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NAS CECIL FIELD, FL  
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SITE ASSESSMENT REPORT FOR BUILDING 950 TANK 950 BASE REALIGNMENT AND  
CLOSURE UNDERGROUND STORAGE TANK AND ABOVEGROUND STORAGE TANK  
GREY SITES NAS CECIL FIELD FL  
9/1/1998  
HARDING LAWSON ASSOCIATES

**SITE ASSESSMENT REPORT**  
**BUILDING 950, TANK 950**  
**BASE REALIGNMENT AND CLOSURE**  
**UNDERGROUND STORAGE TANK AND**  
**ABOVEGROUND STORAGE TANK GREY SITES**  
**NAVAL AIR STATION CECIL FIELD**  
**JACKSONVILLE, FLORIDA**

**Unit Identification Code: N60200**

**Contract No.: N62467-89-D-0317/090**

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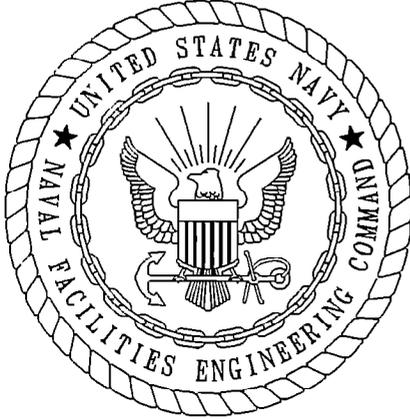
**Prepared for:**

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**September 1998**

**Revision 0.0**



CERTIFICATION OF TECHNICAL  
DATA CONFORMITY (MAY 1987)

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

DATE: September 9, 1998

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(DFAR 252.227-7036)

**TABLE OF CONTENTS**

Site Assessment Report  
Building 950, Tank 950  
Naval Air Station Cecil Field  
Jacksonville, Florida

<b><u>Chapter</u></b>	<b><u>Title</u></b>	<b><u>Page No.</u></b>
1.0	INTRODUCTION . . . . .	1
2.0	FIELD INVESTIGATION . . . . .	1
3.0	SCREENING AND ANALYTICAL RESULTS . . . . .	1
4.0	CONCLUSIONS AND RECOMMENDATIONS . . . . .	5

REFERENCES

APPENDICES

- Appendix A: Monitoring Well Installation Detail
- Appendix B: Groundwater Analytical Data

LIST OF FIGURES

Site Assessment Report  
Building 950, Tank 950  
Naval Air Station Cecil Field  
Jacksonville, Florida

<u>Figure</u>	<u>Title</u>	<u>Page No.</u>
1	Tank 950 Traffic Safety Building . . . . .	2
2	Tank 950 Soil Borings and Monitoring Well Locations . . . . .	3

LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Page No.</u>
1	Soil Screening Results . . . . .	4
2	Summary of Groundwater Analytical Detections . . . . .	5

## GLOSSARY

ABB-ES	ABB Environmental Services, Inc.
bls	below land surface
HLA	Harding Lawson Associates
KAG	Kerosene Analytical Group
OVA	organic vapor analyzer
ppm	parts per million
SA	site assessment

## 1.0 INTRODUCTION

Harding Lawson Associates, under contract to the Southern Division, Naval Facilities Engineering Command, has completed the site assessment (SA) for Tank 950 at Naval Air Station Cecil Field in Jacksonville, Florida. This report summarizes the related field operations, results, conclusions, and recommendations of the confirmatory sampling.

Tank 950 was an aboveground storage tank located at Building 950, a youth center and a traffic safety building (ABB Environmental Services, Inc. [ABB-ES], 1994). Building 950 is part of Seymour Park and is located off A Avenue (Figure 1). Tank 950 had a 150-gallon capacity and was used to store kerosene for on-site heating (ABB-ES, 1997). No closure information is available for this tank. A contamination assessment plan for the assessment of soil and groundwater at Tank 950 was prepared by HLA (then ABB-ES) in November 1996 (ABB-ES, 1996).

## 2.0 FIELD INVESTIGATION

The SA for the Tank 950 site was initiated in June 1997 and included

- the advancement of eight soil borings to the water table,
- the installation of one shallow groundwater monitoring well, and
- collection and analysis of one groundwater sample.

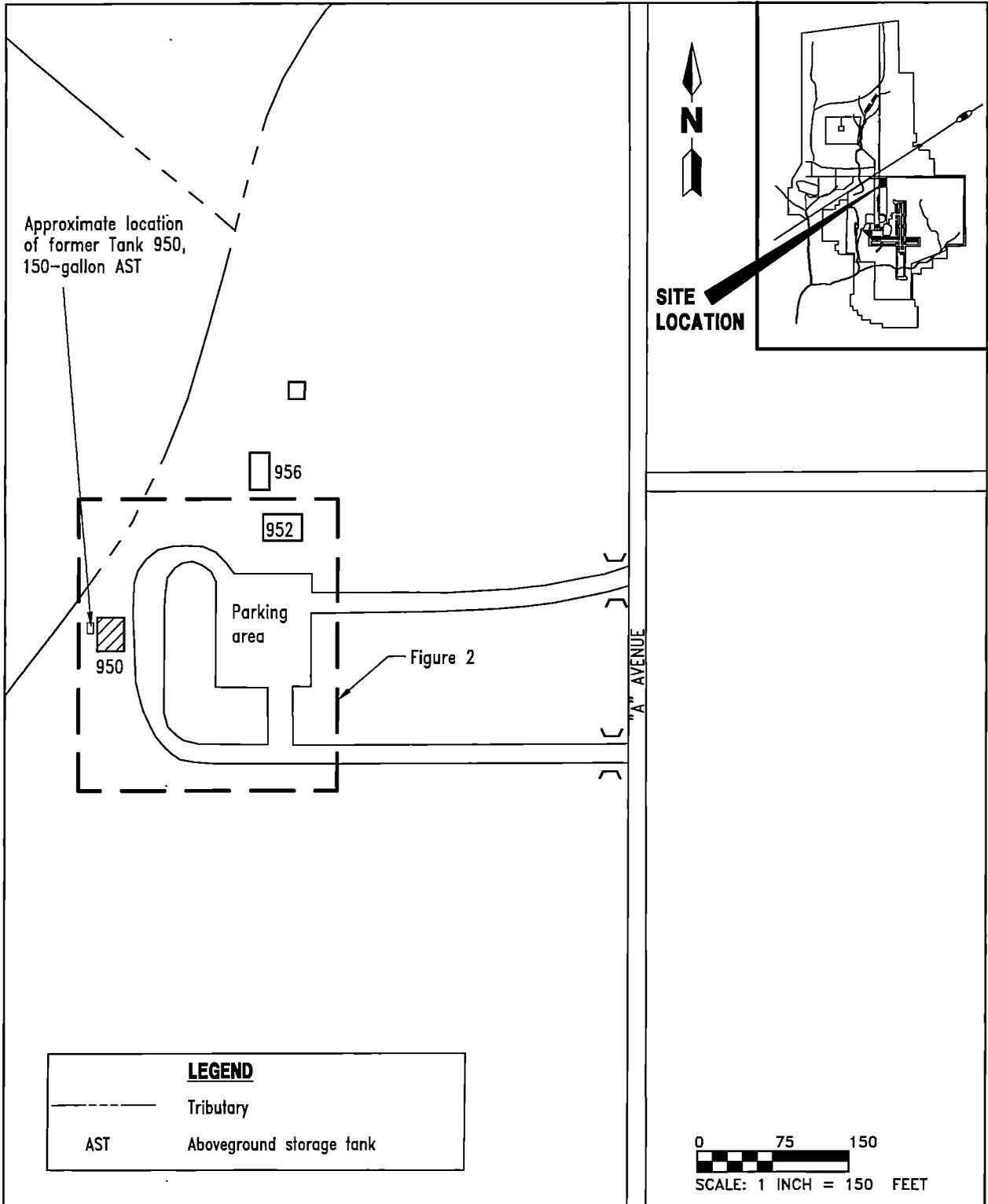
Soil samples were collected from each boring at depth intervals of 1 foot below land surface (bls) and every 2 feet thereafter to the water table. These samples were screened for hydrocarbon vapors with an organic vapor analyzer (OVA).

One Kerosene Analytical Group (KAG) subsurface soil sample was proposed for collection at soil boring location SB1, which had an OVA reading of 180 parts per million (ppm). However, during KAG soil sample collection, the OVA reading at the same location was zero and the KAG soil sample was not collected.

A monitoring well, CEF-950-1S, was installed south of the former aboveground storage tank location near soil boring SB-1 to a depth of 14 feet bls. One groundwater sample was collected from the well and analyzed for the KAG parameters. A general site plan indicating the location of the soil borings and the monitoring well is presented on Figure 2. The monitoring well installation detail is included as Appendix A.

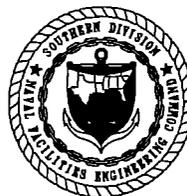
## 3.0 SCREENING AND ANALYTICAL RESULTS

Excessively contaminated soil (greater than 50 parts per million [ppm] on an OVA) was detected in the unsaturated zone in one soil boring. The highest OVA reading (180 ppm) was detected at 5 feet bls from a sample collected from soil boring SB-1. However, this location was rescreened during KAG soil sampling and no petroleum contamination was detected with the OVA. The soil OVA data are summarized in Table 1.



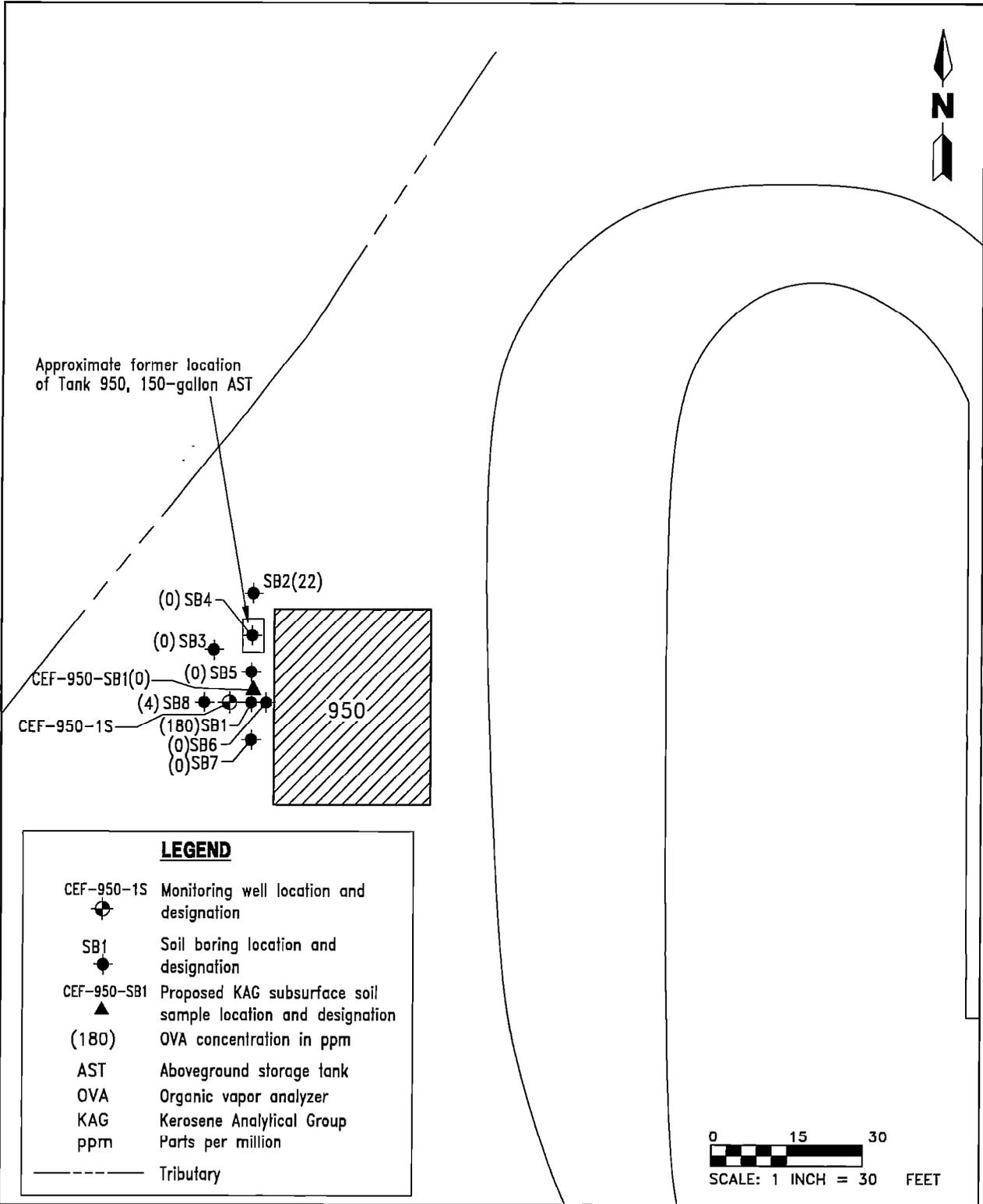
**FIGURE 1**  
**TANK 950**  
**TRAFFIC SAFETY BUILDING**

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**SITE ASSESSMENT REPORT**  
**BUILDING 950, TANK 950**

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



**FIGURE 2  
TANK 950  
SOIL BORING AND MONITORING WELL  
LOCATIONS**



**SITE ASSESSMENT REPORT  
BUILDING 950, TANK 950**

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

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**Table 1  
Soil Screening Results**

Site Assessment Report  
Building 950, Tank 950  
Naval Air Station Cecil Field  
Jacksonville, Florida

Location	OVA Concentration (ppm)			
	Depth (feet bls)	Unfiltered	Filtered	Actual
SB1	1	0	--	0
	3	0	--	0
	5	180	0	180
	7 (wet)	190	0	190
SB2	1	0	--	0
	3	0	--	0
	5	22	0	22
SB3	1	0	--	0
	3	0	--	0
	5 (wet)	0	--	0
SB4	1	0	--	0
	3	0	--	0
	5 (wet)	100	0	100
SB5	1	0	--	0
	3	0	--	0
	5 (wet)	12	--	12
SB6	1	0	--	0
	3 (wet)	40	40	0
SB7	1	0	--	0
	3 (moist)	20	0	20
SB8	1	0	--	0
	3	4	--	4
	4.5 (wet)	10	0	10

Notes: All soil samples were collected on June 3, 1997.  
Soil samples were filtered with carbon to determine the methane concentration.

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

Groundwater contamination was not detected in the sample collected from monitoring well CEF-950-1S (Table 2). The complete analytical data set is presented in Appendix B.

**4.0 CONCLUSIONS AND RECOMMENDATIONS**

Data obtained during the SA at the Tank 950 site indicated excessively contaminated soil was not present.

No contaminants were detected in the groundwater sample collected from monitoring well CEF-950-1S.

It is recommended that no further action take place at the Tank 950 site.

**Table 2  
Summary of Groundwater Analytical Detections**

Site Assessment Report  
Building 950, Tank 950  
Naval Air Station Cecil Field  
Jacksonville, Florida

Compound	Monitoring Well CEF-950-1S	Groundwater Cleanup Target Levels <sup>1</sup>
<b><u>Volatile Organic Aromatics (USEPA Method 601/602) (µg/l)</u></b>		
No compounds detected.		
<b><u>Polynuclear Aromatic Hydrocarbons (USEPA Method 610) (µg/l)</u></b>		
No compounds detected.		
<b><u>Total Recoverable Petroleum Hydrocarbons (FL-PRO) (µg/l)</u></b>		
No compounds detected.		

<sup>1</sup> Chapter 62-770, Florida Administrative Code.

Notes: Groundwater samples were collected on August 7, 1997.

USEPA = U.S. Environmental Protection Agency.  
µg/l = micrograms per liter.  
FL-PRO = Florida-Petroleum Residual Organic.

## REFERENCES

- ABB Environmental Services, Inc. (ABB-ES). 1994. *Base Realignment and Closure Environmental Baseline Survey Report, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOC), North Charleston, South Carolina (November).
- ABB-ES. 1996. *Contamination Assessment Plan, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOC), North Charleston, South Carolina (November).
- ABB-ES. 1997. *Base Realignment and Closure Tank Management Plan, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOC, North Charleston, South Carolina (January).

**APPENDIX A**  
**MONITORING WELL INSTALLATION DETAIL**

<b>PROJECT:</b> NAS Cecll Field BRAC UST Site		<b>LOG of WELL:</b> CEF-950-IS		<b>BORING NO.</b> CEF-950-IS	
<b>CLIENT:</b> SOUTHDIVNAVFACENCOM		<b>PROJECT NO:</b> 8571-03		<b>DATE STARTED:</b> 7-14-97	
<b>DRILLING SUBCONTRACTOR:</b> Alliance		<b>SITE:</b> Building 950		<b>COMPLETED:</b> 7-15-97	
<b>METHOD:</b> 8.25" ID HSA		<b>WELL CASE DIAM.:</b> 2"		<b>MONITOR INST.</b> FID	
<b>TOC ELEVATION:</b> FT. NGVD		<b>SCREEN INT.:</b> 3-13 FT.		<b>SCREEN SLOT SIZE:</b> D	
<b>GROUND ELEV.:</b> FT. NGVD		<b>NORTHING:</b>		<b>EASTING:</b>	
<b>WELL DEVELOP. DATE:</b> 7-22-97		<b>TOTAL DEPTH:</b> 14 FT. BLS		<b>DEPTH TO <math>\nabla</math></b> 4.20 FT. BLS	
				<b>LOGGED BY:</b> J tarr	

DEPTH FT.	SAMPLE INTERVAL RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
0			SILTY SAND: Dark gray, fine grain with silt, poorly graded.		SM		
3			SILTY SAND: As above.				
5	25%	80	SILTY SAND: Dark gray, fine grain, poorly graded, moist, no petroleum odor.			2,3,4,5	
10	75%	80	CLAYEY SAND: Greenish-gray, 20% clay, moist-wet.		SC	7,8,12,14	
15							
20							

**APPENDIX B**  
**GROUNDWATER ANALYTICAL DATA**

NAS CECIL FIELD -- TANK 950  
 GROUNDWATER -- UST ANALYTICAL PARAMETERS -- REPORT NO. 9610

Lab Sample Number: B7H0801410  
 Site: BRACGREY  
 Locator: CEF-950-1S  
 Collect Date: 07-AUG-97

VALUE QUAL UNITS DL

BRACGREY ANALYTICAL PARAMETERS

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

NAS CECIL FIELD -- TANK 950  
GROUNDWATER -- UST ANALYTICAL PARAMETERS -- REPORT NO. 9610

Lab Sample Number: B7H0801410  
Site BRACGREY  
Locator CEF-950-1S  
Collect Date: 07-AUG-97

	VALUE	QUAL	UNITS	DL
Xylenes (total)	1 U		ug/L	1
cis-1,3-Dichloropropene	1 U		ug/L	1
trans-1,2-Dichloroethene	1 U		ug/L	1
trans-1,3-Dichloropropene	1 U		ug/L	1

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