

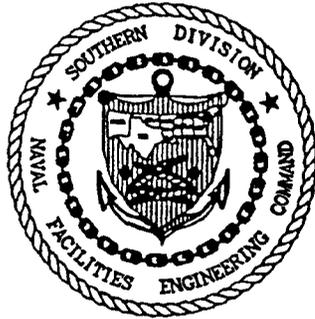
N61165.AR.005685
CNC CHARLESTON
5090.3a

UNDERGROUND STORAGE TANK (UST) ASSESSMENT REPORT FOR UST 56 CNC
CHARLESTON SC
09/03/1996
ENVIRONMENTAL DETACHMENT CHARLESTON



UST ASSESSMENT REPORT
UST 56
NAVAL BASE CHARLESTON
CHARLESTON SC

17623



Prepared for:

DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON SC



Prepared by:

SUPERVISOR OF SHIPBUILDING, CONVERSION
AND REPAIR, USN, PORTSMOUTH DETACHMENT
ENVIROMENTAL CHARLESTON, SC
1899 NORTH HOBSON AVE.
NORTH CHARLESTON SC 29405-2106

September 3, 1996

RECEIVED
OCT 2 1996
Groundwater Protection
Division

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

Date Received
State Use Only

Submit Completed Form to:
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. #:	12094 Registered, not regulated	GWPS - A-10-9A-17623
Facility Name:	Charleston Naval Base Complex, CNSY Bldg 56	
Street Address:	South Hobson Avenue	
City:	North Charleston, 29405-2413	County: Charleston

III CLOSURE INFORMATION

Closure Started: 1 May 96	Closure Completed: 6 May 96
Number of USTs Closed: 1	
N/A Consultant	SPORTENVDETHASN 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.

PAUL M. ROSE
Name (Type or Print)

PM Rose
Signature

RECEIVED
OCT 2 1996
Groundwater Protection
Division

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.....

	Tank 1	Tank 2	Tank 3	Tank 4	Tank 5	Tank 6
Fuel Oil						
4,000gal.						
>20 years						
Steel						
Unknown						
6' 6"						
N						
N						
R						
Y						
N						

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

The UST was removed from its vault, drained and cleaned. 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).

Residual waste oil was pumped into 55 gallon drums and recycled.

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

The entire UST was coated in rust. The rust, however, had no appreciable depth or pitting, and the tank had no holes or leaks.

VI. PIPING INFORMATION

- A. Construction Material.....
- B. Distance from UST to Dispenser....(Bldg 56).....
- 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	Tank 6
Steel & Copper						
15' 6"						
N/A*						
S						
Y						
N						
N						
> 20 yrs						

*UST 56 provided fuel oil to the pipe shop.

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

No holes or pitting was found in the piping.

The booth adjacent to the pipe run housed the fuel pump for UST 56. Evidence indicates that this pump leaked, making it the most probable source of the contamination found in the pipe run excavation.

VII. BRIEF SITE DESCRIPTION AND HISTORY

Building 56 is located inside the Charleston Naval Shipyard's Controlled Industrial Area. Building 56 was originally used as the Shipyard Pipe Shop. UST 56 was used to store fuel oil for the shop. The tank was encapsulated in a below ground cinder block and concrete vault located in an alley between Building 56 and Building 221.

VIII. SITE CONDITIONS

Yes No Unk

		Yes	No	Unk
A.	<p>Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate depth and location on the site map.</p>		X*	
B.	<p>Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate location on site map and describe the odor (strong, mild, etc.)</p>		X	
C.	<p>Was water present in the UST excavation, soil borings, or trenches?</p> <p>If yes, how far below land surface (indicate location and depth)?</p> <p>_____</p>		X	
D.	<p>Did contaminated soils remain stockpiled on site after closure?</p> <p>If yes, indicate the stockpile location on the site map.</p> <p>Name of DHEC representative authorizing soil removal:</p> <p>_____</p>		X	
E.	<p>Was a petroleum sheen or free product detected on any excavation or boring waters?</p> <p>If yes, indicate location and thickness.</p>		X	

*UST CNSY BLDG 56 was fully enclosed in a concrete vault. Soil was excavated only for piping removal. No ground water was encountered.

X. SAMPLING METHODOLOGY

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

No soil samples were taken from beneath UST Bldg 56 because the tank rested in a concrete vault. A soil sample was taken from beneath the piping as indicated on Site Map 2. Sampling was performed in accordance with SC DHEC R.61-92 Part 280 and SC DHEC UST Assessment Guidelines.

The soil sample is identified as UST 56-1 = SPORT - 0023-1.

Eight ounce glass jars used for the soil sample were prepared by the testing laboratory. The grab method was utilized to fill the sample containers leaving as little head space as possible.

The samples were marked, logged, and immediately placed in coolers packed with ice to maintain an approximate temperature of 4° C.

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

XI. RECEPTORS

Yes No

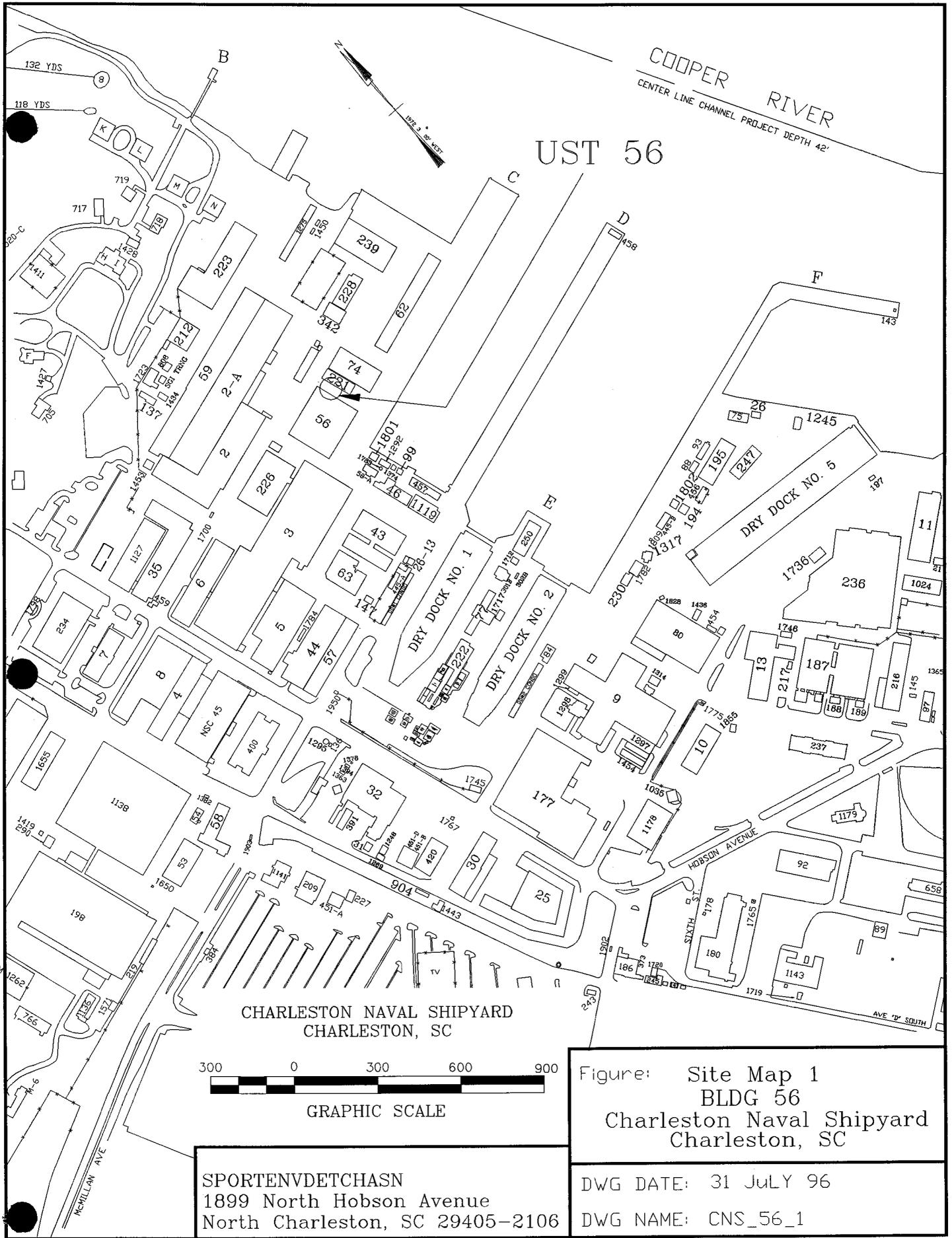
A.	<p>Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?</p> <p style="text-align: right;">[* Cooper R., 245']</p> <p>If yes, indicate type of receptor, distance, and direction on site map.</p>	X	
B.	<p>Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?</p> <p>If yes, indicate type of well, distance, and direction on site map.</p>		X
C.	<p>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
D.	<p>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 style="text-align: right;">[sewer*]</p> <p>If yes, indicate the type of utility, distance, and direction on the site map.</p>	X*	
E.	<p>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

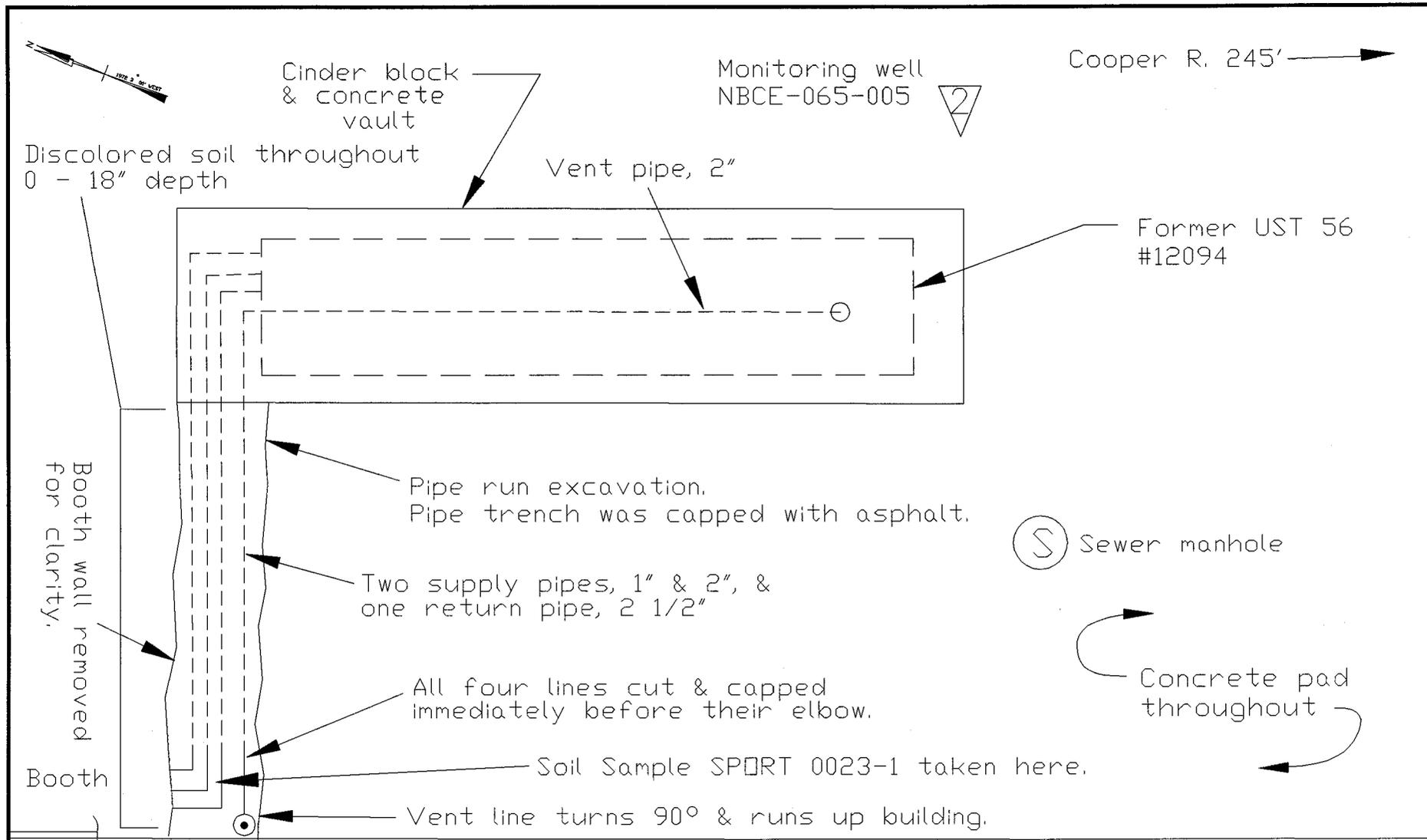
Attachment I

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.

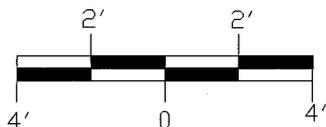
Site Maps 1, 2, and 3.
Photographs





Bldg 56

GRAPHIC SCALE



SPORTENVDETHASN
 1899 North Hobson Avenue
 North Charleston, SC 29405-2106

Figure: Site Map 2
 UST Bldg 56
 Charleston Naval Shipyard
 Charleston, SC

DWG DATE: 9 Aug 1996

DWG NAME: CNS_56_2

Bldg 74

Bldg 221

Empty above ground storage tank platform

To Cooper R.
245'

Cinder block & concrete vault

Former UST Bldg 221

Concrete pad throughout

Former UST 56
#12094

Pipe run excavation

Booths Leaky suction pump.

Bldg 56

LEGEND

⊙ Sewer manhole

⊠ Storm drain

▽ Monitoring well

— Fence

NOTES

▽1 NBCE-065-006

▽2 NBCE-065-005

▽3 NBCE-065-040

▽4 NBCE-065-004

GRAPHIC SCALE

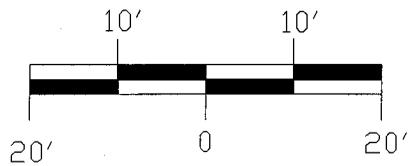
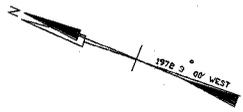


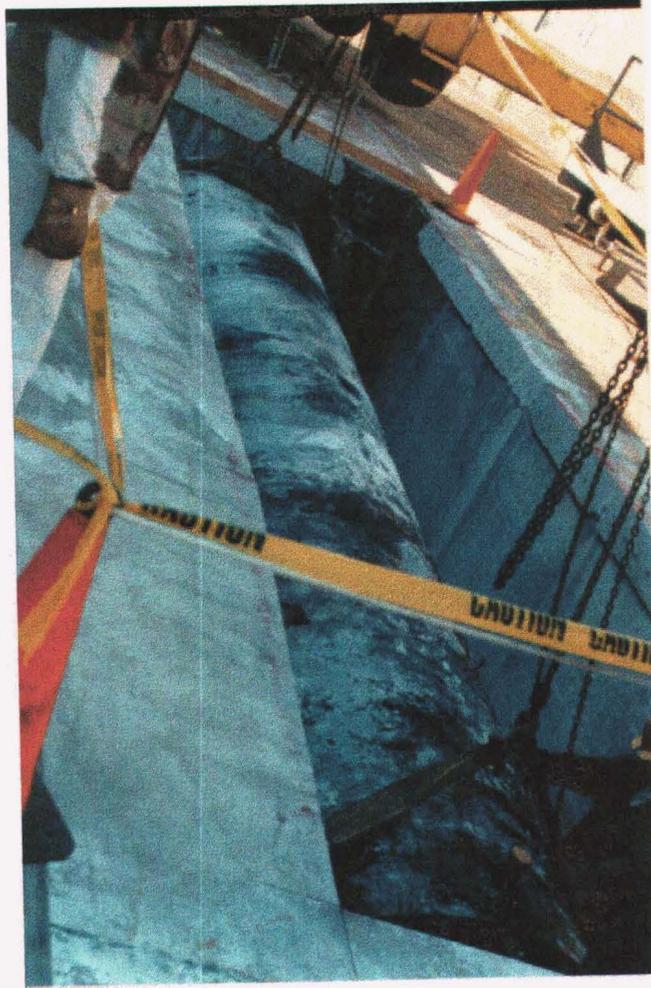
Figure: Site Map 3
UST Bldg 56
Charleston Naval Shipyard
Charleston, SC

SPORTENVDETCHASN
1899 North Hobson Avenue
North Charleston, SC 29405-2106

DWG DATE: 9 Aug 1996

DWG NAME: CNS_56_2





UST 56 IN VAULT

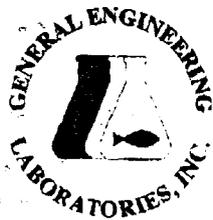


UST 56 RIGGING AND REMOVAL

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.

CERTIFICATE OF ANALYSIS

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: NPWC00196

Report Date: May 13, 1996

Page 1 of 4

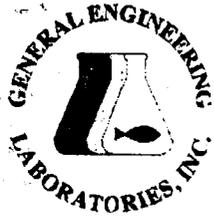
Sample ID : SPORT-0023-1
 Lab ID : 9605079-01
 Matrix : Soil
 Date Collected : 05/06/96
 Date Received : 05/06/96
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/kg	1.0	JGS	05/08/96	1724	84421	1
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					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	1630	3260	ug/kg	10.	HNM	05/09/96	1322	84351	2
Acenaphthylene	U	0.00	1630	3260	ug/kg	10.					
Anthracene	U	0.00	1630	3260	ug/kg	10.					
Benzo(a)anthracene	U	0.00	1630	3260	ug/kg	10.					
Benzo(a)pyrene	U	0.00	1630	3260	ug/kg	10.					
Benzo(b)fluoranthene	U	0.00	1630	3260	ug/kg	10.					
Benzo(ghi)perylene	U	0.00	1630	3260	ug/kg	10.					
Benzo(k)fluoranthene	U	0.00	1630	3260	ug/kg	10.					
Chrysene	U	0.00	1630	3260	ug/kg	10.					
Dibenzo(a,h)anthracene	U	0.00	1630	3260	ug/kg	10.					
Fluoranthene	U	0.00	1630	3260	ug/kg	10.					
Fluorene	U	0.00	1630	3260	ug/kg	10.					
Indeno(1,2,3-c,d)pyrene	U	0.00	1630	3260	ug/kg	10.					
Naphthalene	U	0.00	1630	3260	ug/kg	10.					
Phenanthrene	U	0.00	1630	3260	ug/kg	10.					
Pyrene	U	0.00	1630	3260	ug/kg	10.					
Metals Analysis											
-Mercury	J	0.137	0.00235	0.200	mg/kg	1.0	RMJ	05/09/96	1311	84370	N
Silver	J	149	122	500	ug/kg	1.0	NRM	05/09/96	1843	84447	3
Arsenic		1950	91.1	500	ug/kg	1.0					



P O Box 30712 • Charleston, SC 29417 • (803) 556-8171 • Fax (803) 766-1178 *9605079-01*

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 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 13, 1996

Page 2 of 4

Sample ID : SPORT-0023-1

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Barium		17700 ✓	3.25	500	ug/kg	1.0					
Cadmium		976 ✓	4.75	250	ug/kg	1.0	NRM	05/09/96	1843	84447	3
Chromium		12600 ✓	29.2	500	ug/kg	1.0					
Lead		73900 ✓	55.4	250	ug/kg	1.0					
Selenium		308 ✓	70.1	250	ug/kg	1.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		180	10.0	50.0	mg/kg	1.0	SDW	05/09/96	1000	84434	4

The following prep procedures were performed:

GC/MS Base/Neutral Compounds
 Mercury
 TRACE

TMK 05/07/96 1300 84351 5
 RMJ 05/07/96 1830 84370 6
 DVW 05/08/96 2100 84447 7

Comments:

A dilution was required for Extractables due to matrix interference.
 As a result, the detection limits were elevated.

Surrogate Recovery	Test	Percent %	Acceptable Limits
2-Fluorobiphenyl	M610	0.00*	(30.0 - 115.)
Nitrobenzene-d5	M610	0.00*	(23.0 - 120.)
p-Terphenyl-d14	M610	0.00*	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	132.	(59.7 - 159.)
Dibromofluoromethane	BTEX-8260	128.	(74.0 - 128.)
Toluene-d8	BTEX-8260	112.	(53.4 - 163.)
Bromofluorobenzene	NAP-8260	132.	(59.7 - 159.)
Dibromofluoromethane	NAP-8260	128.	(74.0 - 128.)
Toluene-d8	NAP-8260	112.	(53.4 - 163.)

9605079-01

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Page 3 of 4

Sample ID : SPORT-0023-1

M = Method	Method-Description
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 6010A
M 4	EPA 9071
M 5	EPA 3550
M 6	EPA 7471
M 7	EPA 3050

Notes:

The qualifiers in this report are defined as follows:

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.

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

GEL Laboratory Certifications

AL - 41040
 CA - 2089
 DE - SC012
 ME - SC012
 NC - 233
 RI - 135
 TN - 02934

AZ - AZC514
 CT - PH-0169
 FL - E87156/87294
 MS - 10120
 NY - 11501
 SC - 10120
 UT - E-251

EPI Laboratory Certifications

AL - 41050
 CA - I-1023/2056
 FL - E87472/87458
 NY - 11502
 SC - 10582
 UT - E-227
 WA - C225

AZ - AZ0514
 CT - PH-0175
 MS - 29417
 RI - 138
 TN - 02934
 VA - 00111
 NJ - 79002





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Report Date: May 13, 1996

Page 4 of 4

Sample ID : SPORT-0023-1

GRL Laboratory Certifications

EPI Laboratory Certifications

VA - 00151

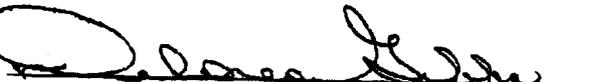
WA - C223

PA - 68-485

WV - 235

WI - 999887790

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.


 Analytical Report Specialist

NPWC 00196

K.B.B.
General Engineering Laboratories, Inc.
2040 Savage Road
Charleston, South Caro. 29414
P.O. Box 30712
Charleston, South Carolina 29417
(803) 556-8171

CHAIN OF CUSTODY RECORD

Page 1 of 1 9605079

J.O. 645046CEM99

Client Name/Facility Name <u>SPORTENVDETCHASN</u>			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 CCL 21263				
Collected by/Company <u>SPORTENVDETCHASN</u>			# OF CONTAINERS	pH, conductivity	TOC/DOC	PAH PAH	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	BN Extractables	PCB's		Cyanide	Coliform - specify type	BTEX PLUS NAPHTHALENE	PAH
01	SPORT-0023-1	5/6/96		1130	X	X	X			X									X	X	UST 56-1
Relinquished by:		Date:	Time:	Received by:		Relinquished by:		Date:	Time:	Received by:											
<u>[Signature]</u>		<u>5/6/96</u>	<u>1300</u>	<u>W.R. Hienz, Jr.</u>		<u>W.R. Hienz, Jr.</u>		<u>5/6/96</u>	<u>1355</u>	<u>Michael PO</u>											
Relinquished by:		Date:	Time:	Received by lab by:		Date:	Time:	Remarks:													
<u>Michael Patrice</u>		<u>5/6/96</u>	<u>1439</u>	<u>Paige Hund</u>		<u>5/6/96</u>	<u>1439</u>														

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

UST56; BLDG 56, CNSY, N. Charleston, SC

DISPOSAL LOCATION

Bldg. 1601 Tank Cleaning
& Disposal Area
Charleston Naval Complex

TYPE OF TANK

Fuel Oil

SIZE (GAL)

4,000 gal.

CLEANING/DISPOSAL METHOD

The tank was cut open on both ends, cleaned with a steam cleaner, 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.

O.S. Utthem

(Name)

1 8/8/96

(Date)