

FILE 11330  
8 JAN 1987

FROM: SUPERVISORY CHEMIST, ENVIRONMENTAL CHEMISTRY + MICROBIOLOGY  
LABORATORY, ENVIRONMENTAL BRANCH, NREAD

TO: DIRECTOR, NREAD

VIA: SUPERVISORY ECOLOGIST, ENVIRONMENTAL BRANCH, NREAD

SUBJ: COLIFORM ANALYSIS

1. SINCE <sup>1985</sup> 1984, THE LABORATORY'S QUANTITY OF COLIFORM SAMPLES HAS BEEN STEADILY INCREASING. SEVERAL THINGS HAVE CAUSED THIS. ~~THE~~ IN MAY OF 1985, THE PREVENTIVE MEDICINE UNIT <sup>(PMU)</sup> ~~IS~~ STARTED CHECKING ~~IN~~ ICE MACHINES TAKING COLIFORM SAMPLES OF ICE MACHINES IN FOOD ~~SERVICE~~ <sup>AREAS</sup> SERVICE. UP UNTIL MAY 1985, PMU HAD ONLY TAKEN ICE SAMPLES AT THE NAVAL HOSPITAL ~~AT~~ <sup>7</sup> AND THE ICE PLANT AT REGULAR FREQUENCIES. IN JANUARY 1986, AFTER RECEIVING THE PROPOSED NPDES PERMITS, THE LABORATORY INCREASED ~~GOING~~ COLIFORM ANALYSIS IN SOME OF THE WASTEWATER PLANTS TO REFLECT THE NEW SAMPLING REQUIREMENTS PROPOSED. FROM MAY 1985 UNTIL APPROXIMATELY APRIL 1986, PMU'S QUANTITIES OF ~~ICE SAMPLES~~ AND FREQUENCY OF <sup>(4250/MONTH)</sup> ICE SAMPLES WERE FEW AND INFREQUENT. SINCE APRIL 1986 UNTIL PRESENT PMU IS AVERAGING BETWEEN 300-400 SAMPLES <sup>ARE REQUIRE</sup> A MONTH. PMU HAS STATED THAT THEY ~~WOULD LIKE TO BRING IN~~ ~~200~~ ~~SA~~ PULL A COLIFORM SAMPLE IN EVERY ICE MACHINE A WEEK ABOARD ABOUT THE BASE. IT IS ESTIMATED THAT THERE ARE AT LEAST 200 ICE MACHINES ~~AT~~ ABOARD THE CAMP LEBLANC COMPLEX.

2. <sup>THE ENCLOSURE</sup> ENCLOSURE (1) SHOWS THE APPROXIMATE NUMBER OF COLIFORM RUN DURING THE VARIOUS TIME PERIODS DISCUSSED ABOVE. THESE FIGURE ~~FIG~~

File 1180  
5 Jan 1987

From: SUPERVISOR CHEMIST ENVIRONMENTAL CHEMISTRY & MICROBIOLOGY  
LABORATORY, ENVIRONMENTAL BRANCH, WREED  
To: Director, WREED  
Re: SUPERVISOR SCIENTIST, ENVIRONMENTAL BRANCH, WREED  
Sub: Coliform Analysis

1. SINCE 1984, THE LABORATORY'S QUANTITY OF COLIFORM SAMPLES HAS BEEN  
STADILY INCREASING. SEVERAL THINGS HAVE CAUSED THIS. THE IN  
MAY OF 1982, THE HEALTH MEDICINE UNIT IN STATED CHECKING IN  
ICE MACHINES TAKING COLIFORM SAMPLES OF ICE MACHINES IN FOOD  
SERVICE. UP UNTIL MAY 1982, PNU HAD ONLY TAKEN ICE SAMPLES  
AT THE NAVAL HOSPITAL AT 7 AND THE ICE PLANT AT REGULAR  
FREQUENCIES. IN JANUARY 1984, AFTER RECEIVING THE REPORTED  
WREED PERMITS, THE LABORATORY INCREASED SOME COLIFORM ANALYSIS  
IN SOME OF THE WASTEWATER PLANTS TO REFLECT THE NEW  
SAMPLING REQUIREMENTS PROPOSED. FROM MAY 1982 UNTIL APPROXIMATELY  
APRIL 1984, PNU'S QUANTITIES OF ICE SAMPLES AND FREQUENCY OF  
ICE SAMPLES WERE FEW AND INFREQUENT. SINCE APRIL 1984  
UNTIL PRESENT PNU'S AVERAGE BETWEEN 200-400 SAMPLES  
A MONTH. PNU HAS STATED THAT THEY WOULD LIKE TO INCREASE IN  
200-400 A MONTH SAMPLES IN EVERY ICE MACHINE A WEEK.  
ABOUT THE GOOD. IT IS ESTIMATED THAT THERE ARE AT LEAST  
200 ICE MACHINES AT BOARD THE CAMP LEVINE COMPLEX.  
2. ENCLOSURE (A) SHOWS THE APPROXIMATE NUMBER OF COLIFORM RUN  
THE ENCLOSURE  
DURING THE MAJOR TIME PERIODS DISCUSSED ABOVE. THESE FIGURES ARE

NUMBERS INCLUDE THE QUALITY CONTROL SAMPLES THAT MUST ~~BE~~ RUN WITH EACH BATCH OF SAMPLES. EACH SAMPLE TAKES ONE PETRI DISH, PAD AND FILTER AND 2 MLS OF <sup>M-ENDO</sup> ENDO BROTH.

3. WE HAD BEEN ORDERING PETRI DISHES, PADS + FILTERS IN QUANTITIES OF 3,000. A ~~REQUEST~~ REQUISITION FOR 3,000 PETRI DISHES <sup>COST</sup> ~~COSTS~~ <sup>~\$500.00</sup>. ~~AT~~ THE PADS + FILTERS <sup>HAVE</sup> ~~ARE~~ <sup>BEEN</sup> USUALLY ORDERED IN A SET AT A COST OF <sup>~\$850.00</sup> FOR 3,000. PRIOR TO MAY 1985 AN ORDER OF 3,000 WOULD LAST APPROXIMATELY 4 MONTHS, AND REQUISITIONS TOOK ABOUT 2 MONTHS TO BE COMPLETED.

4. SINCE QUANTITIES HAVE INCREASED, I HAVE GONE TO ORDERING 4,000 AND 5,000 LOTS. LUCKILY THE PRICE CAME DOWN SOME ON THE PADS + FILTERS, 4,000 ~~ONLY~~ RUN <sup>\$920</sup>. THIS <sup>IS</sup> LUCKY BECAUSE PURCHASING AND CONTRACTING REGULATIONS REQUIRE BIDS FOR ORDERS OVER \$1,000. ~~AND THIS IS NOT~~ ~~PROBLY~~ THERE ARE TWO BRANDS THAT ARE ALLOWED FOR CERTIFIED COLIFORM ANALYSIS, MILLIPORE AND GELMAN. WE HAVE FOUND MILLIPORE ~~BETTER~~ EASIER TO USE AND <sup>THE</sup> PRICE IS NOT THAT MUCH DIFFERENT. EVEN THOUGH TWO BRANDS ARE ACCEPTABLE AS PART OF OUR CERTIFICATION WE HAVE TO NAME WHICH BRAND WE ARE USING. MILLIPORE ~~ONLY~~ CORPORATION IS THE ONLY SUPPLIER OF MILLIPORE PRODUCTS. UNLIKE MOST OF OUR OTHER LABORATORY SUPPLIES CAN BE PURCHASED THROUGH EITHER THE MANUFACTURER OR A VARIETY OF CHEMICAL CLEARING HOUSES. THEREFORE THERE IS ONLY ONE SOURCE FOR OUR REQUIRED PETRI DISHES, PADS + FILTERS.

5. QUANTITIES OF 4,000, AT OUR PRESENT RATE OF USE IS ONLY LASTING THREE MONTHS. IT IS TAKING ABOUT 3 MONTHS TO FILL PRIORITY 14

NUMBERS INCLUDE THE QUALITY CONTROL SAMPLES THAT MUST BE RUN WITH EACH BATCH OF SAMPLES. EACH SAMPLE TAKEN ONE PETRI DISH, PAD AND FILTER AND 2 ML OF TIND BROTH.

3. WE HAD BEEN ORDERING PETRI DISHES, PADS & FILTERS IN QUANTITIES OF 3000. A REQUISITION REQUESTION FOR 3000 PETRI DISHES <sup>COST</sup> \$200.00. AT THE PADS & FILTERS <sup>HAVE BEEN</sup> USUALLY ORDERED IN A SET AT A COST OF \$200.00 FOR 3000. PRIOR TO MAY 1982 AN ORDER OF 3000 WOULD LAST APPROXIMATELY 4 MONTHS, AND REQUISITIONS WOULD ABOUT 3 MONTHS TO BE COMPLETED.

4. SINCE QUANTITIES HAVE INCREASED, I HAVE GONE TO ORDERING 4000 AND 5000 LOTS. LUCKILY THE PRICE CAME DOWN SOME ON THE PADS & FILTERS, 4000 ONLY FROM \$250. THE PRICE BECAME PURCHASING AND CONTACTING REGULATIONS REQUIRE BIDS FOR ORDERS OVER \$1000. AND THIS IS NOT ~~PERMITTED~~ THERE ARE TWO BRANDS THAT ARE ALLOWED FOR CERTIFIED SUPPLY. ANALYSIS, MILLROSE AND GERMAN. WE HAVE FOUND MILLROSE EASIER TO USE AND PRICE IS NOT THAT MUCH DIFFERENT. EVEN THOUGH TWO BRANDS ARE ACCEPTABLE AS PART OF OUR CERTIFICATION WE HAVE TO NAME WHICH BRAND WE ARE USING. MILLROSE AND GERMAN IS THE ONLY SUPPLIER OF MILLROSE PRODUCTS. SINCE MOST OF OUR OTHER LABORATORY SUPPLIES CAN BE PURCHASED THROUGH OTHER THE MANUFACTURER OF A MIGHTY OF CHEMICAL CLEANING HOUSES. THEREFORE THERE IS ONLY ONE SOURCE FOR OUR REQUIRED PETRI DISHES, PADS & FILTERS.

5. QUANTITIES OF 4000, AT OUR PRESENT RATE OF USE IS OUR LASTING THREE MONTHS. IT IS TAKING ABOUT 3 MONTHS TO FILL PRIORITY IF

REQUISITIONS. AND THE LABORATORY'S PRESENT STORAGE CAPACITY IS CAN ONLY HOLD APPROXIMATELY 5000. RIGHT NOW, WHEN I RECEIVE AN ORDER I SUBMIT ANOTHER ORDER ~~AND LFL IS TIGHT~~. AND AT OUR PRESENT RATE (ICE @ 100/WEEK) WE ARE STILL ~~CLOSE TO RUNNING~~ UNCOMFORTABLY CLOSE TO RUNNING OUT WHEN THE ORDER COMES IN.

6. ~~SUPPLY TO A:~~ OUR SUPPLY OFFICER HAS RECOMMENDED STOCKING THESE ITEMS AT SELF-SERVICE. MR. SHARPE HAS RECOMMENDED HAVING SANDRA ORDER A SET QUANTITY EVERY MONTH. ~~THE MONTHLY ORDERING, IS~~ I WOULD THINK PURCHASING + CONTRACTING ~~IS~~ WOULD HAVE A MEANS TO DO ~~THE~~ MONTHLY ORDERING ~~BY~~ WITH OUT US CUTTING MONTHLY REQUISITIONS.

7. SOMETHING HAS TO BE DONE SO WE CAN ACCOMADATE PMU'S REQUEST FOR 200 ICE SAMPLES PER WEEK. LT MUNA, AT SUPPLY, HAS THE INFORMATION HE SAID HE NEEDED TO ARRANGE ~~FOR~~ TO STOCK THIS AT SELF-SERVICE. RIGHT NOW WE HAVE 2000 PETRI DISHES IN OUR STOCK ROOM, 4000 PETRI DISHES AT SUPPLY TO PICK UP, AND 4000 PADS + FILTERS. I AM ORDERING 4000 MORE OF EACH TODAY.



QUANTITIES OF COLIFORM SAMPLES RUN BY THE ENVIRONMENTAL CHEMISTRY + MICROBIOLOGY LABORATORY

TIME PERIOD	ESTIMATED QUANTITIES		
	<u>WEEKLY</u>	<u>MONTHLY</u>	<u>YEARLY</u>
PRIOR TO MAY 1985 (OCCASIONAL ICE, <del>OR</del> PRESENT NPDES)	150	680	8,700
JAN 86-MAR 86 (INCREASE ICE TO ~150/MONTH, PRESENT + PROPOSED NPDES)	190	1,000	12,670
APRIL 1986 → (ICE <del>IS</del> 100/WEEK, PRESENT + PROPOSED NPDES)	325	1,375	17,170
PROPOSED (ICE 200/WEEK, PROPOSED NPDES)	400	1,675	21,670

ENVIRONMENTAL CHEMISTRY & MICROBIOLOGY LABORATORY  
 QUANTITIES OF COLIFORM SAMPLES RUN BY THE

Time Period	Estimated Quantities	Yearly
Proposed (ice 200/week, Proposed NDEs)	400	21,450
April 1981 → (ice 100/week, Present + Proposed NDEs)	325	17,170
Jan 81-Mar 81 (increase ice to 150/month, Present + Proposed NDEs)	190	12,670
Proposed to May 1982 (occasional ice, on Present NDEs)	150	8,700
	Monthly	Yearly

DATE: 3 JULY 1986

FROM: SUPERVISORY CHEMIST, WQCL, ENVIRONMENTAL BRANCH, NREAD

TO: SUPERVISORY ECOLOGIST, ENVIRONMENTAL BRANCH, NREAD

SUBJ: SUMMARY OF BACTERIOLOGICAL ANALYSIS OF ICE

1. PMU IS SUPPOSE TO CHECK ALL ICE MACHINES FOR WEEKLY FOR TOTAL COLIFORM. SURVEILLANCE SECTION OF PMU IS CHARGE WITH THIS ~~RESP~~ RESPONSIBILITY. <sup>THEY</sup> ~~THEY ARE~~ FIGURES SHOW APPROXIMATELY 200 ICE MACHINES ON BASE IN FOOD SERVICE AREAS.

$$200 \times 52 = \boxed{10400}$$

2. FROM 1 JANUARY - 30 JUNE 1986, PMU COLLECTED 1,346 ICE SAMPLES FOR ANALYSIS. THE QUANTITY OF SAMPLES HAS INCREASED EACH MONTH, WITH THE EXCEPTION OF JUNE. PMU IS NOW SAMPLING EVERY ICE MACHINE EVERY OTHER WEEK, THEY ARE STILL ~~AM~~ AIMING FOR EVERY MACHINE EVERY WEEK. OF THE 1,346 SAMPLES COLLECTED IN THE LAST SIX MONTHS, 1157 ~~WERE NEGATIVE~~ CONTAINED NO GROWTH. THE OTHER 15% OF THE SAMPLES SHOWED GROWTH RANGING FROM SOME NON-COLIFORM TO TNTC COLIFORM. <sup>IN THE</sup> ~~OF THE~~ LAST THREE MONTHS (1 APR - 30 JUN), 970 ~~SAMPLES WERE~~ OF THE 1,346 WERE COLLECTED AND 25% OF THEM ~~WERE~~ CONTAINED GROWTH.

3. IN MY OPINION, ~~SEE~~ BASED ON SEEING THE DAILY READINGS, THERE IS A REAL NEED TO CONTINUE THIS MONITORING. MOST OF THIS ICE ~~BEING IN CONTACT WITH~~ IS USED IN DRINKS.

Elizabeth A. Butz



Date: 3 July 1982

From: Supervisor, Environmental Branch, NCEAD

To: Supervisor, Environmental Branch, NCEAD

Subject: Summary of Detrital Analysis of Ice

1. FNU is advised to check on ice machines for weekly ice total collection. Supervise Section of FNU in charge with this responsibility. The figures show approximately 200 lbs of ice in each of the food service areas.

2. From 1 January to 30 June 1982 FNU collected 1,344 ice samples for analysis. The quantity of samples has increased each month with the exception of June. FNU is now packaging every ice machine every other week. They are still awaiting for every machine every week.

Of the 1,344 samples collected in the last six months, 11% were ~~negative~~ contained no growth. The other 89% of the samples showed positive bacterial growth. Of the last three months (April-June) 1,344 samples were collected and 12% of them were contained growth.

3. In my opinion, it is advised that daily testing of ice is a real need to continue this monitoring. Most of the ice is used in drinks.

Supervisor

## ICE SAMPLES

<del>DATE</del> DATE	QTY	NO. GROWTH	NON-COLI	1-4 COLI	POSITIVE	RESAMPLES
7 JAN	9	8		1		
9 JAN	13 <sup>NH</sup>	13				
13 JAN	2	2				
14 JAN	<del>15</del> 24	<del>17</del>	6	1		
16 JAN	5	5				
22 JAN	7 <sup>MEAS</sup>	<del>4</del> 5	1		1	
24 JAN	16	13		3		
28 JAN	<del>25</del>	<del>23</del>			2	
31 JAN	<u>2</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>2</u>
	103	86	7	5	3	2
3 FEB	29	21			1	1
5 FEB	10	9		1		
6 FEB	12	8	3			1
10 FEB	5	5				
10 FEB	9	9				
11 FEB	7	<del>8</del> 6	1			
14 FEB	5	4	1			
14 FEB	17	13	4			
19 FEB	5	4	1			
21 FEB	24	22	2	2		
24 FEB	3	0	2	1		
24 FEB	15	15				
24 FEB	6	6				
25 FEB	<u>11</u>	<u>11</u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
	160	139	14	4	1	2



3 MAR	14	13			1
3 MAR	11	<del>11</del>			0
4 MAR	7	7			
5 MAR	26	24	1		1
7 MAR	14	14			
10 MAR	9	8	1		
11 MAR	13	10	2		1
12 MAR	14	14			
13 MAR	1				1
23 MAR	21	21			
29 MAR	29	26	1	1	1
20 MAR	3	3			
20 MAR	4	3			1
24 MAR	4	4			
24 MAR	25	20	2	3	
27 MAR	6	5			1
31 MAR	<u>15</u>	<u>15</u>	<u>      </u>	<u>      </u>	<u>      </u>
	216	198	7	4	7

1			21	41	3 MAR
0			11	11	3 MAR
			7	7	4 MAR
1	1		13	13	2 MAR
			41	41	1 MAR
		1	8	8	10 MAR
1	2	2	10	13	11 MAR
			14	14	12 MAR
1				1	13 MAR
			15	15	13 MAR
1	1	1	18	18	14 MAR
			2	2	20 MAR
1			2	4	20 MAR
			4	4	24 MAR
	2	2	23	23	24 MAR
1			2	12	25 MAR
			12	12	31 MAR
1	1	1	14	14	

1 APR	8	8				
1 APR	7	7				
3 APR	3	1		1	1	
2 APR	6	6				
3 APR	8	8				
4 APR	6	5	1			
4 APR	4	4			*	
7 APR	16	15			1	
7 APR	2	2				
9 APR	8	<del>8</del> 7	1			
9 APR	26	18			7	1
11 APR	9	2				*3-GEONTH 7
11 APR	2	2				
14 APR	16	16				
15 APR	15	9	5		1	
15 APR	5	3			2	
16 APR	3					*
16 APR	10	9		1		3
18 APR	8					8
21 APR	4	3			1	
21 APR	20	14	3		1	
23 APR	<del>36</del> 29	<del>34</del> 27		1	1	
25 APR	12	11			1	
25 APR	15	15				
28 APR	31	26	1	2	2	
29 APR	29	17	3	6	3	
30 APR	<u>6</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>1</u>	<u>1</u>
	315	246	17	12	21	19



1 MAY 86	14 <del>15</del>	9	1	2	2	
	3	2		1		
	14	10	2	1	1	
2 MAY 86	10	8		1	1	
	8	3	3	2		
5 MAY	20 <del>14</del>	17 <del>12</del>	2			1
	4	2	1	1		
6 MAY	6	6				
	9	8		1		
7 MAY	9 <del>18</del>	4 <del>13</del>	2	1	2	
9 MAY	5	2		2	1	
	5	2				3
12 MAY	42	35		2	5	
13 MAY	40	34		4	2	
15 MAY	8	5	1	2		
16 MAY	7	6			1	
16 MAY	36	37	2	3		
19 MAY	6	3				3
20 MAY	2	1	1			
20 MAY	22	13	2			7
21 MAY	20	14	2	1		3
23 MAY	2	1	1			
27 MAY	10	7		1		2
28 MAY	21	17		3		1
29 MAY	6	5				1
29 MAY	6	6				
	<u>345</u>	<u>260</u>	<u>20</u>	<u>28</u>	<u>34</u>	<u>3</u>



2 JUN	5	5				
2 JUN	40 <del>27</del>	22 <del>19</del>	36	26	33	33
3 JUN	10	10				
5 JUN	15	10	2	2	1	
6 JUN	7	4		1	2	
9 JUN	14	13	1			
10 JUN	3	2	1			
13 JUN	15	13		1	1	
13 JUN	8	7			1	
12 JUN	14	12		2		
10 JUN	13	12			1	
15 JUN	6	5			1	
16 JUN	15	13	1		2	
17 JUN	2					2
19 JUN	21	17		1	3	
19 JUN	12 <del>13</del>	12			0	
CG M.H.S 23 JUN	27	9	8	3	7	
27 JUN	24	17		2	5	
25 JUN	8	6		1	1	
26 JUN	2				1	2
26 JUN	10	9			1	
27 JUN	6	5			1	
30 JUN	<u>33</u>	<u>26</u>	<u>2</u>	<u>3</u>	<u>2</u>	<u>7</u>
	310	228	21	22	32	7



### ICE SAMPLES

DATE	QTY	NO GROWTH	NON-COLI	1-4 COLI	POSITIVE	RESAMPLES
1 JULY	12	7 <del>8</del>	1	2	2	
	12	12				
2 JULY	26	18	3	1	4	
3 JULY	28	18	6	2	2	
8 JULY	37 <del>6</del>	32	2		1	1
9 JULY	7	7				
10 JULY	14	10				4 (1 Positive)
11 JULY	16	15				1
14 JULY	21	9 <del>8</del>	12			
15 JULY	13 <del>15</del>	13 <del>15</del>				
16 JULY	36	29		4	3	
18 JULY	11	5	2	1	3	
22 JULY	22	19			3	
23 JULY	21	20		1		
25 JULY	8					8 (3 Pos)
28 JULY	11	9			2	
29 JULY	32	15	4	5	6	2 (1 Pos)
30 JULY	6	3	1		2	
31 JULY	<u>4</u>	<u>28</u>	<u>8</u>	<u>3</u>	<u>2</u>	
	373	269	39	19	30	16 (5 Pos)

28 % Positive CONTAIN GROWTH

THE DATES

DATE	NO. OF DAYS	NO. OF HOURS	NO. OF MINUTES	NO. OF SECONDS
JUL 1	1	0	0	0
JUL 2	2	0	0	0
JUL 3	3	0	0	0
JUL 4	4	0	0	0
JUL 5	5	0	0	0
JUL 6	6	0	0	0
JUL 7	7	0	0	0
JUL 8	8	0	0	0
JUL 9	9	0	0	0
JUL 10	10	0	0	0
JUL 11	11	0	0	0
JUL 12	12	0	0	0
JUL 13	13	0	0	0
JUL 14	14	0	0	0
JUL 15	15	0	0	0
JUL 16	16	0	0	0
JUL 17	17	0	0	0
JUL 18	18	0	0	0
JUL 19	19	0	0	0
JUL 20	20	0	0	0
JUL 21	21	0	0	0
JUL 22	22	0	0	0
JUL 23	23	0	0	0
JUL 24	24	0	0	0
JUL 25	25	0	0	0
JUL 26	26	0	0	0
JUL 27	27	0	0	0
JUL 28	28	0	0	0
JUL 29	29	0	0	0
JUL 30	30	0	0	0
JUL 31	31	0	0	0

30 OF JULY CONTAIN 31 DAYS

## PROPOSED

<u>SAMPLES</u>	<u>WEEKLY</u>	<u>MONTHLY</u>	<u>ANNUALLY</u>
DRINKING WATER	55	220	2860
SWIMMING POOLS			
WINTER (8)	3	12	96
SUMMER (4)	9	36	144
WASTEWATER	95	380	4940
RIVER RUNS	—	74	888
ICE @200/WEEK	235	940	12,220
MISCELLANEOUS	10	40	520
TOTAL			
WINTER	398	1666	21668
SUMMER	404	1690	
AVERAGE (ESTIMATED)	400	1675	21670 (2.5 times 1985 STY)

PROPOSED

SAMPLES

DRINKING WATER

SWIMMING POOLS

WINTER (3)

SUMMER (4)

WASTEWATER

RIVER RUNS

ICE GOOD/WEEK

MISCELLANEOUS

TOTAL

WINTER

SUMMER

AVERAGE (ESTIMATED)

ANNUAL

MONTHLY

WEEKLY

2800

230

52

96

12

3

144

36

4

4440

380

92

888

74

1

12,250

940

232

680

40

10

2118

1614

398

2120 (ESTIMATED)

1590

404

1672

400

April 1986 to Present

<u>SAMPLES</u>	<u>WEEKLY</u>	<u>MONTHLY</u>	<u>ANNUALLY</u>
DRINKING WATER	53	212	2756
SWIMMING POOLS			
WINTER (8)	3	12	96
SUMMER (4)	9	36	144
WASTEWATER	122	488	6344
RIVER RUNS	-	74	888
ICE @ 120/WEEK	135	540	7,020
MISCELLANEOUS	10	40	520

TOTALS

WINTER	323	1366	7 17,768
SUMMER	329	1390	
ESTIMATED	325	1375	17,770 (OVER DOUBLE OF PRIOR 1985)

APRIL 1981 TO PRESENT

SAMPLES	Weekly	MONTHLY	ANNUALLY
DRINKING WATER	23	212	2322
SWIMMING POOLS			
Winter (3)	3	12	36
Summer (4)	4	36	144
WASTEWATER	122	1220	2344
RIVER FUNGUS	-	74	888
ICE @ 100/week	130	540	7,020
MISCELLANEOUS	10	40	220

TOTALS

Winter	353	1314	17,708
Summer	354	1370	17,770
ESTIMATED	352	1372	17,770 (same amount as above 1980)

~~MAY 85~~

JANUARY 1986 - MARCH 1986

<u>SAMPLES</u>	WEEKLY	MONTHLY	ANNUALLY
DRINKING WATER	53	212	2756
SWIMMING POOLS			
WINTER (8)	3	12	<del>156</del> 96
SUMMER (4)	9	36	<del>468</del> 144
WASTEWATER	122	488	<del>634</del> 6344
RIVER RUNS	<del>10</del>	74	888
ICE	—	160 *CONTROLS	1920
MISCELLANEOUS	10	40	520

(COMPLAINTS, BY-PASSES, MAINTENANCE CHECK SAMPLES)

TOTALS

WINTER	138 <del>197</del>	986	<del>12584</del> > 12668
SUMMER	194	1010	
ESTIMATED	190	1000	12670

MAR 88 -

JANUARY 1988 - MARCH 1989

ANNUALLY	MONTHLY	WEEKLY	SAMPLES
255.0	21.2	23	DRINKING WATER
150	12	3	SWIMMING POOL
144	34	4	WINTER (3)
144	34	4	SUMMER (4)
150 + 150	150	133	WASTEWATER
288	24	7	RIVER RUNS
1980	100 + 100	1	ICE
250	40	10	MISCELLANEOUS

(COMPARISONS BY PHASES, MAINTENANCE CHECK SAMPLES)

TOTALS

197	101	133	WINTER
194	101	133	SUMMER
190	100	133	ESTIMATED

# COLIFORM SAMPLES RUN BY THE ENVIRONMENTAL CHEMISTRY + MICROBIOLOGY LABORATORY

PRIOR TO MAY 1985

<u>SAMPLES</u>	<u>WEEKLY</u>	<u>MONTHLY</u>	<u>ANNUALLY</u>
DRINKING WATER	53	212	2756
SWIMMING POOLS			
WINTER (8)	3	12	96 <del>156</del>
SUMMER (4)	9	36	144 <del>488</del>
WASTEWATER	80	320	4160
RIVER RUNS	—	74	888
MISCELLANEOUS	10-15	40-60	520-780

(COMPLAINTS, BY-PASSES, WALLACE CREEK, HOSPITAL + ICE PLANT)

TOTALS			
WINTER	143-151	658-678	<del>8480-8740</del> 8564-8824
SUMMER	149-157	682-702	<del>8792-9058</del>
ESTIMATED	150	690-680	8,700

ENVIRONMENTAL CHEMISTRY - MICROBIOLOGY LABORATORY  
 COLIFORM SAMPLES RUN BY THE

Prior to May 1982

ANNUALLY	MONTHLY	WEEKLY	SAMPLES
2525	212	28	Drinking Water
96			Drinking fountains
132	12	3	Waste (3)
144	24	9	Waste (1)
458			Wastewater
410	350	80	Wastewater
288	11	—	Five Runs
087 - 088	10 - 11	10 - 12	Miscellaneous

(COMPLAINTS BY FISHES, WILMACE CREEK, HOSPITAL + ICE PLANT)

TOTAL	WINTER	SUMMER	ESTIMATED
8244 - 2824	128 - 218	149 - 121	100
2192 - 1028	122 - 102	149 - 121	100
8100	120	100	100

	WEEKLY	x4 MONTHLY	x52 YEARLY
<b>DRINKING WATER</b>			
	51	204	2,652
<b>WASTEWATER</b>			
	122	488	6,344
PRESENT	<del>107</del>	<del>428</del>	<del>5,564</del>
PROPOSED	95	380	4,940
<b>RIVER RUNS</b>			
	74	74	888
<b>MISCELLANEOUS</b>			
	10	40	520
<b>SUBTOTALS</b>			
	<del>245</del>	<del>1126</del>	
	183	806	10404
PRESENT	<del>168</del>	<del>716</del>	<del>9624</del>
PROPOSED	156	698	9000
<b>ICE @ 200/WEEK</b>			
	235	940	12,220
<b>@ 50/WEEK</b>			
	155	540	7,020

Category	Weekly	Monthly	Yearly
Drinking Water	21	504	5,125
Wastewater	Present: 107 Proposed: 92	Present: 438 Proposed: 380	Present: 4,944 Proposed: 4,140
River Runs	74	14	888
Miscellaneous	10	45	530
TOTALS	Present: 183 Proposed: 120	Present: 504 Proposed: 438	Present: 10,404 Proposed: 9,654
Ice	122	240	12,250
Oil	122	240	1,020

# COLIFORM

## DRINKING WATER

40  
~~38~~ SAMPLES  
13 CONTROLS  
53 PER WEEK

## SWIMMING POOLS

WINTER 3/WEEK  
SUMMER 9/WEEK

## WASTEWATER

TUE	12	8	SAMPLES	+ 6	CONTROLS	= 18	12	SAMPLES	+ 7	CONTROLS	= 19
WED	24	21	SAMPLES	+ 10	CONTROLS	= 34	12		+ 7		= 19
THUR	12	9		+ 6		= 18	12		+ 7		= 19
FRI	24	21		+ 10		= 34	12		+ 7		= 19
SAT	12	9		+ 6		= 18	12		+ 7		= 19
						<u>122</u>					<u>95</u>
						107					PER WEEK

## RIVER RUNS

POINTS 36 SAMPLES + 10 CONTROLS = 46

OUTFALLS 28 + 0 = 28

74 PER MONTH

## INED. ICE

200 SAMPLES + 7 CONTROLS PER BATCH (~25) = 235 PER WEEK

## MISCELLANEOUS

5 SAMPLES + 5 CONTROLS = 10 PER WEEK

COLIFORM

Drinking Water	Swimming Pools
23 per week	8/week
18 controls	Winter
20 samples	Summer

WATER

Day	Controls	Samples	Total
Sat	10	10	20
Fri	10	10	20
Thu	10	10	20
Wed	10	10	20
Tue	10	10	20
Mon	10	10	20
Sun	10	10	20
<b>Total</b>	<b>70</b>	<b>70</b>	<b>140</b>

River Run

Points	Controls	Samples	Total
50	10	10	20
<b>Total</b>	<b>70</b>	<b>70</b>	<b>140</b>

Ice

200 samples + 7 controls per batch (207) = 207 per week

Miscellaneous

2 samples + 3 controls = 10 per week

PLANT

MON

TUE

WED

THUR

F

MON

0

TUE

0

WED

31

THURS

18

FRI

31

---

~~10~~80

Mon 0  
Tue 0  
Wed 31  
Thurs 18  
Fri 31  

---

480

NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

26 Feb 87  
Date

From: Director

To: *Danny*

Subj: *attached has been on my desk for some time. What is current situation with ice samples?*

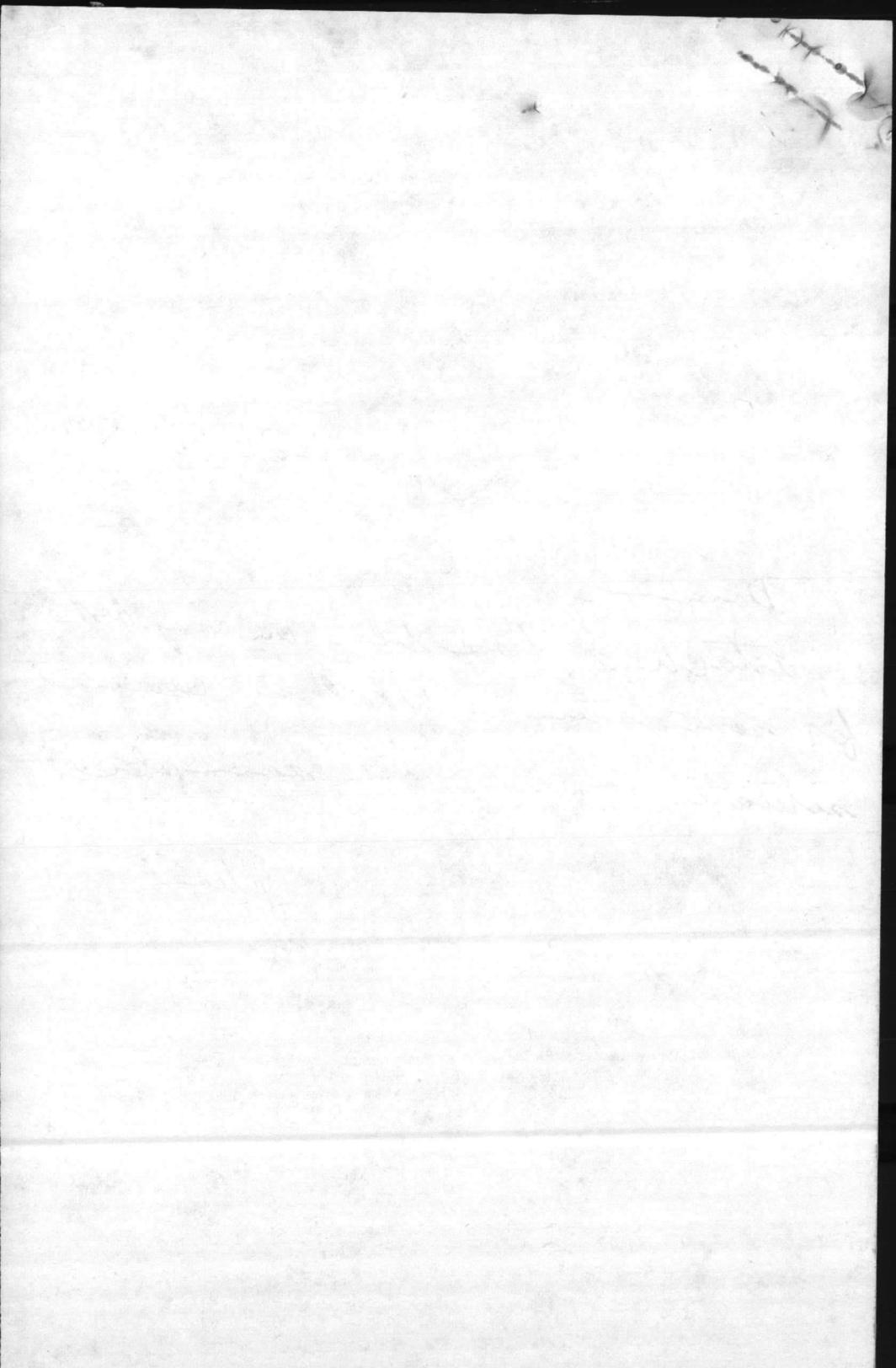
*Julian*

*Betsy: Lets DISCUSS*

*Next week Some Time*

D.S.  
*26 Feb 87*

Handwritten scribbles or marks in the top right corner.



To: Director, NREAD

Recommend meeting between Director, NREAD,  
Supervisory Chemist And Preventive Medicine  
Officer to reach an understanding of what  
support you are expected to provide P.M.U.  
N. Shange

From: SUPERVISORY CHEMIST, WATER QUALITY CONTROL LABORATORY, ENVIRONMENTAL  
BRANCH, NREAD

To: SUPERVISORY ECOLOGIST, ENVIRONMENTAL BRANCH, NREAD

SUBJ: PMU'S FY 87 WATER QUALITY CONTROL LABORATORY REQUEST

ENCL: (1) SUBJECT REQUEST

1. BACKGROUND. FOR THE PAST YEAR PMU HAS BEEN SAMPLING ICE MACHINES  
IN FOOD SERVICE AREAS ABOARD THE BASE FOR ~~THE~~ COLIFORM CONTENT.  
ANALYSIS HAS BEEN RUN BY THE WATER QUALITY CONTROL LABORATORY. INITIALLY  
THE SAMPLING WAS ERRATIC HOWEVER FOR THE PAST FOUR MONTHS PMU HAS  
GENERATED 300-400 ICE SAMPLES A MONTH. THE DAILY QUANTITIES RANGE  
ANYWHERE FROM ~~0~~ ZERO TO 42 SAMPLES. <sup>THE MAIN FACTOR</sup> ~~THESE ARE SEVERAL FACTORS~~  
~~ONLY ONE THE MAIN FACTOR IS~~ THAT CONTROLS THE DAILY QUANTITIES. <sup>IS THE FIRST</sup> IS THE NUMBER OF  
PREPARED ICE SAMPLE JARS THAT ARE READY EACH MORNING. THE LABORATORY  
HAS ONLY 42 JARS IN ~~0~~ STOCK RIGHT NOW AND DEPENDING ON WHEN SAMPLES  
ARE RECEIVED THE DAY BEFORE WILL DETERMINE THE QUANTITY. READY AT  
8:00 AM EVERYDAY. IT TAKES THE LABORATORY APPROXIMATELY 3 HOURS TO WASH,  
PREP, ~~AND~~ STERILIZE AND COOL A BATCH OF ICE JARS. PMU HAS ORDERED 100  
MORE ICE JARS WHICH WOULD ALLOW THEM TO COLLECT MORE IN A DAY.

2. IT TAKES THE AVERAGE LABORATORY TECHNICIAN APPROXIMATELY 2 TO 2.5  
HOURS TO RUN 50 SAMPLES (TUESDAY<sup>2</sup> AFTERNOON BACTERIA ANALYSIS) ~~FOR~~  
BY MEMBRANE FILTER. THIS IS NOT COUNTING THE TIME REQUIRED TO MELT  
THE ICE. THE SUBJECT REQUEST IS ~~CALLING FOR~~ DOUBLE THE QUANTITY  
WE ARE PRESENTLY ANALYZING. ~~THE~~ BASED ON 2.5 HRS ANALYSIS TIME

File # 100-100000

To: Director, FBIHQ

Government Laboratory, Washington, D.C. (100-100000)  
Request for information regarding the above  
subject to be furnished to the FBIHQ  
by the Laboratory, Washington, D.C.

From: Supervisor, Water Quality Control Laboratory, Environmental  
Branch, WQA

To: Environmental Scientist, Environmental Branch, WQA

Subject: FBIHQ's FBI Water Quality Control Laboratory Request

Enclosure: (1) Subject Request

1. BACKGROUND. For the past year, FBIHQ has been providing ice samples  
in food service areas located in the area for some uniform content.  
Analysis has been run by the Water Quality Control Laboratory, ID, and  
the samples were being analyzed for the past four months. FBIHQ has  
collected 200-400 ice samples a month. The daily quantities range  
from 100 to 400. The main factor  
and where from it goes to the samples. The main factor  
that controls the daily quantities is the number of  
refrigerated ice sample cases that are being used in the laboratory.  
It has only 40 cases in a stock flight room and depending on when samples  
are received, the lab begins to determine the quantity ready at  
8:00am every day. It takes the laboratory approximately 2 hours to wash  
refrigerated ice sample cases and cool a batch of ice cases. FBIHQ has ordered 100  
more ice cases which would allow them to collect more in a day.

2. It takes the average laboratory technician approximately 2 to 2.5  
hours to run 100 samples (usually between 100 and 200 samples) and  
to maintain files. This work counts the time required to meet  
the case. The subject request is a request to place the quantity  
we are presently analyzing. The case on 1/2 has analyzed time

AND 3 HRS SAMPLE PREP TIME AND INCREASE OF 100 SAMPLES A WEEK  
WOULD MEAN AN INCREASE OF ABOUT 12 MANHOURS SPENT ON ICE  
SAMPLES A WEEK. BASED ON PROTECTED SCHEDULES ~~3~~ THE LABORATORY  
COULD ACCEPT ICE SAMPLES ALL DAY MONDAY, ~~3~~ ~~1400-1600~~ FROM 1400-1600  
ON TUESDAY AND ALL DAY WEDNESDAY - FRIDAY. SAMPLES RECEIVED <sup>BEFORE</sup> ~~AFTER~~  
1200 WILL HAVE A 24 HOUR TURNAROUND ~~24~~ AND AFTER 1200 WILL HAVE  
A 48 HOUR TURNAROUND.

Elizabeth A. Betz

Can't see us running sample on  
Saturday on a routine basis.  
Therefore why not cut off at  
1200 hours on Friday.  
DPT

AND 3 HAS SOME FREE TIME AND INCREASE OF 100 SAMPLES A WEEK  
 WOULD MEAN AN INCREASE OF ABOUT 15 MAN HOURS PER WEEK  
 SAMPLES A WEEK. BASED ON PROTECTED SAMPLES @ THE LABORATORY  
 COULD ACCEPT ICE SAMPLES ALL DAY MONDAY FROM 11:00-11:00  
 ON TUESDAY AND ALL DAY WEDNESDAY. SAMPLES RECEIVED AFTER  
 12:00 WILL HAVE A 24 HOUR TURNAROUND AND AFTER 12:00 WILL HAVE  
 A 48 HOUR TURNAROUND.

*Handwritten signature*

12 out from on Friday  
 There are about 100 of  
 at least on a week basis  
 contact your manager

*July 1986*  
*PPS*

ASSISTANT CHIEF OF STAFF, FACILITIES  
HEADQUARTERS, MARINE CORPS BASE

008

IN REPLY REFER TO  
6200  
37  
25 Jul 86

DATE 7-30-86

TO:

BASE MAINT O  
PUBLIC WORKS O  
COMM-ELECT O

DIR, FAMILY HOUSING  
DIR, BACHELOR HOUSING  
BASE FIRE CHIEF

Lejeune, NC (Attn: AC/S

ISTS

ad in FY 87 from the

amples and 10 water samples

laboratory request, but it is  
to meet Navy regulations.

action extension 1930 or

*[Signature]*  
7  
1

DIR., NAT. RESOURCES & ENV. AFFAIRS

ATTN:

*Mr Wooten*

- 1. Attached is forwarded for info/action.

*Please advise if unable to meet  
additional demand.*

- 2. Please initial, or comment, and return all papers to this office.

- 3. You: file copy.

*[Signature]*  
*By dir*

"LET'S THINK OF A FEW REASONS  
WHY IT CAN BE DONE"

TO: E. Betz

Due 8 Aug 86

Please advise how many additional  
manhours will be required over  
historical levels of ice samples.  
i.e. up to the new initiatives.

*Sharpe*





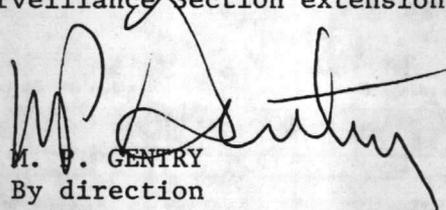
DEPARTMENT OF THE NAVY  
NAVAL HOSPITAL  
CAMP LEJEUNE, NORTH CAROLINA 28542-5008

IN REPLY REFER TO  
6200  
37  
25 Jul 86

From: Commanding Officer  
To: Commanding General, Marine Corps Base, Camp Lejeune, NC (Attn: AC/S  
Facilities Department)

Subj: FY 87 WATER QUALITY CONTROL LABORATORY REQUESTS

1. This letter is to confirm the projected workload in FY 87 from the Preventive Medicine Branch.
2. It is anticipated that approximately 200 ice samples and 10 water samples per week would be needed.
3. This does represent a significant increase in laboratory request, but it is a true reflection of specimen collection required to meet Navy regulations.
4. Point of contact is HMC Burch, Surveillance Section extension 1930 or myself at extension 5707.



M. P. GENTRY  
By direction

111