

6286/1
NREAD
11 May 87

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 generated by the Environmental Chemistry and Microbiology Laboratory and contract laboratories for the seven wastewater treatment plants aboard the Camp Lejeune complex for the month of April 1987.

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

J. I. WOOTEN

Blind copy to:
EC&MS (2)

22871

22872

11 May 57

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

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

Re: (C) Monthly Report of Waste Treatment Plant Water Quality

1. It is requested that the enclosed be forwarded to the Utilities
System General Foreman, the enclosed summary in subject
only pertains to Environmental Chemistry and Microbiology
Laboratory and contact laboratories for the base water
treatment plant located in the base water complex for the month of
April 1957.

2. Questions regarding the procedure should be forwarded to
the Supervisory Chemist, Environmental Chemistry and Micro-
biology Laboratory, National Resources and Environmental Affairs
Division, 22871.

J. I. WOOTEN

Blind copy to:
ECAMS (2)

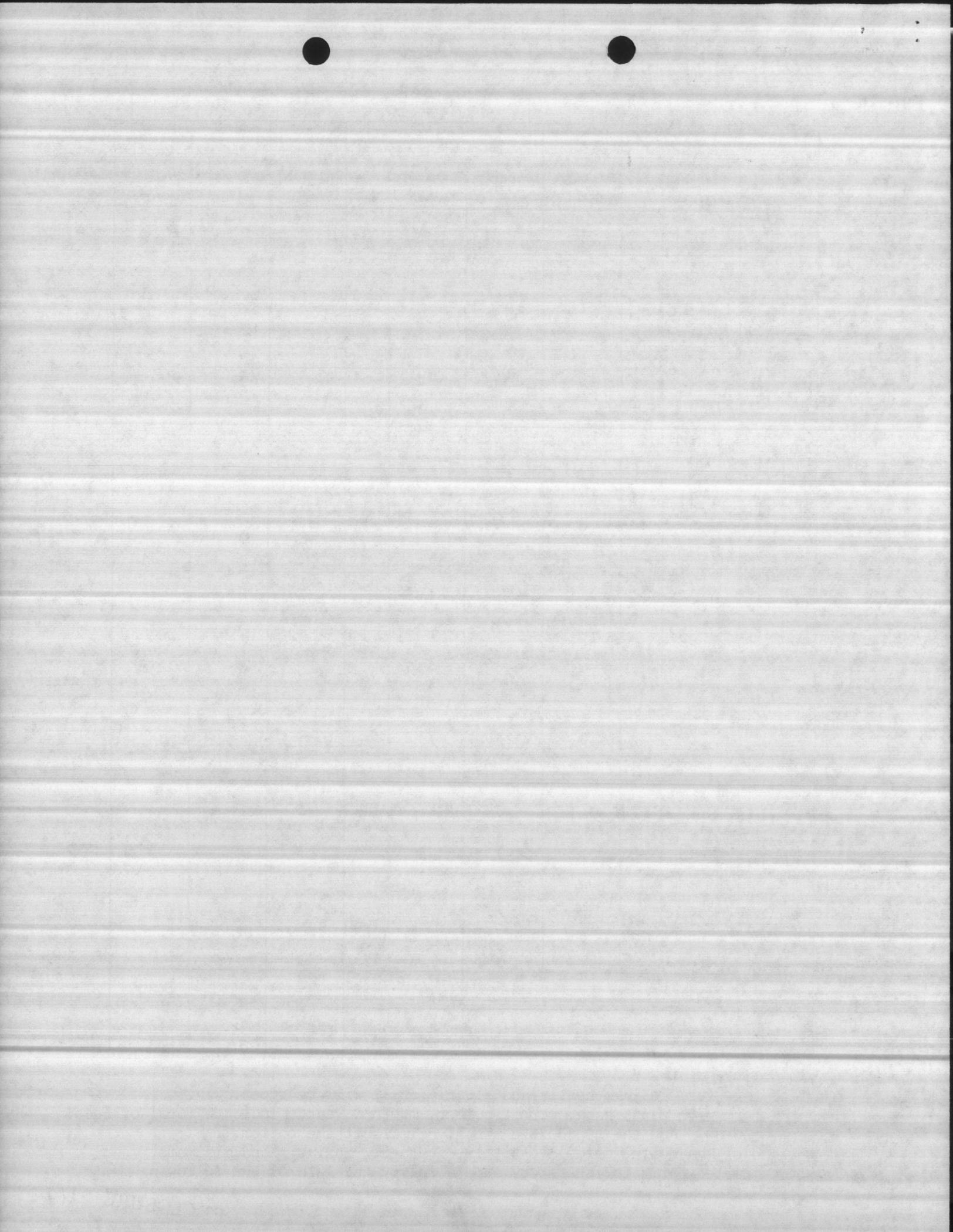
MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY
 MCBCL 11345/6 (REV. 9-86)

DATE	00310 5 DAY 20°C BOD			00610 AMMONIA	00530 TOTAL SUSPENDED RESIDUE			F COLIFORM	00656 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											
3	340	26	92	10.2	126	12	90	2			
4											
5											
6	200	15	93	6.6	134	14	90	0			
7											
8									5.7		
9											
10	152	21	86	0.12	182	16	91	0			
11											
12											
13	268	13	94	6.1	102	9	91	0			
14											
15											
16											
17	176	19	89	8.2	116	7	94	0			
18											
19											
20	180	10	94	3.3	82	4	95	0			4.6
21											
22											
23											
24	368	18	94	6.8	214	7	97	0			
25											
26											
27	150	14	91	4.6	246	6	97	0	0.3		
28											
29											
30											
31											
TOTAL	1714	136		45.9	1202	75		-	6.0		4.6
AVERAGE	214	17	92	5.7	150	9	94	1.09	3.0		4.6
MAXIMUM	340	26		10.2	246	16		2	5.7		4.6
MINIMUM	152	10		0.12	82	4		0	0.3		4.6
COMP (C) GRAB (G)	C	C		C	C	C		G	G	C	C
MONTHLY LIMIT		30				30		14	30		

INSTRUCTIONS:

1. Complete this form in ink, neatly and clearly or it will be typed.
2. Head the form with plant name, permit number, month & year. Indicate Total or Fecal in Coliform heading. Add the appropriate monthly limits at the bottom.
3. At the end of the month, calculate totals, averages, maximums and minimums.
4. Submit completed forms to laboratory supervisor by the 10th of the following month.

ENCLOSURE (1)



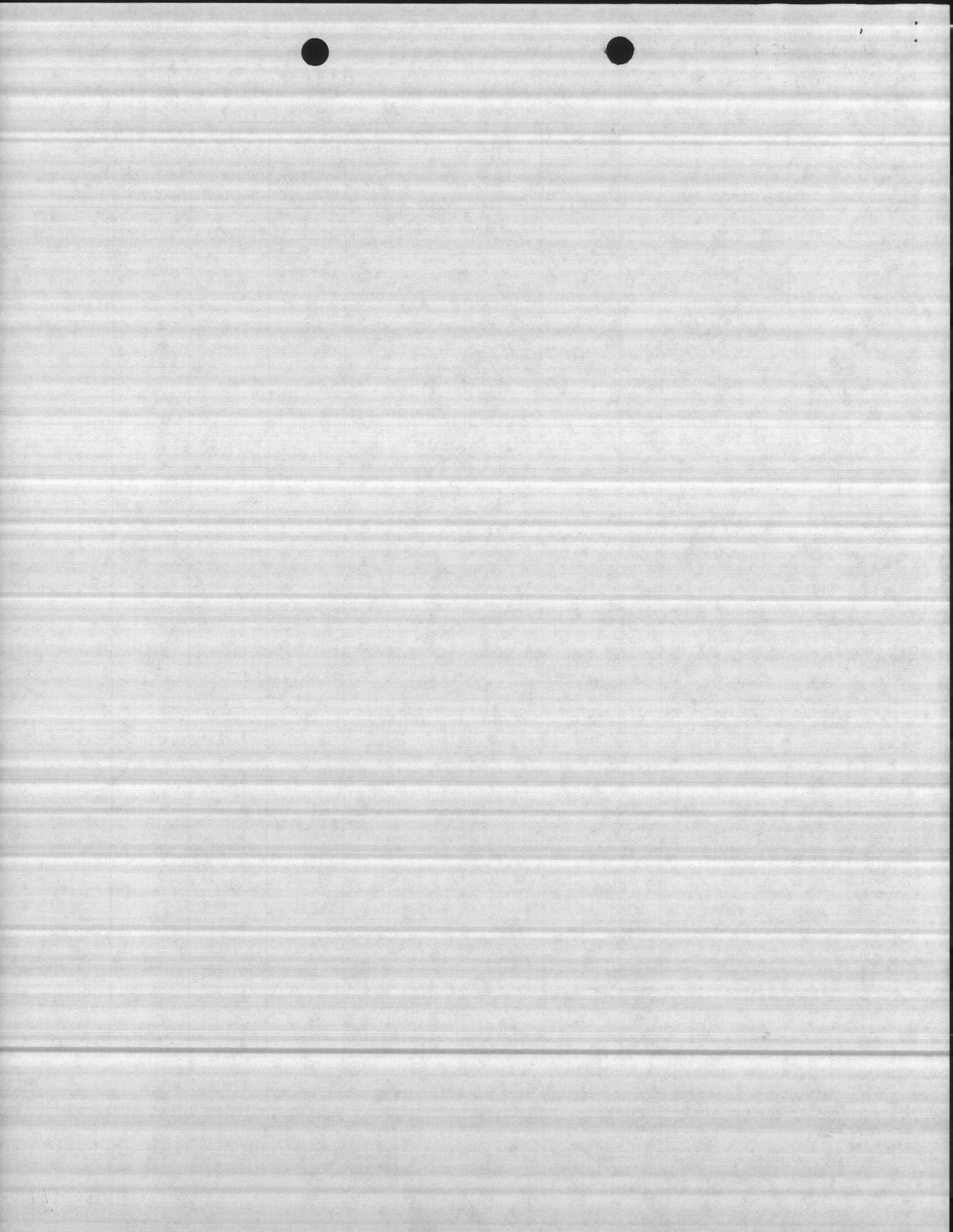
MONTHLY REPORT OF WASTEWATER TREATMENT PLANT WATER QUALITY
 MCBCL 11345/6 (REV. 9-86)

DATE	00310 5 DAY 20°C BOD			00610 AMMONIA	00530 TOTAL SUSPENDED RESIDUE			COLIFORM	00656 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	336	10	97	0.43	112	14	88	0			
3											
4											
5											
6											
7											
8											
9	76	1	99	0.73	112	11	90	0			
10											
11											
12											
13											
14											
15											
16	120	8	93	0.78	64	8	88	0			
17											
18											
19											
20											
21									0.2		
22											
23	108	7	94	0.74	188	7	91	0			
24											
25											
26											
27											
28											
29											
30	232	14	94	1.59	46	8	89	0	1.9		
31											
TOTAL	872	40		4.27	522	48		0	2.1		
AVERAGE	174	8	95	1.07	104	10	90	0	1.0		
MAXIMUM	336	14		1.59	188	14		0	1.9		
MINIMUM	76	1		0.85	46	7		0	0.2		
COMP (C) GRAB (G)	C	C		C	C	C		G	G	C	C
MONTHLY LIMIT		30				30		14	30		

INSTRUCTIONS:

1. Complete this form in ink, neatly and clearly or it will be typed.
2. Head the form with plant name, permit number, month & year. Indicate Total or Fecal in Coliform heading. Add the appropriate monthly limits at the bottom.
3. At the end of the month, calculate totals, averages, maximums and minimums.
4. Submit completed forms to laboratory supervisor by the 10th of the following month.

ENCLOSURE 111



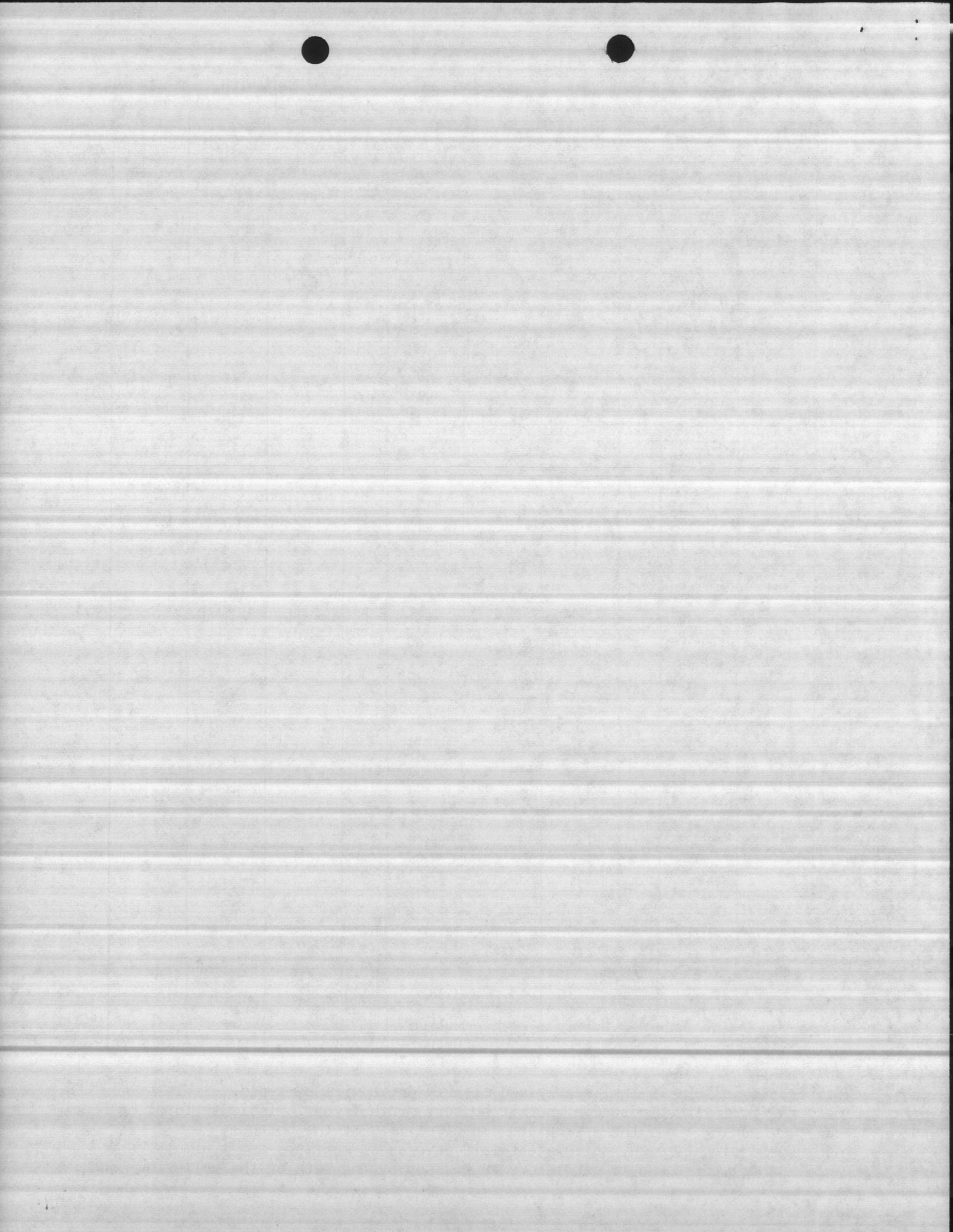
MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY
 MCBCL 11345/6 (REV. 9-86)

PLANT	NPDES PERMIT No.							MONTH	YEAR		
	RIFLE RANGE									APRIL	1987
DATE	00310 5 DAY 20°C BOD			00610 AMMONIA	00520 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	60	7	88	0.89	182	6	97	0			
2											
3											
4											
5											
6											
7											
8	80	8	90	0.38	116	4	97	0			
9											
10											
11											
12											
13											
14									3.9		
15	48	6	88	1.33	108	8	93	0			
16											
17											
18											
19											
20											
21											
22	36	3	92	0.40	214	2	99	0			
23											
24											
25											
26											
27											
28											
29	72	7	90	0.43	140	11	92	10			
30									2.1		
31											
TOTAL	296	31		3.43	760	31			6.0		
AVERAGE	59	6		0.69	152	6	96	1.78	3.0		
MAXIMUM	80	8		1.33	214	11		10	3.9		
MINIMUM	36	3		0.38	108	2		0	2.1		
COMP (C) GRAB (G)	C	C		C	C	C		G	G	C	C
MONTHLY LIMIT		30				30		14	30		

INSTRUCTIONS:

1. Complete this form in ink, neatly and clearly or it will be typed.
2. Head the form with plant name, permit number, month & year. Indicate Total or Fecal in Coliform heading. Add the appropriate monthly limits at the bottom.
3. At the end of the month, calculate totals, averages, maximums and minimums.
4. Submit completed forms to laboratory supervisor by the 10th of the following month.

ENCLOSURE



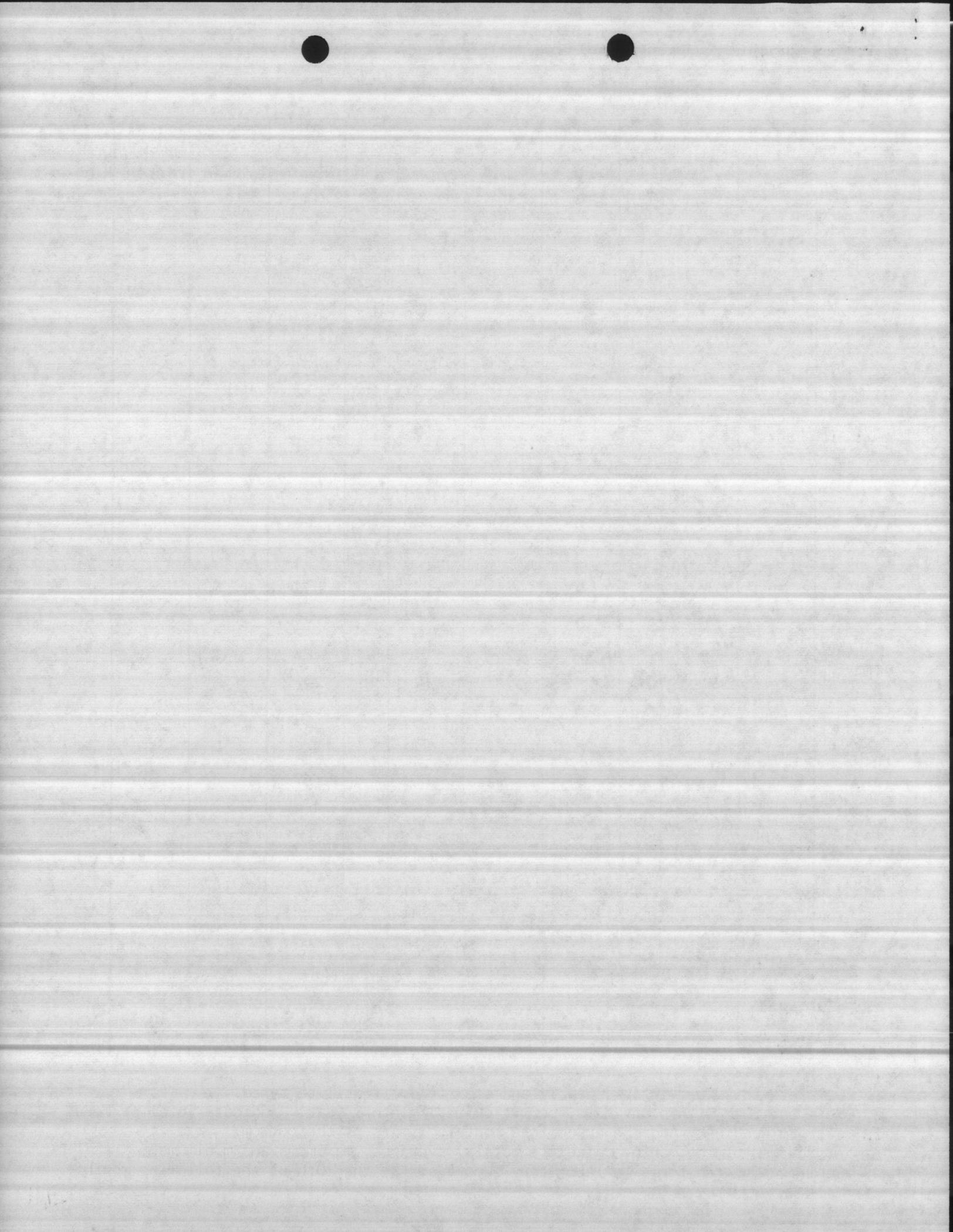
MONTHLY REPORT OF WASTEWATER TREATMENT PLANT WATER QUALITY
 MCBCL 11345/6 (REV. 9-86)

DATE	00310 5 DAY 20°C BOD			00610 AMMONIA	00530 TOTAL SUSPENDED RESIDUE			F COLIFORM	00666 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											
2											
3											
4											
5											
6											
7	72	7	90	1.7	74	8	89	0			1.7
8											
9											
10											
11											
12											
13											
14	88	11	88	1.8	60	8	87	0	5.6		
15											
16											
17											
18											
19											
20											
21	76	6	92	1.5	54	5	91	0	2.3		
22											
23											
24											
25											
26											
27											
28	80	7	91	1.4	64	5	92	0			
29											
30											
31											
TOTAL	316	31		6.4	252	26		0	7.9		1.7
AVERAGE	79	8	90	1.6	63	7	89	0	4.0		1.7
MAXIMUM	88	11		1.8	74	8		0	5.6		1.7
MINIMUM	72	6		1.4	54	5		0	2.3		1.7
COND (C)	C	C		C	C	C		G	G	C	C
GRAB (G)											
MONTHLY LIMIT		30				30		14	30		

INSTRUCTIONS:

1. Complete this form in ink, neatly and clearly or it will be typed.
2. Head the form with plant name, permit number, month & year. Indicate Total or Fecal in Coliform heading. Add the appropriate monthly limits at the bottom.
3. At the end of the month, calculate totals, averages, maximums and minimums.
4. Submit completed forms to laboratory supervisor by the 10th of the following month.

ENCLOSURE III



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

DATE	00310 5 DAY 20°C BOD			00610 AMMONIA	00520 TOTAL SUSPENDED RESIDUE			COLIFORM	00664 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	120	14	88	6.8	146	12	90	0			
2	140	12	91	6.0	126	8	94	2			
3	160	14	91	6.2	76	10	87	0			
4											
5											
6	128	16	88	7.4	122	17	86	0			
7	120	18	85	6.9	142	10	93	0			4.6
8	172	20	88	8.2	142	16	89	0			
9	100	10	90	6.9	82	11	87	0	14.0		
10	136	21	85	7.2	110	10	91	0			
11											
12											
13	108	16	85	8.2	102	12	88	0			
14	140	20	86	11.6	140	16	89	0			
15	172	15	91	8.1	162	14	91	0			
16	140	14	90	12.3	120	9	93	0			
17	164	16	90	5.7	78	16	79	0			
18											
19											
20	120	13	89	3.4	68	9	85	4			
21	160	14	91	5.0	160	14	91	0			
22	120	17	86	5.8	82	7	92	0			
23	128	15	88	4.5	104	11	89	0			
24	176	15	91	6.0	106	11	90	10			
25											
26											
27	124	19	85	4.3	106	10	91	0			
28	128	14	89	6.1	158	8	95	0			
29	128	11	91	6.5	100	10	90	0			
30	144	12	92	5.9	136	7	95	2	2.8		
31											
TOTAL	3028	336		149.5	2578	248		-	16.8		4.6
AVERAGE	138	15	89	6.8	117	11	91	1.13	8.4		4.6
MAXIMUM	176	20		12.3	162	16		4	14.0		4.6
MINIMUM	100	10		3.4	68	7		0	2.8		4.6
COND (C)	C	C		C	C	C		G	G	C	C
GRAB (G)											
MONTHLY LIMIT		22				30		14	30		

INSTRUCTIONS:

1. Complete this form in ink, neatly and clearly or it will be typed.
2. Head the form with plant name, permit number, month & year. Indicate Total or Fecal in Coliform heading. Add the appropriate monthly limits at the bottom.
3. At the end of the month, calculate totals, averages, maximums and minimums.
4. Submit completed forms to laboratory supervisor by the 10th of the following month.

ENCLOSURE 111



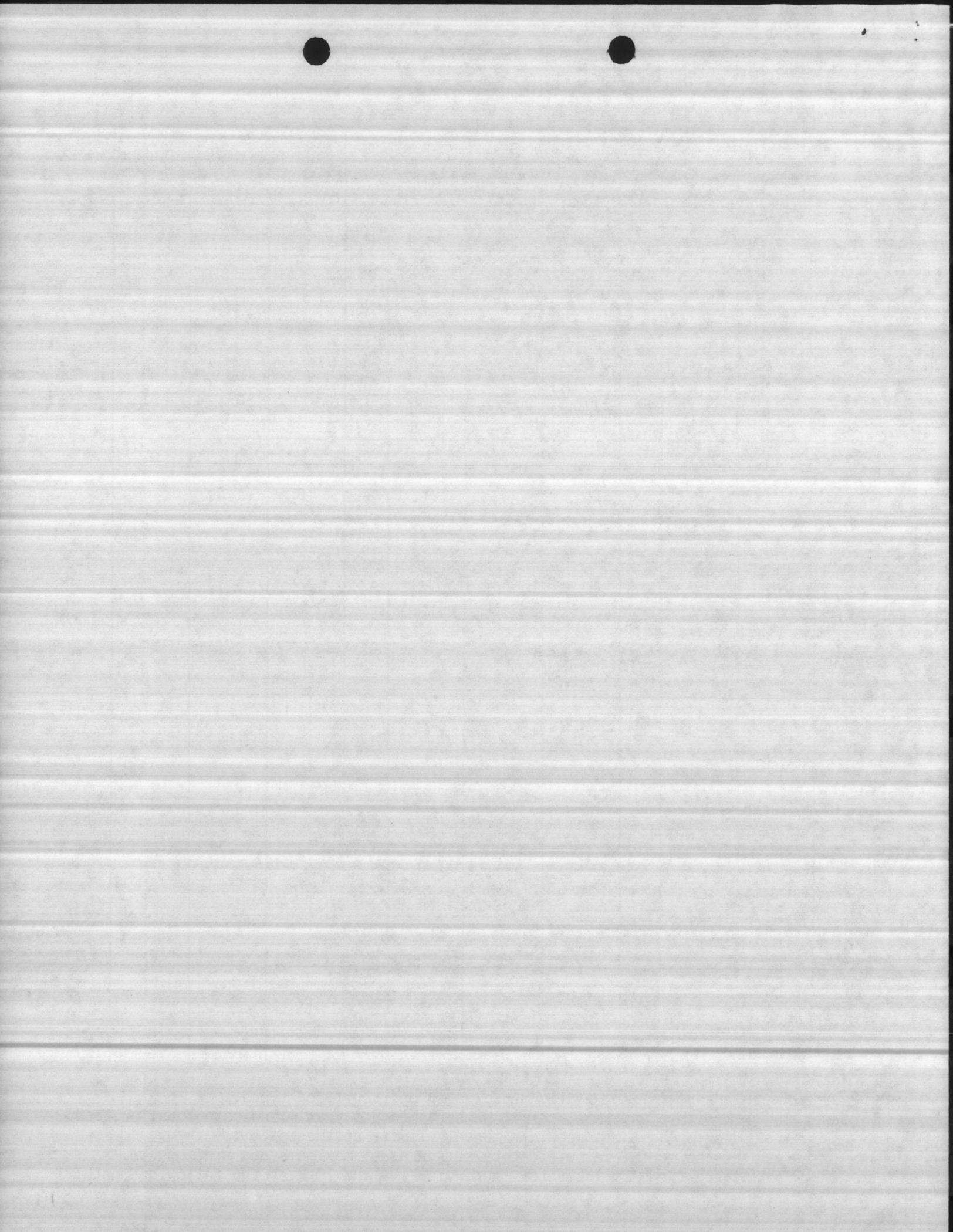
MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY
 MCBCL 11345/8 (REV. 9-86)

PLANT	NPDES PERMIT No.							MONTH	YEAR		
	TARA WA TERRACE										
DATE	00310 5 DAY 20°C BOD			00610 AMMONIA	00520 TOTAL SUSPENDED RESIDUE			COLIFORM	00664 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	204	13	94	3.8	164	11	93	0			
2	520	12	98	3.0	256	10	96	0			
3	380	13	97	4.9	312	13	96	0			
4											
5											
6	235	13	94	3.4	470	12	97	0			
7	420	13	97	4.7	235	10	96	0			6.2
8	224	14	94	9.6	158	8	95	2	5.7		
9	168	5	97	4.4	215	7	97	0			
10	200	15	93	3.8	418	8	98	0			
11											
12											
13	360	15	93	3.5	1932	13	99	0			
14	273	17	94	3.7	228	17	93	0			
15	236	14	94	13.0	956	11	99	0			
16	440	12	97	2.7	1164	9	99	2			
17	292	11	96	2.9	276	16	94	4			
18											
19											
20	240	12	95	2.5	94	5	99	0			
21	208	13	94	4.1	184	12	93	0			
22	164	11	93	9.2	88	6	93	0			
23	204	11	95	3.1	112	8	93	0			
24	260	11	96	3.6	192	5	97	2			
25											
26											
27	200	12	94	3.1	114	3	97	2	0.3		
28	224	12	95	4.8	122	4	97	0			
29	228	12	95	7.2	146	10	93	2			
30	200	10	95	2.6	120	6	95	0			
31											
TOTAL	5880	271		103.6	7956	204			6.0		6.2
AVERAGE	267	12	96	4.7	362	9	98	1.25	3.0		6.2
MAXIMUM	520	17		13.0	1932	17		4	5.7		6.2
MINIMUM	164	5		2.5	88	3		2	0.3		6.2
COMP (C) CRAP (G)	C	C		C	C	C		G	G	C	C
MONTHLY LIMIT		30				30		1000	30		

INSTRUCTIONS:

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4. Submit completed forms to laboratory supervisor by the 10th of the following month.

ENCLOSURE III

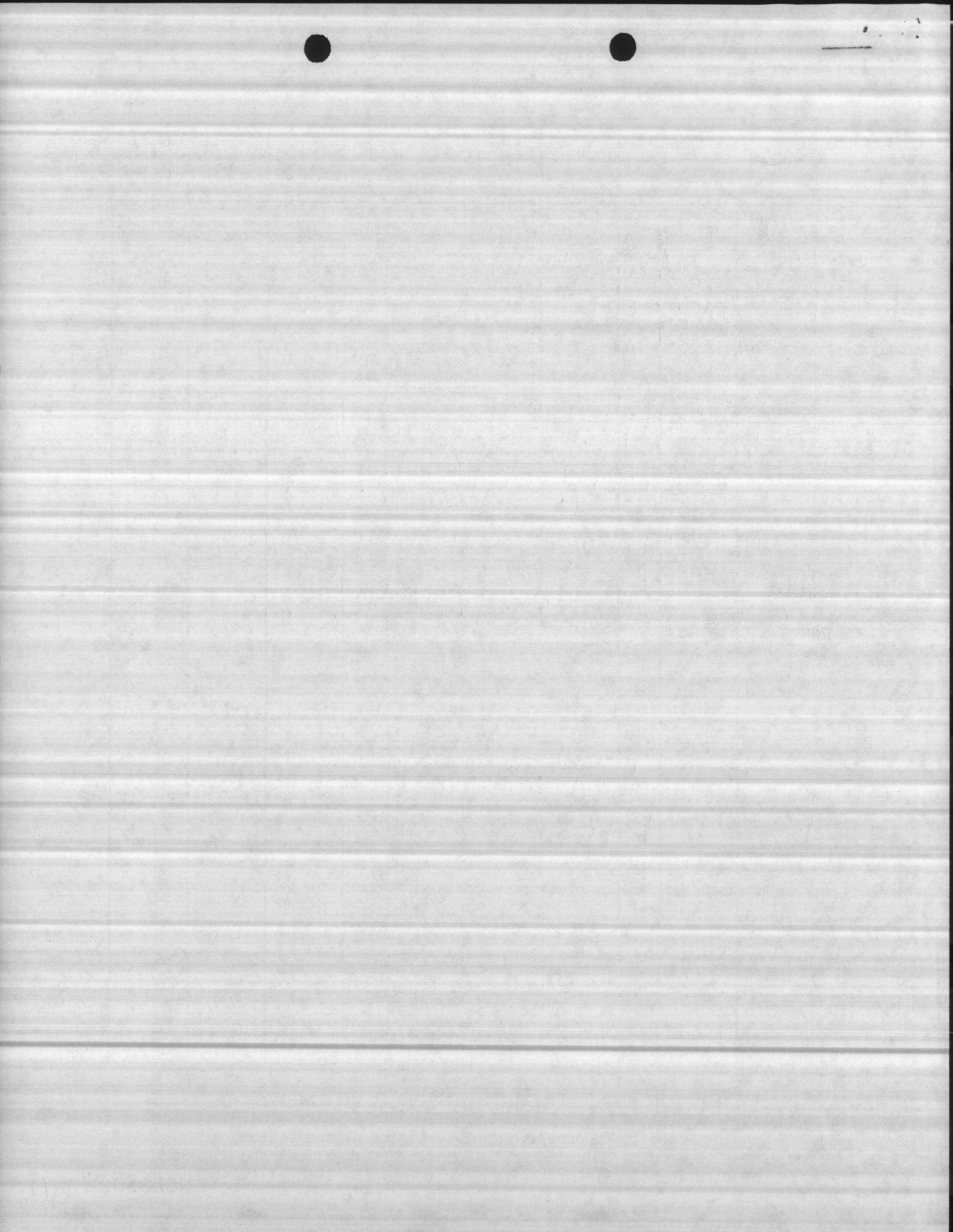


MONTHLY REPORT OF WASTE TREATMENT PLANT WATER QUALITY
 MCBCL 11345/6 (REV. 9-86)

PLANT	NPDES PERMIT No.							MONTH	YEAR		
CAMP GEIGER	NC0003239							APRIL	1987		
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 MF/100 ML	EFFLUENT mg/L	EFFLUENT mg/L	EFFLUENT mg/L
1	164	7	95	14.1	112	5	96	0			
2	172	8	95	12.4	110	4	96	0			
3	340	26	92	12.0	126	12	90	2			
4											
5											
6	275	14	95	12.7	68	12	82	4			
7	300	17	94	13.1	158	7	96	0			1.6
8	293	16	95	18.6	228	8	96	2	4.2		
9	200	3	98	14.1	124	7	94	0			
10	148	15	90	15.8	110	7	94	0			
11											
12											
13	215	11	95	15.2	142	15	89	0			
14	390	23	94	14.3	176	15	91	0			
15	296	20	93	16.3	166	16	90	8			
16	204	18	91	12.6	204	9	96	0			
17	280	14	95	9.3	170	7	96	2			
18											
19											
20	230	14	94	12.3	152	5	97	0			
21	308	18	94	11.5	140	12	91	0			
22	344	7	99	13.1	325	1	99	0			
23	300	14	95	15.8	210	10	95	2			
24	348	14	96	15.1	208	6	97	10			
25											
26											
27	340	7	98	15.0	248	7	97	0	1.9		
28	348	22	94	15.1	260	9	97	0			
29	220	24	89	14.0	234	14	94	0			
30	310	17	96	13.2	162	10	94	0			
31											
TOTAL	6025	329		305.6	3933	195			6.1		1.6
AVERAGE	274	15	95	13.9	179	9	94	1.33	3.0		1.6
MAXIMUM	390	24		18.6	260	15		8	4.2		1.6
MINIMUM	148	3		9.3	68	1		0	1.9		1.6
COMP (C)	C	C		C	C	C		G	G	C	C
CEAP (G)	C	C		C	C	C		G	G	C	C
MONTHLY LIMIT		30				30		200	30		

INSTRUCTIONS:

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- At the end of the month, calculate totals, averages, maximums and minimums.
- Submit completed forms to laboratory supervisor by the 10th of the following month.



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 Sundgren 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. WOOPEN
Director, Natural Resources Division
By direction of the Commanding General

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

Copy to:
LANPNAVPACENGCOM (Code 114)

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

Writer/Typist Betz / Guaneska
Date Typed 8 May 87
Word Processor Number 11331

1950

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
57 SOUTH EAST ASSEMBLY AVENUE
CHICAGO, ILLINOIS 60607

Dear Mr. [Name]

I have received your letter of [Date] regarding [Subject].
The information you provided is being reviewed by the
relevant departments. We will contact you again once a
decision has been reached.

I am sorry that I cannot provide a more definitive
answer at this time. Your patience is appreciated.
If you have any further questions, please do not
hesitate to contact me.

Very truly yours,
[Signature]

Enclosed for you are [Number] copies of [Document].

Very truly yours,
[Signature]

1950
[Address]

1950
[Signature]
[Date]
[Address]

Year 1987

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

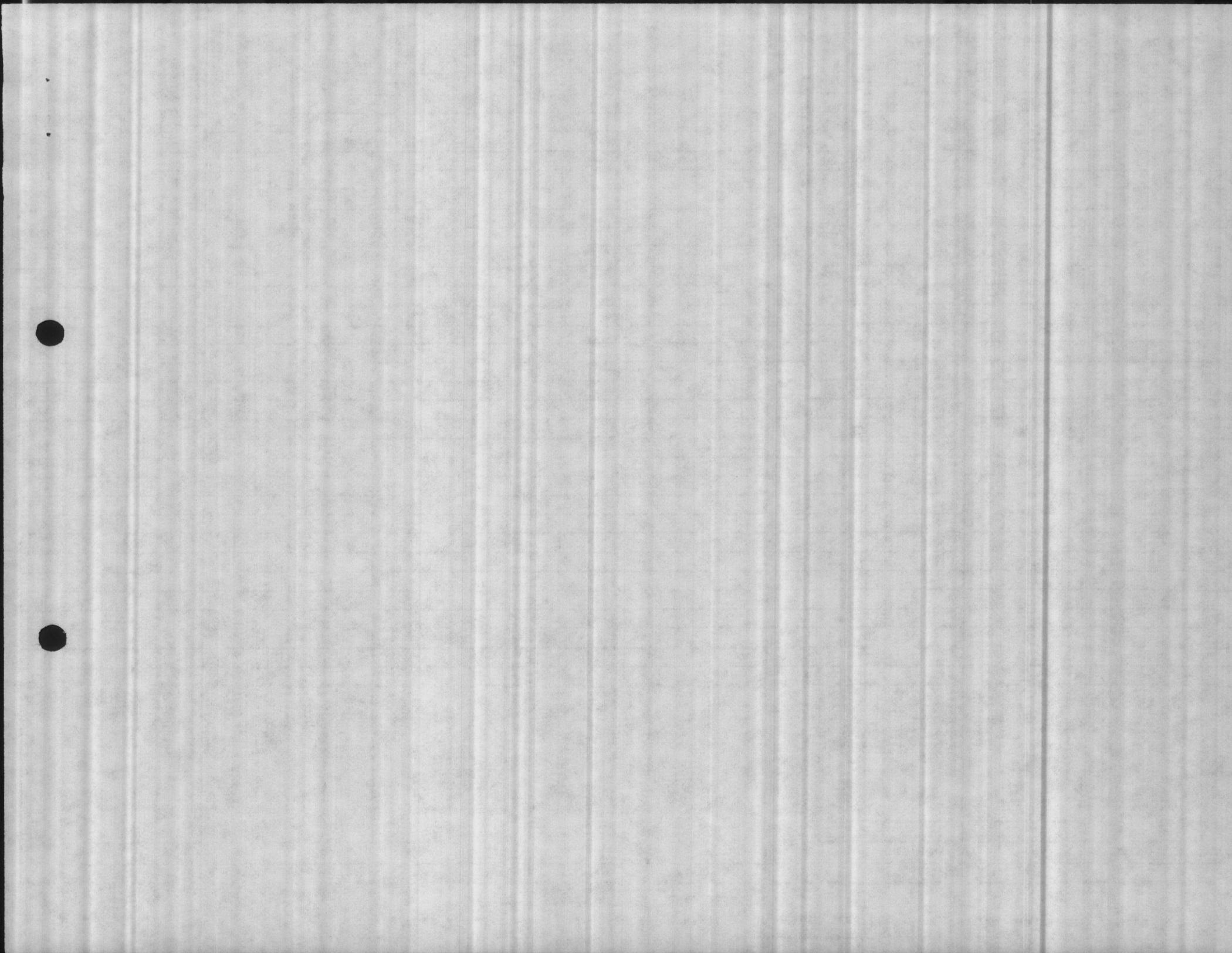
Serial # 04-67-041

A. 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																							
8										0	9	0	0	0	0	0	0	0	0	0	35.5		
9																							
10																							
11																							
12																							
13																							
14										0	9	0	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	0	35.2		
22																							
23																							
24																							
25																							
26																							
27																							
28										0	9	0	0	0	0	0	0	0	0	0	35.0		
29																							
30																							
31																							
MFP MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN																	
TPC MEDIA						GEO. MEAN																	
										0	DIST. SYSTEM		TOTAL NO. SAMPLES								36		
										10			SAMPLES EXCEEDING 3/50. (4/100, 7/200, 13/500=1)								0		

LAB ID # 37807

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



Year 1987

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

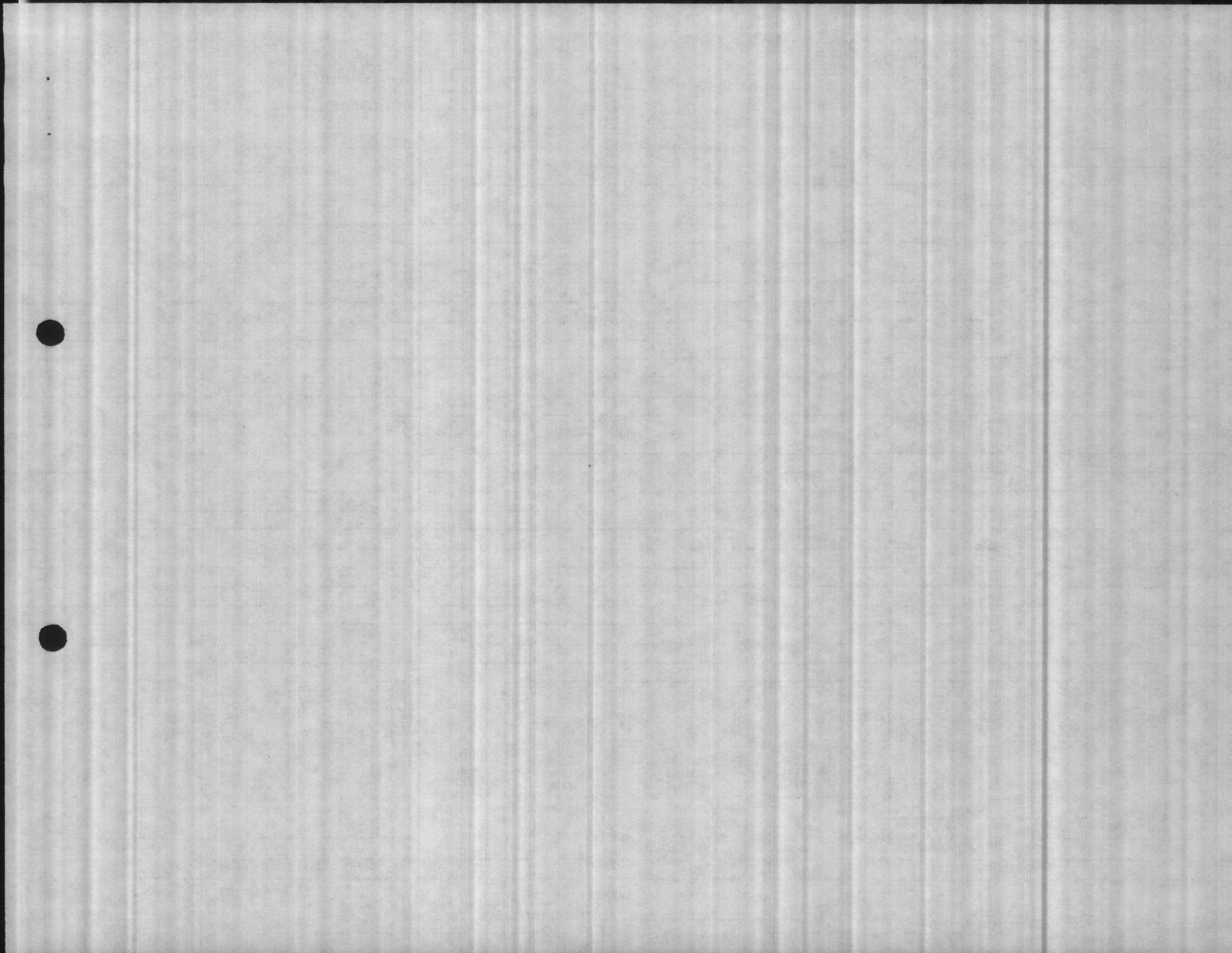
Contaminant Code: 3000

Serial # 04-67-042

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																							
1																													
2																													
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5																													
6																													
7										0	7	0	0	0	0	0	0	0		35									
8																													
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12																													
13																													
14										0	7	0	0	0	0		0	0	0	35									
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18																													
19																													
20																													
21										0	7	0	0	0	0				0	35									
22																													
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24																													
25																													
26																													
27																													
28										0	7	0	0	0	0					35									
29																													
30																													
31																													
- MFP MEDIA												BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN						0		DIST. SYSTEM		TOTAL NO. SAMPLES		28	
- TPC MEDIA																						1.0		SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml		0			

LAB ID # 37807

Elyabeth Betty CERT GRADE B-WELL # 4087-W



Year 1987

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

Serial # 04-67-043

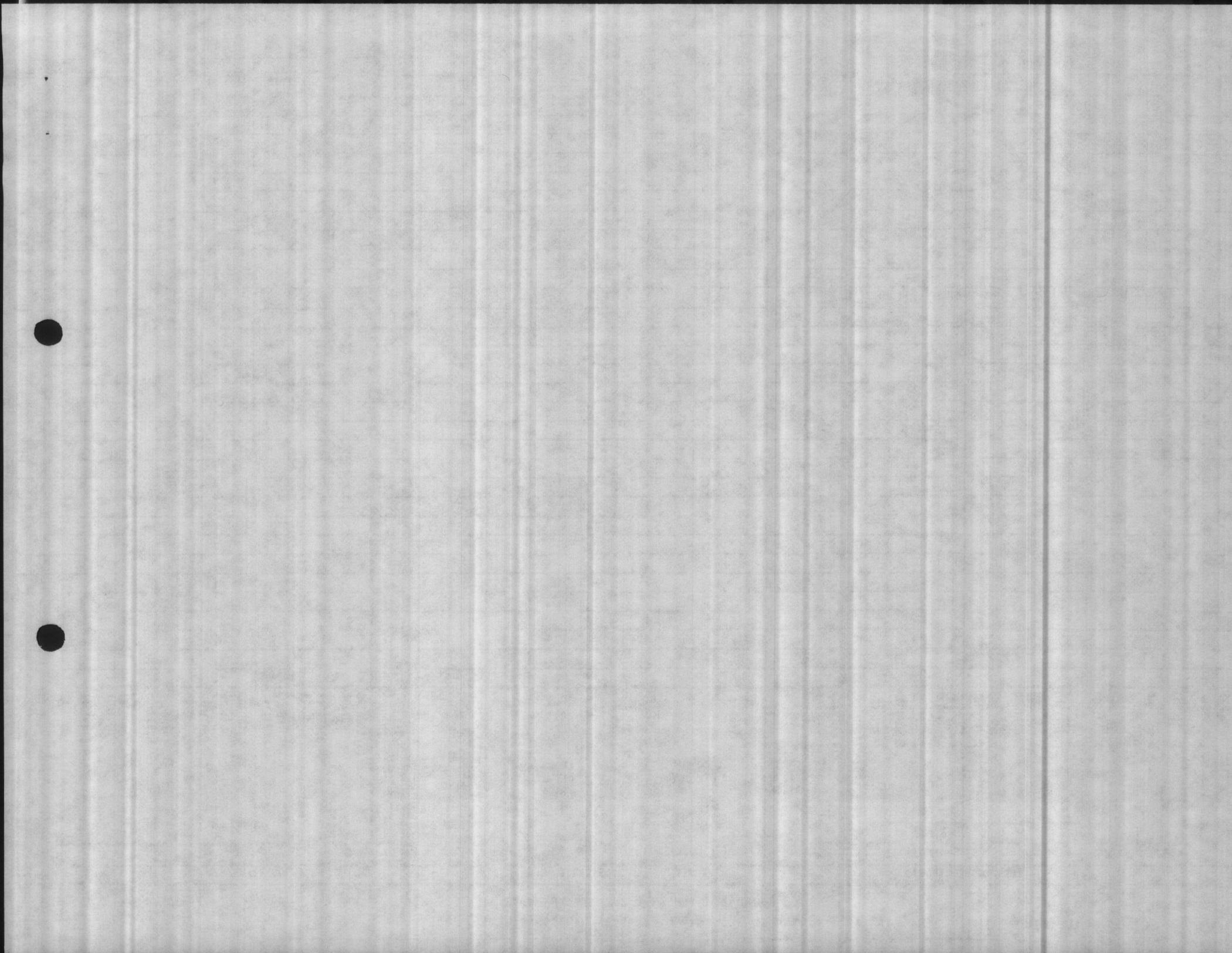
A. C. DEPARTMENT OF HUMAN RESOURCES

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

LAB ID # 37307

Elizabeth A. Boy

CERT GRADE B-WELL # 4087-W



Year 1987

REPORT OF BACTERIOLOGICAL RESULTS TO DIVISION OF HEALTH SERVICES

Contaminant Code: 3000

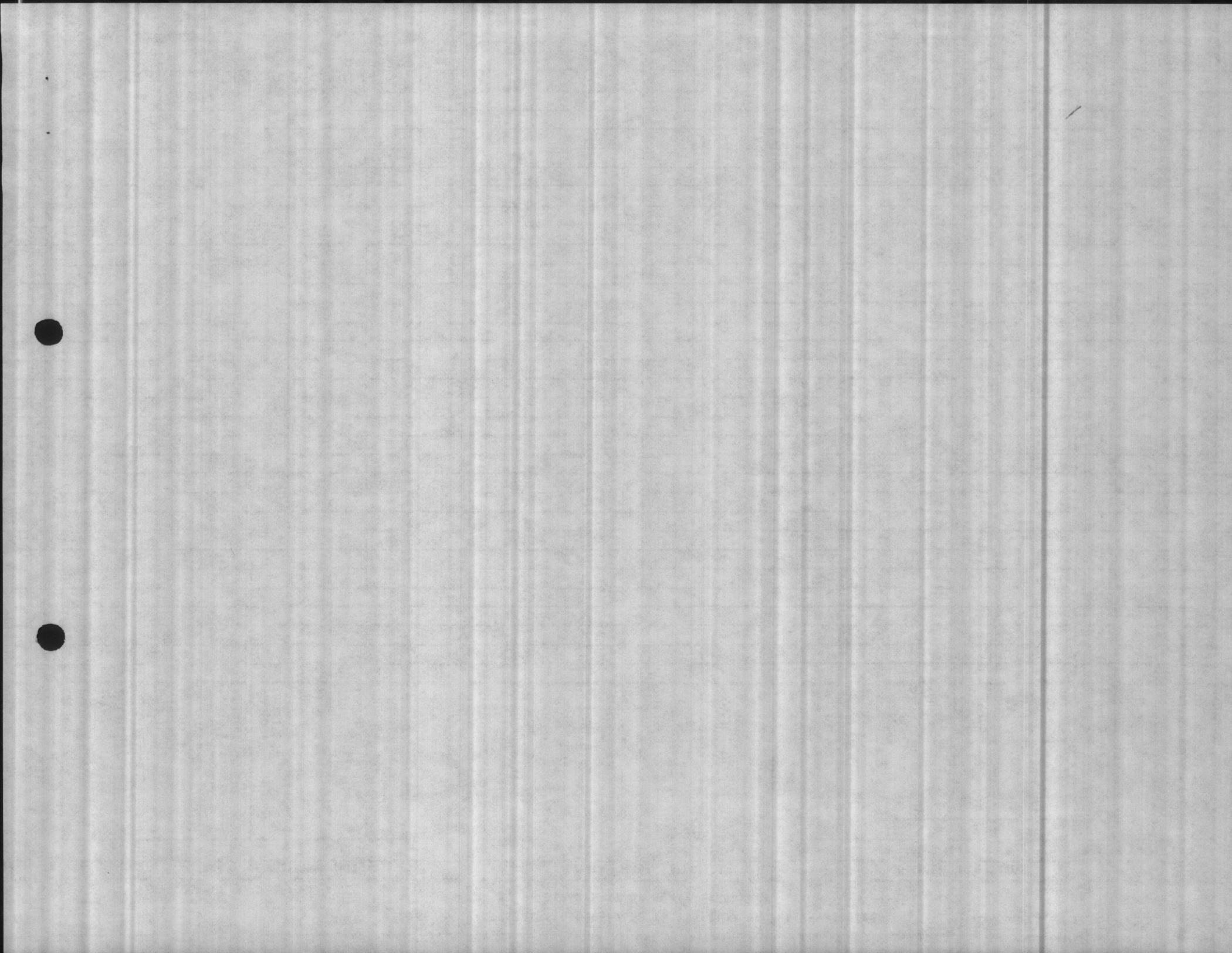
Serial # 04-67-044

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					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										0.25	4	0	0	0	1				35.5		
8																					
9																					
10																					
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12																					
13																					
14										0	4	0	0	0	0	0			35.3		
15																					
16																					
17																					
18																					
19																					
20																					
21										0	4	0	0			0	0		35.2		
22																					
23																					
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25																					
26																					
27																					
28										0	4	0	0				0	0	35.0		
29																					
30																					
31																					
MFP MEDIA		BBL mEndo		BACTERIAL DENSITY		ARITH. MEAN				0.06		DIST. SYSTEM		TOTAL NO. SAMPLES					76		
TPC MEDIA						GEO. MEAN				1.0				SAMPLES EXCEEDING 3/50. (4/100) 7/200. 13/500ml					0		

LAB ID # 37307

Elizabeth Betty CERT GRADE B-WELL # 4087-W



Year 1987

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

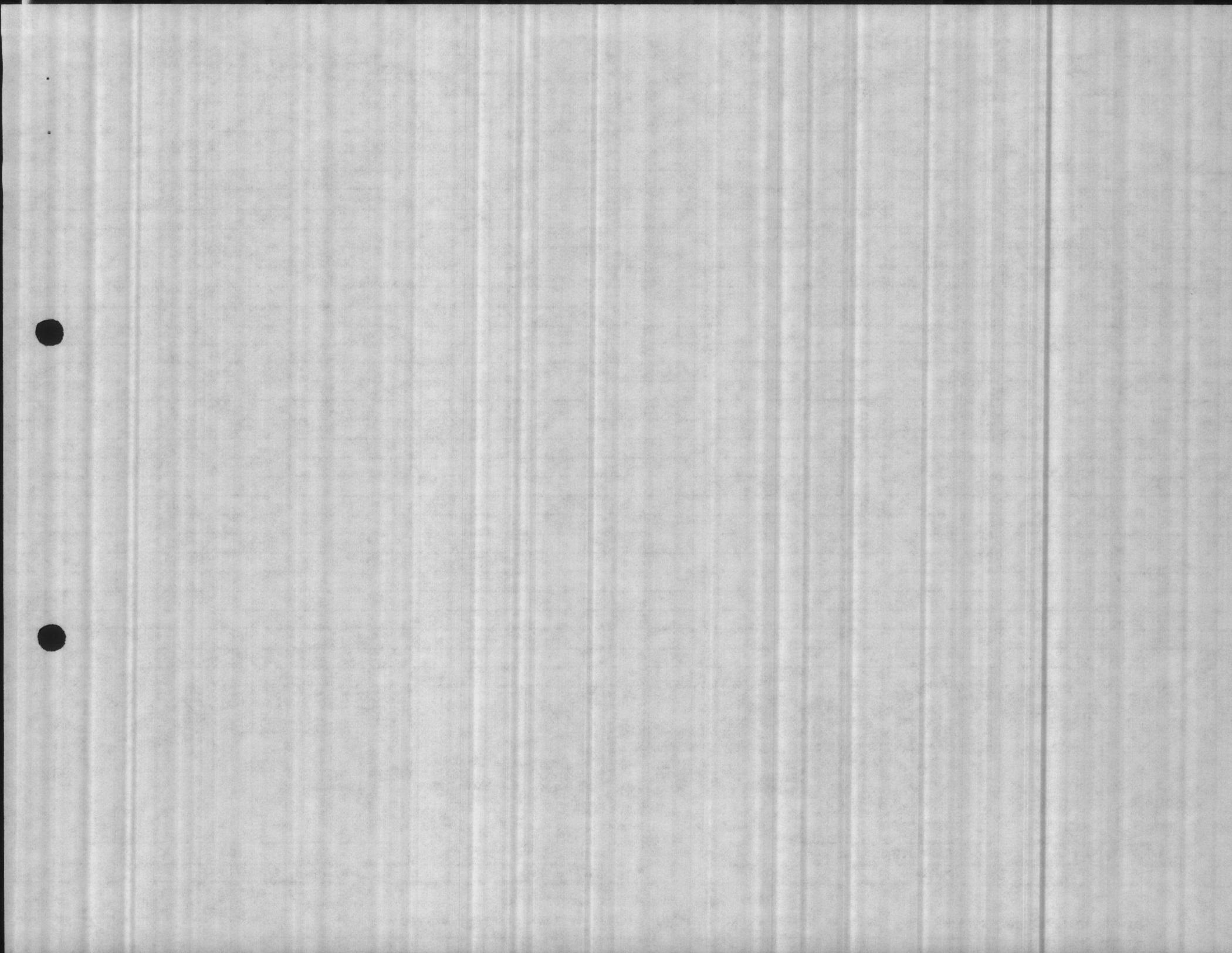
Contaminant Code: 3000

Serial # 04-67-045

DATE	RAW WATER COLIFORMS (MFP)						NO. OF COLIFORMS PER 100 ml.	TOTAL PLATE COUNT	FILTERED MFP COLIFORMS per 100 ml.	FINISHED 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																					
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6																					
7												0	2	0	0					35.5	
8																					
9																					
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14												0	2	0		0				35.3	
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20																					
21												0	2	0		0				35.2	
22																					
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26																					
27																					
28																					
29												0	2	0		0				35.0	
30																					
31																					
MFP MEDIA		RBI 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

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



Year 1987

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

METHOD CODE: 300
 Contaminant Code: 3000

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

LAB ID # 37307

Elizabeth Betty

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 -048	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

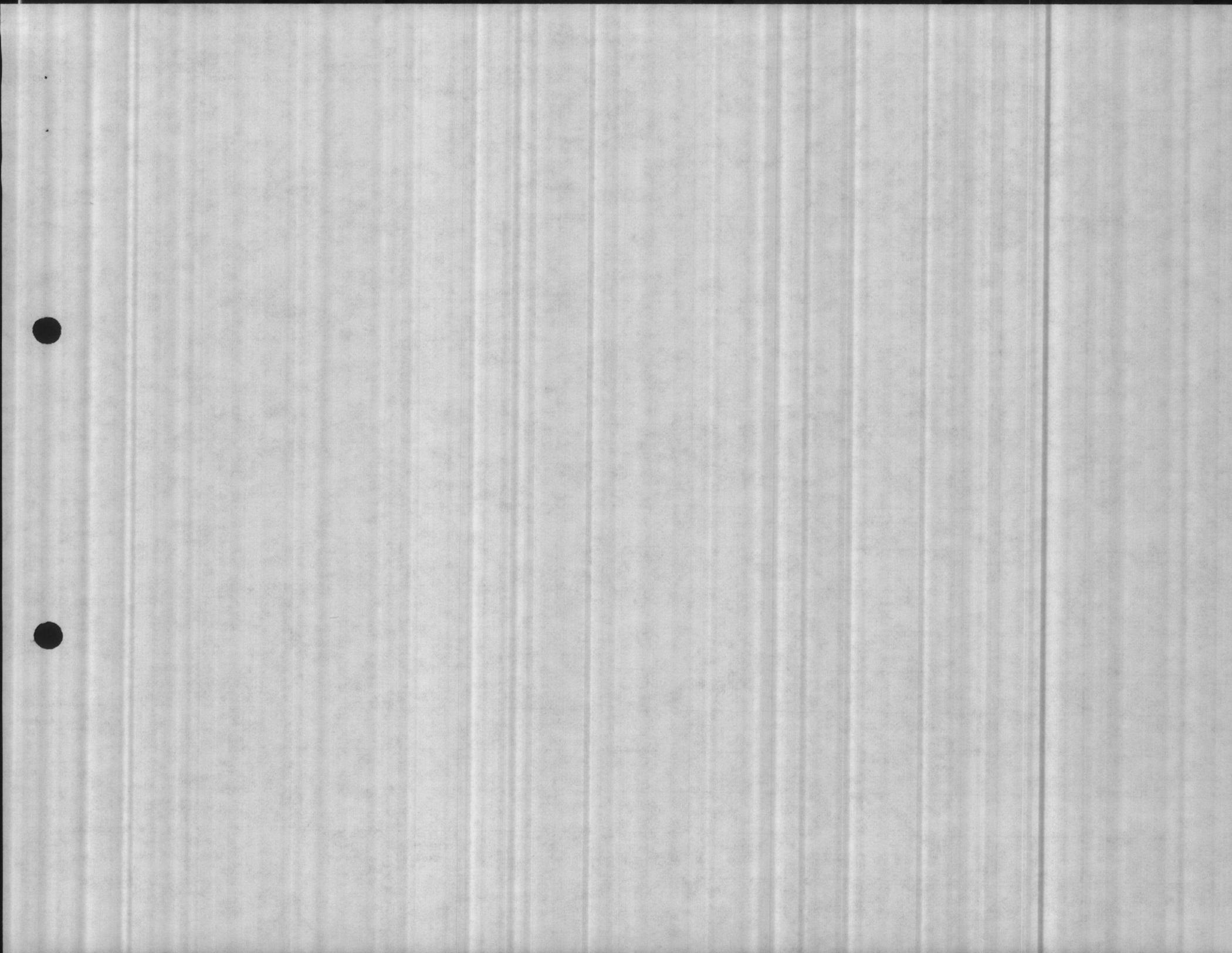
PMU MCAS PMU

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	ON SLOW 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					1.03			
	Pm	1.13			0.18	0.14	0.12	0.74	0.48	
CHLORINE RESIDUAL		1.1		1.4	1.4	1.1	1.2	1.0		
TURBIDITY	Am	0.2					0.2			
	Pm	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

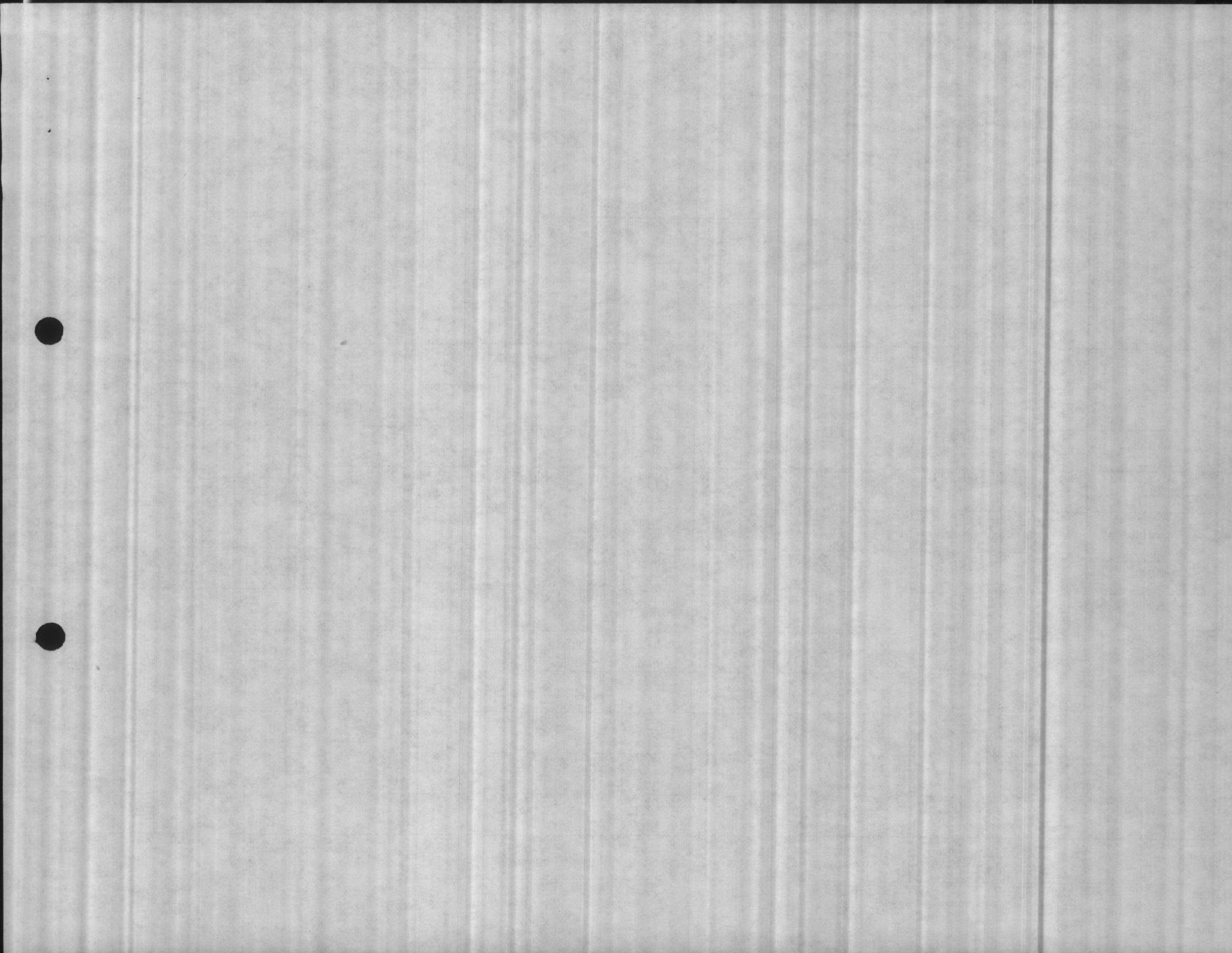
COPY TO:

- 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			A.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

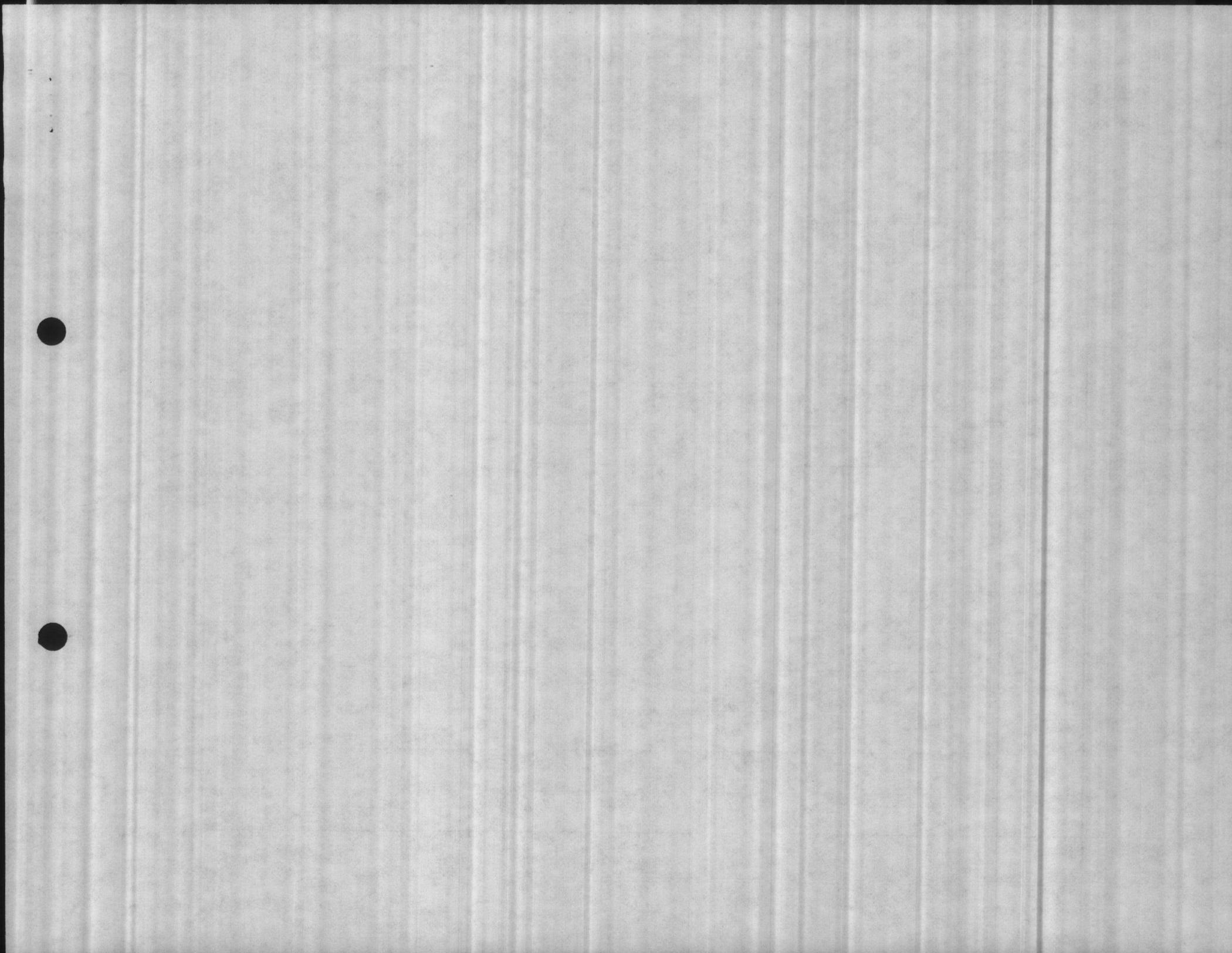
COPY TO

- 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



NO. 100-100-100-100

WATER TREATMENT PLANTS

DATE COLLECTED
4-28-87

DATE OF ANALYSIS
4-28-87

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)	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				A.P. DOWN						
FLUORIDE	Am 0.95 Pm 0.81			0.14	0.1	0.1	0.90 0.89	0.46		
CHLORINE RESIDUAL	1.0			1.5	1.0	1.0	1.4	0.8		
TURBIDITY	Am 0.3 Pm 0.4			0.1	0.2	0.3	0.2 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. J. BURNS

