

11331
NREAD
7 May 86

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 1986. Also enclosed are the weekly Chemical Analysis Forms (MCBCL 11330/3 Rev 3-82) for the same period, as requested in the 25 October 1982 letter from Mr. Charles Rundgren of your office.

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

Sincerely,

J. I. WOOTEN
Director

Encl:

- (1) Dept of Health Forms
- (2) Chemical Analysis Forms

Copy to:

LANTNAVFACENGCOM (Code 114)

Blind copy to:

BMO (Util Dr)
QCL (2 copies)

Month APRIL
Year 1986

HADNOT POINT

WATER TREATMENT PLANT AT Camp Lejeune

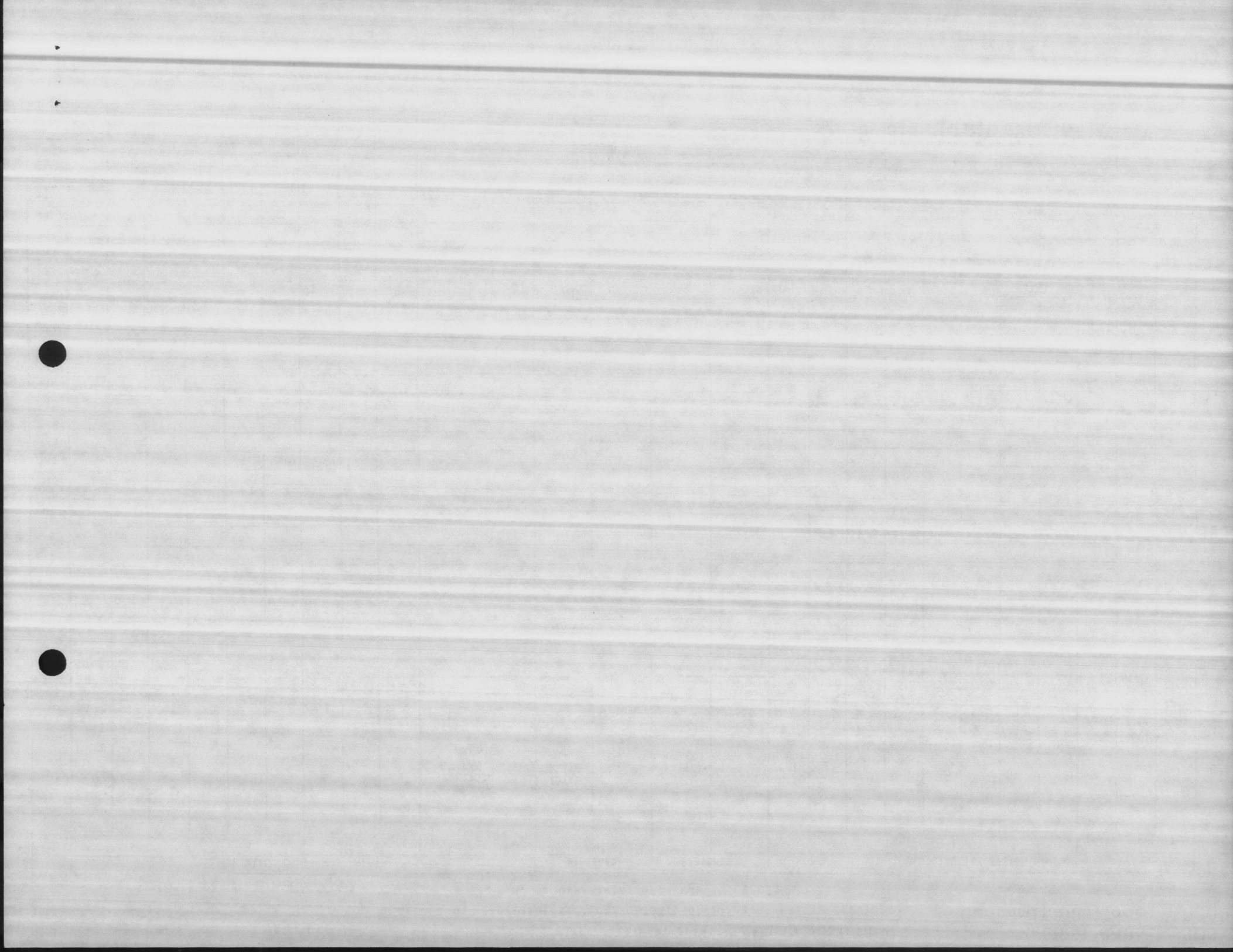
Method Code: 303
Contaminant Code: 3000

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.	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	71												0	9	0	0	0	0	0	0					35.5	
2																										
3																										
4																										
5																										
6																										
7																										
8	78												0	10	0	0	0	0	0	0	0	0				35.2
9																										
10																										
11																										
12																										
13																										
14																										
15	715												0	9	0	0	0	0	0	0	0	0				37.5
16																										
17																										
18																										
19																										
20																										
21																										
22	722												0	9	0	0	0	0	0	0	0	0				35
23																										
24																										
25																										
26																										
27																										
28																										
29																										
30	729												0	9	0	0	0	0	0	0	0	0				35
31																										

MF MEDIA: BBI mEndo
 TPC MEDIA: BACTERIAL DENSITY
 ARITH. MEAN
 GEO. MEAN
 0
 1
 DIST. SYSTEM
 TOTAL NO. SAMPLES: 46
 SAMPLES EXCEEDING 3/50, 4/100, 7/200, 13/500: 0



Month **APRIL**
Year **1986**

MARINE CORPS AIR STATION

WATER TREATMENT PLANT AT **Camp Lejeune**

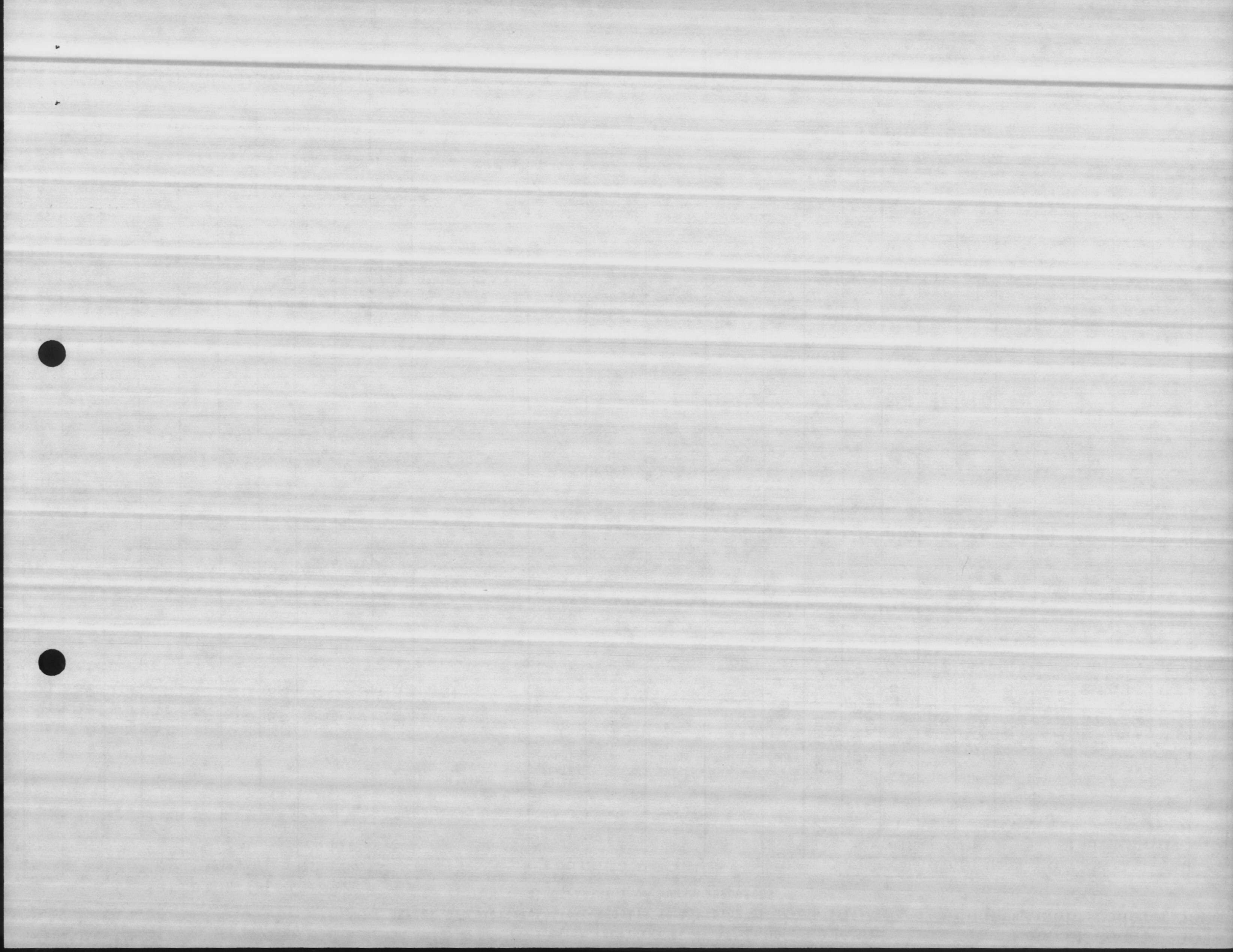
Method Code: **303**
Contaminant Code: **3000**

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.					
	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.
71												0	7	0	0	0	0	0	0	0	0	0	0	0	35.5	
3																										
4																										
5																										
6																										
7																										
8	78											0	7	0	0	0	0	0	0	0	0	0	0	0	0	35.2
9																										
10																										
11																										
12																										
13																										
14																										
15	715											0	7	0	0	0	0	0	0	0	0	0	0	0	0	35.5
16																										
17																										
19																										
20																										
21																										
22	722											0	7	0	0	0	0	0	0	1	1					35
23																										
24																										
25																										
26																										
27																										
28	729											0	7	0	0	0	0	0	0							35
29																										
30																										
31																										
MF MEDIA		BBI mEndo		BACTERIAL DENSITY		ARITH. MEAN						0	DIST. SYSTEM		TOTAL NO. SAMPLES					35						
TPC MEDIA						GEO. MEAN						1			SAMPLES EXCEPTING 3/90					0						



Month APRIL
Year 1986

HOLCOMB 13LVD.

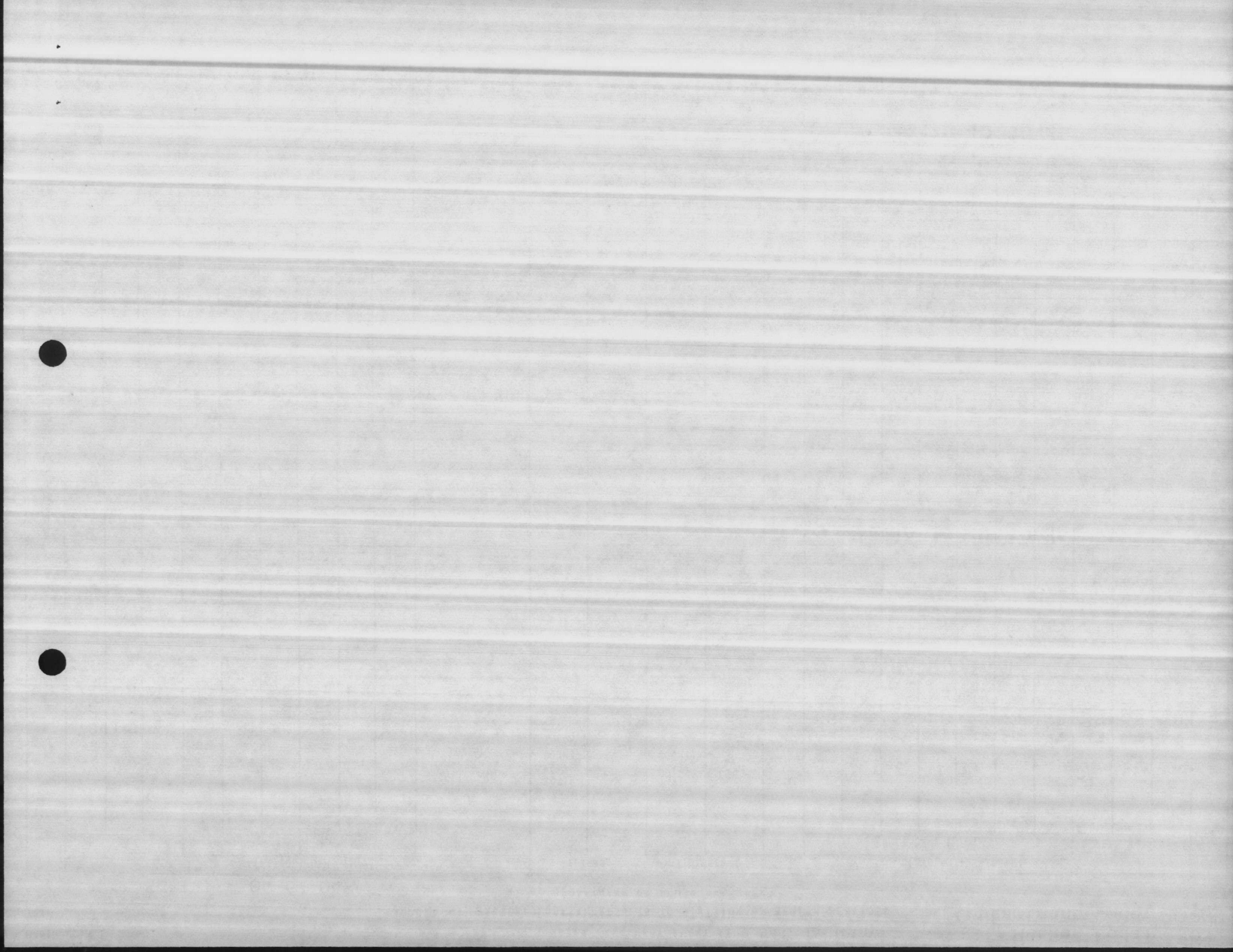
WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303
Contaminant Code: 3000

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

Serial # 04-67-043

DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTEREC	MFP COLIFORMS per 100 ml.	FINISHED	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM					AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	REPEAT SAMPLES			INCUBATOR TEMP.			
	A		B		C									1	2	3	4	5									
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES								COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.			COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.		COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	
7-1														0	7	0/0	0/0	0/0	0/0	0/0						35.5	
3																											
4																											
5																											
6																											
7																											
8	7-8													0	7	0/0	1/0	1/0	1/0	1/0	0/0						35.2
9																											
10																											
11																											
12																											
13																											
14																											
15	7-15													0	7	0/0	1/0	1/0	1/0		0/0						35.5
16																											
17																											
19																											
20																											
21																											
22	7-22													0	7	0/0	1/0	1/0		1/0							35
23																											
24																											
25																											
26																											
27																											
28																											
29	7-29													0	7	0/0	1/0	1/0	1/0	0/0							55
30																											
31																											
MFP MEDIA		BRI mEndo		BACTERIAL DENSITY		ARITH. MEAN								0	DIST. SYSTEM		TOTAL NO. SAMPLES					35					
TPC MEDIA														1			SAMPLES EXCEPTING 3/30, 4/100, 7/200, 13/500-1					0					



Month APRIL
Year 1986

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	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
71										0	3	0	0							35.5	
78										0	3	0	0	10						35.2	
715										0	3	0	0	0						35.5	
722										0	3	0	0	10						35	
729										0	3	0	0			0				35	
MF MEDIA TPC MEDIA											0	1	TOTAL NO. SAMPLES					15	0		
BBI mEndo DACTERIAL DENSITY ARITH. MEAN GEO. MEAN											SAMPLES EXCEEDING 3/50. 4/100. 7/200. 13/500ml										



Month APRIL
Year 1986

CAMP JOHNSON

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

Serial # 04-67-045

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					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.
71											0	3	0	0				35.5		
78											0	3	10	10	0			35.2		
715											0	3	10		10	0		35.5		
722											0	3	10		10	0		35		
729											0	3	10		0		10	35		
	MF MEDIA	BBI mEndo	BACTERIAL DENSITY	ARITH. MEAN	GEO. MEAN						0	1	TOTAL NO. SAMPLES					15		
	TPC MEDIA										1		SAMPLES EXCEEDING 4/100					0		

4/100 7/200 13/1000



Month APRIL
Year 1986

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 COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLIFORM COLONIES							1	2	3	4	5		COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.
71										0	3	0	0	0	0	0	0	0	0	35.5	
3																					
4																					
5																					
6																					
7																					
8	78									0	3	0	0	10						35.2	
9																					
10																					
11																					
12																					
13																					
14																					
15	715									0	3	0	0	0						35.5	
16																					
17																					
19																					
20																					
21																					
22	722									0	3	0	0	10						35	
23																					
24																					
25																					
26																					
27																					
28	729									0	3	0	0	0						35	
29																					
30																					
31																					
MFP MEDIA		BRI mEndo		BACTERIAL DENSITY		ARITH. MEAN															
TPC MEDIA						GEO. MEAN															
										0	1	TOTAL NO. SAMPLES					15	0			
												SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500=1									



Month APRIL
Year 1986

COURTHOUSE BAY

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

Serial # 04-67-047

N. C. DEPARTMENT OF HUMAN RESOURCES

DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM					COLIFORMS per 100 ml. <u>4-16-86</u>	COLIFORMS per 100 ml. <u>4-17-86</u>	COLIFORMS per 100 ml.	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.						
71													0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	35.5	
3																													
4																													
5																													
6																													
7																													
8																													
78																													
9																													
10																													
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722																													
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25																													
26																													
27																													
28																													
29																													
729																													
30																													
31																													

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

0.3 1.1 DIST. SYSTEM TOTAL NO. SAMPLES 20
SAMPLES EXCLUDING 3/20, 4/20, 13/20, 18/20 1



Month APRIL
Year 1986

ONSLOW 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.	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											0	2	0	0						35.5	
3																					
4																					
5																					
6																					
7																					
8											0	2	0	0						35.2	
9																					
10																					
11																					
12																					
13																					
14																					
15											0	2	0	0						35.5	
16																					
17																					
19																					
20																					
21																					
22											0	2	0	0						35	
23																					
24																					
25																					
26																					
27																					
28																					
29											0	2	0	0						35	
30																					
31																					
MF MEDIA		BBI 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, 13/500				0	



CHEMICAL ANALYSIS -- WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED

4-1-86

DATE OF ANALYSIS

4-1-86

PARAMETER SERIAL # 24-67	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	8.7	7.7	8.4	8.2	8.6	8.5
PHENOLTHALEIN ALKALINITY	2	0	2	0	4	0	4	4
METHYL ORANGE ALKALINITY	62	184	40	154	182	168	62	136
CARBONATES AS CaCO ₃	4	0	4	0	8	0	8	8
BICARBONATES AS CaCO ₃	58	184	36	154	174	168	54	128
CHLORIDES AS Cl	10	20	12	20	16	18	12	42
HARDNESS AS CaCO ₃	70	72	68	52	64	56	68	64
IRON AS Fe	20.04	0.25	0.09	0.24	0.08	0.08	0.09	0.09
AM	1.03		1.01				0.92	
PM	1.05	0.2	0.92	0.19	0.15	0.13	0.92	0.54
CHLORINE RESIDUAL	1.0	1.3	1.0	0.9	1.4	0.8	0.8	0.9
AM	0.2		0.4				0.2	
PM	2.4	0.7	0.5	0.2	0.2	0.6	0.7	0.3
TOTAL PHOSPHATE		1.1			0.1			
ORTHO PHOSPHATE		0.7			0.0			
META PHOSPHATE		0.3			0.1			
STABILITY	-0.2	-0.6	+0.5	-0.7	+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

WADDOWS/LANE



CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED
4-8-86

DATE OF ANALYSIS
4-8-86

PARAMETER SERIAL #04-67	HADNOT POINT -041	CAMP JOHNSON -045	TARAWA TERRACE -044	ONSLow BEACH -042	COURTHOUSE BAY -047	RIFLE RANGE -046	HOLCOMB BLVD -043	NEW RIVER -042		
PH (IN LAB - NOT PLANT)	8.6	7.7	8.7	7.7	8.3	8.3	8.9	8.8		
PHENOLTHALEIN ALKALINITY	4	0	4	0	4	4	4	14		
METHYL ORANGE ALKALINITY	52	196	60	170	190	140	60	132		
● CARBONATES AS CaCO ₃	8	0	8	0	8	8	8	28		
BICARBONATES AS CaCO ₃	44	196	52	170	182	132	52	104		
CHLORIDES AS Cl	10	30	18	14	18	16	10	60		
HARDNESS AS CaCO ₃	70	90	74	60	68	44	70	60		
IRON AS Fe	40.04	0.38	40.04	0.23	40.04	40.04	40.04	40.04		
FLUORIDE	A.M. 1.00 P.M. 1.08	0.16	0.95 0.97	0.14	0.12	0.11	1.04 1.17	0.60		
CHLORINE RESIDUAL	1.0	1.3	1.0	1.2	1.2	1.0	0.9	0.7		
TURBIDITY	A.M. 0.1 P.M. 1.2	0.9	0.2 0.6	0.2	0.6	0.2	0.4 0.6	0.4		
TOTAL PHOSPHATE		1.3			0.0					
ORTHO PHOSPHATE		0.7			0.0					
META PHOSPHATE		0.6			0.0					
STABILITY	+0.3	-0.5	+0.2	-0.5	0.0	-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

BURNS/LANE



CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED

4-15-86

DATE OF ANALYSIS

4-15-86

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	7.3	8.7	7.3	7.9	8.1	8.8	8.7		
PHENOLTHALEIN ALKALINITY	14	0	16	0	0	0	8	14		
METHYL ORANGE ALKALINITY	54	172	40	238	166	140	58	128		
MONATES AS CaCO ₃	28	0	32	0	0	0	16	28		
BICARBONATES AS CaCO ₃	26	172	8	238	166	140	42	100		
CHLORIDES AS Cl	10	30	8	34	16	22	14	48		
HARDNESS AS CaCO ₃	60	64	72	60	54	78	62	54		
IRON AS Fe	40.04	6.39	40.04	0.07	<0.04	40.04	40.04	40.04		
FLUORIDE	A.M. 1.00 P.M. 1.03	0.17	0.89 1.02	0.18	0.11	0.08	0.83 0.75	0.45		
CHLORINE RESIDUAL	1.0	1.2	1.0	1.8	1.2	1.0	0.9	0.8		
TURBIDITY	A.M. 0.2 P.M. 0.6	0.6	0.3 0.3	0.2	0.2	0.4	0.5 1.1	0.4		
TOTAL PHOSPHATE		2.0			0.0					
ORTHO PHOSPHATE		1.1			0.0					
META PHOSPHATE		0.9			0.0					
STABILITY	+0.5	-0.6	+0.6	-0.8	-0.7	-0.1	+0.7	+0.4		

REMARKS

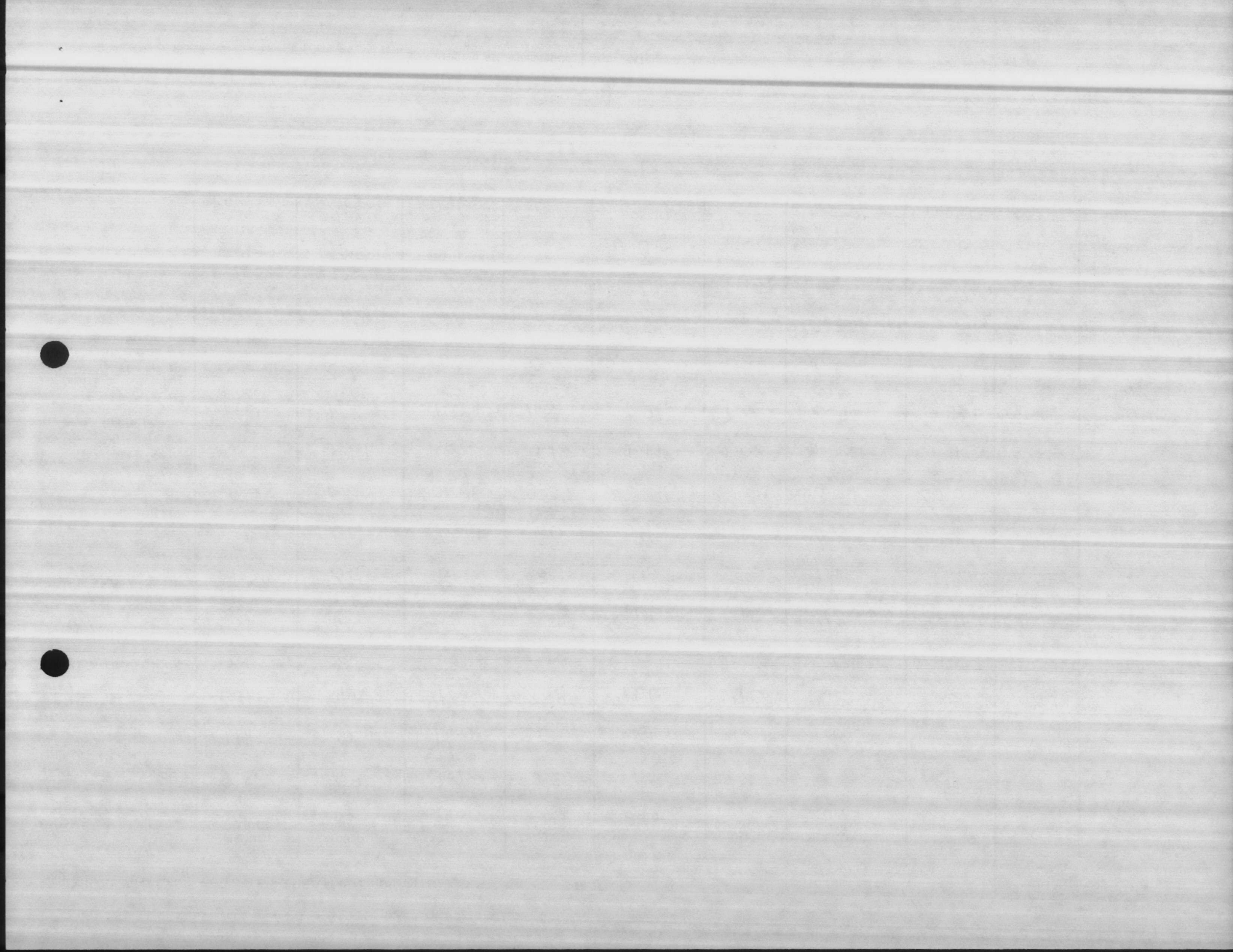
COPY TO:

- 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

SNORP'S & LAWE



CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED

4-22-86

DATE OF ANALYSIS

4-22-86

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 FLOW)	8.5	7.3	9.0	7.4	7.7	8.1	8.6	8.5		
PHENOLTHALEIN ALKALINITY	2	0	6	0	0	0	4	4		
METHYL ORANGE ALKALINITY	62	186	32	168	188	132	60	120		
CARBONATES AS CaCO ₃	4	0	12	0	0	0	8	8		
BICARBONATES AS CaCO ₃	58	186	20	168	188	132	52	112		
CHLORIDES AS Cl	12	28	20	20	20	40	16	44		
HARDNESS AS CaCO ₃	74	78	72	70	66	60	78	56		
IRON AS Fe	<0.04	0.41	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		
FLUORIDE	A.M. 0.97 P.M. 1.08	0.22	1.05 1.01	0.22	0.11	0.9	1.02 1.01	0.42		
CHLORINE RESIDUAL	1.0	1.3	1.0	1.8	1.2	1.0	0.9	0.8		
TURBIDITY	A.M. 0.3 P.M. 0.3	1.1	0.3 0.3	0.2	0.2	0.2	0.4 0.4	0.4		
TOTAL PHOSPHATE		1.15			0.03					
ORTHO PHOSPHATE		0.86			0.02					
META PHOSPHATE		0.29			0.01					
STABILITY	+0.5	-0.6	+0.6	-0.8	-0.5	-0.1	+0.4	+0.3		

REMARKS

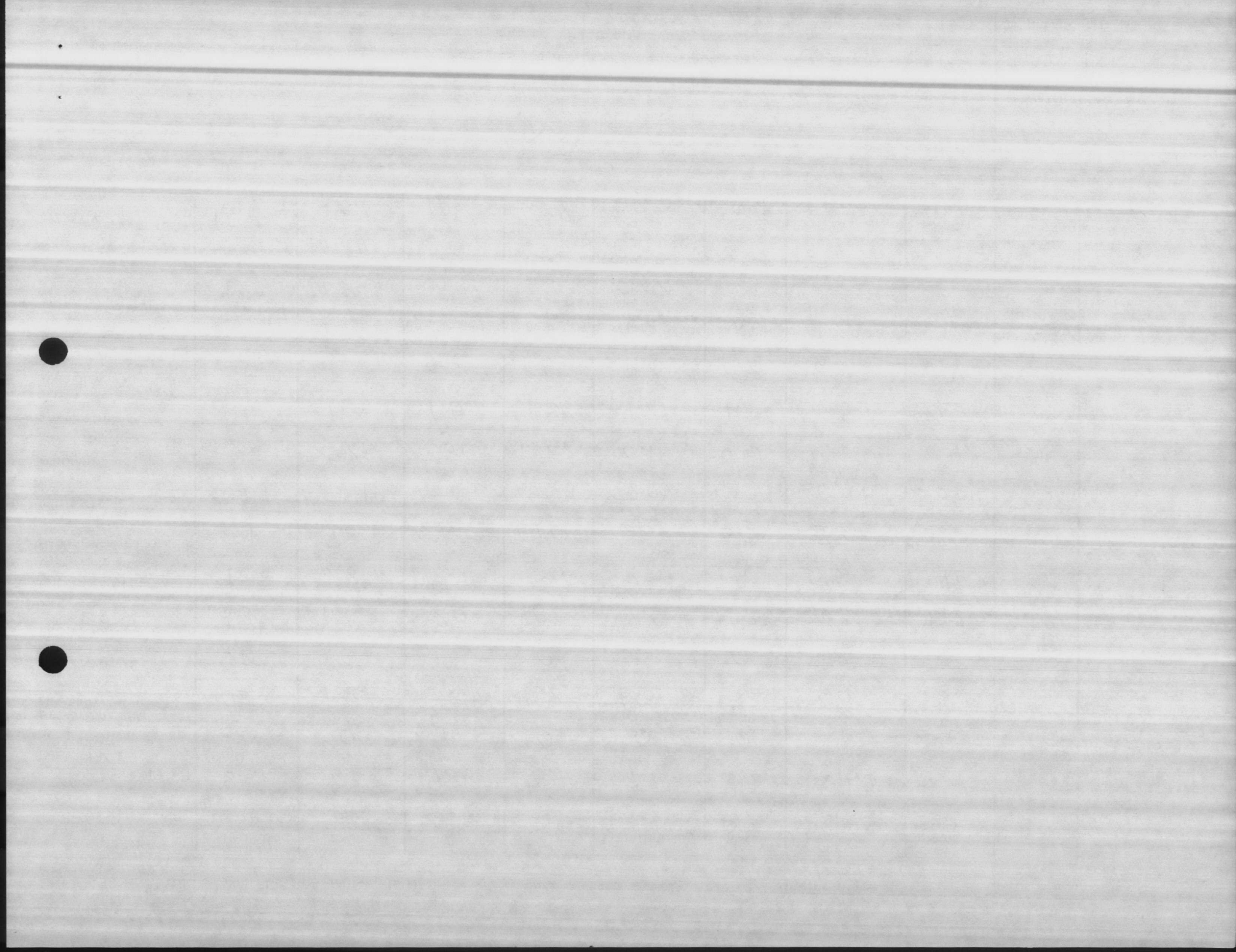
COPY TO:

- 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

SHORRS/LANE



CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV. 6-84)

DATE COLLECTED

4-29-86

DATE OF ANALYSIS

4-29-86

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 <i>(in bag - not in air)</i>	8.6	7.5	8.7	7.4	7.6	7.8	8.7	8.7		
PHENOLTHALEIN ALKALINITY	6	0	6	0	0	0	6	8		
METHYL ORANGE ALKALINITY	50	192	46	70	180	180	60	118		
● CARBONATES AS CaCO ₃	12	0	12	0	0	0	12	16		
BICARBONATES AS CaCO ₃	38	192	34	70	180	180	48	102		
CHLORIDES AS Cl	10	30	22	22	20	46	24	42		
HARDNESS AS CaCO ₃	72	88	104	64	88	70	78	52		
IRON AS Fe	20.04	0.62	0.05	0.15	0.05	20.04	20.04	20.04		
FLUORIDE	A.M.	0.74	0.88				0.91			
	P.M.	0.81	0.17	1.07	0.22	0.13	1.04	0.50		
CHLORINE RESIDUAL	1.0	1.2	1.0	1.3	1.2	1.0	0.8	0.9		
TURBIDITY	A.M.	0.2	0.3				0.3			
	P.M.	0.2	1.1	0.4	0.4	0.2	0.6	0.5		
TOTAL PHOSPHATE		1.30			0.05					
ORTHO PHOSPHATE		1.03			0.03					
META PHOSPHATE		0.27			0.02					
STABILITY	+0.2	-0.7	+0.3	-0.7	-0.5	-0.5	+0.3	+0.2		

REMARKS

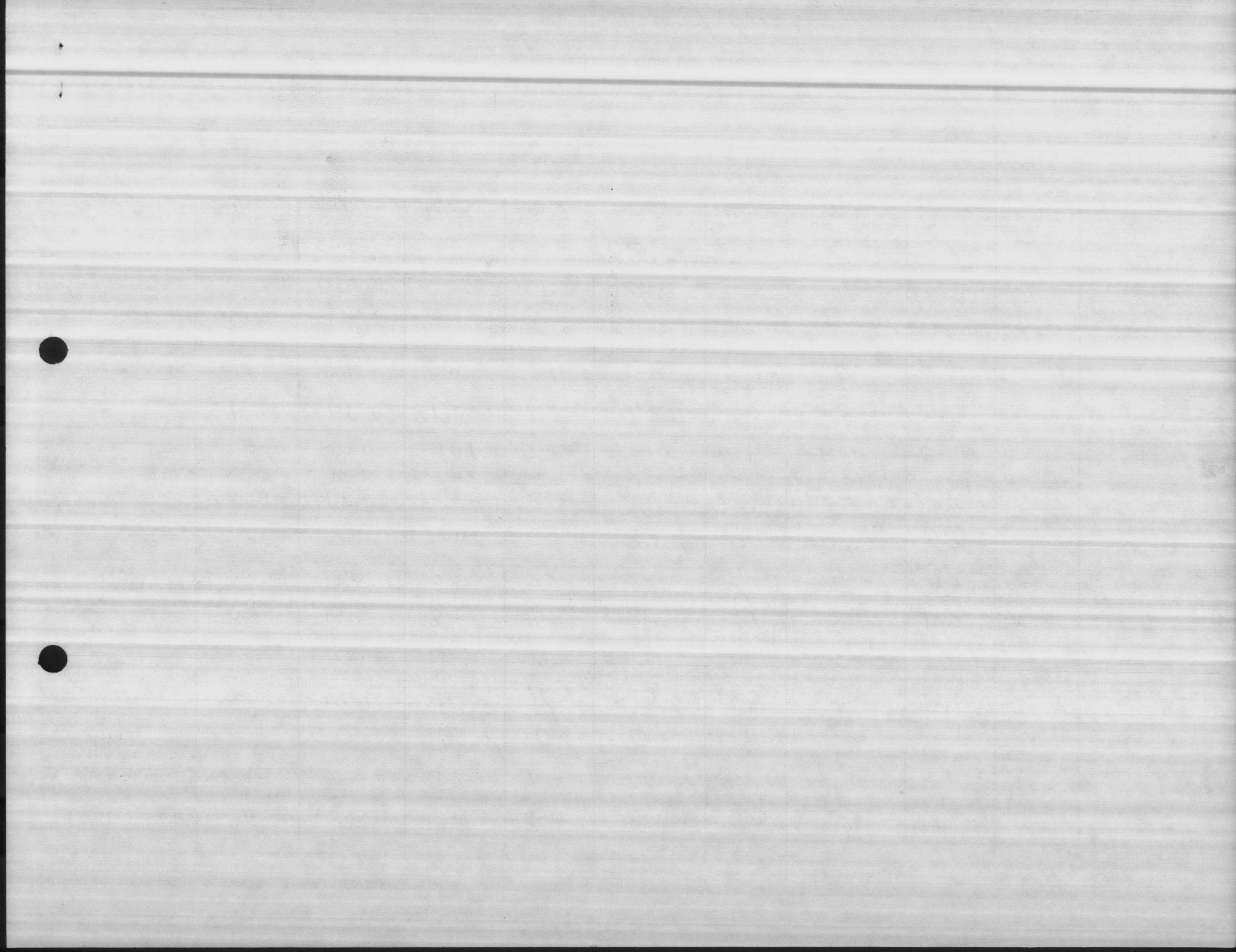
COPY TO:

- 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

SHORRS / BURNS



6288
NREAD
16 May 86

Mr. Paul Wilms, Director
Division of Environmental Management
NC Department of Natural Resources
and Community Development
Post Office Box 27687
Raleigh, North Carolina 27611

Dear Sir:

In accordance with requirements of the National Pollutant Discharge Elimination System (NPDES) Permit Number NC0003239, Discharge Monitoring Reports (DMRs) for the month of April 1986 are submitted.

Questions regarding this report should be forwarded to Ms. Elizabeth Betz, Supervisory Chemist, Natural Resources and Environmental Affairs Division, Assistant Chief of Staff, Facilities at (919) 451-5977.

Sincerely,

J. I. WOOTEN
Director

Encls:

(1) DEM Forms MR-1, MR-2 & MR-3 (2 copies)

Copy to:
EPA Region IV
CMDR LANTNAVFACENGCOM
NEESA

BMAINT (Util Dir)
NREAD (QCL 2)

10-11-54

Mr. J. Edgar Hoover
Director
Federal Bureau of Investigation
Washington, D. C.

Enclosed for the Bureau are two copies of a report
dated 10/11/54, prepared by the [redacted] and
[redacted] of the [redacted] Division,
concerning the activities of [redacted] in
the [redacted] area during the period
from [redacted] to [redacted].

J. J. [redacted]
Director

Very truly yours,
[redacted]

ENCLOSURE (2)
MAIL ROOM (2)

6240
NREAD
7 May 86

From: Director, Natural Resources and Environmental Affairs
Division, Marine Corps Base, Camp Lejeune
To: Purchasing and Contracting Officer, Marine Corps Base,
Camp Lejeune (Attn: Mrs. Bryden)

Subj: PROPOSED SOLVENT SERVICE CONTRACT

Encl: (1) Proposed Solicitation for Solvent Service Contract

1. The Resource Conservation and Recovery Act (RCRA) and related regulations make it likely that claims would be made against the government if the contractor improperly disposed of the hazardous waste (HW) generated by the proposed contract. While the government can not contract away its RCRA responsibility for ensuring proper disposal of HW, any contracts entered into should ensure that the contractor be responsible for reimbursing the government for costs incurred due to contractor's negligence.

2. NREAD concurs with the proposed contract described in the enclosed solicitation provided the concerns described in paragraph 1 are adequately addressed.

JULIAN I. WOOTEN

1 May 55

From: Director, Natural Resources and Environmental Affairs
Division, Marine Corps Area, Camp Lejeune
To: The Honorable and Contracting Officer, Marine Corps Area
Camp Lejeune, North Carolina 28541

Subject: PROPOSED SOLVENT SERVICE CONTRACT

Re: (1) Proposed Solicitation for Solvent Service Contract

The Resource Conservation and Recovery Act (RCRA) and related regulations state it is likely that claims would be made against the Government in the event of property damage. In the previous year (and) referred to in this proposal, contract, the Government was not contractually liable for responsibility for the damage. The contract was not contractually liable for the damage. The contract was not contractually liable for the damage. The contract was not contractually liable for the damage.

RCRA demands that the proposed contract be awarded in the event of a claim. The contract was not contractually liable for the damage. The contract was not contractually liable for the damage. The contract was not contractually liable for the damage.

Very truly yours,
[Signature]

6280
NREAD
16 May 86

From: Director, Natural Resources and Environmental Affairs
Division, Marine Corps Base, Camp Lejeune
To: Base Maintenance Officer, Marine Corps Base, Camp Lejeune
(Attn: Utilities Director)

Subj: NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT RELATED REPORTING DATA

Encl: (1) Monthly Report of Waste Treatment Plant Water Quality

1. It is requested that the enclosure be routed to the Utilities Systems General Foreman. The enclosure summarizes the subject data for all sewage treatment plants for 1-30 April 1986. The data/information except chlorine residuals shown under the "LAB" column are submitted to the EPA and state in accordance with the NREAD permit.

J. I. WOOTEN

Blind copy to:
WCQL (2)

628
1954
1954

From Director, National Security Agency, Washington, D.C.
Division, Office of Special Operations, Camp Pendleton
Base, California
Date: 11/11/54

TO: NATIONAL SECURITY AGENCY, WASHINGTON, D.C.
FROM: [Illegible]

RE: [Illegible]

1. It is requested that the enclosed be sent to the Utility
Systems General Office. The enclosed contains the subject
data for all systems installed during the period 1-30-54. The
information is except critical systems and is in accordance with the
policy set forth in the [Illegible] and shall be furnished in the
[Illegible] form.

WORTH

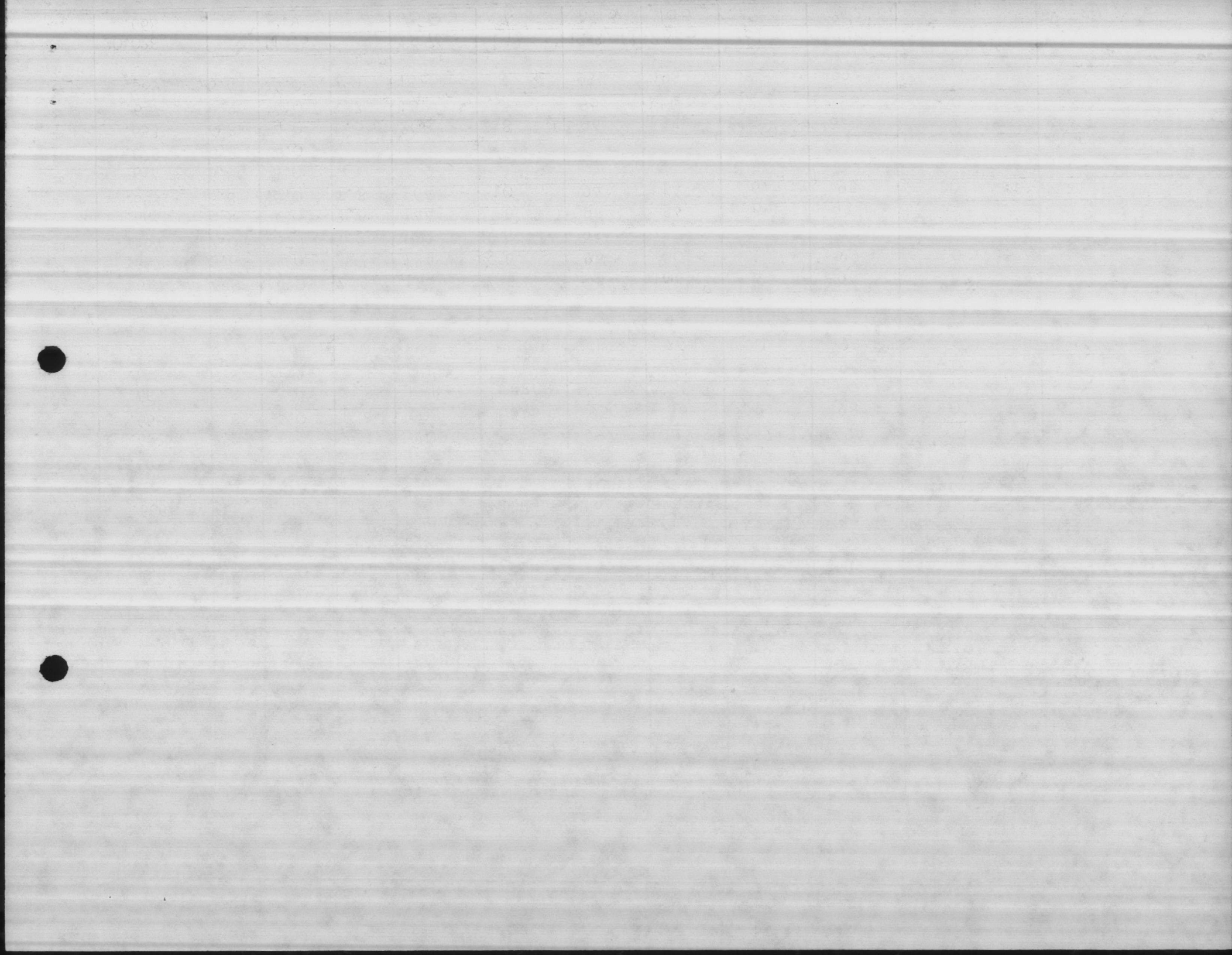
Blind copy to:
WOLF (M)

MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY
 MUBCL 11345/8 (REV. 6-83)

PLANT CAMP GEIGER

MONTH APRIL 1986

DATE	PLANT EFFLUENT DATA				5 DAY 20° C. BOD			SUSPENDED SOLIDS			COLIFORM	
	FLOW TOTAL DAILY MGPD	PH	CHLORINE RESIDUAL		RAW mg/1	EFFLUENT mg/1	PERCENT REMOVAL	RAW mg/1	EFFLUENT mg/1	PERCENT REMOVAL	NUMBERS PER 100 ml	GEOMETRIC MEAN
1	.710	6.9	4.0	1.0	104	9	91	106	6	94	2	
2	.795	6.5	4.0	2.5	132	8	94	68	3	96	2	
3	.784	6.6	3.0	1.3	160	7	96	140	4	97	0	
	.714	6.7	4.0	2.5	128	8	94	126	6	95	0	
5	.685	6.8	4.0									
6	.680	6.6	4.0									
7	.721	6.7	4.0	3.8	132	6	95	74	24	68	0	
8	.748	6.7	4.0	0.4	168	8	95	200	3	99	0	
9	.734	6.7	4.0	2.0	168	10	94	70	2	97	0	
10	.701	6.7	4.0	2.4	140	7	95	114	7	94	0	
11	.666	6.6	4.0	3.7	136	8	94	98	3	97	0	
12	.685	6.8	4.0									
13	.645	6.8	4.0									
14	.663	7.0	4.0	2.1	200	7	97	112	7	94	0	
15	.666	6.8	4.0	1.4	108	5	95	58	1	98	0	
16	.665	6.8	4.0	2.8	LAB	ERROR	-----	88	3	97	0	
17	.642	6.8	1.5	3.1	200	7	97	72	3	96	0	
	.583	6.6	4.0	5.0	LAB	ERROR	-----	76	1	99	0	
19	.503	6.8	4.0									
20	.706	6.8	4.0									
21	.613	6.8	4.0	2.5	164	8	95	106	4	96	0	
22	.617	6.8	4.0	3.7	124	6	95	80	1	99	0	
23	.664	7.0	3.0	3.2	112	6	95	72	2	97	0	
24	.664	6.8	4.0	3.6	144	6	96	84	6	93	0	
25	.693	6.8	4.0	4.8	164	10	94	114	6	95	0	
26	.614	6.8	4.0									
27	.578	6.8	4.0									
28	.653	6.8	4.0	1.5	208	8	96	135	5	96	2	
29	.647	6.9	4.0	5.7	152	7	95	114	2	98	0	
30	.589	6.4	4.0	2.0	152	7	95	196	2	99	50	
31												
Tot.	20.028		115.5		2996	148	1898/94.9	2303	101	2097/95.2		
Ave.	.668		3.9		150	7	95.3	105	5	95.2		1.31

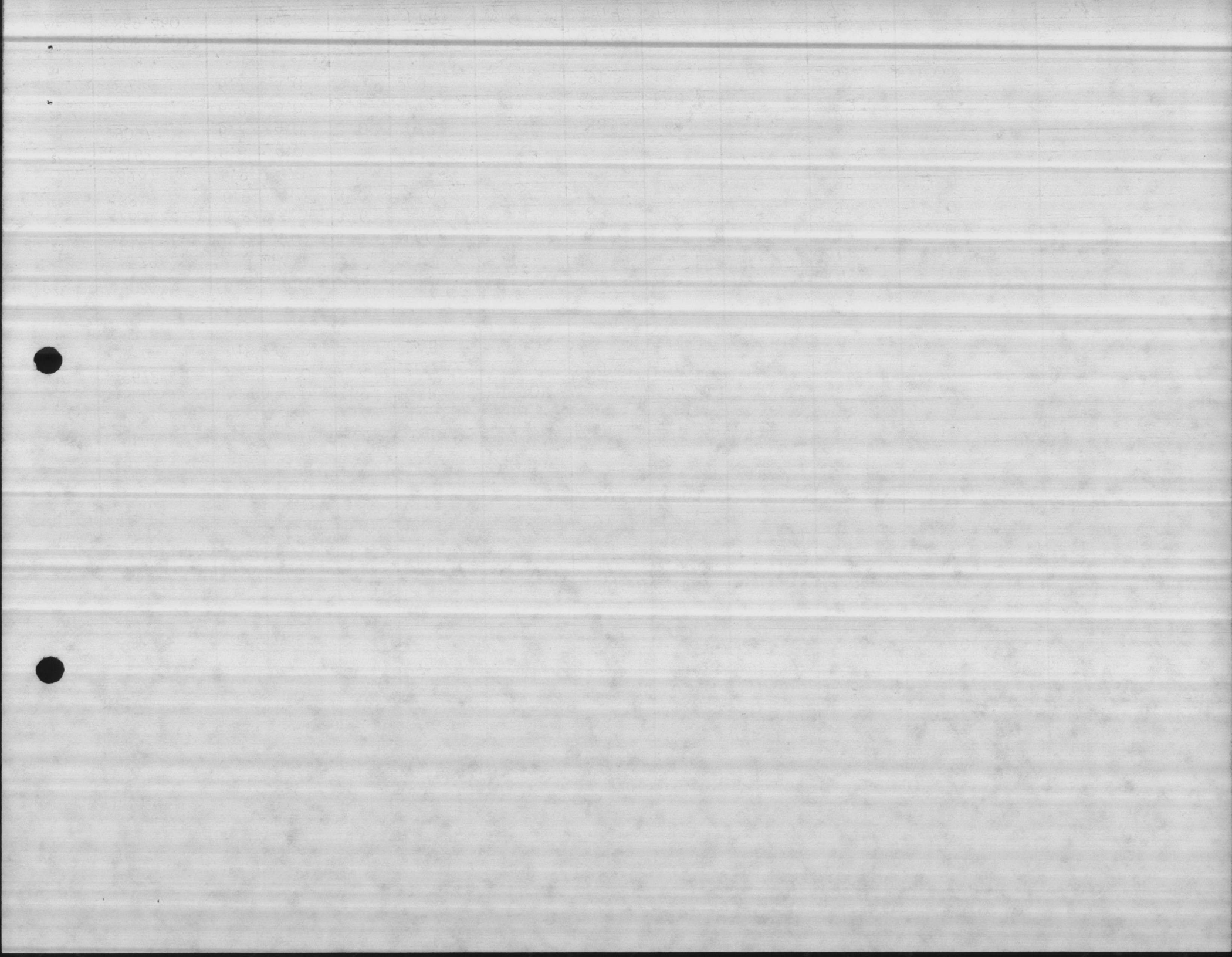


MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY
 MCBCL 11345/8 (REV. 6-83)

PLANT TARAWA TERRACE

MONTH APRIL 1986

DATE	PLANT EFFLUENT DATA				5 DAY 20° C. BOD			SUSPENDED SOLIDS			COLIFORM	
	FLOW TOTAL DAILY MGPD	PH	CHLORINE RESIDUAL		RAW mg/1	EFFLUENT mg/1	PERCENT REMOVAL	RAW mg/1	EFFLUENT mg/1	PERCENT REMOVAL	NUMBER PER 100 ml	GEOMETRIC MEAN
			PLANT mg/1	LAB mg/1								
1	.9072	6.8	4.0	3.1	168	20	88	166	9	95	0	
2	.8757	6.6	4.0	4.5	180	19	89	78	6	92	0	
3	.8740	6.8	4.5	2.4	164	16	90	202	13	94	0	
4	.8550	6.8	5.0	2.0	156	18	88	62	8	87	0	
5	.9050	6.6	4.5									
6	.9493	6.8	4.0									
7	.9645	6.8	4.0	2.5	168	16	90	200	5	98	0	
8	.9131	6.6	4.0	1.7	188	19	90	80	4	95	0	
9	.7781	6.6	4.0	2.4	216	25	88	92	6	93	0	
10	.7435	6.8	3.5	3.0	208	18	91	132	5	96	2	
11	.7462	6.9	4.0	3.5	212	21	90	106	8	92	0	
12	.8641	6.9	5.0									
13	.8724	6.9	3.5									
14	.9146	6.7	4.0	2.8	140	20	86	225	11	95	10	
15	.9067	6.7	4.0	2.4	184	11	94	194	2	99	4	
16	.8662	6.8	4.0	2.9	LAB	ERROR	----	92	8	91	0	
17	.7678	6.8	4.0	2.6	200	23	89	170	5	97	0	
18	.8199	6.8	4.0	4.8	LAB	ERROR	----	110	4	96	0	
19	.8748	6.8	5.0									
20	.9013	6.6	5.0									
21	.9086	6.8	3.0	2.6	180	14	92	74	5	93	10	
22	.8779	6.8	4.0	3.7	160	24	85	138	5	96	0	
23	.8161	6.8	4.0	3.4	160	21	87	92	7	92	0	
24	.7601	6.8	5.0	3.6	156	18	88	246	10	96	10	
25	.8846	6.9	4.0	3.3	220	18	92	208	10	95	0	
26	.8980	6.9	4.0									
27	.9162	6.8	4.0									
28	.9097	6.7	4.0	3.0	172	20	88	92	11	88	2	
29	.9198	6.8	5.0	3.1	132	21	84	188	10	95	2	
30	.8934	6.7	4.0	2.7	208	18	91	156	9	94	1000	
31												
Tot.	26,083,800		125		3572	380	1780/89.0	3103	161	2070/94.1		
Ave.	869.460	4.2			179	19	89.4	141	7	95		2.19



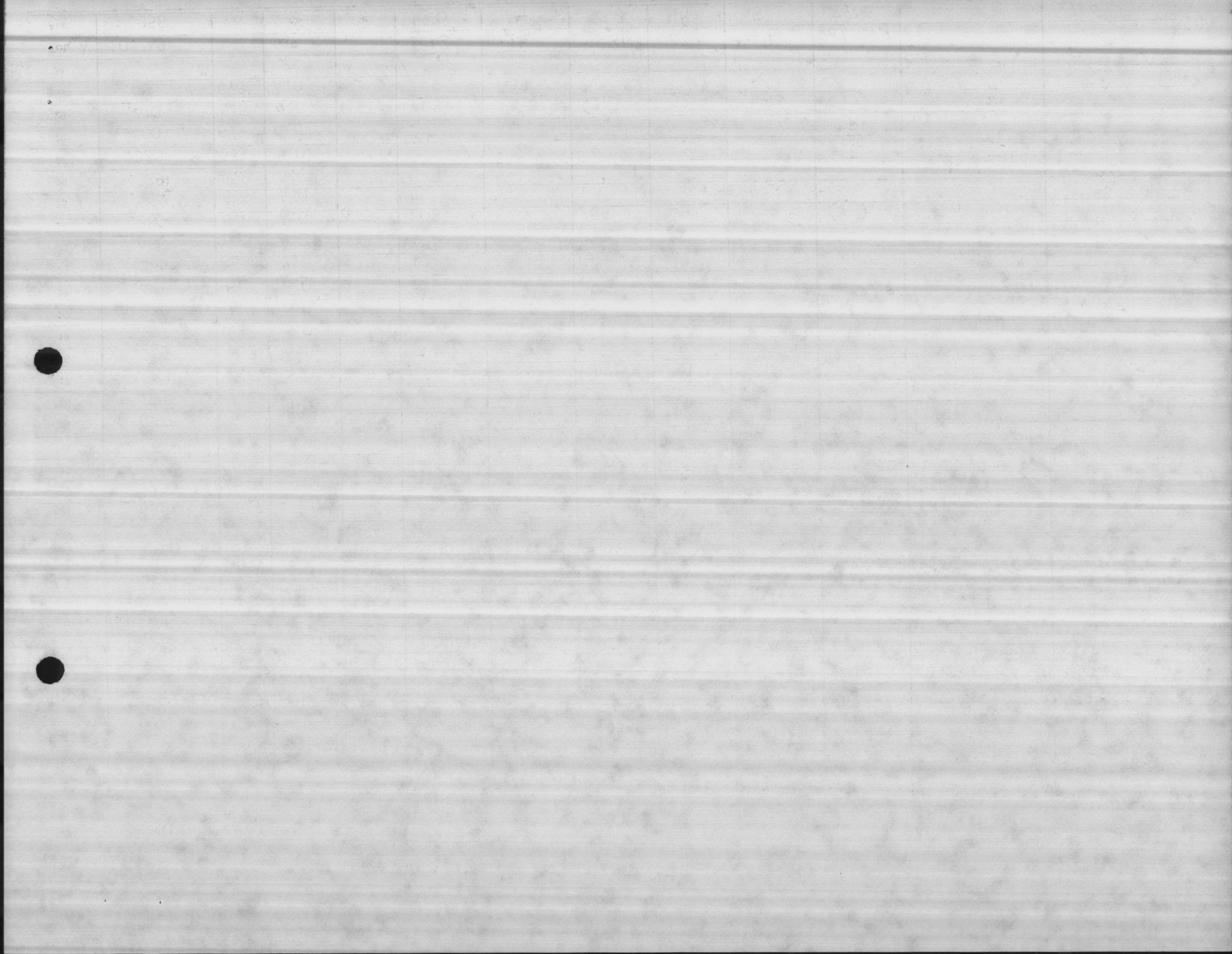
MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY

MCBCL 11345/8 (REV. 6-83)

PLANT CAMP JOHNSON

MONTH APRIL 1986

DATE	PLANT EFFLUENT DATA				5 DAY 20° C. BOD			SUSPENDED SOLIDS			COLIFORM	
	FLOW TOTAL DAILY MGPD	PH	CHLORINE RESIDUAL		RAW mg/1	EFFLUENT mg/1	PERCENT REMOVAL	RAW mg/1	EFFLUENT mg/1	PERCENT REMOVAL	NUMBER PER 100 ml	GEOMETRIC MEAN
			PLANT mg/1	LAB mg/1								
1	.335	7.0	4.0	5.2	100	23	77	62	8	87	0	
2	.303	6.8	5.0									
3	.247	6.9	5.0	5.5	96	13	86	66	5	92	0	
4	.308	7.0	5.0									
5	.366	6.5	3.0									
6	.355	6.5	4.0									
7	.456	6.5	4.0									
8	.442	6.6	4.0	3.5	188	11	94	24	2	92	0	
9	.484	6.5	4.0									
10	.316	6.7	5.0	3.4	120	10	92	42	2	95	0	
11	.313	6.7	5.0									
12	.254	6.6	4.0									
13	.349	6.6	5.0									
14	.383	6.8	4.0									
15	.392	6.4	4.0	3.3	180	15	92	68	3	96	0	
16	.328	7.2	3.0									
17	.323	6.6	4.0	3.9	184	14	92	30	<1	97	0	
18	.294	6.5	4.0									
19	.312	6.8	6.0									
20	.373	7.0	6.0									
21	.401	6.5	3.0									
22	.286	6.5	2.0	1.9	128	12	91	47	2	96	0	
23	.466	6.5	4.0									
24	.380	6.8	4.0	3.5	108	15	86	48	12	75	0	
25	.344	6.5	4.0									
26	.329	6.9	5.0									
27	.380	6.3	5.0									
28	.400	6.5	4.0									
29	.413	6.8	4.0	2.7	68	15	78	52	12	77	2	
30	.405	6.6	4.0									
31												
Tot.	10.747		127		1172	128	788/87.6	439	47	807/89.7		
Ave.	.358	4.2			130	14	89.2	49	5	89.8		1.08



MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY
 MCBCL 11345/8 (REV. 6-83)

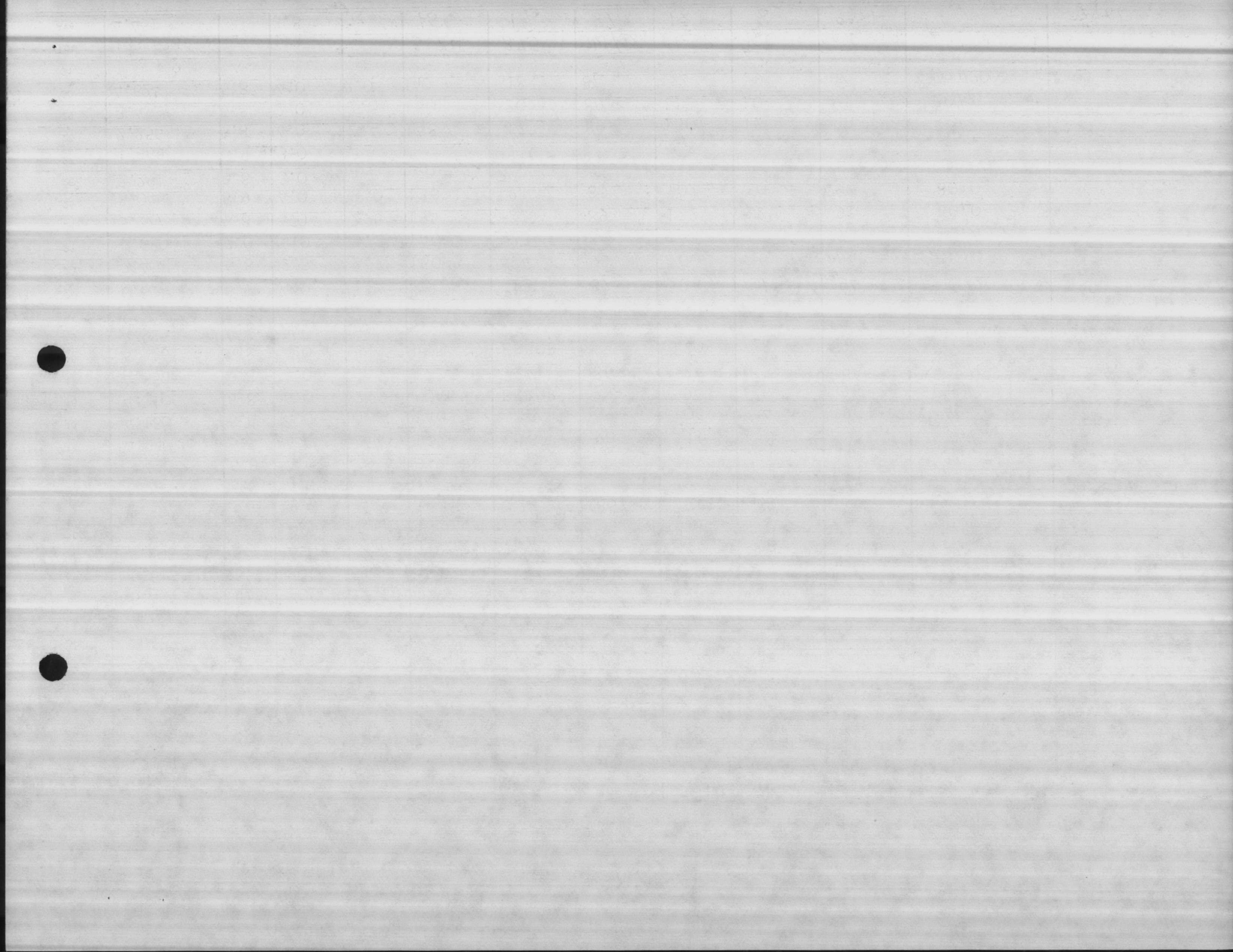
PLANT

HADNOT POINT

MONTH

APRIL 1986

DATE	PLANT EFFLUENT DATA				5 DAY 20° C. BOD			SUSPENDED SOLIDS			COLIFORM	
	FLOW TOTAL DAILY MGPD	PH	CHLORINE RESIDUAL		RAW mg/1	EFFLUENT mg/1	PERCENT REMOVAL	RAW mg/1	EFFLUENT mg/1	PERCENT REMOVAL	NUMBER PER 100 ml	GEOMETRIC MEAN
1	4.801	6.9	4.0	2.4	184	16	91	173	8	95	20/0	
2	5.252	7.0	3.5	3.4	160	15	91	158	3	98	10/0	
3	5.940	6.8	4.0	2.3	140	18	87	124	12	90	0/0	
4	5.845	7.0	4.0	3.0	164	22	87	148	11	93	2000/20	
5	4.687	6.8	4.0									
6	4.650	6.8	4.0									
7	5.404	6.9	4.0	2.5	136	17	88	132	9	93	24/2	
8	6.615	6.9	4.0	1.5	164	23	86	75	7	91	200/100	
9	4.208	6.7	4.0	2.4	188	23	88	120	8	93	30/0	
10	3.675	6.9	4.0	2.6	148	22	85	86	8	91	20/0	
11	3.532	6.8	4.0	2.6	156	23	85	120	8	93	40/4	
12	3.264	6.8	4.0									
13	3.450	6.8	4.0									
14	4.940	6.7	4.0	2.0	172	18	90	116	8	93	24/2	
15	4.160	6.8	4.0	1.4	140	16	89	106	4	96	40/0	
16	4.210	6.8	4.0	2.9	LAB	ERROR	-----	94	6	94	150/4	
17	4.850	6.8	4.0	1.7	172	24	86	74	3	96	8/0	
18	5.246	6.8	4.0	2.1	LAB	ERROR	-----	170	8	95	10/0	
19	4.925	6.8	4.0									
20	5.607	6.8	4.0									
21	6.631	6.9	4.0	1.4	100	13	87	126	7	94	0/20	
22	7.401	6.8	2.5	2.7	160	4	98	100	6	94	0/0	
23	3.680	7.0	4.0	2.2	140	23	84	142	10	93	18/4	
24	3.277	6.8	4.0	2.6	196	22	89	132	12	91	30/0	
25	3.046	6.9	4.0	2.0	136	21	85	102	10	90	80/0	
26	2.291	6.8	3.0									
27	1.569	6.9	3.0									
28	2.256	6.8	4.0	2.4	148	17	89	130	13	90	20/2	
29	3.492	6.8	2.0	2.2	180	20	89	112	10	91	20/2	
30	4.624	6.8	4.0	2.0	140	18	87	112	9	92	17000/2000	
31												
.Tot.	133.528		113		3124	375	761/88.1	2652	180	2646/93.0		
Ave.	4.451		3.8		156	19	87.8	121	8	93.4		29.06



MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY

MCBCL 11345/8 (REV. 6-83)

PLANT RIFLE RANGE

MONTH APRIL 1986

DATE	PLANT EFFLUENT DATA				5 DAY 20° C. BOD			SUSPENDED SOLIDS			COLIFORM	
	FLOW TOTAL DAILY MGPD	PH	CHLORINE RESIDUAL		RAW mg/1	EFFLUENT mg/1	PERCENT REMOVAL	RAW mg/1	EFFLUENT mg/1	PERCENT REMOVAL	NUMBER PER 100 ml	GEOMETRIC MEAN
1	.233640	6.3	4.0	0.2	60	11	82	170	2	99	0	
2	.220070	6.3	3.0									
3	.220620	6.4	4.0	3.0	84	8	90	39	11	72	0	
4	.208300	6.6	2.0									
5	.184960	6.4	4.0									
6	.221490	6.4	8.0									
7	.221490	6.4	4.0									
8	.215750	6.3	5.0	1.2	80	7	91	20	3	85	2	
9	.201950	6.3	4.0									
10	.264660	6.3	2.0	1.0	48	6	88	30	1	97	0	
11	.259750	6.5	3.0									
12	.183650	6.5	2.0									
13	.227700	6.6	5.0									
14	.209430	6.5	4.0									
15	.224190	6.4	3.0	0.8	88	7	92	39	3	92	0	
16	.208010	6.5	4.0									
17	.224800	6.4	4.0	1.0	108	7	94	9	1	89	0	
18	.213710	6.4	3.0									
19	.220110	6.3	5.0									
20	.185220	6.4	7.0									
21	.200800	6.5	4.0									
22	.236340	6.4	8.0	1.8	64	6	91	13	1	92	0	
23	.207920	6.5	2.0									
24	.246930	6.4	2.0	1.7	64	8	88	60	5	92	0	
25	.226260	6.4	4.0									
26	.193610	6.4	3.0									
27	.196180	6.4	6.0									
28	.195480	6.4	5.0									
29	.234110	6.4	4.0	1.9	116	4	97	94	3	97	0	
30	.228180	6.4	5.0									
31												
Tot.	6.515310		123		712	64	813/90.3	474	30	815/90.6		
Ave.	.217177		4.1		79	7	91.1	53	3	94.3		1.08



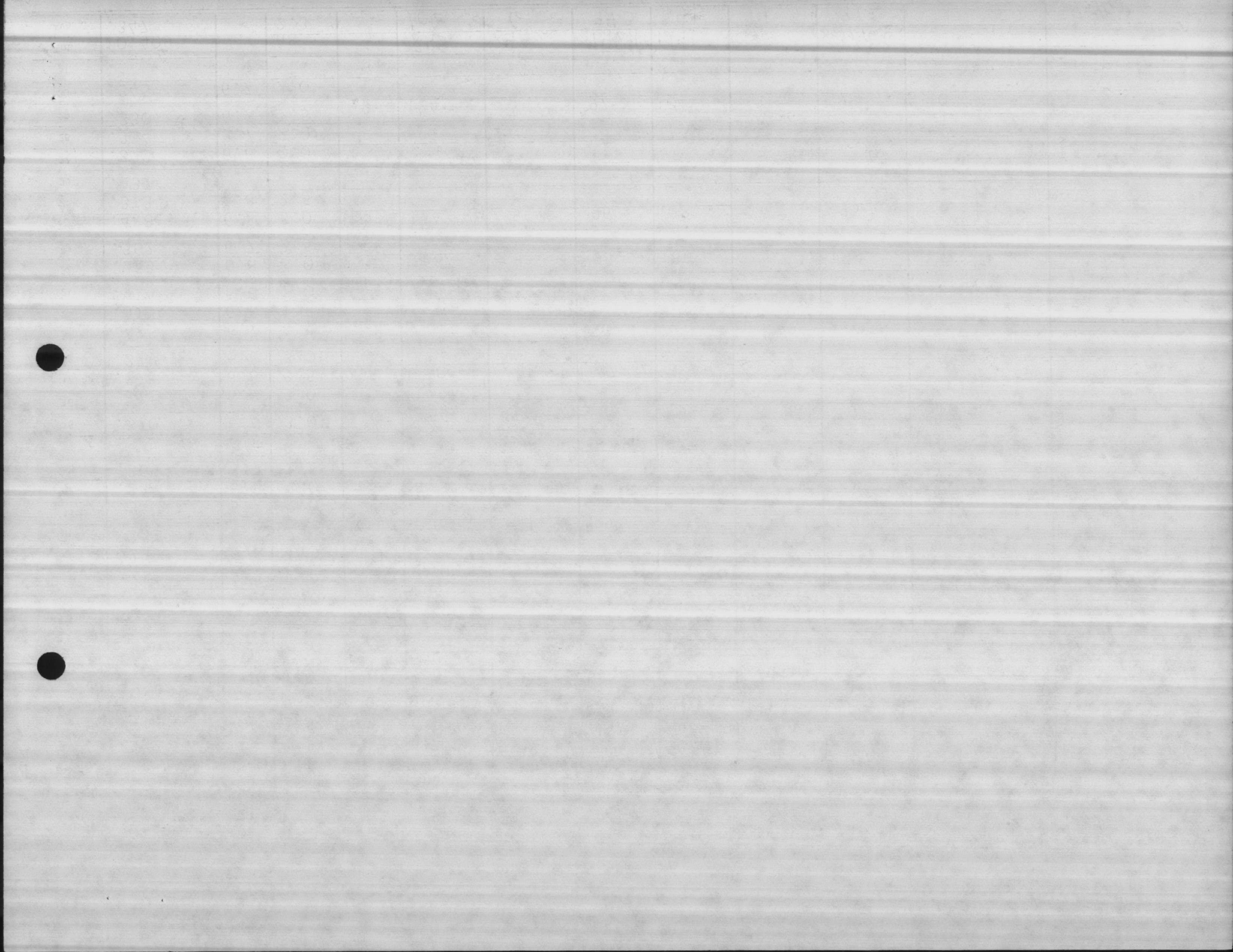
MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY

MCBCL 11345/8 (REV. 6-83)

PLANT COURTHOUSE BAY

MONTH APRIL 1986

DATE	PLANT EFFLUENT DATA				5 DAY 20° C. BOD			SUSPENDED SOLIDS			COLIFORM	
	FLOW TOTAL DAILY MGPD	PH	CHLORINE RESIDUAL		RAW mg/1	EFFLUENT mg/1	PERCENT REMOVAL	RAW mg/1	EFFLUENT mg/1	PERCENT REMOVAL	NUMBER PER 100 ml	GEOMETRIC MEAN
1	.321	6.7	2.5	1.0	104	4	96	292	6	98	0	
2	.281	6.8	2.5									
3	.371	6.8	2.0	1.0	144	6	96	242	10	96	0	
4	.322	6.8	3.0									
5	.294	6.8	2.0									
6	.353	6.8	2.5									
7	.360	6.8	2.0									
8	.312	6.6	1.5	0.5	SAMPLE	ERROR	---	124	3	98	300	
9	.299	6.6	1.5									
10	.223	6.7	2.0	1.2	68	5	93	194	1	99	0	
11	.340	6.7	2.0									
12	.245	6.8	3.0									
13	.369	6.7	1.5									
14	.377	6.8	2.5									
15	.370	6.6	3.0	1.0	56	8	86	92	3	97	10	
16	.371	6.8	3.0									
17	.373	6.8	3.5	2.5	60	8	87	9	<1	89	0	
18	.379	6.8	3.0									
19	.428	6.7	4.0									
20	.413	6.7	1.5									
21	.414	6.6	1.0									
22	.253	6.8	3.0	2.1	168	9	95	86	2	98	0	
23	.362	6.7	2.5									
24	.488	6.8	3.0	1.5	124	5	96	128	6	95	6	
25	.313	6.8	2.5									
26	.437											
27	.332	6.6	2.0									
28	.334	6.7	2.0									
29	.330	6.7	1.5	1.9	124	4	97	104	1	99	0	
30	.345	6.7	2.0									
31												
Tot.	10.409		6.8		848	49	94.6	1271	33	869/96.6		
Ave.	.347		2.3		106	6	94.3	141	4	97.2		2.97



MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY
 MCBCL 11345/8 (REV. 6-83)

PLANT ON SLOW BEACH

MONTH APRIL 1986

DATE	PLANT EFFLUENT DATA				5 DAY 20° C. BOD			SUSPENDED SOLIDS			COLIFORM	
	FLOW TOTAL DAILY M GPD	PH	CHLORINE RESIDUAL		RAW mg/1	EFFLUENT mg/1	PERCENT REMOVAL	RAW mg/1	EFFLUENT mg/1	PERCENT REMOVAL	NUMBER PER 100 ml	GEOMETRIC MEAN
1	.039890	6.9	4.0	0.5	112	13	88	78	4	95	0	
2	.088180	6.9	5.0									
3	.079490	6.4	4.0	2.4	LAB	ERROR	-	48	8	83	0	
4	.050630	6.4	5.0									
5	.022160	6.6	4.0									
6	.030000	6.4	2.0									
7	.045000	6.5	4.0									
8	.044220	6.3	5.0	1.4	104	13	88	12	2	83	0	
9	.027030	6.4	4.0									
10	.040000	6.7	5.0	3.3	160	15	91	54	2	96	2	
11	.194730	6.7	4.0									
12	.189990	6.4	4.0									
13	.178900	6.5	4.0									
14	.060000	6.5	3.0									
15	.059120	6.4	5.0	2.5	120	12	90	22	2	91	10	
16	.066060	6.4	4.5									
17	.039660	6.4	4.0	1.9	108	39	64	16	4	94	0	
18	.075000	6.4	4.0									
19	.077040	6.6	5.0									
20	.063900	6.5	4.0									
21	.054490	6.4	4.0									
22	.079430	6.4	4.5	1.8	148	21	86	70	4	94	0	
23	.088860	6.5	4.5									
24	.109100	6.3	5.0	2.5	124	15	88	40	7	83	1000	
25	.106610	6.4	4.0									
26	.105000	6.8	3.0									
27	.103400	6.8	4.0									
28	.111480	6.7	4.0									
29	.101740	6.6	4.0	3.8	152	15	90	27	1	96	0	
30	.108090	6.5	6.0									
31												
Tot.	2.439200		126.5		1628	143	685/856	367	31	815/90.6		
Ave.	.081307		4.2		129	18	86.0	41	3	92.7		3.00

