

N61165.AR.005260  
CNC CHARLESTON  
5090.3a

NO FURTHER ACTION (NFA) UNDERGROUND STORAGE TANK (UST) ASSESSMENT  
REPORT DATED 2 APRIL 1998 FOR BUILDING 643 (UST 643A) CNC CHARLESTON SC  
05/29/1998  
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



May 29, 1998

2600 Bull Street  
Columbia, SC 29201-1708

COMMISSIONER:  
Douglas E. Bryant

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Brian K. Smith

Rodney L. Grandy

Mr. Gabriel L. Magwood  
Southern Division NFEC  
P.O. Box 190010  
2155 Eagle Drive  
North Charleston, South Carolina 29419-9010

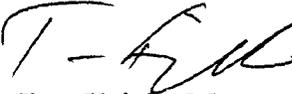
Re: Underground Storage Tank Assessment Report dated April 2, 1998  
Building 643 (UST 643A) (Site Identification # 15405-General File)  
Charleston Naval Complex/Charleston Naval Base  
Charleston, SC  
Charleston County

Dear Mr. Magwood:

The author has completed technical review of the referenced document. As submitted, the report provides a narrative describing closure activities, site conditions and analytical results of environmental sampling conducted to determine if releases have occurred from operation of the referenced vessel and/or associated piping system. The employed closure activities, site description and analytical results appear to indicate that no additional endeavors for remedial actions and/or contaminant characterization is warranted at the referenced site at this time. If in the future contamination is identified which is attributable to this site, additional assessments and/or remedial endeavors may be required, as appropriate.

Should you have any questions, please contact me at (803) 734-5328.

Sincerely,  
  
Paul L. Bristol, Hydrogeologist  
Groundwater Quality Section  
Bureau of Water

  
Tom Knight, Manager  
Groundwater Quality Section  
Bureau of Water

cc: Trident District EQC



DEPARTMENT OF THE NAVY  
SOUTHERN DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
P.O. BOX 190010  
2155 EAGLE DRIVE  
NORTH CHARLESTON, S.C. 29419-9010

Li 4.B.98  
Lo 5.26.98

**RECEIVED**

APR 6 1998

Water Monitoring, Assessment &  
Protection Division

5090  
Code 1849  
2 Apr 1998

Mr. Paul Bristol  
South Carolina Department of Health  
And Environmental Control  
Ground-Water Protection Division  
2600 Bull Street  
Columbia SC 29201

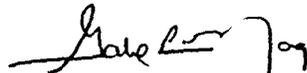
**UST ASSESSMENT REPORTS FOR CHARLESTON NAVAL COMPLEX,  
CHARLESTON, SC**

Dear Mr. Bristol:

Enclosed are the Assessment Reports for the closure of storage tanks USTs  
661, 643 and 647 and AST NS6 located at the Charleston Naval Complex,  
Charleston, SC.

If you have any questions please contact me at (843) 820-7307

Sincerely,

  
GABRIEL L. MAGWOOD  
Petroleum/UST

NFA

L 4.8.98  
L 5.26.98

RECEIVED

South Carolina Department of Health and Environmental Control (S.C.D.H.E.C.)  
Underground Storage Tank (UST) Assessment Report

APR 6 1998

Submit Completed Form to:

Date Received
State Use Only

Water Monitoring, Assessment & Protection Division  
 UST Regulatory Section  
 SCDHEC  
 2600 Bull Street  
 Columbia, South Carolina 29201  
 Telephone (803) 734-5331

**I OWNERSHIP OF UST(S)**

Agency/Owner: Southern Division, Naval Facilities Engineering Command, Caretaker Site Office			
Mailing Address: P.O. Box 190010			
City: N. Charleston	State: SC	Zip Code: 29419-9010	
Area Code: 803	Telephone Number: 743-9985	Contact Person: LCDR Paul Rose	

**II SITE IDENTIFICATION AND LOCATION**

Site I.D. #:	Unregulated		
Facility Name:	Charleston Naval Base Complex, Bldg 643		
Street Address:	Bainbridge Avenue & Holland Street		
City:	North Charleston, 29405-2413	County:	Charleston

**III CLOSURE INFORMATION**

Closure Started: 6 Oct 1997	Closure Completed: 6 Mar 1998
Number of USTs Closed: 1	
N/A	SPORTENVDETCNASN
Consultant	UST Removal Contractor

**IV. CERTIFICATION (Read and Sign after completing entire submittal)**

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents; and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate and complete.	
LCDR Paul Rose	
Name (Type or Print)	
<i>W. Adkinson for LCDR ROSE</i>	
Signature	

**V. UST INFORMATION**

- A. Product.....
- B. Capacity.....
- C. Age.....
- D. Construction Material.....
- E. Month/Year of Last Use.....
- F. Depth (ft.) To Base of Tank.....
- G. Spill Prevention Equipment Y/N.....
- H. Overfill Prevention Equipment Y/N.....
- I. Method of Closure Removed/Filled.....
- J. Visible Corrosion or Pitting Y/N.....
- K. Visible Holes Y/N.....

	UST 643A	Tank 2	Tank 3	Tank 4	Tank 5
Fuel oil					
6,000 gal					
1969					
Steel					
Unk.					
~8'					
N					
N					
R					
N					
N					

- L. Method of disposal for any USTs removed from the ground (attach disposal manifests)

UST 643A was removed, drained, cut open at both ends, and cleaned with a steam cleaner. It was then cut up for recycling as scrap metal. (See Attachment III.)

- M. Method of disposal for any liquid petroleum, sludges, or waste waters removed from the USTs (attach disposal manifests)

All fuel oil, waste water, and sludge from UST 643A was recycled.

- N. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST

No corrosion, pitting, or holes were found. UST 643A was covered with a protective coating of black pitch.

## VI. PIPING INFORMATION

- A. Construction Material.....
- B. Distance from UST to Dispenser.....
- C. Number of Dispensers.....
- D. Type of System P/S.....
- E. Was Piping Removed from the Ground? Y/N....
- F. Visible Corrosion or Pitting Y/N.....
- G. Visible Holes Y/N.....
- H. Age.....

Tank 1	Tank 2	Tank 3	Tank 4	Tank 5
Copper				
20'				
1 See note 1				
S				
Y				
N				
N				
1969				

Note 1: UST 643A provided heating fuel oil to Building 643.

- I. If any corrosion, pitting, or holes were observed, describe the location and extent for each line.

No corrosion, pitting, or holes were found in UST 643A's piping.

## VII. BRIEF SITE DESCRIPTION AND HISTORY

Building 643 is the former Fleet and Mine Warfare Training Center on Naval Base Charleston. The facility was constructed in 1969. It was used to train students with mines in mock-up shipboard settings. UST 643A provided heating fuel oil for the building.





## X. SAMPLING METHODOLOGY

**Provide a detailed description of the methods used to collect and store (preserve) the samples.**

After the removal of UST 643A soil and groundwater samples were taken. Sampling was performed in accordance with SC DHEC R.61-92 Part 280 and SC DHEC UST Assessment Guidelines.

Sample jars were prepared by the testing laboratory. The grab method was utilized to fill the sample containers leaving as little head space as possible and immediately capped. Soil samples were extracted at the tank ends just above the groundwater level. The groundwater sample was taken from the bottom of the excavation.

The samples were marked, logged, and immediately placed in sample coolers packed with ice to maintain an approximate temperature of 4° C. Tools were thoroughly cleaned and decontaminated with organic-free soap and water after each sample.

The samples remained in the custody of SPORTENVDETCNASN until they were transferred to General Engineering Laboratories for analysis as documented in the attached Chain-of-Custody Record.

# XI. RECEPTORS

Yes No

<p>A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?</p> <p>If yes, indicate type of receptor, distance, and direction on site map.</p>		X
<p>B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?</p> <p>If yes, indicate type of well, distance, and direction on site map.</p>		X
<p>C. Are there any underground structures (e.g., basements) located within 100 feet of the UST system?</p> <p>If yes, indicate the type of structure, distance, and direction on site map.</p>		X
<p>D. Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the contamination?</p> <p>If yes, indicate the type of utility, distance, and direction on the site map.</p> <p>[Storm drain, electricity]</p>	X	
<p>E. Has contaminated soil been identified at a depth of less than 3 feet below land surface in an area that is not capped by asphalt or concrete?</p> <p>If yes, indicate the area of contaminated soil on the site map.</p>		X

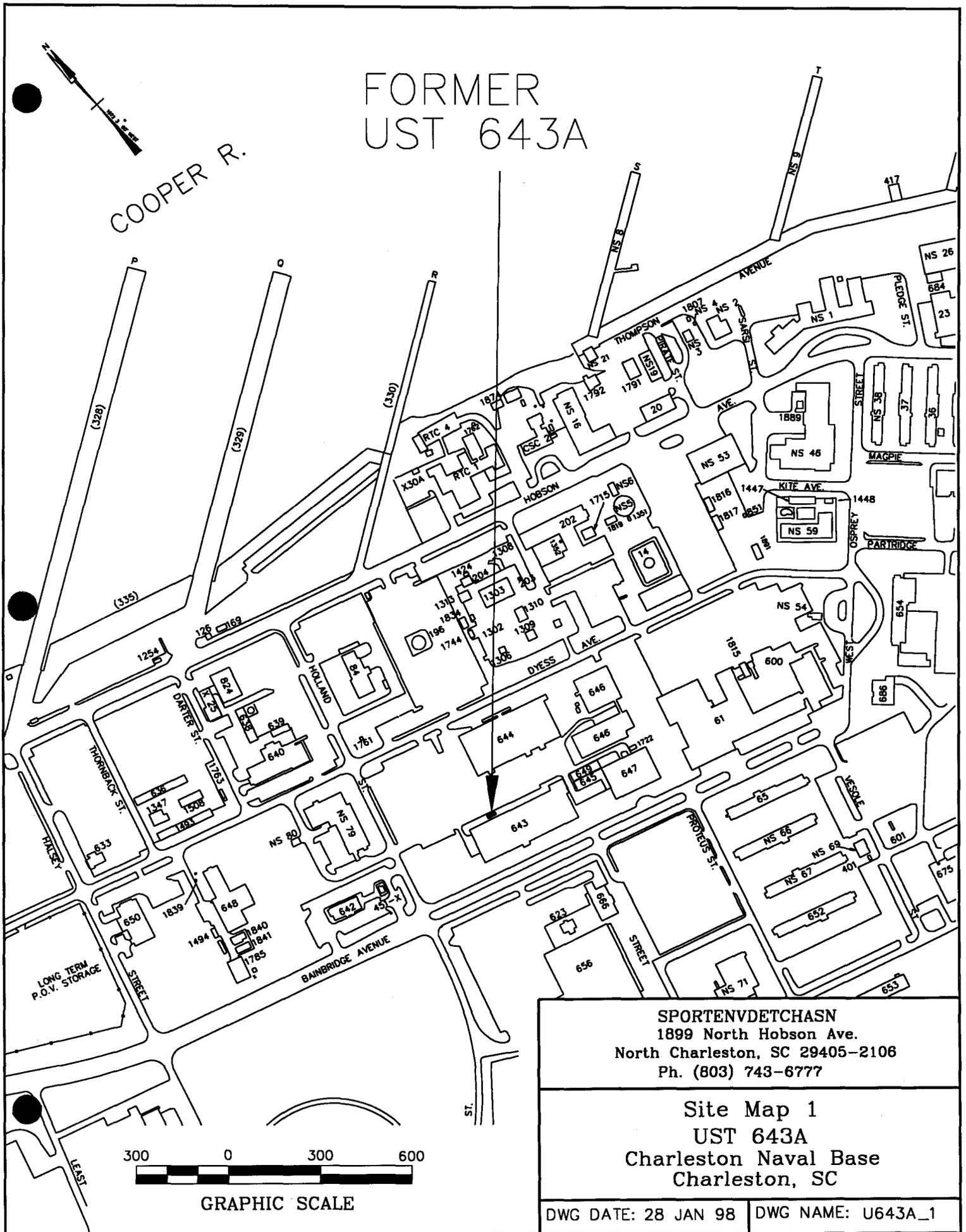
**SITE MAP**

You must supply a scaled site map. It should include all buildings, road names, utilities, tank and pump island locations, sample locations, extent of excavation, and any other pertinent information.

Site Maps 1, 2, 3, and 4  
Photographs 1, 2, 3, and 4

# FORMER UST 643A

COOPER R.



BLDG 643

A/C UNIT

A/C UNIT

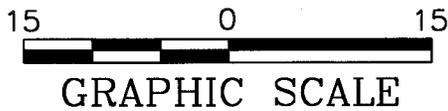
GRASS

ELECTRIC CONDUIT

ASPHALT

FORMER UST 643A

STORM DRAIN

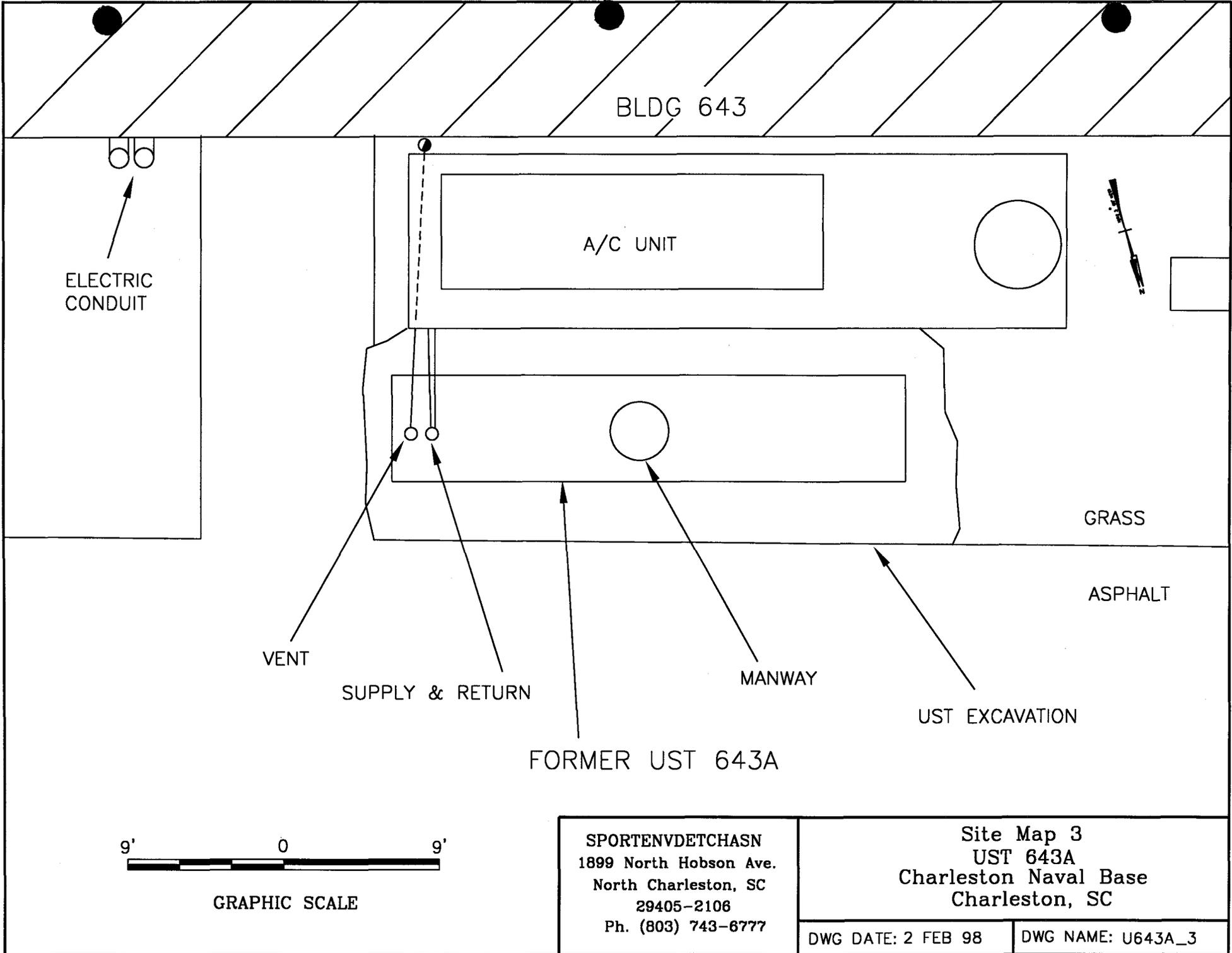


SPORTENVDETHASN  
1899 North Hobson Ave.  
North Charleston, SC 29405-2106  
Ph. (803) 743-6777

Site Map 2  
UST 643A  
Charleston Naval Base  
Charleston, SC

DWG DATE: 29 JAN 98

DWG NAME: U643A\_2



ELECTRIC  
CONDUIT

BLDG 643

A/C UNIT

GRASS

ASPHALT

VENT

SUPPLY & RETURN

MANWAY

UST EXCAVATION

FORMER UST 643A



GRAPHIC SCALE

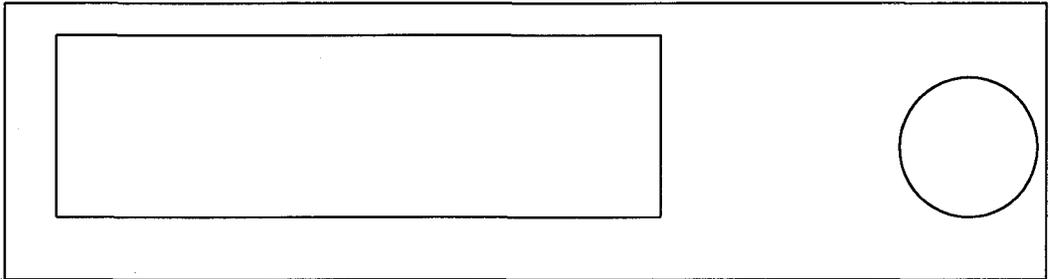
SPORTENVDETHASN  
1899 North Hobson Ave.  
North Charleston, SC  
29405-2106  
Ph. (803) 743-6777

Site Map 3  
UST 643A  
Charleston Naval Base  
Charleston, SC

DWG DATE: 2 FEB 98

DWG NAME: U643A\_3

BLDG 643



FORMER UST 643A

UST EXCAVATION

S.S. SPORT 0545-2  
(TAN/ORANGE, NO ODOR)

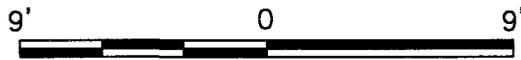
GW SPORT 0545-3  
(NO SHEEN)

S.S. SPORT 0545-1  
(TAN/ORANGE, NO ODOR)

GROUNDWATER, 3" DEEP

GROUNDWATER, 4" DEEP

NOTES:  
S.S. - SOIL SAMPLE  
GW - GROUNDWATER SAMPLE



GRAPHIC SCALE

SPORTENVDETCHASN  
1899 North Hobson Ave.  
North Charleston, SC  
29405-2106  
Ph. (803) 743-6777

Site Map 4  
UST 643A  
Charleston Naval Base  
Charleston, SC

DWG DATE: 2 FEB 98

DWG NAME: U643A\_4

UST 643A

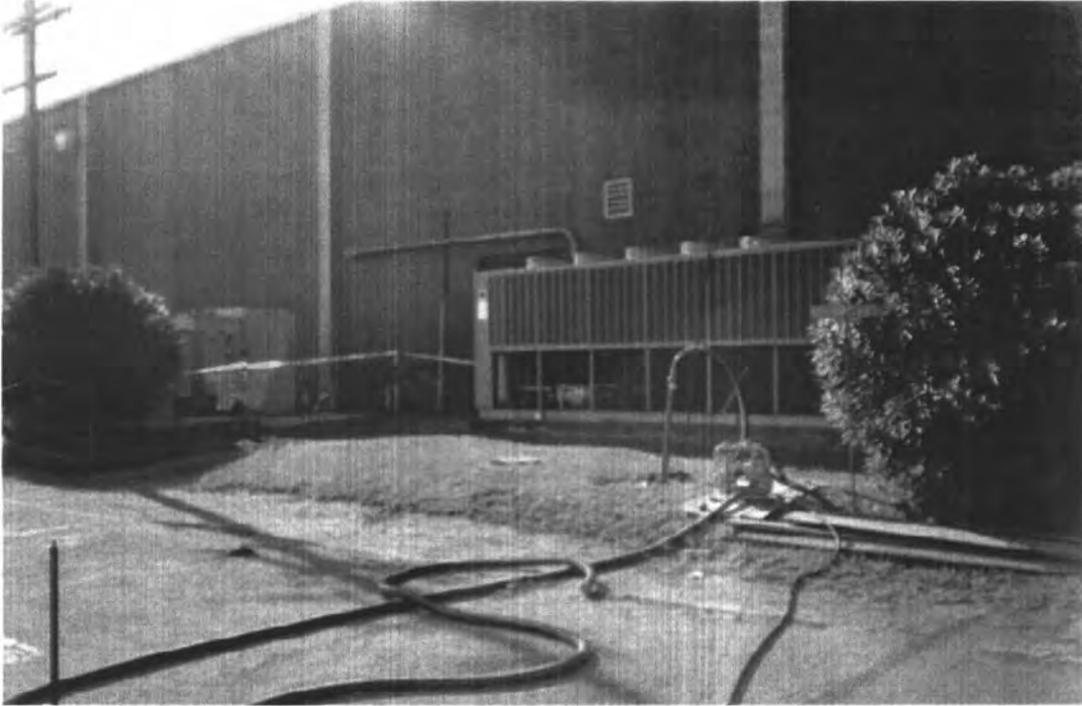


Photo 1: UST 643A site prior to tank removal.



Photo 2: UST 643A exposed.

UST 643A

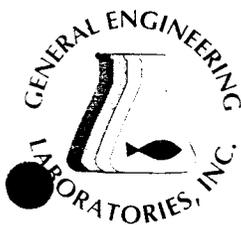


Photo 3: UST 643 being prepared for transport to the cutting pad.

**ANALYTICAL RESULTS**

You must submit the laboratory report and chain-of-custody form for the samples. These samples must be analyzed by a South Carolina certified laboratory.

Certified Analytical Results  
Chain-of-Custody



# GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

### Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/874
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion  
 SUPSHIP-Portsmouth Detachment-Env.  
 1899 North Hobson Ave.  
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: October 23, 1997

Page 1 of 2

Sample ID : SPORT0545-1  
 Lab ID : 9710325-01  
 Matrix : Soil  
 Date Collected : 10/14/97  
 Date Received : 10/14/97  
 Priority : Routine  
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
<b>Volatile Organics</b>											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/kg	1.0	JEB	10/20/97	1251	109688	
Ethylbenzene	U	0.00	1.00	2.00	ug/kg	1.0					
Toluene	U	0.00	1.00	2.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/kg	1.0					
Naphthalene		2.39	1.00	2.00	ug/kg	1.0					
<b>Extractable Organics</b>											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	164	330	ug/kg	1.0	JCB	10/21/97	1851	109742	2
Acenaphthylene	U	0.00	164	330	ug/kg	1.0					
Anthracene	U	0.00	164	330	ug/kg	1.0					
Benzo(a)anthracene	U	0.00	164	330	ug/kg	1.0					
Benzo(a)pyrene	U	0.00	164	330	ug/kg	1.0					
Benzo(b)fluoranthene	U	0.00	164	330	ug/kg	1.0					
Benzo(ghi)perylene	U	0.00	164	330	ug/kg	1.0					
Benzo(k)fluoranthene	U	0.00	164	330	ug/kg	1.0					
Chrysene	U	0.00	164	330	ug/kg	1.0					
Dibenzo(a,h)anthracene	U	0.00	164	330	ug/kg	1.0					
Fluoranthene	U	0.00	164	330	ug/kg	1.0					
Fluorene	U	0.00	164	330	ug/kg	1.0					
Indeno(1,2,3-c,d)pyrene	U	0.00	164	330	ug/kg	1.0					
Naphthalene	U	0.00	164	330	ug/kg	1.0					
Phenanthrene	U	0.00	164	330	ug/kg	1.0					
Pyrene	U	0.00	164	330	ug/kg	1.0					

The following prep procedures were performed:  
 GC/MS Base/Neutral Compounds

GWL 10/20/97 2330 109742

P O Box 30712 • Charleston, SC 29417 • 2040 Savage Road • 29414

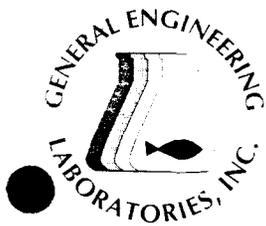
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\*9710325-01\*



# GENERAL ENGINEERING LABORATORIES

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### Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/8
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion  
 SUPSHIP-Portsmouth Detachment-Env.  
 1899 North Hobson Ave.  
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: October 23, 1997

Page 2 of 2

Sample ID : SPORT0545-1

Surrogate Recovery	Test	Percent %	Acceptable Limits
2-Fluorobiphenyl	M610	67.6	(30.0 - 115.)
Nitrobenzene-d5	M610	69.2	(23.0 - 120.)
p-Terphenyl-d14	M610	98.4	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	92.6	(53.5 - 154.)
Dibromofluoromethane	BTEX-8260	85.4	(63.4 - 136.)
Toluene-d8	BTEX-8260	93.0	(72.1 - 137.)
Bromofluorobenzene	NAP-8260	92.6	(53.5 - 154.)
Dibromofluoromethane	NAP-8260	85.4	(63.4 - 136.)
Toluene-d8	NAP-8260	93.0	(72.1 - 137.)

M = Method	Method-Description
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3550

### Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

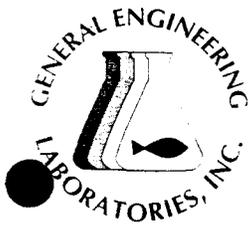
J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

\* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.

Karen Blakeney  
Reviewed By



# GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

### Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/874
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion  
 SUPSHIP-Portsmouth Detachment-Env.  
 1899 North Hobson Ave.  
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: October 23, 1997

Page 1 of 2

Sample ID : SPORT0545-2  
 Lab ID : 9710325-02  
 Matrix : Soil  
 Date Collected : 10/14/97  
 Date Received : 10/14/97  
 Priority : Routine  
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
<b>Volatile Organics</b>											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/kg	1.0	JEB	10/20/97	1320	109688	
Ethylbenzene	U	0.00	1.00	2.00	ug/kg	1.0					
Toluene	U	0.00	1.00	2.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/kg	1.0					
Naphthalene	U	0.00	1.00	2.00	ug/kg	1.0					
<b>Extractable Organics</b>											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	166	331	ug/kg	1.0	JCB	10/21/97	1924	109742	2
Acenaphthylene	U	0.00	166	331	ug/kg	1.0					
Anthracene	U	0.00	166	331	ug/kg	1.0					
Benzo(a)anthracene	U	0.00	166	331	ug/kg	1.0					
Benzo(a)pyrene	U	0.00	166	331	ug/kg	1.0					
Benzo(b)fluoranthene	U	0.00	166	331	ug/kg	1.0					
Benzo(ghi)perylene	U	0.00	166	331	ug/kg	1.0					
Benzo(k)fluoranthene	U	0.00	166	331	ug/kg	1.0					
Chrysene	U	0.00	166	331	ug/kg	1.0					
Dibenzo(a,h)anthracene	U	0.00	166	331	ug/kg	1.0					
Fluoranthene	U	0.00	166	331	ug/kg	1.0					
Fluorene	U	0.00	166	331	ug/kg	1.0					
Indeno(1,2,3-c,d)pyrene	U	0.00	166	331	ug/kg	1.0					
Naphthalene	U	0.00	166	331	ug/kg	1.0					
Phenanthrene	U	0.00	166	331	ug/kg	1.0					
Pyrene	U	0.00	166	331	ug/kg	1.0					

The following prep procedures were performed:  
 GC/MS Base/Neutral Compounds

GWL 10/20/97 2330 109742 3

P O Box 30712 • Charleston, SC 29417 • 2040 Savage Road • 29414

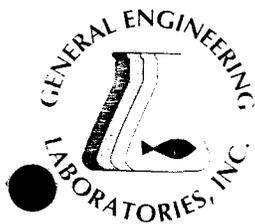
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\*9710325-02\*



# GENERAL ENGINEERING LABORATORIES

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### Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/87
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion  
 SUPSHIP-Portsmouth Detachment-Env.  
 1899 North Hobson Ave.  
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: October 23, 1997

Page 2 of 2

Sample ID : SPORT0545-2

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	69.7	(30.0 - 115.)
Nitrobenzene-d5	M610	72.6	(23.0 - 120.)
p-Terphenyl-d14	M610	93.6	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	96.1	(53.5 - 154.)
Dibromofluoromethane	BTEX-8260	89.2	(63.4 - 136.)
Toluene-d8	BTEX-8260	94.0	(72.1 - 137.)
Bromofluorobenzene	NAP-8260	96.1	(53.5 - 154.)
Dibromofluoromethane	NAP-8260	89.2	(63.4 - 136.)
Toluene-d8	NAP-8260	94.0	(72.1 - 137.)

M = Method	Method-Description
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3550

### Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

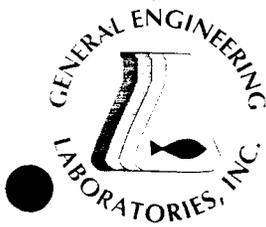
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U indicates that the analyte was not detected at a concentration greater than the detection limit.

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This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.

*Karen Blakeney*  
Reviewed By



# GENERAL ENGINEERING LABORATORIES

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### Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/F
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion  
 SUPSHIP-Portsmouth Detachment-Env.  
 1899 North Hobson Ave.  
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: October 23, 1997

Page 1 of 2

Sample ID : SPORT0545-3  
 Lab ID : 9710325-03  
 Matrix : GroundH2O  
 Date Collected : 10/14/97  
 Date Received : 10/14/97  
 Priority : Routine  
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
<b>Volatile Organics</b>											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/l	1.0	JAS	10/17/97	1512	109071	
Ethylbenzene	U	0.00	1.00	2.00	ug/l	1.0					
Toluene	U	0.186	1.00	2.00	ug/l	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/l	1.0					
Naphthalene	U	0.00	1.00	2.00	ug/l	1.0					
<b>Extractable Organics</b>											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	5.20	10.4	ug/l	1.0	JCB	10/17/97	1653	109498	2
Acenaphthylene	U	0.00	5.20	10.4	ug/l	1.0					
Anthracene	U	0.00	5.20	10.4	ug/l	1.0					
Benzo(a)anthracene	U	0.00	5.20	10.4	ug/l	1.0					
Benzo(a)pyrene	U	0.00	5.20	10.4	ug/l	1.0					
Benzo(b)fluoranthene	U	0.00	5.20	10.4	ug/l	1.0					
Benzo(ghi)perylene	U	0.00	5.20	10.4	ug/l	1.0					
Benzo(k)fluoranthene	U	0.00	5.20	10.4	ug/l	1.0					
Chrysene	U	0.00	5.20	10.4	ug/l	1.0					
Dibenzo(a,h)anthracene	U	0.00	5.20	10.4	ug/l	1.0					
Fluoranthene	J	6.78	5.20	10.4	ug/l	1.0					
Fluorene	U	0.00	5.20	10.4	ug/l	1.0					
Indeno(1,2,3-c,d)pyrene	U	0.00	5.20	10.4	ug/l	1.0					
Naphthalene	U	0.00	5.20	10.4	ug/l	1.0					
Phenanthrene	U	0.00	5.20	10.4	ug/l	1.0					
Pyrene	U	0.00	5.20	10.4	ug/l	1.0					

The following prep procedures were performed:  
 GC/MS Base/Neutral Compounds

TSD 10/15/97 1600 109498

P O Box 30712 • Charleston, SC 29417 • 2040 Savage Road • 29414

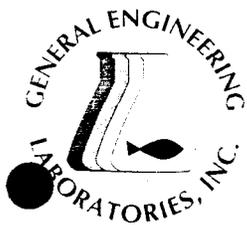
(803) 556-8171 • Fax (803) 766-1178



Printed on recycled paper.



\*9710325-03\*



# GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

### Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/8745
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion  
 SUPSHIP-Portsmouth Detachment-Env.  
 1899 North Hobson Ave.  
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: October 23, 1997

Page 2 of 2

Sample ID : SPORT0545-3

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	70.0	(43.0 - 108.)
Nitrobenzene-d5	M610	71.0	(35.0 - 111.)
p-Terphenyl-d14	M610	115.	(33.0 - 125.)
Bromofluorobenzene	BTEX-8260	93.1	(73.8 - 128.)
Dibromofluoromethane	BTEX-8260	88.5	(63.9 - 139.)
Toluene-d8	BTEX-8260	97.9	(77.1 - 121.)
Bromofluorobenzene	NAP-8260	93.1	(73.8 - 128.)
Dibromofluoromethane	NAP-8260	88.5	(63.9 - 139.)
Toluene-d8	NAP-8260	97.9	(77.1 - 121.)

M = Method	Method-Description
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3510

### Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

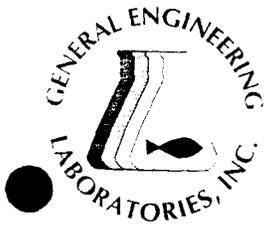
J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

\* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.

Karen Blakeney  
Reviewed By



# GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

### Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/8
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion  
 SUPSHIP-Portsmouth Detachment-Env.  
 1899 North Hobson Ave.  
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: October 23, 1997

Page 1 of 2

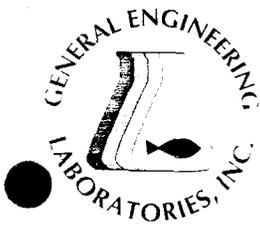
Sample ID : SPORT0545-4  
 Lab ID : 9710325-04  
 Matrix : Soil  
 Date Collected : 10/14/97  
 Date Received : 10/14/97  
 Priority : Routine  
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
<b>Volatile Organics</b>											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/kg	1.0	JEB	10/20/97	1412	109688	
Ethylbenzene	U	0.00	1.00	2.00	ug/kg	1.0					
Toluene	U	0.00	1.00	2.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/kg	1.0					
Naphthalene	U	0.00	1.00	2.00	ug/kg	1.0					

Surrogate Recovery	Test	Percent%	Acceptable Limits
Bromofluorobenzene	BTEX-8260	87.6	(53.5 - 154.)
Dibromofluoromethane	BTEX-8260	80.6	(63.4 - 136.)
Toluene-d8	BTEX-8260	89.7	(72.1 - 137.)
Bromofluorobenzene	NAP-8260	87.6	(53.5 - 154.)
Dibromofluoromethane	NAP-8260	80.6	(63.4 - 136.)
Toluene-d8	NAP-8260	89.7	(72.1 - 137.)

M = Method	Method-Description
M 1	EPA 8260





# GENERAL ENGINEERING LABORATORIES

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## Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion  
SUPSHIP-Portsmouth Detachment-Env.  
1899 North Hobson Ave.  
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: October 23, 1997

Page 2 of 2

Sample ID : SPORT0545-4

M = Method

Method-Description

### Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

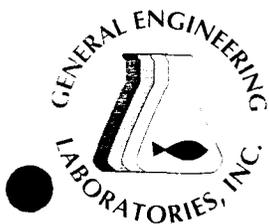
U indicates that the analyte was not detected at a concentration greater than the detection limit.

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Reviewed By





# GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

### Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/E
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion  
 SUPSHIP-Portsmouth Detachment-Env.  
 1899 North Hobson Ave.  
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: October 23, 1997

Page 1 of 2

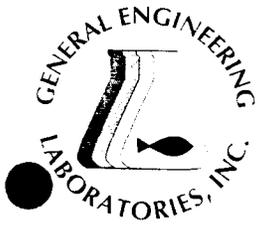
Sample ID : SPORT0545-5  
 Lab ID : 9710325-05  
 Matrix : GroundH2O  
 Date Collected : 10/14/97  
 Date Received : 10/14/97  
 Priority : Routine  
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
<b>Volatile Organics</b>											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/l	1.0	JAS	10/17/97	1539	109071	
Ethylbenzene	U	0.00	1.00	2.00	ug/l	1.0					
Toluene	U	0.435	1.00	2.00	ug/l	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/l	1.0					
Naphthalene	U	0.00	1.00	2.00	ug/l	1.0					

Surrogate Recovery	Test	Percent%	Acceptable Limits
Bromofluorobenzene	BTEX-8260	92.3	(73.8 - 128.)
Dibromofluoromethane	BTEX-8260	86.1	(63.9 - 139.)
Toluene-d8	BTEX-8260	96.7	(77.1 - 121.)
Bromofluorobenzene	NAP-8260	92.3	(73.8 - 128.)
Dibromofluoromethane	NAP-8260	86.1	(63.9 - 139.)
Toluene-d8	NAP-8260	96.7	(77.1 - 121.)

M = Method	Method-Description
M 1	EPA 8260





# GENERAL ENGINEERING LABORATORIES

*Meeting today's needs with a vision for tomorrow.*

## Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/8
NC	233	
SC	10120	10582
TN	02934	02934

**Client:** Supervisor of Ship Building & Conversion  
SUPSHIP-Portsmouth Detachment-Env.  
1899 North Hobson Ave.  
North Charleston, South Carolina 29405-2106

**Contact:** Mr. Bill Hiers

**Project Description:** SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: October 23, 1997

Page 2 of 2

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Sample ID : SPORT0545-5

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M = Method	Method-Description
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### Notes:

The qualifiers in this report are defined as follows:

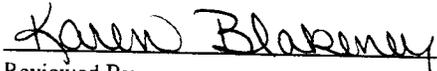
ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

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This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.

  
\_\_\_\_\_  
Reviewed By



# CHAIN OF CUSTODY RECORD

9710325

Client Name/Facility Name						SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods																Use F or P in the boxes to indicate whether sample was filtered and/or preserved					
SPORTENV DET CHASIN						pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method Required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type	DTEX/NAP	PAH	Remarks				
Collected by/Company																											
SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS																				
01 SPORT 545-1	10-14-97	0935	X				2																	X	X	UST 643A-1 Soil	.1
02 SPORT 545-2	10-14-97	1000	X				2																	X	X	UST 643A-2 Soil	.1
03 SPORT 545-3	10-14-97	0900				X	5																	X	X	UST 643A-3 Water Soil	.2
04 SPORT 545-4	10-14-97	0840	X				1																	X		UST 643A-4 TRIP	.3
05 SPORT 545-5	10-14-97	0840				X	3																	X		UST 643A-5 TRIP	.4
Relinquished by:						Date:	Time:	Received by:						Date:	Time:	Received by:											
Z. Z. Mashinski						10-14-97	1304	W. R. Hiers, Jr.						10/14/97	1541	Catherine [Signature]											
Relinquished by:						Date:	Time:	Received by lab by:						Date:	Time:	Remarks:											
Catherine [Signature]						10/14/97	1520	Karen Blakemey						10/14/97	1520												

White = sample collector    Yellow = file    Pink = with report

**Attachment III**

Certificate of Disposal (tank)

# UST Certificate of Disposal

## CONTRACTOR

Supervisor of Shipbuilding, Conversion and Repair, USN  
Portsmouth, VA  
Environmental Detachment Charleston  
1899 North Hobson Avenue  
North Charleston 29405-2106

Telephone (803) 743-6482

## TANK ID & LOCATION

UST 643A; Charleston Naval Base, Bldg 643, Bainbridge Ave., N. Charleston, SC

## DISPOSAL LOCATION

Bldg. 1601 Tank Cleaning  
& Disposal Area  
Charleston Naval Complex

### TYPE OF TANK

Fuel oil

### SIZE (GAL)

6,000 gal.

## CLEANING/DISPOSAL METHOD

The tank was cut open on both ends, cleaned with a steam cleaner, cut into sections, and disposed of as recyclable scrap metal.

## DISPOSAL CERTIFICATION

I certify that the above tank has been properly cleaned and disposed of as recyclable scrap metal.

  
\_\_\_\_\_  
Sidney C. Ladson

13-6-98  
(Date)