

N60200.AR.001775  
NAS CECIL FIELD, FL  
5090.3a

CONFIRMATORY SAMPLING REPORT FOR BUILDING 415 TANK 415 BASE  
REALIGNMENT AND CLOSURE UNDERGROUND STORAGE TANK AND ABOVEGROUND  
STORAGE TANK GREY SITES NAS CECIL FIELD FL  
4/1/1999  
HARDING LAWSON ASSOCIATES

**CONFIRMATORY SAMPLING REPORT**  
**BUILDING 415, TANK 415**  
**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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**April 1999**

**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: April 5, 1999

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(DFAR 252.227-7036)

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GLOSSARY

ISI	Innovative Services International, Inc.
$\mu\text{g}/\ell$	micrograms per liter
UST	underground storage tank

## 1.0 INTRODUCTION

Harding Lawson Associates, under contract to the Southern Division, Naval Facilities Engineering Command, has completed confirmatory sampling for Tank 415 at Naval Air Station Cecil Field in Jacksonville, Florida. This report summarizes the related field operations, results, conclusions, and recommendations.

Tank 415 was an underground storage tank (UST) located on the south side of Building 415, which is a house used for enlisted housing (Figure 1). The UST, which was installed in 1955, had a 350-gallon capacity and was used to store fuel oil for on-site heating. Tank 415 was removed by Innovative Services International, Inc. (ISI), on February 7, 1995. A closure assessment report (Appendix A) was prepared for Tank 415 and submitted to the Florida Department of Environmental Protection (ISI, 1995). The closure assessment report indicated that carbon tetrachloride (9 micrograms per liter [ $\mu\text{g}/\ell$ ]) and chloroform (6  $\mu\text{g}/\ell$ ) were present in groundwater at concentrations above Florida drinking water standards. Therefore, to evaluate the current condition of groundwater at the Tank 415 site, the petroleum subcommittee requested the installation and sampling of a monitoring well at the Tank 415 site.

## 2.0 FIELD INVESTIGATION

The confirmatory sampling for Tank 415 was initiated in January, 1999 and included

- the installation of one monitoring well, and
- collection and analysis of one groundwater sample.

One monitoring well, CEF-415-1S, was installed to a depth of 11.5 feet below land surface. A groundwater sample was collected from this well and analyzed for the Kerosene Analytical Group parameters. A general site plan indicating the location of the monitoring well is presented on Figure 2. The monitoring well installation detail is included in Appendix A.

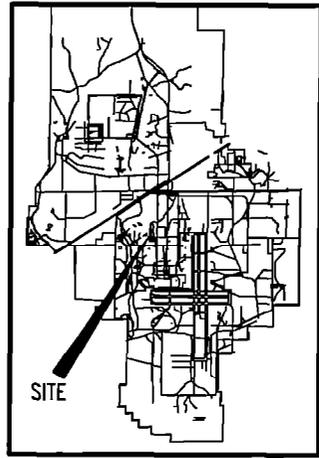
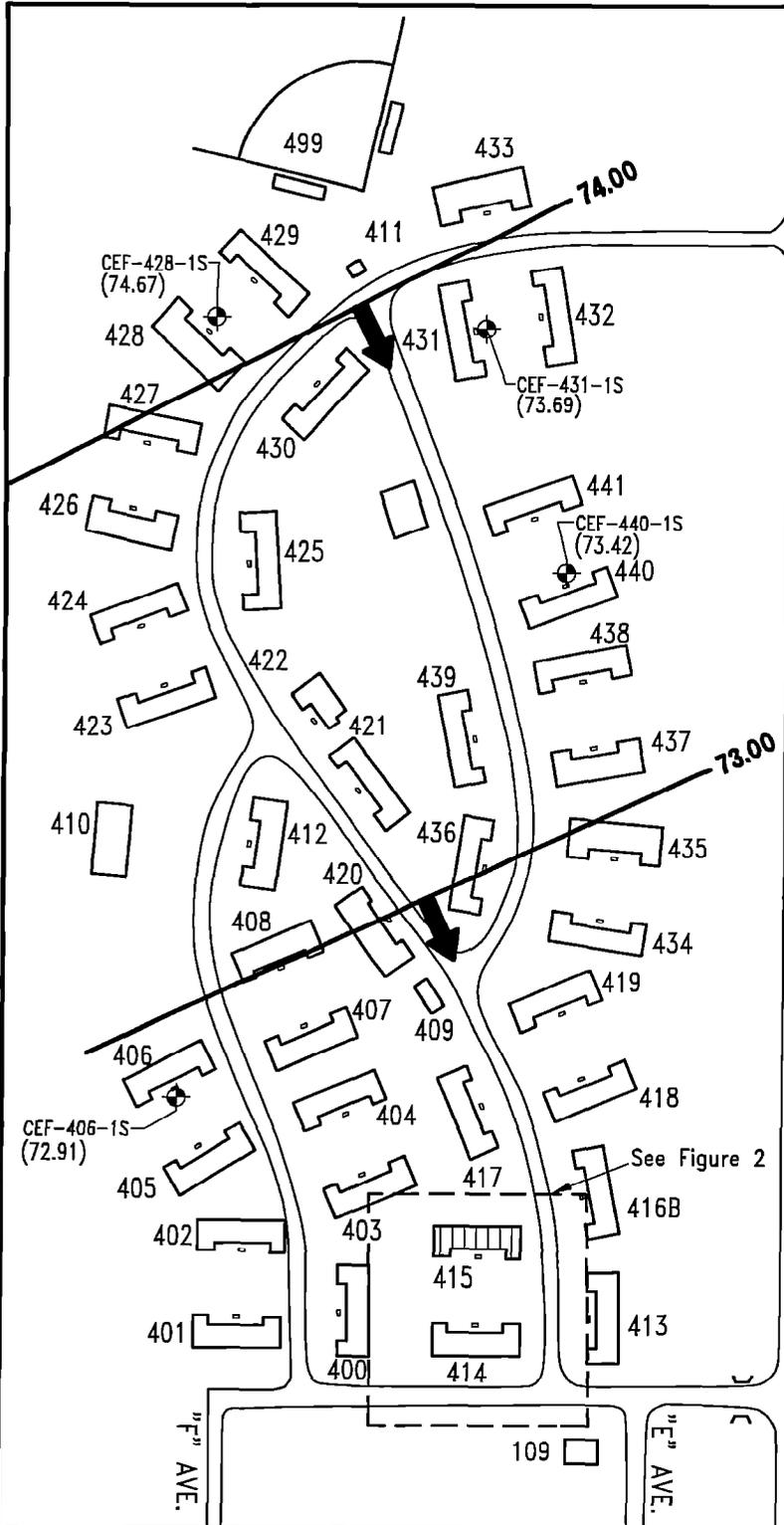
## 3.0 SCREENING AND ANALYTICAL RESULTS

No contaminants were detected in the groundwater samples collected from monitoring well CEF-415-1S. A summary of the groundwater analytical results is presented in Table 1. The complete analytical data set is presented in Appendix B.

## 4.0 CONCLUSIONS AND RECOMMENDATIONS

Data obtained during the confirmatory sampling of Tank 415 did not indicate the presence of contaminated groundwater.

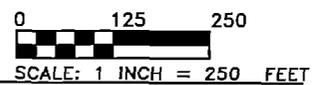
It is recommended that no further action take place at the Tank 415 site.



**GENERAL LOCATION PLAN**  
Not to scale

**LEGEND**

-  CEF-406-1S  
Monitoring well location and designation
-  **73.00**  
Groundwater elevation contour
-  **←**  
Groundwater flow direction
-  (72.91)  
Groundwater elevation (June 1998)
-  **-**  
Former location of 350-gallon underground storage tank



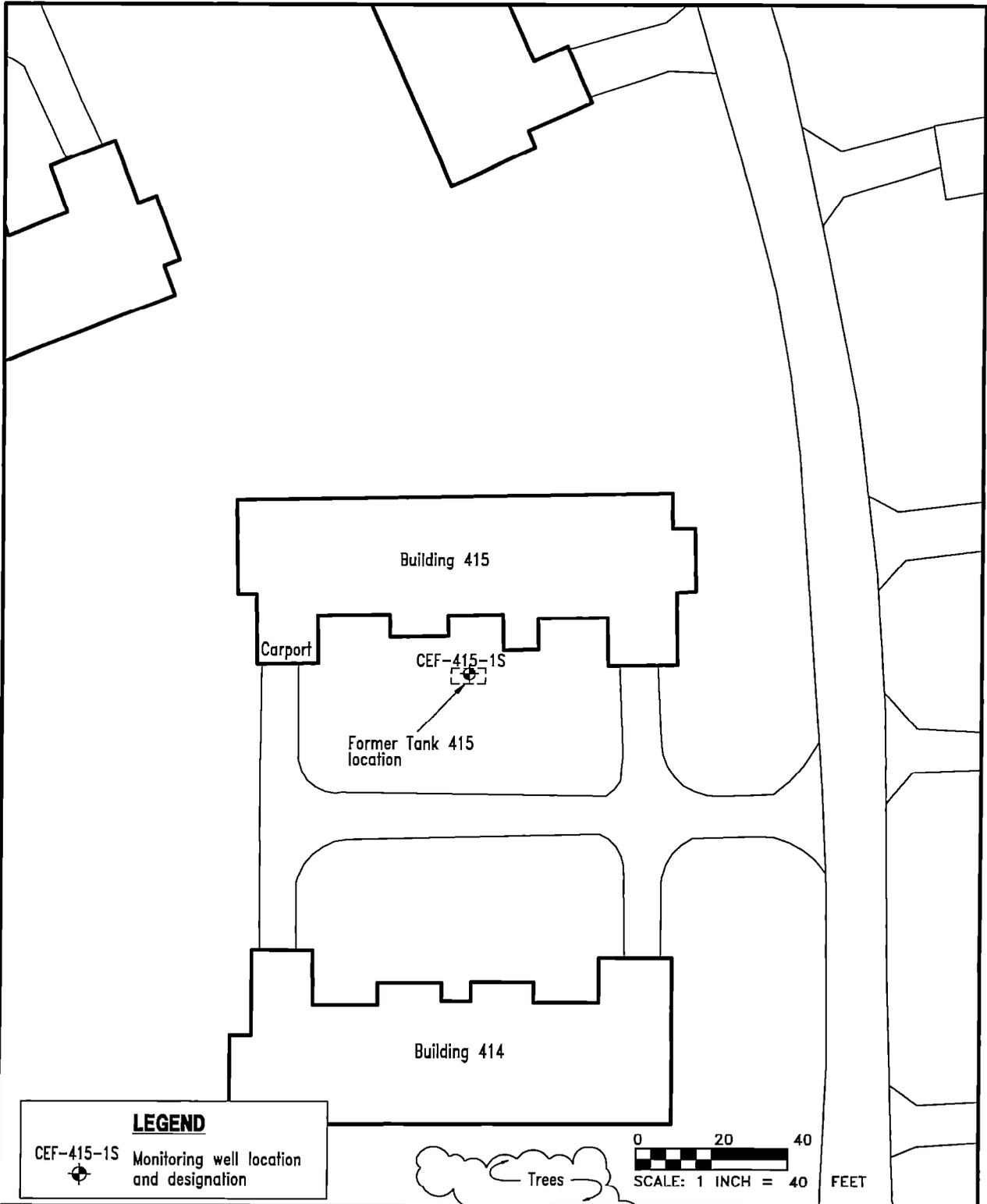
**FIGURE 1**  
**SITE LOCATION MAP**



**CONFIRMATORY SAMPLING REPORT**  
**BUILDING 415, TANK 415**

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

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**FIGURE 2  
MONITORING WELL LOCATION**



**CONFIRMATORY SAMPLING REPORT  
BUILDING 415, TANK 415**

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

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**Table 1  
Summary of Groundwater Analytical Results**

Confirmatory Sampling Report  
Building 415, Tank 415  
Naval Air Station Cecil Field  
Jacksonville, Florida

Compound	CEF-415-1S	Groundwater Cleanup Target Levels <sup>1</sup>
<p><b><u>Volatile Organic Aromatics (USEPA Method 601/602) (<math>\mu\text{g}/\ell</math>)</u></b> No compounds detected.</p> <p><b><u>Polynuclear Aromatic Hydrocarbons (USEPA Method 625) (<math>\mu\text{g}/\ell</math>)</u></b> No compounds detected.</p> <p><b><u>Total Recoverable Petroleum Hydrocarbons (FL-PRO) (mg/l)</u></b> Not detected</p>		
<p><sup>1</sup> Chapter 62-770, Florida Administrative Code.</p> <p>Notes: USEPA = U.S. Environmental Protection Agency. <math>\mu\text{g}/\ell</math> = micrograms per liter. J = estimated value. FL-PRO = Florida Petroleum Residual Organics. <math>\text{mg}/\ell</math> = milligrams per liter.</p>		

REFERENCE

Innovative Services International, Inc. 1995. Closure Report for Underground Storage Tank Removals, Naval Air Station Cecil Field, Jacksonville, Florida.

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

TITLE: NAS Cecil Field, Bldg. 415 Site Assessment Report		LOG of WELL: CEF-415-1S	BORING NO. CEF-415-1S
CLIENT: SOUTH DIVNAVFACENCOM		PROJECT NO: 02523-13	
CONTRACTOR: U.S. Probe and Drill		DATE STARTED: 01-26-99	COMPLTD: 01-26-99
METHOD: HSA	CASE SIZE: 2in.	SCREEN INT.: 1.5-11.5 FT.	PROTECTION LEVEL: D
TOC ELEV.: FT.	MONITOR INST.: FID	TOT DPTH: 12.00FT.	DPTH TO $\nabla$ 4.55 FT.
LOGGED BY: H.Hooper	WELL DEVELOPMENT DATE: 02-03-99		SITE: Building 415

DEPTH F.T.	LABORATORY SAMPLE ID.	RECOVERY HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
1			<> See Note		SM		
2		0	SILTY SAND: dark brown silty fine sand.				
3							
4						posthole	
5		0					
6						*	
7			SILTY SAND: gray tan to tan silty fine sand w/ trace of clay.			**	
8		4					
9							
10		15					
11							
12		4	<> Soil description taken from posthole and auger * no split spoon samples taken ** OVA readings taken at borehole				
13							
14							
15							

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

NAS CECIL FIELD -- FACILITY 415 / TANK 415  
GROUNDWATER -- ANALYTICAL DATA -- REQUEST NO. 10922

Lab Sample Number: JR54354  
Site: UST GREY  
Locator: CEF-415-1S  
Collect Date: 12-FEB-99

VALUE QUAL UNITS DL

601/602

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-Dichloroethane	1 U	ug/l	1
1,2-Dichloropropane	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
Benzene	1 U	ug/l	1
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	2 U	ug/l	2
Chloroform	1 U	ug/l	1
Dibromochloromethane	1 U	ug/l	1
Dichlorodifluoromethane	1 U	ug/l	1
Ethylbenzene	1 U	ug/l	1
Methylene chloride	2 U	ug/l	2
Tetrachloroethene	1 U	ug/l	1
Toluene	1 U	ug/l	1
Trichloroethene	1 U	ug/l	1
Trichlorofluoromethane	2 U	ug/l	2
Vinyl chloride	1 U	ug/l	1
m,p-Xylene	1 U	ug/l	1
o-Xylene	1 U	ug/l	1
cis-1,2-Dichloroethene	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

FLA PRO			
TPH C8-C40	.2 U	mg/l	.2

METHOD 8310			
Naphthalene	.5 U	ug/l	.5
Acenaphthylene	1 U	ug/l	1
1-Methylnaphthalene	.5 U	ug/l	.5
2-Methylnaphthalene	.5 U	ug/l	.5
Acenaphthene	.5 U	ug/l	.5
Fluorene	.1 U	ug/l	.1
Phenanthrene	.05 U	ug/l	.05
Anthracene	.05 U	ug/l	.05
Fluoranthene	.1 U	ug/l	.1
Pyrene	.05 U	ug/l	.05
Benzo (a) anthracene	.05 U	ug/l	.05
Benzo (b) fluoranthene	.1 U	ug/l	.1

NAS CECIL FIELD -- FACILITY 415 / TANK 415  
GROUNDWATER -- ANALYTICAL DATA -- REQUEST NO. 10922

Lab Sample Number: JR54354  
Site: UST GREY  
Locator: CEF-415-1S  
Collect Date: 12-FEB-99

VALUE QUAL UNITS DL

Benzo (k) fluoranthene	.05 U	ug/l	.05
Chrysene	.05 U	ug/l	.05
Benzo (a) pyrene	.05 U	ug/l	.05
Dibenzo (a,h) anthracene	.1 U	ug/l	.1
Benzo (g,h,i) perylene	.1 U	ug/l	.1
Indeno (1,2,3-cd) pyrene	.05 U	ug/l	.05

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