

N60200.AR.002071
NAS CECIL FIELD, FL
5090.3a

SITE ASSESSMENT REPORT FOR BUILDING 607 TANK 607 BASE REALIGNMENT AND
CLOSURE UNDERGROUND STORAGE TANK AND ABOVEGROUND STORAGE TANK
GREY SITES REVISION 2 NAS CECIL FIELD FL
9/1/1999
HARDING LAWSON ASSOCIATES

SITE ASSESSMENT REPORT
BUILDING 607, TANK 607
BASE REALIGNMENT AND CLOSURE
UNDERGROUND STORAGE TANK AND
ABOVEGROUND STORAGE TANK GREY SITES
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

NEA

Unit Identification Code: N60200

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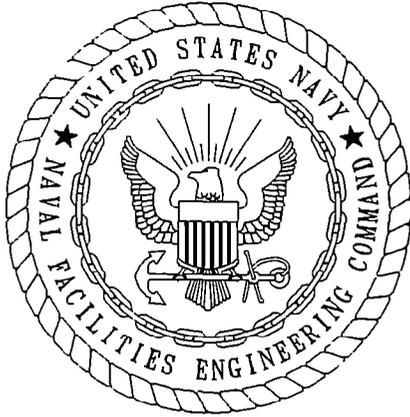
Prepared for:

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September 1999

Revision 2.0



CERTIFICATION OF TECHNICAL
DATA CONFORMITY (MAY 1987)

The Contractor, Harding Lawson Associates, hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-89-D-0317/090 are complete and accurate and comply with all requirements of this contract.

DATE: September 22, 1999

NAME AND TITLE OF CERTIFYING OFFICIAL: Rao Angara
Task Order Manager

NAME AND TITLE OF CERTIFYING OFFICIAL: Eric A. Blomberg, P.G.
Project Technical Lead

(DFAR 252.227-7036)

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Naval Air Station Cecil Field
Jacksonville, Florida

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GLOSSARY

| | |
|--------|--|
| ABB-ES | ABB Environmental Services, Inc. |
| bls | below land surface |
| FDEP | Florida Department of Environmental Protection |
| HLA | Harding Lawson Associates |
| OVA | organic vapor analyzer |
| ppm | parts per million |
| SA | site assessment |
| TRPH | total recoverable petroleum hydrocarbons |
| UST | underground storage tank |

1.0 INTRODUCTION

Harding Lawson Associates (HLA), under contract to the Southern Division, Naval Facilities Engineering Command, has completed the Site Assessment (SA) for Tank 607 at Naval Air Station Cecil Field in Jacksonville, Florida. This report summarizes the related field operations, results, conclusions, and recommendations of the SA.

Tank 607 was an underground storage tank (UST) located at Building 607, which is the Yellow Water Weapons Department Administration Building (Figure 1). The UST, which was installed in 1959, had a 1,000-gallon capacity and was used to store fuel oil for on-site heating (ABB Environmental Services, Inc. [ABB-ES], 1997a). According to the Environmental Baseline Survey (ABB-ES, 1994), Tank 607 was removed in 1992. No removal or closure information is available for Tank 607.

A contamination assessment plan for the assessment of soil and groundwater at Tank 607 was prepared by HLA (then ABB-ES) in November 1996 (ABB-ES, 1996). Results of the contamination assessment are presented in the Confirmatory Sampling Report, which recommended that additional soil assessment be conducted to delineate the extent of excessively contaminated soil (ABB-ES, 1997b).

A soil source removal was conducted by CH2M Hill in January 1999 to remove contaminated soil greater than cleanup target levels. After the source removal, a site assessment report was prepared by HLA in April 1999 (HLA, 1999). The SA report recommended that a monitoring well be installed in the source area to assess the presence of groundwater contamination after the source removal.

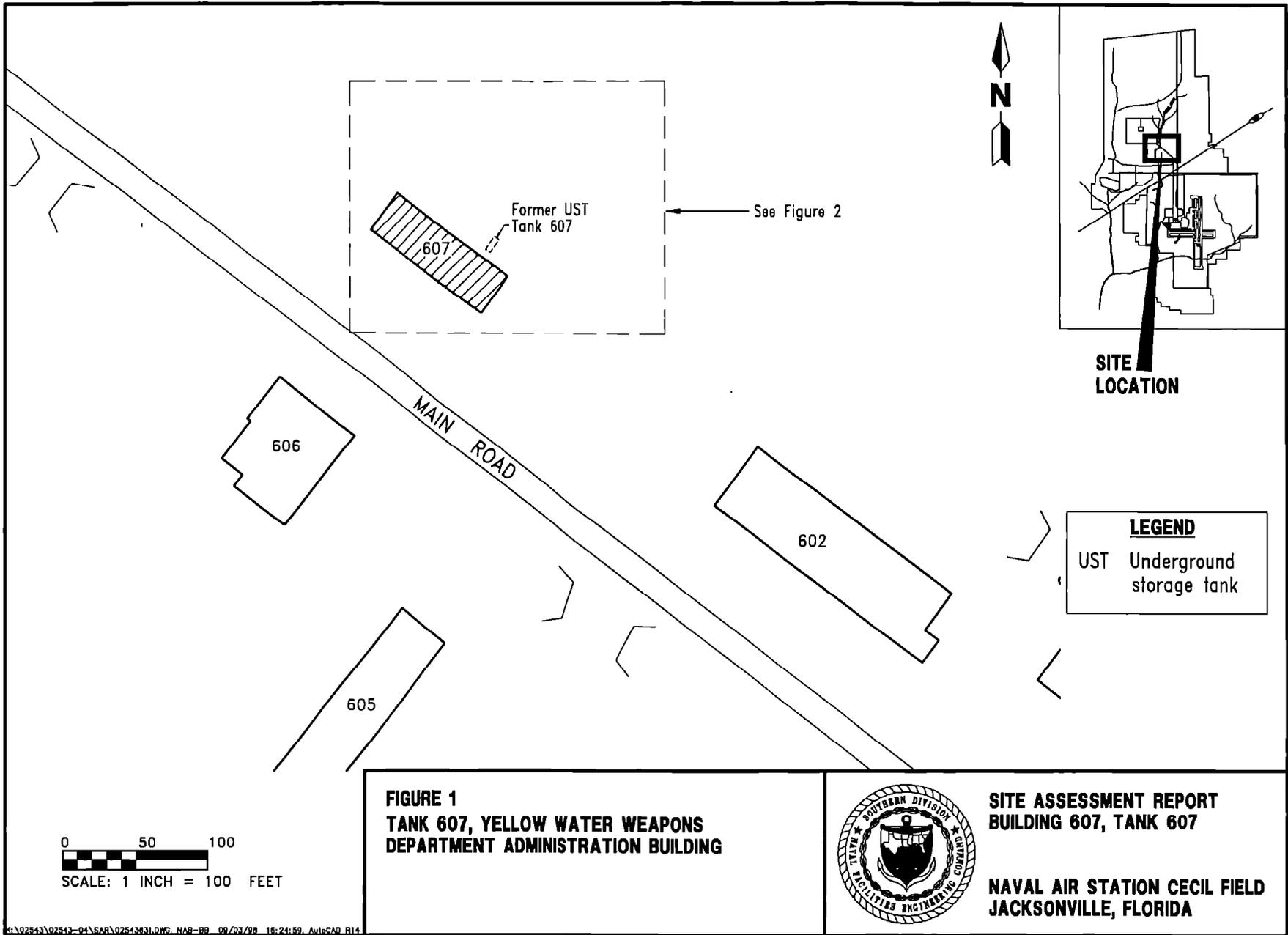
2.0 FIELD INVESTIGATION

The SA for Tank 607 was initiated in October 1997 and included

- the advancement of 10 soil borings to the water table,
- collection and analysis of three subsurface soil samples,
- installation of three piezometers and two monitoring wells, and
- collection of two groundwater samples.

Soil samples were collected from each boring at depth intervals of 1 foot below land surface (bls) and every 2 feet thereafter to the water table. These samples were screened for hydrocarbon vapors with an organic vapor analyzer (OVA). Three subsurface soil samples were collected on April 16, 1998, at soil boring locations with varying levels of petroleum contamination and analyzed for the Kerosene Analytical Group parameters. Samples CEF-607-SB1, CEF-607-SB4, and CEF-607-SB5 were collected from 3 to 4 feet bls, 1 to 3 feet bls, and 3 feet bls, respectively.

Monitoring well CEF-607-1S was installed during the original confirmatory sampling. Monitoring well construction details are presented in Appendix A. The well was abandoned during the source removal and a replacement monitoring well CEF-607-1S was installed in the source area after the source removal was completed. Three piezometers were installed after the source removal to identify groundwater flow direction. Groundwater flow direction was identified to be to



the northwest and a downgradient monitoring well (CEF-607-2S) was installed (Figure 2).

A general site plan indicating the location of the soil borings is presented on Figure 2.

3.0 SCREENING AND ANALYTICAL RESULTS

Excessively contaminated soil (greater than 50 parts per million [ppm] on an OVA) was detected in 6 of 10 soil borings advanced during the SA. The highest OVA reading (3,500 ppm) was detected at 3 feet bls from a sample collected from soil boring SB5. High levels of methane were also detected in the soil screening samples and may be causing the elevated OVA readings around the perimeter of the site. The extent of the excessively contaminated soil is presented on Figure 2. The soil OVA data are summarized in Table 1 and presented on Figure 2.

Xylene, benzo(a)anthracene, dibenz(a,h)anthracene, and total recoverable petroleum hydrocarbons (TRPH) were detected in subsurface soil samples (CEF-607-SB1 and CEF-607-SB4) at concentrations that exceeded Florida Department of Environmental Protection (FDEP) soil cleanup target levels. Subsurface soil analytical data are summarized in Table 2 and presented in Appendix B.

Approximately 298 cubic yards of petroleum contaminated soil was excavated by CH2M Hill in January 1999. The horizontal limits of the excavation had OVA readings less than 50 ppm. The Source Removal Report for Building 607 is included in Appendix C.

Xylene and benzo(a)anthracene were detected in groundwater at concentrations above cleanup target levels in March 1997. No contaminants were detected above cleanup target levels in groundwater samples collected in August 1999 after the source removal was completed. Analytical data is summarized in Table 3 and presented in Appendix B.

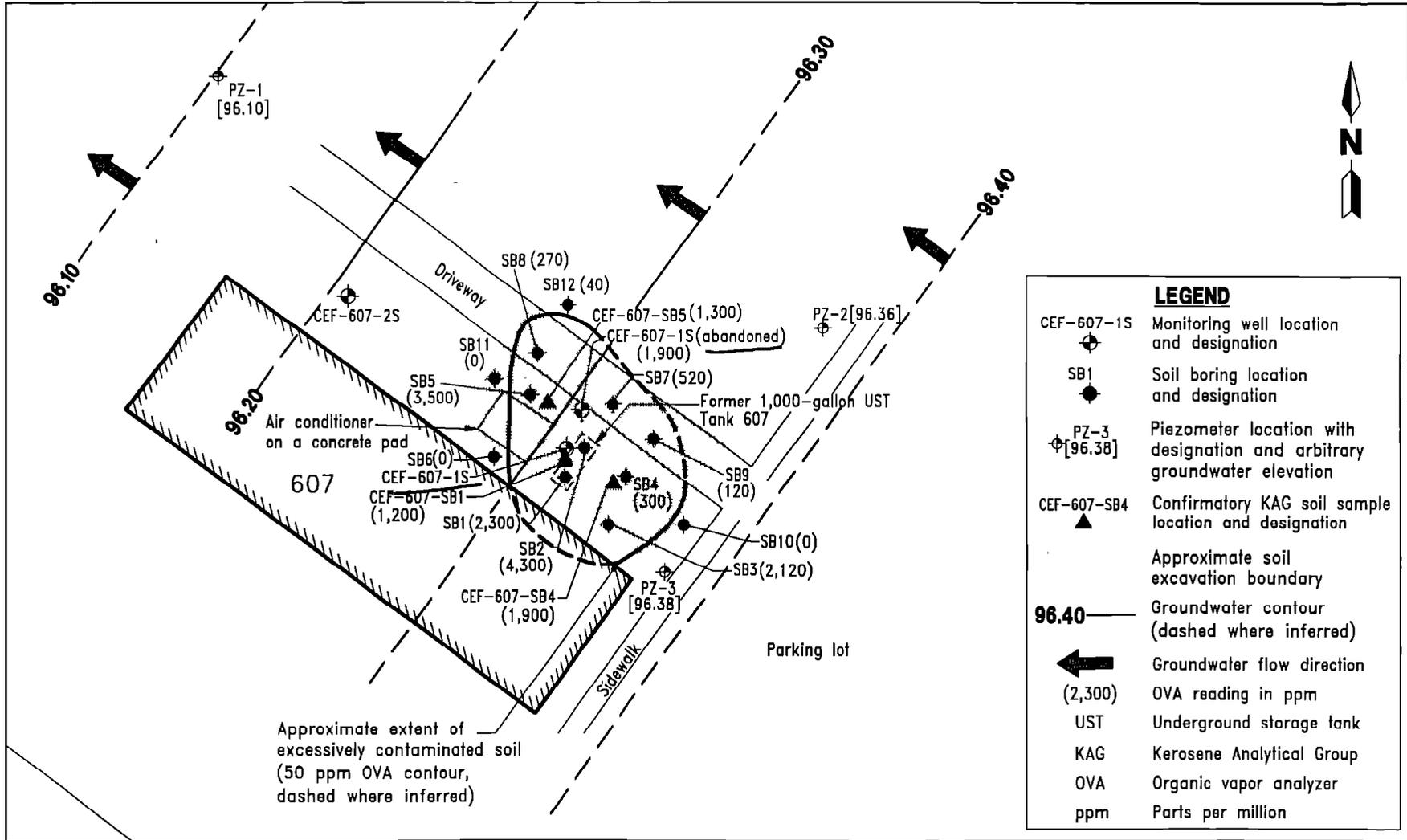
4.0 CONCLUSIONS AND RECOMMENDATIONS

Data obtained during the SA at the Tank 607 site provided adequate assessment of the horizontal and vertical extent of excessively contaminated soil. It appears that methane may be causing elevated OVA readings around the perimeter of the site, and delineation to 50 ppm was not completed.

During the SA xylene, benzo(a)anthracene, dibenz(a,h)anthracene, and TRPH were detected in subsurface soil samples (CEF-607-SB1 and CEF-607-SB4) at concentrations that exceeded FDEP soil cleanup target levels. However, petroleum contaminated soil was removed in January 1999 and the limits of the excavation had OVA readings less than 50 ppm.

No contaminants were detected above cleanup target levels in groundwater samples collected after the source removal.

No further action is recommended for the Tank 607 site.



**Table 1
Soil Screening Results**

Site Assessment Report
Building 607, Tank 607
Naval Air Station Cecil Field
Jacksonville, Florida

| Location | OVA Concentration (ppm) | | | |
|------------|-------------------------|------------|----------|--------|
| | Depth (feet bls) | Unfiltered | Filtered | Actual |
| SB1 | 1 | 0 | - | 0 |
| | 3 | 2,300 | 0 | 2,300 |
| | 5 | 2,000 | 0 | 2,000 |
| SB2 | 1 | 1,300 | 0 | 1,300 |
| | 3 | 4,300 | 0 | 4,300 |
| | 4.5 (wet) | 4,000 | 0 | 4,000 |
| CEF-607-1S | 2 | 1,900 | 0 | 1,900 |
| | 4 | 900 | 0 | 900 |
| | 6 (wet) | 420 | 0 | 420 |
| | 8 (wet) | 430 | 0 | 430 |
| | 11 (wet) | 150 | 0 | 150 |
| SB3 | 1 | 0 | - | 0 |
| | 3 | >5,000 | 2,880 | 2,120 |
| | 5 | >5,000 | 3,900 | 1,100 |
| | 6.5 (wet) | 2,200 | 1,500 | 700 |
| SB4 | 1 | 23 | 6 | 17 |
| | 3 | 1,500 | 1,200 | 300 |
| | 4.5 (wet) | >5,000 | 4,200 | 800 |
| SB5 | 1 | >5,000 | 3,000 | 2,000 |
| | 3 | >5,000 | 1,500 | 3,500 |
| | 4 (wet) | >5,000 | 440 | 4,560 |
| SB6 | 1 | 0 | - | 0 |
| | 3 | 1,200 | 1,200 | 0 |
| | 5 | 2,500 | 2,500 | 0 |
| | 7 (wet) | 1,800 | 900 | 900 |
| SB7 | 1 | 900 | 480 | 520 |
| | 3 | 200 | 200 | 0 |
| | 4 (wet) | 500 | 100 | 400 |
| SB8 | 1 | 400 | 280 | 120 |
| | 3 | 450 | 180 | 270 |
| | 5 (wet) | 220 | 180 | 40 |

See notes at end of table. -

**Table 1 (Continued)
Soil Screening Results**

Site Assessment Report
Building 607, Tank 607
Naval Air Station Cecil Field
Jacksonville, Florida

| Location | OVA Concentration (ppm) | | | |
|----------|-------------------------|------------|----------|--------|
| | Depth (feet bls) | Unfiltered | Filtered | Actual |
| SB9 | 1 | 500 | 480 | 20 |
| | 3 | 420 | 300 | 80 |
| | 4.5 (wet) | 300 | 90 | 210 |
| SB10 | 1 | 0 | - | 0 |
| | 3 | 1,800 | 1,800 | 0 |
| | 5 (wet) | 500 | 220 | 280 |
| SB11 | 1 | 50 | 50 | 0 |
| | 3 | 100 | 100 | 0 |
| | 5 (wet) | 25 | 25 | 0 |
| SB12 | 1 | 40 | 0 | 40 |
| | 3 | 80 | 42 | 38 |
| | 4.5 (wet) | 150 | 150 | 0 |

Notes: Soil samples were collected on February 11, 1997, and October 22, 1997.
Soil samples were filtered with carbon to determine the methane concentration.

OVA = organic vapor analyzer.
ppm = parts per million.
bls = below land surface.
- = filtered readings were not collected.
wet = soil sample was completely saturated when analyzed.

Table 2
Summary of Subsurface Soil Analytical Detections

Site Assessment Report
Building 607, Tank 607
Naval Air Station Cecil Field
Jacksonville, Florida

| Compound | CEF-607-SB1 (3 to 4 feet bls; OVA = 1,200) | CEF-607-SB4 (1 to 3 feet bls; OVA = 1,900) | CEF-607-SB5 (3 feet bls; OVA = 1,300) | Soil Cleanup Target Levels ¹ |
|---|--|--|---|--|
| Volatile Organic Aromatics (USEPA Method 8020) (mg/kg) | | | | |
| Ethylbenzene | 0.054 | 0.190 | ND | 240/0.4 |
| Xylene | 0.570 | 1.4 | ND | 290/0.3 |
| Polynuclear Aromatic Hydrocarbons (USEPA Method 8310) (mg/kg) | | | | |
| Benzo(a)anthracene | 1.6 | 0.780 | ND | 1.4/2.9 |
| Benzo(a)pyrene | 1.5 | ND | ND | 0.1/7.8 |
| Benzo(b)fluoranthene | 1.2 | ND | ND | 1.4/9.8 |
| Benzo(g,h,i)perylene | 0.54 | ND | 0.018 | 2,300/13,000 |
| Benzo(k)fluoranthene | 0.59 | ND | ND | 15/25 |
| Dibenz(a,h)anthracene | 0.59 | ND | 0.056 | 0.1/14 |
| Fluoranthene | 3.4 | 7 | ND | 2,800/550 |
| Indeno(1,2,3-cd)pyrene | 0.47 | ND | ND | 1.5/28 |
| Pyrene | 3.8 | 3.9 | ND | 2,200/570 |
| Total Recoverable Petroleum Hydrocarbons (TRPH) (FL-PRO) (mg/kg) | | | | |
| TRPH | 2,000 | 2,700 | ND | 350/340 |

¹ Chapter 62-770, Florida Administrative Code: Direct Exposure I/Leachability, Table V.

Notes: Soil sample was collected on April 16, 1998.

USEPA = U.S. Environmental Protection Agency.

mg/kg = milligrams per kilogram.

ND = not detected.

FL-PRO = Florida-Petroleum Residual Organics.

**Table 3
Summary of Groundwater Analytical Results**

Confirmatory Sampling Report
Building 607, Tank 607
Naval Air Station Cecil Field
Jacksonville, Florida

| Compound | CEF-607-1S (abandoned) | CEF-607-1S | CEF-607-2S | Groundwater Cleanup Target Levels ¹ |
|---|---------------------------|------------|------------|--|
| <u>Volatile Organic Aromatics (USEPA Method 601/602) (µg/l)</u> | | | | |
| Ethylbenzene | 11 | ND | ND | 30 |
| Xylenes | 86 | ND | ND | 20 |
| Chloromethane | 1.2 | ND | ND | NA |
| <u>Polynuclear Aromatic Hydrocarbons (USEPA Method 625) (µg/l)</u> | | | | |
| Benzo(a)anthracene | 0.33 | 0.06 J | ND | 0.2 |
| Chrysene | 0.13 | 0.06 J | ND | 5 |
| Phenanthrene | 5.6 | ND | ND | 210 |
| 1-Methylnaphthalene | 9.5 | 2.1 | ND | NA |
| 2-Methylnaphthalene | 6.7 | 1.3 | ND | NA |
| Naphthalene | ND | 1.1 | ND | 20 |
| Acenaphthene | ND | 0.6 J | ND | 20 |
| Fluorene | ND | 0.12 J | ND | 280 |
| Anthracene | ND | 0.05 J | ND | 2,100 |
| Pyrene | ND | 0.15 J | ND | 210 |
| Fluoranthene | ND | 0.27 | ND | 280 |
| <u>Total Recoverable Petroleum Hydrocarbons (TRPH) (FL-PRO) (mg/l)</u> | | | | |
| TRPH | 0.86 | ND | ND | 5 |
| <u>Lead (µg/l)</u> | | | | |
| Not detected | ND | NS | NS | |

¹ Chapter 62-770, Florida Administrative Code.

Notes: Bold indicates concentration exceeds cleanup target level.

NS = not sampled.
USEPA = U.S. Environmental Protection Agency.
µg/l = micrograms per liter.
NA = not available.
FL-PRO = Florida-Petroleum Residual Organics.
mg/l = milligrams per liter.

5.0 PROFESSIONAL REVIEW CERTIFICATION

The SA contained in this report was prepared using sound hydrogeologic principles and judgment. This assessment is based on the geologic investigation and associated information detailed in the text and appended to this report. If conditions are determined to exist that differ from those described, the undersigned geologist should be notified to evaluate the effects of any additional information on the assessment described in this report. This SA report was developed for the Tank 607 site at NAS Cecil Field, Jacksonville, Florida, and should not be construed to apply to any other site.



Eric A. Blomberg
Professional Geologist
P.G. No. 0001695

9-23-99

Date

REFERENCES

ABB Environmental Services, Inc. (ABB-ES). 1996. *Contamination Assessment Plan, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOC, North Charleston, South Carolina (November).

ABB-ES. 1997a. *Base Realignment and Closure Tank Management Plan, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOC, North Charleston, South Carolina (January).

ABB-ES. 1997b. *Confirmatory Sampling Report, Building 607, Tank 607, Base Realignment and Closure, Underground Storage Tank and Aboveground Storage Tank Grey Sites, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOC, North Charleston, South Carolina (November).

Harding Lawson Associates. 1999. *Site Assessment Report, Building 607, Tank 607, Revision 1.0, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOC, North Charleston, South Carolina (April).

APPENDIX A
MONITORING WELL CONSTRUCTION DETAIL

| | | | |
|-----------------------------|--------------------------------|-------------------------|-----------------------------|
| TITLE: NAS Cecil Field | | LOG of WELL: CEF-607-IS | BORING NO. CEF-607-IS |
| CLIENT: SOUTHDIRNAVFACENCOM | | PROJECT NO: 8542-03 | |
| CONTRACTOR: GEOTEK | | DATE STARTED: 2-17-97 | COMPLTD: 2-17-97 |
| METHOD: 6.25" HSA | CASE SIZE: 2" | SCREEN INT.: 2-12 | PROTECTION LEVEL: D |
| TOC ELEV.: FEET. | MONITOR INST.: FID | TOT DPTH: 13 FEET. | DPTH TO ∇ 1.30 FEET. |
| LOGGED BY: J Koch | WELL DEVELOPMENT DATE: 2-19-97 | | SITE: Building 607 |

| DEPTH F.T. | LABORATORY SAMPLE ID. | SAMPLE RECOVERY | HEADSPACE (ppm) | SOIL/ROCK DESCRIPTION AND COMMENTS | LITHOLOGIC SYMBOL | SOIL CLASS | BLOWS/6-IN | WELL DATA |
|---------------|--------------------------|--------------------|--------------------|---|----------------------|------------|------------|-----------|
| 5.000 | | | | SILTY SAND: Dark brown to black, fine grain, strong petroleum odor. | | SM | posthole | |
| 3.300 | | | | SILTY SAND: Dark brown to black, fine grain, petroleum odor. | | | posthole | |
| 4.20 | | 100% | | CLAYEY SAND TO SANDY CLAY: Light brown to grey, petroleum odor. | | SC | 6,3,7,9 | |
| 4.30 | | 100% | | CLAYEY SAND TO SANDY CLAY: Light brown to grey, petroleum odor. | | | 3,4,6,12 | |
| 1.50 | | 100% | | CLAYEY SAND: Light grey to medium grey, fine grain, no odor. | | | 2,3,7,8 | |

Project No: 44219 02523-13

Well ID: CEF-607-1S

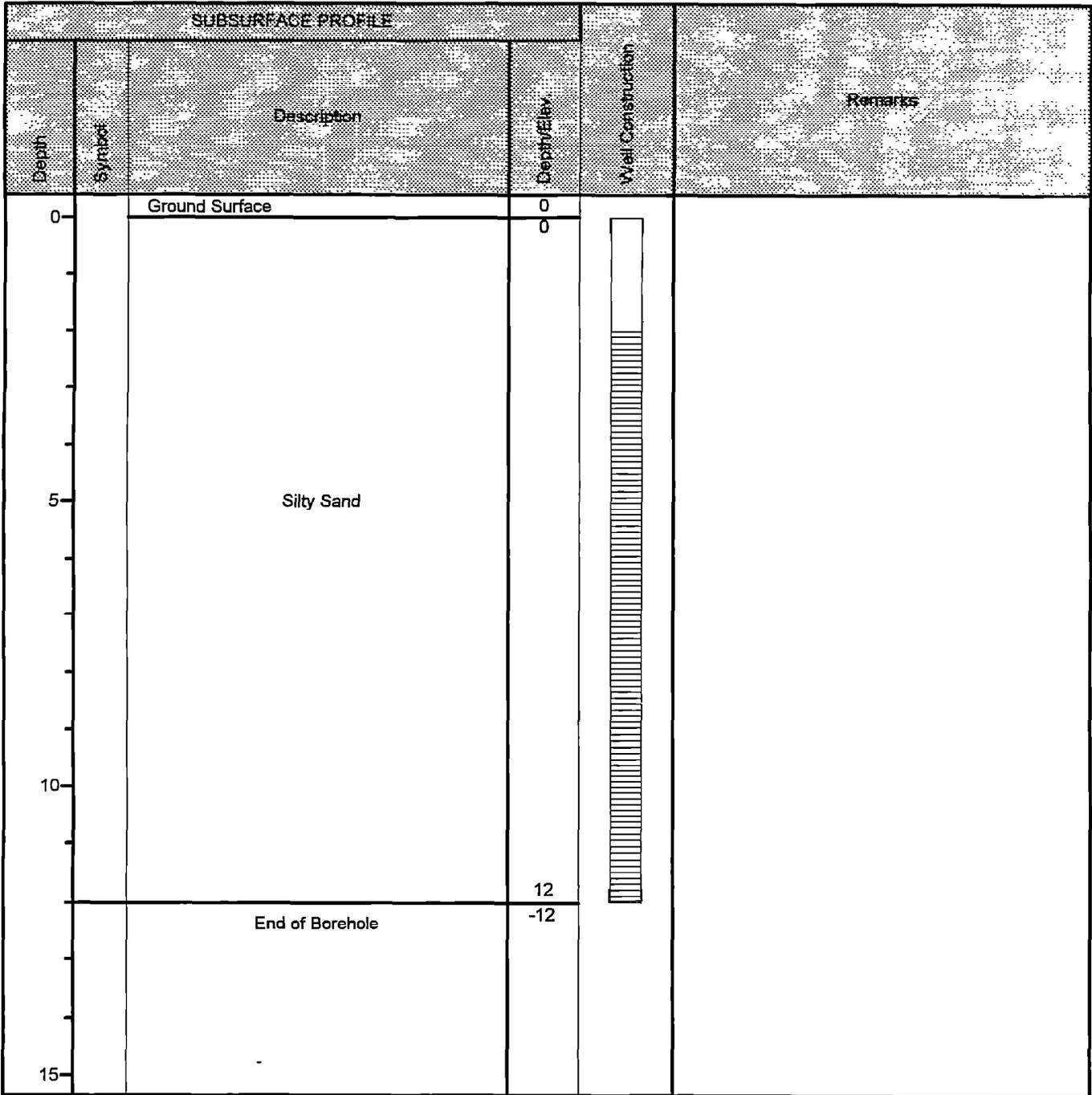
Project: NAS Cecil Field

Client: Navy CLEAN

Enclosure: 7/27/99

Location: Jacksonville, Fl.

Engineer: Eric Blomberg



Drilled By: Groundwater Protection Inc.

Harding Lawson Assoc.

Hole Size: 2" diameter

Drill Method: Hollow Stem Auger

Datum:

Drill Date: 7/27/99

Sheet: 1 of 1

Project No: 44219 02523-13

Well ID: CEF-607-2S

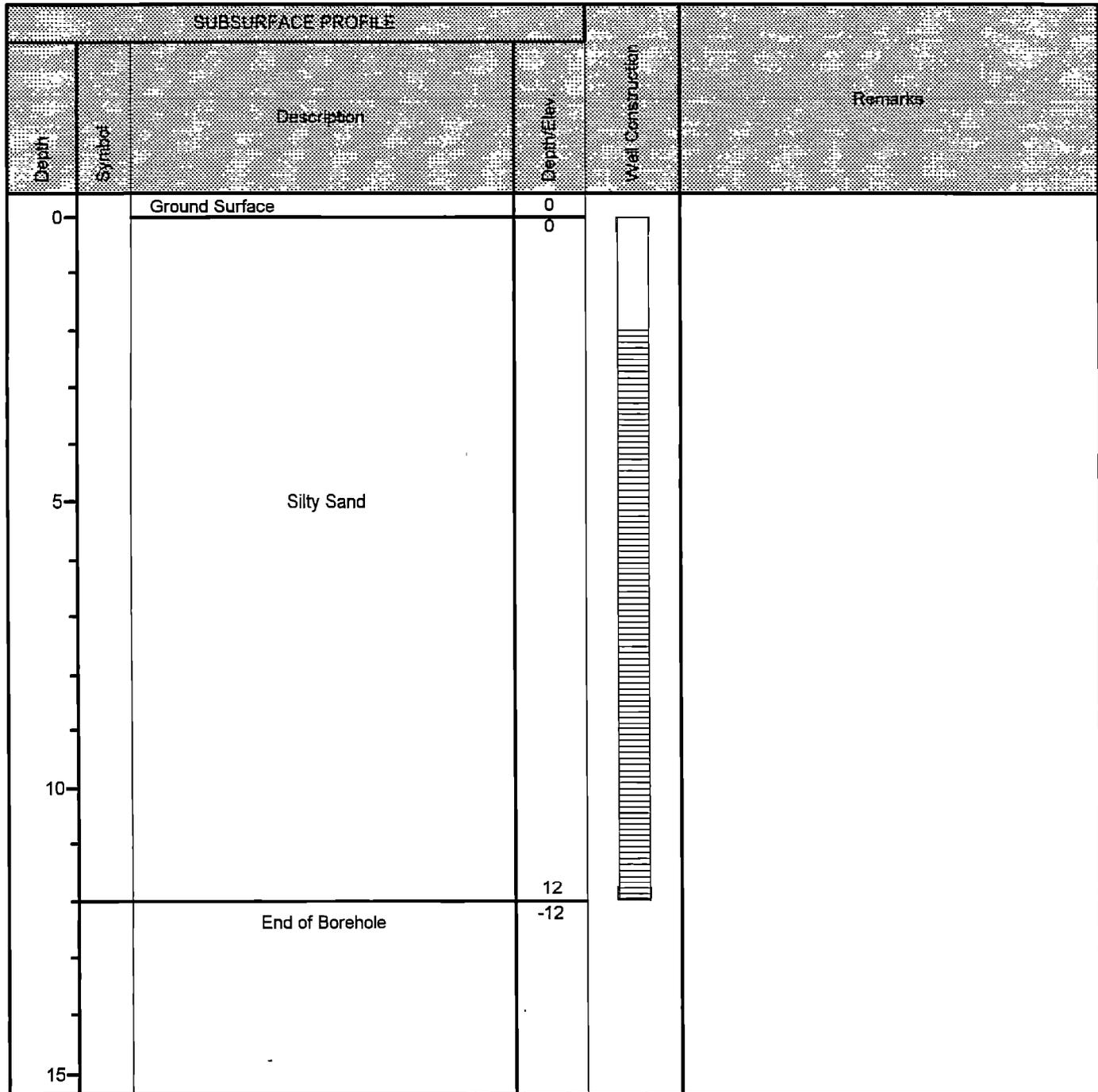
Project: NAS Cecil Field

Client: Navy CLEAN

Enclosure: 7/27/99

Location: Jacksonville, FL

Engineer: Eric Blomberg



Drilled By: Groundwater Protection Inc.

Harding Lawson Assoc.

Hole Size: 2" diameter

Drill Method: Hollow Stem Auger

Datum:

Drill Date: 7/27/99

Sheet: 1 of 1

APPENDIX B
ANALYTICAL DATA

NAS CECIL FIELD -- TANK 607
 SOIL DATA -- KEROSENE ANALYTICAL GROUP -- REPORT REQ NO. 9954

| | | | |
|--------------------|-------------|-------------|-------------|
| Lab Sample Number: | A8D1701040 | A8D1701040 | A8D1701040 |
| Site | UST GREY | UST GREY | UST GREY |
| Locator | CEF-607-SB1 | CEF-607-SB4 | CEF-607-SB5 |
| Collect Date: | 16-APR-98 | 16-APR-98 | 16-APR-98 |

| | VALUE | QUAL UNITS | DL | VALUE | QUAL UNITS | DL | VALUE | QUAL UNITS | DL |
|--------------------------|---------|------------|-------|---------|------------|-------|-------|------------|-----|
| UST GREY | | | | | | | | | |
| Benzene | 12 U | ug/kg | 12 | 12 U | ug/kg | 12 | 1.2 U | ug/kg | 1.2 |
| Ethylbenzene | 54 J | ug/kg | 12 | 190 J | ug/kg | 12 | 1.2 U | ug/kg | 1.2 |
| Toluene | 12 U | ug/kg | 12 | 12 U | ug/kg | 12 | 1.2 U | ug/kg | 1.2 |
| Xylenes (total) | 570 J | ug/kg | 12 | 1400 J | ug/kg | 12 | 1.2 U | ug/kg | 1.2 |
| Acenaphthene | 12000 U | ug/kg | 12000 | 24000 U | ug/kg | 24000 | 230 U | ug/kg | 230 |
| Acenaphthylene | 12000 U | ug/kg | 12000 | 24000 U | ug/kg | 24000 | 230 U | ug/kg | 230 |
| Anthracene | 12000 U | ug/kg | 12000 | 24000 U | ug/kg | 24000 | 230 U | ug/kg | 230 |
| Benzo (a) anthracene | 1600 | ug/kg | 310 | 780 J | ug/kg | 600 | 5.8 U | ug/kg | 5.8 |
| Benzo (a) pyrene | 1500 | ug/kg | 310 | 600 U | ug/kg | 600 | 5.8 U | ug/kg | 5.8 |
| Benzo (b) fluoranthene | 1200 | ug/kg | 310 | 600 U | ug/kg | 600 | 5.8 U | ug/kg | 5.8 |
| Benzo (g,h,i) perylene | 540 | ug/kg | 310 | 600 U | ug/kg | 600 | 18 J | ug/kg | 5.8 |
| Benzo (k) fluoranthene | 590 | ug/kg | 310 | 600 U | ug/kg | 600 | 5.8 U | ug/kg | 5.8 |
| Chrysene | 1200 U | ug/kg | 1200 | 2400 U | ug/kg | 2400 | 23 U | ug/kg | 23 |
| Dibenz(a,h) anthracene | 590 | ug/kg | 310 | 600 U | ug/kg | 600 | 56 | ug/kg | 5.8 |
| Fluoranthene | 3400 | ug/kg | 310 | 7000 J | ug/kg | 600 | 5.8 U | ug/kg | 5.8 |
| Fluorene | 12000 U | ug/kg | 12000 | 24000 U | ug/kg | 24000 | 230 U | ug/kg | 230 |
| Indeno (1,2,3-cd) pyrene | 470 | ug/kg | 310 | 600 U | ug/kg | 600 | 5.8 U | ug/kg | 5.8 |
| Naphthalene | 12000 U | ug/kg | 12000 | 24000 U | ug/kg | 24000 | 230 U | ug/kg | 230 |
| Phenanthrene | 12000 U | ug/kg | 12000 | 24000 U | ug/kg | 24000 | 230 U | ug/kg | 230 |
| Pyrene | 3800 | ug/kg | 310 | 3900 | ug/kg | 600 | 5.8 U | ug/kg | 5.8 |
| FLA PRO | | | | | | | | | |
| TPH C8-C40 | 2000 | mg/kg | 62 | 2700 | mg/kg | 60 | 12 U | mg/kg | 12 |

U = NOT DETECTED J = ESTIMATED VALUE
 UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
 R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL -- TANK 607
 UST GREY ANALYTICAL PARAMETERS -- REPORT NO. 9495

| | | |
|--------------------|------------|------------|
| Lab Sample Number: | B7C2001620 | B7C2001620 |
| Site | BRACGREY | BRACGREY |
| Locator | CEF6071S | CEF6071S |
| Collect Date: | 19-MAR-97 | 19-MAR-97 |

| | | | | | |
|-------|------------|----|-------|------------|----|
| VALUE | QUAL UNITS | DL | VALUE | QUAL UNITS | DL |
|-------|------------|----|-------|------------|----|

BRACGREY ANALYTICAL PARAMETERS

| | | | | |
|------------------------------|-------|------|-----|---|
| 1,1,1-Trichloroethane | 1 U | ug/l | 1 | - |
| 1,1,2,2-Tetrachloroethane | 1 U | ug/l | 1 | - |
| 1,1,2-Trichloroethane | 1 U | ug/l | 1 | - |
| 1,1-Dichloroethane | 1 U | ug/l | 1 | - |
| 1,1-Dichloroethene | 1 U | ug/l | 1 | - |
| 1,2-Dichlorobenzene | 1 U | ug/l | 1 | - |
| 1,3-Dichlorobenzene | 1 U | ug/l | 1 | - |
| 1,4-Dichlorobenzene | 1 U | ug/l | 1 | - |
| 1,2-Dichloroethane | 1 U | ug/l | 1 | - |
| 1,2-Dichloropropane | 1 U | ug/l | 1 | - |
| 1-Methylnaphthalene | 9.5 | ug/l | 2 | - |
| 2-Methylnaphthalene | 6.7 | ug/l | 2 | - |
| Acenaphthene | 2 U | ug/l | 2 | - |
| Acenaphthylene | 2 U | ug/l | 2 | - |
| Anthracene | 2 U | ug/l | 2 | - |
| Benzene | 1 U | ug/l | 1 | - |
| Benzo (a) anthracene | .33 | ug/l | .1 | - |
| Benzo (a) pyrene | .1 U | ug/l | .1 | - |
| Benzo (b) fluoranthene | .1 U | ug/l | .1 | - |
| Benzo (g,h,i) perylene | .2 U | ug/l | .2 | - |
| Benzo (k) fluoranthene | .15 U | ug/l | .15 | - |
| Bromodichloromethane | 1 U | ug/l | 1 | - |
| Bromoform | 1 U | ug/l | 1 | - |
| Bromomethane | 1 U | ug/l | 1 | - |
| Carbon tetrachloride | 1 U | ug/l | 1 | - |
| Chlorobenzene | 1 U | ug/l | 1 | - |
| Chloromethane | 1.2 | ug/l | 1 | - |
| Chloroform | 1 U | ug/l | 1 | - |
| Chloromethane | 1.2 | ug/l | 1 | - |
| Chrysene | .13 | ug/l | .1 | - |
| Dibenzo (a,h) anthracene | .2 U | ug/l | .2 | - |
| Dibromochloromethane | 1 U | ug/l | 1 | - |
| Dichlorodifluoromethane | 1 U | ug/l | 1 | - |
| Ethylbenzene | 11 | ug/l | 1 | - |
| Ethylene dibromide | .02 U | ug/l | .02 | - |
| Fluoranthene | .2 U | ug/l | .2 | - |
| Fluorene | 2 U | ug/l | 2 | - |
| Indeno (1,2,3-cd) pyrene | .1 U | ug/l | .1 | - |
| Lead | 5 U | ug/l | 5 | - |
| Methyl tert-butyl ether | 1 U | ug/l | 1 | - |
| Methylene chloride | 1 U | ug/l | 1 | - |
| Naphthalene | 2 U | ug/l | 2 | - |
| Phenanthrene | 5.6 | ug/l | 2 | - |
| Pyrene | .2 U | ug/l | .2 | - |
| Tetrachloroethene | 1 U | ug/l | 1 | - |
| Toluene | 1 U | ug/l | 1 | - |
| Total petroleum hydrocarbons | .86 | mg/l | .5 | - |
| Trichloroethene | 1 U | ug/l | 1 | - |
| Trichlorofluoromethane | 1 U | ug/l | 1 | - |
| Vinyl chloride | 1 U | ug/l | 1 | - |

NAS CECIL FIELD -- TANK 607
 UST GREY ANALYTICAL PARAMETERS -- REPORT NO. 9495

| | | | | | |
|--------------------|------------|------------|------------|-------|------------|
| Lab Sample Number: | B7C2001620 | | B7C2001620 | | |
| Site | BRACGREY | | BRACGREY | | |
| Locator | CEF6071S | | CEF6071S | | |
| Collect Date: | 19-MAR-97 | | 19-MAR-97 | | |
| | VALUE | QUAL UNITS | DL | VALUE | QUAL UNITS |
| | | | DL | | DL |

| | | | | | |
|---------------------------|-----|------|---|-----|------|
| Xylenes (total) | 86 | ug/l | 1 | - | |
| cis-1,3-Dichloropropene | 1 U | ug/l | 1 | - | |
| trans-1,2-Dichloroethene | 1 U | ug/l | 1 | - | |
| trans-1,3-Dichloropropene | 1 U | ug/l | 1 | - | |
| Lead-DISS | - | | | 5 U | ug/l |
| | | | | | 5 |

U = NOT DETECTED J = ESTIMATED VALUE
 UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
 R = RESULT IS REJECTED AND UNUSABLE

APPENDIX C
SOURCE REMOVAL REPORT

FINAL DRAFT

SOURCE REMOVAL REPORT

Revision No.: 00

UST 607

**NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA**

Unit Identification Code: N60200
Contract No. N62467-98-D-0995, CTO No. 0002

March 1999

Prepared for:



Department of the Navy, Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29418

FINAL DRAFT - NOT FOR PUBLIC RELEASE

DISTRIBUTION LIST

| | <u>Copies</u> |
|---|---------------|
| Southern Division, Naval Facilities Engineering Command | 3 |
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| Florida Department of Environmental Protection | 1 |
| U.S. Environmental Protection Agency | 1 |
| CH2M HILL Constructors, Inc. | 4 |
| CH2M HILL | 2 |
| Harding Lawson Associates | 1 |

FINAL DRAFT

SOURCE REMOVAL REPORT

Revision No.: 00

UST 607

**NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA**

Unit Identification Code: N60200
Contract No. N62467-98-D-0995, CTO No. 0002

Prepared by:

CH2M HILL Constructors, Inc.
115 Perimeter Center Place, N.E., Suite 700
Atlanta, Georgia 30346

Prepared for:

Department of the Navy, Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29418

Bryan Kizer, Engineer-in-Charge

March 1999



**CERTIFICATION OF TECHNICAL
DATA CONFORMITY (MARCH 1999)**

The contractor, CH2M HILL Constructors, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-98-D-0995, Contract Task Order (CTO) No. 0002 are complete and accurate and comply with all requirements of this contract.

DATE: March 5, 1999

NAME AND TITLE OF CERTIFYING OFFICIAL:

Norman N. Hatch, Jr., P.E.
Contract Task Order Manager

NAME AND TITLE OF CERTIFYING OFFICIAL:

Charles A. Radford
Project Technical Lead

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GLOSSARY

| | |
|-----------------------|---|
| ABB | ABB Environmental Services, Inc. |
| bls | below land surface |
| CCI | CH2M HILL Constructors Inc. |
| CTO | Contract Task Order |
| FAC | Florida Administrative Code |
| FDEP | Florida Department of Environmental Protection |
| FDOT | Florida Department of Transportation |
| FID | flame ionization detector |
| HLA | Harding Lawson Associates |
| KAG | kerosene analytical group |
| NAS | Naval Air Station |
| OVA | organic vapor analyzer |
| PAHs | polynuclear aromatic hydrocarbons |
| PID | photoionization detector |
| ppm | parts per million |
| SA | Site Assessment |
| SCTLs | selected soil cleanup target levels |
| SJRWMD | St. Johns River Water Management District |
| SOUTHNAV- FACENCOM | Southern Division, Naval Facilities Engineering Command |
| TRPH | total recoverable petroleum hydrocarbons |
| UST | underground storage tank |
| VOCs | volatile organic compounds |

SOURCE REMOVAL REPORT REQUIREMENTS – CHECKLIST

Per FAC 62-770.300(3) the Source Removal Report shall contain the following information in detail, as applicable:

Site Name: UST 607

Date(s) of Source Removal: 1/14/99

| Required Information | Response |
|--|--|
| 1. Volume of product that was discharged, if known | <i>Unknown</i> |
| 2. Volume of free product and the volume of groundwater recovered | <i>No free product found</i> |
| 3. Volume of contaminated soil excavated and treated or properly disposed | <i>335 tons of soil excavated and disposed of offsite</i> |
| 4. Disposal or recycling methods for free product and contaminated soil | <i>Contaminated soils recycled at Kedesh, Inc., Kingsland, Georgia</i> |
| 5. Disposal methods for other contaminated media | <i>No other contaminated media</i> |
| 6. Scaled site map (including a graphical representation of the scale used) showing location(s) of free product recovered and the area of soil removed or treated and the approximate locations of all samples taken | <i>See Figure 2-1</i> |
| 7. Table summarizing free product thickness in each monitoring well or piezometer and the dates the measurements were made | <i>No free product found</i> |
| 8. Type of field screening instrument or method used | <i>OVA/FID and PID</i> |
| 9. Dimensions of the excavation(s) and location(s), integrity, capacities and last known contents of storage tanks, integral piping, dispensers, or appurtenances removed | <i>Excavation area: 45 feet long x 22.5 feet wide x 7 feet deep (see Figure 2-1)</i> <i>1000-gallon UST, contained fuel oil for onsite heating (see Figure 1-1)</i> |
| 10. Dimensions of the excavation(s) and location(s) and capacities of replacement underground storage tanks | <i>Not Applicable. No replacement UST installed</i> |
| 11. Table indicating the identification, depth and field soil screening results of each sample collected | <i>See Table 2-2</i> |
| 12. Depth to groundwater at the time of each excavation, measurement locations and method used to obtain that information | <i>Depth to groundwater approximately 6 feet bls. Measured in monitoring well CEF-607-1S and by visual observation (See Section 2.2.1)</i> |
| 13. Type of petroleum or petroleum products discharged | <i>Fuel oil</i> |
| 14. Documentation confirming the proper treatment or proper disposal of the free product or contaminated soil, including disposal manifests for free product, a copy of the treatment or acceptance of the contaminated soil and results of analyses, if performed | <i>See Table 2-1 and Appendix C</i> |
| 15. For land farmed soil, a copy of the pre-treatment and post-treatment analytical results | <i>Not Applicable. Soil disposed of offsite</i> |

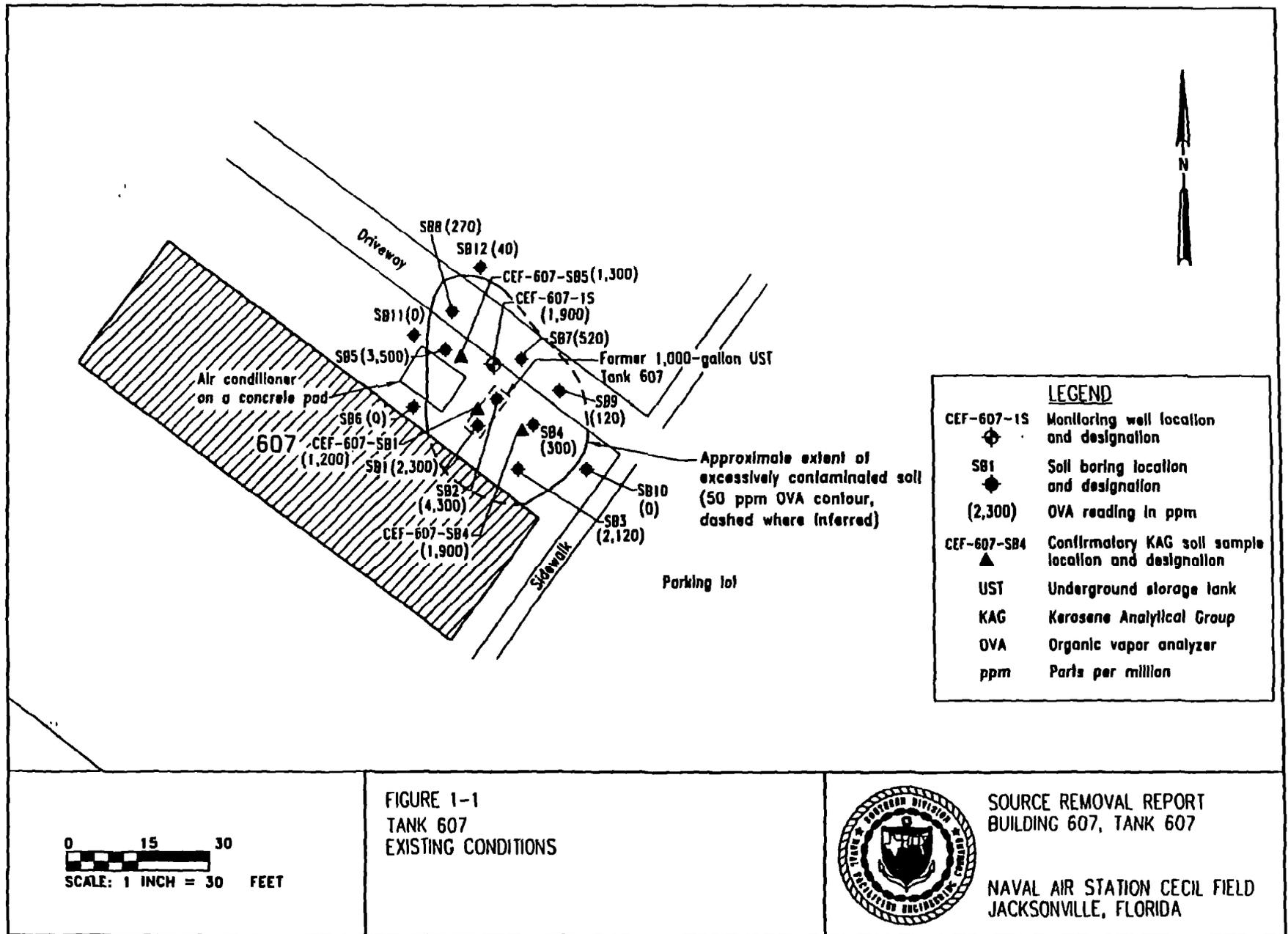
1.0 INTRODUCTION

CH2M HILL Constructors, Inc. (CCI) was contracted by the Southern Division Naval Facilities Engineering Command (SOUTHNAVFACENGCOM) to excavate petroleum-contaminated soil and prepare a Source Removal Report for the Underground Storage Tank (UST) Site 607 at Naval Air Station (NAS) Cecil Field in Jacksonville, Florida. The Source Removal was conducted in accordance with the Florida Department of Environmental Protection (FDEP) Petroleum Contamination Site Cleanup rule 62-770, Florida Administrative Code (FAC).

The scope of services for excavation of petroleum-contaminated soils at UST 607 is described in detail in the NAS Cecil Field Basewide Work Plan, Revision 1 (CCI, 1998a) and the Work Plan Addendum No. 1, Revision 1 (CCI, 1998b). This work was authorized under the Remedial Action Contract No. N62467-98-D-0995, Contract Task Order (CTO) No. 0002.

1.1 SITE BACKGROUND. UST 607 was a 1,000-gallon fuel oil tank located in the Yellow Waters Weapons Complex. The tank was used to store fuel for onsite heating of Building 607, the Yellow Waters Weapons Department Administration Building. UST 607 was installed in 1959 and removed in 1992. (No removal or closure information is available for UST 607 [ABB, 1997]). Subsequently, excessively contaminated soils were identified around UST 607 during the Site Assessment (SA) and a Source Removal was recommended (HLA, 1998). The proposed limits of the excavation area were determined during the SA by using both headspace analysis and laboratory analyses. A site plan showing the results of the SA soil delineation and the site conditions prior to the Source Removal is presented in Figure 1-1.

1.2 PROJECT OBJECTIVES. The primary objective of the soil excavation at UST 607 was to remove petroleum-contaminated soils that exceed the Selected Soil Cleanup Target Levels (SCTLs) outlined in FAC 62-770. FDEP allows the use of headspace analysis as a screening tool in evaluating whether the soil samples exceed the SCTLs. Under headspace analysis, soil samples are screened using an organic vapor analyzer (OVA) equipped with a flame ionization detector (FID) in accordance with the procedures outlined in FAC 62-770.200(8). Soils with an OVA reading exceeding 50 part per million (ppm), based on the kerosene analytical group (KAG), are considered to be excessively contaminated and are expected to contain constituents exceeding the SCTLs. Confirmatory sampling is required under FAC 62-770.200(8), where the OVA results are confirmed by laboratory analysis for the KAG. The KAG analysis for soils includes volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), and total recoverable petroleum hydrocarbons (TRPH) by the FLO-PRO method.



LEGEND

- CEF-607-15 Monitoring well location and designation
- SB1 Soil boring location and designation
- (2,300) OVA reading in ppm
- CEF-607-SB4 Confirmatory KAG soil sample location and designation
- UST Underground storage tank
- KAG Kerosene Analytical Group
- OVA Organic vapor analyzer
- ppm Parts per million

0 15 30
SCALE: 1 INCH = 30 FEET

FIGURE 1-1
TANK 607
EXISTING CONDITIONS



SOURCE REMOVAL REPORT
BUILDING 607, TANK 607

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

2.0 SOURCE REMOVAL ACTIVITIES

A Source Removal was conducted at UST 607 on January 14, 1999. Petroleum-contaminated soil was excavated from the area around the former location of the UST and disposed of offsite. No free product was found during the excavation. Photographs showing the site during and after the Source Removal are presented in Appendix A.

2.1 SITE PREPARATION. In preparation for excavation, monitoring well CEF-607-1S was abandoned on January 5, 1999. The well, abandoned in accordance with St. Johns River Water Management District (SJRWMD) regulations, was filled with a cement-bentonite grout. The well abandonment report is presented in Appendix B.

2.2 SOIL EXCAVATION AND DISPOSAL. Soils were initially excavated based on the limits of the excessively contaminated soil delineated as part of the SA. The walls of the excavation were screened using headspace analysis to determine if additional soil should be excavated.

2.2.1 Soil Excavation. The soil was excavated to approximately 1 foot below the water table, to a depth of approximately 7 feet below land surface (bls). The depth to groundwater was originally estimated from the monitoring well CEF-607-1S, which was later abandoned. Immediately prior to excavation, the water table was determined by hand augering bore holes and measuring the depth to water. The groundwater level was confirmed by visual observation during the excavation.

The soil was excavated using a trackhoe and was immediately loaded into waiting trucks. No contaminated soil was stockpiled onsite. Based on the manifests, 335 tons of petroleum-contaminated soil were excavated and disposed of offsite. The excavation was approximately 45 feet long, 22.5 feet wide, and 7 feet deep, corresponding to approximately 297.5 cubic yards. The excavation area is shown in Figure 2-1.

2.2.2 Soil Transportation and Disposal. The petroleum-contaminated soil was transported offsite by truck to the Kedesh, Inc. soil thermal treatment facility in Kingsland, Georgia. A summary of the manifests is presented in Table 2-1 and copies of the manifests are presented in Appendix C.

**Table 2-1
Summary of Manifests for Soil Disposal**

| Date | Truck # | Company | Manifest # | Weight (pounds) | Tare (pounds) | Net (pounds) |
|-------------------------|---------|---------|------------|-----------------|-----------------------|--------------|
| 1/14/99 | 202 | Modlin | CF 1172 | 18960 | 0 | 18960 |
| 1/14/99 | 602 | Modlin | CF 1173 | 61900 | 23160 | 38740 |
| 1/14/99 | 9802 | Modlin | CF 1174 | 63800 | 23200 | 40600 |
| 1/14/99 | 209 | Modlin | CF 1175 | 65160 | 23200 | 41960 |
| 1/14/99 | 9800 | Modlin | CF 1176 | 57960 | 22600 | 35360 |
| 1/14/99 | 9803 | Modlin | CF 1177 | 63640 | 22600 | 41040 |
| 1/14/99 | 9801 | Modlin | CF 1178 | 68680 | 22600 | 46080 |
| 1/14/99 | 9808 | Modlin | CF 1179 | 63940 | 22580 | 41360 |
| 1/14/99 | 210 | Modlin | CF 1180 | 65120 | 23500 | 41620 |
| 1/14/99 | 9809 | Modlin | CF 1181 | 64860 | 23360 | 41500 |
| 1/14/99 | 202 | Modlin | CF 1182 | 70500 | 22700 | 47800 |
| 1/14/99 | 602 | Modlin | CF 1183 | 64660 | 23160 | 41500 |
| 1/14/99 | 9802 | Modlin | CF 1184 | 69680 | 23200 | 46480 |
| 1/14/99 | 209 | Modlin | CF 1185 | 67900 | 23680 | 44220 |
| 1/14/99 | 9800 | Modlin | CF 1186 | 69280 | 22600 | 46680 |
| 1/14/99 | 9803 | Modlin | CF 1187 | 63560 | 22600 | 40960 |
| 1/14/99 | 9801 | Modlin | CF 1188 | 37220 | 22600 | 14620 |
| Number of Truck Loads = | | | | 17 | | |
| | | | | | Total Weight (lbs.) = | 669480 |
| | | | | | Total Weight (tons) = | 334.74 |

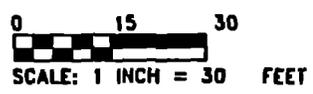
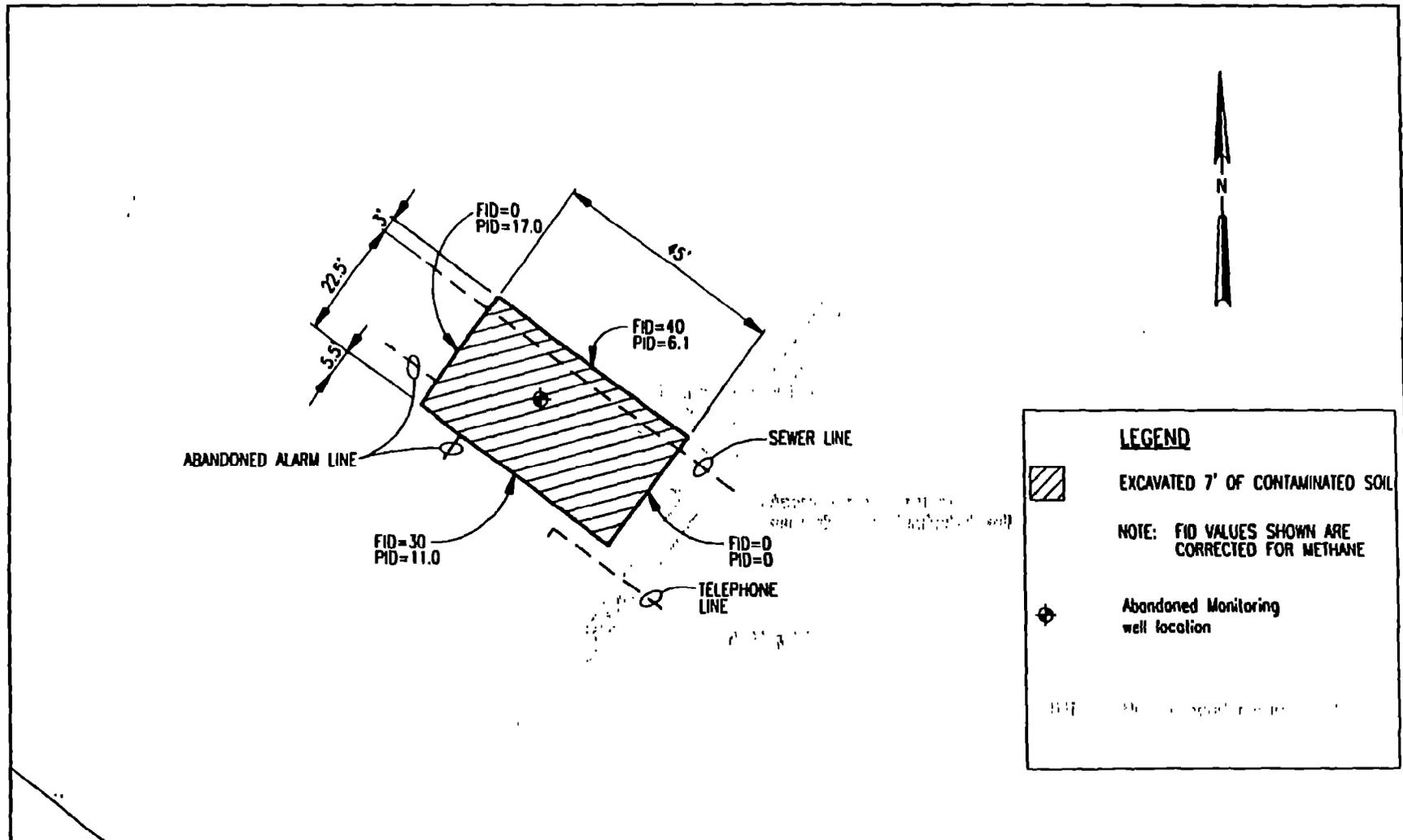


FIGURE 2-1
TANK 607
SOIL EXCAVATION AREA



SOURCE REMOVAL REPORT
BUILDING 607, TANK 607

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

2.2.3 Backfilling and Site Restoration. The material used to backfill the excavation was clean fill brought in from a borrow pit operated by Anderson-Columbia, Inc. in Maxville, Florida. A copy of the letter certifying that the material was clean fill is presented in Appendix D.

Once the excavation area was backfilled, the site was graded and seeded with Bahia grass.

2.3 SAMPLING AND ANALYSIS. Soil samples were collected from the walls of the excavation at a depth of 4.5 feet bls. Because soils were excavated to 1 foot below the water table, no samples were collected from the floor of the excavation. The sampling locations are shown in Figure 2-1.

2.3.1 Headspace Analysis. Soil samples collected from the UST 607 excavation were screened using an OVA equipped with an FID in accordance with the procedures outlined in 62-770.200(8) FAC. A methane filter was used to correct the results. Samples were also screened using a photoionization detector (PID). The results of the headspace analyses are shown in Table 2-2. All headspace results were below 50 ppm.

**Table 2-2
Summary of Headspace Screening Results**

| Station ID | Depth (feet bls) | FID Unfiltered (ppm) | FID with Filter (ppm) | FID Corrected (ppm) | PID (ppm) |
|------------|---------------------|-------------------------|--------------------------|------------------------|--------------|
| North | 4.5 | 420 | 380 | 40 | 6.1 |
| South | 4.5 | 60 | 30 | 30 | 11.0 |
| East | 4.5 | 440 | 440 | 0 | 0 |
| West | 4.5 | 1000 | 1000 | 0 | 17 |

2.3.2 KAG Analysis. Because all of the headspace results (OVA with FID) were below 50 ppm and KAG analysis had previously been used at this site to delineate the limits of the excavation, no additional KAG analyses were conducted at UST 607.

3.0 CONCLUSIONS

A total of 335 tons of petroleum-contaminated soils at UST 607 that were identified during the SA have been removed and disposed of offsite. The soil was excavated to approximately 1 foot below the water table, to a depth of approximately 7 feet bls. The horizontal limits of the excavation had headspace results (OVA with FID) of less than 50 ppm. No free product was found during the excavation.

REFERENCES

ABB Environmental Services, Inc., 1997, Confirmatory Sampling Report, Building 607, Tank 607, BRAC UST and AST Grey Sites, NAS Cecil Field, Jacksonville, Florida, November.

CH2M HILL Constructors, Inc., 1998a, Basewide Work Plan, Revision No. 1, NAS Cecil Field, Jacksonville, Florida: prepared for Southern Division Naval Facilities Engineering Command, November.

CH2M HILL Constructors, Inc., 1998b, Work Plan Addendum No. 1 Revision No. 1, Excavation of Petroleum-Contaminated Soil from 11 Former UST Sites and the Day Tank 2 Area, NAS Cecil Field, Jacksonville, Florida: prepared for Southern Division Naval Facilities Engineering Command, November.

Harding Lawson Associates (HLA), 1998, Site Assessment Report, Building 607, Tank 607, BRAC UST and AST Grey Sites, NAS Cecil Field, Jacksonville, Florida, September.

Southern Division Naval Facilities Engineering Command Quality Improvement Forum, 1998, A Guideline for the Preparation of Remedial Action Reports/Closure Reports, Revision 0, May 11.

Southern Division Naval Facilities Engineering Command, 1996, Environmental Report Format Guidance Manual, Revision No. 5, October 9.

**APPENDIX A
PHOTOGRAPHS**



EXCAVATION IN PROGRESS

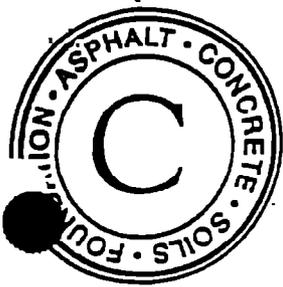


SITE RESTORATION

UST SITE
BUILDING 607
YELLOW WATER

CH2MHILL

**APPENDIX B
WELL ABANDONMENT REPORT**



CAL-TECH TESTING, INC.

ENGINEERING & TESTING LABORATORY

P.O. Box 1625, Lake City, FL 32056-1625
6900 Phillips Hwy., Ste. 3, Jacksonville, FL 32216
7850 Rex Drive, Milton, FL 32570

Lake City • (904) 755-3633
Fax • (904) 752-5456
Jacksonville • (904) 296-7201
Fax • (904) 296-7202
Milton • (904) 626-0080
Fax • (904) 626-0190

January 6, 1999

NAS Cecil Field
Attn: CH2M Hill Constructors, Inc.
13200 Normandy Blvd.
1st Street, Bldg. 884
Jacksonville, Florida 32215
Attn: Mr. Charlie Radford

Subject: Report of Monitoring Well Abandonment
Various UST Sites
NAS Cecil Field
Jacksonville, Florida
Cal-Tech Project No. 98-313

Dear Mr. Radford,

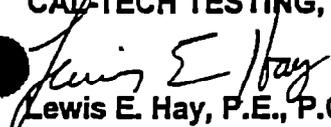
Cal-Tech Testing abandoned eleven monitoring wells for the subject project on January 5, 1999. These wells were all 2 inches in diameter. The wells were filled with a cement-bentonite grout which was tremmied to the bottom of each. The grout displaced the groundwater to the top of the well where it was captured and containerized. The table below shows the depth and diameter of each well:

| Monitoring Well No. | Diameter | Depth, Ft. |
|---------------------|----------|------------|
| CEF-605-1S | 2" | 12' 1" |
| CEF-605-5D | 2" | 30' 3" |
| CEF-607-1S | 2" | 12' 4" |
| CEF-639-1S | 2" | 13' 2" |
| CEF-623-4D | 2" | 29' 6" |
| CEF-623-1S | 2" | 12' 2" |
| CEF-F-15 | 2" | 14' 5" |
| CEF-880-1S | 2" | 14' 7" |
| CEF-502-5D | 2" | 30' 0" |
| CEF-502-2S | 2" | 13' 2" |
| CEF-502-1S | 2" | 10' 6" |
| TOTAL | | 192' 2" |

Copies of the well abandonment reports are attached. These reports will be provided to the St. Johns Water Management District and The City of Jacksonville.

We have enjoyed serving you thus far. If you have any questions please contact us.

Very truly yours,
CAL-TECH TESTING, INC.


Lewis E. Hay, P.E., P.G.
Sr. Engineer


Calvin C. Creamer, Jr.
General Manager

PERMIT # _____ CUP# _____ DID # _____

permit is for multiple wells indicate the number of wells drilled _____

indicate remaining wells to be cancelled _____

WATER WELL CONTRACTOR'S SIGNATURE _____ License # 11026

I certify that the information provided in this report is accurate and true.

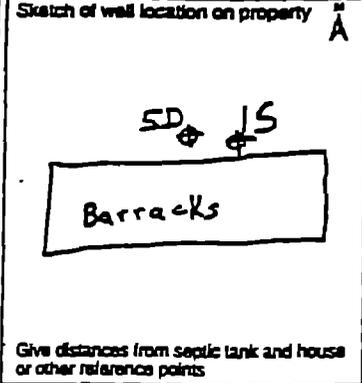
| | | | |
|-------------|-------------|-----------|---------|
| Grout | No. of Bags | From (FL) | To (FL) |
| Neat Cement | 1/3 | 0 | 12.1 |
| Bentonite: | | | |

WELL LOCATION: County Duval

W 1/4 of NE 1/4 of Section 10 Twp: 35 Rge: 24E

Latitude _____ Longitude _____

DATE STAMP _____
Official Use Only



CHEMICAL ANALYSIS WHEN REQUIRED

Iron: _____ ppm Sulfate: _____ ppm

Chloride: _____ ppm

Lab Test [] Field Test Kit

Pump Type

[] Centrifugal [] Jet [] Submersible [] Turbine

Horsepower _____ Capacity _____ G.P.M. _____

Pump Depth _____ FL Intake Depth _____ FL

Form 408-3-3 Rev. 12/95

OWNER'S NAME US Navy - Cecil Field

COMPLETION DATE _____ Florida Unique I.D. _____

WELL USE: DEP/Public _____ Irrigation _____ Domestic _____ Monitor

HRS Limited _____ 62-524 _____ Other _____

DRILL METHOD [] Rotary [] Cable Tool [] Combination

[] Jet [X] Auger Other _____

Measured Static Water Level _____ Measured Pumping Water Level _____

After _____ Hours at _____ G.P.M. Measuring Pt. (describe): _____

Which is _____ FL. [] Above [] Below Land Surface

Casing: [] Black Steel [] Galv. [X] PVC Other _____

| | | | |
|------------------------------|------------|--------------------|---|
| [] Open Hole [] Screen | Depth (FL) | DRILL CUTTINGS LOG | |
| Casing Diameter & Depth (FL) | From | To | Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color Grain Size Type of Material |
| Diameter 2" | 0 | 12.1 | Cement-bentonite grout |
| From 0 | | | |
| To 12.1" | | | |
| | | | Abandoned Well |
| Diameter _____ | | | No CEF-605-1S |
| From _____ | | | |
| To _____ | | | |
| Liner [] or Casing [] | | | |
| Diameter _____ | | | |
| From _____ | | | |
| To _____ | | | |

Driller's Name: Frank Linehan (print or type)

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # _____ CUP# _____ DID # _____

permit is for multiple wells indicate the number of wells drilled _____

indicate remaining wells to be cancelled _____

WATER WELL CONTRACTOR'S SIGNATURE _____ License # 11026

I certify that the information provided in this report is accurate and true.

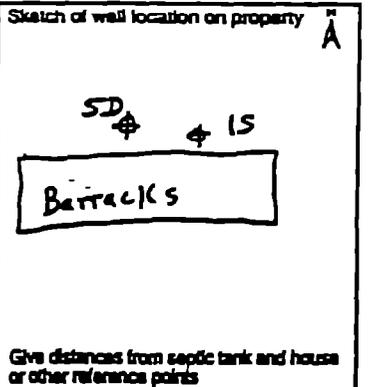
| | | | |
|-------------|-------------|-----------|---------|
| Grout | No. of Bags | From (FL) | To (FL) |
| Neat Cement | 1 | 0 | 30.2 |
| Bentonite: | 1/4 | | |

WELL LOCATION: County Duval

W 1/4 of NE 1/4 of Section 10 Twp: 35 Rge: 24E

Latitude _____ Longitude _____

DATE STAMP _____
Official Use Only



CHEMICAL ANALYSIS WHEN REQUIRED

Iron: _____ ppm Sulfate: _____ ppm

Chloride: _____ ppm

Lab Test [] Field Test Kit

Pump Type

[] Centrifugal [] Jet [] Submersible [] Turbine

Horsepower _____ Capacity _____ G.P.M. _____

Pump Depth _____ FL Intake Depth _____ FL

OWNER'S NAME US Navy - NAS Cecil Field

COMPLETION DATE _____ Florida Unique I.D. _____

WELL USE: DEP/Public _____ Irrigation _____ Domestic _____ Monitor

HRS Limited _____ 62-524 _____ Other _____

DRILL METHOD [] Rotary [] Cable Tool [] Combination

[] Jet [X] Auger Other _____

Measured Static Water Level _____ Measured Pumping Water Level _____

After _____ Hours at _____ G.P.M. Measuring Pt. (describe): _____

Which is _____ FL. [] Above [] Below Land Surface

Casing: [] Black Steel [] Galv. [X] PVC Other _____

| | | | |
|------------------------------|------------|--------------------|---|
| [] Open Hole [] Screen | Depth (FL) | DRILL CUTTINGS LOG | |
| Casing Diameter & Depth (FL) | From | To | Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color Grain Size Type of Material |
| Diameter 2" | 0 | 30.2 | Cement-bentonite grout |
| From 0 | | | |
| To 30.2 | | | |
| | | | Abandoned Well |
| Diameter _____ | | | No CEF-605-SD |
| From _____ | | | |
| To _____ | | | |
| Liner [] or Casing [] | | | |
| Diameter _____ | | | |
| From _____ | | | |
| To _____ | | | |

Driller's Name: Frank Linehan (print or type)

PERMIT # _____ CUP/WUP # _____ DID # _____

If permit is for multiple wells indicate the number of wells drilled _____

Indicate remaining wells to be cancelled _____

WATER WELL CONTRACTOR'S

SIGNATURE [Signature] License # 11024

I certify that the information provided in this report is accurate and true.

| Port | No. of Bags | From (FL) | To (FL) |
|-------------|-------------|-----------|---------|
| Neat Cement | 1/3 | 0 | 12.3 |
| Bentonite: | | | |

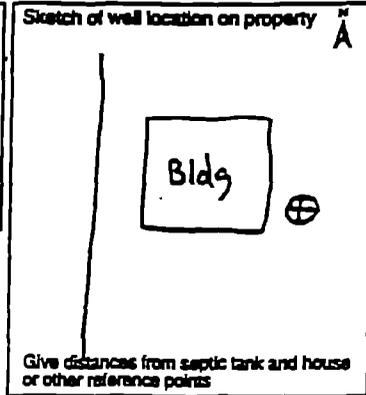
WELL LOCATION: County Duval

NW 1/4 of NE 1/4 of Section 10 Twp: 3S Rge: 24E

Latitude _____ Longitude _____

DATE STAMP

Official Use Only



CHEMICAL ANALYSIS WHEN REQUIRED

Iron: _____ ppm Sulfate: _____ ppm

Chloride: _____ ppm

[] Lab Test [] Field Test Kit

Pump Type

[] Centrifugal [] Jet [] Submersible [] Turbine

Horsepower _____ Capacity _____ G.P.M. _____

Pump Depth _____ FL Intake Depth _____ FL

Form 408-3-3 Rev. 12/85

COMPLETION DATE _____ Florida Unique I.D. _____

WELL USE: DEP/Public _____ Irrigation _____ Domestic _____ Monitor

HRS Limited _____ 62-524 _____ Other _____

DRILL METHOD [] Rotary [] Cable Tool [] Combination

[] Jet [X] Auger Other _____

Measured Static Water Level _____ Measured Pumping Water Level _____

After _____ Hours at _____ G.P.M. Measuring Pt. (Depth): _____

Which is _____ FL [] Above [] Below Land Surface

Casing: [] Black Steel [] Galv. [X] PVC Other _____

| Casing Diameter & Depth (FL) | Depth (FL) | | DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color Grain Size Type of Material |
|---|------------|-------------|--|
| | From | To | |
| Diameter <u>2"</u> From <u>0</u> To <u>12.3</u> | <u>0</u> | <u>12.3</u> | <u>Cement Bentonite grout</u> |
| | | | <u>Abandoned Well No</u> |
| Diameter _____ From _____ To _____ | | | <u>CEF-607-15</u> |
| Liner [] or Casing [] Diameter _____ From _____ To _____ | | | |

Driller's Name: Frank Linehan
(print or type)

COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # _____ CUP/WUP # _____ DID # _____

If permit is for multiple wells indicate the number of wells drilled _____

Indicate remaining wells to be cancelled _____

WATER WELL CONTRACTOR'S

SIGNATURE [Signature] License # _____

I certify that the information provided in this report is accurate and true.

| Grout | No. of Bags | From (FL) | To (FL) |
|-------------|-------------|-----------|---------|
| Neat Cement | 1/3 | 0 | 13.2 |
| Bentonite: | | | |

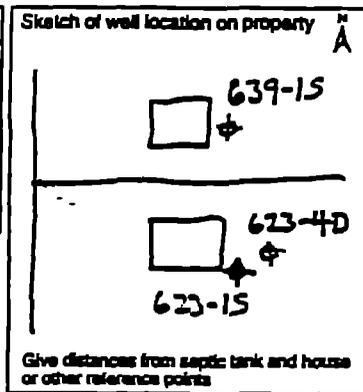
WELL LOCATION: County Duval

SE 1/4 of NE 1/4 of Section 3 Twp: 3S Rge: 24E

Latitude _____ Longitude _____

DATE STAMP

Official Use Only



CHEMICAL ANALYSIS WHEN REQUIRED

Iron: _____ ppm Sulfate: _____ ppm

Chloride: _____ ppm

[] Lab Test [] Field Test Kit

Pump Type

[] Centrifugal [] Jet [] Submersible [] Turbine

Horsepower _____ Capacity _____ G.P.M. _____

Pump Depth _____ FL Intake Depth _____ FL

Form 408-3-3 Rev. 12/85

OWNER'S NAME US Navy - NAS Cecil Field

COMPLETION DATE _____ Florida Unique I.D. _____

WELL USE: DEP/Public _____ Irrigation _____ Domestic _____ Monitor

HRS Limited _____ 62-524 _____ Other _____

DRILL METHOD [] Rotary [] Cable Tool [] Combination

[] Jet [X] Auger Other _____

Measured Static Water Level _____ Measured Pumping Water Level _____

After _____ Hours at _____ G.P.M. Measuring Pt. (Depth): _____

Which is _____ FL [] Above [] Below Land Surface

Casing: [] Black Steel [] Galv. [X] PVC Other _____

| Casing Diameter & Depth (FL) | Depth (FL) | | DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color Grain Size Type of Material |
|---|------------|-------------|--|
| | From | To | |
| Diameter <u>2"</u> From <u>0</u> To <u>13.2</u> | <u>0</u> | <u>13.2</u> | <u>CEMENT-Bentonite grout</u> |
| | | | <u>Abandoned Well No</u> |
| Diameter _____ From _____ To _____ | | | <u>CEF-639-15</u> |
| Liner [] or Casing [] Diameter _____ From _____ To _____ | | | |

Driller's Name: Frank Linehan
(print or type)

PERMIT # _____ CUP# _____ DID # _____
 If permit is for multiple wells indicate the number of wells drilled _____

Indicate remaining wells to be cancelled _____

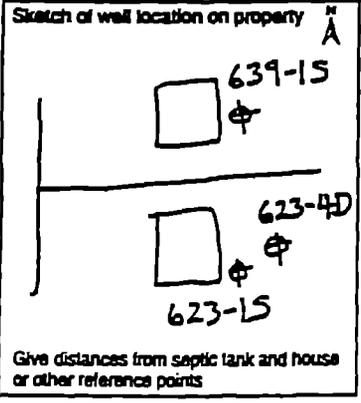
WATER WELL CONTRACTOR'S

SIGNATURE Frank Linehan License # 11026
 I certify that the information provided in this report is accurate and true.

| Grout | No. of Bags | From (FL) | To (FL) |
|-------------|-------------|-----------|---------|
| Neat Cement | 1/3 | 0 | 12.2 |
| Bentonite: | | | |

WELL LOCATION: County Duval
SE 1/4 of NE 1/4 of Section 3 Twp: 35 Rge: 24E
 Latitude _____ Longitude _____

DATE STAMP
 Official Use Only



CHEMICAL ANALYSIS WHEN REQUIRED
 Iron: _____ ppm Sulfate: _____ ppm
 Chloride: _____ ppm
 Lab Test Field Test Kit
 Pump Type
 Centrifugal Jet Submersible Turbine
 Horsepower _____ Capacity _____ G.P.M. _____
 Pump Depth _____ FL Intake Depth _____ FL

Form 408-3-3 Rev. 12/95

COMPLETION DATE _____ Florida Unique I.D. _____
 WELL USE: DEP/Public _____ Irrigation _____ Domestic _____ Monitor
 HRS Limited _____ 62-524 _____ Other _____
 DRILL METHOD Rotary Cable Tool Combination
 Jet Auger Other _____

Measured Static Water Level _____ Measured Pumping Water Level _____
 After _____ Hours at _____ A.P.M. Measuring Pt. (Describe): _____
 Which is _____ FL Above Below Land Surface
 Casing: Black Steel Galv. PVC Other _____

| Casing Diameter & Depth (FL) | Depth (FL) | | DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color Grain Size Type of Material |
|---|------------|-------------|---|
| | From | To | |
| Diameter <u>2"</u> From <u>0</u> To <u>12.2</u> | <u>0</u> | <u>12.2</u> | <u>Cement Bentonite grout</u> |
| Diameter _____ From _____ To _____ | | | <u>Abandoned Well No</u> <u>CEF-623-15</u> |
| Liner <input type="checkbox"/> or Casing <input type="checkbox"/> Diameter _____ From _____ To _____ | | | |

Driller's Name: Frank Linehan
 (print or type)

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # _____ CUP# _____ DID # _____
 If permit is for multiple wells indicate the number of wells drilled _____

Indicate remaining wells to be cancelled _____

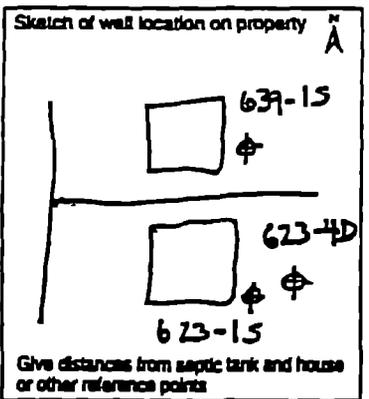
WATER WELL CONTRACTOR'S

SIGNATURE Frank Linehan License # 11026
 I certify that the information provided in this report is accurate and true.

| Grout | No. of Bags | From (FL) | To (FL) |
|--------------|-------------|-----------|---------|
| Neat Cement: | 1 | 0 | 29.5 |
| Bentonite: | 1/4 | | |

WELL LOCATION: County Duval
SE 1/4 of NE 1/4 of Section 3 Twp: 35 Rge: 24E
 Latitude _____ Longitude _____

DATE STAMP
 Official Use Only



CHEMICAL ANALYSIS WHEN REQUIRED
 Iron: _____ ppm Sulfate: _____ ppm
 Chloride: _____ ppm
 Lab Test Field Test Kit
 Pump Type
 Centrifugal Jet Submersible Turbine
 Horsepower _____ Capacity _____ G.P.M. _____
 Pump Depth _____ FL Intake Depth _____ FL

Form 408-3-3 Rev. 12/95

OWNER'S NAME U.S. Navy - NAS Cecil Field

COMPLETION DATE _____ Florida Unique I.D. _____

WELL USE: DEP/Public _____ Irrigation _____ Domestic _____ Monitor
 HRS Limited _____ 62-524 _____ Other _____

DRILL METHOD Rotary Cable Tool Combination
 Jet Auger Other _____

Measured Static Water Level _____ Measured Pumping Water Level _____
 After _____ Hours at _____ A.P.M. Measuring Pt. (Describe): _____
 Which is _____ FL Above Below Land Surface
 Casing: Black Steel Galv. PVC Other _____

| Casing Diameter & Depth (FL) | Depth (FL) | | DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color Grain Size Type of Material |
|---|------------|-------------|---|
| | From | To | |
| Diameter <u>2"</u> From <u>0</u> To <u>29.5</u> | <u>0</u> | <u>29.5</u> | <u>Cement Bentonite grout</u> |
| Diameter _____ From _____ To _____ | | | <u>Abandoned Well No</u> <u>CEF 623-4D</u> |
| Liner <input type="checkbox"/> or Casing <input type="checkbox"/> Diameter _____ From _____ To _____ | | | |

Driller's Name: Frank Linehan
 (print or type)

PERMIT # _____ CUP/WUP # _____ DID # _____

If permit is for multiple wells indicate the number of wells drilled _____

Indicate remaining wells to be cancelled _____

WATER WELL CONTRACTOR'S

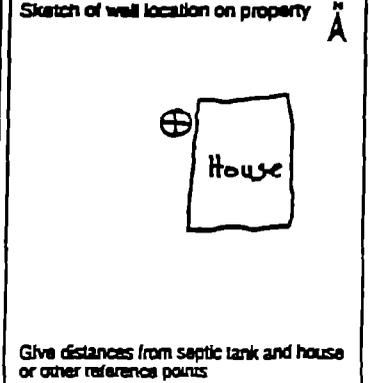
SIGNATURE [Signature] License # 11026
 I certify that the information provided in this report is accurate and true.

| Grout | No. of Bags | From (FL) | To (FL) |
|--------------|-------------|-----------|---------|
| Neat Cement: | 1/3 | 0 | 14.4 |
| Bentonite: | | | |

WELL LOCATION: County Duval
NE 1/4 of SE 1/4 of Section 15 Twp: 3S Rge: 24E

Latitude _____ Longitude _____

DATE STAMP
 Official Use Only



CHEMICAL ANALYSIS WHEN REQUIRED
 Iron: _____ ppm Sulfate: _____ ppm
 Chloride: _____ ppm
 Lab Test Field Test Kit
 Pump Type
 Centrifugal Jet Submersible Turbine
 Horsepower _____ Capacity _____ G.P.M. _____
 Pump Depth _____ Ft Intake Depth _____ Ft

Form 408-3-3 Rev. 12/95

COMPLETION DATE _____ Florida Unique I.D. _____

WELL USE: DEP/Public _____ Irrigation _____ Domestic _____ Monitor
 HRS Limited _____ 62-524 _____ Other _____

DRILL METHOD Rotary Cable Tool Combination
 Jet Auger Other _____

Measured Static Water Level _____ Measured Pumping Water Level _____
 After _____ Hours at _____ G.P.M. Measuring Pt. (Describe): _____
 Which is _____ Ft. Above Below Land Surface
 Casing: Black Steel Galv. PVC Other _____

| Casing Diameter & Depth (FL) | Depth (FL) | | DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color Grain Size Type of Material |
|---|------------|------|---|
| | From | To | |
| Diameter 2" From 0 To 14.4 | 0 | 14.4 | Cement-Bentonite grout |
| | | | Abandoned Well No |
| | | | CEF-F-15 |
| Liner <input type="checkbox"/> or Casing <input type="checkbox"/> | | | |
| Diameter _____ | | | |
| From _____ | | | |
| To _____ | | | |

Driller's Name: Frank Linehan
 (print or type)

COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # _____ CUP/WUP # _____ DID # _____

If permit is for multiple wells indicate the number of wells drilled _____

Indicate remaining wells to be cancelled _____

WATER WELL CONTRACTOR'S

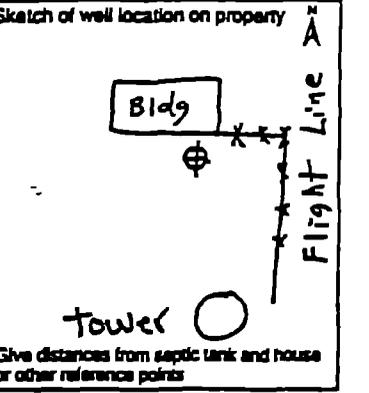
SIGNATURE [Signature] License # 11026
 I certify that the information provided in this report is accurate and true.

| Grout | No. of Bags | From (FL) | To (FL) |
|--------------|-------------|-----------|---------|
| Neat Cement: | 1/3 | 0 | 14.6 |
| Bentonite: | | | |

WELL LOCATION: County Duval
SE 1/4 of NW 1/4 of Section 23 Twp: 3S Rge: 24E

Latitude _____ Longitude _____

DATE STAMP
 Official Use Only



CHEMICAL ANALYSIS WHEN REQUIRED
 Iron: _____ ppm Sulfate: _____ ppm
 Chloride: _____ ppm
 Lab Test Field Test Kit
 Pump Type
 Centrifugal Jet Submersible Turbine
 Horsepower _____ Capacity _____ G.P.M. _____
 Pump Depth _____ Ft Intake Depth _____ Ft

Form 408-3-3 Rev. 12/95

OWNER'S NAME US Navy - NAS Cecil Field

COMPLETION DATE _____ Florida Unique I.D. _____

WELL USE: DEP/Public _____ Irrigation _____ Domestic _____ Monitor
 HRS Limited _____ 62-524 _____ Other _____

DRILL METHOD Rotary Cable Tool Combination
 Jet Auger Other _____

Measured Static Water Level _____ Measured Pumping Water Level _____
 After _____ Hours at _____ G.P.M. Measuring Pt. (Describe): _____
 Which is _____ Ft. Above Below Land Surface
 Casing: Black Steel Galv. PVC Other _____

| Casing Diameter & Depth (FL) | Depth (FL) | | DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color Grain Size Type of Material |
|---|------------|------|---|
| | From | To | |
| Diameter 2" From 0 To 14.6 | 0 | 14.6 | Cement-Bentonite grout |
| | | | Abandoned Well No |
| | | | CEF-880-15 |
| Liner <input type="checkbox"/> or Casing <input type="checkbox"/> | | | |
| Diameter _____ | | | |
| From _____ | | | |
| To _____ | | | |

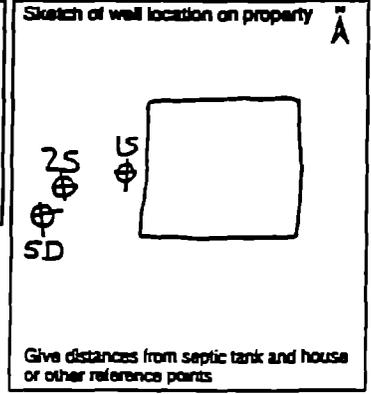
Driller's Name: Frank Linehan
 (print or type)

PERMIT # _____ CUP/WUP # _____ DID # _____
 If permit is for multiple wells indicate the number of wells drilled _____
 Indicate remaining wells to be cancelled _____
WATER WELL CONTRACTOR'S
 SIGNATURE Frank M. Linehan License # 11026
 I certify that the information provided in this report is accurate and true.

| Grout | No. of Bags | From (FL) | To (FL) |
|-------------|-------------|-----------|---------|
| Neat Cement | 1/3 | 0 | 10.5 |
| Bentonite: | | | |

WELL LOCATION: County Duval
SE 1/4 of SE 1/4 of Section 13 Twp: 35 Rge: 24E
 Latitude _____ Longitude _____

DATE STAMP _____
 Official Use Only



CHEMICAL ANALYSIS WHEN REQUIRED
 Iron: _____ ppm Sulfate: _____ ppm
 Chloride: _____ ppm
 Lab Test Field Test Kit
 Pump Type
 Centrifugal Jet Submersible Turbine
 Horsepower _____ Capacity _____ G.P.M. _____
 Pump Depth _____ FL Intake Depth _____ FL

COMPLETION DATE _____ Florida Unique I.D. _____
 WELL USE: DEP/Public _____ Irrigation _____ Domestic _____ Monitor
 HRS Limited _____ 62-524 _____ Other _____
 DRILL METHOD Rotary Cable Tool Combination
 Jet Auger Other _____

Measured Static Water Level _____ Measured Pumping Water Level _____
 After _____ Hours at _____ G.P.M. Measuring Pt. (describe): _____
 Which is _____ FL Above Below Land Surface
 Casing: Black Steel Galv. PVC Other _____

| Casing Diameter & Depth (FL) | Depth (FL) | | DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color Grain Size Type of Material |
|---|------------|------|---|
| | From | To | |
| Diameter <u>2"</u> From <u>0</u> To <u>10.5</u> | 0 | 10.5 | Cement-bentonite grout |
| | | | Abandoned Well No. |
| Diameter _____ From _____ To _____ | | | CEF-502-15 |
| Liner <input type="checkbox"/> or Casing <input type="checkbox"/> Diameter _____ From _____ To _____ | | | |

Driller's Name: Frank Linehan
 (print or type)

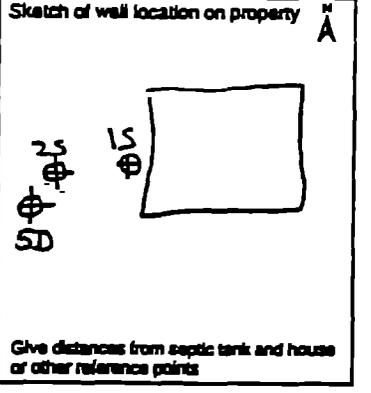
WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # _____ CUP/WUP # _____ DID # _____
 If permit is for multiple wells indicate the number of wells drilled _____
 Indicate remaining wells to be cancelled _____
WATER WELL CONTRACTOR'S
 SIGNATURE Frank M. Linehan License # 11026
 I certify that the information provided in this report is accurate and true.

| Grout | No. of Bags | From (FL) | To (FL) |
|-------------|-------------|-----------|---------|
| Neat Cement | 1/3 | 0 | 13.2 |
| Bentonite: | | | |

WELL LOCATION: County Duval
SE 1/4 of SE 1/4 of Section 13 Twp: 35 Rge: 24E
 Latitude _____ Longitude _____

DATE STAMP _____
 Official Use Only



CHEMICAL ANALYSIS WHEN REQUIRED
 Iron: _____ ppm Sulfate: _____ ppm
 Chloride: _____ ppm
 Lab Test Field Test Kit
 Pump Type
 Centrifugal Jet Submersible Turbine
 Horsepower _____ Capacity _____ G.P.M. _____
 Pump Depth _____ FL Intake Depth _____ FL

OWNER'S NAME US Navy-NAS Cecil Field
 COMPLETION DATE _____ Florida Unique I.D. _____
 WELL USE: DEP/Public _____ Irrigation _____ Domestic _____ Monitor
 HRS Limited _____ 62-524 _____ Other _____
 DRILL METHOD Rotary Cable Tool Combination
 Jet Auger Other _____

Measured Static Water Level _____ Measured Pumping Water Level _____
 After _____ Hours at _____ G.P.M. Measuring Pt. (describe): _____
 Which is _____ FL Above Below Land Surface
 Casing: Black Steel Galv. PVC Other _____

| Casing Diameter & Depth (FL) | Depth (FL) | | DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color Grain Size Type of Material |
|---|------------|------|---|
| | From | To | |
| Diameter <u>2"</u> From <u>0</u> To <u>13.2</u> | 0 | 13.2 | Cement-bentonite grout |
| | | | Abandoned Well No. |
| Diameter _____ From _____ To _____ | | | CEF-502-25 |
| Liner <input type="checkbox"/> or Casing <input type="checkbox"/> Diameter _____ From _____ To _____ | | | |

Driller's Name: Frank Linehan
 (print or type)

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT # _____ CUP/WUP # _____ DID # _____

If permit is for multiple wells indicate the number of wells drilled _____

Indicate remaining wells to be cancelled _____

WATER WELL CONTRACTOR'S

SIGNATURE [Signature] License # 11026

I certify that the information provided in this report is accurate and true.

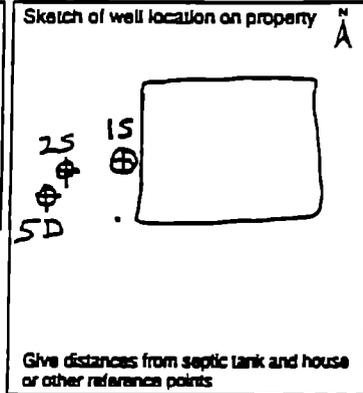
| Grout | No. of Bags | From (FL) | To (FL) |
|--------------|-------------|-----------|---------|
| Neat Cement: | 1 | 0 | 30.0 |
| Bentonite: | 1/4 | | |

WELL LOCATION: County Duval
SE 1/4 of SE 1/4 of Section 13 Twp: 3S Rge: 24E

Latitude _____ Longitude _____

DATE STAMP

Official Use Only



CHEMICAL ANALYSIS WHEN REQUIRED

Iron: _____ ppm Sulfate: _____ ppm

Chloride: _____ ppm

Lab Test Field Test Kit

Pump Type

Centrifugal Jet Submersible Turbine

Horsepower _____ Capacity _____ G.P.M. _____

Pump Depth _____ FL Intake Depth _____ FL

OWNER'S NAME US Navy - NAS Cecil Field

COMPLETION DATE _____ Florida Unique I.D. _____

WELL USE: DEP/Public _____ Irrigation _____ Domestic _____ Monitor

HRS Limited _____ 62-524 _____ Other _____

DRILL METHOD Rotary Cable Tool Combination

Jet Auger Other _____

Measured Static Water Level _____ Measured Pumping Water Level _____
 After _____ Hours at _____ G.P.M. Measuring Pt. (describe): _____
 Which is _____ FL Above Below Land Surface
 Casing: Black Steel Galv. PVC Other _____

| Casing Diameter & Depth (FL) | Depth (FL) | | DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. Color Grain Size Type of Material |
|---|------------|------|---|
| | From | To | |
| Diameter <u>2"</u> From <u>0</u> To <u>30.0</u> | 0 | 30.0 | <u>Cement-bentonite grout</u> |
| Diameter _____ From _____ To _____ | | | <u>Abandoned Well No</u> |
| | | | <u>CEF-502-5D</u> |
| Liner <input type="checkbox"/> or Casing <input type="checkbox"/> Diameter _____ From _____ To _____ | | | |

Driller's Name: Frank Linchan
 (print or type)

APPENDIX C
SOIL DISPOSAL MANIFESTS

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No. 71-72

1. Page 1 of 7

2. Generator's Name and Mailing Address
 Commanding Officer, Staff Civil Eng.
 PO Box 108, Code 184, NAS Cecil Field
 Jacksonville, FL 32215

3. Generator's Phone (904) 778-5620

4. Transporter 1 Company Name

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address

Kedesh, Inc.
 Hwy 17 North
 Kingsland, GA 31548

A. Transporter's Phone

B. Transporter's Phone

C. Facility's Phone

(912) 729-7555

7. Waste Shipping Name and Description

| 8. Containers | | 9. Total Quantity | 10. Unit Wt/Vol |
|---------------|------|-------------------|-----------------|
| No. | Type | | |
| | | | |
| | | | |
| | | | |
| | | | |

a. Petroleum Contaminated Soil

b.

c.

d.

D. Additional Descriptions for Materials Listed Above

Site# 502/607

Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above

Job #5495/Profile #11800

11. Special Handling Instructions and Additional Information

202

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

LeRoy A Long

Signature

LeRoy A Long

Month Day Year
11 14 99

13. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

14. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Joe Weydener

Signature

Joe Weydener

Month Day Year
11 14 99

15. Discrepancy Indication Space

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name

Roger Crews

Signature

Roger Crews

Month Day Year
11 14 99

ORIGINAL - RETURN TO GENERATOR

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No. 1173

1. Page 1 of 1

2. Generator's Name and Mailing Address: Commanding Officer, Staff Civil Eng.
PO Box 108, Code 184, NAS Cecil Field
Jacksonville, FL 32215

3. Generator's Phone (904) 778-5620

4. Transporter 1 Company Name

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address:
Kedesh, Inc.
Hwy 17 North
Kingsland, GA 31548

A. Transporter's Phone
B. Transporter's Phone
C. Facility's Phone
(912) 729-7555

7. Waste Shipping Name and Description

| 8. Containers | 9. Total Quantity | 10. Unit Wt/Vol |
|---------------|-------------------|-----------------|
| | | |
| a. | | |
| b. | | |
| c. | | |
| d. | | |

Petroleum Contaminated Soil

D. Additional Descriptions for Materials Listed Above
Site# 607
Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above
Job #5495/Profile #11800

11. Special Handling Instructions and Additional Information

602

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: LeRay A Long
Signature: LeRay A Long
Month: 11, Day: 14, Year: 99

13. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: James Allison
Signature: James Allison
Month: 11, Day: 14, Year: 99

14. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Month: ., Day: ., Year: .

15. Discrepancy Indication Space

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 15.
Printed/Typed Name: Peggy Crews
Signature: Peggy Crews
Month: 11, Day: 14, Year: 99

ORIGINAL - RETURN TO GENERATOR

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No. 1174

1. Page 1 of 1

2. Generator's Name and Mailing Address **Commanding Officer, Staff Civil Eng.**
PO Box 108, Code 184, NAS Cecil Field
Jacksonville, FL 32215

3. Generator's Phone (904) 778-5620

4. Transporter 1 Company Name **Modlin Trucking Co.**

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address
Kedesh Inc.
Hwy 17 North
Kingsland, GA 31548

A. Transporter's Phone **904-254-9948**

B. Transporter's Phone

C. Facility's Phone

7. Waste Shipping Name and Description

8. Containers

No.

Type

9. Total Quantity

10. Unit Wt/Vol

a. **Petroleum Contaminated Soil**

001

D-T

22

T

b.

c.

d.

D. Additional Descriptions for Materials Listed Above

Site # 607

Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above

Job #5495/ Profile #11800

11. Special Handling Instructions and Additional Information

9802

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

LeRoy A Long

Signature

LeRoy A Long

Month Day Year

1-11-98

13. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Stephen LeRoy

Signature

Stephen LeRoy

Month Day Year

1-11-98

14. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

15. Discrepancy Indication Space

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 18.

Printed/Typed Name

Reggy Crews

Signature

Reggy Crews

Month Day Year

11-14-99

ORIGINAL - RETURN TO GENERATOR

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No. 1175

1. Page 1 of 1

2. Generator's Name and Mailing Address **Commanding Officer, Staff Civil Eng.
PO Box 108, Code 184, NAS Cecil Field
Jacksonville, FL 32215**

3. Generator's Phone (904) 778-5620

4. Transporter 1 Company Name **Modlin Trucking Co.**

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address
**Kedesh Inc.
Hwy 17 North
Kingsland, GA 31548**

A. Transporter's Phone **904-254-7448**
B. Transporter's Phone
C. Facility's Phone

7. Waste Shipping Name and Description

8. Containers
No. Type 9. Total Quantity 10. Unit Wt/Vol

| 7. Waste Shipping Name and Description | 8. Containers No. | 8. Containers Type | 9. Total Quantity | 10. Unit Wt/Vol |
|--|-------------------|--------------------|-------------------|-----------------|
| a. Petroleum Contaminated Soil | 001 | D T | 22 | T |
| b. | | | | |
| c. | | | | |
| d. | | | | |

D. Additional Descriptions for Materials Listed Above
Site # 607
Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above
Job #5495/ Profile #11800

11. Special Handling Instructions and Additional Information

209

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name **LeRoy A Long** Signature **LeRoy A Long** Month **11** Day **24** Year **99**

13. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name **DAVID MCBRIET** Signature **David McBriet** Month **11** Day **19** Year **99**

14. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Month Day Year

15. Discrepancy Indication Space

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name **Roger Crews** Signature **Roger Crews** Month **11** Day **14** Year **99**

ORIGINAL - RETURN TO GENERATOR

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No. **7176**

1. Page 1 of 1

2. Generator's Name and Mailing Address **Commanding Officer, Staff Civil Eng.
PO Box 108, Code 184, NAS Cecil Field
Jacksonville, FL 32215**

Generator's Phone (904) **778-5620**

4. Transporter 1 Company Name **Modlin Trucking Co.**

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address
**Kedesh Inc.
Hwy 17 North
Kingsland, GA 31548**

A. Transporter's Phone **904-284-7448**
B. Transporter's Phone
C. Facility's Phone

| 7. Waste Shipping Name and Description | 8. Containers | | 9. Total Quantity | 10. Unit Wt/Vol |
|--|---------------|------------|-------------------|-----------------|
| | No. | Type | | |
| a. Petroleum Contaminated Soil | 001 | D-T | 22 | T |
| b. | | | | |
| c. | | | | |
| d. | | | | |

D. Additional Descriptions for Materials Listed Above
Site # 607
Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above
Job #5495/ Profile #11800

11. Special Handling Instructions and Additional Information
9800

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name **Leroy A Long** Signature **Leroy A Long** Month **11** Day **19** Year **99**

13. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name **Jeff N.** Signature **Jeff N.** Month **11** Day **19** Year **99**

14. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____

15. Discrepancy Indication Space

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 15.

Printed/Typed Name **Peggy Crews** Signature **Peggy Crews** Month **11** Day **14** Year **99**

ORIGINAL - RETURN TO GENERATOR

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No. **7777**

1. Page 1 of 1

2. Generator's Name and Mailing Address **Commanding Officer, Staff Civil Eng.
PO Box 108, Code 184, NAS Cecil Field
Jacksonville, FL 32215**

3. Generator's Phone (904) **778-5620**

4. Transporter 1 Company Name **Madison Trucking Co.**

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address
**Kedesh Inc.
Hwy 17 North
Kingsland, GA 31548**

A. Transporter's Phone **904-284-9448**
B. Transporter's Phone
C. Facility's Phone

| 7. Waste Shipping Name and Description | 8. Containers | | 9. Total Quantity | 10. Unit Wt/Vol |
|--|---------------|------------|-------------------|-----------------|
| | No. | Type | | |
| a. Petroleum Contaminated Soil | 001 | D T | 22 | T |
| b. | | | | |
| c. | | | | |
| d. | | | | |

D. Additional Descriptions for Materials Listed Above
Site # 607
Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above
Job #5495/ Profile #11800

11. Special Handling Instructions and Additional Information
9803

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name **LeRoy A Long** Signature **LeRoy A Long** Month **17** Day **19** Year **99**

13. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name **RANDY JENKINS** Signature **Randy Jenkins** Month **11** Day **14** Year **99**

14. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Month Day Year

15. Discrepancy Indication Space

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 15.

Printed/Typed Name **Peggy Crews** Signature **Peggy Crews** Month **11** Day **14** Year **99**

ORIGINAL - RETURN TO GENERATOR

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

Manifest
Duplicate to
11/14/99

1. Page 1
of 1

2. Generator's Name and Mailing Address **Commanding Officer, Staff Civil Eng.
PO Box 108, Code 184, NAS Cecil Field
Jacksonville, FL 32215**

3. Generator's Phone (904) 778-5620

4. Transporter 1 Company Name
Modlin Trucking Co.

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address
**Kedesh Inc.
Hwy 17 North
Kingsland, GA 31548**

A. Transporter's Phone **904-284-9448**

B. Transporter's Phone

C. Facility's Phone

7. Waste Shipping Name and Description

8. Containers
No. Type

9. Total
Quantity

10. Unit
Wt/Vol

a. **Petroleum Contaminated Soil**

001

22

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D. Additional Descriptions for Materials Listed Above
Site # 607
Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above
Job #5495/ Profile #11800

11. Special Handling Instructions and Additional Information

9801

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name
L. Ray A Long

Signature
L. Ray A Long

Month Day Year
11 14 99

13. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name
Douglas L. FELTON

Signature
Douglas L. Felton

Month Day Year
11 14 99

14. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

15. Discrepancy Indication Space

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name
Peggy Crews

Signature
Peggy Crews

Month Day Year
11 14 99

ORIGINAL - RETURN TO GENERATOR

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No. **77-77**

1. Page 1 of 1

2. Generator's Name and Mailing Address **Commanding Officer, Staff Civil Eng.
PO Box 108, Code 184, NAS Cecil Field
Jacksonville, FL 32215**

3. Generator's Phone (904) **778-5620**

4. Transporter 1 Company Name
Modlin Trucking Co.

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address
**Kedesh Inc.
Hwy 17 North
Kingsland, GA 31548**

A. Transporter's Phone **904-284-9448**

B. Transporter's Phone

C. Facility's Phone

| 7. Waste Shipping Name and Description | 8. Containers | | 9. Total Quantity | 10. Unit Wt/Vol |
|--|---------------|------------|-------------------|-----------------|
| | No. | Type | | |
| a. Petroleum Contaminated Soil | 001 | D T | 22 | T |
| b. | | | | |
| c. | | | | |
| d. | | | | |

D. Additional Descriptions for Materials Listed Above
Site # 607
Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above
Job #5495/ Profile #11800

11. Special Handling Instructions and Additional Information

9808

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name **LARRY A LONG** Signature **Larry A Long** Month **11** Day **14** Year **99**

13. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name **LORRIE OLIVE** Signature **Lorrie Olive** Month **11** Day **14** Year **99**

14. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____

15. Discrepancy Indication Space

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name **ROGER CREWS** Signature **Roger Crews** Month **11** Day **14** Year **99**

ORIGINAL - RETURN TO GENERATOR

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No. **17-80**

1. Page 1 of 1

2. Generator's Name and Mailing Address **Commanding Officer, Staff Civil Eng.
PO Box 108, Code 184, NAS Cecil Field
Jacksonville, FL 32215**

3. Generator's Phone (**904**) **778-5620**

4. Transporter 1 Company Name **Modlin Trucking Co.**

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address
**Kedesh Inc.
Hwy 17 North
Kingsland, GA 31548**

A. Transporter's Phone **904-284-9446**
B. Transporter's Phone
C. Facility's Phone

| 7. Waste Shipping Name and Description | 8. Containers | | 9. Total Quantity | 10. Unit WW/Vol |
|--|---------------|------------|-------------------|-----------------|
| | No. | Type | | |
| a. Petroleum Contaminated Soil | 001 | D T | 22 | T |
| b. | | | | |
| c. | | | | |
| d. | | | | |

D. Additional Descriptions for Materials Listed Above
Site # 607
Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above
Job #5495/ Profile #11800

11. Special Handling Instructions and Additional Information
210

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name **LeRoy A Long** Signature **LeRoy A Long** Month Day Year **11 19 99**

13. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name **Elmer McHitt** Signature **Elmer McHitt** Month Day Year **11 19 99**

14. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Month Day Year

15. Discrepancy Indication Space

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name **Reggie Crews** Signature **Reggie Crews** Month Day Year **11 17 99**

ORIGINAL - RETURN TO GENERATOR

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No. **1781**

1. Page 1 of 1

2. Generator's Name and Mailing Address **Commanding Officer, Staff Civil Eng.
PO Box 108, Code 184, NAS Cecil Field
Jacksonville, FL 32215**

3. Generator's Phone (**904**) **778-5620**

4. Transporter 1 Company Name **Modlin Trucking Co.**

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address
**Kedesh, Inc.
Hwy 17 North
Kingsland, GA 31548**

A. Transporter's Phone **904-284-9445**

B. Transporter's Phone

C. Facility's Phone

(912) 729-7555

7. Waste Shipping Name and Description

B. Containers

No. Type

9. Total Quantity

10. Unit WWVol

a. **Petroleum Contaminated Soil**

001

22

GENERATOR

D. Additional Descriptions for Materials Listed Above

Site# **607**

Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above

Job #5495/Profile #11800

11. Special Handling Instructions and Additional Information

9809

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

Signature

Month Day Year

Leroy A Long

Leroy A Long

11/19/99

13. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

Doloris

Doloris

Month Day Year

14. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

TRANSPORTER

15. Discrepancy Indication Space

FACILITY

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 15.

Printed/Typed Name

Signature

Month Day Year

Peggy Cross

Peggy Cross

11/14/99

ORIGINAL - RETURN TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No. **77-82**

1. Page 1 of 1

2. Generator's Name and Mailing Address **Commanding Officer, Staff Civil Eng.
PO Box 108, Code 184, NAS Cecil Field
Jacksonville, FL 32215**

3. Generator's Phone (904) 778-5620

4. Transporter 1 Company Name **Matlin Trucking Co.**

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address
**Kedesh, Inc.
Hwy 17 North
Kingsland, GA 31548**

A. Transporter's Phone **904-284-9448**
B. Transporter's Phone
C. Facility's Phone
(912) 729-7555

| 7. Waste Shipping Name and Description | 8. Containers | | 9. Total Quantity | 10. Unit Wt/Vol |
|--|---------------|------|-------------------|-----------------|
| | No. | Type | | |
| a. Petroleum Contaminated Soil | 001 | | 22 | |
| b. | | | | |
| c. | | | | |
| d. | | | | |

D. Additional Descriptions for Materials Listed Above
Site# **607**
Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above
Job #5495/Profile #11800

11. Special Handling Instructions and Additional Information
202

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name **LEROY A LONG** Signature **LeRoy A Long** Month **11** Day **14** Year **99**

13. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Month Day Year

14. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name **Joe Wapdener** Signature **Joe Wapdener** Month **11** Day **14** Year **99**

15. Discrepancy Indication Space

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 10.

Printed/Typed Name **Reggy Crews** Signature **Reggy Crews** Month **11** Day **14** Year **99**

ORIGINAL - RETURN TO GENERATOR

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No. 1183

1. Page 1 of 1

2. Generator's Name and Mailing Address **Commanding Officer, Staff Civil Eng.**
 PO Box 108, Code 184, NAS Cecil Field
 Jacksonville, FL 32215

3. Generator's Phone (904) 778-5620

4. Transporter 1 Company Name
Modlin Trucking Co.

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address
Kedesh, Inc.
 Hwy 17 North
 Kingsland, GA 31548

A. Transporter's Phone **904-284-9448**
 B. Transporter's Phone
 C. Facility's Phone
 (912) 729-7555

| 7. Waste Shipping Name and Description | 8. Containers | | 9. Total Quantity | 10. Unit Wt/Vol |
|--|---------------|-----------|-------------------|-----------------|
| | No. | Type | | |
| a. Petroleum Contaminated Soil | 001 | DT | 22 | T |
| b. | | | | |
| c. | | | | |
| d. | | | | |

D. Additional Descriptions for Materials Listed Above
 Site# **607**
Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above
Job #5495/Profile #11800

11. Special Handling Instructions and Additional Information
602

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

| | | |
|---|-----------------------------------|-----------------------------------|
| Printed/Typed Name LeRoy A Long | Signature <i>LeRoy A Long</i> | Month Day Year 11/17/99 |
| 13. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name James Allison | Signature <i>James Allison</i> | Month Day Year 11/17/99 |
| 14. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name | Signature | Month Day Year |

15. Discrepancy Indication Space

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

| | | |
|--|---------------------------------|-----------------------------------|
| Printed/Typed Name Peggy Crews | Signature <i>Peggy Crews</i> | Month Day Year 11/14/99 |
|--|---------------------------------|-----------------------------------|

ORIGINAL - RETURN TO GENERATOR

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

Manifest Document # 7787

1. Page 1 of 1

2. Generator's Name and Mailing Address: Commanding Officer, Staff Civil Eng.
PO Box 108, Code 184, NAS Cecil Field
Jacksonville, FL 32215

3. Generator's Phone (904) 778-5620

4. Transporter 1 Company Name: *Modlin Trucking Co.*

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address:
Kedesh, Inc.
Hwy 17 North
Kingsland, GA 31548

A. Transporter's Phone: *904-234-7442*
B. Transporter's Phone
C. Facility's Phone: (912) 729-7555

| 7. Waste Shipping Name and Description | 8. Containers | | 9. Total Quantity | 10. Unit Wt/Vol |
|--|---------------|-----------|-------------------|-----------------|
| | No. | Type | | |
| a. Petroleum Contaminated Soil | <i>001</i> | <i>DT</i> | <i>22</i> | <i>T</i> |
| b. | | | | |
| c. | | | | |
| d. | | | | |

D. Additional Descriptions for Materials Listed Above:
Site# *607*
Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above:
Job #5495/Profile #11800

11. Special Handling Instructions and Additional Information

9802

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: *LEROY A LONG* Signature: *Leroy A Long* Month: *7* Day: *14* Year: *99*

13. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: *Stephen Leroy* Signature: *[Signature]* Month: *11* Day: *15* Year: *99*

14. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Signature: Month: Day: Year:

15. Discrepancy Indication Space

23-24

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 15.

Printed/Typed Name: *Kevin Crews* Signature: *Kevin Crews* Month: *11* Day: *14* Year: *99*

ORIGINAL - RETURN TO GENERATOR

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No. **11-85**

1. Page 1 of 1

2. Generator's Name and Mailing Address **Commanding Officer, Staff Civil Eng.
PO Box 108, Code 184, NAS Cecil Field
Jacksonville, FL 32215**

3. Generator's Phone (904) 778-5620

4. Transporter 1 Company Name **Modlin Trucking Co.**

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address
**Kedesh, Inc.
Hwy 17 North
Kingsland, GA 31548**

A. Transporter's Phone **704-284-7446**
B. Transporter's Phone
C. Facility's Phone
(912) 729-7555

7. Waste Shipping Name and Description

| 8. Containers | | 9. Total Quantity | 10. Unit Wt/Vol |
|---------------|------|-------------------|-----------------|
| No. | Type | | |

| | | | | | |
|----|------------------------------------|------------|-----------|-----------|----------|
| a. | Petroleum Contaminated Soil | 001 | DT | 22 | T |
| b. | | | | | |
| c. | | | | | |
| d. | | | | | |

D. Additional Descriptions for Materials Listed Above
Site# 607
Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above
Job #5495/Profile #11800

11. Special Handling Instructions and Additional Information

209

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

| | | |
|---|----------------------------------|-----------------------------------|
| Printed/Typed Name LEROY A LONG | Signature <i>Leroy A Long</i> | Month Day Year 11/14/99 |
|---|----------------------------------|-----------------------------------|

13. Transporter 1 Acknowledgement of Receipt of Materials

| | | |
|--|-------------------------------------|-----------------------------------|
| Printed/Typed Name DAVID M. GIBERT | Signature <i>David M. Gibert</i> | Month Day Year 11/14/99 |
|--|-------------------------------------|-----------------------------------|

14. Transporter 2 Acknowledgement of Receipt of Materials

| | | |
|--------------------|-----------|----------------|
| Printed/Typed Name | Signature | Month Day Year |
|--------------------|-----------|----------------|

15. Discrepancy Indication Space

22.11

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

| | | |
|--|---------------------------------|-----------------------------------|
| Printed/Typed Name Kevin Crews | Signature <i>Kevin Crews</i> | Month Day Year 11/14/99 |
|--|---------------------------------|-----------------------------------|

ORIGINAL - RETURN TO GENERATOR

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No. **1186**

1. Page 1 of 1

2. Generator's Name and Mailing Address **Commanding Officer, Staff Civil Eng.
PO Box 108, Code 184, NAS Cecil Field
Jacksonville, FL 32215**

3. Generator's Phone (904) 778-5620

4. Transporter 1 Company Name **Modlin Trucking Co.**

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address
**Kedesh, Inc.
Hwy 17 North
Kingsland, GA 31548**

A. Transporter's Phone **704-254-7448**
B. Transporter's Phone
C. Facility's Phone
(912) 729-7555

7. Waste Shipping Name and Description

a. **Petroleum Contaminated Soil**

b.

c.

d.

| 8. Containers | | 9. Total Quantity | 10. Unit WVol |
|---------------|------|-------------------|---------------|
| No. | Type | | |
| 001 | DT | 22 | T |
| . | . | . | . |
| . | . | . | . |
| . | . | . | . |

D. Additional Descriptions for Materials Listed Above
Site# **607**
Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above
Job #5495/Profile #11800

11. Special Handling Instructions and Additional Information

9800

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name **L. Ray A. Long** Signature **L. Ray A. Long** Month **11** Day **19** Year **89**

13. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name **Jeff N.** Signature **Jeff N.** Month **11** Day **19** Year **89**

14. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Month Day Year

15. Discrepancy Indication Space

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name **Deann Crews** Signature **Deann Crews** Month **11** Day **14** Year **88**

GENERATOR

TRANSPORTER

FACILITY

ORIGINAL - RETURN TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

Manifest Document ID: 1787

1. Page 1 of 1

2. Generator's Name and Mailing Address: **Commanding Officer, Staff Civil Eng.**
 PO Box 108, Code 184, NAS Cecil Field
 Jacksonville, FL 32215

3. Generator's Phone: (904) 778-5620

4. Transporter 1 Company Name: **Modlin Trucking Co.**

5. Transporter 2 Company Name:

6. Designated Facility Name and Site Address:
Kedesh, Inc.
 Hwy 17 North
 Kingsland, GA 31548

A. Transporter's Phone: 904-284-9448

B. Transporter's Phone:

C. Facility's Phone: (912) 729-7555

7. Waste Shipping Name and Description:

| 8. Containers | | 9. Total Quantity | 10. Unit W/Vol |
|---------------|------|-------------------|----------------|
| No. | Type | | |

a. **Petroleum Contaminated Soil**

| | | | |
|-----|----|----|---|
| 001 | DI | 22 | T |
|-----|----|----|---|

| | | | |
|----|--|--|--|
| b. | | | |
| c. | | | |
| d. | | | |

D. Additional Descriptions for Materials Listed Above

Site# **607**

Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above

Job #5495/Profile #11800

11. Special Handling Instructions and Additional Information

9803

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

LEROY A LONG

Signature

Leroy A Long

Month Day Year
11 14 99

13. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

RANDY JENKINS

Signature

Randy Jenkins

Month Day Year
11 14 99

14. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year
. . .

15. Discrepancy Indication Space

16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name

Beau Crews

Signature

Beau Crews

Month Day Year
11 14 99

ORIGINAL - RETURN TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No. **7788**

1. Page 1 of 1

2. Generator's Name and Mailing Address **Commanding Officer, Staff Civil Eng.
PO Box 108, Code 184, NAS Cecil Field
Jacksonville, FL 32215**

3. Generator's Phone (904) **778-5620**

4. Transporter 1 Company Name **Modlin Trucking Co.**

5. Transporter 2 Company Name

6. Designated Facility Name and Site Address
**Kedesh, Inc.
Hwy 17 North
Kingsland, GA 31548**

A. Transporter's Phone **704-284-9448**

B. Transporter's Phone

C. Facility's Phone
(912) 729-7555

| 7. Waste Shipping Name and Description | 8. Containers | | 9. Total Quantity | 10. Unit Wt/Vol |
|--|---------------|-----------|-------------------|-----------------|
| | No. | Type | | |
| a. Petroleum Contaminated Soil | 001 | DT | 22 | T |
| b. | | | | |
| c. | | | | |
| d. | | | | |

D. Additional Descriptions for Materials Listed Above
Site# **607 / 68**
Non-RCRA, Non-Hazardous

E. Handling Codes for Wastes Listed Above
Job #5495/Profile #1180

11. Special Handling Instructions and Additional Information
9801

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name **LeRoy A Long** Signature **LeRoy A Long** Month **7** Day **14** Year **99**

13. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name **Douglas L. FELTON** Signature **Douglas L. Felton** Month **7** Day **14** Year **99**

14. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____

15. Discrepancy Indication Space

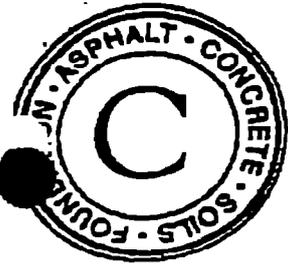
16. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name **Peggy Crews** Signature **Peggy Crews** Month **7** Day **14** Year **99**

ORIGINAL - RETURN TO GENERATOR

GENERATOR FACILITY

**APPENDIX D
CLEAN FILL CERTIFICATION**



CAL-TECH TESTING, INC.

ENGINEERING & TESTING LABORATORY

P.O. Box 1625, Lake City, FL 32058-1625
6800 Phillips Hwy., Sta. 2, Jacksonville, FL 32216
7850 Haz Drive, Milton, FL 32570

Lake City • (904) 755-9333
Fax • (904) 752-6458
Jacksonville • (904) 296-7201
Fax • (904) 296-7202
Milton • (904) 626-0080
Fax • (904) 626-0190

January 27, 1999

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, N.E.
Suite 700
Atlanta, GA 30346-1278
Attn: Charles Radford

RE: Response to Request for Information

Dear Mr. Radford:

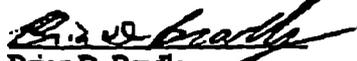
The Cal-Tech Testing Team (CTT) is writing this letter in response to your request for information concerning the disposal of the liner and information concerning the source of fill material used for the backfilling operations at Day Tank 2 and the 8 UST locations at Naval Air Station Cecil Field.

The liner, excavated from the day tank 2 site, was shipped to the Trail Ridge Landfill in Baldwin, Florida. The landfill charges disposal by the size of the incoming container. The liner was shipped in two 20 cubic yard roll-off containers. The disposal charge was for 40 cubic yards. We have attached copies of the manifests indicating the volume of materials and the transporter information. No weigh tickets are available for this material.

The fill material used for the Day Tank 2 and 8 UST locations was native soil excavated from an Anderson Columbia Co. Inc. (ACCT) facility located in Maxville, Florida. The fill was from a natural sand bar formation. This material was undisturbed prior to use at the Naval Air Station Cecil Field projects.

Questions related to this item can be directed to myself at (904) 755-1196 and fax is (904) 758-9050.

Sincerely,
Cal-Tech Testing Team


Brian D. Bradley
Project Manager