



0271  
02.04-03/11/86-002<sup>c</sup>

UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542-5001

IN REPLY REFER TO:

6280/9  
FAC

11 MAR 1986

From: Commanding General, Marine Corps Base, Camp Lejeune  
To: Commander, Atlantic Division, Naval Facilities Engineering  
Command, Norfolk, VA 23511-6287 (Code 114)

Subj: GROUNDWATER QUALITY DATA

Ref: (a) U.S.E.P.A., Region IV ltr 4WD-ER dtd 3 Feb 86  
(b) Phonecon btwn Mrs. Barnette, LANTDIV and Mr. Alexander,  
MCB-FAC of 24 Feb 86

Encl: (1) Water Quality Data

1. We are forwarding the subject data as requested by the references in conjunction with the N.A.C.I.P. program. The enclosure represents data provided by N.C. Divisions of Health Services and Environmental Management, Raleigh, N.C. Data obtained by Navy contract laboratories should be combined with the enclosure for forwarding to EPA per reference (a) request.

2. As agreed during reference (b), all available data on drinking water quality for the N.A.C.I.P. program will be centrally stored in the LANTDIV Environmental Quality Branch. Mr. Bob Alexander, MCB Environmental Engineer, AV 484-3034 will provide assistance in this regard.

RA-Tiebout  
R. A. TIEBOUT  
By direction

Copy to:  
CMC (LFL)

includes 4/85 sample data from TT

CLW

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CONTENTS

DRINKING WATER QUALITY DATA

obtained for the

NAVY ASSESSMENT AND CONTROL OF INSTALLATION POLLUTANTS PROGRAM  
Camp Lejeune, North Carolina

- NCDEM ltr w/lab report dtd 21 June 85
- NCDHS lab reports dtd 22 Feb 85 (two reports)
- NCDHS lab reports dtd 8 Feb 85
- NCDHS lab reports dtd 4 Feb 85
- NCDHS lab reports dtd 31 Jan 85
- Summary of Tarawa Terrace Water Quality Data, dtd 19 Mar 85  
indicating data reported telephonically by NCDHS for 11 March 85  
samples.

**CLW**

**0000001427**



State of North Carolina  
Department of Natural Resources and Community Development  
Wilmington Regional Office

James G. Martin, Governor

S. Thomas Rhodes, Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

June 21, 1985

Colonel R.A. Tiebout  
Assistant Chief of Staff, Facilities  
United States Marine Corps  
Marine Corps Base  
Camp Lejeune, NC 28542-5001

SUBJECT: Transmittal of Analytical Results  
Three Community Water Supply Wells  
Tarawa Terrace I  
Camp Lejeune MCB  
Onslow County

Dear Colonel Tiebout:

Attached please find copies of the analytical results completed on samples that I collected on 9 April 1985 from wells TT-25, TT-26, and new TT.

Your staff's cooperation in helping me collect these samples was greatly appreciated.

Sincerely,

Rick Shiver  
Regional Hydrologist

RS/sbm

cc: Julien Wooten  
Mike Bell  
Perry Nelson

**CLW**

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Attachments

RECEIVED

COUNTY WILMINGTON

QUAD NO. X 241 SERIAL NO. JUN 6 1985

REPORT TO: (circle one)

ARO, WSRO, MRO, FRO, WARO, WIRO, RRO, Ahooskie FO, OTHER

WILMINGTON REGIONAL OFFICE GROUNDWATER FIELD/LAB FORM  
DEM

DEPARTMENT OF NATURAL RESOURCES & COMMUNITY DEVELOPMENT  
DEM

RECEIVED

JUN 4 1985

LAB NUMBER 9-122

DATE REC'D 4/10/85

REC'D BY SD

DATA ENTRY BY CK

DATA REPORTED 6-3-85

GROUND WATER SECTION

PURPOSE: (circle one) baseline, pollution monitor, other

DATE COLLECTED 01/07/85 Time 10:15 By ... Location or RALEIGH, NC

Description of sampling point ... Sampled interval ...

Remarks ... (pumping time, air temp, etc.)

Field Analysis By: SILVER Lat. 344423N Long. 770152W

pH ... Spec. Cond. ... Temp. ... °C ... Color ... Appearance ... Taste ...

Lab Analysis

✓ Alkalinity to pH 4.5	P00410	186 mg/l
Alkalinity, Hydroxide	P71830	21 mg/l
✓ Carbonate	P00445	<1 mg/l
✓ Bicarbonate	P00440	220 mg/l
✓ pH value (when analyzed)	P00400	8.2 units
✓ Arsenic (D)	P01000	<10 ug/l
Carbon dioxide	P00405	mg/l
✓ Chloride (D)	P00940	7 mg/l
✓ Color (True)	P00080	24 units
Cyanide	P00720	mg/l
✓ Dissolved solids (D)	P70301	230 mg/l
✓ Fluoride (D)	P00951	0.2 mg/l
✓ Hardness (as CaCO <sub>3</sub> ) (D)	P00900	170 mg/l
Hardness (non-carbonate) (D)	P00902	10 mg/l
MBAS (D)	P38260	mg/l
Phenol (D)	P34466	ug/l
✓ Silica (D)	P00955	6 mg/l
✓ Sulfate (D)	P00946	5 mg/l
Specific Cond.	P00094	420 uMOS/cm

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✓ Ag-Silver (D)	P01075	<50 ug/l
✓ Al-Aluminum (D)	P01106	100 ug/l
✓ Ba-Barium (D)	P01005	<1000 ug/l
✓ Ca-Calcium (D)	P00915	80 mg/l
✓ Cd-Cadmium (D)	P01025	<20 ug/l
✓ Cr-Chromium (D)	P01030	<50 ug/l
✓ Cu-Copper (D)	P01040	<20 ug/l
✓ Fe-Iron (D)	P01046	1200 ug/l
✓ Hg-Mercury	P71900	<0.2 ug/l
Li-Lithium (D)	P01130	<50 ug/l
✓ Mg-Magnesium (D)	P00925	2.0 mg/l
✓ Mn-Manganese (D)	P01056	<50 ug/l
✓ Na-Sodium (D)	P00929	5.4 mg/l
✓ Pb-Lead (D)	P01049	<100 ug/l
✓ Zn-Zinc (D)	P01090	<20 ug/l
✓ K-Potassium (D)	P00935	1.6 mg/l
✓ Se-Selenium		<5.0 ug/l

BOD	P00310	mg/l
COD	P00341	mg/l
Coliform (Fecal MF)	P31616	/100ml
Coliform (total MF)	P31505	/100ml
✓ TOC	P00680	<5 mg/l
Turbidity	P82079	NTU
✓ Ammonia (as Nitrogen) (D)	P00612	0.2 mg/l
✓ Kjeldahl (as Nitrogen) (D)	P00623	<0.1 mg/l
✓ Nitrate + Nitrite (as Nitrogen) (D)	P00631	<0.0 mg/l
✓ Phosphorus, total as P (D)	P00666	2.1 mg/l
Dissolved Solids - cond. meter	P70304	mg/l

Other Analyses:  
✓ ...  
✓ ...  
✓ ...

D - Dissolved Analysis - submit filtered sample  
White copy - Headquarters Pink copy - Region Yellow copy - Lab

Reported by AVL V

11 20

Date 3.24.85

Checked by AKD

ORGANIC ANALYSIS

Supervisor REK

Entered by \_\_\_\_\_

Checked by \_\_\_\_\_

Lab No.	Analytical Results
	<u>1 WATER</u>
<u>G-182</u>	<p>THE FOLLOWING COMPOUNDS WERE IDENTIFIED BY MATCHING TO LIBRARY MASS SPECTRA. THEY WERE NOT MATCHED TO STANDARDS. CONCENTRATIONS ( ) WERE ESTIMATED AS A RATIO TO A KNOWN INTERNAL STANDARD.</p>
	<p>BY GC/MS/PT:</p>
	<p>DICHLORO ETHERE (<u>1.4</u> <math>\mu\text{g/l}</math>)</p>
	<p>TRICHLORO ETHERE (<u>18</u> <math>\mu\text{g/l}</math>)</p>
	<p>TETRACHLORO ETHERE (<u>6.35</u> <math>\mu\text{g/l}</math>)</p>
	<p>ONE UNIDENTIFIED PEAK DETECTED BY GC/MS/PT-</p>

**CLW**

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GC/MS/DS used

COUNTY WILMINGTON  
 QUAD NO. 1 SERIAL NO. 11111

REPORT TO: (circle one)  
 ARO, WSRO, MRO, FRO, WaRO,  
 WIRO, RRO, Ahooskie FO,  
 OTHER \_\_\_\_\_

PURPOSE: (circle one) baseline, pollution monitor, other \_\_\_\_\_

DATE COLLECTED 11/10/85 Time 11:00 By DEM Location or site WILMINGTON

Description of sampling point WILMINGTON LOCAL PUMP Sampled interval 10:45 - 11:15

Remarks \_\_\_\_\_  
 (pumping time, air temp, etc.)

Field Analysis By: W. K. Lat. 344110 Long. 771701 W

pH \_\_\_\_\_ Spec. Cond. \_\_\_\_\_ Temp. \_\_\_\_\_ °C \_\_\_\_\_ Color \_\_\_\_\_ Appearance \_\_\_\_\_ Taste \_\_\_\_\_

Lab Analysis

✓ Alkalinity to pH 4.5	P00410	180 mg/l
Alkalinity, Hydroxide	P71830	1 mg/l
✓ Carbonate	P00445	< 1 mg/l
✓ Bicarbonate	P00440	22 mg/l
✓ pH value (when analyzed)	P00400	7.4 units
✓ Arsenic (D)	P01000	< 10 ug/l
Carbon dioxide	P00405	mg/l
✓ Chloride (D)	P00940	15 mg/l
✓ Color (True)	P00080	31 units
Cyanide	P00720	mg/l
✓ Dissolved solids (D)	P70301	250 mg/l
✓ Fluoride (D)	P00951	0.3 mg/l
✓ Hardness (as CaCO <sub>3</sub> ) (D)	P00900	190 mg/l
✓ Hardness (non-carbonate) (D)	P00902	10 mg/l
MBAS (D)	P38260	mg/l
✓ Phenol (D)	P34466	< 5 ug/l
✓ Silica (D)	P00955	7 mg/l
✓ Sulfate (D)	P00946	11 mg/l
Specific Cond.	P00094	450 µS/cm

✓ Ag-Silver (D)	P01075	< 50 µg/l
✓ Al-Aluminum (D)	P01106	< 100 µg/l
✓ Ba-Barium (D)	P01005	< 1000 µg/l
✓ Ca-Calcium (D)	P00915	77 mg/l
✓ Cd-Cadmium (D)	P01025	< 20 µg/l
✓ Cr-Chromium (D)	P01030	< 50 µg/l
✓ Cu-Copper (D)	P01040	< 20 µg/l
✓ Fe-Iron (D)	P01046	1000 µg/l
✓ Hg-Mercury	P71900	< 0.2 µg/l
✓ Li-Lithium (D)	P01130	< 50 µg/l
✓ Mg-Magnesium (D)	P00925	2.6 mg/l
✓ Mn-Manganese (D)	P01056	< 50 µg/l
✓ Na-Sodium (D)	P00929	12 mg/l
✓ Pb-Lead (D)	P01049	< 100 µg/l
✓ Zn-Zinc (D)	P01090	350 µg/l
✓ K-Potassium (D)	P00935	4.3 mg/l

BOD	P00310	mg/l
COD	P00341	mg/l
Coliform (Fecal MF)	P31616	/100ml
Coliform (total MF)	P31505	/100ml
✓ TOC	P00680	< 5 mg/l
Turbidity	P82079	NTU
✓ Ammonia (as Nitrogen) (D)	P00612	0.4 mg/l
✓ Kjeldahl (as Nitrogen) (D)	P00623	0.1 mg/l
✓ Nitrate + Nitrite (as Nitrogen) (D)	P00631	0.01 mg/l
✓ Phosphorus, total as P (D)	P00666	0.22 mg/l
Dissolved Solids - cond. meter	P70304	mg/l

Other Analyses:  
 ✓ PHOSPHORUS < 0.1 mg/l  
 ✓ WILMINGTON LOCAL PUMP  
 ✓ WILMINGTON LOCAL PUMP  
 ✓ WILMINGTON LOCAL PUMP

00000001431

D - Dissolved Analysis - submit filtered sample  
 White copy - Headquarters Pink copy - Region Yellow copy - Lab

RECEIVED  
 COMMUNITY DEVELOPMENT  
 DEM  
 GROUNDWATER FIELD/LAB FORM  
 JUN 9 1985

WILMINGTON REGIONAL OFFICE  
 DEM  
 GROUND WATER SECTION  
 RALEIGH, N. C.

LAB NUMBER G-174  
 DATE REC'D 4-10-85  
 REC'D BY DD  
 DATA ENTRY BY B. W. CK  
 DATA REPORTED 5-29-85



COUNTY ONSLOW

QUAD NO. X 211 SERIAL NO. 05-1170

REPORT TO: (circle one)

ARQ, WSRD, MRO, FRO, WARD,  
(WRO) RRO, Ahooskie FO,  
OTHER

PURPOSE: (circle one) baseline, pollution monitor, other

DATE COLLECTED 01/07/85 Time 1200 By SW/SL Location or site 11-25

Description of sampling point WELL 11-25 Sampled interval 70-75' 85' 95' 110'-175'

Remarks WELL 11-25 (pumping time, air temp, etc.)

Field Analysis By: SW/SL Lat. 34441917 Long. 7721430

pH 8.4 Spec. Cond. 390 Temp. 12 °C (Hor) 11 Appearance clear Taste ...

Lab Analysis

✓ Alkalinity to pH 4.5	P00410	170 mg/l
Alkalinity, Hydroxide	P71890	<1 mg/l
✓ Carbonate	P00445	<1 mg/l
✓ Bicarbonate	P00440	200 mg/l
✓ pH value (when analyzed)	P00400	7.5 units
✓ Arsenic (D)	P01000	<10 ug/l
Carbon dioxide	P00405	mg/l
✓ Chloride (D)	P00940	9 mg/l
✓ Color (True)	P00080	23 units
Cyanide	P00720	mg/l
✓ Dissolved solids (D)	P70301	220 mg/l
✓ Fluoride (D)	P00951	0.2 mg/l
✓ Hardness (as CaCO <sub>3</sub> ) (D)	P00900	180 mg/l
✓ Hardness (non-carbonate) (D)	P00902	10 mg/l
MBAS (D)	P38260	mg/l
✓ Phenol (D)	P34466	<5 ug/l
✓ Silica (D)	P00955	7 mg/l
✓ Sulfate (D)	P00946	7 mg/l
✓ Specific Cond.	P00094	390 UMOS/cm

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✓ Ag-Silver (D)	P01075	<50 ug/l
✓ Al-Aluminum (D)	P01106	120 ug/l
✓ Ba-Barium (D)	P01005	<1000 ug/l
✓ Ca-Calcium (D)	P00915	73 mg/l
✓ Cd-Cadmium (D)	PQ1025	<20 ug/l
✓ Cr-Chromium (D)	P01030	<50 ug/l
✓ Cu-Copper (D)	P01040	<20 ug/l
✓ Fe-Iron (D)	P01046	700 ug/l
✓ Hg-Mercury	P71900	<0.2 ug/l
✓ Li-Lithium (D)	P01130	<50 ug/l
✓ Mg-Magnesium (D)	P00925	1.9 mg/l
✓ Mn-Manganese (D)	P01056	<50 ug/l
✓ Na-Sodium (D)	P00929	6.1 mg/l
✓ Pb-Lead (D)	P01049	<100 ug/l
✓ Zn-Zinc (D)	P01090	<20 ug/l
✓ Potassium (D)	P00935	1.8 mg/l
✓ Selenium		<50 ug/l

BOD	P00310	mg/l
COD	P00341	mg/l
Coliform (Fecal MP)	P31616	/100ml
Coliform (total MP)	P31505	/100ml
✓ TOC	P00680	5 mg/l
Turbidity	P82079	NTU
✓ Ammonia (as Nitrogen) (D)	P00612	.01 mg/l
✓ Kjeldahl (as Nitrogen) (D)	P00623	<0.1 mg/l
✓ Nitrate + Nitrite (as Nitrogen) (D)	P00631	.01 mg/l
✓ Phosphorus, total as P (D)	P00666	.26 mg/l
Dissolved Solids - cond. meter	P70304	mg/l

Other Analyses:  
✓ Nitrate 2.01 mg/l  
✓ Ammonia 0.01 mg/l  
✓ Kjeldahl 0.01 mg/l  
✓ Phosphorus 0.26 mg/l

One unidentified particle found by GC/MS/PT  
No base was found or any extractables analyzed (GC/MS)

RECEIVED

N. C. DEPARTMENT OF NATURAL RESOURCES  
COMMUNITY DEVELOPMENT  
DEM  
WILMINGTON REGIONAL OFFICE

REC'D  
MAY 31 1985

LAB NUMBER G-181  
DATE REC'D 4-10-85  
REC'D BY SD  
DATA ENTRY BY ...  
DATA REPORTED 5-29-85

GROUND WATER SECTION  
RALEIGH, N. C.

DEM

D - Dissolved Analysis - submit filtered sample  
White copy - Headquarters Pink copy - Region Yellow copy - Lab



NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES  
DIVISION OF HEALTH SERVICES  
OCCUPATIONAL HEALTH LABORATORY

COMPANY: Camp Lejeune Water System  
ADDRESS: Camp Lejeune, Onslow County  
SAMPLE TAKEN ON: 02/07/85  
SAMPLE TAKEN BY: J. Fred Hill  
SUBMITTED TO LABORATORY: 02/08/85  
SUBMITTED BY: J. Fred Hill, E. Betz

CLW

0000001434

DATE OF ANALYSIS: 02/08/85  
ANALYSED BY: John L. Neal, Vicki Painter

DATE REPORTED: 02/08/85

RESULTS IN PPB (ug/L)

<u>LOCATION</u>	<u>trans 1,2-DCE</u>	<u>CHCl3</u>	<u>DCBM</u>	<u>TCE</u>	<u>DBCM</u>
Bldg. 20 Res. Fin. Water	5.3	10.3	6.3	16.8	3.4
Bldg. 20 Filter Eff.#1	<2.0	6.8	4.3	<2.0	2.0
Bldg. 20 Filter Eff.#2	<2.0	9.1	5.7	3.4	3.4
Bldg. 20 Influent	<2.0	5.0	4.0	<2.0	1.5
Bldg. 670* Res. Fin. Water	<2.0	14.84	8.3	<2.0	3.6
Bldg. 670 Filter Eff.#1	<2.0	11.45	6.1	<2.0	1.2
Bldg. 670 Filter Eff.#2	<2.0	10.03	5.8	<2.0	1.2
Bldg. 670 Influent	<2.0	8.1	4.9	<2.0	1.7
MOQ 2204 Hydr. Dis. Sys.	9.0	23.92	10.74	32.4	4.5
Bldg. 5400 Ber. Man. Sch.	44.8	24.49	10.83	135.1	5.0

COMMENTS: trans 1,2-DCE is trans 1,2-dichloroethylene, CHCl3 is Chloroform, DCBM is dichlorobromomethane, TCE is trichloroethylene, and DBCM is dibromochloromethane. Samples analysed by purge and trap method utilizing Hall detector in the halogen mode.

REPORTED BY: John L. Neal

cc. Charles Rundgren, Water Supply Branch  
Mike Bell, ERO  
J. Fred Hill, ERO  
Environmental Epidemiology

\* Holcomb Blvd. plant

DEPARTMENT OF HUMAN RESOURCES DIVISION OF HEALTH SERVICES  
 LABORATORY SECTION  
 OCCUPATIONAL HEALTH

G C REPORT SHEET

COMPANY: USMC CAMP LEJEUNE

DATE OF ANALYSIS: Feb. 7, 1985

SAMPLE #	TOTAL MILLIGRAMS ug/L								
	trans, 1,2-dichloroethylene	CHCl <sub>3</sub>		Dichlorobromo methane		Trichloroethylene		Dibromochloro-methane	
0446	5.3	10.3		6.3		16.8		3.4	
0447	< 2.0	6.8		4.3		< 2.0		2.0	
0448	< 2.0	9.1		5.7		3.4		3.4	
0449	< 2.0	5.0		4.0		< 2.0		1.5	
0450	< 2.0	14.84		8.3		< 2.0		3.6	
0451	< 2.0	11.45		6.1		< 2.0		1.2	
0452	< 2.0	10.03		5.8		< 2.0		1.2	
0453	< 2.0	8.1		4.9		< 2.0		1.7	
0454	9.0	23.92		10.74		32.4		4.5	
0455	44.8	24.49		10.83		135.1		5.0	

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 CLW

North Carolina Department of Human Resources  
 Division of Health Services  
 Occupational Health Laboratory

ANALYSIS REPORT

Company: USMC CAMP LEJEUNE  
 Address: (ONSTOWN Co.) 404 St. ANDREWS ST., GREENVILLE, N.C.  
 Service Requested: TCE & DCE  
 Sample Taken On: 7 FEB 85 By: J. Fred Will  
 Submitted To Laboratory On: 7 FEB 85 By: \_\_\_\_\_  
 Date of Analysis: \_\_\_\_\_ Date Reported: \_\_\_\_\_  
 Analyzed By: \_\_\_\_\_

SEALS INTACT RECD. V.P.

LABORATORY NUMBER	SAMPLE NUMBER	DESCRIPTION	REMARKS	RESULTS IN
500446	#1 Bldg. 20	RESERVOIR - FINISHED H <sub>2</sub> O		
500447	#2 " "	FILTER EFF. #1		
500448	#3 " "	FILTER EFF. #2		
500449	#4 " "	INFLUENT		
500450	#5 Bldg. 670	RESERVOIR	CLW	
500451	#6 " 670	FILTER EFF. #1	0000001436	
500452	#7 " 670	FILTER EFF. #2		
500453	#8 " 670	INFLUENT		
500454	#9 MOQ 2204	hydrant dist. system		
500455	Bldg. 5400	BERKLEY MANOR Elem. School CATERIA		

MENTS:

REPORTED BY: John D. Neal  
 Chief, Occupational Health Lab

STATE LABORATORY OF PUBLIC HEALTH  
 DIVISION OF HEALTH SERVICES  
 N. C. DEPARTMENT OF HUMAN RESOURCES  
 P.O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

**ORGANIC CHEMICAL ANALYSES-PRIVATE WATER SYSTEM**

Complete All Items Above Heavy Line  
 (See Instructions on Reverse Side)

# 308, 309,  
 310, 311

4/8/50/1

of m 165 WTC - Camp Lejeune  
 address Bldg. 670 - WTP  
 ZIP \_\_\_\_\_  
 city DIXON  
 sent to: J. Fred Hill  
 address: 404 St Andrews St  
Greenville NC  
 ZIP \_\_\_\_\_  
 telephone: Elizabeth P. Bly  
 collected: 1/29/85 Time: 1420 AM  
 PM  
 location of sampling point: Bldg 670 TREATED  
BEFORE RESERVOIR

Source of Water:  
 Ground ( ) Both  
 Surface ( ) Purchased

Source of Sample:  
 House Tap  
 Well Tap

Type of Sample:  
 Raw (X) Treated

Type of Treatment:  
 None (X) Lime  
 Chlorinated ( ) Soda Ash  
 Fluoridated ( ) Polyphosphate  
 Filtered ( ) Water Softener  
 Alum ( ) Other

Type of Analysis Desired:  
 Regular Parameters ( ) Both  
 Optional Parameters

tests: PETROLEUM PRODUCT ANALYSIS

Baseline E, EDB  
 HS

Regular Parameters		Optional Parameters (List as needed)	
	Results		Results
	<b>CLW</b>	units	
		mg/l	
		mg/l	
	<b>0000001437</b>	mg/l	<u>NO gasoline hydrocarbons</u>
		mg/l	<u>indicated by purge and</u>
		mg/l	<u>trap analysis.</u>
		mg/l	
		mg/l	
		mg/l	<u>TRICHLOROETHYLENE 339.8 ppb</u>
		mg/l	
		mg/l	<u>EDB &lt; 50 ppt</u>
		mg/l	
		units	
		NTU units	
		mg/l	

received 1/30/85 NW Date Reported 1-31-85 Reported By John H. Neal  
 analyzed 1/30/85 1-30-85 NW Laboratory Number 500308

*all residues  
 &  
 Please Rush  
 H. Shears*

STATE LABORATORY OF PUBLIC HEALTH  
 DIVISION OF HEALTH SERVICES  
 N. C. DEPARTMENT OF HUMAN RESOURCES  
 P.O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

ORGANIC CHEMICAL ANALYSES-PRIVATE WATER SYSTEM

CLW

Complete All Items Above Heavy Line  
 (See Instructions on Reverse Side)

0000001438

Name of System: USMC - Camp Lejeune  
 Address: Blg. 670 - WTP  
 ZIP: \_\_\_\_\_  
 County: Onslow  
 Report To: J. Fred Hill  
 Address: 404 St Andrews St  
Greenville NC  
 ZIP: 27834  
 Collected By: Elizabeth D. Bely  
 Date Collected: 29 JAN 1985 Time: 1405 AM/PM  
 Location of Sampling Point: Blg 670 Reservoir

Source of Water:  
 Ground  
 Surface  
 Both  
 Purchased

Source of Sample:  
 House Tap  
 Well Tap

Type of Sample:  
 Raw  
 Treated

Type of Treatment:  
 None  
 Chlorinated  
 Fluoridated  
 Filtered  
 Alum  
 Lime  
 Soda Ash  
 Polyphosphate  
 Water Softener  
 Other

Type of Analysis Desired:  
 Regular Parameters  
 Optional Parameters  
 Both

Remarks: PETROLEUM PRODUCT ANALYSIS

*methane 25ml per  
 H5*  
EAB & Baseline

Regular Parameters		Results	Optional Parameters (List as needed)	
	units			Results
Chlorine	mg/l		<u>No gasoline hydrocarbons indicated by purge and trap analysis.</u> <u>TRICHLOROETHYLENE 8.2 ppb</u> <u>EAB &lt; 50 ppt</u>	
Fluoride	mg/l			
Iron	mg/l			
Manganese	mg/l			
Nickel	mg/l			
Lead	mg/l			
Cadmium	mg/l			
Mercury	mg/l			
Hardness-CaCO <sub>3</sub> (Ca, Mg)	mg/l			
Alkalinity-CaCO <sub>3</sub>	mg/l			
Chloride	mg/l			
Turbidity	NTU units			
	mg/l			

Received 1/30/85 NW Date Reported 1-31-85 Reported by John P. Neal  
 Analyzed 1/30/85 NW Laboratory Number 500309

*Please Kiss  
J. Smears*

STATE LABORATORY OF PUBLIC HEALTH  
DIVISION OF HEALTH SERVICES  
N.C. DEPARTMENT OF HUMAN RESOURCES  
P.O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

ORGANIC CHEMICAL ANALYSES - Petroleum Prod.

Complete All Items Above Heavy Line  
(See Instructions on Reverse Side)

**CLW**

0000001439

Name of System: USMC-Camp Lejeune

Address: Bldg. 670 - WTP

County: Onslow

Report To: J. Fred Hill

Address: 404 St Andrews St  
Greenville NC ZIP 27834

Telephone Number: ( ) - -

Collected By: Elizabeth A. Bell

Date Collected: 29 JAN 1985 Time: 1315 AM PM

Location of Sampling Point: MOO 2212 PARADISE POINT  
(Address where sample was collected)

Remarks: gasoline & EDB CAMP LEJEUNE

Source of Water:  
 Ground  
 Surface  
 Both  
 Purchased

Source of Sample:  
 Distribution Tap  
 House Tap  
 Well Tap

Type of Sample:  
 Raw  
 Treated

Type of Treatment:  
 None  
 Chlorinated  
 Fluoridated  
 Filtered  
 Alum  
 Lime  
 Soda Ash  
 Polyphosph  
 Water Soft  
 Other

Type of Sample:  
 Regular  
 Check  
 Private  
 Special

WATER SYSTEM I.D. NUMBER (COPY FROM MAILING LABEL)

□ □ - □ □ - □ □ □

State Drinking Water Parameters (Required)

Optional Parameters (List as needed)

Results		Results	
<b>CHLORINATED HYDROCARBONS:</b>			
Endrin	mg/l	5	<i>No gasoline hydrocarbons</i>
Lindane	mg/l	4	
Methoxychlor	mg/l	3	
<b>CHLOROPHEINOXYS:</b>			
Toxaphene	mg/l	4	<i>indicated by judge and trap analysis</i>
2,4-D	mg/l	3	
2,4,5-TP	mg/l	4	<i>TRICHLOROETHYLENE 1,040.9</i>

*EDB 250 ppt*

Date Received: 1/30/85 Date Reported: 1-31-85 Reported By: John L. Neal

Collected: 1-30-85 Date Analyzed: 1/30/85 Laboratory Number: 50310

Comments: (+) HS

**#500310**

NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES  
DIVISION OF HEALTH SERVICES  
OCCUPATIONAL HEALTH LABORATORY

COMPANY: Camp Lejeune Water System  
ADDRESS: Camp Lejeune, Onslow County, N.C.  
SERVICE REQUESTED: Volatile Organic Analysis  
SAMPLE TAKEN ON: 02/19/85  
SAMPLE TAKEN BY: Gaines Huneycutt/Q.C. Lab  
SUBMITTED TO LABORATORY ON: 02/21/85  
SUBMITTED BY: via Federal Express

DATE OF ANALYSIS: 02/21-22/85  
ANALYZED BY: Vicki Painter

DATE REPORTED: 02/22/85

RESULTS IN PPB (ug/liter)

LOCATION	trans 1,2-DCE	TCE	TetraCE	CHCl3	DiCBM	DiCBM
TT New Well	trace	53.53	26.17	<2.0	<2.0	<2.0
TT-26 Well	trace	3.91	55.17	<2.0	<2.0	<2.0
TT Water Pit. Trt.	<2.0	<2.0	<2.0	0.9	2.1	3.2

COMMENTS: trans 1,2-DCE is trans 1,2-dichloroethene, TCE is trichloroethene, TetraCE is tetrachloroethene, CHCl3 is chloroform, DiCBM is dichlorobromo-methane, DiBCM is dibromochloromethane. Samples were collected from the Tarawa Terrace System. Samples were analysed by purge and trap method utilizing a Hall detector in the halogen mode. Identifications were confirmed by GC/MS.

REPORTED BY: 

cc. Charles Rundgren Water Supply Branch  
Mike Bell, ERO  
Fred Hill, ERO  
Environmental Epidemiology

CLW

0000001440

G C REPORT SHEET

COMPANY: ERO

DATE OF ANALYSIS: 2/22/85

PPB

XXXXXXXXXXXXXXXX

	Chloroform	Dichlorobromo- methane	Dibromochloro- methane	Trichloro- ethene		Dichloro- ethylene		
5400	14.6	11.0	4.9	*		*		
2204	15.7	11.2	4.4	*		*		
Treated	16.9	8.7	1.8	*		*		
Treated	10.9	8.1	3.0	*		*		
68	16.6	8.5	2.4	1.0		*		
		* = Less than detectable concentration by purge and trap utilizing Hall detector in halogen mode.						
		0000001441						
		CLW						



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**ORGANIC CHEMICAL ANALYSES - PUBLIC WATER SYSTEM**

Complete All Items Above Heavy Line  
 (See Instructions on Reverse Side)

0000001442

Name of System: TARAWA TOWER

Address: 1100 W. ... ZIP 28542

City: DURHAM

Port To: DIRECTOR NREAD

Address: COMMANDING GENERAL MARINE  
... NC ZIP 28542

Phone Number: (919) 451-5977

Collected By: GAINES HONEYCUTT / OC LAB

Collected: 19 FEB 1985 Time: 2:14:00 AM  
1:11 PM

Location of Sampling Point: (2) TT NEW ...  
 (Address where sample was collected) (3) TT ... TREATED

Remarks:

Source of Water:  
 Ground ( ) Both  
 Surface ( ) Purchased

Source of Sample:  
 Distribution Tap ( ) House Tap  
 Well Tap

Type of Sample:  
 Raw ( ) Treated

Type of Treatment:  
 None ( ) Lime  
 Chlorinated ( ) Soda Ash  
 Fluoridated ( ) Polyphosphate  
 Filtered ( ) Water Softener  
 Alum ( ) Other

Type of Sample:  
 Regular ( ) Private  
 Check ( ) Special

WATER SYSTEM I.D. NUMBER (COPY FROM MAILING LABEL)

04-67-044

**Drinking Water Parameters (Required)**

**Optional Parameters (List as needed)**

	Results		Results
<b>CHLORINATED HYDROCARBONS:)</b>			
Endrin	mg/l	5	
Lindane	mg/l	4	
Methoxychlor	mg/l	3	see attached sheet
Toxaphene	mg/l	4	
<b>DROPHENOXYYS:)</b>			
2,4-D	mg/l	3	
2,4,5-TP	mg/l	4	

Received 2/21/85 NW Date Reported 2/22/85 Reported By J. H. Neal

Extracted \_\_\_\_\_ Date Analyzed 2/21-22/85 Laboratory Number 5 0633  
5 0634  
5 0635

Comments: #500633  
500634, 500635

