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CNC CHARLESTON
5090.3a

CORRECTIVE ACTION PLAN FOR ZONE G BUILDING NS 4 FORMER UNDERGROUND
STORAGE TANK NS 4 CNC CHARLESTON SC
3/1/2003
CH2M HILL

**Corrective Action Plan
FOR
ZONE G; BUILDING NS 4
Former Underground Storage Tank NS 4
SCDHEC No: 02099**

**Charleston Naval Complex
North Charleston, South Carolina**

**SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND**

Contract Number N62467-99-C-0960

March 2003

**Corrective Action Plan
FOR
Zone G; Former UST NS 4**

**Charleston Naval Complex
North Charleston, South Carolina**

**Submitted to:
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
Charleston, South Carolina 29406**

**Submitted by:
CH2M-JONES, LLC.
Charleston Naval Complex
1849 Avenue F
North Charleston, South Carolina 29405**



J.A. JONES
ENVIRONMENTAL
SERVICES



CH2MHILL

Contract Number: N62467-99-C-0960

March 2003

ACRONYMS

bls
BTEX
BRAC

below land surface
benzene, toluene, ethylbenzene and xylenes
Defense Base Realignment and Closure Act

| | |
|-----------------|--|
| CAP | Corrective Action Plan |
| CNC | Charleston Naval Complex |
| COC | Chemical of Concern |
| DPT | Direct Push Technology |
| EISOPQAM | Environmental Investigations Standard Operating Procedures and Quality Assurance Manual |
| GEL | General Engineering Laboratories |
| µg/kg | microgram per kilogram |
| µg/L | microgram per liter |
| NAVFAC | Naval Facilities Engineering Command |
| OVA | Organic Vapor Analyzer |
| PAH | Polycyclic Aromatic Hydrocarbons |
| QA | Quality Assurance |
| QC | Quality Control |
| RA | Rapid Assessment |
| RAR | Rapid Assessment Report |
| RBSL | Risk-Based Screening Level |
| RCRA | Resource Conservation Recovery Act |
| RFI | RCRA Facility Investigation |
| SCDHEC | South Carolina Department of Health and Environmental Control |
| SOUTHDIV | Southern Division Naval Facilities Engineering Command |
| SPORTENDETCHASN | Supervisor of Ship Building, Conversion and Repair, United States Navy, Portsmouth Virginia, Environmental Detachment Charleston |
| SSTL | Site-Specific Target Level |
| US EPA | United States Environmental Protection Agency |
| UST | Underground Storage Tank |

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1.0 INTRODUCTION

This Sampling and Analysis Plan (SAP) has been prepared by CH2M-JONES, LLC. The plan is designed for Underground Storage Tank (UST) NS4; located between Buildings NS2 and NS3 at the Charleston Naval Complex (CNC), Charleston, South Carolina. This site contained a 25,000 gallon UST installed in 1952.

Originally this site was under the RCRA program as part of AOCs 675, 676, and 677, however a letter dated 5 February 2002, transferred the site to the UST program.

This SAP was developed using the information provided in the Zone I RCRA Facility Investigation Report (IR).

1.1 General Site Description

The CNC is in the city of North Charleston, on the west bank of the Cooper River in Charleston County, South Carolina, as shown on **Figure 1**. This installation consists of two major areas: an undeveloped dredge materials area on the east bank of the Cooper River on Daniel Island in Berkeley County, and a developed area on the west bank of the Cooper River. The developed portion of the base is on the peninsula bounded on the west by the Ashley River and on the east by the Cooper River.

The site is located within the developed portion of the base. The area surrounding CNC is "mature urban," having long been developed with commercial, industrial, and residential land use. Commercial areas are primarily west of CNC; industrial areas are primarily to the north of the base along Shipyard Creek.

1.2 Site Background

The CNC began operations in 1901, when the Navy acquired the property. In 1993, the CNC was added to the list of bases schedule for closure under the Defense Base Realignment and Closure Act (BRAC). BRAC regulates the closure of the base and transition of the property back to the community. With the scheduled closure of the base, environmental cleanup has proceeded to make the property available for redevelopment after closure.

UST NS 4 is a former 25,000 gallon UST installed in 1952. A 495 gallon Oily-Water Separator (OWS) is located north of the old UST location. The UST stored fuel oil for a boiler house (Building NS-2). No. 5 fuel oil was used until 1991. From 1991 until its removal in 1996 the tank has stored No. 2 fuel oil. The Area was also used to fuel sea planes, and petroleum contamination may have resulted from this activity. Actual dates of seaplane operations are unknown, but this activity was discontinued in the 1950's.

1.3 Objective

This CAP addresses one location within the NS4 former tank footprint. CH2M-Jones, LLC presents a plan to excavate soils in the delineated areas as seen in **Figure 5**. Once soil excavation activities have been completed, the monitoring plan in Section 3.0 and 4.0 of this plan will be implemented in order to demonstrate the natural attenuation of groundwater contamination at the site.

2.0 PROPOSED CORRECTIVE ACTION

Based on the results of the SAP, a dig and haul approach will be performed at this site to remove the contaminated soils in the vicinity of the former UST tank. In soil samples collected for the SAP, levels of contaminants exceeded the Risk Based Screening Levels (RBSLs) for surface and subsurface soils (**Figure 2**).

Additional soil samples were collected on January 30, 2003 and February 18, 2003 in order to establish the contaminated areas. Soils from approximately 0 to 6 ft bls (or just above groundwater) will be excavated as a part of this CAP. The proposed active measures and monitoring program is described in detail in Sections 3.0 and 4.0 of this plan.

3.0 MONITORING WELL INSTALLATION AND ABANDONMENT

3.1 Monitoring Well Installation

Immediately following the excavation activities, two monitoring wells will be installed at this site. Existing adjacent monitoring wells will be use for up-gradient and down-gradient boundary wells.

3.2 Monitoring Well Abandonment

No monitoring wells will be abandoned at this time. The monitoring wells will only abandoned upon receiving approval for no further action. All monitoring wells will be abandoned following the South Carolina Well Standards and Regulations R.61-71. The well abandonment will include grouting wells, removing stick-ups and removing all guard posts. Any well casing and screen removed will be decontaminated and disposed of as general refuse.

3.3 Surveying

All soil borings and monitoring wells installed at this site will be surveyed and implemented as a part of the closure report.

3.4 Equipment Decontamination

All drilling equipment, augers, well casing and screens, and soil and groundwater sampling equipment involved in field sampling activities will be decontaminated according to the Environmental Protection Agencies (EPA) “ Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM).

4.0 SAMPLING PROGRAM

4.1 Soil Boring Schedule

All soil borings collected for this site were collected from two intervals. The first interval was from 0-2 feet bls and the second interval was collected from 3-5 feet bls.

On October 31, 2002 six soil borings (twelve total samples) were collected (UN4SB001 thru UN4SB006) as a part of the approved SAP. Of the twelve samples analyzed, all were below the RBSLs for VOCs and nine were above the RBSLs for SVOCs (**Figure 2**).

On January 30, 2003 four additional soil borings (eight total samples) were collected in order to delineate the soils at the site (UN4SB007 thru UN4SB010) (**Figure 3**). Of the eight soil borings collected only two were above the RBSLs. Soil boring UN4SB008 first interval had a hit of acenaphthalene at 69.0 ug/kg, and soil boring UN4SB009 (second interval) had hits of Benzo(a)anthracene at 92.6 ug/kg, Chrysene at 105 ug/kg, and Benzo(b)fluoranthene at 176 ug/kg.

Because soil borings UN4SB008-01 and UN4SB009-02 had levels of SVOCs above the RBSLs, two additional soil borings (UN4SB011 and UN4SB012) were collected on February 20, 2003 approximately 5 feet out (**Figure 4**). Soil boring UN4SB011-01 had a small hit of benzo(b)fluoranthene at 82.0 ug/kg and soil boring UN4SB012-02 had a small hit of Benzo(b)Fluoranthene at 77.0 ug/kg.

Soils will be excavated out beyond soil borings UN4SB007, UN4SB010, UN4SB011, and UN4SB012 (**Figure 5**).

4.2 Groundwater Sampling

Following excavation, the two newly installed monitoring wells along with the existing monitoring wells will be used to support natural attenuation (**Figure 6**). CH2M-Jones, LLC recommends three rounds of sampling in three-month intervals. If the groundwater analytical results indicate that there are levels of contaminants above the RBSLs, active remediation for the groundwater may be recommended. If the analytical results indicate that there are no contaminants at the site, No Further Action may be recommended for this site.

Schedule:

1. Excavate contaminated soil to a depth of approximately 6 ft bls or just above groundwater.
2. Transport contaminated soil to a permitted Treated Storage Disposal Facility that will accept the soils.
3. Backfill excavated area with clean fill dirt.
4. Start monitoring groundwater for natural attenuation.

- **Groundwater Sampling**

No Groundwater sampling proposed until excavation is complete. Once excavation is complete, the two newly installed monitoring wells and existing monitoring wells will be monitored for COCs.

Prior to any groundwater sampling, each well will be measured for water levels and total depth and each well will be purged in accordance the EPA EISOPQAM.

4.3 Analytical Parameters

The following constituents will be analyzed for each soil sample prior to any excavation:

- BTEX using method 8260.
- PAHs using method 8270.

The following constituents will be analyzed for each monitoring well.

- BTEX using method 8260.
- PAHs using method 8270.

4.4 Field Measurements

The following parameters will be sampled in the field for groundwater:

Dissolved Oxygen, pH, Turbidity, Conductivity, Temperature and Oxygen Reduction Potential

4.5 Groundwater Level Measurements

Depth to product (if any), Depth to water, and Total depth of well.

4.6 Sample Handling

Sample handling will be conducted in accordance the following references:

EPA EISOPQAM (EPA May, 1996)

Comprehensive Sampling and Analysis Plan, RCRA Facility Investigation, June 30, 1996.

4.7 Sample Packing and Shipping

The following forms will be completed to complete the packing/shipping process:

- Sample labels
- Chain-of-custody labels

- Appropriate labels applied to shipping coolers
- Chain-of-custody forms
- Federal express air bill

4.8 Quality Control

Quality Control (QC) samples will be collected during sampling events. QC samples may include field blanks, field duplicates, and trip blanks. Definitions of each can be found below as described by the EISOPQAM:

- **Field Blank:** a sample collected using organic-free water, which has been run over/through sample collection equipment. These samples are used to determine if contaminants have been introduced by contact of the sample medium with sampling equipment. Equipment field blanks are often associated with collecting rinse blanks of equipment that has been field cleaned.
- **Field Duplicates:** Two or more samples collected from a common source. The purpose of a duplicate sample is to estimate the variability of a given characteristic or contamination associated with a population.
- **Trip Blank:** A sample, which is prepared prior to the sampling event in the actual container and is stored with the investigative samples throughout the sampling event. They are often packaged for shipment with the other samples and submitted for analysis. At no time after their preparation are trip blanks to be opened before they reach the laboratory. Trip blanks are used to determine if samples were contaminated during storage and/or transportation back to the laboratory (a measure of sample handling variability resulting in positive bias in contaminant concentration). If samples are to be shipped, trip blanks are to be provided with each shipment but not for each cooler.

4.9 Field QA/QC

More information on field QC can be found in section 5.6.

4.10 Control Limits

| Analysis | Control Parameter | Control Limit | Corrective Action |
|-------------------------------|---|--|---|
| Air Monitoring | Check Calibration of OVA daily | Calibrate to manufactures specifications | Recalibrate. If unable to calibrate, replace. |
| pH of water | Continuing calibration check of pH 7.0 buffer | pH= 7.0 | Recalibrate. If unable to calibrate, replace electrode. |
| Specific Conductance of water | Continuing calibration check of standard solution | > 1% of standard | Recalibrate. |

4.11 Record keeping

In addition to records kept in logbooks, forms will be kept on log sheets for soil and groundwater.

4.12 Site Management and Base Support

Throughout the investigation activities, work on the CNC will be coordinated through SOUTHDIV and SCDHEC.

The primary contacts for each are as follows:

1. SOUTHDIV point of contact
Gabe Magwood
Southern Division Engineering Command
2155 Eagle Drive
North Charleston, SC 29406
(843) 820-7307
2. SOUTHDIV point of contact
Rob Harrell
Southern Division Engineering Command
2155 Eagle Drive
North Charleston, SC 29406
(843) 820-7307

3. SCDHEC point of contact
Michael Bishop
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201
(843) 898-4300

TABLES

January 30, 2003 Soil Samples

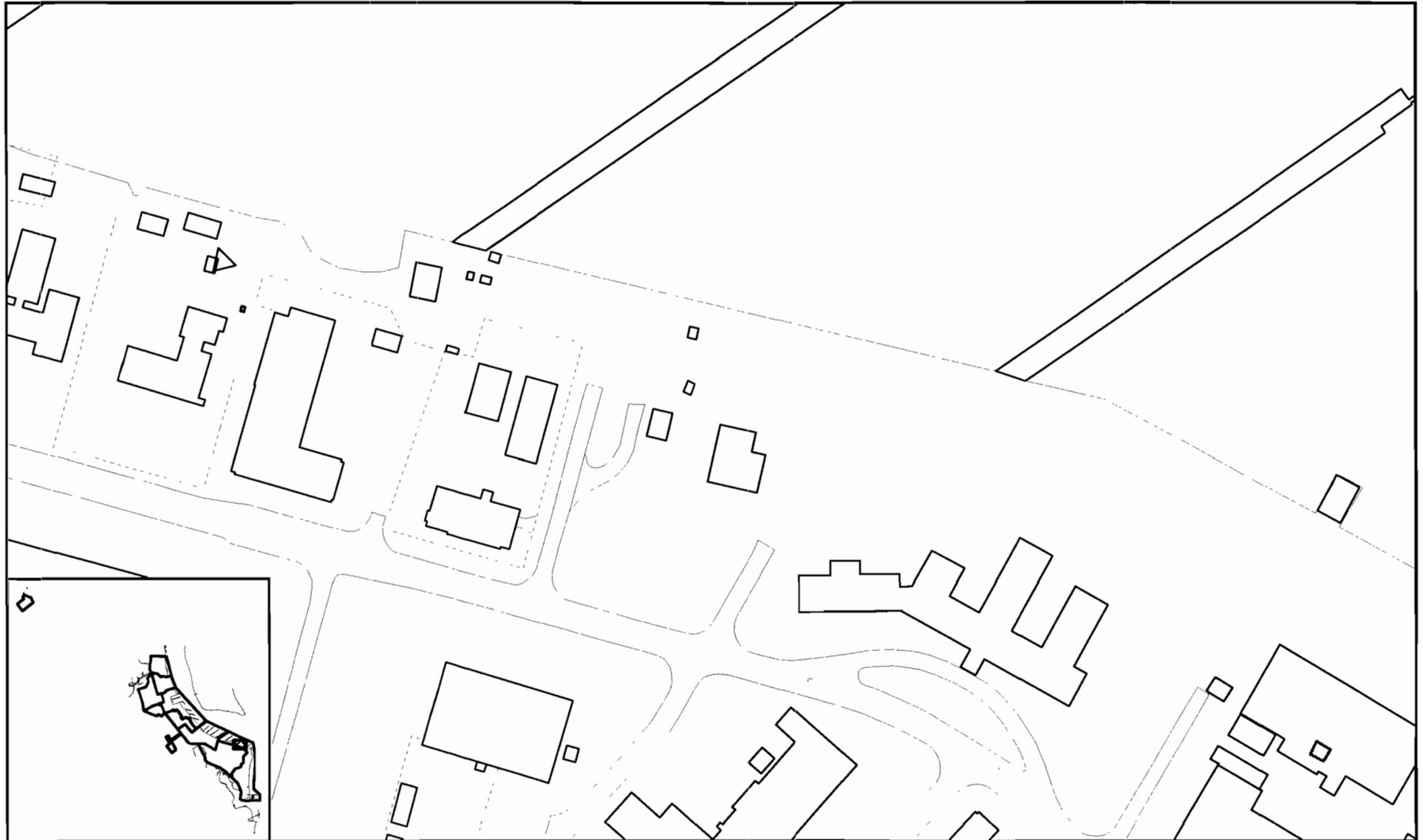
| Sample ID | Benzene | Toluene | Ethyl Benxene | Xylene | Naphthalene | Benzo(a) anthracene | Benzo(b) fluoranthene | Benzo(k) fluoranthene | Chrysene | Dibenz(ah) anthracene |
|-------------|---------|---------|---------------|--------|---------------------------|---------------------|-----------------------|-----------------------|-----------|-----------------------|
| UN4SB007-01 | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL |
| UN4SB007-02 | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL |
| UN4SB008-01 | < RBSL | < RBSL | < RBSL | < RBSL | 69.0 ug/kg acenaphthalene | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL |
| UN4SB008-02 | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL |
| UN4SB009-01 | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL |
| UN4SB009-02 | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | 92.6 ug/kg | 176 ug/kg | < RBSL | 105 ug/kg | < RBSL |
| UN4SB010-01 | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL |
| UN4SB010-02 | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL |

February 20, 2003 Soil Samples

| Sample ID | Benzene | Toluene | Ethyl Benxene | Xylene | Naphthalene | Benzo(a) anthracene | Benzo(b) fluoranthene | Benzo(k) fluoranthene | Chrysene | Dibenz(ah) anthracene |
|-------------|---------|---------|---------------|--------|-------------|---------------------|-----------------------|-----------------------|----------|-----------------------|
| UN4SB011-01 | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | 82.0 ug/kg | < RBSL | < RBSL | < RBSL |
| UN4SB012-02 | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | < RBSL | 77.0 ug/kg | < RBSL | < RBSL | < RBSL |

FIGURES

NOTE: Original figure created in color



-  Fence
-  Roads - Lines
-  Buildings
-  Zone Boundary

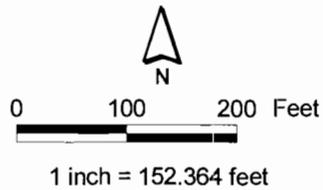
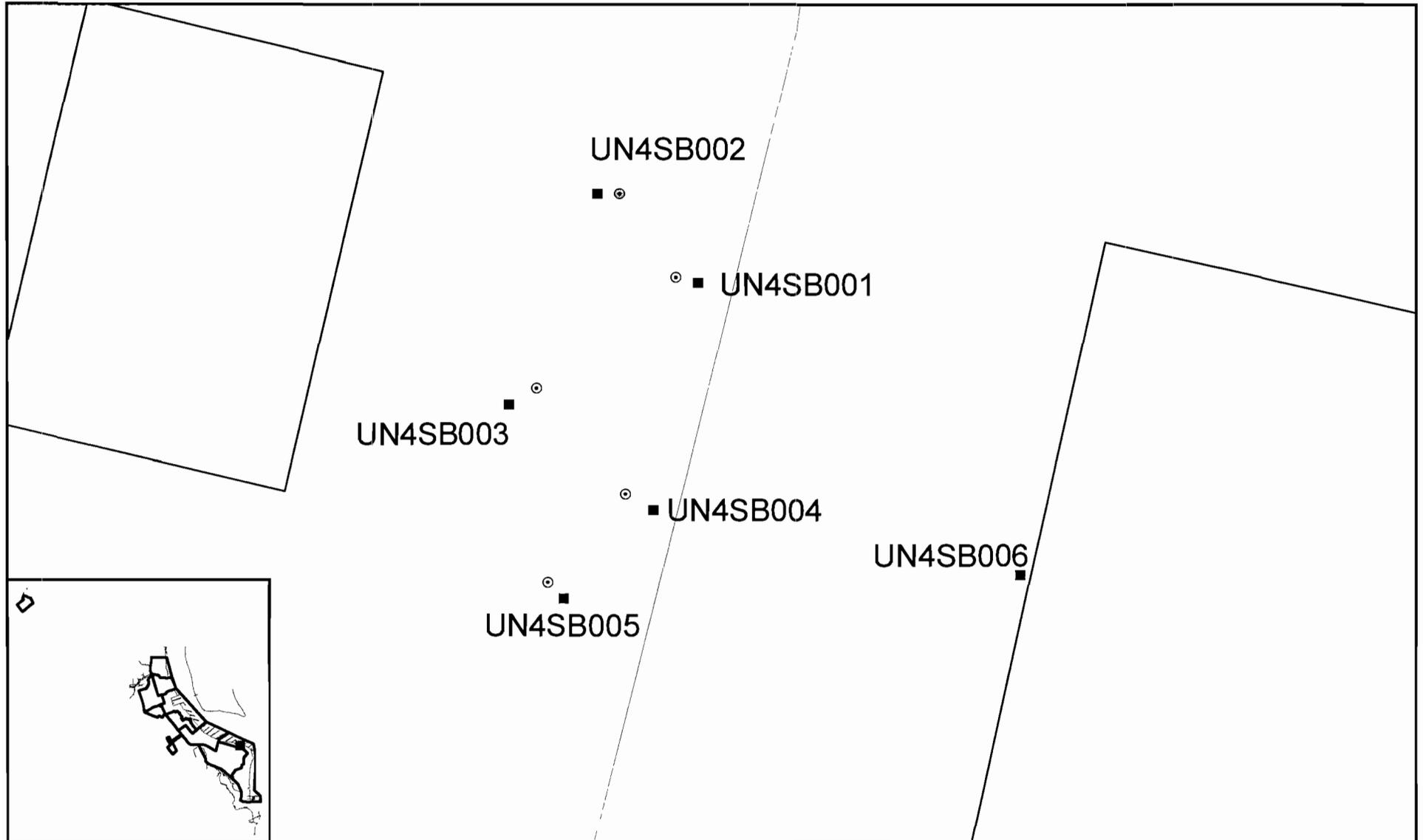


Figure 1
Site Layout Map
NS 4
Charleston Naval Complex

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NOTE: Original figure created in color



UN4SB002



UN4SB001



UN4SB003



UN4SB004



UN4SB005



UN4SB006



- ⊙ Groundwater Probe
- 10-31-02 Soil Sample
- Buildings
- - - Fence
- /// Roads - Lines
- /// Pavement
- /// Sidewalk

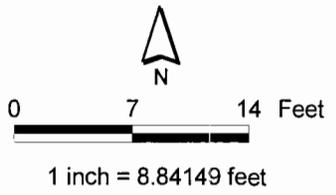
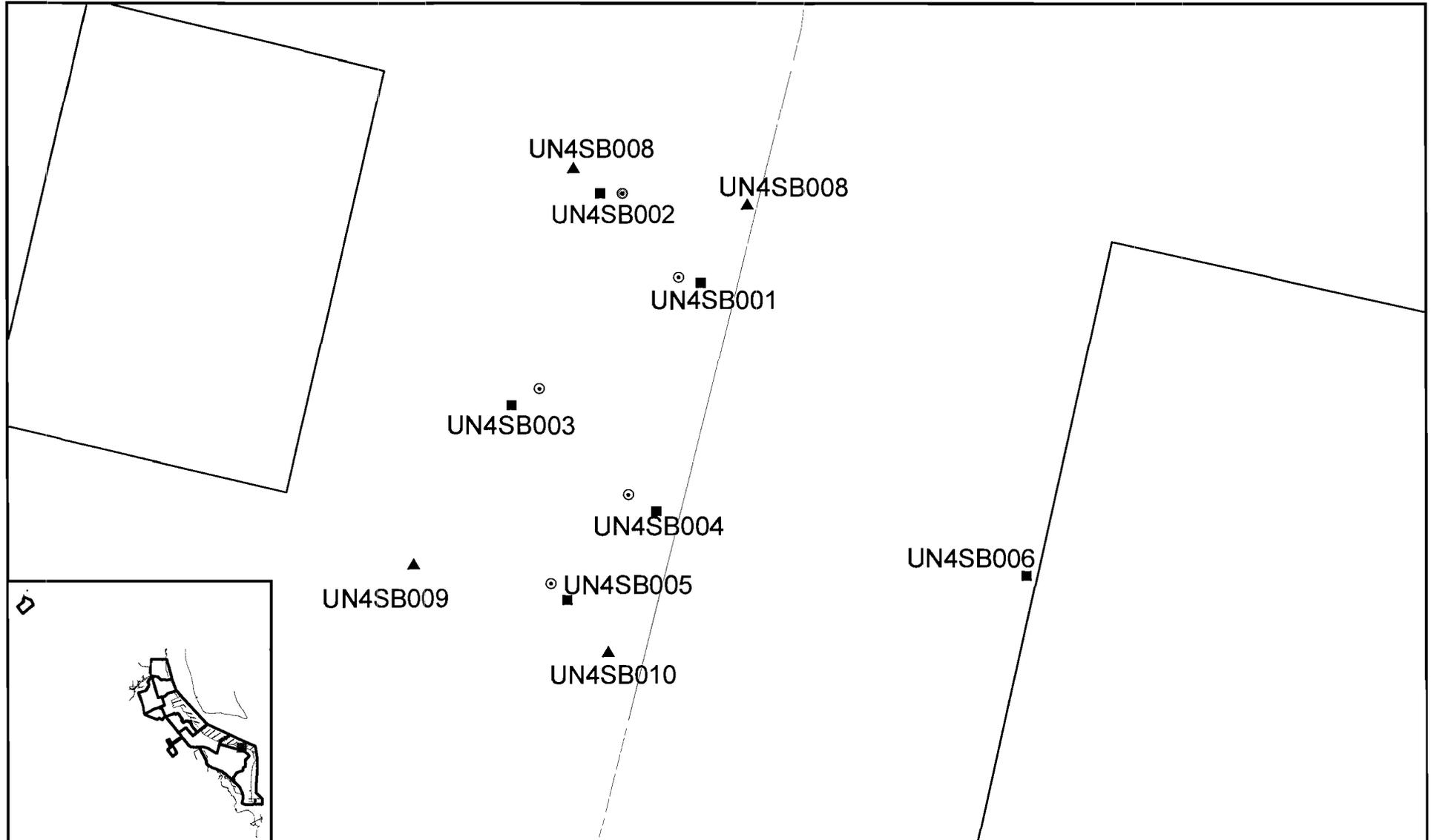


Figure 2
NS 4
Oct 31, 2002
Charleston Naval Complex



NOTE: Original figure created in color



- ⊙ Groundwater Probe
- 10-31-02 Soil Sample
- ▲ 1-30-03
- - - Fence
- ∧ Roads - Lines
- ∨ Pavement
- ∟ Sidewalk
- Buildings

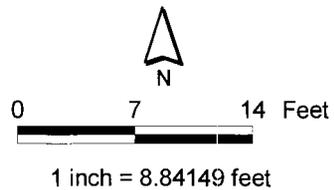
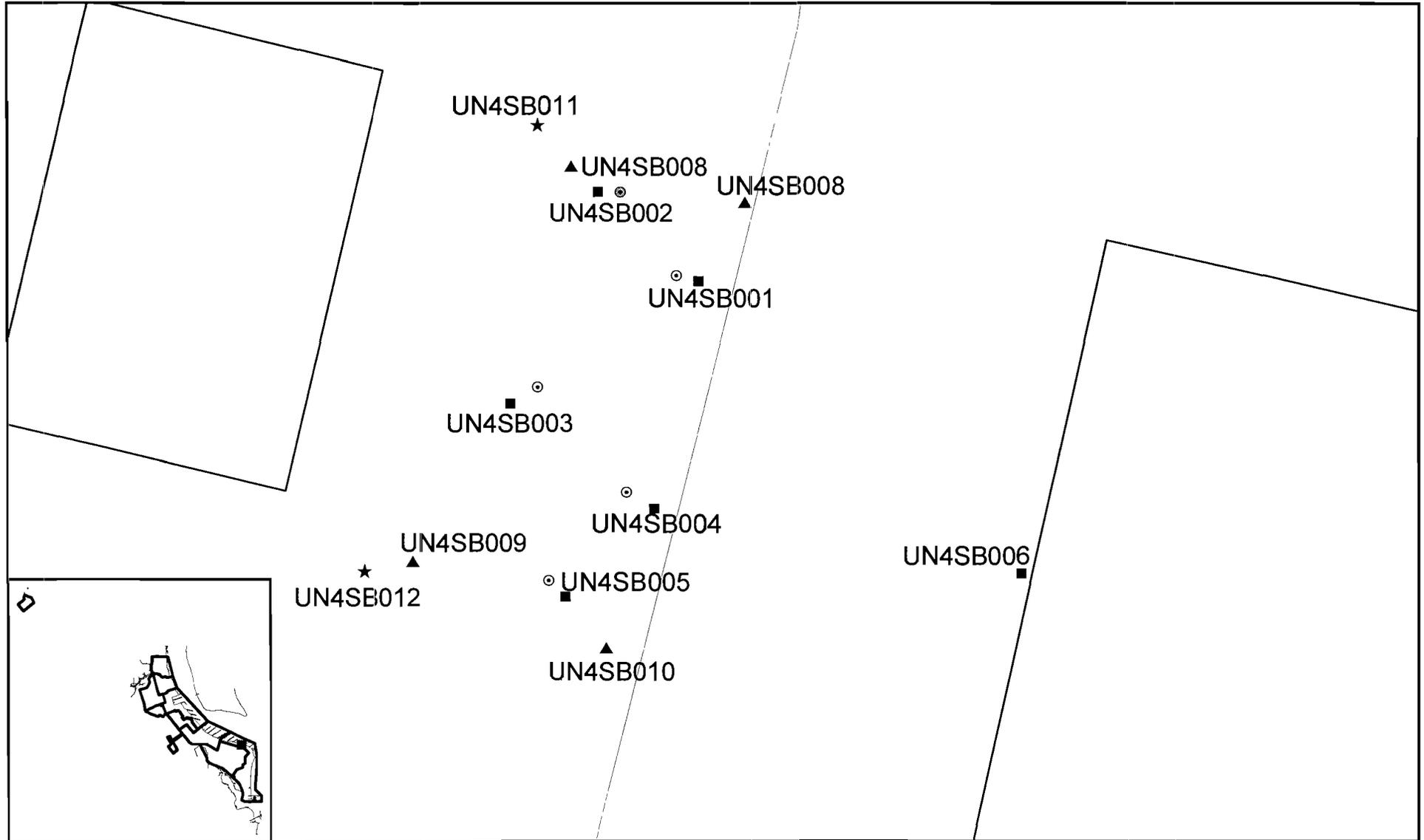


Figure 3
NS 4
Jan 30, 2003 Soil Samples
Charleston Naval Complex

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NOTE: Original figure created in color



- ⊙ Groundwater Probe
- 10-31-02 Soil Sample
- ▲ 1-30-03
- ★ 2-20-03
- - - Fence
- ▨ Pavement
- ▭ Buildings
- ▤ Sidewalk

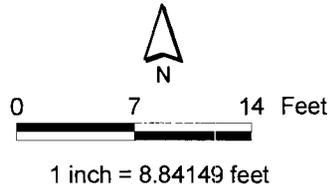
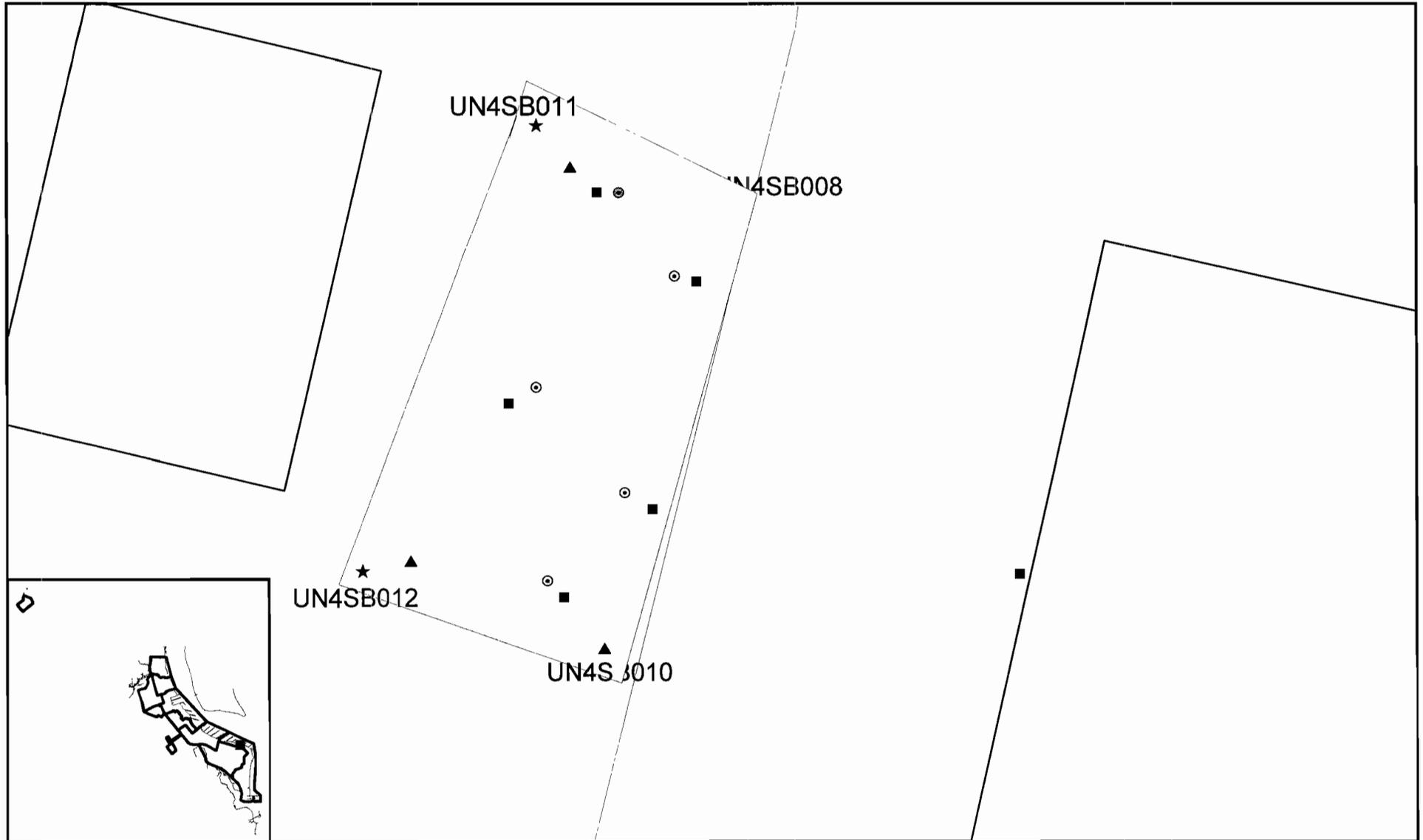


Figure 4
NS 4
2-20-03 Soil Samples
Charleston Naval Complex

CH2MHILL

NOTE Original figure created in color



- | | | | |
|-------|----------------------|---|-----------------|
| ⊙ | Groundwater Probe | ∕ | Sidewalk |
| ■ | 10-31-02 Soil Sample | □ | AOC Boundary |
| ▲ | 1-30-03 | □ | SWMU Boundary |
| ★ | 2-20-03 | □ | Excavation Area |
| - - - | Fence | □ | Buildings |
| ∕ | Pavement | | |

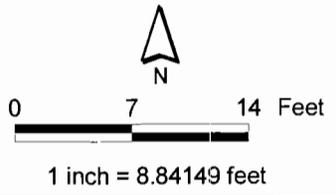


Figure 5
NS 4
Excavation Area
Charleston Naval Complex

CH2MHILL

NOTE Original figure created in color



- | | | | |
|---|----------------------|---|----------------|
| ⊕ | Groundwater Probe | ⊕ | Proposed wells |
| ■ | 10-31-02 Soil Sample | ∕ | Pavement |
| ▲ | 1-30-03 | ∕ | Sidewalk |
| ★ | 2-20-03 | □ | Buildings |
| ⊗ | Abandoned | | |
| ⊕ | Active | | |

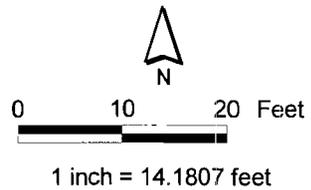


Figure 6
NS 4
Proposed and Existing wells
Charleston Naval Complex

CH2MHILL

Certificate of Analysis

Company: CH2M Hill
 Address: 3011 S.W. Williston Road
 Gainesville, Florida 32614

Report Date: March 4, 2003

Contact: Mr. Herb Kelly
 Project: Charleston Naval Shipyard

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| | | | |
|-------------------|-----------------|------------|-----------|
| Client Sample ID: | UN4SB01101 | Project: | CH2M00400 |
| Sample ID: | 75289001 | Client ID: | CH2M006 |
| Matrix: | Soil | | |
| Collect Date: | 20-FEB-03 10:50 | | |
| Receive Date: | 20-FEB-03 | | |
| Collector: | Client | | |
| Moisture: | 15.1% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | Analyst | Date | Time | Batch | Method |
|---|-----------|--------|------|------|-------|----|---------|----------|------|--------|--------|
| Semi-volatile Mass spec Organics Federal | | | | | | | | | | | |
| <i>3550/8270 PAH Extend list Soil</i> | | | | | | | | | | | |
| Acenaphthene | U | ND | 9.42 | 39.3 | ug/kg | 1 | RMB | 02/24/03 | 1241 | 234970 | 1 |
| Acenaphthylene | U | ND | 19.6 | 39.3 | ug/kg | 1 | | | | | |
| Anthracene | U | ND | 19.6 | 39.3 | ug/kg | 1 | | | | | |
| Benzo(a)anthracene | U | ND | 19.6 | 39.3 | ug/kg | 1 | | | | | |
| Benzo(a)pyrene | J | 38.9 | 19.6 | 39.3 | ug/kg | 1 | | | | | |
| Benzo(b)fluoranthene | | 82.0 | 19.6 | 39.3 | ug/kg | 1 | | | | | |
| Benzo(ghi)perylene | | 92.5 | 19.6 | 39.3 | ug/kg | 1 | | | | | |
| Benzo(k)fluoranthene | U | ND | 19.6 | 39.3 | ug/kg | 1 | | | | | |
| Chrysene | U | ND | 19.6 | 39.3 | ug/kg | 1 | | | | | |
| Dibenz(a,h)anthracene | U | ND | 19.6 | 39.3 | ug/kg | 1 | | | | | |
| Fluoranthene | U | ND | 19.6 | 39.3 | ug/kg | 1 | | | | | |
| Fluorene | U | ND | 4.71 | 39.3 | ug/kg | 1 | | | | | |
| Indeno(1,2,3-cd)pyrene | | 90.9 | 19.6 | 39.3 | ug/kg | 1 | | | | | |
| Naphthalene | U | ND | 19.6 | 39.3 | ug/kg | 1 | | | | | |
| Phenanthrene | U | ND | 19.6 | 39.3 | ug/kg | 1 | | | | | |
| Pyrene | U | ND | 19.6 | 39.3 | ug/kg | 1 | | | | | |

The following Prep Methods were performed

| Method | Description | Analyst | Date | Time | Prep Batch |
|-------------|--|---------|----------|------|------------|
| SW846 3550E | 3550E BNA Soil Prep-8270C Analysis Fed | RAWJ | 02/21/03 | 1500 | 234978 |

The following Analytical Methods were performed

| Method | Description | Analyst Comments |
|--------|-------------|------------------|
| 1 | SW846 8270C | |

| Surrogate recovery | Test | Recovery % | Acceptable Limits |
|--------------------|--------------------------------|------------|-------------------|
| 2-Fluorobiphenyl | 3550/8270 PAH Extend list Soil | 56% | (21%-104%) |
| Nitrobenzene-d5 | 3550/8270 PAH Extend list Soil | 53% | (24%-97%) |
| p-Terphenyl-d14 | 3550/8270 PAH Extend list Soil | 69% | (50%-153%) |

Notes:

The Qualifiers in this report are defined as follows:

< Actual result is less than amount reported

Certificate of Analysis

Company : CH2M Hill
Address : 2011 S.W. Williston Road
Gainesville, Florida 32614

Report Date: March 4, 2003

Contact: Mr. Herb Kelly
Project: Charleston Naval Shipyard

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Client Sample ID: UN45B01101 Project: CH2M00400
Sample ID: 75289001 Client ID: CH2M006

| Parameter | Qualifier | Result | DL | RL | Units | DT | Analyst/Date | Time | Batch | Method |
|-----------|-----------|--------|----|----|-------|----|--------------|------|-------|--------|
|-----------|-----------|--------|----|----|-------|----|--------------|------|-------|--------|

- > Actual result is greater than amount reported
- B Analyte found in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration exceeds instrument calibration range
- H Holding time exceeded
- I Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- F The response between the confirmation column and the primary column is >40% D
- U Indicates the compound was analyzed for but not detected above the detection limit
- UI Uncertain identification from gamma spectroscopy.
- X Lab-specific qualifier - must be fully described in case narrative and data summary package
- Y QC Samples were not spiked with this compound.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure. Where the analytical method has been performed under NELAP certification the analysis has met all of the requirements of the NELAP standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Laura Shus.

Reviewed by _____

Certificate of Analysis

Company: CH2M Hill
 Address: 1011 S.W. Williston Road
 Gainesville, Florida 32614

Report Date: March 4, 2003

Contact: Mr. Herb Kelly
 Project: Charleston Naval Shipyard

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Client Sample ID: UN4SB01202 Project: CH2M00400
 Sample ID: 75289002 Client ID: CH2M006
 Matrix: Soil
 Collect Date: 20-FEB-03 11:00
 Receive Date: 20-FEB-03
 Collector: Client
 Moisture: 16.6%

| Parameter | Qualifier | Result | DL | RL | Units | DF | Analyst | Date | Time | Batch | Method |
|---|-----------|--------|------|------|-------|----|---------|----------|------|--------|--------|
| Semi-volatile Mass spec Organics Federal | | | | | | | | | | | |
| <i>3350/8270 PAH Extend list Soil</i> | | | | | | | | | | | |
| Acenaphthene | U | ND | 7.59 | 40.0 | ug/kg | 1 | RMB | 02/24/03 | 1302 | 234979 | 1 |
| Acenaphthylene | U | ND | 20.0 | 40.0 | ug/kg | 1 | | | | | |
| Anthracene | U | ND | 20.0 | 40.0 | ug/kg | 1 | | | | | |
| Benzo(a)anthracene | U | ND | 20.0 | 40.0 | ug/kg | 1 | | | | | |
| Benzo(a)pyrene | | 50.1 | 20.0 | 40.0 | ug/kg | 1 | | | | | |
| Benzo(b)fluoranthene | | 77.0 | 20.0 | 40.0 | ug/kg | 1 | | | | | |
| Benzo(ghi)perylene | | 95.1 | 20.0 | 40.0 | ug/kg | 1 | | | | | |
| Benzo(k)fluoranthene | U | ND | 20.0 | 40.0 | ug/kg | 1 | | | | | |
| Chrysene | J | 31.0 | 20.0 | 40.0 | ug/kg | 1 | | | | | |
| Dibenzo(a,h)anthracene | J | ND | 20.0 | 40.0 | ug/kg | 1 | | | | | |
| Fluoranthene | J | 34.4 | 20.0 | 40.0 | ug/kg | 1 | | | | | |
| Fluorene | U | ND | 4.30 | 40.0 | ug/kg | 1 | | | | | |
| Indeno(1,2,3-cd)pyrene | | 92.5 | 20.0 | 40.0 | ug/kg | 1 | | | | | |
| Naphthalene | U | ND | 20.0 | 40.0 | ug/kg | 1 | | | | | |
| Phenanthrene | U | ND | 20.0 | 40.0 | ug/kg | 1 | | | | | |
| Pyrene | J | 22.1 | 20.0 | 40.0 | ug/kg | 1 | | | | | |

The following Prep Methods were performed

| Method | Description | Analyst | Date | Time | Prep Batch |
|-------------|--|---------|----------|------|------------|
| SW846 3350B | 3350B BNA Soil Prep-8270C Analysis Fed | RAW1 | 02/21/03 | 1300 | 234978 |

The following Analytical Methods were performed

| Method | Description | Analyst Comments |
|--------|-------------|------------------|
| 1 | SW846 8270C | |

| Surrogate recovery | Test | Recovery % | Acceptable Limits |
|--------------------|--------------------------------|------------|-------------------|
| 2-Fluorobiphenyl | 3350/8270 PAH Extend list Soil | 57% | (21%-102%) |
| Nitrobenzene-d5 | 3350/8270 PAH Extend list Soil | 52% | (24%-97%) |
| p-Terphenyl-d14 | 3350/8270 PAH Extend list Soil | 73% | (30%-133%) |

Notes:

The Qualifiers in this report are defined as follows:

- < Actual result is less than amount reported
- > Actual result is greater than amount reported

Certificate of Analysis

Company: CH2M Hill
 Address: 3011 S.W. Williston Road
 Gainesville, Florida 32604

Report Date: March 4, 2003

Contact: Mr. Herb Kelly
 Project: Charleston Naval Shipyard

Page 2 of 2

Client Sample ID: UN4SB01302 Project: CH2M00400
 Sample ID: 75289902 Client ID: CH2M076

| Parameter | Qualifier | Result | DL | RI | Units | DF | Analyst | Date | Time | Batch | Method |
|-----------|-----------|--------|----|----|-------|----|---------|------|------|-------|--------|
|-----------|-----------|--------|----|----|-------|----|---------|------|------|-------|--------|

- B Analyte found in the sample as well as the associated blank
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration exceeds instrument calibration range
- H Holding time exceeded
- J Indicates an estimated value. The result was greater than the detection limit but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40% D
- U Indicates the compound was analyzed for but not detected above the detection limit
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier - must be fully described in case narrative and data summary package
- Y QC Samples were not spiked with this compound

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure. Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Laura Stuss.

Reviewed by _____

Certificate of Analysis

Company: CH2M Hill
 Address: 3011 S.W. Williston Road
 Gainesville, Florida 32614

Report Date: March 4, 2003

Contact: Mr. Marc Kelly
 Project: Charleston Naval Shipyard

Page 1 of 2

DUPLICATE

| | | | |
|-------------------|-----------------|------------|-----------|
| Client Sample ID: | UN4CB01202 | Project: | CH2M00400 |
| Sample ID: | 75239003 | Client ID: | CH2M006 |
| Matrix: | Soil | | |
| Collect Date: | 20-FEB-03 11:00 | | |
| Receive Date: | 20-FEB-03 | | |
| Collector: | Client | | |
| Moisture: | 12.5% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | Analyst | Date | Time | Batch | Method |
|---|-----------|--------|------|------|-------|----|---------|----------|------|--------|--------|
| Semi-volatile Mass spec Organics Federal | | | | | | | | | | | |
| <i>3550/8270 PAH Extend list Soil</i> | | | | | | | | | | | |
| Acenaphthene | U | ND | 9.15 | 38.1 | ug/kg | 1 | RMB | 02/24/03 | 1323 | 234979 | 1 |
| Acenaphthylene | U | ND | 19.1 | 38.1 | ug/kg | 1 | | | | | |
| Anthracene | U | ND | 19.1 | 38.1 | ug/kg | 1 | | | | | |
| Benzo(a)anthracene | | 73.9 | 19.1 | 38.1 | ug/kg | 1 | | | | | |
| Benzo(a)pyrene | | 101 | 19.1 | 38.1 | ug/kg | 1 | | | | | |
| Benzo(b)fluoranthene | | 199 | 19.1 | 38.1 | ug/kg | 1 | | | | | |
| Benzo(ghi)perylene | | 97.6 | 19.1 | 38.1 | ug/kg | 1 | | | | | |
| Benzo(k)fluoranthene | U | ND | 19.1 | 38.1 | ug/kg | 1 | | | | | |
| Chrysene | | 74.6 | 19.1 | 38.1 | ug/kg | 1 | | | | | |
| Fluorene | | 40.7 | 19.1 | 38.1 | ug/kg | 1 | | | | | |
| Fluoranthene | | ND | 19.1 | 38.1 | ug/kg | 1 | | | | | |
| Fluorene | U | ND | 4.57 | 38.1 | ug/kg | 1 | | | | | |
| Indeno(1,2,3-cd)pyrene | | 102 | 19.1 | 38.1 | ug/kg | 1 | | | | | |
| Naphthalene | U | ND | 19.1 | 38.1 | ug/kg | 1 | | | | | |
| Phenanthrene | U | ND | 19.1 | 38.1 | ug/kg | 1 | | | | | |
| Pyrene | | 45.9 | 19.1 | 38.1 | ug/kg | 1 | | | | | |

The following Prep Methods were performed

| Method | Description | Analyst | Date | Time | Prep Batch |
|-------------|--|---------|----------|------|------------|
| SW846 3550B | 3550B BNA Soil Prep-8270C Analysis Fed | RAWI | 02/21/03 | 1300 | 234978 |

The following Analytical Methods were performed

| Method | Description | Analyst Comments |
|--------|-------------|------------------|
| 1 | SW846 8270C | |

| Surrogate recovery | Test | Recovery % | Acceptable Limits |
|--------------------|--------------------------------|------------|-------------------|
| 2-Fluorobiphenyl | 3550/8270 PAH Extend list Soil | 61% | (21%-104%) |
| Nitrobenzene-d5 | 3550/8270 PAH Extend list Soil | 48% | (24%-97%) |
| p-Terphenyl d14 | 3550/8270 PAH Extend list Soil | 85% | (50%-133%) |

Notes:

The Qualifiers in this report are defined as follows :

- < Actual result is less than amount reported
- > Actual result is greater than amount reported

Certificate of Analysis

Company: CH2M Hill
Address: 201 S.W. Wilston Road
Gainesville, Florida 32614

Report Date: March 4, 2003

Contact: Mr. Herb Kelly
Project: Charleston Naval Shipyard

Page 2 of 2

Client Sample ID: US4CBO, 202 Project: CH2M00400
Sample ID: 75289203 Chart ID: CH2M006

| Parameter | Qualifier | Result | DL | RL | Units | DF | Analyst | Date | Time | Batch | Method |
|-----------|-----------|--------|----|----|-------|----|---------|------|------|-------|--------|
|-----------|-----------|--------|----|----|-------|----|---------|------|------|-------|--------|

- B Analyte found in the sample as well as the associated blank
- BD Flag for results below the MDC or a flag for low tracer recovery
- E Concentration exceeds instrument calibration range
- H Holding time exceeded
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40% D
- U Indicates the compound was analyzed for but not detected above the detection limit
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier - must be fully described in case narrative and data summary package
- Y QC Samples were not spiked with this compound.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure. Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAP standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Laura Sluss.

Reviewed by _____

CH2M hILL Chain of Custody/ Laboratory Analysis Form

| Laboratory: GEL | | Site Name: | | | | # of containers | 3 - 40ml vial, HCl | 2 - 1L amber | 3 - 5g Encore + 1 - 2oz jar | 1 - 4oz jar | Lab Batch/SDG: | | | | | | | | | | | | | | | | |
|---|------------|--------------------|-------|------------------|----------------|-----------------|--------------------|---------------|-----------------------------|---------------|-----------------|--|--|--|--|--|--|--|--|--|--|----------|--|--|--|--|-----|
| Project Name: Charleston Navy Complex | | Zone I, Sit NS4 | | SCDHEC No. 02099 | | | | | | | | | | | | | | | | | | | | | | | |
| Project Number: 158814.PM.04 | | TAT: standard | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Manager: | | QA Level: 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address: GNV: 3011 SW Williston Rd., Gainesville, FL 32605 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ATL: 115 Perimeter Center Place NE, Suite 700, Atlanta, GA 30346-1278 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Send Report To: see last page of COC | | EDD: CNC format | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample ID | Station ID | Sample Description | Depth | | Date & Time | | Matrix | VOCs (SW8260) | SVOCs (SW8270C) | VOCs (SW8260) | SVOCs (SW8270C) | | | | | | | | | | | Comments | | | | | |
| | | | Begin | End | Collected | | | | | | | | | | | | | | | | | | | | | | |
| UN4SB00701 | IUN4SB007 | hand auger | 0 | 1 | 1-30-03 / 0945 | | SO | | | X | X | | | | | | | | | | | | | | | | |
| UN4SB00702 | IUN4SB007 | hand auger | 3 | 5 | 1-30-03 / 0955 | | SO | | | X | X | | | | | | | | | | | | | | | | |
| UN4SB00801 | IUN4SB008 | hand auger | 0 | 1 | 1-30-03 / 1005 | | SO | | | X | X | | | | | | | | | | | | | | | | UST |
| UN4SB00802 | IUN4SB008 | hand auger | 3 | 5 | 1-30-03 / 1010 | | SO | | | X | X | | | | | | | | | | | | | | | | |
| UN4CB00202 | IUN4SB008 | hand auger | 3 | 5 | 1-30-03 / 1010 | | SO | | | X | X | | | | | | | | | | | | | | | | |
| UN4SB00901 | IUN4SB009 | hand auger | 0 | 1 | 1-30-03 / 1020 | | SO | | | X | X | | | | | | | | | | | | | | | | |
| UN4SB00902 | IUN4SB009 | hand auger | 3 | 5 | 1-30-03 / 1035 | | SO | | | X | X | | | | | | | | | | | | | | | | |
| UN4SB01001 | IUN4SB010 | hand auger | 0 | 1 | 1-30-03 / 1100 | | SO | | | X | X | | | | | | | | | | | | | | | | |
| UN4SB01002 | IUN4SB010 | hand auger | 3 | 5 | 1-30-03 / 1115 | | SO | | | X | X | | | | | | | | | | | | | | | | |
| UN4SB01002MS | IUN4SB010 | hand auger | 3 | 5 | 1-30-03 / 1115 | | SO | | | X | X | | | | | | | | | | | | | | | | |
| UN4SB01002SD | IUN4SB010 | hand auger | 3 | 5 | 1-30-03 / 1115 | | SO | | | X | X | | | | | | | | | | | | | | | | |
| UNEB007M1 | IUNEB007 | EB | | | 1-30-03 / 1130 | | SQ | | X | X | | | | | | | | | | | | | | | | | EB |
| UNTB007M1 | IUNTB007 | TB | | | LAB supplied | | SQ | | X | | | | | | | | | | | | | | | | | | TB |

Sampled By ANDREW O'CONNOR Date/Time 1-30-03 Relinquished by _____ Date/Time _____
 Additional Samplers D. WIEMAN
 Received By Lab _____ Date/Time _____ Relinquished by _____ Date/Time _____
 Received By _____ Date/Time _____ Shipped Via: UPS FedEx Hand Other Tracking#: _____
 Remarks _____ Temperature: _____

Receipt Exceptions: _____

Rports

Herb Kelly/GNV - 1 hardcopy, 1 CD

Tom Beisel/ATL - 1 CD

Brian Crawford/JAJ - 1 CD

Herb Kelly

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Gainesville, FL 32608

Ph: (352) 335 - 5877 ext.2572

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Atlanta, GA 30346-1278

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Fax: (770) 604 - 9183

JAJones - Brian Crawford and Jed Heames

CH2M-Jones, LLC

Charleston Naval Complex

1849 Avenue F

North Charleston, SC 29405

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4CB00202

Lab Name: GENERAL ENGINEERING LABS Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242006

Sample wt/vol: 5.7 (g/mL) G Lab File ID: 9V218

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: not dec. 33 Date Analyzed: 02/04/03

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|-----------------|------------------------------|---|---|
| 1634-04-4----- | tert-Butyl methyl ether_____ | 1.3 | U |
| 71-43-2----- | Benzene_____ | 1.3 | U |
| 108-88-3----- | Toluene_____ | 0.80 | J |
| 100-41-4----- | Ethylbenzene_____ | 1.3 | U |
| 95-47-6----- | o-Xylene_____ | 1.3 | U |
| ----- | m,p-Xylenes_____ | 2.6 | U |
| 10061-01-5----- | Xylenes (total)_____ | 3.9 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4CB00202DL

Lab Name: GENERAL ENGINEERING LABS Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242006

Sample wt/vol: 5.6 (g/mL) G Lab File ID: 9V112

Level: (low/med) MED Date Received: 01/30/03

% Moisture: not dec. 33 Date Analyzed: 02/03/03

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100(uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | | Q |
|-----------------|------------------------------|---|---|---|
| 1634-04-4----- | tert-Butyl methyl ether_____ | 133 | U | |
| 71-43-2----- | Benzene_____ | 133 | U | |
| 108-88-3----- | Toluene_____ | 133 | U | |
| 100-41-4----- | Ethylbenzene_____ | 133 | U | |
| 95-47-6----- | o-Xylene_____ | 133 | U | |
| ----- | m,p-Xylenes_____ | 267 | U | |
| 10061-01-5----- | Xylenes (total)_____ | 400 | U | |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB00701

Lab Name: GENERAL ENGINEERING LABS Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242002

Sample wt/vol: 5.9 (g/mL) G Lab File ID: 9V117

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: not dec. 18 Date Analyzed: 02/03/03

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|-----------------|------------------------------|---|---|
| 1634-04-4----- | tert-Butyl methyl ether_____ | 1.0 | U |
| 71-43-2----- | Benzene_____ | 1.0 | U |
| 108-88-3----- | Toluene_____ | 1.0 | U |
| 100-41-4----- | Ethylbenzene_____ | 1.0 | U |
| 95-47-6----- | o-Xylene_____ | 1.0 | U |
| ----- | m,p-Xylenes_____ | 2.1 | U |
| 10061-01-5----- | Xylenes (total)_____ | 3.1 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB00701DL

Lab Name: GENERAL ENGINEERING LABS Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242002

Sample wt/vol: 5.8 (g/mL) G Lab File ID: 9V215

Level: (low/med) MED Date Received: 01/30/03

% Moisture: not dec. 18 Date Analyzed: 02/04/03

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|-----------------|------------------------------|---|---|
| 1634-04-4----- | tert-Butyl methyl ether_____ | 106 | U |
| 71-43-2----- | Benzene_____ | 106 | U |
| 108-88-3----- | Toluene_____ | 106 | U |
| 100-41-4----- | Ethylbenzene_____ | 106 | U |
| 95-47-6----- | o-Xylene_____ | 106 | U |
| ----- | m,p-Xylenes_____ | 211 | U |
| 10061-01-5----- | Xylenes (total)_____ | 317 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB00702

Lab Name: GENERAL ENGINEERING LABS Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242003

Sample wt/vol: 5.5 (g/mL) G Lab File ID: 9V118

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: not dec. 27 Date Analyzed: 02/03/03

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: | |
|-----------------|------------------------------|-----------------------|---|
| | | (ug/L or ug/Kg) UG/KG | Q |
| 1634-04-4----- | tert-Butyl methyl ether_____ | 1.2 | U |
| 71-43-2----- | Benzene_____ | 1.2 | U |
| 108-88-3----- | Toluene_____ | 0.63 | J |
| 100-41-4----- | Ethylbenzene_____ | 1.2 | U |
| 95-47-6----- | o-Xylene_____ | 1.2 | U |
| ----- | m,p-Xylenes_____ | 2.5 | U |
| 10061-01-5----- | Xylenes (total)_____ | 3.7 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB00702DL

Lab Name: GENERAL ENGINEERING LABS Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242003

Sample wt/vol: 5.6 (g/mL) G Lab File ID: 9V109

Level: (low/med) MED Date Received: 01/30/03

% Moisture: not dec. 27 Date Analyzed: 02/03/03

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100(uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: | |
|-----------------|------------------------------|----------------------|---------|
| | | (ug/L or ug/Kg) | UG/KG Q |
| 1634-04-4----- | tert-Butyl methyl ether_____ | 123 | U |
| 71-43-2----- | Benzene_____ | 123 | U |
| 108-88-3----- | Toluene_____ | 123 | U |
| 100-41-4----- | Ethylbenzene_____ | 123 | U |
| 95-47-6----- | o-Xylene_____ | 123 | U |
| ----- | m,p-Xylenes_____ | 245 | U |
| 10061-01-5----- | Xylenes (total)_____ | 368 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB00801

Lab Name: GENERAL ENGINEERING LABS Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242004

Sample wt/vol: 5.2 (g/mL) G Lab File ID: 9V119

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: not dec. 26 Date Analyzed: 02/03/03

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|-----------------|------------------------------|---|---|
| 1634-04-4----- | tert-Butyl methyl ether_____ | 1.3 | U |
| 71-43-2----- | Benzene_____ | 1.3 | U |
| 108-88-3----- | Toluene_____ | 1.3 | U |
| 100-41-4----- | Ethylbenzene_____ | 1.3 | U |
| 95-47-6----- | o-Xylene_____ | 1.3 | U |
| ----- | m,p-Xylenes_____ | 2.6 | U |
| 10061-01-5----- | Xylenes (total)_____ | 3.9 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB00802

Lab Name: GENERAL ENGINEERING LABS Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242005

Sample wt/vol: 5.6 (g/mL) G Lab File ID: 9V120

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: not dec. 28 Date Analyzed: 02/03/03

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: | |
|-----------------|------------------------------|----------------------|---------|
| | | (ug/L or ug/Kg) | UG/KG Q |
| 1634-04-4----- | tert-Butyl methyl ether_____ | 1.2 | U |
| 71-43-2----- | Benzene_____ | 1.2 | U |
| 108-88-3----- | Toluene_____ | 1.2 | U |
| 100-41-4----- | Ethylbenzene_____ | 1.2 | U |
| 95-47-6----- | o-Xylene_____ | 1.2 | U |
| ----- | m,p-Xylenes_____ | 2.5 | U |
| 10061-01-5----- | Xylenes (total)_____ | 3.7 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB00901

Lab Name: GENERAL ENGINEERING LABS Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242007

Sample wt/vol: 5.4 (g/mL) G Lab File ID: 9V219

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: not dec. 9 Date Analyzed: 02/04/03

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: | |
|-----------------|------------------------------|-----------------------|---|
| | | (ug/L or ug/Kg) UG/KG | Q |
| 1634-04-4----- | tert-Butyl methyl ether_____ | 1.0 | U |
| 71-43-2----- | Benzene_____ | 1.0 | U |
| 108-88-3----- | Toluene_____ | 1.0 | U |
| 100-41-4----- | Ethylbenzene_____ | 1.0 | U |
| 95-47-6----- | o-Xylene_____ | 1.0 | U |
| ----- | m,p-Xylenes_____ | 2.0 | U |
| 10061-01-5----- | Xylenes (total)_____ | 3.0 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4S00901DL

Lab Name: GENERAL ENGINEERING LABS Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242007

Sample wt/vol: 5.3 (g/mL) G Lab File ID: 9V113

Level: (low/med) MED Date Received: 01/30/03

% Moisture: not dec. 9 Date Analyzed: 02/03/03

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100(uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | | Q |
|-----------------|------------------------------|---|---|---|
| 1634-04-4----- | tert-Butyl methyl ether_____ | 104 | U | |
| 71-43-2----- | Benzene_____ | 104 | U | |
| 108-88-3----- | Toluene_____ | 104 | U | |
| 100-41-4----- | Ethylbenzene_____ | 104 | U | |
| 95-47-6----- | o-Xylene_____ | 104 | U | |
| ----- | m,p-Xylenes_____ | 207 | U | |
| 10061-01-5----- | Xylenes (total)_____ | 311 | U | |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB00902

Lab Name: GENERAL ENGINEERING LABS Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242008

Sample wt/vol: 5.8 (g/mL) G Lab File ID: 9V220

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: not dec. 15 Date Analyzed: 02/04/03

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: | |
|-----------------|------------------------------|----------------------|---------|
| | | (ug/L or ug/Kg) | UG/KG Q |
| 1634-04-4----- | tert-Butyl methyl ether_____ | 1.0 | U |
| 71-43-2----- | Benzene_____ | 1.0 | U |
| 108-88-3----- | Toluene_____ | 1.0 | U |
| 100-41-4----- | Ethylbenzene_____ | 1.0 | U |
| 95-47-6----- | o-Xylene_____ | 1.0 | U |
| ----- | m,p-Xylenes_____ | 2.0 | U |
| 10061-01-5----- | Xylenes (total)_____ | 3.0 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB00902DL

Lab Name: GENERAL ENGINEERING LABS Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242008

Sample wt/vol: 6.0 (g/mL) G Lab File ID: 9V114

Level: (low/med) MED Date Received: 01/30/03

% Moisture: not dec. 15 Date Analyzed: 02/03/03

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100(uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|-----------------|------------------------------|---|---|
| 1634-04-4----- | tert-Butyl methyl ether_____ | 97.7 | U |
| 71-43-2----- | Benzene_____ | 97.7 | U |
| 108-88-3----- | Toluene_____ | 97.7 | U |
| 100-41-4----- | Ethylbenzene_____ | 97.7 | U |
| 95-47-6----- | o-Xylene_____ | 97.7 | U |
| ----- | m,p-Xylenes_____ | 195 | U |
| 10061-01-5----- | Xylenes (total)_____ | 293 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB01001

Lab Name: GENERAL ENGINEERING LABS Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242009

Sample wt/vol: 5.7 (g/mL) G Lab File ID: 9V221

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: not dec. 12 Date Analyzed: 02/04/03

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|-----------------|------------------------------|---|---|
| 1634-04-4----- | tert-Butyl methyl ether_____ | 1.0 | U |
| 71-43-2----- | Benzene_____ | 1.0 | U |
| 108-88-3----- | Toluene_____ | 1.0 | U |
| 100-41-4----- | Ethylbenzene_____ | 1.0 | U |
| 95-47-6----- | o-Xylene_____ | 1.0 | U |
| ----- | m,p-Xylenes_____ | 2.0 | U |
| 10061-01-5----- | Xylenes (total)_____ | 3.0 | U |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB01002

Lab Name: GENERAL ENGINEERING LABS Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242001

Sample wt/vol: 5.7 (g/mL) G Lab File ID: 9V216

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: not dec. 24 Date Analyzed: 02/04/03

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|-----------------|------------------------------|---|---|
| 1634-04-4----- | tert-Butyl methyl ether_____ | 1.2 | U |
| 71-43-2----- | Benzene_____ | 1.2 | U |
| 108-88-3----- | Toluene_____ | 1.2 | U |
| 100-41-4----- | Ethylbenzene_____ | 1.2 | U |
| 95-47-6----- | o-Xylene_____ | 1.2 | U |
| ----- | m,p-Xylenes_____ | 2.3 | U |
| 10061-01-5----- | Xylenes (total)_____ | 3.4 | U |

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4CB00202

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242006

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S2B0316

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: 33 decanted: (Y/N) N Date Extracted: 01/31/03

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 02/03/03

Injection Volume: 0.5 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

| | | | |
|---------------|------------------------|------|---|
| 91-20-3----- | Naphthalene | 49.4 | U |
| 208-96-8----- | Acenaphthylene | 49.4 | U |
| 83-32-9----- | Acenaphthene | 49.4 | U |
| 86-73-7----- | Fluorene | 49.4 | U |
| 85-01-8----- | Phenanthrene | 49.4 | U |
| 120-12-7----- | Anthracene | 49.4 | U |
| 206-44-0----- | Fluoranthene | 41.2 | J |
| 129-00-0----- | Pyrene | 38.1 | J |
| 56-55-3----- | Benzo(a)anthracene | 26.2 | J |
| 218-01-9----- | Chrysene | 28.3 | J |
| 205-99-2----- | Benzo(b)fluoranthene | 39.2 | J |
| 207-08-9----- | Benzo(k)fluoranthene | 49.4 | U |
| 50-32-8----- | Benzo(a)pyrene | 49.4 | U |
| 193-39-5----- | Indeno(1,2,3-cd)pyrene | 49.4 | U |
| 53-70-3----- | Dibenzo(a,h)anthracene | 49.4 | U |
| 191-24-2----- | Benzo(ghi)perylene | 49.4 | U |

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB00701

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242002

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S2B0312

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: 18 decanted: (Y/N) N Date Extracted: 01/31/03

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 02/03/03

Injection Volume: 0.5 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

| | | | |
|---------------|------------------------|------|---|
| 91-20-3----- | Naphthalene | 40.5 | U |
| 208-96-8----- | Acenaphthylene | 40.5 | U |
| 83-32-9----- | Acenaphthene | 40.5 | U |
| 86-73-7----- | Fluorene | 40.5 | U |
| 85-01-8----- | Phenanthrene | 40.5 | U |
| 120-12-7----- | Anthracene | 40.5 | U |
| 206-44-0----- | Fluoranthene | 40.5 | U |
| 129-00-0----- | Pyrene | 40.5 | U |
| 56-55-3----- | Benzo(a)anthracene | 40.5 | U |
| 218-01-9----- | Chrysene | 40.5 | U |
| 205-99-2----- | Benzo(b)fluoranthene | 40.5 | U |
| 207-08-9----- | Benzo(k)fluoranthene | 40.5 | U |
| 50-32-8----- | Benzo(a)pyrene | 40.5 | U |
| 193-39-5----- | Indeno(1,2,3-cd)pyrene | 40.5 | U |
| 53-70-3----- | Dibenzo(a,h)anthracene | 40.5 | U |
| 191-24-2----- | Benzo(ghi)perylene | 40.5 | U |

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB00702

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S2B0313

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: 27 decanted: (Y/N) N Date Extracted: 01/31/03

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 02/03/03

Injection Volume: 0.5 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

| | | | |
|---------------|------------------------|------|---|
| 91-20-3----- | Naphthalene | 45.4 | U |
| 208-96-8----- | Acenaphthylene | 45.4 | U |
| 83-32-9----- | Acenaphthene | 45.4 | U |
| 86-73-7----- | Fluorene | 45.4 | U |
| 85-01-8----- | Phenanthrene | 45.4 | U |
| 120-12-7----- | Anthracene | 45.4 | U |
| 206-44-0----- | Fluoranthene | 51.9 | |
| 129-00-0----- | Pyrene | 80.8 | |
| 56-55-3----- | Benzo(a)anthracene | 45.4 | U |
| 218-01-9----- | Chrysene | 45.4 | U |
| 205-99-2----- | Benzo(b)fluoranthene | 45.4 | U |
| 207-08-9----- | Benzo(k)fluoranthene | 45.4 | U |
| 50-32-8----- | Benzo(a)pyrene | 45.4 | U |
| 193-39-5----- | Indeno(1,2,3-cd)pyrene | 45.4 | U |
| 53-70-3----- | Dibenzo(a,h)anthracene | 45.4 | U |
| 191-24-2----- | Benzo(ghi)perylene | 45.4 | U |

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB00801

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242004

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S2B0314

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: 26 decanted: (Y/N) N Date Extracted: 01/31/03

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 02/03/03

Injection Volume: 0.5 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---------------------|-------------------------|---|--------------|
| 91-20-3 | Naphthalene | 44.6 | U |
| 206-99-4 | Acenaphthene | 44.6 | U |
| 83-32-9 | Acenaphthene | 44.6 | U |
| 86-73-7 | Fluorene | 44.6 | U |
| 85-01-8 | Phenanthrene | 44.6 | U |
| 120-12-7 | Anthracene | 44.6 | U |
| 206-44-0 | Fluoranthene | 24.5 | J |
| 129-00-0 | Pyrene | 27.4 | J |
| 56-55-3 | Benzo(a)anthracene | 44.6 | U |
| 218-01-9 | Chrysene | 30.3 | J |
| 205-99-2 | Benzo(b)fluoranthene | 40.3 | J |
| 207-08-9 | Benzo(k)fluoranthene | 44.6 | U |
| 50-32-8 | Benzo(a)pyrene | 44.6 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 44.6 | U |
| 53-70-3 | Dibenzo(a,h)anthracene | 44.6 | U |
| 191-24-2 | Benzo(ghi)perylene | 44.6 | U |

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB00802

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242005

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S2B0315

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: 28 decanted: (Y/N) N Date Extracted: 01/31/03

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 02/03/03

Injection Volume: 0.5 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: | |
|----------|------------------------|----------------------|-------|
| | | (ug/L or ug/Kg) | UG/KG |
| 91-20-3 | Naphthalene | 45.6 | U |
| 208-96-8 | Acenaphthylene | 45.6 | U |
| 83-32-9 | Acenaphthene | 45.6 | U |
| 86-73-7 | Fluorene | 45.6 | U |
| 85-01-8 | Phenanthrene | 45.6 | U |
| 120-12-7 | Anthracene | 45.6 | U |
| 206-44-0 | Fluoranthene | 45.6 | U |
| 129-00-0 | Pyrene | 45.6 | U |
| 56-55-3 | Benzo(a)anthracene | 45.6 | U |
| 218-01-9 | Chrysene | 45.6 | U |
| 205-99-2 | Benzo(b)fluoranthene | 45.6 | U |
| 207-08-9 | Benzo(k)fluoranthene | 45.6 | U |
| 50-32-8 | Benzo(a)pyrene | 45.6 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 45.6 | U |
| 53-70-3 | Dibenzo(a,h)anthracene | 45.6 | U |
| 191-24-2 | Benzo(ghi)perylene | 45.6 | U |

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB00901

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242007

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S2B0317

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: 9 decanted: (Y/N) N Date Extracted: 01/31/03

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 02/03/03

Injection Volume: 0.5 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|----------|----------------------------|---|---|
| 91-20-3 | Naphthalene | 363 | U |
| 208-96-8 | Acenaphthylene | 363 | U |
| 83-32-9 | Acenaphthene | 363 | U |
| 86-73-7 | Fluorene | 363 | U |
| 85-01-8 | Phenanthrene | 363 | U |
| 120-12-7 | Anthracene | 363 | U |
| 206-44-0 | Fluoranthene | 363 | U |
| 129-00-0 | Pyrene | 363 | U |
| 56-55-3 | Benzo (a) anthracene | 363 | U |
| 218-01-9 | Chrysene | 363 | U |
| 205-99-2 | Benzo (b) fluoranthene | 363 | U |
| 207-08-9 | Benzo (k) fluoranthene | 363 | U |
| 50-32-8 | Benzo (a) pyrene | 363 | U |
| 193-39-5 | Indeno (1, 2, 3-cd) pyrene | 363 | U |
| 53-70-3 | Dibenzo (a, h) anthracene | 363 | U |
| 191-24-2 | Benzo (ghi) perylene | 363 | U |

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB00902

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242008

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S2B0321

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: 15 decanted: (Y/N) N Date Extracted: 01/31/03

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 02/03/03

Injection Volume: 0.5 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|----------|-----------------------------------|---|---|
| 91-20-3 | Naphthalene | 38.7 | U |
| 208-96-8 | Acenaphthylene | 38.7 | U |
| 83-32-9 | Acenaphthene | 38.7 | U |
| 86-73-7 | Fluorene | 38.7 | U |
| 85-01-8 | Phenanthrene | 64.7 | |
| 120-12-7 | Anthracene | 38.7 | U |
| 206-44-0 | Fluoranthene | 127 | |
| 129-00-0 | Pyrene | 144 | |
| 56-55-3 | Benzo (b) fluoranthene | 99.7 | |
| 218-01-9 | Chrysene | 38.7 | |
| 205-99-2 | Benzo (h) fluoranthene | 176 | |
| 207-08-9 | Benzo (k) fluoranthene | 38.7 | U |
| 50-32-8 | Benzo (a) pyrene | 99.7 | |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 38.7 | U |
| 53-70-3 | Dibenzo (a,h) anthracene | 38.7 | U |
| 191-24-2 | Benzo (ghi) perylene | 38.7 | U |

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB01001

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242009

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S2B0319

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: 12 decanted: (Y/N) N Date Extracted: 01/31/03

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 02/03/03

Injection Volume: 0.5 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

| | | | |
|----------|----------------------------|------|---|
| 91-20-3 | Naphthalene | 37.7 | U |
| 208-96-8 | Acenaphthylene | 37.7 | U |
| 83-32-9 | Acenaphthene | 37.7 | U |
| 86-73-7 | Fluorene | 37.7 | U |
| 85-01-8 | Phenanthrene | 37.7 | U |
| 120-12-7 | Anthracene | 37.7 | U |
| 206-44-0 | Fluoranthene | 37.7 | U |
| 129-00-0 | Pyrene | 37.7 | U |
| 56-55-3 | Benzo (a) anthracene | 37.7 | U |
| 218-01-9 | Chrysene | 37.7 | U |
| 205-99-2 | Benzo (b) fluoranthene | 37.7 | U |
| 207-08-9 | Benzo (k) fluoranthene | 37.7 | U |
| 50-32-8 | Benzo (a) pyrene | 37.7 | U |
| 193-39-5 | Indeno (1, 2, 3-cd) pyrene | 37.7 | U |
| 53-70-3 | Dibenzo (a, h) anthracene | 37.7 | U |
| 191-24-2 | Benzo (ghi) perylene | 37.7 | U |

1B
SVOA ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UN4SB01002

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 74242

Matrix: (soil/water) SOIL Lab Sample ID: 74242001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S2B0309

Level: (low/med) LOW Date Received: 01/30/03

% Moisture: 24 decanted: (Y/N) N Date Extracted: 01/31/03

Concentrated Extract Volume: 1.00 (mL) Date Analyzed: 02/03/03

Injection Volume: 0.5 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|----------|----------------------------|---|---|
| 91-20-3 | Naphthalene | 43.4 | U |
| 208-96-8 | Acenaphthylene | 43.4 | U |
| 83-32-9 | Acenaphthene | 43.4 | U |
| 86-73-7 | Fluorene | 43.4 | U |
| 85-01-8 | Phenanthrene | 43.4 | U |
| 120-12-7 | Anthracene | 43.4 | U |
| 206-44-0 | Fluoranthene | 43.4 | U |
| 129-00-0 | Pyrene | 43.4 | U |
| 56-55-3 | Benzo (a) anthracene | 43.4 | U |
| 218-01-9 | Chrysene | 43.4 | U |
| 205-99-2 | Benzo (b) fluoranthene | 43.4 | U |
| 207-08-9 | Benzo (k) fluoranthene | 43.4 | U |
| 50-32-8 | Benzo (a) pyrene | 43.4 | U |
| 193-39-5 | Indeno (1, 2, 3-cd) pyrene | 43.4 | U |
| 53-70-3 | Dibenzo (a, h) anthracene | 43.4 | U |
| 191-24-2 | Benzo (ghi) perylene | 43.4 | U |