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AUG 27 1981

Mr. Charles E. Rundgren
Water Supply Branch
Sanitary Engineering Section
Division of Health Services
Post Office Box 2091
Raleigh, North Carolina 27602

Dear Mr. Rundgren:

The purpose of this letter is to provide follow-up information to telephone calls made to your agency on 25 August 1981 concerning the Camp Lejeune Chemical Landfill and the potable water system at the Rifle Range. Attached are results of laboratory analyses of water samples collected in the vicinity of the landfill and from the Rifle Range potable water system. Also attached is a map showing the locations of the landfill, the Rifle Range and the sample collection points.

Although use of the landfill was discontinued several years ago, concern regarding potential discharges from the landfill arose recently as a result of the implementation of federal and state hazardous waste regulations promulgated under the Resource Conservation and Recovery Act. At that time, this Command requested technical assistance from the Atlantic Division of the Naval Facilities Engineering Command, Norfolk, Virginia (LANTNAVFACENGCOM).

Based on the laboratory analyses mentioned above and on-site inspections of the landfill and the Rifle Range water system, LANTNAVFACENGCOM officials have concluded that the Rifle Range drinking water meets current drinking water standards, however, they recommended that careful monitoring continue. The Camp Lejeune Rifle Range water system has been included in a monthly trihalo-methanes monitoring program. Since test well and surface water data from samples near the landfill, especially test well 16 and sample point number 5, indicate significant levels of contamination, this Command made a decision to notify both the general public and appropriate state agencies of this potential problem.

LANTNAVFACENGCOM has advised that Marine Corps Base Camp Lejeune is scheduled for FY-82 Initial Assessment Study (IAS) in the Navy Assessment and Control of Installation Pollutants (NACIP) Program. The IAS is the first phase in a program to identify, assess and control the contamination of the environment from past hazardous waste disposal operations at Navy and Marine Corps activities.

Questions regarding this matter should be directed to the Base Maintenance Officer, Marine Corps Base, Camp Lejeune, North Carolina, telephone (919) 451-2511.

Sincerely,

CLW

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C. G. COOPER
Major General, U. S. Marine Corps
Commanding

Encls

ENCLOSURE (1)

MCB CAMP LEJEUNE
 SAMPLE DATE 10 APRIL 1981
 ALL RESULTS IN PARTS PER BILLION (PPB)

	RR-45 WELL	RR-47 WELL	RR-97 WELL	RR-85 WTP FINISHED WATER TAP	SAMPLE POINT NO. 7*	SAMPLE POINT NO. 8*
BENZENE						
TOLUENE						
CARBON TETRACHLORIDE						
1, 2 - DICHLOROETHANE						
1, 1, 1 - TRICHLOROETHANE						
1, 1 - DICHLOROETHANE						
1, 1 - DICHLOROETHYLENE						
1, 1, 2 - TRICHLOROETHANE						
CHLOROFORM			17	17		
ETHYLENE CHLORIDE	4		6	3		
TRACHLOROETHYLENE						
TRICHLOROETHYLENE			2			

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The above chart summarizes data from analysis run on water samples collected at locations indicated on Map shown on page 4. Pages 5 and 6 outline the parameters tested for and detection limits. Analysis sheets similar to those on pages 5 and 6 are available for each sampling point. Analyses were conducted by Jennings Laboratory, Inc., 1118 Cypress Avenue, P. O. Box 854, Virginia Beach, Virginia 23451, phone (804) 425-1498.

MUR CAMP LEJUNE
 SAMPLE DATE 10 APRIL 1981
 ALL RESULTS IN PARTS PER BILLION (ppb)

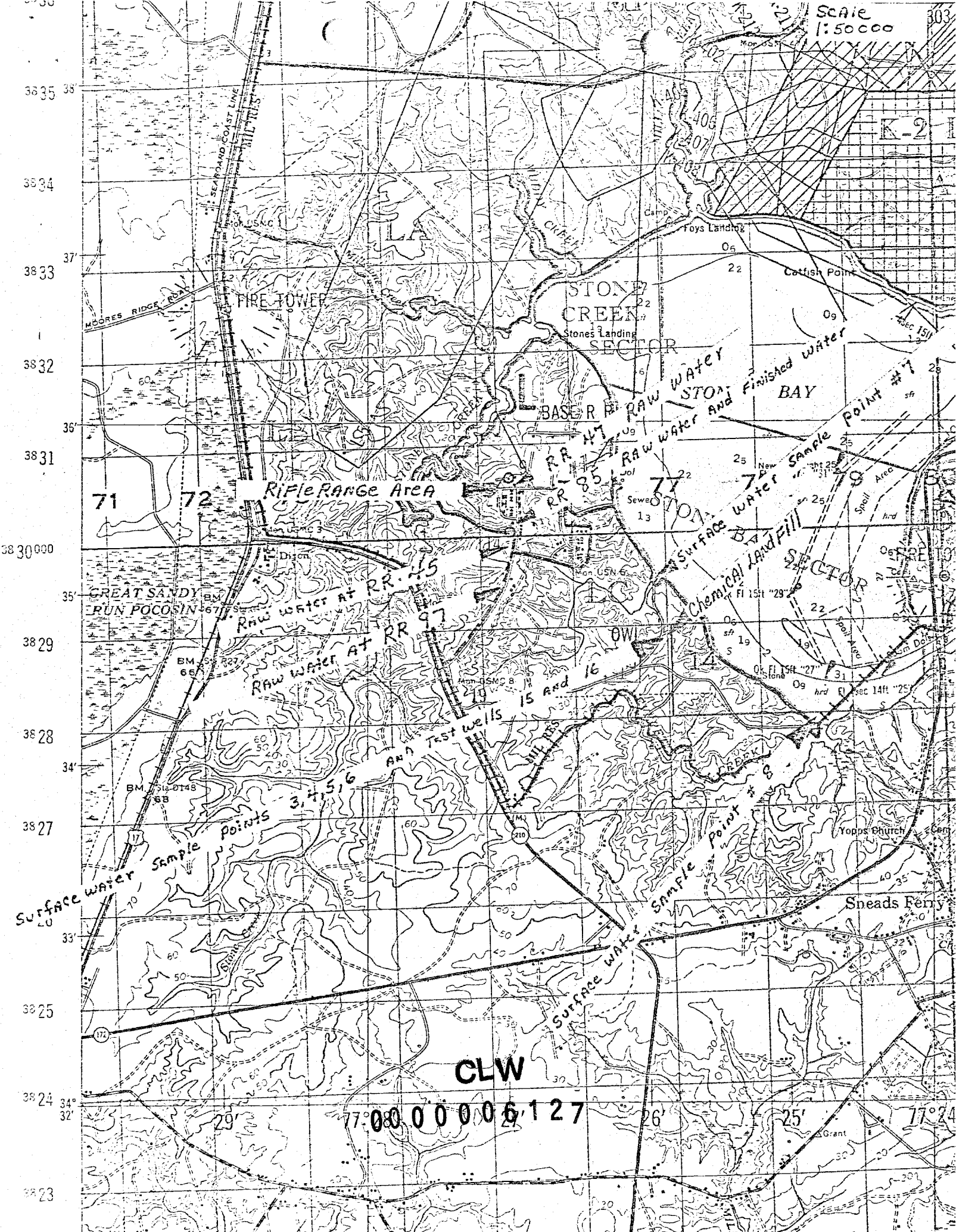
	TEST WELL NO. 15	TEST WELL NO. 16	Sample Point No. 3 Pool of Water Below Well	Sample Point No. 4 RAD POOL	SAMPLE POINT NO. 5*	SAMPLE POINT NO. 6*
BENZENE					1	
TOLUENE		52			101	
CARBON TETRACHLORIDE						
1, 1 - DICHLOROETHANE		52			176	
1, 1, 1 - TRICHLOROETHANE					103	
1, 1 - DICHLOROETHANE		38		2	101	
1, 1 - DICHLOROETHYLENE		74			258	
1, 1, 2 - TRICHLOROETHANE					252	
CHLOROFORM					35	
METHYLENE CHLORIDE	2	13	3	2	37	14
PER. CHLOROETHYLENE						6
TRICHLOROETHYLENE					141	

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The above chart summarizes data from analysis run on water samples collected at locations indicated on map shown on page 4. Pages 5 and 6 outline the parameters tested for and detection limits. Analysis sheets similar to those on pages 5 and 6 are available for each sampling point. Analyses were conducted by Jennings Laboratory, Inc., 1118 Cypress Avenue, P. O. Box 854, Virginia Beach, Virginia 23451, phone (804) 425-1498.

SCALE 1:50000

K-2



FIRE TOWER

STONE CREEK

Rifle Range Area

RAW WATER

RAW WATER AND FINISHED WATER

SURFACE WATER

CHEMICAL LANDFILL

Sample Point #1

Sample Point #8

Sample Point #7

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JENNINGS LABORATORIES, INC.

ANALYTICAL AND CONSULTING CHEMISTS

1118 CYPRESS AVENUE • P. O. BOX 851 • VIRGINIA BEACH, VA. 23451 • PHONE (804) 425-1498

VA (EPA) CERTIFIED LABORATORY for
Drinking Water Analysis - Microbiological,
Inorganic and Organic

Official Referee Chemists for:
AMERICAN OIL CHEMISTS SOCIETY

Laboratory Certified by VA. STATE WATER
CONTROL BOARD for Analysis of
Effluents for NPDES PERMITS
CERTIFIED OFFICIAL U.S.D.A. LABORATORY
FOR MEAT ANALYSIS

ASBESTOS ANALYSIS - NIOSH 582

NATIONAL SOYBEAN
PROCESSORS ASSOCIATION

CERTIFICATE OF ANALYSIS

TO: Mr. Dave Goodwin
Building N-23 Atlantic Division
Naval Facilities Engineering Command,
Norfolk, Virginia 23511

DATE: May 29, 1981

SAMPLE OF FINISHED WATER #1

MARKED MCB CAMP LEJEUNE - Rifle Range Water Treatment Plant taken 5/20/81 Grab
Sample picked up 5/21/81 by JENNINGS LABORATORIES, INC. Total Cl 1.3 ppm

OFFICIAL SAMPLE BY: P. A. Rakowski

PRIORITY POLLUTANTS	PURGEABLE ORGANICS	DETECTION LIMITS	µg/
Acrolein	None Detected	2.0	
Acrylonitrile	None Detected	2.0	
Benzene	None Detected	10.0	
Toluene	None Detected	10.0	
Ethylbenzene	None Detected	10.0	
Carbon Tetrachloride	None Detected	.007	
Chlorobenzene	None Detected	.03	
1,2-Dichloroethane	None Detected	.006	
1,1,1-Trichloroethane	None Detected	.005	
1,1-Dichloroethane	3.40 ppb	.004	
1,1-Dichloroethylene	None Detected	.006	
1,1,2-Trichloroethane	None Detected	.006	
1,1,2,2-Tetrachloroethane	None Detected	.006	
Chloroethane	None Detected	.01	
2-Chloroethyl vinyl ether	None Detected	.08	

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Respectfully submitted,
JENNINGS LABORATORIES, INC.

Laboratory
Analysis No. 243
\$400.00

[Signature]
CHEMIST

PRIORITY POLLUTANTS	PURCHASABLE ORGANICS (cont)	DETECTION LIMITS µg/l
Chloroform	94.40 ppb	.010
1,2-Dichloropropane	None Detected	.004
1,3-Dichloropropane	None Detected	.006
Methylene Chloride	4 ppb	.010
Methyl Chloride	None Detected	.009
Methyl Bromide	None Detected	.03
Bromoform	None Detected	.02
Dichlorobromomethane	None Detected	.006
Trichlorofluoromethane	None Detected	.03
Dichlorodifluoromethane	None Detected	.01
Chlorodibromomethane	None Detected	.01
Tetrachloroethylene	None Detected	.007
Trichloroethylene	None Detected	.005
Vinyl Chloride	None Detected	.01
1,2-trans-Dichloroethylene	None Detected	.006
bis(chloromethyl) ether	None Detected	.003

BASE/NEUTRAL EXTRACTABLE ORGANIC COMPOUNDS

1,2-Dichlorobenzene	.04
1,3-Dichlorobenzene	.04
1,4-Dichlorobenzene	.04
Hexachloroethane	.001
Hexachlorobutadiene	.001
Hexachlorobenzene	.002
1,2,4-Trichlorobenzene	.006
Bis(2-Chloroethoxy)methane	.40
Naphthalene	.04
2-Chloronaphthalene	.04
Isophorone	5.0
Nitrobenzene	5.0
2,4-Dinitrotoluene	.06
2,6-Dinitrotoluene	.06

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LABORATORY ANALYSIS NO. 243

PAGE -2-

BY

Chemist

ENCLOSURE (1)

1. Facility: Marine Corps Base
Address: Camp Lejeune, North Carolina
County: Onslow
2. Specific Type of Pollution: Miscellaneous types of hazardous materials/wastes.
3. Amount of Pollution: Undetermined at this time.
4. Pollution Source and Discharge, Emission or Deposit Site:

Leachate from inactive chemical landfill located approximately 1800 meters north west of the confluence of Everetts Creek and New River and 300 meters west of New River shoreline.
5. Existing Treatment and Other Control Measures:

Three existing monitoring wells located at the site are periodically sampled and analysis performed. No remedial/abatement facilities/actions are in place or programmed.
6. Effectiveness of Existing Treatment and Control:

Adequacy of monitoring wells cannot be documented. Hydrological conditions at the site and hydrological relationships between the site and surrounding potable water wells/supplies are unknown.
7. Remedial Measures Proposed and Estimated Effect on Correcting Problem:

Provide the following: (a) Hydrological/engineering evaluation of the site; potentially affected ground/surface water supplies; and adequacy of existing monitoring program. (b) Design and construction of additional monitoring facilities/wells if required. (c) Develop baseline data for groundwater quality at the problem site.
8. Applicable Standards:
 - a. Comprehensive Environmental Response, Compensation and Liability Act of 1980.
 - b. Resource Conservational Recovery Act Regulations.
9. Project Schedule:

To be determined.
10. North Carolina Public Health Agency has been advised of the potential problem and supplied with available monitoring data. The general public was advised by a news release. The site was identified to the EPA as required by the Comprehensive Environmental Response Compensation and Liability Act of 1980.

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