

SWEB
MURKIN
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WASTE OIL MANAGEMENT

6245

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NOV 87

Mr. Jerr
Assistan
Solid &
Manage
Division
Post Off
Raleigh,

Dear Mr.

The purpose of this letter is to advise you of the Marine Corps Base, Camp Lejeune, waste oil management program. On September 4, 1987, I met with Mr. Gary Babb and Mr. Mack Henderson of your office. During the meeting, a determination was made that the contents of seven waste oil tanks identified in enclosure (1) would be managed as a hazardous waste. This determination was based on analytical data provided by this command. It was further determined that the date the analytical data was received by Marine Corps Base from the contract laboratory would be the accumulation start date, i.e., September 1, 1987.

Having reached agreement on the above, all parties in the September 4, 1987 meeting agreed to the following plan of action:

1. Marine Corps Base would expedite removal of the contents of the seven waste oil tanks within 90 calendar days;
2. If Marine Corps Base was unable to remove the oil within 90 calendar days, a request to your office would be made for a thirty day extension;
3. Marine Corps Base would take action to identify and eliminate sources of the unauthorized disposal of halogenated solvents into local waste oil collection system.

Be advised that this command understands the importance of proper waste oil recycling and management in achieving national and state goals to minimize the volume and toxicity of hazardous wastes generation. To date, three of the seven waste oil tanks have been emptied. Approximately 219,000 gallons of waste oil have been shipped to an off site treatment, storage and disposal facility at a cost of approximately \$589,000. I have been informed by the government contracting officer representative, that removal of the approximately 76,000 gallons in the remaining four tanks will begin in a few days.

Writer/Typist Sharyn Mc
 Date Typed 23 Nov 87
 Word Processor Number 50



1950-5052

SWEB
MURKIN

6240
NREAD
24 NOV 87

Mr. Jerry Rhodes
Assistant Head
Solid & Hazardous Waste
Management Branch
Division of Health Services
Post Office Box 2091
Raleigh, North Carolina 27602-2091

Dear Mr. Rhodes:

The purpose of this letter is to address issues related to the Marine Corps Base, Camp Lejeune, waste oil management program. On September 4, 1987, I met with Mr. Gary Babb and Mr. Mack Henderson of your office. During the meeting, a determination was made that the contents of seven waste oil tanks identified in enclosure (1) would be managed as a hazardous waste. This determination was based on analytical data provided by this command. It was further determined that the date the analytical data was received by Marine Corps Base from the contract laboratory would be the accumulation start date, i.e., September 1, 1987.

Having reached agreement on the above, all parties in the September 4, 1987 meeting agreed to the following plan of action:

1. Marine Corps Base would expedite removal of the contents of the seven waste oil tanks within 90 calendar days;
2. If Marine Corps Base was unable to remove the oil within 90 calendar days, a request to your office would be made for a thirty day extension;
3. Marine Corps Base would take action to identify and eliminate sources of the unauthorized disposal of halogenated solvents into local waste oil collection system.

Be advised that this command understands the importance of proper waste oil recycling and management in achieving national and state goals to minimize the volume and toxicity of hazardous wastes generation. To date, three of the seven waste oil tanks have been emptied. Approximately 219,000 gallons of waste oil have been shipped to an off site treatment, storage and disposal facility at a cost of approximately \$589,000. I have been informed by the government contracting officer representative, that removal of the approximately 76,000 gallons in the remaining four tanks will begin in a few days.

Writer/Typist Sharyn Mc
Date Typed 23 Nov 87
Word Processor Number 50



6240
NREAD

In that removal of this oil will likely not be completed before the end of November, I am requesting that the thirty-day extension discussed above be granted by your office. This matter was discussed with Mr. Gary Babb on November 18, 1987. At that time, Mr. Babb was advised of several other tanks which were in the process of being filled were sampled subsequent to September 4, 1987. The three tanks shown in enclosure (2) were found to contain halogens in excess of the 1000 parts per million standard. Although we made the hazardous waste determination in mid October, we are attempting to properly dispose of the 56,000 gallons in these tanks within the same time frame as the contents of the original seven tanks.

The assistance of your staff in resolving problems with our waste oil management program is greatly appreciated. Point of contact with this matter is Mr. Danny Sharpe, at telephone (919) 451-5003.

Sincerely,

T. J. DALELL
Colonel, U. S. Marine Corps
Assistant Chief of Staff, Facilities
By direction of the Commanding General

Encls:

- (1) Location of Waste Oil Tanks
- (2) " " Three Waste Oil Tanks w/ HMOGC

LOCATION OF WASTE OIL TANKS
CONTAINING HALOGENATED SOLVENTS DISCUSSED
WITH DIVISION OF HEALTH SERVICES ON SEPTEMBER 4, 1987

<u>STRUCTURE NUMBER</u>	<u>SHEET NUMBER</u>	<u>APPROXIMATE VOLUME OF CONTENTS PRIOR TO STARTING DISPOSAL</u>
S-781	2 of 5	185,500 (See note 1)
S-889	3 of 5	14,300
S-891	3 of 5	23,000
SPT-61	4 of 5	18,800 (See note 1)
SPT-62	4 of 5	19,900 (See note 1)
AS-420	5 of 5	18,700
AS-421	5 of 5	13,800

NOTE 1: These tanks have been emptied and are waiting cleaning prior to reuse for waste oil storage.

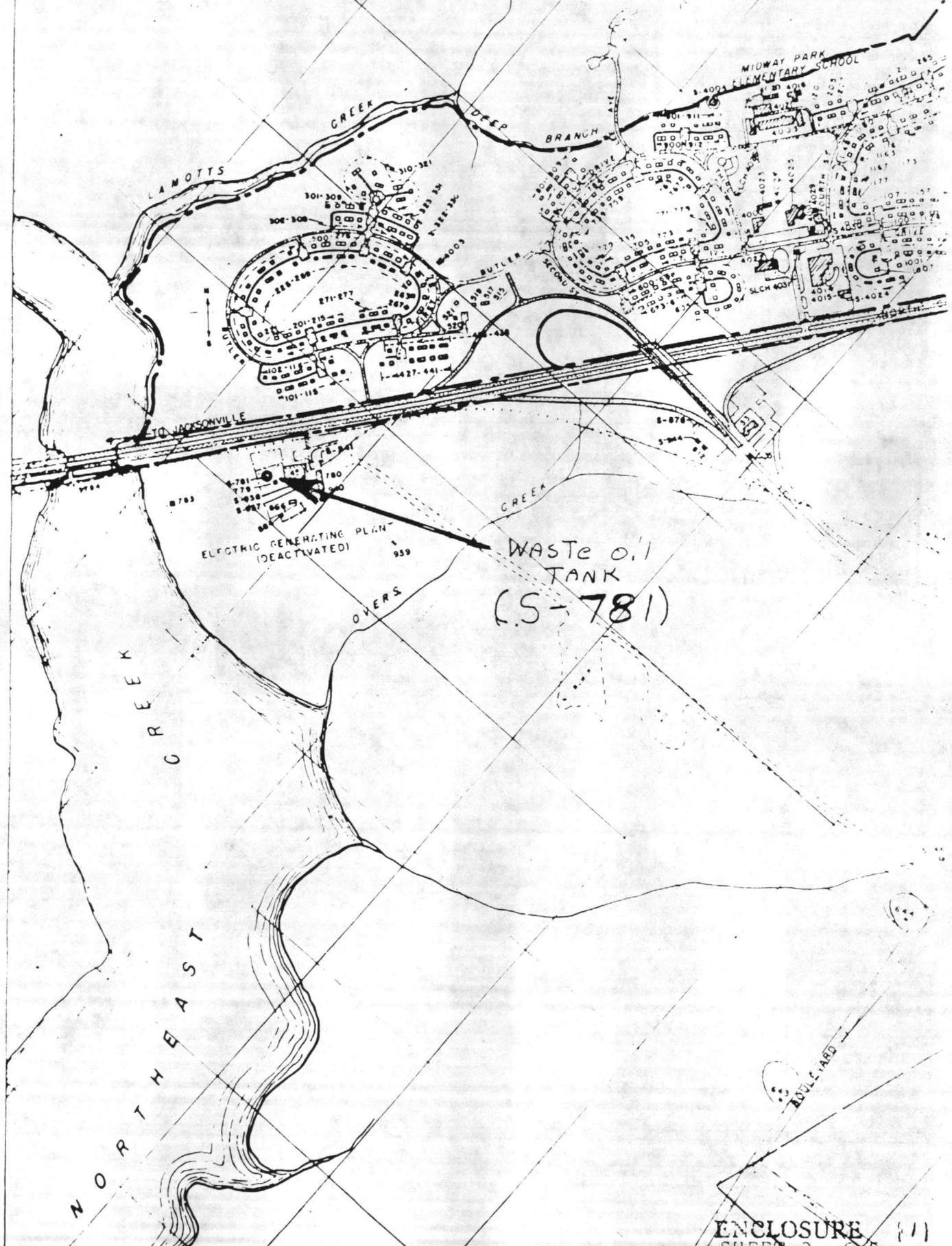
10

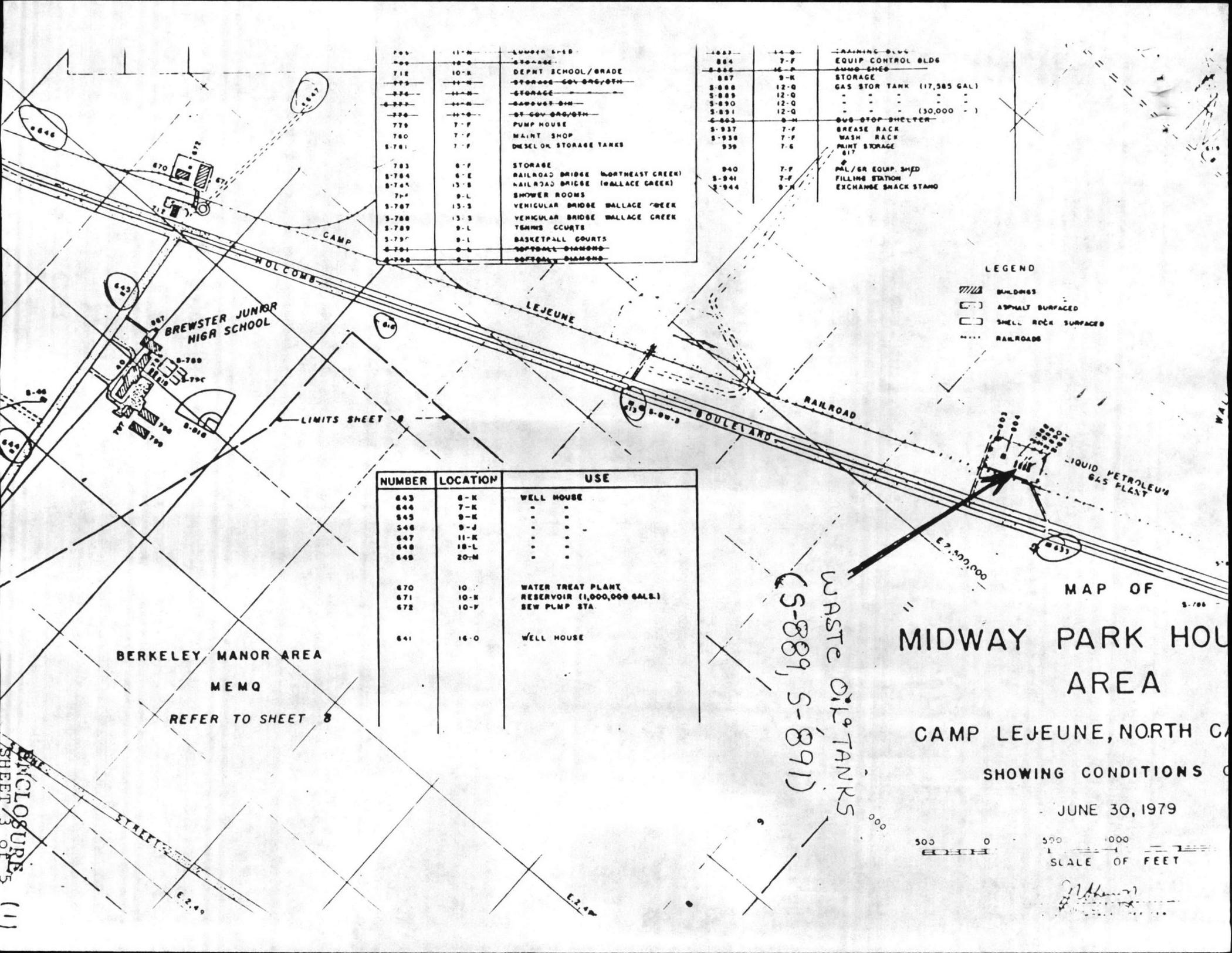
14026
106
4047
SOFTBALL FIELD
STORAGE CUV ORG/OTH

SINGLE AND DOUBLE DWELLINGS
LEGEND FOR BUILDING NUMBERS

INDICATES THAT NUMBERING
INCREASES BY INCREMENTS OF TWO NUMBERS IN DIRECTION
INDICATED BY ARROW, FOR EXAMPLE: 1211, 1213, 1215, 1217,
1219, 1261, 1263, 1265.
EXCEPTION, NUMBERS 310 TO 321 INCLUSIVE, ARE CONSECUTIVE

NOTE ALL BUILDING NUMBERS IN MIDWAY PARK AREA
ARE PREFIXED BY LCH.





705	11-N	LUMBER SHED
706	10-O	STORAGE
718	10-K	DEPT SCHOOL/GRADE
723	11-N	STORAGE GOV GAR, GTH
726	11-N	STORAGE
727	11-N	STORAGE SH
728	11-O	ST GOV GAR, GTH
729	7-F	PUMP HOUSE
780	7-F	MAINT SHOP
S-781	7-F	DIESEL OIL STORAGE TANKS
783	8-F	STORAGE
S-784	8-E	RAILROAD BRIDGE (NORTHEAST CREEK)
S-745	13-B	RAILROAD BRIDGE (WALLACE CREEK)
784	9-L	SHOWER ROOMS
S-787	13-B	VEHICULAR BRIDGE WALLACE CREEK
S-788	13-B	VEHICULAR BRIDGE WALLACE CREEK
S-789	9-L	TENNIS COURTS
S-790	9-L	BASKETBALL COURTS
S-791	8-L	SOFTBALL DIAMOND
S-792	8-L	SOFTBALL DIAMOND

882	14-O	TRAINING BLDG
884	7-F	EQUIP CONTROL BLDG
S-886	16-F	AMMO SHED
887	9-K	STORAGE
S-888	12-Q	GAS STOR TANK (17,385 GAL)
S-889	12-Q	" " " " " "
S-890	12-Q	" " " " " "
S-891	12-Q	" " " " (30,000 ")
S-902	8-M	BUS STOP SHELTER
S-937	7-F	GREASE RACK
S-938	7-F	WASH RACK
939	7-G	PAINT STORAGE
		BIT
940	7-F	PAL/GR EQUIP SHED
S-944	7-F	FILLING STATION
S-944	8-K	EXCHANGE SHACK STAND

LEGEND

	BUILDINGS
	ASPHALT SURFACED
	SHELL ROCK SURFACED
	RAILROADS

NUMBER	LOCATION	USE
643	8-K	WELL HOUSE
644	7-K	" "
645	9-K	" "
646	9-J	" "
647	11-K	" "
648	18-L	" "
648	20-M	" "
670	10	WATER TREAT PLANT
671	10-K	RESERVOIR (1,000,000 GALS.)
672	10-F	SEW PLMP STA
641	16-O	WELL HOUSE

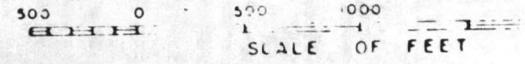
BERKELEY MANOR AREA
MEMO
REFER TO SHEET 8

(S-889, S-891)
WASTE OIL TANKS

MAP OF
MIDWAY PARK HOUSING
AREA

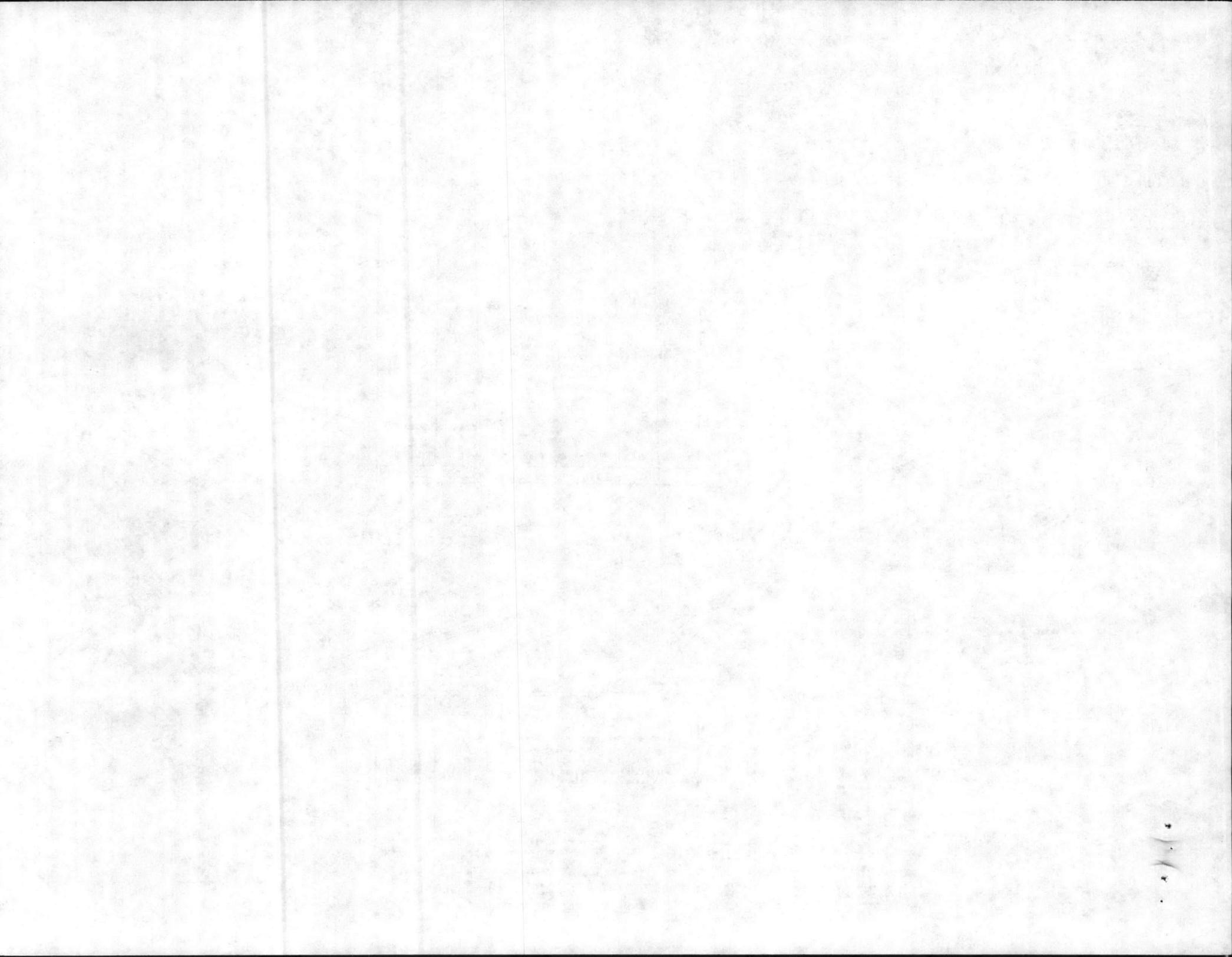
CAMP LEJEUNE, NORTH CAROLINA
SHOWING CONDITIONS

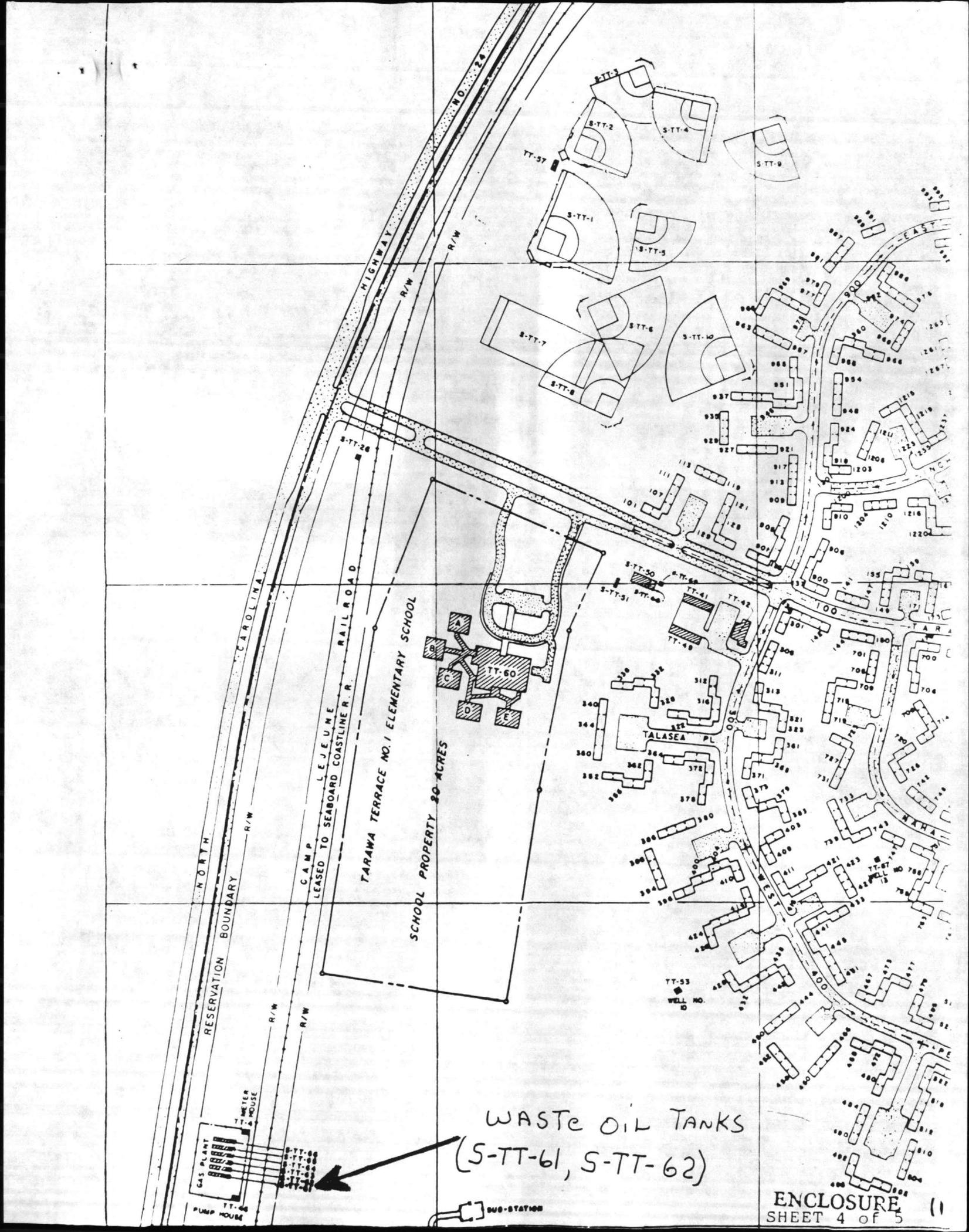
JUNE 30, 1979



[Handwritten signature]

ENCLOSURE SHEET 3 OF 5 (1)





TARAWA TERRACE NO. 1 ELEMENTARY SCHOOL
 SCHOOL PROPERTY 80 ACRES

WASTE OIL TANKS
 (S-TT-61, S-TT-62)

ENCLOSURE 11
 SHEET 4 of 5

RESERVATION BOUNDARY
 NORTH CAROLINA
 R/W
 R/W
 R/W
 R/W
 CAMP LEJEUNE
 LEASED TO SEABOARD COASTLINE R.R.
 RAILROAD

GAS PLANT
 TT-46
 PUMP HOUSE
 METER HOUSE
 TT-47
 TT-48
 TT-49
 TT-50
 TT-51
 TT-52
 TT-53
 TT-54
 TT-55
 TT-56
 TT-57
 TT-58
 TT-59
 TT-60

BUS STATION

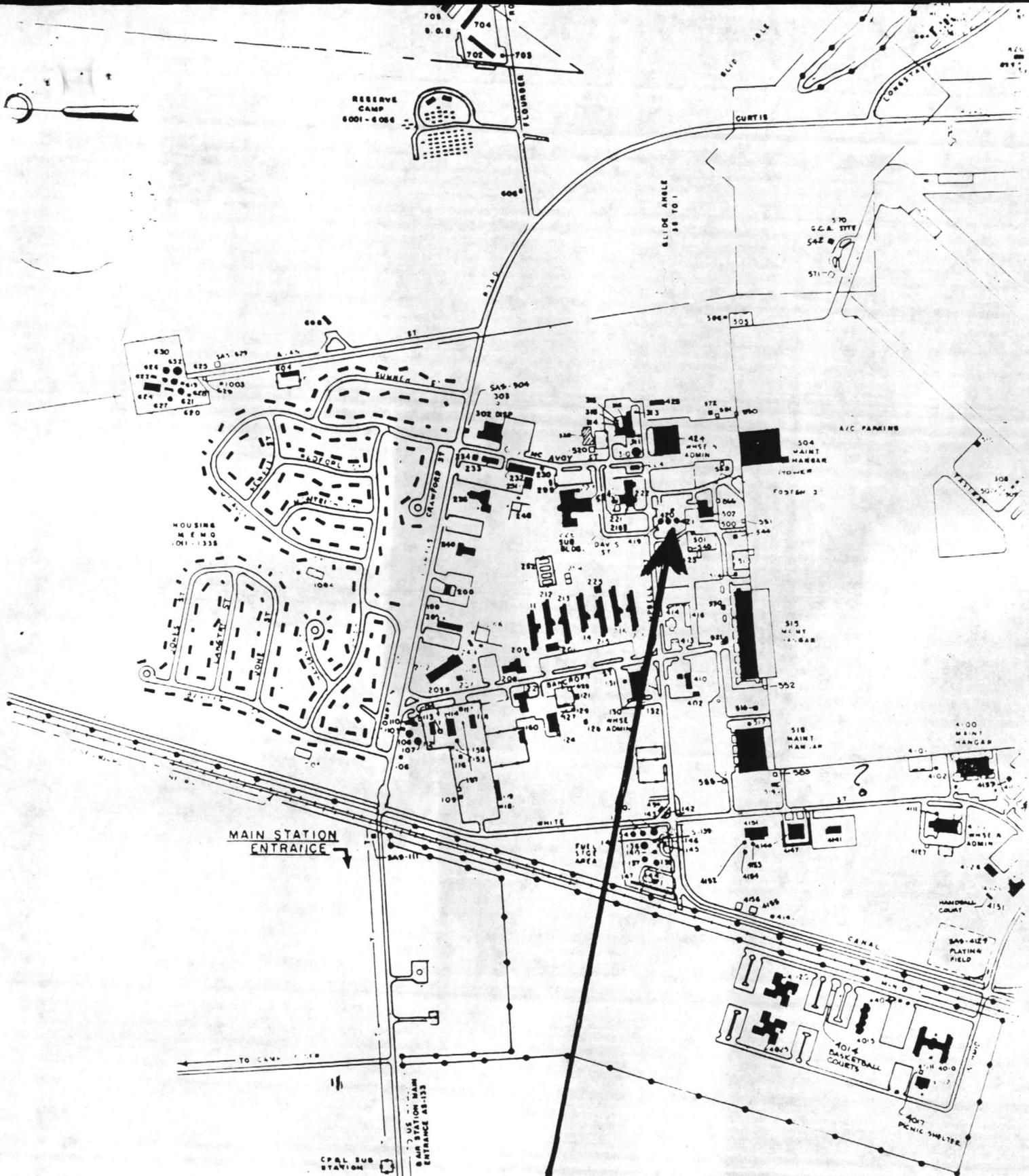
WELL NO. D

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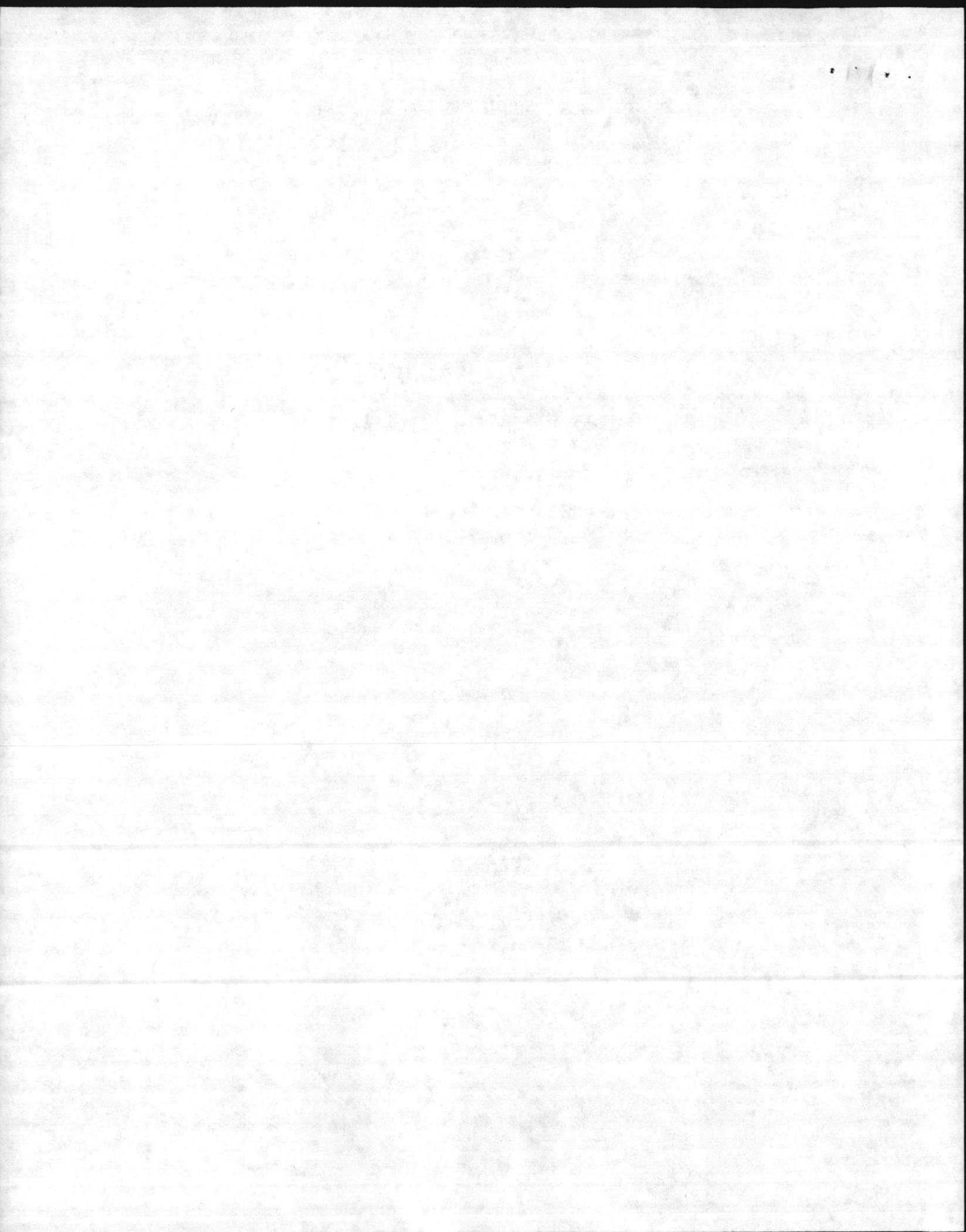
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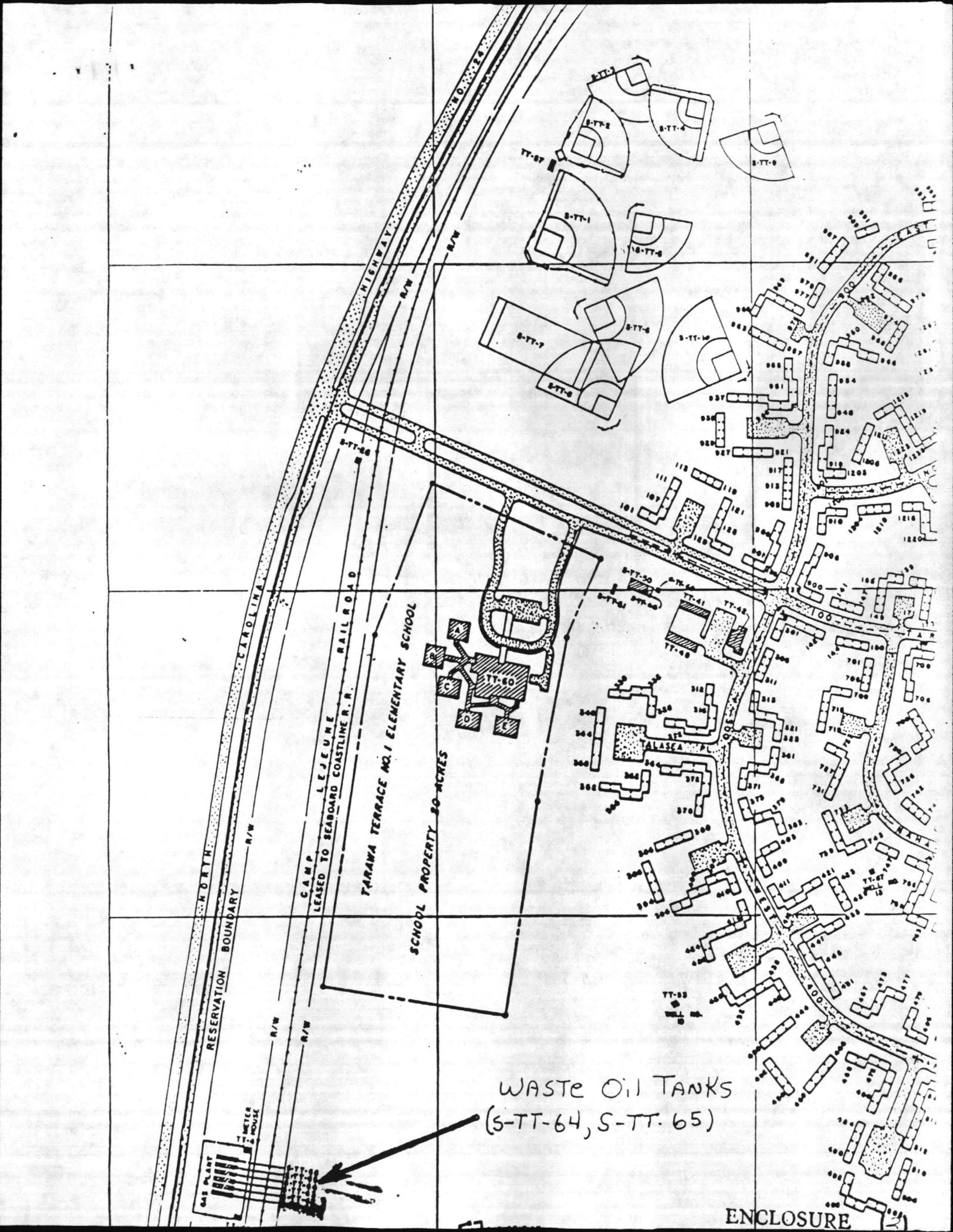


WASTE OIL TANKS
(AS-420, AS-421)

LOCATION OF THREE WASTE OIL TANKS
CONTAINING HALOGENATED SOLVENTS DISCUSSED
WITH DIVISION OF HEALTH SERVICES
(MR. GARY BABB) ON NOVEMBER 18, 1987.
THESE TANKS WERE TESTED AFTER SEPTEMBER 4, 1987.

STRUCTURE NUMBER	SHEET NUMBER	APPROXIMATE VOLUME OF CONTENTS AS OF NOVEMBER 18, 1987
STT- 64	2 of 3	18,000
STT-65	2 of 3	15,800
AS-419	3 of 3	22,200



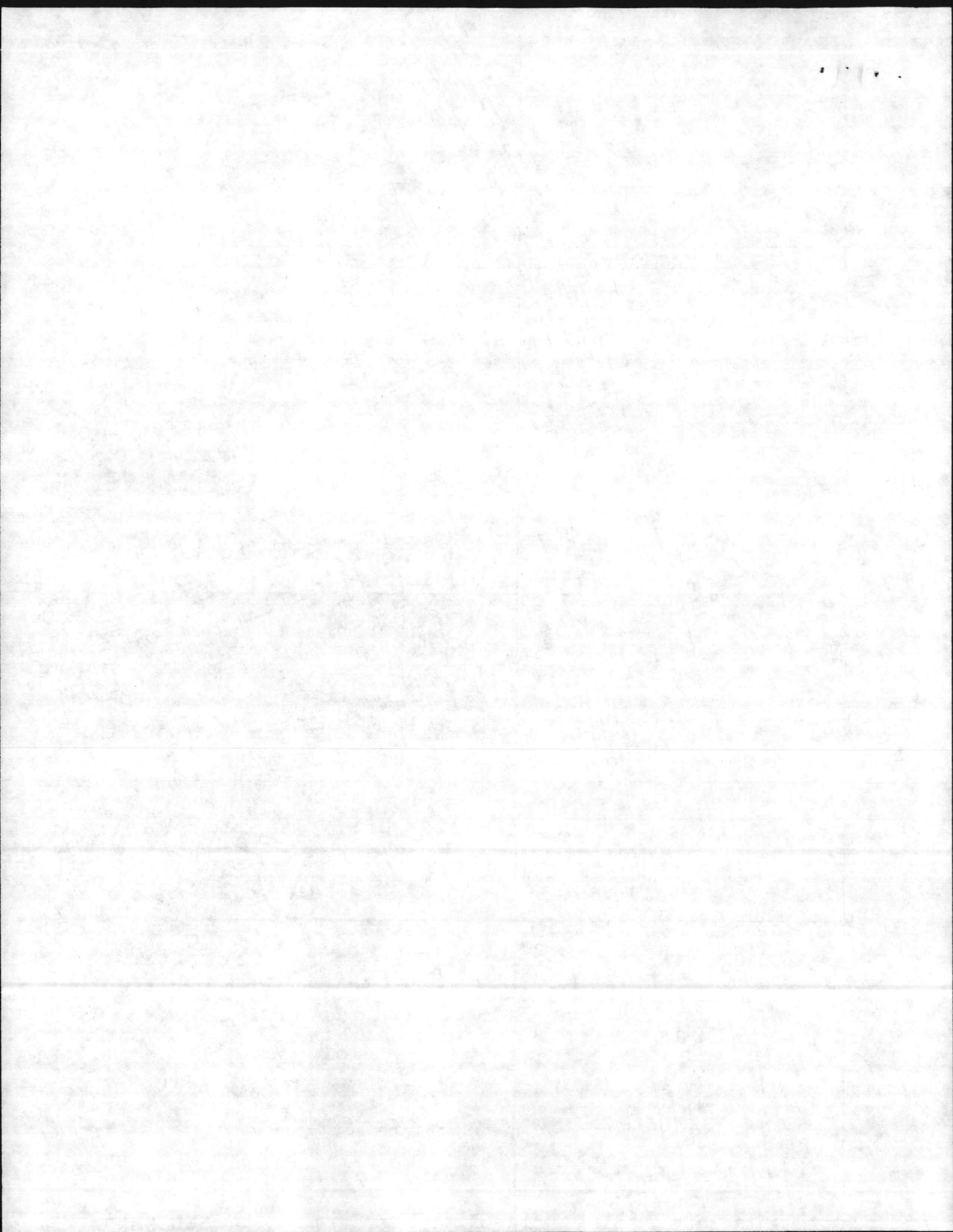


NORTH
RESERVATION BOUNDARY
CAROLINA RAILROAD
CAMP LEJEUNE
LEASED TO SEABOARD COASTLINE R.R.

TARAWA TERRACE NO. 1 ELEMENTARY SCHOOL
SCHOOL PROPERTY 30 ACRES

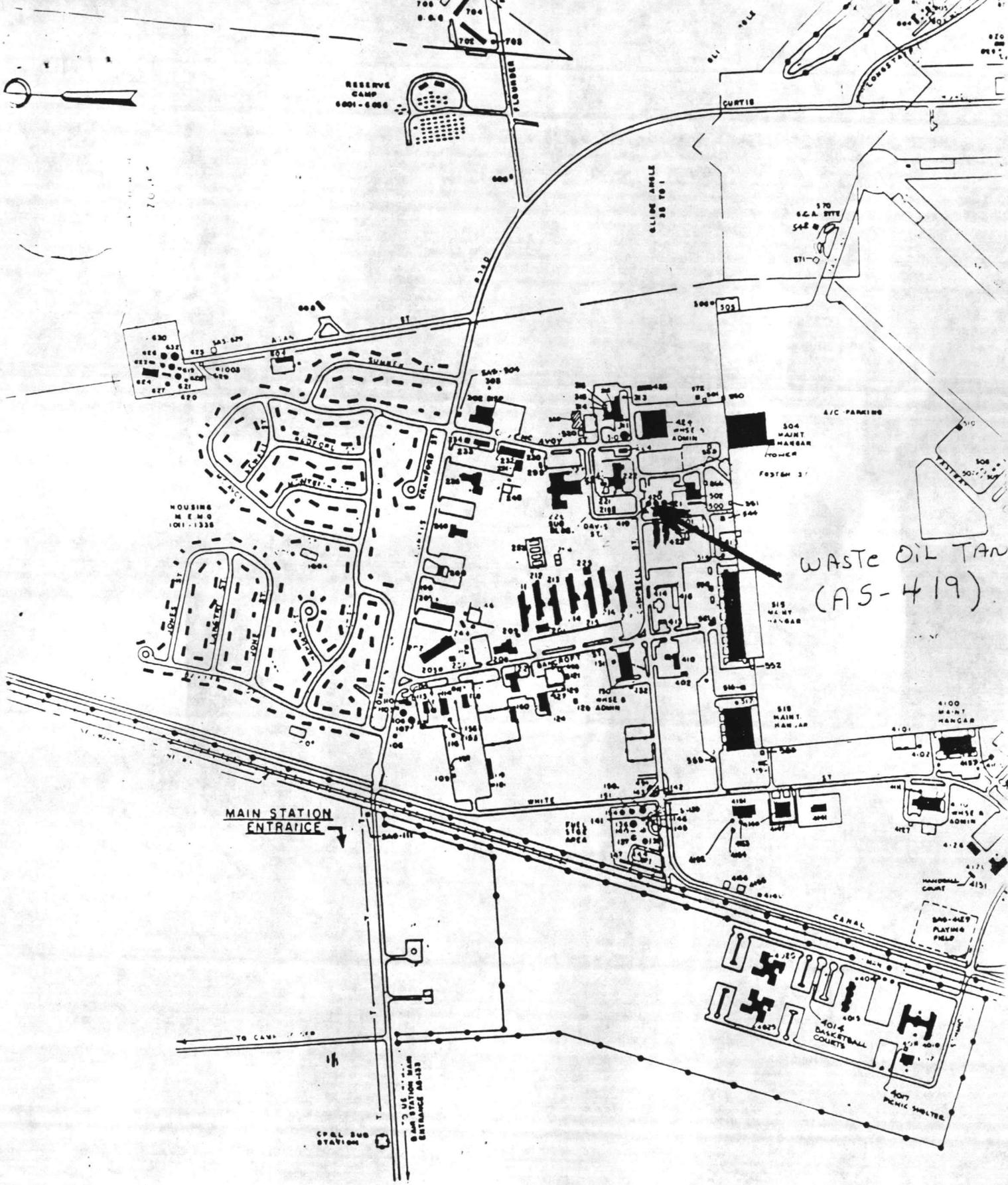
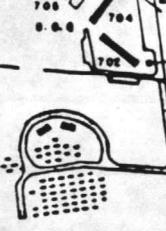
WASTE OIL TANKS
(S-TT-64, S-TT-65)

ENCLOSURE

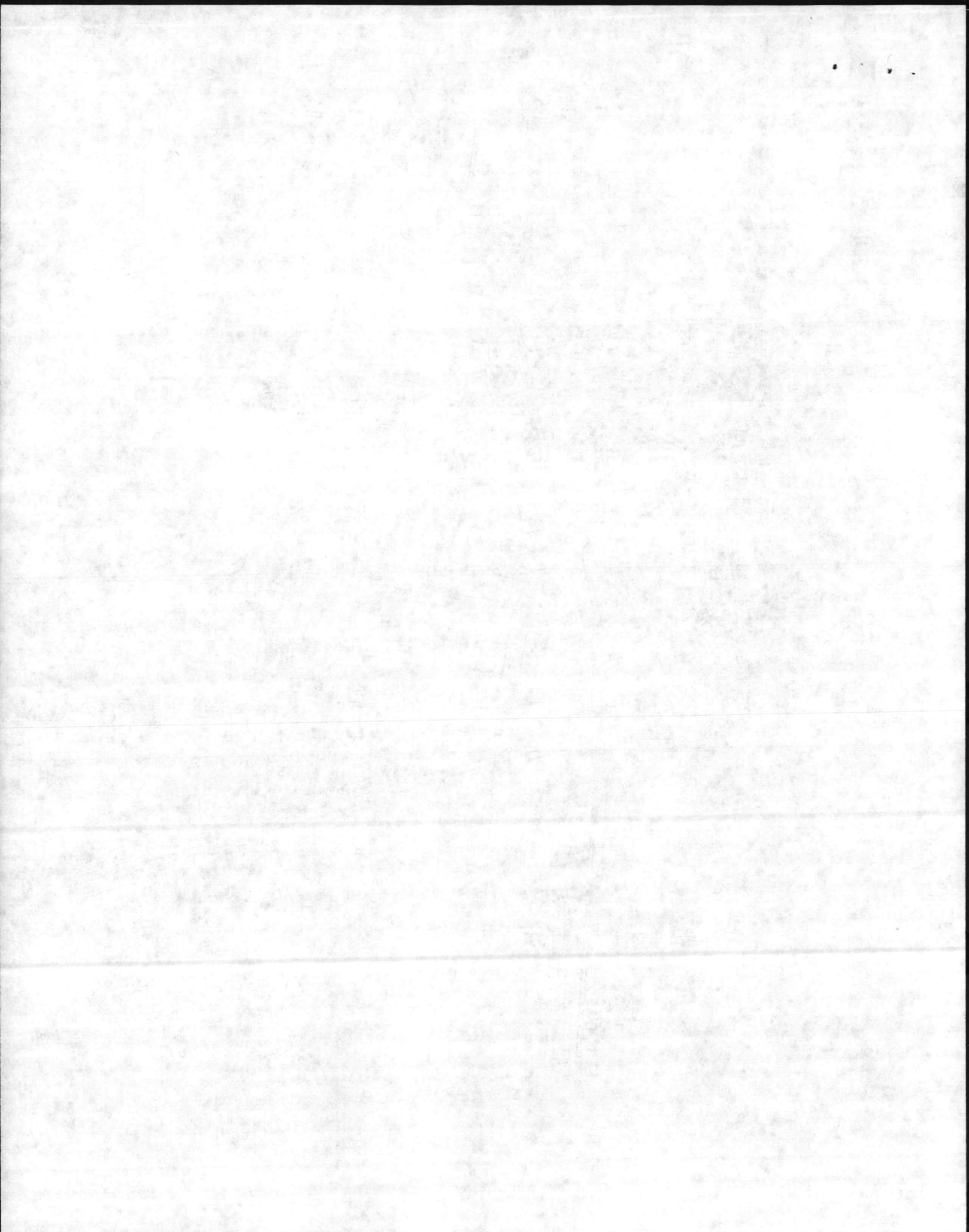




RESERVE CAMP
6001-6006



WASTE OIL TANK
(AS-419)





North Carolina Department of Human Resources
Division of Health Services
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor
David T. Flaherty, Secretary

December 11, 1987

Ronald H. Levine, M.D., M.P.H.
State Health Director

Colonel T.J. Dalzell
Assistant Chief of Staff, Facilities
United States Marine Corps
Marine Corps Base
Camp Lejeune, North Carolina 28542-5001

Re: Waste Oil Tanks

Dear Colonel Dalzell:

This letter is in response to your request for a 30 day extension to complete removal of hazardous waste oil from on-site tanks. Based upon discussions with Mr. David Ellison, US EPA Region IV, subsequent to our September 4, 1987 meeting, it is apparent that the hazardous waste oil has been stored in tanks for periods exceeding 90 days. The fact that the waste determination was not completed until September 1, 1987 does not affect the length of time the hazardous waste oil has been in storage.

It is the opinion of this office and Region IV EPA that the hazardous waste oil tanks are subject to the closure requirements of Subpart G and J of 40 CFR 265. This decision renders the request for a 30 day extension unnecessary. This office does encourage the prompt removal of the waste in order to provide a higher degree of protection to the environment.

The closure plan for the hazardous waste oil tanks must be submitted to this office by January 29, 1988. Camp Lejeune may use the cleaned tanks for non-hazardous waste oil until the closure plan is approved as long as documentation is maintained that the cleaning procedure met the requirements of 40 CFR 265.111, codified at 10 NCAC 10F .0033. If the approved closure plan indicates a cleaning methodology or procedure which was not accomplished prior to re-using the tanks for non-hazardous waste oil, those tanks may require re-emptying and cleaning.

If you have any questions concerning this requirement, please contact Mr. Gary Babb of my staff at (919) 933-2178.

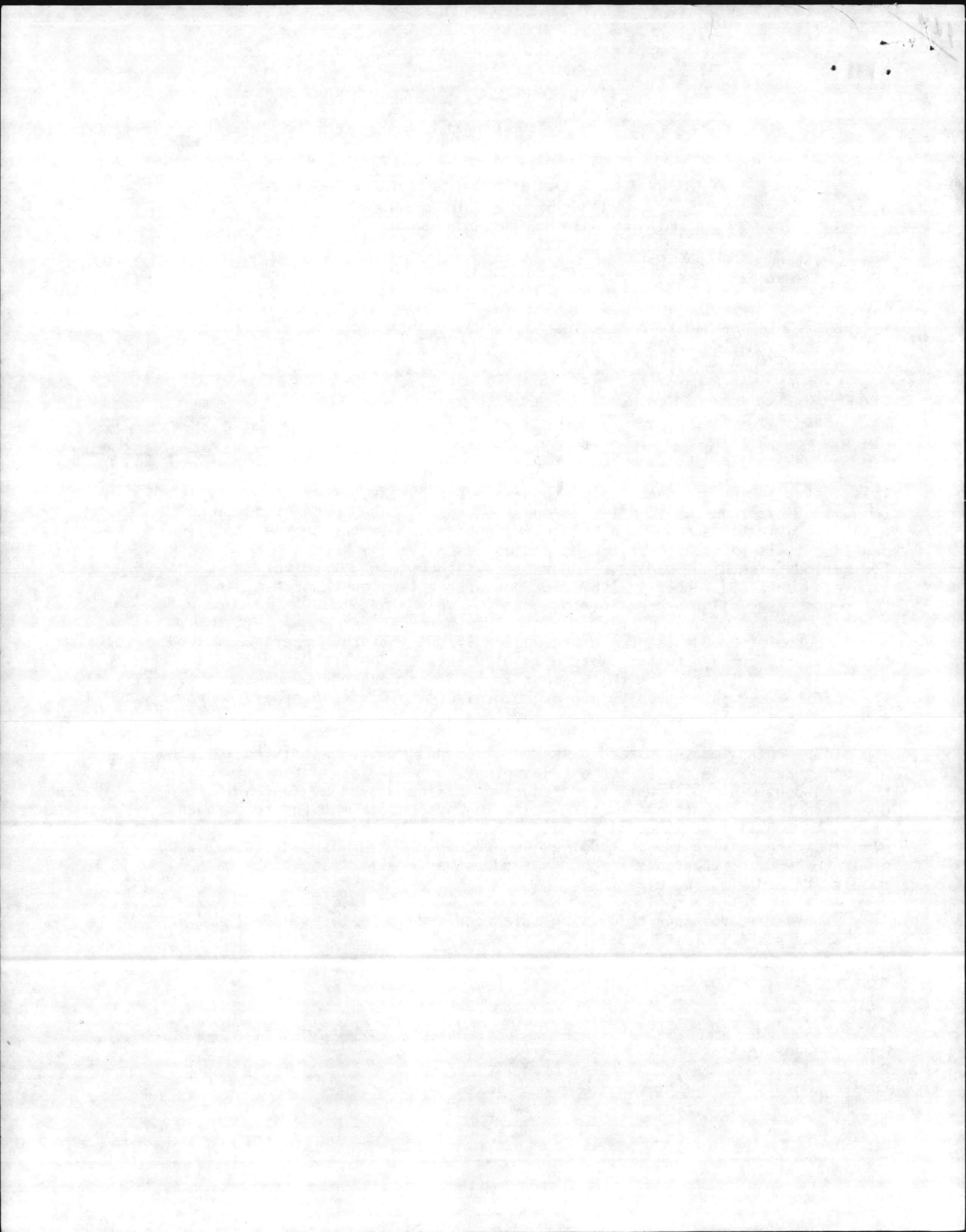
Respectfully,

A handwritten signature in cursive script, appearing to read "Jerry Rhodes".

Jerry Rhodes, Assistant Head
Solid & Hazardous Waste Management Branch
Environmental Health Section

JR/dd/7754A

cc: Dave Ellison
Richard Gay
Danny Sharpe



File



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

6240
NREAD

JUN 30 1988

Mr. George Garcia
Environmental Engineer
North Carolina Department of Human Resources
Division of Health Services
P.O. Box 2091
Raleigh, NC 27602-2091

**RE: Facility EPA ID Nos. NC6170022580 and
NC8170022570 Hazardous Waste Tank Closure
Plans**

Mr. Garcia:

The purpose of this letter is to provide information requested during the June 10, 1988 meeting between representatives of this command and yourself. The subject closure plans address three facilities aboard Marine Corps Base, Camp Lejeune and one facility located aboard Marine Corps Air Station, New River. My letter dated November 24, 1987, provided location maps for each of these four facilities to Mr. Jerry Rhodes of your office.

Closure of these four facilities will require cleaning (decontamination) of the waste oil storage tanks which have been contaminated by hazardous wastes. Enclosures (1) and (2) address two facilities where this cleaning has been completed. Analytical data contained in enclosures (1) and (2) indicate that the cleaning was very effective.

Enclosure (3) has been prepared by our consultant and is forwarded for your consideration as agreed during the June 10, 1988 meeting discussed previously. Loss of use of the tanks described in enclosures (1) and (2) will have serious adverse impact on our oil pollution control program. Mr. Danny Sharpe, Supervisory Ecologist, Natural Resources and Environmental Affairs Division, Facilities Department, Marine Corps Base, Camp Lejeune, 28542, telephone extension (919) 451-5003 is available to assist with any questions you may have.

Sincerely,

T. J. DALZELL
Colonel, U. S. Marine Corps
Assistant Chief of Staff, Facilities
By direction of the Commanding General



1801



UNITED STATES MARINE CORPS
NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS DIVISION
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542-5001

IN REPLY REFER TO:

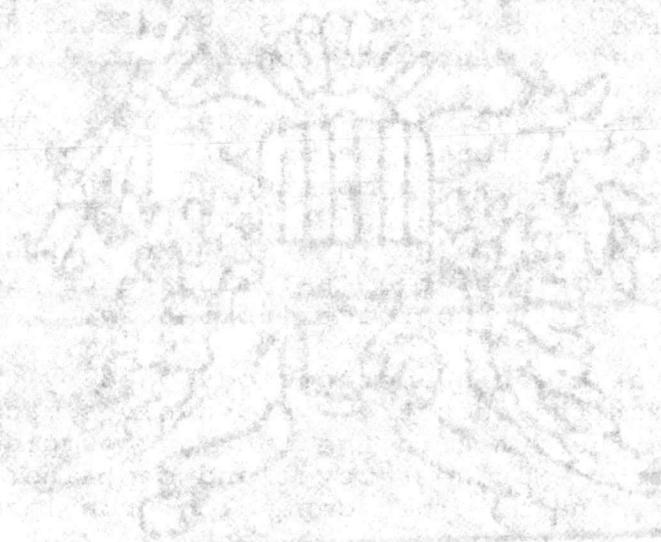
6240
NREAD
27 June 88

Environmental Chemistry & Microbiology Section Report

Subj: CLEANING OF TANKS # S-889 AND S-891, HOLCOMB BOULEVARD
STORAGE FACILITY

1. Background. Waste oil has routinely been collected at the Camp Lejeune Complex and stored in large tanks awaiting sale, donation or disposal by the Defense Reutilization and Marketing Officer (DRMO), Camp Lejeune. The four tanks at the Holcomb Blvd Gas Plant were LP gas tanks converted in 1983 and used to store waste oil. All the waste oil stored in these tanks have been analyzed prior to disposal. In fall of 1987, oil stored in S-889 and S-891 was declared a hazardous waste (HW) oil due to contamination with the solvent freon by aircraft maintenance operating at individual shops aboard the Marine Corps Air Station, New River (MCAS-NR). The MCAS-NR uses Freon in a "patch test" run to quality control the hydraulic fluid in helicopters. Disposal of the regulated "patch test" wastes in MCAS, NR waste oil tanks was confirmed by July 1987, oil analysis. Base Maintenance commingled waste oil from Marine Corps Base and from MCAS, NR resulting in S-889 and S-891 being declared HW storage tanks. In response, action was taken to have the contents of Holcomb Blvd tanks S-889 and S-891 disposed of as a HW and the tanks cleaned by a private contractor.
2. On 2 March 1988, High Rise Services Company, the contractor for cleaning the tanks, began work at the Holcomb Blvd Facility. The next day work was completed on both tanks, S-889 and S-891. 2500 gallons of sludge and rinsate were transferred to S-781 awaiting disposal as HW in bulk. Mr. Manuel Martin, NREAD, obtained a sample of the last rinsate of each tank for subsequent analysis by a Navy contract laboratory.
3. The tank cleaning methodology used by the contractor is standard for the industry. It involves manhole cover removal, exhausting the fumes in the tank and pumping out the liquids before entry. Sludge removal and containerization was accomplished next. Then depending upon laboratory analysis of the tanks previous contents, the tank walls are soaped, rinsed and scraped. The soap used is Sea Clean which is used to clean ocean going oil tankers. A high-pressure spray is used to rinse. The contractor then determines the tank atmosphere to be gas-free.
4. Since freon was the hazardous waste that contaminated the waste oil, the samples of the final rinsate from each tank were submitted for a volatile organic chemical analysis scan which included freon. The analysis data sheets are contained in Attachment A. Client sample #88-48 is for rinsate from tank S-889 and #88-49 is for rinsate from tank S-891. The rinsate from tank S-889 had 0.07 mg/l of freon and the rinsate from S-891 had 0.17 mg/l of Freon.

ENCLOSURE (1)

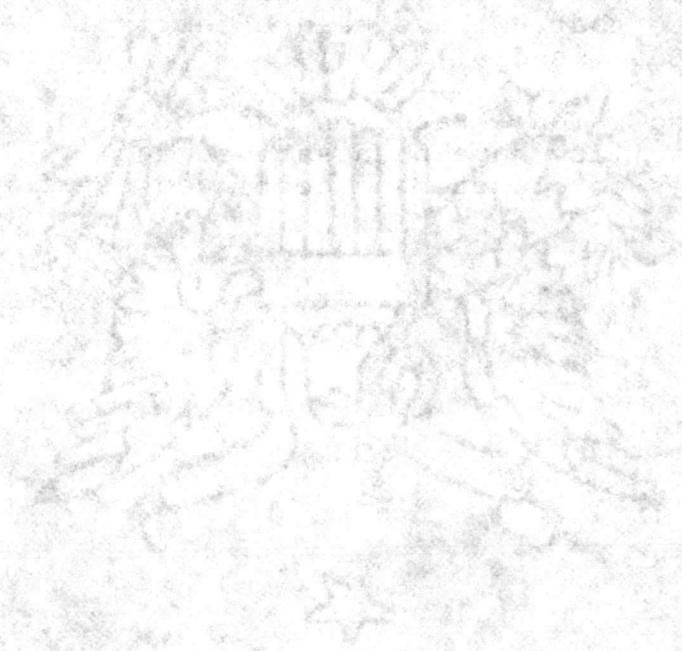


5. Current procedures requires that the MCAS-NR oil not be mixed with Marine Corps Base oil or stored off MCAS-NR. Waste oil stored in S-889 and S-891 until closure should not become contaminated by any residual in the tanks themselves. As shown by Attachment B, analysis of oil collected during March-April following cleaning, indicate that HW have been effectively segregated from Marine Corps Base used oil. This oil is currently stored in S-891.

6. Conclusion: Based on the above information, the tanks at this facility have been satisfactorily cleaned for both the purposes of closure and continued use for storage of waste oil.

Elizabeth A. Betz
ELIZABETH A. BETZ

2000



JTC DATA REPORT, # 88-141
LABORATORY ANALYSIS ON NAVAL SAMPLES
CONTRACT #N62470-86-C-8754
CASE # 261
Complete

PREPARED FOR:
DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA 23511-6287

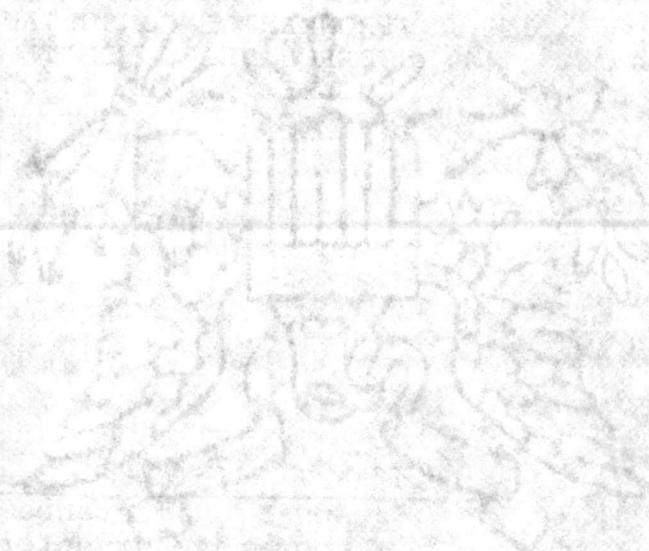
PREPARED BY:
JTC ENVIRONMENTAL CONSULTANTS, INC.
4 RESEARCH PLACE, SUITE L-10
ROCKVILLE, MARYLAND 20850

APRIL 15, 1988

Ann E. Rosecrance
Ann E. Rosecrance
Laboratory Director

Attachment (A)
Enclosure (1)

286

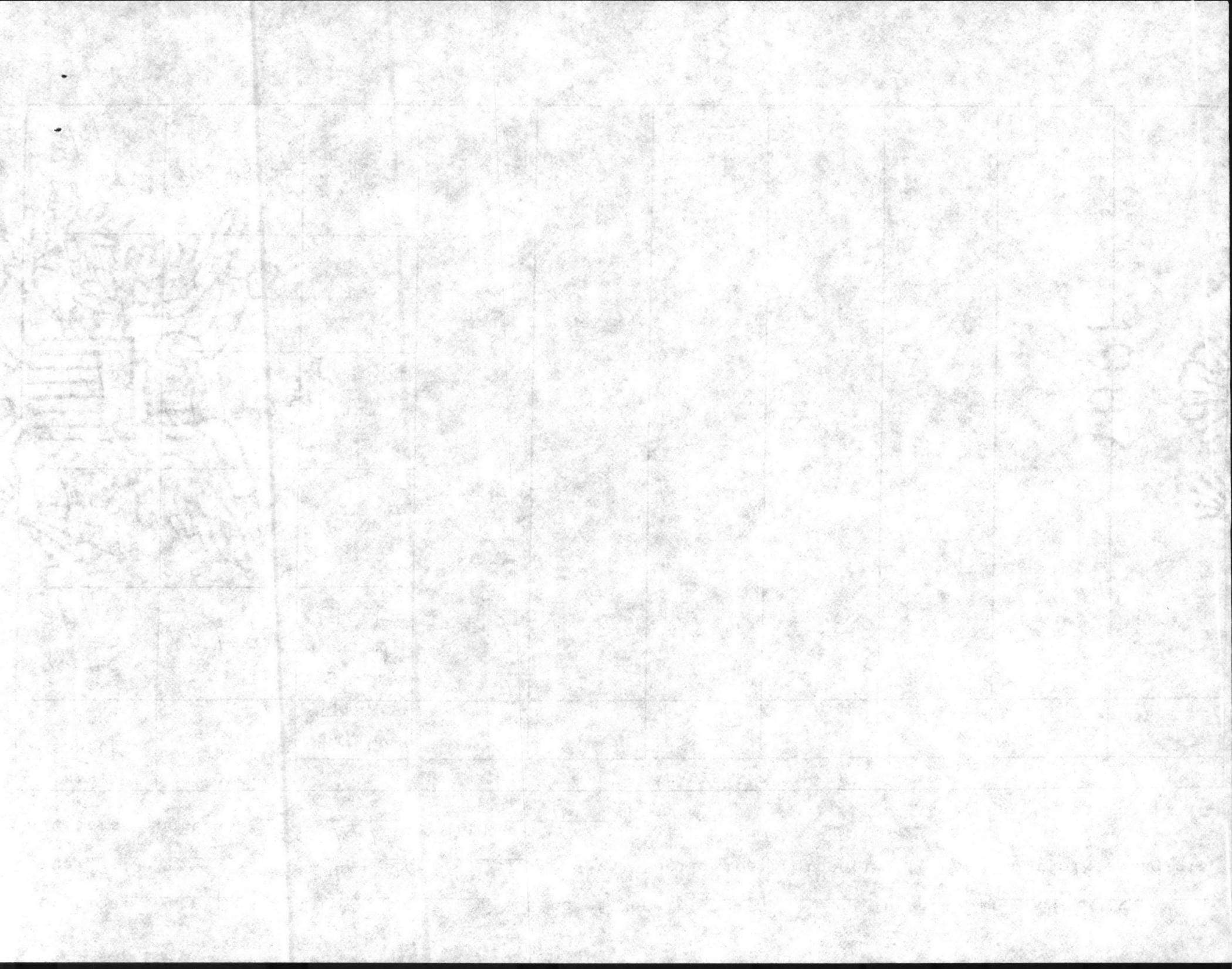


Location: Camp Lejeune Date of Receipt: 3-16-88 Turnaround: routine

Date: 4-18-88 Case No. 261 to Naval Facilities Engineering Command, Norfolk, Virginia

JTC Data Report No. 88-141 Table 1 of 1

NAVY SAMPLE ID	JTC SAMPLE ID	ANALYSIS PARAMETER						
		Volatiles + Freon						
88-48 3/1/88	61-1590	see attached sheet						
88-49 3/1/88	61-1591	"						
88-50 3/3/88	61-1592	"						
88-51 3/4/88	61-1593	"						
88-52 3/4/88	61-1594	"						



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C Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

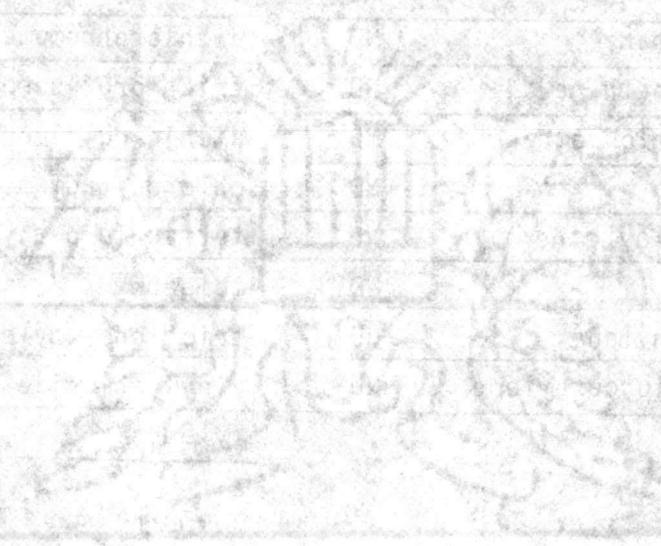
VOLATILE FRACTION

JTC SAMPLE # 61-1590 PROJECT NO. NF-61 #261
CLIENT SAMPLE # 88-48 DATE RECEIVED 3-16-88
METHOD NO. 624 DETECTION LIMIT 500 ug/L

PARAMETER	RESULT ug/L	PARAMETER	RESULT ug/L
acrolein	ND	1,2-dichloropropane	ND
acrylonitrile	ND	1,3-dichloropropylene	ND
benzene	ND	ethylbenzene	ND
carbon tetrachloride	ND	methylene chloride	ND
chlorobenzene	ND	methyl chloride	ND
1,2-dichloroethane	ND	methyl bromide	ND
1,1,1-trichloroethane	300* ND	bromoform	ND
1,1-dichloroethane	ND	dichlorobromomethane	ND
1,1,2-trichloroethane	ND	trichlorofluoromethane	ND
1,1,2,2-tetrachloroethane	ND	dichlorodifluoromethane	ND
chloroethane	ND	chlorodibromomethane	ND
2-chloroethylvinylether	ND	tetrachloroethylene	ND
chloroform	ND	toluene	ND
1,1-dichloroethylene	ND	trichloroethylene	ND
1,2-trans-dichloroethylene	ND	vinyl chloride	ND
		xylenes	ND
		freon	70* ND

ND = NOT DETECTED

* = BELOW DETECTION LIMIT



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C Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

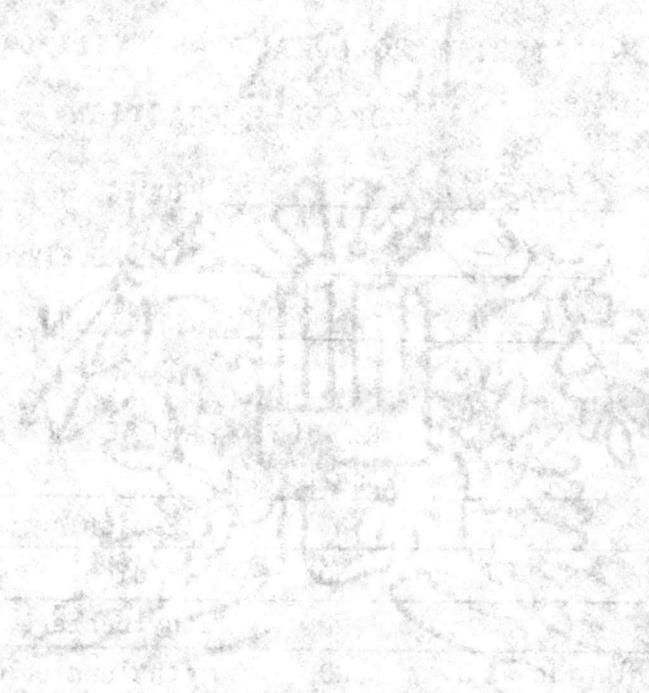
VOLATILE FRACTION

JTC SAMPLE # 61-1591 PROJECT NO. NF-61 #261
CLIENT SAMPLE # 88-49 DATE RECEIVED 3-16-88
METHOD NO. 624 DETECTION LIMIT 500 ug/L

PARAMETER	RESULT ug/L	PARAMETER	RESULT ug/L
acrolein	ND	1,2-dichloropropane	ND
acrylonitrile	ND	1,3-dichloropropylene	ND
benzene	ND	ethylbenzene	ND
carbon tetrachloride	ND	methylene chloride	ND
chlorobenzene	ND	methyl chloride	ND
1,2-dichloroethane	ND	methyl bromide	ND
1,1,1-trichloroethane	150* ND	bromoform	ND
1,1-dichloroethane	ND	dichlorobromomethane	ND
1,1,2-trichloroethane	ND	trichlorofluoromethane	ND
1,1,2,2-tetrachloroethane	ND	dichlorodifluoromethane	ND
chloroethane	ND	chlorodibromomethane	ND
2-chloroethylvinylether	ND	tetrachloroethylene	ND
chloroform	ND	toluene	200* ND
1,1-dichloroethylene	ND	trichloroethylene	ND
1,2-trans-dichloroethylene	ND	vinyl chloride	ND
		xylenes	350* ND
		freon	170* ND

ND = NOT DETECTED

* = BELOW DETECTION LIMIT



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Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

VOLATILE FRACTION

JTC SAMPLE # 61-1592 PROJECT NO. NF-61 #261
CLIENT SAMPLE # 88-50 DATE RECEIVED 3-16-88
METHOD NO. 624 DETECTION LIMIT 500 ug/L

PARAMETER	RESULT ug/L	PARAMETER	RESULT ug/L
acrolein	ND	1,2-dichloropropane	ND
acrylonitrile	ND	1,3-dichloropropylene	ND
benzene	ND	ethylbenzene	ND
carbon tetrachloride	ND	methylene chloride	ND
chlorobenzene	ND	methyl chloride	ND
1,2-dichloroethane	ND	methyl bromide	ND
1,1,1-trichloroethane	250* ND	bromoform	ND
1,1-dichloroethane	ND	dichlorobromomethane	ND
1,1,2-trichloroethane	ND	trichlorofluoromethane	ND
1,1,2,2-tetrachloroethane	ND	dichlorodifluoromethane	ND
chloroethane	ND	chlorodibromomethane	ND
2-chloroethylvinylether	ND	tetrachloroethylene	ND
chloroform	ND	toluene	ND
1,1-dichloroethylene	ND	trichloroethylene	ND
1,2-trans-dichloroethylene	ND	vinyl chloride	ND
		xylenes	ND
		freon	290* ND

ND = NOT DETECTED

* = BELOW DETECTION LIMIT



J
T

C Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

VOLATILE FRACTION

JTC SAMPLE # 61-1593 PROJECT NO. NF-61 #261
CLIENT SAMPLE # 88-51 DATE RECEIVED 3-16-88
METHOD NO. 624 DETECTION LIMIT 500 ug/L

PARAMETER	RESULT ug/L	PARAMETER	RESULT ug/L
acrolein	ND	1,2-dichloropropane	ND
acrylonitrile	ND	1,3-dichloropropylene	ND
benzene	ND	ethylbenzene	ND
carbon tetrachloride	ND	methylene chloride	ND
chlorobenzene	ND	methyl chloride	ND
1,2-dichloroethane	ND	methyl bromide	ND
1,1,1-trichloroethane	<u>6000</u> ND	bromoform	ND
1,1-dichloroethane	ND	dichlorobromomethane	ND
1,1,2-trichloroethane	ND	trichlorofluoromethane	ND
1,1,2,2-tetrachloroethane	ND	dichlorodifluoromethane	ND
chloroethane	ND	chlorodibromomethane	ND
2-chloroethylvinylether	ND	tetrachloroethylene	ND
chloroform	ND	toluene	<u>250</u> * ND
1,1-dichloroethylene	ND	trichloroethylene	ND
1,2-trans-dichloroethylene	ND	vinyl chloride	ND
		xylenes	<u>100</u> * ND
		freon	<u>9060</u> ND

ND = NOT DETECTED

* = BELOW DETECTION LIMIT



TO THE HONORABLE SECRETARY OF STATE
WASHINGTON, D. C.

Dear Sir:

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the matter mentioned therein.

I am, Sir, very respectfully,
Your obedient servant,
[Signature]



J
T

C Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

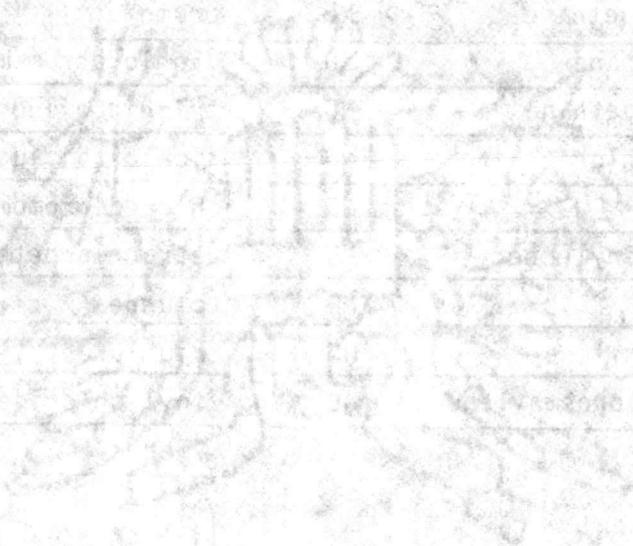
VOLATILE FRACTION

JTC SAMPLE # 61-1594 PROJECT NO. NF-61 #261
CLIENT SAMPLE # 88-52 DATE RECEIVED 3-16-88
METHOD NO. 624 DETECTION LIMIT 500 ug/L

PARAMETER	RESULT ug/L	PARAMETER	RESULT ug/L
acrolein	ND	1,2-dichloropropane	ND
acrylonitrile	ND	1,3-dichloropropylene	ND
benzene	ND	ethylbenzene	ND
carbon tetrachloride	ND	methylene chloride	ND
chlorobenzene	ND	methyl chloride	ND
1,2-dichloroethane	ND	methyl bromide	ND
1,1,1-trichloroethane	<u>750</u> ND	bromoform	ND
1,1-dichloroethane	ND	dichlorobromomethane	ND
1,1,2-trichloroethane	ND	trichlorofluoromethane	ND
1,1,2,2-tetrachloroethane	ND	dichlorodifluoromethane	ND
chloroethane	ND	chlorodibromomethane	ND
2-chloroethylvinylether	ND	tetrachloroethylene	ND
chloroform	ND	toluene	<u>150</u> * ND
1,1-dichloroethylene	ND	trichloroethylene	ND
1,2-trans-dichloroethylene	ND	vinyl chloride	ND
		xylene	<u>100</u> * ND
		freon	<u>2440</u> ND

ND = NOT DETECTED

* = BELOW DETECTION LIMIT



JTC DATA REPORT # 88-236
LABORATORY ANALYSIS ON NAVAL SAMPLES
CONTRACT #N62470-86-C-8754
CASE # 310
Complete

PREPARED FOR:

DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA 23511-6287

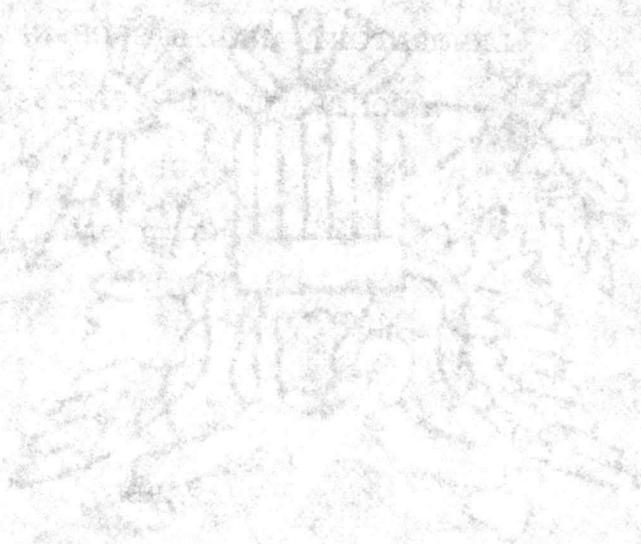
PREPARED BY:

JTC ENVIRONMENTAL CONSULTANTS, INC.
4 RESEARCH PLACE, SUITE L-10
ROCKVILLE, MARYLAND 20850

JUNE 13, 1988

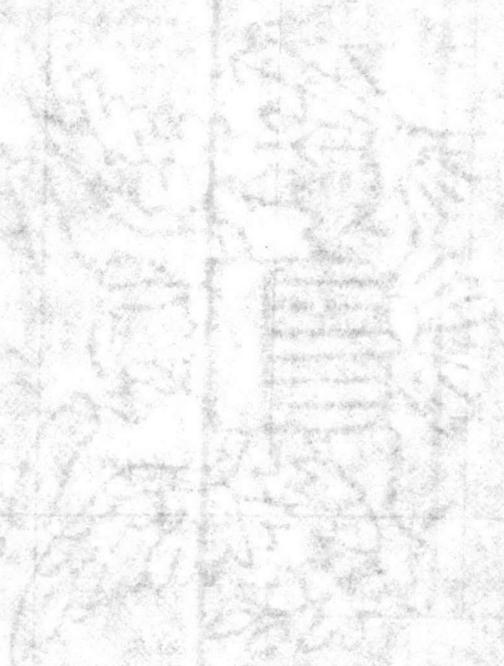
Ann E. Rosecrance
Ann E. Rosecrance
Laboratory Director

Attachment (B)
Enclosure (1)



Location: Camp Lejeune Date of Receipt: 5-11-88 Turnaround: routineDate: 6-13-88 Case No. 310 to Naval Facilities Engineering Command, Norfolk, VirginiaJTC Data Report No. 88-236 Table 1 of 2

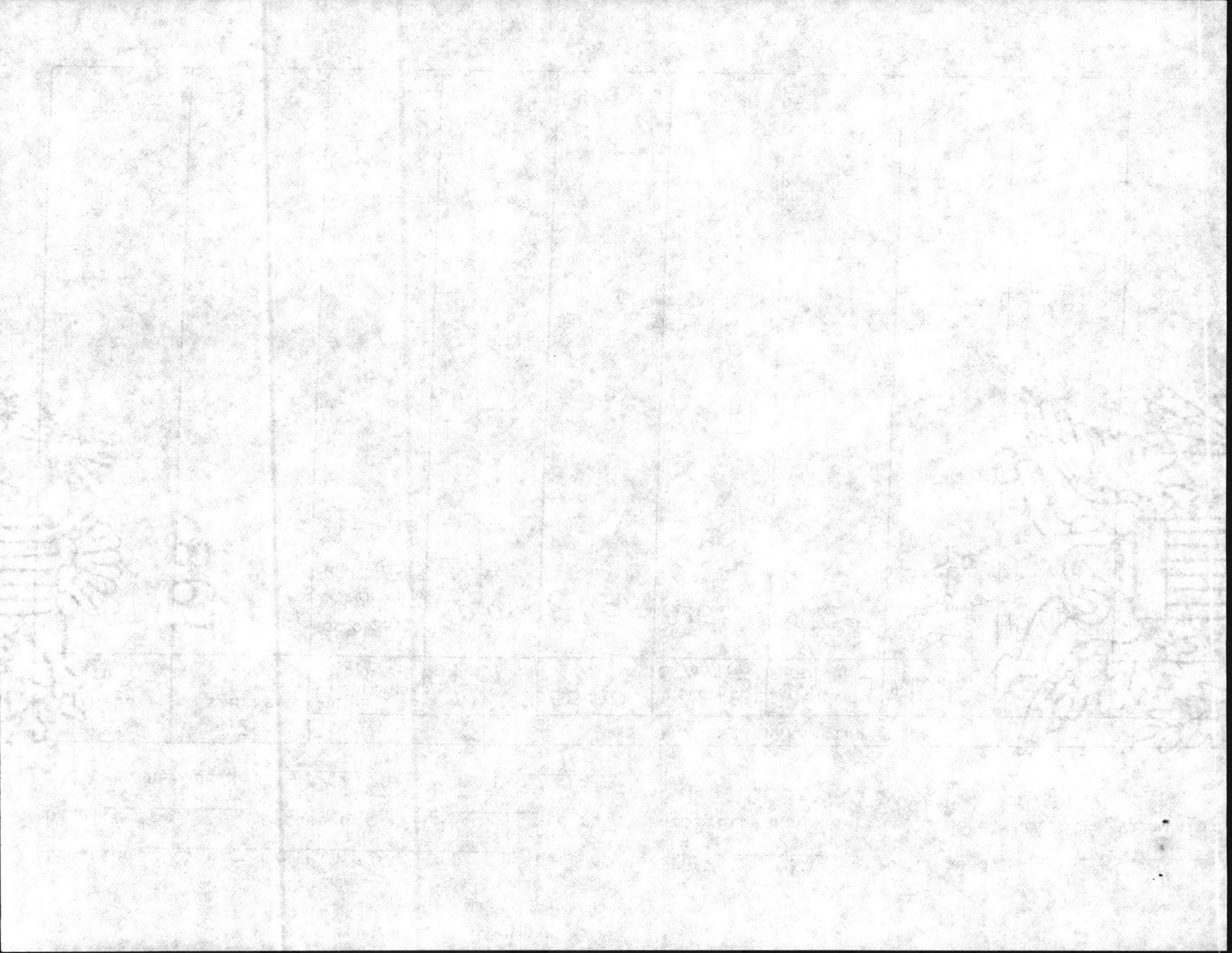
NAVY SAMPLE ID	JTC SAMPLE ID	ANALYSIS PARAMETER					
		As mg/kg	Cd mg/kg	Cr mg/kg	Pb mg/kg		
88-59	61-1755	<20	1.2	<2.	<20		



1957

Location: Camp Lejeune Date of Receipt: 5-11-88 Turnaround: routineDate: 6-13-88 Case No. 310 to Naval Facilities Engineering Command, Norfolk, VirginiaJTC Data Report No. 88-236 Table 2 of 2

NAVY SAMPLE ID	JTC SAMPLE ID	ANALYSIS PARAMETER						
		Flashpoint °C	TOX % Cl	BS+W %	Viscosity @ 100°F	Sp. Gravity g/ml	Volatiles	BTU per lb.
88-59	61-1755	not observed below boiling point of 89 ± 2°C	<0.01	27.5	325505	0.727	see attached sheet	15,600





J
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C Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

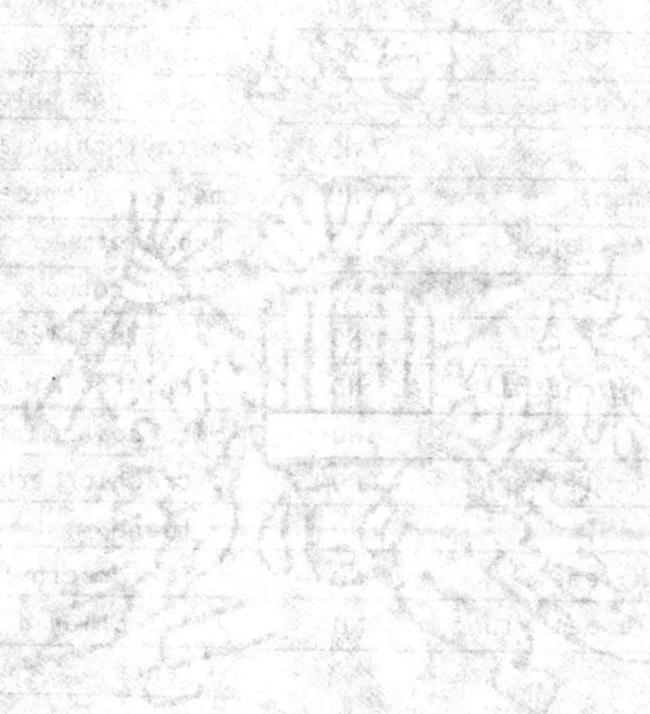
VOLATILE FRACTION

JTC SAMPLE # 61-1755 PROJECT NO. NF-61 #310
CLIENT SAMPLE # 88-59 DATE RECEIVED 5-11-88
METHOD NO. 624 DETECTION LIMIT 125 mg/L

PARAMETER	RESULT mg/L	PARAMETER	RESULT mg/L
acrolein	ND	1,2-dichloropropane	ND
acrylonitrile	ND	1,3-dichloropropylene	ND
benzene	100*	ethylbenzene	140
carbon tetrachloride	ND	methylene chloride	ND
chlorobenzene	ND	methyl chloride	ND
1,2-dichloroethane	ND	methyl bromide	ND
1,1,1-trichloroethane	ND	bromoform	ND
1,1-dichloroethane	ND	dichlorobromomethane	ND
1,1,2-trichloroethane	ND	trichlorofluoromethane	ND
1,1,2,2-tetrachloroethane	ND	dichlorodifluoromethane	ND
chloroethane	ND	chlorodibromomethane	ND
2-chloroethylvinylether	ND	tetrachloroethylene	ND
chloroform	ND	toluene	440
1,1-dichloroethylene	ND	trichloroethylene	ND
1,2-trans-dichloroethylene	ND	vinyl chloride	ND
		xylene	880
		freon	ND

ND = NOT DETECTED

* = BELOW DETECTION LIMIT





UNITED STATES MARINE CORPS
NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS DIVISION
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542-5001

IN REPLY REFER TO:

6240
NREAD
27 June 88

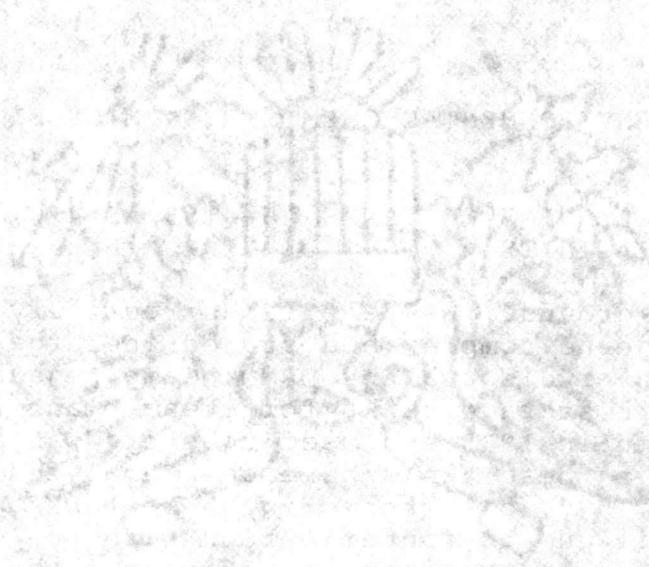
ENVIRONMENTAL CHEMISTRY & MICROBIOLOGY SECTION REPORT

Subj: CLEANING OF TANKS AS-419, AS-420, AS-421, MCAS NR STORAGE FACILITY

1. Background. Waste oil has routinely been collected at the Camp Lejeune complex and stored in large tanks awaiting sale, donation or disposal by DRMO, Camp Lejeune. The three tanks at MCAS were storage tanks for steam plant fuel oil which were converted in 1983 and used to store waste oil. All the waste oil stored in these tanks have been analyzed prior to disposal. In fall of 1987, oil stored in these tanks was declared a hazardous waste oil due to contamination with the solvent freon by aircraft maintenance operations at individual shops aboard the MCAS-NR. Freon is used in a "patch test" run to quality control the hydraulic fluid in helicopters. Disposal of the regulated "patch test" wastes in MCAS-NR waste oil tanks at generator work sites was confirmed by July, 1987 oil analysis. This oil has been routinely placed in SAS 419, 420 and 421. These tanks were subsequently declared hazardous waste storage tanks. In response, action was taken to have the contents of SAS 419, 420 and 421 disposed of as a hazardous waste and the tanks cleaned by a private contractor.
2. Cleaning the MCAS(H)-NR tanks. On March 3, 1988, High Rise Service Company began cleaning the three MCAS(H)-NR used oil storage tanks. The contractor emptied the tanks and transported 3000 gallons for storage in S-781. On March 4, 1988, the contractor completed cleaning using procedures in cleaning the tanks at Holcomb Blvd. Approximately 800 gallons of rinsate was transported to S-781 to complete the job.
3. Since freon was the hazardous waste that contaminated the waste oil, the samples of the final rinsate from each tank were submitted for a volatile organic chemical analysis scan which included freon. The analysis data sheets are contained in Attachment A. Client sample #88-50 is for rinsate from SAS-419, #88-51 is from rinsate from SAS-420 and #88-52 is for rinsate from SAS-421. The rinsate from SAS-419 had 0.29 mg/l of freon, the rinsate from SAS-420 had 9.06 mg/l of freon and the rinsate from SAS-421 had 2.44 mg/l of freon. Rinsate analysis of SAS-419 shows the freon levels in the empty tanks to be well below 25 mg/l.

ENCLOSURE (2)

1954



4. Current procedures requires that MCAS-NR oil not be mixed with MCB oil or stored off MCAS-NR. Further, the individual unit tanks at MCAS-NR are tested using a "TOX" test before the tanks are emptied. Only tanks with negative TOX test results (<750 ppm) are pumped out and into the storage tanks. The tanks that test positive are pumped into barrels and handled as hazardous waste.

5. Conclusion. Available information indicate that cleaning was adequate for closure. Additional testing is required to document if source segregation of freon wastes is adequate to ensure that levels from 100-750 ppm are not present in oil being collected.

Elizabeth A. Betz
ELIZABETH A. BETZ

1987



JTC DATA REPORT # 88-141
LABORATORY ANALYSIS ON NAVAL SAMPLES
CONTRACT #N62470-86-C-8754
CASE # 261
Complete

PREPARED FOR:

DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA 23511-6287

PREPARED BY:

JTC ENVIRONMENTAL CONSULTANTS, INC.
4 RESEARCH PLACE, SUITE L-10
ROCKVILLE, MARYLAND 20850

APRIL 15, 1988

Ann E. Rosecrance
Ann E. Rosecrance
Laboratory Director

Attachment (A)
Enclosure (2)



1961

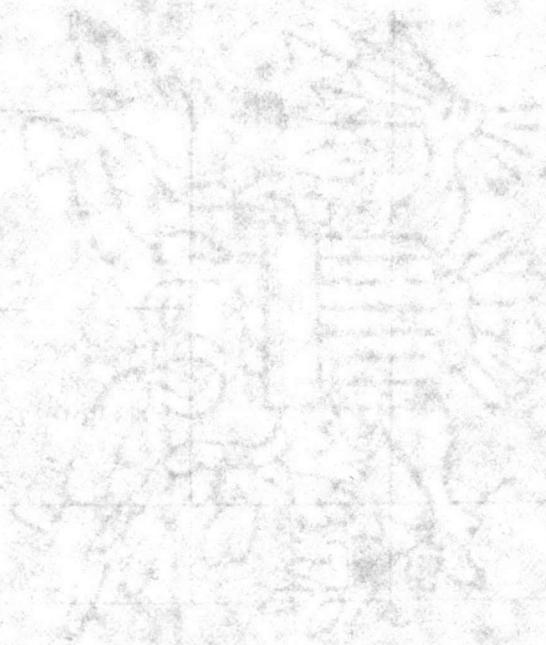


Location: Camp Lejeune Date of Receipt: 3-16-88 Turnaround: routine

Date: 4-18-88 Case No. 261 to Naval Facilities Engineering Command, Norfolk, Virginia

JTC Data Report No. 88-141 Table 1 of 1

NAVY SAMPLE ID	JTC SAMPLE ID	ANALYSIS PARAMETER							
		Volatiles + Frecn							
88-48 3/1/88	61-1590	See attached sheet							
88-49 3/1/88	61-1591	"							
88-50 3/3/88	61-1592	"							
88-51 3/4/88	61-1593	"							
88-52 3/4/88	61-1594	"							





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C Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

VOLATILE FRACTION

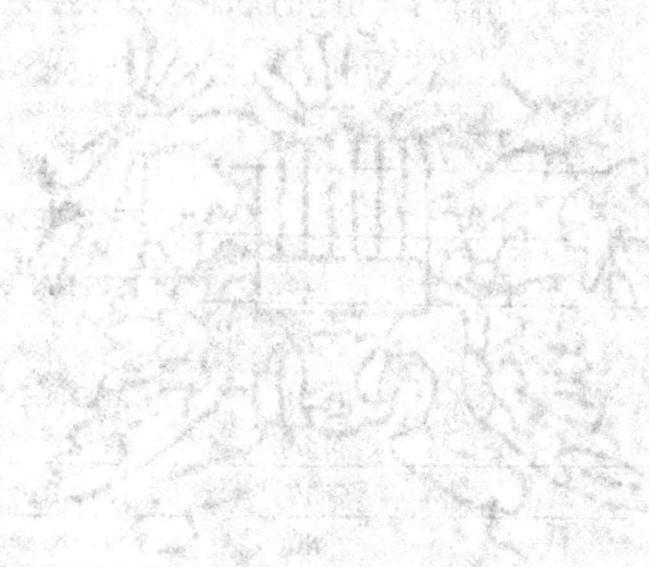
JTC SAMPLE # 61-1590 PROJECT NO. NF-61 #261
CLIENT SAMPLE # 88-48 DATE RECEIVED 3-16-88
METHOD NO. 624 DETECTION LIMIT 500 ug/L

PARAMETER	RESULT ug/L	PARAMETER	RESULT ug/L
acrolein	ND	1,2-dichloropropane	ND
acrylonitrile	ND	1,3-dichloropropylene	ND
benzene	ND	ethylbenzene	ND
carbon tetrachloride	ND	methylene chloride	ND
chlorobenzene	ND	methyl chloride	ND
1,2-dichloroethane	ND	methyl bromide	ND
1,1,1-trichloroethane	300* ND	bromoform	ND
1,1-dichloroethane	ND	dichlorobromomethane	ND
1,1,2-trichloroethane	ND	trichlorofluoromethane	ND
1,1,2,2-tetrachloroethane	ND	dichlorodifluoromethane	ND
chloroethane	ND	chlorodibromomethane	ND
2-chloroethylvinylether	ND	tetrachloroethylene	ND
chloroform	ND	toluene	ND
1,1-dichloroethylene	ND	trichloroethylene	ND
1,2-trans-dichloroethylene	ND	vinyl chloride	ND
		xylene	ND
		freon	70* ND

ND = NOT DETECTED

* = BELOW DETECTION LIMIT

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THE [illegible] COMPANY

[illegible]



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C Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

VOLATILE FRACTION

JTC SAMPLE # 61-1591 PROJECT NO. NF-61 #261
CLIENT SAMPLE # 88-49 DATE RECEIVED 3-16-88
METHOD NO. 624 DETECTION LIMIT 500 ug/L

PARAMETER	RESULT ug/L	PARAMETER	RESULT ug/L
acrolein	ND	1,2-dichloropropane	ND
acrylonitrile	ND	1,3-dichloropropylene	ND
benzene	ND	ethylbenzene	ND
carbon tetrachloride	ND	methylene chloride	ND
chlorobenzene	ND	methyl chloride	ND
1,2-dichloroethane	ND	methyl bromide	ND
1,1,1-trichloroethane	150* ND	bromoform	ND
1,1-dichloroethane	ND	dichlorobromomethane	ND
1,1,2-trichloroethane	ND	trichlorofluoromethane	ND
1,1,2,2-tetrachloroethane	ND	dichlorodifluoromethane	ND
chloroethane	ND	chlorodibromomethane	ND
2-chloroethylvinylether	ND	tetrachloroethylene	ND
chloroform	ND	toluene	200* ND
1,1-dichloroethylene	ND	trichloroethylene	ND
1,2-trans-dichloroethylene	ND	vinyl chloride	ND
		xylene	350* ND
		freon	170* ND

ND = NOT DETECTED

* = BELOW DETECTION LIMIT

12/2/2020

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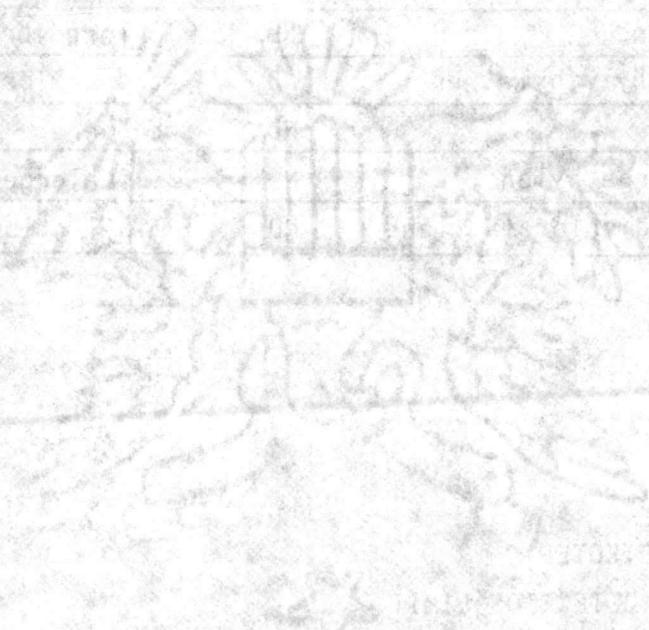
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Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

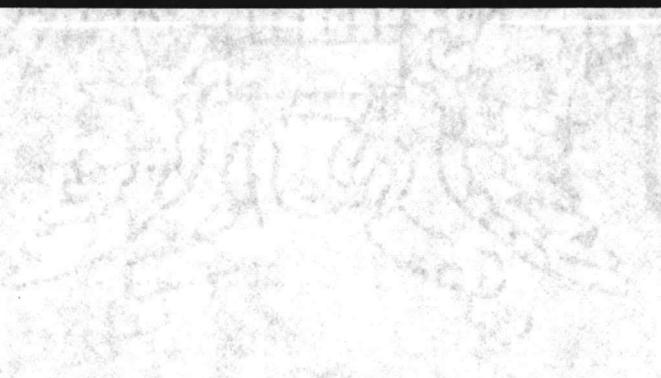
VOLATILE FRACTION

JTC SAMPLE # 61-1592 PROJECT NO. NF-61 #261
CLIENT SAMPLE # 88-50 DATE RECEIVED 3-16-88
METHOD NO. 624 DETECTION LIMIT 500 ug/L

PARAMETER	RESULT ug/L	PARAMETER	RESULT ug/L
acrolein	ND	1,2-dichloropropane	ND
acrylonitrile	ND	1,3-dichloropropylene	ND
benzene	ND	ethylbenzene	ND
carbon tetrachloride	ND	methylene chloride	ND
chlorobenzene	ND	methyl chloride	ND
1,2-dichloroethane	ND	methyl bromide	ND
1,1,1-trichloroethane	250* ND	bromoform	ND
1,1-dichloroethane	ND	dichlorobromomethane	ND
1,1,2-trichloroethane	ND	trichlorofluoromethane	ND
1,1,2,2-tetrachloroethane	ND	dichlorodifluoromethane	ND
chloroethane	ND	chlorodibromomethane	ND
2-chloroethylvinylether	ND	tetrachloroethylene	ND
chloroform	ND	toluene	ND
1,1-dichloroethylene	ND	trichloroethylene	ND
1,2-trans-dichloroethylene	ND	vinyl chloride	ND
		xylene	ND
		freon	290* ND

ND = NOT DETECTED

* = BELOW DETECTION LIMIT



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C Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

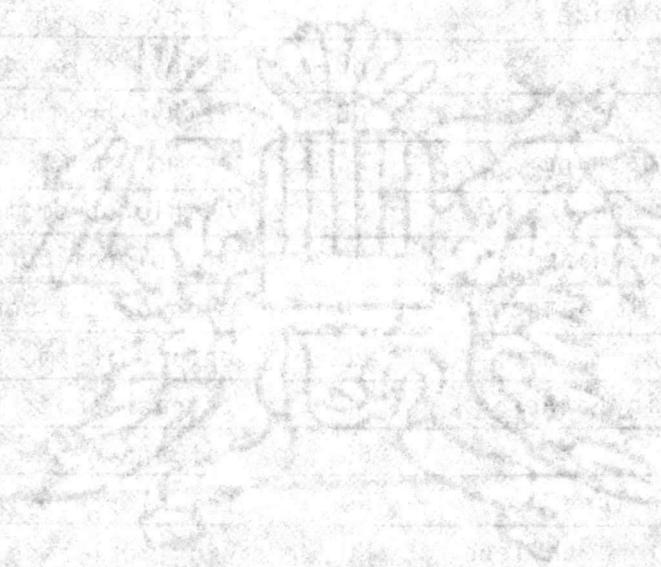
VOLATILE FRACTION

JTC SAMPLE # 61-1593 PROJECT NO. NF-61 #261
CLIENT SAMPLE # 88-51 DATE RECEIVED 3-16-88
METHOD NO. 624 DETECTION LIMIT 500 ug/L

PARAMETER	RESULT ug/L	PARAMETER	RESULT ug/L
acrolein	ND	1,2-dichloropropane	ND
acrylonitrile	ND	1,3-dichloropropylene	ND
benzene	ND	ethylbenzene	ND
carbon tetrachloride	ND	methylene chloride	ND
chlorobenzene	ND	methyl chloride	ND
1,2-dichloroethane	ND	methyl bromide	ND
1,1,1-trichloroethane	<u>6,000</u> ND	bromoform	ND
1,1-dichloroethane	ND	dichlorobromomethane	ND
1,1,2-trichloroethane	ND	trichlorofluoromethane	ND
1,1,2,2-tetrachloroethane	ND	dichlorodifluoromethane	ND
chloroethane	ND	chlorodibromomethane	ND
2-chloroethylvinylether	ND	tetrachloroethylene	ND
chloroform	ND	toluene	<u>250</u> * ND
1,1-dichloroethylene	ND	trichloroethylene	ND
1,2-trans-dichloroethylene	ND	vinyl chloride	ND
		xylene	<u>100</u> * ND
		freon	<u>9060</u> ND

ND = NOT DETECTED

* = BELOW DETECTION LIMIT



J
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C Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

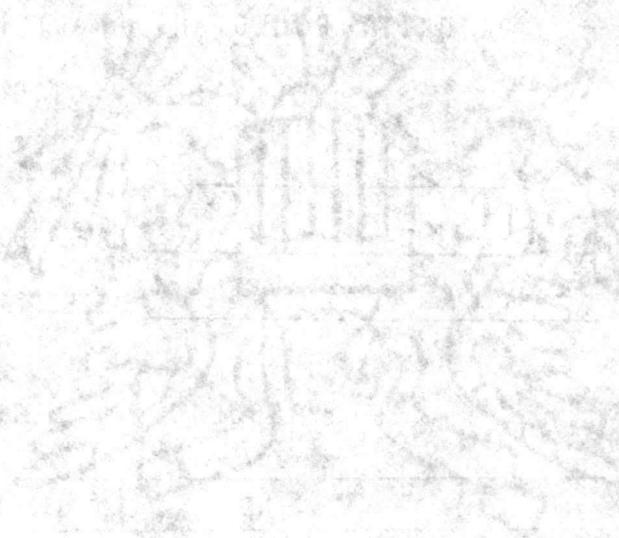
VOLATILE FRACTION

JTC SAMPLE # 61-1594 PROJECT NO. NF-61 #261
CLIENT SAMPLE # 88-52 DATE RECEIVED 3-16-88
METHOD NO. 624 DETECTION LIMIT 500 ug/L

PARAMETER	RESULT	PARAMETER	RESULT
	ug/L		ug/L
acrolein	ND	1,2-dichloropropane	ND
acrylonitrile	ND	1,3-dichloropropylene	ND
benzene	ND	ethylbenzene	ND
carbon tetrachloride	ND	methylene chloride	ND
chlorobenzene	ND	methyl chloride	ND
1,2-dichloroethane	ND	methyl bromide	ND
1,1,1-trichloroethane	<u>750</u> ND	bromoform	ND
1,1-dichloroethane	ND	dichlorobromomethane	ND
1,1,2-trichloroethane	ND	trichlorofluoromethane	ND
1,1,2,2-tetrachloroethane	ND	dichlorodifluoromethane	ND
chloroethane	ND	chlorodibromomethane	ND
2-chloroethylvinylether	ND	tetrachloroethylene	ND
chloroform	ND	toluene	<u>150</u> * ND
1,1-dichloroethylene	ND	trichloroethylene	ND
1,2-trans-dichloroethylene	ND	vinyl chloride	ND
		xylenes	<u>100</u> * ND
		freon	<u>2440</u> ND

ND = NOT DETECTED

* = BELOW DETECTION LIMIT





Environmental and Safety Designs, Inc.

901/372-7962

June 13, 1988

Mr. George Garcia
Environmental Engineer
North Carolina Department of Human Resources
Division of Health Services
P.O. Box 2091
Raleigh, NC 27602-2091

RE: Facility EPA ID No. NC6170022580
Hazardous Waste Tank Closure Plans

Mr. Garcia:

The purpose of this letter is to request an extension of the initiation and the completion of closure of the fourteen hazardous waste tanks at Camp Lejeune. The schedules of 90 days to begin and 180 days to complete the closure as stated in the regulations are insufficient to allow the base to perform the work. An extension of 60 days is needed to assure meeting the schedule.

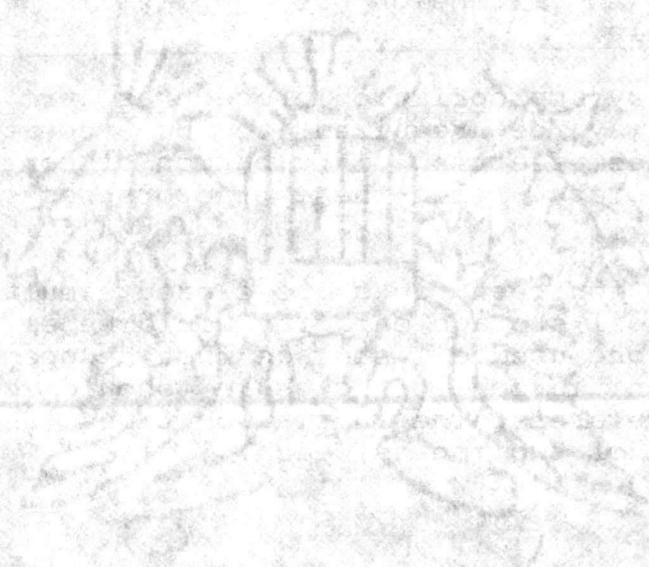
Military appropriation procedures are lengthy and deliberate. They may be required to be repeated because of the numerous statutes affecting distribution of contracts among many segments of society. All these factors necessitate a longer initiation period.

If all fourteen tanks are closed simultaneously, then the entire used oil storage capacity would be eliminated during closure. At least one used oil storage must be open at all times. Therefore, the initiation of closure should be staggered for the four storage areas. The initiation times should be staggered by a period of two months, each.

Enclosure (3)

5705 STAGE ROAD - SUITE 212 • P.O. BOX 341315 • MEMPHIS, TN 38184-1315

1861



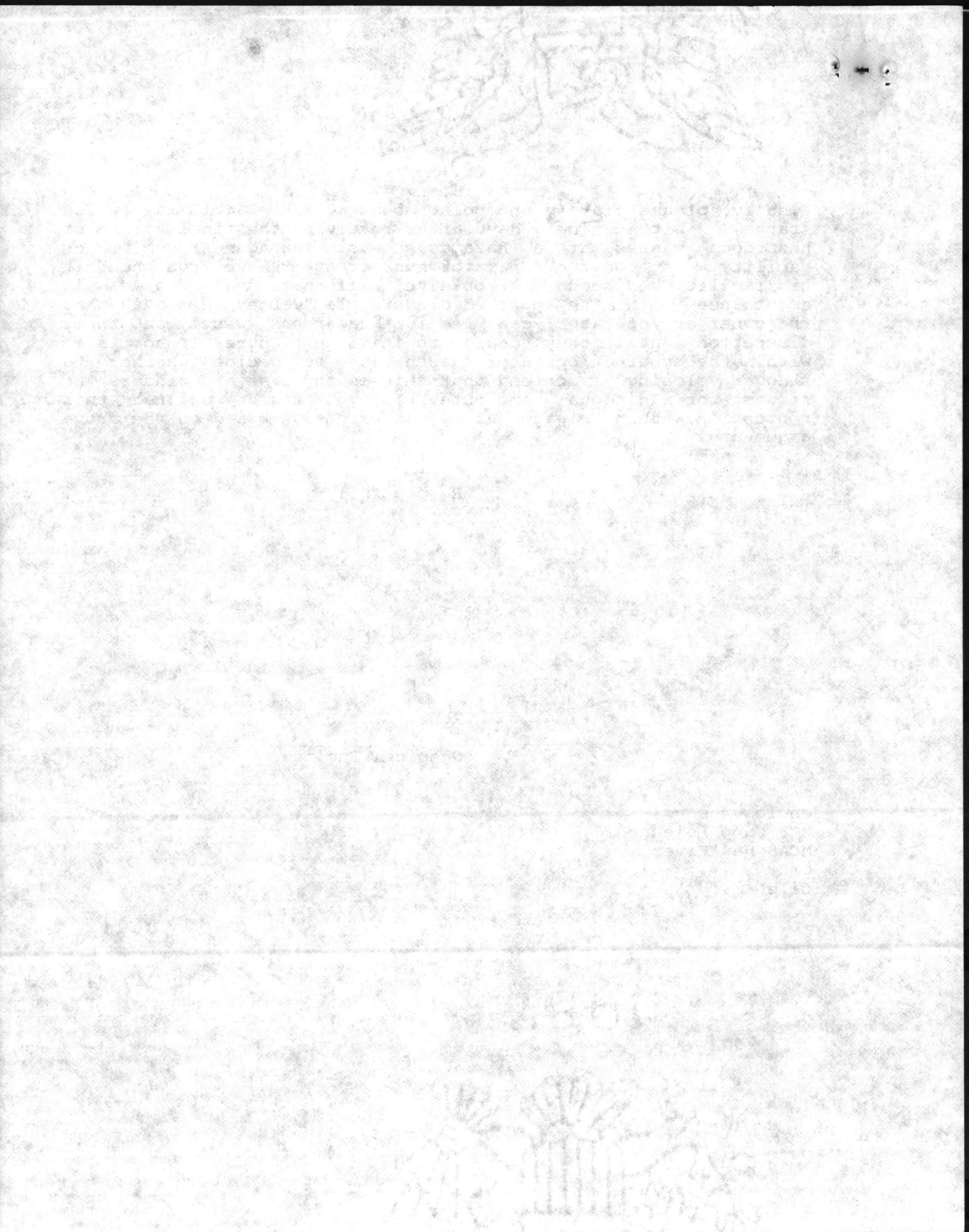
Finally, please clarify one point about 40 CFR 264.113(a) which states, " Within ninety days after receiving the final volume of hazardous wastes at a hazardous waste management unit or facility, the owner or operator must treat, remove from the unit or facility, dispose of on-site, all hazardous wastes in accordance with the approved closure plan". Does this mean that the owner or operator can receive hazardous waste at their discretion until they decide to initiate closure? If so, is it within the owner or operator's authority to decide whether to stagger closing? I contend that this is the case and renders the request for additional time mute. If you decide against this contention, then please allow an extension based on the above arguments.

Respectfully yours,

A handwritten signature in cursive script, appearing to read "Robert Lipscomb". The signature is written in dark ink on a light-colored, slightly textured paper.

Robert Lipscomb
Chemical Engineer

enclosures
MCB Camp Lejeune (3)
MCAS New River
CMC
file





North Carolina Department of Human Resources
Division of Health Services
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor
David T. Flaherty, Secretary

July 14, 1988

Ronald H. Levine, M.D., M.P.H.
State Health Director

Colonel T. J. Dalzell *7/21/88*
Assistant Chief of Staff, Facilities
US Marine Corps
Camp Lejeune, North Carolina 28542-5001

Reply to: 6240 NREAD

Re: Rinsate Analysis for Clean-Up of
Hazardous Waste Tanks at
Holcomb Boulevard and MCAS
NC6170022580 and NC8170022570

Dear Colonel Dalzell:

We have reviewed the chemical analysis results of the rinsate for the above mentioned sites which were cleaned by your facility. We wish to inform you that any waste oils placed in these tanks will be considered to be hazardous waste until a final closure certification is achieved and approved by us.

Additionally, a steam cleaning process should be added as the last step of your cleaning procedures and the rinsate produced analyzed for the hazardous constituents of interest (Freon and other solvents).

This cleaning procedure should be performed on all four (4) sites to be closed under the compliance order issued by the State and should be part of the closure plan.

If you have any questions, please contact us for further assistance.

Sincerely,

Jerome H. Rhodes

Jerome H. Rhodes, Head
Hazardous Waste Branch

JHR/GG/mb/0070.25

cc: Danny Sharpe, NREAD Camp Lejeune
Robert Lipscomb, Ensafe Consultants
John Dickinson, US EPA, Region IV
Gary Babb, NCDHR
William F. Hamner
James A. Carter

[The page contains extremely faint and illegible text, likely bleed-through from the reverse side of the document. The text is mostly centered and spans most of the page width.]





North Carolina Department of Human Resources
Division of Health Services
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor
David T. Flaherty, Secretary

Ronald H. Levine, M.D., M.P.H.
State Health Director

July 27, 1988

Colonel T.J. Dalzell
Assistant Chief of Staff, Facilities
U.S. Marine Corps
Marine Corps Base
Camp Lejeune, North Carolina 28542-5001

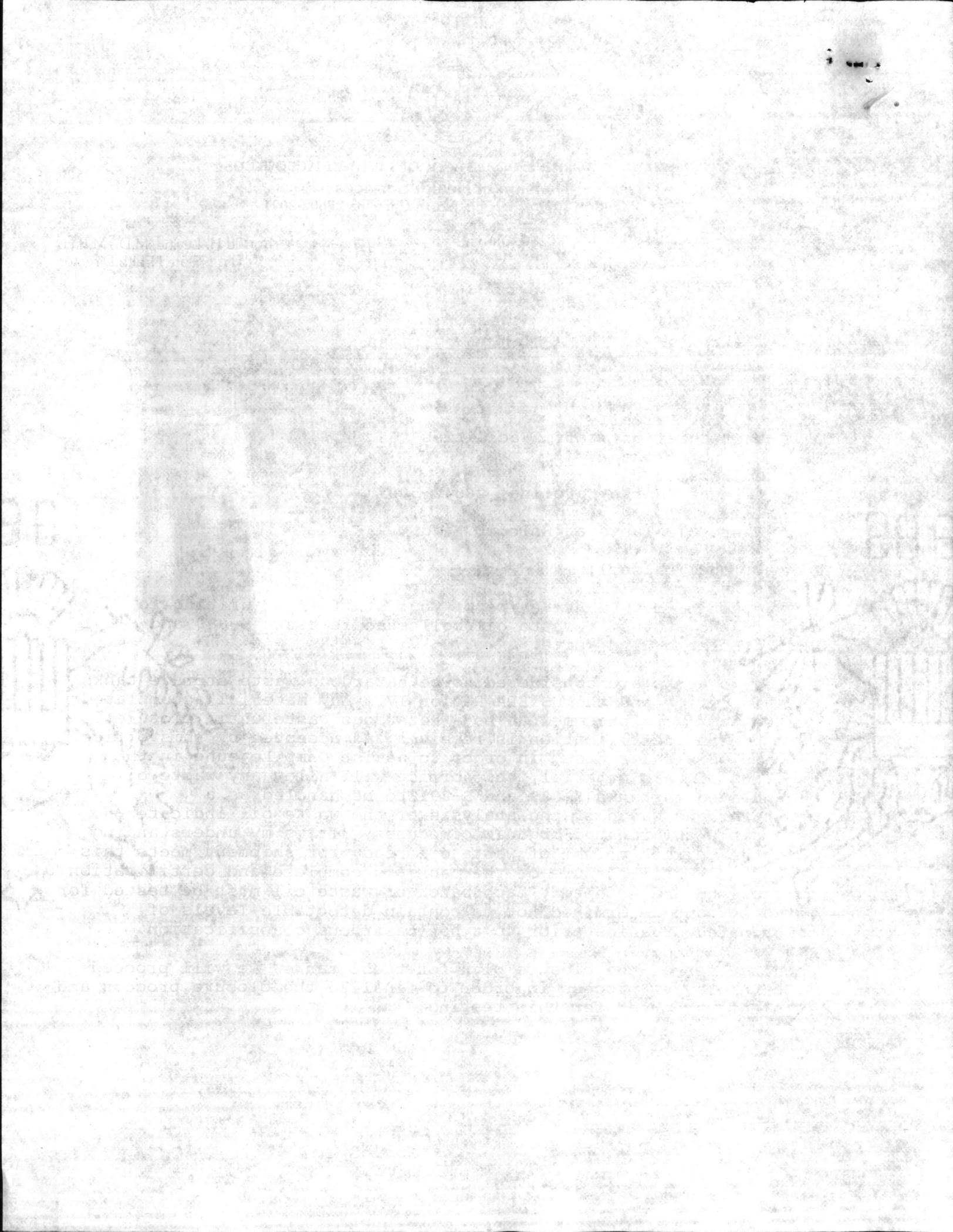
Re: Waste Oil Tanks at Holcomb Blvd.

Dear Colonel Dalzell:

By request of Mr. Danny Sharpe of your staff, I am writing to clarify the status of waste oil collected in tanks S-889 and S-891 at the Holcomb Blvd. site.

These two tanks are considered to be hazardous waste storage tanks by this office and the US EPA Region IV. Any material accumulated in the tanks are presumed to be a hazardous waste until closure is complete and certification is received and accepted by this office. In this particular case, in order to assist Camp Lejeune in the handling of this material, this office will allow any waste oil accumulated in tanks S-889 and S-891 to be handled as a non-hazardous waste if the analysis of the waste oil indicates no detectable chlorinated organic compounds. It is my understanding that the current volume of waste oil ready for shipment meets this criteria. Until closure of the tanks is complete and certification is received and accepted, each batch of waste oil must be tested for volatiles and determined not to contain detectable levels of chlorinated organics prior to a non-hazardous classification.

Upon receipt of the closure plan for these tanks, we will proceed with the review process in order to finalize the closure process and eliminate the need for this testing.



If you have any questions, please contact Mr. Gary Babb of my staff at (919) 733-2178.

Sincerely,

Jerome H. Rhodes

Jerome H. Rhodes, Head
Hazardous Waste Branch
Solid Waste Mgmt. Section

cc: Danny Sharpe
Jerry Parks
George Garcia
Jimmy Carter
Gary Babb

