

6286/1
NREAD
DEC 02 1986

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
(2) Violations of NPDES Limits

1. It is requested that the enclosures be routed to the Utilities Systems General Foreman. Enclosure (1) summarizes the subject data generated by the Water Quality Control Laboratory and contract laboratories for the seven wastewater treatment plants aboard the Camp Lejeune complex for the month of October 1986. Presently, only the Biochemical Oxygen Demand (BOD), Total Suspended Residue, and Coliform data are submitted to the EPA and State. The ammonia, oil and grease, nitrogen and phosphorus data is being generated as background data for the proposed NPDES permit. Enclosure (2) outlines the violations to the present NPDES permit as well as the proposed NPDES permit.

2. Questions regarding the enclosures should be forwarded to the Supervisory Chemist, Environmental Chemistry and Microbiology Laboratory, Natural Resources and Environmental Affairs Division, x5977.

PETER E. BLACK
Acting

Blind Copy to:
ECML (2)

DEC 28 1988

Faint, mostly illegible text, possibly a letter or report, with some words like "Director" and "National" visible.

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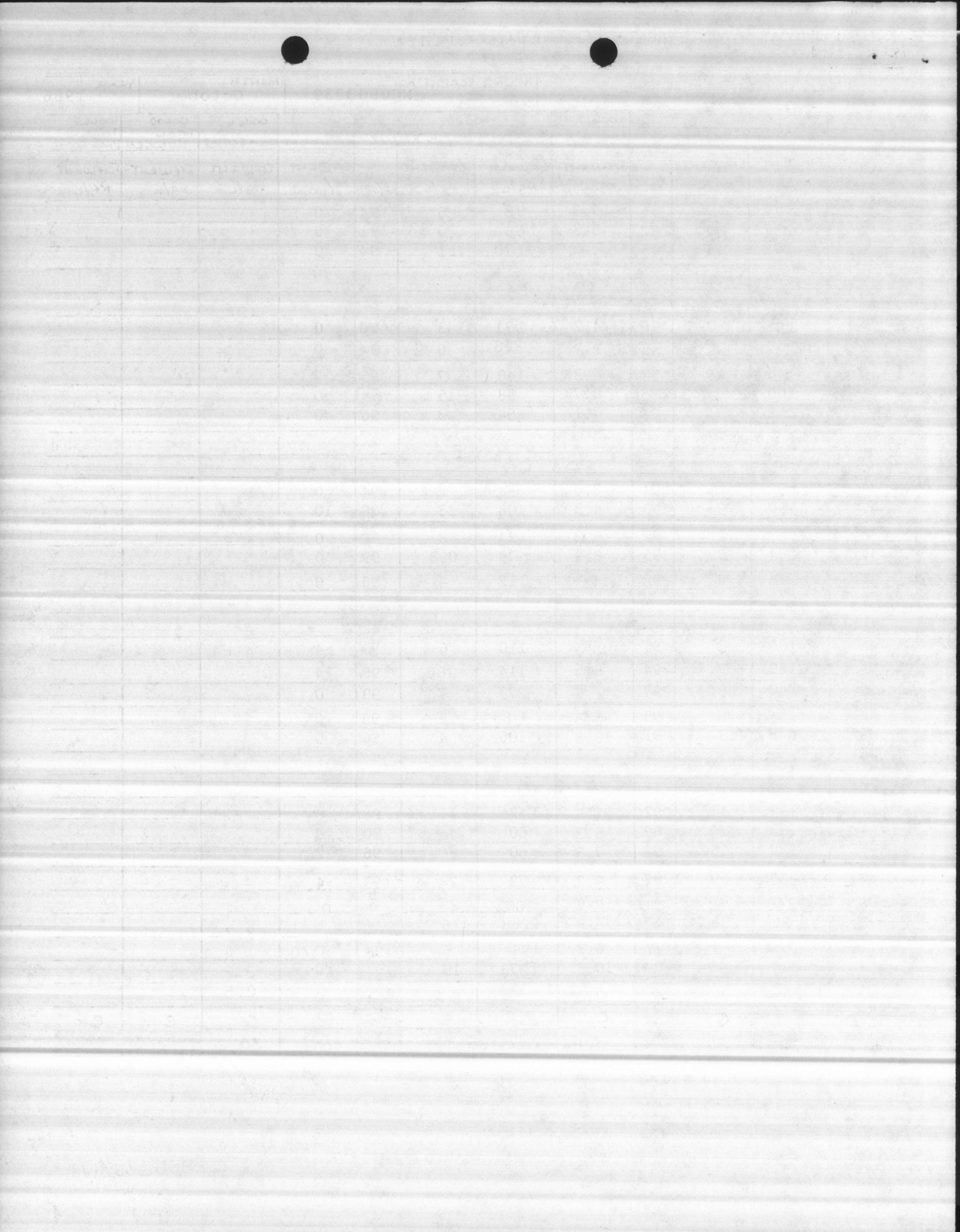
MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY

NCRC 11345/A (REV. 9-86)

PLANT CAMP GEIGER STP NPDES PERMIT No. NC0003239 MONTH October YEAR 1986

DATE	00310 5 DAY 20°C BOD			00610 AMMONIA	00530 TOTAL SUSPENDED RESIDUE			COLIFORM	00566 OIL & GREASE	00600 TOTAL NITROGEN	00665 TOTAL PHOSPHORUS
	INFLUENT MG/L	EFFLUENT MG/L	%	EFFLUENT MG/L	INFLUENT MG/L	EFFLUENT MG/L	%	EFFLUENT MP/100 ML	EFFLUENT MG/L	EFFLUENT MG/L	EFFLUENT MG/L
1	156	8	95	5.7	96	6	94	0			
2	132	10	92	5.3	68	6	91	0	2.2		
3	172	9	95	4.6	170	11	94	0			
4											
5											
6	188	7	96	4.2	171	3	98	0			
7	180	10	94	5.5	98	6	94	0			
8	144	11	92	5.3	140	7	95	2			
9	100	7	93	6.7	58	15	74	0			
10	112	9	92	7.1	84	3	96	0			
11											
12											
13	72	4	94	3.0	34	2	94	0			
14	80	8	90	4.3	106	13	88	10			
15	112	9	92	5.3	24	3	88	0			
16	164	8	95	8.9	76	0.3	99	0			
17	216	4	98	7.4	112	4	96	0			
18											
19											
20	160	8	95	5.0	110	6	95	4	0.5		
21	160	9	94	6.5	114	18	93	4			
22	280	8	97	6.4	273	3	99	0			
23	156	8	95	5.9	80	2	98	0			
24	148	13	91	10.3	100	4	96	0			
25											
26											
27	132	11	92	5.0	52	1	98	0			
28	152	17	89	5.2	60	4	90	0			
29	180	15	92	7.3	60	3	96	2			
30	300	9	97	9.2	72	2	97	4			
31	160	6	96	8.4	100	4	96	0			
TOTAL	3656	208		142.5	2258	116			2.7		
AVERAGE	159	9	94	6.2	98	5	95.4	1.40	1.4		
MAXIMUM	300	17		10.3	273	15		10	2.2		
MINIMUM	72	4		3.0	24	0.3		0	0.5		
COND (C)	C	C		C	C	C		G	G	C	C
GRAB (G)	C	C		C	C	C		G	G	C	C
MONTHLY LIMIT		30		3.0		30		200	30		

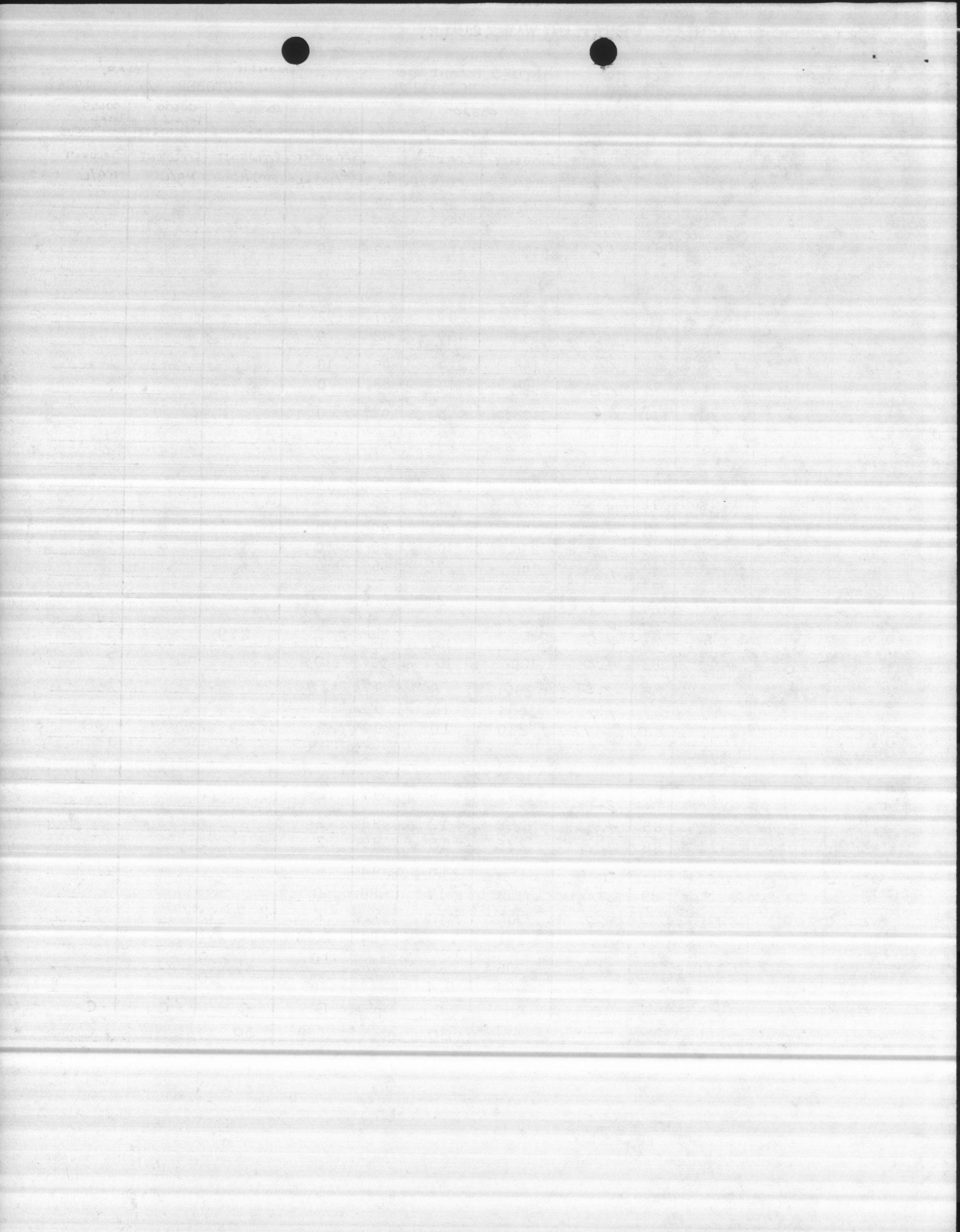
ENCLOSURE (//)



MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY

NCBGL 11845A (REV. 9-86)

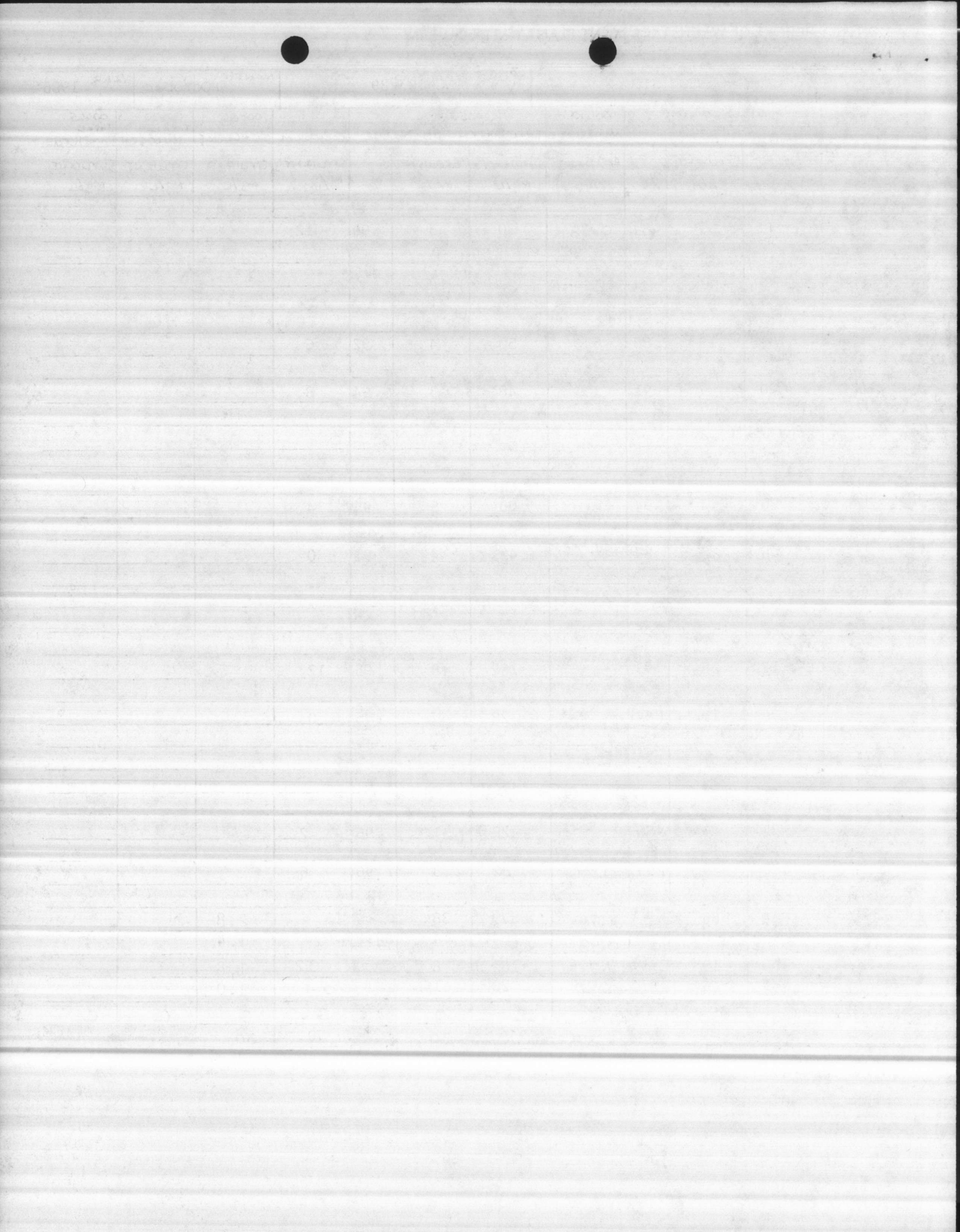
PLANT	NPDES PERMIT No.							MONTH	YEAR		
	TARAWA TERRACE STP									OCTOBER	1986
DATE	00310 5 DAY 20°C BOD			00610 AMMONIA	00520 TOTAL SUSPENDED RESIDUE			COLIFORM	00864 OIL & GREASE	00600 TOTAL NITROGEN	00645 TOTAL PHOSPHORUS
	INFLUENT MG/L	EFFLUENT MG/L	%	EFFLUENT MG/L	INFLUENT MG/L	EFFLUENT MG/L	%	EFFLUENT MF/100 ML	EFFLUENT MG/L	EFFLUENT MG/L	EFFLUENT MG/L
1	176	14	92	2.2	102	8	92	.6			
2	188	18	90	2.0	96	5	95	0	0		
3	120	16	87	1.6	138	11	92	6			
4											
5											
6	144	17	88	1.5	150	6	97	2			
7	184	20	89	4.0	132	10	92	9			
8	212	16	92	1.8	198	9	95	10			
9	180	14	92	1.5	84	10	88	0			
10	128	20	84	1.6	118	8	93	0			
11											
12											
13	184	16	91	1.7	118	6	95	4			
14	160	15	91	3.2	212	14	93	4			
15	160	17	89	2.2	174	0.4	99	0			
16	292	22	92	2.1	236	10	96	0			
17	196	19	90	1.8	162	7	96	0			
18											
19											
20	184	18	90	1.5	138	10	93	0	2.9		
21	156	19	88	4.0	100	10	90	0			
22	180	21	88	2.5	296	8	97	0			
23	128	17	87	1.7	164	11	93	8			
24	168	21	88	2.1	230	10	96	0			
25											
26											
27	196	19	90	2.3	172	6	97	2			
28	216	23	85	4.7	168	12	93	2			
29	204	24	88	2.9	236	15	89	2			
30	204	23	89	4.1	156	10	94	6			
31	204	22	89	3.7	120	14	88	0			
TOTAL	4164	431		56.7	3700	210			2.9		
AVERAGE	181	19	89	2.5	161	9	94	2.14	1.5		
MAXIMUM	292	24		4.7	296	15		10	2.9		
MINIMUM	120	14		1.5	84	0.4		0	0		
COMP (C) CRAP (C)	C	C		C	C	C		G	G	C	C
MONTHLY LIMIT		30				30		200	30		



MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY
 MCBCL 11345/6 (REV. 9-86)

PLANT: CAMP JOHNSON STP NPDES PERMIT NO. NC0003239 MONTH: October YEAR: 1986

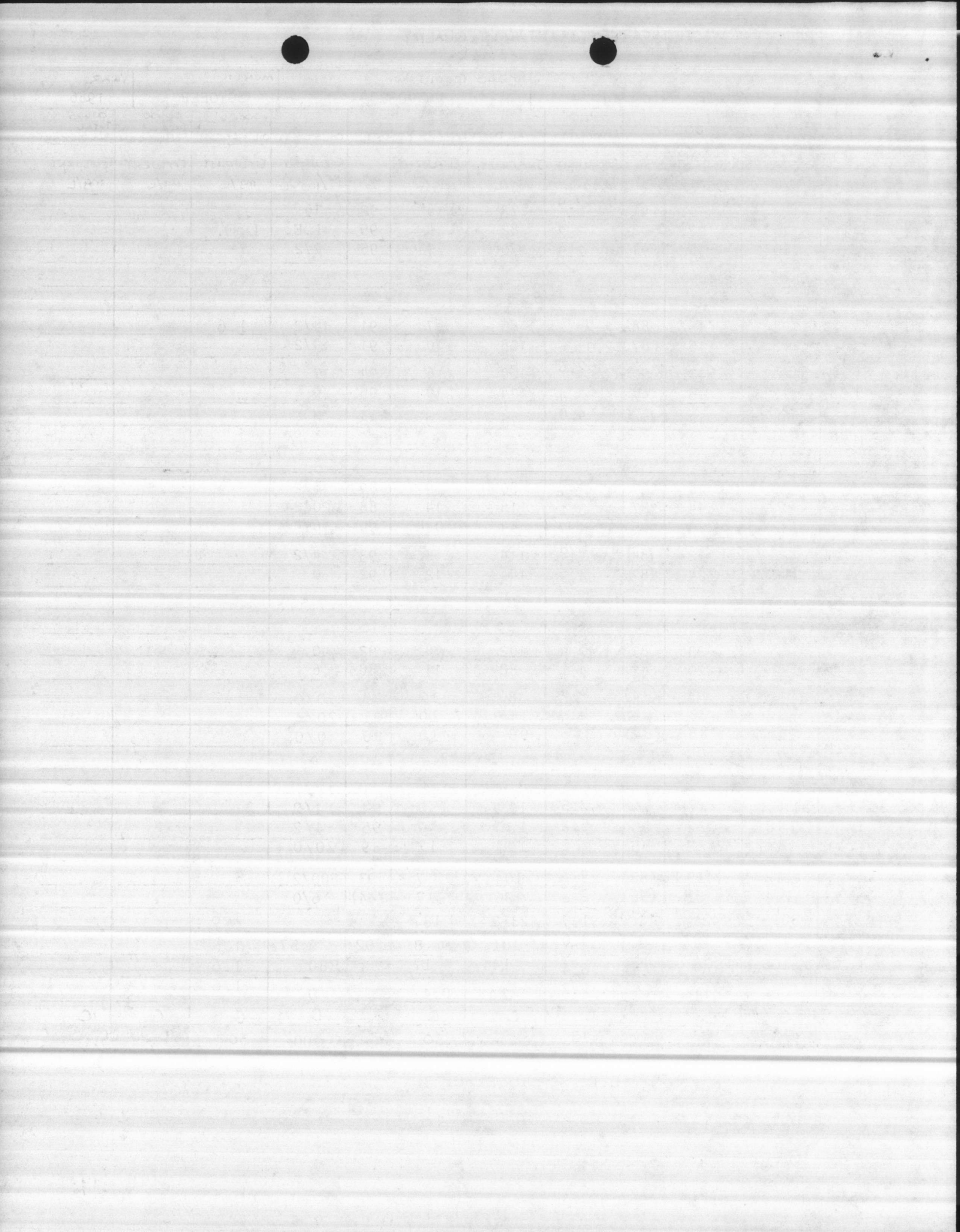
DATE	00310 5 DAY 20°C BOD			00610 AMMONIA	00520 TOTAL SUSPENDED SOLIDS			COLIFORM	00866 OIL & GREASE	00600 TOTAL NITROGEN	00645 TOTAL PHOSPHORUS
	INFLUENT mg/L	EFFLUENT mg/L	%	EFFLUENT mg/L	INFLUENT mg/L	EFFLUENT mg/L	%	EFFLUENT MF/100 ML	EFFLUENT MG/L	EFFLUENT MG/L	EFFLUENT MG/L
1											
2	44	7	(84)	0.88	30	3	90	12	1.8		
3											
4											
5											
6											
7	156	19	88		50	4	92	6			
8											
9	80	7	91		48	3	94	8			
10											
11											
12											
13											
14	68	4	94		108	5	95	4			
15											
16	76	10	87	1.7	43	4	91	0			
17											
18											
19											
20									1.0		
21	112	8	93		162	8	95	12			
22											
23	76	12	(84)		28	7	(75)	0			
24											
25											
26											
27											
28	72	10	86		28	1	96	2			
29											
30	180	9	95	0.36	82	3	96	6			
31											
TOTAL	864	86		2.94	579	38			2.8		
AVERAGE	96	10	90 ⁸⁴	0.98	64	4	94 ⁸²	4.1	1.4		
MAXIMUM	180	19		1.7	162	8		12	1.8		
MINIMUM	44	4		0.36	28	1		0	1.0		
COMP (C) CRAP (C)	C	C		C	C	C		G	G	C	C
MONTHLY LIMIT		30		—		30		70	30		



MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY
 MSBCL 11245/8 (REV. 9-86)

PLANT HADNOT POINT STP				NPDES PERMIT No. NC0003239				MONTH OCTOBER		YEAR 1986	
DATE	00310 5 DAY 20°C BOD			00610 AMMONIA	00530 TOTAL SUSPENDED RESIDUE			COLIFORM	00856 OIL & GREASE	00600 TOTAL NITROGEN	00645 TOTAL PHOSPHORUS
	INFLUENT mg/L	EFFLUENT mg/L	%	EFFLUENT mg/L	INFLUENT mg/L	EFFLUENT mg/L	%	EFFLUENT MF/100 ML	EFFLUENT mg/L	EFFLUENT mg/L	EFFLUENT mg/L
1	120	11	91	2.9	73	6	92	16			
2	144	12	92	3.2	82	4	95	L.E.	L.E.		
3	160	15	91	2.9	130	7	95	2/2			
4											
5											
6	128	15	88	2.2	80	7	91	14/2	1.6		
7	112	15	87	2.9	108	10	91	4/2			
8	120	12	90	2.6	100	6	94	10			
9	112	13	88	3.4	114	10	95	0			
10	84	18	(79)	4.0	76	9	88	0			
11											
12											
13	120	16	87	2.8	80	9	89	16/2			
14	104	14	87	3.1	116	14	88	20/2			
15	132	20	85	4.7	54	0.4	99	16/4			
16	136	22	(84)	5.8	114	8	93	4/2			
17	140	24	(83)	4.3	144	12	92	0			
18											
19											
20	152	20	87	2.9	102	8	92	0			
21	132	20	85	4.1	88	11	88	6			
22	116	19	(84)	6.4	82	12	85	0/0			
23	160	23	86	5.5	112	10	91	20/4			
24	156	28	(82)	6.2	96	10	90	0/0			
25											
26											
27	136	13	90	2.5	114	7	94	14/2			
28	148	22	85	5.2	130	7	95	4/2			
29	144	22	85	3.9	113	12	89	20/0			
30	112	19	(83)	4.3	104	7	93	880/2			
31	144	31	(78)	5.9	106	17	(84)	6/0			
TOTAL	3012	424		91.7	2318	187			1.6		
AVERAGE	131	18	86	4.0	101	8	92	5.57	1.6		
MAXIMUM	160	28		6.4	144	17		880	1.6		
MINIMUM	84	11		2.2	54	0.4		0	1.6		
COMP (C) CRAP (C)	C	C		C	C	C		G	G	C	C
MONTHLY LIMIT		30		13		30		200	30		

L.E. = Lab Error

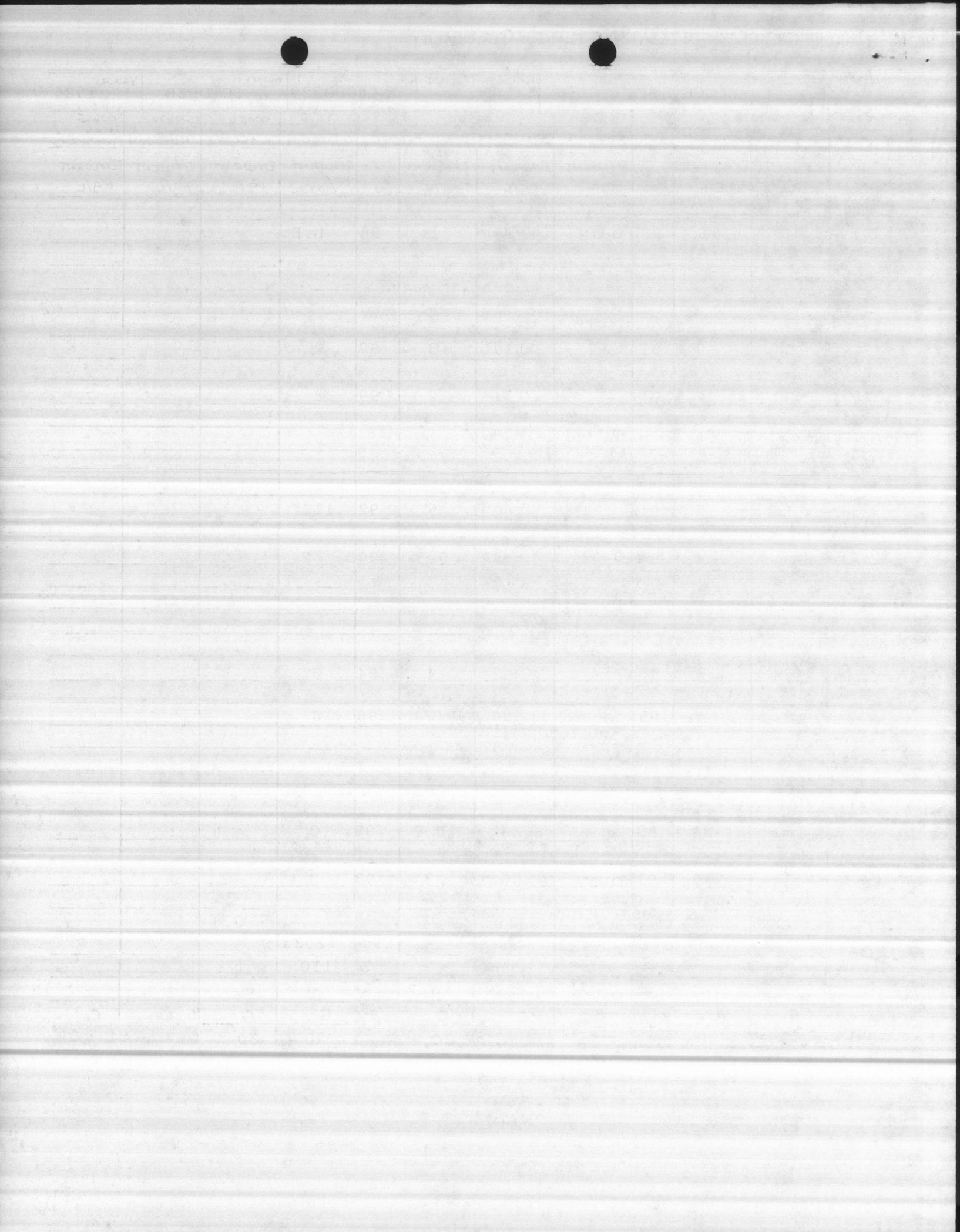


MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY
 MCRCL 11245/6 (REV. 9-86)

PLANT RIFLE RANGE STP NPDES PERMIT No. NC0003239 MONTH OCTOBER YEAR 1986

DATE	00310 5 DAY 20°C BOD			00610 AMMONIA	00520 TOTAL SUSPENDED SOLIDS			COLIFORM	00856 OIL & GREASE	00600 TOTAL NITROGEN	00645 TOTAL PHOSPHORUS
	INFLUENT mg/L	EFFLUENT mg/L	%	EFFLUENT mg/L	INFLUENT mg/L	EFFLUENT mg/L	%	EFFLUENT MP/100 ML	EFFLUENT MG/L	EFFLUENT MG/L	EFFLUENT MG/L
1											
2	48	5	90	0.08	54	1	98	L.E.			
3											
4											
5											
6											
7	104	9	91		110	3	97	2			
8									0		
9	80	7	91		134	2	99	2			
10											
11											
12											
13											
14	16	2	91		60	5	92	110			
15											
16	64	4	94	0.09	92	0.3	99	2			
17											
18											
19											
20											
21	84	4	95		62	4	94	0			
22											
23	96	5	95		50	2	96	0			
24											
25											
26											
27											
28	56	6	89		23	0.2	99	0	0.4		
29											
30	56	5	91	0.07	56	3	95	0			
31											
TOTAL	604	47		0.24	641	21			0.4		
AVERAGE	67	9	89	0.08	71	2	97	2.33	0.2		
MAXIMUM	104	9		0.09	110	5		110	0.4		
MINIMUM	16	2		0.07	23	0.2		0	0		
COMP (C) CRAB (C)	C	C		C	C	C		G	G	C	C
MONTHLY LIMIT		30		—		30		70	30		

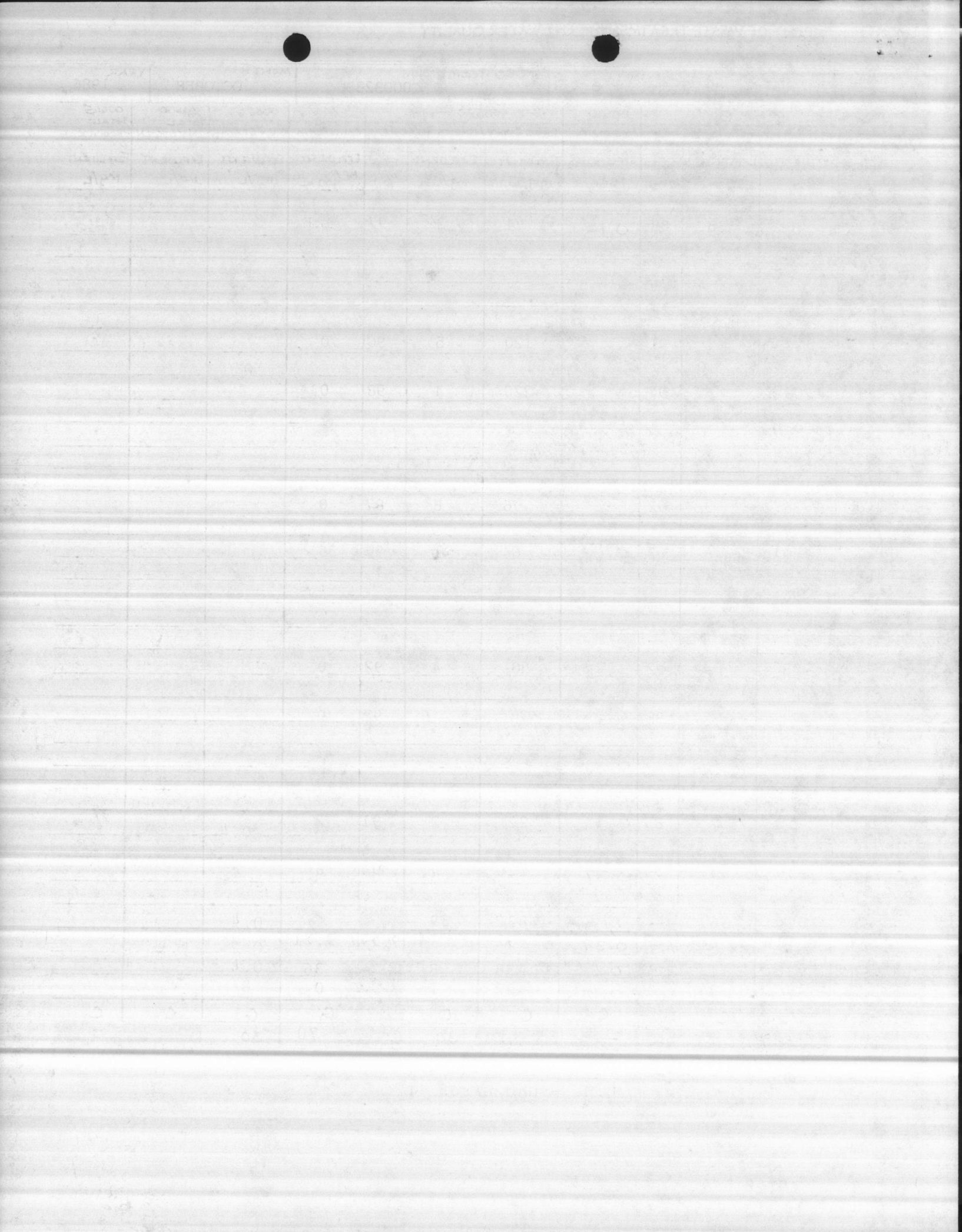
L.E. = Lab Error



MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY
 MCBEL 11345/8 (REV. 9-86)

PLANT	NPDES PERMIT No.							MONTH	YEAR		
COURTHOUSE BAY STP	NC0003239							OCTOBER	1986		
DATE	00310 5 DAY 20°C BOD			00610 AMMONIA	00530 TOTAL SUSPENDED RESIDUE			00100 COLIFORM	00066 OIL & GREASE	00600 TOTAL NITROGEN	00605 TOTAL PHOSPHORUS
	INFLUENT mg/L	EFFLUENT mg/L	%	EFFLUENT mg/L	INFLUENT mg/L	EFFLUENT mg/L	%	EFFLUENT MF/100 ML	EFFLUENT mg/L	EFFLUENT mg/L	EFFLUENT mg/L
1											
2	40	5	88	0.18	74	2	97	L.E.			
3											
4											
5											
6											
7	120	11	91		120	5	96	0			
8									0		
9	200	7	97		228	4	98	0			
10											
11											
12											
13											
14	36	3	92		76	8	87	0			
15											
16	80	6	93	0.62	64	1	99	36			
17											
18											
19											
20											
21	48	4	92		50	4	92	0			
22											
23	224	5	98		78	6	92	0			
24											
25											
26											
27											
28	52	7	87		22	2	91	2	0.4		
29											
30	236	8	97	0.37	120	7	94	8			
31											
TOTAL	1036	56		1.17	832	39			0.4		
AVERAGE	115	6	95.93	0.39	92	4	96.97	2.21	0.2		
MAXIMUM	236	11		0.62	228	8		36	0.4		
MINIMUM	36	3		0.18	22	1		0	0		
COND (C)											
COND (G)	C	C		C	C	C		G	G	C	C
MONTHLY LIMIT		30		—		30		70	30		

L.E. = Lab Error

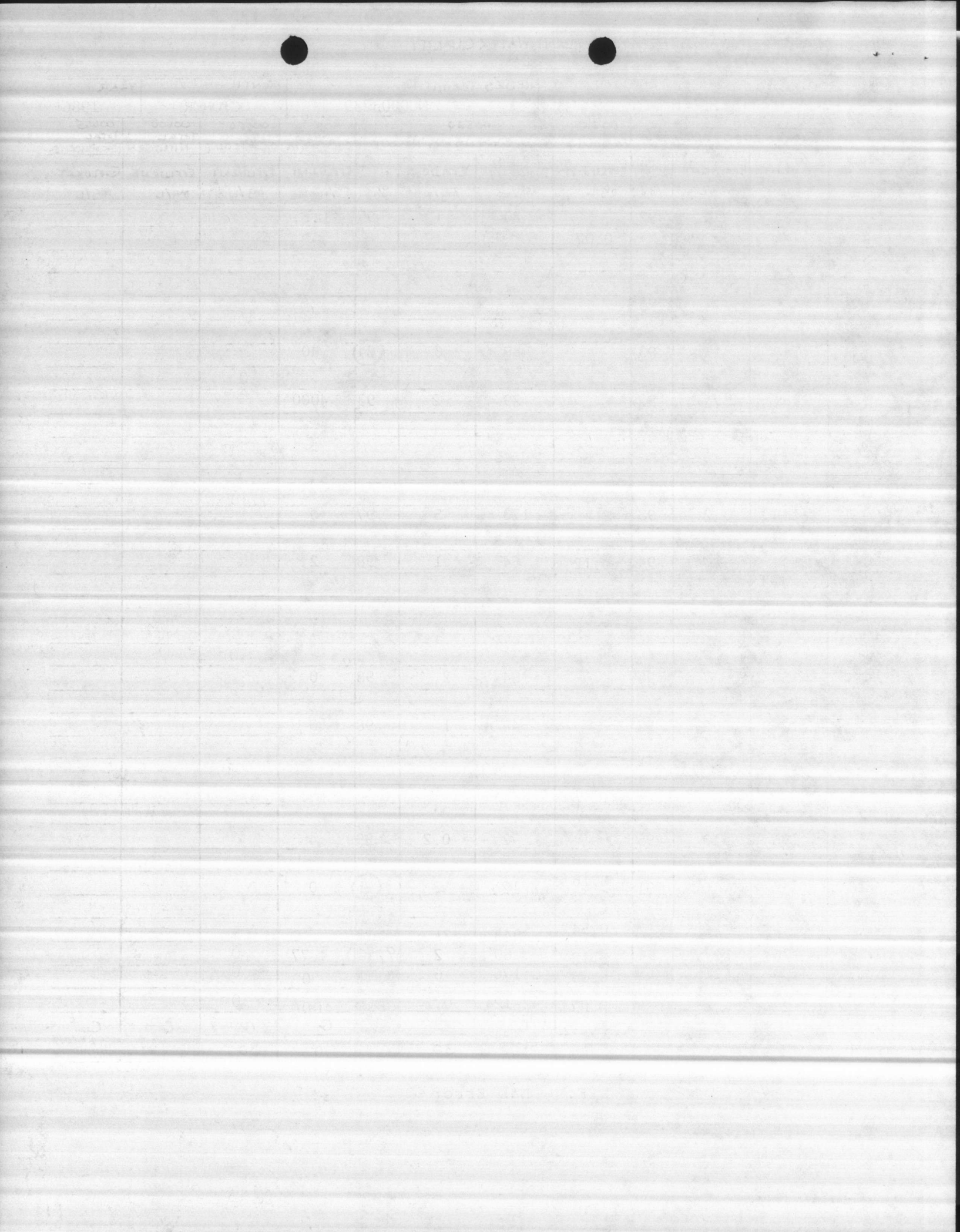


MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY
 MCBCL 1124578 (REV. 9-86)

PLANT ON SLOW BEACH STP				NPDES PERMIT No. NC0003239				MONTH OCTOBER		YEAR 1986	
DATE	00310 5 DAY 20°C BOD			00610 AMMONIA	00530 TOTAL SUSPENDED RESIDUE			COLIFORM	00866 OIL + GREASE	00600 TOTAL NITROGEN	00645 TOTAL PHOSPHORUS
	INFLUENT mg/L	EFFLUENT mg/L	%	EFFLUENT mg/L	INFLUENT mg/L	EFFLUENT mg/L	%	EFFLUENT MF/100 ML	EFFLUENT mg/L	EFFLUENT mg/L	EFFLUENT mg/L
1	84	7	92		20	1	95	L.E.			
2				0.07							
3											
4											
5											
6											
7	148	11	93		38	6	84	40			
8									0		
9	84	7	92		29	2	93	4000			
10											
11											
12											
13											
14	108	2	98		176	5	97	0			
15											
16	104	6	94	0.12	64	1	98	2			
17											
18											
19											
20									0		
21	155	7	96		84	2	98	0			
22											
23	128	9	93		48	1	98	0			
24											
25											
26											
27											
28	196	10	95		72	0.2	99	4			
29											
30	116	10	91	0.16	12	3	75	0			
31											
TOTAL	1123	69		0.54	543	21					
AVERAGE	126	7	94	0.18	60	2	97.93	4.77	0		
MAXIMUM	196	11		0.16	176	6		0	0		
MINIMUM	84	2		0.07	12	0.2		4000	0		
COND (C)	C	C		C	C	C		G	G	C	C
GRAB (F)											
MONTHLY LIMIT		30				30		70	30		

L.E. = Lab Error

ENCLOSURE (11)



VIOLATIONS

I. Present NPDES Permit Limits:

None.

II. Proposed NPDES Permit Limits:

<u>PLANT</u>	<u>DATE</u>	<u>PARAMETER</u>	<u>VALUE</u>	<u>LIMIT</u>
CAMP GEIGER	1-4 Oct 86	DISSOLVED OXYGEN	4.5 mg/L	5 mg/L
CAMP GEIGER	1-4 Oct 86	AMMONIA	5.2 mg/L	4.5 mg/L
"	5-11 Oct 86	"	5.8 mg/L	"
"	12-18 Oct 86	"	5.8 mg/L	"
"	19-25 Oct 86	"	6.2 mg/L	"
"	26-31 Oct 86	"	7.0 mg/L	"
"	OCTOBER 1986	"	6.2 mg/L	3.0 mg/L
HADNOT POINT	1-4 Oct 86	DISSOLVED OXYGEN	4.5 mg/L	5 mg/L
"	5-11 Oct 86	"	4.3 mg/L	"
"	12-18 Oct 86	"	4.1 mg/L	"
"	19-25 Oct 86	"	4.1 mg/L	"
"	26-31 Oct 86	"	4.3	"
"	OCTOBER 1986	"	4.2 mg/L	"



11

11331
NREAD
DEC 09 1986

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 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 NREAD, Assistant Chief of Staff, Facilities. Ms. Betz, Supervisory Chemist, Quality Control Laboratory, telephone (919) 451-5977, is the point of contact in this matter.

Sincerely,

DANNY D. SHARPE
Acting Director

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

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BMO (Attn: UtilDir)
SupvyChem, QCL

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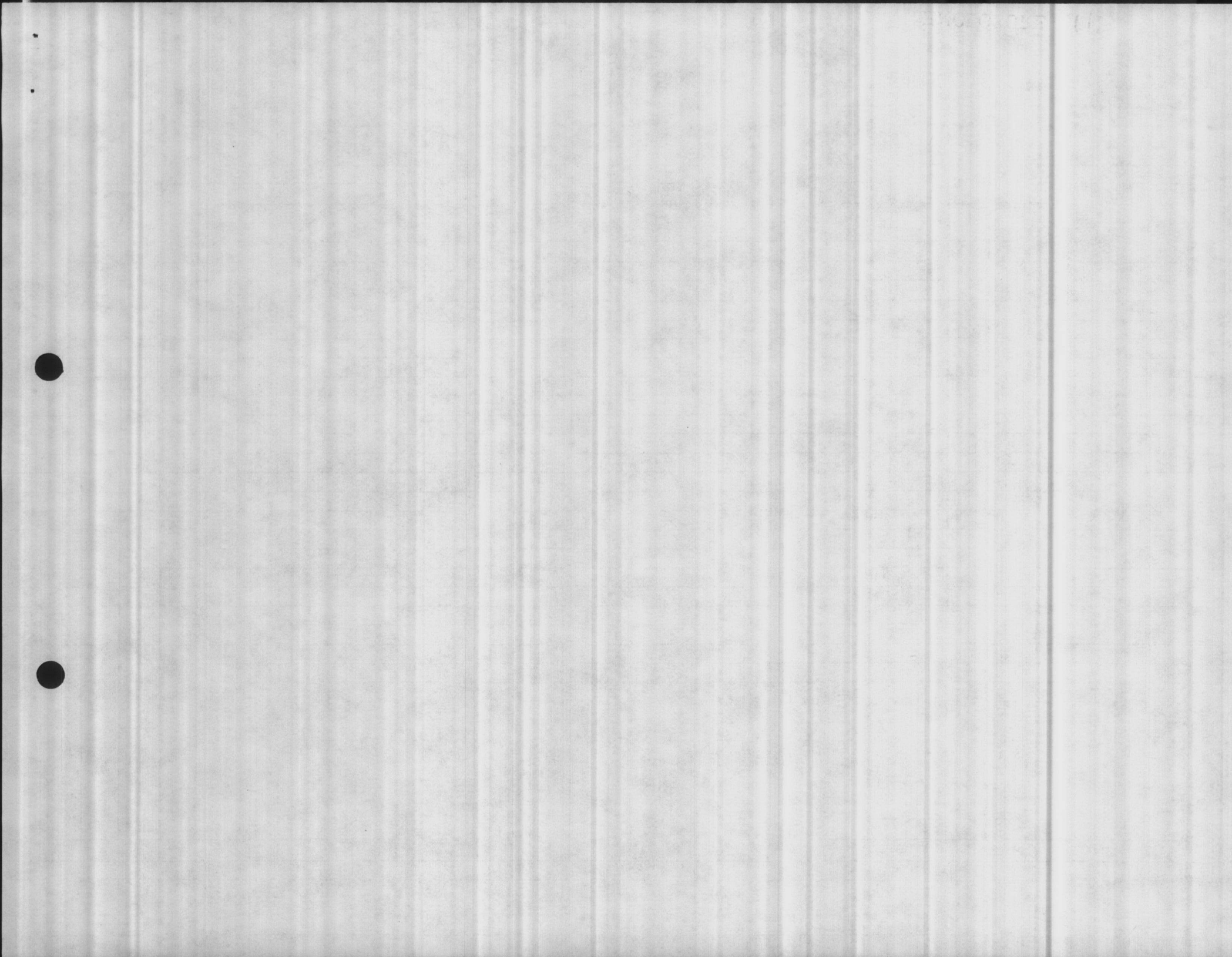
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DATE	RAW WATER COLIFORMS (MFP)									NO. OF COLIFORMS PER 100 ml.	FILTERED		FINISHED		TOTAL PLATE COUNT	DISTRIBUTION SYSTEM										INCUBATOR TEMP.	
	A			B			C				MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	COLIFORMS (MFP)					REPEAT SAMPLES								
	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	COLIFORM COLONIES					1		2	3	4	5	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.	COLIFORMS per 100 ml.			
1																											
2																											
3																											
4																0	9	0	0	0	0	0	0	0	0	35.0	
5	54																										
6																											
7																											
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9																											
10																											
11																											
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16																											
17																											
18																0	9	0	0	0	0	0	0	0	35.0		
19	518																										
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21																											
22																											
23																											
24																											
25																0	9	0	0	0	0	0	0	0	35.0		
26	525																										
27																											
28																											
29																											
30																											
31																											
MFP MEDIA															0	DIST. SYSTEM	TOTAL NO. SAMPLES										36
TPC MEDIA															1.0		SAMPLES EXCEEDING 3/50, (4/100), 7/200, 13/500ml										0

LAB # 37807

Elizabethtown B-WELL ENCLOSURE (1) 4087-W



Month NOVEMBER
 Year 1986

MINING WORKS HIK STATION WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303
 Contaminant Code: 3000

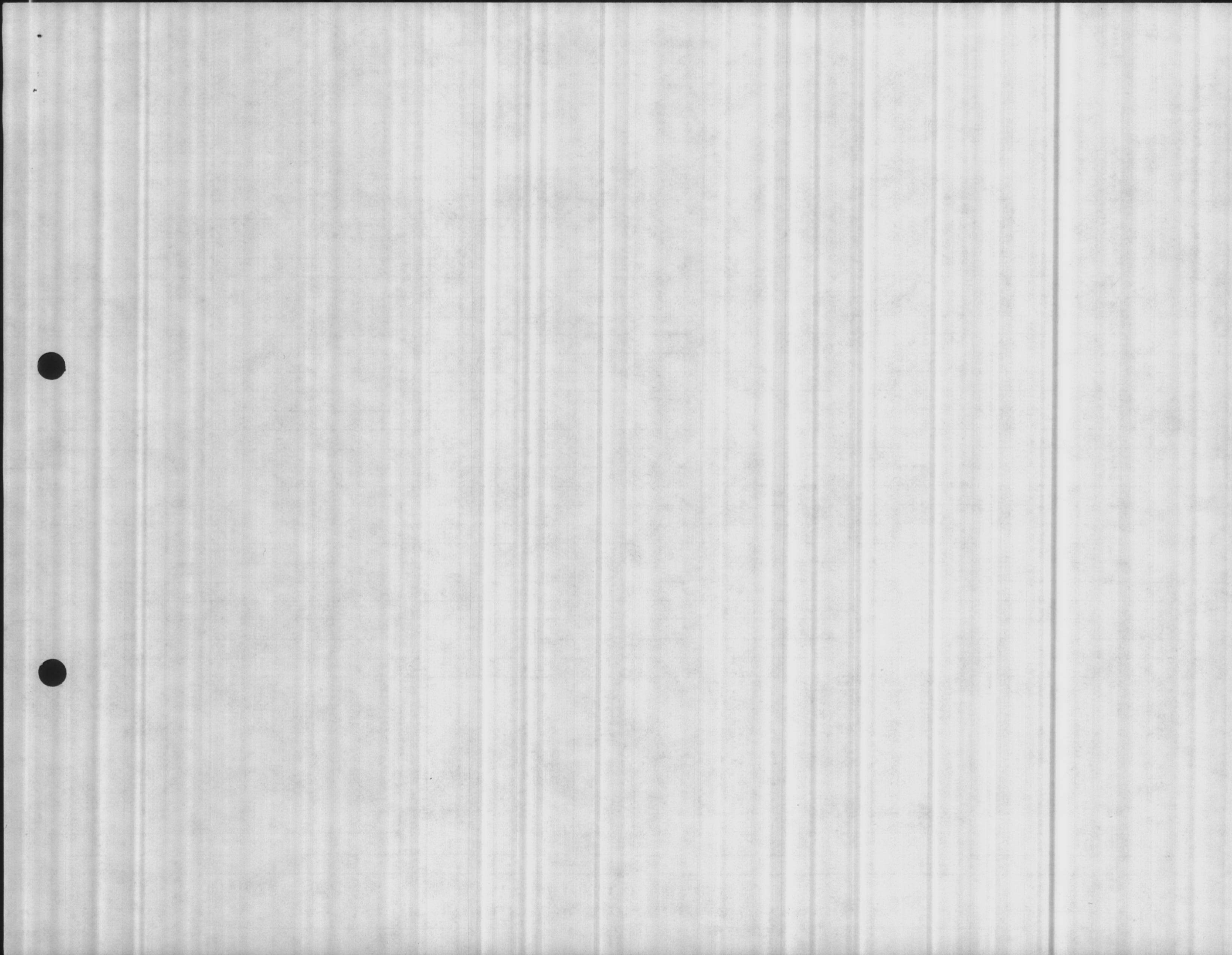
REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES
 N. C. DEPARTMENT OF HUMAN RESOURCES

Serial # 04-67-04Z

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												0	7	0	0	0	0	0	0		35.0	
5	34																					
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12												0	7	0	0	0	0	0	0		34.9	
13	12																					
14																						
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18												0	7	0	0	0	0	0	0		35.0	
19	18																					
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24																						
25												0	7	0	0	0	0	0	0		35.0	
26	25																					
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29																						
30																						
31																						
MFP MEDIA		BBI mEndo		BACTERIAL DENSITY		ARITH. MEAN						0		DIST. SYSTEM		TOTAL NO. SAMPLES					ZB	
IPC MEDIA						GEO. MEAN						1.0				SAMPLES EXCEEDING 3/50, 4/100, 7/200, 13/500 ml					0	

LAB ID # 37807

Elizabeth A. Bely B-WELL 4087-W



Month NOVEMBER
Year 1986

HOLLING BLVD

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.	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										0	7	0	0	0	0	0	0			35.0					
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12										0	7	0	0	0		0	0	0		34.9					
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25										0	7	0	0	0	0	0	0			35.0					
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30																									
31																									
MFP MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN		GEO. MEAN		0		DIST. SYSTEM		TOTAL NO. SAMPLES		SAMPLES EXCEEDING 3/50		7/200		13/500ml		2/1		0	

LAB ID # 37807

Elizabeth A. Betz

B-WELL

4087-W



Year 1986

WATER TREATMENT PLANT AT Camp Lejeune

Method Code: 303

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

Serial # 04-67-044

N. C. DEPARTMENT OF HUMAN RESOURCES

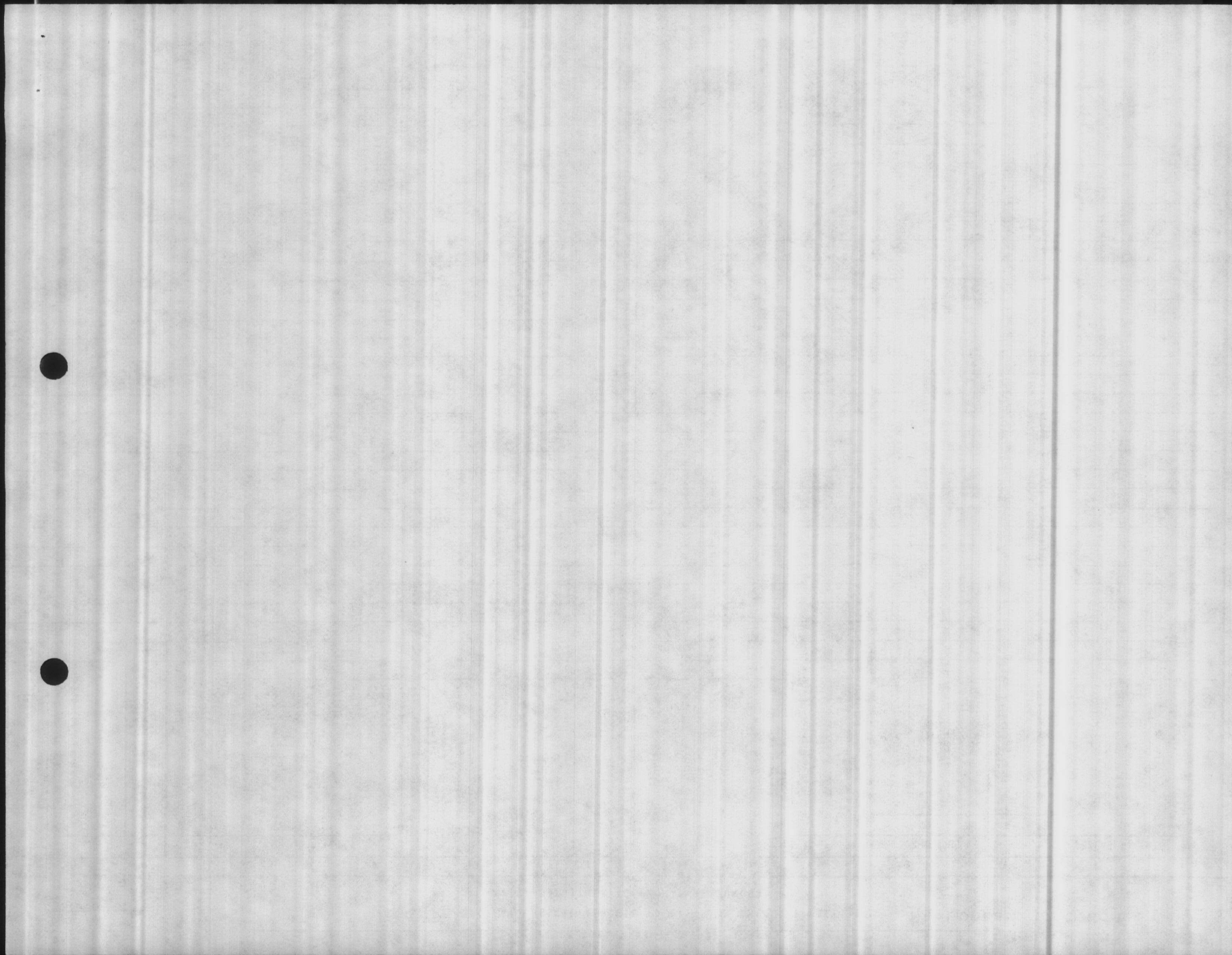
DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	MFP COLIFORMS per 100 ml.	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM					REPEAT SAMPLES			INCUBATOR TEMP.				
	A		B		C								COLIFORMS (MFP)												
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES							1	2	3	4	5								
1																									
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3																									
4													0	4	0	0	0	0							35.0
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30																									
31																									
MFP MEDIA												0		DIST. SYSTEM		TOTAL NO. SAMPLES								16	
TPC MEDIA												1.0				SAMPLES EXCEEDING 3/50 4/100 7/200 13/500 ml								0	

LAB ID # 31807

Elizabeth A. Betz

B-Well

4087-W



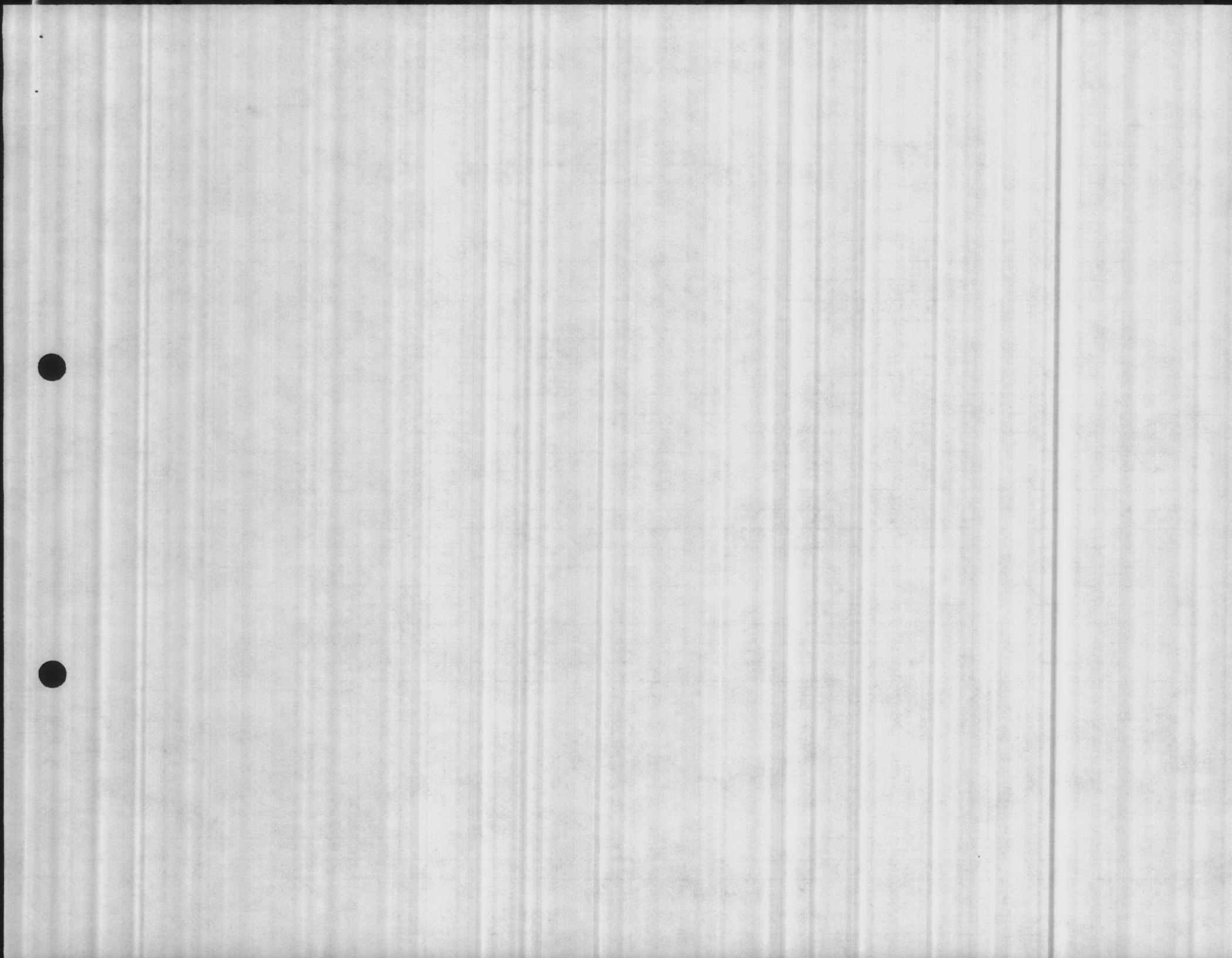
Serial # 04-67-045

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	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.			
	A		B		C						1	2	3	4	5							
	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES	VOLUME FILTERED ml.	TOTAL COLONIES														AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	COLIFORMS per 100 ml.
1																						
2																						
3																						
4											0	N	0	0							35.0	
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6																						
7																						
8																						
9																						
10																						
11																						
12											0	N	0		0						34.9	
13																						
14																						
15																						
16																						
17																						
18											0	N	0			0					35.0	
19																						
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22																						
23																						
24																						
25											0	N	0				0				35.2	
26																						
27																						
28																						
29																						
30																						
31																						
											0	DIST. SYSTEM	TOTAL NO. SAMPLES								8	
MFP MEDIA IPC MEDIA											0		TOTAL NO. SAMPLES								8	
BBL mEndo											1.0		SAMPLES EXCEEDING 3/50 (4/100) 7/200. 13/500 ml								0	
DACTERIAL DENSITY																						
ARITH. MEAN GEO. MEAN																						

LAB ID # 37807

Elyse B. Well 4087-W



Month
 Year 1986

WIFE RANGE

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

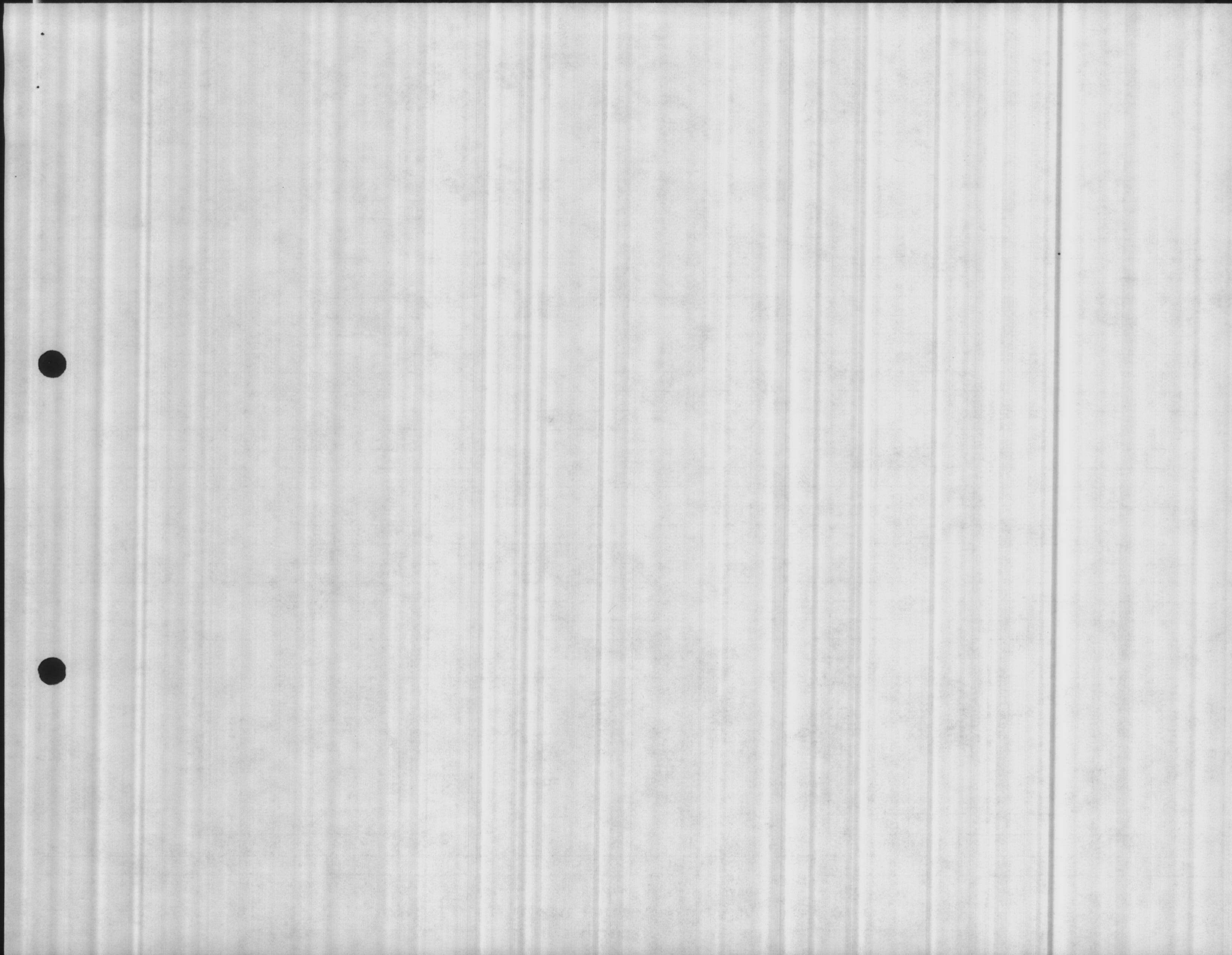
Serial # 04-67-046

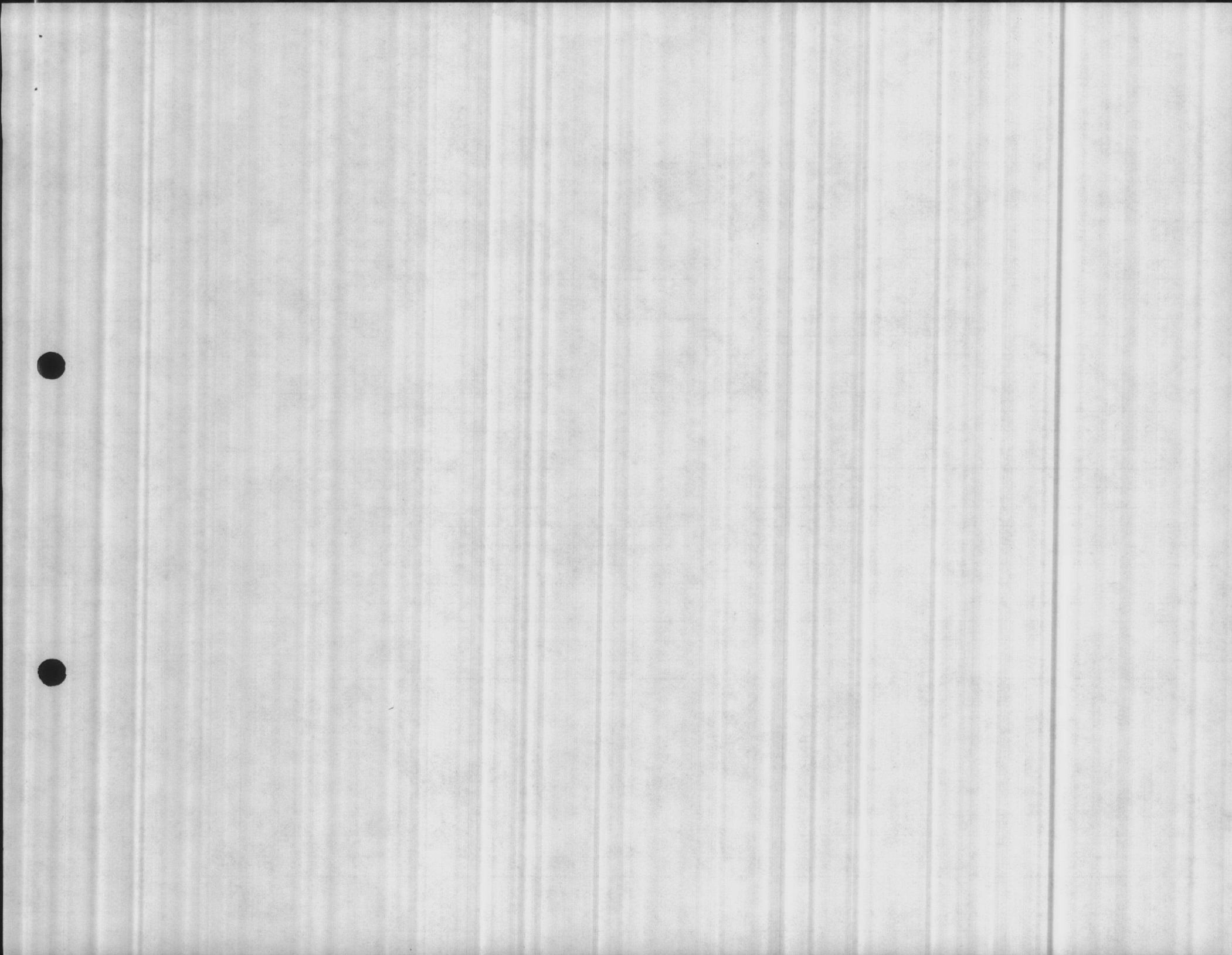
DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	FILTERED TOTAL PLATE COUNT	FINISHED TOTAL PLATE COUNT	TOTAL PLATE COUNT	DISTRIBUTION SYSTEM COLIFORMS (MFP)					REPEAT SAMPLES			INCUBATOR TEMP.		
	A		B		C						AVE. COLIFORMS per 100 ml.	NO. OF SAMPLES EXAMINED	1	2	3	4	5	COLIFORMS per 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																					
3																					
4											0	3	0	0	0					35.0	
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12											0	3	0	0		0				34.9	
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18											0	3	0	0			0			35.0	
19																					
20																					
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23																					
24																					
25											0	3	0	0		0				35.0	
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29																					
30																					
31																					
MFP MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN						0		CIST. SYSTEM		TOTAL NO. SAMPLES				12	
TPC MEDIA						GEO. MEAN						1.0				SAMPLES EXCLUDING 3/50, (4/100), 7/200, 13/500ml				0	

LAB ID# 37807

Elyabeth A. Belf B-WELL 4087-W







CHEMICAL ANALYSIS -- WATER TREATMENT PLANTS

MCBCL 11330/3 (REV 6-84)

DATE COLLECTED

11-4-86

DATE OF ANALYSIS

11-4-86

PARAMETER	HADNOT POINT -241	CAMP JOHNSON -245	TARAWA TERRACE -244	ONSLow BEACH -248	COURTHOUSE BAY -247	RIFLE RANGE -246	HOLCOMB BLVD -243	NEW RIVER -242
PH (IN LAB NOT PLANT)	9.2	7.3	8.5	7.4	7.7	8.0	8.4	8.6
PHENOLTHALEIN ALKALINITY	10	0	4	0	0	0	2	18
METHYL ORANGE ALKALINITY	42	170	58	150	170	170	54	146
CARBONATES AS CaCO ₃	20	0	8	0	0	0	4	36
BICARBONATES AS CaCO ₃	22	170	50	150	170	170	50	110
CHLORIDES AS Cl	10	10	16	18	14	40	10	60
HARDNESS AS CaCO ₃	52	60	70	58	72	60	70	44
IRON AS Fe	20.04	0.24	20.04	0.12	0.06	20.04	0.04	20.04
FLUORIDE	AM 1.08 PM 1.06	0.25	0.83 0.89	0.20	0.15	0.14	1.08 1.09	0.59
CHLORINE RESIDUAL	1.1	1.4	1.0	1.5	1.4	1.0	1.0	0.8
TURBIDITY	AM 0.5 PM 0.6	0.9	0.5 0.5	0.4	0.4	0.6	0.6 0.9	0.9
TOTAL PHOSPHATE		1.9						
ORTHO PHOSPHATE		1.2						
META PHOSPHATE		0.7						
STABILITY	+0.7	-0.7	+0.4	-0.7	-0.3	-0.1	+0.4	+0.3

REMARKS

COPY TO:

UTIL DIR

WATER TREATMENT

PMU MCAS PMU

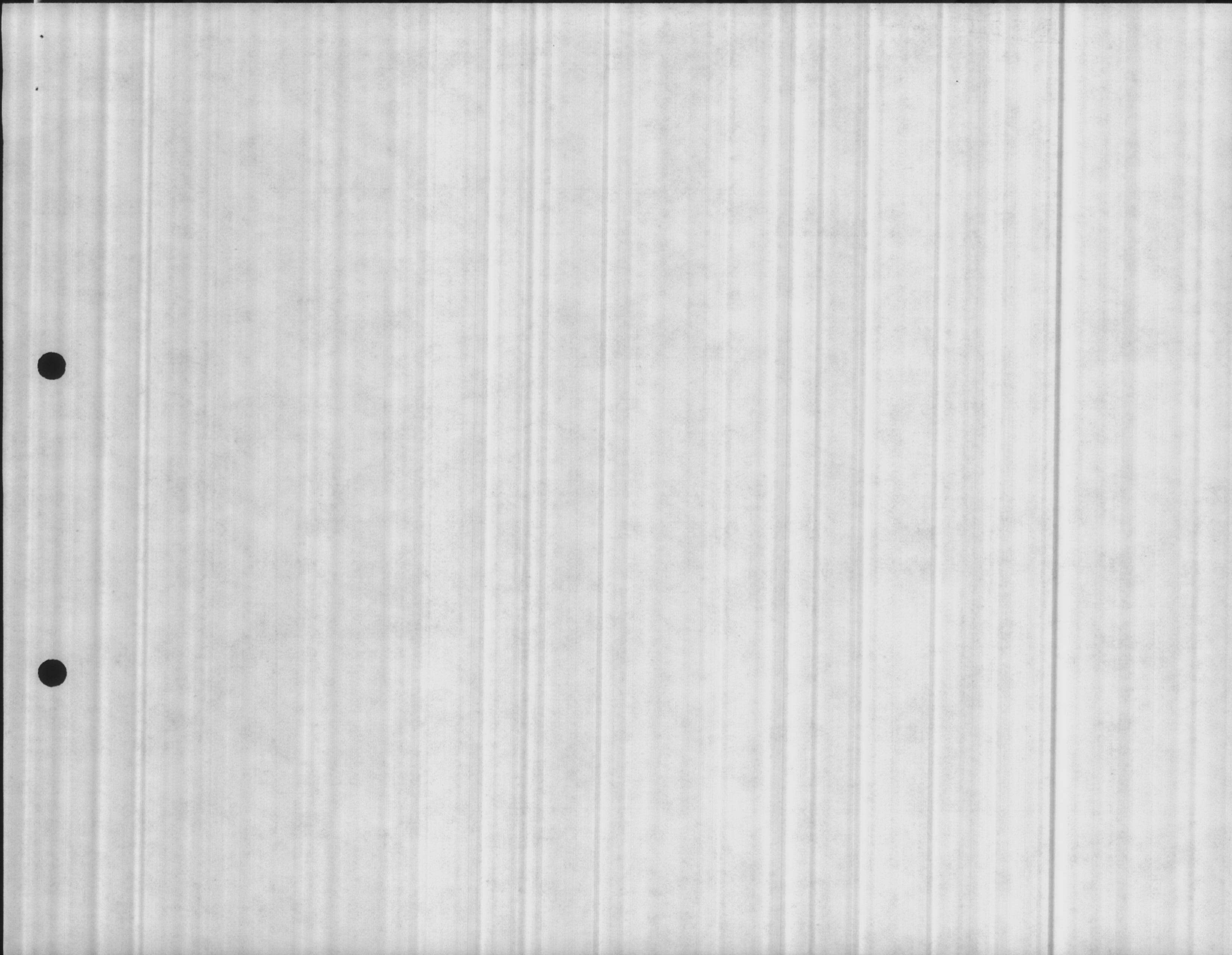
FILE

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 - ct LANE

ENCLOSURE 127



CHEMICAL ANALYSIS — WATER TREATMENT PLANTS

MCBCL 11330/3 (REV 6-84)

DATE COLLECTED

11-12-86

DATE OF ANALYSIS

11-12-86

PARAMETER	HADNOT POINT -241	CAMP JOHNSON -245	TARAWA TERRACE -214	ONSLow BEACH -218	COURTHOUSE BAY -247	RIFLE RANGE -246	HOLCOMB BLVD -213	NEW RIVER -212
PH (IN LAB NOT PLANT)	8.7	7.4	8.7	7.7	8.2	8.0	8.6	8.7
PHENOLTHALEIN ALKALINITY	4	0	10	0	0	0	6	16
METHYL ORANGE ALKALINITY	54	176	48	170	168	170	56	148
CARBONATES AS CaCO ₃	8	0	20	0	0	0	12	32
BICARBONATES AS CaCO ₃	46	176	28	170	168	170	44	116
CHLORIDES AS Cl	10	14	16	24	20	44	16	60
HARDNESS AS CaCO ₃	74	68	74	54	44	62	28	52
IRON AS Fe	LO.04	0.21	0.24	0.12	LO.04	LO.04	LO.04	LO.04
FLUORIDE	AM 0.95 PM 1.15	0.18	0.81 0.72	0.17	0.13	0.12	0.77 0.71	0.59
CHLORINE RESIDUAL	1.0	1.2	1.0	1.5	1.5	1.6	0.9	0.7
TURBIDITY	AM 0.6 PM 0.6	1.1	0.7 5.8	0.5	0.4	0.5	0.8 3.5	0.8
TOTAL PHOSPHATE		1.95						
ORTHO PHOSPHATE		1.11						
META PHOSPHATE		0.84						
STABILITY	+0.4	-0.8	+0.1	-0.5	-0.1	-0.2	+0.2	+0.1

REMARKS

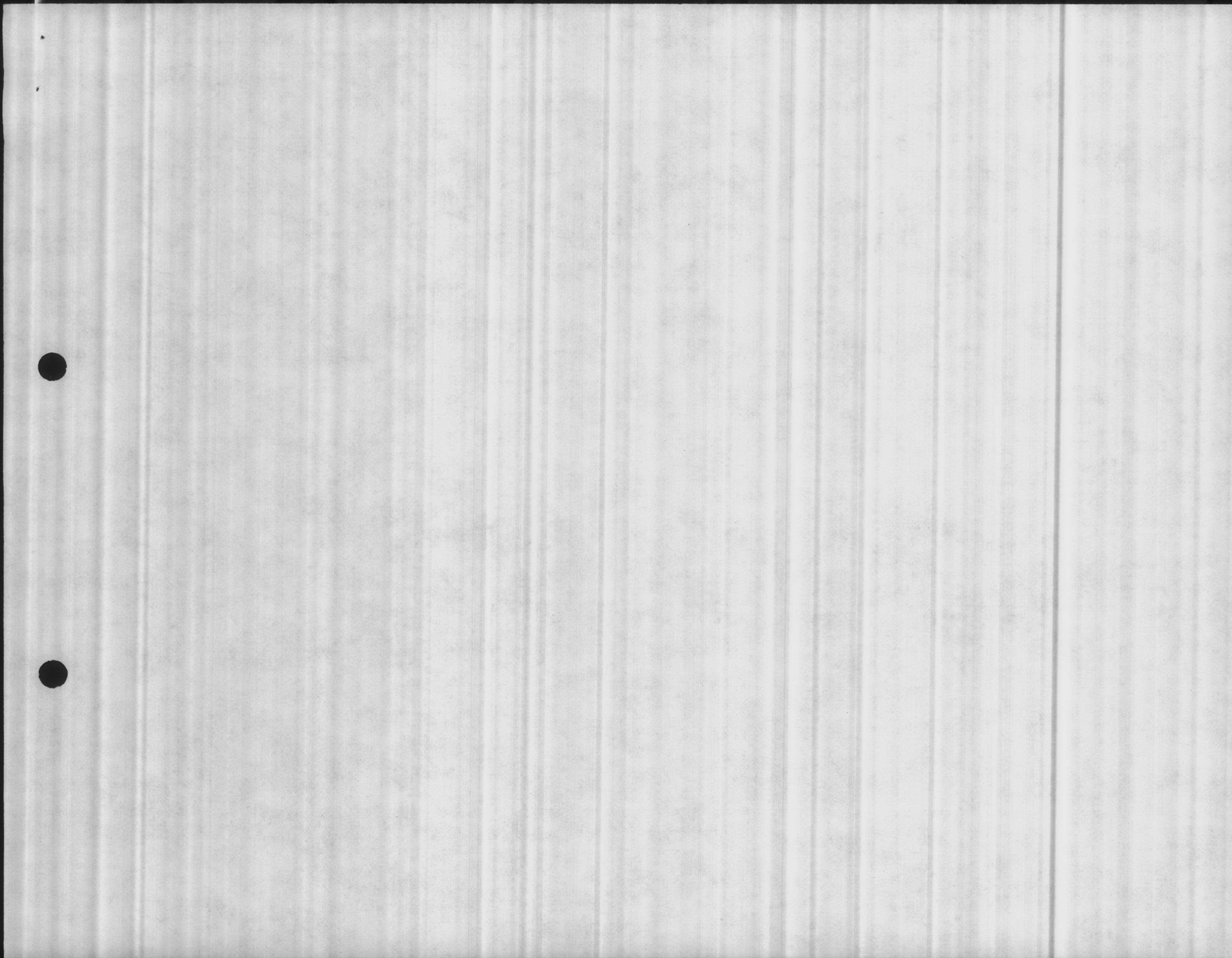
COPY TO:

- 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

LANE & BARBER



CHEMICAL ANALYSIS -- WATER TREATMENT PLANTS

MCBCL 11330/3 (REV 6-84)

DATE COLLECTED

11-18-86

DATE OF ANALYSIS

11-18-86

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 PLANT)	8.2	7.2	8.2	7.3	7.9	7.7	8.0	8.3
PHENOLTHALEIN ALKALINITY	4	0	0	0	0	0	0	10
METHYL ORANGE ALKALINITY	68	168	50	168	184	184	62	154
CARBONATES AS CaCO ₃	8	0	0	0	0	0	0	20
BICARBONATES AS CaCO ₃	60	168	50	168	184	184	62	134
CHLORIDES AS Cl	16	14	14	24	22	46	16	66
HARDNESS AS CaCO ₃	80	62	74	52	46	62	68	48
IRON AS Fe	20.04	0.14	20.04	20.04	20.04	20.04	20.04	20.04
FLUORIDE	AM 0.45 PM 0.47	0.20	0.91 0.88	0.18	0.14	0.13	0.89 1.00	0.58
CHLORINE RESIDUAL	1.0	11	1.0	1.5	1.1	1.0	0.9	1.0
TURBIDITY	AM 0.4 PM 0.4	0.9	0.3 2.2	0.4	0.5	0.4	0.8 2.1	0.6
TOTAL PHOSPHATE		2.7						
ORTHO PHOSPHATE		1.3						
META PHOSPHATE		1.4						
STABILITY	0	-0.6	0	-0.7	-0.3	-0.4	-0.3	-0.1

REMARKS

COPY TO:

UTIL DIR _____

WATER TREATMENT

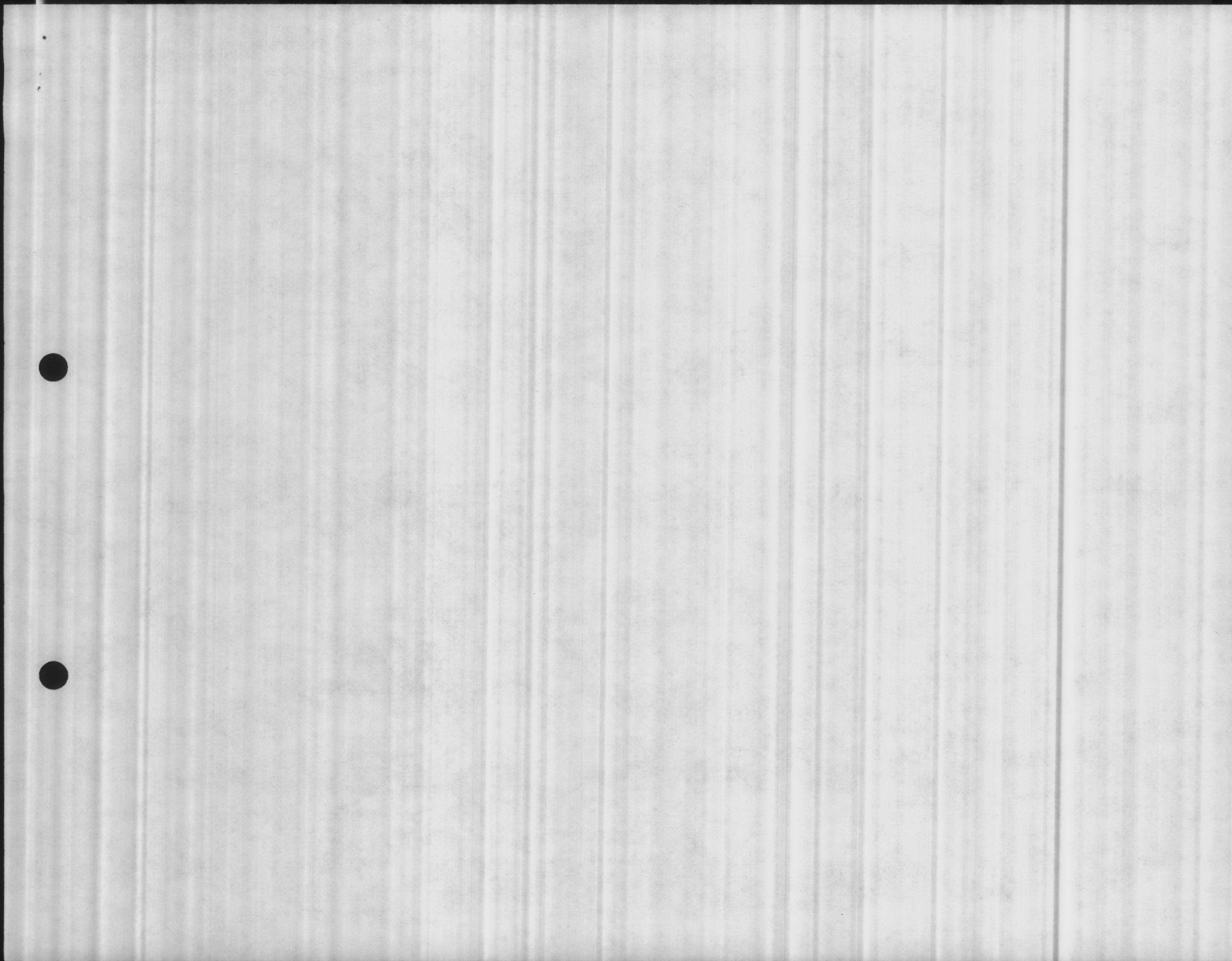
PMU MCAS PMU

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

LANG & SHORTS



CHEMICAL ANALYSIS -- WATER TREATMENT PLANTS

MCBCL 11330.3 (REV. 6-84)

DATE COLLECTED

11-25-86

DATE OF ANALYSIS

11-25-86

PARAMETER	HADNOT POINT -241	CAMP JOHNSON -245	TARAWA TERRACE -244	ONSLow BEACH -249	COURTHOUSE BAY -247	RIFLE RANGE -246	HOLCOMB BLVD -243	NEW RIVER -242
PH (in Lab NOT Plant)	8.5	7.3	8.6	7.3	7.7	8.0	8.3	8.6
PHENOLTHALEIN ALKALINITY	4	0	6	0	0	0	2	18
METHYL ORANGE ALKALINITY	54	170	46	156	170	160	50	140
CARBONATES AS CaCO ₃	8	0	12	0	0	0	4	36
BICARBONATES AS CaCO ₃	46	170	34	156	170	160	46	104
CHLORIDES AS Cl	10	10	10	20	16	26	10	60
HARDNESS AS CaCO ₃	64	56	80	56	48	52	64	46
IRON AS Fe	20.04	0.18	20.04	0.09	0.05	0.05	20.04	20.04
FLUORIDE	AM 1.44 PM 1.43	0.20	0.79 0.86	0.18	0.16	0.14	0.94 0.91	0.63
CHLORINE RESIDUAL	1.1	1.3	1.0	1.3	1.4	1.1	1.0	0.9
TURBIDITY	AM 0.2 PM 0.1	2.2	0.1 0.6	0.1	0.1	0.1	0.1 0.7	0.1
TOTAL PHOSPHATE		1.8						
ORTHO PHOSPHATE		1.0						
META PHOSPHATE		0.8						
STABILITY	+0.3	-0.6	+0.3	-0.8	-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

BURNS & LANE

