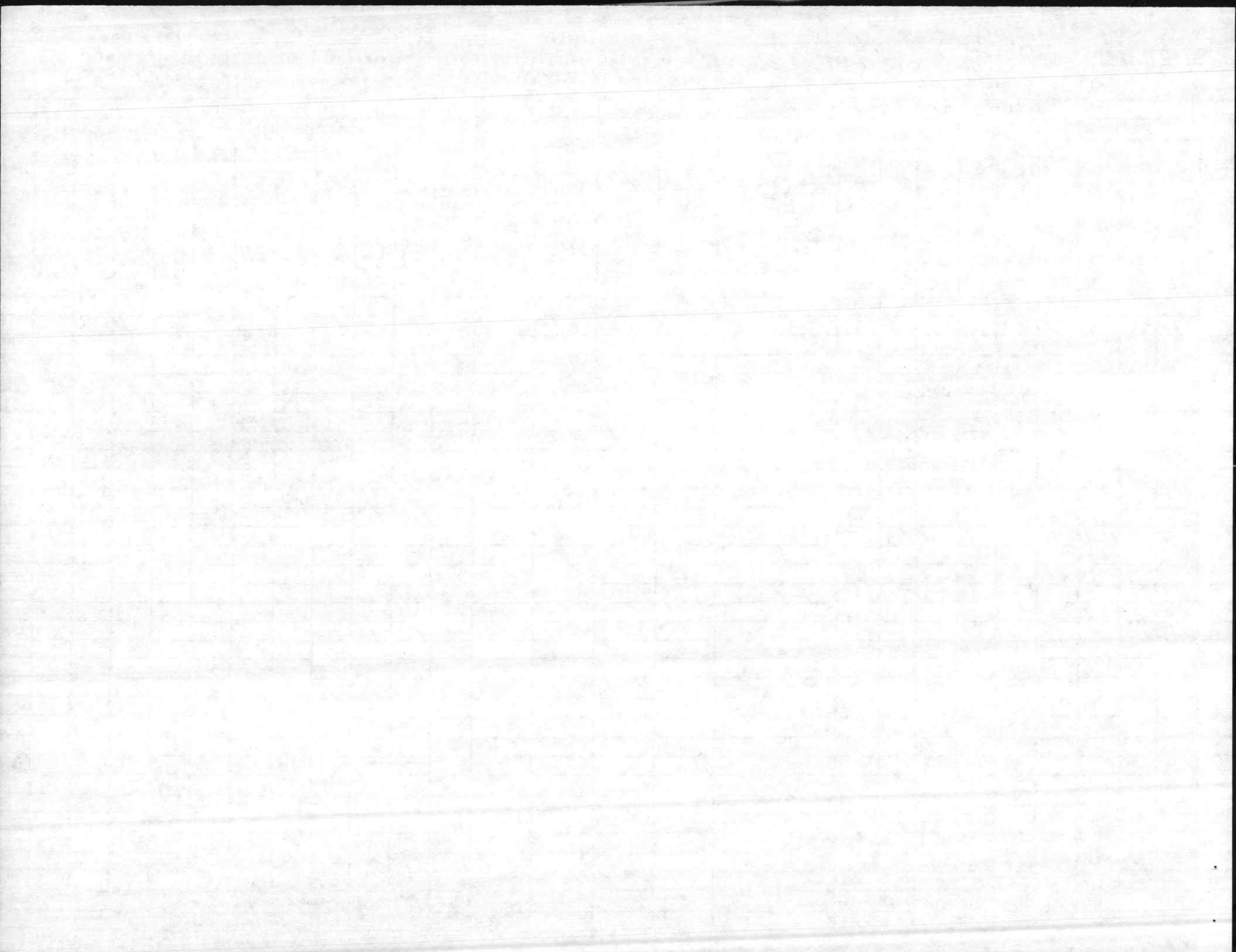
Serial # 04-67-043

U. S. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP)									FILTERED		FINISHED		DISTRIBUTION SYSTEM										INCUBATOR TEMP.				
	A			B			C			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	AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	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.		
1																												
2																												
3																												
4	<u>4TH</u>																											
5																												
6																												
7																												
8																												
9																												
10	<u>7TH</u>																											
11	<u>11TH</u>																											
12																												
13																												
14																												
15																												
16																												
17	<u>7TH</u>																											
18	<u>18TH</u>																											
19																												
20																												
21																												
22																												
23																												
24	<u>7TH</u>																											
25	<u>25TH</u>																											
26																												
27																												
28																												
29																												
30																												
31																												
HF MEDIA <u>BBI mEndo</u> BACTERIAL DENSITY ARITH. MEAN GEO. MEAN															0 1		TOTAL NO. SAMPLES					SAMPLES EXCEEDING 3/50. <u>4/100</u> 7/200. 13/500ml			28			

LAB ID # 37807

Handwritten notes: 4/100 7/200 13/500ml # 4087-W



AUGUST
1987

RIFLE RANGE

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

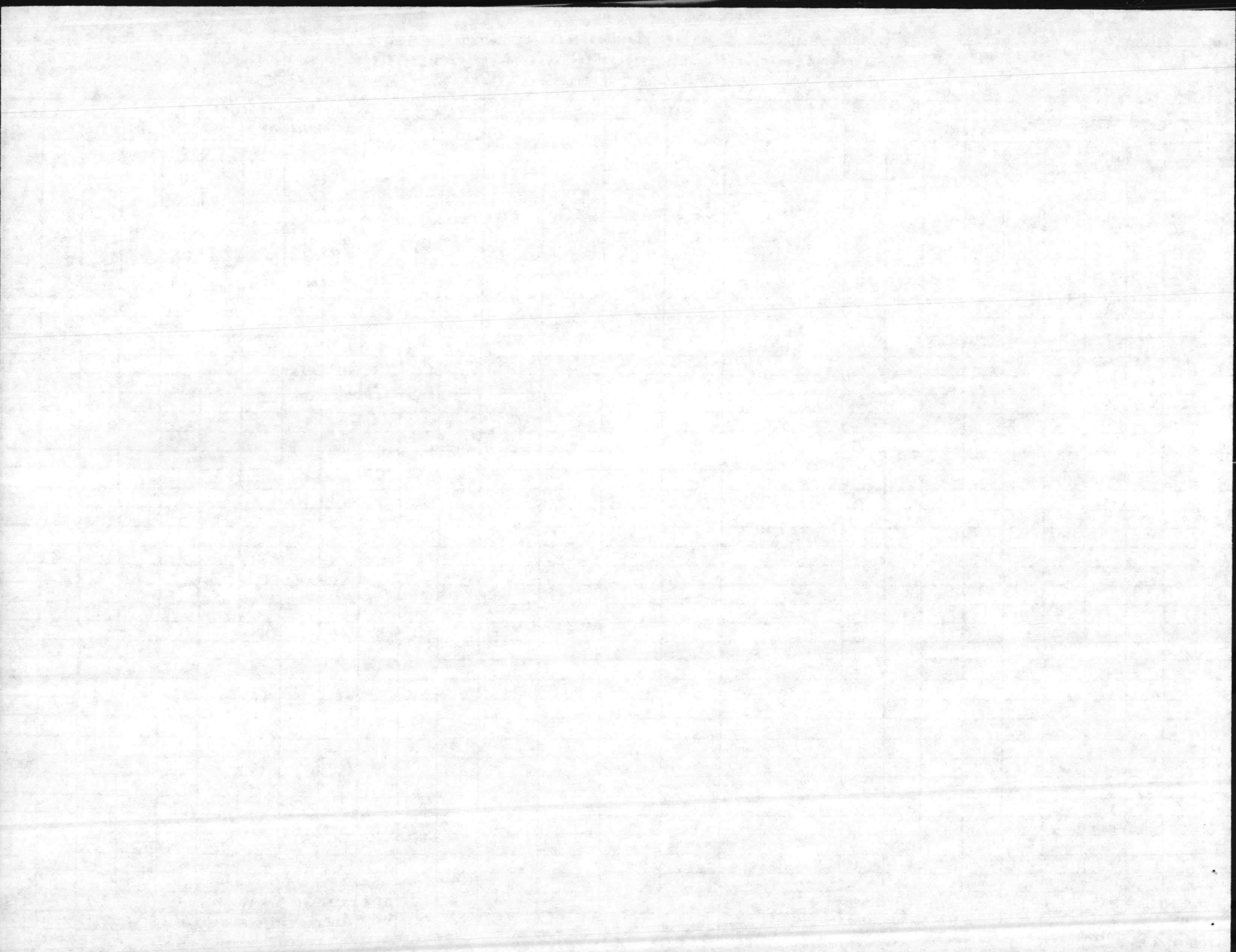
Serial # 04-67-046

U. S. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP)									NO. OF COLIFORMS PER 100 ml.	FILTERED		FINISHED		DISTRIBUTION SYSTEM						TOTAL PLATE COUNT						
	A			B			C				TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	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							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.	
1																											
2																											
3																											
4	7 4TH																	0	3	0	0	0				35.4	
5																											
6																											
7																											
8																											
9																											
10																											
11	7 11TH																	0	3	0	0	10				35.0	
12																											
13																											
14																											
15																											
16																											
17																											
18	7 18TH																	0	3	0	0	0				35.2	
19																											
20																											
21																											
22																											
23																											
24																											
25	7 25TH																	0	3	0	0	10				35.2	
26																											
27																											
28																											
29																											
30																											
31																											
MFP MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN		GEO. MEAN																			
JPC MEDIA																											
														0	DIST. SYSTEM	TOTAL NO. SAMPLES					SAMPLES EXCEEDING 3/50			4/100	7/200	13/500ml	12

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 # 04-67-041

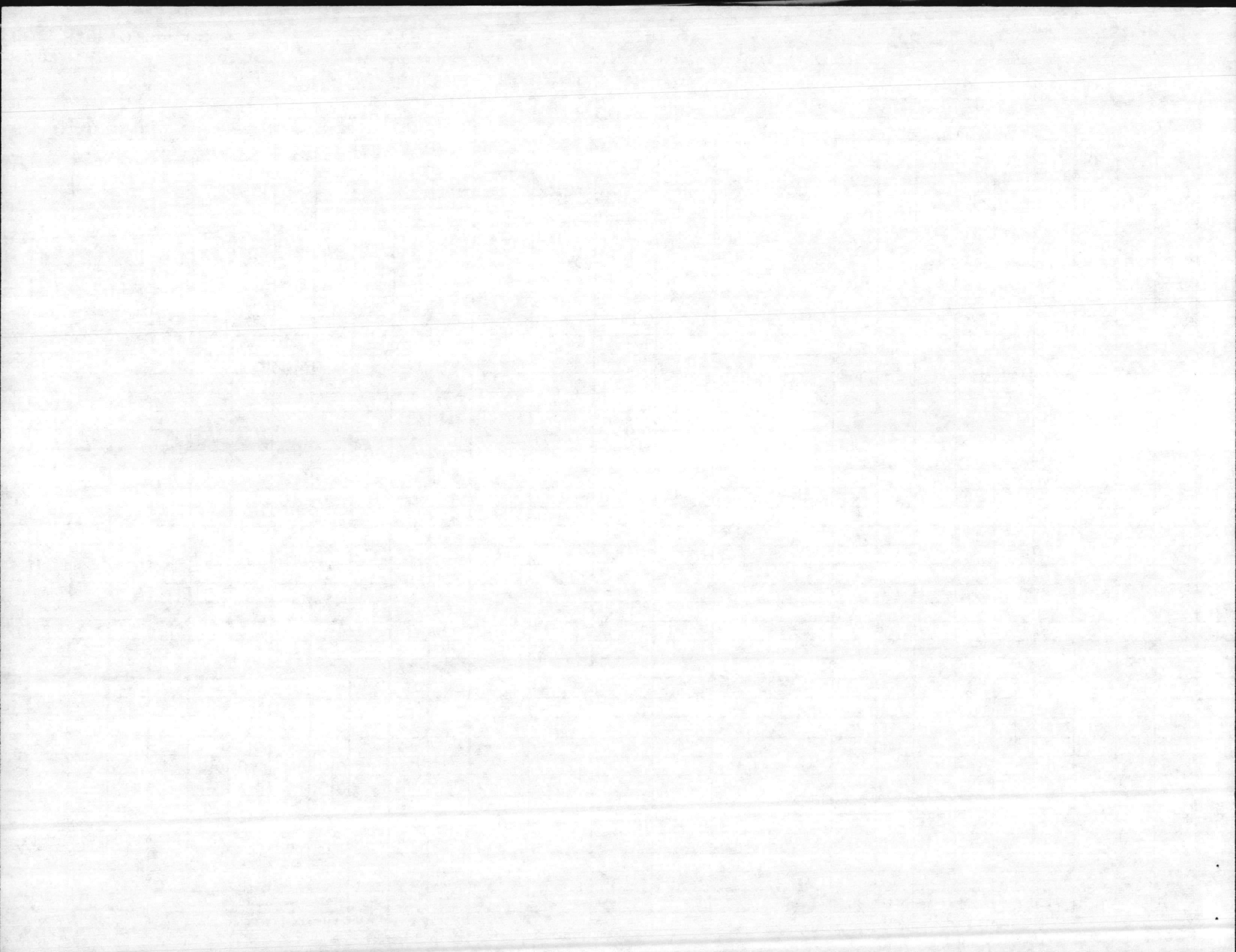
N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP)									NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	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	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.			
1																											
2																											
3																											
4	7/17																0	9	0	0	0	0	0	0	0	0	35.4
5																											
6																											
7																											
8																											
9																											
10	7/18																										
11																	0	9	0	0	0	0	0	0	0	10	35.4
12																											
13																											
14																											
15																											
16																											
17	7/18																										
18																	0	9	0	0	0	0	0	0	0	0	35.4
19																											
20																											
21																											
22																											
23																											
24																											
25	7/25																0	9	0	0	0	0	10	0	0	0	35.4
26																											
27																											
28																											
29																											
30																											
31																											

MF MEDIA BRI mEndo BACTERIAL DENSITY ARITH. MEAN 0 DIST. SYSTEM 1 TOTAL NO. SAMPLES 36
 TPC MEDIA 1 SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500 0

LAB ID # 37807

WATER TREATMENT PLANT AT CAMP LEJEUNE # 4087-W



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 1.00	0.57	AM 1.00	0.12	0.10	0.14		
	PM 1.00		PM 0.94					
TURBIDITY (NTUS)	AM 0.8	1.0	AM 0.8	0.6	0.7	0.9		
	PM 1.5		PM 0.6					
CHLORINE RESIDUAL (PPM)	1.1	0.8	1.1	1.2	1.0	1.1		

REMARKS:

COPY TO:

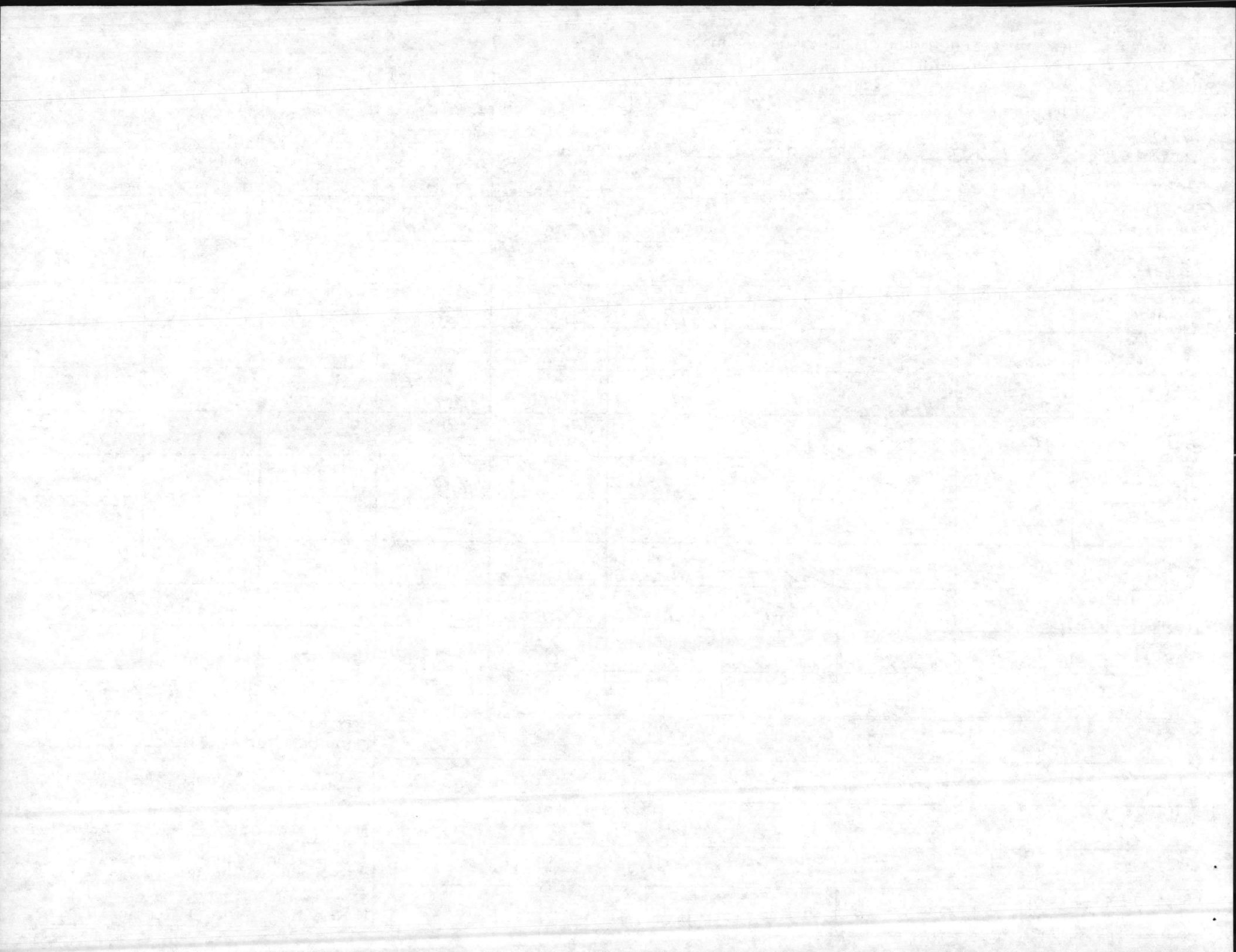
- UTIL DIR, BMD
- WATER TREATMENT, UTIL DIV, BMD
- PMU, NAVHOSP PMU, MCAS-NR
- DIVISION OF HEALTH SERVICES
N.C. DEPT OF HUMAN RESOURCES
- NREAD FILE (ATTACH WKST)

REPORT DATE:

8-11-87

REPORT PREPARED BY:

H.J. BURNS



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	ONSLow 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 0.70 0.61	0.65	0.96 1.14	0.14	0.11	0.15			
TURBIDITY (NTUS)	AM PM 0.7 0.7	1.3	0.8 0.9	0.7	0.8	0.8			
CHLORINE RESIDUAL (PPM)	1.0	0.7	1.4	1.2	1.1	1.1			

REMARKS:

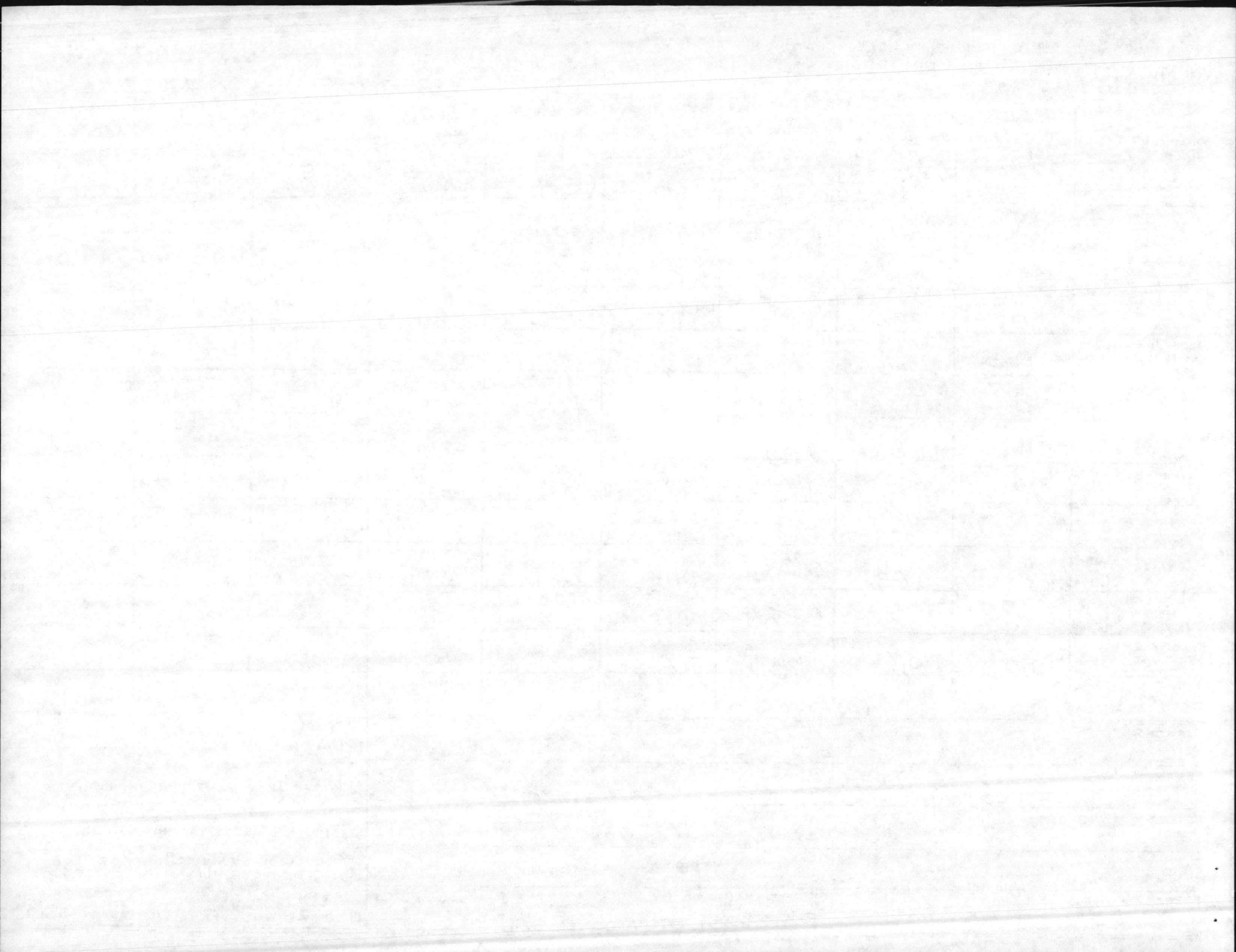
- COPY TO:
- UTIL DIR, BMD
 - WATER TREATMENT, UTIL DIV, BMD
 - PMU, NAVHOSP PMU, MCAS-NR
 - DIVISION OF HEALTH SERVICES
 - N.C. DEPT OF HUMAN RESOURCES
 - NREAD FILE (ATTACH WKST)

REPORT DATE:

8-25-87

REPORT PREPARED BY:

CAROL S. SHORES



ENVIRONMENTAL CHEMISTRY & MICROBIOLOGY LABORATORY REPORT
 CHEMICAL ANALYSIS - WATER TREATMENT PLANTS
 MCBCL 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		
	AM PM	0.3 0.5	0.2	0.2 0.3	0.1	0.1	0.1		
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, NAYHOSP PMU, MCAS-NR

DIVISION OF HEALTH SERVICES
 N.C. DEPT OF HUMAN RESOURCES

NREAD

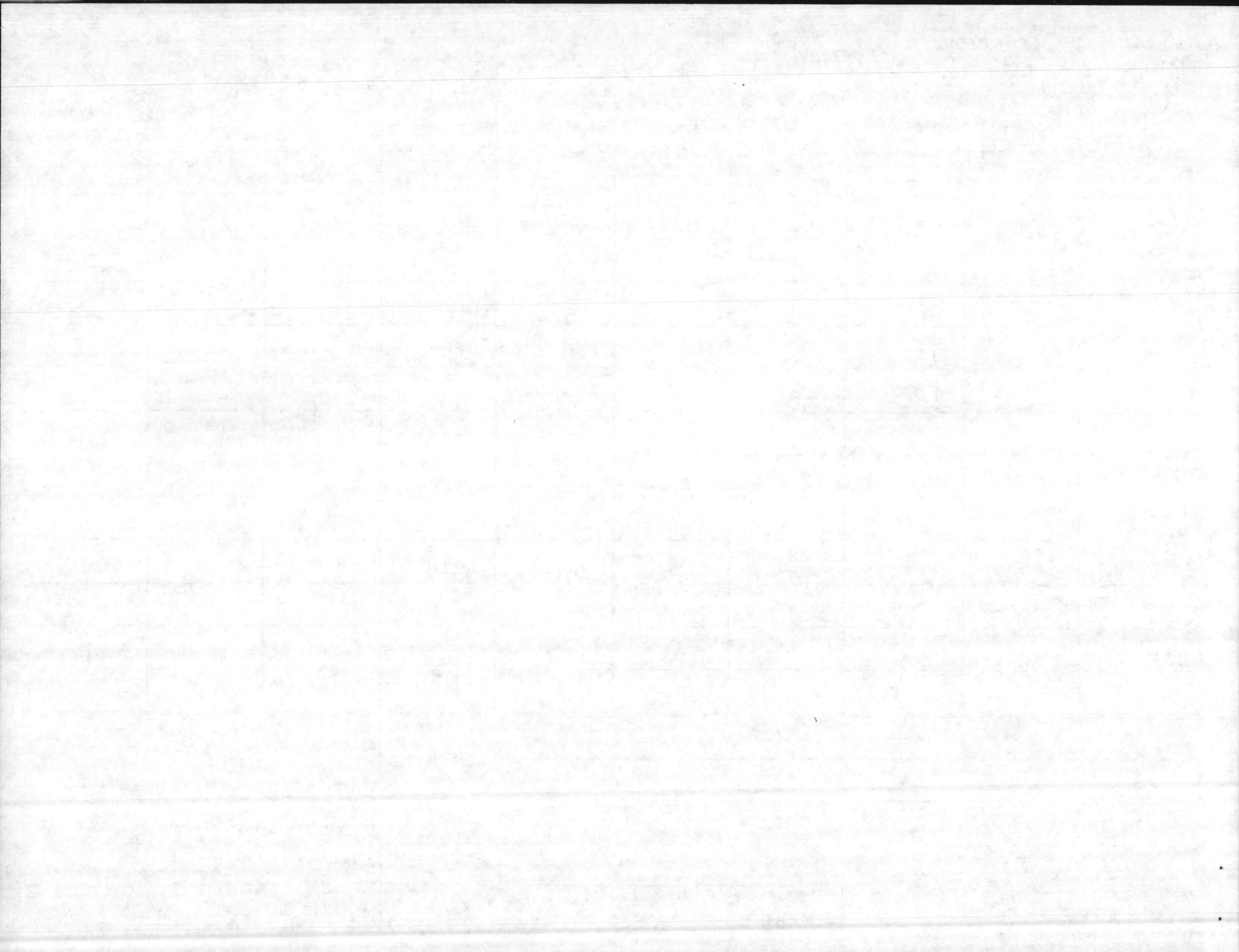
FILE (ATTACH WKST)

REPORT DATE:

8-18-87

REPORT PREPARED BY:

CAROL S. SHORES



ENVIRONMENTAL CHEMISTRY & MICROBIOLOGY LABORATORY REPORT
 CHEMICAL ANALYSIS - WATER TREATMENT PLANTS
 MC8CL 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	ON SLOW 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		
	AM PM	0.3 0.2	0.2	0.1 0.2	0.1	0.1	0.1		
TURBIDITY (NTUS)									
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

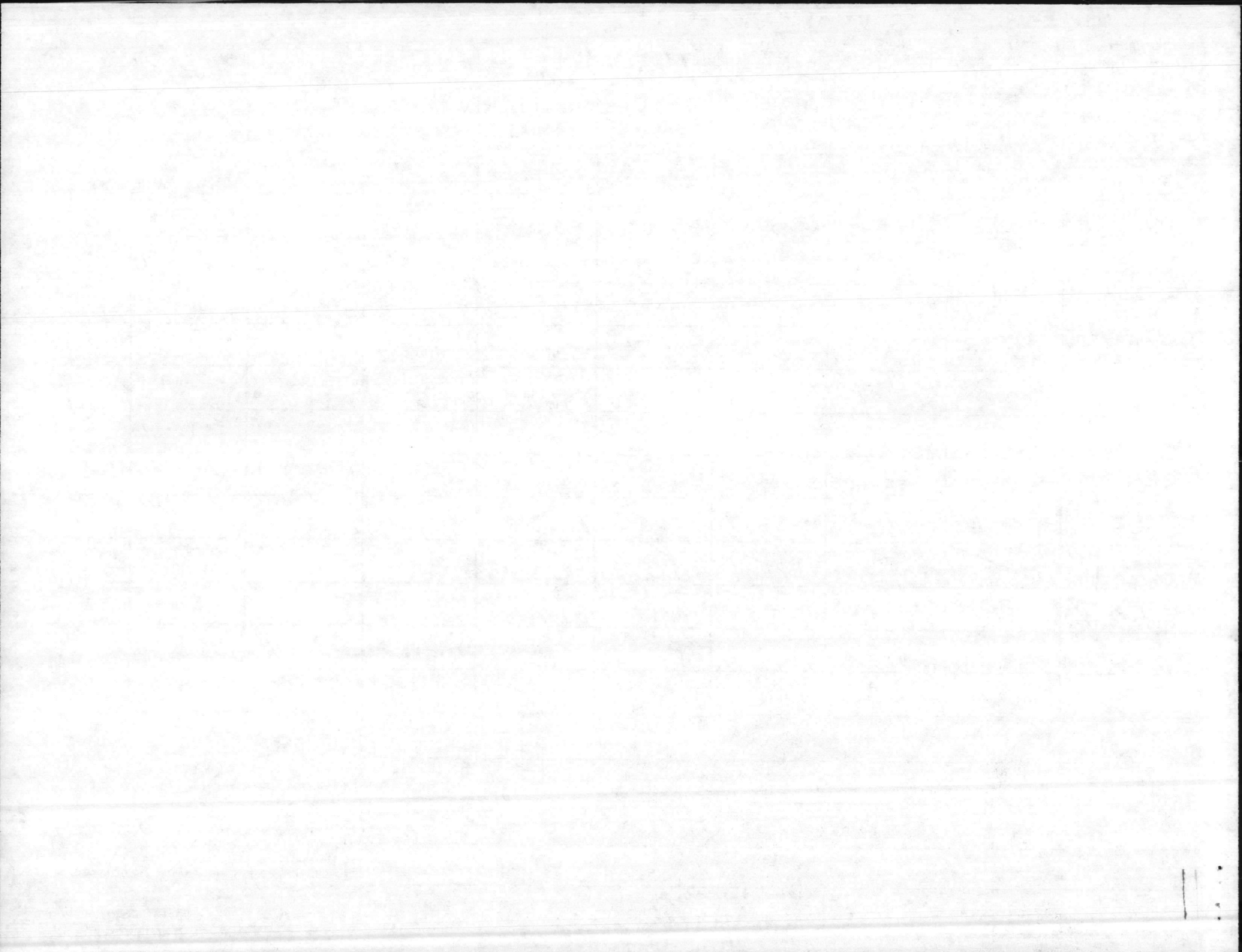
REPORT PREPARED BY:

H.J. BURNS

NREAD

FILE (ATTACH WKST)

ENCLOSURE (2)



11331

NREAD

7 Aug 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 July 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,

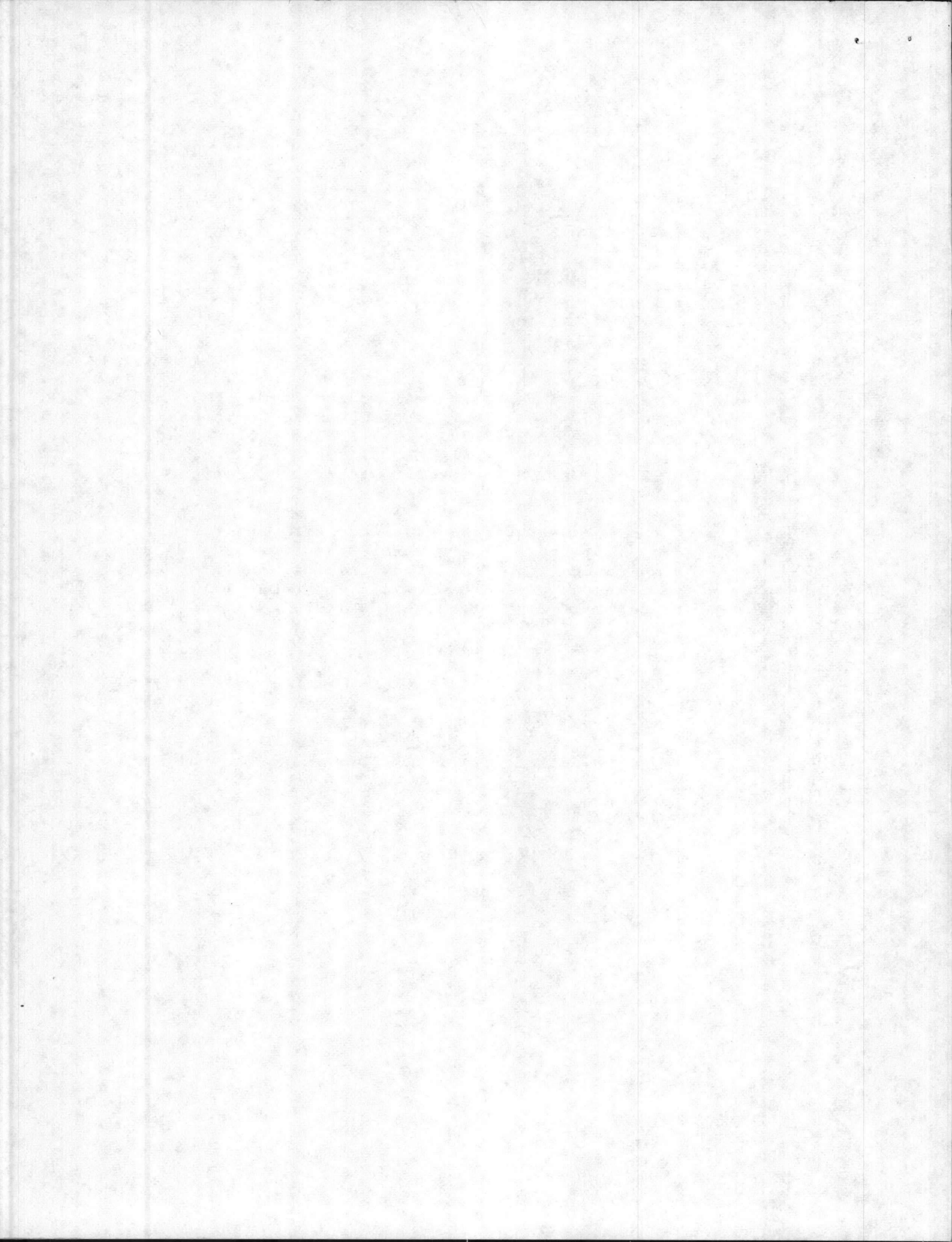
JULIAN I. WOOTEN
Director, Natural Resources Division
By direction of the Commanding General

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

Copy to:
LANTNAVFACENCOM (Code 114)

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

W/enc. copy Betz/Trianoski
Date typed 7 Aug 87
Word Processor Number 11331



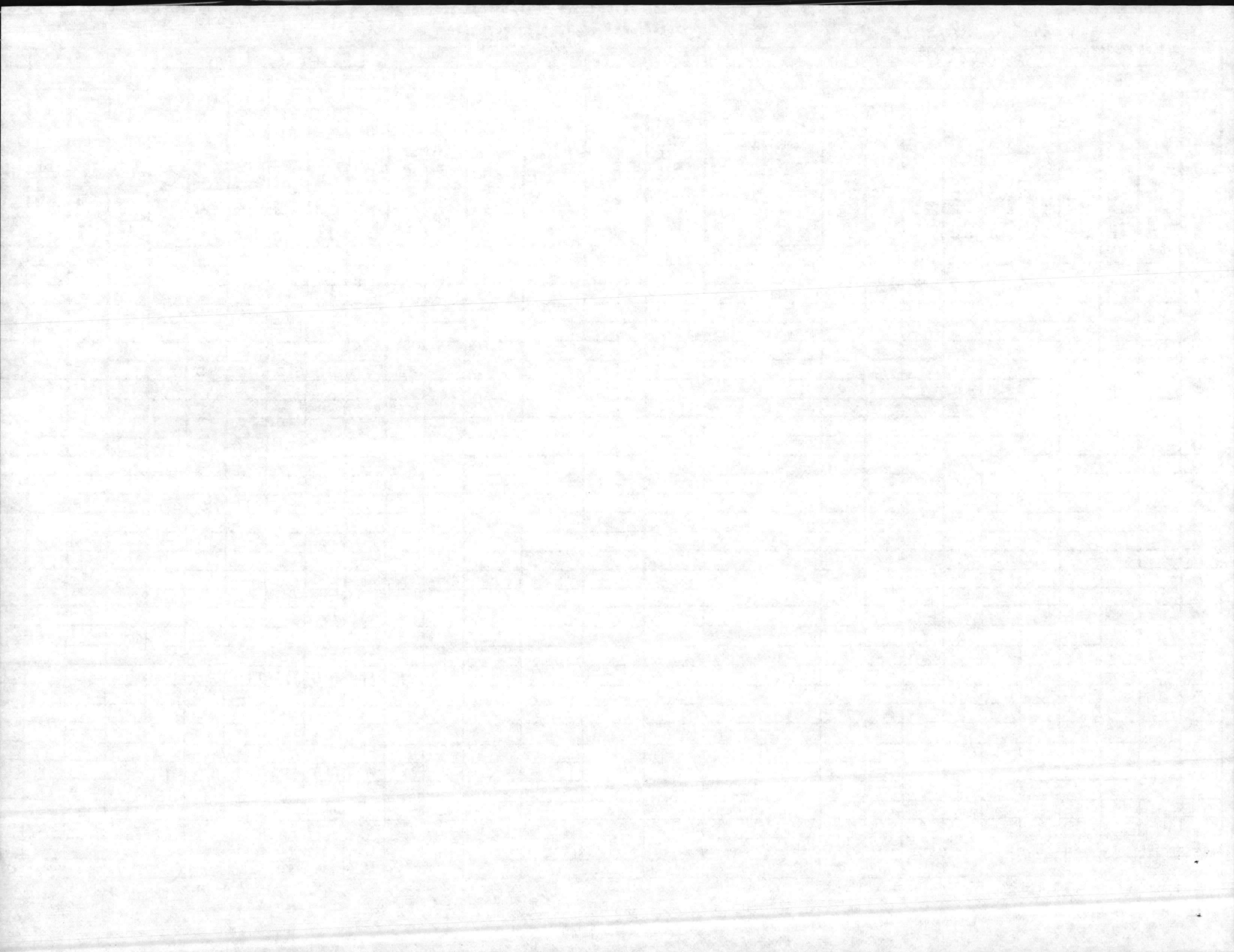
Serial # 04-67-041

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	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES							1	2	3	4	5	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.		
1																					
2																					
3																					
4																					
5																					
6																					
7	27											0	9	0	0	0	0	0	0	0	35
8																					
9																					
10																					
11																					
12																					
13																					
14	14											0	9	0	0	0	0	0	0	0	35
15																					
16																					
17																					
18																					
19																					
20																					
21																					
22																					
23	23											0	9	0	0	0	0	0	0	0	35
24																					
25																					
26																					
27																					
28	28											0	9	0	0	0	0	0	0	0	35
29																					
30																					
31																					
MFP MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN		GEO. MEAN				0	DIST. SYSTEM	TOTAL NO. SAMPLES							36
TPC MEDIA												1.0		SAMPLES EXCEEDING 1/50. (4/100) 7/200. 13/500=1							0

LAB ID # 37807

Elizabeth A. Betty

CERT. GRADE: B-WELL # 4087-W

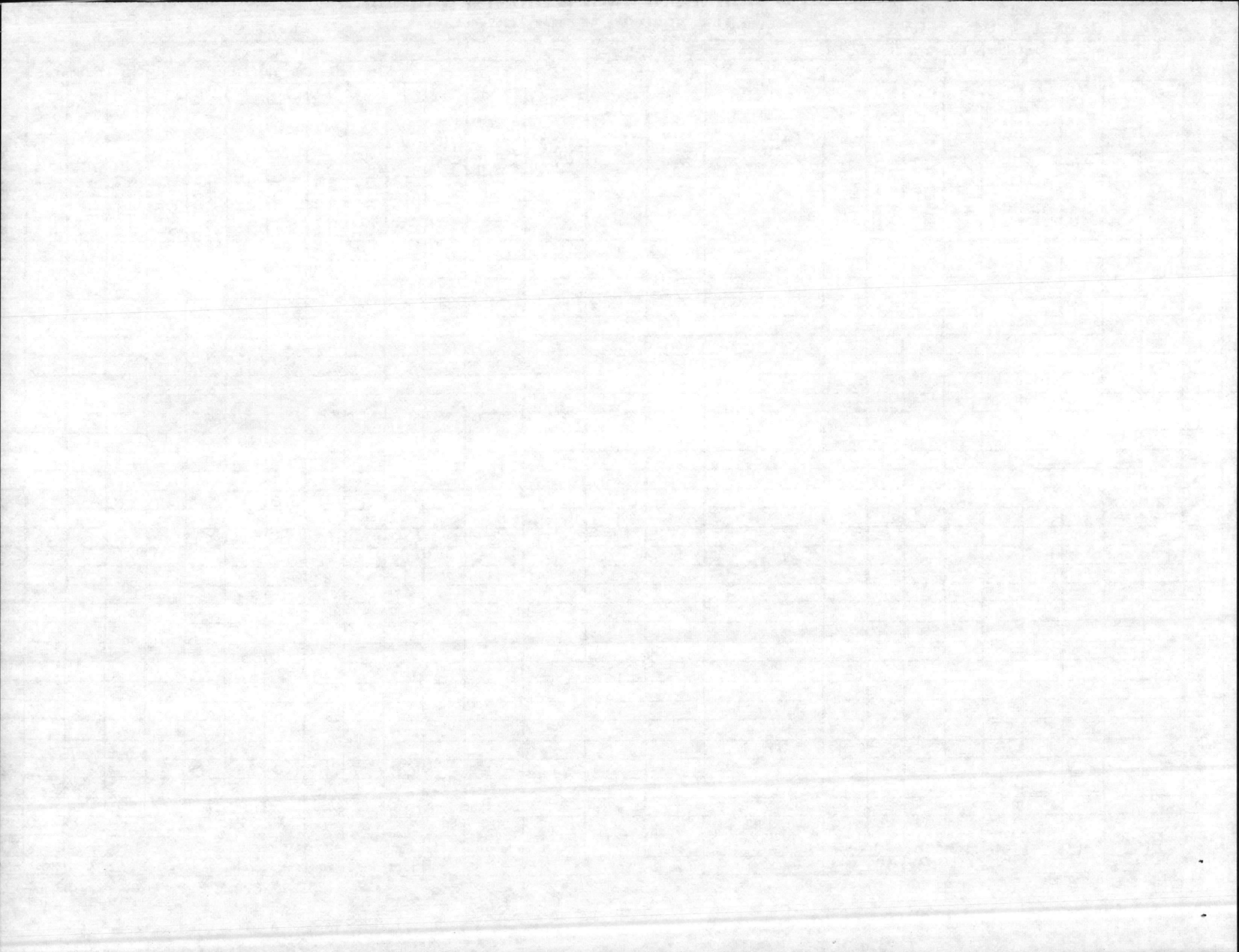


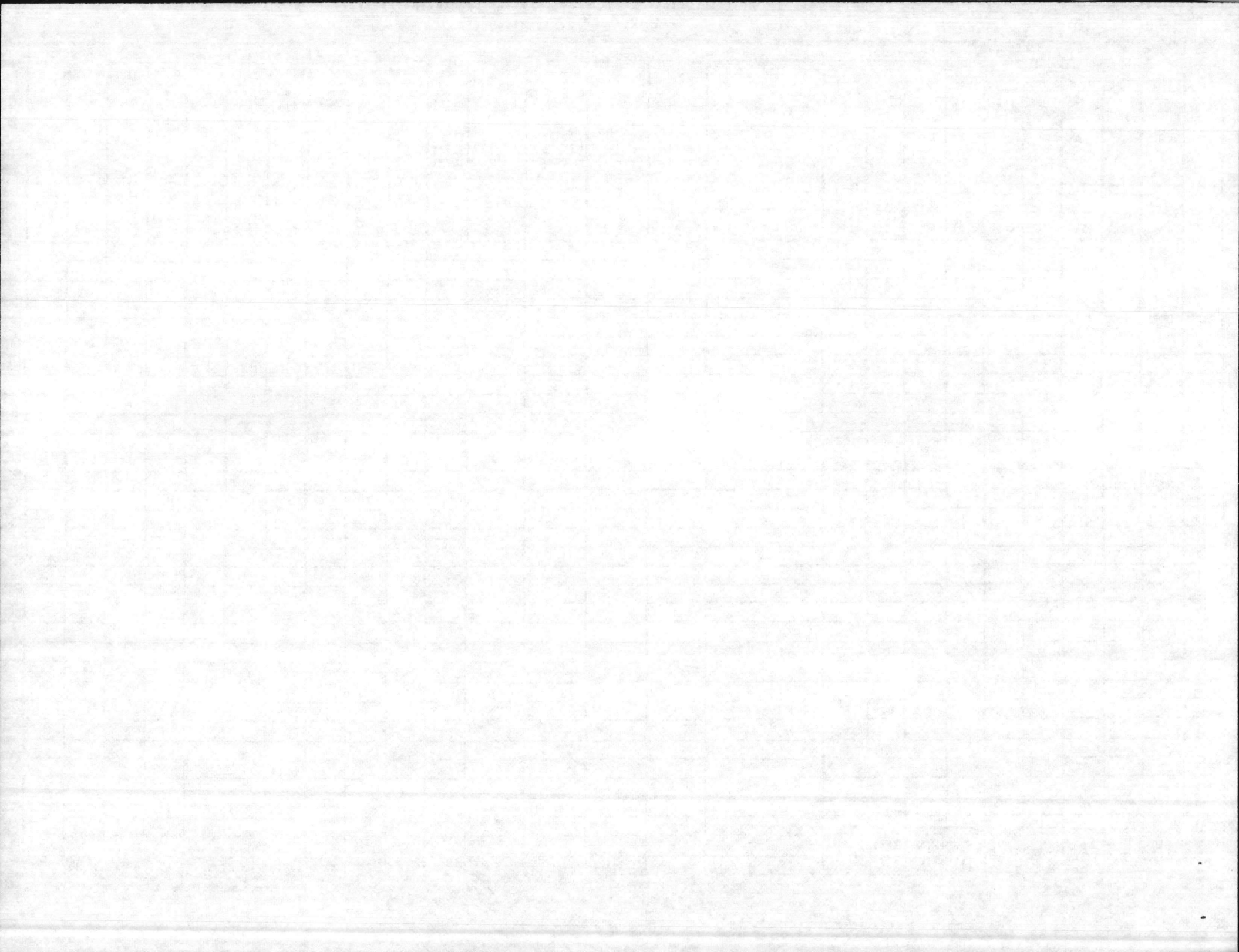
DATE	RAW WATER COLIFORMS (MFP)									NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM					REPEAT SAMPLES			INCUBATOR TEMP.			
	A			B			C									COLIFORMS (MFP)											
	VOLUME FILTERED ml.	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.				
1																											
2																											
3																											
4																											
5																											
6																											
7	7													0	7	0	0	0	0	0	0						35
8																											
9																											
10																											
11																											
12																											
13																											
14	14													0	7	0	0	0	0		0	0					35
15																											
16																											
17																											
18																											
19																											
20																											
21																											
22																											
23																											
24																											
25																											
26																											
27																											
28	28													0	7	0	0	0		0							35
29																											
30																											
31																											
MF MEDIA		BRI mEndo		BACTERIAL DENSITY		ARITH. MEAN		GEO. MEAN						0		DISTR. SYSTEM		TOTAL NO. SAMPLES								21	
- TPC MEDIA														1.0				SAMPLES EXCEEDING 3/50, 4/100, 7/200, 13/500-ml								0	

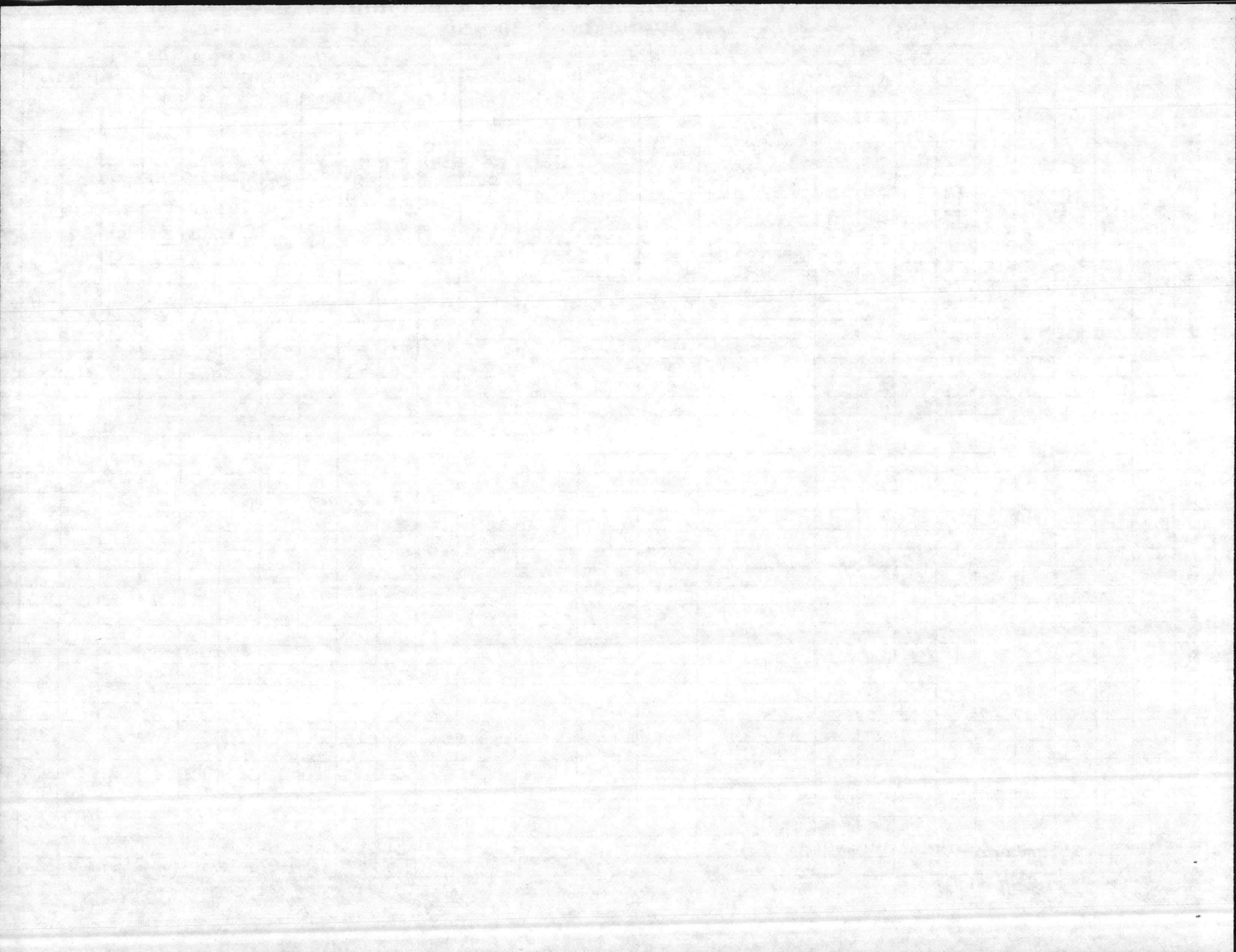
LAB ID # 37807

Elizabeth O. Betty

CERT GRADE: B-WELL # 4087-W





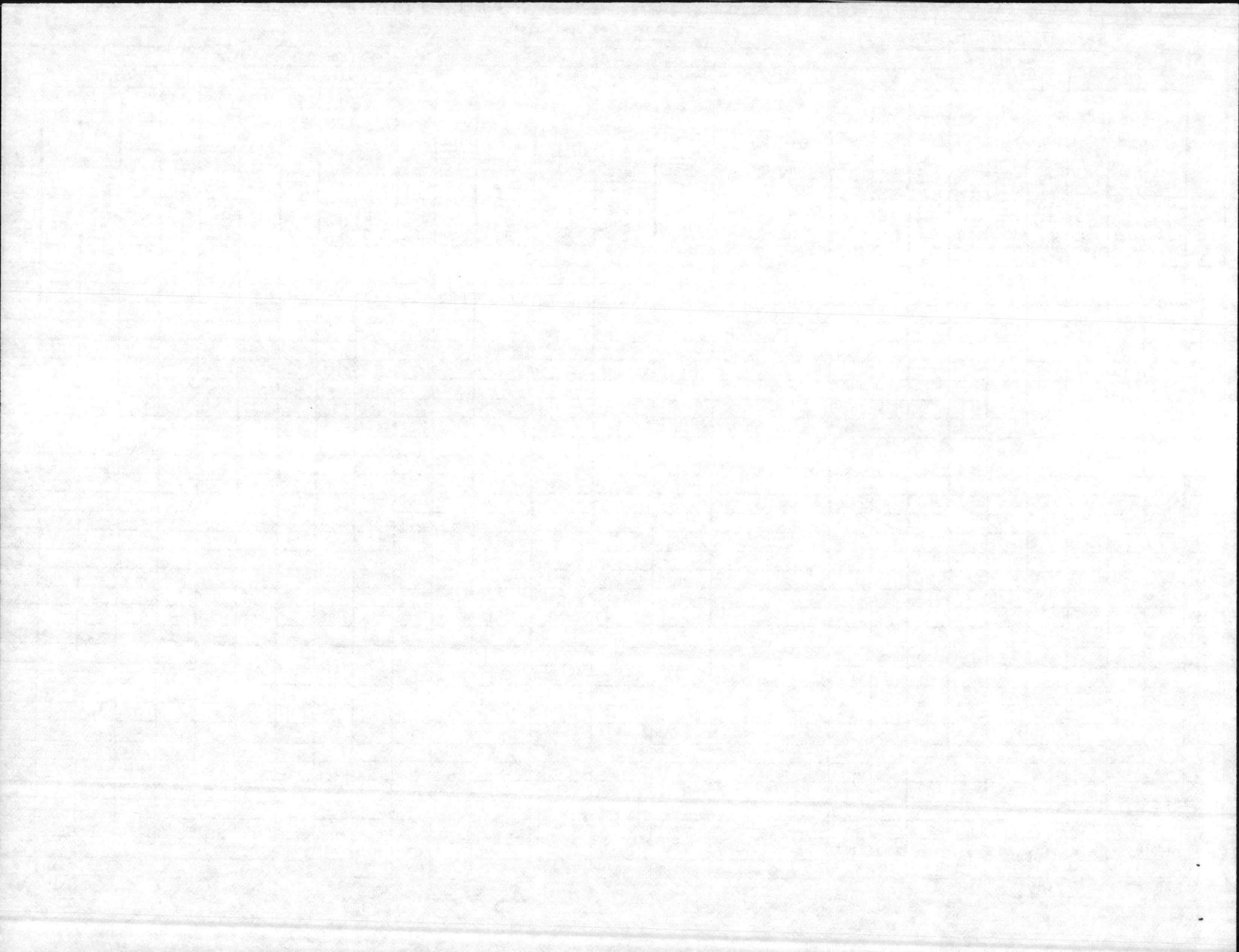


Serial # 04-67-045

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	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.																																																																	
1																																																																																									
2																																																																																									
3																																																																																									
4																																																																																									
5																																																																																									
6																																																																																									
7	7																0	2	0	0					35.4																																																																
8																																																																																									
9																																																																																									
10																																																																																									
11																																																																																									
12																																																																																									
13																																																																																									
14	14																5	2	0	0					35.4																																																																
15																																																																																									
16																																																																																									
17																																																																																									
18																																																																																									
19																																																																																									
20																																																																																									
21																																																																																									
22																																																																																									
23																																																																																									
24																																																																																									
25																																																																																									
26																																																																																									
27																																																																																									
28	28																0	2	0	10					35.1																																																																
29																																																																																									
30																																																																																									
31																																																																																									
MF MEDIA										RBI mEndo										BACTERIAL DENSITY										ARITH. MEAN																				0										DIST. SYSTEM										TOTAL NO. SAMPLES										6									
TPC MEDIA																														GEO. MEAN																				1.0																				SAMPLES EXCEEDING 3/50. (4/100). 7/200. 13/500=1										0									

LAB ID # 37807

Elizabeth A. Betz CERT GRADE: B-WELL # 4087-W



Serial # 04-67-046

RIRLE RANGE

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

CONTAMINANT CODE: 506

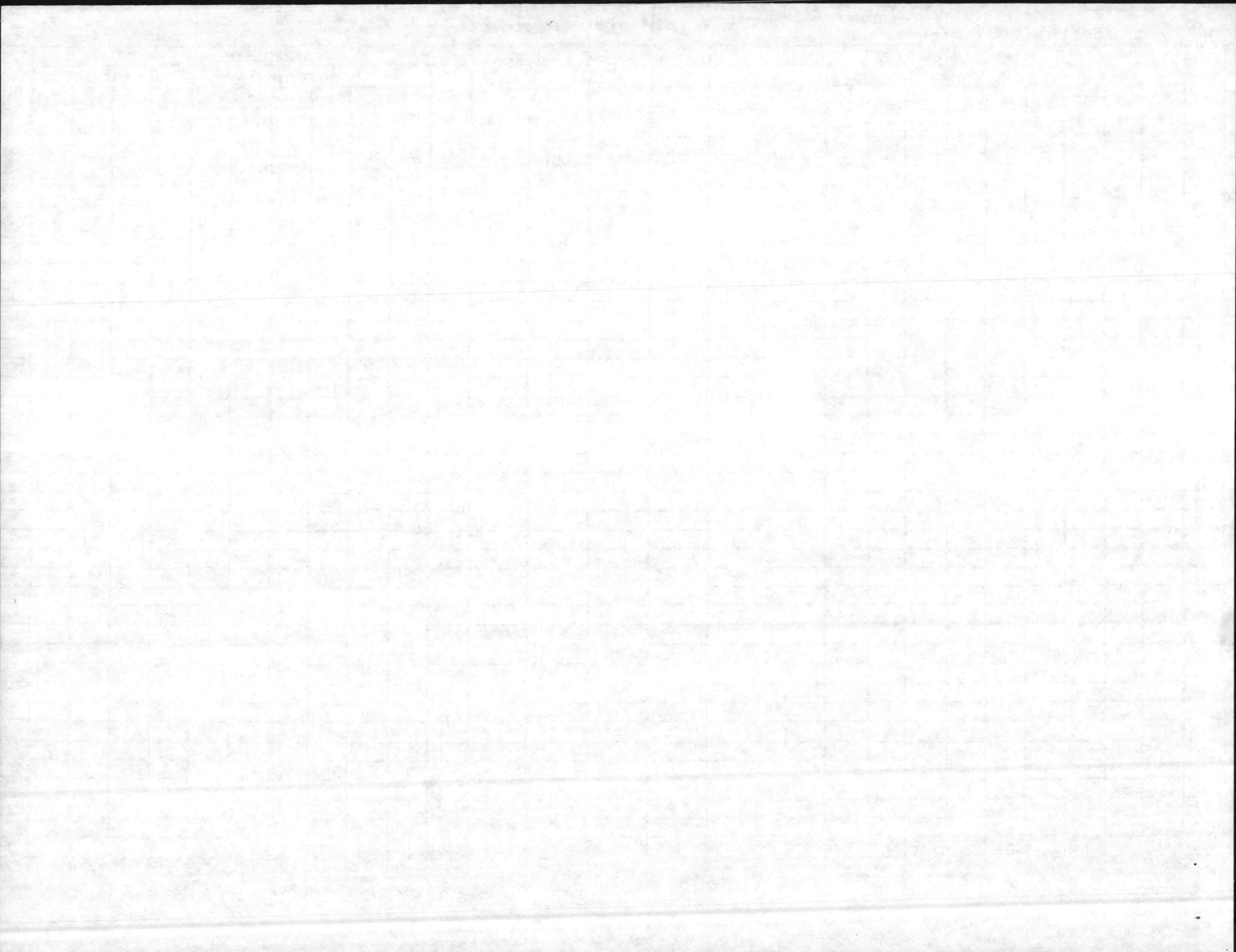
N. C. DEPARTMENT OF HUMAN RESOURCES

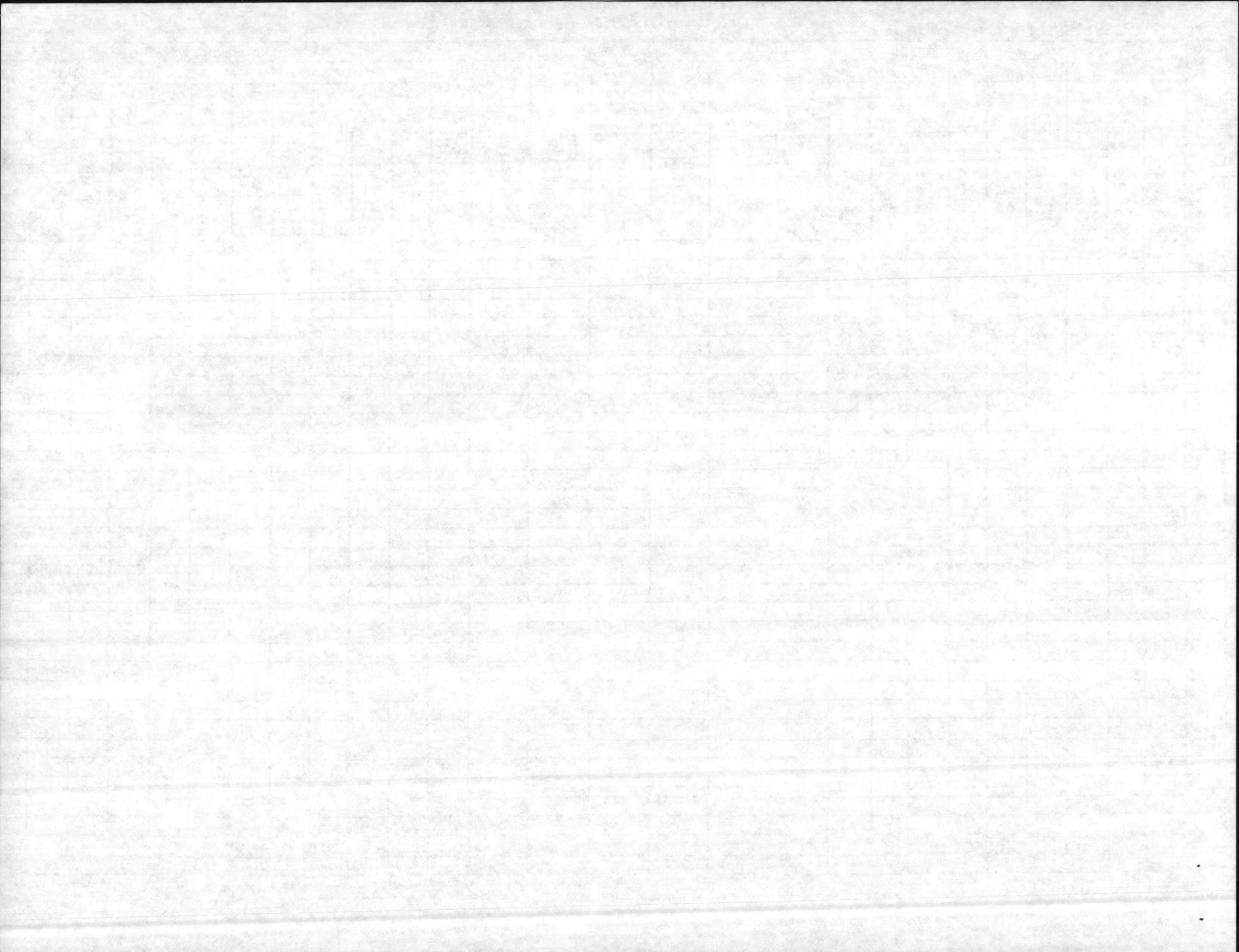
DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.
	A		B		C								1	2	3	4	5	COLIFORMS per 100 ml.	COLIFORMS 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																					
6																					
7	7									0	3	0	0	0							35.4
8																					
9																					
10																					
11																					
12																					
13																					
14	7	14								0	3	0	0	0							35.4
15																					
16																					
17																					
18																					
19																					
20																					
21																					
22																					
23																					
24																					
25																					
26																					
27	7	28								0	3	0	0	10							35.4
28																					
29																					
30																					
31																					
MFP MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN				0		DISTR. SYSTEM		TOTAL NO. SAMPLES		7/290				9	
-TPC MEDIA						GEO. MEAN				1.0				SAMPLES EXCEEDING 3/50, 4/100, 7/290, 13/500ml		0					

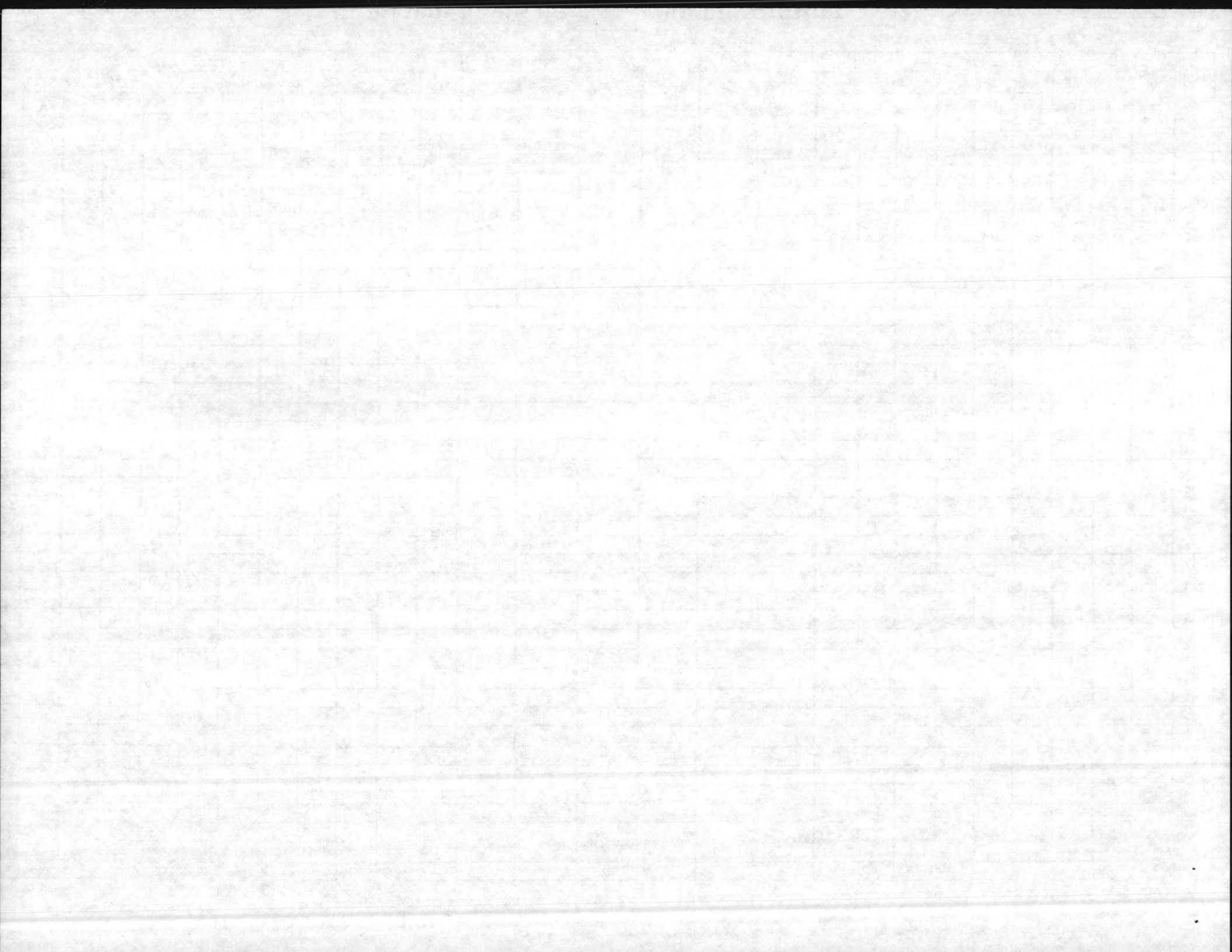
LAB ID # 37807

Elyette A. Bay

CERT GRADE: B-WELL # 4087-W







CHEMICAL ANALYSIS - WATER TREATMENT PLANTS
MCBCL 11350/3 (REV 7-87)

DATE COLLECTED

7-7-87

DATE(S) ANALYZED

7-7-87

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	8.8	8.5	8.6	8.6	8.4	7.6			
STABILITY	+0.4	0.0	+0.3	-0.5	-0.1	-0.8			
PHENOLTHALEIN ALKALINITY (PPM)	6	6	4	0	2	0			
METHYL ORANGE ALKALINITY (PPM)	54	140	60	166	130	150			
CARBONATES AS CaCO ₃ (PPM)	12	12	8	0	4	0			
BICARBONATES AS CaCO ₃ (PPM)	42	128	52	166	126	150			
CHLORIDES AS Cl (PPM)	14	70	10	14	48	20			
HARDNESS AS CaCO ₃ (PPM)	62	50	60	50	50	52			
IRON AS Fe (PPM)	-	-	A. A. Down		-	-			
FLUORIDE (PPM)	AM PM 1.07 1.07	0.58	AM PM 0.99 0.93	0.12	0.10	0.17			
TURBIDITY (NTUS)	AM PM 0.2 0.2	0.2	AM PM 0.3 0.7	0.1	0.1	0.2			
CHLORINE RESIDUAL (PPM)	1.0	0.8	1.2	1.3	1.1	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

NREAD

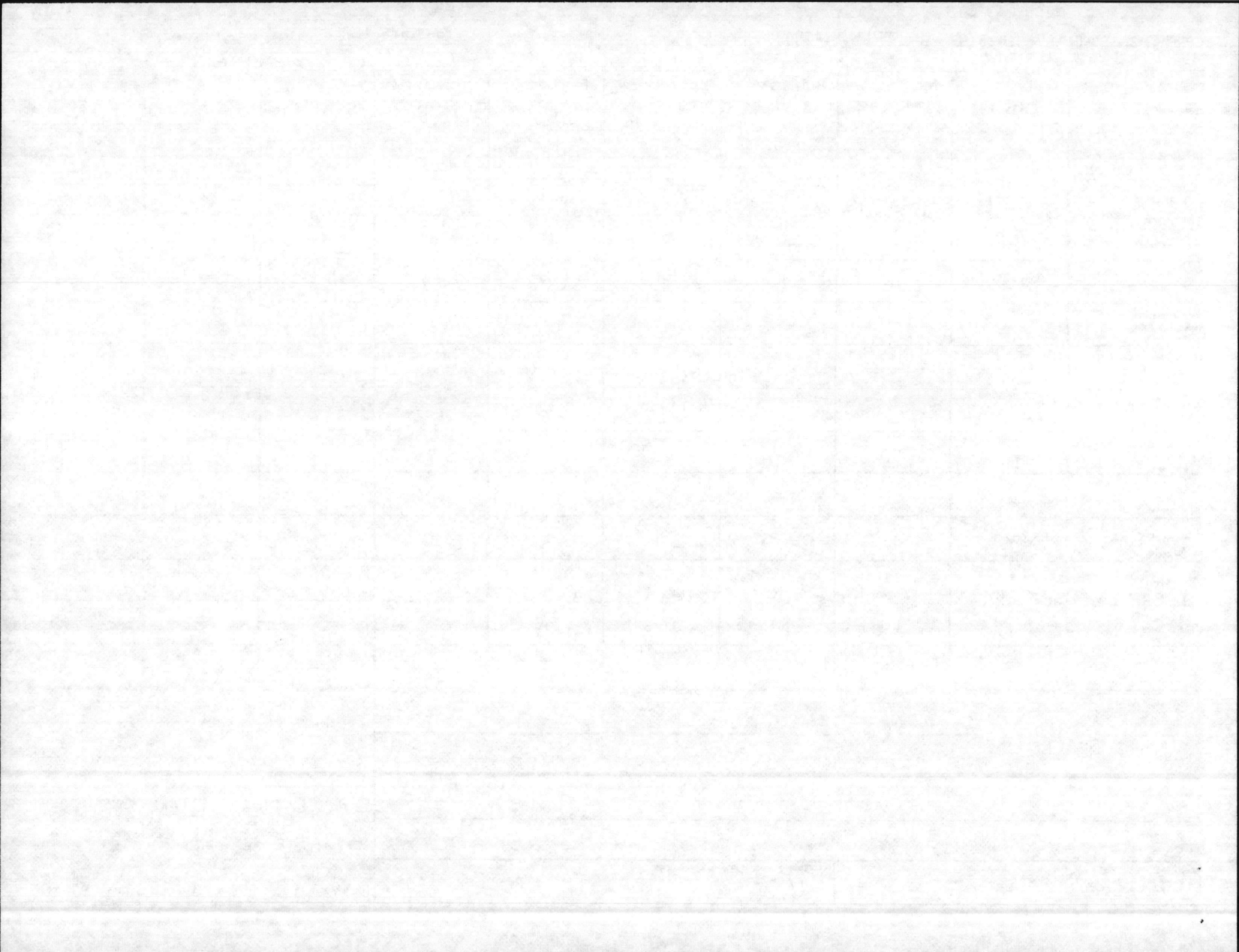
FILE (ATTACH WKST)

REPORT DATE:

7-7-87

REPORT PREPARED BY:

H. J. Burns



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

DATE COLLECTED
 7-14-87

DATE(S) ANALYZED
 7-14-87

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	8.7	8.6	8.6	7.8	8.3	7.6			
STABILITY	+0.3	0.0	+0.6	-0.5	-0.2	-0.8			
PHENOLTHALEIN ALKALINITY (PPM)	4	12	4	6	6	0			
METHYL ORANGE ALKALINITY (PPM)	60	140	56	160	156	150			
CARBONATES AS CaCO ₃ (PPM)	8	24	8	0	0	0			
BICARBONATES AS CaCO ₃ (PPM)	52	116	48	160	156	150			
CHLORIDES AS Cl (PPM)	10	70	161	14	44	20			
HARDNESS AS CaCO ₃ (PPM)	70	49	60	50	50	54			
IRON AS Fe (PPM)	--	=	=	A.A	Down	--			
FLUORIDE (PPM)	AM PM 0.75	0.55	1.00	0.13	6.10	0.16			
TURBIDITY (NTUS)	AM PM 0.2	0.1	0.5	0.1	0.1	6.4			
CHLORINE RESIDUAL (PPM)	0.9	0.9	1.4	1.2	1.0	1.6			

REMARKS:

COPY TO:

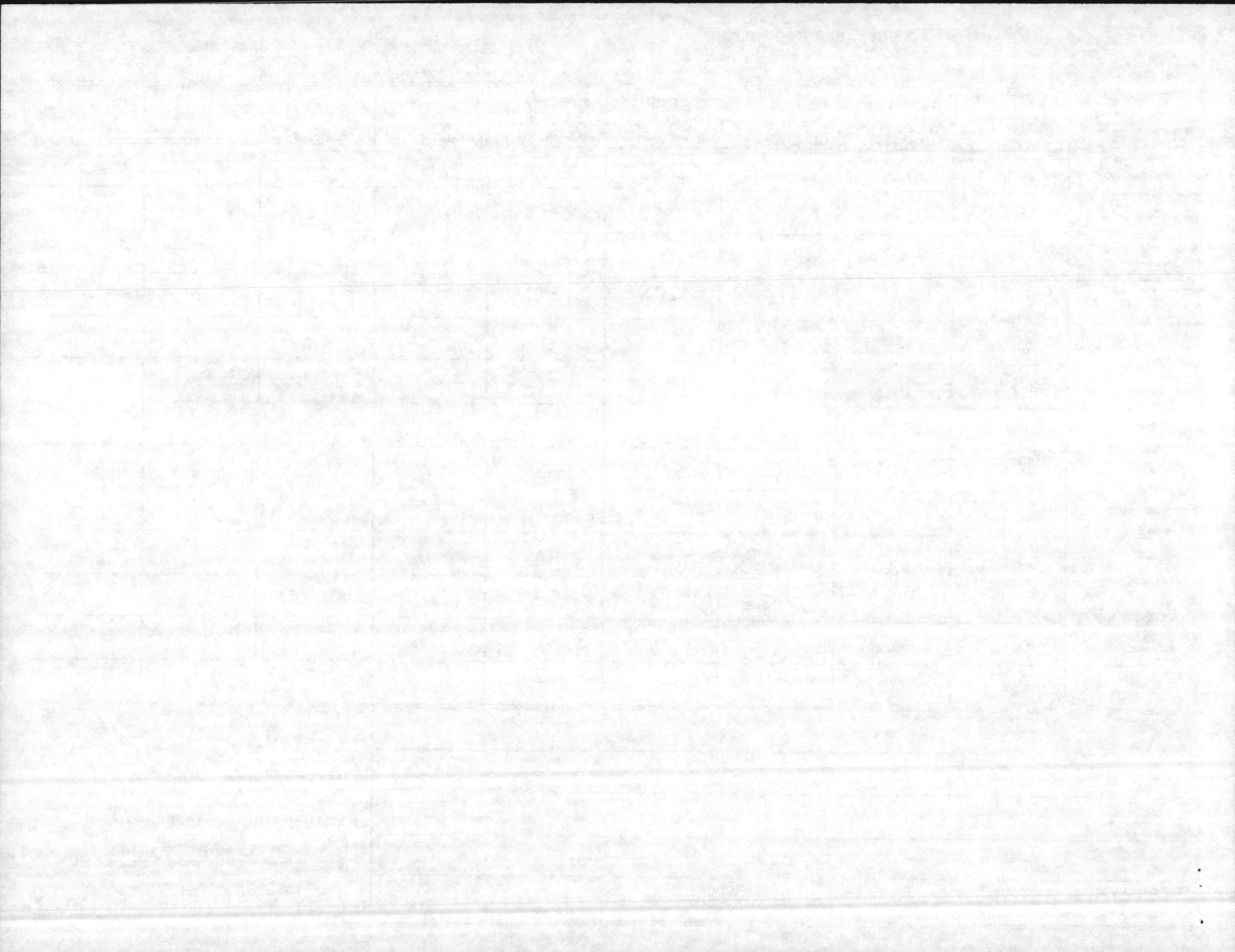
- UTIL DIR, BMD
- WATER TREATMENT, UTIL DIV. BMD
- PMU, NAYHOSP PMU, MCAS-NR
- DIVISION OF HEALTH SERVICES
N.C. DEPT. OF HUMAN RESOURCES
- NREAD FILE (ATTACH WKST)

REPORT DATE:

7-14-87

REPORT PREPARED BY:

H. J. Burns



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

DATE COLLECTED

7-21-87

DATE(S) ANALYZED

7-21-87

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	9.5	8.5	8.7	7.9	8.2	7.6		
STABILITY	+0.3	+0.2	+0.6	-0.4	-0.1	-0.6		
PHENOLTHALEIN ALKALINITY (PPM)	4	10	6	0	0	0		
METHYL ORANGE ALKALINITY (PPM)	60	144	52	160	160	160		
CARBONATES AS CaCO ₃ (PPM)	8	20	12	0	0	0		
BICARBONATES AS CaCO ₃ (PPM)	52	122	40	160	160	160		
CHLORIDES AS Cl (PPM)	10	70	10	16	50	18		
HARDNESS AS CaCO ₃ (PPM)	56	54	60	56	60	56		
IRON AS Fe (PPM)								
FLUORIDE (PPM)	AM	1.01	0.54	AM	0.99	0.12	0.09	0.13
	PM	0.78		PM	0.94			
TURBIDITY (NTUS)	AM	0.2	0.1	AM	0.2	0.1	0.01	0.2
	PM	0.2		PM	0.6			
CHLORINE RESIDUAL (PPM)		1.10		1.4	1.4	1.0	1.7	

REMARKS:

COPY TO:

UTIL Div, BMD

WATER TREATMENT, UTIL Div, BMD

PMU, NAYHOSP PMU, MCAS-NR

DIVISION OF HEALTH SERVICES
 N.C. DEPT. OF HUMAN RESOURCES

NREAD

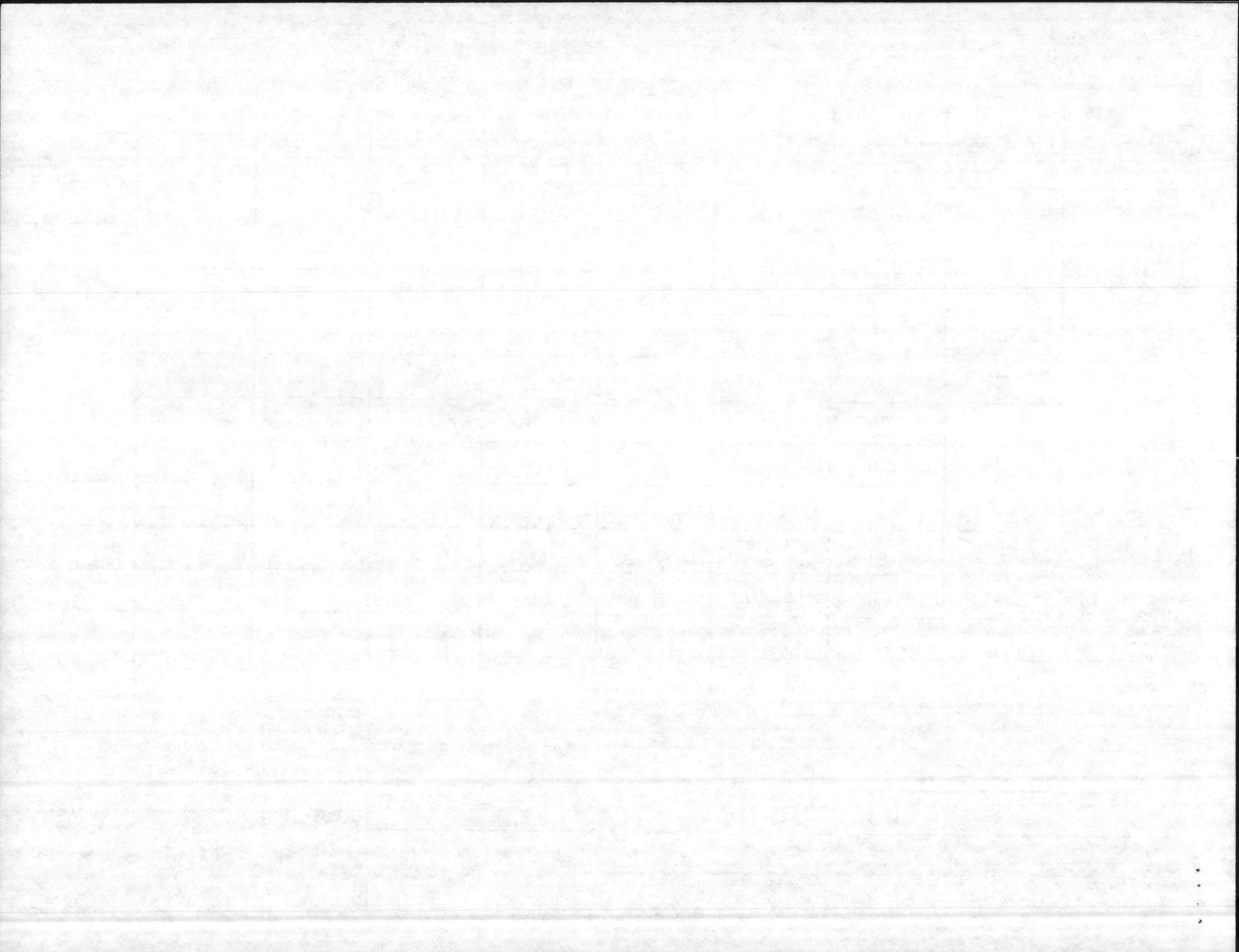
FILE (ATTACH WKST)

REPORT DATE:

7-21-87

REPORT PREPARED BY:

M. J. Burns



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

DATE COLLECTED: 7-28-87
 DATE(S) ANALYZED: 7-28-87

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	8.4	8.6	8.6	8.0	8.2	7.5			
STABILITY	+0.4	+0.2	+0.5	+0.3	-0.1	-0.7			
PHENOLTHALEIN ALKALINITY (PPM)	2	8	4	0	0	0			
METHYL ORANGE ALKALINITY (PPM)	56	138	60	164	154	156			
CARBONATES AS CaCO ₃ (PPM)	4	16	8	0	0	0			
BICARBONATES AS CaCO ₃ (PPM)	52	122	52	164	154	156			
CHLORIDES AS Cl (PPM)	12	70	16	18	40	20			
HARDNESS AS CaCO ₃ (PPM)	62	48	70	56	56	60			
IRON AS Fe (PPM)	A.A. Down								
FLUORIDE (ppm)	AM PM 1.14 1.12	0.58	1.12 0.99	0.14	0.11	0.15			
TURBIDITY (NTUS)	AM PM 0.1 0.5	0.7	0.1 0.1	0.2	0.2	0.6			
CHLORINE RESIDUAL (PPM)	1.0	0.8	0.9	1.3	1.7	1.3			

REMARKS:

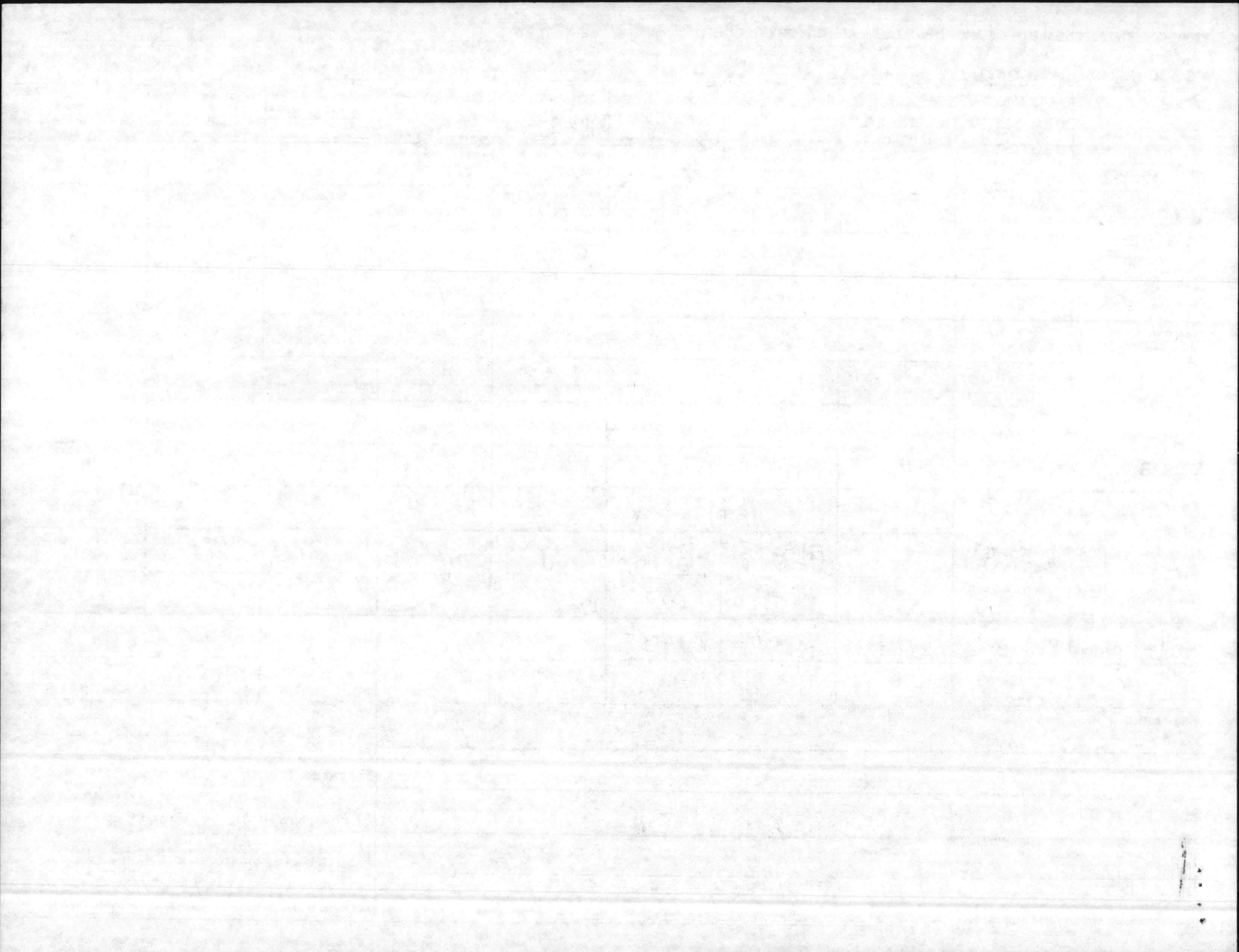
- COPY TO:
- UTIL Div, BMD
 - WATER TREATMENT, UTIL Div, BMD
 - PMU, NAVHOSP PMU, MCAS-NR
 - DIVISION OF HEALTH SERVICES
N.C. DEPT OF HUMAN RESOURCES
 - NREAD FILE (ATTACH WKST)

REPORT DATE:

7-28-87

REPORT PREPARED BY:

16-J. Burns



11331

NREAD

8 July 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 1-30 June 1987. Also enclosed are the weekly Chemical Analysis Forms (MCBCL 11330/3) (Revised 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, Environmental Chemistry and Microbiology Laboratory, telephone (919) 451-5977, is the point of contact in this matter.

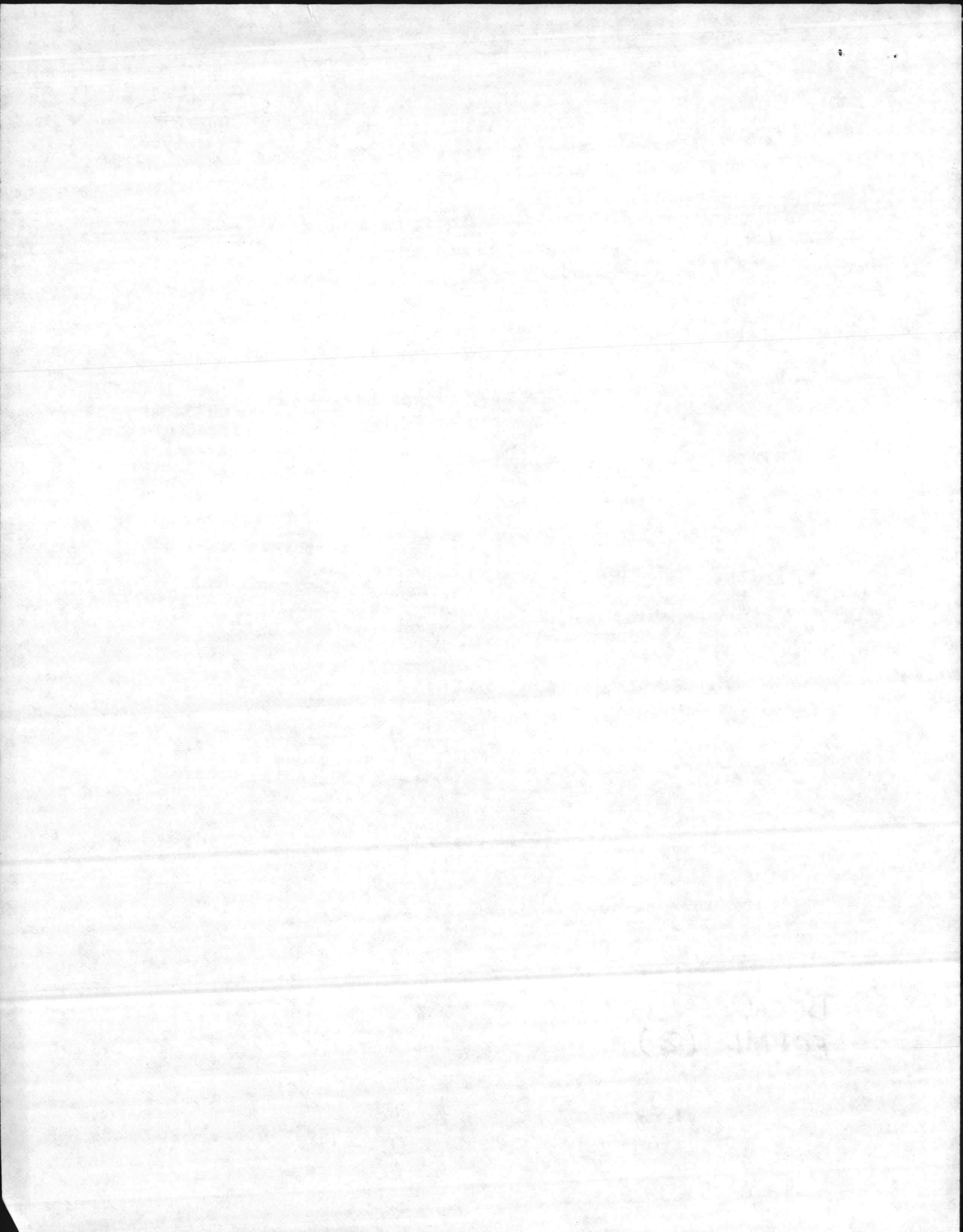
Sincerely,

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

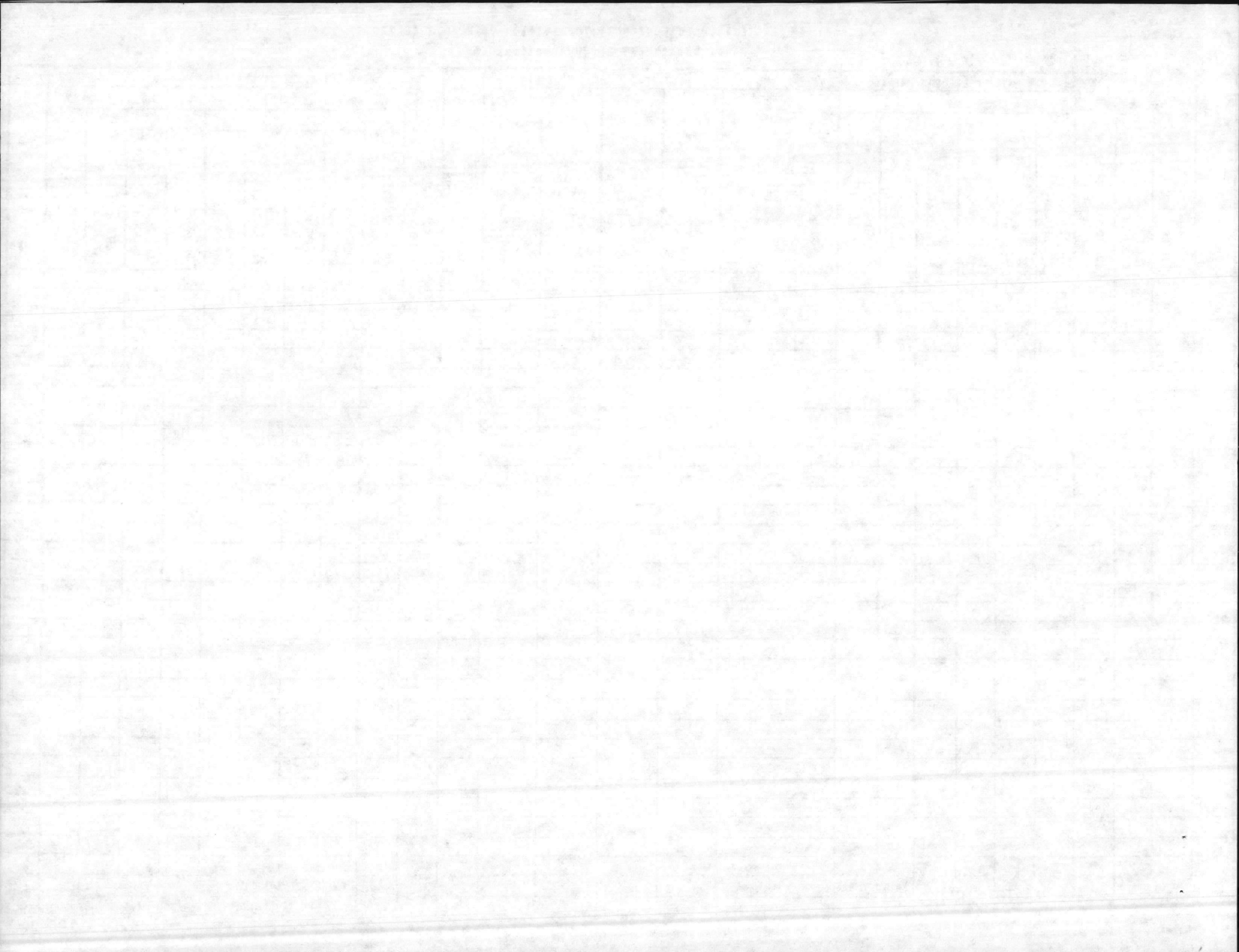
Encls: (1) Dept of Health Forms
(2) Chemical Analysis Forms

Copy to:
LANTNAVFACENCOM (Code 114)

BCC:
EC+ML (2)



Faint, illegible text or stamp, possibly a date or reference number.



Year JUNE 1981

MARINE CORPS AIR STATION
 REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

Serial # 04-67-042

U. S. DEPARTMENT OF HUMAN RESOURCES

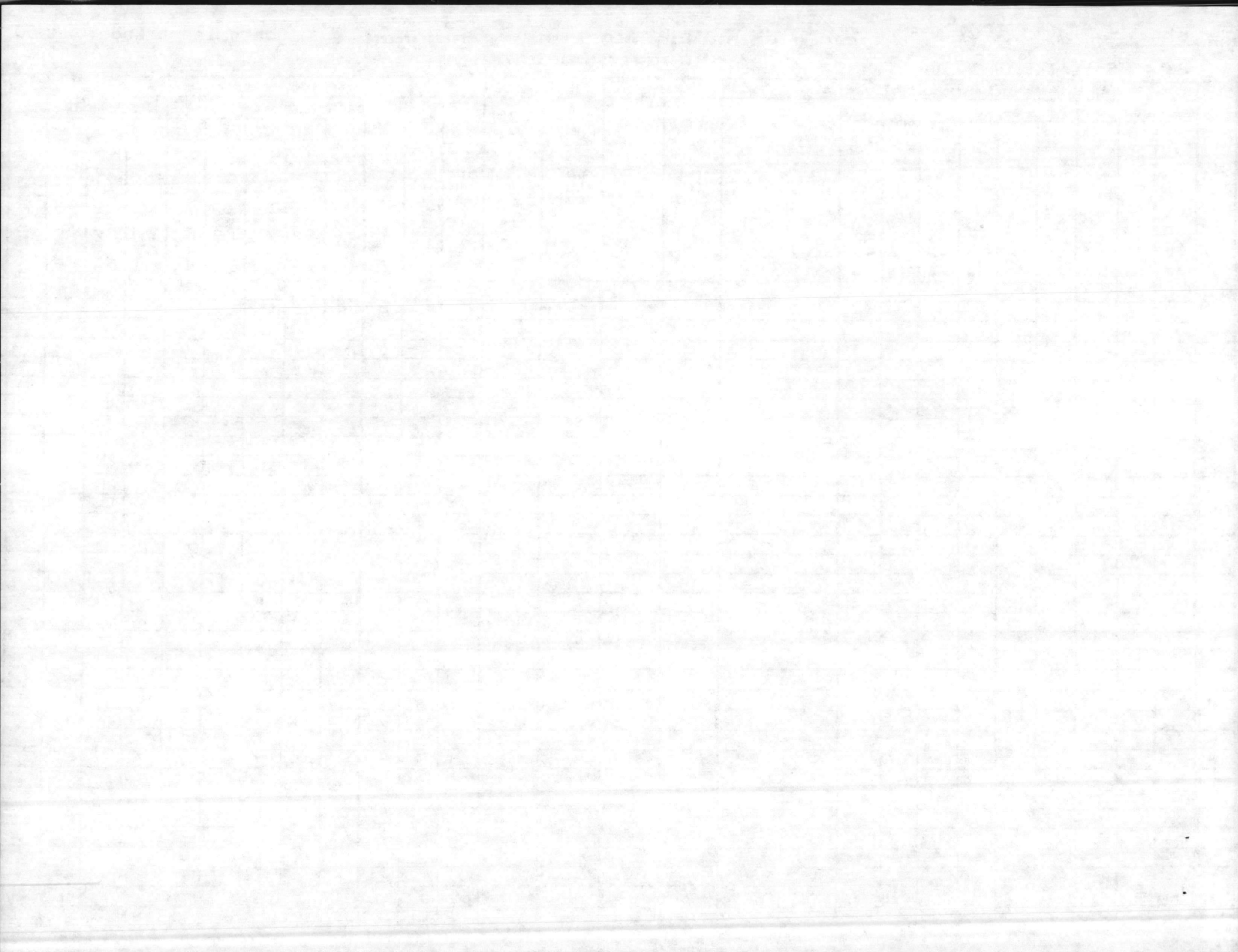
DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED		FINISHED		DISTRIBUTION SYSTEM					TOTAL PLATE COUNT	INCUATOR TEMP.			
	A		B		C			TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	COLIFORMS (MFP)							REPEAT SAMPLES		
	VOLUME FILTERED ml.	TOTAL COLONIES	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																			35.0		
4																					
5																					
6																					
7																					
8																					
9																			35.5		
10																					
11																					
12																					
13																					
14																					
15																					
16																			35.4		
17																					
18																					
19																					
20																					
21																					
22																					
23																			35.3		
24																					
25																					
26																					
27																					
28																					
29																					
30																			35.5		
31																					

MEDIA: BBL mEndo
 TPC MEDIA: BBL mEndo
 BACTERIAL DENSITY: 0
 ARITH. MEAN: 0
 GEO. MEAN: 0

DIST. SYSTEM: 1.0
 TOTAL NO. SAMPLES: 37
 SAMPLES EXCEEDING 3/50: 4/100, 7/200, 13/500

LAB ID # 31807

Elizabeth A. Bell CERT. GRADE B - WELL # 0587-6



Year

1931

1931

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.	FILTERED TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.		
	A		B		C					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.
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES														
1																				
2	SW									0	7	0	0	0	0	0			35.0	
3	SW																			
4																				
5																				
6																				
7																				
8																				
9	SW									0	7	0	0	0			0	0	35.5	
10	SW																			
11																				
12																				
13																				
14																				
15																				
16	SW									0	7	0	0	0		0			35.4	
17	SW											0								
18																				
19																				
20																				
21																				
22																				
23	SW									0	7	0	0	0		0			35.3	
24	SW											0	0							
25																				
26																				
27																				
28																				
29																				
30	SW									0	7	0	0	0		0	0		35.5	
31	SW																			

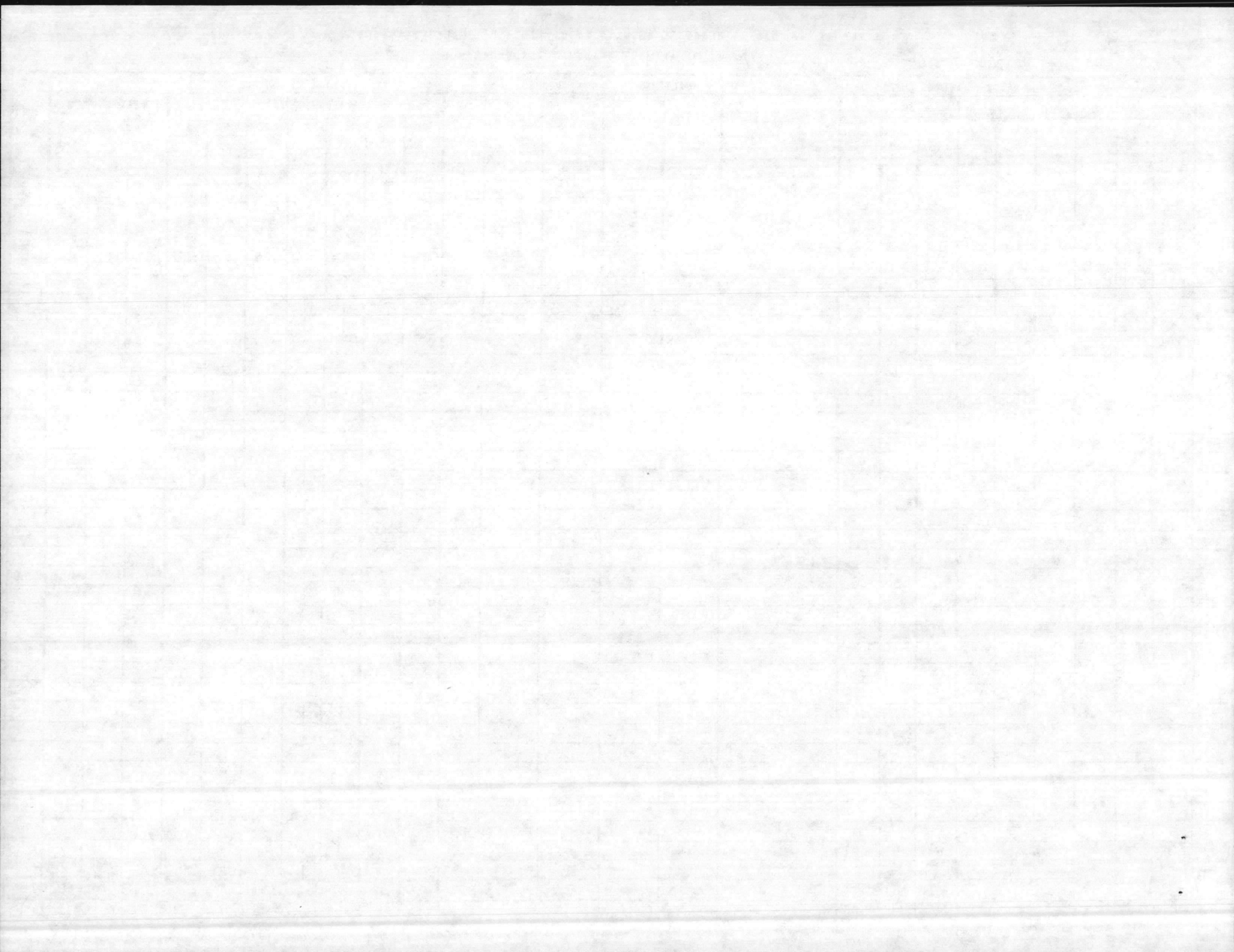
MF MEDIA
 TPC MEDIA
 BBL mEndo
 BACTERIAL DENSITY
 ARITH. MEAN
 GEO. MEAN

LAB ID # 32807

Elizabeth C. Bell

CERT GRADE B-WELL #





Year JUNE 1987

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

Contaminant Code: 3000

Serial # 04-67-044

DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.		
	A		B		C						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.
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES															
1																					
2										0	4	0	0	0				35.0			
3																					
4																					
5																					
6																					
7																					
8																					
9										0	4	0	0	0	0			35.5			
10																					
11																					
12																					
13																					
14																					
15																					
16										0	4	0	0			0	0	35.4			
17																					
18																					
19																					
20																					
21																					
22																					
23										0	4	0	0				0	0	35.3		
24																					
25																					
26																					
27																					
28																					
29																					
30										0	4	0	0					35.5			
31																					

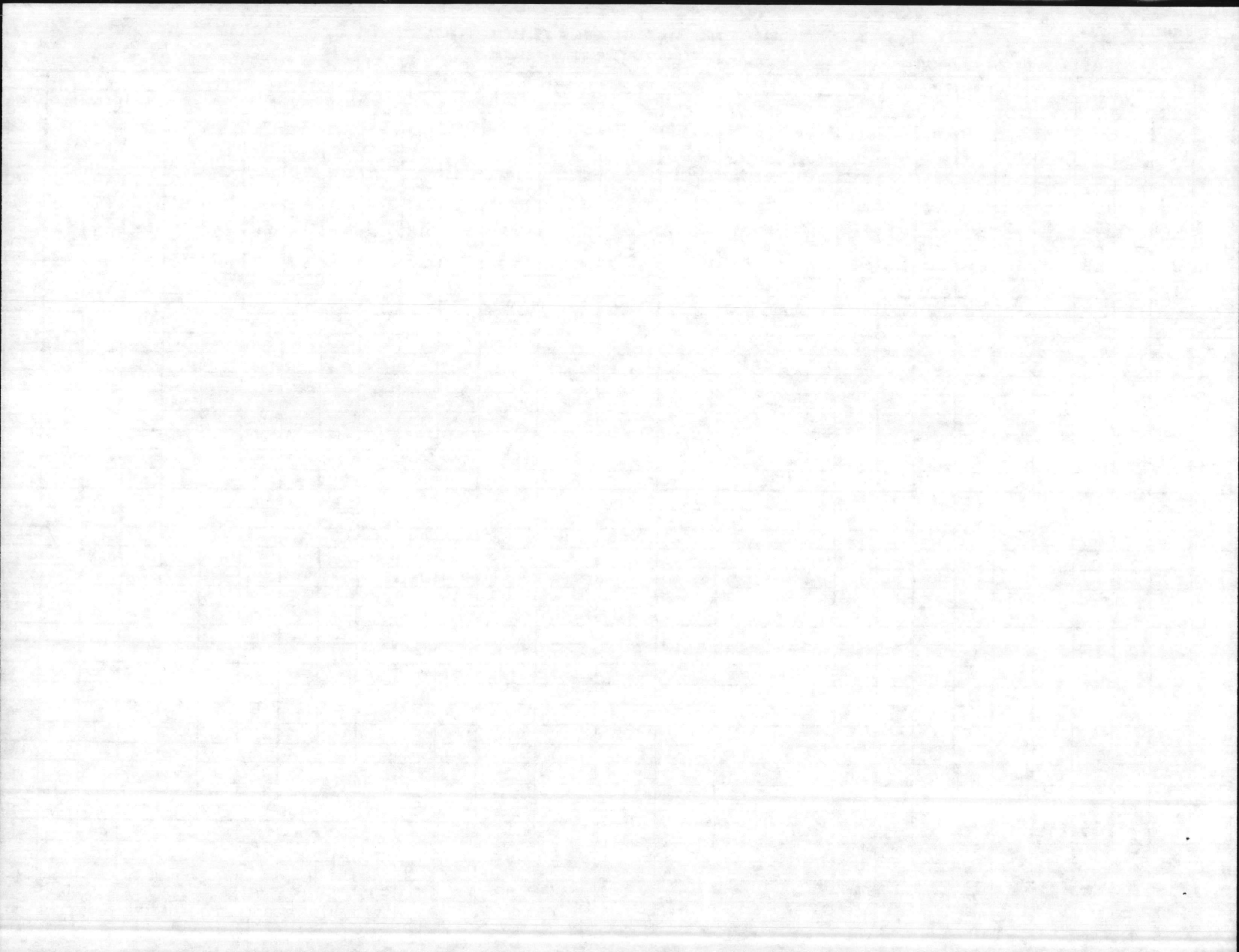
MEDIA: BBL mEndo
 BACTERIAL DENSITY
 ARITH. MEAN
 GEO. MEAN

DISP. SYSTEM: 10
 TOTAL NO. SAMPLES: 40
 SAMPLES EXCEEDING 3/50: 0
 4/100: 0
 7/200: 0
 12/500: 0

LAB ID # 37807

REPORT MADE BY: [Signature]
 CERT. GRADE: B-WELL # 4587





Year JUNE 1981

CAMP JOHNSON

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

Serial # 04-67-045

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					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													0	N	0	0			35.0		
3																					
4																					
5																					
6																					
7																					
8																					
9													0	N	0		0		35.5		
10																					
11																					
12																					
13																					
14																					
15																					
16													0	N	0		0		35.4		
17																					
18																					
19																					
20																					
21																					
22																					
23													0	N	0		0		35.3		
24																					
25																					
26																					
27																					
28																					
29																					
30													0	N	0		0		35.5		
31																					

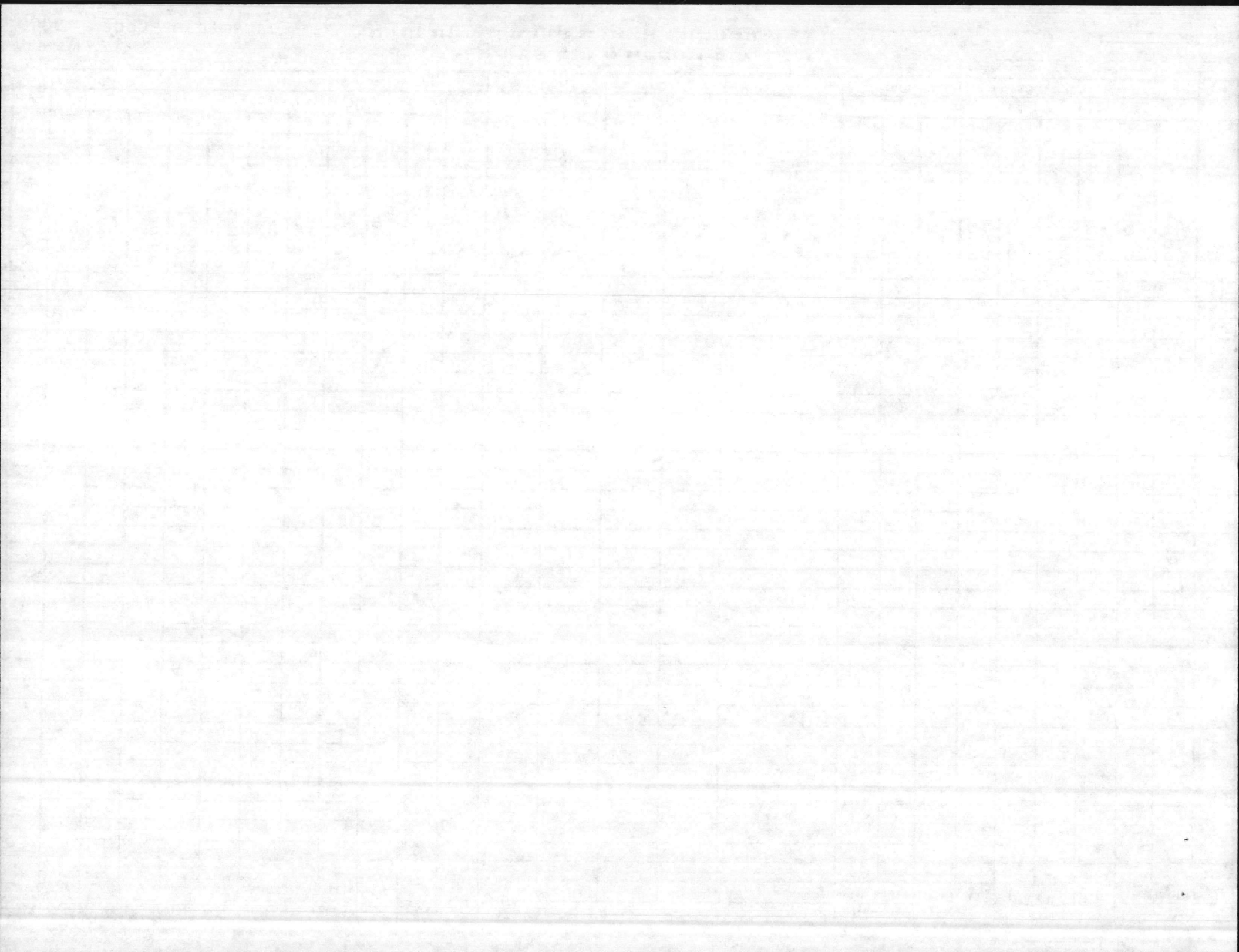
MF-MEDIA BBL mEndo BACTERIAL DENSITY ARITH. MEAN
 TPC MEDIA GEO. MEAN

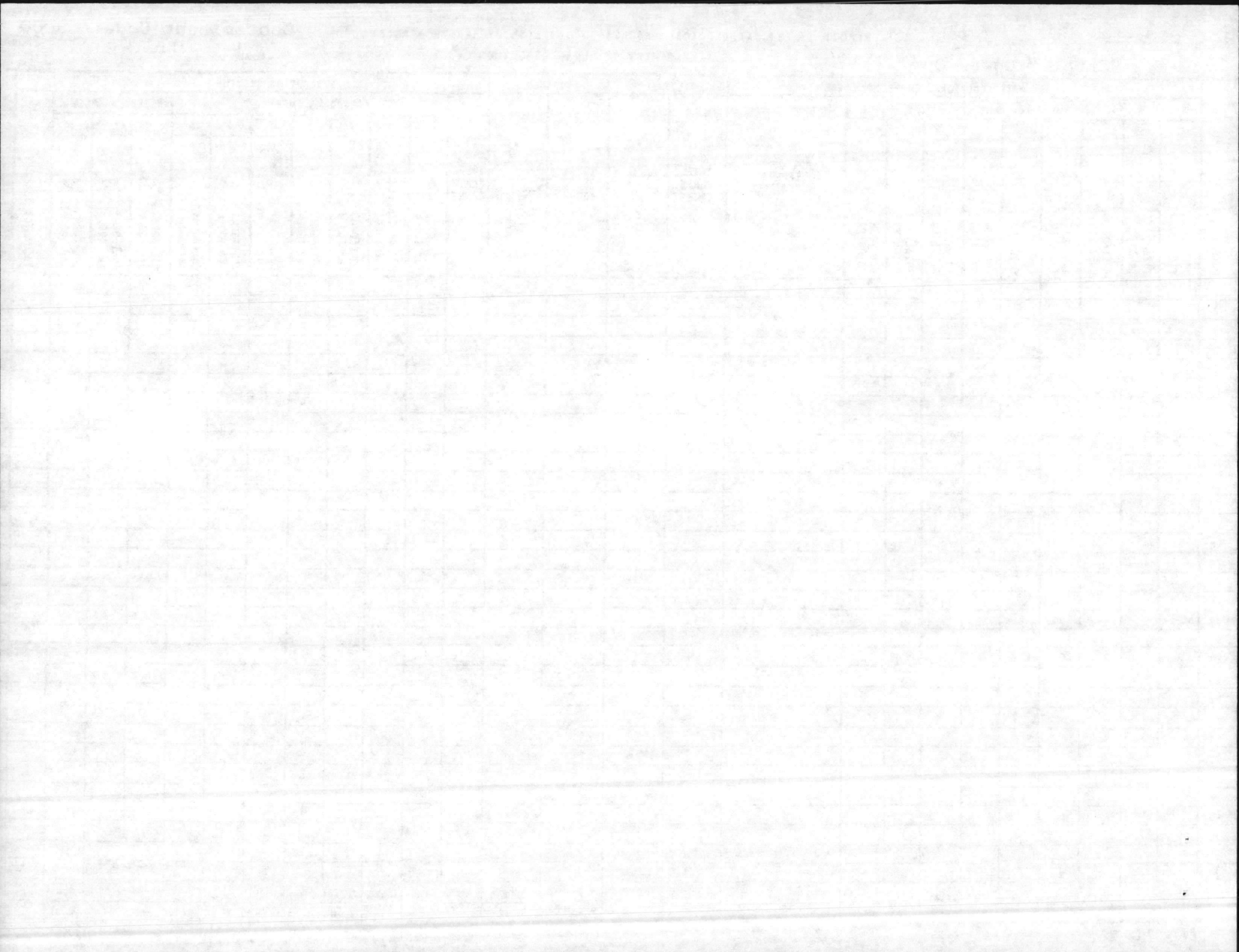
0 DIST. SYSTEM TOTAL NO. SAMPLES 10
 70 SAMPLES EXCEEDING 3/50, 4/100, 7/200, 13/500

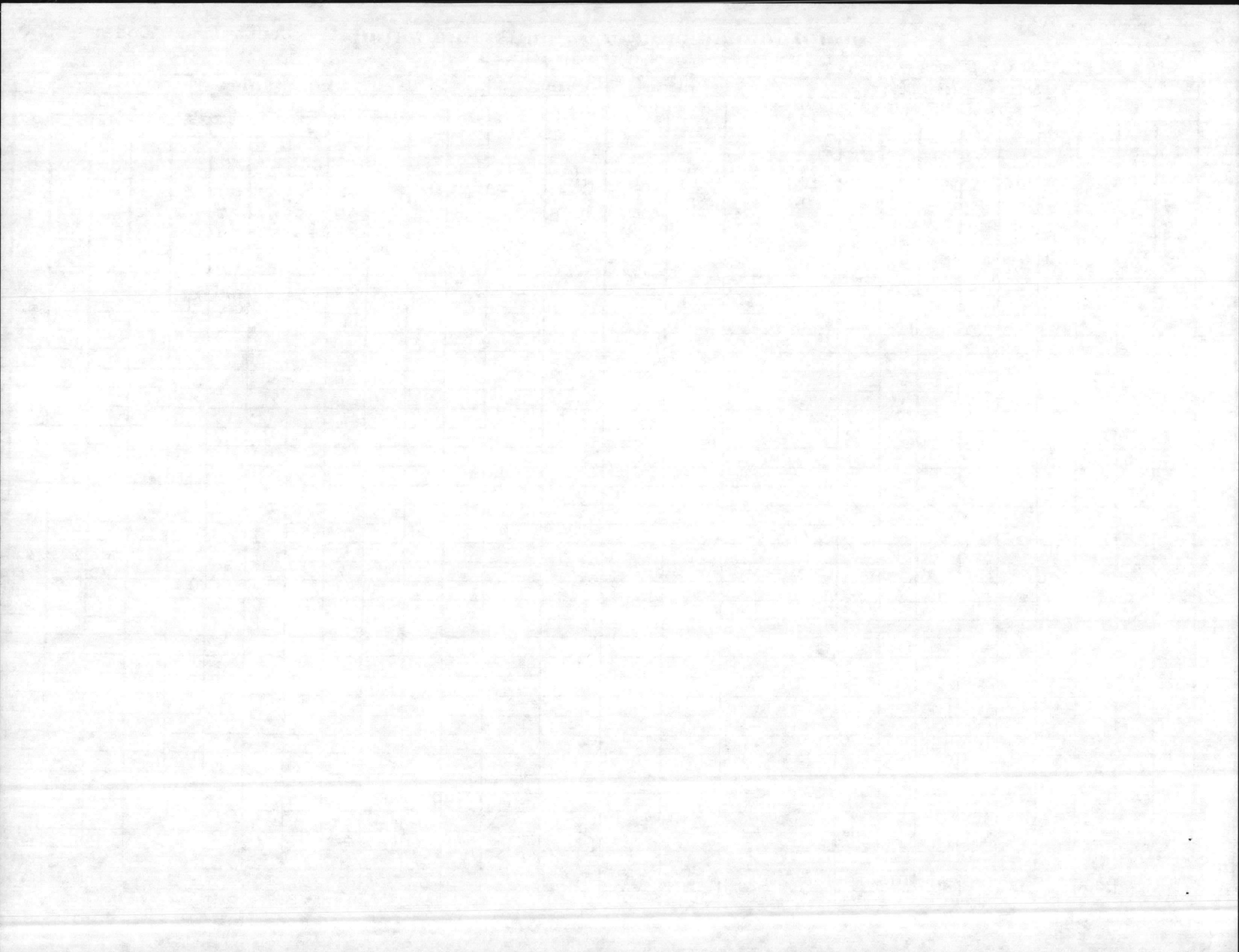
LAB ID # 37307

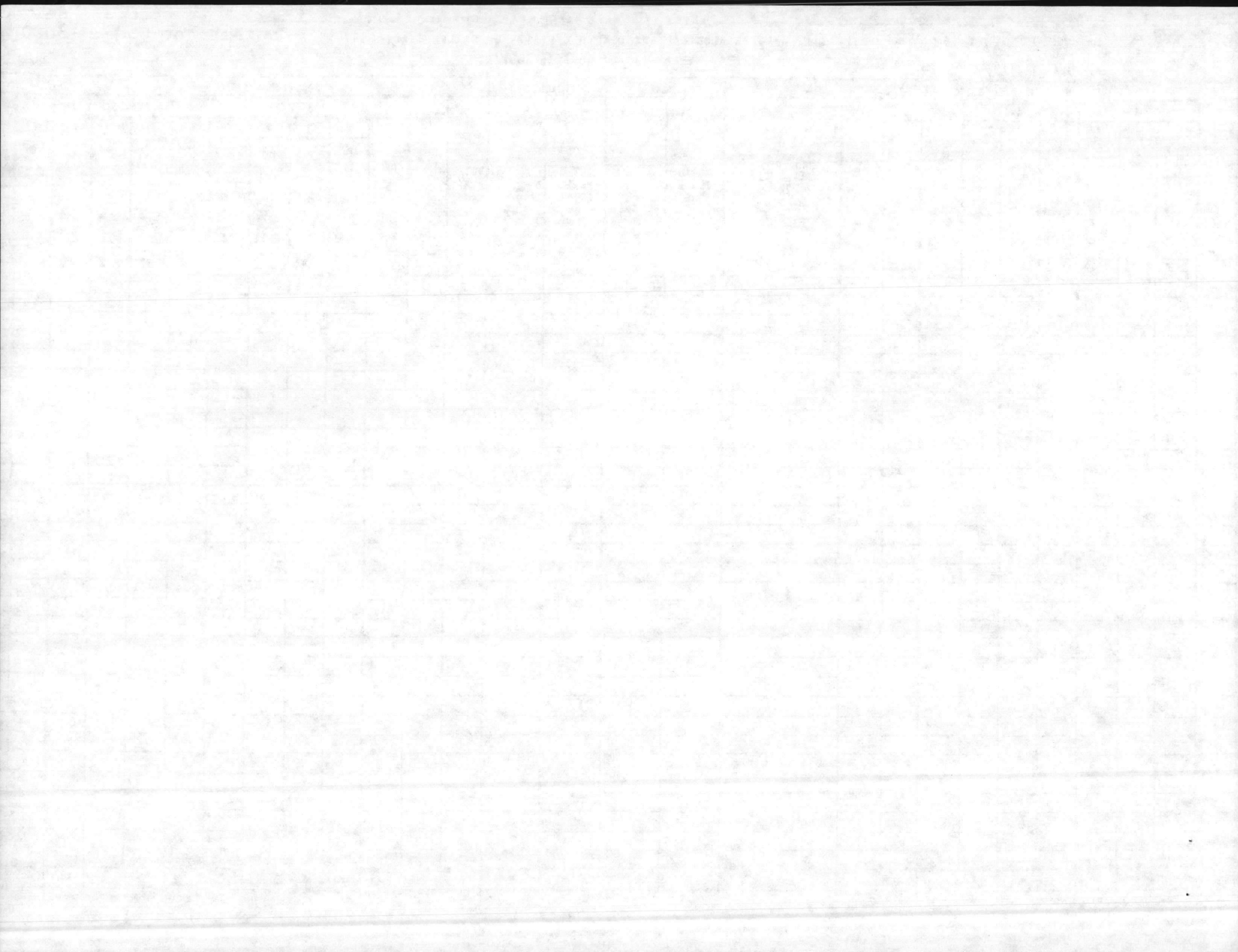
Phyllis Klibert CERT GRADE B-WELL # 1589











DATE COLLECTED
 6-2-87

DATE OF ANALYSIS
 6-2-87

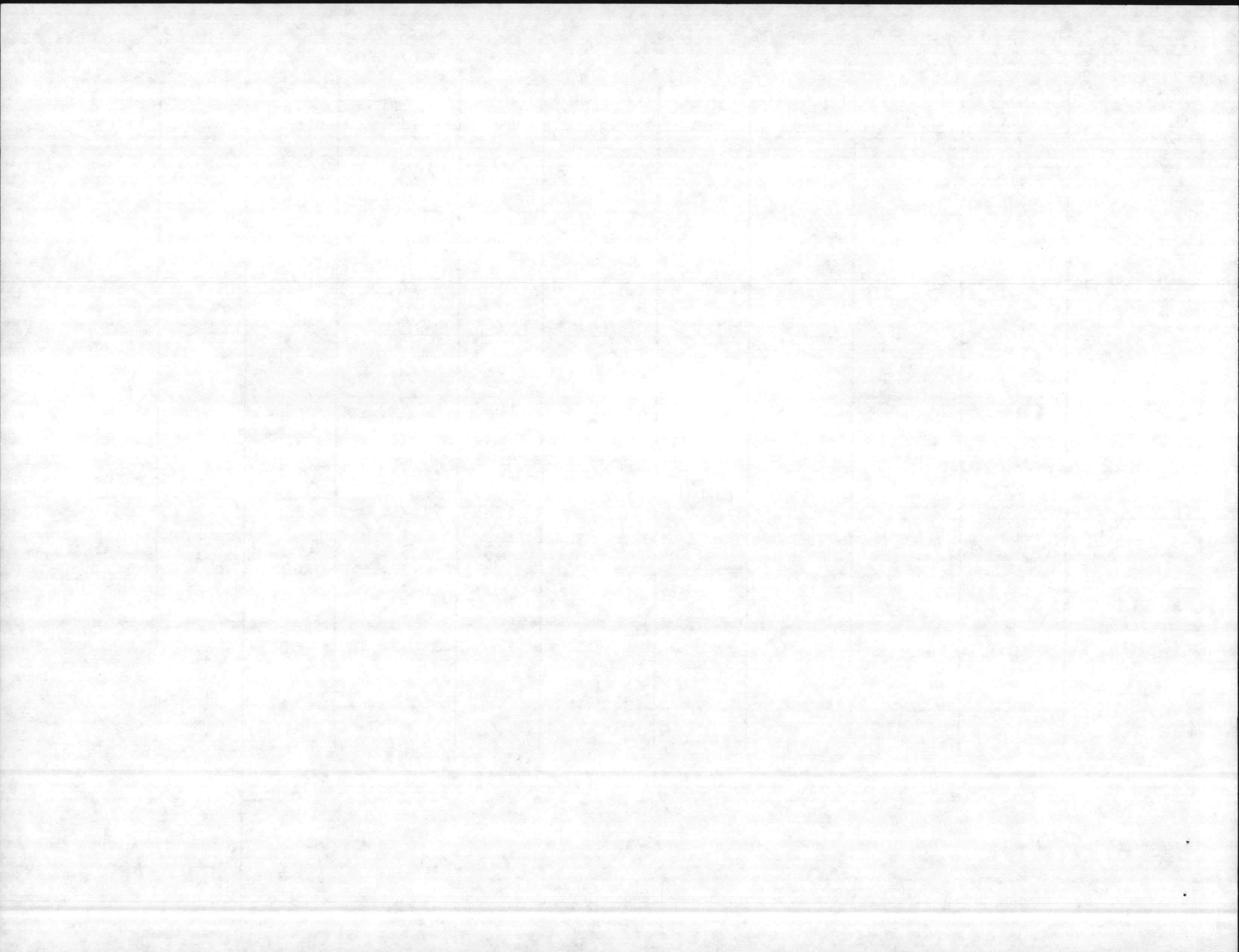
PARAMETER	HADNOT POINT	CAMP JOHNSON	TARAWA TERRACE	ONSLow BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER		
SERIAL#04-67	-041	-045	-044	-048	-047	-046	-043	-042		
PH (IN LAB NOT PLANT)	8.5			7.7	8.2	8.4	8.5	8.8		
PHENOLTHALEIN ALKALINITY	4			0	0	2	2	6		
METHYL ORANGE ALKALINITY	62			160	170	160	60	100		
CARBONATES AS CaCO ₃	8			0	0	4	4	12		
BICARBONATES AS CaCO ₃	54			160	170	156	56	88		
CHLORIDES AS Cl	14			20	20	46	10	50		
HARDNESS AS CaCO ₃	76			76	56	56	72	60		
IRON AS Fe			A.A.	DOWN						
FLUORIDE	Am 0.80 Pm 0.92			0.17	0.14	0.11	0.88 0.89	0.42		
CHLORINE RESIDUAL	1.1			1.3	1.5	1.0	1.1	0.8		
TURBIDITY	Am 0.1 Pm 0.1			0.2	0.1	0.1	0.5 0.8	0.9		
TOTAL PHOSPHATE										
ORTHO PHOSPHATE										
META PHOSPHATE										
STABILITY	40.1			-0.5	-0.2	0.0	0.0	+0.4		

REMARKS

- 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. J. BURNS



PARAMETER SERIAL #04-67	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLow BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.7			7.5	7.9	8.3	8.5	8.8		
PHENOLTHALEIN ALKALINITY	4			0	0	0	4	4		
METHYL ORANGE ALKALINITY	54			156	170	150	60	90		
CARBONATES AS CaCO ₃	8			0	0	0	8	8		
BICARBONATES AS CaCO ₃	46			156	170	150	52	82		
CHLORIDES AS Cl	12			20	18	24	10	56		
HARDNESS AS CaCO ₃	58			56	50	46	64	50		
IRON AS Fe	<0.04			<0.04	<0.04	<0.04	<0.04	<0.04		
FLUORIDE	Am 0.96 Pm 0.96			0.18	0.13	0.10	0.94 0.94	0.47		
CHLORINE RESIDUAL	1.1			1.2	1.5	0.8	1.1	0.9		
TURBIDITY	Am 0.1 Pm 0.1			0.1	0.4	0.4	0.2 0.7	0.2		
TOTAL PHOSPHATE										
ORTHO PHOSPHATE										
META PHOSPHATE										
STABILITY	+0.4			-0.7	-0.4	-0.1	+0.2	+0.3		

REMARKS

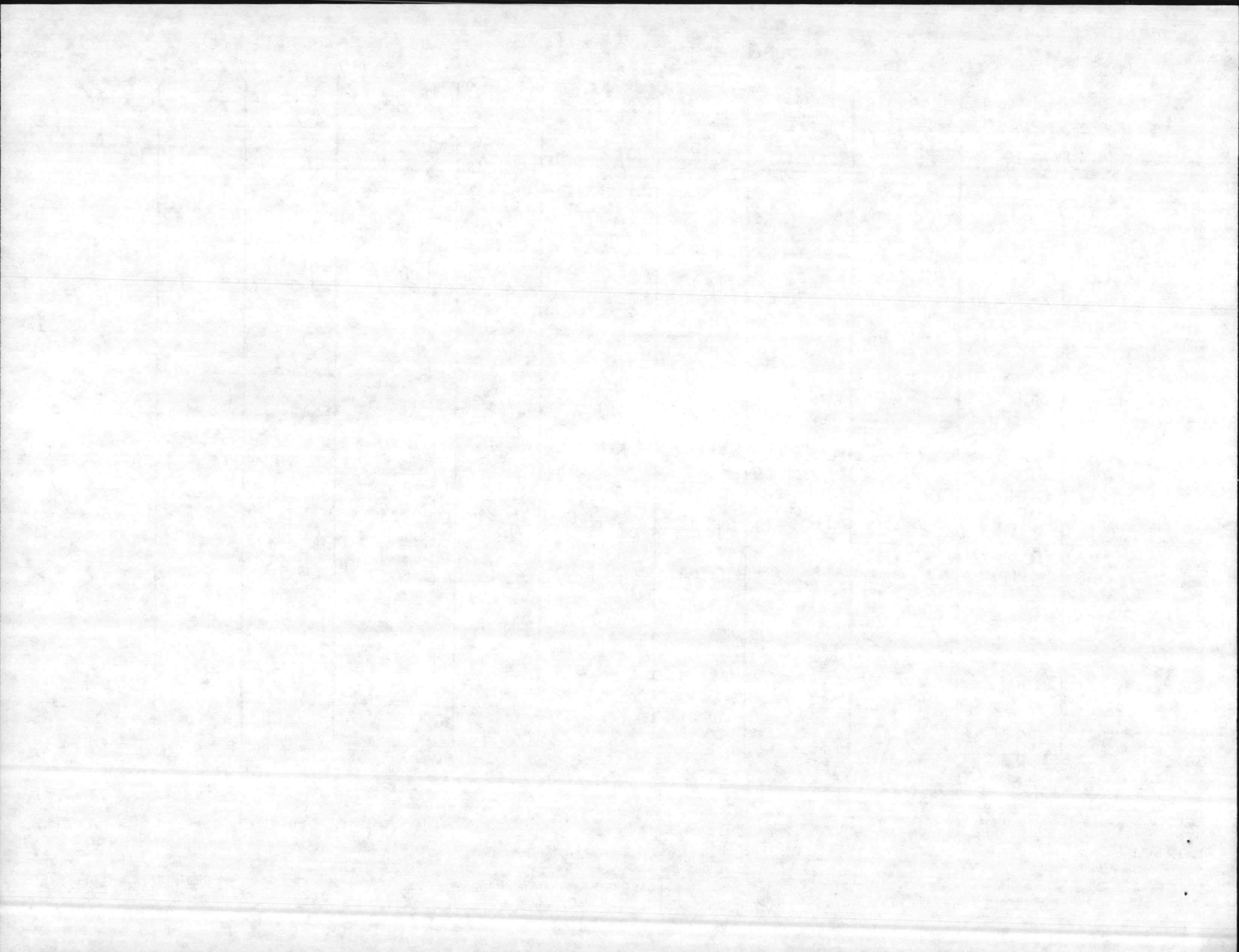
COPY TO

- 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. J. BURNS



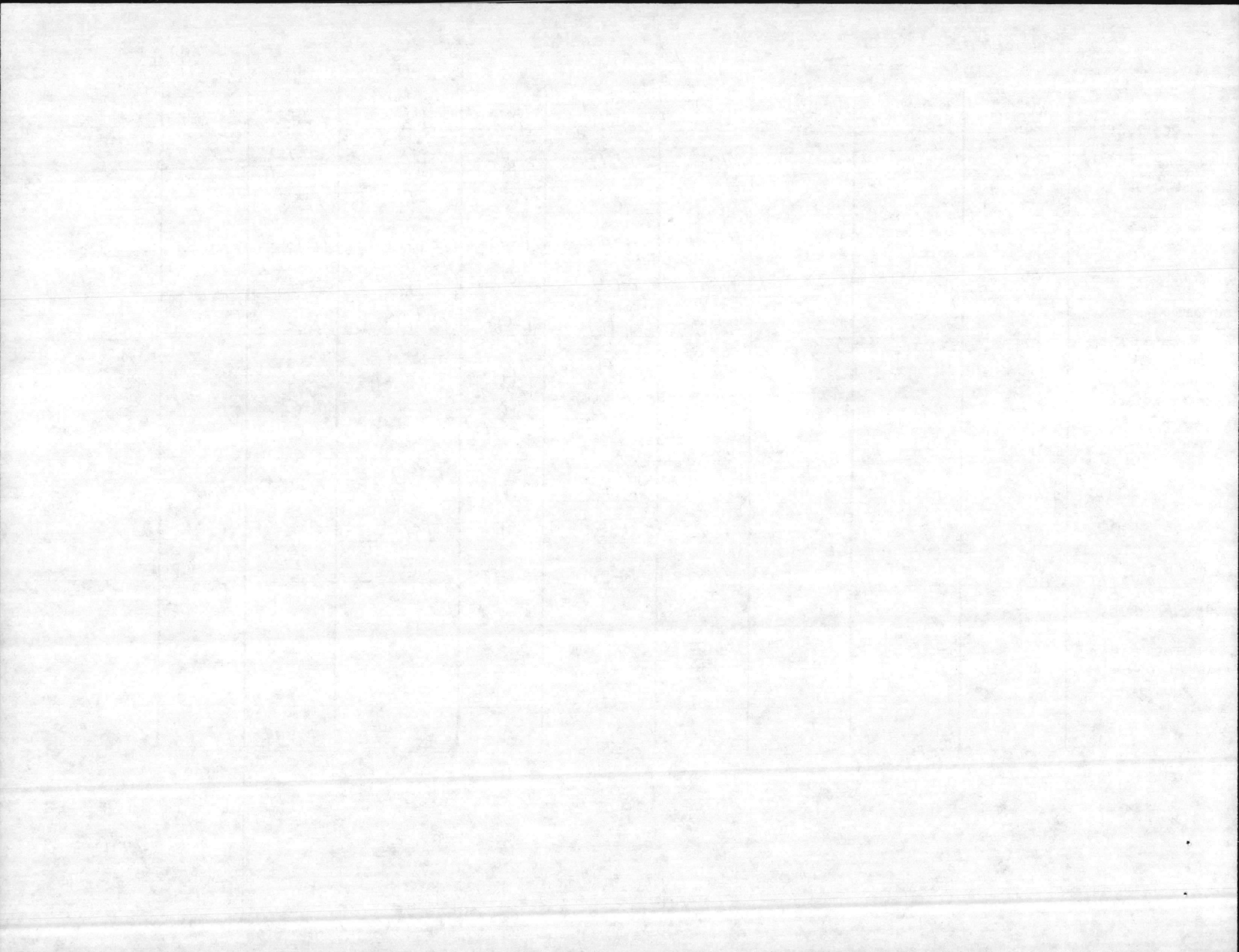
PARAMETER SERIAL#0467	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLow BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042
PH (IN LAB NOT PLANT)	8.8			7.6	8.0	8.3	8.6	8.9
PHENOLTHALEIN ALKALINITY	4			0	0	4	4	12
METHYL ORANGE ALKALINITY	50			160	170	150	58	106
CARBONATES AS CaCO ₃	8			0	0	8	8	24
BICARBONATES AS CaCO ₃	42			160	170	142	50	82
CHLORIDES AS Cl	10			20	14	40	10	50
HARDNESS AS CaCO ₃	64			50	50	56	60	60
IRON AS Fe				A.A DOWN				
FLUORIDE	Am 1.05 pm 1.06			0.15	0.12	0.11	1.05 1.05	0.46
CHLORINE RESIDUAL	1.0			1.2	1.5	1.1	1.0	0.8
TURBIDITY	Am 0.6 pm 0.5			0.2	0.3	0.1	0.2 0.3	1.4
TOTAL PHOSPHATE								
ORTHO PHOSPHATE								
META PHOSPHATE								
STABILITY	+0.4			-0.7	-0.3	-0.1	+0.3	+0.4

REMARKS

- 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. J. BURNS



DATE COLLECTED
6-23-87

DATE OF ANALYSIS
6-23-87

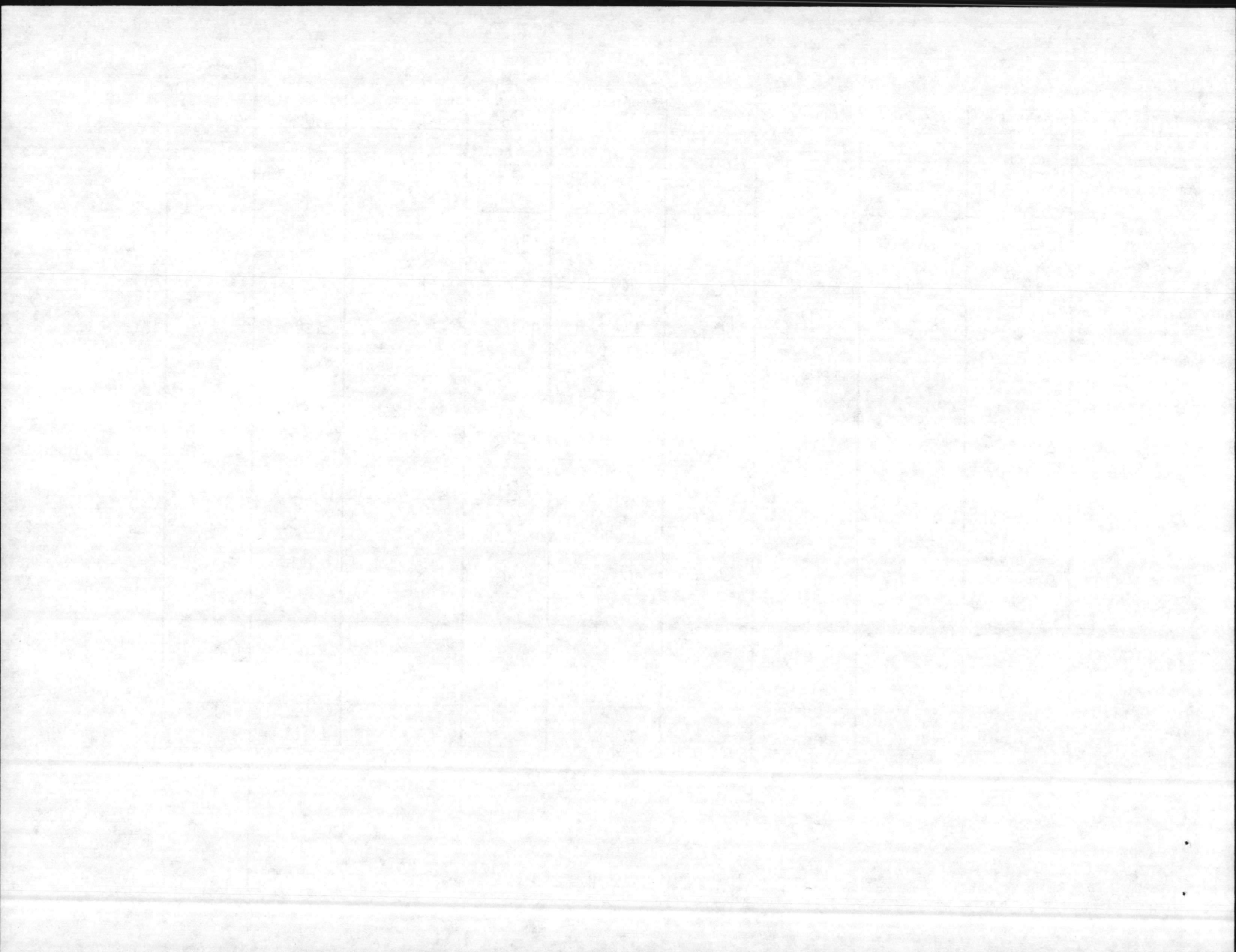
PARAMETER SERIAL # 04-67	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLow BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.7			7.5	7.5	7.9	8.4	8.7		
PHENOLTHALEIN ALKALINITY	4			0	0	0	2	6		
METHYL ORANGE ALKALINITY	56			160	164	170	60	96		
CARBONATES AS CaCO ₃	8			0	0	0	4	12		
BICARBONATES AS CaCO ₃	48			160	164	170	56	84		
CHLORIDES AS Cl	16			30	20	54	10	60		
HARDNESS AS CaCO ₃	58			52	46	52	68	54		
IRON AS Fe			A.A.	DOWN						
FLUORIDE	Am	1.12					1.09			
	Pm	1.07		0.16	0.12	0.10	1.07	0.45		
CHLORINE RESIDUAL		1.0		1.4	1.4	1.0	1.4	0.8		
TURBIDITY	Am	0.4					0.2			
	Pm	0.2		0.2	0.2	0.2	0.8	0.3		
TOTAL PHOSPHATE										
ORTHO PHOSPHATE										
META PHOSPHATE										
STABILITY		±0.3		-0.7	-0.8	-0.4	0.0	±0.1		

REMARKS

- 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. J. BURNS



DATE COLLECTED
 6-30-87

DATE OF ANALYSIS
 6-30-87

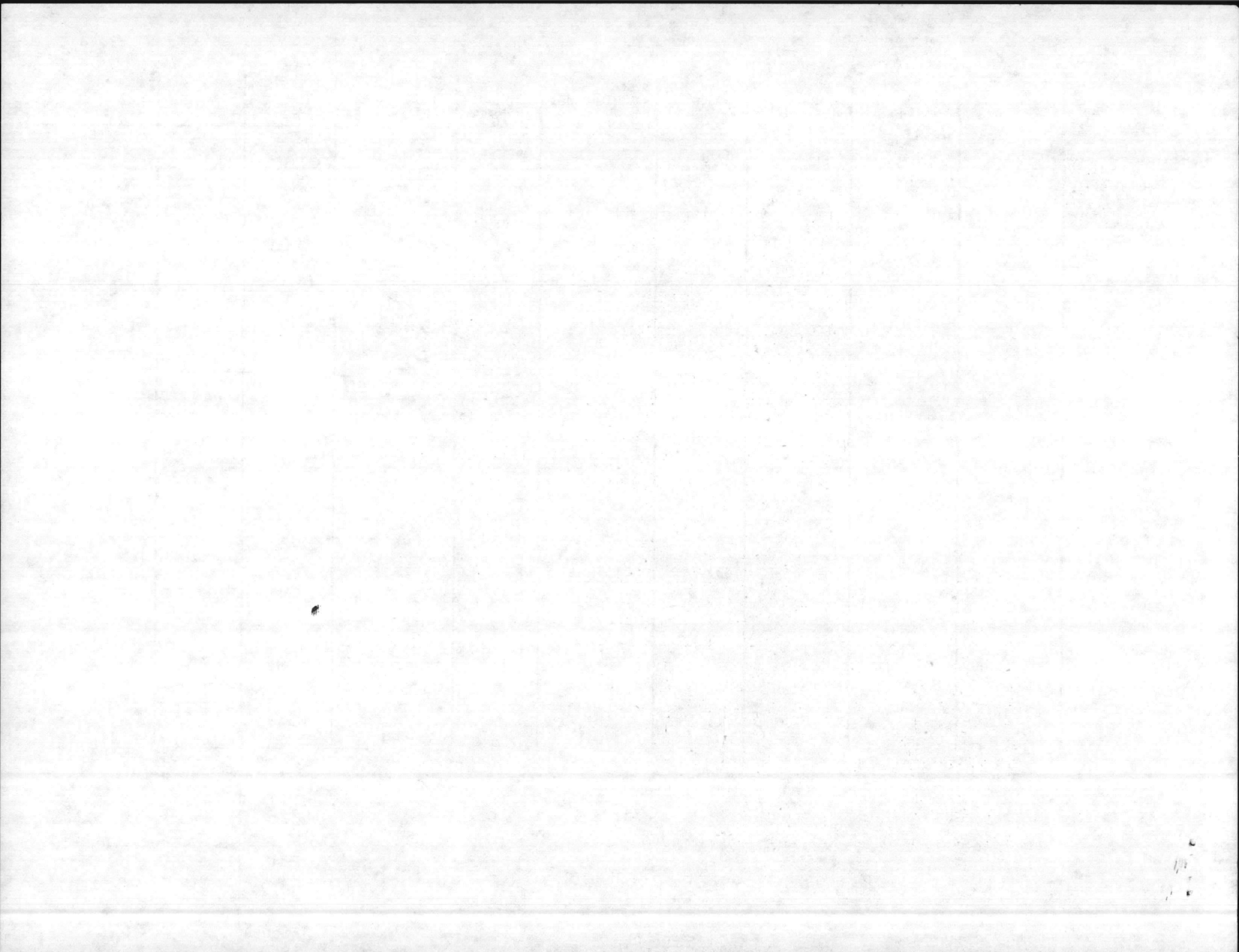
PARAMETER SERIAL# 04-67	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLow BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.8			7.1	7.9	8.3	8.7	8.6		
PHENOLTHALEIN ALKALINITY	4			0	0	2	4	8		
METHYL ORANGE ALKALINITY	52			160	170	160	60	110		
CARBONATES AS CaCO ₃	8			0	0	4	8	16		
BICARBONATES AS CaCO ₃	44			160	170	156	52	94		
CHLORIDES AS Cl	10			20	20	44	14	60		
HARDNESS AS CaCO ₃	56			68	54	54	68	60		
IRON AS Fe				N.A. DOWN						
FLUORIDE	Am 1.20 Pm 1.15			0.16	0.13	0.13	1.00 0.72	0.46		
CHLORINE RESIDUAL	1.1			0.7	1.2	1.0	1.3	0.8		
TURBIDITY	Am 0.2 Pm 0.2			0.4	0.1	0.2	0.2 0.3	0.3		
TOTAL PHOSPHATE										
ORTHO PHOSPHATE										
META PHOSPHATE										
STABILITY	+0.1			-1.2	-0.4	0.0	+0.4	+0.1		

REMARKS

- 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. J. BURNS



11331
NREAD
9 June 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 May 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:
LANTNAVFACENGCOM (Code 114)

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



12 1-1-1
12 1-1-1
12 1-1-1

12 1-1-1
12 1-1-1
12 1-1-1

12 1-1-1
12 1-1-1
12 1-1-1

12 1-1-1
12 1-1-1
12 1-1-1

12 1-1-1
12 1-1-1
12 1-1-1

12 1-1-1

12 1-1-1
12 1-1-1
12 1-1-1

12 1-1-1
12 1-1-1
12 1-1-1

12 1-1-1
12 1-1-1
12 1-1-1

12 1-1-1
12 1-1-1
12 1-1-1

MONTH Year 1987

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

Serial # 04-67-041

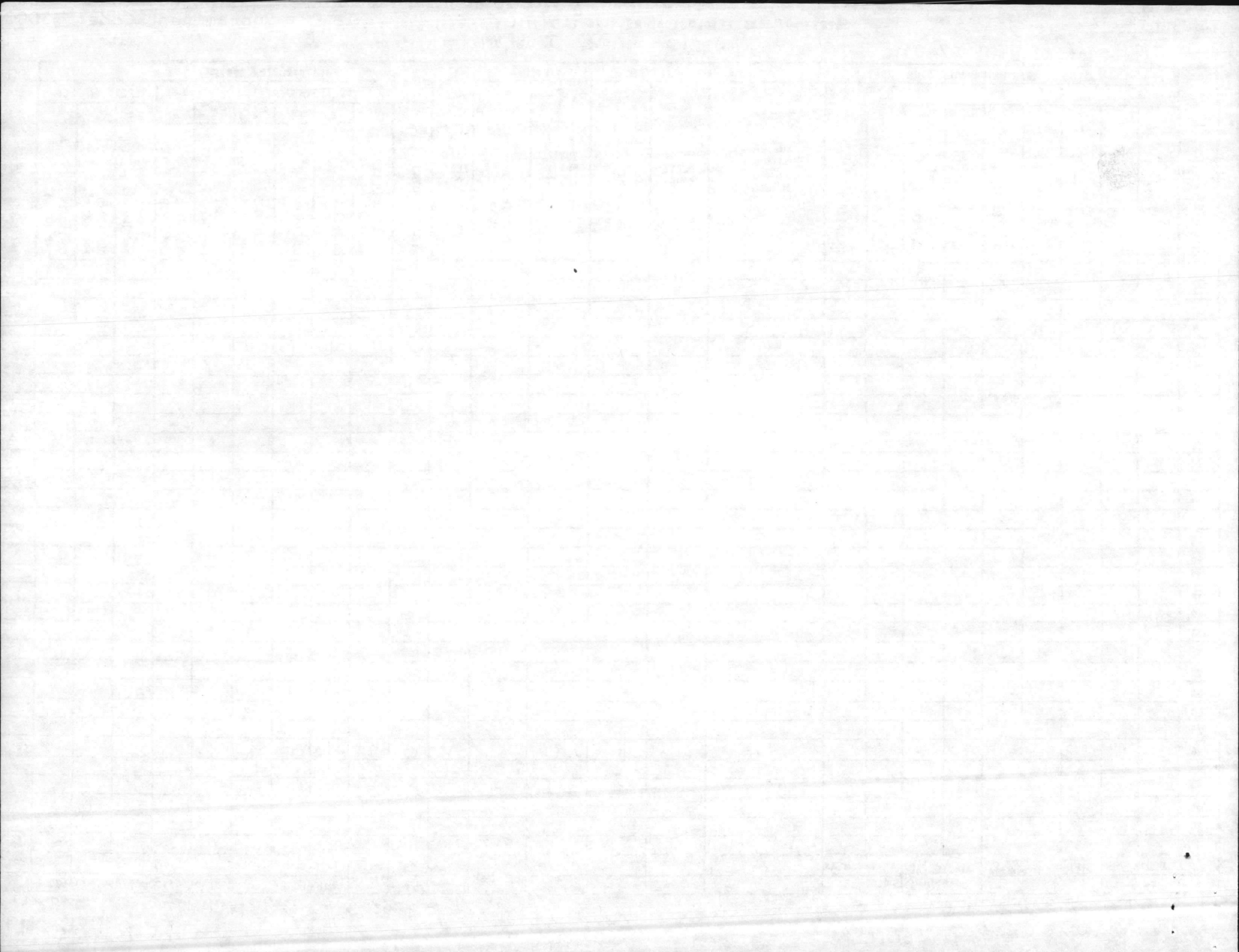
N. C. DEPARTMENT OF HUMAN RESOURCES

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	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																		
1																								
2																								
3																								
4																								
5												0	9	0	0	0	0	0	0	0				35.5
6																								
7																								
8																								
9																								
10																								
11																								
12												0	9	0	0	0	0	0	0	0				35.5
13																								
14																								
15																								
16																								
17																								
18																								
19												0	9	0	0	0	0	0	0	0				35.1
20																								
21																								
22																								
23																								
24																								
25																								
26												0	9	0	0	0	0	0	0	0				35.0
27																								
28																								
29																								
30																								
31																								
MFP MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN						0	DIST. SYSTEM		TOTAL NO. SAMPLES					36				
TPC MEDIA						GEO. MEAN						1.0	SAMPLES EXCEEDING 3/50, (4/100) 7/200, 13/500=1					0						

LAB ID # 37807

Elyzabeth A. By

CERT GRADE B-WELL # 4087-W
ENCLOSURE (1)



REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

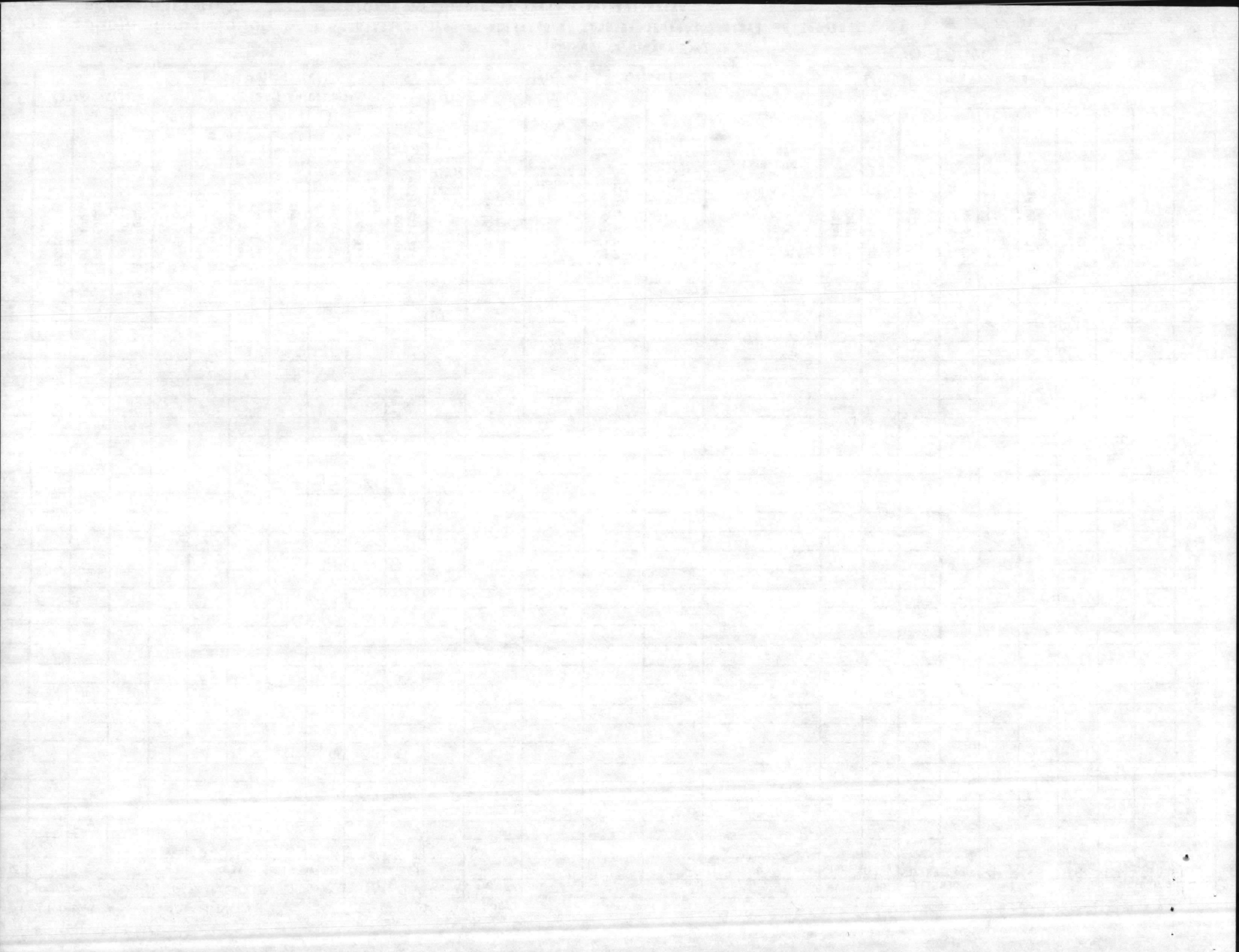
Serial # 04-67-043

DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED		FINISHED		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	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																				
5												0	7	0	0	0	0	0	0	35.9
6																				
7																				
8																				
9																				
10																				
11																				
12												0	7	0	0	0	0	0	0	35.9
13																				
14																				
15																				
16																				
17																				
18																				
19												0	7	0	0	0	0	0	0	35.9
20																				
21																				
22																				
23																				
24																				
25																				
26												0	7	0	0	0	0	0	0	35.9
27																				
28																				
29																				
30																				
31																				
MFP MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN						0	DIST. SYSTEM		TOTAL NO. SAMPLES					28
TPC MEDIA						GEO. MEAN						1.0			SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml					0

LAB ID # 37807

Elizabeth A. Buz

CERT GRADE B - WELL # 4087-W
ENCLOSURE (1)



Month MAY
Year 1987

VIARINE CORP'S AIR STATION

WATER TREATMENT PLANT AT Camp Lejeune
REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Method Code: 305
Contaminant Code: 3000

Serial # 04-67-04Z

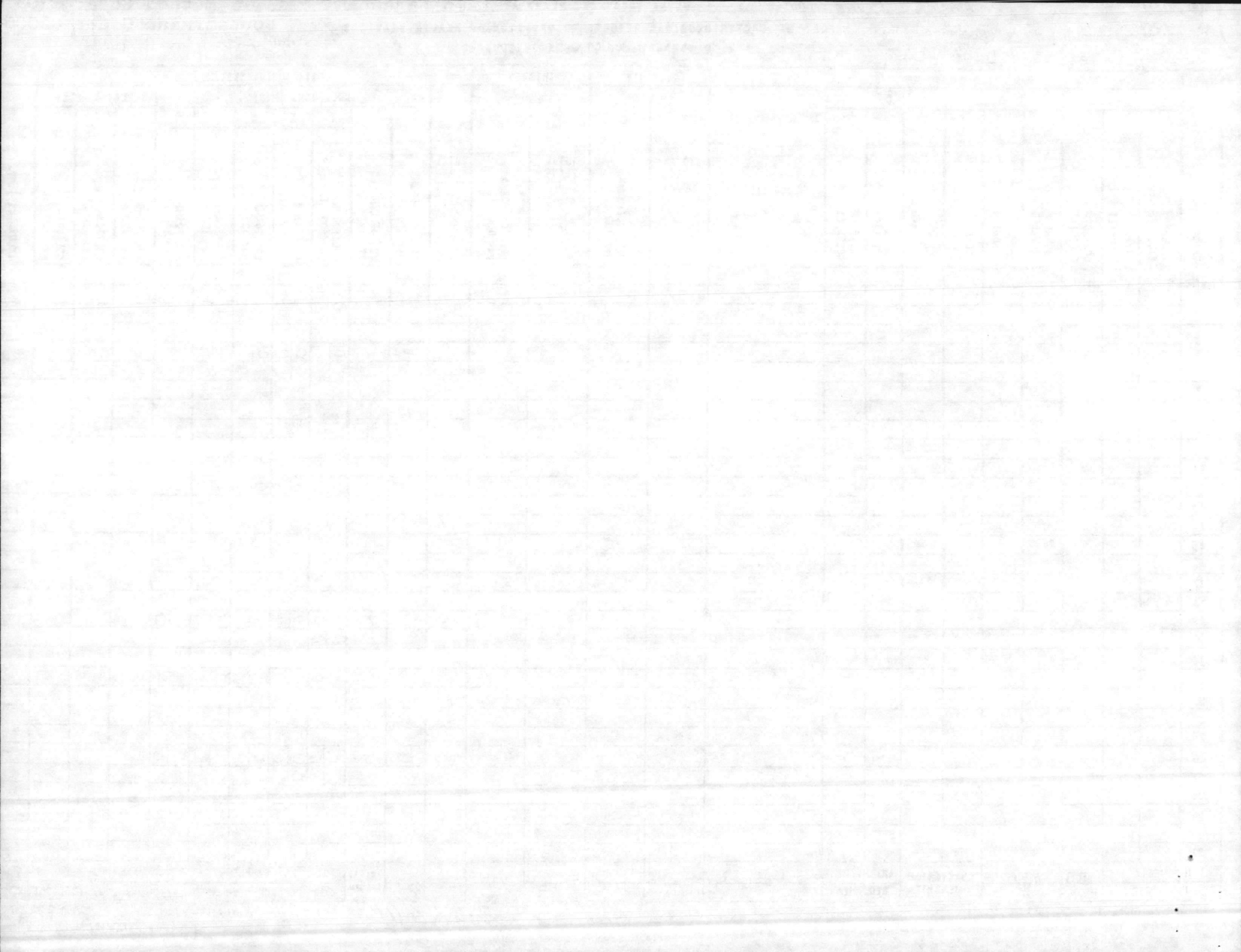
N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED		FINISHED		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	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																					
5																					
6	W											0	7	0	0	0	0	0	0	35.5	
7																					
8																					
9																					
10																					
11																					
12												0	7	0	0	0	0	0	0	35.5	
13	W																				
14																					
15																					
16																					
17																					
18																					
19	W											0	7	0	0	0	0	0	0	35	
20														0	0						
21																					
22																					
23																					
24																					
25																					
26	W											0	7	0	0	0	0	0	0	35	
27														0							
28																					
29																					
30																					
31																					
MFP MEDIA		BBL mEndo		BACTERIAL DENSITY		ARTH. MEAN						0		DIST. SYSTEM		TOTAL NO. SAMPLES					28
TPC MEDIA						GEO. MEAN						1.0				SAMPLES EXCEEDING 3/50, (4/100) 7/200, 13/500ml					0

LAB ID # 37807

Elizabeth A. Betz

ERT GRADE B-WELL # 4987-W
ENCLOSURE (11)



Month MAY
Year 1987

TARAWA TERRACE

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-044

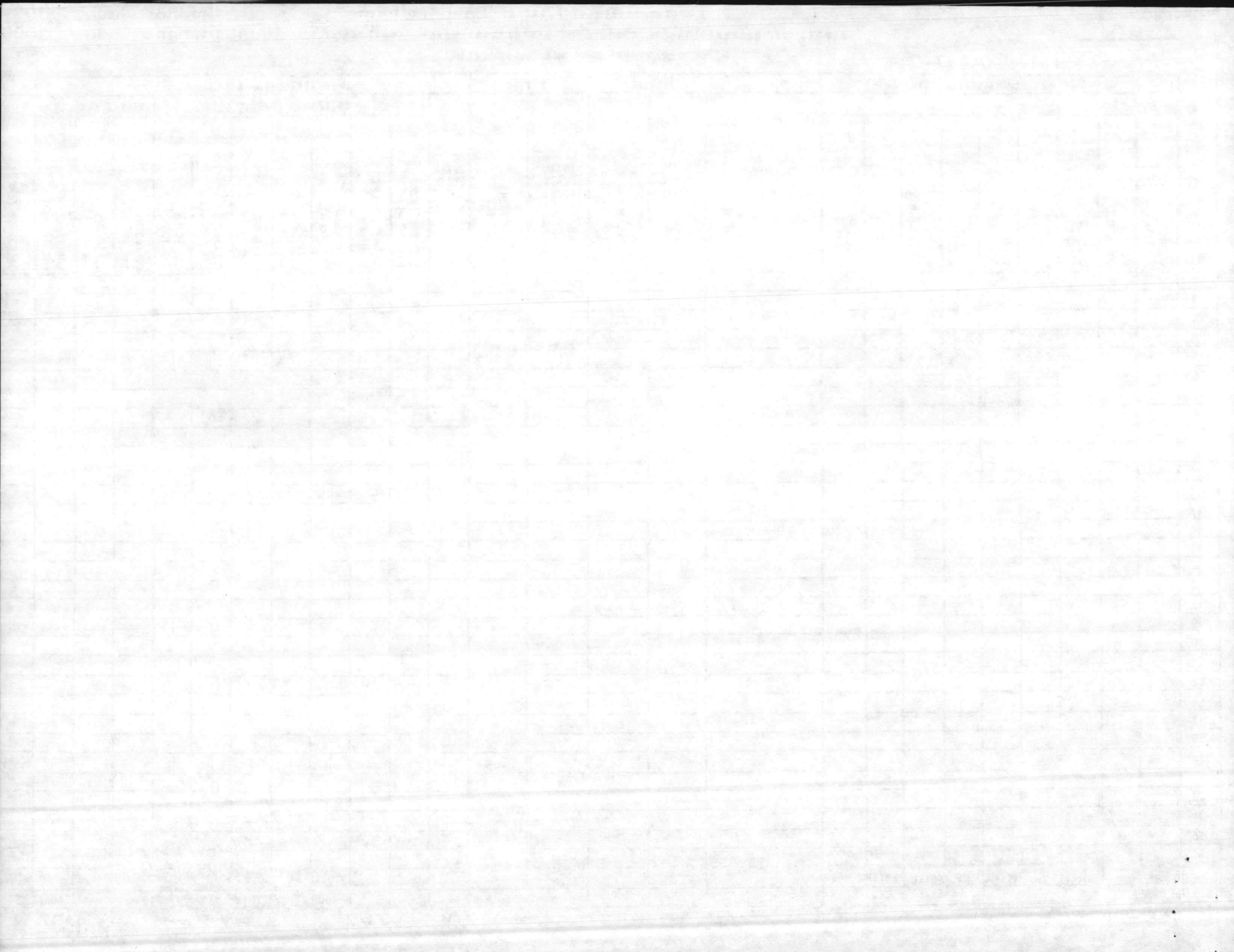
DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP
	A		B		C						1	2	3	4	5	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES													
1																			
2																			
3																			
4																			
5																			
6											0	4	00	00					35.5
7																			
8																			
9																			
10																			
11																			
12											0	4	00		00				35.5
13																			
14																			
15																			
16																			
17																			
18																			
19											0	4	00			00			35.5
20																			
21																			
22																			
23																			
24																			
25																			
26											0	4	00					00	35.0
27																			
28																			
29																			
30																			
31																			

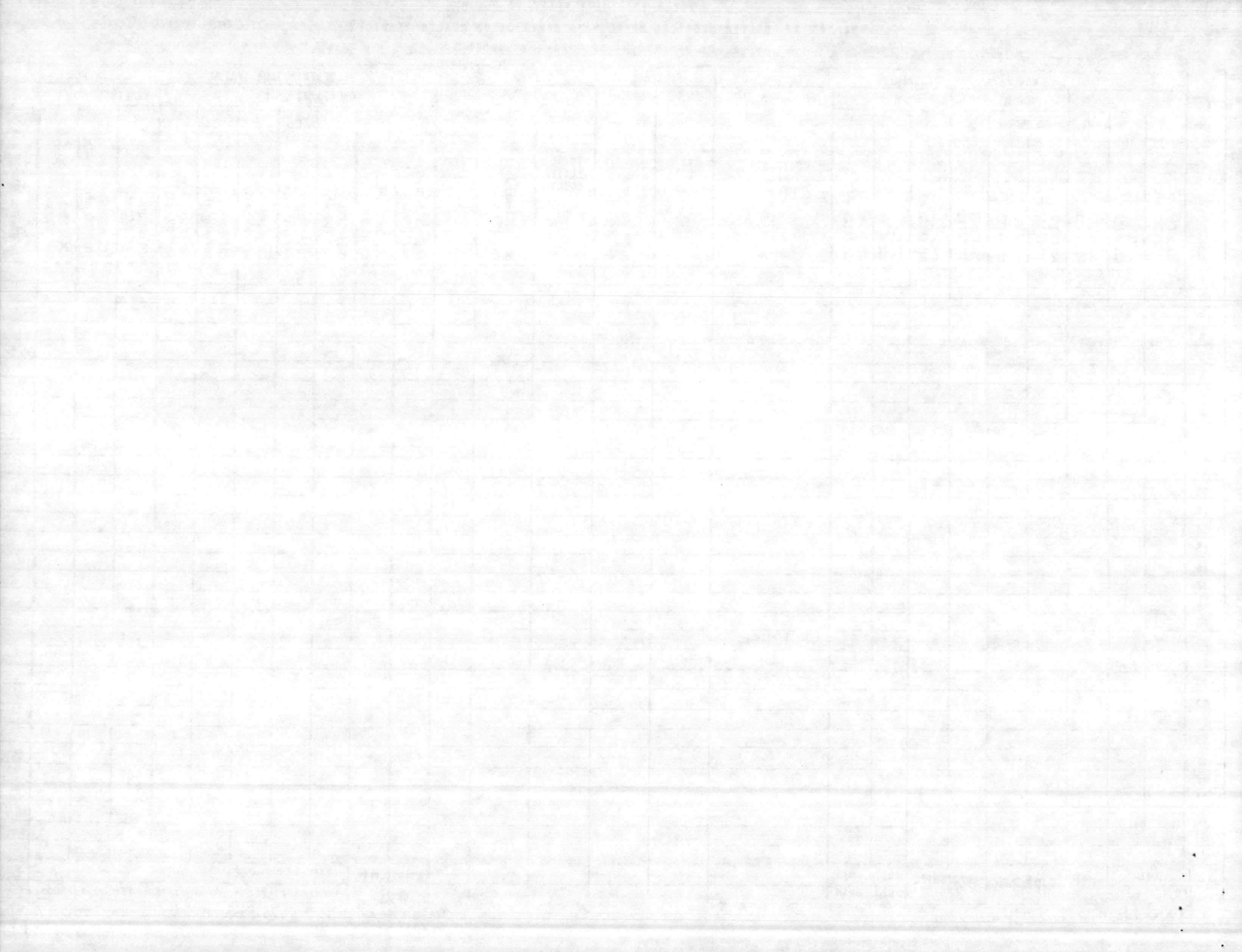
MF MEDIA BBL mEndo BACTERIAL DENSITY
TPC MEDIA ARITH. MEAN
GEO. MEAN

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

LAB ID # 37807

Elizabeth A. Berry (CERT. GRADE B - WELL # 4087 W) ENCLOSURE (11)





Month MAY
Year 1987

RIFLE RANGE

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 305

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-046

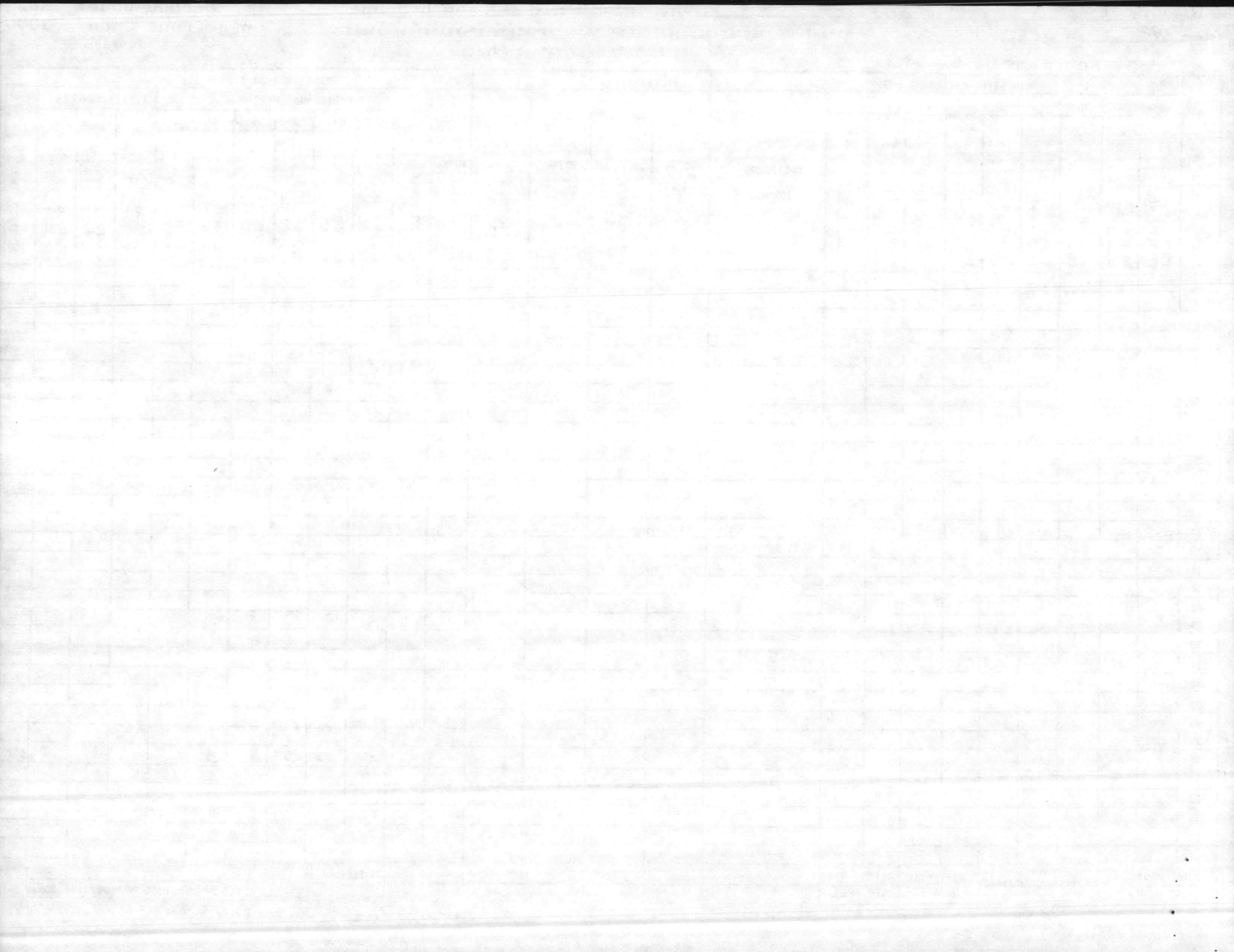
DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.	
	A		B		C								1	2	3	4	5	COLIFORMS per 100 ml.	COLIFORMS 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										0	6	0	0	0							35.5	
6																						
7																						
8																						
9																						
10																						
11																						
12										0	3	0	0		0						35.5	
13																						
14																						
15																						
16																						
17																						
18																						
19										0	3	0	0		0						35.5	
20																						
21																						
22																						
23																						
24																						
25																						
26										0	3	0	0		0						35.5	
27																						
28																						
29																						
30																						
31																						
MFP MEDIA		RBI mEndo		BACTERIAL DENSITY		ARITH. MEAN				0		DIST. SYSTEM		TOTAL NO. SAMPLES							12	
TPC MEDIA						GEO. MEAN				1.0				SAMPLES EXCEEDING 3/50. 6/100. 7/200. 13/500ml							0	

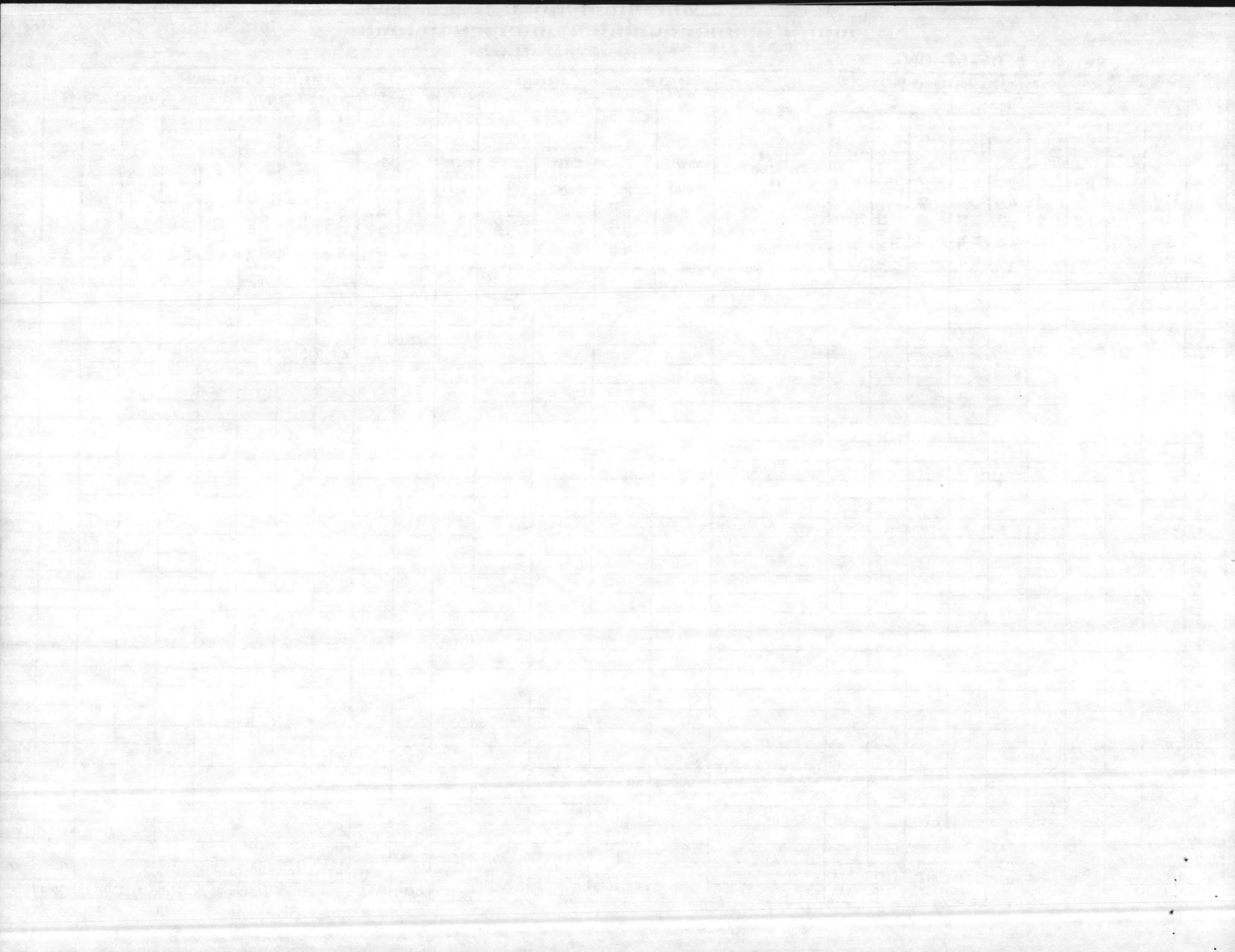
LAB ID # 37807

Elizabeth C. Betty

CERT GRADE B-WELL # 4087-W

COIDR 11





Month MAY
Year 1987

ONSLOW BEACH

WATER TREATMENT PLANT AT Camp Lejeune
REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES
N. C. DEPARTMENT OF HUMAN RESOURCES

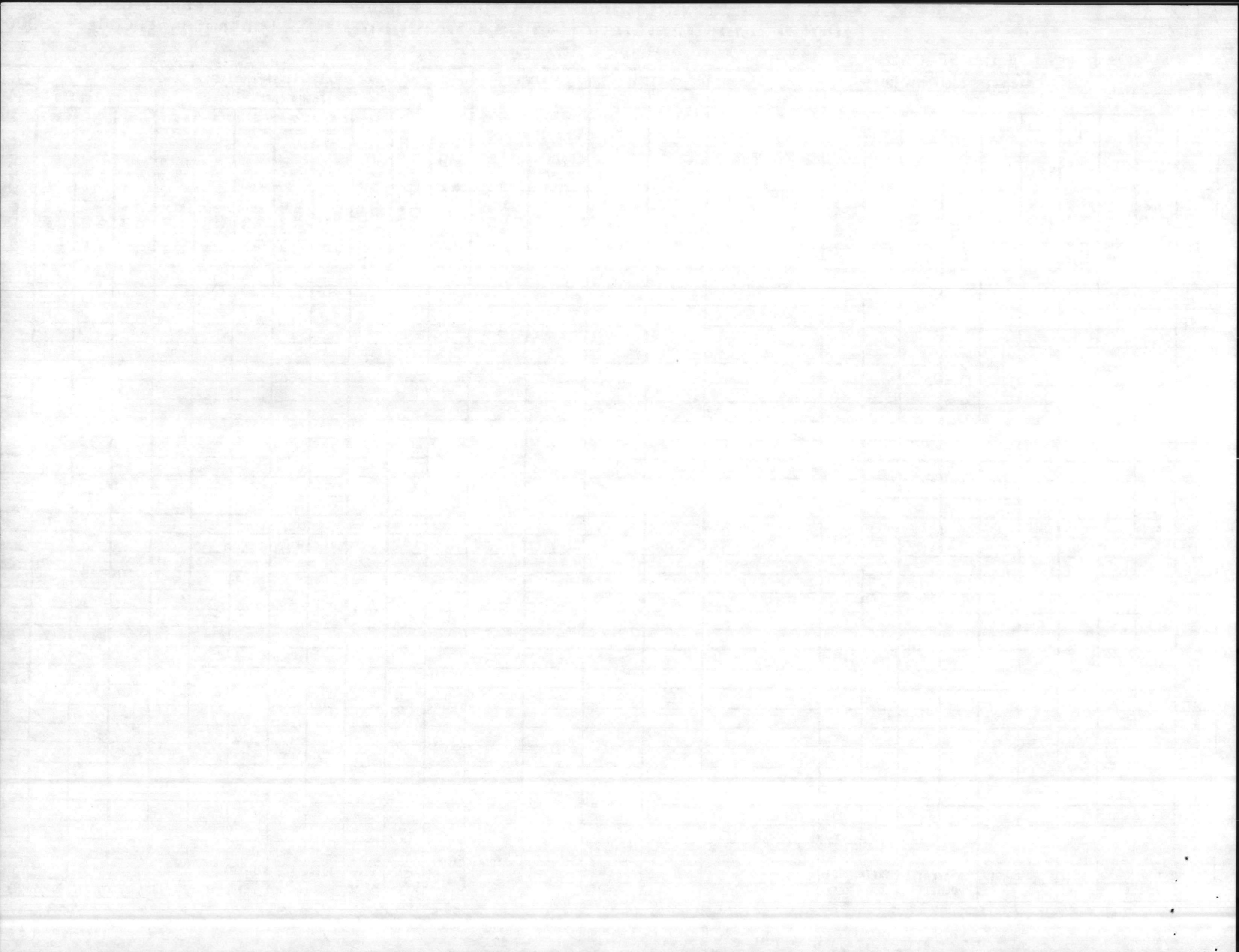
Method Code: 305
Contaminant Code: 3000

Serial # 04-67-048

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	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										0	N	0	0								35.5	
6																						
7																						
8																						
9																						
10																						
11																						
12										0	N	0		0							35.5	
13																						
14																						
15																						
16																						
17																						
18																						
19										0	N	0				0					35.5	
20																						
21																						
22																						
23																						
24																						
25																						
26										0	N	0	0								35.5	
27																						
28																						
29																						
30																						
31																						
MFP MEDIA		BBI mEndo		BACTERIAL DENSITY		ARITH. MEAN				0		DIST. SYSTEM		TOTAL NO. SAMPLES							8	
TPC MEDIA						GEO. MEAN				7.0				SAMPLES EXCEEDING 3/50 (4/100) 7/200. 13/500ml							0	

LAB ID # 37807

Elizabeth Betty CERT GRADE B-WELL # 4087-W
ENCLOSURE (11)



PARAMETER	HADNOT POINT	CAMP JOHNSON	TARAWA TERRACE	ONSLow BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER		
SERIAL #04-67	-041	-045	-044	-048	-047	-046	-043	-042		
PH (IN LAB NOT PLANT)	8.7			7.4	8.0	8.3	8.7	8.9		
PHENOLTHALEIN ALKALINITY	20			0	0	4	14	12		
METHYL ORANGE ALKALINITY	58			176	186	200	72	120		
CARBONATES AS CaCO ₃	40			0	0	8	28	24		
BICARBONATES AS CaCO ₃	18			176	186	192	44	96		
CHLORIDES AS Cl	16			48	20	44	18	60		
HARDNESS AS CaCO ₃	60			44	54	58	62	64		
IRON AS Fe	A.A.	DOWN.								
FLUORIDE	Am 1.11 PM 1.42			0.18	0.16	0.12	0.65 1.07	0.54		
CHLORINE RESIDUAL	0.9			1.4	1.4	1.0	1.2	1.0		
TURBIDITY	Am 0.1 PM 0.2			0.2	0.1	0.1	1.0 0.5	0.4		
TOTAL PHOSPHATE										
ORTHO PHOSPHATE										
META PHOSPHATE										
STABILITY	+0.4			-0.9	-0.4	-0.1	+0.3	+0.1		

REMARKS

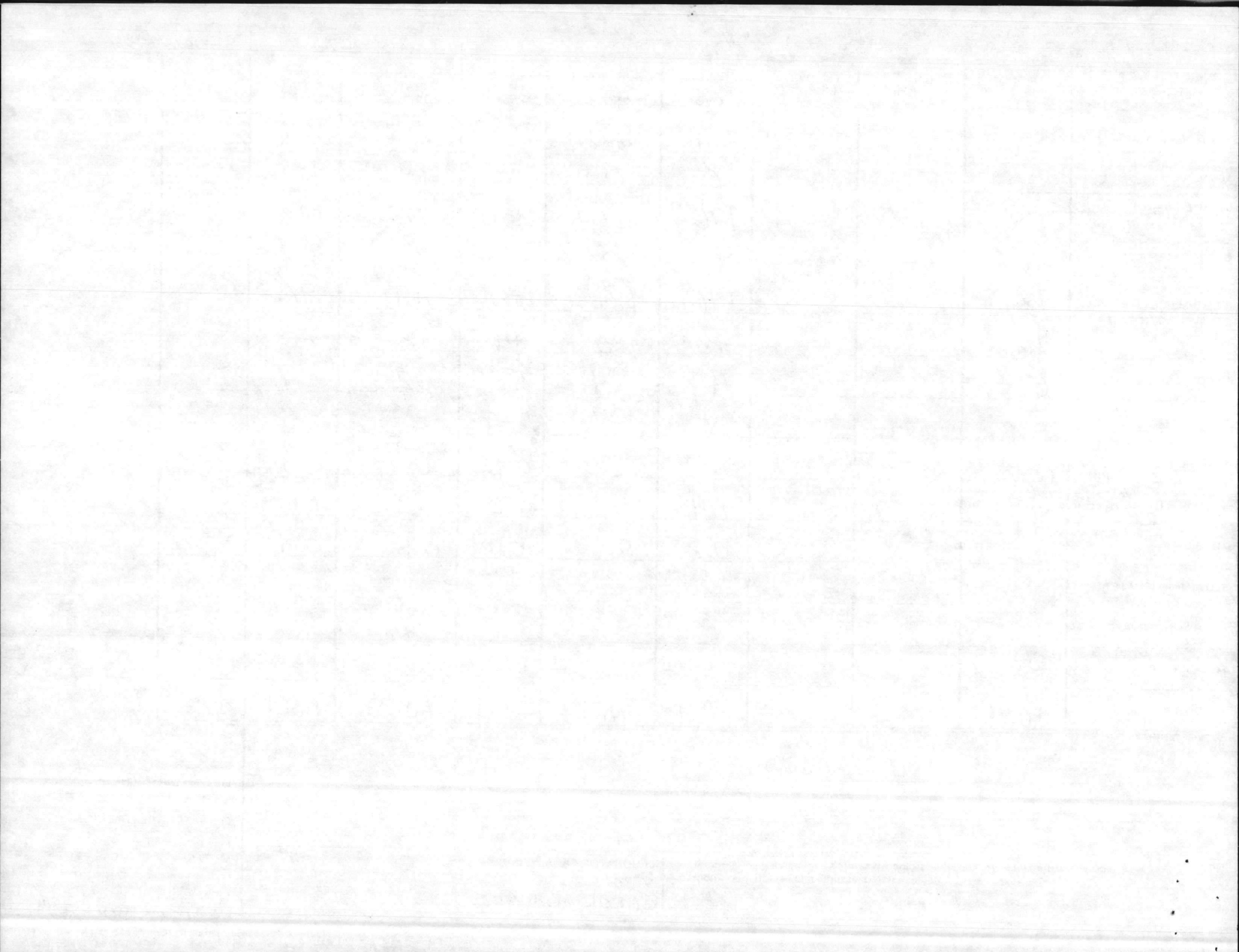
- COPY TO
- UTIL DIR _____
- WATER TREATMENT
- PMU MCAS PMU

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
CAROL SHORES

NREAD FILE

ENCLOSURE 621



CHEMICAL ANALYSIS -- WATER TREATMENT PLANTS
 MCBCL 11330.3 (REV 6-84)

DATE COLLECTED
 5-19-87

DATE OF ANALYSIS
 5-19-87

PARAMETER SERIAL# 04-67	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLow BEACH -043	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -045	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.8			7.6	8.0	8.4	8.6	8.8		
PHENOLTHALEIN ALKALINITY	4			0	0	2	4	14		
METHYL ORANGE ALKALINITY	60			170	182	170	66	120		
CARBONATES AS CaCO ₃	8			0	0	4	8	28		
BICARBONATES AS CaCO ₃	52			170	182	166	58	92		
CHLORIDES AS Cl	14			24	18	26	12	66		
HARDNESS AS CaCO ₃	60			52	50	48	78	50		
IRON AS Fe	A.A.	DOWN								
FLUORIDE	Am 0.80 pm 0.63			0.15	0.12	0.09	1.14 0.96	0.43		
CHLORINE RESIDUAL	1.0			1.4	1.5	1.1	1.0	0.8		
TURBIDITY	Am 0.2 pm 0.3			0.1	0.1	0.1	0.2 0.3	0.5		
TOTAL PHOSPHATE										
ORTHO PHOSPHATE										
META PHOSPHATE										
STABILITY	+0.4			+0.6	-0.2	+0.1	+0.3	+0.3		

REMARKS

COPY TO

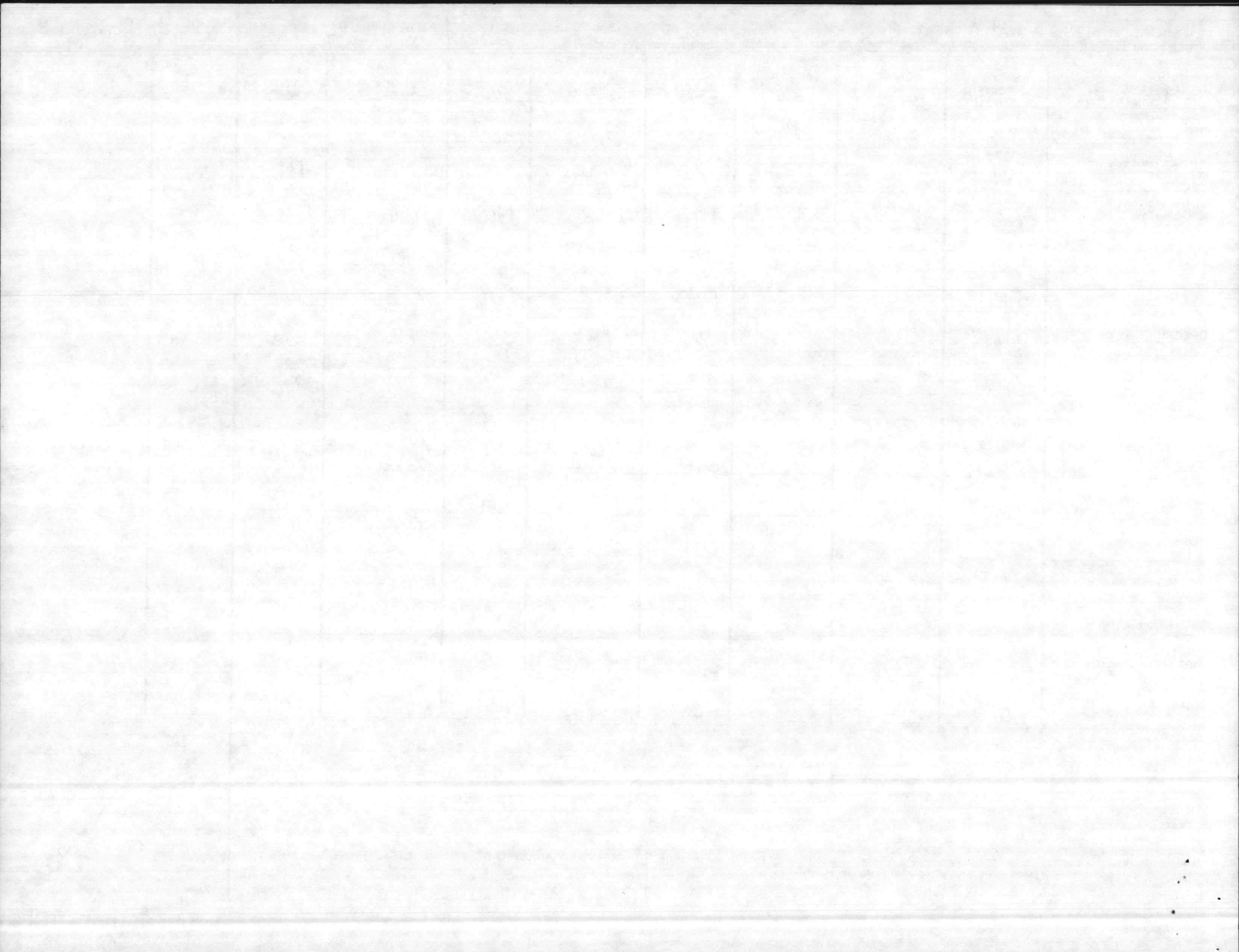
- UTIL DIR
 WATER TREATMENT
 PMU MCAS PMU
 NREAD FILE

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

CAROL SHORES

ENCLOSURE (2)



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

DATE COLLECTED
 5-12-87

DATE OF ANALYSIS
 5-12-87

PARAMETER SERIAL #0467	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLow BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.8			7.7	7.9	7.9	8.6	9.0		
PHENOLTHALEIN ALKALINITY	14			0	0	0	2	12		
METHYL ORANGE ALKALINITY	62			172	178	176	62	118		
CARBONATES AS CaCO ₃	28			0	0	0	4	24		
BICARBONATES AS CaCO ₃	34			172	178	176	58	94		
CHLORIDES AS Cl	26			38	36	64	26	68		
HARDNESS AS CaCO ₃	82			60	48	72	98	78		
IRON AS Fe	A.A.	DOWN								
FLUORIDE	Am 0.89 pm 0.88			0.14	0.11	0.09	0.93 0.97	0.40		
CHLORINE RESIDUAL	1.0			1.2	1.2	1.0	1.2	0.8		
TURBIDITY	Am 0.2 pm 0.3			0.1	0.1	0.1	0.5 0.3	0.4		
TOTAL PHOSPHATE										
ORTHO PHOSPHATE										
META PHOSPHATE										
STABILITY	+0.3			-0.5	-0.4	-0.3	+0.1			

REMARKS

COPY TO

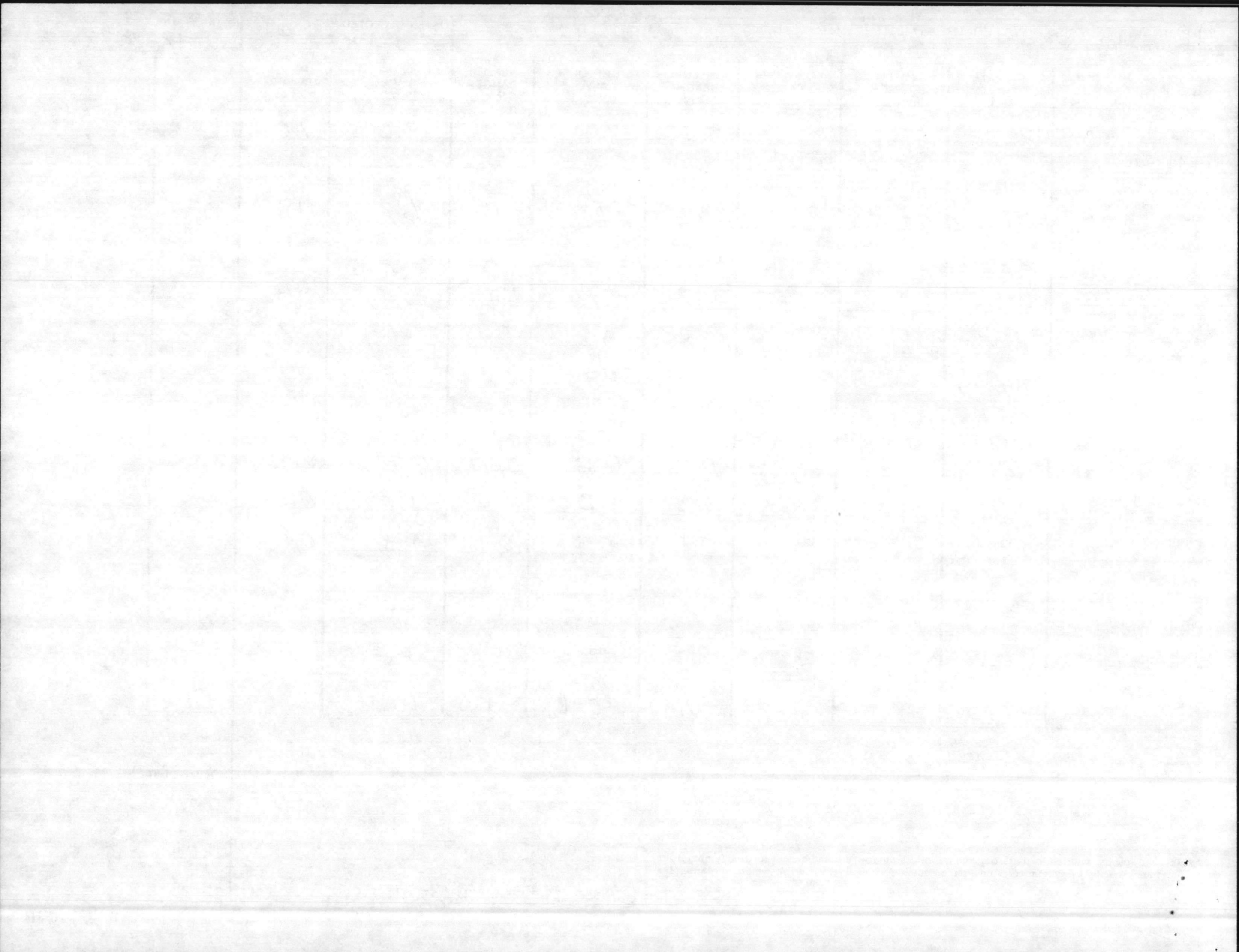
- UTIL DIR _____
 WATER TREATMENT
 PMU MCAS PMU
 NREAD FILE

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

CAROL SHORIS

ENCLOSURE (2)



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

DATE COLLECTED
 5-5-87

DATE OF ANALYSIS
 5-5-87

PARAMETER	HADNOT POINT	CAMP JOHNSON	TARAWA TERRACE	ONSLow BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER
SERIAL #04-67	-041	-045	-044	-048	-047	-046	-043	-042
PH (IN LAB NOT PLANT)	8.4			7.4	7.9	8.3	8.3	8.4
PHENOLTHALEIN ALKALINITY	4			0	0	4	2	8
METHYL ORANGE ALKALINITY	68			134	188	186	56	130
CARBONATES AS CaCO ₃	8			0	0	8	4	16
BICARBONATES AS CaCO ₃	60			134	188	178	52	114
CHLORIDES AS Cl	16			26	20	30	10	58
HARDNESS AS CaCO ₃	104			60	52	74	78	70
IRON AS Fe	A.A.	DOWN						
FLUORIDE	Am 1.03 pm 1.08			0.16	0.11	0.09	0.98 0.94	0.41
CHLORINE RESIDUAL	1.0			1.3	1.5	1.0	1.1	0.8
TURBIDITY	Am 3.1 pm 0.2			0.2	0.1	0.1	0.2 0.6	0.8
TOTAL PHOSPHATE								
ORTHO PHOSPHATE								
META PHOSPHATE								
STABILITY	+0.2			-0.5	-0.2	+0.2	0.0	+0.2

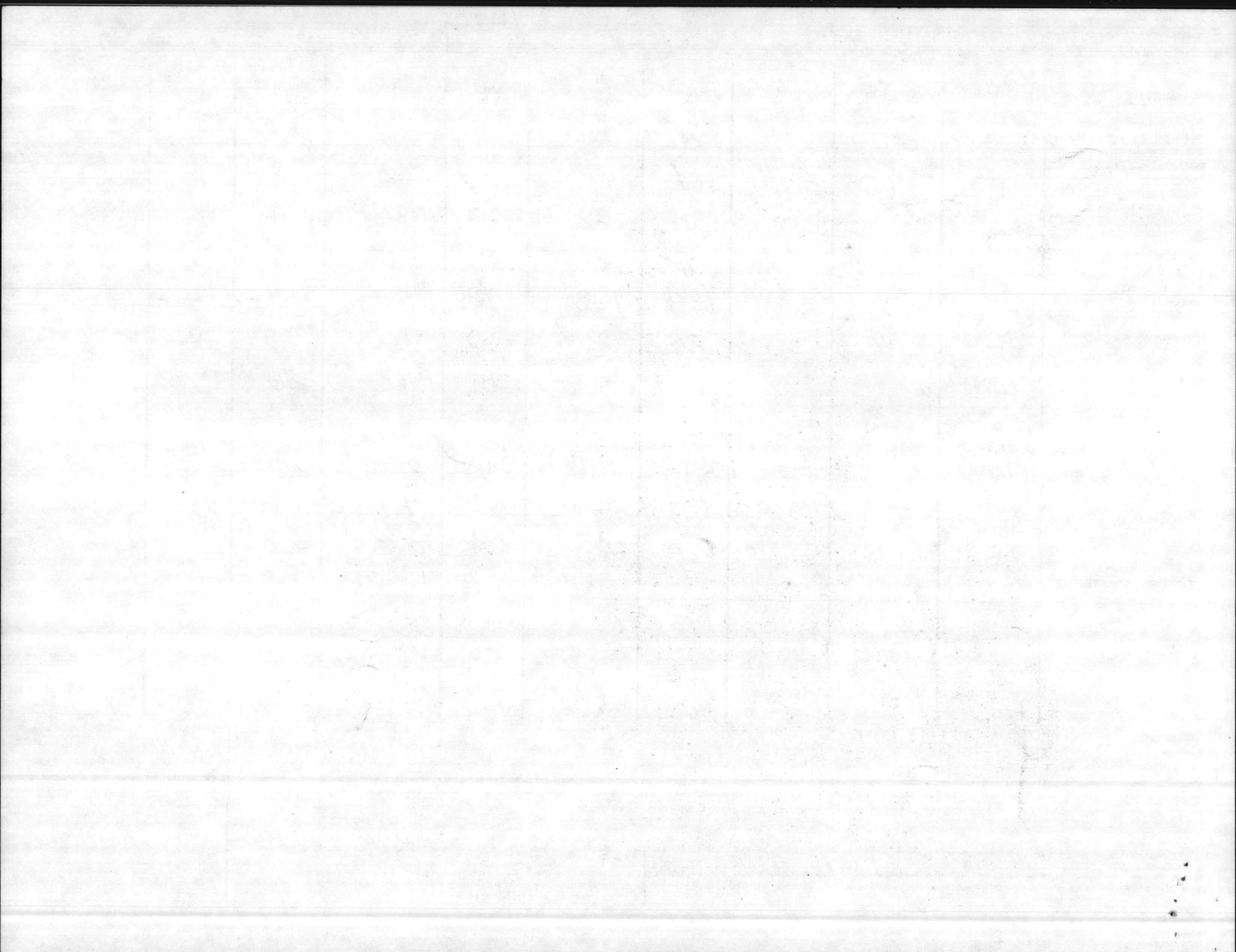
REMARKS

- 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
 CAROL STOKES

ENCLOSURE (2)



11331
NREAD
8 May 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 1-30 April 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, Environmental Chemistry and Microbiology Laboratory, 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:
LANTNAVPACENCOM (Code 114)

Blind Copy to:
BMO (ATTN: UTIL DIR)
→ Supvy Chem (2)

Faint, illegible text at the top of the page, possibly a header or title.

Second block of faint, illegible text in the upper middle section.

Third block of faint, illegible text in the middle section.

Fourth block of faint, illegible text in the lower middle section.

Small, faint text block at the bottom right, possibly a signature or date.

Year 1987

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

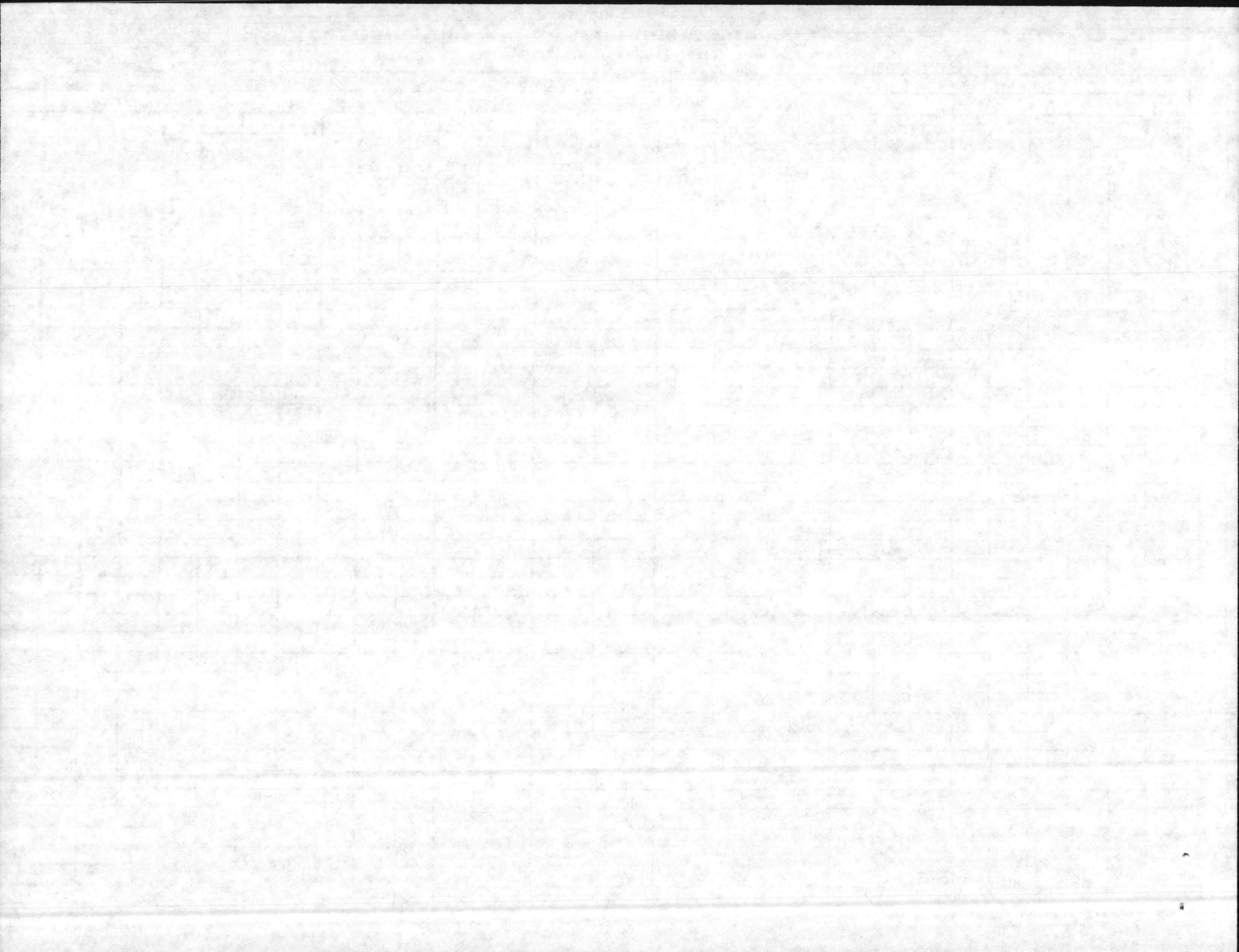
Serial # 04-67-041

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)					INCUBATOR TEMP.			
	A		B		C								1	2	3	4	5		REPEAT SAMPLES		
	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.
1																					
2																					
3																					
4																					
5																					
6																					
7										0	9	0	0	0	0	0	0	0	0	35.5	
8																					
9																					
10																					
11																					
12																					
13																					
14										0	9	0	0	0	0	0	0	0	0	95.3	
15																					
16																					
17																					
18																					
19																					
20																					
21										0	9	0	0	0	0	0	0	0	0	35.2	
22																					
23																					
24																					
25																					
26																					
27																					
28										0	9	0	0	0	0	0	0	0	0	35.0	
29																					
30																					
31																					
MF MEDIA		BBI mEndo		BACTERIAL DENSITY		ARITH. MEAN				0		DIST. SYSTEM		TOTAL NO. SAMPLES						36	
TPC MEDIA						GEO. MEAN				10				SAMPLES EXCEEDING 3/50. (4/100). 7/200. 13/500ml						0	

LAB ID # 37807

Elizabeth Betty CERT GRADE B - WELL # 4087-W



Year 1987

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

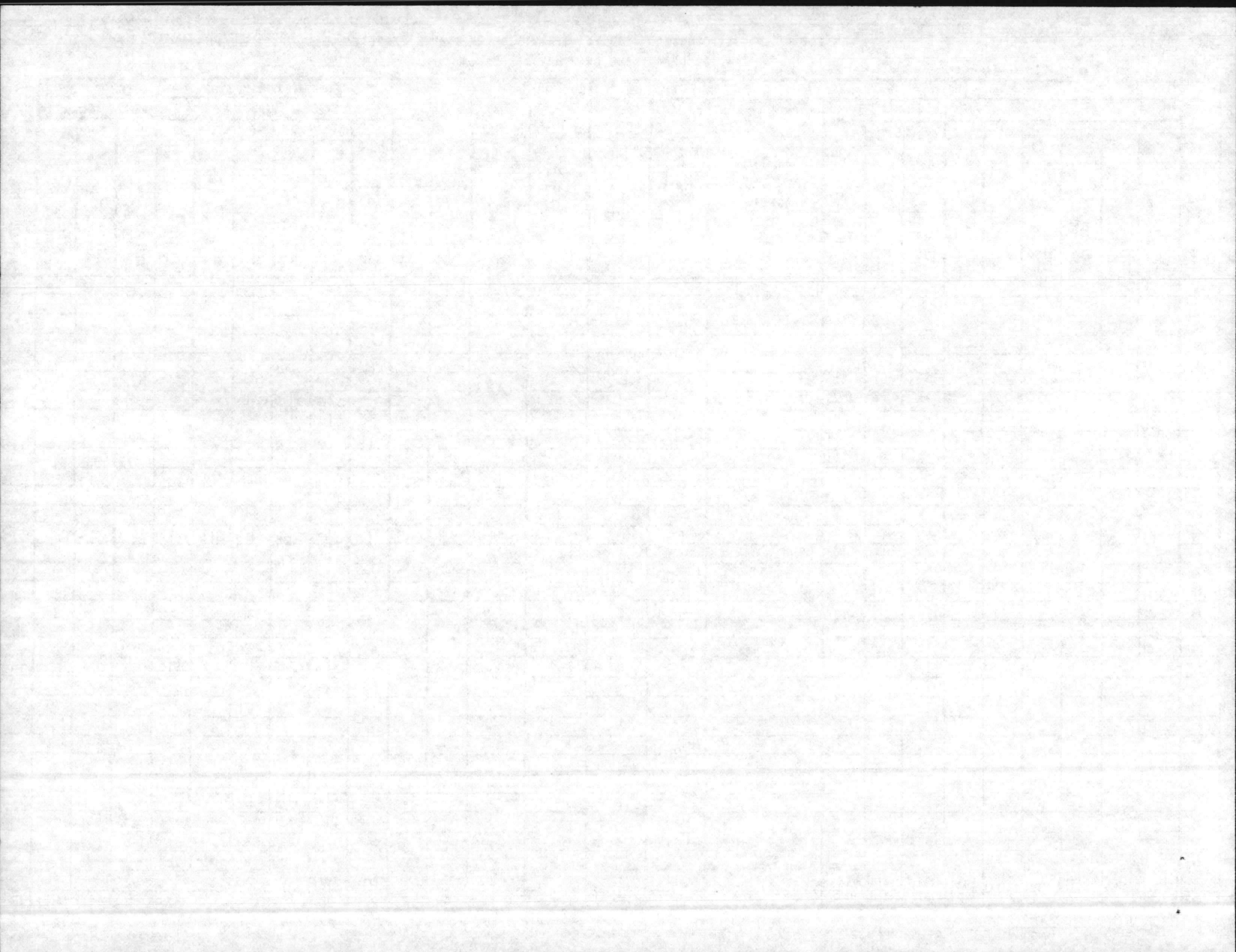
Serial # 04-67-042

N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP)									NO. OF COLIFORMS PER 100 ml.	FILTERED TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	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	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES															
1																								
2																								
3																								
4																								
5																								
6																								
7														0	7	0	0	0	0	0	0			35.5
8																								
9																								
10																								
11																								
12																								
13																								
14														0	7	0	0	0	0	0	0			35.3
15																								
16																								
17																								
18																								
19																								
20																								
21														0	7	0	0	0	0	0	0			35.2
22																0	0							
23																								
24																								
25																								
26																								
27																								
28														0	7	0	0	0	0	0	0			35.0
29																0	0	0	0					
30																								
31																								
MFP MEDIA	BRL mEndo			BACTERIAL DENSITY			ARITH. MEAN							0	DIST. SYSTEM		TOTAL NO. SAMPLES							28
TPC MEDIA							GEO. MEAN							1.0	SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml							0		

LAB ID # 37857

Elyabeth CERT GRADE B-WELL # 4087-W



Year 1937

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

Serial # 04-67-043

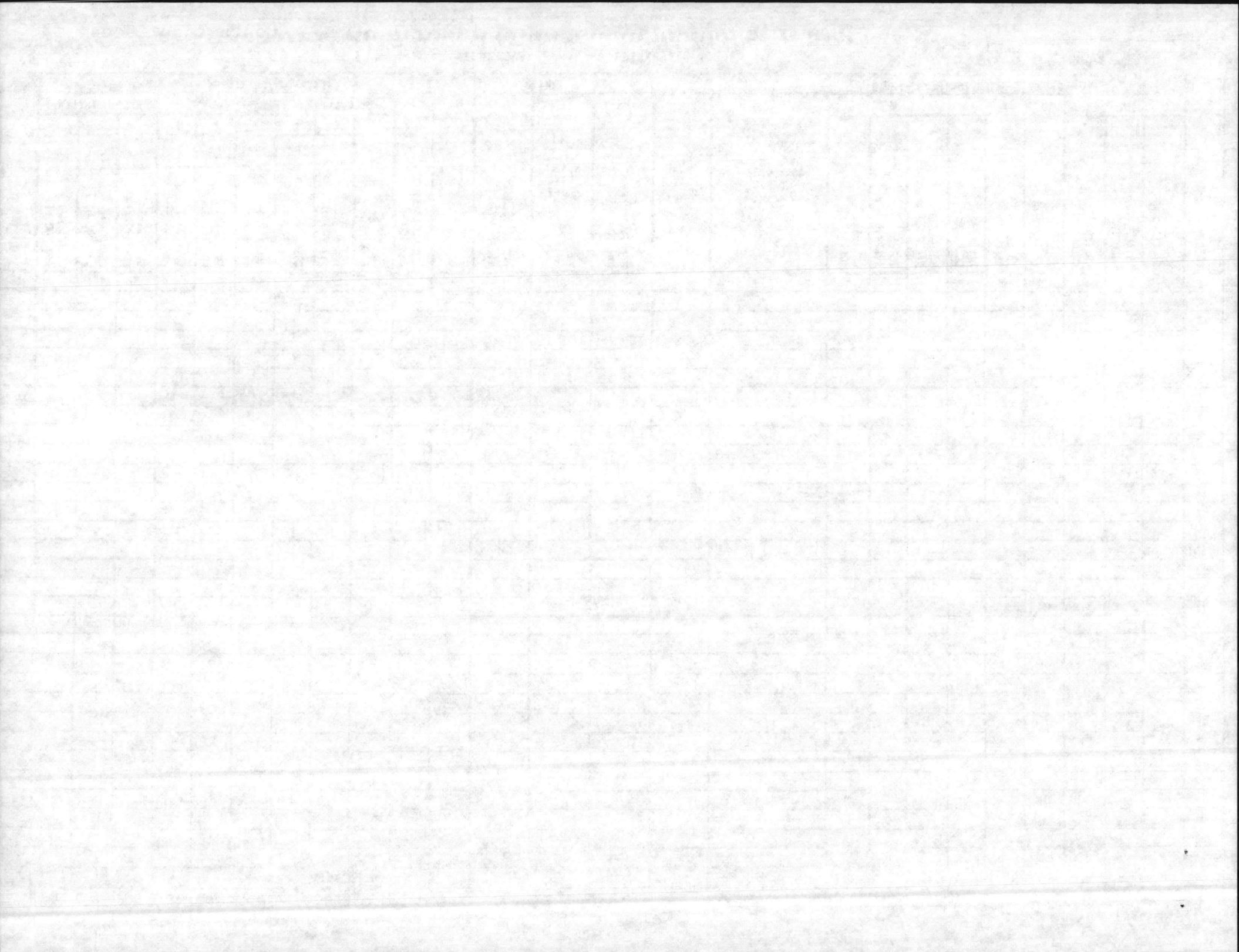
N. C. DEPARTMENT OF HUMAN RESOURCES

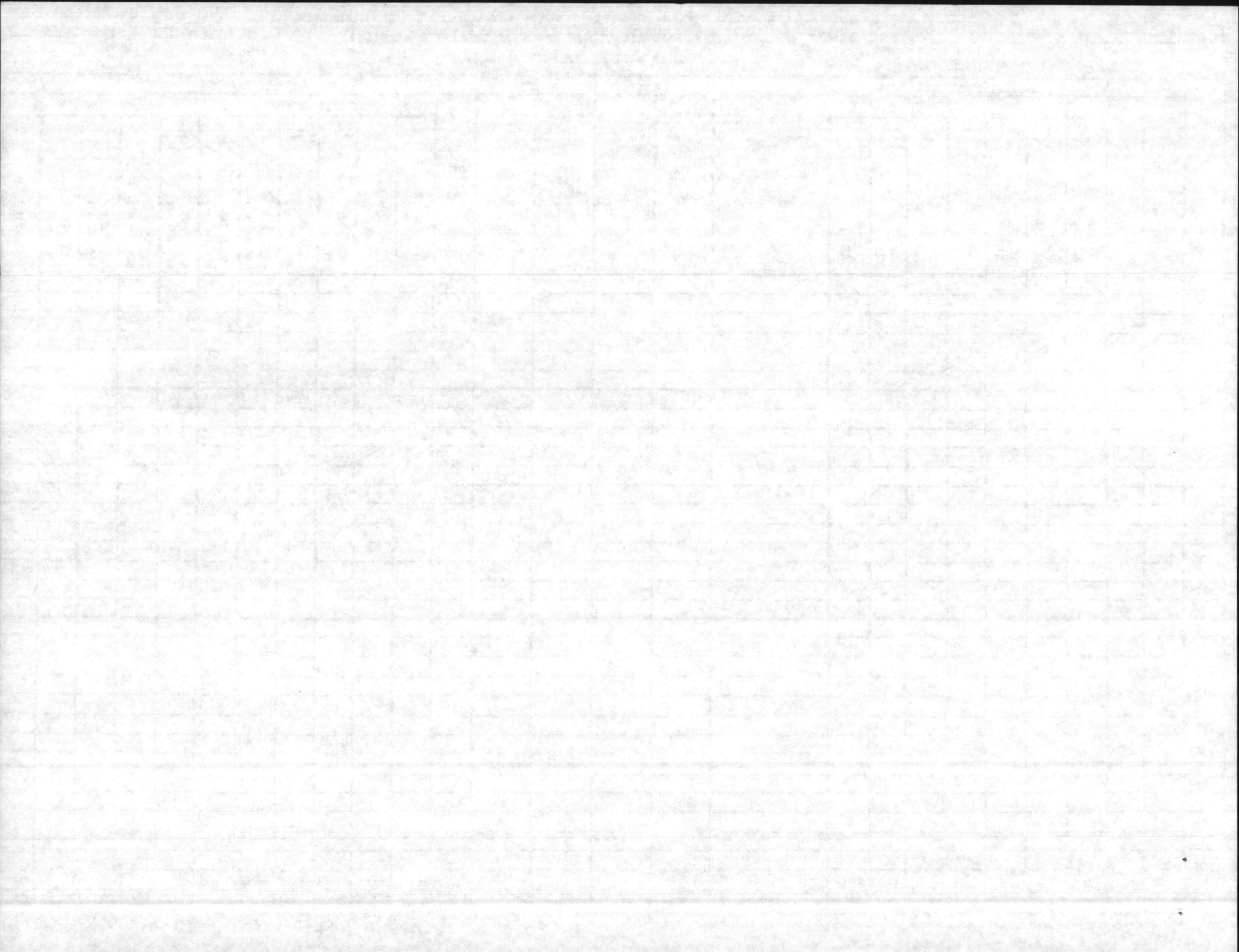
DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	FILTERED	FINISHED	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM					REPEAT SAMPLES			INCUBATOR TEMP.	
	A		B		C							COLIFORMS (MFP)									
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES						1	2	3	4	5	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.		
1																					
2																					
3																					
4																					
5																					
6																					
7											0	7	0	0	0	0	0			35.5	
8																					
9																					
10																					
11																					
12																					
13																					
14											0	7	0	0	0			0	0	35.3	
15																					
16																					
17																					
18																					
19																					
20																					
21											0	7	0	0	0			0	0	35.2	
22																					
23																					
24																					
25																					
26																					
27																					
28																					
29											0	6	0	0	0					35.0	
29																					
30																					
31																					
MF MEDIA	BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN						0	DIST. SYSTEM	TOTAL NO. SAMPLES								27
TPC MEDIA					GEO. MEAN						1.0		SAMPLES EXCEEDING 3/50, 4/100, 1/200, 13/500 ml								0

LAB ID # 37357

Elizabeth A. Boy

CERT GRADE B-WELL # 4087-W





Year 1987

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

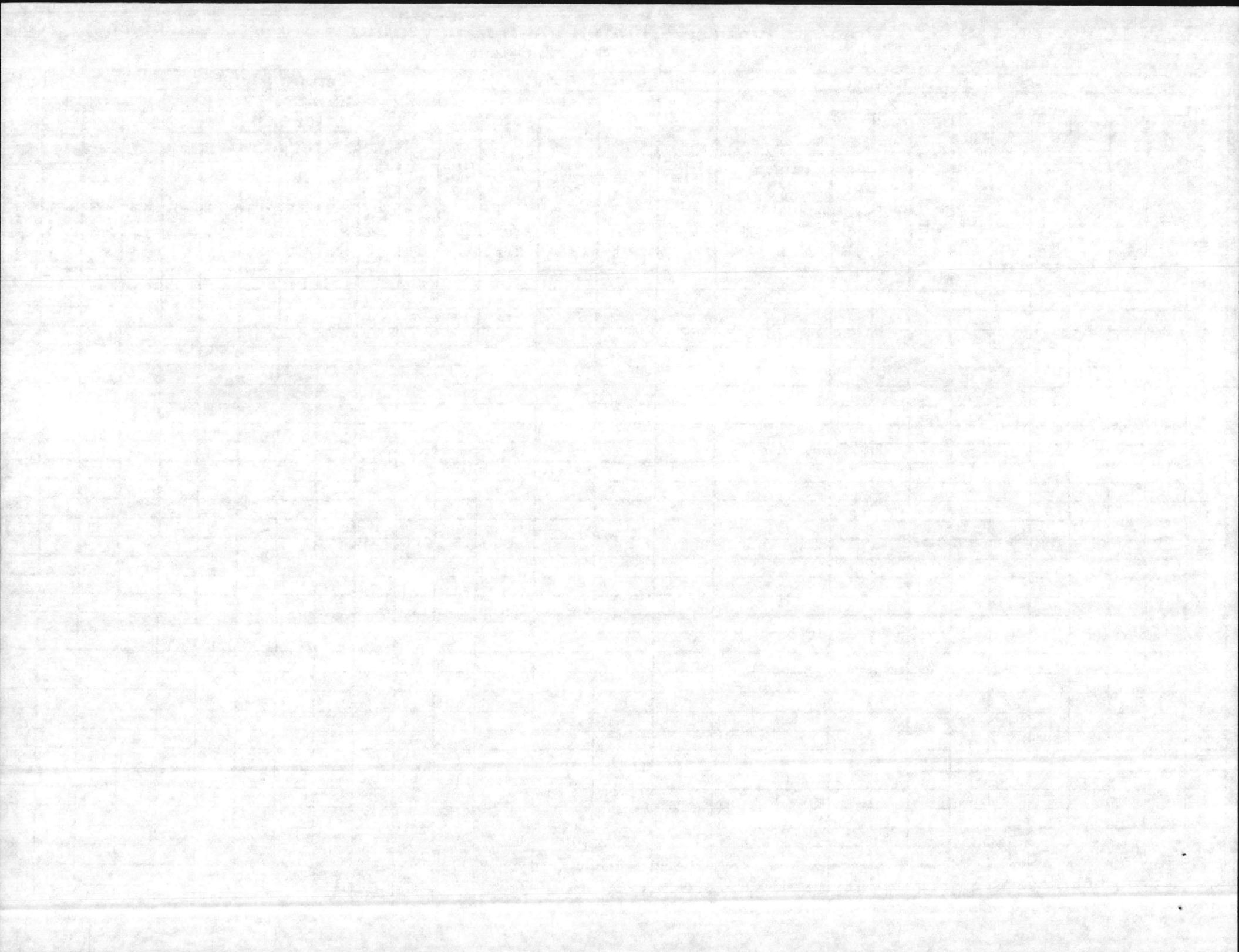
Contaminant Code: 3000

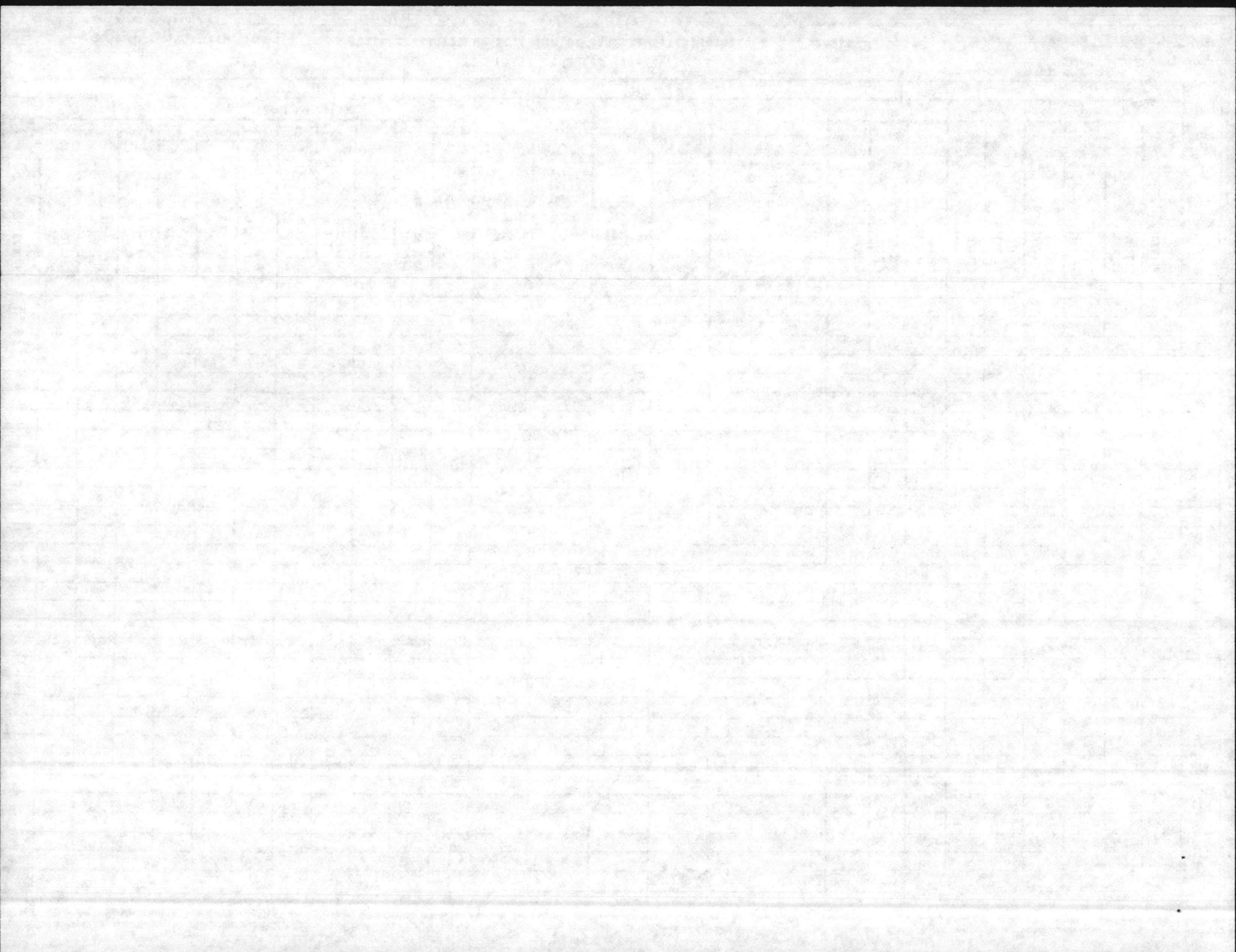
Serial # 04-67-045

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	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																							
6																							
7										0	2	0	0									35.5	
8																							
9																							
10																							
11																							
12																							
13																							
14										0	2	0		0								35.3	
15																							
16																							
17																							
18																							
19																							
20																							
21										0	2	0			0							35.2	
22																							
23																							
24																							
25																							
26																							
27																							
28										0	2	0										36.0	
29																							
30																							
31																							
MFP MEDIA		BBI mEndo		DACTERIAL DENSITY		ARITH. MEAN				0		DIST. SYSTEM		TOTAL NO. SAMPLES								8	
TPC MEDIA						GEO. MEAN				1.0				SAMPLES EXCEEDING 3/50 (4/100) 7/200. 13/500=1								0	

LAB ID # 37307

Elizabeth A. Bety CERT GRADE B-WELL # 4087-W





Year 1937

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

Serial # 04-67-047

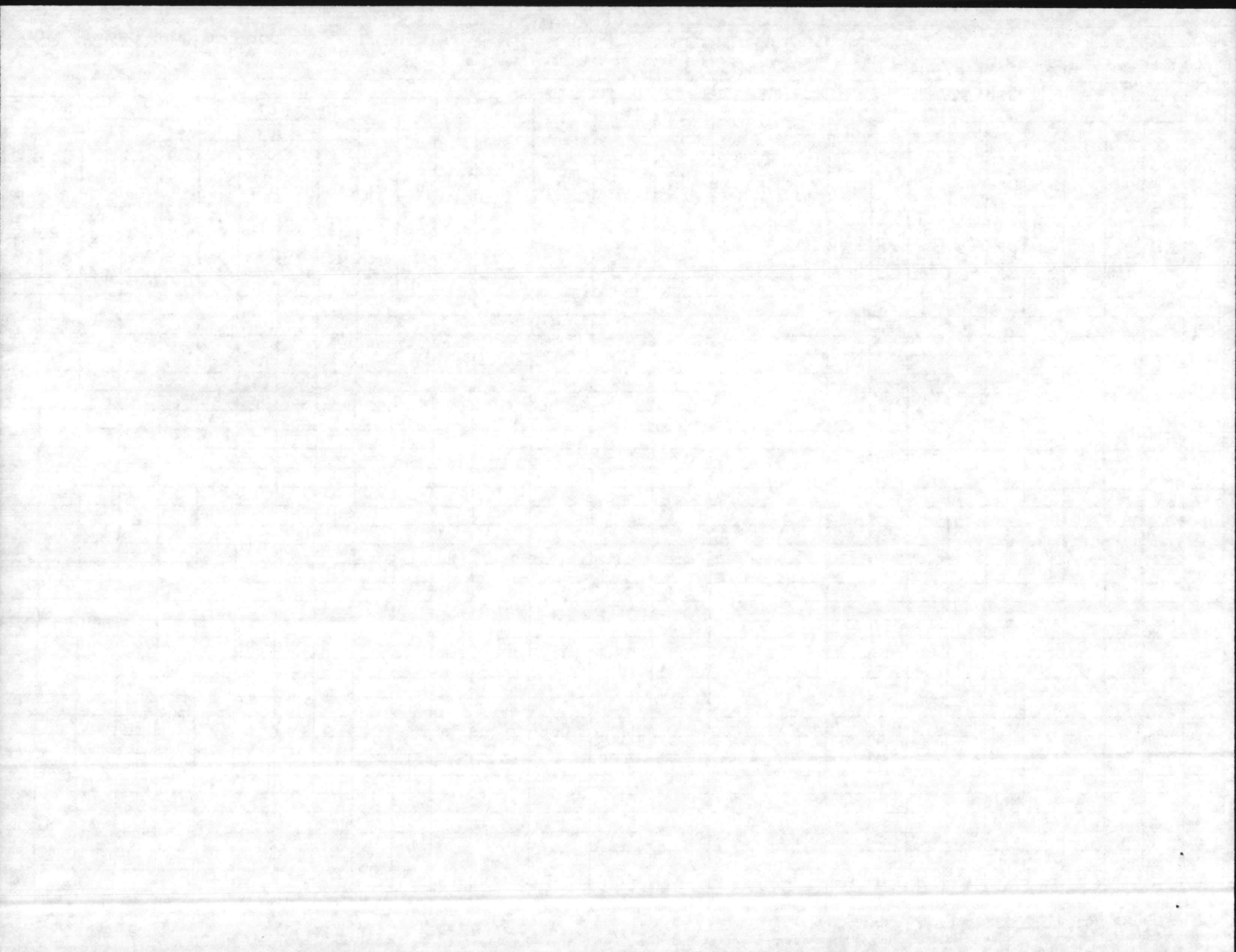
N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	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.			
1																								
2																								
3																								
4																								
5																								
6																								
7											0	4	0	0	0	0							35.5	
8																								
9																								
10																								
11																								
12																								
13																								
14											0	4	0	0	0	0							35.3	
15																								
16																								
17																								
18																								
19																								
20																								
21											0	4	0	0	0		0						35.2	
22																								
23																								
24																								
25																								
26																								
27																								
28											0	4		0	0								35.0	
29																								
30																								
31																								
MF MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN								DIST. SYSTEM		TOTAL NO. SAMPLES								16
TPC MEDIA						GEO. MEAN										SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml								0

LAB ID # 52307

Elizabeth Betty

CERT GRADE B-Well # 4087-W



Year 1937

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

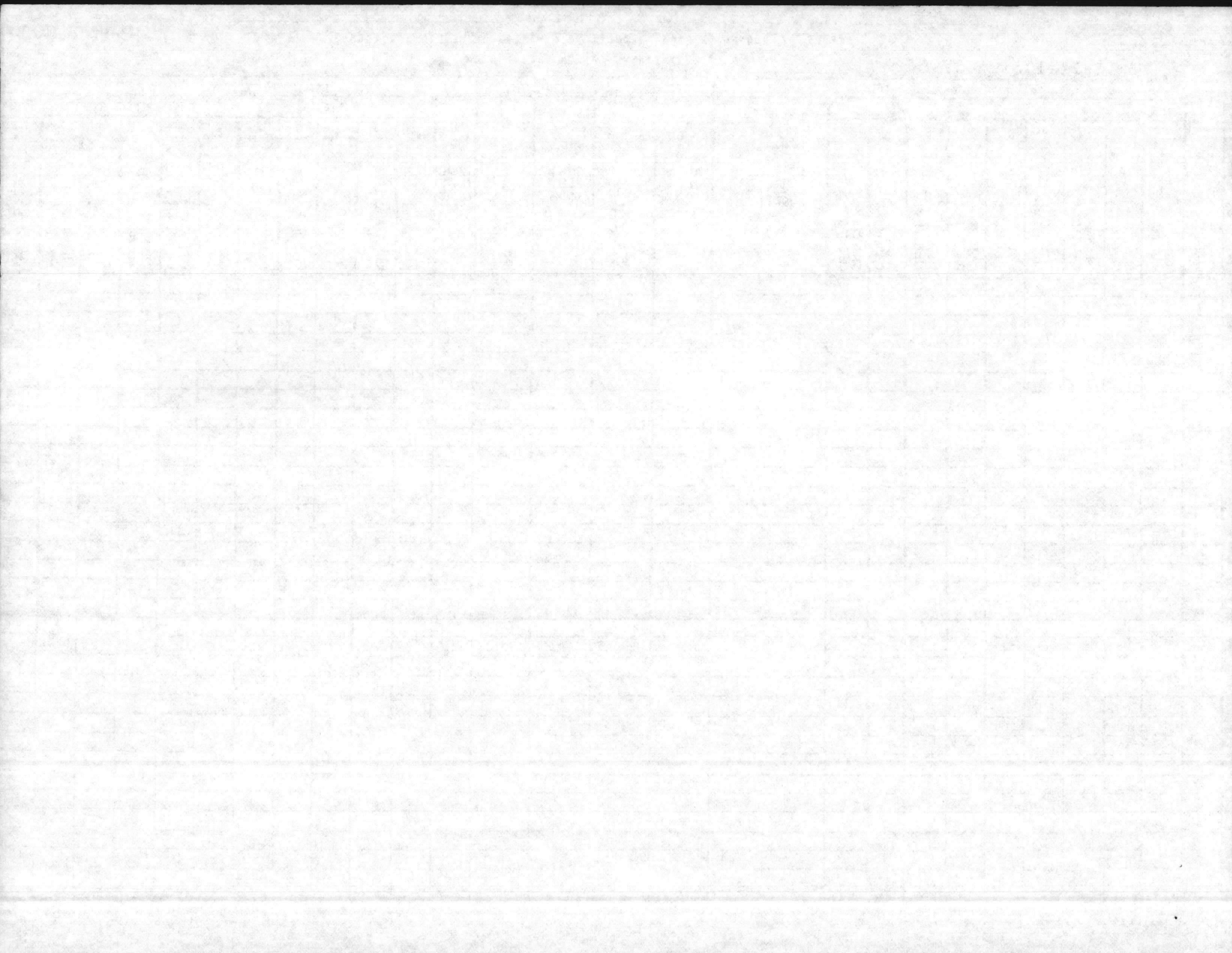
Serial # 04-67-048

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						INCUBATOR 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.
1																								
2																								
3																								
4																								
5																								
6																								
7														0	2	0	0						35.5	
8																								
9																								
10																								
11																								
12																								
13																								
14														0	2	0	0						35.3	
15																								
16																								
17																								
18																								
19																								
20																								
21														0	2	0	0						35.2	
22																								
23																								
24																								
25																								
26																								
27																								
28														0	2	0	0						35.0	
29																								
30																								
31																								
MF MEDIA	BBL mEndo			BACTERIAL DENSITY			ARITH. MEAN							0	DIST. SYSTEM		TOTAL NO. SAMPLES					8		
TPC MEDIA							GEO. MEAN							1.0			SAMPLES EXCEEDING 3/50. 4/100. 7/200. 13/500=1					0		

LAB ID # 37307

Elyalok (B) CERT GRADE B-WELL # 4087-W



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

DATE COLLECTED
 4-7-87

DATE OF ANALYSIS
 4-7-87

PARAMETER SERIAL# 04-67	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLow BEACH -043	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.6			7.4	8.0	8.3	8.5	8.7		
PHENOLTHALEIN ALKALINITY	2			0	0	0	2	10		
METHYL ORANGE ALKALINITY	50			156	170	160	60	112		
CARBONATES AS CaCO ₃	4			0	0	0	4	20		
BICARBONATES AS CaCO ₃	46			156	170	160	56	92		
CHLORIDES AS Cl	10			20	14	44	6	50		
HARDNESS AS CaCO ₃	64			48	68	60	64	50		
IRON AS Fe				A.A DOWN						
FLUORIDE	Am 0.74 pm 0.62			0.16	0.12	0.10	1.08 1.10	0.52		
CHLORINE RESIDUAL	1.0			1.5	1.6	1.0	1.4	0.8		
TURBIDITY	Am 0.5 pm 0.4			0.4	0.2	0.1	0.1 0.2	0.5		
TOTAL PHOSPHATE										
ORTHO PHOSPHATE										
META PHOSPHATE										
STABILITY	+0.3			-0.8	-0.2	0.0	+0.1	+0.1		

REMARKS

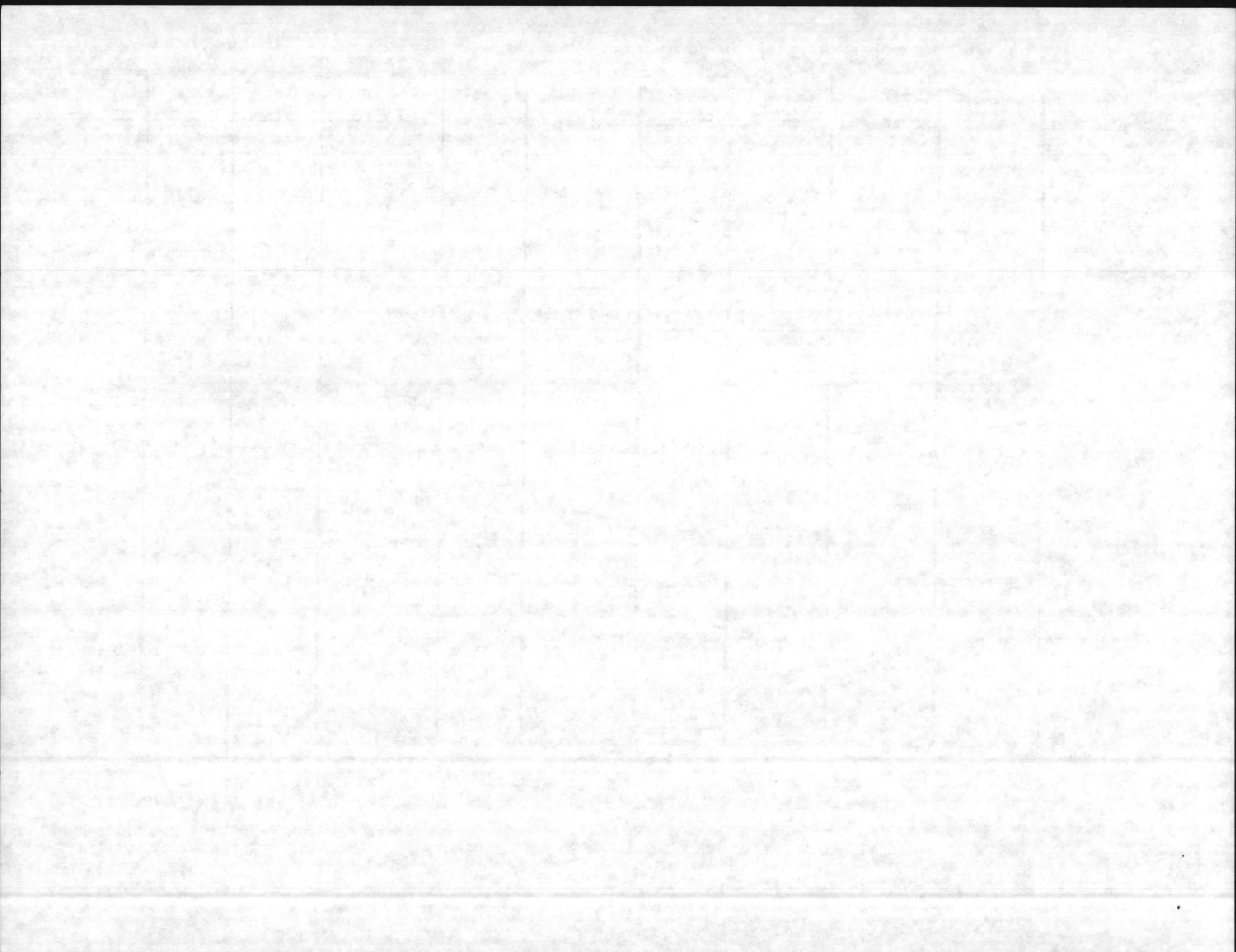
COPY TO:

- 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-J. BURNS



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

DATE COLLECTED
 4-14-87

DATE OF ANALYSIS
 4-14-87

PARAMETER	HADNOT POINT	CAMP JOHNSON	TARAWA TERRACE	ONSLow BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER		
SERIAL#04-67	-041	-045	-044	-048	-047	-046	-043	-042		
PH (IN LAB NOT PLANT)	8.7			7.5	7.6	8.3	8.8	9.0		
PHENOLTHALEIN ALKALINITY	6			0	0	0	4	12		
METHYL ORANGE ALKALINITY	60			160	170	170	62	110		
CARBONATES AS CaCO ₃	12			0	0	0	8	24		
BICARBONATES AS CaCO ₃	48			160	170	170	54	86		
CHLORIDES AS Cl	10			20	20	66	10	60		
HARDNESS AS CaCO ₃	74			50	54	64	80	50		
IRON AS Fe				A.D. DOWN						
FLUORIDE	Am 0.91 Pm 1.13			0.18	0.14	0.12	1.03 0.74	0.48		
CHLORINE RESIDUAL	1.1			1.4	1.4	1.1	1.2	1.0		
TURBIDITY	Am 0.2 Pm 0.2			0.2	0.2	0.2	0.2 0.4	0.3		
TOTAL PHOSPHATE										
ORTHO PHOSPHATE										
META PHOSPHATE										
STABILITY	+0.3			-0.6	-0.5	+0.1	+0.3	+0.2		

REMARKS

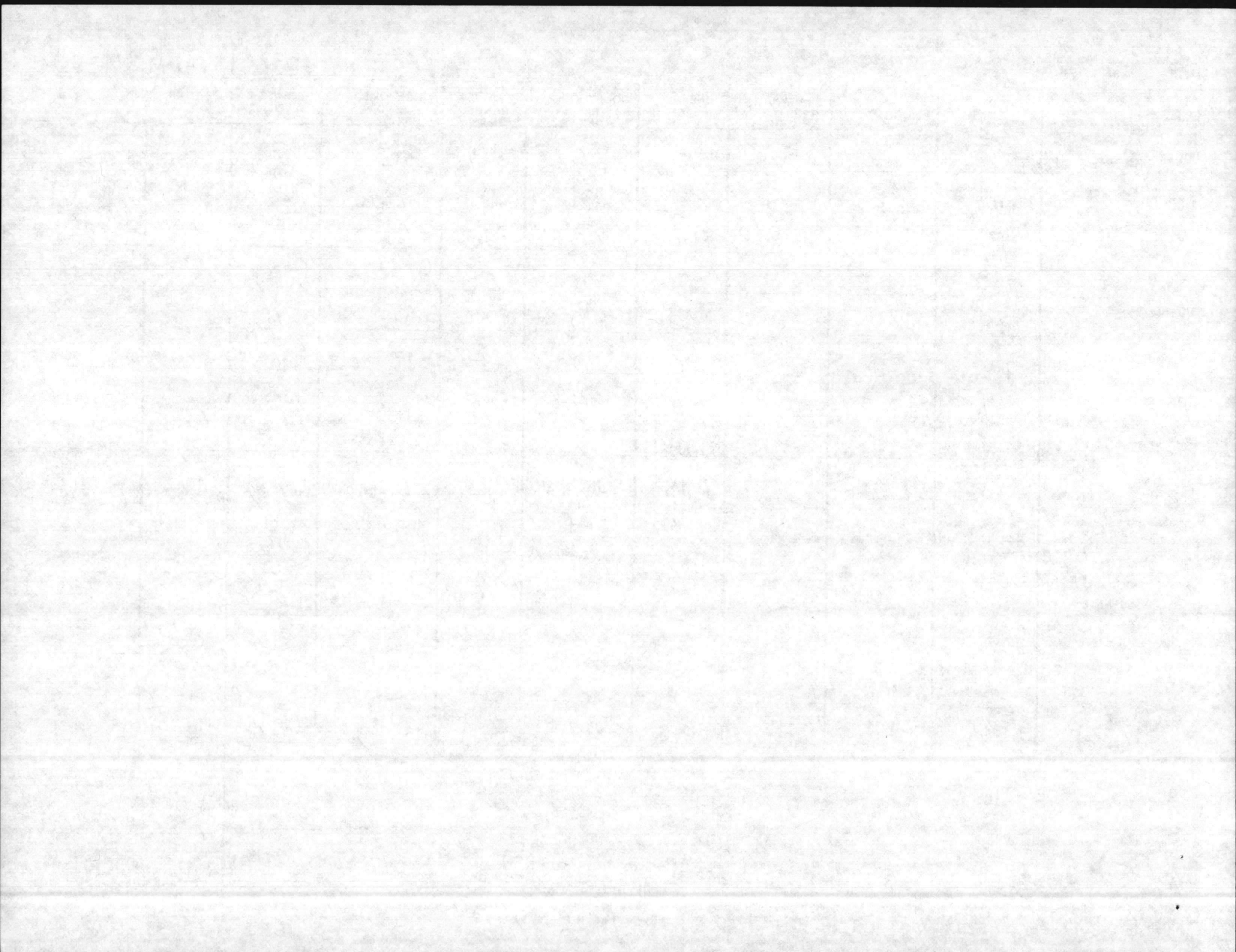
COPY TO:

- 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. J. BURNS



CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330 3 (REV 6-84)

DATE COLLECTED

4-21-87

DATE OF ANALYSIS

4-21-87

PARAMETER SERIAL # 04-67	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLow BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.8			7.4	7.6	8.1	8.5	8.6		
PHENOLTHALEIN ALKALINITY	4			0	0	0	6	10		
METHYL ORANGE ALKALINITY	50			160	180	170	60	116		
CARBONATES AS CaCO ₃	8			0	0	0	12	20		
BICARBONATES AS CaCO ₃	42			160	180	170	48	96		
CHLORIDES AS Cl	10			20	16	50	14	60		
HARDNESS AS CaCO ₃	60			56	46	56	60	44		
IRON AS Fe				R.A DOWN						
FLUORIDE	Am 1.10 Pm 1.11			0.16	0.14	0.12	0.93 0.95	0.51		
CHLORINE RESIDUAL	1.0			1.2	1.4	1.0	1.2	0.8		
TURBIDITY	Am 0.1 Pm 0.1			0.2	0.1	0.1	0.2 0.2	0.3		
TOTAL PHOSPHATE										
ORTHO PHOSPHATE										
META PHOSPHATE										
STABILITY	+0.5			-0.6	-0.4	0.0	+0.2	+0.2		

REMARKS

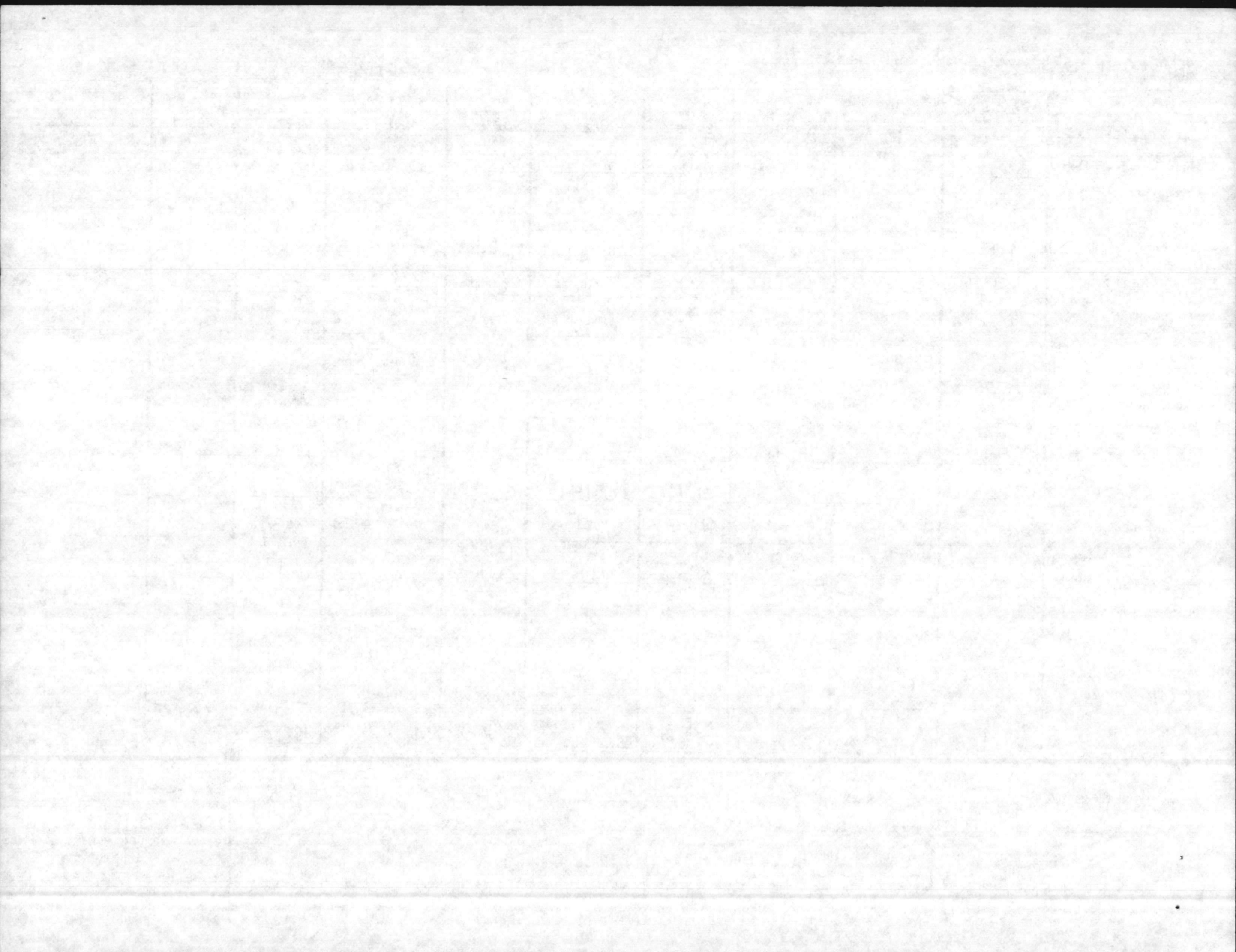
COPY TO

- 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. J. BURNS



WATER TREATMENT PLANTS
MURKIN TREATMENT PLANT

DATE COLLECTED
4-28-87

DATE OF ANALYSIS
4-28-87

PARAMETER	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ON SLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	7.8			7.7	7.9	8.1	9.2	8.4		
PHENOLTHALEIN ALKALINITY	0			0	0	0	4	10		
METHYL ORANGE ALKALINITY	62			162	176	192	56	102		
CARBONATES AS CaCO ₃	0			0	0	0	8	20		
BICARBONATES AS CaCO ₃	62			162	176	192	48	82		
CHLORIDES AS Cl	14			26	16	64	16	58		
HARDNESS AS CaCO ₃	68			32	64	70	66	70		
IRON AS Fe				R.A. DOWN						
FLUORIDE	Am	0.95					0.90			
	Pm	0.81		0.14	0.1	0.1	0.89	0.46		
CHLORINE RESIDUAL		1.0		1.5	1.0	1.0	1.4	0.8		
TURBIDITY	Am	0.3					0.2			
	Pm	0.4		0.1	0.2	0.3	0.9	0.2		
TOTAL PHOSPHATE										
ORTHO PHOSPHATE										
META PHOSPHATE										
STABILITY		-0.2		-0.2	-0.2	0.0	+1.0	0.0		

REMARKS

COPY TO:

UTIL DIR _____

WATER TREATMENT

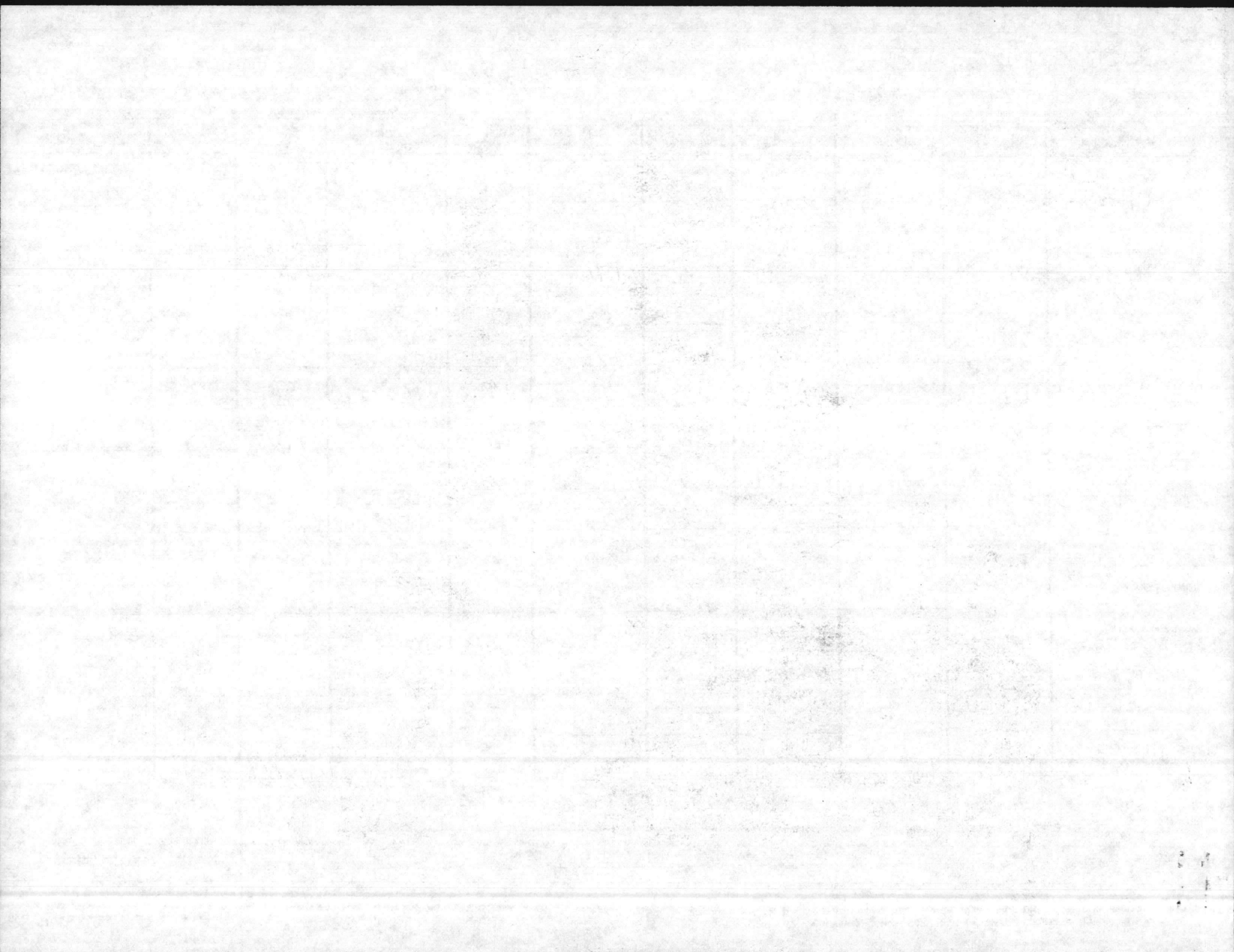
PMU MCAS PMU

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. T. BURNS



11331
NREAD
9 Apr 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 March 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, Environmental Chemistry and Microbiology Laboratory, 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:
LANTNAVFACENGCOM (Code 114)

Blind copy to:
BMO (Attn: Util Dir)
Supvy Chem (2)

Writer/Typist

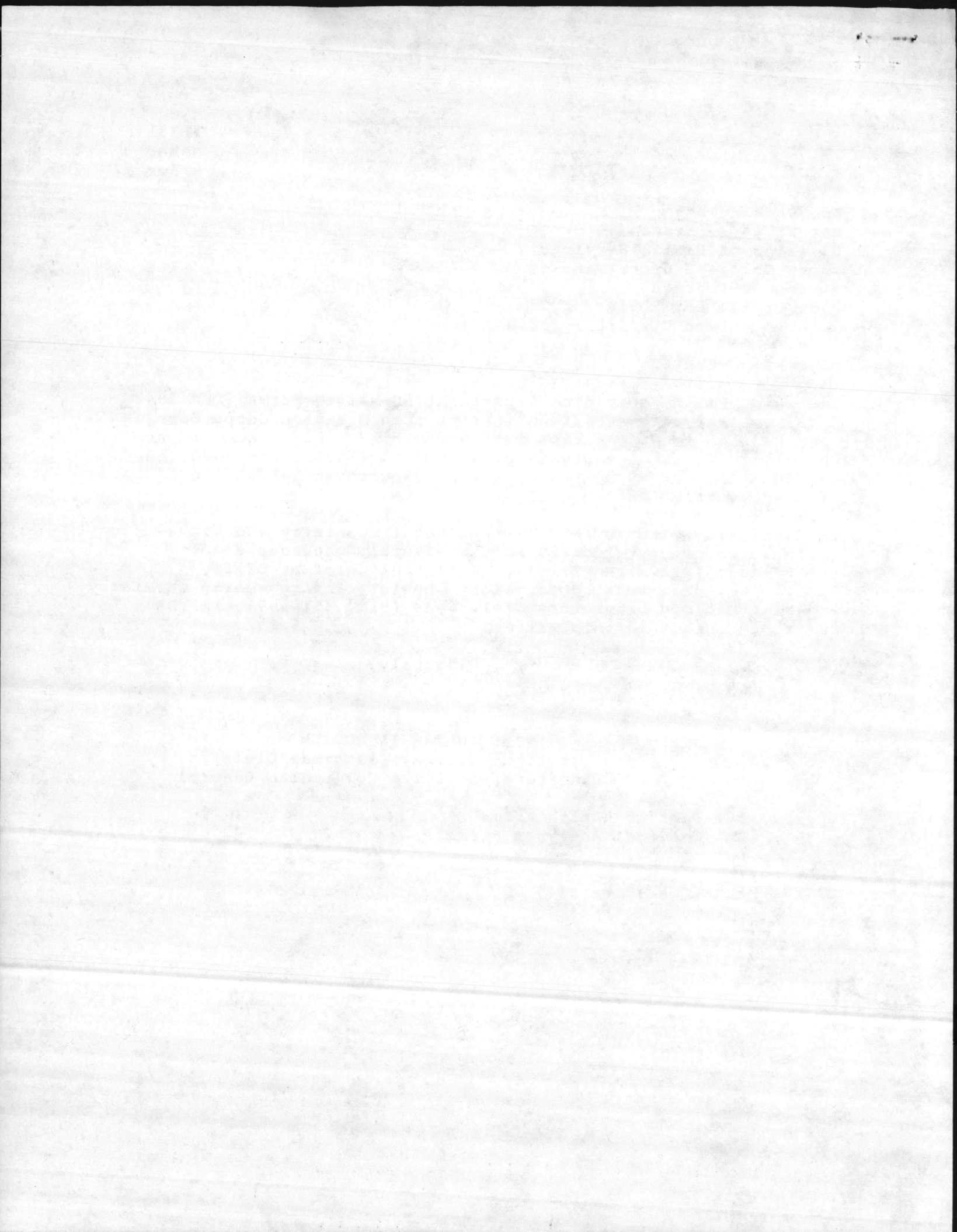
Betz/Chianski

Date Typed

9 Apr 87

Word Processor Number

11331



Month MARCH
 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

N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-041

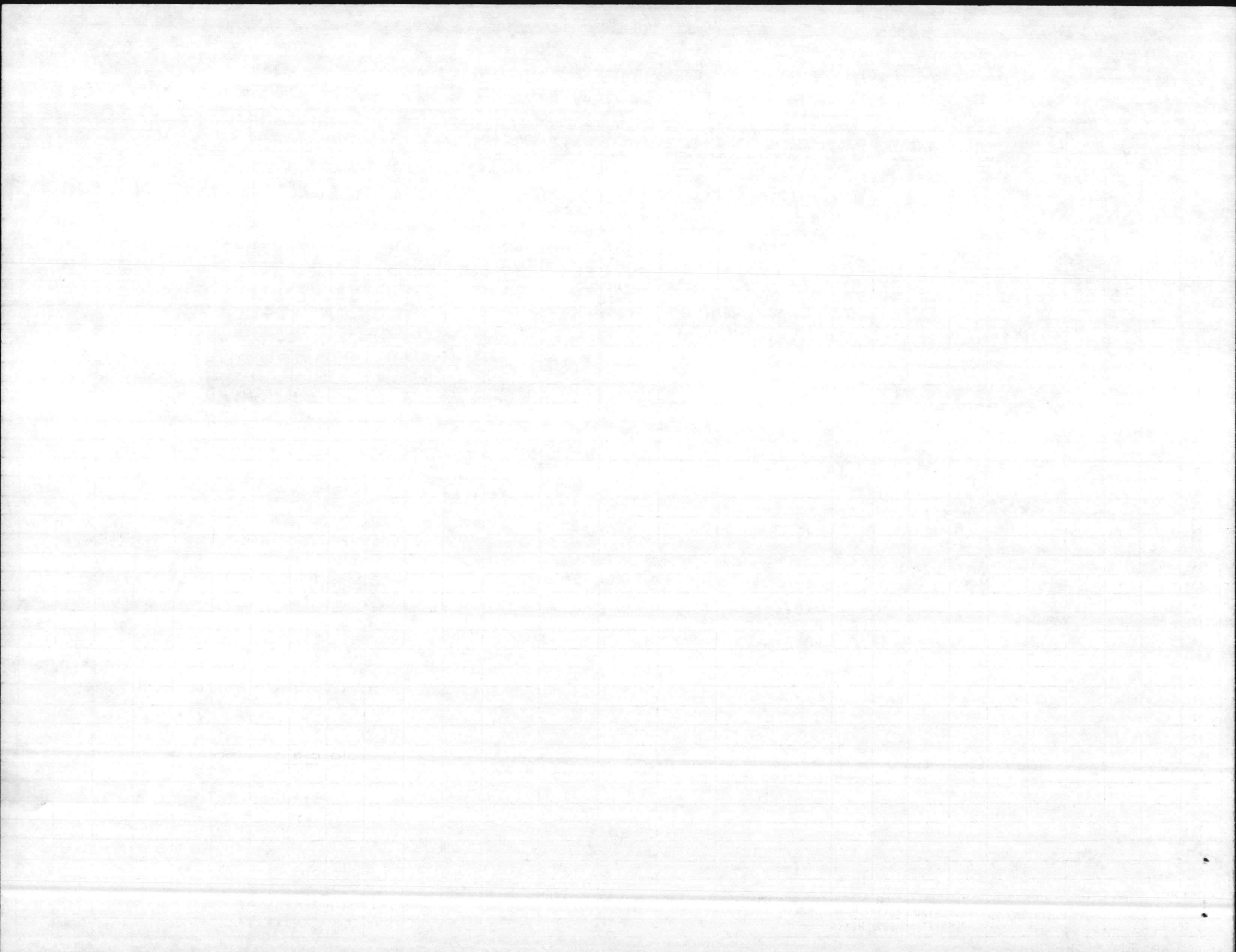
DATE	RAW WATER COLIFORMS (MFP)									NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.	PLANKTON		
	A			B			C									1	2	3	4	5	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.				
	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES																		
1																											
2																											
3																											
4																											
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											
13																											
14																											
15																											
16																											
17																											
18																											
19																											
20																											
21																											
22																											
23																											
24																											
25																											
26																											
27																											
28																											
29																											
30																											
31																											
	MF MEDIA	BBL mEndo		BACTERIAL DENSITY	ARITH. MEAN	GEO. MEAN																					
	TPC MEDIA																										

LAB ID # 37807

Elizabeth A. Bet

CERT GRADE B-WELL # 4087-121





Month MARCH
Year 1987

MARINE CORP AIR STATION

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

Serial # 04-67-042

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 per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	INCUBATOR TEMP.	PLANKTON			
	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	5													0	7	0	0	0	0	0	0					35.4
5																										
6																										
7																										
8																										
9																										
10	5													0	7	0	0	0	0	0	0	0	0			35.0
11																										
12																										
13																										
14																										
15																										
16																										
17	5													0	7	0	0	0	0	0	0	0	0			35.3
18																										
19																										
20																										
21																										
22																										
23																										
24	5													0	7	0	0	0	0	0	0	0	0			35.1
25																										
26																										
27																										
28																										
29																										
30	5													0	7	0	0	0	0	0	0	0	0			
31																										

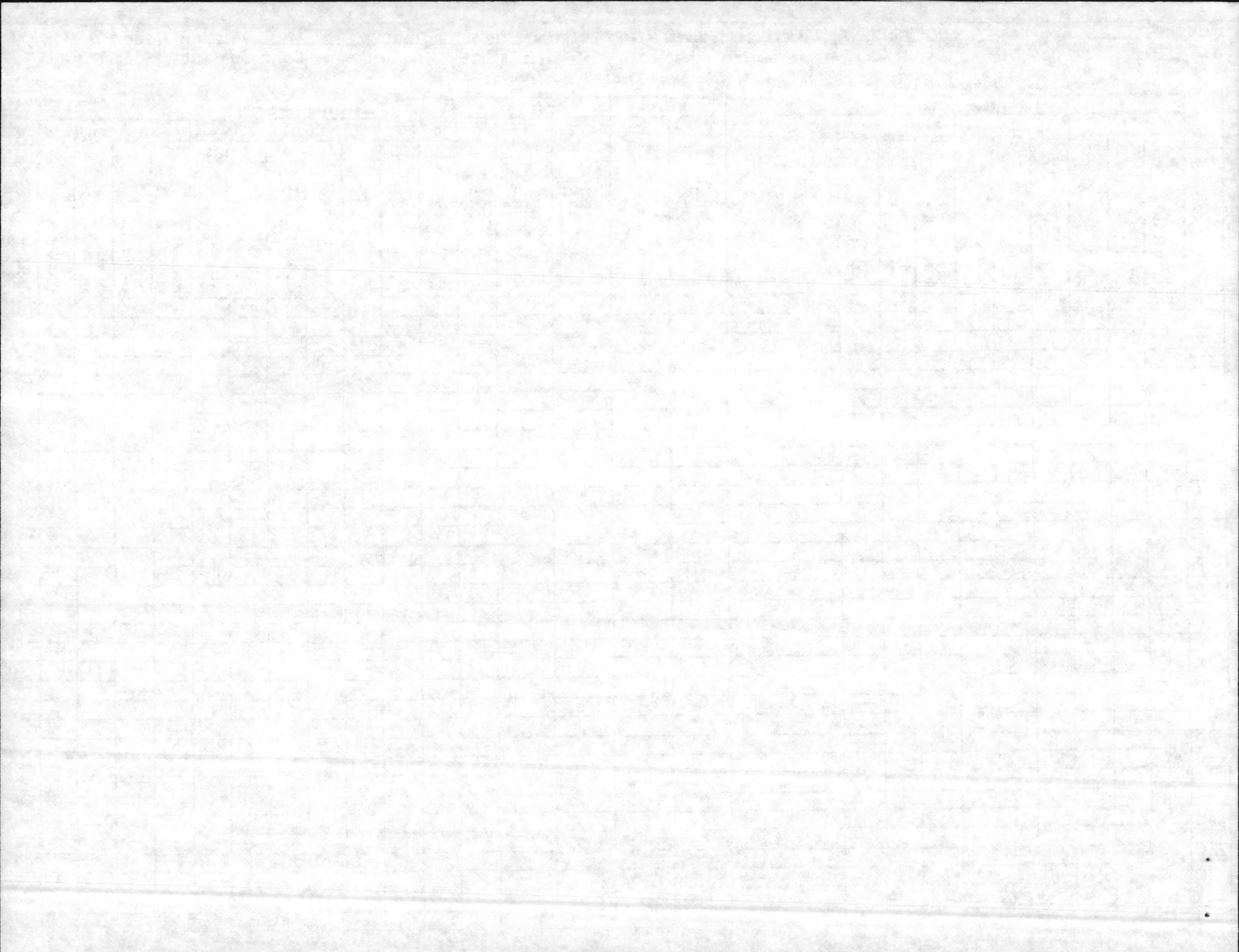
HF MEDIA RBI mEndo BACTERIAL DENSITY ARITH. MEAN GEO. MEAN

1.0 DIST. SYSTEM TOTAL PG. SAMPLES SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/300. 35.4

LAB ID # 37807

Elizabeth A. Betz

CERT. GRADE: B-WELL # 4087-131



Month Year 1987

WATER TREATMENT PLANT AT CAMP LEJUNNE

WATER TREATMENT PLANT AT CAMP LEJUNNE

METHOD CODE: 303
Contaminant Code: 3000

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

Serial # 04-67-043

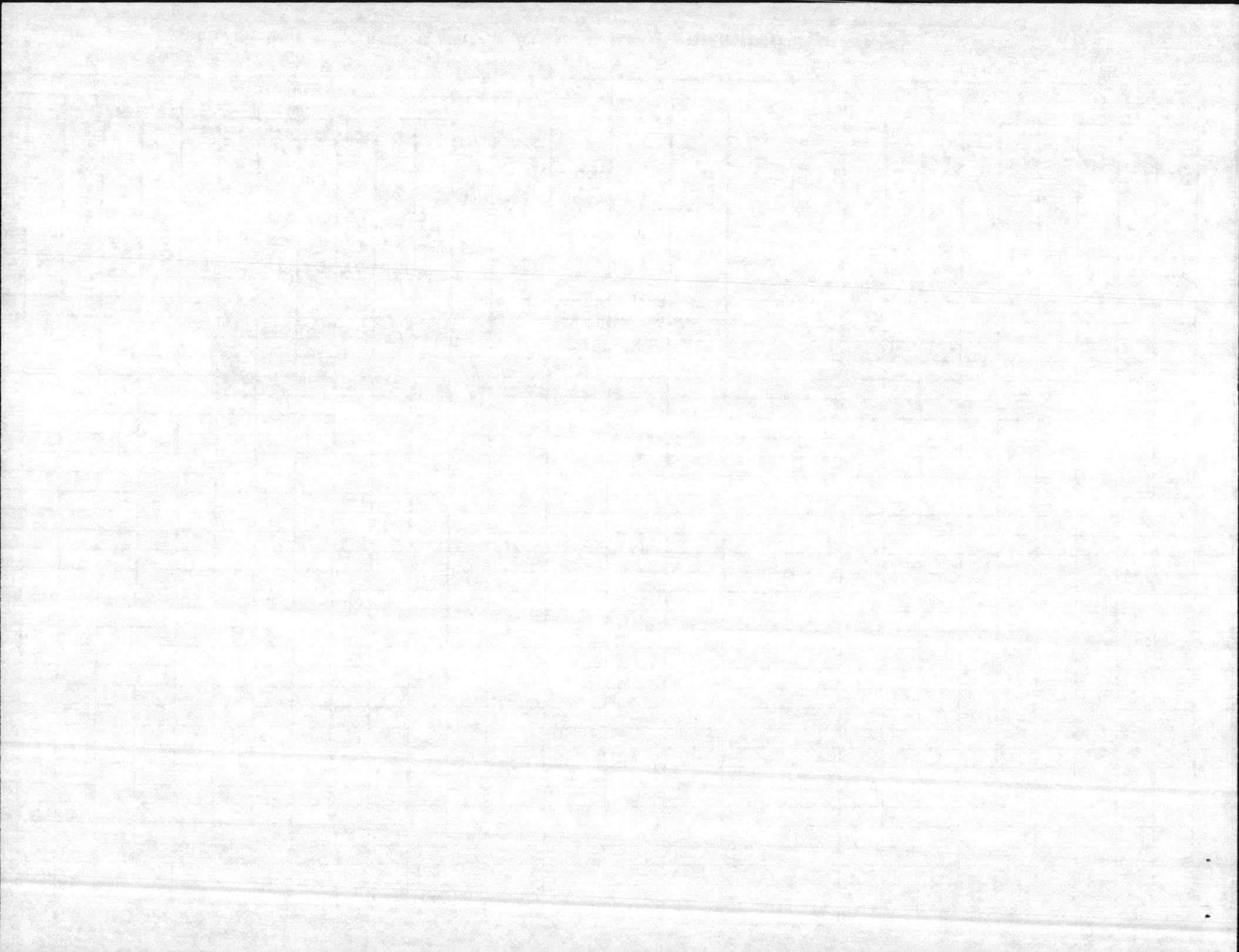
DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED		FINISHED		DISTRIBUTION SYSTEM										INCUBATOR TEMP.	PLANKTON		
	A		B		C			TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	COLIFORMS (MFP)					REPEAT SAMPLES							
	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.	
1																									
2																									
3												0	7	0	0	0	0	0	0						35.4
4																									
5																									
6																									
7																									
8																									
9																									
10												0	7	0	0	0	0		0	0					35.0
11																									
12																									
13																									
14																									
15																									
16																									
17												0	7	0	0	0	0		0	0					35.3
18																									
19																									
20																									
21																									
22																									
23																									
24												0	7	0	0	0	0	0			1				35.1
25																									
26																									
27																									
28																									
29																									
30												0	7	0	0	0	0		0	0					
31																									
MFP MEDIA		BRI mEndo		BACTERIAL DENSITY		ARITH. MEAN		GEO. MEAN		DISTRIBUTION SYSTEM		TOTAL NO. SAMPLES		SAMPLES EXCEEDED 3/50		4/100		7/200		13/500		35.4		35.0	

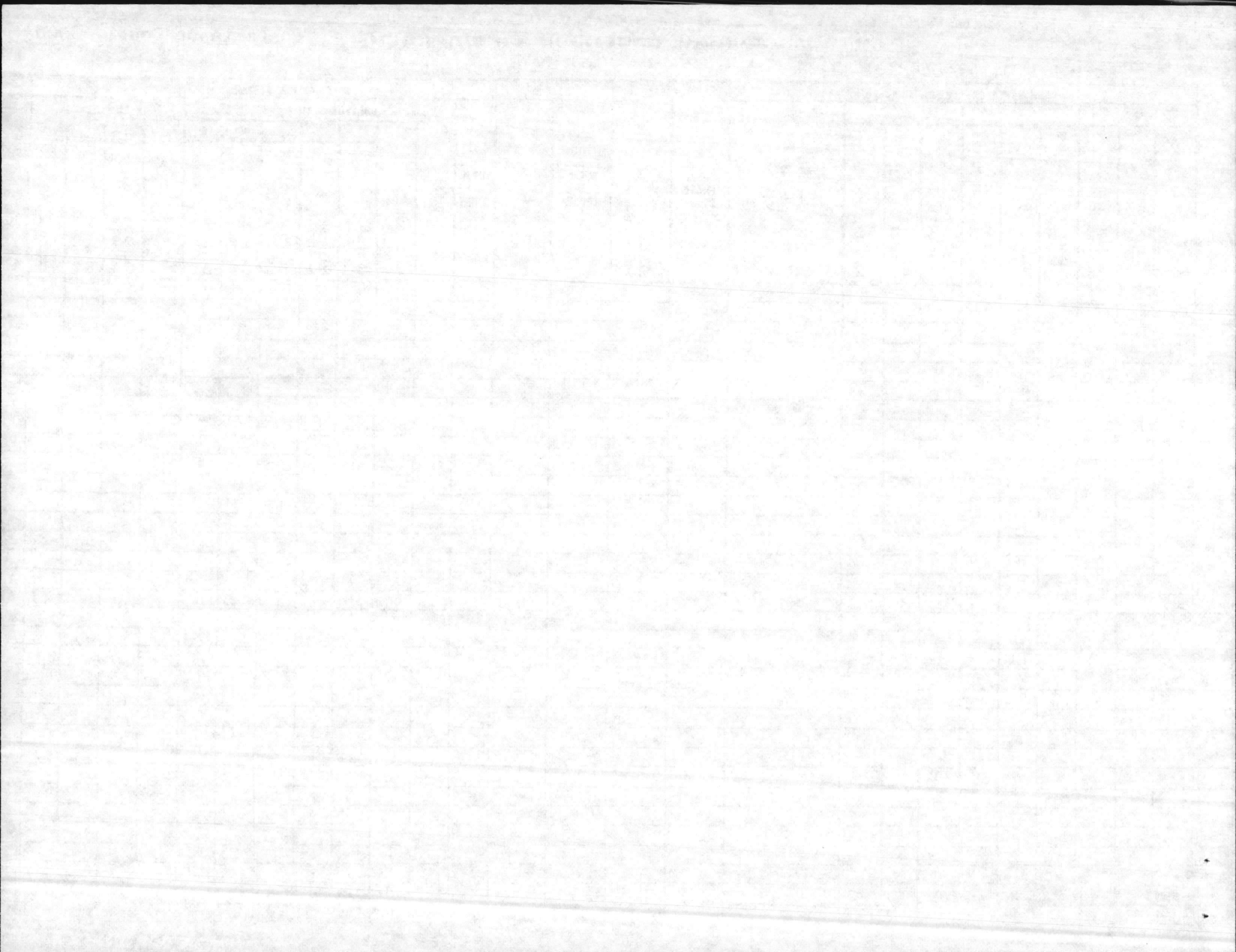
LAB ID # 37807

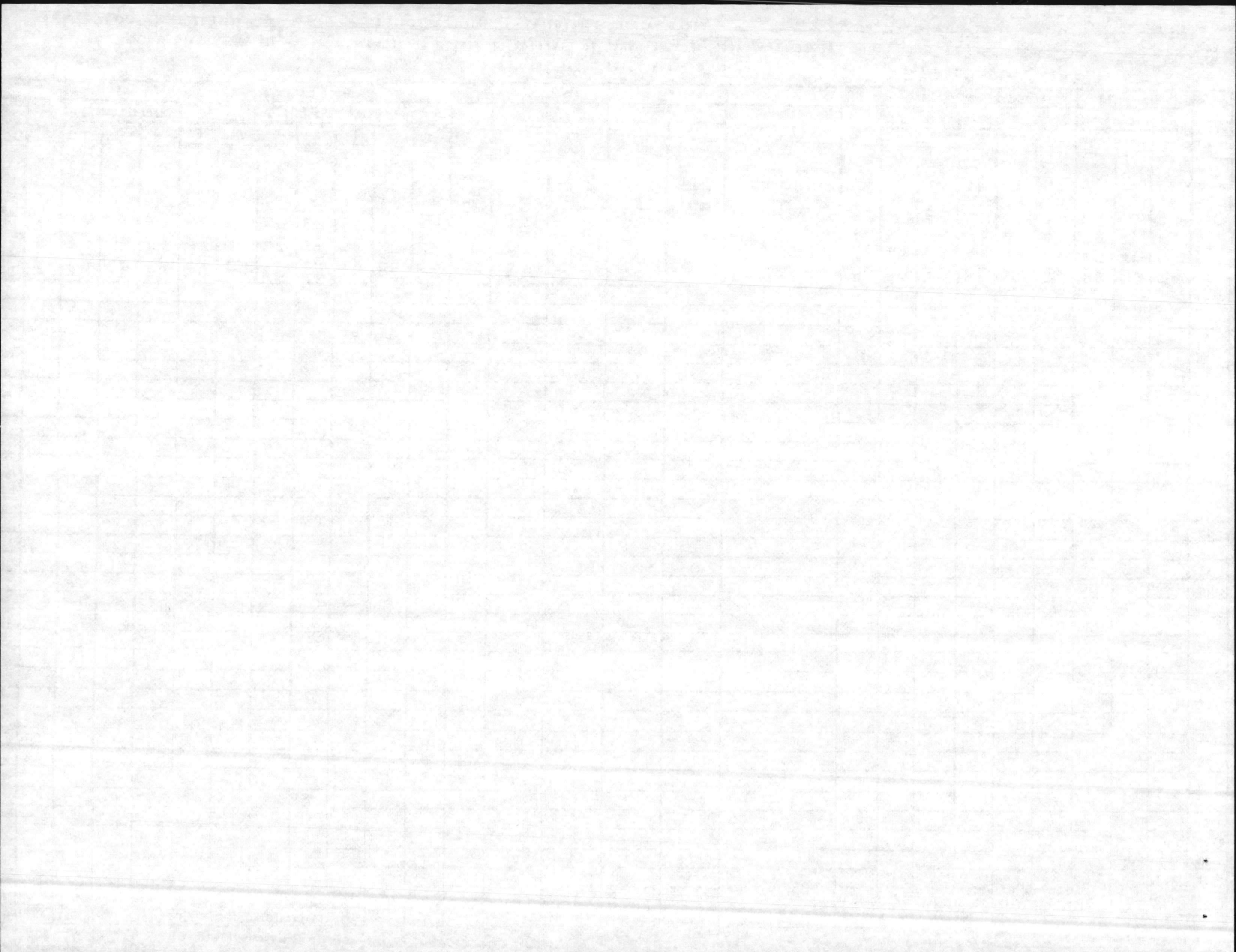
Elizabeth A. Setz

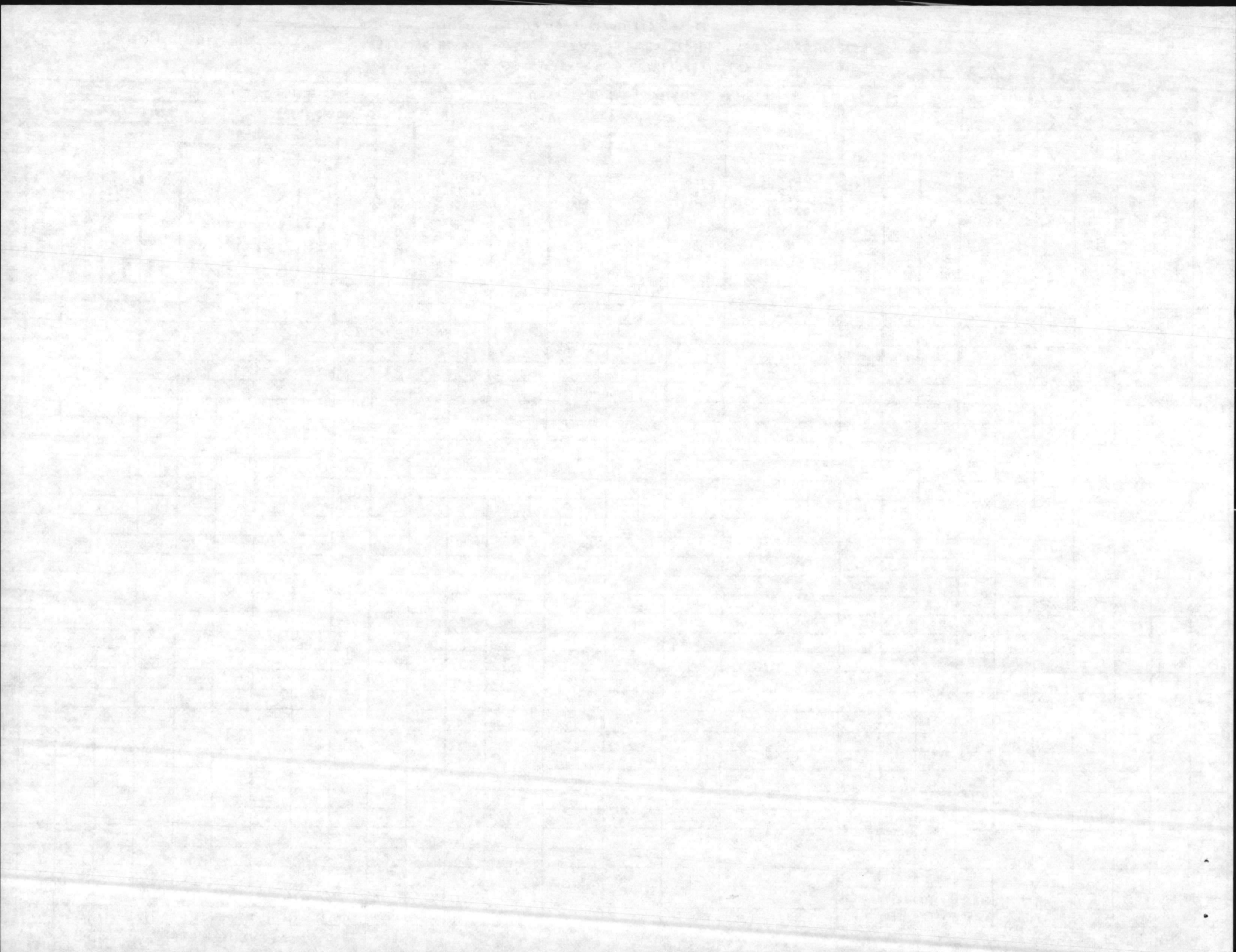
CERT GRADE: B-WELL # 4087-10











Month MARCH
Year 1987

LOOKHOUSE DAM

WATER TREATMENT PLANT AT Camp Lejeune

METHOD CODE: 303
Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-047

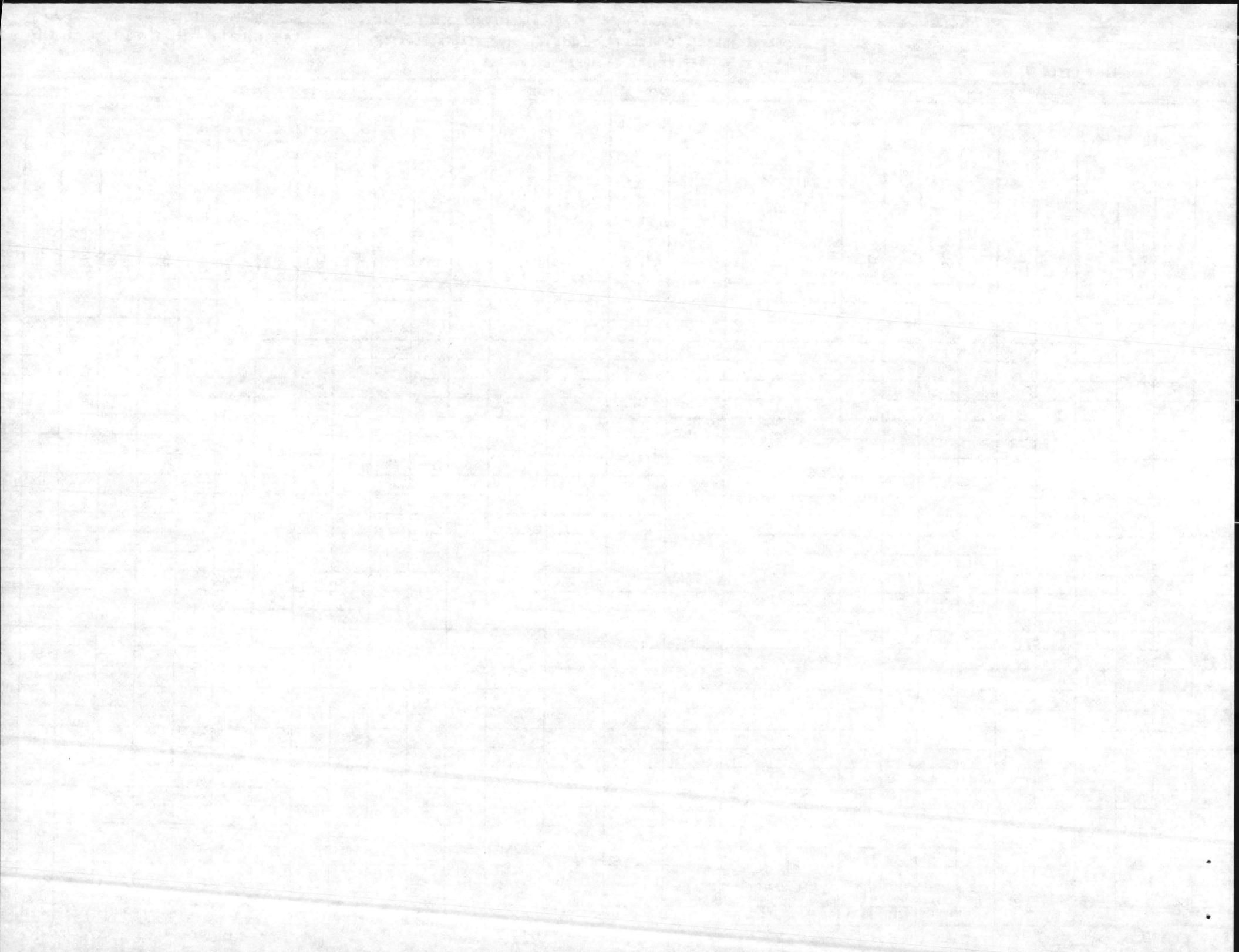
DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED		FINISHED		DISTRIBUTION SYSTEM						INCUBATOR TEMP.	PLANKTON		
	A		B		C			TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	COLIFORMS (MFP)					REPEAT SAMPLES				
	VOLUME FILTERED ml.	TOTAL COLONIES	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												0	3	0	0	0			35.4		
4																					
5																					
6																					
7																					
8																					
9																					
10												0	4	0	0	0	0		35.0		
11																					
12																					
13																					
14																					
15																					
16																					
17												0	4	0	0	0	0		35.3		
18																					
19																					
20																					
21																					
22																					
23																					
24												0	4	0	0	0	0		35.1		
25																					
26																					
27																					
28																					
29																					
30																					
31												0	4	0	0	0	0		35.4		
MFP MEDIA		RBI mEndo		BACTERIAL DENSITY		ARITH. MEAN						0	4	0	0	0	0		35.4		
TPC MEDIA						GEO. MEAN						1.0		TOTAL NO. SAMPLES							
														SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500							

LAB ID # 37807

Elizabeth A. Betty

CERT. GRADE: B-WELL # 427-11
ENCLOSURE





Month MARCH
Year 1987

UNFLOW DEATH

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303
Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-048

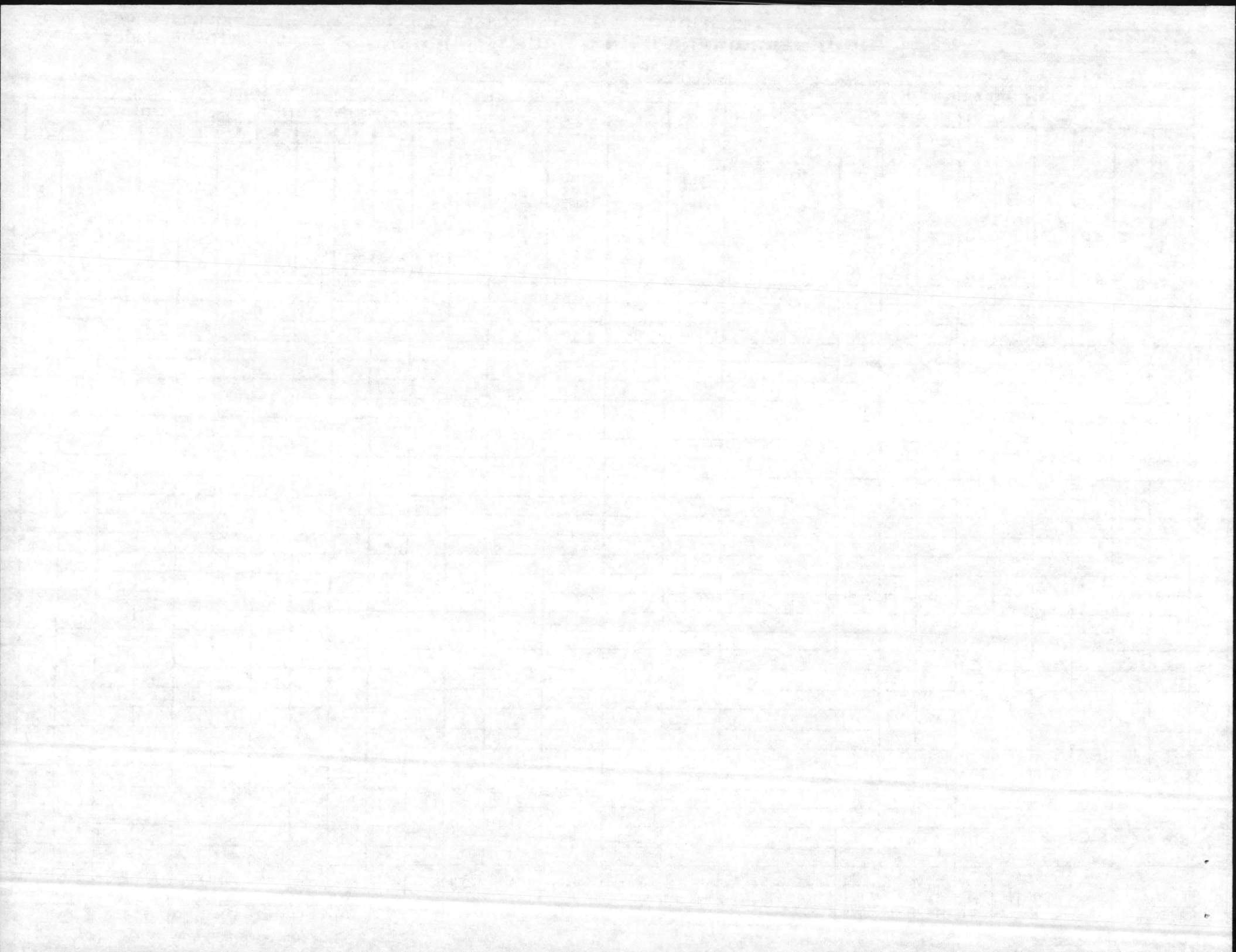
DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM						INCUBATOR TEMP.	PLANKTON		
	A		B		C								COLIFORMS (MFP)					REPEAT SAMPLES				
	VOLUME FILTERED ml.	TOTAL 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.
1																						
2																						
3																			35.4			
4																						
5																						
6																						
7																						
8																						
9																						
10																			35.0			
11																						
12																						
13																						
14																						
15																						
16																						
17																			35.3			
18																						
19																						
20																						
21																						
22																						
23																						
24																			35.1			
25																						
26																						
27																						
28																						
29																						
30																						
31																			35.4			
MFP MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN																
TPC MEDIA						GEO. MEAN																

LAB ID # 37807

Elizabeth A. Bell

CERT GRADE: B-WELL # 4087-12





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

DATE COLLECTED
 3-3-87

DATE OF ANALYSIS
 3-3-87

PARAMETER	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.8	7.3	8.6	7.4	8.1	8.2	8.3	8.6		
PHENOLTHALEIN ALKALINITY	4	0	4	0	0	2	0	14		
METHYL ORANGE ALKALINITY	50	168	52	160	180	164	60	130		
CARBONATES AS CaCO ₃	8	0	8	0	0	4	0	28		
BICARBONATES AS CaCO ₃	42	168	44	160	180	160	60	102		
CHLORIDES AS Cl	10	10	18	20	16	66	14	60		
HARDNESS AS CaCO ₃	72	54	62	60	56	60	64	60		
IRON AS Fe			A.A.	DOWN	FOR REPAIRS					
FLUORIDE	Am 0.80 Pm 0.12	0.12	0.84 0.76	0.12	0.10	0.09	0.79 0.83	52		
CHLORINE RESIDUAL	1.0	1.2	1.0	0.5	1.4	0.8	1.0	1.0		
TURBIDITY	Am 0.6 Pm 0.3	0.7	0.8 5.8	0.4	0.2	0.5	0.4	1.2		
TOTAL PHOSPHATE		3.7								
ORTHO PHOSPHATE		1.2								
META PHOSPHATE		2.5								
STABILITY	+0.5	-0.6	+0.4	-0.6	0.0	+0.1	+0.1	+0.2		

REMARKS

COPY TO:

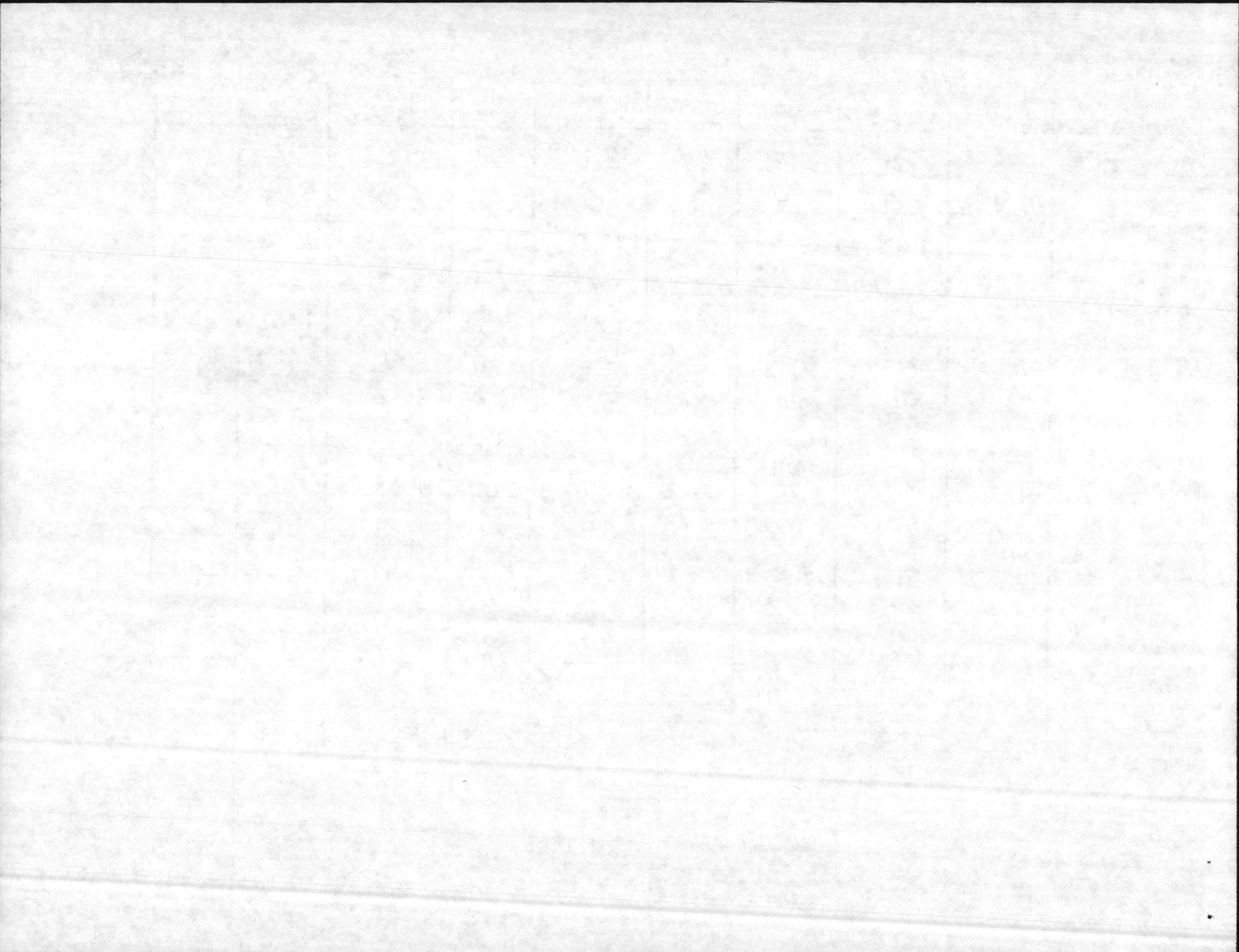
- UTIL DIR _____
- WATER TREATMENT
- PMU MCAS PMU
- NREAD FILE

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. J. BURNS

ENCLOSURE (2)



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

DATE COLLECTED
 3-10-87

DATE OF ANALYSIS
 3-10-87

PARAMETER SERIAL #04-67	HADNOT POINT -041	CAMP JOHNSON -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	7.5	8.7	7.5	8.1	8.3	8.9	8.8
PHENOLTHALEIN ALKALINITY	2	0	4	0	0	2	6	8
METHYL ORANGE ALKALINITY	50	164	60	150	166	160	56	130
CARBONATES AS CaCO ₃	4	0	8	0	0	4	12	16
BICARBONATES AS CaCO ₃	46	164	52	150	166	156	44	114
CHLORIDES AS Cl	14	10	10	20	10	50	10	60
HARDNESS AS CaCO ₃	64	60	70	58	54	60	66	42
IRON AS Fe			A.A.	DOWN				
FLUORIDE	Am 0.76 Pm 0.83	0.17	0.77	0.13	0.10	0.09	1.01 0.95	0.54
CHLORINE RESIDUAL	1.1	1.0	0.9	1.1	1.2	1.0	1.2 0.2	0.8
TURBIDITY	Am 0.1 Pm 0.1	1.5	0.8	0.2	0.1	0.1	0.2	0.7
TOTAL PHOSPHATE		2.18						
ORTHO PHOSPHATE		1.03						
META PHOSPHATE		1.15						
STABILITY	+0.2	-0.6	+0.5	-0.7	-0.1	0.0	+0.6	+0.1

REMARKS

COPY TO:

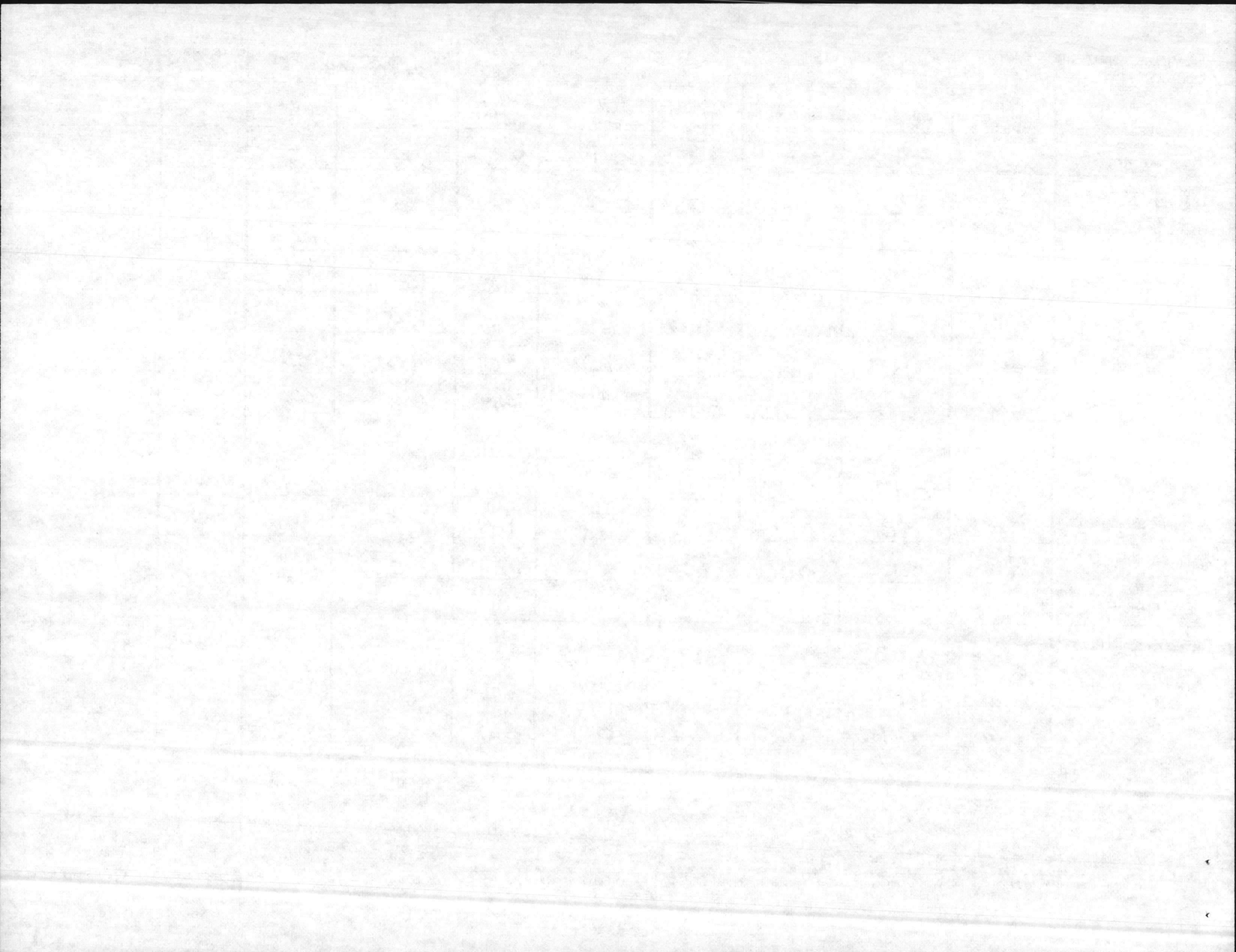
- UTIL DIR
- WATER TREATMENT
- PMU MCAS PMU
- NREAD FILE

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

BURNS + BARBEE

ENCLOSURE (2)



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

DATE COLLECTED
 3-17-87

DATE OF ANALYSIS
 3-17-87

PARAMETER SERIAL #04-67	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLow BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.2	8.2	8.6	7.6	8.3	8.4	8.6	8.8		
PHENOLTHALEIN ALKALINITY	0	0	2	0	0	0	2	12		
METHYL ORANGE ALKALINITY	58	66	58	162	178	162	52	144		
CARBONATES AS CaCO ₃	0	0	4	0	0	0	4	24		
BICARBONATES AS CaCO ₃	58	66	54	162	178	162	48	120		
CHLORIDES AS Cl	8	8	8	18	20	48	8	58		
HARDNESS AS CaCO ₃	66	64	66	60	68	56	66	54		
IRON AS Fe			A.A.	DOWN						
FLUORIDE	Am	0.25					0.80			
	Pm	0.27	0.65	0.69	0.17	0.12	0.10	0.90	0.58	
CHLORINE RESIDUAL	1.0	1.0	1.0	1.2	1.2	1.1	—	0.7		
TURBIDITY	Am	0.1					0.1			
	Pm	0.1	0.2	0.3	0.1	0.1	0.3	0.1		
TOTAL PHOSPHATE		0.4								
ORTHO PHOSPHATE		0.2								
META PHOSPHATE		0.2								
STABILITY	0.0	+0.2	+0.1	-0.4	+0.2	+0.1	+0.2	+0.5		

REMARKS

COPY TO:

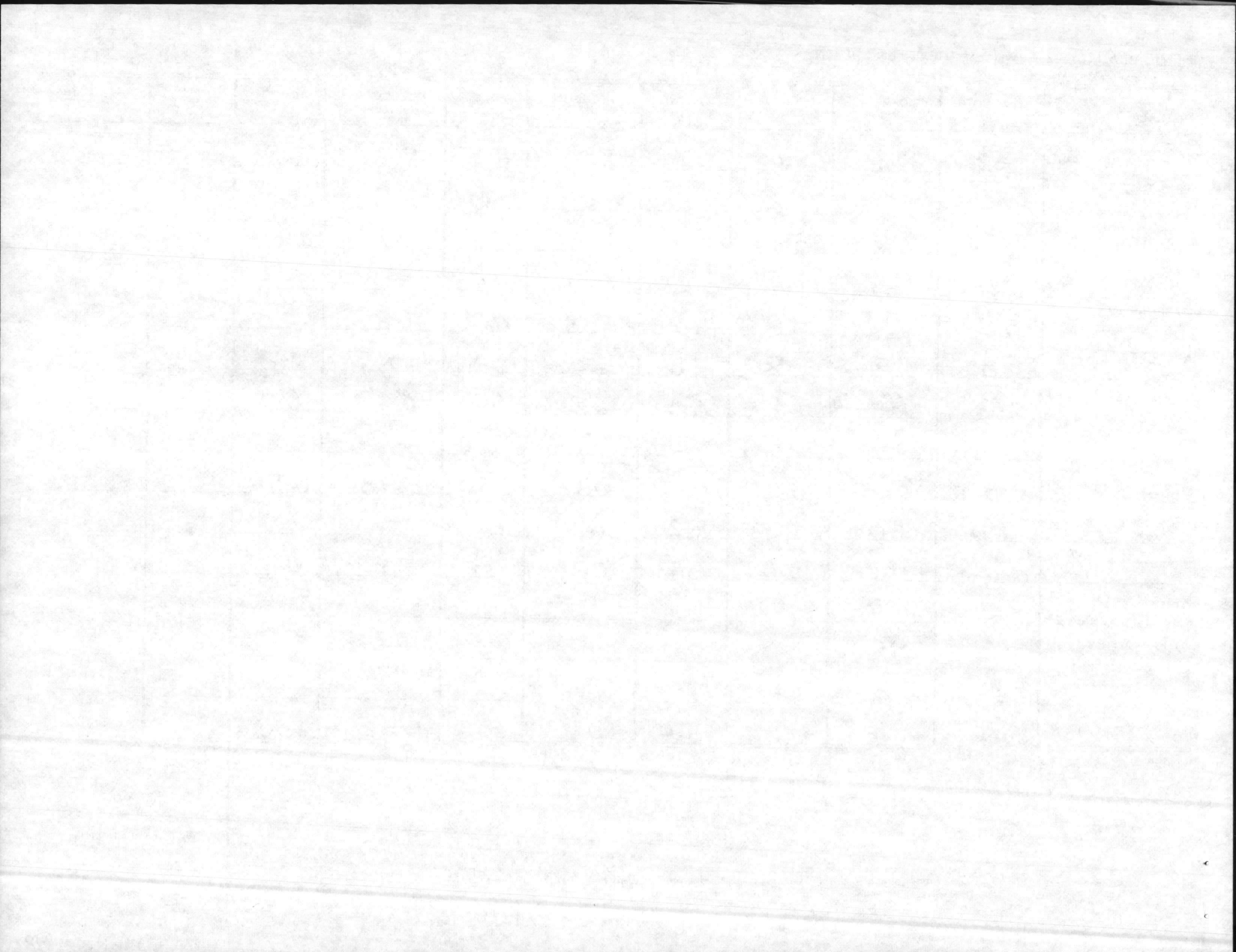
- UTIL DIR _____
 WATER TREATMENT
 PMU MCAS PMU
 NREAD FILE

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

LANE + BURNS

ENCLOSURE (3)



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

DATE COLLECTED
 3-24-87

DATE OF ANALYSIS
 3-24-87

PARAMETER	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ON SLOW BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	8.4			7.4	8.1	8.2	8.4	8.8		
PHENOLTHALEIN ALKALINITY	4			0	0	4	4	20		
METHYL ORANGE ALKALINITY	70			160	174	156	56	130		
CARBONATES AS CaCO ₃	8			0	0	8	8	40		
BICARBONATES AS CaCO ₃	62			160	174	148	48	90		
CHLORIDES AS Cl	10			18	20	50	10	60		
HARDNESS AS CaCO ₃	74			64	54	54	68	48		
IRON AS Fe				A.A.	DOWN					
FLUORIDE	Am 0.61 Pm 0.65			0.14	0.11	0.09	0.98 0.96	0.52		
CHLORINE RESIDUAL	1.1			1.2	1.2	1.0	1.1	0.8		
TURBIDITY	Am 1.2 Pm 1.8			0.1	0.1	0.1	0.2 0.2	1.1		
TOTAL PHOSPHATE										
ORTHO PHOSPHATE										
META PHOSPHATE										
STABILITY	+0.4			-0.6	-0.1	-0.1	+0.2	+0.2		

REMARKS

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

BURNS

ENCLOSURE (2)



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

DATE COLLECTED
3-31-87

DATE OF ANALYSIS
3-31-87

PARAMETER SERIAL #04-67	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLow BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB NOT PLANT)	7.9			7.5	8.1	7.8	8.3	8.7		
PHENOLTHALEIN ALKALINITY	0			0	0	0	2	16		
METHYL ORANGE ALKALINITY	56			168	194	186	58	148		
CARBONATES AS CaCO ₃	0			0	0	0	4	32		
BICARBONATES AS CaCO ₃	56			168	194	186	54	116		
CHLORIDES AS Cl	6			26	16	48	10	60		
HARDNESS AS CaCO ₃	60			54	60	62	66	44		
IRON AS Fe				A.A.	DOWN					
FLUORIDE	Am 0.19 Pm 0.17			0.14	0.12	0.11	0.92 0.93	0.58		
CHLORINE RESIDUAL	1.0			1.2	1.2	1.1	1.5	0.8		
TURBIDITY	Am 0.1 Pm 0.7			0.1	0.1	0.1	0.1	0.2		
TOTAL PHOSPHATE										
ORTHO PHOSPHATE										
META PHOSPHATE										
STABILITY	-0.4			-0.6	-0.2	-0.5	-0.1	0.0		

REMARKS

COPY TO:

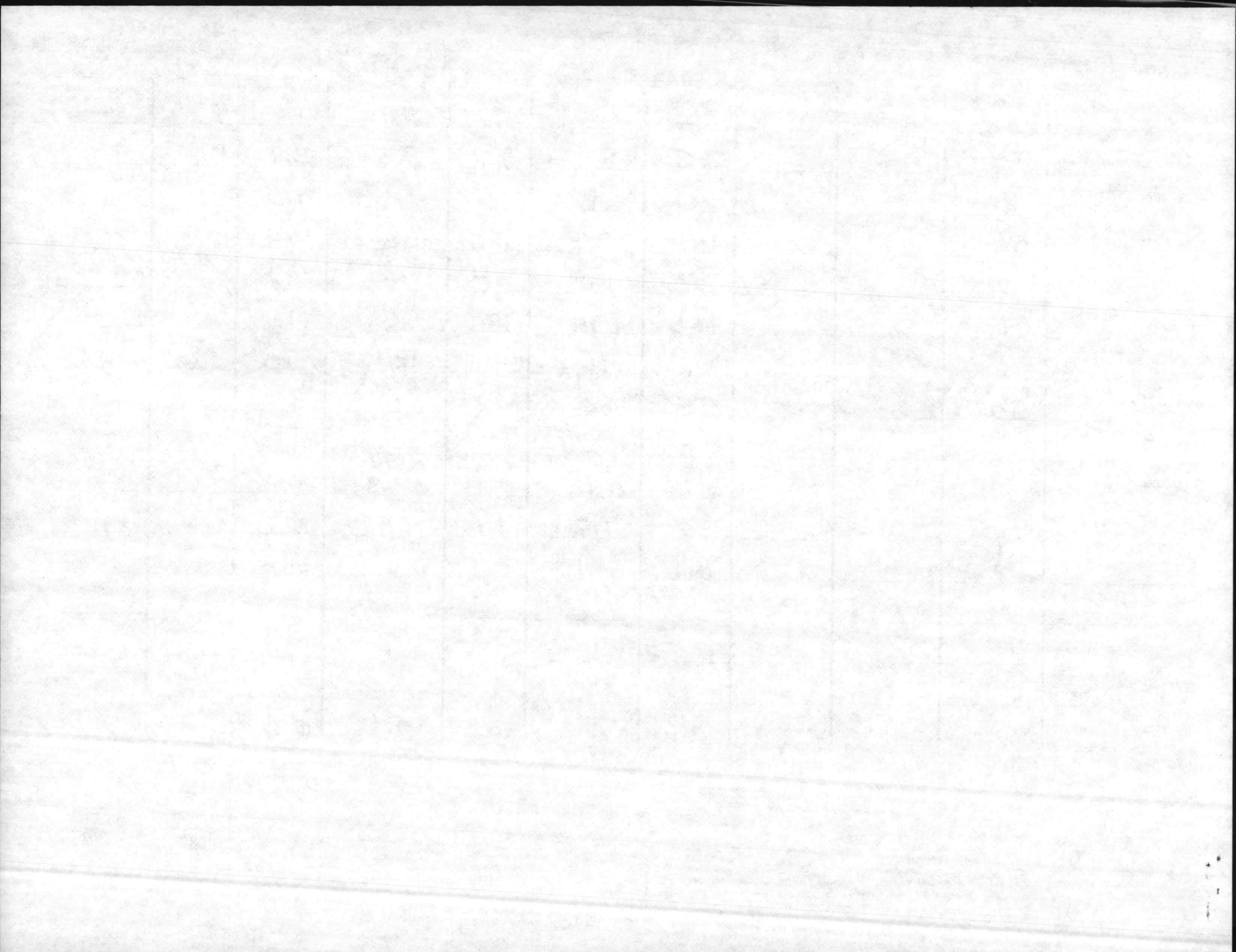
- UTIL DIR _____
- WATER TREATMENT
- PMU MCAS PMU
- NREAD FILE

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

BARBEE

ENCLOSURE (2)



11331
NREAD
4 Mar 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 1-28 February 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.

One sample of the 3 February 1987 collection from the Holcomb Blvd. Water Treatment Plant was positive. On the membrane filter 45 colonies/100 ml were counted. Five colonies were picked off and run through Lauri Trypose Broth Tubes and Brilliant Green Bile Broth tubes. All five were confirmed to be coliform. Check samples were collected on 4 and 5 February 1987 and were negative.

Although only nine samples are required of the Holcomb Blvd. System, 28 were collected in February 1987. Our determination of the enclosed data is that the contaminated sample was not a representative sample. It is requested that one of the 19 extra samples be submitted for the contaminated sample in computing the coliform density. This request is based on rules and regulations of the Safe Drinking Water Act published in the Federal Register, Volume 45, Number 168, dated 27 August 1980.

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, Environmental Chemistry and Microbiology Laboratory, 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

Writer/Typist Betz/Tranocki
Date Typed 4 Mar 87
Word Processor Number 11331

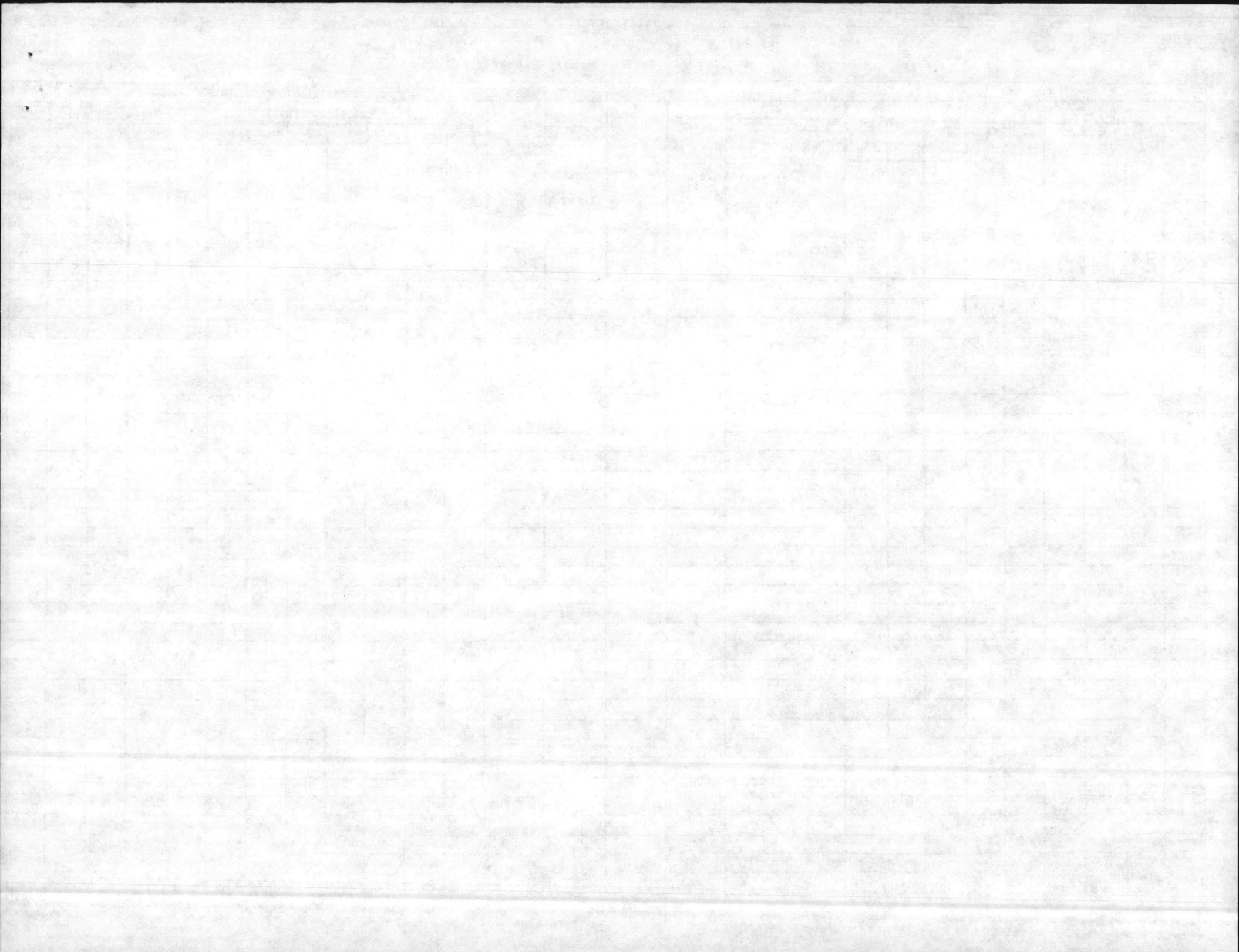
Copy to:
LANTNAVFACENCOM (Code 114)
Blind copy to: BMO (Attn: Util Dir) → Supvy Chem (2)

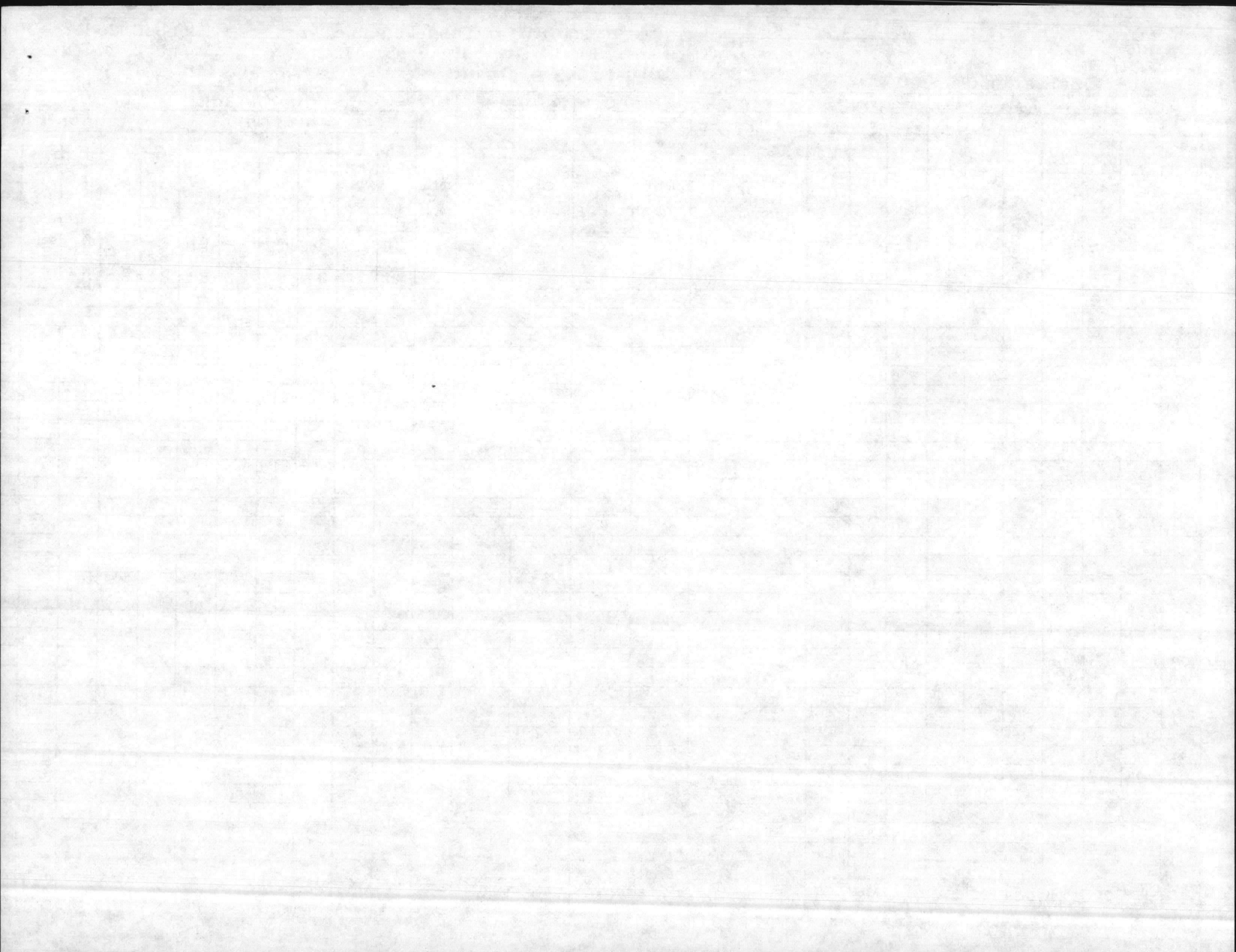
Word processor number: 11331
Date: 1/1/87
Page: 1 of 1

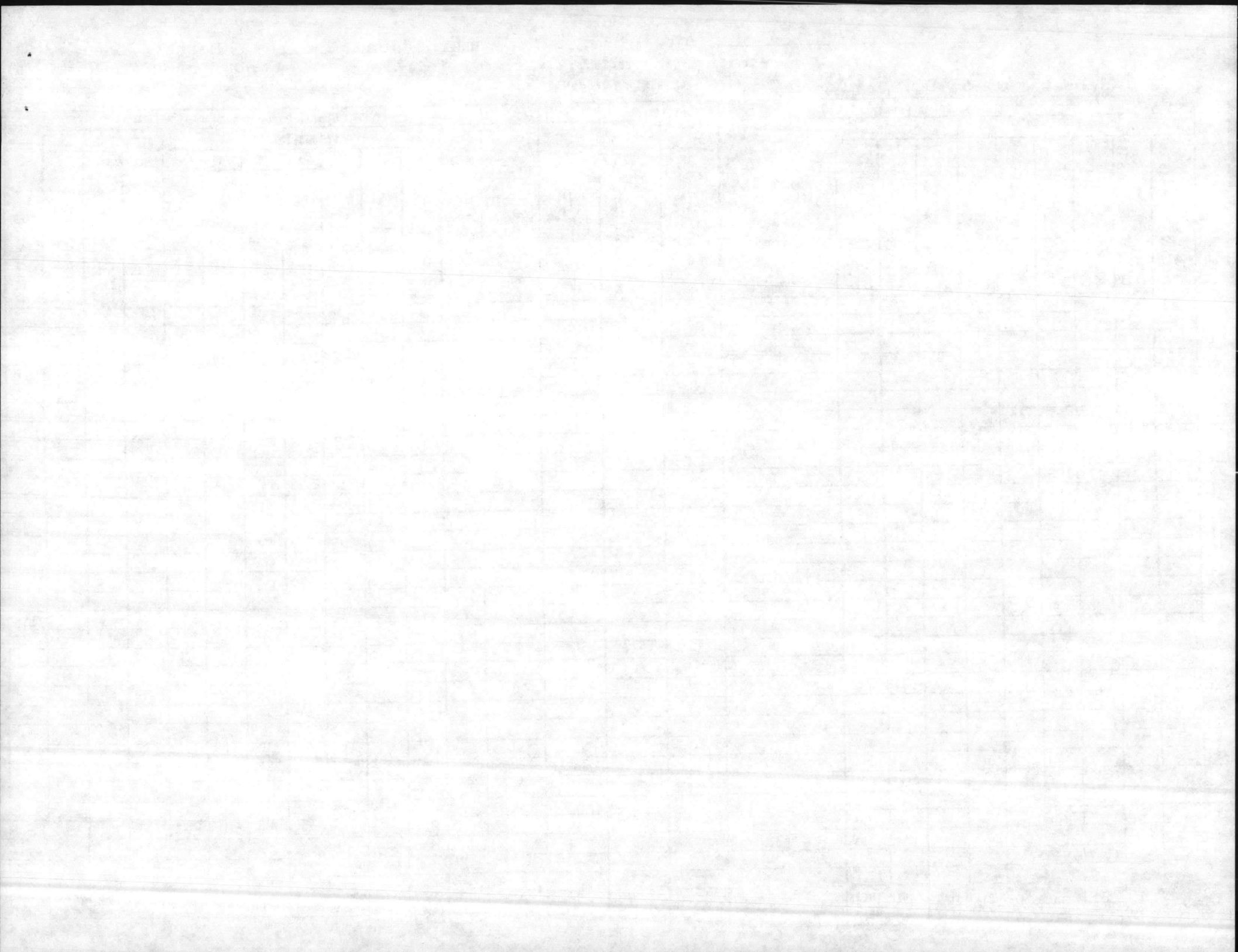
DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.		
	A		B		C								1	2	3	4	5	COLIFORMS per 100 ml.	COLIFORMS 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							COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.						
1																							
2																							
3																							
4												0	9	0	0	0	0	0	0	0	0	35	
5																							
6																							
7																							
8																							
9																							
10												0	9	0	0	0	0	0	0	0	0	35	
11																							
12																							
13																							
14																							
15																							
16																							
17												9	0	0	0	0	0	0	0	0	0	35.5	
18																							
19																							
20																							
21																							
22																							
23																							
24												0	9	0	0	0	0	0	0	0	0	35	
25																							
26																							
27																							
28																							
29																							
30																							
31																							
MFP MEDIA	BBI mEndo						BACTERIAL DENSITY	ARITH. MEAN					0	DIST. SYSTEM	TOTAL NO. SAMPLES							34	
TPC MEDIA								GEO. MEAN					1.0		SAMPLES EXCEEDING 3/50 (4/100) 7/200, 13/500ml					0			

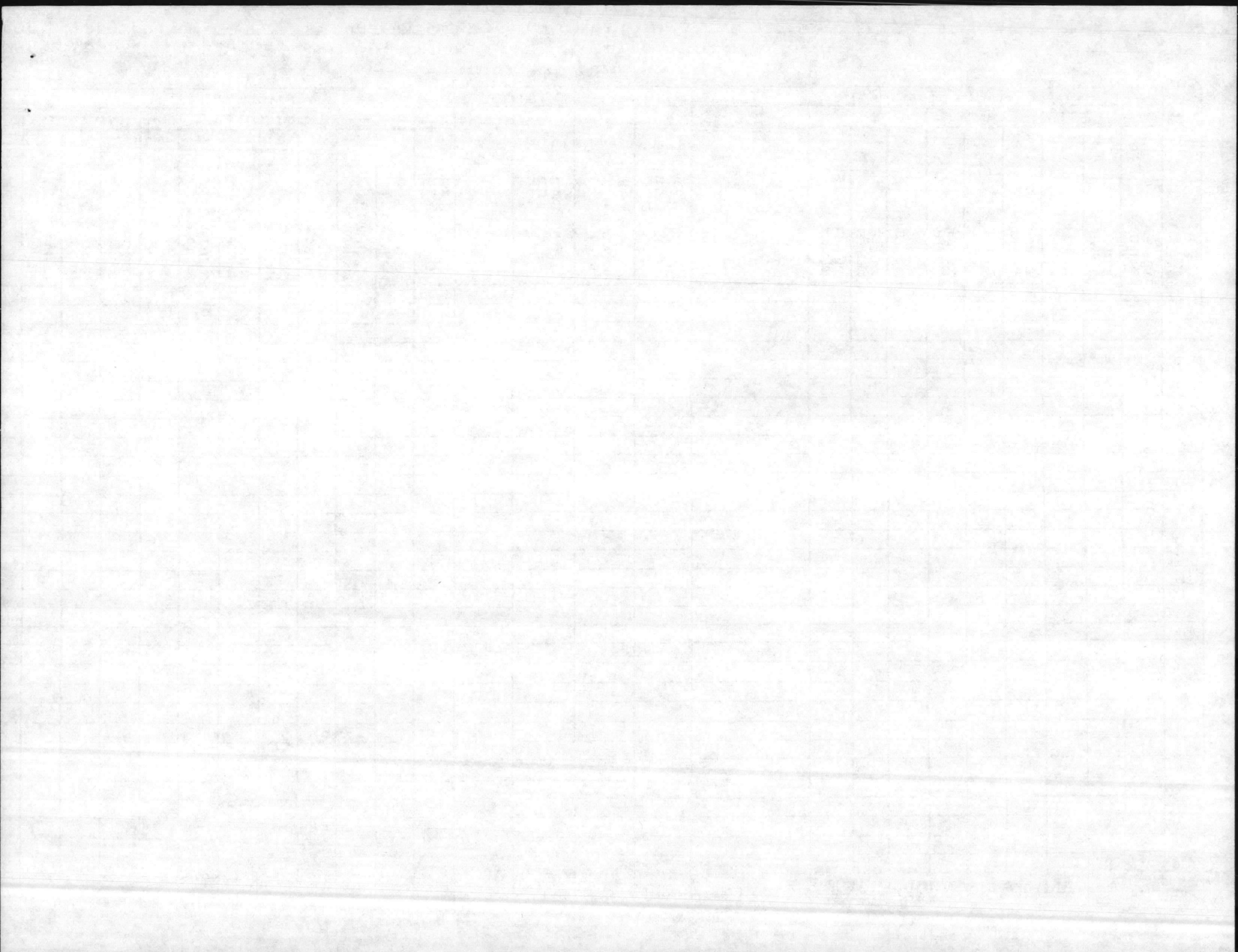
LAB ID # 37807

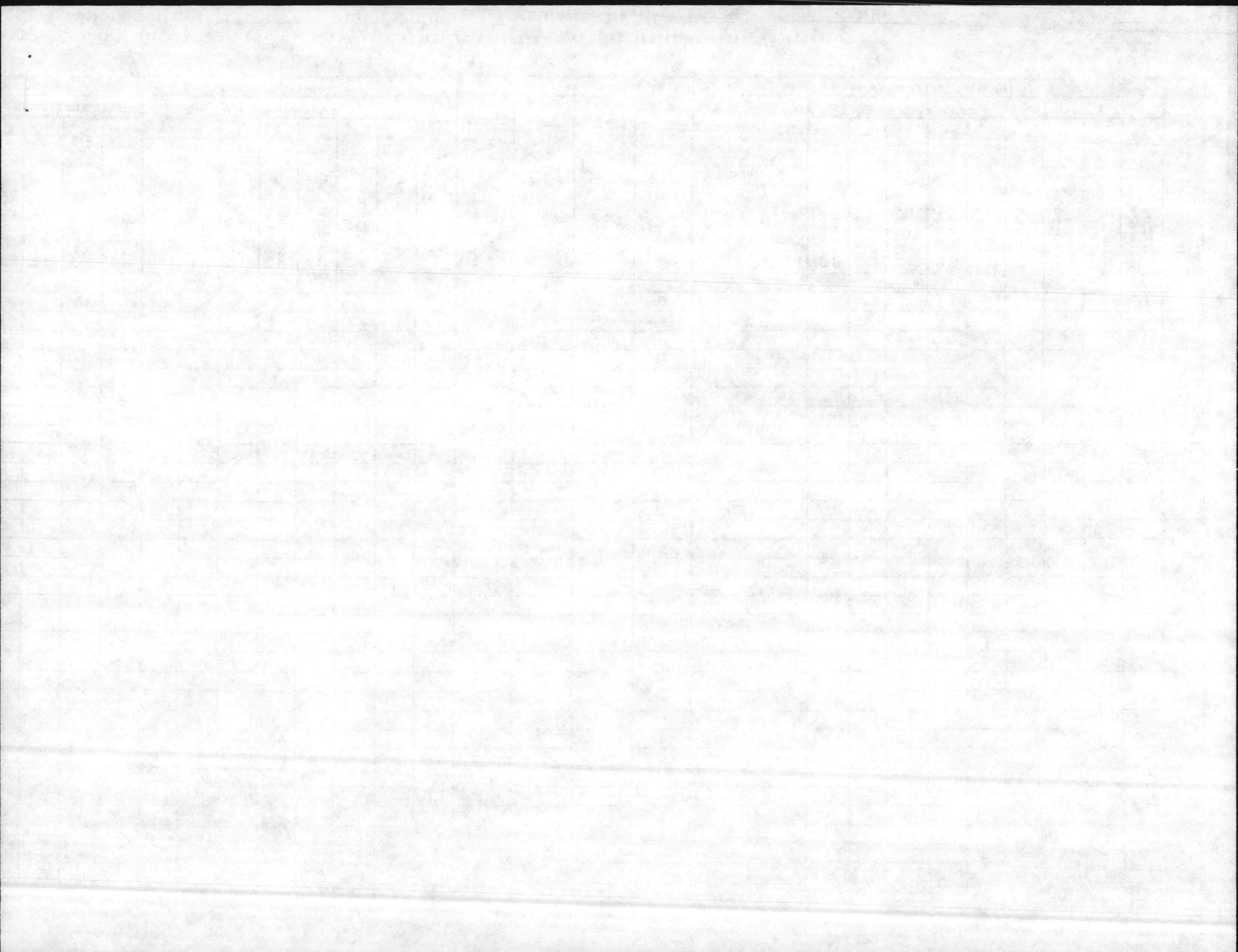
Quality Control Bureau 1987-88

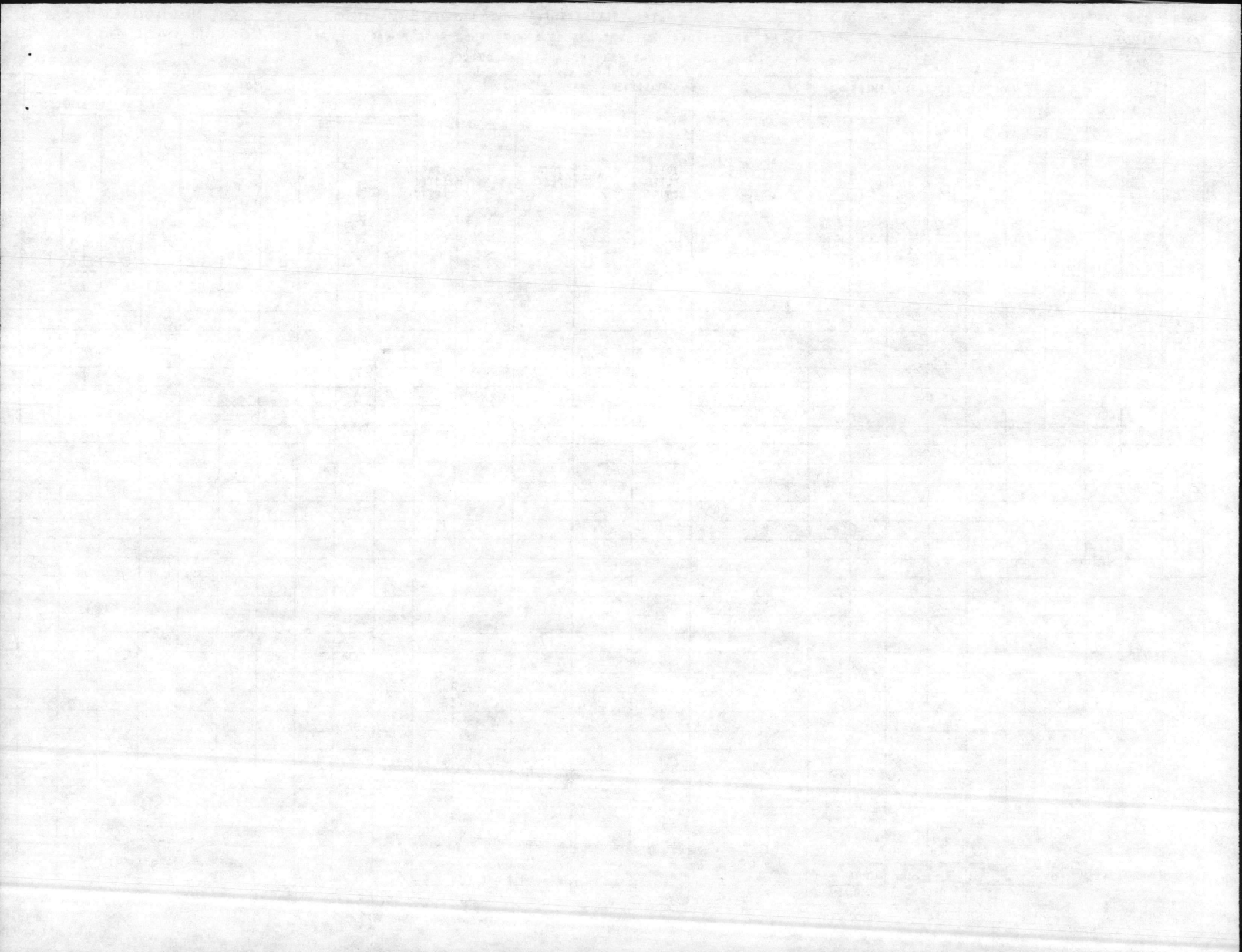


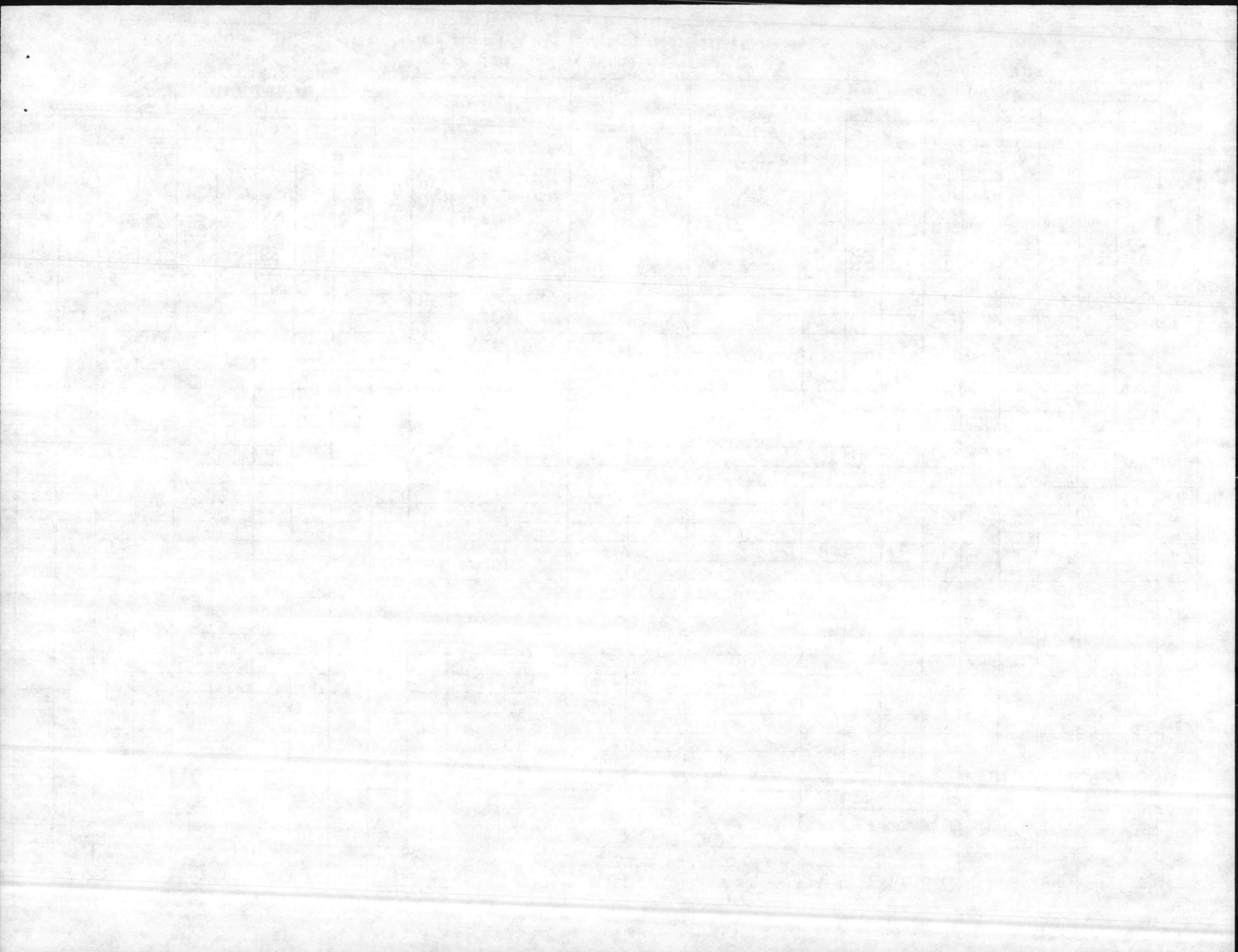


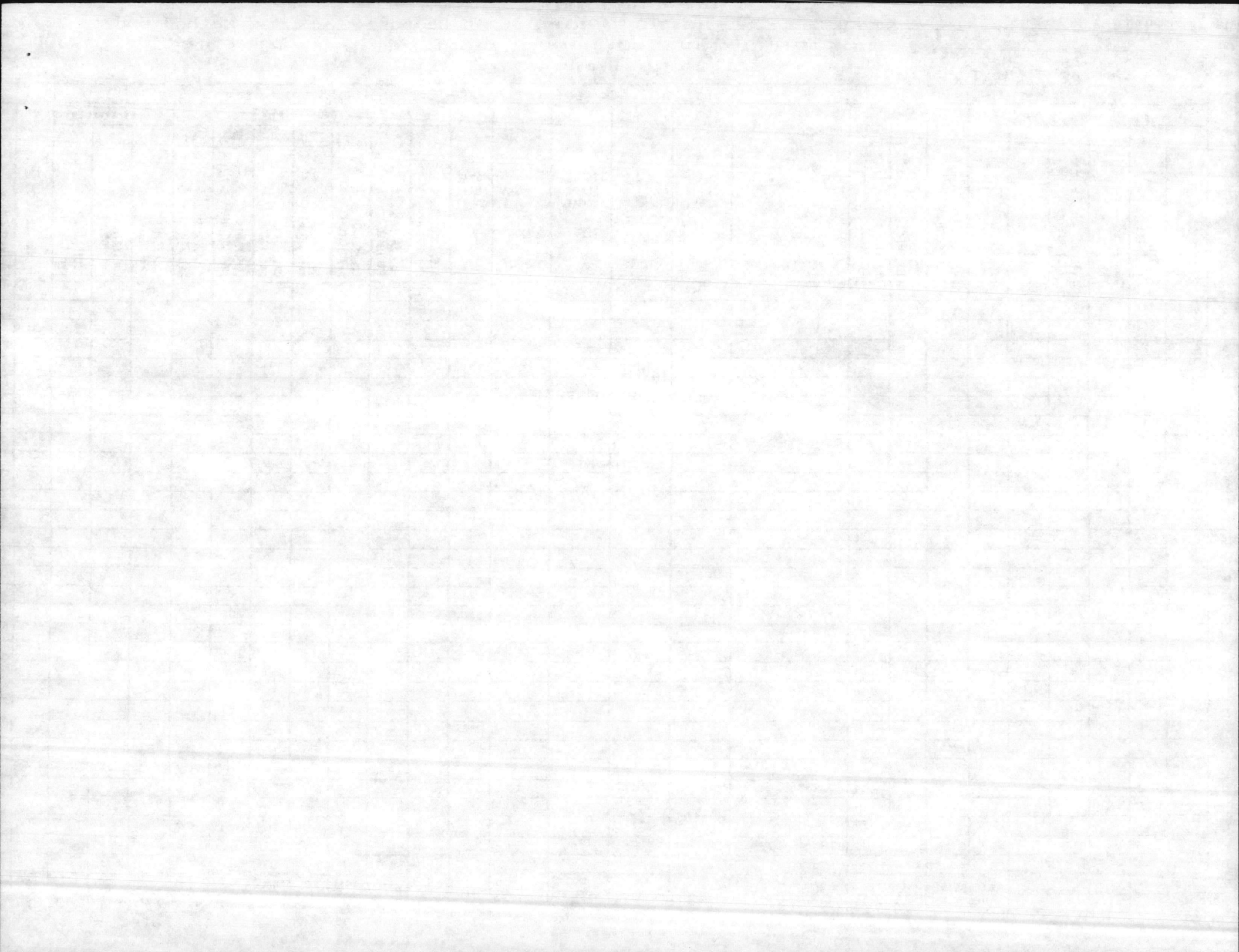












CHEMICAL ANALYSIS -- WATER TREATMENT PLANTS

MCBCL 11330-3 (REV. 6-84)

DATE COLLECTED

2-3-87

DATE OF ANALYSIS

2-3-87

PARAMETER SERIAL #04-67	HADNOT POINT -041	CAMP JOHNSON -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	8.4	7.4	7.9	8.0	8.3	8.5
PHENOLTHALEIN ALKALINITY	4	0	4	0	0	0	0	10
METHYL ORANGE ALKALINITY	56	174	50	174	178	168	74	144
CARBONATES AS CaCO ₃	8	0	8	0	0	0	0	20
BICARBONATES AS CaCO ₃	48	174	42	174	178	168	74	124
CHLORIDES AS Cl	12	12	16	18	18	48	10	56
HARDNESS AS CaCO ₃	62	68	74	52	60	62	76	54
IRON AS Fe	20.04	0.21	0.06	0.17	20.04	20.04	20.04	0.05
FLUORIDE	Am	1.17	0.76				1.00	
	Pm	1.21	0.14	0.79	0.113	0.10	1.04	0.53
CHLORINE RESIDUAL	1.0	1.2	1.0	1.5	1.3	1.0	1.0	1.0
TURBIDITY	Am	0.9	0.8				0.9	
	Pm	1.1	1.7	1.5	1.1	1.2	3.2	1.6
TOTAL PHOSPHATE		3.0						
ORTHO PHOSPHATE		1.2						
META PHOSPHATE		1.8						
STABILITY	+0.6	-0.7	+0.6	-0.7	-0.1	-0.1	+0.2	+0.1

REMARKS

COPY TO

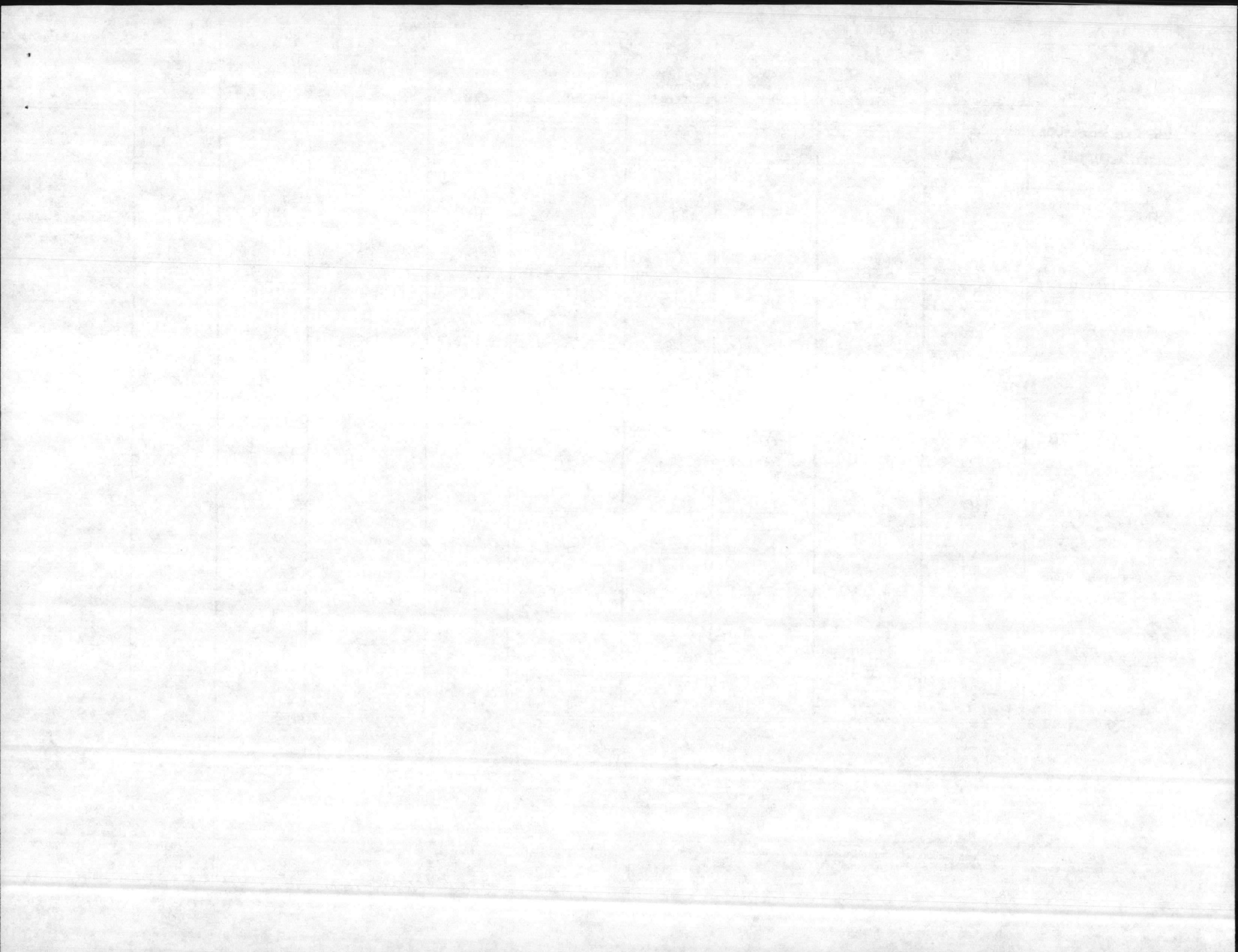
- UTIL DIR
- WATER TREATMENT
- PMU MCAS PMU
- NREAD FILE

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

L. Lane + H. Burns

107



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

DATE COLLECTED

2-10-87

DATE OF ANALYSIS

2-10-87

PARAMETER SERIAL #04-67	HADNOT POINT -041	CAMP JOHNSON -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	7.4	9.3	7.5	8.2	8.2	NO SAMPLE	8.8
PHENOLTHALEIN ALKALINITY	6	0	16	0	0	0	—	12
METHYL ORANGE ALKALINITY	60	180	36	166	174	160	—	146
CARBONATES AS CaCO ₃	12	0	32	0	0	0	—	24
BICARBONATES AS CaCO ₃	48	180	4	166	174	160	—	120
CHLORIDES AS Cl	12	10	16	20	18	50	—	60
HARDNESS AS CaCO ₃	66	64	62	62	54	54	—	50
IRON AS Fe	—	AA	DOWN	—	—	—	—	—
FLUORIDE	Am 0.82 Pm 0.85	0.12	0.83 0.71	0.13	0.11	0.09	—	0.54
CHLORINE RESIDUAL	1.0	1.1	1.0	1.0	1.3	0.8	—	0.8
TURBIDITY	Am 1.9 Pm 0.9	1.0	7.8 2.4	0.9	1.1	0.7	—	1.0
TOTAL PHOSPHATE		1.70						
ORTHO PHOSPHATE		1.00						
META PHOSPHATE		0.70						
STABILITY	+0.4	-0.7	+0.8	-0.6	0.0	0.0	—	+0.3

REMARKS

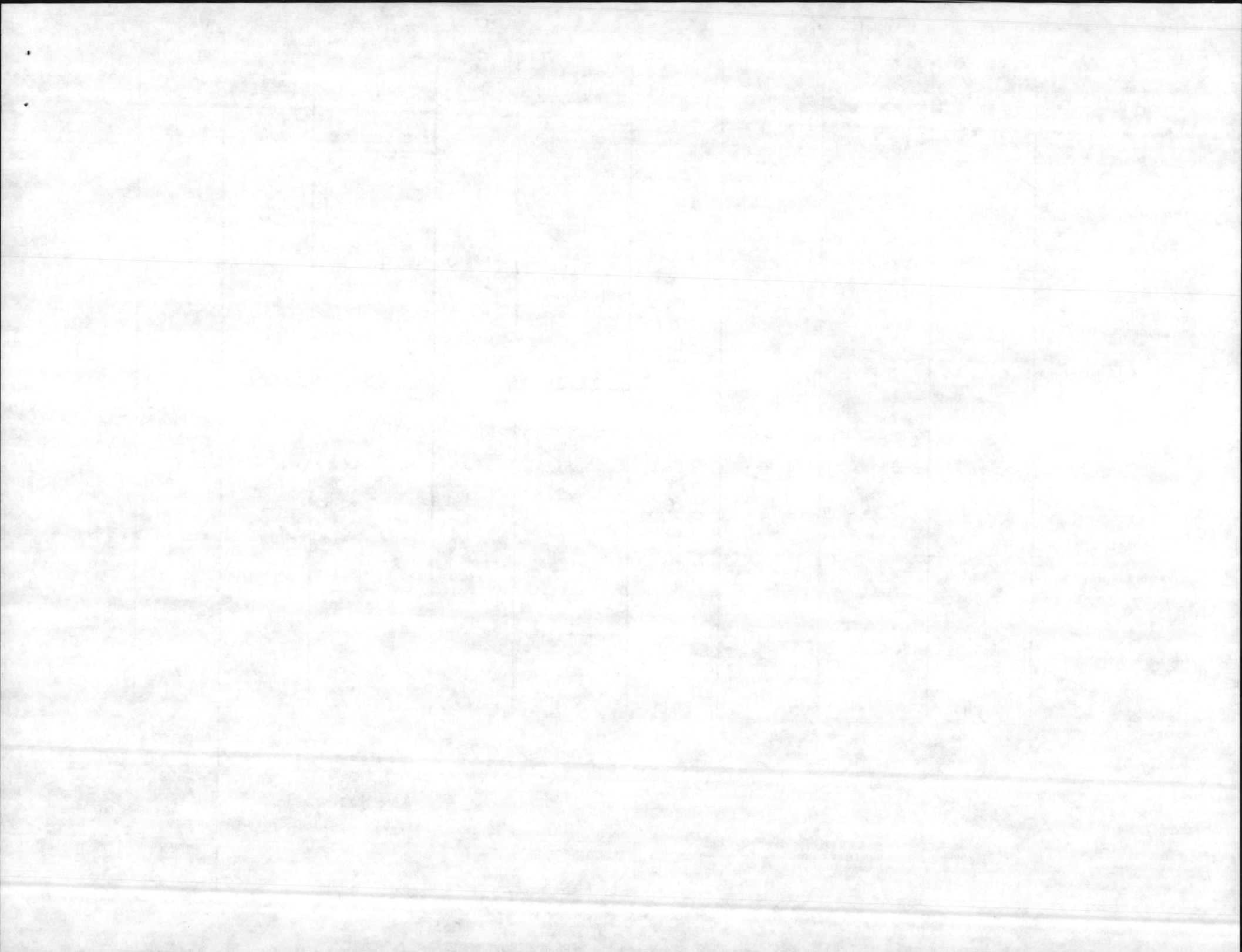
COPY TO

- UTIL DIR
- WATER TREATMENT
- PMU MCAS PMU
- NPEAD 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

L. LANE + BUENOS



CHEMICAL ANALYSIS — WATER TREATMENT PLANTS
 MCBCL 11330.3 (REV. 6-84)

DATE COLLECTED
 2-17-87

DATE OF ANALYSIS
 2-17-87

PARAMETER SERIAL# 04-67	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLow BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042
PH (IN LAB NOT PLANT)	9.3	8.0	9.7	7.9	8.6	8.7	NO SAMPLE	9.2
PHENOLTHALEIN ALKALINITY	8	0	20	0	6	6	—	20
METHYL ORANGE ALKALINITY	52	184	58	170	178	174	—	150
CARBONATES AS CaCO ₃	16	0	40	0	12	12	—	40
BICARBONATES AS CaCO ₃	36	184	18	170	166	162	—	110
CHLORIDES AS Cl	14	14	20	174	20	50	—	52
HARDNESS AS CaCO ₃	66	56	66	70	54	56	—	56
IRON AS Fe	—	—	A.A.	DOWN	—	—	—	—
FLUORIDE	Am 0.76 Pm 0.86	0.15	0.76 0.67	0.14	0.10	0.09	—	0.51
CHLORINE RESIDUAL	0.9	1.2	1.0	1.5	1.5	1.0	+	0.9
TURBIDITY	Am 1.7 Pm 1.6	3.3	2.0 4.1	3.1	1.2	1.4	—	1.4
TOTAL PHOSPHATE		2.4						
ORTHO PHOSPHATE		1.1						
META PHOSPHATE		1.3						
STABILITY	+1.3	-0.6	+2.0	-0.8	-0.2	0.0		0.5

REMARKS

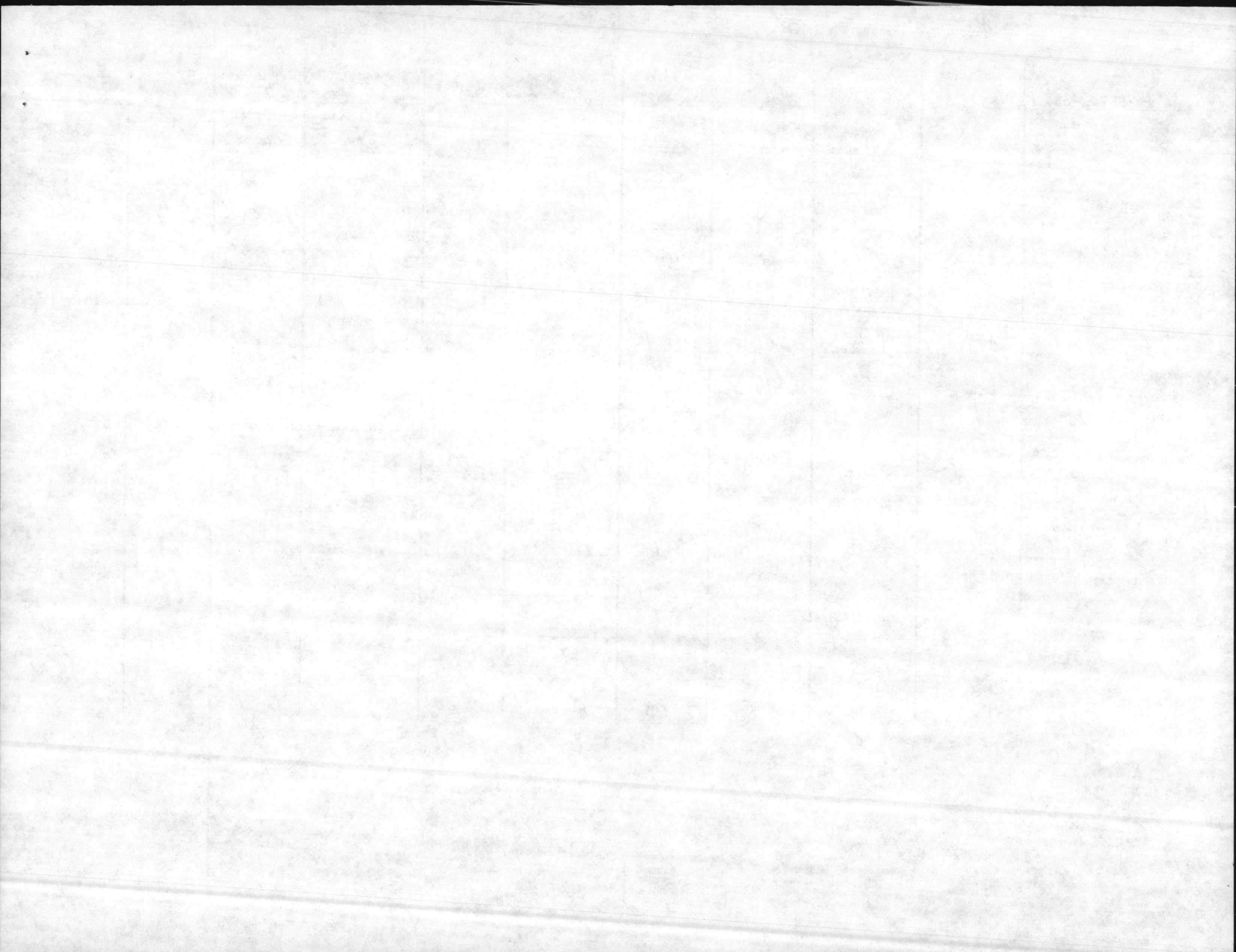
COPY TO

- 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

L. LANE & BURNS



CHEMICAL ANALYSIS -- WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED

2-24-87

DATE OF ANALYSIS

2-24-87

PARAMETER	HADNOT POINT	CAMP JOHNSON	TARAWA TERRACE	ONSLow BEACH	COURTHOUSE BAY	RIFLE RANGE	HOLCOMB BLVD	NEW RIVER
SERIAL# 04-67	-041	-045	-044	-048	-047	-046	-043	-042
PH (IN LAB NOT PLANT)	8.4	7.4	9.0	7.4	8.2	8.3	NO SAMPLE	8.9
PHENOLTHALEIN ALKALINITY	4	0	4	0	0	4		20
METHYL ORANGE ALKALINITY	74	176	44	156	174	154		148
CARBONATES AS CaCO ₃	8	0	8	0	0	8		40
BICARBONATES AS CaCO ₃	66	176	36	156	174	146		108
CHLORIDES AS Cl	10	12	16	20	16	44		56
HARDNESS AS CaCO ₃	68	62	64	54	60	64		70
IRON AS Fe	← AA DOWN →							
FLUORIDE	Am 1.14 Pm 1.16	0.17	1.60 1.47	0.15	0.12	0.10		0.55
CHLORINE RESIDUAL	1.1	1.2	1.0	1.1	1.4	1.0		0.8
TURBIDITY	Am 0.7 Pm 1.1	1.1	1.9 1.9	0.6	0.3	1.0		0.7
TOTAL PHOSPHATE		2.4						
ORTHO PHOSPHATE		1.0						
META PHOSPHATE		1.4						
STABILITY	+0.8	-0.5	+1.4	-0.5	+0.1	+0.5	↓	+0.8

REMARKS

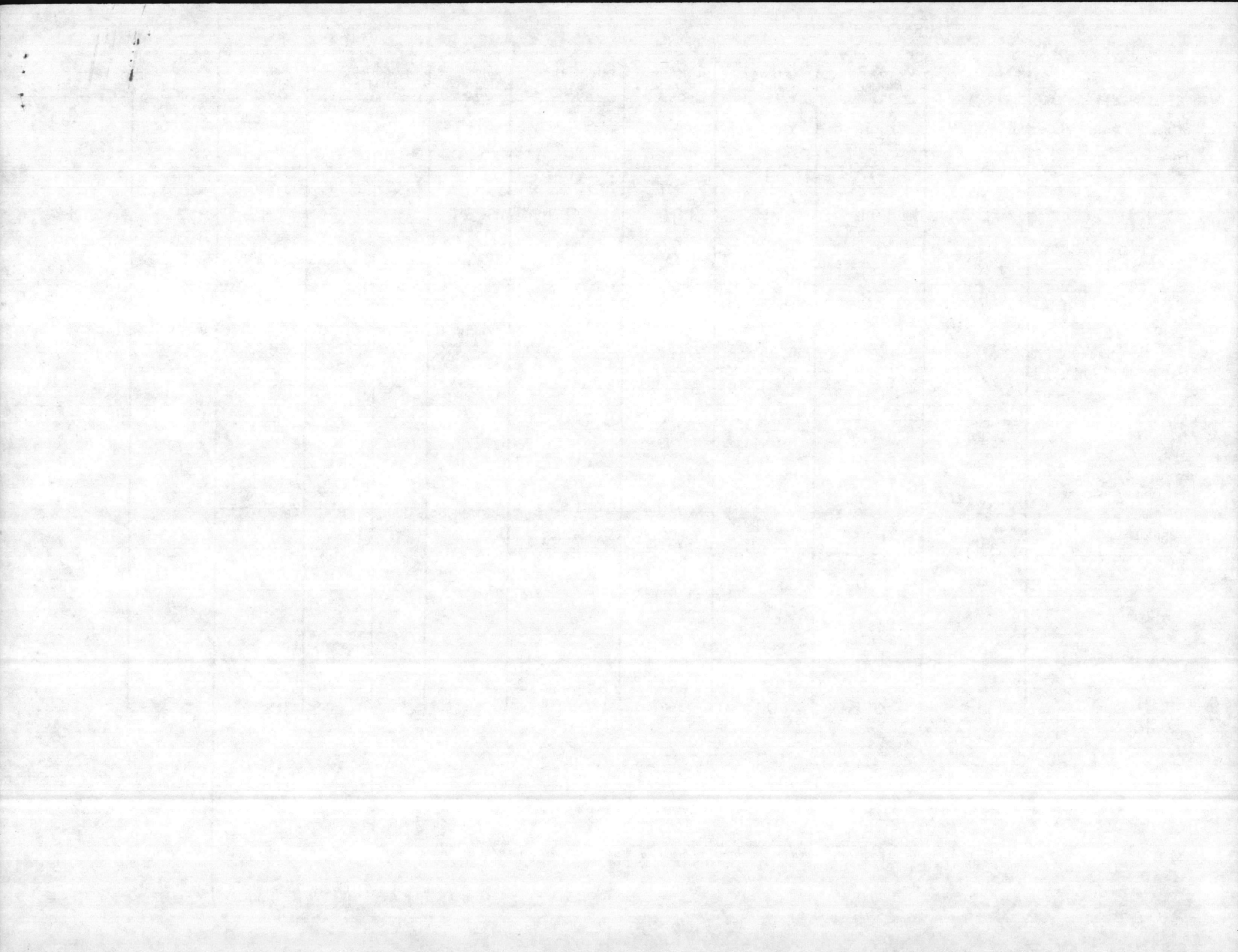
COPY TO

- 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. Burns + L. Lane





UNITED STATES MARINE CORPS
Natural Resources and Environmental Affairs Division
Marine Corps Base
Camp Lejeune, North Carolina 28542

IN REPLY REFER TO:

11331

NREAD

FEB 06 1987

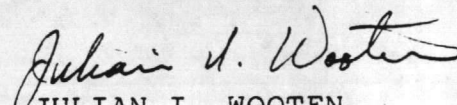
Mr. John McFadyen
Water Supply Branch
Division of Health Services
North Carolina Department of
Human Resources
Post Office Box 2091
Raleigh, North Carolina 27602

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 January 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.

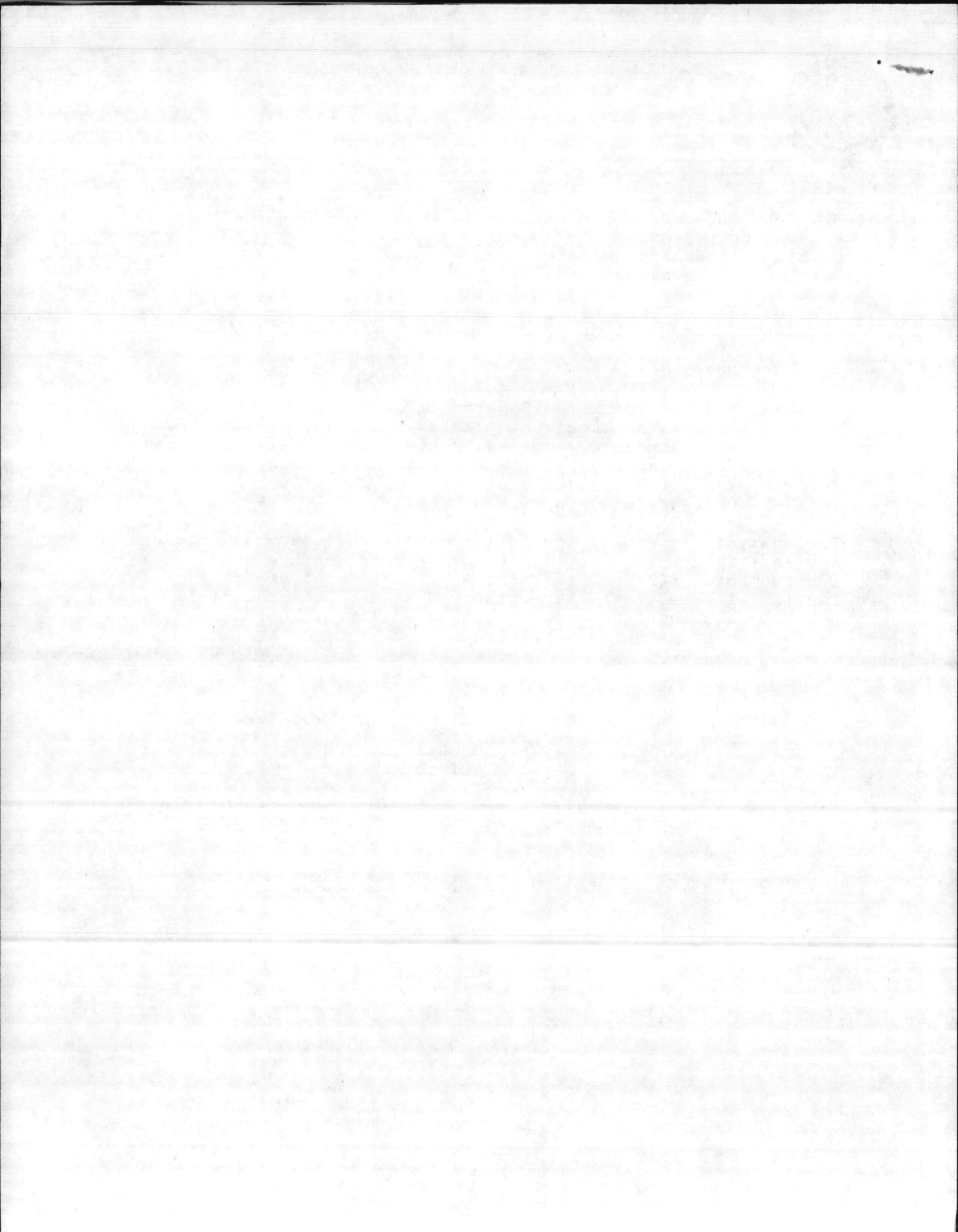
The analysis is run by the Environmental Chemistry and Microbiology Laboratory, located in the Natural Resources and Environmental Affairs Division, Assistant Chief of Staff, Facilities. Ms. Betz, Supervisory Chemist, Environmental Chemistry and Microbiology Laboratory, telephone (919) 451-5977, is the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

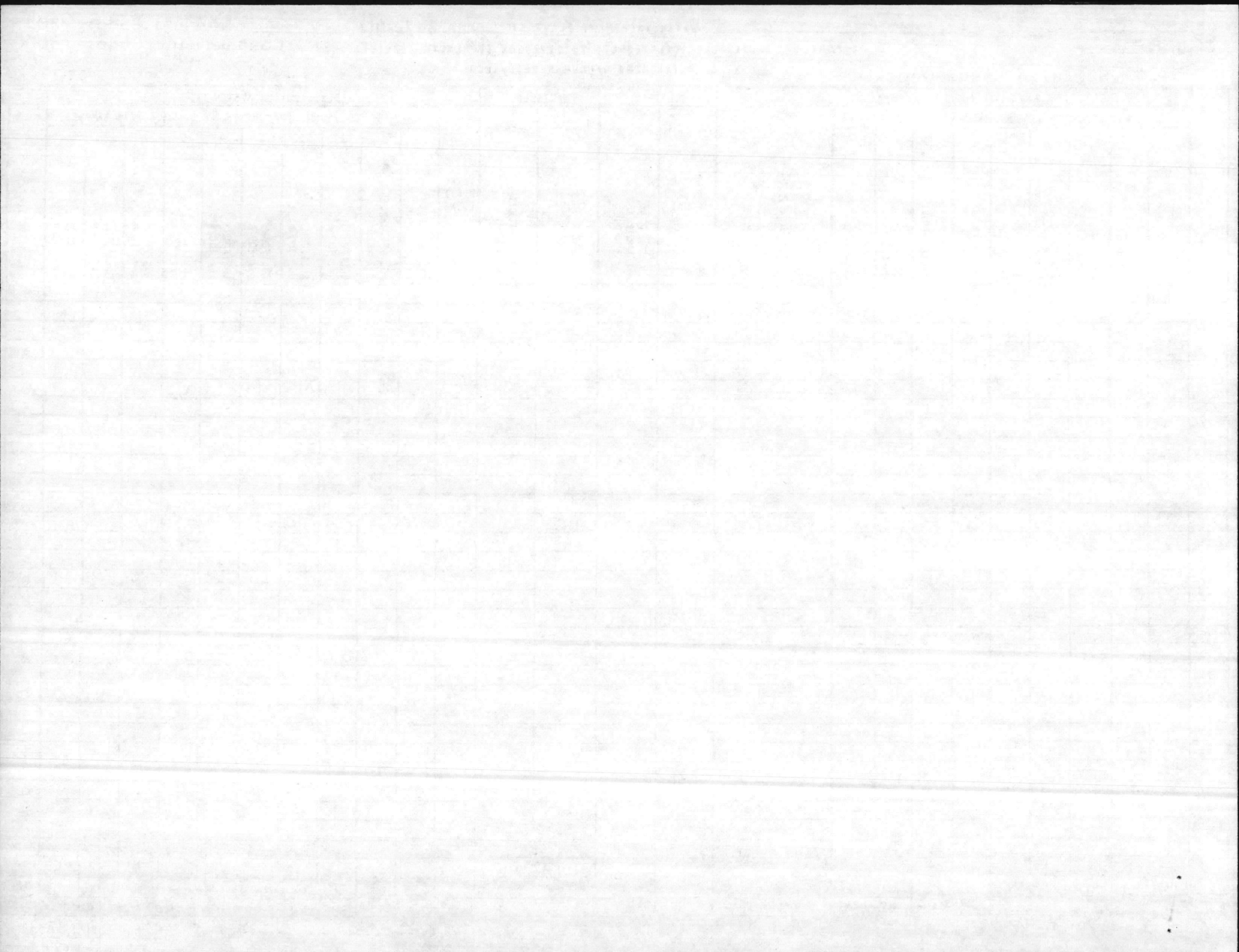
Sincerely,

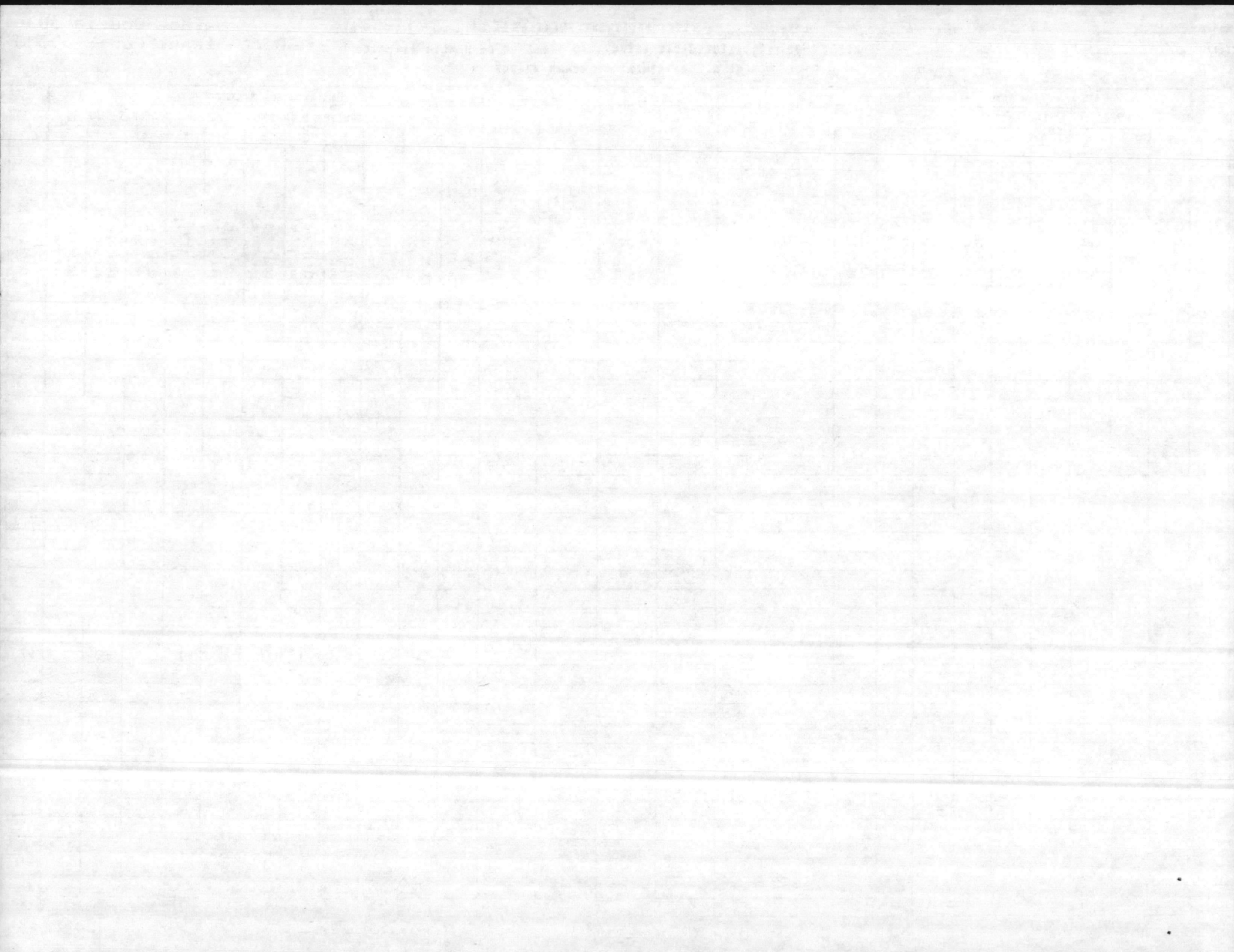

JULIAN I. WOOTEN
Director

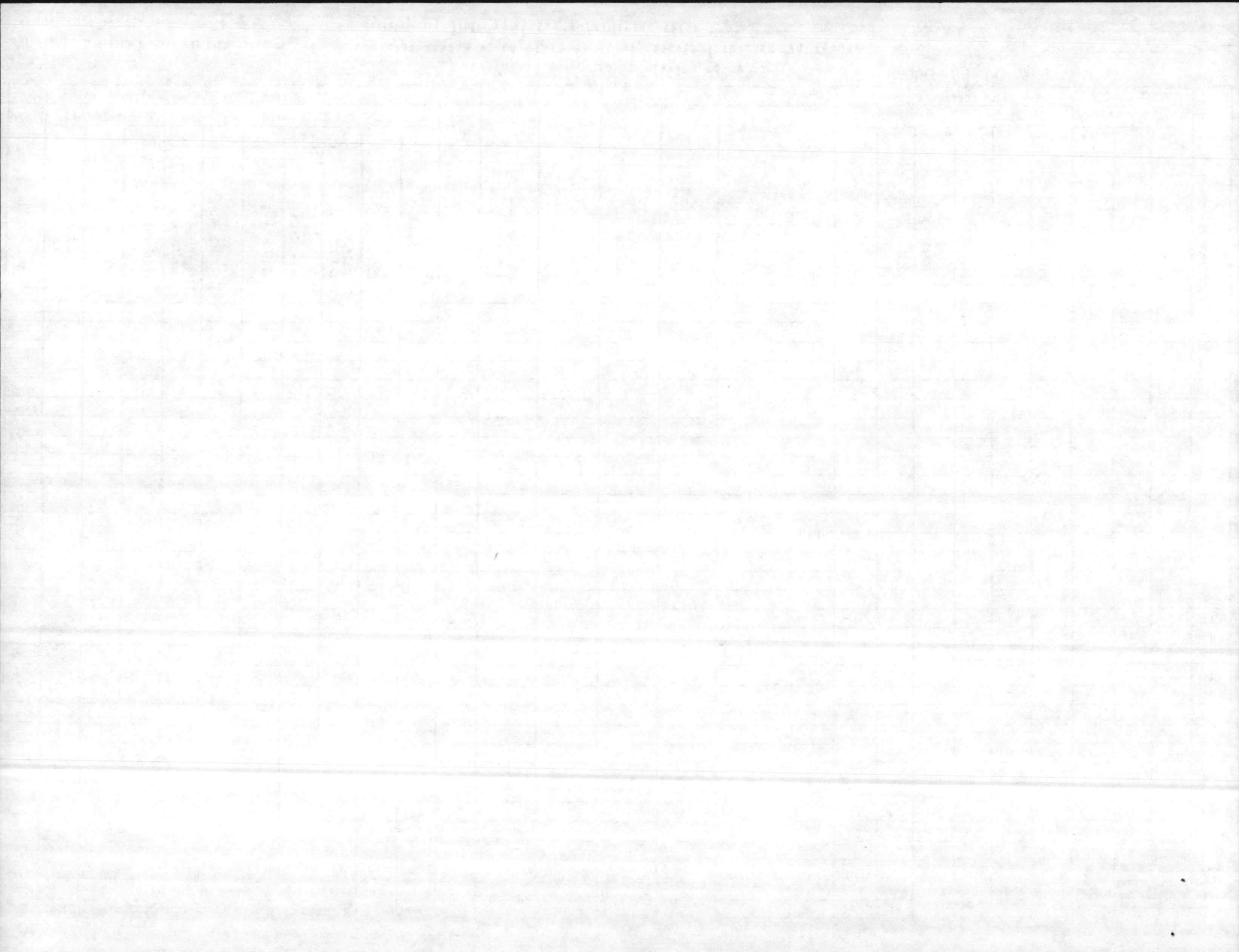
Encls: (1) Dept of Health Forms
(2) Chemical Analysis Forms

Copy to:
LANTNAVFACENGCOM (Code 114)









Month JANUARY
 Year 1987

IAKAWA TERRACE

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303
 Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-04

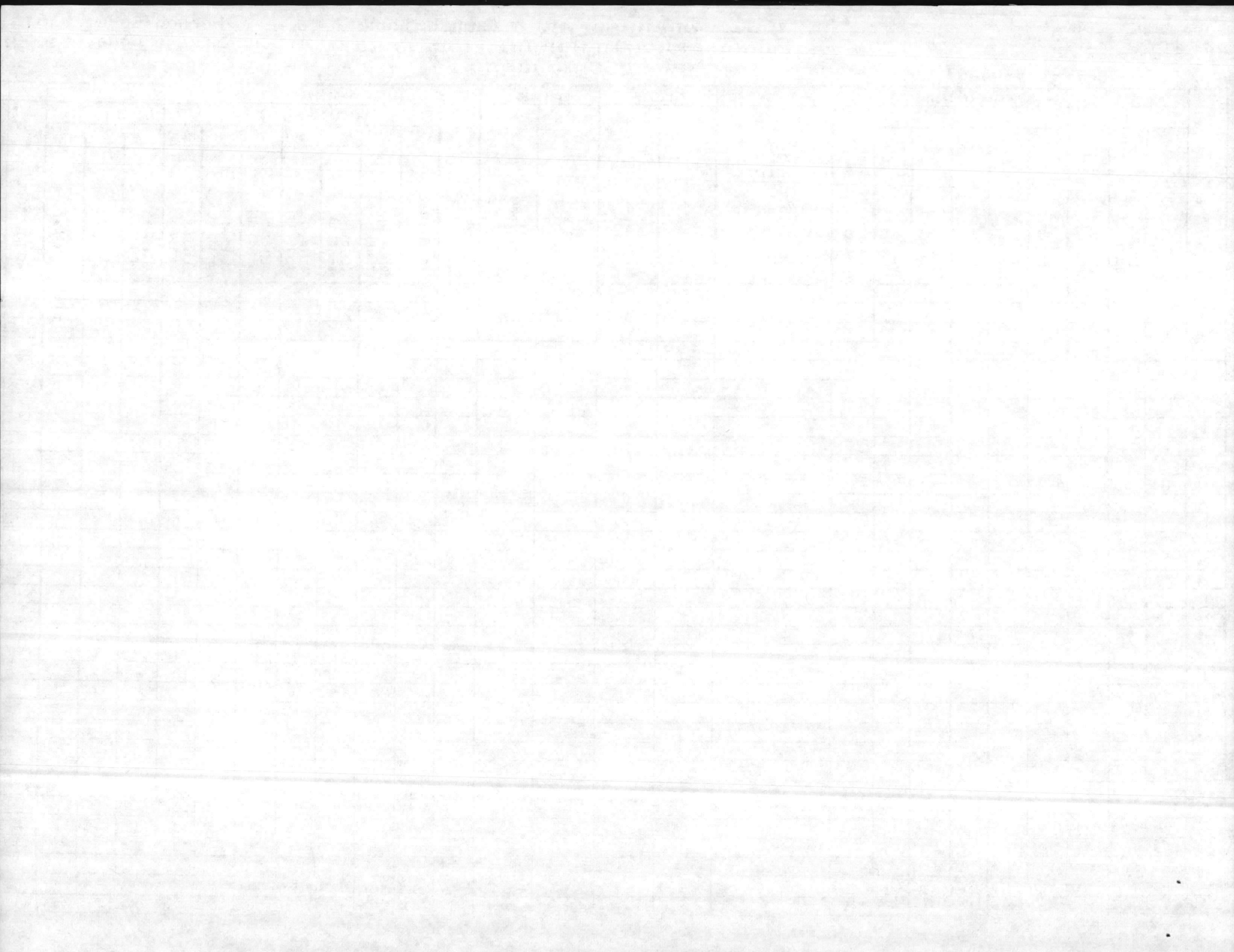
DATE	RAW WATER COLIFORMS (MFP)								NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM					INCUBATOR TEMP.	
	A		B		C		COLIFORMS (MFP)								REPEAT SAMPLES						
	VOLUME FILTERED ml.	TOTAL COLONIES	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																					
5																					
6												0	4	0	0	0	0			35.5	
7																					
8																					
9																					
10																					
11																					
12																					
13												0	4	0	0		0	0		35.5	
14																					
15																					
16																					
17																					
18																					
19																					
20												0	4	0	0		0	0		35.1	
21																					
22																					
23																					
24																					
25																					
26																					
27												0	4	0	0			0	0	35.0	
28																					
29																					
30																					
31																					
MFP MEDIA		RBI mEndo		BACTERIAL DENSITY		ARITH. MEAN						0	DIST. SYSTEM		TOTAL NO. SAMPLES					16	
TPC MEDIA						GEO. MEAN						1.0			SAMPLES EXCEEDING 3/50 (4/100) 7/200. 13/500ml					0	

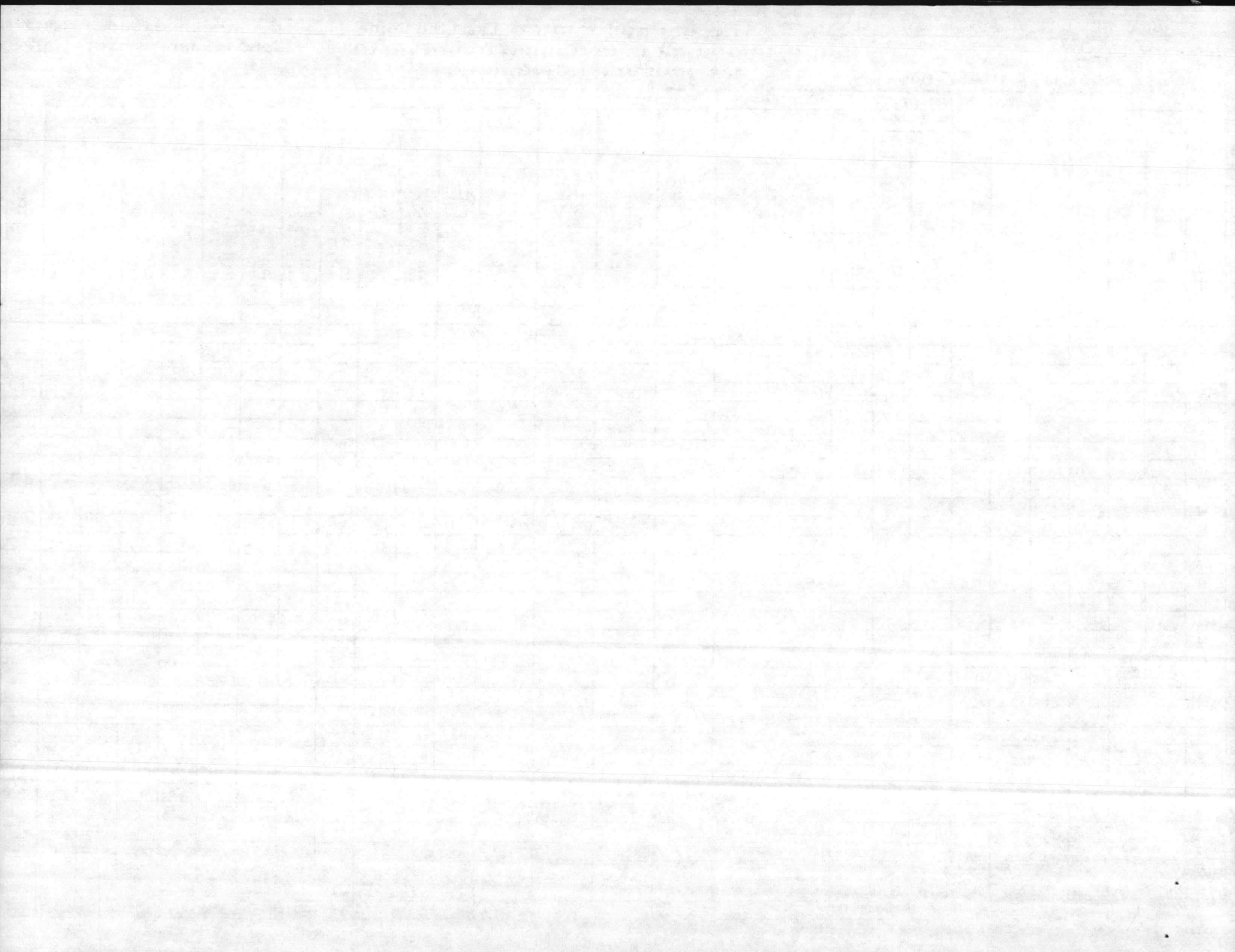
LAB ID # 37807

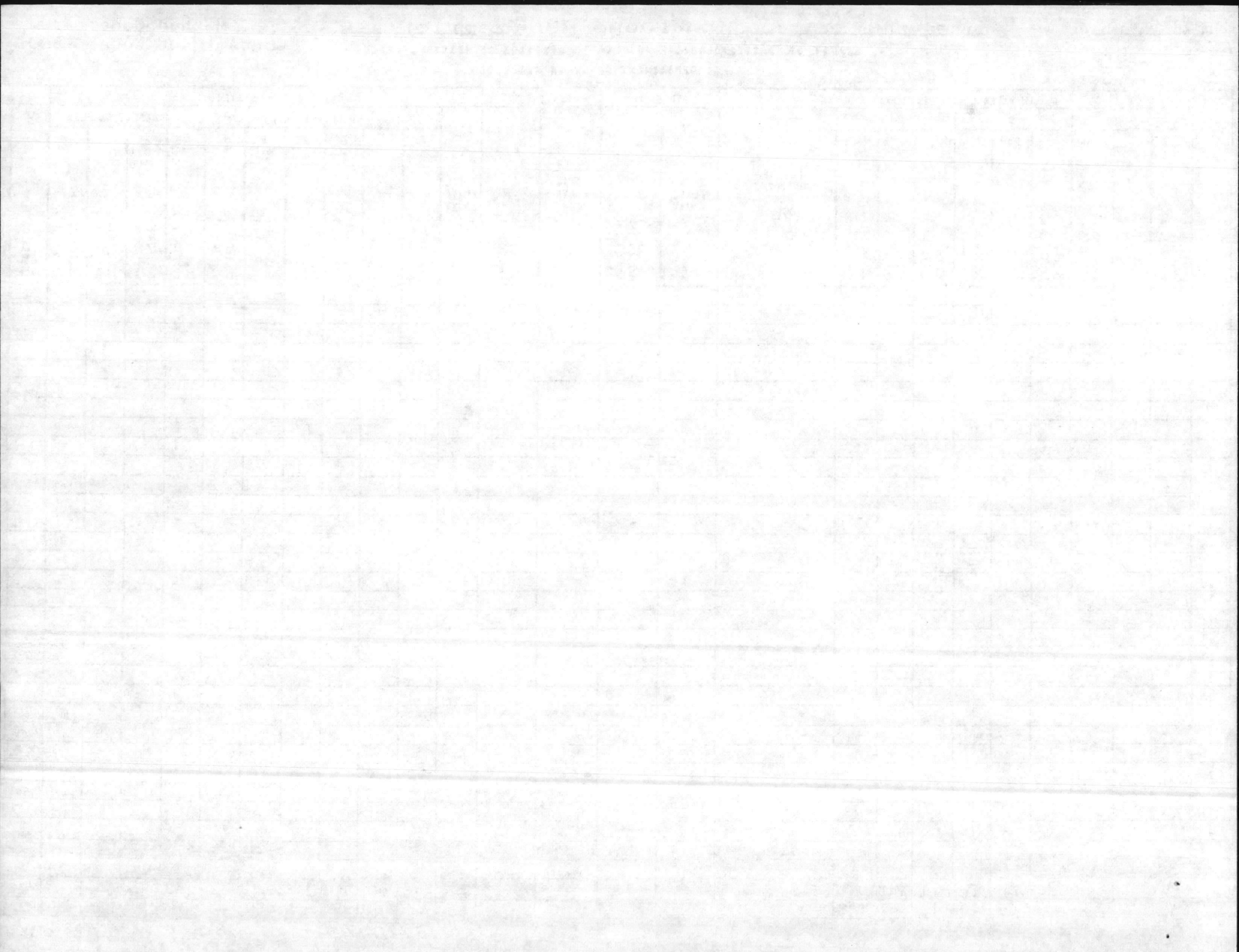
Elizabeth A. Batty

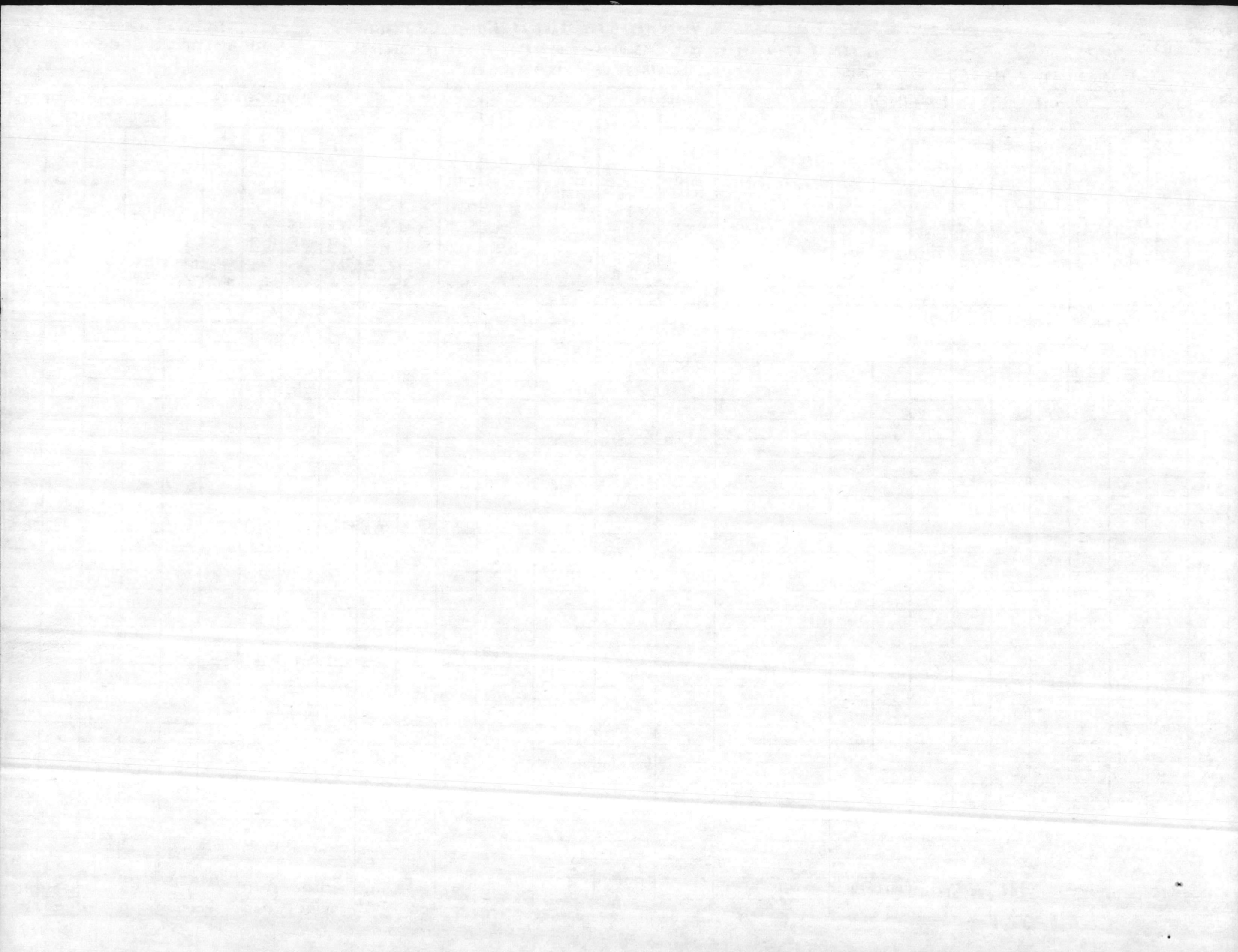
B. Well

4087-W









Month JANUARY
 Year 1987

UNSLW BEACH

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303
 Contaminant Code: 3000

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

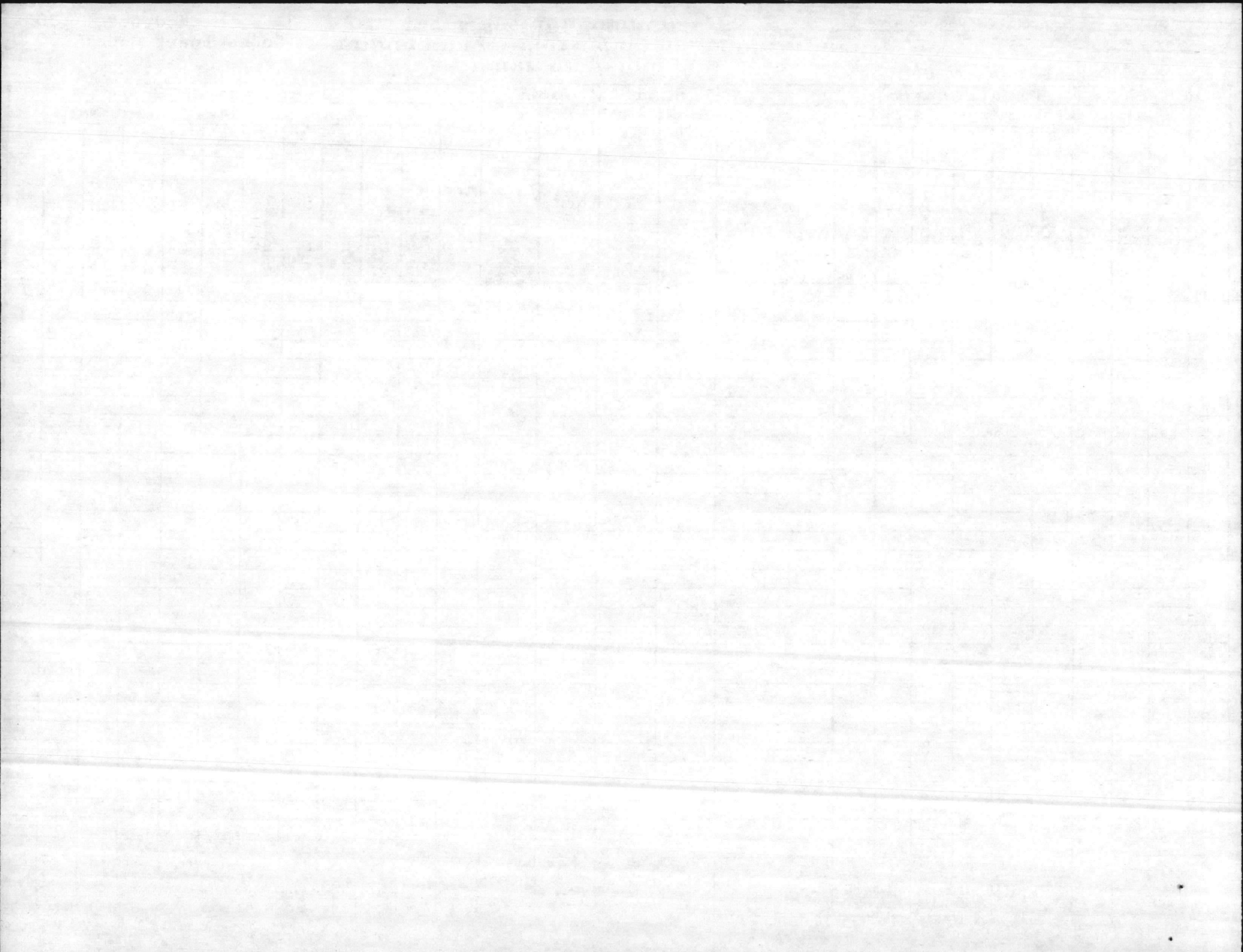
N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-048

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					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																					
5																					
6												0	2	0	0					35.5	
7																					
8																					
9																					
10																					
11																					
12																					
13												0	2	0	0					35.5	
14																					
15																					
16																					
17																					
18																					
19																					
20												0	2	0	0					35.1	
21																					
22																					
23																					
24																					
25																					
26																					
27												0	2	0	0					35.0	
28																					
29																					
30																					
31																					
MFP MEDIA		BBL mEndo		BACTERIAL DENSITY		ARTH. MEAN						0		DIST. SYSTEM		TOTAL NO. SAMPLES				8	
TPC MEDIA						GEO. MEAN						1.0				SAMPLES EXCEEDING 3/50, 4/100, 7/200, 13/500ml				0	

LAB ID # 37807

Elizabeth A. Betsy B-Well 4087-W



CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED

1-6-87

DATE OF ANALYSIS

1-6-87

PARAMETER SERIAL#04-67	HADNOT POINT -041	CAMP JOHNSON -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	7.7	8.7	7.4	7.8	8.1	8.9	8.7		
PHENOLTHALEIN ALKALINITY	4	0	2	0	0	0	4	6		
METHYL ORANGE ALKALINITY	82	186	52	162	160	154	56	152		
CARBONATES AS CaCO ₃	8	0	4	0	0	0	8	12		
BICARBONATES AS CaCO ₃	74	186	48	162	160	154	48	140		
CHLORIDES AS Cl	12	14	16	24	24	46	16	66		
HARDNESS AS CaCO ₃	88	54	58	52	58	48	64	58		
IRON AS Fe	< 0.04	0.18	< 0.04	0.12	< 0.04	< 0.04	< 0.04	< 0.04		
FLUORIDE	Am	0.18	NO SAMPLE	0.16	0.12	0.11	0.92	0.56		
	Pm	0.29	0.15	0.96			0.97			
CHLORINE RESIDUAL	0.7	1.2	1.0	1.3	1.3	1.0	1.2	0.9		
TURBIDITY	Am	1.3	NO SAMPLE	0.5	0.5	0.2	0.1	0.1		
	Pm	0.7	0.3	0.5			0.2			
TOTAL PHOSPHATE		1.8								
ORTHO PHOSPHATE		0.9								
META PHOSPHATE		0.9								
STABILITY	+0.1	-0.6	0.0	-0.6	-0.4	-0.2	+0.1	-0.1		

REMARKS

COPY TO:

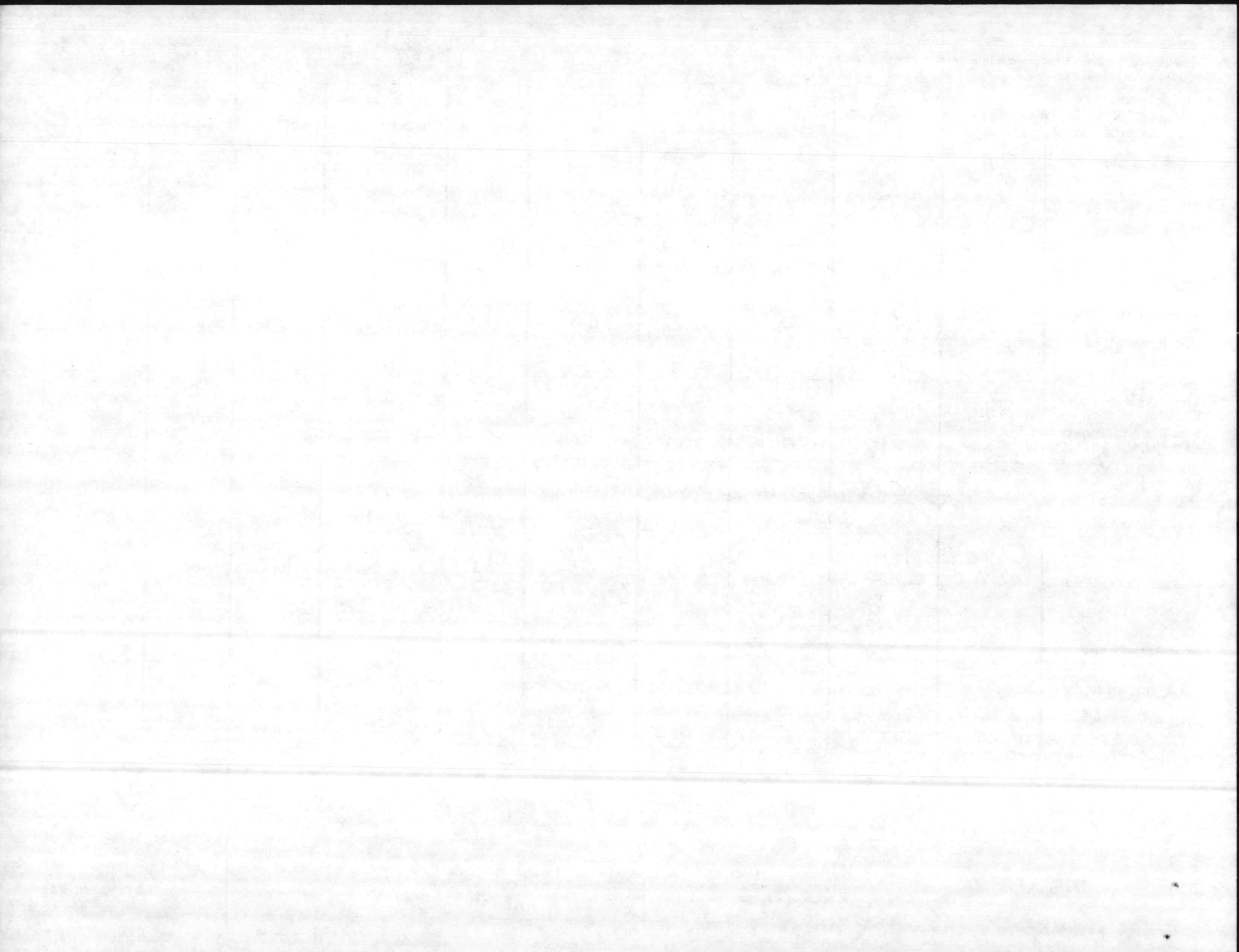
- UTIL DIR
- WATER TREATMENT
- PMU MCAS PMU
- NREAD FILE

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

L. LANE AND C. SHORES

ENCLOSURE (2)



CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330-3 (REV. 6-84)

DATE COLLECTED
1-13-87

DATE OF ANALYSIS
1-13-87

PARAMETER SERIAL#04-67	HADNOT POINT -041	CAMP JOHNSON -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	7.4	8.4	7.3	7.7	8.0	8.5	8.5
PHENOLTHALEIN ALKALINITY	4	0	4	0	0	0	4	6
METHYL ORANGE ALKALINITY	54	178	50	162	184	164	56	148
CARBONATES AS CaCO ₃	8	0	8	0	0	0	8	12
BICARBONATES AS CaCO ₃	46	178	42	162	184	164	48	136
CHLORIDES AS Cl	10	12	14	20	14	50	16	60
HARDNESS AS CaCO ₃	62	64	80	110	64	62	64	46
IRON AS Fe	<0.04	0.21	<0.04	0.22	<0.04	<0.04	<0.04	0.06
FLUORIDE	Am 0.85 Pm 0.88	0.17	0.77 0.76	0.15	0.11	0.11	0.90 0.93	0.56
CHLORINE RESIDUAL	1.0	1.5	1.0	1.0	1.5	1.1	0.9	0.9
TURBIDITY	Am 0.1 Pm 0.2	0.1	0.2 0.4	0.1	0.1	0.1	0.1 0.2	0.1
TOTAL PHOSPHATE		2.2						
ORTHO PHOSPHATE		1.0						
META PHOSPHATE		1.2						
STABILITY	+0.1	-0.5	0.0	-0.5	-0.3	-0.1	+0.1	0.0

REMARKS

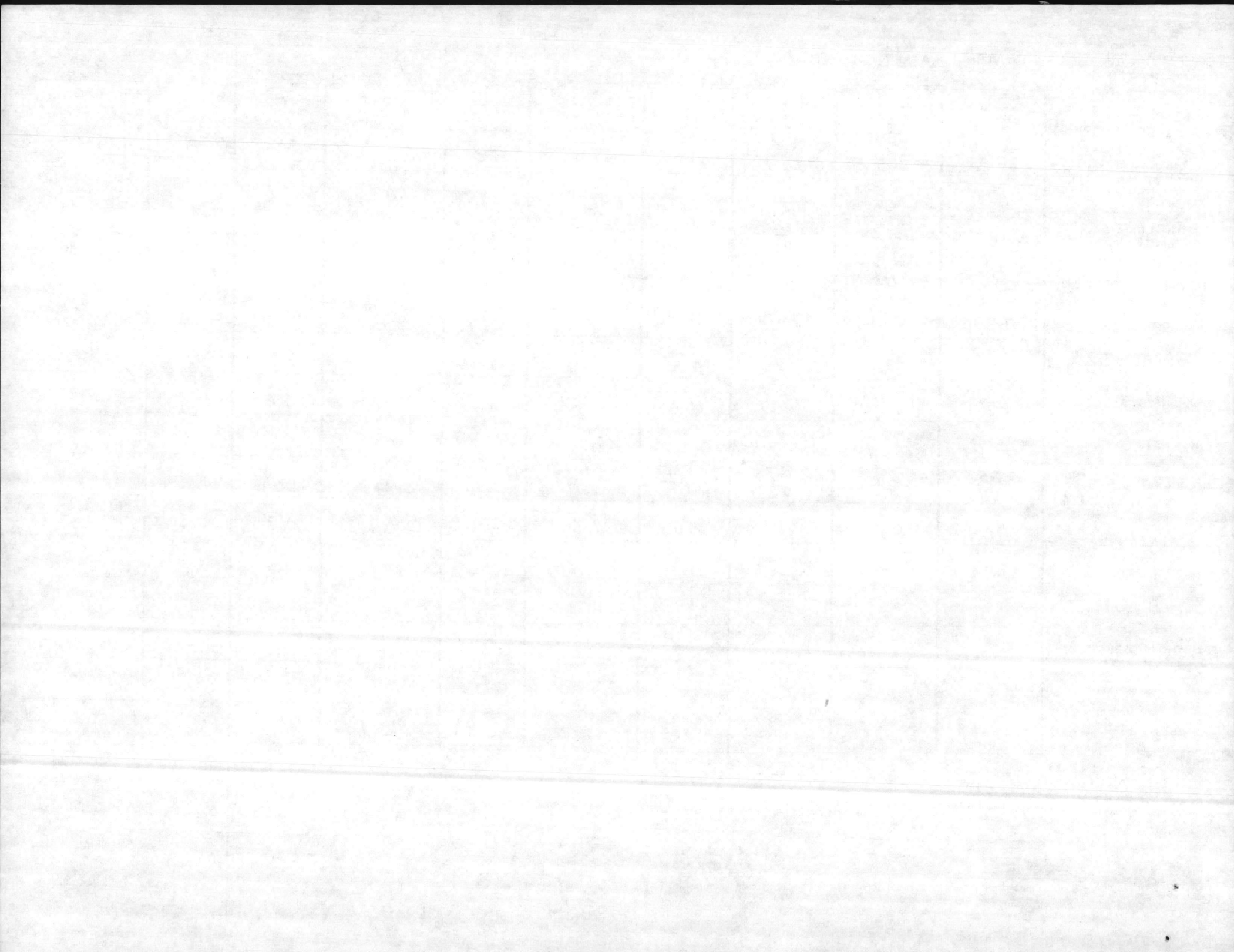
COPY TO:

- 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. BURNS AND L. LANE



CHEMICAL ANALYSIS -- WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED

1-20-87

DATE OF ANALYSIS

1-20-87

PARAMETER SERIAL #04-67	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONslow BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042
PH (IN LAB NOT PLANT)	8.1	7.5	9.1	7.4	8.1	8.3	8.7	8.8
PHENOLTHALEIN ALKALINITY	0	0	8	0	0	4	4	8
METHYL ORANGE ALKALINITY	54	186	44	160	184	160	52	176
CARBONATES AS CaCO ₃	0	0	16	0	0	8	8	16
BICARBONATES AS CaCO ₃	54	186	28	160	184	152	44	160
CHLORIDES AS Cl	12	10	16	18	18	54	14	72
HARDNESS AS CaCO ₃	62	54	68	160	54	60	60	56
IRON AS Fe	<0.04	0.18	<0.04	0.29	<0.04	<0.04	<0.04	<0.04
FLUORIDE	AM	0.77	0.60	0.11	0.09	0.08	0.84	0.58
	PM	0.86	0.12	0.43	0.11	0.08	0.84	0.58
CHLORINE RESIDUAL	1.0	1.0	1.1	1.1	1.4	1.0	0.8	0.8
TURBIDITY	AM	0.2	0.3	0.5	0.4	0.1	0.3	0.2
	PM	0.3	1.5	1.5	0.5	0.4	0.2	0.2
TOTAL PHOSPHATE		2.2						
ORTHO PHOSPHATE		1.0						
META PHOSPHATE		1.2						
STABILITY	-0.4	-0.6	+0.9	-0.5	-0.2	0.0	+0.2	+0.1

REMARKS

COPY TO:

UTIL DIR _____

WATER TREATMENT

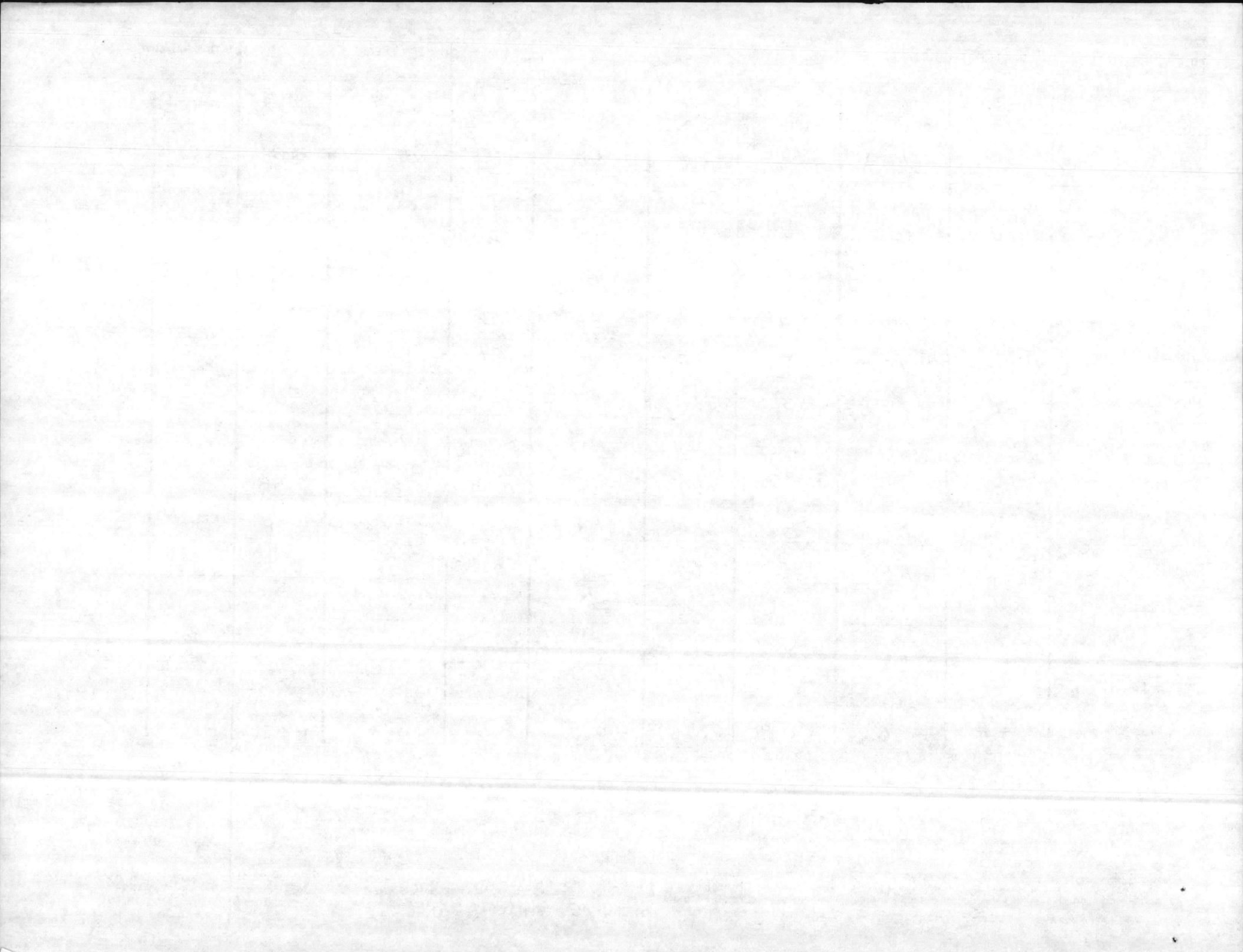
PMU MCAS PMU

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. BURNS AND L. LANE



CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV 6-84)

DATE COLLECTED 1-27-87

DATE OF ANALYSIS 1-27-87

PARAMETER SERIAL # 04-67	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLow BEACH -048	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042
PH (IN LAB NOT PLANT)	8.8	7.6	8.9	7.6	8.2	8.1	NO SAMPLE	8.8
PHENOLTHALEIN ALKALINITY	6	0	6	0	0	0	-	12
METHYL ORANGE ALKALINITY	52	174	42	158	182	162	-	150
CARBONATES AS CaCO ₃	12	0	12	0	0	0	-	24
BICARBONATES AS CaCO ₃	40	174	30	158	182	162	-	126
CHLORIDES AS Cl	14	16	18	30	20	56	-	64
HARDNESS AS CaCO ₃	58	64	78	48	52	54	-	58
IRON AS Fe	INSTRUMENT			DOWN			-	-
FLUORIDE	Am 1.07	0.17	0.81 0.77	0.15	0.12	0.11	-	0.57
CHLORINE RESIDUAL	0.9	1.4	1.0	1.6	1.5	1.0	-	0.7
TURBIDITY	Am 0.9 Pm 0.6	1.5	0.6 0.9	0.4	0.3	0.3	-	1.0
TOTAL PHOSPHATE		3.33						
ORTHO PHOSPHATE		1.21						
META PHOSPHATE		2.12						
STABILITY	+0.6	-0.5	+0.9	-0.5	0.0	-0.1	-	+0.2

REMARKS

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

L. LANE AND H. BURNS

