

6246 HYGIENE AND SANITATION

JAN 1 1989

(PERMANENT) SECNAVINST 5212.5B
PART II, CHAP. 6, PAR 6240(1) 2 YRS

DEC 31 1989

BLDG 45 SAMPLE HISTORY

TOTAL CAPACITY: 273,370 GALLONS

DATE SAMPLE

COMMENTS

28 JUL 81

18 MAY 82

8 DEC 83

30 OCT 84

18 FEB 87

* 87-31 → 87-34

~~SEP 87~~

~~VOC ONLY~~

23 JUN 87

AUBURN UN TOOK SAMPLES

SEP 87

VOC ONLY

Bldg 45 Sample History

TOTAL CAPACITY: 278,300 GALLONS

COMMENTS

DATE SAMPLE

18 JUL 81

18 MAR 85

8 DEC 88

30 OCT 84

19 FEB 81

* 81-81 - 84-34

DEC 87

VOC ONLY

28 JUL 81

Airborn in tank samples

DEC 85

VOC ONLY



6241/2

NREAD

OCT 16 1987

From: Commanding General, Marine Corps Base, Camp Lejeune
To: Defense Reutilization and Marketing Officer, Defense
Logistics Agency, Lejeune, Camp Lejeune, NC 28542-5000

Subj: WASTE OIL STORAGE TANKS; ANALYSIS OF

Ref: (a) BO 6240.5
(b) Dir NREAD ltr 6241/2 of 4 Jun 87

Encl: (1) JTC Environmental Consultants, Inc. Rept No. 87-444

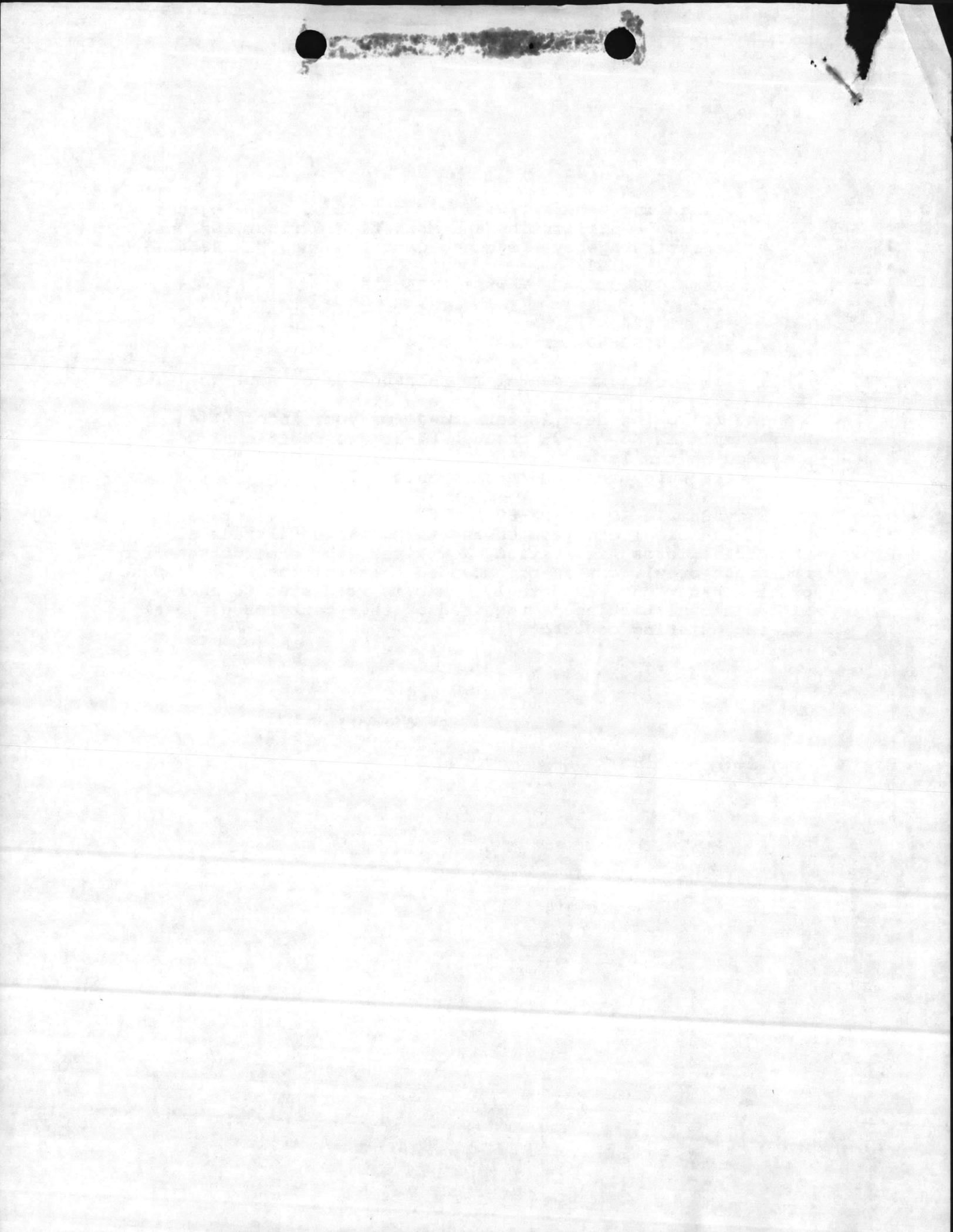
1. The following data is forwarded for your information. Navy Sample ID No. 87-31 through 87-34 are additional data provided on the large waste oil tank at Bldg 45. The other parameters were provided in reference (b).

2. Navy Sample ID No. 87-89 and 87-80 are the volatile organic chemical analysis on the third waste oil tank at the Marine Corps Air Station, New River (the one furthest from the crash crew). It is recommended that this tank be disposed of as a hazardous waste fuel. DRMO is requested to advise if additional testing is required of this tank for disposal per the existing contract.

T. J. DALZELL
By direction

Copy to:
BMO
CO MCAS NR

BCC:
Lab



Partial Results

JTC DATA REPORT # 87-444

LABORATORY ANALYSIS ON NAVAL SAMPLES

CONTRACT #N62470-86-C-8754

CASE # 138

PREPARED FOR:

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

PREPARED BY:

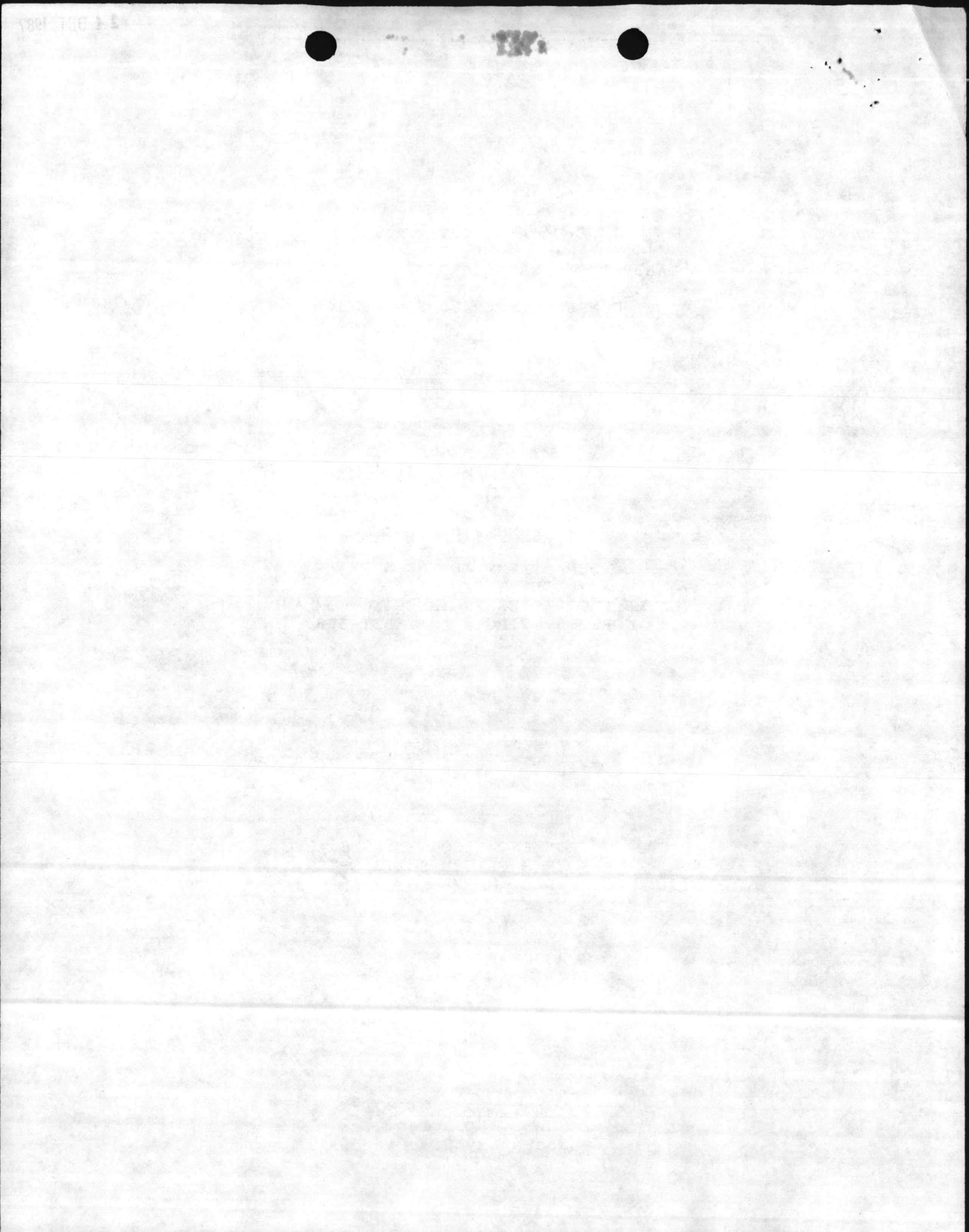
JTC ENVIRONMENTAL CONSULTANTS, INC.
4 RESEARCH PLACE, SUITE L-10
ROCKVILLE, MARYLAND 20850

OCTOBER 7, 1987

Ann E. Rosecrance

Ann E. Rosecrance
Laboratory Director

100



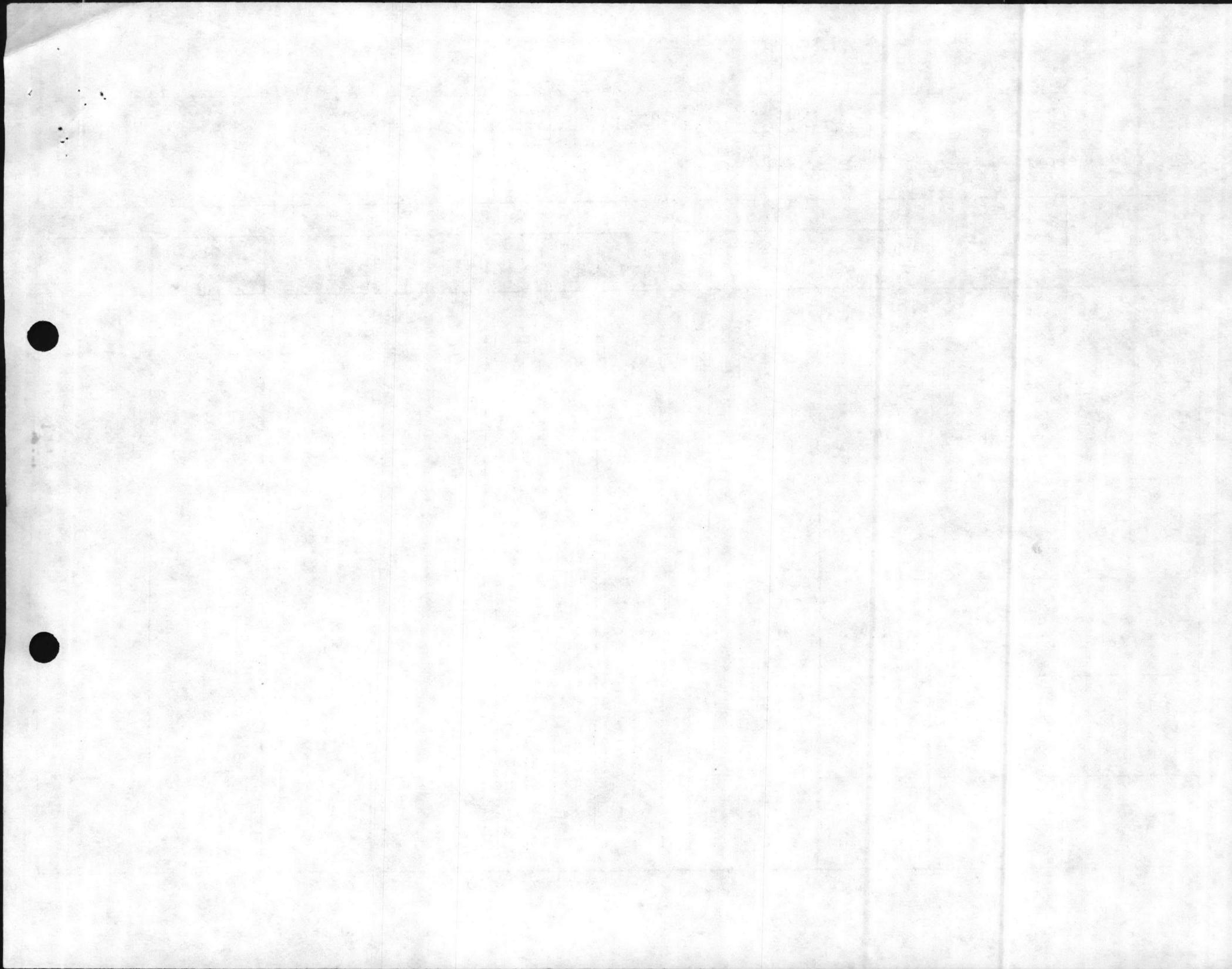
JTC Environmental Consultants, Inc.

Location: Camp Lejeune Date of Receipt: 9-23-87 Turnaround: 10 days

Date: 10-7-87 Case No. 138 to Naval Facilities Engineering Command, Norfolk, Virginia

JTC Data Report No. 87-444 Table 1 of 1

| NAVY SAMPLE ID | JTC SAMPLE ID | ANALYSIS PARAMETER | | | | | | |
|---------------------------------|---------------------|--------------------------|--|--|--|--|--|--|
| | | VOA + Freon | | | | | | |
| 87-31 | 61-0986 | see attached sheet | | | | | | |
| 87-32 | 61-0987 | | | | | | | |
| 87-33 | 61-0988 | | | | | | | |
| 87-34 | 61-0989 | | | | | | | |
| 87-79 oil layer composite | 61-0990 | | | | | | | |
| 87-80 | 61-0991 | | | | | | | |





J
T
C Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

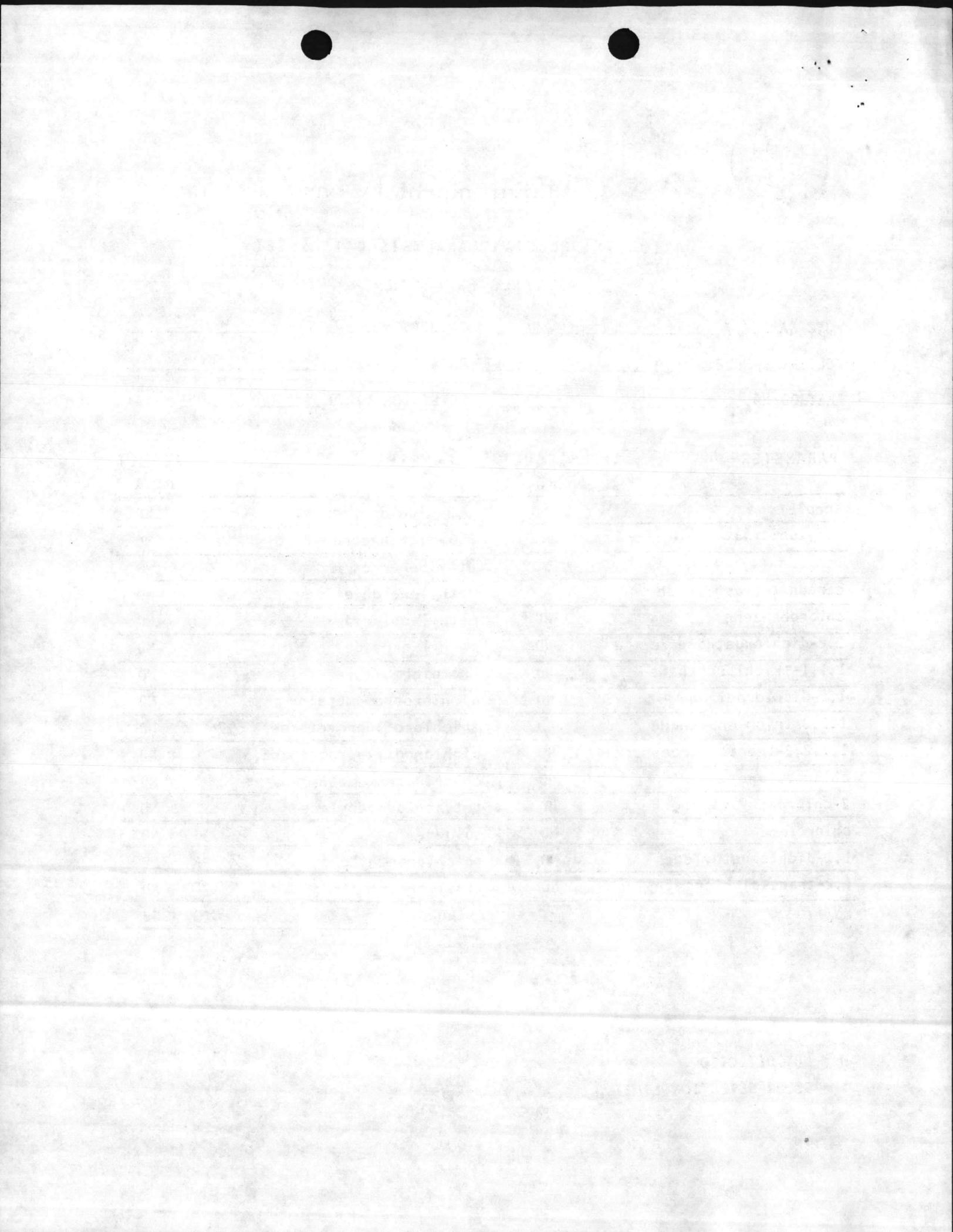
VOLATILE FRACTION

JTC SAMPLE # 61-0986 PROJECT NO. NF-61 #138
CLIENT SAMPLE # 87-31 DATE RECEIVED 9-23-87
METHOD NO. 624 DETECTION LIMIT 250 mg/L

| PARAMETER | RESULT mq/L | PARAMETER | RESULT mq/L |
|----------------------------|---------------------|-------------------------|---------------------|
| acrolein | ND | 1,2-dichloropropane | ND |
| acrylonitrile | ND | 1,3-dichloropropylene | ND |
| benzene | 50 * ND | ethylbenzene | 100 * ND |
| carbon tetrachloride | ND | methylene chloride | ND |
| chlorobenzene | ND | methyl chloride | ND |
| 1,2-dichloroethane | ND | methyl bromide | ND |
| 1,1,1-trichloroethane | 100 * ND | bromoform | ND |
| 1,1-dichloroethane | ND | dichlorobromomethane | ND |
| 1,1,2-trichloroethane | ND | trichlorofluoromethane | 200 * ND |
| 1,1,2,2-tetrachloroethane | ND | dichlorodifluoromethane | ND |
| chloroethane | ND | chlorodibromomethane | ND |
| 2-chloroethylvinylether | ND | tetrachloroethylene | ND |
| chloroform | ND | toluene | 390 ND |
| 1,1-dichloroethylene | ND | trichloroethylene | 70 * ND |
| 1,2-trans-dichloroethylene | ND | vinyl chloride | ND |
| 2-HEXANONE | 430 | xylenes | 580 ND |
| | | FREON | 2900 |

ND = NOT DETECTED

* = BELOW DETECTION LIMIT





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PRIORITY POLLUTANT ANALYSIS DATA SHEET

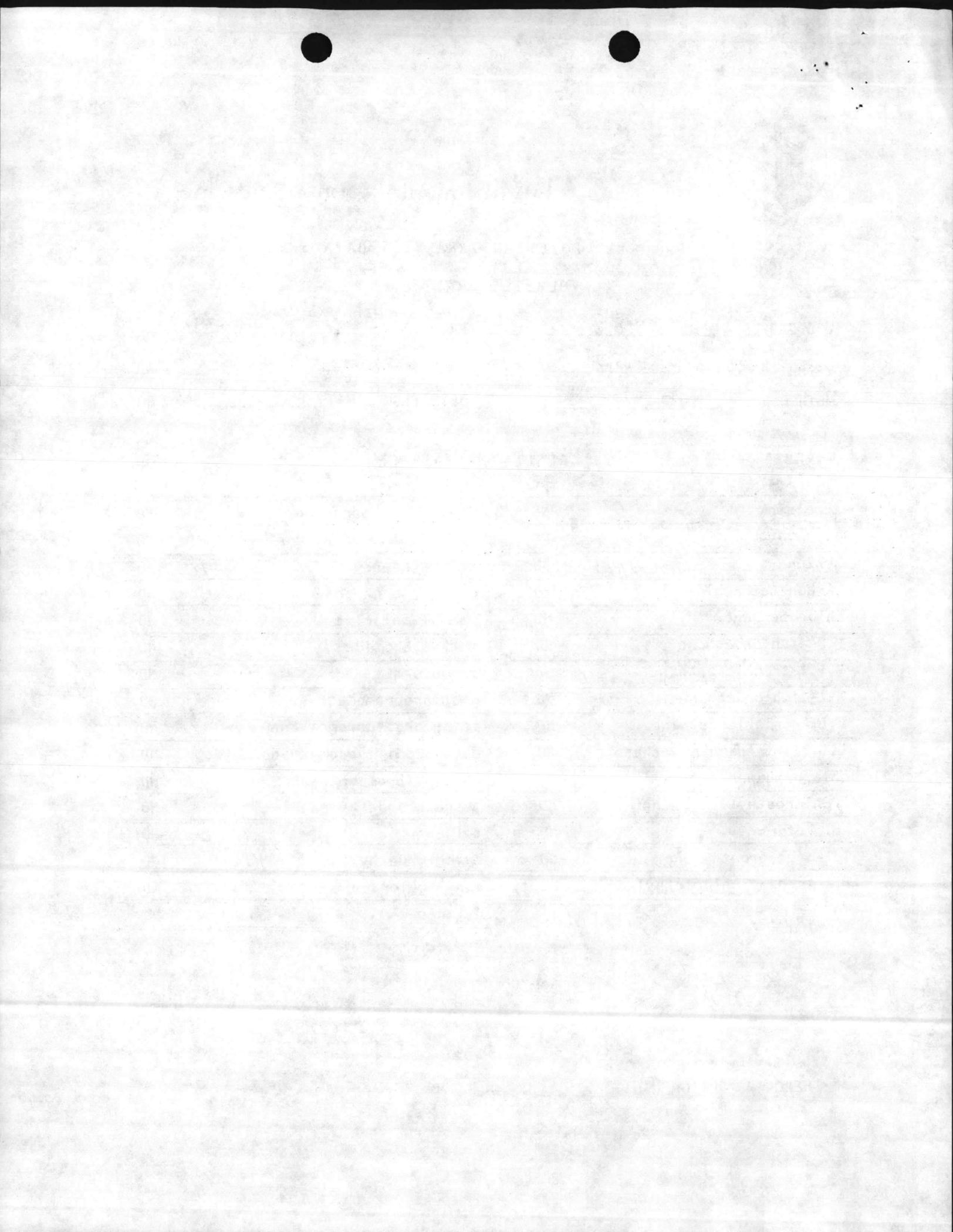
VOLATILE FRACTION

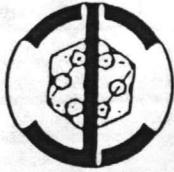
JTC SAMPLE # 61-0987 PROJECT NO. NF-61 #138
CLIENT SAMPLE # 87-32 DATE RECEIVED 9-23-87
METHOD NO. 624 DETECTION LIMIT 250 mg/L

| PARAMETER | RESULT mg/L | PARAMETER | RESULT mg/L |
|--------------------------------|---------------------|-------------------------|---------------------|
| acrolein | ND | 1,2-dichloropropane | ND |
| acrylonitrile | ND | 1,3-dichloropropylene | ND |
| benzene | 200 * ND | ethylbenzene | 410 ND |
| carbon tetrachloride | ND | methylene chloride | ND |
| chlorobenzene | ND | methyl chloride | ND |
| 1,2-dichloroethane | ND | methyl bromide | ND |
| 1,1,1-trichloroethane | 410 ND | bromoform | ND |
| 1,1-dichloroethane | ND | dichlorobromomethane | ND |
| 1,1,2-trichloroethane | ND | trichlorofluoromethane | 640 ND |
| 1,1,2,2-tetrachloroethane | ND | dichlorodifluoromethane | ND |
| chloroethane | ND | chlorodibromomethane | ND |
| 2-chloroethylvinylether | ND | tetrachloroethylene | ND |
| chloroform | ND | toluene | 1300 ND |
| 1,1-dichloroethylene | ND | trichloroethylene | 100 * ND |
| 1,2-trans-dichloroethylene | ND | vinyl chloride | ND |
| ACETONE | 1900 | xylenes | 1900 ND |
| 2-HEXANONE | 1700 | FREON | 9300 |
| 4-METHYL-2-PENTANONE (MIBK) | 380 | | |

ND = NOT DETECTED

* = BELOW DETECTION LIMIT



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C Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

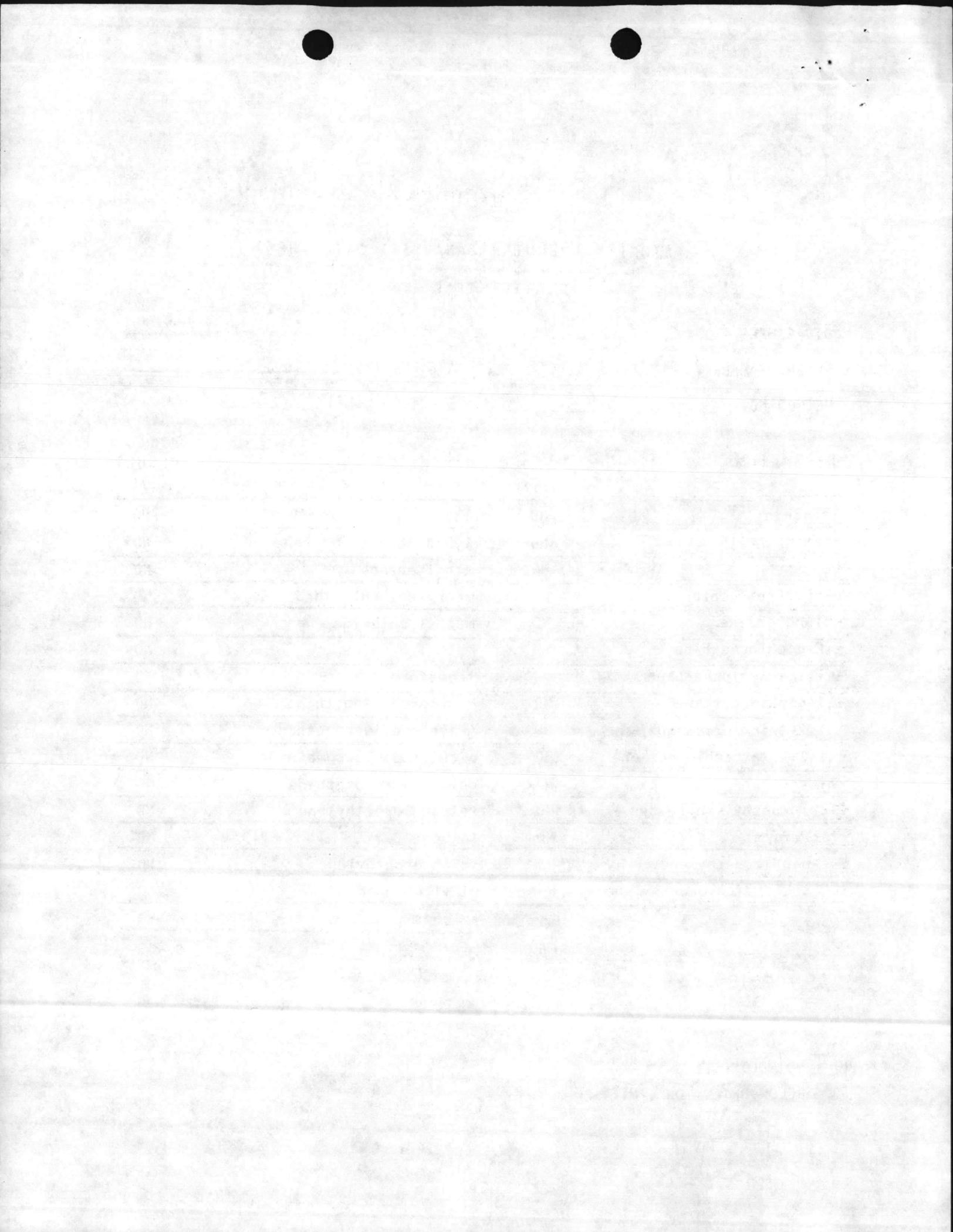
VOLATILE FRACTION

JTC SAMPLE # 61-0988 PROJECT NO. NF-61 #138
CLIENT SAMPLE # 87-33 DATE RECEIVED 9-23-87
METHOD NO. 624 DETECTION LIMIT 250 mg/L

| PARAMETER | RESULT | PARAMETER | RESULT |
|--------------------------------|---------------------|-------------------------|---------------------|
| | mq/L | | mq/L |
| acrolein | ND | 1,2-dichloropropane | ND |
| acrylonitrile | ND | 1,3-dichloropropylene | ND |
| benzene | 200 * ND | ethylbenzene | 390 ND |
| carbon tetrachloride | ND | methylene chloride | ND |
| chlorobenzene | ND | methyl chloride | ND |
| 1,2-dichloroethane | ND | methyl bromide | ND |
| 1,1,1-trichloroethane | 380 ND | bromoform | ND |
| 1,1-dichloroethane | ND | dichlorobromomethane | ND |
| 1,1,2-trichloroethane | ND | trichlorofluoromethane | 560 ND |
| 1,1,2,2-tetrachloroethane | ND | dichlorodifluoromethane | ND |
| chloroethane | ND | chlorodibromomethane | ND |
| 2-chloroethylvinylether | ND | tetrachloroethylene | ND |
| chloroform | ND | toluene | 1300 ND |
| 1,1-dichloroethylene | ND | trichloroethylene | 100 * ND |
| 1,2-trans-dichloroethylene | ND | vinyl chloride | ND |
| ACETONE | 1800 | xylene | 2000 ND |
| 4-METHYL-2-PENTANONE (MIBK) | 380 | FREON | 8200 |
| 2-HEXANONE | 1600 | | |

ND = NOT DETECTED

* = BELOW DETECTION LIMIT





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C Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

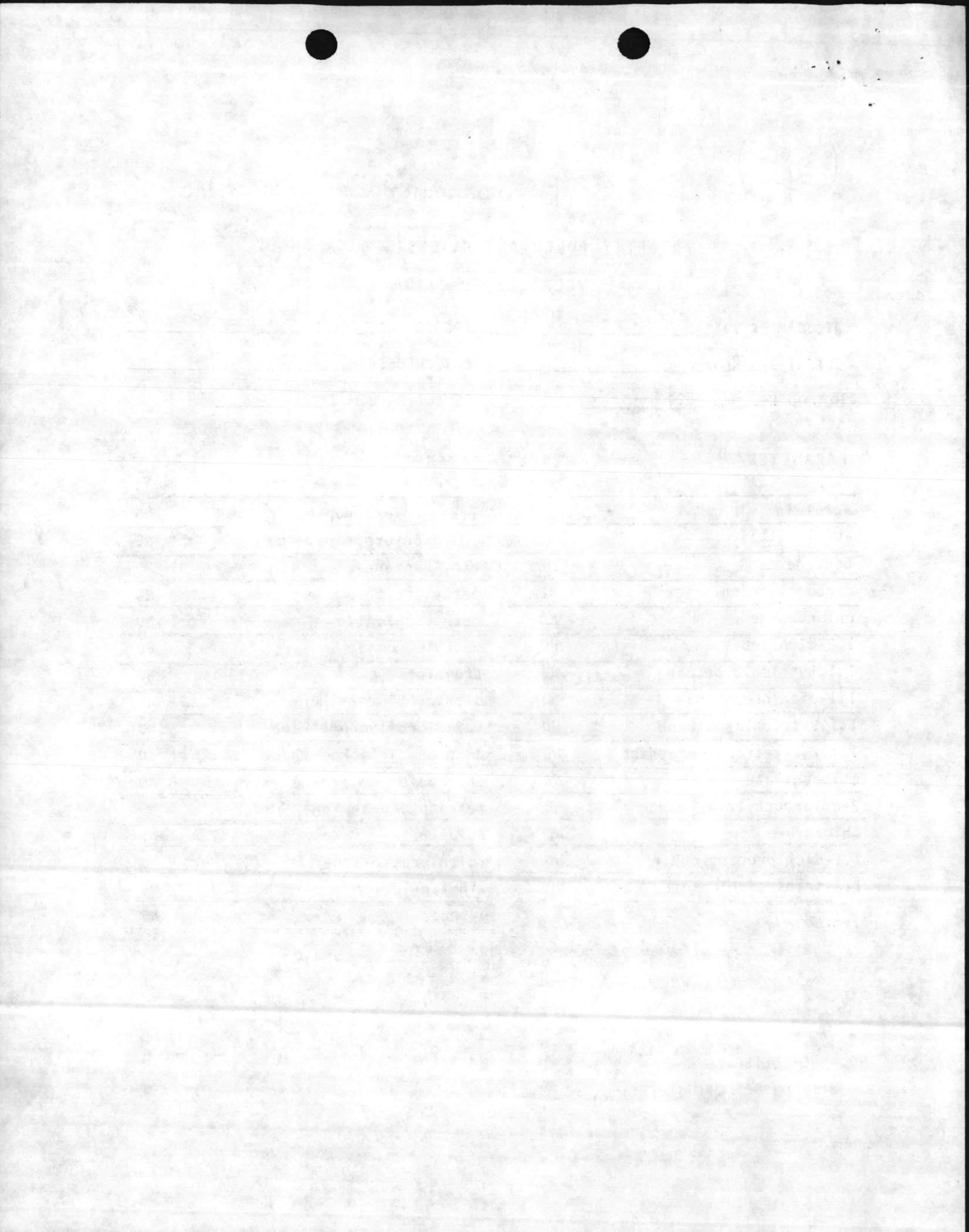
VOLATILE FRACTION

JTC SAMPLE # 61-0989 PROJECT NO. NF-61 #138
CLIENT SAMPLE # 87-34 DATE RECEIVED 9-23-87
METHOD NO. 624 DETECTION LIMIT 250 mg/L

| PARAMETER | RESULT mg/L | PARAMETER | RESULT mg/L |
|----------------------------|---------------------|-------------------------|---------------------|
| acrolein | ND | 1,2-dichloropropane | ND |
| acrylonitrile | ND | 1,3-dichloropropylene | ND |
| benzene | 100 * ND | ethylbenzene | 620 ND |
| carbon tetrachloride | ND | methylene chloride | ND |
| chlorobenzene | ND | methyl chloride | ND |
| 1,2-dichloroethane | ND | methyl bromide | ND |
| 1,1,1-trichloroethane | 310 ND | bromoform | ND |
| 1,1-dichloroethane | ND | dichlorobromomethane | ND |
| 1,1,2-trichloroethane | ND | trichlorofluoromethane | 310 ND |
| 1,1,2,2-tetrachloroethane | ND | dichlorodifluoromethane | ND |
| chloroethane | ND | chlorodibromomethane | ND |
| 2-chloroethylvinylether | ND | tetrachloroethylene | ND |
| chloroform | ND | toluene | 1200 ND |
| 1,1-dichloroethylene | ND | trichloroethylene | 100 * ND |
| 1,2-trans-dichloroethylene | ND | vinyl chloride | ND |
| ACETONE | 1400 | xylene | 2000 ND |
| 4-METHYL-2-PENTANONE (mix) | 350 | FREON | 5200 |
| 2-HEXANONE | 3300 | | |

ND = NOT DETECTED

* = BELOW DETECTION LIMIT



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C Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

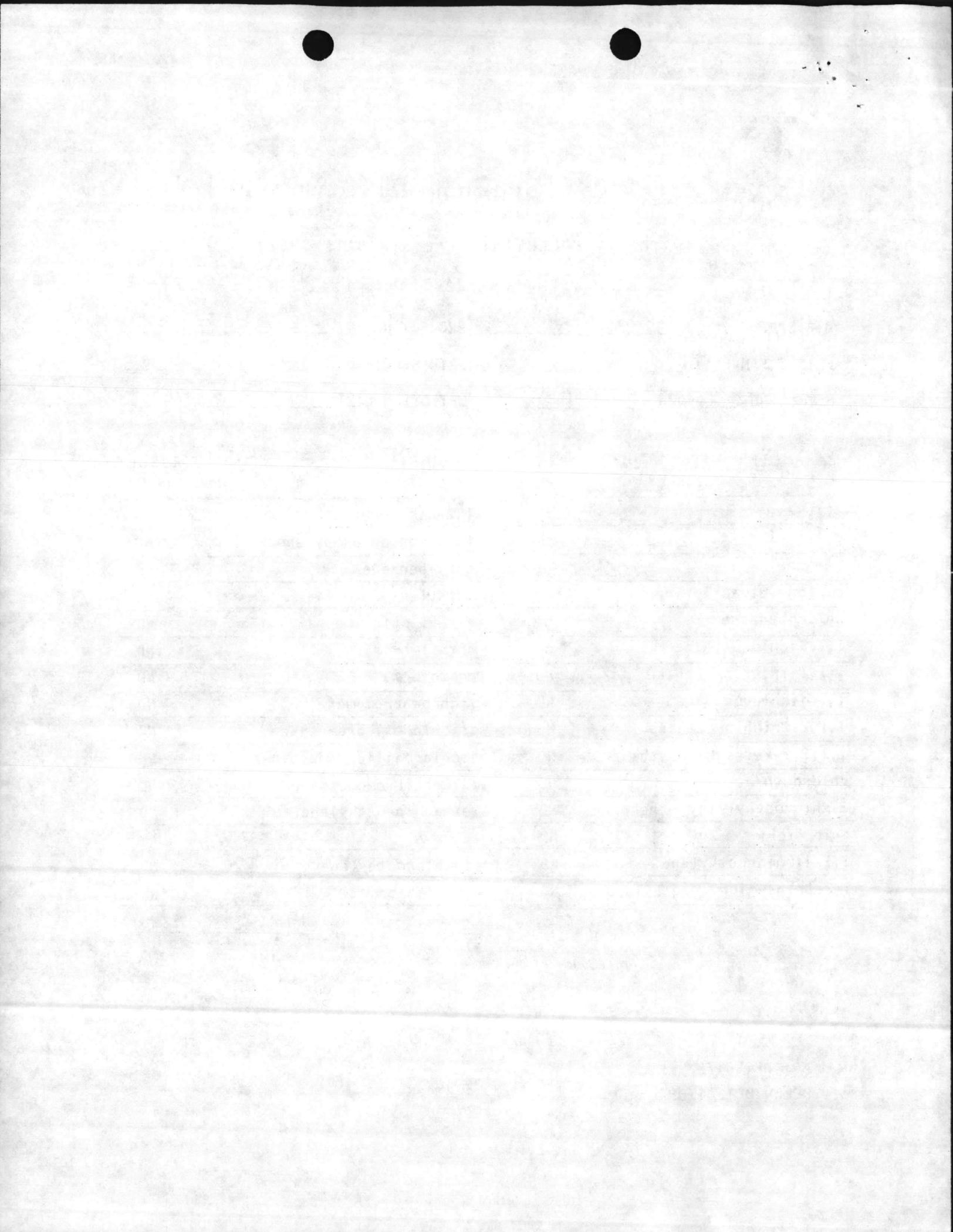
VOLATILE FRACTION

JTC SAMPLE # 61-0990 COMPOSITE PROJECT NO. NF-61 #138CLIENT SAMPLE # 87-79 DATE RECEIVED 9-23-87METHOD NO. 624 DETECTION LIMIT 250 mg/L

| PARAMETER | RESULT mg/L | PARAMETER | RESULT mg/L |
|--------------------------------|--------------------|-------------------------|--------------------|
| acrolein | ND | 1,2-dichloropropane | ND |
| acrylonitrile | ND | 1,3-dichloropropylene | ND |
| benzene | 200* ND | ethylbenzene | 720 ND |
| carbon tetrachloride | ND | methylene chloride | ND |
| chlorobenzene | ND | methyl chloride | ND |
| 1,2-dichloroethane | ND | methyl bromide | ND |
| 1,1,1-trichloroethane | 100* 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 | 970 ND |
| 1,1-dichloroethylene | ND | trichloroethylene | 50* ND |
| 1,2-trans-dichloroethylene | ND | vinyl chloride | ND |
| ACETONE | 1400 | xylenes | 1500 ND |
| 4-METHYL-2-PENTANONE (MIBK) | 330 | FREON | 1600 |
| 2-HEXANONE | 1100 | | |

ND = NOT DETECTED

* = BELOW DETECTION LIMIT





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C Environmental Consultants, Inc.

PRIORITY POLLUTANT ANALYSIS DATA SHEET

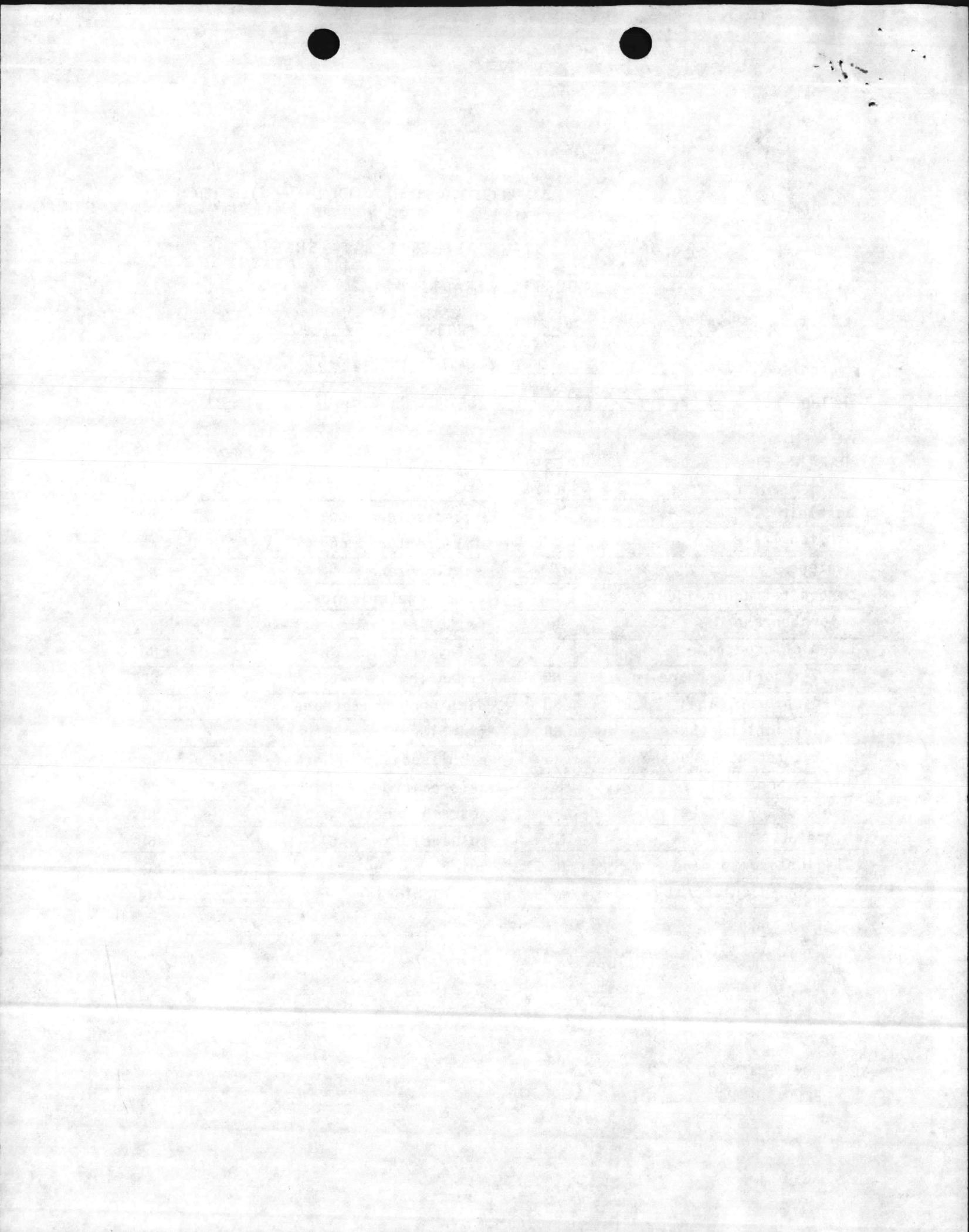
VOLATILE FRACTION

JTC SAMPLE # 61-0991 PROJECT NO. NF-61 #138
CLIENT SAMPLE # 87-80 DATE RECEIVED 9-23-87
METHOD NO. 624 DETECTION LIMIT 250 mg/L

| PARAMETER | RESULT mg/L | PARAMETER | RESULT mg/L |
|--------------------------------|---------------------|-------------------------|--------------------|
| acrolein | ND | 1,2-dichloropropane | ND |
| acrylonitrile | ND | 1,3-dichloropropylene | ND |
| benzene | 200 * ND | ethylbenzene | 460 ND |
| 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 | 1300 ND |
| 1,1-dichloroethylene | ND | trichloroethylene | ND |
| 1,2-trans-dichloroethylene | ND | vinyl chloride | ND |
| ACETONE | 2300 | xylenes | 2100 ND |
| 4-METHYL-2-PENTANONE (MIBK) | 500 | FREON | 600 |
| 2-HEXANONE | 1500 | | |

ND = NOT DETECTED

* = BELOW DETECTION LIMIT



6241/2
6240/2
NREAD
4 Jun 87

From: Director, Natural Resources and Environmental Affairs
Division, Marine Corps Base, Camp Lejeune
To: Base Maintenance Officer, Marine Corps Base, Camp Lejeune
Subj: WASTE OIL STORAGE TANK AT BUILDING 45; ANALYSIS OF

Ref: (a) Dir M & R memo 6240 MAIN dtd 9 Jan 87
(b) BO 6240.5A

Encl: (1) JTC Environmental Consultants, Inc., Report #559
(2) JTC Environmental Consultants, Inc., Report #559
addendum Table #1

1. As requested in reference (a), four samples were taken by NREAD of the large waste oil storage tank located next to Building 45. The samples were numbered 87-31 through 87-34. Sample #87-31 was taken from the bottom layers of oil in the tank. Sample #87-34 was taken just below the surface of the oil in the tank. Samples #87-32 and #87-33 were taken from middle layers of oil in the tank.

2. Based on data contained in enclosures (1) and (2), the contents of the tank are regulated as a hazardous waste fuel by regulations outlined in reference (b). The majority of the subject waste oil appears to be suitable for burning for recovery of energy based on information provided by Oldover Corporation, Aquadate, North Carolina. Oldover is currently highly regarded by the State Hazardous Waste regulatory establishment as a mechanism for disposal of this type of waste. Based on information provided by Mr. Paul Hubbell, CMC (Code LFL), DRMO's cost of disposal will be reimbursed by higher headquarters. Cost in excess of \$250,000 is likely.

3. It is recommended that the subject oil be turned in to DRMO for disposal, and that DRMO be requested to remove the entire contents of the subject tank. It is likely that the bottom layer will require separate disposition due to Chromium and water content.

4. The tank should also be evaluated/tested for suitability for storage of waste oil prior to reuse. Point of contact is Danny Sharpe, extension 5003.

D. D. SHARPE
Acting

Copy to:
DRMO
AC/S, PAC

Blind copy to: Supply Chem

in to

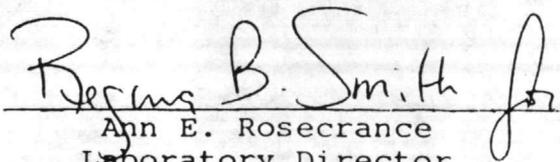
←

Partial Report
CASE # 559
LABORATORY ANALYSIS ON
NAVAL SAMPLES
(A/E CONTRACT N62470-84-B-6932)
JTC REPORT # 87-126

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

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

APRIL 17, 1987


Ann E. Rosecrance
Laboratory Director

ENCLOSURE 111

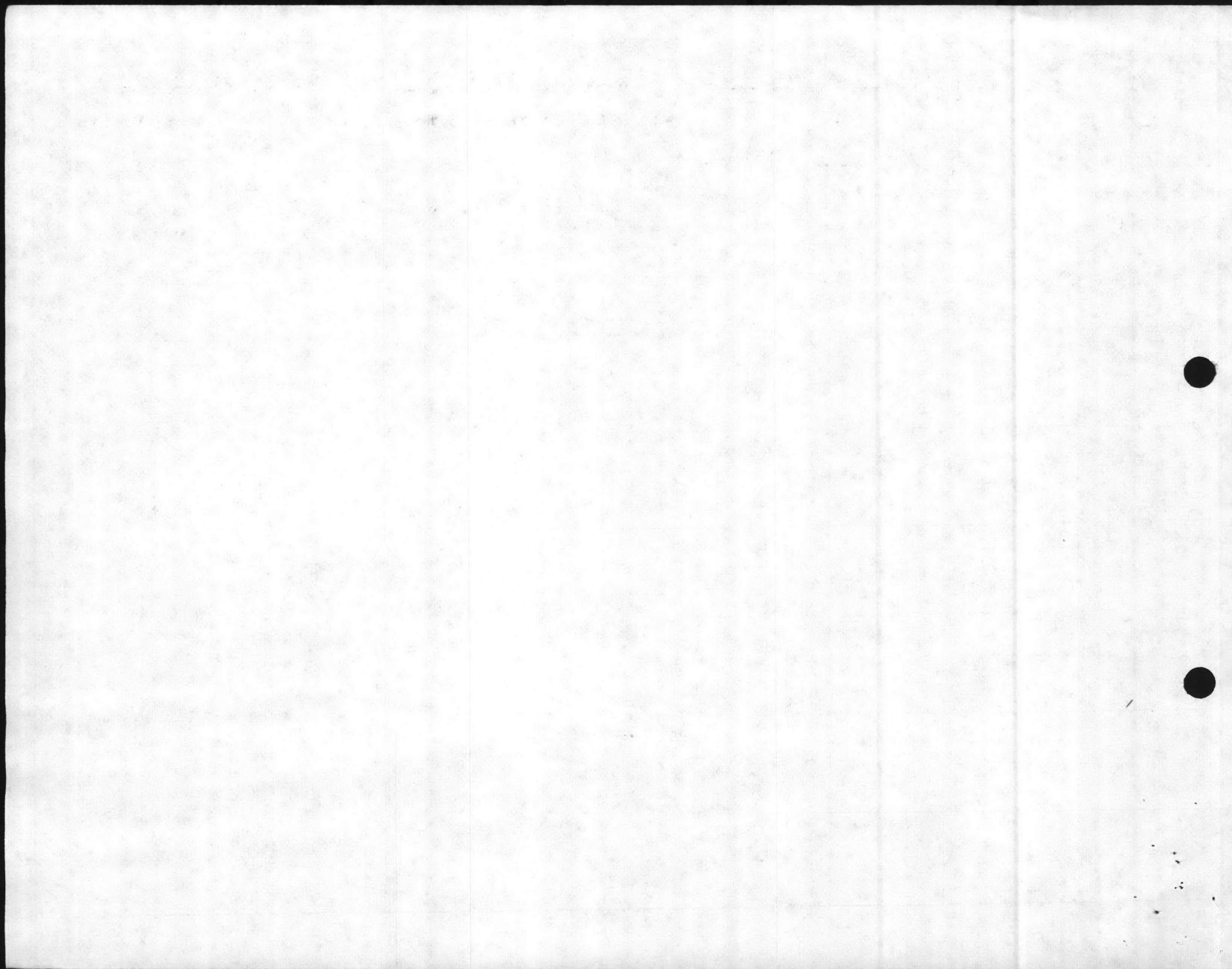


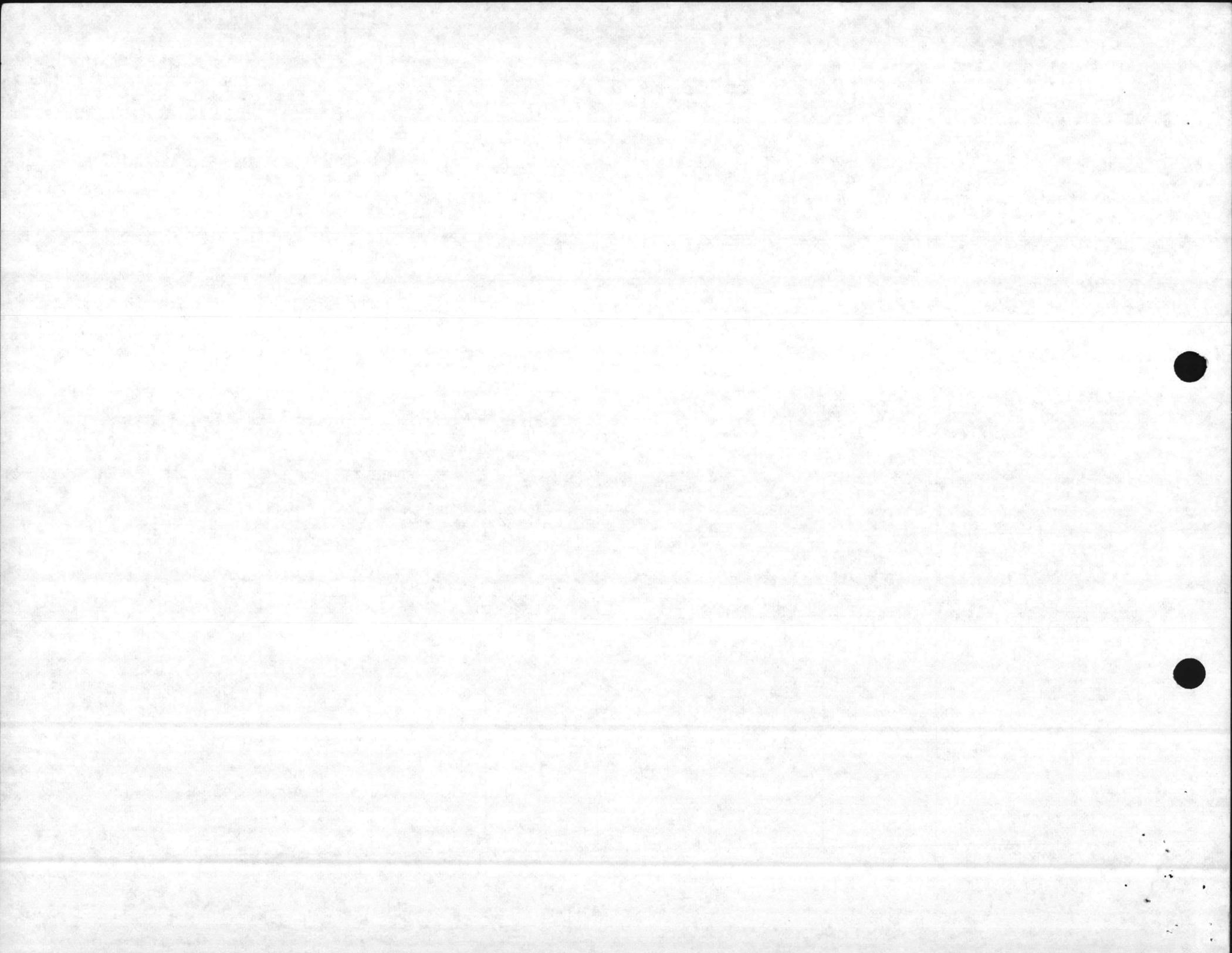
JTC Environmental Consultants, Inc.

Location: Camp Lejeune Date of Receipt: 3-18-87 Turnaround: routine
 Date: 4-17-87 Report No. 559 to Naval Facilities Engineering Command, Norfolk, Virginia
 JTC Data Report No. 87-126 Table 1

| NAVY SAMPLE ID | JTC SAMPLE ID | ANALYSIS PARAMETER | | | | | |
|----------------------|---------------------|--------------------|----------|-------------------|-------------|--|--|
| | | Flashpoint °C | TOX | Corrosivity pH | PCB ug/g | | |
| 87-30 oil layer | 12-4514 | 55 | 0.07% | ** | <5 | | |
| 87-30 water layer | 12-4514 | + | 572 ug/L | 7.32 | + | | |
| 87-31 | 12-4515 | 57 | 0.25% | | | | |
| 87-32 | 12-4516 | 50 | 0.25% | | | | |
| 87-33 | 12-4517 | 50 | 0.24% | | | | |
| 87-34 | 12-4518 | 57 | 0.17% | | | | |

** unable to do analysis due to oil matrix





REPORT # 559 Addendum
LABORATORY ANALYSIS ON
NAVAL SAMPLES
(A/E CONTRACT N62470-84-B-6932)
JTC REPORT #87-126

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

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

APRIL 29, 1987

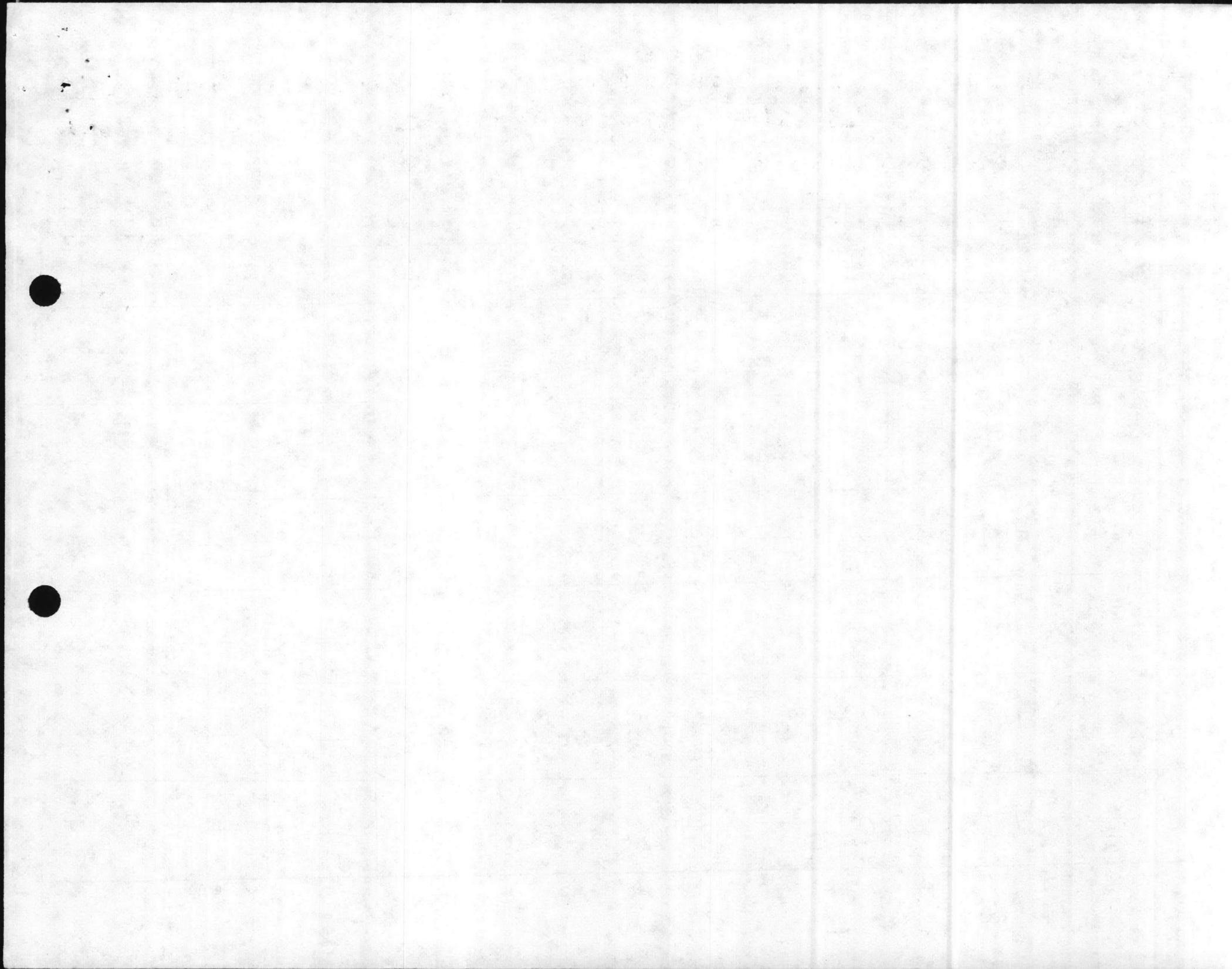
Regina B Smith for
Ann E. Rosecrance
Laboratory Director

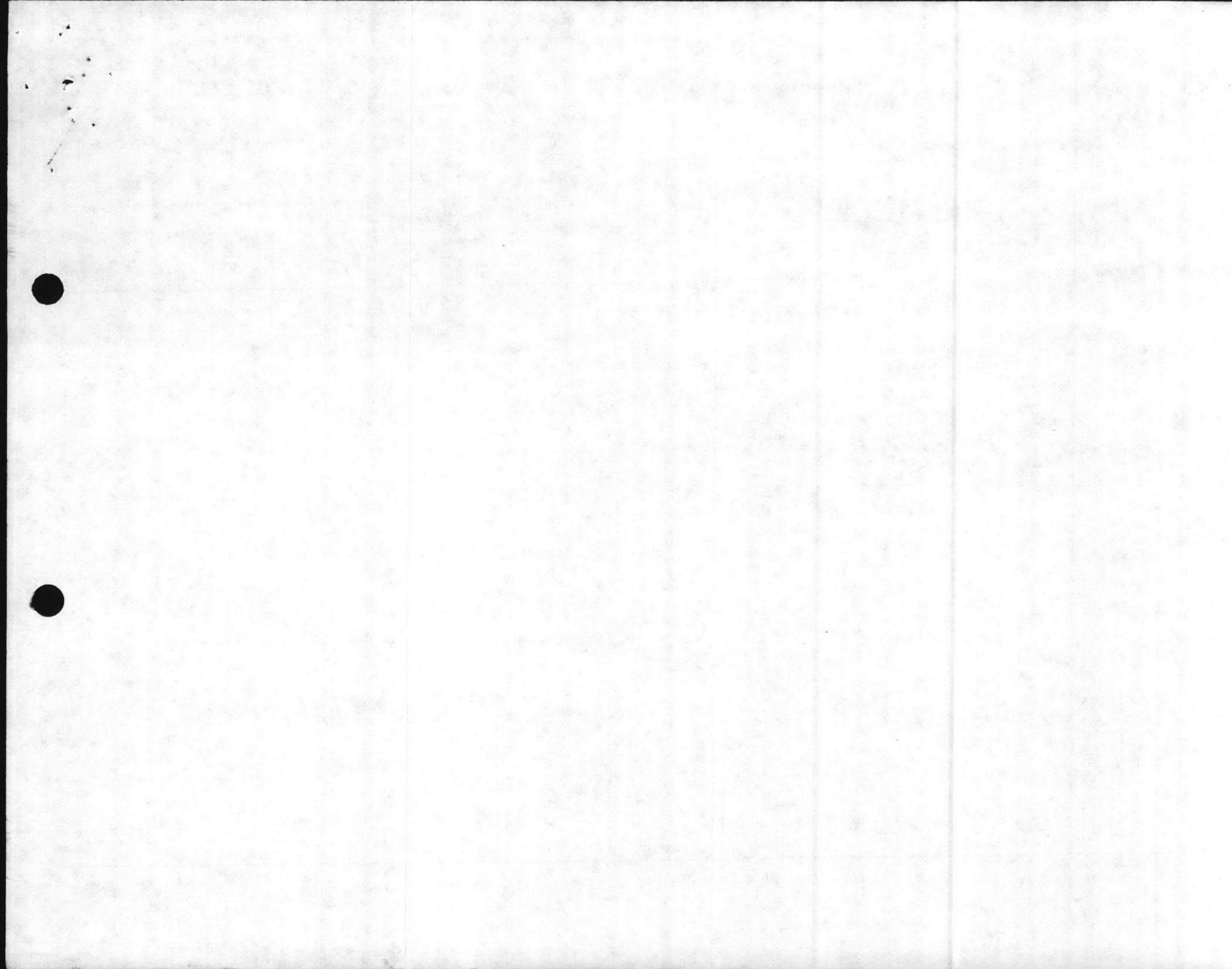
ENCLOSURE 121



Location: Camp Lejeune Date of Receipt: 3-18-87 Turnaround: routine
 Date: 4-29-87 Report No. 559 to Naval Facilities Engineering Command, Norfolk, Virginia
 JTC Data Report No. 87-126 Table 1

| NAVY SAMPLE ID | JTC SAMPLE ID | ANALYSIS PARAMETER | | | | | | | |
|----------------------|---------------------|--------------------|------------|------------|------------|------------|-------------|------------|------------|
| | | As ug/L | Ba ug/L | Cd ug/L | Cr ug/L | Pb ug/L | Hg mg/kg | Se ug/L | Ag ug/L |
| 87-30 oil layer | 12-4514 | <2700 | 3530 | <1500 | 710 | 19,500 | <0.1 | <860 | <8920 |
| 87-30 water layer | 12-4514 | <500 | 180 | <25 | 150 | <250 | <2.0 ug/L | <570 | <50 |
| 87-31 | 12-4515 | <2700 | — | <1500 | 21,000 | 63,800 | — | — | — |
| 87-32 | 12-4516 | <2700 | — | <1500 | 1850 | 62,100 | — | — | — |
| 87-33 | 12-4517 | <2700 | — | <1500 | 1690 | 60,200 | — | — | — |
| 87-34 | 12-4518 | <2700 | — | <1500 | 1350 | 67,500 | — | — | — |





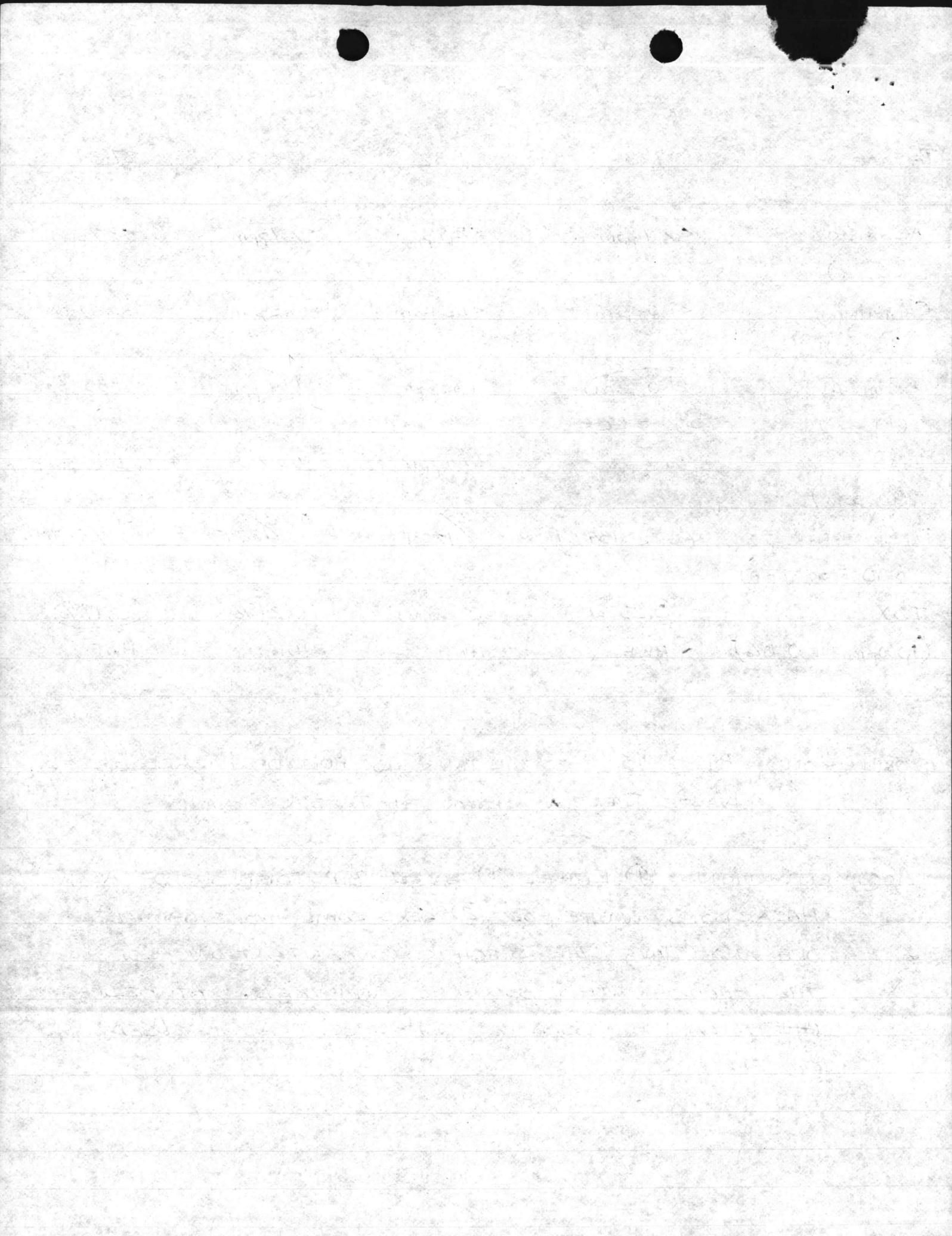
Bottom

Top

| PARAMETER | 87-31 | 87-32 | 87-33 | 87-34 |
|----------------------------------|----------------------|--------------|--------------|----------------|
| ARSENIC (5ppm) | <2.7 ppm | <2.7 ppm | <2.7 ppm | <2.7 ppm |
| CADMIUM (2ppm) | <1.5 ppm | <1.5 ppm | <1.5 ppm | <1.5 ppm |
| CHROMIUM (10ppm) | 21.0 ppm OFF-SPEC | 1.85 ppm | 1.69 ppm | 1.35 ppm |
| LEAD (100ppm) | 63.8 ppm | 62.1 ppm | 60.2 ppm | 67.5 ppm |
| FLASH POINT (100°F or 37.8°C) | 57°C or 134.6°F | 50°C / 122°F | 50°C / 122°F | 57°C / 134.6°F |
| TOX (1,000ppm or 0.18%) | 0.25% HWF | 0.25% HWF | 0.24% HWF | 0.17% HWF |

CONCLUSION: BLDG 45 USED OIL TANK IS FULL OF HAZARDOUS WASTE FUEL, AS SHOWN BY PRESENT ANALYSIS

ACCOMMODATIONS: EITHER ① ~~SA SE~~ ~~DIPS~~ DISPOSE OF AS A HAZARDOUS WASTE OR ② SEND SOME MORE SAMPLE OFF AND HAVE THE SPECIFIC CONCENTRATIONS OF THE HALOGENATED SOLVENTS ANALYZED. AT BEST ~~BAN~~ IT CAN BE SOLD AS OFF-SPECIFICATION USED OIL FUEL.



Newt Masters

.81¢

Sara Hall

683-6012



1871

1871

1871

1871

40 day advance
30 day removal

60
130

30

73

National Oil

Recyclers Association

BO



87

Memorandum

6240
MAIN

DATE: 9 January 1987

FROM: Director, Maintenance and Repair Branch, Base Maintenance
Division, Marine Corps Base, Camp Lejeune

TO: Director, Natural Resources and Environmental Affairs Division,
Marine Corps Base, Camp Lejeune

SUBJ: WASTE OIL ANALYSIS

1. It is requested that an analysis be conducted on waste oil located in the storage tank near Building 45. The tank has been filled with waste oil and requires removal by DRMO Contract.

R. E. Avant
R. E. AVANT

Isn't this a
second request
DDS

Memorandum

6240
MAIN

DATE: 9 January 1987

FROM: Director, Maintenance and Repair Branch, Base Maintenance
Division, Marine Corps Base, Camp Lejeune

TO: Director, Natural Resources and Environmental Affairs Division,
Marine Corps Base, Camp Lejeune

SUBJ: WASTE OIL ANALYSIS

1. It is requested that an analysis be conducted on waste oil located in the storage tank near Building 45. The tank has been filled with waste oil and requires removal by DRMO Contract.

R. E. Avant
R. E. AVANT

Memorandum

TO: [Illegible]

DATE: [Illegible]

SUBJECT: [Illegible]

REFERENCE: [Illegible]

1. [Illegible]

[Handwritten signature]

[Illegible]

Memorandum

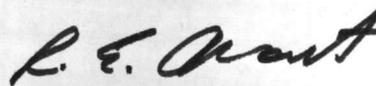
DATE: 4 November 1986

FROM: Director, Maintenance and Repair Branch, Base Maintenance Division,
Marine Corps Base, Camp Lejeune

TO: Director, Natural Resources and Environmental Affairs, Marine
Corps Base, Camp Lejeune

SUBJ: TESTING OF WASTE OIL

1. The waste oil tank at Building 45 is full and requires testing as soon as possible. Point of contact will be Mr. Don Gurganus, x5909.



R. E. AVANT

Scotch® 7664 "Post-it" Routing-Request Pad

ROUTING - REQUEST

Please

- READ
 - HANDLE
 - APPROVE
- and
- FORWARD
 - RETURN
 - KEEP OR DISCARD
 - REVIEW WITH ME

Recommendation

To Betz : Set
up an Appt. Confirm
in memo to BMO
advising that no
wastes may be added
to the tank
after samples drawn.

Date _____

From D. Shaye

Memorandum

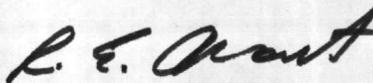
DATE: 4 November 1986

FROM: Director, Maintenance and Repair Branch, Base Maintenance Division,
Marine Corps Base, Camp Lejeune

TO: Director, Natural Resources and Environmental Affairs, Marine
Corps Base, Camp Lejeune

SUBJ: TESTING OF WASTE OIL

1. The waste oil tank at Building 45 is full and requires testing as soon as possible. Point of contact will be Mr. Don Gurganus, x5909.



R. E. AVANT

Memorandum

DATE: 11/15/62

FROM: Mr. [Name], [Title], [Department]

TO: Mr. [Name], [Title], [Department]

1. The [Subject] is being [Action] as a result of [Reason].

2. It is recommended that [Action] be taken.

Very truly yours,

[Faint, illegible text in the main body of the memorandum]

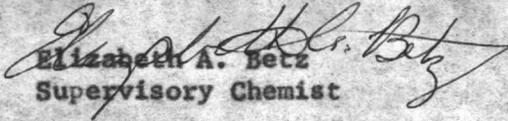
Date: 8 September 1982

Memorandum for the Record

From: Ms. Betz, Quality Control Lab., Environmental Section, NREAB, BMaintDiv

Subj: PCB Sampling on 25 March 1982; Results of

1. LantDiv received sample MCBCL #902 on 28 April 1982, and stated it was primarily water. Another sample would have to be taken.
2. On 18 May 1982, Bob Lachapelle and Hoy Burns resampled the small tank by Bldg. 45. The sample was #5, 1-4 being the Used Oil Tank at the same lot. Sample #5 was sent to LantDiv for PCB analysis.
3. The results of the PCB analysis showed the transformer oil in the small tank at the back of the Heavy Equipment Lot to have no detectable level of PCB. The analysis detection limit is 0.01ppm, any PCB level lower than 0.01ppm is not measureable.


Elizabeth A. Betz
Supervisory Chemist

...

...

...

...

...

[Handwritten signature]
...

11090/2
NREAD
12 Dec 84

From: Director, Natural Resources and Environmental Affairs
Division, Marine Corps Base, Camp Lejeune
To: Base Maintenance Officer, Marine Corps Base, Camp Lejeune
Subj: ANALYSIS OF WASTE OIL AT BUILDING 45

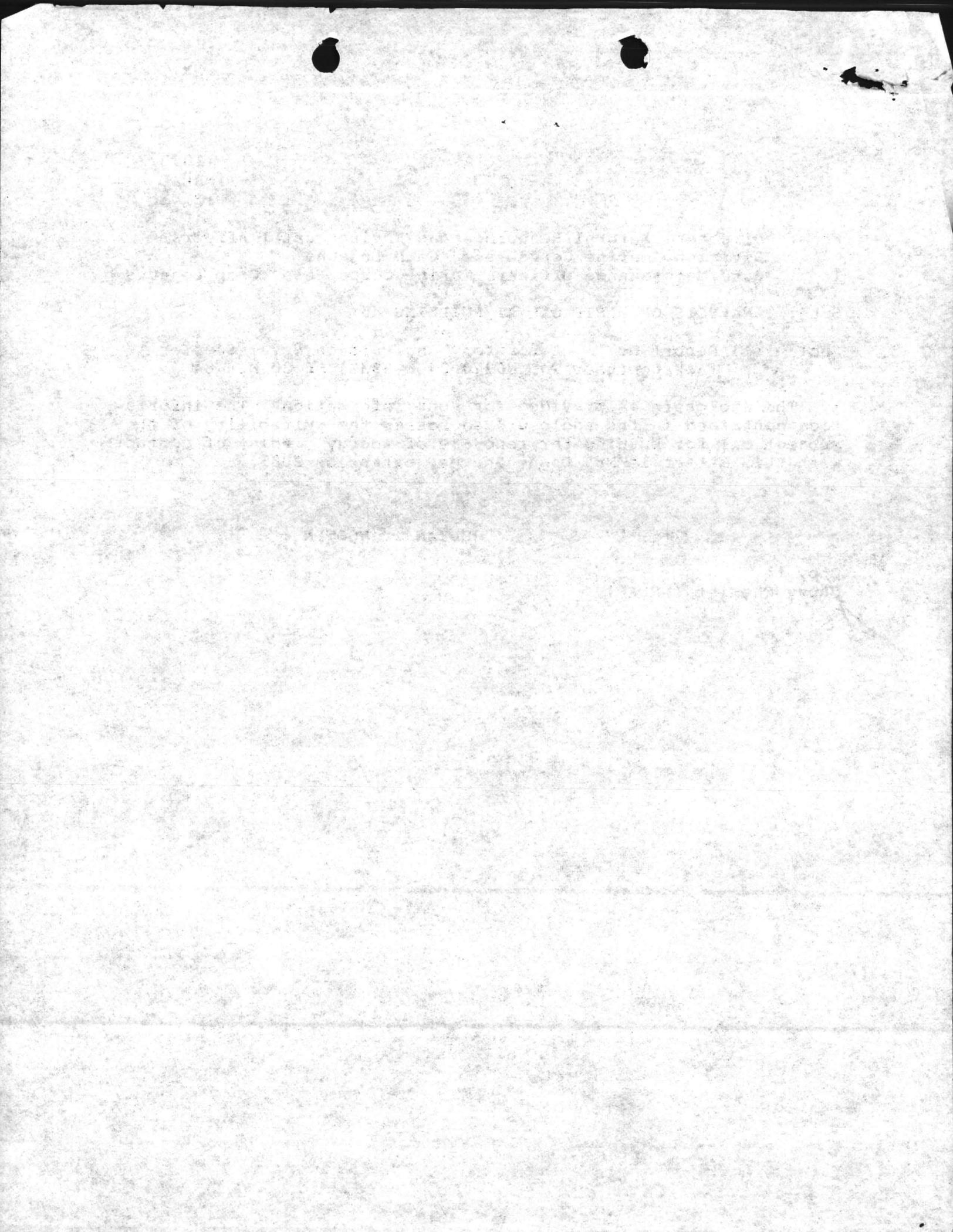
Encl: (1) Report No. 1, Laboratory Analysis on Naval Samples
(A&E Contract No. N6270-84-B-6932) of 30 Nov 84

1. The enclosure is provided for your information. The information contained in the enclosure addresses the suitability of the subject oil for burning for recovery of energy. Point of contact with this matter is Mr. Danny Sharpe, extension 2083.

JULIAN I. WOOTEN

Copy to:
Supvy Chemist (NREAD)



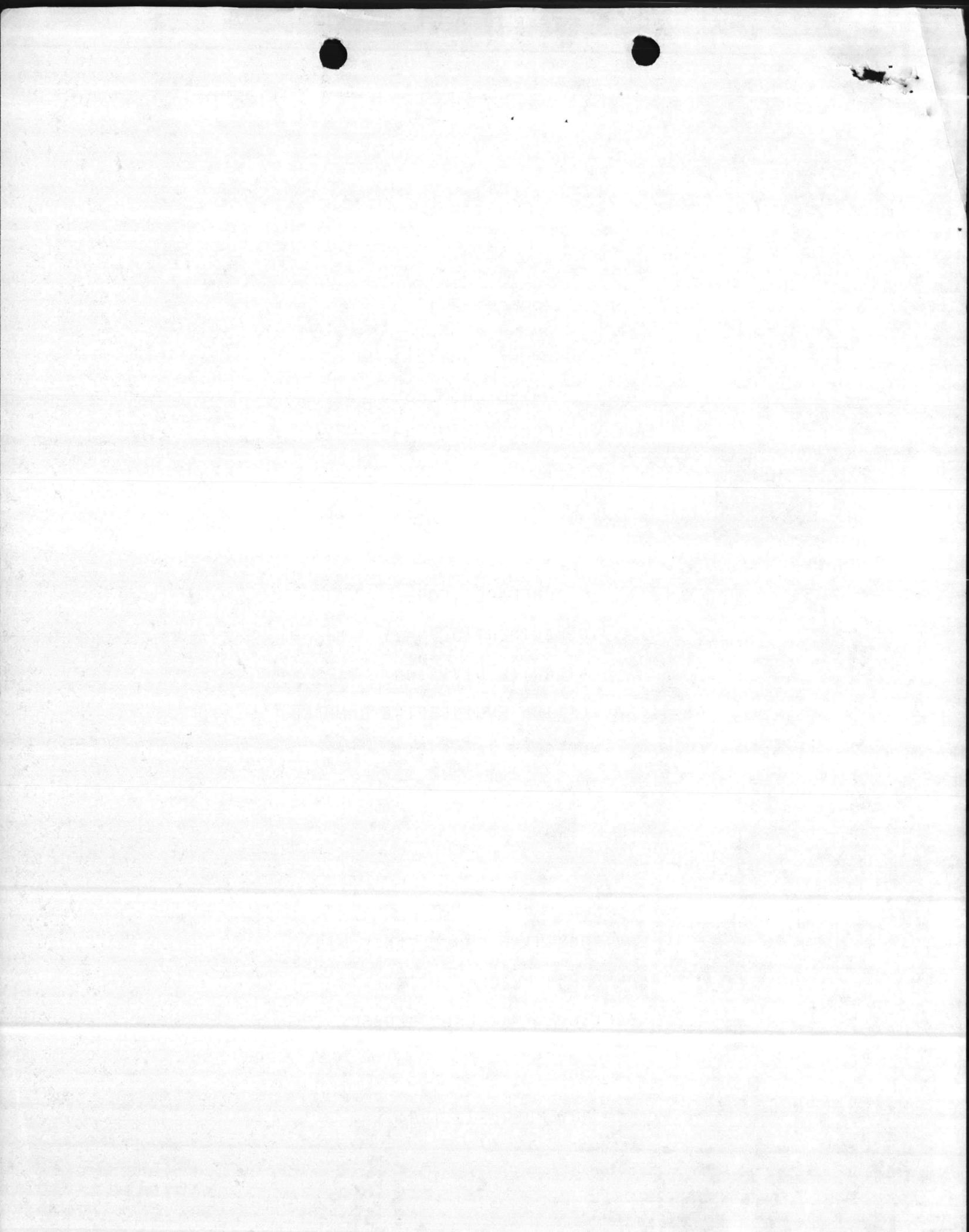


REPORT # 1
LABORATORY ANALYSIS ON
NAVAL SAMPLES
(A/E Contract N6270-84-B-6932)

PREPARED FOR:
DEPARTMENT OF NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VA 23511

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

NOVEMBER 30, 1984



JTC Environmental Consultants, Inc.

Date 11/30/84 Report No. 1 to Naval Facilities Engineering Command, Norfolk, Virginia

JTC Data Report No. 84-120 Table 2 Date of Sample Receipt 11-1-84

| NAVY SAMPLE ID | JTC SAMPLE ID | ANALYSIS PARAMETER | | | | | | | |
|---|---------------------|----------------------------------|---------|------------|-------|-------|--------------------------|----------|---------------------|
| | | Heat of Combustion BTU per lb | % water | % sediment | % oil | % ash | Viscosity CST at 50°C | % Sulfur | Specific Gravity |
| MEB waste oil 1 ft from surface (18 ft down) | 12-0009 | 18,280 | 0.30 | 4.7 | 95.0 | 0.24 | 6.11 | 0.42 | 0.873 |
| MEB waste oil 4 ft from surface (18 ft down) | 12-0010 | 11,600 | 9.0 | 35.0 | 56.0 | 0.41 | 25.3 | 0.30 | 0.922 |
| MEB waste oil - Bottom 10 ft below surface | 12-0011 | 15,620 | 40.0 | 20.0 | 40.0 | 0.43 | 169.9 | 0.16 | 0.966 |

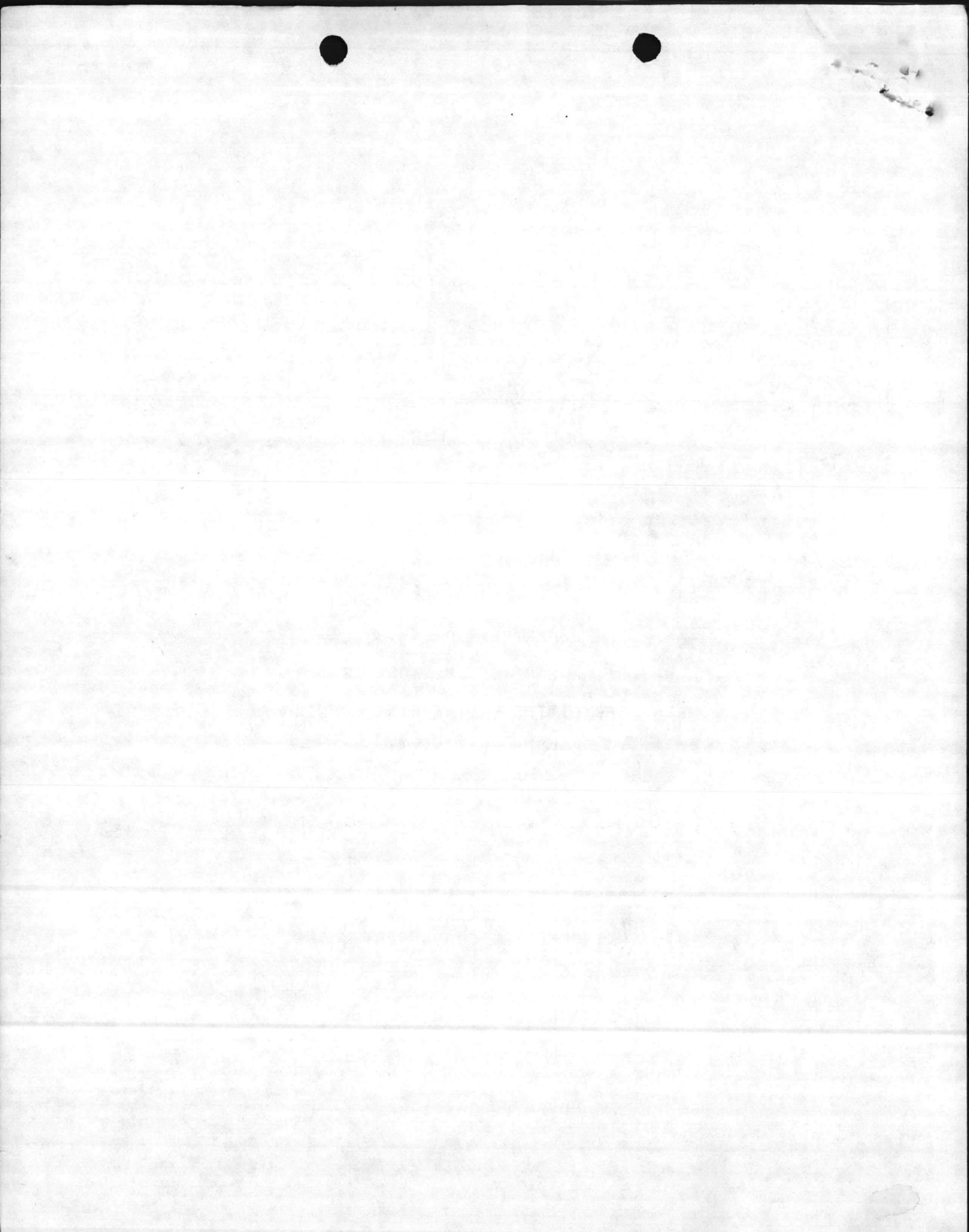
1/1

REPORT # 1
LABORATORY ANALYSIS ON
NAVAL SAMPLES
(A/E Contract N6270-84-B-6932)

W
PREPARED FOR:
DEPARTMENT OF NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VA 23511

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

NOVEMBER 30, 1984

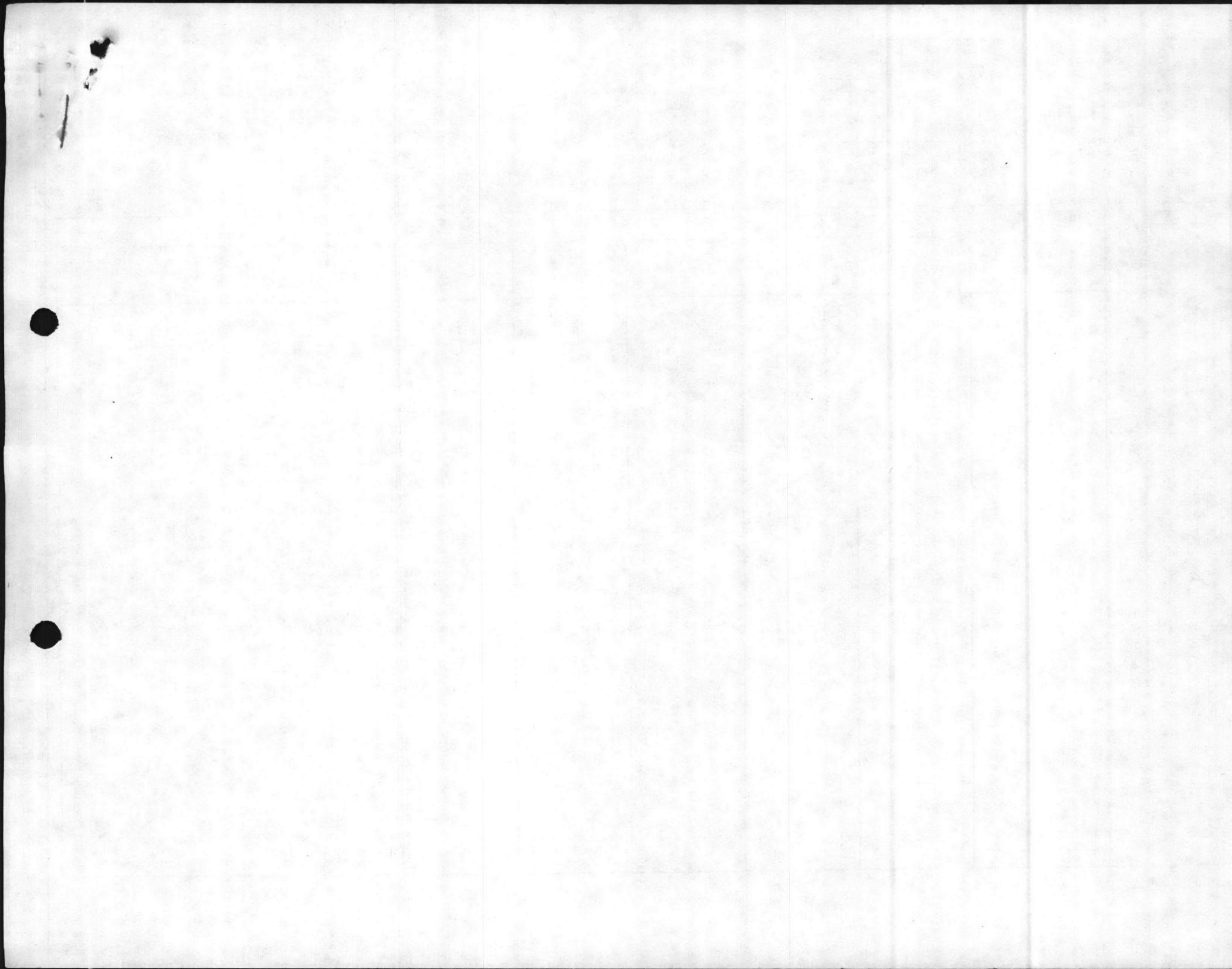


JTC Environmental Consultants, Inc.

Date 11/30/84 Report No. 1 to Naval Facilities Engineering Command, Norfolk, Virginia

JTC Data Report No. 84-120 Table 2 Date of Sample Receipt 11-1-84

| NAVY SAMPLE ID | JTC SAMPLE ID | ANALYSIS PARAMETER | | | | | | | |
|--|---------------------|-----------------------------------|---------|------------|-------|-------|--------------------------|----------|---------------------|
| | | Heat of Combustion BTU per lb. | % water | % sediment | % oil | % ash | Viscosity cST at 50°C | % Sulfur | Specific Gravity |
| MCB waste oil - 1 ft. from surface 18 ft down | 12-0009 | 18,280 | 0.30 | 4.7 | 95.0 | 0.24 | 6.11 | 0.42 | 0.873 |
| MCB waste oil - 4 ft from surface 18 ft. down | 12-0010 | 11,600 | 9.0 | 35.0 | 56.0 | 0.41 | 25.3 | 0.30 | 0.922 |
| MCB waste oil - bottom surface 10 ft. | 12-0011 | 15,620 | 40.0 | 20.0 | 40.0 | 0.43 | 169.9 | 0.16 | 0.966 |



DATE: 7 AUGUST 1984

FROM: SUPVY CHEMIST, WATER QUALITY CONTROL LAB, ENVIR BR, NREAD

TO: SUPVY ECOLOGIST, ENVIR BR, NREAD

SUBJ: USED OIL TANKS S-888, S-889, S-890 AND S-891

ENCL: (1) GUILFORD LABORATORIES LTR OF 21 JUN 1984 (REC'D 7 AUG 1984)

(2) GRANGER LABORATORIES LTR OF 15 JUN 1984

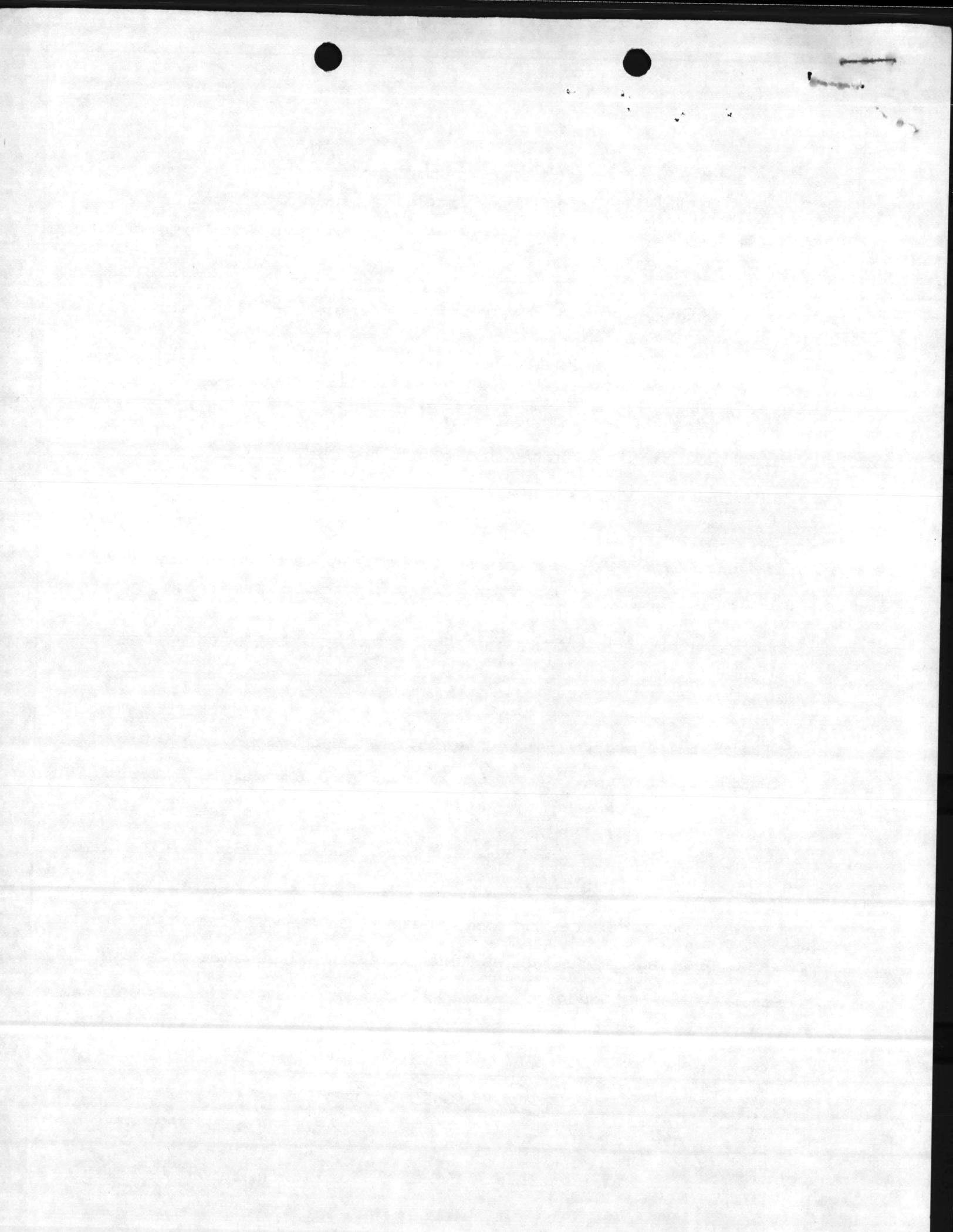
(3) GRANGER LABORATORIES LTR OF 25 JAN 1984

(4) GRANGER LABORATORIES LTR OF 9 FEB 1984

ENCLOSURES (1) AND (2) ARE THE ANALYSIS OF THE USED OIL PRESENTLY STORED IN TANKS S-888, S-889, S-890 AND S-891. THIS OIL DOES NOT SHOW THE HIGH LEVELS OF SOLVENTS THAT HAVE BEEN FOUND IN THE PAST

2. ENCLOSURES (3) AND (4) ARE THE ANALYSIS OF THE USED OIL PRESENTLY BEING REMOVED FROM THE TANK AT BLDG 45. COMPARING ENCLOSURE (1) TO ENCLOSURE (3) SHOWS THAT ADDING THE OIL MOVING THE OIL FROM THE LP TANKS TO THE LARGE TANK @ BLDG 45 SHOW NOT POSE ANY PROBLEMS. THE ONLY DIFFERENCES IN THE OIL IS THE ~~LOW~~ VERY LOW LEVELS OF ORGANICS ~~IN IT~~ AND THE PRESENCE OF SOME LEACHABLE LEAD IN THE LP TANKS WHEREAS THE TANK @ BLDG 45 HAD HIGH LEVELS OF 1,1-DICHLOROETHANE, TRICHLOROETHANE, TOLUENE AND PHENOLS BUT NO TRACE OF LEACHABLE LEAD.

Elizabeth A. Belfry



PIEDMONT RESEARCH LABORATORIES

Division Of
GUILFORD LABORATORIES, INC.

21 JUNE 1984

REPORT OF ANALYSIS

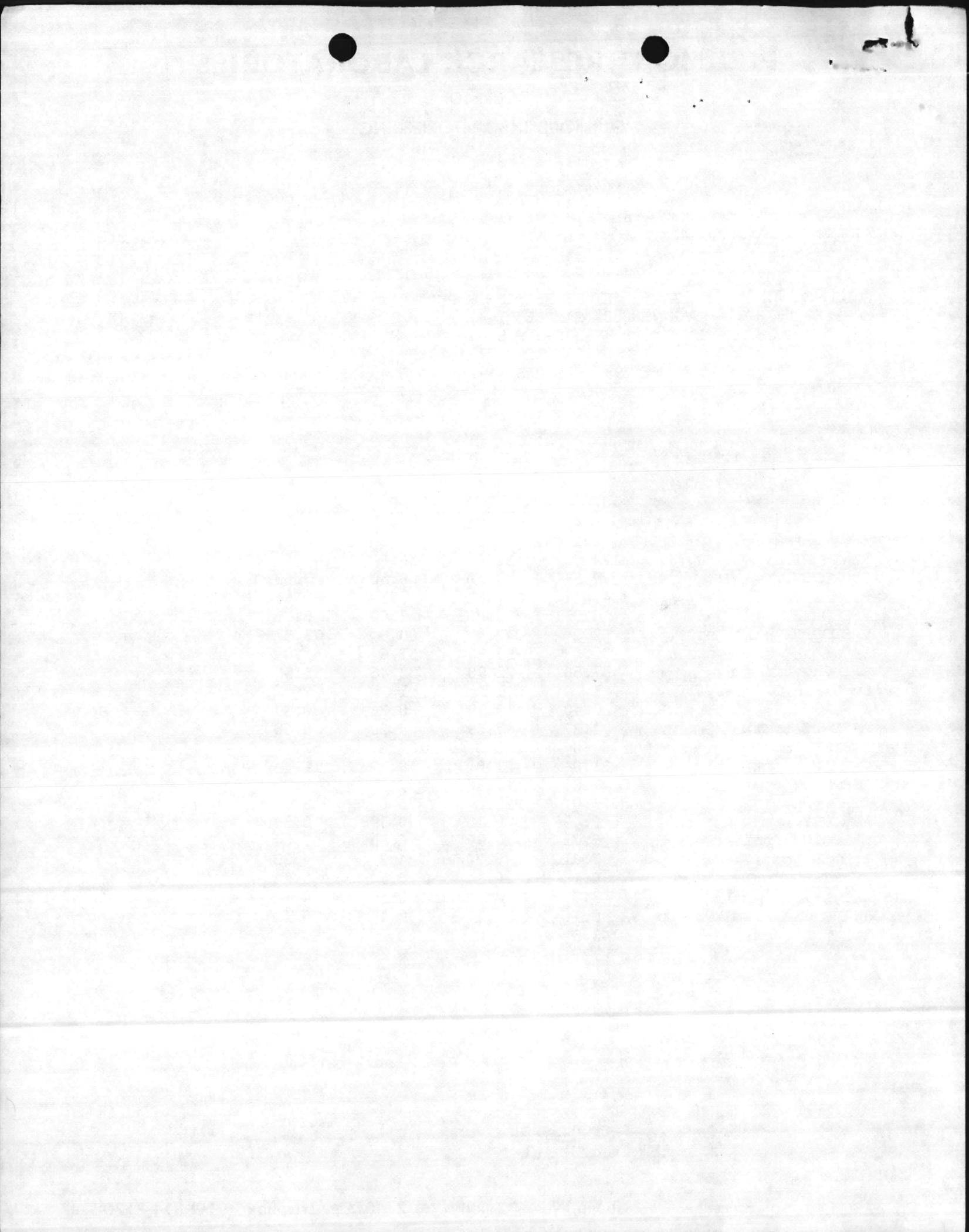
JOB#: DON40510

CUSTOMER: DEPT OF NAVY ATTN: ELIZABETH BETZ

SAMPLES: #1878 - TANK #5-888 (SAMPLES 1-4)
 #1879 - TANK #5-889 (SAMPLES 5-8)
 #1880 - TANK #5-890 (SAMPLES 9-12)
 #1881 - TANK #5-891 (SAMPLES 13-16)

RESULTS

| | <u>#1878</u> | <u>#1879</u> | <u>#1880</u> | <u>#1881</u> |
|--------------------------|--------------|--------------|--------------|--------------|
| % WATER | 2.1 | 2.6 | 4.8 | 4.0 |
| FLASH PT. (PMCC, deg F) | 124 F | 132 F | 156 F | 144 F |
| CORROSIVITY (pH) | 7.59 | 7.10 | 6.50 | 7.63 |
| BTU/gal | 124,461 | 83,462 | 77,711 | 106,365 |
| % SEDIMENT | < 0.001 | < 0.001 | 1.60 | 0.71 |
| VISCOSITY @ 100 ssu | 62.2 | 42.0 | 80.5 | 73.5 |
| @ 212 ssu | 31.0 | 52.8 | 57.6 | 51.0 |
| API GRAVITY @ 60 | 37.56 | 22.98 | 32.46 | 35.56 |
| Cu STRIP CORROSIVITY | 1 | 1 | 1 | 2 |
| % SULFUR | 0.40 | 0.19 | 0.24 | 0.30 |
| ARSENIC (ppm) | 4.37 | 7.69 | 5.20 | 5.68 |
| BARIUM (ppm) | 160.0 | 200.0 | 184.0 | 152.0 |
| CADMIUM (ppm) | 21.0 | 21.0 | 18.6 | 19.4 |
| CHROMIUM (ppm) | 7.0 | 7.66 | 7.06 | 9.29 |
| LEAD (ppm) | 229.0 | 222.0 | 225.0 | 218.0 |
| MERCURY (ppm) | 0.433 | 0.189 | 0.398 | 0.346 |
| SELENIUM (ppm) | 5.75 | 10.99 | 6.35 | 5.04 |
| SILVER (ppm) | 7.61 | 5.30 | 34.3 | 4.32 |
| PHENOLS (ppm) | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 1,1,2-TCE (ppm) | 3.7 | < 0.1 | < 0.1 | < 0.1 |
| 1,1 DICHLOROETHANE (ppm) | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| TOLUENE (ppm) | 143.5 | 129.0 | 83 | 66 |

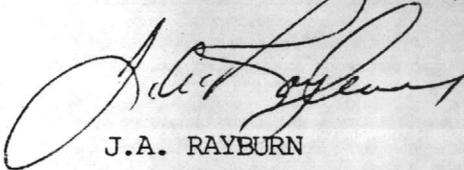


PIEDMONT RESEARCH LABORATORIES

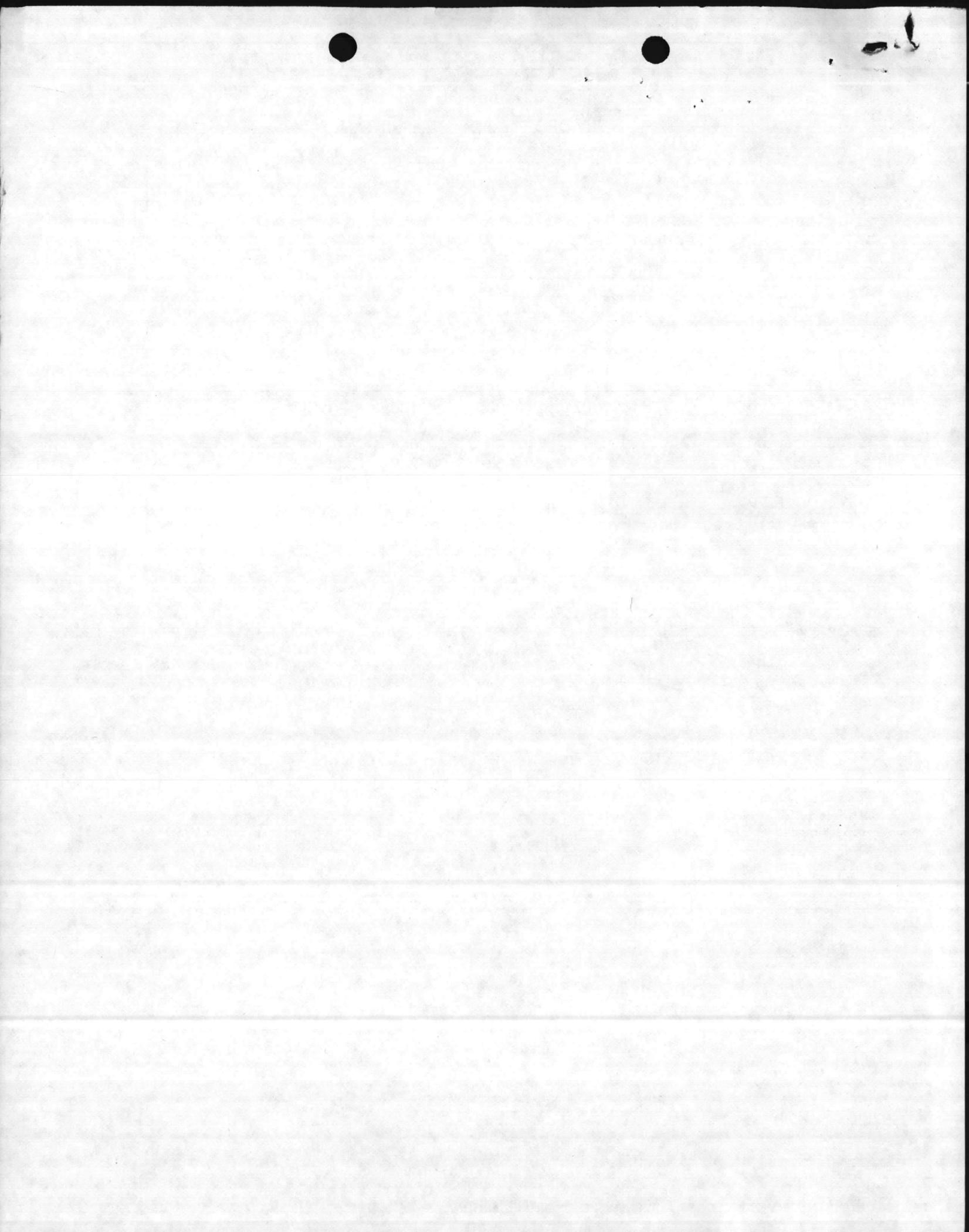
Division Of
GUILFORD LABORATORIES, INC.

| | <u>#1878</u> | <u>#1879</u> | <u>#1880</u> | <u>#1881</u> |
|--------------------------------|--------------|--------------|--------------|--------------|
| LEACHABLE METALS - EP TOXICITY | | | | |
| ARSENIC (ppm) | <0.001 | <0.001 | <0.001 | <0.001 |
| BARIUM (ppm) | 0.153 | <0.01 | <0.001 | 0.153 |
| CADMIUM (ppm) | 0.085 | 0.068 | 0.068 | 0.08 |
| CHROMIUM (ppm) | 0.058 | 0.058 | 0.235 | 0.176 |
| LEAD (ppm) | 2.59 | 1.58 | 1.39 | 2.14 |
| MERCURY (ppm) | 0.001 | 0.001 | 0.001 | <0.001 |
| SELENIUM (ppm) | <0.001 | <0.001 | <0.001 | <0.001 |
| SILVER (ppm) | 0.025 | 0.012 | 0.012 | 0.025 |

GUILFORD LABORATORIES, INC.



J.A. RAYBURN





June 15, 1984
84-11142

**Grainger
Laboratories
Incorporated**

Analytical and
Consulting Chemists

United States Marine Corps
Natural Resources and Environmental Affairs Div.
QC Lab NREAD, Bldg. 1103
Camp Lejeune, NC 28542

Attention: Ms. Elizabeth Betz

Subject: Analyses of Samples Received 6-12-84

Sample Identification: Purchase Order No. M3100041590130

5500 Commercial Avenue
Raleigh, NC 27612
(919) 787-3061

1040 Greenfield Street
Wilmington, NC 28402
(919) 763-9793

- | | |
|-----------------|-----------------|
| 1. 1201 - S-888 | 5. 1205 - S-888 |
| 2. 1202 - S-890 | 6. 1206 - S-890 |
| 3. 1203 - S-889 | 7. 1207 - S-891 |
| 4. 1204 - S-889 | 8. 1208 - S-891 |

RESULTS

| <u>Analytical Laboratory</u> | <u>Sample Number</u> | <u>Total Aroclors, µg/g</u> |
|------------------------------|----------------------|-----------------------------|
| Environment Analysis | 1 | <1.0 |
| Materials | 2 | <1.0 |
| Identification of Unknowns | 3 | <1.0 |
| Agricultural Products | 4 | <1.0 |
| Fuels | 5 | <1.0 |
| Textiles | 6 | <1.0 |
| Hazardous Waste | 7 | <1.0 |
| GC/MS | 8 | <1.0 |
| ICP Metals | | |
| Priority Pollutants | | |
| Consultation | | |
| Metallurgical Services | | |
| Pollution Abatement | | |
| Process Development | | |
| Quality Control | | |
| Methods Development | | |
| Special Investigation | | |

Certifications

SDWA
NPDES
USDA
USEPA

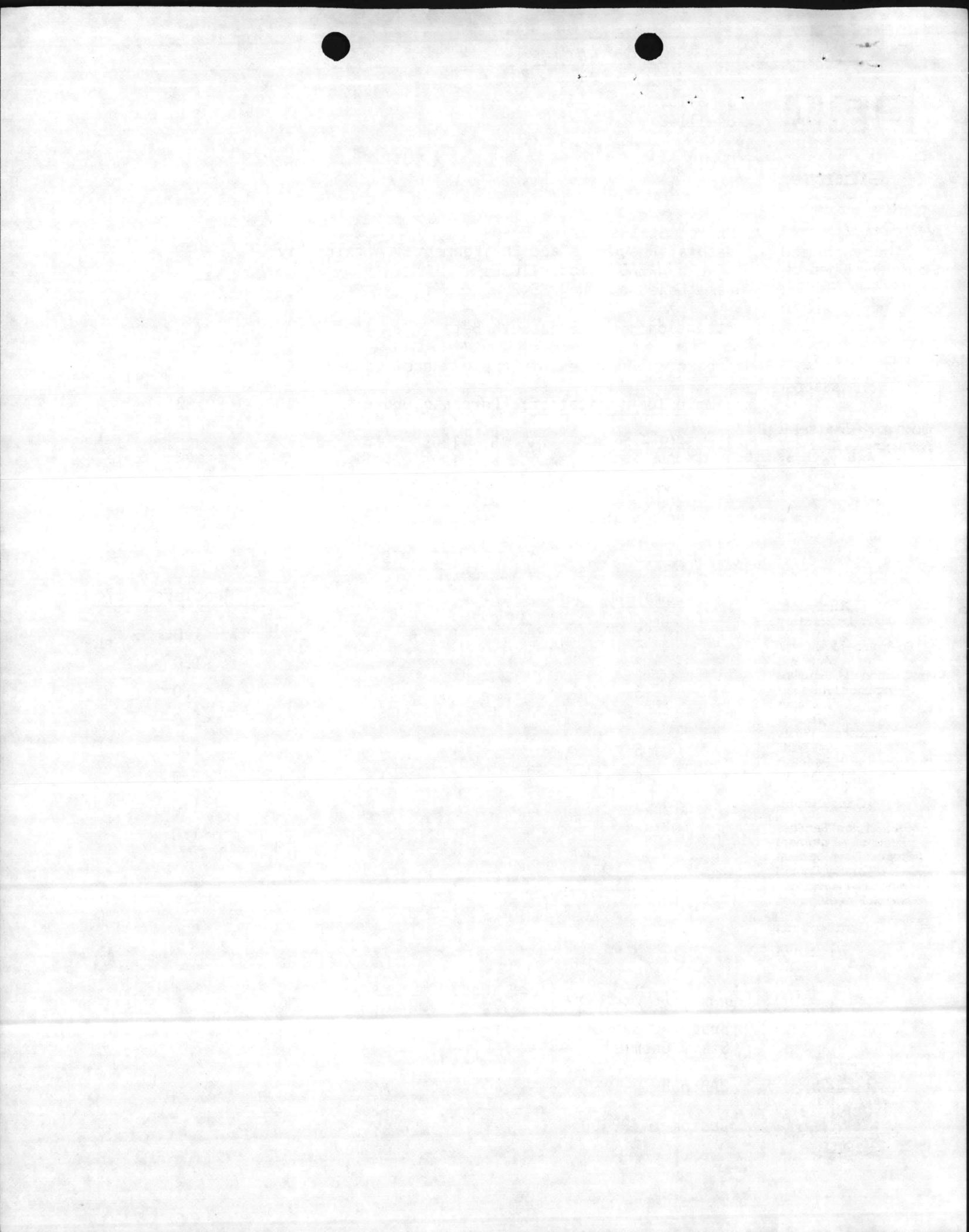
Bruce A. Babson (WPPB)

Bruce A. Babson
Staff Chemist

BAB:pph

Customer #92400







January 25, 1984
83-9295

**Grainger
Laboratories
Incorporated**

Analytical and
Consulting Chemists

Quality Control Lab, NREAD
Facilities, MCB
Camp Lejeune, NC 28542

Attention: Ms. Elizabeth Betz

Subject: Analysis of Sample Received 12/9/83

Sample Identification: Purchase Order M67001-83-M-9775

5500 Commercial Avenue
Raleigh, NC 27612
(919) 787-3061

1040 Greenfield Street
Wilmington, NC 28402
(919) 763-9793

**Analytical
Laboratory**

Environment Analysis
Materials
Identification of Unknowns
Agricultural Products
Fuels
Textiles
Hazardous Waste
GC/MS
ICP Metals
Priority Pollutants

Consultation

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

Certifications

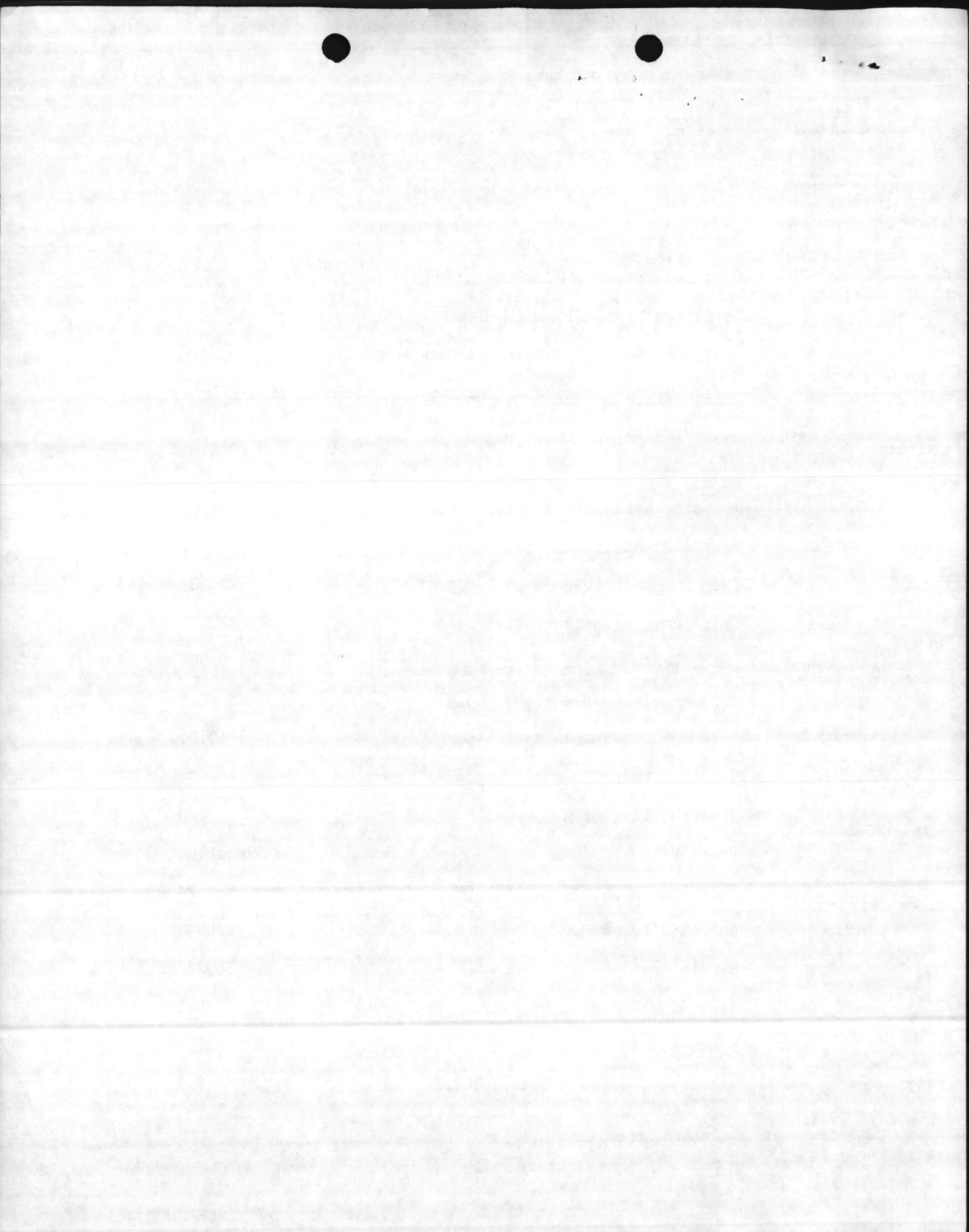
SDWA
NPDES
USDA
USEPA



1. Used Oil

RESULTS

| | |
|---|------------|
| Arsenic, leachable as As, µg/g | <0.01 |
| Barium, leachable as Ba, µg/g | 0.11 |
| Cadmium, leachable as Cd, µg/g | <0.001 |
| Chromium, leachable as Cr, µg/g | <0.001 |
| Lead, leachable as Pb, µg/g | <0.004 |
| Mercury, leachable as Hg, µg/g | <0.8 |
| Selenium, leachable as Se, µg/g | <0.01 |
| Silver, leachable as Ag, µg/g | <0.004 |
| Ignitability, °F | >70 |
| Reactivity | "Reactive" |
| Phenolic Compounds, as C ₆ H ₅ OH, µg/g | 24 |
| Corrosivity, mmpy | <0.0003 |
| BTU/lb | 16,224 |
| Karl Fischer Moisture, wt% | 9.5 |
| Sediment, vol% | 15.4 |
| Viscosity, Saybolt Secs., 101.3F | 67.7 |



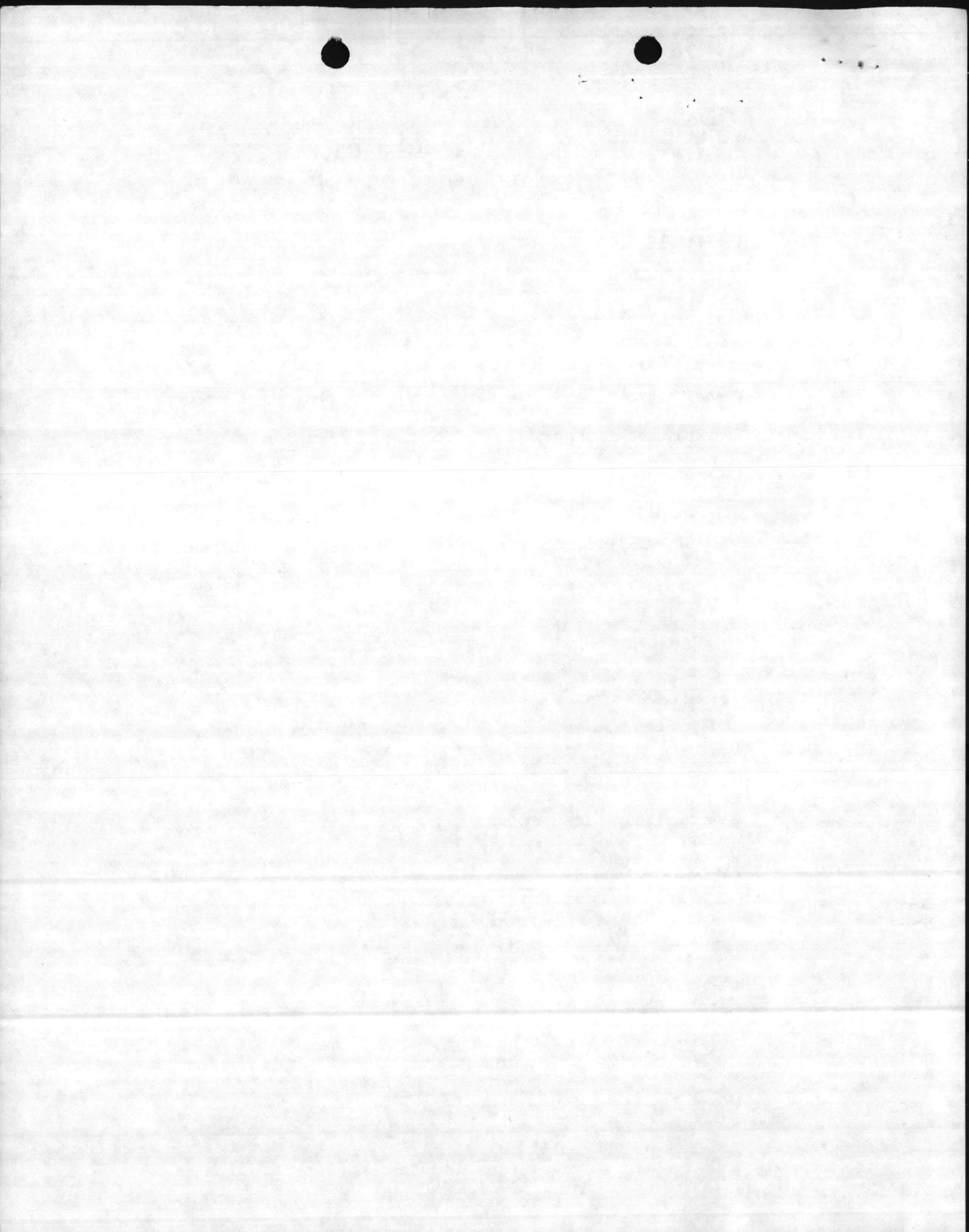
RESULTS
(Continued)

| | |
|-------------------------------|--------|
| API Gravity, at 60°F | 0.88 |
| Total Sulfur, as S, wt% | 0.32 |
| Toluene, µg/g | 1,170 |
| 1, 1-Dichloroethane, µg/g | 12,200 |
| Trichloroethylene, µg/g | 110 |
| Phenol, µg/g | <20 |
| Pentachlorophenol, µg/g | <50 |
| 2-Chlorophenol, µg/g | <20 |
| 2, 4-Dichlorophenol, µg/g | <20 |
| 2, 4, 6-Trichlorophenol, µg/g | <40 |
| Total Phenols, µg/g | 13,480 |

W. Paul Brafford

W. Paul Brafford
General Laboratory Manager

WPB/at
Customer #92400





February 9, 1984
84-9758

**Grainger
Laboratories
Incorporated**

Analytical and
Consulting Chemists

Quality Control Lab, NREAD
Facilities, MCB
Camp Lejeune, NC 28542

Attention: Ms. Elizabeth Betz

Subject: Analysis of Sample Received 2/1/84

Sample Identification: Purchase Order MC6700184M5149

1. GLI #83-9295, Waste Oil Composite

RESULTS

Total Aroclors, µg/g <1.0

**Analytical
Laboratory**

Environment Analysis
Materials

Identification of Unknowns
Agricultural Products

Fuels
Textiles
Hazardous Waste

GC/MS
ICP Metals
Priority Pollutants

Consultation

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

Certifications

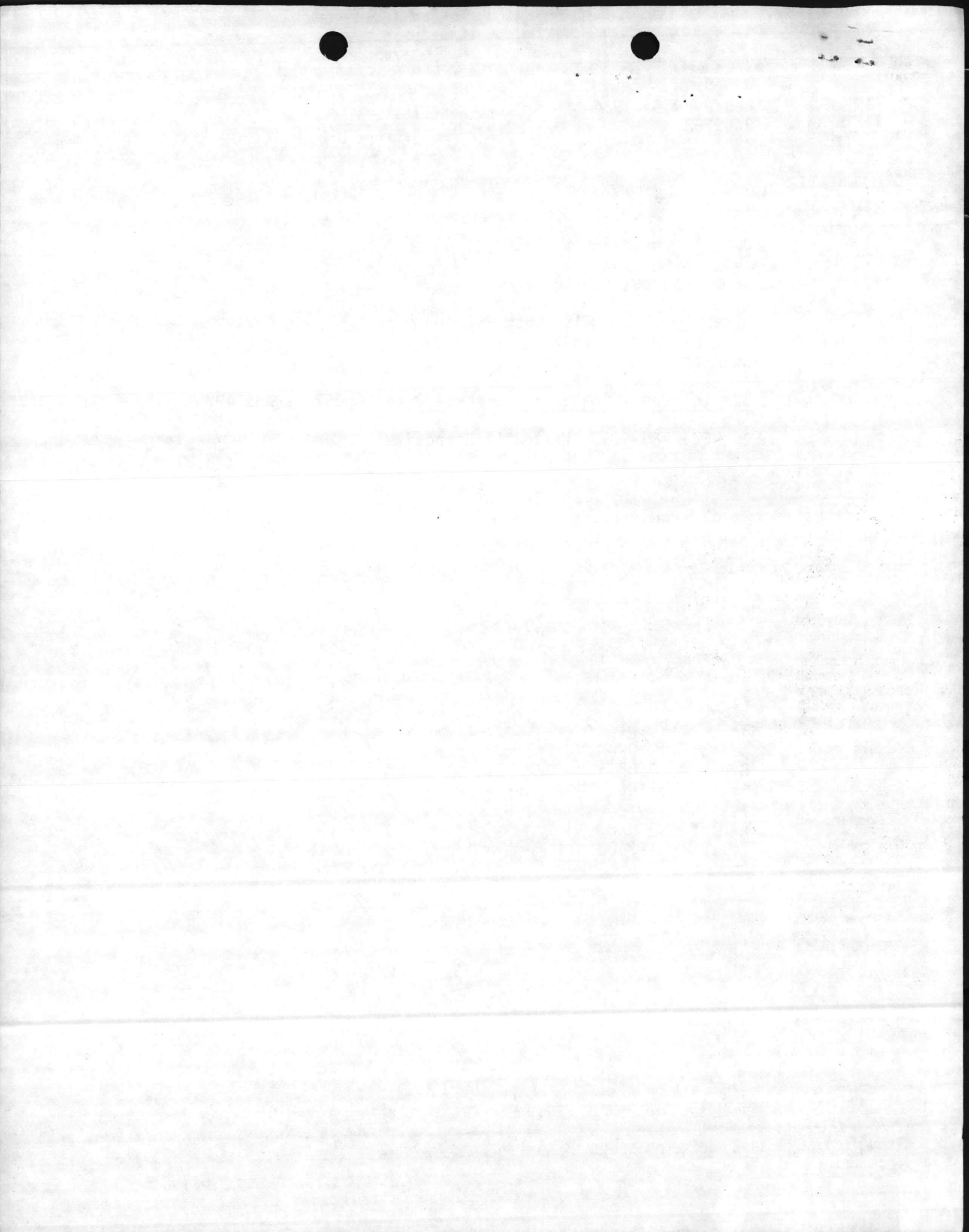
SDWA
NPDES
USDA
USEPA

Bruce A. Babson
Staff Chemist

BAB/at
Customer #92400



End (1)



DDG
21 Feb 84

DATE: 21 February 1984
FROM: Supervisory Chemist, Water Quality Control Laboratory, Environmental Br, NREAD
TO: Supervisory Ecologist, Environmental Br, NREAD
SUBJ: Used Oil Sampling and Analysis on 8 December 1983
ENCL: Grainger's Analysis

1. On 8 December 1983, Gaines Huneycutt and Elizabeth Betz sampled the used oil tank at the Heavy Equipment Lot. The bacon bomb sampler was used to pull samples from different depths. We were placed on the top of the tank by a cherry picker. Base Safety stated that the ladder was unsafe since it had no safety cage.
2. Preliminary samples were pulled every 3 ft to get a look at possible layering. There didn't show much difference in the layers. The water had apparently been pumped out. In the past, samples from 15 ft below surface and down showed alot of water. This sampling did not show much water at all. Samples were taken as shown below:

| Sample # | Feet Below Surface |
|----------|---------------------------|
| 1 | 0 (5 ft from top of tank) |
| 2 | 6 |
| 3 | 12 |
| 4 | 18 |

3. Analysis was run by Grainger Laboratories. The four samples were composited for analysis. No PCBs were found. No leachable metals were found except for barium. The alarming part was the high levels of Toluene, 1,1-Dichloroethane and total Phenols.

Elizabeth A. Betz
Elizabeth A. Betz
Supervisory Chemist

21 February 1984

Superiority, Chemical, Water Quality Control Laboratory, Environmental Hygiene Division

Superiority, Biological, Environmental Hygiene Division

Final-Old Sampling and Analysis on 8 December 1983

Final-Old Sampling and Analysis

1. On 8 December 1983, Water Hygiene and Environmental Hygiene Division used off-site as the heavy equipment base. The heavy equipment was used to pull samples from the bottom during. We were placed on the top of the tank by a heavy ladder. Some heavy equipment was used to pull the ladder was used to pull the ladder.

2. Preliminary samples were pulled every 1 to 2 feet as possible. The samples did not show much difference in the layers. The water had generally been stirred and the part, samples from 15 feet below surface and down along side of water. This sampling did not show much water as all samples were taken at about 15 feet.

| Sample # | Foot or less (from top of tank) |
|----------|---------------------------------|
| 1 | 0 (2 ft from top of tank) |
| 2 | 0 |
| 3 | 11 |
| 4 | 15 |

3. Analysis was run by Superiority Laboratory. The four samples were reported for analysis. The data were found. The results are as follows for each sample. The analysis was run by Superiority Laboratory. The four samples were reported for analysis. The data were found. The results are as follows for each sample.

Handwritten signature and date
11/15/83
Superiority Chemical

Memorandum

DATE: 21 February 1984

FROM: Supervisory Chemist, Water Quality Control Laboratory, Environmental Br, NREAD

TO: Supervisory Ecologist, Environmental Br, NREAD

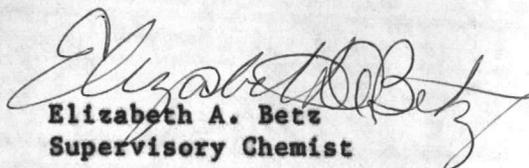
SUBJ: Used Oil Sampling and Analysis on 8 December 1983

ENCL: Grainger'A Analysis

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|----------|---------------------------|
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| 2 | 6 |
| 3 | 12 |
| 4 | 18 |

3. Analysis was run by Grainger Laboratories. The four samples were composited for analysis. No PCBs were found. No leachable metals were found except for barium. The alarming part was the high levels of Toluene, 1,1-Dichloroethane anddtoaal Phenols.


Elizabeth A. Betz
Supervisory Chemist

MEMORANDUM

TO : [Illegible]

FROM : [Illegible]

SUBJECT : [Illegible]



February 9, 1984
84-9758

**Grainger
Laboratories
Incorporated**

Analytical and
Consulting Chemists

5500 Commercial Avenue
Raleigh, NC 27612
(919) 787-3061

1040 Greenfield Street
Wilmington, NC 28402
(919) 763-9793

Quality Control Lab, NREAD
Facilities, MCB
Camp Lejeune, NC 28542

Attention: Ms. Elizabeth Betz

Subject: Analysis of Sample Received 2/1/84

Sample Identification: Purchase Order MC6700184M5149

1. GLI #83-9295, Waste Oil Composite

RESULTS

Total Aroclors, $\mu\text{g/g}$ <1.0

**Analytical
Laboratory**

Environment Analysis
Materials
Identification of Unknowns
Agricultural Products
Fuels
Textiles
Hazardous Waste
GC/MS
ICP Metals
Priority Pollutants

Consultation

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

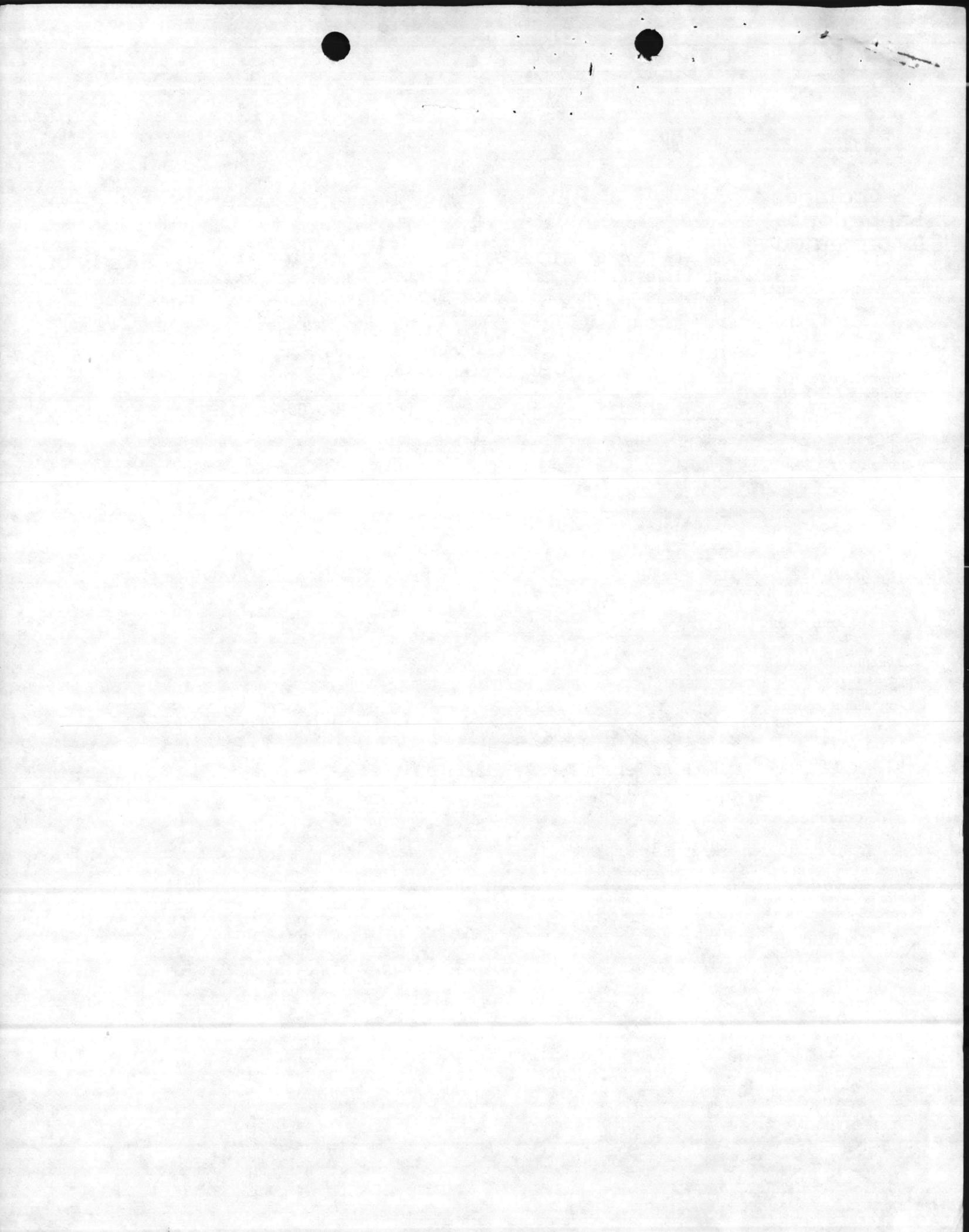
Certifications

SDWA
NPDES
USDA
USEPA

Bruce A. Babson
Staff Chemist

BAB/at
Customer #92400







January 25, 1984
83-9295

**Grainger
Laboratories
Incorporated**

Analytical and
Consulting Chemists

5500 Commercial Avenue
Raleigh, NC 27612
(919) 787-3061

1040 Greenfield Street
Wilmington, NC 28402
(919) 763-9793

**Analytical
Laboratory**

Environment Analysis
Materials
Identification of Unknowns
Agricultural Products
Fuels
Textiles
Hazardous Waste
GC/MS
ICP Metals
Priority Pollutants

Consultation

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

Certifications

SDWA
NPDES
USDA
USEPA

Quality Control Lab, NREAD
Facilities, MCB
Camp Lejeune, NC 28542

Attention: Ms. Elizabeth Betz

Subject: Analysis of Sample Received 12/9/83

Sample Identification: Purchase Order M67001-83-M-9775

1. Used Oil

RESULTS

| | |
|--|------------|
| Arsenic, leachable as As, $\mu\text{g/g}$ | <0.01 |
| Barium, leachable as Ba, $\mu\text{g/g}$ | 0.11 |
| Cadmium, leachable as Cd, $\mu\text{g/g}$ | <0.001 |
| Chromium, leachable as Cr, $\mu\text{g/g}$ | <0.001 |
| Lead, leachable as Pb, $\mu\text{g/g}$ | <0.004 |
| Mercury, leachable as Hg, $\mu\text{g/g}$ | <0.8 |
| Selenium, leachable as Se, $\mu\text{g/g}$ | <0.01 |
| Silver, leachable as Ag, $\mu\text{g/g}$ | <0.004 |
| Ignitability, °F | >70 |
| Reactivity | "Reactive" |
| Phenolic Compounds, as $\text{C}_6\text{H}_5\text{OH}$, $\mu\text{g/g}$ | 24 |
| Corrosivity, mmpy | <0.0003 |
| BTU/lb | 16,224 |
| Karl Fischer Moisture, wt% | 9.5 |
| Sediment, vol% | 15.4 |
| Viscosity, Saybolt Secs., 101.3F | 67.7 |

168°F KEROSENE



LABORATORY
ANALYSIS
REPORT

Sample No. 101-28
Date: 1/11/50
Analyst: J. E. ...

Subject: Analysis of ...
Sample Description: ...

Analysis Results:
Elemental Analysis: C, H, N, O, S, Cl, P, K, Na, Ca, Mg, Fe, Cu, Zn, Pb, Ni, Al, Si, Mn, Br, I, Ag, Ba, Sr, Bi, V, Cr, Co, Ni, Mo, Sn, Sb, Te, Se, W, Pt, Au, Hg, Tl, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr.
Molecular Weight: ...
Boiling Point: ...
Melting Point: ...
Density: ...
Refractive Index: ...
Optical Rotation: ...
Viscosity: ...
Surface Tension: ...
Solubility: ...
Stability: ...
Toxicity: ...
Flammability: ...
Explosive Limits: ...
Corrosivity: ...
Irritancy: ...
Acidity: ...
Alkalinity: ...
pH: ...
Conductivity: ...
Resistivity: ...
Dielectric Constant: ...
Dielectric Loss: ...
Permittivity: ...
Loss Tangent: ...
Phase Shift: ...
Impedance: ...
Admittance: ...
Capacitance: ...
Inductance: ...
Resistance: ...
Reactance: ...
Impedance: ...
Admittance: ...
Capacitance: ...
Inductance: ...
Resistance: ...
Reactance: ...

30% COTTON FIBER
Methyl Bond

Conclusions:
The sample is identified as ...
The analysis shows the presence of ...
The results are consistent with ...
The sample is ...
The analysis is complete.

RESULTS
(Continued)

| | |
|-------------------------------|--------|
| API Gravity, at 60°F | 0.88 |
| Total Sulfur, as S, wt% | 0.32 |
| Toluene, µg/g | 1,170 |
| 1, 1-Dichloroethane, µg/g | 12,200 |
| Trichloroethylene, µg/g | 110 |
| Phenol, µg/g | <20 |
| Pentachlorophenol, µg/g | <50 |
| 2-Chlorophenol, µg/g | <20 |
| 2, 4-Dichlorophenol, µg/g | <20 |
| 2, 4, 6-Trichlorophenol, µg/g | <40 |
| Total Phenols, µg/g | 13,480 |

W. Paul Brafford
General Laboratory Manager

WPB/at
Customer #92400

T-6240/2
NREAD/DDS/jc
6240/1
22 Feb 1984

aw
DPD

From: Director
To: Base Maintenance Officer

Subj: Analysis of Used Oil in S-781 at Building 45

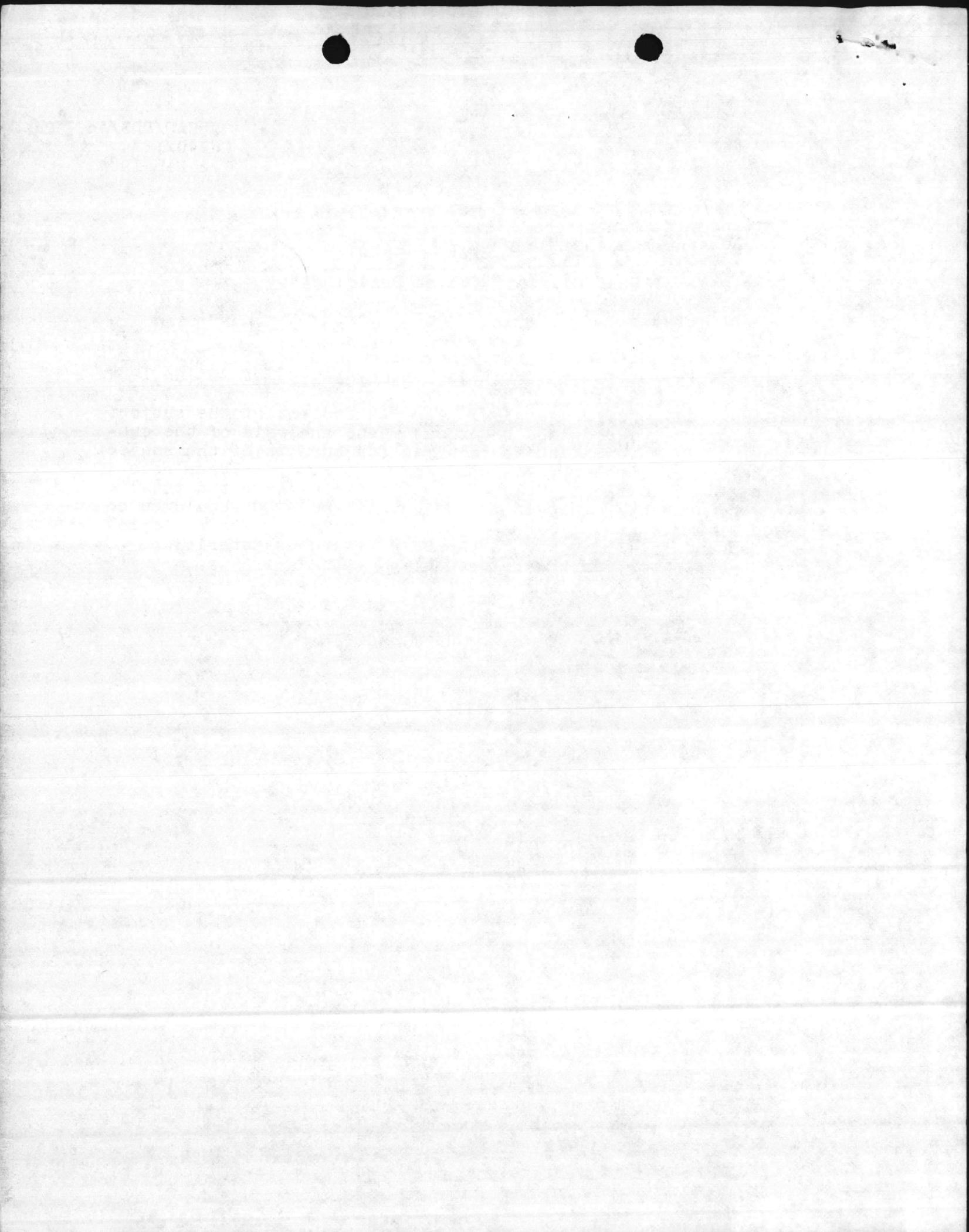
Ref: (a) BO 6240.5

Encl: (1) Grainger Laboratories, Inc. Memo 84-9758 of 9 Feb 1984
(2) " " " " Memo 83-9295 of 25 Jan 1984

1. Enclosure (1) provides analysis for PCB content of the subject tank. Enclosure (2) provides hazardous waste analysis of the subject tank. This information is required for turn in of the subject oil to the Defense Property Disposal Office (DPDO). Please note that significant levels of Toluene, 1,1-Dichloroethane and total phenols were present. Turn in of subject oil to DPDO should be coordinated with Lieutenant TORRES, Assistant Chief of Staff, Logistics, telephone 451-2535, who is the Base Hazardous Materiel Disposal Coordinator per the reference.

J. I. WOOTEN

Copy to:
SupvChem
EnvEng





February 9, 1984
84-9758

**Grainger
Laboratories
Incorporated**

Analytical and
Consulting Chemists

5500 Commercial Avenue
Raleigh, NC 27612
(919) 787-3061

1040 Greenfield Street
Wilmington, NC 28402
(919) 763-9793

Quality Control Lab, NREAD
Facilities, MCB
Camp Lejeune, NC 28542

Attention: Ms. Elizabeth Betz

Subject: Analysis of Sample Received 2/1/84

Sample Identification: Purchase Order MC6700184M5149

1. GLI #83-9295, Waste Oil Composite

RESULTS

Total Aroclors, µg/g <1.0

**Analytical
Laboratory**

- Environment Analysis
- Materials
- Identification of Unknowns
- Agricultural Products
- Fuels
- Textiles
- Hazardous Waste
- GC/MS
- ICP Metals
- Priority Pollutants

Consultation

- Metallurgical Services
- Pollution Abatement
- Process Development
- Quality Control
- Methods Development
- Special Investigation

Certifications

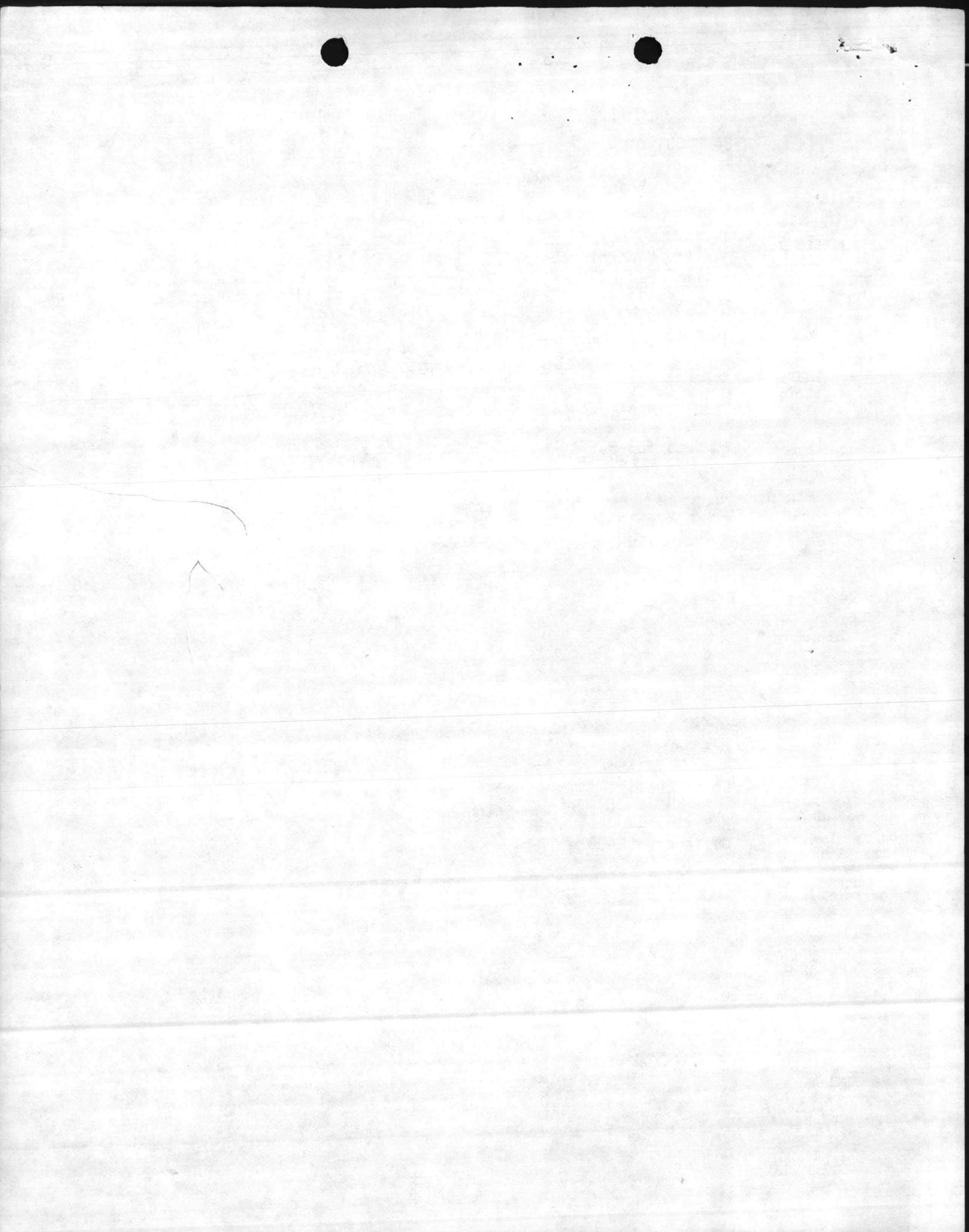
- SDWA
- NPDES
- USDA
- USEPA

Bruce A. Babson
Staff Chemist

BAB/at
Customer #92400



Encl (1)





January 25, 1984
83-9295

**Grainger
Laboratories
Incorporated**

Analytical and
Consulting Chemists

5500 Commercial Avenue
Raleigh, NC 27612
(919) 787-3061

1040 Greenfield Street
Wilmington, NC 28402
(919) 763-9793

**Analytical
Laboratory**

Environment Analysis
Materials
Identification of Unknowns
Agricultural Products
Fuels
Textiles
Hazardous Waste
GC/MS
ICP Metals
Priority Pollutants

Consultation

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

Certifications

SDWA
NPDES
USDA
USEPA



Quality Control Lab, NREAD
Facilities, MCB
Camp Lejeune, NC 28542

Attention: Ms. Elizabeth Betz

Subject: Analysis of Sample Received 12/9/83

Sample Identification: Purchase Order M67001-83-M-9775

1. Used Oil

RESULTS

| | |
|---|------------|
| Arsenic, leachable as As, µg/g | <0.01 |
| Barium, leachable as Ba, µg/g | 0.11 |
| Cadmium, leachable as Cd, µg/g | <0.001 |
| Chromium, leachable as Cr, µg/g | <0.001 |
| Lead, leachable as Pb, µg/g | <0.004 |
| Mercury, leachable as Hg, µg/g | <0.8 |
| Selenium, leachable as Se, µg/g | <0.01 |
| Silver, leachable as Ag, µg/g | <0.004 |
| Ignitability, °F | >70 |
| Reactivity | "Reactive" |
| Phenolic Compounds, as C ₆ H ₅ OH, µg/g | 24 |
| Corrosivity, mmpy | <0.0003 |
| BTU/lb | 16,224 |
| Karl Fischer Moisture, wt% | 9.5 |
| Sediment, vol% | 15.4 |
| Viscosity, Saybolt Secs., 101.3F | 67.7 |

Neerath Bond

25% COTTON FIBER

General
Information

United States
Department of
Agriculture

Subject: Analysis of...

Sample: ...

...

TABLE

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General Bond

50% COTTON FIBER

RESULTS
(Continued)

| | |
|-------------------------------|--------|
| API Gravity, at 60°F | 0.88 |
| Total Sulfur, as S, wt% | 0.32 |
| Toluene, µg/g | 1,170 |
| 1, 1-Dichloroethane, µg/g | 12,200 |
| Trichloroethylene, µg/g | 110 |
| Phenol, µg/g | <20 |
| Pentachlorophenol, µg/g | <50 |
| 2-Chlorophenol, µg/g | <20 |
| 2, 4-Dichlorophenol, µg/g | <20 |
| 2, 4, 6-Trichlorophenol, µg/g | <40 |
| Total Phenols, µg/g | 13,480 |

W. Paul Brafford
W. Paul Brafford
General Laboratory Manager

WPB/at
Customer #92400

1900

TO THE
HONORABLE
COMMISSIONER
OF THE
LAND OFFICE
STATE OF
NEW YORK

Albany Bond

25% COTTON FIBER

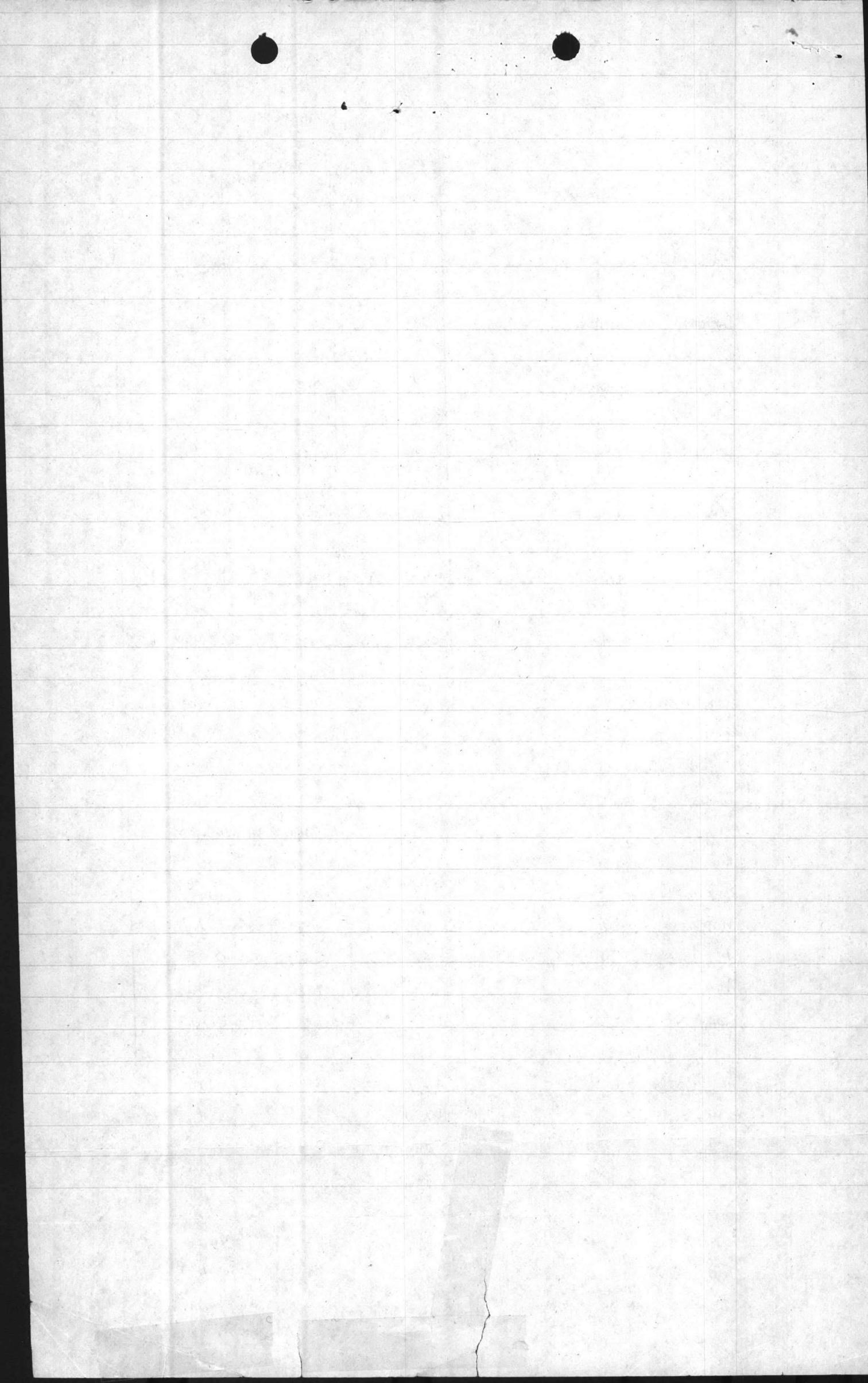
2003

ALBANY BOND

USED OIL HISTORY

UNIT = $\mu\text{g/g}$

| | 28 JULY 81 | 18 MAY 82 | 83 |
|---------------------------|-----------------------------|---------------------------|-----------------|
| ARSENIC, LEACHABLE | <0.002 mg/l | <0.01 | <0.01 |
| BARIUM, LEACHABLE | 1.08 mg/l | 7.98 | 0.11 |
| CADMIUM, LEACHABLE | 1.88 mg/l | 0.75 | <0.001 |
| CHROMIUM, LEACHABLE | 0.16 mg/l | 0.50 | <0.001 |
| LEAD, LEACHABLE | 376.00 mg/l | 109.75 | <0.004 |
| MERCURY, LEACHABLE | <0.002 mg/l | <0.002 | <0.8 |
| SELENIUM, LEACHABLE | <0.002 mg/l | <0.005 | <0.01 |
| SILVER, LEACHABLE | 0.16 mg/l | 0.08 | <0.004 |
| IGNITABILITY, °F | 181°F >70°F | 75°C >70°F | ~168°F >70°F |
| REACTIVITY | NON-REACTIVE | NON-REACTIVE | REACTIVE |
| PHENOLIC COMPOUNDS | | | 24 |
| CORROSIVITY, mmpy | <0.01 | <0.01 | <0.0003 |
| BTU/lb | | 19,268.5 | 16,224 |
| KARL FISHER MOISTURE, WT% | 5.8 | 14.0 | 9.5 |
| SEDIMENT, VOL % | | 0.05 | 15.4 |
| VISCOSITY, SAYBOLT | | 42.4 sec @ 100°F | 67.7 |
| API GRAVITY, @ 60°F | 0.8815 | 32.6 | 0.88 |
| TOTAL SULFUR, WT% | | 0.33 | 0.32 |
| TOLUENE | 12 ppb | | 1,170 |
| 1,1-DICHLOROETHANE | 4 ppb | | 12,200 |
| TRICHLOROETHYLENE | 1 ppb | | 110 |
| PHENOL | 16 ppm | | <20 |
| PENTACHLOROPHENOL | 0.09 ppm | | <50 |
| 2-CHLOROPHENOL | 0.04 ppm | | <20 |
| 2,4-DICHLOROPHENOL | 0.01 ppm | | <20 |
| 2,4,6-TRICHLOROPHENOL | 8.3 ppm | | <40 |
| TOTAL PHENOLS | 20 ppm | | 13,480 |
| TSS | BEFORE ETHER AFTER ETHER | 680.0 mg/l 246.66 mg/l | |



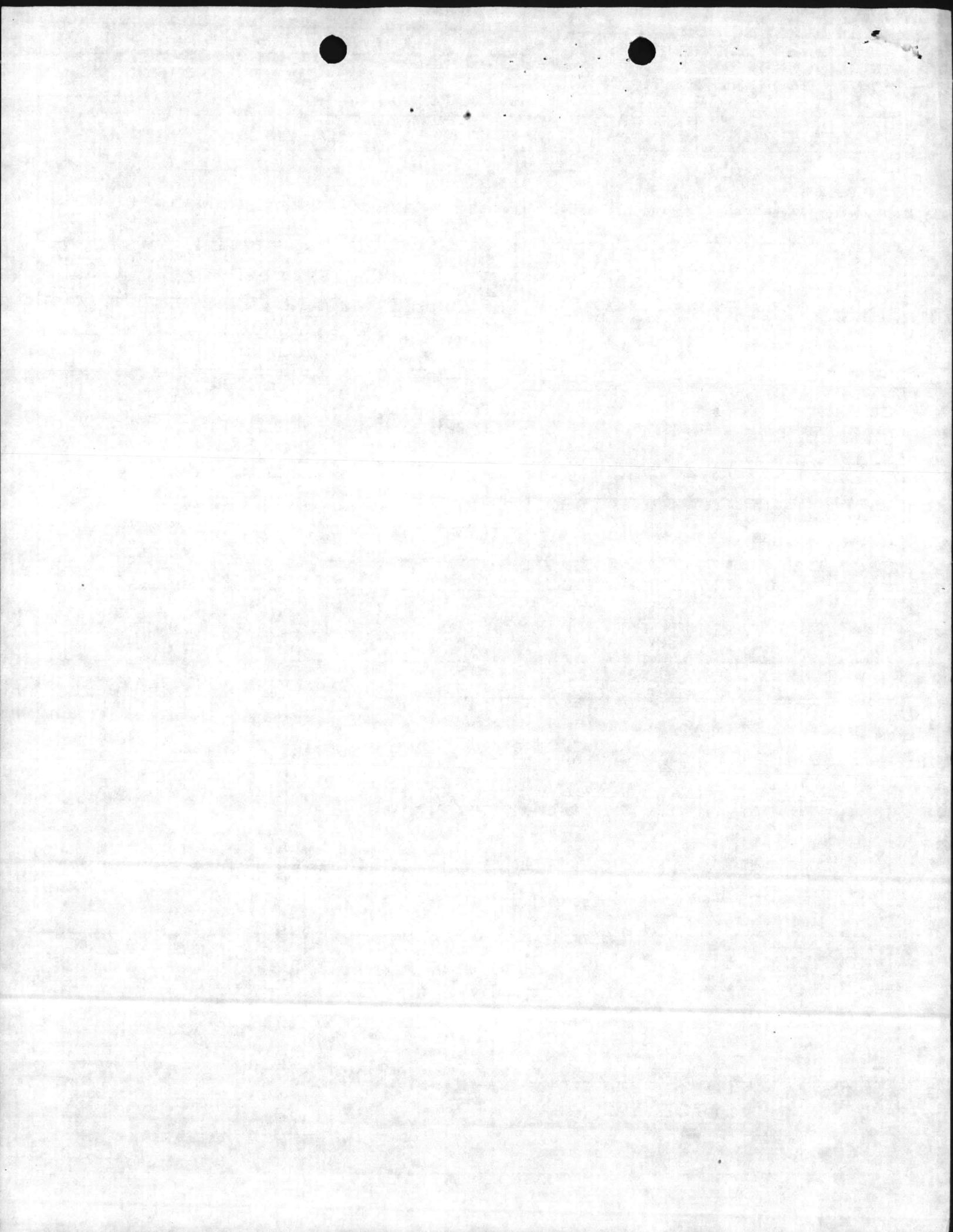
8 Dec 1983



| | | | | | |
|---|-------|---------|---|------|------|
| 1 | 14081 | SURFACE | - | 5 ft | DOWN |
| | 2 | | | 3 ft | |
| 2 | 141B | | | 3 ft | |
| 2 | 4 | 14 | | 3 | |
| 3 | 6 | | | 3 | |
| | 7 | | | 2 | |
| 4 | 8 | 23 | | 3 | |
| | 9 | BOTTOM | | | |

12

| | | | | | | | |
|--|------------------|---|--|--|----------|--|------------|
| <input checked="" type="checkbox"/> CHECKED BOX APPLIES | | <input checked="" type="checkbox"/> ORDER FOR SUPPLIES OR SERVICES | | <input type="checkbox"/> REQUEST FOR QUOTATIONS NO. | | PAGE 1 OF 2 | |
| | | | | RETURN COPY(IES) OF THIS QUOTE BY | | | |
| | | | | (THIS IS NOT AN ORDER. See DD Form 1155r) | | | |
| 1. CONTRACT/PURCH ORDER NO. M67001-83-M-9775 | | 2. DELIVERY ORDER NO. | | 3. DATE OF ORDER 83 SEP 06 | | 4. REQUISITION/PURCH REQUEST NO. M93170-3199-1916 | |
| 6. ISSUED BY: CONTRACTING DIVISION P. O. Box 8368, Marine Corps Base Camp Lejeune, North Carolina 83-M-9775 | | CODE M67001 | | 7. ADMINISTERED BY: (If other than 6) | | 8. DELIVERY FOB <input checked="" type="checkbox"/> DEST <input type="checkbox"/> OTHER (See Schedule if other) | |
| 9. CONTRACTOR/QUOTER NAME AND ADDRESS GRAINGER LABORATORIES 709 W. JOHNSON ST. RALEIGH, NC 27603 | | CODE | | FACILITY CODE | | 10. DELIVER TO FOB POINT BY: 83 OCT 12 | |
| | | | | 11. CHECK IF <input checked="" type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> MINORITY BUSINESS | | | |
| | | | | 12. DISCOUNT TERMS NET 30 | | | |
| | | | | 13. MAIL INVOICES TO: (in Quadruplicate) SAME AS BLOCK 6 | | | |
| 14. SHIP TO: SEE SCHEDULE 83-M-9775 | | CODE | | 15. PAYMENT WILL BE MADE BY: M67001 Base Disbursing Officer MCB, Camp Lejeune, North Carolina 28542 | | MARK ALL PACKAGES AND PAPERS WITH CONTRACT OR ORDER NUMBER | |
| 16. DELIVERY | | This delivery order is subject to instructions contained on this side of form only and is issued on another Government agency or is accordance with and subject to terms and conditions of above numbered contract. | | NC | | | |
| PURCHASE <input checked="" type="checkbox"/> | | Reference your TELEQUOTE 83 AUG 15 | | , furnish the following on terms specified herein, including, for U.S. purchases, General Provision of Purchase Order on DD Form 1155r (EXCEPT CLAUSE NO. 13 APPLIES ONLY IF THIS BOX <input type="checkbox"/> IS CHECKED, AND NO. 15 IF THIS BOX <input type="checkbox"/> | | | |
| | | 15 CHECKED; special provisions | | ; and delivery as indicated. This purchase is negotiated under authority of | | | |
| | | 10 USC 2304 (a)(3) or as specified in the schedule if within the U. S., its possessions or Puerto Rico; if otherwise, under 2304(a) (6). | | | | | |
| | | <input type="checkbox"/> If checked, Additional General Provisions apply. Supplier shall sign "Acceptance" on DD Form 1155r and return copies. | | | | | |
| 17. ACCOUNTING AND APPROPRIATION DATA/LOCAL USE | | | | | | | |
| 1. 1731106.2720 000 67001 0 067001 2D 000000 323K3112392T \$890.00 | | | | | | | |
| 18. ITEM NO. | 19. PRIORITY: 14 | 19. SCHEDULE OF SUPPLIES/SERVICES | | 20. QUANTITY ORDERED/ACCEPTED | 21. UNIT | 22. UNIT PRICE | 23. AMOUNT |
| <p>IMPORTANT READ AND UNDERSTAND DAR CLAUSE 7-104.103 BEFORE PROCESSING THIS ORDER. FULL TEXT OF CLAUSE IS FOUND ON ATTACHMENT TO THIS ORDER.</p> <p>INQUIRIES REGARDING THIS ORDER SHOULD BE MADE TO: ORDER CONTROL DESK /919-451-5861</p> <p>SEE PAGE #2 (PLUS ANY ADDITIONAL PAGES), for listing of items.</p> | | | | | | | |
| * If quantity accepted by the Government is same as quantity ordered, indicate by <input checked="" type="checkbox"/> mark. If different, enter actual quantity accepted below quantity ordered and encircle. | | 24. UNITED STATES OF AMERICA BY: <i>Ken Silence</i> KEN SILENCE | | PURCHASING OFFICER CONTRACTING/ORDERING OFFICER | | 25. TOTAL \$890.00 | |
| 26. QUANTITY IN COLUMN 20 HAS BEEN: <input type="checkbox"/> INSPECTED <input type="checkbox"/> RECEIVED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT EXCEPT AS NOTED | | 27. SHIP NO. | | 28. D.O. VOUCHER NO. | | 29. DIFFERENCES | |
| DATE _____ SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE _____ | | <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL | | 32. PAID BY 67001-SYM #.5190 MCB CLNC | | 30. INITIALS | |
| 38. I certify this account is correct and proper for payment. T. R. DEDMOND Fiscal Acctg. Supv. DATE _____ SIGNATURE AND TITLE OF CERTIFYING OFFICER _____ | | 31. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL | | 33. AMOUNT VERIFIED CORRECT FOR | | 34. CHECK NUMBER | |
| 37. RECEIVED AT | | 38. RECEIVED BY | | 39. DATE RECEIVED | | 35. BILL OF LADING NO. | |
| | | | | | | 42. S/R VOUCHER NO. | |
| | | | | 40. TOTAL CONTAINERS | | 41. S/R ACCOUNT NUMBER | |



THIS PARAGRAPH APPLIES ONLY TO QUOTATIONS SUBMITTED:

Supplies are of domestic origin unless otherwise indicated by quote. The Government reserves the right to consider quotations or modifications thereof received after the date indicated should such action be in the interest of the Government. This is a request for information and quotations furnished are not offers. When quoting, complete blocks 11, 12, 22, 23, 25. If you are unable to quote, please advise. This request does not commit the Government to pay any cost incurred in preparation or the submission of this quotation or to procure or contract for supplies or services.

GENERAL PROVISIONS

1. INSPECTION AND ACCEPTANCE—Inspection and acceptance will be at destination, unless otherwise provided. Until delivery and acceptance, and after any rejections, risk of loss will be on the Contractor unless loss results from negligence of the United States Government. Notwithstanding the requirements for any Government inspection and test contained in specifications applicable to this contract, except where specialized inspections or tests are specified for performance solely by the Government, the Contractor shall perform or have performed the inspections and tests required to substantiate that the supplies and services provided under the contract conform to the drawings, specifications and contract requirements listed herein, including if applicable the technical requirements for the manufacturer's part numbers specified herein.

2. VARIATION IN QUANTITY—No variation in the quantity of any item called for by this contract will be accepted unless such variation has been caused by conditions of loading, shipping, or packing, or allowances in manufacturing processes, and then only to the extent, if any, specified elsewhere in this contract.

3. PAYMENTS—

AMENDMENT:

Note: Attached Invoices Clause cancels and supercedes this paragraph.

4. DISCOUNTS—In connection with any discount offered, time will be computed from date of delivery of the supplies to carrier when acceptance is at the point of origin, or from date of delivery at destination or port of embarkation when delivery and acceptance are at either of these points, or from the date the correct invoice or voucher is received in the office specified by the Government, if the latter is later than date of delivery. Payment is deemed to be made for the purpose of earning the discount on the date of mailing of the Government check.

5. DISPUTES—(a) Except as otherwise provided in this contract, any dispute concerning a question of fact arising under this contract which is not disposed of by agreement shall be decided by the Contracting Officer.

AMENDMENT

NOTE: Attached Disputes Clause, cancels and supercedes this paragraph.

above, provided, that nothing in this contract shall be construed as making final the decision of any administrative official, representative, or board on a question of law.

6. FOREIGN SUPPLIES—This contract is subject to the Buy American Act (41 U.S.C. 101-109) as implemented by Executive Order 10582 of December 17, 1954, and any restrictions in appropriation acts on the procurement of foreign supplies.

7. CONVICT LABOR—In connection with the performance of work under this contract, the Contractor agrees not to employ any person undergoing sentence of imprisonment except as provided by Public Law 89-176, September 10, 1965 (18 U.S.C. 4082(c)(2)) and Executive Order 11755, December 29, 1973.

8. OFFICIALS NOT TO BENEFIT—No member of or Delegate to Congress or resident commissioner shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

9. COVENANT AGAINST CONTINGENT FEES—The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty the Government shall have the right to annul this contract without liability or in its discretion to deduct from the contract price or consideration or otherwise recover the full amount of such commission, percentage, brokerage or contingent fee.

10. GRATUITIES—(a) The Government may, by written notice to the Contractor, terminate the right of the Contractor to proceed under this contract if it is found after notice and hearing, by the Secretary or his duly authorized representative, that gratuities (in the form of entertainment, gifts or otherwise) were offered or given by the Contractor, or any agent or representative of the Contractor, to any officer or employee of the Government with a view toward securing a contract or securing favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performing of such contract, provided, that the existence of the facts upon which the Secretary or his duly authorized representative make such findings shall be in issue and may be reviewed in any competent court. (b) In the event this contract is terminated as provided in paragraph (a) hereof the Government shall be entitled (i) to pursue the same remedies against the Contractor as it could pursue in the event of a breach of the contract by the Contractor and (ii) as a penalty in addition to any other damages to which it may be entitled by law to exemplary damages in an amount (as determined by the Secretary or his duly authorized representative) which shall be not less than three nor more than ten times the costs incurred by the Contractor in providing any such gratuities to any such officer or employee. (c) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

11. RENEGOTIATION—This contract, and any subcontract hereunder, is subject to the Renegotiation Act of 1951, as amended (50 U.S.C. App. 1211 et seq.) and shall be deemed to contain all the provisions required by Section 104 thereof, and is subject to any subsequent act of Congress providing for the renegotiation of contracts.

12. CONDITION FOR ASSIGNMENT—This Purchase Order may not be assigned pursuant to the Assignment of Claims Act of 1940, as amended (31 U.S.C. 203, 41 U.S.C. 15), unless or until the supplier has been requested and has accepted this order by executing the Acceptance hereon.

13. COMMERCIAL WARRANTY—The Contractor agrees that the supplies or services furnished under this contract shall be covered by the most favorable commercial warranties the Contractor gives to any customer for such supplies or services and that the rights and remedies provided herein are in addition to and do not limit any rights afforded to the Government by any other clause of this contract.

14. PRIORITIES, ALLOCATIONS, AND ALLOTMENTS—The Contractor shall follow the provisions of DMS Reg. 1 or DPS Reg. 1 and all other applicable regulations and orders of the Bureau of Domestic Commerce in obtaining controlled materials and other products and materials needed to fill this order.

15. FAST PAYMENT PROCEDURE—

(a) **General**. This is a fast payment order. Invoices will be paid on the basis of the Contractor's delivery to a post office, common carrier, or, in shipment by other means, to the point of first receipt by the Government.

(b) **Responsibility for Supplies**. Title to the supplies shall vest in the Government upon delivery to a post office or common carrier, title to the supplies shall vest in the Government upon delivery to the point of first receipt by the Government. Notwithstanding any other provision of the purchase order, the Contractor shall assume all responsibility and risk of loss for supplies (i) not received at destination, (ii) damaged in transit, or (iii) not conforming to purchase requirements. The Contractor shall either replace, repair, or correct such supplies promptly at his expense, provided instructions to do so are furnished by the Contracting Officer within ninety (90) days from the date title to the supplies vests in the Government.

(c) **Preparation of Invoice**.

(1) Upon delivery of supplies to a post office, common carrier, or in shipments by other means, the point of first receipt by the Government, the Contractor shall prepare an invoice in accordance with Clause 3 of the General Provisions of Purchase Order, except that invoices under a blanket purchase agreement shall be prepared in accordance with the provisions of the agreement. In shipments by either post office or common carrier, the Contractor shall either (A) cite on this invoice the date of shipment, name and address of carrier, bill of lading number or other shipment document number; or (B) attach copies of such documents as his invoice as evidence of shipment. In addition the invoice shall be prominently marked "Fast Pay." In case of delivery by other than post office or common carrier, a receipted copy of the Contractor's delivery document shall be attached to the invoice as evidence of delivery.

(2) If the purchase price excludes the cost of transportation, the Contractor shall enter the prepaid shipping cost on the invoice as a separate item. The cost of parcel post insurance will not be paid by the Government. If transportation charges are separately stated on the invoice, the Contractor agrees to retain unpaid freight bills or other transportation billings paid separately for a period of three years and to furnish such bills to the Government when requested for audit purposes.

(3) In the event this order requires the preparation of a Material Inspection and Receiving Report (DD Form 250), the contractor has the option of either preparing the DD Form 250 or including the following information on the invoice, in addition to that required in (c) (1) above: (A) a statement in prominent letters "NO DD 250 PREPARED"; (B) shipment number; (C) mode of shipment; and (D) at line item level, (i) National Stock Number and/or Manufacturer's part number, (ii) unit of measure, (iii) Ship-To-Point, (iv) Mark-For-Point if in contract, and (v) MILSTRIP document number if in contract.

(d) **Certification of Invoice**. The Contractor agrees that the submission of an invoice to the Government for payment is a certification that the supplies for which the Government is being billed have been shipped or delivered in accordance with shipping instructions issued by the ordering officer, in the quantities shown on the invoice, and that such supplies are in the quantity and of the quality designated by the cited purchase order.

OUTER SHIPPING CONTAINERS SHALL BE MARKED "FAST PAY"

16. (This clause applies if this contract is for services and is not exempted by applicable regulations of the Department of Labor.)

SERVICE CONTRACT ACT OF 1965—Except to the extent that an exemption, variation or tolerance would apply pursuant to 29 CFR 4.6 if this were a contract in excess of \$2,500, the Contractor and any subcontractor hereunder shall pay all of his employees engaged in performing work on the contract not less than the minimum wage specified under section 6 (a)(1) of the Fair Labor Standards Act of 1938, as amended (current minimum wage). However, in cases where section 6 (e)(2) of the Fair Labor Standards Act of 1938 is applicable, the rates specified therein will apply. All regulations and interpretations of the Service Contract Act of 1965 expressed in 29 CFR Part 4 are hereby incorporated by reference in this contract.

ADDITIONAL GENERAL PROVISIONS

17. CHARGES—The Contracting Officer may at any time, by a written order, and without notice to the Contractor, make changes, within the general scope of this contract, in (i) drawings, designs, or specifications, where the supplies to be furnished are to be specially manufactured for the Government in accordance therewith; (ii) method of shipment or packing and (iii) place of delivery. If any such change causes an increase or decrease in the cost of, or the time required for performance of this contract, whether changed or not changed by any such order, an equitable adjustment shall be made by written modification of this contract. Any claim by the Contractor for adjustment under this clause must be asserted within 30 days from the date of receipt by the Contractor of the notification of change provided that the Contracting Officer, if he decides that the facts justify such action, may receive and act upon any such claim if asserted prior to final payment, under this contract. Failure to agree to any adjustment shall be a dispute concerning a question of fact within the meaning of the clause of this contract entitled "Disputes." However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.

18. TERMINATION FOR DEFAULT—The Contracting Officer, by written notice, may terminate this contract, in whole or in part, for failure of the Contractor to perform any of the provisions hereof. In such event, the Contractor shall be liable for damages, including the excess cost of reprocurring similar supplies or services; provided that, if (i) it is determined for any reason that the Contractor was not in default or (ii) the Contractor's failure to perform is without his and his subcontractor's control, fault or negligence, the termination shall be deemed to be a termination for convenience under paragraph 19. As used in this provision the term "subcontractor" and "subcontractors" means subcontractors at any tier.

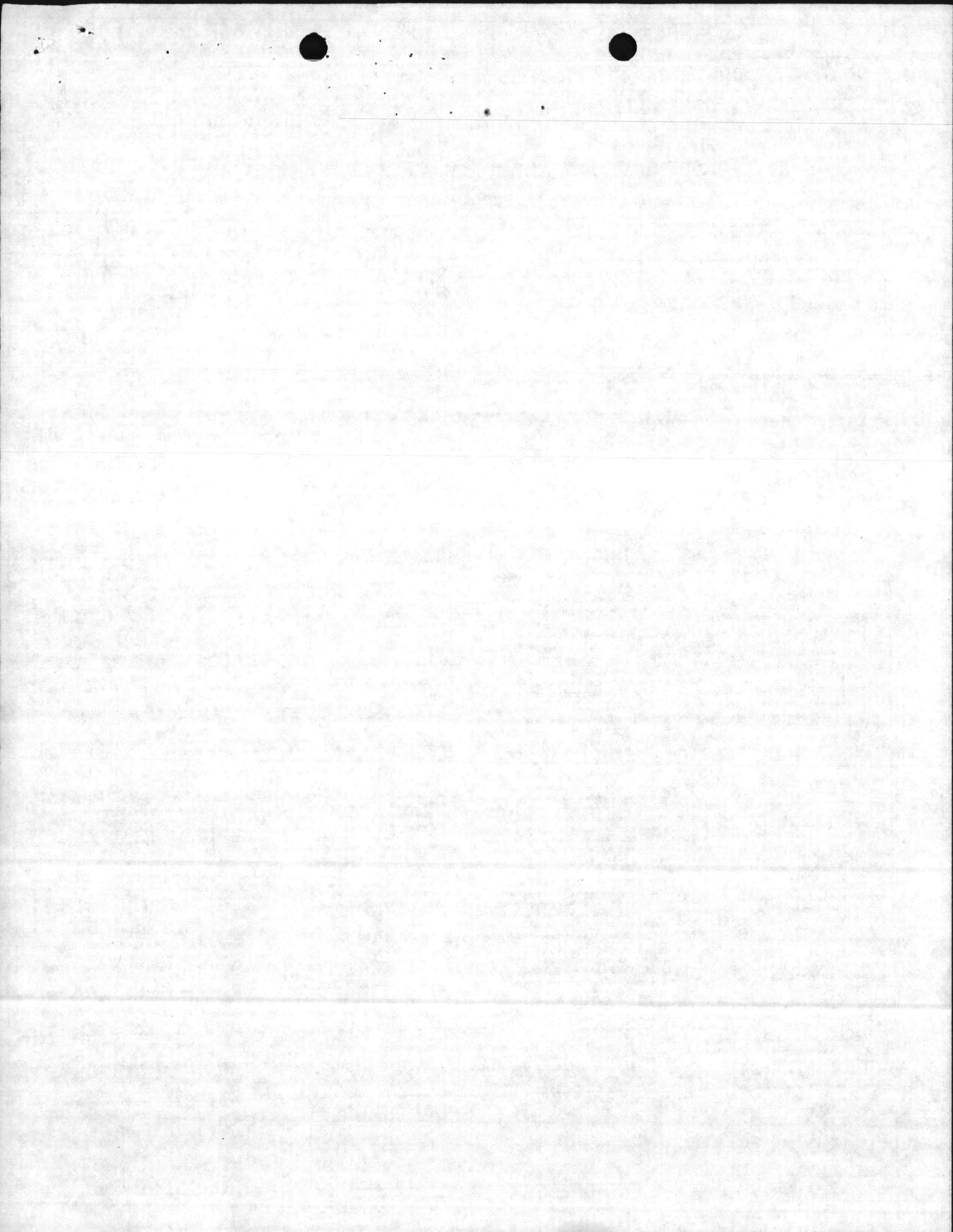
19. TERMINATION FOR CONVENIENCE—The Contracting Officer, by written notice, may terminate this contract, in whole or in part, when it is in the best interest of the Government. If this contract is for supplies and is so terminated, the Contractor shall be compensated in accordance with Section VIII of the Armed Services Procurement Regulation, in effect on this contract's date. To the extent that this contract is for services and is so terminated, the Government shall be liable only for payment in accordance with the payment provisions of this contract for services rendered prior to the effective date of termination.

20. ASSIGNMENT OF CLAIMS—Claims for monies due or to become due under this contract shall be assigned only pursuant to the Assignment of Claims Act of 1940, as amended (31 U.S.C. 203, 41 U.S.C. 15). However, payments to an assignee of monies under this contract shall not, to the extent provided in said Act, as amended, be subject to reduction or set-off (See Clause 12).

ACCEPTANCE

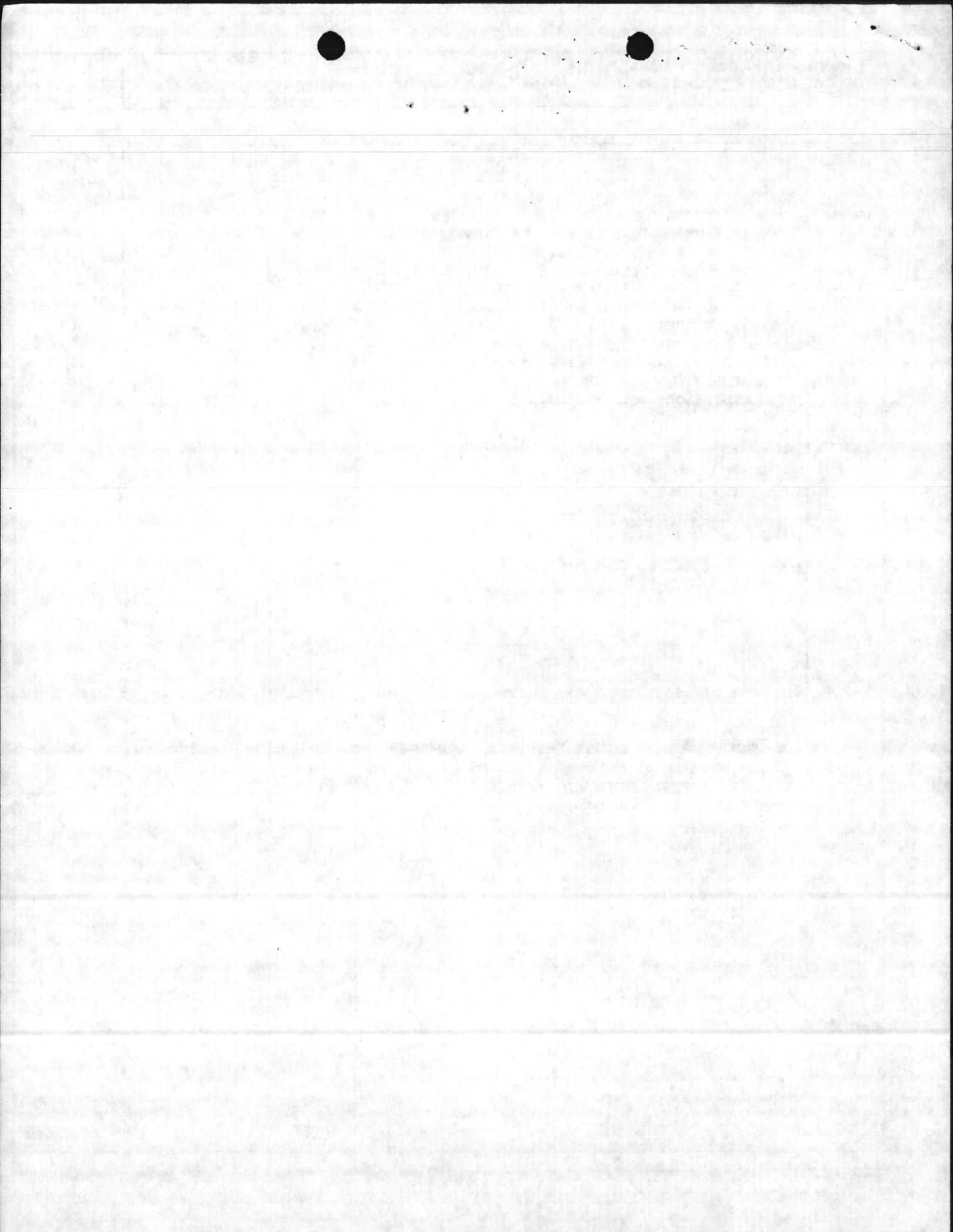
The Contractor hereby accepts the offer represented by the numbered purchase order as it may previously have been or is now modified, subject to all of the terms and conditions set forth, and agrees to perform the same.

| | | | |
|--------------------|-----------|----------------------|-------------|
| NAME OF CONTRACTOR | SIGNATURE | TYPED NAME AND TITLE | DATE SIGNED |
|--------------------|-----------|----------------------|-------------|



NAME OF OFFEROR OR CONTRACTOR
GRAINGER LABORATORIES

| ITEM NO. | SUPPLIES/SERVICES | QUANTITY | UNIT | UNIT PRICE | AMOUNT |
|----------|--|----------|------|------------|----------|
| 0001 | <p>M93170-3199-1916 SERVICES: USED OIL ANALYSIS FOR FULL RCRA ANALYSIS PLUS IGNITABILITY, CORROSIVITY, BTU, % WATER, % SEDIMENT, VISCOSITY, API GRAVITY @ 60°F, CORROSIVE INDEX - COPPER STRIP, % SULFUR, METALS - E.D. TOXICITY METALS: ARSENIC, BARIUM, CADMIUM, CHROMIUM, LEAD MERCURY, SELENIUM, SILVER. ORGANICS, TOLUENE; 1,1-DICHLOROETHANE; TRICHLOROETHYLENE; PHENOL; PENTACHLOROPHENOL, 2-CHLOROPHENOL; 2,4-DICHLOROPHENOL; 2,4,6 TRICHLOROPHENOL; TOTAL PHENOLS.</p> <p>SHIP TO: QUALITY CONTROL LAB NREAD FACILITIES ATTN: ELIZABETH BETZ MARINE CORPS BASE CAMP LEJEUNE, NC 28542 83-M-9775</p> <p><u>FOR DOD ADMINISTRATIVE USE ONLY.</u></p> <p><u>REPORT OF PROPERTY RECEIVED.</u> The Receiving Activity is required to send a REPORT OF PROERTY RECEIVED (RPR) utilizing a (DD-250 or /DD-1155 or /Memorandum) stating that the material has been received (or services have been rendered) and accepted, to: Contracting Division, Bldg. #1211, MCB, Camp Lejeune, N.C. 28542, within 24 hours after such acceptance.</p> | 1 | FEE | \$890.00 | \$890.00 |



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

NREAD/DDS/th
5000
8 Dec 1983

From: Director
To: Traffic Management Officer

Subj: Transportation of Laboratory Samples; request for

1. Request shipment of one carton containing four used oil samples to Grainer Laboratory, Raleigh, North Carolina, telephone number 787-3061. Grainger Laboratory will pick up carton at the Bus Station in Raleigh.

D. D. Sharpe
D. D. SHARPE
Acting

SHIPMENT RECORD

FURTHER REFERENCE TO THIS SHIPMENT MUST QUOTE
THE TRANSPORTATION CONTROL NUMBER (TCN) WHICH

IS

JCN: M31000 3342 0286 XX

Dec 8 3 28 PM '83

JSB

10
2
A

SHIPMENT RECORD
FOR REFERENCE TO THE SHIPMENT WITH
THE TRANSPORTATION CONTRACT



February 9, 1984
84-9758

**Grainger
Laboratories
Incorporated**

Analytical and
Consulting Chemists

5500 Commercial Avenue
Raleigh, NC 27612
(919) 787-3061

1040 Greenfield Street
Wilmington, NC 28402
(919) 763-9793

Quality Control Lab, NREAD
Facilities, MCB
Camp Lejeune, NC 28542

Attention: Ms. Elizabeth Betz

Subject: Analysis of Sample Received 2/1/84

Sample Identification: Purchase Order MC6700184M5149

1. GLI #83-9295, Waste Oil Composite

RESULTS

Total Aroclors, $\mu\text{g/g}$ <1.0

**Analytical
Laboratory**

Environment Analysis
Materials
Identification of Unknowns
Agricultural Products
Fuels
Textiles
Hazardous Waste
GC/MS
ICP Metals
Priority Pollutants

Consultation

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

Certifications

SDWA
NPDES
USDA
USEPA

Bruce A. Babson
Bruce A. Babson
Staff Chemist

BAB/at
Customer #92400



February 9, 1954
64-1036

Quality Control Lab, Inc.
1501 17th St.
Camp Springs, W. Va. 26044

Attention: Mr. Crawford

Subject: Anal. of sample received 2/1/54
re: investigation of purchase of material
1. 601, 10-2992, class C1 Composite

REPLY TO

>10

Mercer Bond

25% COTTON FIBER
25



February 9, 1984
84-9758

**Grainger
Laboratories
Incorporated**

Analytical and
Consulting Chemists

5500 Commercial Avenue
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(919) 787-3061

1040 Greenfield Street
Wilmington, NC 28402
(919) 763-9793

Quality Control Lab, NREAD
Facilities, MCB
Camp Lejeune, NC 28542

Attention: Ms. Elizabeth Betz

Subject: Analysis of Sample Received 2/1/84

Sample Identification: Purchase Order MC6700184M5149

1. GLI #83-9295, Waste Oil Composite

RESULTS

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**Analytical
Laboratory**

- Environment Analysis
- Materials
- Identification of Unknowns
- Agricultural Products
- Fuels
- Textiles
- Hazardous Waste
- GC/MS
- ICP Metals
- Priority Pollutants

Consultation

- Metallurgical Services
- Pollution Abatement
- Process Development
- Quality Control
- Methods Development
- Special Investigation

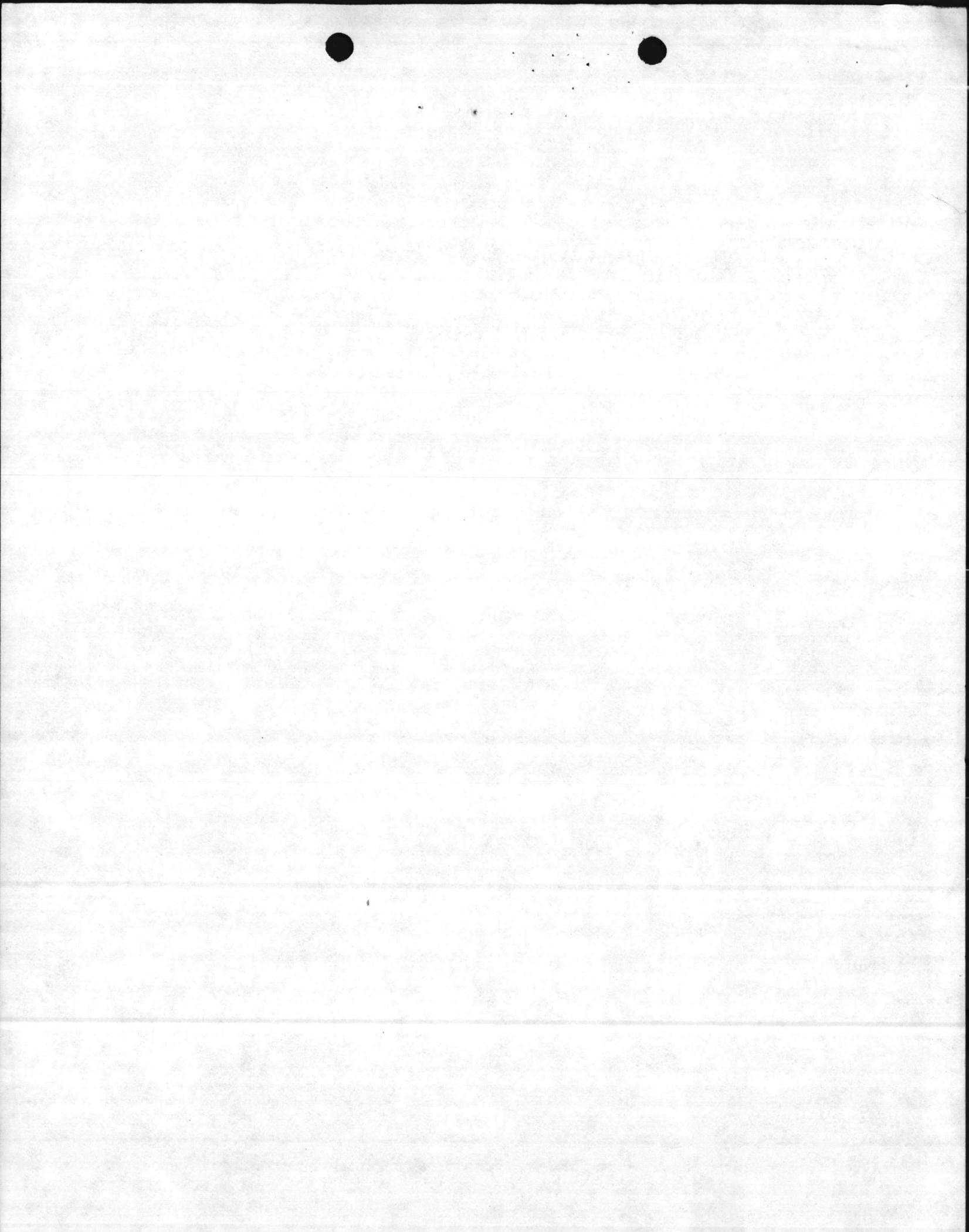
Certifications

- SDWA
- NPDES
- USDA
- USEPA

Bruce A. Babson
Staff Chemist

BAB/at
Customer #92400





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

NREAD/DDS/jc
6240/1
22 Feb 1984

From: Director
To: Base Maintenance Officer

Subj: Analysis of Used Oil in S-781 at Building 45

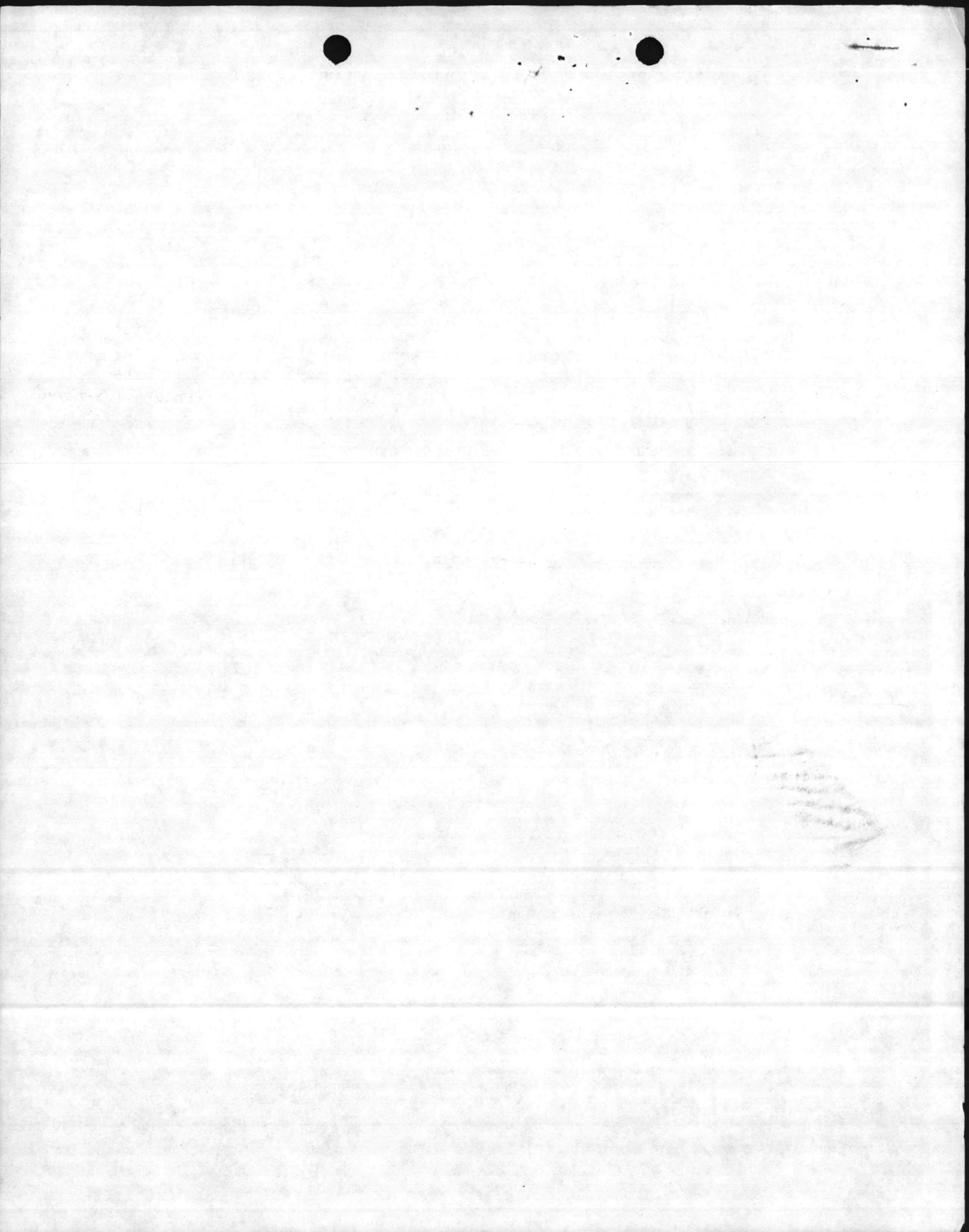
Ref: (a) BO 6240.5

Encl: (1) Grainger Laboratories, Inc. Memo 84-9758 of 9 Feb 1984
(2) " " " " Memo 83-9295 of 25 Jan 1984

1. Enclosure (1) provides analysis for PCB content of the subject tank. Enclosure (2) provides hazardous waste analysis of the subject tank. This information is required for turn in of the subject oil to the Defense Property Disposal Office (DPDO). Please note that significant levels of Toluene, 1,1-Dichloroethane and total phenols were present. Turn in of subject oil to DPDO should be coordinated with Lieutenant TORRES, Assistant Chief of Staff, Logistics, telephone 451-2535, who is the Base Hazardous Materiel Disposal Coordinator per the reference.

J. I. WOOTEN

Copy to:
→ SupvChem
EnvEng



Mr. Masters : AV 683-4993 B



28542

"told Masters to get rid of "ASAP" even if donate to Brookhaven."

Southern Oil :
Allanta Oil Co.

SAYbolt inc;
R. E. Hutto

Kenilworth, NJ
25 MAY 84

DPDS Form 73

FAUST Oil

201-245-3100

Gene Wigley

775-6405

AV 683-6405

Lube # Comp
366

Southern Oil
Allanta Oil Co.

GRAV- 60 F AP-1

Fluid pour 12.4

Sediment .42

Sulfur, ASTM D - 1552 136%

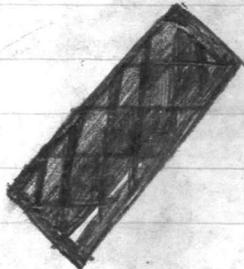
VISCO. 1 SFG 122°F

11.8 sec

water distillate 24.70

BTU/lb 18,062

BTU/gallon 134,184



Copy To
(AC/S FAC)

Col. Luttrell



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January 25, 1984
83-9295

**Grainger
Laboratories
Incorporated**

Analytical and
Consulting Chemists

5500 Commercial Avenue
Raleigh, NC 27612
(919) 787-3061

1040 Greenfield Street
Wilmington, NC 28402
(919) 763-9793

**Analytical
Laboratory**

Environment Analysis
Materials
Identification of Unknowns
Agricultural Products
Fuels
Textiles
Hazardous Waste
GC/MS
ICP Metals
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Consultation

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

Certifications

SDWA
NPDES
USDA
USEPA



Quality Control Lab, NREAD
Facilities, MCB
Camp Lejeune, NC 28542

Attention: Ms. Elizabeth Betz

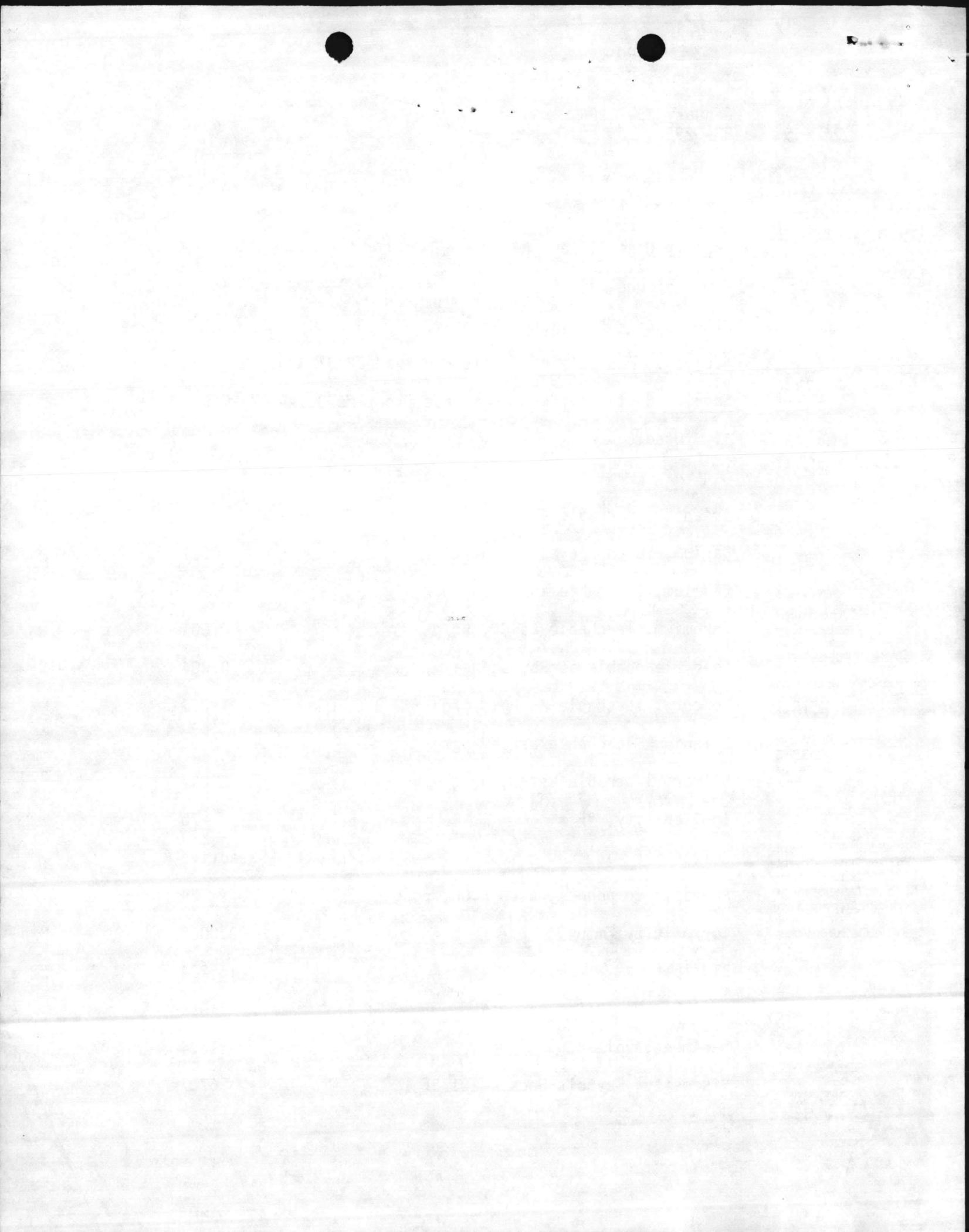
Subject: Analysis of Sample Received 12/9/83

Sample Identification: Purchase Order M67001-83-M-9775

1. Used Oil

RESULTS

| | |
|--|------------|
| Arsenic, leachable as As, $\mu\text{g/g}$ | <0.01 |
| Barium, leachable as Ba, $\mu\text{g/g}$ | 0.11 |
| Cadmium, leachable as Cd, $\mu\text{g/g}$ | <0.001 |
| Chromium, leachable as Cr, $\mu\text{g/g}$ | <0.001 |
| Lead, leachable as Pb, $\mu\text{g/g}$ | <0.004 |
| Mercury, leachable as Hg, $\mu\text{g/g}$ | <0.8 |
| Selenium, leachable as Se, $\mu\text{g/g}$ | <0.01 |
| Silver, leachable as Ag, $\mu\text{g/g}$ | <0.004 |
| Ignitability, °F | >70 |
| Reactivity | "Reactive" |
| Phenolic Compounds, as $\text{C}_6\text{H}_5\text{OH}$, $\mu\text{g/g}$ | 24 |
| Corrosivity, mmpy | <0.0003 |
| BTU/lb | 16,224 |
| Karl Fischer Moisture, wt% | 9.5 |
| Sediment, vol% | 15.4 |
| Viscosity, Saybolt Secs., 101.3F | 67.7 |

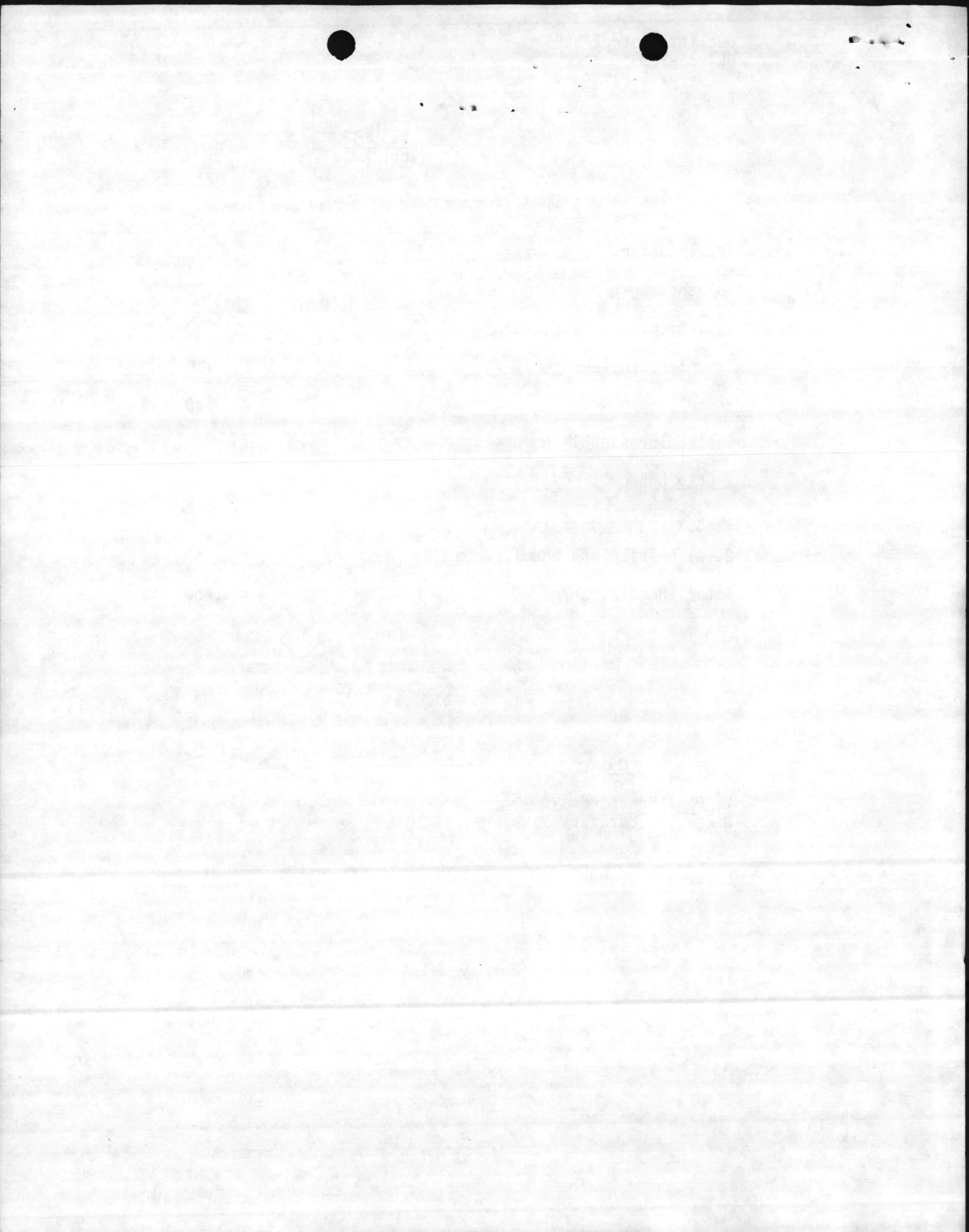


RESULTS
(Continued)

| | |
|-------------------------------|--------|
| API Gravity, at 60°F | 0.88 |
| Total Sulfur, as S, wt% | 0.32 |
| Toluene, µg/g | 1,170 |
| 1, 1-Dichloroethane, µg/g | 12,200 |
| Trichloroethylene, µg/g | 110 |
| Phenol, µg/g | <20 |
| Pentachlorophenol, µg/g | <50 |
| 2-Chlorophenol, µg/g | <20 |
| 2, 4-Dichlorophenol, µg/g | <20 |
| 2, 4, 6-Trichlorophenol, µg/g | <40 |
| Total Phenols, µg/g | 13,480 |

W. Paul Brafford
W. Paul Brafford
General Laboratory Manager

WPB/at
Customer #92400





February 9, 1984
84-9758

**Grainger
Laboratories
Incorporated**

Analytical and
Consulting Chemists

Quality Control Lab, NREAD
Facilities, MCB
Camp Lejeune, NC 28542

Attention: Ms. Elizabeth Betz

Subject: Analysis of Sample Received 2/1/84

Sample Identification: Purchase Order MC6700184M5149

1. GLI #83-9295, Waste Oil Composite

RESULTS

Total Aroclors, µg/g <1.0

**Analytical
Laboratory**

- Environment Analysis
- Materials
- Identification of Unknowns
- Agricultural Products
- Fuels
- Textiles
- Hazardous Waste
- GC/MS
- ICP Metals
- Priority Pollutants

Bruce A. Babson
Staff Chemist

Consultation

- Metallurgical Services
- Pollution Abatement
- Process Development
- Quality Control
- Methods Development
- Special Investigation

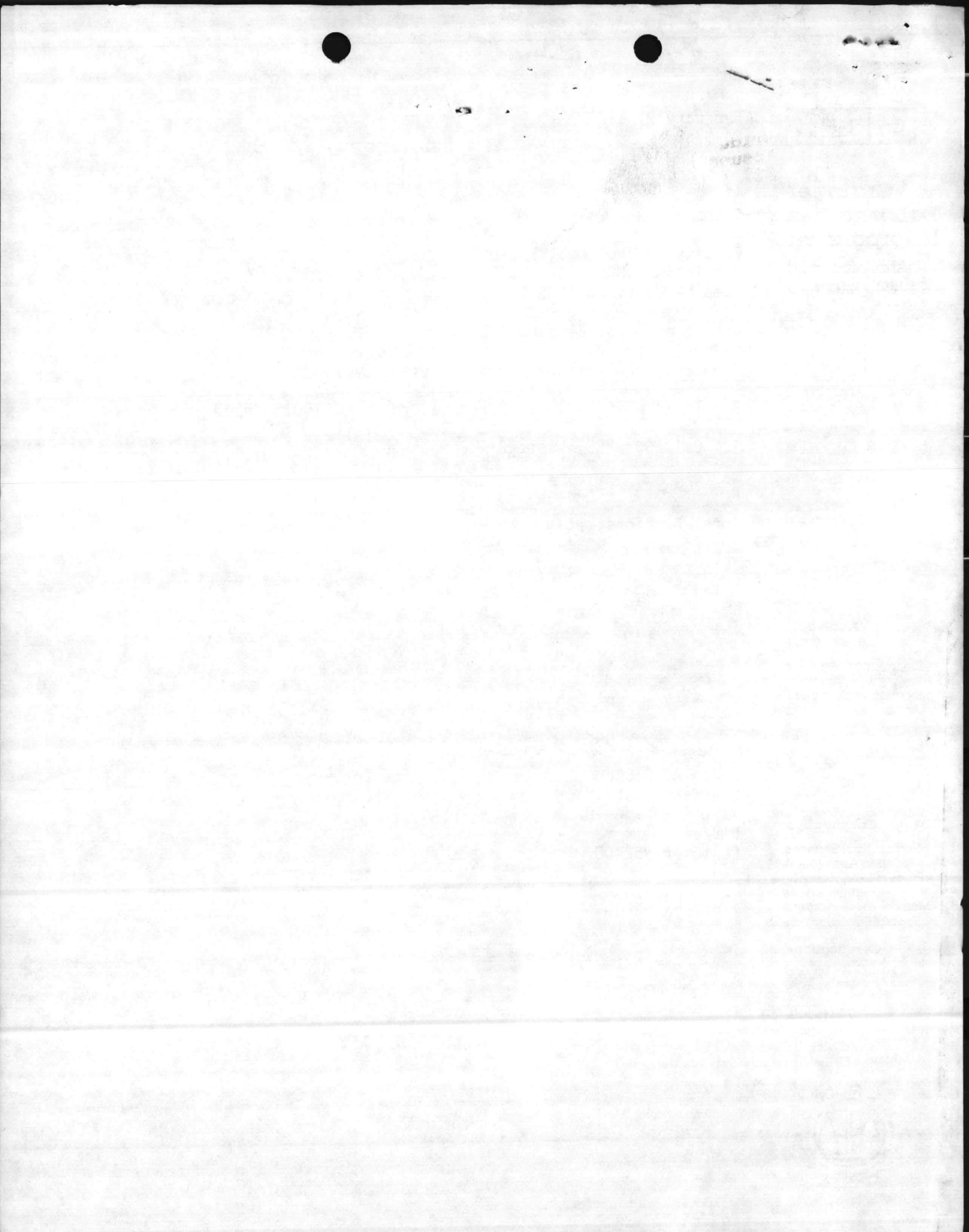
BAB/at
Customer #92400

Certifications

- SDWA
- NPDES
- USDA
- USEPA



End (1)



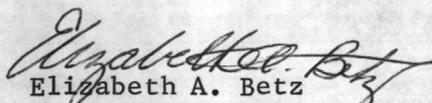
Date: 8 September 1982

Memorandum for the Record

From: Ms. Betz, Quality Control Lab., Environmental Section, NREAB, BMaintDiv

Subj: PCB Sampling on 25 March 1982; Results of

1. LantDiv received sample MCBCL #902 on 28 April 1982, and stated it was primarily water. Another sample would have to be taken.
2. On 18 May 1982, Bob Lachapelle and Hoy Burns resampled the small tank by Bldg. 45. The sample was #5, 1-4 being the Used Oil Tank at the same lot. Sample #5 was sent to LantDiv for PCB analysis.
3. The results of the PCB analysis showed the transformer oil in the small tank at the back of the Heavy Equipment Lot to have no detectable level of PCB. The analysis detection limit is 0.01ppm, any PCB level lower than 0.01ppm is not measureable.


Elizabeth A. Betz
Supervisory Chemist

Memorandum for the Record

From: Mr. Bates, Quality Control Lab., Environmental Section, EPA/MSD

Subject: PCB Sampling on 22 March 1982

1. Analytically analyzed sample WQ001 on 2 April 1982, and stated it was not a PCB sample. Another sample would have to be taken.

2. On 18 May 1982, Mr. LaRocca and Mr. Bates analyzed the small tank by ship. The sample was #2. The sample was analyzed for PCBs. The sample was sent to Laboratory for PCB analysis.

3. The results of the PCB analysis showed that the concentration of PCBs at the back of the heavy equipment lot is below the level of 0.1. The analysis detection limit is 0.01, and PCB level lower than 0.01 is not detectable.

Richard A. Yates
Richard A. Yates
Supervisory Chemist

Date: 26 April 1982

Memorandum for the Record

From: Ms. Betz, Quality Control Lab, Environmental Section, NREAB, BMaintDiv

Subj: PCB Sampling on 25 March 1982

1. On 25 March 1982, Tim Stamps, Ecologist, called stating that Base Maintenance had acquired a tank of waste transformer oil that might be contaminated with PCB. An analysis of the oil needed to be run before the oil could be, if uncontaminated, added to the Waste Oil Tank, or if contaminated, disposed of accordingly.
2. The tank containing the suspected oil was at the back of the Heavy Equipment Lot. At approximately 1430 on the 25 March 1982, Gaines Huneycutt, of this lab, observed by Elizabeth Betz and Tim Stamps, took a sample of the oil from the top of the tank. The sample was labelled MCBCL #902. The oil looked very dirty.
3. On 23 April 1982, the sample, along with a DDT soil sample, other oil samples and some water samples was delivered to PP&P for packaging with proper paper work prepared by Rita Hise and Freight Traffic (Forms DD1348-1 and MCBCL 4030). They are to be shipped by Freight Traffic and received by Lant Div by 28 April 1982. Copies of the DD1348-1 and MCBCL 4030 can be found in the Chemical Dump @ Rifle Range 1982 file under subj: Rifle Range Water Treatment Plant Sampling on 19 April 1982.

Elizabeth A. Betz
Elizabeth A. Betz
Supervisory Chemist

CONFIDENTIAL

MEMORANDUM FOR THE DIRECTOR, FBI

DATE: 10/15/54

RE: [Illegible]

1. [Illegible]

10/15/54

Date: 26 April 1982

Memorandum for the Record

From: Ms. Betz, Quality Control Lab., Environmental Section, NREAB, BMaintDiv

Subj: PCB Sampling on 1 April 1982

1. On 1 April 1982, 25 culture tubes, pipets and a chart were prepared and picked up by M & R. They were numbered from #911-935, labelled MCBCL # and Date.
2. On 1 April 1982, samples #911-918 were taken by M & R Branch and returned to the lab. There were no empty transformers. M & R kept the rest of the tubes (#919-935) for future use.
3. On 23 April 1982, they were delivered to PF&P, along with other samples, for packaging with proper paper work prepared by Rita Hise and Freight Traffic (Forms DD1348-1 and MCBCL 4030). They are to be shipped by Freight Traffic and received by Lant Div by 28 April 1982. Copies of the DD1348-1 and MCBCL4030 can be found in the Chemical Dump @ Rifle Range 1982 file under subj: Rifle Range Water Treatment Plant Sampling on 19 April 1982.

Elizabeth A. Betz
Supervisory Chemist

Date: 10 April 1983

Memorandum for the Record

From: Mr. Peter Quilty, General Lab., Environmental Section, Health, Minnesota

Subject: Air Sampling on 1 April 1983

1. On 1 April 1983, 23 air samples were collected and analyzed. The data is being submitted to the Minnesota Department of Health, Environmental Section, Health, Minnesota. The data is being submitted to the Minnesota Department of Health, Environmental Section, Health, Minnesota.

2. The air samples were collected at the following locations: (List of locations follows)

3. The air samples were collected at the following locations: (List of locations follows)

4. The air samples were collected at the following locations: (List of locations follows)

5. The air samples were collected at the following locations: (List of locations follows)

6. The air samples were collected at the following locations: (List of locations follows)

7. The air samples were collected at the following locations: (List of locations follows)

8. The air samples were collected at the following locations: (List of locations follows)

9. The air samples were collected at the following locations: (List of locations follows)

10. The air samples were collected at the following locations: (List of locations follows)

11. The air samples were collected at the following locations: (List of locations follows)

12. The air samples were collected at the following locations: (List of locations follows)

13. The air samples were collected at the following locations: (List of locations follows)

14. The air samples were collected at the following locations: (List of locations follows)

15. The air samples were collected at the following locations: (List of locations follows)

16. The air samples were collected at the following locations: (List of locations follows)

17. The air samples were collected at the following locations: (List of locations follows)

18. The air samples were collected at the following locations: (List of locations follows)

19. The air samples were collected at the following locations: (List of locations follows)

20. The air samples were collected at the following locations: (List of locations follows)

21. The air samples were collected at the following locations: (List of locations follows)

22. The air samples were collected at the following locations: (List of locations follows)

23. The air samples were collected at the following locations: (List of locations follows)

Elizabeth A. Beck
Environmental Section, Health, Minnesota

Date: 26 April 1982

Memorandum for the Record

From: Ms. Betz, Quality Control Lab., Environmental Section, NREAB, BMaintDiv

Subj: Rifle Range Water Treatment Plant Sampling on 19 April 1982

1. On 16 April 1982, Dave Goodwin of Lant Div called and requested another re-sampling of Rifle Range Water Treatment Plant and its three wells. He wanted two gallons of each so some could be sent to Jennings and some could be sent to NESO, to check Jennings.

2. On 19 April 1982, Bob Lachapelle and Elizabeth Betz, of this Lab, went out to The Rifle Range to collect the samples. Two 1 gallon jars (new) were filled at each sample point. Below is a list of sample locations and the time of collections:

| Point | Time |
|--|------|
| RR-85 Water Treatment Plant - Finished Water Tap | 1035 |
| RR-47 Raw Water Well | 1040 |
| RR-45 Raw Water Well | 1040 |
| RR-97 Raw Water Well | 1055 |

3. On 23 April 1982, the samples, along with oil samples and a soil sample, were delivered to PP&P for packaging with proper paper work prepared by Rita Hise and Freight Traffic (Forms DD1348-1 and MCBCL 4030). They are to be shipped by Freight Traffic and received by Lant Div by 28 April 1982.

Elizabeth A. Betz
Supervisory Chemist

Date: 20 April 1953

Administrative Section

From: Mr. [Name], Chief, Environmental Section, EPA

Subject: Public Hearing - [Location] on 12 April 1953

1. On 12 April 1953, a public hearing was held at [Location] and approximately 200 persons attended. The hearing was held to discuss the proposed [Project Name] and to receive comments from the public. The hearing was held in the [Room Name] of the [Building Name].

2. The hearing was held on 12 April 1953, at [Location]. The hearing was held in the [Room Name] of the [Building Name]. The hearing was held to discuss the proposed [Project Name] and to receive comments from the public. The hearing was held in the [Room Name] of the [Building Name].

| Date | Time | Location |
|------|-------|--|
| 1953 | 10:00 | 10-25 Water Treatment Plant - [Location] |
| 1953 | 10:00 | 10-25 Raw Water Well |
| 1953 | 10:00 | 10-25 Raw Water Well |
| 1953 | 10:00 | 10-25 Raw Water Well |

3. On 12 April 1953, the hearing was held at [Location] and approximately 200 persons attended. The hearing was held to discuss the proposed [Project Name] and to receive comments from the public. The hearing was held in the [Room Name] of the [Building Name].

Elizabeth A. [Name]
Supervisory Chemist

Date: 26 April 1982

Memorandum for the Record

From: Ms. Betz, Quality Control Lab., Environmental Section, NREAB, BMaintDiv

Subj: Lot #203 Soil Sampling on 25 March 1982

1. On 25 March 1982, Tim Stamps, Elizabeth Betz, and Gaines Huneycutt, of NREAB, met with Marvin King, of DPDO, at Lot #203, to take a soil sample of a small area back in the woods where two barrels of DDT had sat for a time. Three samples were taken about 4" deep and composited to make the sample. The composited sample was put in a new (never used) Mason Jar with a foil liner at the top. The area smelled bad.
2. On 23 April 1982, the sample, along with oil samples and water samples, was delivered to PP&P for packaging with proper paper work prepared by Rita Hise and Freight Traffic (Forms DD1348-1 and MCBCL 4030). They are to be shipped by Freight Traffic and received by LANT DIV by 28 April 1982. Copies of the DD1348-1 and MCBCL 4030 can be found in the Chemical Dump @ Rifle Range 1982 file under subj: Rifle Range Water Treatment Plant Sampling on 19 April 1982.

Elizabeth A. Betz
Supervisory Chemist

Memorandum for the Director

Subject: [Illegible]

Date: [Illegible]

[Illegible text]

[Illegible text]

[Illegible signature]

OIL SAMPLE, TRANSFORMER,

DATE: 25 MARCH 1982

TIME: 1430

SAMPLE # 902

HONEYCUTT, STAMPS - BETZ

COLLECTOR: HONEYCUTT

TAKEN FROM TOP OF TANK, BACK OF H. E. 13

DIRTY LOOKING,

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PH 441

LECTURE 10: QUANTUM MECHANICS

THE SCHRÖDINGER EQUATION

THE WAVE FUNCTION

PROBABILITY

ORIGIN - FILE - WASTE OIL
WHITE - SHARPE
PINK - TRANSFORMER SAMPLING
PINK - HW SAMPLING FILE
PINK - RR CHEM DUMP
YELLOW - LIP BOARD

DATE: 26 MARCH 1982

MEMORANDUM FOR THE RECORD

FROM: MS. BETZ, QUALITY CONTROL LAB., ENVIRONMENTAL SECTION, NREAB, BMAINT DIV

SUBJ: PCB SAMPLING ON 25 MARCH 1982

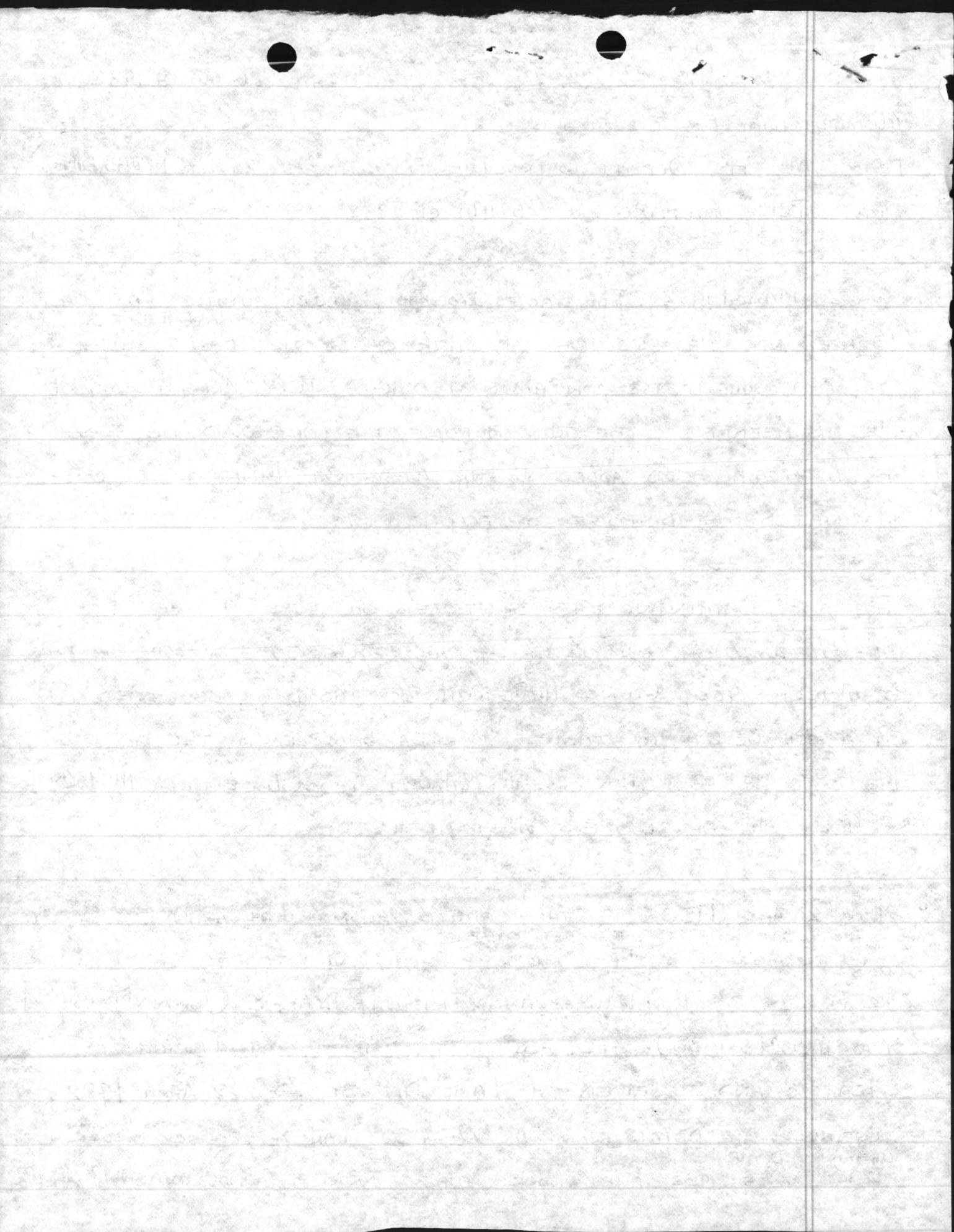
1. ON 25 MARCH 1982, TIM STAMPS, ECOLOGIST, CALLED STATING THAT BASE MAINTENANCE HAD ACQUIRED A TANK OF WASTE TRANSFORMER OIL THAT MIGHT BE CONTAMINATED WITH PCB. AN ANALYSIS OF THE OIL NEEDED TO BE RUN BEFORE THE OIL COULD BE, ~~ADDED~~ IF UNCONTAMINATED, ADDED TO THE WASTE OIL TANK, OR IF CONTAMINATED, ~~THE~~ DISPOSED OF ACCORDINGLY.

2. THE TANK CONTAINING THE SUSPECTED OIL WAS AT THE BACK OF THE HEAVY EQUIPMENT LOT. AT APPROXIMATELY 1430 ON THE 25 MARCH 1982, GAINES HUNEMCVIT, OF THIS LAB, OBSERVED BY ELIZABETH BETZ - TIM STAMPS, TOOK A SAMPLE OF THE OIL FROM THE TOP OF THE TANK. THE SAMPLE WAS LABELLED MCBCL # 902. THE OIL LOOKED VERY DIRTY.

3. ON 23 APRIL 1982 THE SAMPLE, ALONG WITH A DDT SOIL SAMPLE, AND OTHER OIL SAMPLES AND SOME WATER SAMPLES WAS DELIVERED TO PP&P FOR PACKAGING WITH PROPER PAPER WORK PREPARED BY RITA HISE AND FREIGHT TRAFFIC (FORMS DD 1348-1 AND MCBCL 4030). THEY ARE TO BE SHIPPED BY FREIGHT TRAFFIC AND RECEIVED BY LANT DIV BY ~~28~~ 28 APRIL 1982

COPIES OF THE DD 1348-1 AND MCBCL 4030 CAN BE FOUND ^{IN THE} UNDER CHEMICAL DUMP @

RIFLE RANGE 1982 FILE UNDER SUBJ: RR WTP SAMPLING ON 19 APR 1982



5-3-82 Jdw
DDS
Date: 26 April 1982

Memorandum for the Record

From: Ms. Betz, Quality Control Lab, Environmental Section, NREAB, BMaintDiv

Subj: PCB Sampling on 25 March 1982

1. On 25 March 1982, Tim Stamps, Ecologist, called stating that Base Maintenance had acquired a tank of waste transformer oil that might be contaminated with PCB. An analysis of the oil needed to be run before the oil could be, if uncontaminated, added to the Waste Oil Tank, or if contaminated, disposed of accordingly.
2. The tank containing the suspected oil was at the back of the Heavy Equipment Lot. At approximately 1430 on the 25 March 1982, Gaines Huneycutt, of this lab, observed by Elizabeth Betz and Tim Stamps, took a sample of the oil from the top of the tank. The sample was labelled MCBCL #902. The oil looked very dirty.
3. On 23 April 1982, the sample, along with a DDT soil sample, other oil samples and some water samples was delivered to PP&P for packaging with proper paper work prepared by Rita Hise and Freight Traffic (Forms DD1348-1 and MCBCL 4030). They are to be shipped by Freight Traffic and received by Lant Div by 28 April 1982. Copies of the DD1348-1 and MCBCL 4030 can be found in the Chemical Dump @ Rifle Range 1982 file under subj: Rifle Range Water Treatment Plant Sampling on 19 April 1982.

Elizabeth A. Betz
Elizabeth A. Betz
Supervisory Chemist

W.H. 82
D.D.

Date: 26 April 1982

Memorandum for the Record

From: Mr. Peter Quality Control Lab, Environmental Section, WREAR, Birmingham

Subject: PCB Sampling on 23 March 1982

1. On 23 March 1982, Tim Stanga, Ecologist, called stating that there had been a spill of waste transformer oil that might be contaminated with PCBs. An analysis of the oil needed to be run before the oil could be incinerated, added to the waste oil tank, or be commingled, disposed of accordingly.

2. The tank containing the suspected oil was at the back of the heavy equipment lot. Approximately 10:30 on the 23 March 1982, Gorman Timmons, of this lab, observed by Elizabeth Bels and Tim Stanga, took a sample of the oil from the top of the tank. The sample was labeled MOBOL #001. The oil looked very dirty.

3. On 23 April 1982, the sample, along with a hot soil sample, other oil samples and some water samples was delivered to RPLS for packaging with proper permit work prepared by Rita Hise and Virginia Trille (forms DD328-1 and MOBOL #030). They are to be shipped by freight trailer and received by Lane Div by 28 April 1982. Copies of the DD328-1 and MOBOL #030 can be found in the Chemical Lab & Rita Hise's files under subj. RPLS Waste Water Treatment Plant Sampling on 19 April 1982.

Elizabeth A. Bels
Birmingham Laboratory

Date: 23 August 1982

Memorandum

From: Ms. Betz, Quality Control Lab., Environmental Section, NREAB, BMaintDiv

To: Mr. Sharpe, Supervisory Ecologist, Environmental Section, NREAB, BMaintDiv

Subj: Missing Results

1. Below is a list of sampling for which I have not received any results.

| Sample Date | Sample #'s | Sample Subject |
|-----------------|---|---|
| 18 March 1982 | 1-6 RR-6,10,92,47,45,97 TW-15,16,17 | Rifle Range and Chemical Landfill |
| 5 April 1982 | RR-85,47,45,97 | Rifle Range- Believed believed to have leaked out. |
| 19 April 1982 | RR-85,47,45,97 | Rifle Range |
| → 25 March 1982 | 902 | Used Oil-PCB ? |
| 25 March 1982 | no number | Soil Sample @ Lot 203-No written report |

The used oil sample on 25 March 1982, was shipped with the transformer oil, soil and 19 April 1982 Rifle Range samples. #902 was not on the transformer oil list of results.

Elizabeth A. Betz
Elizabeth A. Betz
Supervisory Chemist

August 1954

Department of the Interior
Bureau of Reclamation
Washington, D.C.

1. This is a copy of the report of the

Technical Committee on the

subject of the

report of the

Technical Committee on the

subject of the

Handwritten signature

DEPARTMENT OF THE NAVY

Memorandum

MAIN/DDS/th
6280/5

DATE: 14 Sep 1982

FROM Director, Natural Resources and Environmental Affairs Branch

TO Director, Maintenance and Repair Branch

Via: Base Maintenance Officer

SUBJ Waste Oil Disposal

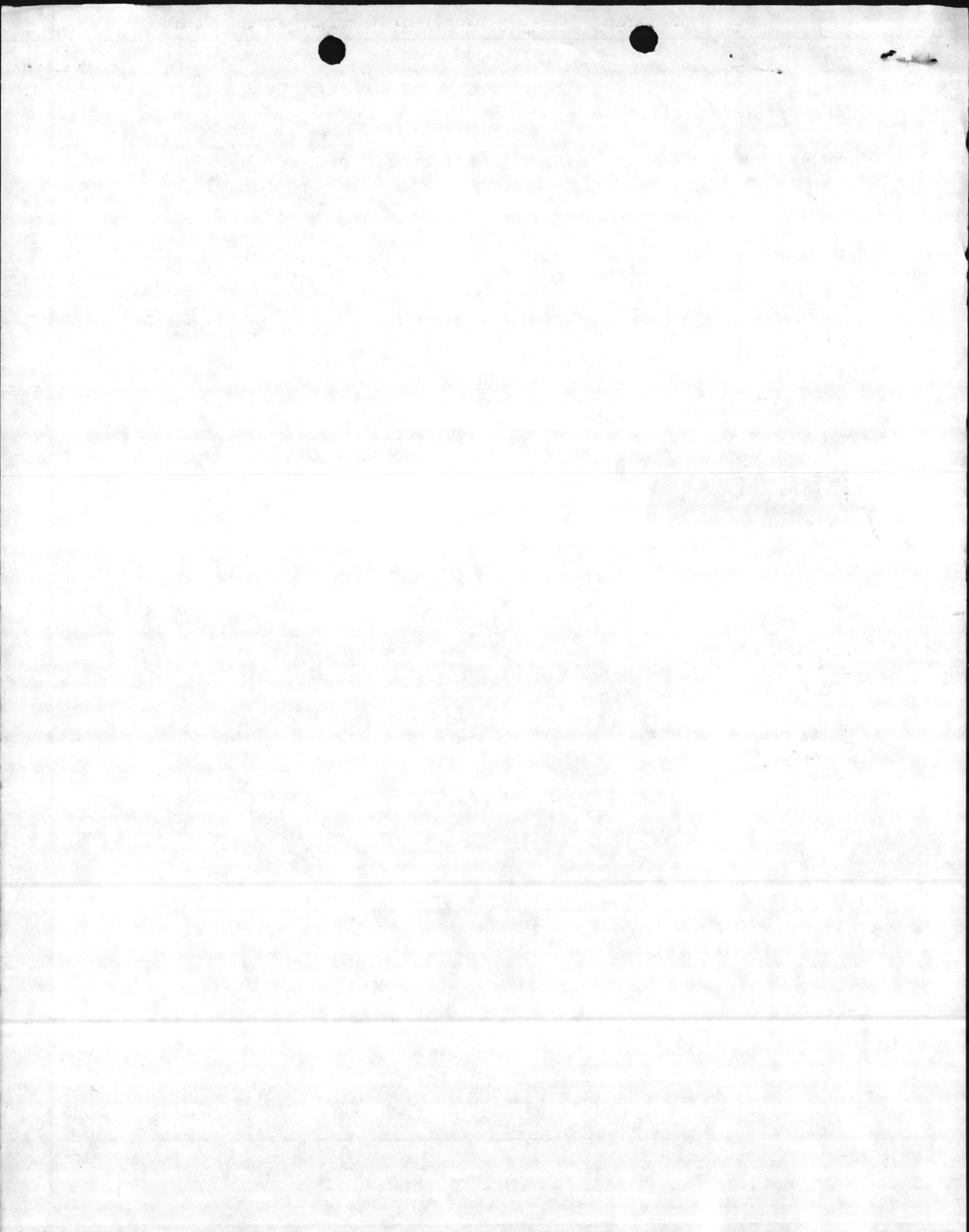
Encl: (1) CO LANTDIV ltr 114:JGW:acd 6280 of 20 Jul 1982

1. The enclosure provides PCB analysis of the tank of transformer oil stored at Building 45, as requested by Heavy Equipment Foreman.

JULIAN I. WOOTEN

Copy to:
Supvy Chemist





444-9566

114:JGW:aed
6280

20 JUL 1982

From: Commander, Atlantic Division, Naval Facilities Engineering Command
To: Commanding General, Marine Corps Base, Camp Lejeune

Subj: Analysis of Transformer Oil

Encl: (a) Jennings Laboratory Analysis No. 1472

1. Enclosure (1) is forwarded as record of analysis performed at request of MCB CAMP LEJEUNE.
2. LANTNAVFACENGCOM point of contact is Mr. Jerry Wallmeyer at (804) 444-9566 or AUTOVON 690-9566.

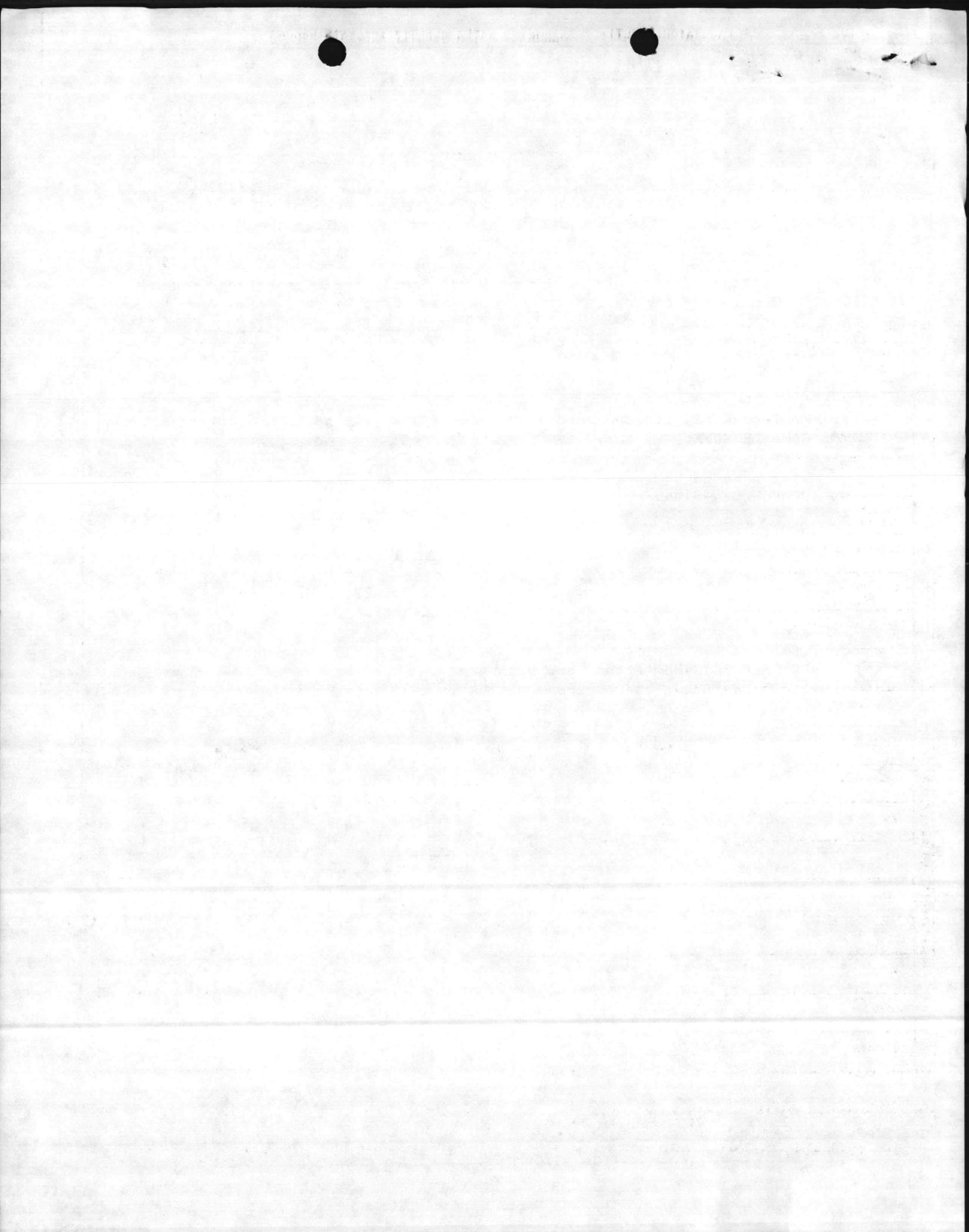
J. R. BAILEY, P.E.
By direction

Copy to:
CG MCB CAMP LEJEUNE (Attn: Mr. D. Sharpe
Natural Resources and Environmental Affairs)

Blind Copy to:
114
114S
09BS

WALLMEYER
Dickerson
7/19/82
nrs
Doc. #01107

ENCLOSURE (1)



LABORATORY MULTIPLE PARAMETER WATER QUALITY ANALYSIS RECORD

FEDERAL ENVIRONMENTAL PROTECTION SUPPORT SERVICE
 AND-CBC-3900/2 (REV. 10-74)
 0900-LL-V90-0022

UIC

MCB

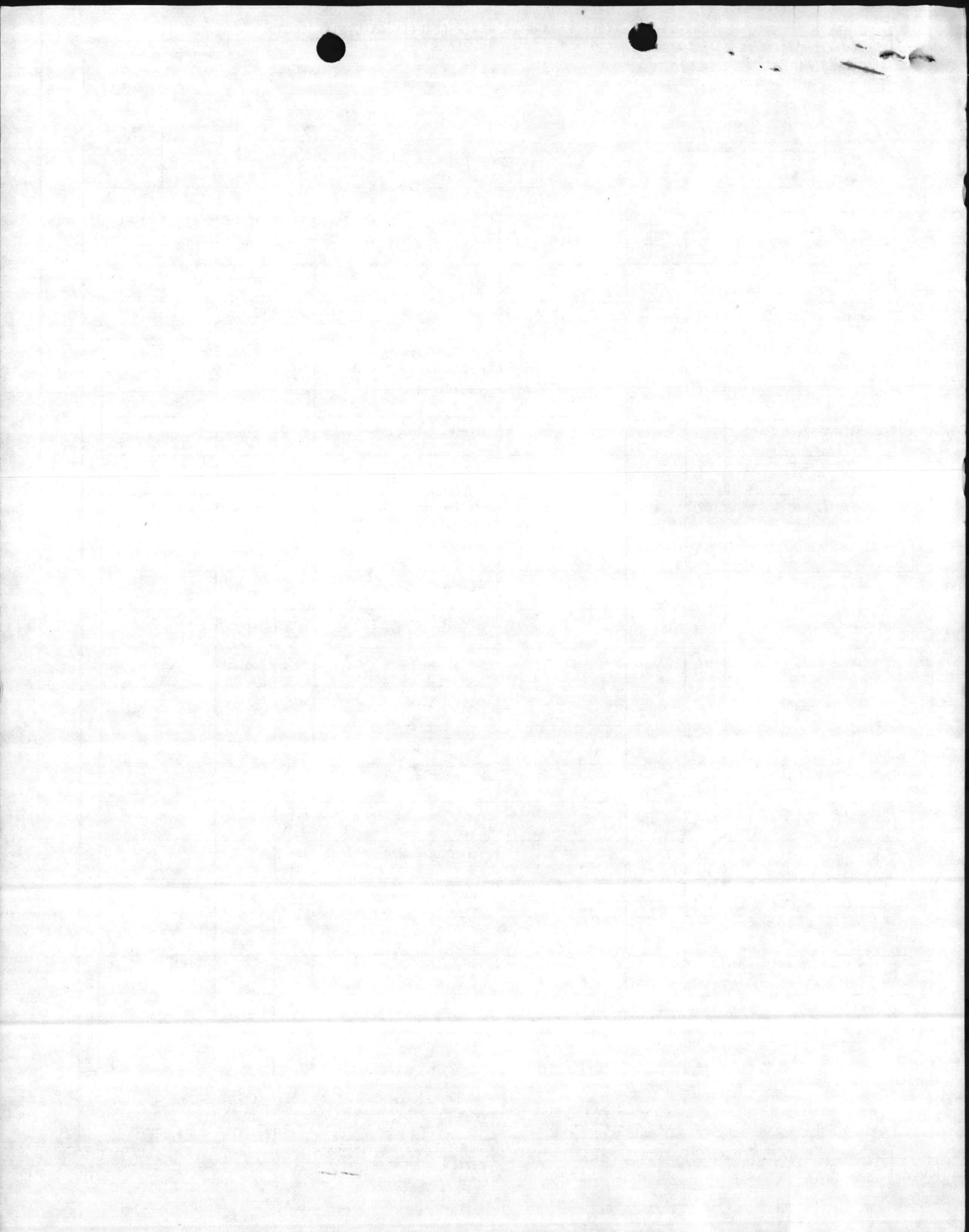
| SAMPLE IDENTIFICATION | | | | | |
|------------------------|-----|------|------------------------|-----------------------|--|
| SAMPLE COLLECTION DATE | | | SAMPLE COLLECTION TIME | SAMPLE STATION NUMBER | |
| MONTH | DAY | YEAR | 0-2400 | | |
| | | | | | |

ACTIVITY NAME
SAMPLE #5 - "Used Transformer Oil"

LABORATORY NAME
JENNINGS LABORATORIES, INC.

| | PARAMETER DESCRIPTION | UNITS | DATA ELEMENT NUMBER | VALUE | PARAMETER DESCRIPTION | UNITS | DATA ELEMENT NUMBER | VALUE | |
|---------------------------|---|---------|---------------------|-------|-----------------------|-----------|---------------------------|-------|--------------|
| | | | | | | | | | |
| SOLIDS | TOTAL SUSPENDED SOLIDS (NON FILTERABLE RESIDUE) | MG/L | 00530 | | ALUMINUM, TOTAL | MG/L | 01105 | | HEAVY METALS |
| | TOTAL SOLIDS (TOTAL RESIDUE 103-105°) | MG/L | 00500 | | ARSENIC, TOTAL | MG/L | 01002 | | |
| | SETTLABLE SOLIDS (SETTLABLE RESIDUE) | ML/L/HR | 00545 | | CADMIUM, TOTAL | MG/L | 01027 | | |
| | TOTAL DISSOLVED SOLIDS (FILTERABLE RESIDUE) | MG/L | 70300 | | CHROMIUM, TOTAL | MG/L | 01034 | | |
| NUTRIENTS | N-AMMONIA (AS N) | MG/L | 00610 | | COPPER, TOTAL | MG/L | 01042 | | |
| | N-NITRATE TOTAL (AS N) | MG/L | 00620 | | IRON, TOTAL | MG/L | 01045 | | |
| | N-NITRITE TOTAL (AS N) | MG/L | 00615 | | LEAD, TOTAL | MG/L | 01051 | | |
| | TOTAL N (KJELDAHL) | MG/L | 00625 | | MAGNESIUM, TOTAL | MG/L | 00927 | | |
| | ORTHOPHOSPHATE (AS PO ₄) | MG/L | 00660 | | MANGANESE, TOTAL | MG/L | 01055 | | |
| | TOTAL PHOSPHORUS (AS P) | MG/L | 00678 | | MERCURY, TOTAL | MG/L | 71900 | | |
| | SULFATE | MG/L | 00945 | | POTASSIUM, TOTAL | MG/L | 00937 | | |
| NON-CATEGORIZED PARAMETER | PH LABORATORY | | 00403 | | SILVER, TOTAL | MG/L | 01077 | | COLIFORM |
| | CHLORIDE | MG/L | 00940 | | ZINC, TOTAL | MG/L | 01092 | | |
| | TURBIDITY LAB | JTU/FTU | W0072 | | TOTAL COLIFORM | MFC/100ML | 31503 | | |
| | BOD | MG/L | 00310 | | FECAL COLIFORM | MFC/100ML | 31616 | | |
| | COD | MG/L | 00340 | | TOTAL COLIFORM | MPN/100ML | 31506 | | |
| | TOC | MG/L | 00680 | | FECAL COLIFORM | MPN/100ML | 31620 | | |
| | OIL AND GREASE | MG/L | 70350 | | PCB | X PPM | None Detected (<0.01 ppb) | | |
| | PHENOLS | MG/L | 32730 | | | | | | |
| | VBAS | MG/L | 38260 | | | | | | |
| | CYANIDE | MG/L | 00720 | | | | | | |

ANALYST: *W. H. Jennings* DATE: **June 16, 1982**
 #1472 6/11/82 \$90.00



Date; 20 August 1982

Memorandum for the Record

From: Ms. Betz, Quality Control Lab., Environmental Section, NREAB, BMaintDiv

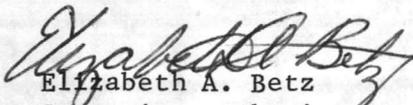
Subj: Used Oil Sampling on 18 May 1982

1. I called Don Gurganus of the Heavy Equipment section, on 20 April 1982, and stated that as soon as he arranged it with the Outside Plumbing Shop to get a pump, we would be available to take a sample of the large waste oil tank in the heavy equipment lot. On 21 April 1982, I called Don Gurganus again, to check on it. He said the pump that had been used the last time had been someone's private pump, which was now broken. He said that when he had arranged something to get the oil out he would call back.
2. On 18 May 1982, it was arranged to take an oil sample. Bob Lachapelle and Hoy Burns, of this lab, went out to collect the sample. Bob Lachapelle had to climb up to the top of the tank to fill the sample bottles. Five samples were taken at different depths in the tank. The depths are listed below.

| Sample # | Feet Below the Surface |
|--------------|----------------------------|
| 1 | 3 |
| 2 | 7 |
| 3 | 11 |
| 4 | 15-Contains alot of water |
| 5 | 19-Mostly water |

3. On 21 May 1982, the used oil samples were delivered to PP&P, by Gaines Huneycutt, for packaging with proper paper work prepared by Rita Hise and Freight Traffic (Forms DD1348-1 and MCBCL 4030). They were suppose to be shipped to and received by LANTDIV by 28 May 1982, but Rita Hise didnt type the dead line date in. PP&P had some trouble certifying oil in glass containers. They finally did when it was stressed that these were samples for analysis and any other container would be inappropriate. The samples finally reached Jennings Lab on 11 June 1982.

4. Jennings Lab composited the first four samples. Sample #5 was ^{FROM THE TRANSFORMER} ~~not used be-~~
~~cause it was mostly water.~~ Only the top layer of #4 was used, the bottom being water.


Elizabeth A. Betz
Supervisory Chemist

Subject: [Illegible]

Date: [Illegible]

1. The first two samples of the heavy equipment section, on 11 A.M. 1981, were taken as shown on the attached map. The first sample was taken in the area of the heavy equipment section, on 11 A.M. 1981, and the second sample was taken in the area of the heavy equipment section, on 11 A.M. 1981. The first sample was taken in the area of the heavy equipment section, on 11 A.M. 1981, and the second sample was taken in the area of the heavy equipment section, on 11 A.M. 1981.

2. On 11 May 1981, it was attempted to take an oil sample. The first sample was taken in the area of the heavy equipment section, on 11 May 1981, and the second sample was taken in the area of the heavy equipment section, on 11 May 1981. The first sample was taken in the area of the heavy equipment section, on 11 May 1981, and the second sample was taken in the area of the heavy equipment section, on 11 May 1981.

| Sample # | Location | Date |
|----------|---------------------------------|--------------|
| 1 | Area of heavy equipment section | 11 A.M. 1981 |
| 2 | Area of heavy equipment section | 11 A.M. 1981 |
| 3 | Area of heavy equipment section | 11 A.M. 1981 |
| 4 | Area of heavy equipment section | 11 A.M. 1981 |
| 5 | Area of heavy equipment section | 11 A.M. 1981 |

3. On 21 May 1981, the first two samples were taken in the area of the heavy equipment section, on 21 May 1981, and the second sample was taken in the area of the heavy equipment section, on 21 May 1981. The first sample was taken in the area of the heavy equipment section, on 21 May 1981, and the second sample was taken in the area of the heavy equipment section, on 21 May 1981.

4. The first two samples were taken in the area of the heavy equipment section, on 21 May 1981, and the second sample was taken in the area of the heavy equipment section, on 21 May 1981. The first sample was taken in the area of the heavy equipment section, on 21 May 1981, and the second sample was taken in the area of the heavy equipment section, on 21 May 1981.

Director, [Illegible]

★ U.S. GOVERNMENT PRINTING OFFICE: 1978 - 267-766

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
|---|--|-------------------------------|------------------------|------------------------------|-------------------------------|-------------------------------|---------------|-------------------|-----------------|---------------|-------------|---------|--------|------|-----------------------|--------|------|--------------|---------|----------|----------------|--------|----|------------|---------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| DOC. IDENT | RI FROM | M & S | STOCK NUMBER | FSC | NIN | ADD | UNIT OF ISSUE | QUANTITY | DOCUMENT NUMBER | REQUISITIONER | DATE | SERIAL | SUFFIX | SERV | SUPPLEMENTARY ADDRESS | SIGNAL | FUND | DISTRIBUTION | PROJECT | PRIORITY | REQ'D DEL DATE | ADVISE | RI | UNIT PRICE | DOLLARS | CTS. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SHIPPED FROM | Base Maintenance Dept | MOB, CLNC 28542 | SHIP TO | Environmental Quality Branch | LANTDIV Code 114, Gilbert St. | Bldg. N23, Norfolk Naval Stat | Norfolk, Va. | Attn: Mr. Goodwin | MARK FOR | PROJECT | TOTAL PRICE | DOLLARS | CTS. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WAREHOUSE LOCATION | TYPE OF CARGO | UNIT PACK | UNIT WEIGHT | CUBE | DOCUMENT DATE | MAT. COND. | QUANTITY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SUBSTITUTE DATA (ITEM ORIGINALLY REQUEST'D) | FREIGHT CLASSIFICATION | NOMENCLATURE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ITEM NOMENCLATURE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SELECTED BY AND DATE | TYPE OF CONTAINER(S) | TOTAL WEIGHT | RECEIVED BY AND DATE | INSPECTED BY AND DATE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PACKED BY AND DATE | NO. OF CONTAINER(S) | TOTAL CUBE | WAREHOUSED BY AND DATE | RECEIVED BY AND DATE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REMARKS: | DATE SHIPPED | RECEIVED BY AND DATE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRST DESTINATION ADDRESS | DATE SHIPPED | RECEIVED BY AND DATE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 TRANSPORTATION CHARGEABLE TO | 14 B/LADING, AWB, OR RECEIVER'S SIGNATURE (AND DATE) | 15 RECEIVER'S DOCUMENT NUMBER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

DD FORM 1348-1 MC 1 MAR 74
SN: 0102-LF-013-1090 U/I:SE

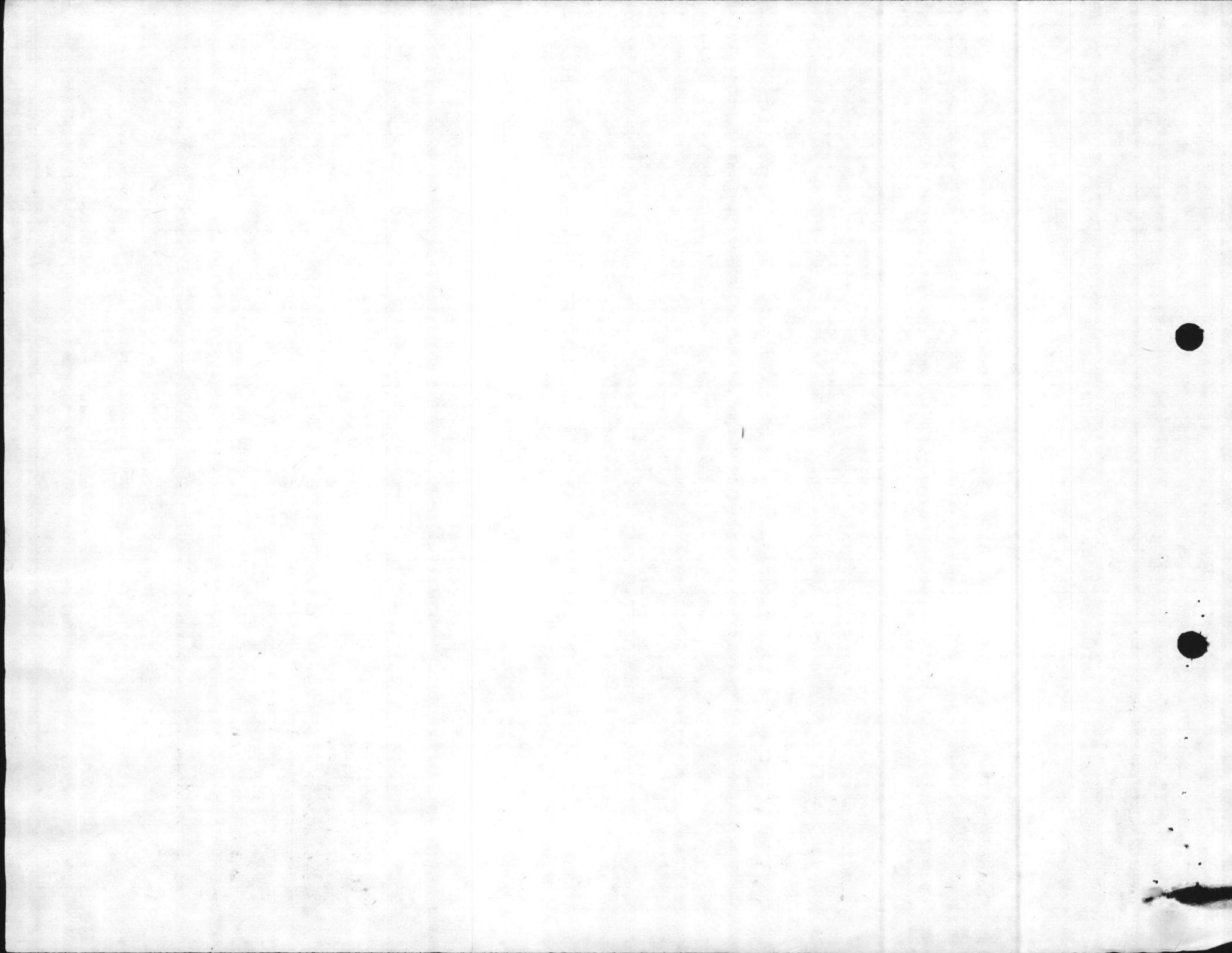
EDITION OF 1 JAN 64 MAY BE USED
UNTIL EXHAUSTED

DOD SINGLE LINE ITEM RELEASE/RECEIPT DOCUMENT
PRIORITY 3 SHIPMENTS

SHIPMENT RECORD

FURTHER REFERENCE TO THIS SHIPMENT MUST QUOTE
THE TRANSPORTATION CONTROL NUMBER (TCN) WHICH
IS: TCN: M93182 2140 0006

RECEIVED
MAY 21 1982
Main Prop Office



PACKAGING AND PRESERVATION WORK REQUEST
 MCBCL 4030 (REV 3-70)

TO: PRESERVATION, PACKAGING AND PACKING BRANCH, MOWASP DIV., BMATBN, MCB, CLNC

| | | |
|---|----------------------------|--------------------------|
| FROM (UNIT) <i>Base Maintenance Property Officer</i> | DATE <i>20 May 1982</i> | UNIT PRIORITY DESIGNATOR |
| PERSON FAMILIAR WITH WORK REQUESTED <i>A. Hata</i> | PHONE <i>5977</i> | BLDG NO. <i>65</i> |

FOLLOWING WORK IS REQUESTED

Make and crate for shipment
All samples to be packaged and certified for shipping. All samples are to be packaged in ventilated and the package lined with plastic bags. Place all samples in upright positions and label packages with "THIS END UP"

| | | | | | | | | |
|--|--|--|--|--|--|---|--|--|
| TYPE WORK REQUESTED (X) | | | (-)PACK <input type="checkbox"/> | | | LEVEL <input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C | | |
| (-)PACKAGE AND PRESERVE <input type="checkbox"/> | | | LEVEL <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C | | | PAINT AND MARK <input type="checkbox"/> | | |
| CONSTRUCT | | | BOXES <input type="checkbox"/> | | | CRATES <input type="checkbox"/> | | |
| | | | TACTICAL MARK | | | <input type="checkbox"/> YES <input type="checkbox"/> NO | | |

DETAILS (LIST INSIDE DIMENSIONS IF CONSTRUCTION IS DESIRED; COLOR OF PAINT, PATTERN AND NUMBER OF TACTICAL MARK, ANY SPECIAL INSTRUCTIONS)

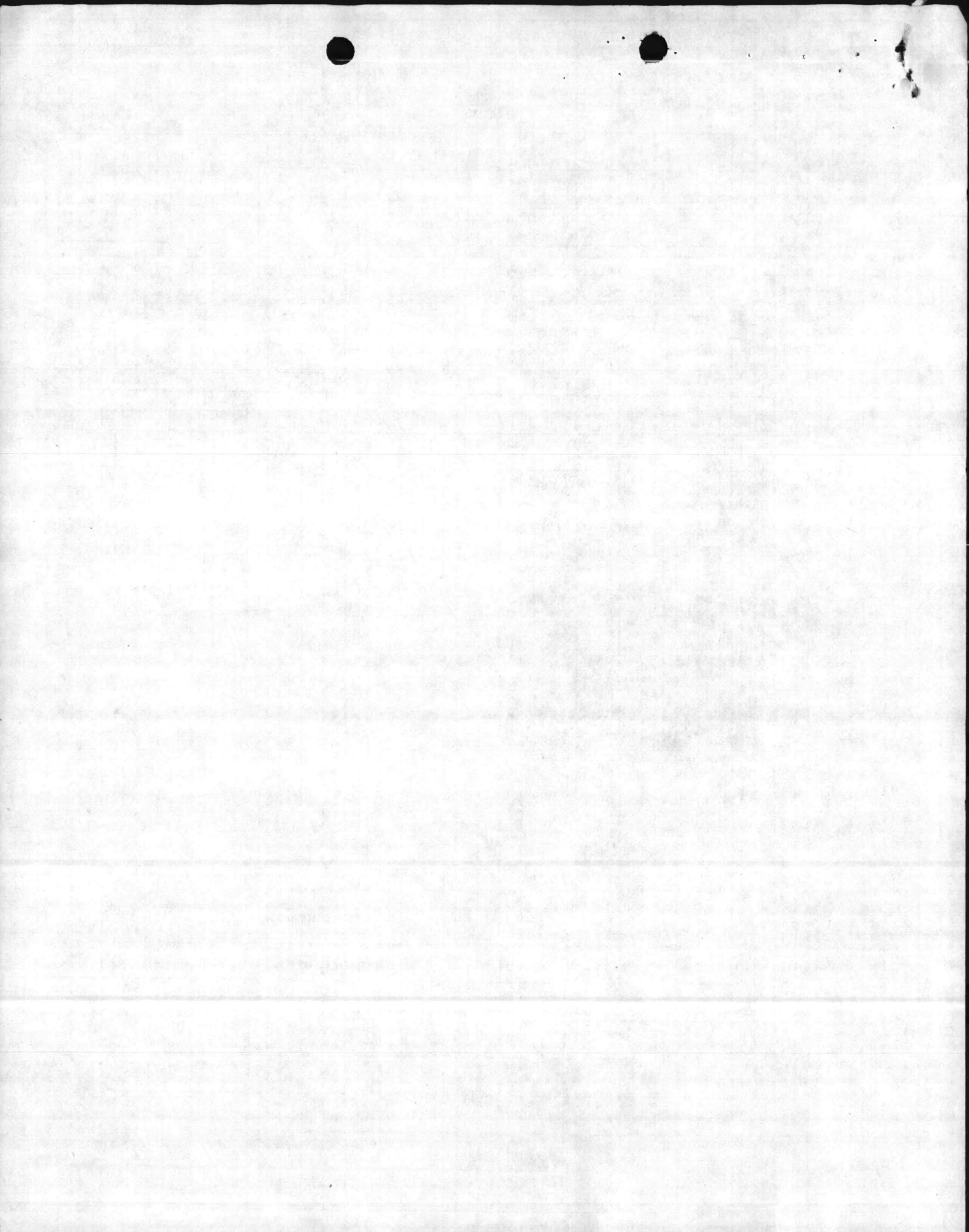
| | | |
|-------------------------|-----------------------------|--------------------------|
| DEAD LINE DELIVERY DATE | WR NO. <i>110-1110 0006</i> | SIGNATURE <i>A. Hata</i> |
|-------------------------|-----------------------------|--------------------------|

| | | |
|--|----------------|-----------------|
| Spaces On and Below This Line For P&P Use Only | JON CHARGEABLE | P&P CONTROL NO. |
|--|----------------|-----------------|

| WORK MEASUREMENT INFO PROJ 12 | | | | WORK MEASUREMENT INFO PROJ 11 & 94 TOTALS (LESS PROJ 12) | | | |
|-------------------------------|------|-------------|--|--|--------|----------|-------------|
| NO. OF ITEMS | TONS | NO. OF PKGS | | CUBE | WEIGHT | VEHICLES | BOXES BUILT |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

RECEIVED
 MAY 21 1982
[Signature]

IF SPACES MARKED WITH AN ASTERISK (*) ARE FILLED IN, COMPLETE REVERSE SIDE



- 1 FILE
- 2 FILE (PINK)
- 3 RPE (WHITE)
- 4 CLIP BOARD (YELLOW)

DATE:

MEMO FOR THE RECORD

FROM: Ms. BETZ

SUBJ: USED OIL SAMPLING ON 18 MAY 1982

OF HEAVY EQUIPMENT

1. I CALLED DON GURGANUS, ON 20 APRIL 1982, AND TOLD HIM THAT AS SOON AS HE ARRANGED ^{IT} WITH THE OUTSIDE PLUMBING SHOP TO GET A PUMP WE WOULD BE AVAILABLE TO TAKE A SAMPLE OF THE LARGE WASTE OIL TANK IN THE HEAVY EQUIPMENT LOT. ON 21 APRIL 1982, I CALLED DON GURGANUS AGAIN TO CHECK ON IT. HE SAID THE PUMP ~~HE~~ ^{THAT} HAD ~~HIS~~ BEEN USED THE LAST TIME HAD BEEN SOMEONE'S PERSONAL PUMP WHICH WAS NOW BROKEN. HE SAID WHEN HE HAD ~~ARRA~~ ARRANGED SOMETHING TO GET THE OIL OUT HE WOULD CALL BACK.

2. ON 18 MAY 1982, ~~IT~~ IT WAS ARRANGED TO TAKE AN OIL SAMPLE. BOB LACHAPPELLE AND HOY BURNS, OF THIS LAB, WENT OUT TO COLLECT THE SAMPLE. BOB LACHAPPELLE HAD TO CLIMB UP TO THE TOP OF THE TANK TO TAKE FILL THE SAMPLE BOTTLES. ^{FIVE} ~~FOUR~~ SAMPLES WERE TAKEN AT DIFFERENT DEPTHS IN THE TANK. THE DEPTHS ARE LISTED BELOW.

| SAMPLE # | FT BELOW SURFACE | COMMENTS |
|----------|------------------|-----------------------------|
| 1 | 3' | |
| 2 | 7' | |
| 3 | 11' | |
| 4 | 15' | - CONTAINED A LOT OF WATER. |
| 5 | 19' | MOSTLY WATER. |

BY GAINES HUNECUT

3. ON 21 MAY 1982, THE ^{USED OIL} FOUR SAMPLES WERE DELIVERED TO PRIP FOR ^{BY GAINES HUNECUT} PACKAGING WITH PROPER PAPER WORK PREPARED BY RITA HISE AND FREIGHT TRAFFIC (FORMS DD1348-1 AND MCBCL 4032). THEY WERE SUPPOSE TO BE SHIPPED ^{TO} AND RECEIVED BY LANTDIV BY 28 MAY 1982, BUT RITA HISE DID NOT TYPE THE DEAD LINE DATE IN. PRIP HAD SOME TROUBLE CERTIFYING

OIL # IN GLASS CONTAINERS. THEY FINALLY DID WHEN IT WAS EMPHATZED THAT THESE WERE SAMPLES FOR ANALYSIS AND ANY OTHER CONTAINER WOULD BE INAPPROPRIATE. THE SAMPLES ~~WERE~~ FINALLY REACHED JENNINGS LAB ON 11 JUNE 1982.

4. JENNINGS LAB COMPOSITED THE FIRST 4 SAMPLES. SAMPLE #5 WAS NOT USED ~~FOR~~ DO TO ITS WATER CONTENT. ONLY THE TOP LAYER OF #4 WAS USED, THE BOTOM BEING MOSTLY WATER.

PP+P REQUEST FORM 4030

FROM: FOR PACKAGING

PERSON FAMILIAR: E. BETZ PHONE: 5977 BLDG #: 65

FOLLOWING WORK IS REQUESTED:

^{USED}
5 OIL SAMPLES TO BE PACKAGED AND CERTIFIED FOR SHIPPING. ALL SAMPLES ARE TO BE PACKAGED IN VERMICULITE AND THE PACKAGE LINED WITH PLASTIC BAGS. PLACE ALL SAMPLES IN UPRIGHT POSITIONS AND LABEL PACKAGES WITH "THIS END UP".

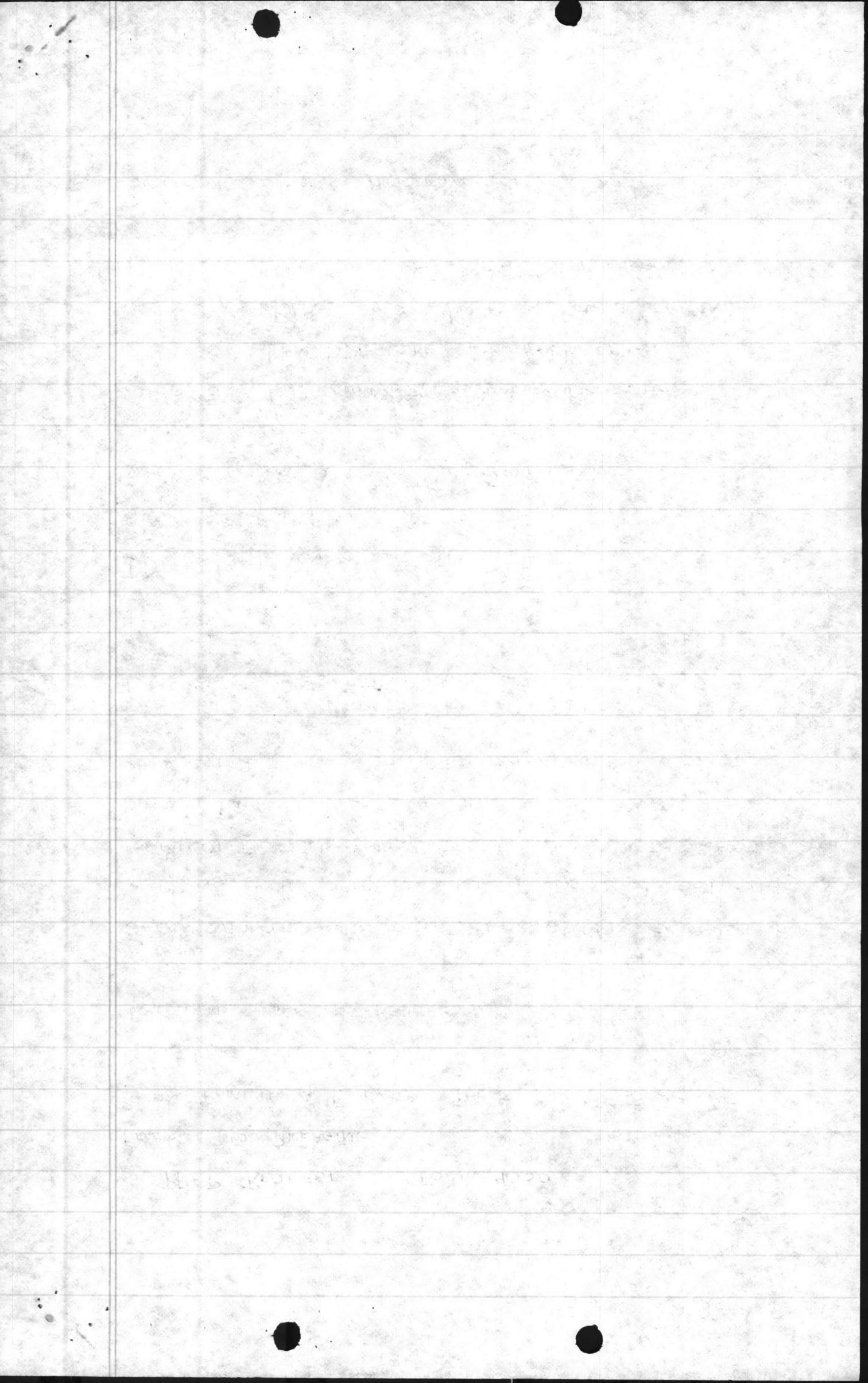
DEAD LINE DATE: 28 MAY 1982

DD 1348-1 INFORMATION

QUANTITY: 5 ~~0~~ USED OIL SAMPLES

SHIP TO: ENVIRONMENTAL QUALITY BRANCH
LANTDIV CODE 114, GILBERT ST.
BLDG. N23, NORFOLK NAVAL STATION
NORFOLK, VA. ATTN: MR. GOODWIN

LAST ONE WAS M93182 2113 0004



MONDAY !

CALL DON GURGANUS (5909)

CALL DAVE GOODWIN ABOUT \$ (690-9561)

CALL ELMER TADGETT (5147)

SET UP SAMPLE DAY.

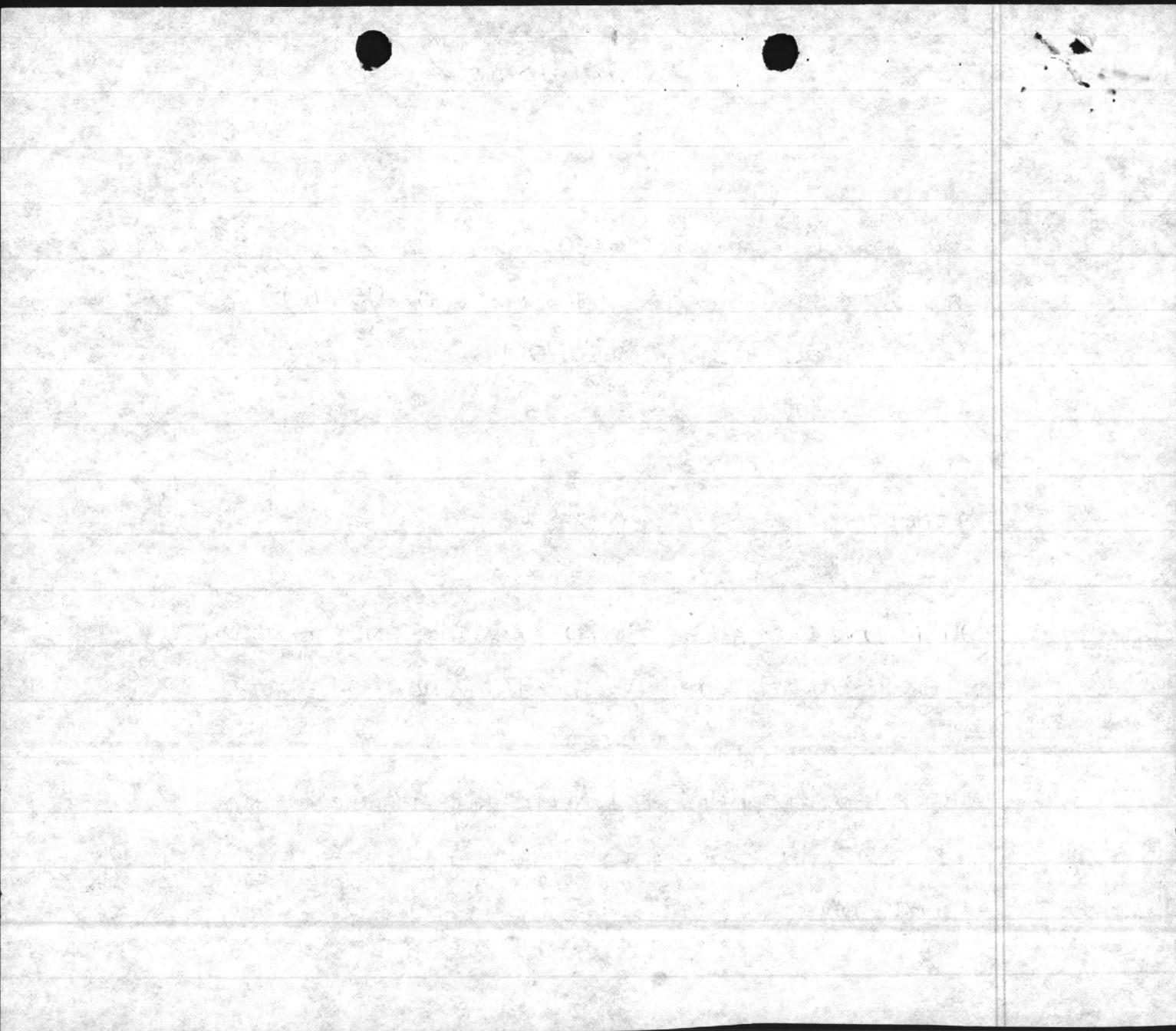
PREPARE BOTTLES.

CALLED DON GURGANUS ~~ON~~ 20 APRIL 1982 AND TOLD HIM
TO ARRANGE WITH OUTSIDE PLUMBING

CALLED DON GURGANUS 21 APRIL 1982 TO CHECK ON IT.

NO PUMP. HE SAID WHEN HE GOT IT SET HE WOULD

CALL BACK



5236

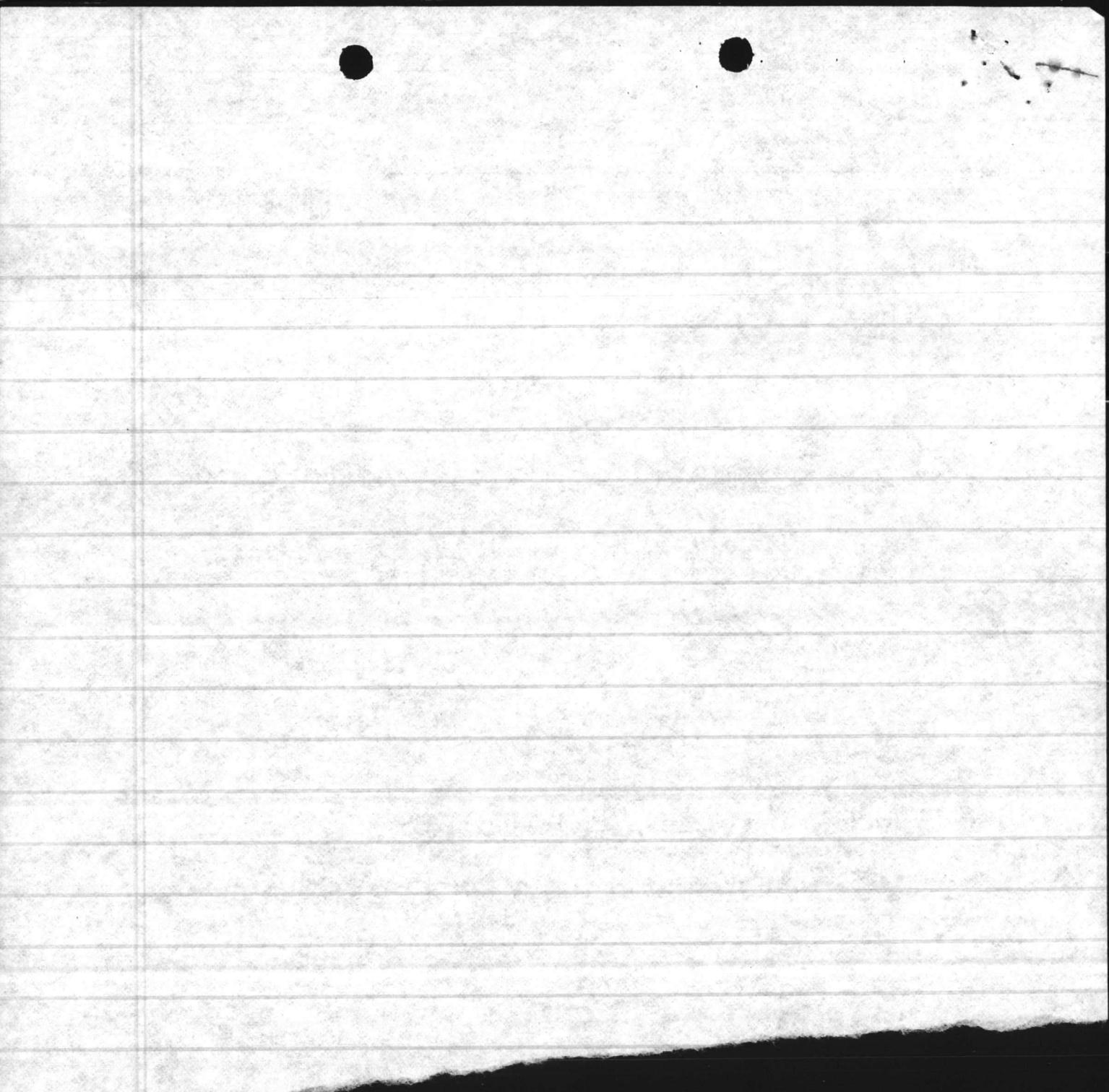
Betsy -

Get with Don Hughes
(5909) and arrange
to sample Big Oil (wast)

TANK at Bldg 45.

Harsh

(call Dave Goodwin about
\$ in account. If need transfer
see Al Smith in F&A and
arrange)



(804) 444-9566

114:JGW:mbe
6280

1 JUL 1982

From: Commander, Atlantic Division, Naval Facilities Engineering Command
To: Commanding General, Marine Corps Base, Camp Lejeune

Subj: Waste Oil; analysis of

Ref: (a) 40 CFR 261 EPA Regulations for Identifying Hazardous Wastes

Encl: (1) Jemmings Laboratories, Inc., Laboratory Analysis No. 1471

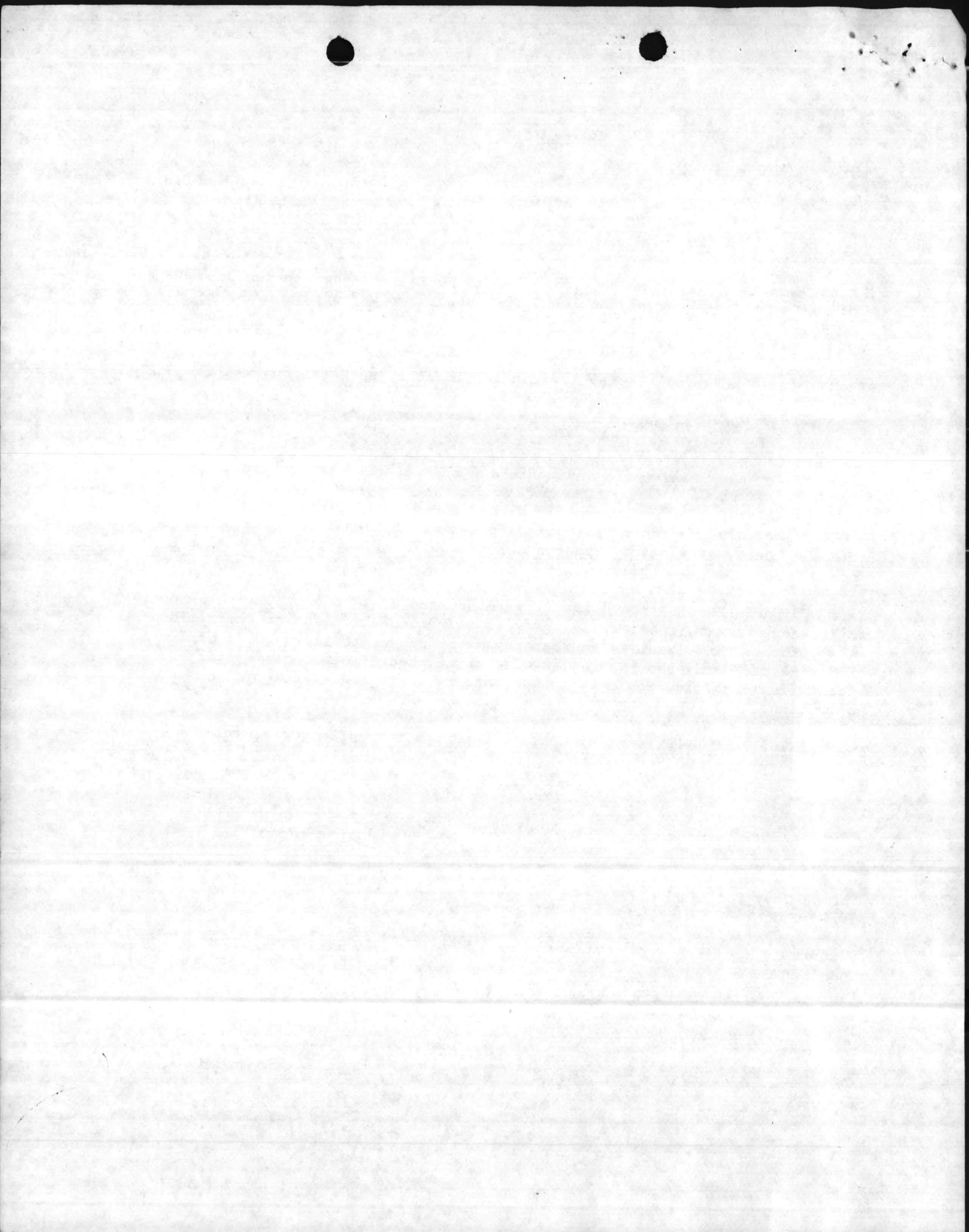
1. Enclosure (1) is forwarded in response to submittal of samples to this Command for hazardous waste and waste oil characterization analysis.
2. By comparison of enclosure (1) with reference (a) limits, the sample is classified as a hazardous waste if disposed other than burning as a source of useable energy because of lead content of 109.75 mg/l (versus 5.0 mg/l standard).
3. MCB CAMP LEJEUNE should investigate sources of lead (MOGAS, AVGAS, engine oil, waste battery acid, etc.) in order to reduce/eliminate contamination. Also, the cadmium level is approaching hazardous waste limit (0.75 mg/l versus 1.0 mg/l standard) and should likewise be reduced/eliminated. Readily identifiable cadmium sources include battery waste and electroplating operations.
4. LANNAVFACENGCOM point of contact is Mr. Jerry Wallmeyer at telephone (804) 444-9566 or A/V 690-9566.

J. R. BAILEY, P.E.
By direction

Blind Copy to:
114 ←
114S
09BS (w/o encl)
Doc. #0224S

WALLMEYER

Epps
6/30/82
urs



JENNINGS LABORATORIES, INC.

ANALYTICAL AND CONSULTING CHEMISTS

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

EPA) CERTIFIED LABORATORY for
inking Water Analysis - Microbiological,
Inorganic and Organic

ASBESTOS ANALYSIS - NIOSH 582

Official Referee Chemists for:
AMERICAN OIL CHEMISTS SOCIETY
NATIONAL SOYBEAN
PROCESSORS ASSOCIATION

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

CERTIFICATE OF ANALYSIS

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

DATE: June 25, 1982

SAMPLE OF COMPOSITE OF 4 USED OIL SAMPLES

MARKED MCBCAMP LEJEUNE taken 5/18/82

Samples delivered to laboratory 6/11/82

OFFICIAL SAMPLE BY: _____

IDENTIFICATION OF COMPOSITED SAMPLES: Sample #1-Used Oil 3' below Surface;
Sample #2-Used Oil 7' below surface; Sample #3-Used Oil 11' below surface;
Sample #4-Used Oil 15' below surface (top floating layer only)

Ignitability - Flash Point 75°C. Does not exhibit any characteristics of ignitability as listed in Federal Register Vol.45,#99, May 19, 1980.

Corrosivity - Non Corrosive. Corrodes steel (SAE 1020) at a rate of <0.01 mmpy Does not exhibit the characteristics of corrosivity listed in Federal Register May 19, 1980

Reactivity - Non reactive. Does not exhibit any of the 8 characteristics listed in Federal Register May 19,1980 that indicates reactivity.

BTU 19,268.5 BTU/lb

Water 14.0 %

Sediment 0.05 %

Viscosity 42.4 sec @ 100°F SSU

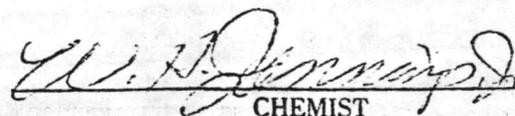
API Gravity @ 60°F 32.6

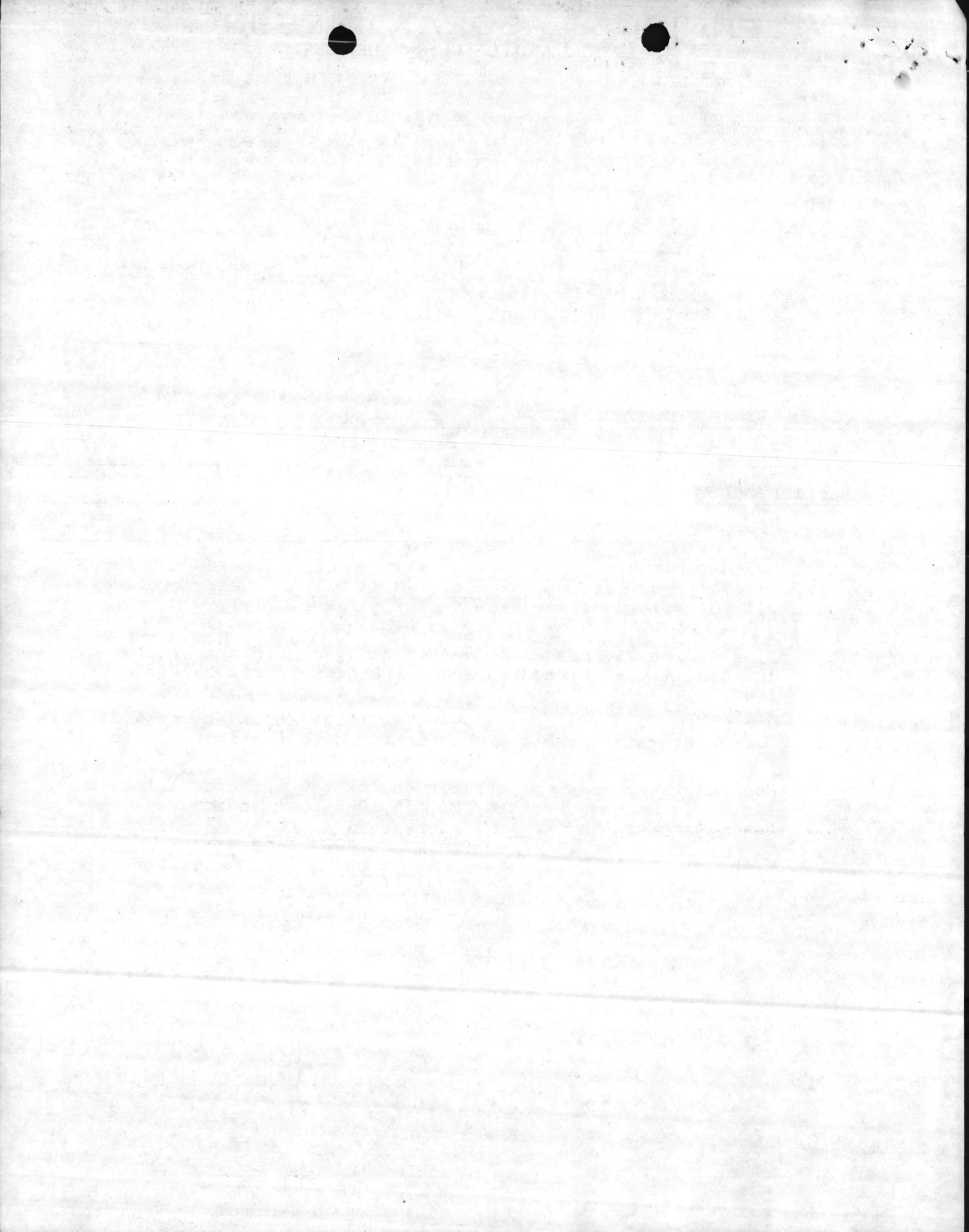
Corrosive Index - Copper Strip Classification "1A" (slight tarnish)

Sulfur 0.33 %

Respectfully submitted,
JENNINGS LABORATORIES, INC.

Laboratory
Analysis No. 1471


CHEMIST



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

ASBESTOS ANALYSIS - NIOSH 582

Official Referee Chemists for:
AMERICAN OIL CHEMISTS SOCIETY
NATIONAL SOYBEAN
PROCESSORS ASSOCIATION

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

CERTIFICATE OF ANALYSIS

TO: Mr. Dave Goodwin

DATE: June 25, 1982

SAMPLE OF COMPOSITE OF 4 OIL SAMPLES

MARKED _____

OFFICIAL SAMPLE BY: _____

PAGE -2-

(*) E.P. TOXICITY METALS

| | <u>LEACHATE</u> |
|----------|-----------------|
| Arsenic | <0.01 mg/l |
| Barium | 7.98 mg/l |
| Cadmium | 0.75 mg/l |
| Chromium | 0.50 mg/l |
| Lead | 109.75 mg/l |
| Mercury | <0.002 mg/l |
| Selenium | <0.005 mg/l |
| Silver | 0.08 mg/l |

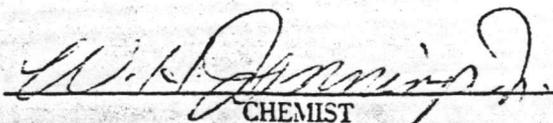
E.P. TOXICITY ORGANICS

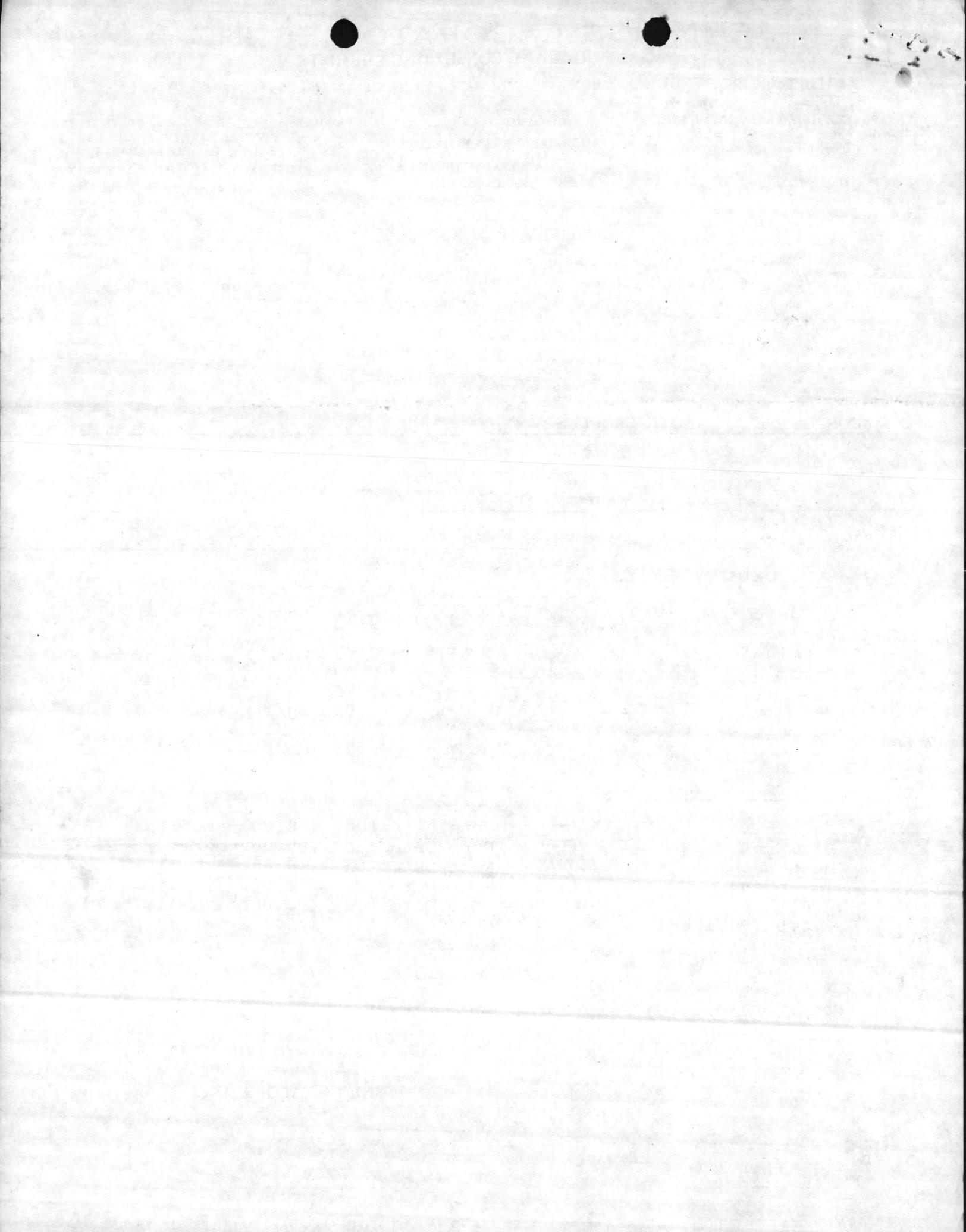
| | |
|-----------------|-----------------------------|
| Endrin | None Detected (<0.001 mg/l) |
| Lindane | None Detected (<0.002 mg/l) |
| Methoxychlor | None Detected (<0.05 mg/l) |
| Toxaphene | None Detected (<0.002 mg/l) |
| 2,4,D | None Detected (<0.002 mg/l) |
| 2,4,5 TP Silvex | None Detected (<0.002 mg/l) |

(*) Note: Solids <.5% Sample treated as Leachate

Respectfully submitted,
JENNINGS LABORATORIES, INC.

Laboratory
Analysis No. 1471


CHEMIST



Send a
Copy to Don Gurganus

return original to
Shawne

done
26 July 82

58
The Doctor
Lover

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

Date 17-21-82

From: Director, NREAB

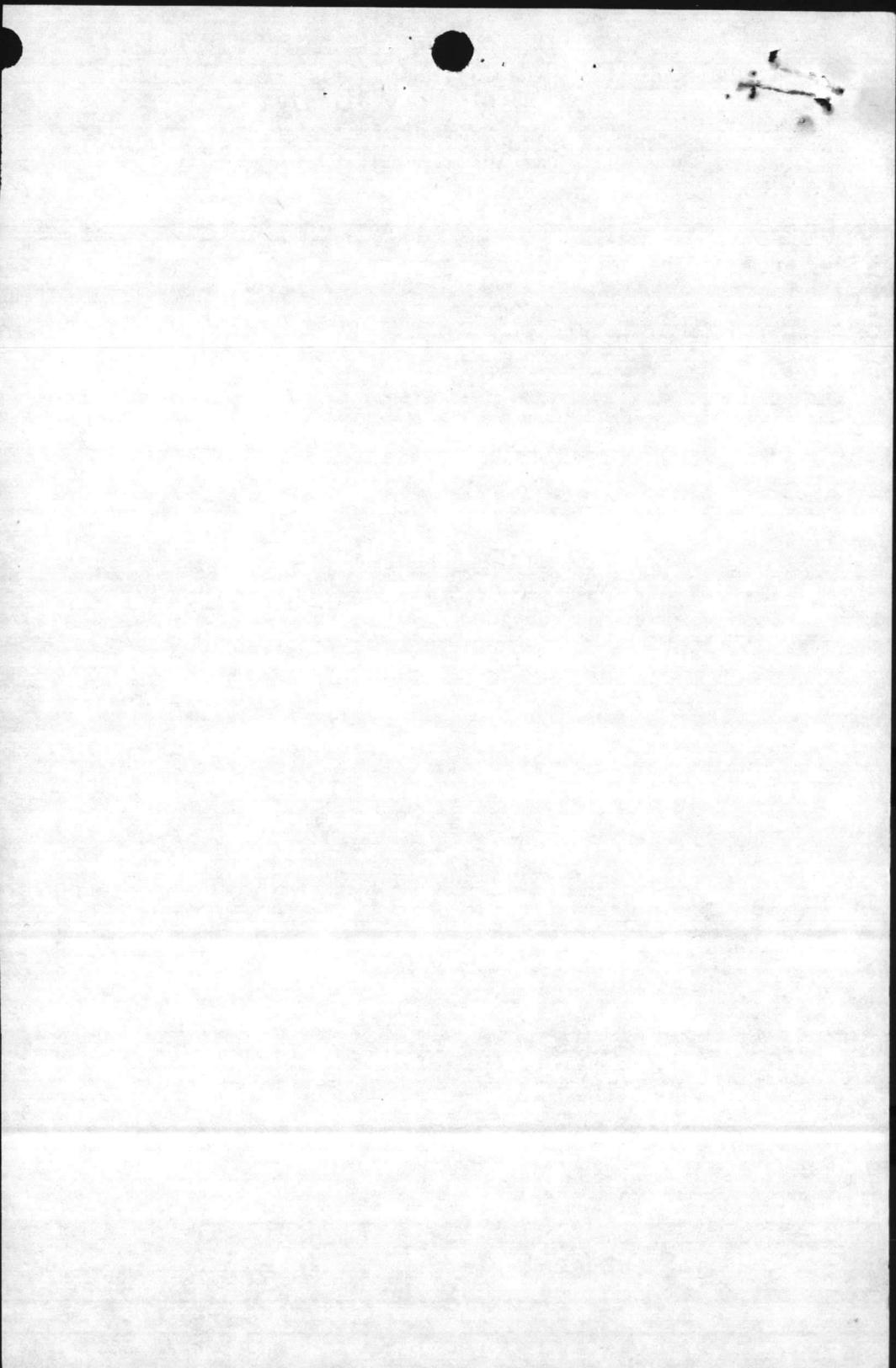
To: *Danny*

Subj: *Wants oil*

*I have sent copy of attached
to M + R*

lets discuss P 3

Julian



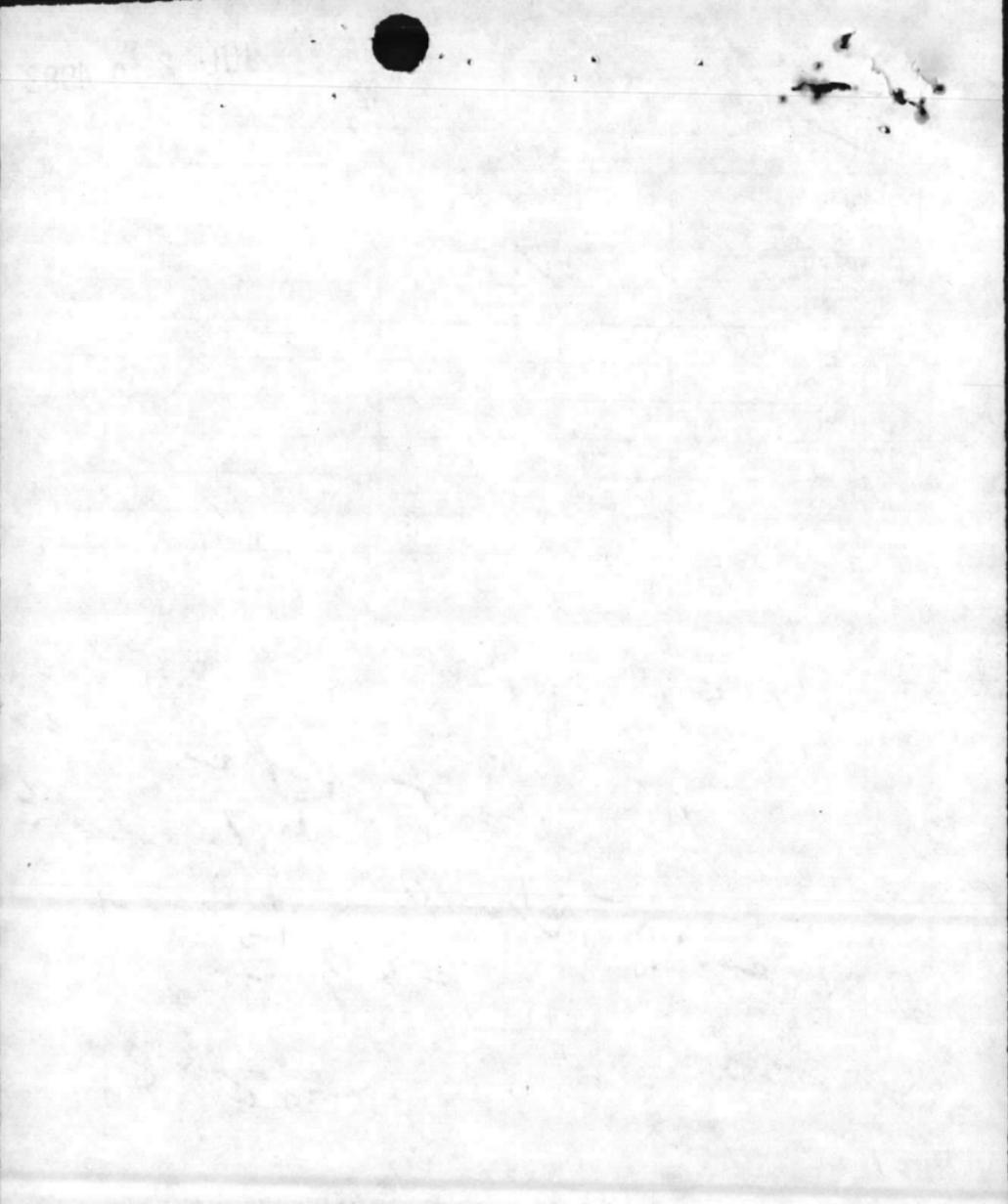
JUL 20 1982

| | ACTION | INFO | INITIAL |
|------------|--------|------|---------|
| BMO | | | ✓ |
| ABMO | | | ✓ |
| ADMIN | | | |
| ENVIOR AFF | ✓ | | |
| F&A SEC | | | |
| MAINT NCO | | | |
| M&R | | | |
| OPNS | | | |
| PROP | | | |
| UMACS | | | |
| UTIL | | | |
| SECRETARY | | | |

COMMENTS:

NREA,
 Lets start the sales
 process. We want funds to
 come in FY 83.

BDE





| | | |
|---|-------|-----|
| | ORDER | INT |
| 1 | 05 | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| | ORIG | INT |

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

TELEPHONE NO.
(804) 444-9566

IN REPLY REFER TO:
114:JGW:mbe
6280

1 JUL 1982

From: Commander, Atlantic Division, Naval Facilities Engineering Command
To: Commanding General, Marine Corps Base, Camp Lejeune

Subj: Waste Oil; analysis of

Ref: (a) 40 CFR 261 EPA Regulations for Identifying Hazardous Wastes

Encl: (1) Jemmings Laboratories, Inc., Laboratory Analysis No. 1471

1. Enclosure (1) is forwarded in response to submittal of samples to this Command for hazardous waste and waste oil characterization analysis.

2. By comparison of enclosure (1) with reference (a) limits, the sample is classified as a hazardous waste if disposed other than burning as a source of useable energy because of lead content of 109.75 mg/l (versus 5.0 mg/l standard).

✓ 3. MCB CAMP LEJEUNE should investigate sources of lead (MOGAS, AVGAS, engine oil, waste battery acid, etc.) in order to reduce/eliminate contamination. Also, the cadmium level is approaching hazardous waste limit (0.75 mg/l versus 1.0 mg/l standard) and should likewise be reduced/eliminated. Readily identifiable cadmium sources include battery waste and electroplating operations.

4. LANTNAVFACENCOM point of contact is Mr. Jerry Wallmeyer at telephone (804) 444-9566 or A/V 690-9566.

J. R. Bailey
J. R. BAILEY, P.E.
By direction

CERTIFICATE BOND
25% COTTON FIBER

(804) 444 2700

11/11/88

1 JUL 1988

From: General, Atlantic Division, Naval Facilities Engineering Command
for: General, Atlantic Division, Naval Facilities Engineering Command

Subject: Waste Oil; Analysis of

Re: (1) 60 LITERS OF WASTE OIL FROM THE REFINERY AT THE

Plant (1) - Analytical Laboratory, Inc., Laboratory Analysis No. 1441

Enclosure (1) is forwarded in response to a request of the Naval Facilities Engineering Command for waste oil analysis. The waste oil was analyzed at the

Naval Facilities Engineering Command (NAFEC) Laboratory, Norfolk, Virginia. The analysis was performed on 60 liters of waste oil. The results are as follows: The waste oil is a mixture of waste oil and water. The waste oil is a mixture of waste oil and water. The waste oil is a mixture of waste oil and water.

2. The waste oil is a mixture of waste oil and water. The waste oil is a mixture of waste oil and water. The waste oil is a mixture of waste oil and water. The waste oil is a mixture of waste oil and water. The waste oil is a mixture of waste oil and water.

3. The waste oil is a mixture of waste oil and water. The waste oil is a mixture of waste oil and water. The waste oil is a mixture of waste oil and water. The waste oil is a mixture of waste oil and water. The waste oil is a mixture of waste oil and water.

J. M. BARRY, JR.
Lieutenant Colonel, USN

CERTIFICATE & BOND

SEALED COTTON FIBER

JENNINGS LABORATORIES, INC.

ANALYTICAL AND CONSULTING CHEMISTS

1118 PINEAPPLE 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 Approved 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: June 25, 1982

SAMPLE OF COMPOSITE OF 4 USED OIL SAMPLES

MARKED MCBCAMP LEJEUNE taken 5/18/82

Samples delivered to laboratory 6/11/82

OFFICIAL SAMPLE BY: _____

IDENTIFICATION OF COMPOSITED SAMPLES: Sample #1-Used Oil 3' below Surface;
Sample #2-Used Oil 7' below surface; Sample #3-Used Oil 11' below surface;
Sample #4-Used Oil 15' below surface (top floating layer only)

Ignitability - Flash Point 75°C. Does not exhibit any characteristics of ignitability as listed in Federal Register Vol.45,#99, May 19, 1980.

Corrosivity - Non Corrosive. Corrodes steel (SAE 1020) at a rate of <0.01 mmpy Does not exhibit the characteristics of corrosivity listed in Federal Register May 19, 1980

Reactivity - Non reactive. Does not exhibit any of the 8 characteristics listed in Federal Register May 19,1980 that indicates reactivity.

BTU 19,268.5 BTU/lb

Water 14.0 %

Sediment 0.05 %

Viscosity 42.4 sec @ 100°F SSU

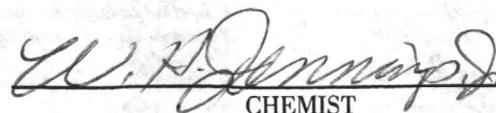
API Gravity @ 60°F 32.6

Corrosive Index - Copper Strip Classification "1A" (slight tarnish)

Sulfur 0.33 %

Respectfully submitted,
JENNINGS LABORATORIES, INC.

Laboratory
Analysis No. 1471


CHEMIST

JENNINGS LABORATORIES, INC.

ANALYTICAL AND CONSULTING CHEMISTS

1110 YIPRESS AVENUE • P.O. BOX 251 • VIRGINIA BEACH, VA 23451 • PHONE (804) 325-1198

LABORATORY APPROVED BY VA STATE WATER CONTROL BOARD FOR ANALYSIS OF DRINKING WATER ANALYSIS - MICROBIOLOGICAL, INORGANIC AND ORGANIC

OFFICIAL REPORTS OBTAINABLE FROM AMERICAN CHEMISTS SOCIETY NATIONAL SOCIETY OF PROFESSIONAL ANALYSTS

CERTIFIED OFFICIAL B. D. LABORATORY FOR MEAT ANALYSIS

REGISTERED ANALYSTS - MUSH 382

CERTIFICATE OF ANALYSIS

TO

DATE

SAMPLE NO.

MARSH NO.

OFFICIAL SAMPLE BY

LABORATORY APPROVED BY VA STATE WATER CONTROL BOARD FOR ANALYSIS OF DRINKING WATER ANALYSIS - MICROBIOLOGICAL, INORGANIC AND ORGANIC

JENNINGS LABORATORIES, INC.

LABORATORY ANALYST NO.

CHEMIST

OFFICIAL METHODS OF A.O.A.C., A.S.T.M., A.S.H.A., F.R.A. AND W.P.A. USED IN ALL ANALYSIS UNLESS OTHERWISE STATED

ENCLOSURE 1

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

ASBESTOS ANALYSIS - NIOSH 582

Official Referee Chemists for:
AMERICAN OIL CHEMISTS SOCIETY

NATIONAL SOYBEAN
PROCESSORS ASSOCIATION

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

CERTIFICATE OF ANALYSIS

TO: Mr. Dave Goodwin

DATE: June 25, 1982

SAMPLE OF COMPOSITE OF 4 OIL SAMPLES

MARKED _____

OFFICIAL SAMPLE BY: _____ PAGE -2-

(*) E.P. TOXICITY METALS

LEACHATE

| | | |
|----------|--------|------|
| Arsenic | <0.01 | mg/l |
| Barium | 7.98 | mg/l |
| Cadmium | 0.75 | mg/l |
| Chromium | 0.50 | mg/l |
| Lead | 109.75 | mg/l |
| Mercury | <0.002 | mg/l |
| Selenium | <0.005 | mg/l |
| Silver | 0.08 | mg/l |

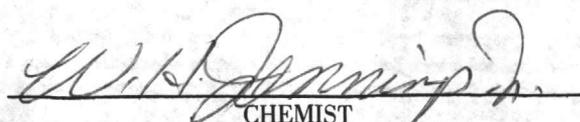
E.P. TOXICITY ORGANICS

| | | |
|-----------------|---------------|---------------|
| Endrin | None Detected | (<0.001 mg/l) |
| Lindane | None Detected | (<0.002 mg/l) |
| Methoxychlor | None Detected | (<0.05 mg/l) |
| Toxaphene | None Detected | (<0.002 mg/l) |
| 2,4,D | None Detected | (<0.002 mg/l) |
| 2,4,5 TP Silvex | None Detected | (<0.002 mg/l) |

(*) Note: Solids <.5% Sample treated as Leachate

Respectfully submitted,
JENNINGS LABORATORIES, INC.

Laboratory
Analysis No. 1471


CHEMIST

JENNINGS LABORATORIES, INC.

ANALYTICAL AND CONSULTING CHEMISTS

1118 YIPPESS AVENUE • P. O. BOX 951 • VIRGINIA BEACH, VA. 23451 • PHONE (804) 453-1408

VA (LPA) CERTIFIED LABORATORY for
Thinking Water Analysis: Microbiological,
Inorganic and Organic

LABORATORY ANALYSIS - MONTH 382

Official Reference Chemists for
AMERICAN OIL CHEMISTS SOCIETY
NATIONAL SOYBEAN
PROCESSORS ASSOCIATION

Laboratory Approved by VA STATE WATER
CONTROL BOARD for Analysis of
Effluents for NITROGEN
CERTIFIED OFFICIAL U.S.A. LABORATORY
FOR MEAT ANALYSIS

CERTIFICATE OF ANALYSIS

DATE

TO

SAMPLE OF

LABORATORY

OFFICIAL SAMPLE BY

JENNINGS LABORATORIES, INC.

Laboratory
Analysis No.

Date: 27 August 1981

From: Quality Control Lab., Environmental Section, NREAB, BMaintDiv

Memorandum for the Record

Subj: Used Oil Tank Sample; Collection of

1. On 28 July 1981, Gaines Huneycutt and Elizabeth Betz, from NREAB, and some workers from the Outside Plumbing Shop, of the General Trades Section, of the M & R Branch, met at the Used Oil Tank to take a sample for analysis.
2. The Tank is approximately 28 ft high and was filled up about 20 ft. The base of the Tank was surrounded by a black liquid.
3. It was determined that a sample would be taken from about 3 ft down from the top of the oil in the Tank and 5 more samples would be taken at 4 ft intervals.
4. The sample bottles are old acid bottles. The bottles were washed with detergent, rinsed with distilled water, rinsed with 1:1 HNO₃, rinsed again with distilled water, rinsed with Hexane, rinsed for a third time with distilled water and allowed to air dry over night. The caps were lined with Aluminum foil.
5. The samples were collected on 28 July 1981. There was a distinct difference in some of the layers, in their viscosity, density and color. Below is a table of the samples and collection times:

| | LOCATION | TIME | COMMENTS |
|-----------|-------------------------|-------|-------------------------|
| Sample #1 | 3 ft below oil surface | 12:55 | Black, Fastest moving |
| Sample #2 | 7 ft below oil surface | 12:57 | Black, Fast moving |
| Sample #3 | 11 ft below oil surface | 13:00 | Grayish, Slow moving |
| Sample #4 | 15 ft below oil surface | 13:05 | Grayish, Slowest moving |

6. At approximately 1500, on 28 July 1981, the samples were delivered to a Sgt. Friday (5224, Bldg. 915), of Preservation, Packaging & Packing under 2d Supply Bn., 2d FSSG, with the original completed Packaging and Preservation Work Request Form MCBCL 4030 (as per Sgt. Friday's Instructions) and 6 copies. The Lab received one stamped copy back as receipt for the samples.
7. The Form MCBCL 4030 required a JON (Job Order Number) before Sgt. Friday would accept the samples. The JON was obtained from Ms. Sue Milliken in Bldg. 1116.
8. On 30 July 1981, the samples were picked up from Sgt. Friday at PP & P. They were packed in a wooden crate filled with vermicullite. Certification was also obtained from Sgt. Friday that the samples were properly packed. Then the certification form and Form 1348-1 (obtained from Rita Hise) were taken to Ms. Linda Nethercutt (2541) of Traffic Management. Ms. Nethercutt was recommended by Mr. Ed Fountain of Traffic Management. (Bldg. 1011). Ms. Nethercutt was informed that the samples had to arrive by Monday in Norfolk. She stated that they would and that they would be sent by Estes Express. She filled out an additional form and gave them all to me and told me to deliver the forms and crate to Mr. Bert Stanley in the other end of Bldg 915 from PP&P.

Department of Health, Education and Welfare, Washington, D.C.

Office of the Director, Center for Disease Control

On July 1, 1971, the following information was received from the State of New York regarding the activities of the New York State Health Department in the area of communicable diseases.

The New York State Health Department has reported that during the period from July 1, 1971, to July 31, 1971, there were 1,234 cases of communicable diseases reported. This represents an increase of 15% over the same period in 1970.

The most common communicable diseases reported were influenza, measles, and mumps. The number of cases of these diseases was 850, 350, and 250, respectively.

| Disease | Number of Cases |
|------------------|-----------------|
| Influenza | 850 |
| Measles | 350 |
| Mumps | 250 |
| Scarlet fever | 150 |
| Diphtheria | 100 |
| Whooping cough | 80 |
| Polio | 50 |
| Cholera | 20 |
| Shigellosis | 15 |
| Salmonellosis | 10 |
| Paratuberculosis | 5 |
| Other | 5 |
| Total | 1,234 |

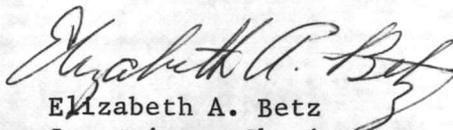
The New York State Health Department has also reported that during the period from July 1, 1971, to July 31, 1971, there were 1,234 cases of communicable diseases reported. This represents an increase of 15% over the same period in 1970.

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9. Upon delivery of the crate to Mr. Stanley he weighed it and changed the weight from 43 lbs. (determined by PP&P) to 83 lbs. (?). We received a copy of the 1348-1 back, which was returned to Rita Hise.

10. The crate went Estes Express, no. GBL S3065604, and was delivered to Mr. Paul Rakowski, LANTDIV, Bldg. N-23, Norflok Naval Station, Norfolk, Va. on Tuesday.


Elizabeth A. Betz
Supervisory Chemist

... (1) ...

... on Tuesday ...

... A ...

PACKAGING AND PRESERVATION WORK REQUEST

MCBCL 403 (REV 3 170)

TO: PRESERVATION, PACKAGING AND PACKING BRANCH, MOWASP DIV., BMATBN, MCB, CLNC

| | | |
|---|---------------------|--------------------------------|
| FROM (UNIT) NREAB, Base Maintenance Div, MCBCLNC | DATE 28 Jul 1981 | UNIT PRIORITY DESIGNATOR 02 |
| PERSON FAMILIAR WITH WORK REQUESTED Elizabeth A. Betz, Chemist | PHONE 451-5977 | BLDG NO. 65 |

FOLLOWING WORK IS REQUESTED
Used oil and petroleum solvents to package in vermiculite.

| | | | |
|--|---|---|--|
| TYPE WORK REQUESTED (X) | | | |
| (*)PACKAGE AND PRESERVE <input type="checkbox"/> | LEVEL <input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C | (*)PACK <input type="checkbox"/> | LEVEL <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C |
| CONSTRUCT | BOXES <input type="checkbox"/> CRATES <input type="checkbox"/> | PAINT AND MARK <input type="checkbox"/> | TACTICAL MARK <input type="checkbox"/> YES <input type="checkbox"/> NO |

DETAILS (LIST INSIDE DIMENSIONS IF CONSTRUCTION IS DESIRED; COLOR OF PAINT, PATTERN AND NUMBER OF TACTICAL MARK, ANY SPECIAL INSTRUCTIONS)

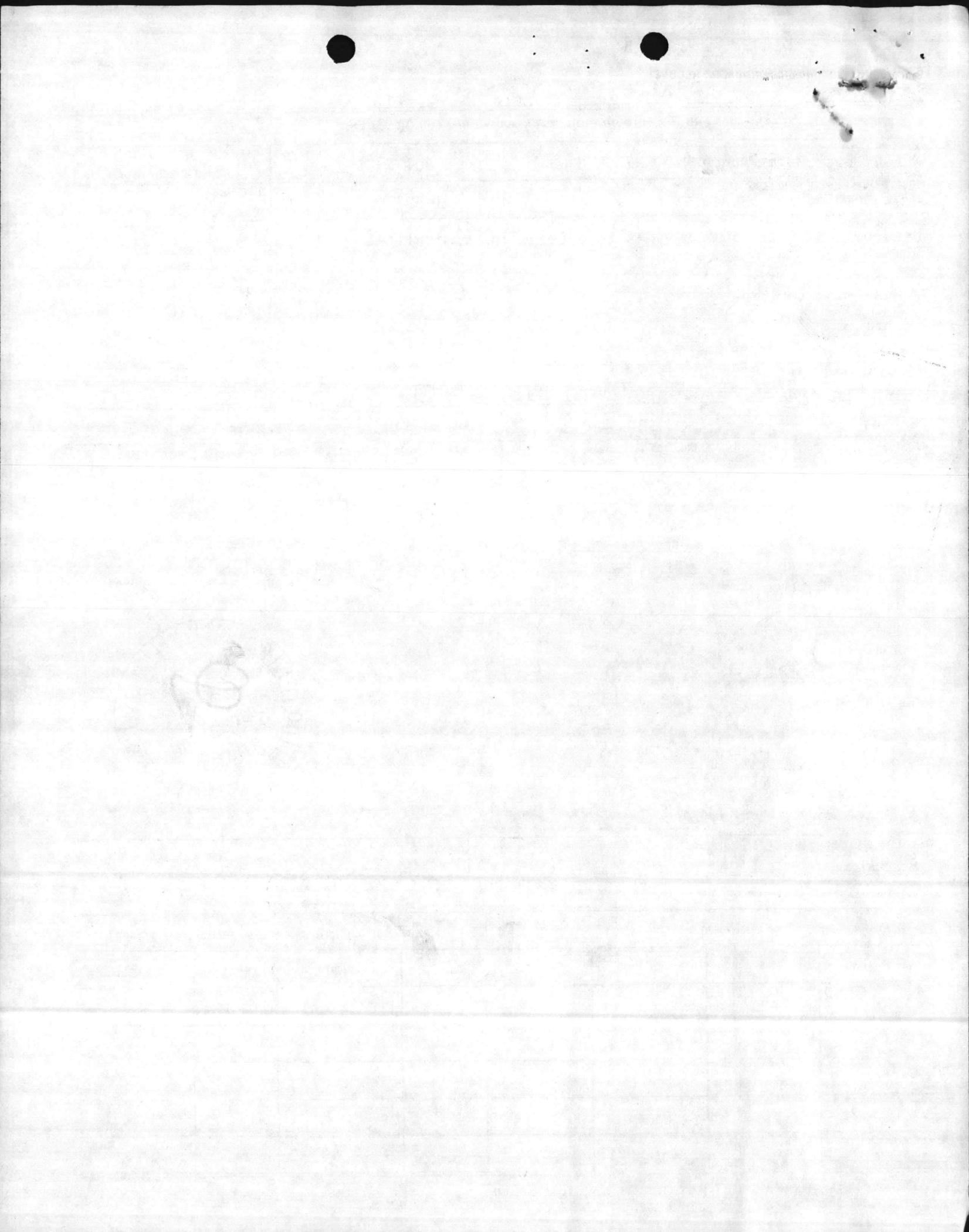


AA1 32 0601 3228 T/U

| | | |
|--|-----------------|---------------------------------------|
| DEAD LINE DELIVERY DATE 3 Aug 1981 | WR NO. 065 | SIGNATURE <i>Elizabeth A. Betz</i> |
| Spaces On and Below This Line For P&P Use Only | JOIN CHARGEABLE | P&P CONTROL NO. |

| WORK MEASUREMENT INFO PROJ 12 | | | | WORK MEASUREMENT INFO PROJ 11 & 94 TOTALS (LESS PROJ 12) | | | |
|-------------------------------|------|-------------|--|--|--------|----------|-------------|
| NO. OF ITEMS | TONS | NO. OF PKGS | | CUBE | WEIGHT | VEHICLES | BOXES BUILT |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

IF SPACES MARKED WITH AN ASTERISK (*) ARE FILLED IN, COMPLETE REVERSE SIDE



PACKAGING AND PRESERVATION WORK REQUEST
 MCBCL 4030 (REV 3-70)

TO: PRESERVATION, PACKAGING AND PACKING BRANCH, MOWASP DIV., BMATBN, MCB, CLNC

| | | |
|---|---------------------|--------------------------------|
| FROM (UNIT) NREAB, Base Maintenance Div, MCBCLNC | DATE 28 Jul 1981 | UNIT PRIORITY DESIGNATOR 02 |
| PERSON FAMILIAR WITH WORK REQUESTED Elizabeth A. Betz, Chemist | PHONE 451-5977 | BLDG NO. 65 |

FOLLOWING WORK IS REQUESTED
 Used oil and petroleum solvents to package in vermiculite.

| | | | |
|--|---|---|--|
| TYPE WORK REQUESTED (X) | | | |
| (*)PACKAGE AND PRESERVE <input type="checkbox"/> | LEVEL <input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C | (*)PACK <input type="checkbox"/> | LEVEL <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C |
| CONSTRUCT | BOXES <input type="checkbox"/> CRATES <input type="checkbox"/> | PAINT AND MARK <input type="checkbox"/> | TACTICAL MARK <input type="checkbox"/> YES <input type="checkbox"/> NO |

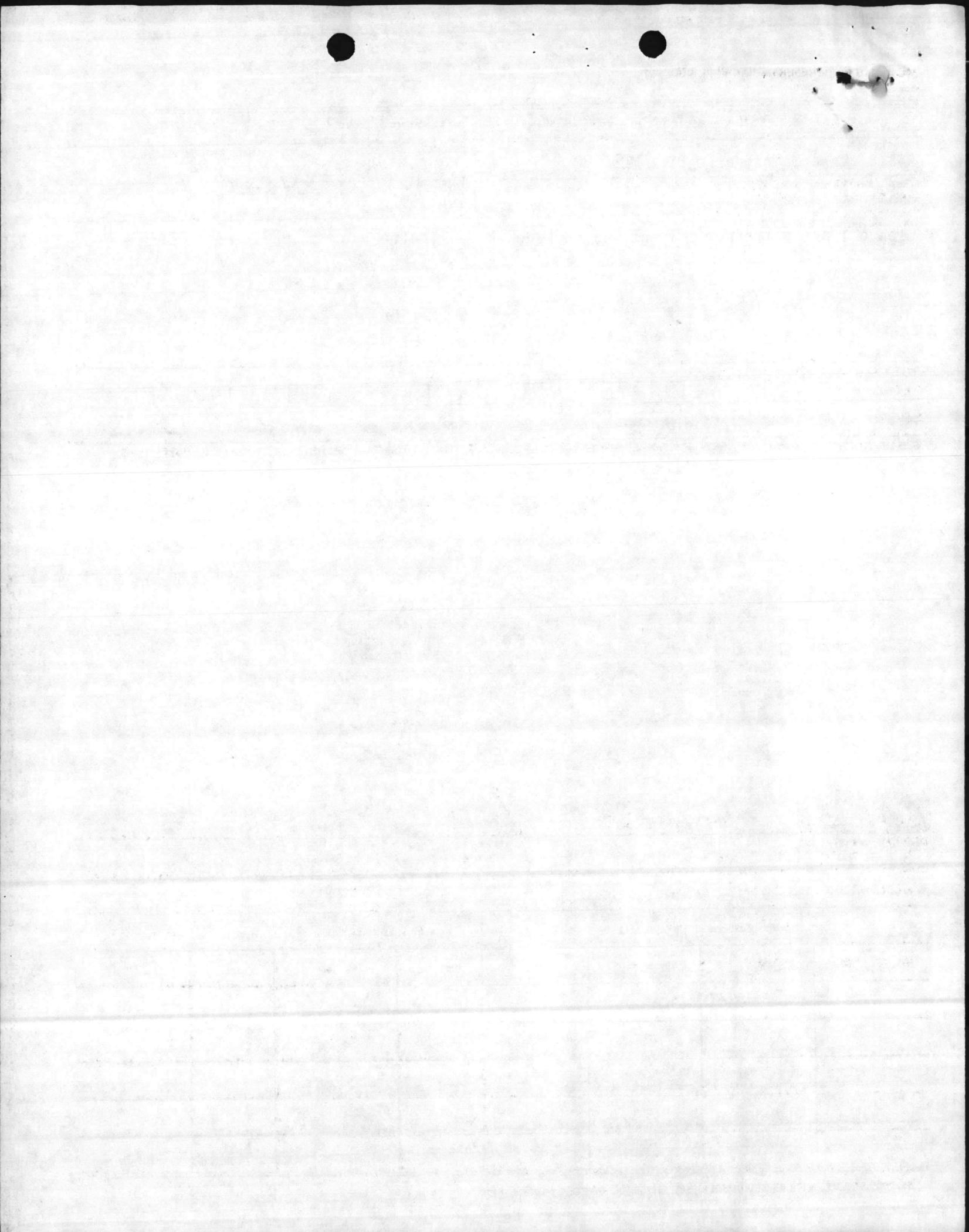
DETAILS (LIST INSIDE DIMENSIONS IF CONSTRUCTION IS DESIRED; COLOR OF PAINT, PATTERN AND NUMBER OF TACTICAL MARK, ANY SPECIAL INSTRUCTIONS)

AAI 32 0601 3228 T/u

| | | |
|--|----------------|---------------------------------------|
| DEAD LINE DELIVERY DATE 3 Aug 1981 | WR NO. 065 | SIGNATURE <i>Elizabeth A. Betz</i> |
| Spaces On and Below This Line For P&P Use Only | JON CHARGEABLE | P&P CONTROL NO. |

| WORK MEASUREMENT INFO PROJ 12 | | | | WORK MEASUREMENT INFO PROJ 11 & 94 TOTALS (LESS PROJ 12) | | | |
|-------------------------------|------|-------------|--|--|--------|----------|-------------|
| NO. OF ITEMS | TONS | NO. OF PKGS | | CUBE | WEIGHT | VEHICLES | BOXES BUILT |
| | | | | | | | |
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IF SPACES MARKED WITH AN ASTERISK (*) ARE FILLED IN, COMPLETE REVERSE SIDE



PACKAGING AND PRESERVATION WORK REQUEST
 MCBCL 4030 (REV 3, 70)

TO: PRESERVATION, PACKAGING AND PACKING BRANCH, MOWASP DIV., BMATBN, MCB, CLNC

| | | |
|---|---------------------|--------------------------------|
| FROM (UNIT) NREAB, Base Maintenance Div, MCBCLNC | DATE 28 Jul 1981 | UNIT PRIORITY DESIGNATOR 02 |
| PERSON FAMILIAR WITH WORK REQUESTED Elizabeth A. Betz, Chemist | PHONE 451-5977 | BLDG NO. 65 |

FOLLOWING WORK IS REQUESTED
 Used oil and petroleum solvents to package in vermiculite.

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|--|---|---------------------------------|---|--|--|
| TYPE WORK REQUESTED (X) | | | | | |
| (*)PACKAGE AND PRESERVE <input type="checkbox"/> | LEVEL <input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C | | (*)PACK <input type="checkbox"/> | LEVEL <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C | |
| CONSTRUCT | BOXES <input type="checkbox"/> | CRATES <input type="checkbox"/> | PAINT AND MARK <input type="checkbox"/> | TACTICAL MARK <input type="checkbox"/> | YES <input type="checkbox"/> NO <input type="checkbox"/> |

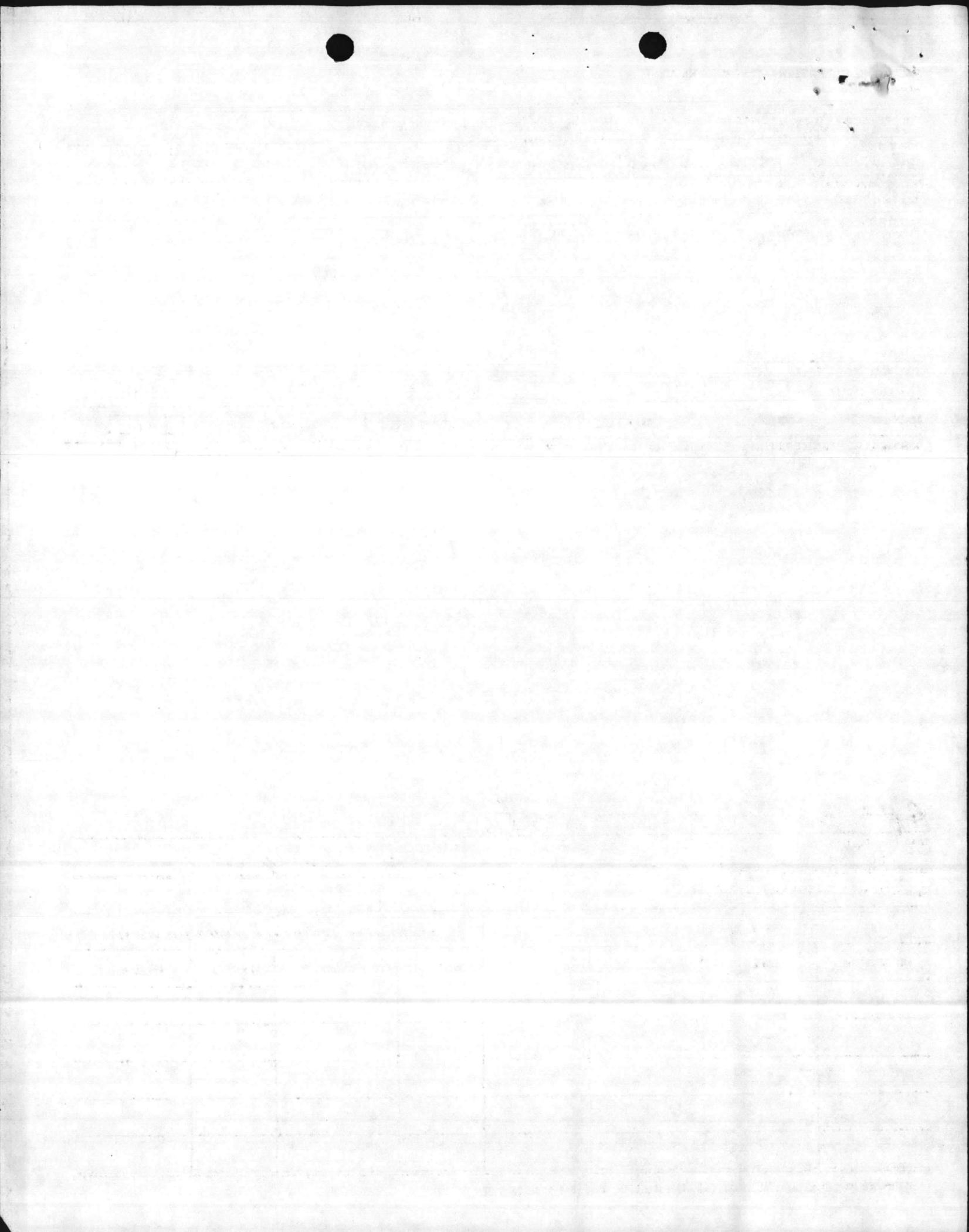
DETAILS (LIST INSIDE DIMENSIONS IF CONSTRUCTION IS DESIRED; COLOR OF PAINT, PATTERN AND NUMBER OF TACTICAL MARK, ANY SPECIAL INSTRUCTIONS)

AA1 32 0601 3228 T/u

| | | |
|--|----------------|---------------------------------------|
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|-------------------------------|------|-------------|--|--|--------|----------|-------------|
| NO. OF ITEMS | TONS | NO. OF PKGS | | CUBE | WEIGHT | VEHICLES | BOXES BUILT |
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IF SPACES MARKED WITH AN ASTERISK (*) ARE FILLED IN, COMPLETE REVERSE SIDE



PACKAGING AND PRESERVATION WORK REQUEST
 MCBCL 4030 (REV 3-70)

TO: PRESERVATION, PACKAGING AND PACKING BRANCH, MOWASP DIV., BMATBN, MCB, CLNC

| | | |
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| CONSTRUCT | BOXES <input type="checkbox"/> CRATES <input type="checkbox"/> | PAINT AND MARK <input type="checkbox"/> | TACTICAL MARK <input type="checkbox"/> YES <input type="checkbox"/> NO |

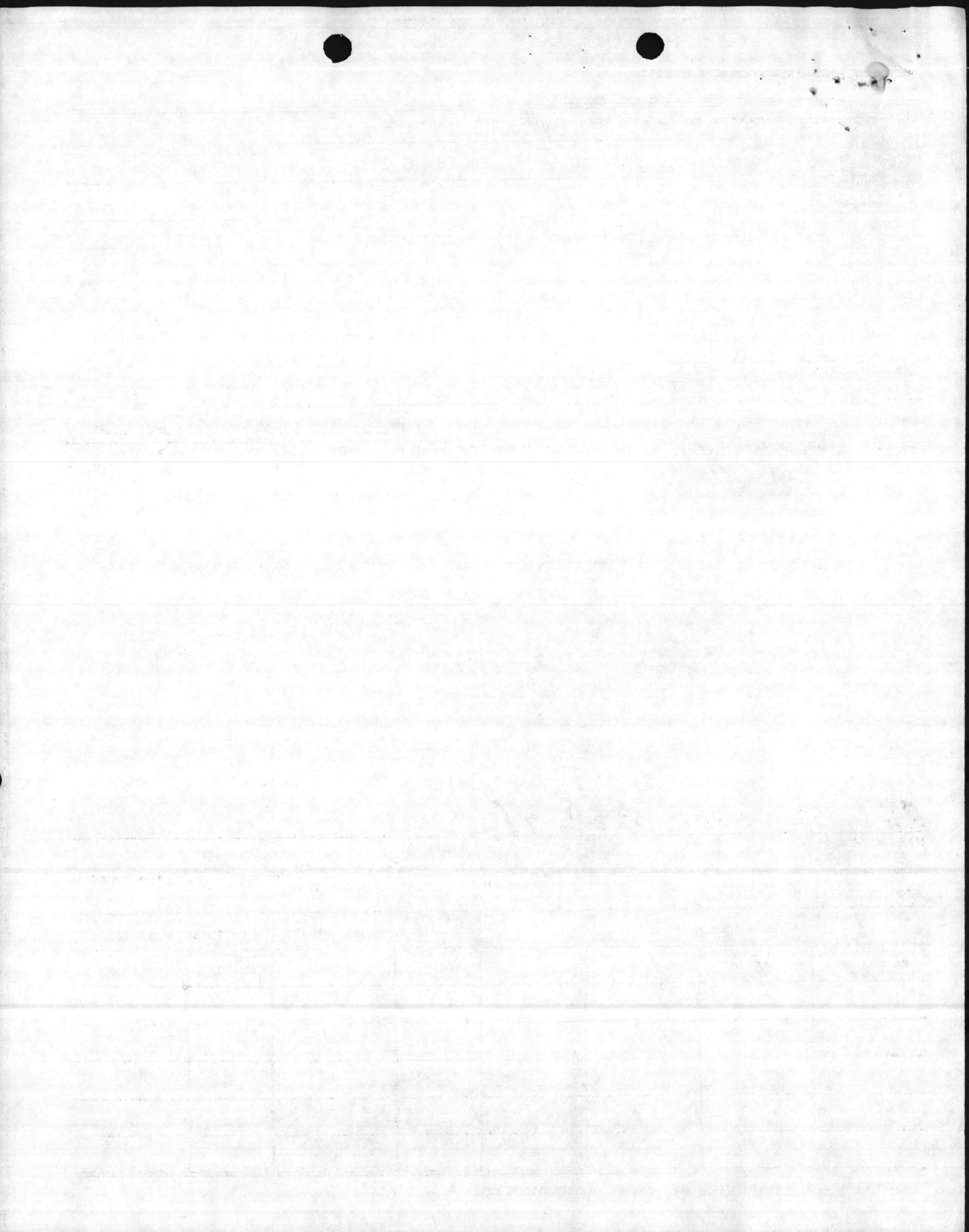
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AAI 32 0601 3228 T/u

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| Spaces On and Below This Line For P&P Use Only | JOB CHARGEABLE | P&P CONTROL NO. |

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|-------------------------------|------|-------------|--|--|--------|----------|-------------|
| NO. OF ITEMS | TONS | NO. OF PKGS | | CUBE | WEIGHT | VEHICLES | BOXES BUILT |
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IF SPACES MARKED WITH AN ASTERISK (*) ARE FILLED IN, COMPLETE REVERSE SIDE



PACKAGING AND PRESERVATION WORK REQUEST

MCBCL 4030 (REV 3-70)

TO: PRESERVATION, PACKAGING AND PACKING BRANCH, MOWASP DIV., BMATBN, MCB, CLNC

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| CONSTRUCT | BOXES <input type="checkbox"/> CRATES <input type="checkbox"/> | PAINT AND MARK <input type="checkbox"/> | TACTICAL MARK <input type="checkbox"/> YES <input type="checkbox"/> NO |

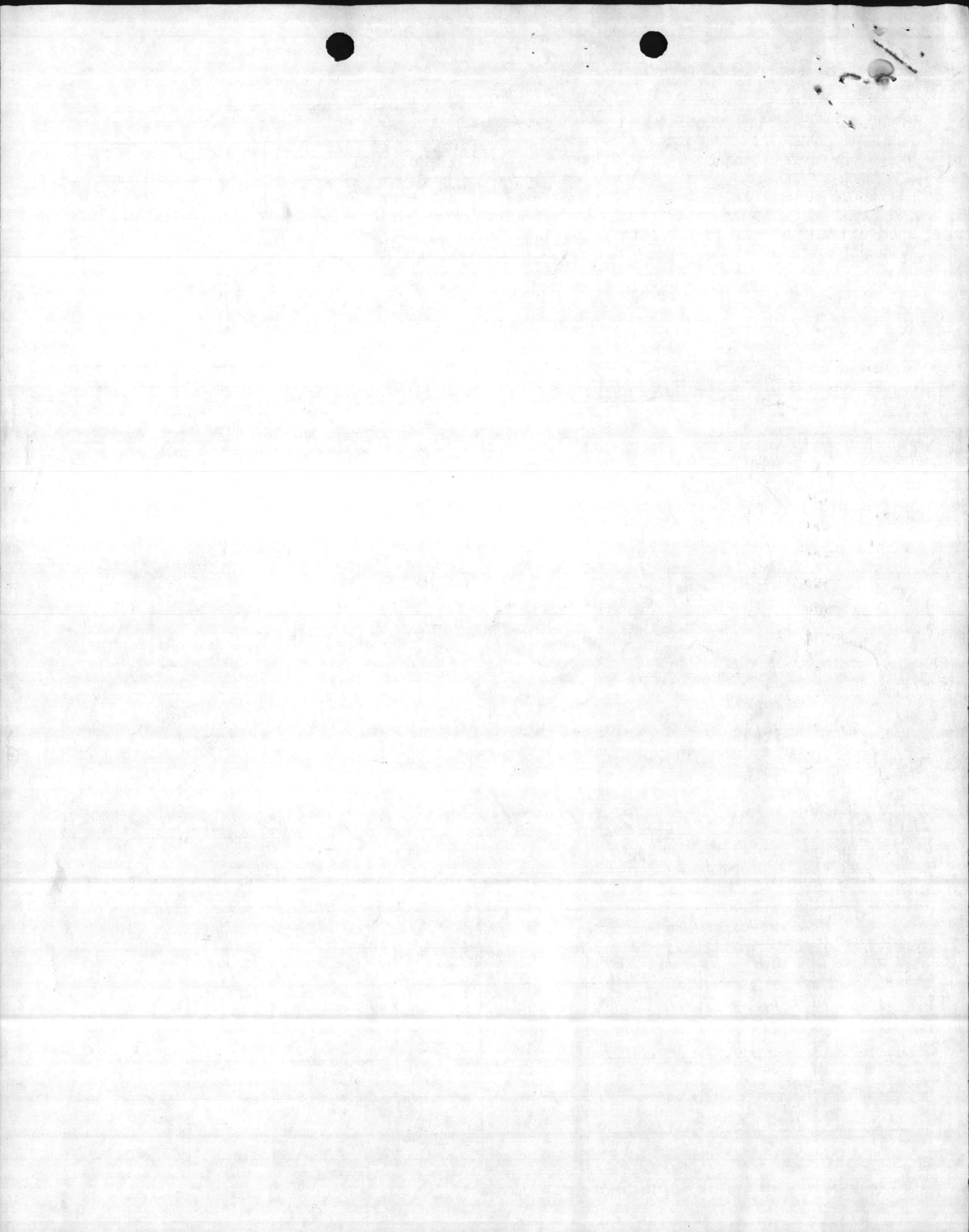
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IF SPACES MARKED WITH AN ASTERISK (*) ARE FILLED IN, COMPLETE REVERSE SIDE



JENNINGS LABORATORIES, INC.

ANALYTICAL AND CONSULTING CHEMISTS

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ASBESTOS ANALYSIS - NIOSH 582

NATIONAL SOYBEAN
PROCESSORS ASSOCIATION

CERTIFIED OFFICIAL U.S.D.A. LABORATORY
FOR MEAT ANALYSIS

CERTIFICATE OF ANALYSIS

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

DATE: August 12, 1981

SAMPLE OF WASTE OIL TANK SAMPLE FOR COMPOSITE FROM MCB CAMP LEJEUNE

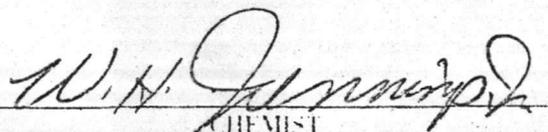
MARKED Sample #1 - 3' from top; Sample #2 - 7' from top; Sample #3 - 11' from top
and Sample #4 - 15' from Top. Samples picked up by JENNINGS LABORATORIES, INC
August 5, 1981

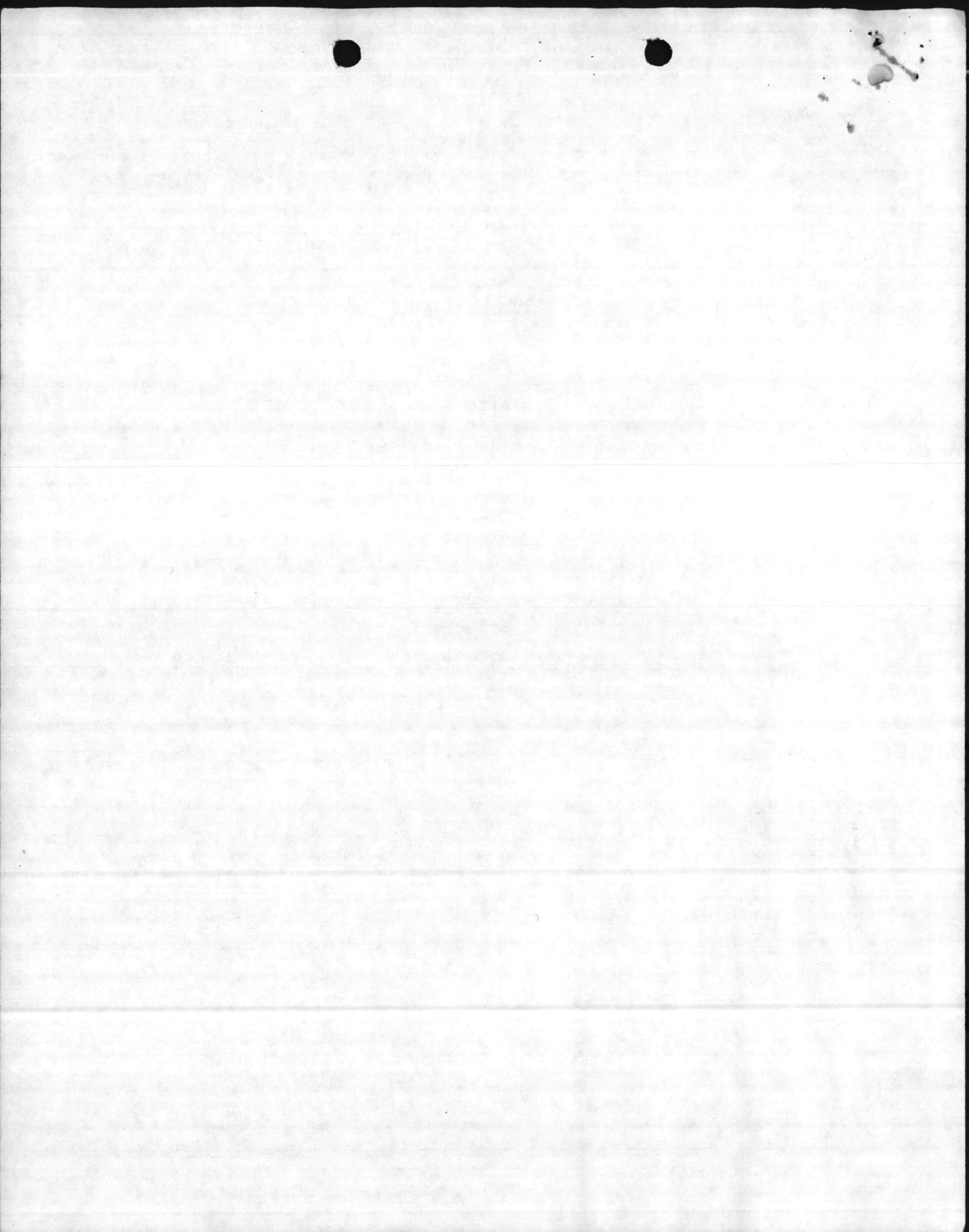
OFFICIAL SAMPLE BY: _____

| PRIORITY POLLUTANTS | PURGEABLE ORGANICS | DETECTION LIMITS $\mu\text{g/l}$ |
|---------------------------|--------------------|----------------------------------|
| Acrolein | None Detected | 2.0 |
| Acrylonitrile | None Detected | 2.0 |
| Benzene | None Detected | 10.0 |
| Toluene | 12 ppb | 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 | 4 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 |

Respectfully submitted,
JENNINGS LABORATORIES, INC.

Laboratory
Analysis No. 430


CHEMIST



PURGEABLE ORGANICS (continued) DETECTION LIMITS $\mu\text{g}/\text{l}$

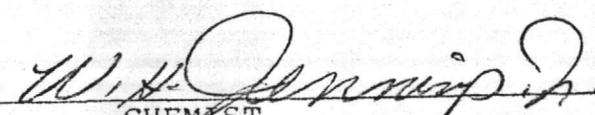
| | | |
|----------------------------|---------------|------|
| Chloroform | None Detected | .010 |
| 1,2-Dichloropropane | None Detected | .004 |
| 1,3-Dichloropropane | None Detected | .006 |
| Methylene Chloride | None Detected | .010 |
| Methyl Chloride | None Detected | .009 |
| Methyl Bromide | 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 | 1 ppb | .005 |
| Vinyl Chloride | None Detected | .01 |
| 1,2-trans-Dichloroethylene | None Detected | .006 |
| bis(chloromethyl) ether | None Detected | .003 |

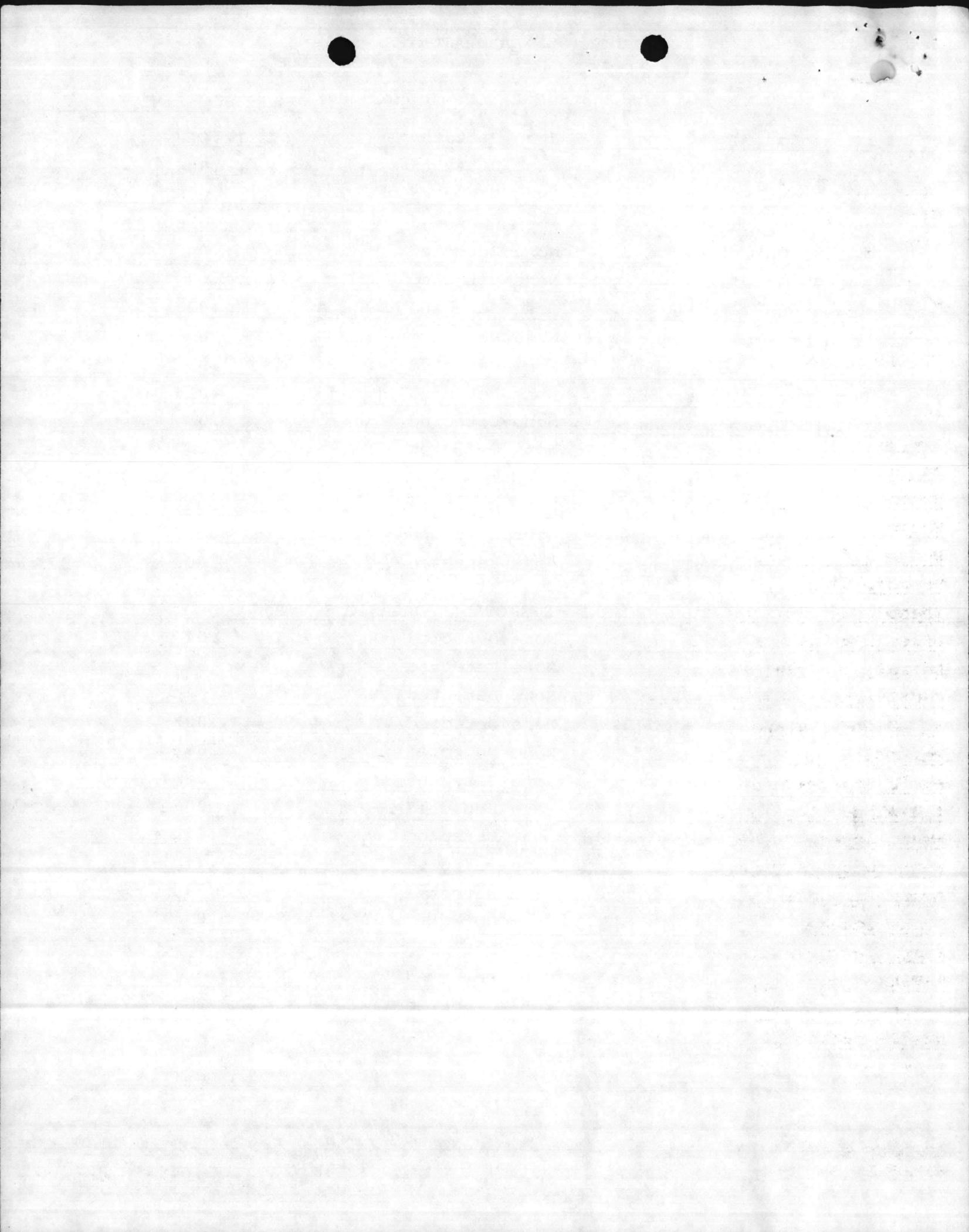
BASE/NEUTRAL EXTRACTABLE ORGANIC COMPOUNDS

| | | |
|-----------------------------|---------------|------|
| 1,2-Dichlorobenzene | None Detected | .04 |
| 1,3-Dichlorobenzene | None Detected | .04 |
| 1,4-Dichlorobenzene | None Detected | .04 |
| Hexachloroethane | None Detected | .001 |
| Hexachlorobutadiene | None Detected | .001 |
| Hexachlorobenzene | None Detected | .002 |
| 1,2,4-Trichlorobenzene | None Detected | .006 |
| Bis(2-Chloroethoxy) methane | None Detected | .40 |
| Naphthalene | None Detected | .04 |
| 2-Chloronaphthalene | None Detected | .04 |
| Isophorone | None Detected | 5.0 |
| Nitrobenzene | None Detected | 5.0 |
| 2,4-Dinitrotoluene | None Detected | .06 |
| 2,6-Dinitrotoluene | None Detected | .06 |

LAB # 430

BY


 CHEMIST

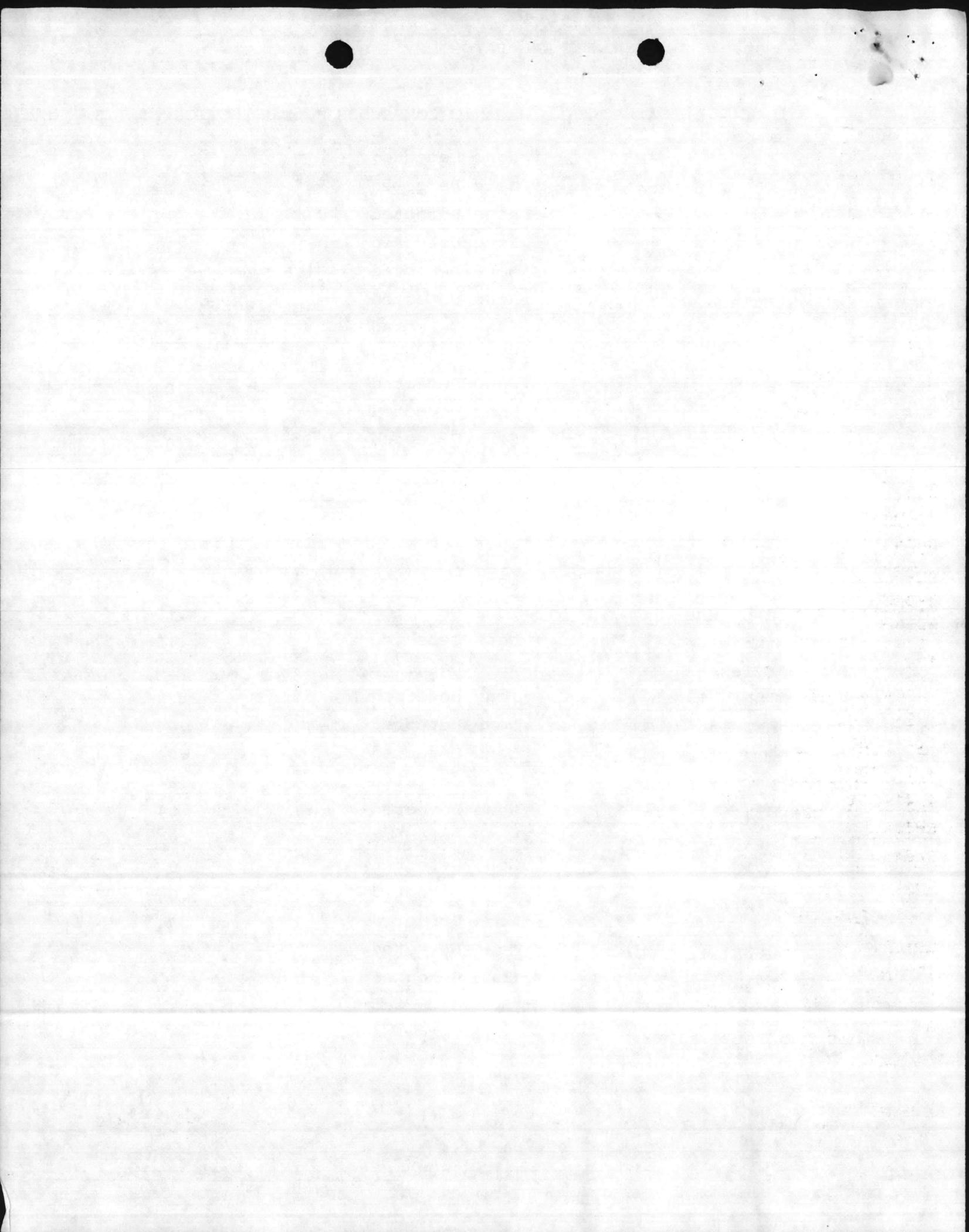


BASE NEUTRAL EXTRACTABLE ORGANIC COMPOUNDS

DETECTION LIMITS $\mu\text{g/l}$

| | | |
|-----------------------------|---------------|-----|
| 4-Bromophenyl phenyl ether | None Detected | 1.1 |
| bis(2-Ethylhexyl)phthalate | None Detected | .02 |
| Di-n-octyl phthalate | None Detected | .11 |
| Dimethyl phthalate | None Detected | .11 |
| Diethyl phthalate | None Detected | .13 |
| Di-n-butyl phthalate | None Detected | .02 |
| Fluorene | None Detected | .04 |
| Fluoranthene | None Detected | .04 |
| Crysene | None Detected | .04 |
| Pyrene | None Detected | .04 |
| Phenathrene | None Detected | .04 |
| Anthracene | None Detected | .04 |
| Benzo (a) anthracene | None Detected | .04 |
| Benzo (b) fluoranthene | None Detected | .04 |
| Benzo (k) fluoranthene | None Detected | .04 |
| Benzo (a) pyrene | None Detected | .04 |
| Ideno (1,2,3-c,d) pyrene | None Detected | .10 |
| Dibenzo (a,h) anthracene | None Detected | .10 |
| Benzo (g,h,i) perylene | None Detected | .10 |
| 4-Chlorophenyl phenyl ether | None Detected | 2.2 |
| 3,3-Dichlorobenzidine | None Detected | .04 |
| Benzidine | None Detected | .04 |
| Bis(2-Chloroethyl) ether | None Detected | .04 |
| 1,2-Diphenylhydrazine | None Detected | .04 |
| Hexachlorocyclopentadiene | None Detected | .04 |
| N-Nitrosodiphenylamine | None Detected | 1.0 |
| Acenaphthylene | None Detected | .04 |
| Acenaphthene | None Detected | .04 |
| Butyl benzyl phthalate | None Detected | .04 |
| N-Nitrosodimethylamine | None Detected | .2 |
| N-Nitrosodi-n-propylamine | None Detected | .5 |
| bis(2-Chlorisopropyl) ether | None Detected | .9 |

W.A. Jennings, Jr.



ACID EXTRACTABLE ORGANIC COMPOUNDS

DETECTION LIMIT $\mu\text{g/l}$

| | | |
|-----------------------|---------------|------|
| Phenol | 16 ppm | 1.4 |
| 2-Nitrophenol | None Detected | 2.5 |
| 4-Nitrophenol | None Detected | 2.5 |
| 2,4-Dinitrophenol | None Detected | 7.0 |
| 4,6-Dinitro-o-cresol | None Detected | 2.0 |
| Pentachlorophenol | .09 ppm | 10.0 |
| p-Chloro-m-cresol | None Detected | .01 |
| 2-Chlorophenol | .04 ppm | 2.0 |
| 2,4-Dichlorophenol | .01 ppm | 2.1 |
| 2,4,6-Trichlorophenol | .3 ppm | 5.0 |
| 2,4-Dimethylphenol | None Detected | 1.7 |

PESTICIDES/PCB'S

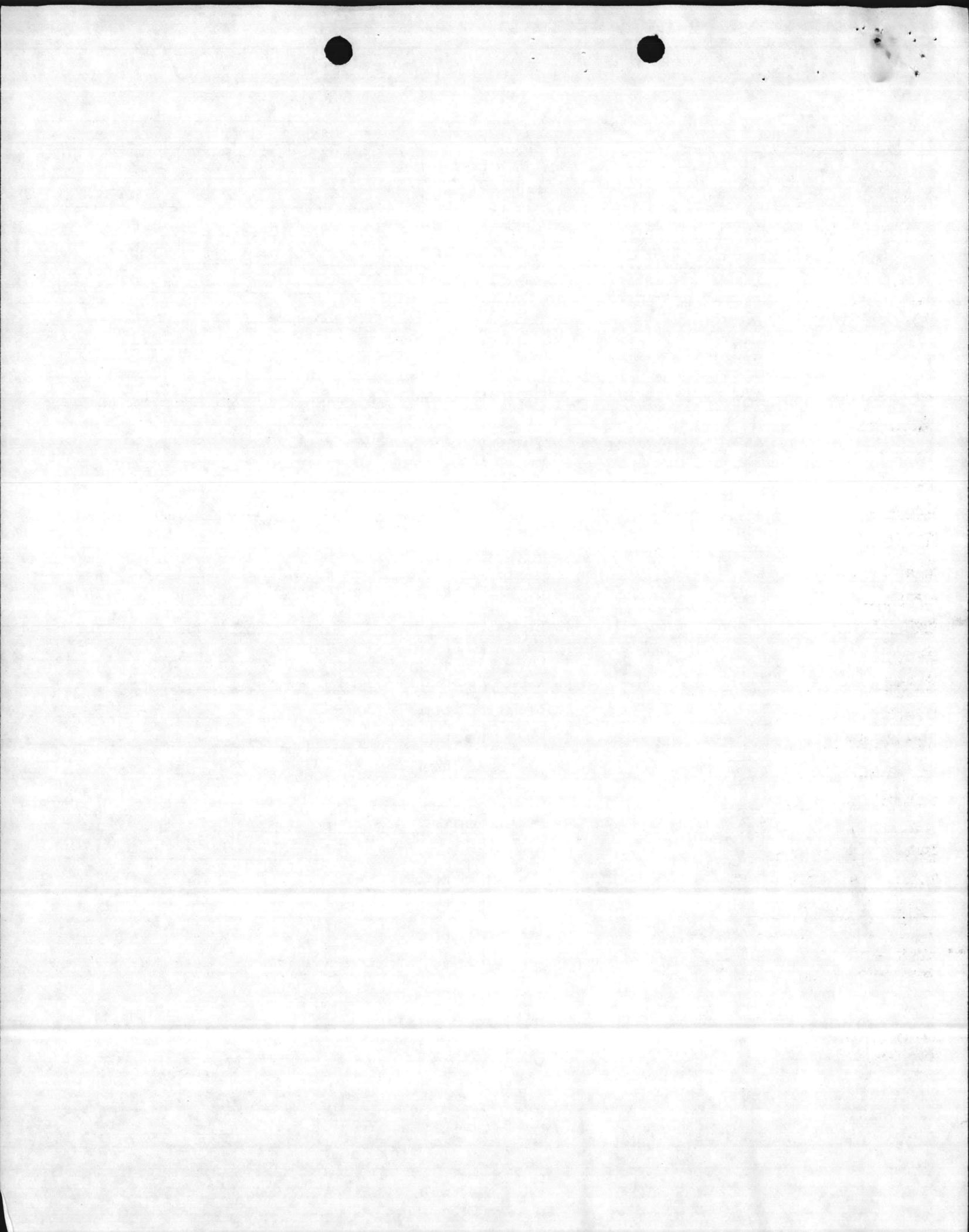
| | | |
|----------------------|---------------|------|
| α -Endosulfan | None Detected | .005 |
| β -Endosulfan | None Detected | .01 |
| Endosulfan Sulfate | None Detected | .03 |
| α -BHC | None Detected | .002 |
| β -BHC | None Detected | .004 |
| δ -BHC | None Detected | .004 |
| γ -BHC | None Detected | .002 |
| Aldrin | None Detected | .003 |
| Dieldrin | None Detected | .006 |
| 4,4'-DDE | None Detected | .006 |
| 4,4'-DDD | None Detected | .012 |
| 4,4'-DDT | None Detected | .016 |
| × Endrin | None Detected | .009 |
| Endrin Aldehyde | None Detected | .023 |
| Heptachlor | None Detected | .002 |
| Heptachlor Epoxide | None Detected | .004 |
| Chlordane | None Detected | .04 |
| × Toxaphene | None Detected | .40 |
| × Aroclor 1016 | None Detected | .04 |
| × Aroclor 1221 | None Detected | .10 |
| × Aroclor 1232 | None Detected | .10 |

LABORATORY
ANALYSIS NO. 430

PAGE -4-

BY


CHEMIST



JENNINGS LABORATORIES, INC.

| | PESTICIDES/PCB'S | DETECTION LIMITS $\mu\text{g/l}$ |
|---|--|----------------------------------|
| X | Aroclor 1242 | None Detected .06 |
| X | Aroclor 1248 | None Detected .08 |
| X | Aroclor 1254 | None Detected .08 |
| X | Aroclor 1260 | None Detected .15 |
| | 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | None Detected .003 |

| | METALS | DETECTION LIMITS mg/l |
|--|-----------|--------------------------------|
| | Antimony | <0.02 0.2 |
| | Arsenic | <0.002 0.002 |
| | Beryllium | <0.005 0.005 |
| | Cadmium | 1.88 0.002 |
| | Chromium | 0.16 0.02 |
| | Copper | 4.44 0.01 |
| | Lead | 376.00 0.005 |
| | Mercury | <0.002 0.002 |
| | Nickel | 0.36 0.02 |
| | Selenium | <0.002 0.002 |
| | Silver | 0.16 0.01 |
| | Thallium | <0.1 0.1 |
| | Zinc | 475.0 0.005 |
| | Barium | 1.08 |

** MISCELLANEOUS **

| | | |
|--|--------------------|---------------|
| | Total Cyanides | <0.01 0.01 |
| | Asbestos (fibrous) | None |
| | Total Phenols | 20.0 0.005 |

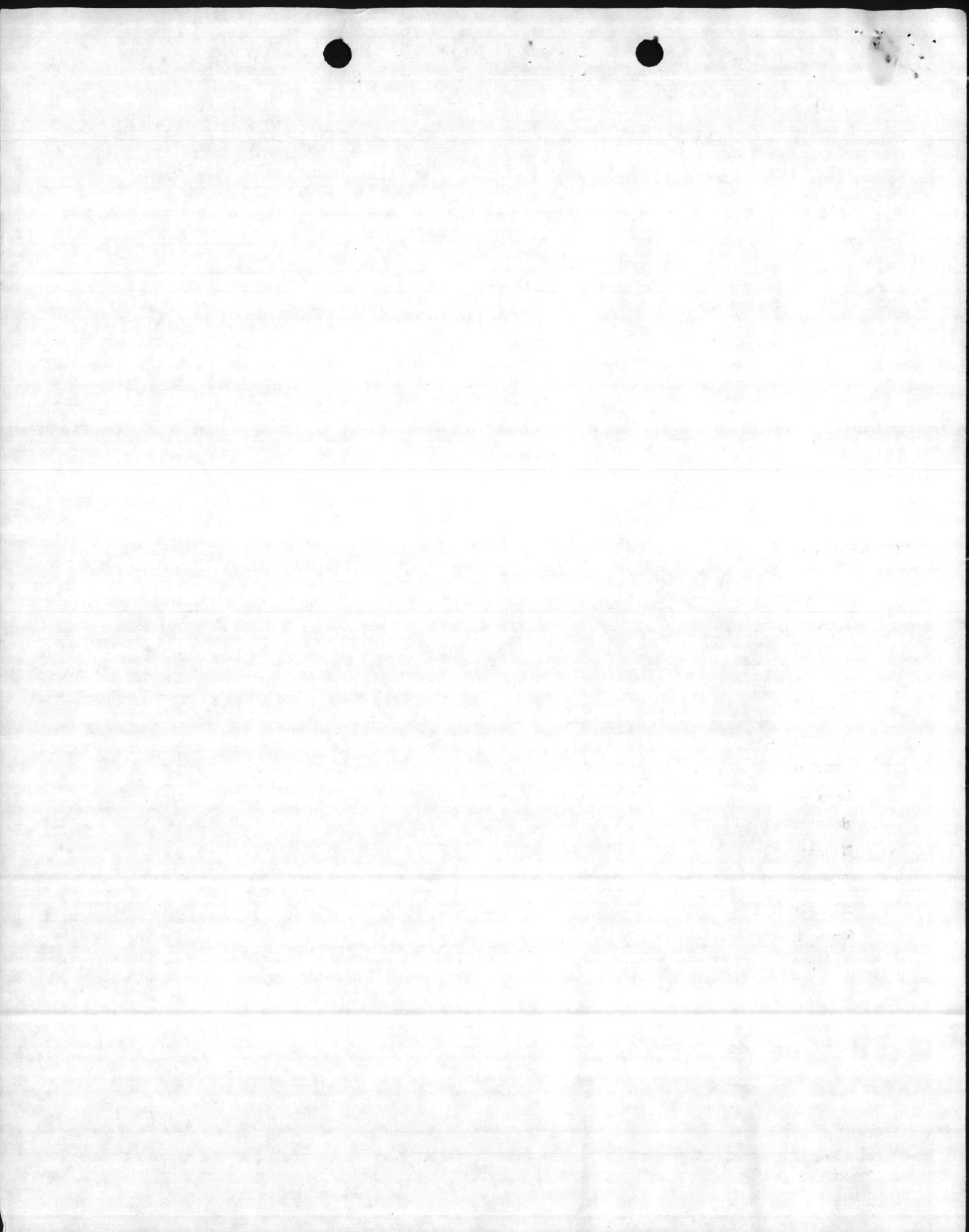
** SEE REPORT TYPED ON AUGUST 11, 1981 for Total Suspended Solids, % of Water, Specific Gravity, Ignitability, Corrosivity and Reactivity.

LABORATORY
ANALYSIS NO. 430

PAGE - 5 -

BY

W.H. Jennings
CHEMIST



JENNINGS LABORATORIES, INC.

ANALYTICAL AND CONSULTING CHEMISTS

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CERTIFIED OFFICIAL U.S.D.A. LABORATORY
FOR MEAT ANALYSIS

ASBESTOS ANALYSIS - NIOSH 582

CERTIFICATE OF ANALYSIS

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

DATE: August 11, 1981

SAMPLE OF WASTE OIL TANK SAMPLE

MARKED MCB CAMP LEJEUNE

Sample picked up by JENNINGS LABORATORIES, INC. 8/05/81

OFFICIAL SAMPLE BY: _____

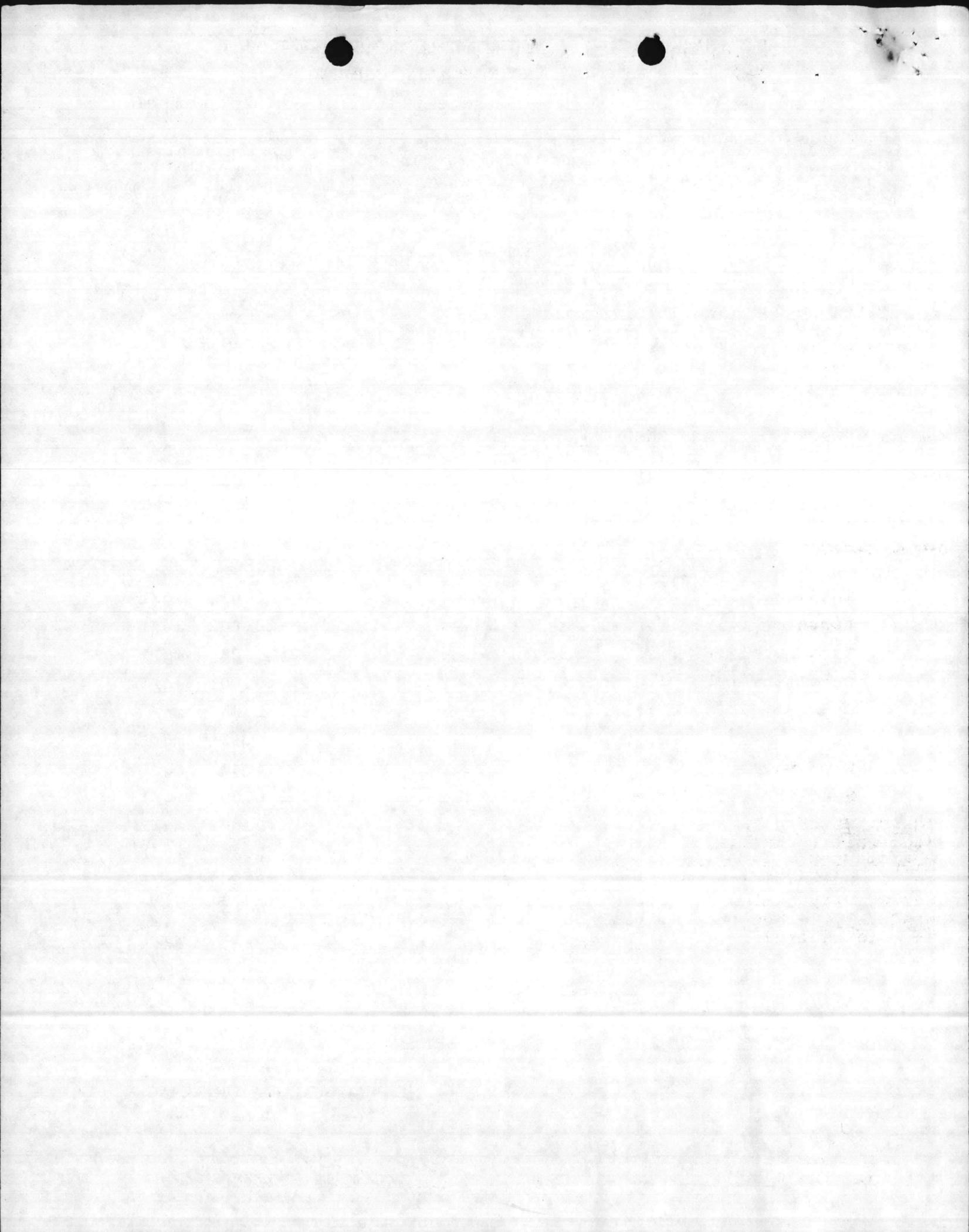
PAGE -1-

| | | |
|---------------------|--------|------|
| Antimony | <0.02 | mg/l |
| Arsenic | <0.002 | mg/l |
| Barium | 1.08 | mg/l |
| Beryllium | <0.005 | mg/l |
| Cadmium | 1.88 | mg/l |
| Chromium | 0.16 | mg/l |
| Copper | 4.44 | mg/l |
| Lead | 376.00 | mg/l |
| Mercury | <0.002 | mg/l |
| Nickel | 0.36 | mg/l |
| Selenium | <0.002 | mg/l |
| Silver | 0.16 | mg/l |
| Thallium | <0.1 | mg/l |
| Zinc | 475.0 | mg/l |

Respectfully submitted,
JENNINGS LABORATORIES, INC.

Laboratory
Analysis No. 430

W. A. Jennings
CHEMIST



JENNINGS LABORATORIES, INC.

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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: August 11, 1981

SAMPLE OF WASTE OIL TANK SAMPLE

MARKED MCB CAMP LEJEUNE

OFFICIAL SAMPLE BY: _____

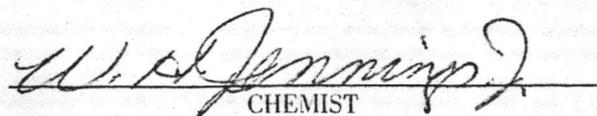
PAGE -2-

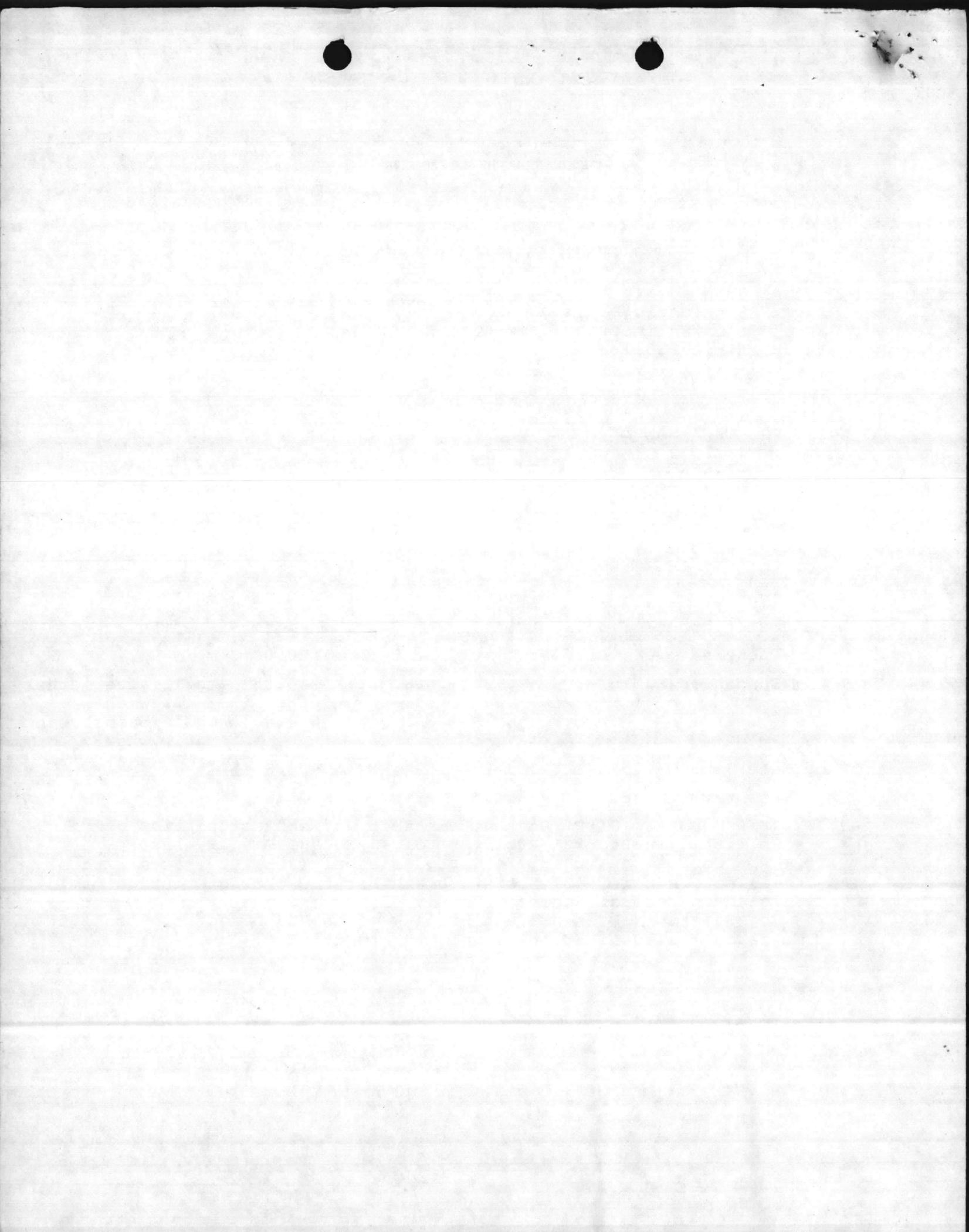
| | | |
|-----------------------------------|--------|--------------------------|
| Total Cyanides | <0.01 | mg/l |
| Asbestos (fibrous) | None | |
| Total Phenols | 20.0 | mg/l |
| Total Suspended Solids | 246.66 | mg/l (after ether wash) |
| | 680.0 | mg/l (before ether wash) |
| % of Water | 5.8 | % |
| Specific Gravity @ 60°F | .8815 | |

IGNITABILITY (Flash Point 181°F) Does not exhibit any characteristics of ignitability as listed in Federal Register Vol.45, No.98, May 19, 1980
CORROSIVITY - Non Corrosive - pH 6.72. Corrodes steel (SAE 1020) at a rate of <0.01 mmpy (millimeters per year). Does not exhibit the characteristics of corrosivity listed in Federal Register May 19, 1980.
REACTIVITY - Non Reactive. Does not exhibit any of the 8 characteristics listed in Federal Register May 19, 1980 that indicates reactivity.

Respectfully submitted,
JENNINGS LABORATORIES, INC.

Laboratory
Analysis No. 430


CHEMIST



PACKAGING AND PRESERVATION WORK REQUEST

MCBCL 4030 (REV 3-70)

TO: PRESERVATION, PACKAGING AND PACKING BRANCH, MOWASP DIV., BMBATBN, MCB, CLNC

| | | |
|--|----------------------|--------------------------------|
| FROM (UNIT) NREAB, BASE MAINTENANCE ^{DIU} DET , MCB | DATE 28 JULY 1981 | UNIT PRIORITY DESIGNATOR 02 |
| PERSON FAMILIAR WITH WORK REQUESTED ELIZABETH A. BETZ, CHEMIST | PHONE - 451-5977 | BLDG NO. 65 |

FOLLOWING WORK IS REQUESTED

USED OIL AND PETROLEUM SOLVENTS TO PACKAGE IN VERMICULITE.

| | | | | | | | |
|--|---|----------------------------------|--|---------------|--|--|--|
| TYPE WORK REQUESTED (X) | | | | | | | |
| (*)PACKAGE AND PRESERVE <input type="checkbox"/> | LEVEL <input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C | (*)PACK <input type="checkbox"/> | LEVEL <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C | | | | |
| CONSTRUCT | BOXES <input type="checkbox"/> | CRATES <input type="checkbox"/> | PAINT AND MARK <input type="checkbox"/> | TACTICAL MARK | <input type="checkbox"/> YES <input type="checkbox"/> NO | | |

DETAILS (LIST INSIDE DIMENSIONS IF CONSTRUCTION IS DESIRED; COLOR OF PAINT, PATTERN AND NUMBER OF TACTICAL MARK, ANY SPECIAL INSTRUCTIONS)

USED OIL AND PETROLEUM SOLVENTS

| | | |
|--|----------------|--|
| DEAD LINE DELIVERY DATE 3 AUGUST 1981 | WR NO. 065 | SIGNATURE <i>Elizabeth A. Betz</i> ELIZABETH A. BETZ 3 |
| Spaces On and Below This Line For P&P Use Only | JON CHARGEABLE | P&P CONTROL NO. |

| WORK MEASUREMENT INFO PROJ 12 | | | | WORK MEASUREMENT INFO PROJ 11 & 94 TOTALS (LESS PROJ 12) | | | |
|-------------------------------|------|-------------|--|--|--------|----------|-------------|
| NO. OF ITEMS | TONS | NO. OF PKGS | | CUBE | WEIGHT | VEHICLES | BOXES BUILT |
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IF SPACES MARKED WITH AN ASTERISK (*) ARE FILLED IN, COMPLETE REVERSE SIDE

| LINE ITEMS | NOMENCLATURE | FSN | QUANTITY | UNIT OF ISSUE | NO. PER INTERMEDIATE PACKAGE | NO. OF ITEMS PER PACK | ITEMS PER MULTIPLE PACK NO. OF PACK |
|------------|--------------|-----|----------|---------------|------------------------------|-----------------------|-------------------------------------|
| 1. | | | | | | | |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |
| 6. | | | | | | | |
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| 9. | | | | | | | |
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| 11. | | | | | | | |
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| 18. | | | | | | | |
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| 20. | | | | | | | |
| 21. | | | | | | | |
| 22. | | | | | | | |
| 23. | | | | | | | |
| 24. | | | | | | | |
| 25. | | | | | | | |
| 26. | | | | | | | |
| 27. | | | | | | | |

DATE RECORDED BY P&P BRANCH

PICKED UP BY

DATE COMPLETED BY P&P BRANCH

DATE

BUDG 45 TANK

6241/2A

