

TRICHALOMETHANE SAMPLING

MONTH: FEBRUARY
 YEAR: 1983
 TIME

SAMPLE # SAMPLE LOCATION
 WTP: Tarawa Terrace Sampler: *Huracut* Date: 2/24/83

323	Bldg STT-39A, Water Plant @ 1st Pump	1428
324	Bldg TT-60, TT Elem School I, Main Hall Men's Head Sink	1432
325	Bldg TT-48, TT Elem School II, Men's Head across Office	1409
326	Bldg TT-2453, TT Exchange gas Station's Ladies Room	1421
327	Bldg TT-35, Sewage Plant's Office Sink	1416

WTP: Sampler: Date:

No SAMPLE Bldg E-23, Sewage Lift Station, Knox Trailer Park

WTP: Montford Point Sampler: *Huracut* Date: 2/24/83

328	Bldg M-178, Water Plant @ Sink faucet	1338
329	Bldg M-625, Steam Plant, Bathroom Sink	1358
330	Bldg M-128, Branch Clinic, Men's Head <i>closed</i>	
331	Bldg M-136, Sewage Plant Sink	1353
332	Bldg M-231, BOQ, 1st floor Men's Head	1347

WTP: New River Sampler: Date: 25 Feb 83

333	Bldg AS-110, Water Plant @ Pump	1245
334	Bldg G-520, Career Planner, 2nd floor Men's Room	1332
335	Bldg AS-4025, Barracks Rec Room, Bathroom Sink	1257
336	Bldg 710, Officer's Club Gally Sink	1320
337	Bldg 2800, Boat Marina Men's Room	1310

WTP: Holcomb Blvd Sampler: Date: 2-25-83

338	Bldg 670, Water Plant @ Pump	1356
339	Bldg 4022, Fire Station, Bathroom Sink	1431
340	Bldg 1915, Golf Course, Men's Locker Room	1402
341	Bldg 5400, Berkeley Manor Elem School, Main Hall Bathroom	1421
342	Bldg 2615, PP Officer's Club, Gally Dishwashing Sink	1410

CLW

0000006393

TRICHALOMETHANE SAMPLING

MONTH: FEBRUARY
YEAR: 1983

SAMPLE## SAMPLE LOCATION
WTP: Rifle Range Sampler: Date: TIME

343 Bldg RR-85, Water Plant @ Finish Tap 25 Feb 83 1141
344 Bldg RR-6, Fire House Sink 1144
345 Bldg RR-10, Snack Bar Sink 1200
346 Bldg RR-200, Across from Target Shed 1153
347 Bldg RR-92, Sewage Plant Sink 1149

WTP: Courthouse Bay Sampler: *Hunter* Date: 2/25/83
348 Bldg BB-190, Water Plant @ Faucet 0852
349 Bldg BB-7, Mess Hall Sink 0847
350 Bldg BB-54, Service Club 0856
351 Bldg SBB-204, Sewage Plant Sink 0834
352 Bldg BB-46, Marina Bathroom Sink 0841

WTP: Onslow Beach Sampler: *Hunter* Date: 2/25/83
353 Bldg BA-138, Water Plant 0908
354 Bldg BA-103, Mess Hall Closed / Sewage Plant 1018
355 Campsite #2, Spigot 10 (Mainland) Water Cut off
356 Campsite #1, Spigot 2 (Beachside) Water Cut off / *BA-130* 0958
357 Bldg SBA-142, Spigot at bottom of Pier Water Cut off / *Motor T 1026*

WTP: Hadnot Point Sampler: Date: 2-25-83
358 Bldg 20, Water Plant @ Pump 1505
359 Bldg NH-1, Emergency Room Sink 1515
360 Bldg 1202, Men's Room Sink 1445
361 Bldg 65, Quality Control Lab, Room 220 Sink 1530
362 Bldg FC-530, Laundry Room Sink, 1st floor 1453

CLW

000006394

THM Sampling Information

Sample #	WTP	Date	Time	Point of Contact
320	TT*	24 Feb 83	1428	Elizabeth Betz (919) 451-5977
324	TT	24 Feb 83	1432	
325	TT	24 Feb 83	1409	
326	TT	24 Feb 83	1421	
327	TT	24 Feb 83	1416	
328	CJ*	24 Feb 83	1338	
329	CJ	24 Feb 83	1358	
330	Not Collected			
331	CJ	24 Feb 83	1353	
332	CJ	24 Feb 83	1347	
333	NR*	24 Feb 83	1245	
334	NR	24 Feb 83	1332	
335	NR	25 Feb 83	1257	
336	NR	25 Feb 83	1320	
337	NR	25 Feb 83	1310	
338	HB*	25 Feb 83	1356	
339	HB	25 Feb 83	1431	
340	HB	25 Feb 83	1402	
341	HB	25 Feb 83	1421	
342	HB	25 Feb 83	1410	
343	RR*	25 Feb 83	1141	
344	RR	25 Feb 83	1144	
345	RR	25 Feb 83	1200	
346	RR	25 Feb 83	1153	
347	RR	25 Feb 83	1149	
348	CHB*	25 Feb 83	0852	
349	CHB	25 FEB 83	0847	
350	CHB	25 Feb 83	0856	
351	CHB	25 Feb 83	0834	
352	CHB	25 Feb 83	0841	
353	OB*	25 Feb 83	0908	
354-357	Not Collected			
358	HP*	25 Feb 83	1505	
359	HP	25 Feb 83	1515	
360	HP	25 Feb 83	1445	
361	HP	25 Feb 83	1530	
362	HP	25 Feb 83	1433	

*-not required by SDWA

CLW

0000006395

Charles E. Rundgren, Head
Water Supply Branch
Division of Health Services
P. O. Box 2091
Raleigh, NC 27602-2091

Dear Mr. Rundgren:

Enclosed is a table of results of Trihalomethane analysis conducted for the past year for all eight water treatment systems aboard Marine Corps Base, Camp Lejeune.

The sampling was done by personnel in the Quality Control Laboratory, State ID#37807, located in the Natural Resources and Environmental Affairs Division, under the Assistant Chief of Staff, Facilities. The laboratory analysis, method code 215, was performed by Grainger Laboratories Inc., State ID#37709, located in Raleigh, NC.

Five samples per system were collected each day. Four were the required distribution points and one was taken at the beginning of the distribution system. During your conversation, on 5 May 1983, with Ms. Elizabeth Betz, of this command, you stated that samples from the beginning of the distribution systems were to be calculated in the averages. In compliance with that conversation, the fifth sample point result has been added with the other results for averaging.

For further information of Trihalomethanes at Camp Lejeune the point of contact is Ms. Elizabeth Betz, Supervisory Chemist, Quality Control Laboratory, telephone (919)451-5988.

Enclosure

Copy to:

LANTDIV (Code 114)

BMD, UTIL DIR

SUPVY CHEM

CLW

0000006396

TOTAL TRIHALOMETHANE ANALYSIS RESULTS

System	ID#	Quarterly Averages units=ppb				Annual Average
		Quarter				
		1982 1982 Apr-Jun	1982 1982 Jul-Sep	1982 1982 Oct-Dec	1983 1983 Jan-Mar	
Hadnot Point ¹	04-67-041	29.7	43.7	48.4	44.8	41.57
MCAS-New River ¹	04-67-042	85.9	105.2	107.4	98.2	99.17
Holcomb Blvd ²	04-67-043	31.1	24.0	31.4	31.8	29.57
Tarawa Terrace ²	04-67-044	14.1	19.	13.	19.	16
Camp Johnson ²	04-67-045	7.20	5.8	8866	6.3 ³	6.97
Rifle Range ²	04-67-046	51.4	48.3	52.1	51.2	50.7
Courthouse Bay ²	04-67-047	45.0	42.6	45.4	40.4	43.35
Onslow Beach ²	04-67-048	51	38	37	44 ⁴	42

Notes

1. Hadnot Point and Marine Corps Air Station-New River systems serve populations between 10,000-74,999.
2. These systems serve populations less than 10,000.
3. In February 1983, one of the distribution sample points at Camp Johnson was secured, so only four points were averaged instead of the usual five.
4. In February, The Onslow Beach distribution points were secured. Therefore the only point collected was at the beginning of the distribution system.

Sample Dates

19 April 1982
20 April 1982
21 April 1982
22 April 1982
28 May 1982

27 May 1982
24 June 1982
25 June 1982

28 July 1982
29 July 1982

17 August 1982
21 September 1982
26 November 1982
29 November 1982

29 December 1982
26 January 1983
24 February 1983
25 February 1983

Systems

Tarawa Terrace, Camp Johnson
MCAS-New River, Holcomb Blvd
Rifle Range, Courthouse Bay, Onslow Beach
Hadnot Point
Tarawa Terrace, Camp Johnson, MCAS-New River, Rifle Range, Courthouse Bay
Holcomb Blvd, Onslow Beach, Hadnot Point,
Tarawa Terrace, Camp Johnson
MCAS-New River, Holcomb Blvd, Rifle Range, Courthouse Bay, Onslow Beach, Hadnot Point
Tarawa Terrace, Hadnot Point
Camp Johnson, MCAS-New River, Holcomb Blvd, Rifle Range, Courthouse Bay, Onslow Beach
MCAS-New River, Rifle Range
MCAS-New River, Rifle Range
Holcomb Blvd, Hadnot Point
Tarawa Terrace, Camp Johnson, MCAS-New River, Rifle Range, Courthouse Bay, Onslow Beach
MCAS-New River, Rifle Range
MCAS-New River, Rifle Range
Tarawa Terrace, Camp Johnson
MCAS-New River, Holcomb Blvd, Rifle Range, Courthouse Bay, Onslow Beach, Hadnot Point

CLW

0000006397

~~CLW~~

~~0000006397~~

PPM/PPb

SUMMARY OF THM ANALYSIS FOR FEBRUARY 1983

SAMPLE #'S	SYSTEM	FEB	DEC-FEB	SEP-NOV	JUN-AUG	MAR-MAY	RUN. AVE
			JAN-MAR	OCT-DEC	JUL-SEP	APR-JUN	
323-327	TARAWA TERRACE	0.02 19.2	0.02/19.2	0.01/12.6	0.02/19.1	0.01/11.5	0.02/16.6
328-332	CAMP JOHNSON ³	0.01 6.3	0.02/19.2	0.01/12.6	0.02/18.8	0.01/14.1	0.02/16.2
			0.01 ³ /6.3	0.01/8.6	<0.01/3.7	0.01/7.0	0.01 ³ /6.4
333-337	NEW RIVER	0.10 101.4	0.01 ³ /6.3	0.01/8.6	0.01/5.8	0.01/7.2	0.01 ³ /7.0
			0.10/104.7	0.09/92.5	0.11/107.3	0.08/83.7	0.10/97.05
338-342	HOLCOMB BLVD	0.03 31.8	0.10/100.2	0.11/107.4	0.10/105.2	0.06/85.9	0.10/99.675
			0.03/31.8	0.03/31.4	0.03/25.6	0.03/33.1	0.03/30.5
343-347	RIFLE RANGE	0.05 49.4	0.03/31.8	0.03/31.4	0.02/24.0	0.03/31.1	0.03/29.6
			0.05/51.3	0.05/51.6	0.05/52.2	0.05/46.0	0.05/50.2
348-352	COURTHOUSE BAY	0.04 40.4	0.05/51.2	0.05/52.1	0.05/48.3	0.05/51.4	0.05/50.8
			0.04/40.4	0.05/45.4	0.05/45.5	0.04/43.3	0.04/43.65
353	ONSLow BEACH ⁴	0.04 44	0.04/40.4	0.05/45.4	0.04/42.6	0.05/45.0	0.04/43.35
			/44	0.04/36.6	0.05/49.4	0.04/35.3	50.2
358-362	HADNOT POINT	0.04 44.8	/44	0.04/36.6	0.04/38.0	0.05/50.3	
			0.04/44.8	0.05/48.4	0.03/28.5	0.04/37.8	0.04/39.9
			0.04/44.8	0.05/48.4	0.04/43.4	0.03/27.7	0.04/41.6

NOTES

1. THE STATE HAS AUTHORIZED USING THE PLANT SAMPLE IN THE AVERAGES
2. THE STATE, NOT THE REGULATIONS, RUN IN CALENDAR QUARTERS
3. CAMP JOHNSON FOR FEBRUARY 1983 IS MISSING ONE SAMPLE POINT
4. ONSLOW BEACH SYSTEM WAS PARTIALLY SECURED IN FEBRUARY 1983 THEREFORE ONLY ONE SAMPLE AT THE PLANT WAS TAKEN

GRAINGER LABORATORIES

INCORPORATED

ANALYTICAL AND CONSULTING CHEMISTS

709 West Johnson Street

Raleigh, North Carolina 27603

(919) 828-3360

ANALYTICAL LABORATORY

Environment Analysis
Construction Materials
Identification of Unknowns
Agriculture
Fuels
Textiles
Chemicals
Hazardous Waste

March 16, 1983
83-6478

Commanding General
Marine Corps Base
Camp Lejeune, N.C. 28542

CONSULTATION

Metallurgical Services
Pollution Abatement
Process Development
Quality Control
Methods Development
Special Investigation
Pesticides
RCRA

Attention: AC/S Facilities

Subject: Analyses of Samples Received 3-2-83

Sample Identification: Purchase Order No. M 67001-82-M-5084

RESULTS

<u>Sample</u>	<u>Chloroform</u>	<u>Bromodichloro- methane</u>	<u>Chlorodibromo- methane</u>	<u>Bromoform</u>	<u>Total Trihalo- methanes</u>
323	<1	2	6	5	13
324	<1	2	7	7	16
*324	<1	3	7	7	17
325	1	3	9	9	22
326	<1	2	7	7	16
327	1	4	11	13	29
328	1	3	3	<1	7
329	2	3	3	<1	8
331	1	2	2	<1	5
332	1	2	2	<1	5
333	5	7	20	26	58
334	6	18	49	58	131
335	7	14	39	48	108
336	5	15	39	49	108
337	5	13	37	47	102



CLW

0000006399

RESULTS
(Continued)

Sample	Chloroform	Bromodichloro- methane	Chlorodibromo- methane	Bromoform	Total Trihalo- methanes
338	21	5	2	<1	28
339	23	5	1	<1	29
340	24	8	4	<1	36
341	24	5	1	<1	30
342	26	7	3	<1	36
343	30	10	3	<1	43
*343	30	10	3	<1	43
344	32	11	3	<1	46
345	33	11	3	<1	47
346	42	14	4	<1	60
347	35	12	4	<1	51
348	25	10	4	<1	39
349	22	10	4	<1	36
350	23	10	4	<1	37
351	26	11	4	<1	41
352	31	13	5	<1	49
*352	31	13	5	<1	49
353	32	9	3	<1	44
358	17	**20	3	<1	***40
359	35	**20	6	<1	***61
360	18	**20	3	<1	***41

CLW
0000006400

RESULTS
(Continued)

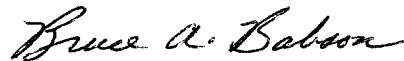
Sample	Chloroform	Bromodichloro- methane	Chlorodibromo- methane	Bromoform	Total Trihalo- methanes
361	18	**20	3	<1	***41
362	18	**20	3	<1	***41

NOTE: All results reported in micrograms per liter.
Analysis completed 3/11/83.

*Analyzed in Duplicate.

**Reported value represents a probable upper limit on the Bromodichloromethane concentration. In this sample set Trichloroethylene interferes with the Bromodichloromethane determination.

***Reported value represents a probable upper limit on the Total Trihalomethane concentration.



Bruce A. Babson
Chemist

BAB/dd
Customer #92400
cc: Elizabeth Betz

CLW

0000006401