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NAS CECIL FIELD, FL  
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FINAL TECHNICAL MEMORANDUM FOR NO FURTHER ACTION FOR POTENTIAL SOURCE  
OF CONTAMINATION 41 YELLOW WATER WEAPONS AREA MOBILE TARGET RANGE  
NAS CECIL FIELD FL  
8/25/2000  
TETRA TECH NUS INC

**Technical Memorandum  
for  
No Further Action**

**Potential Source of Contamination 41  
Yellow Water Weapons Area  
Mobile Target Range**

**Naval Air Station Cecil Field  
Jacksonville, Florida**



**Southern Division  
Naval Facilities Engineering Command**

**Contract Number N62467-94-D-0888**

**Contract Task Order 0078**

August 2000

**TECHNICAL MEMORANDUM  
FOR NO FURTHER ACTION**

**POTENTIAL SOURCE OF CONTAMINATION 41  
YELLOW WATER WEAPONS AREA MOBILE TARGET RANGE**

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

**COMPREHENSIVE LONG-TERM  
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT**

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

**Submitted by:  
Tetra Tech NUS, Inc.  
661 Andersen Drive  
Foster Plaza 7  
Pittsburgh, Pennsylvania 15220**

**CONTRACT NUMBER N62467-94-D-0888  
CONTRACT TASK ORDER 0078**

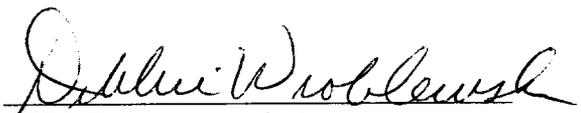
**AUGUST 2000**

**PREPARED UNDER THE SUPERVISION OF:**

**APPROVED FOR SUBMITTAL BY:**



**MARK SPERANZA, P.E.  
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TETRA TECH NUS, INC.  
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**DEBBIE WROBLEWSKI  
PROGRAM MANAGER  
TETRA TECH NUS, INC.  
PITTSBURGH, PENNSYLVANIA**



CERTIFICATION OF TECHNICAL  
DATA CONFORMITY

The Contractor, Tetra Tech NUS, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-94-D-0888 are complete and accurate and comply with all requirements of this contract.

DATE: \_\_\_\_\_ August 25, 2000 \_\_\_\_\_

NAME AND TITLE OF CERTIFYING OFFICAL:

Mark Speranza, P.E.  
Task Order Manager



The professional opinions rendered in this decision document identified as Technical Memorandum for No Further Action, Potential Source of Contamination 41, Naval Air Station Cecil Field, Jacksonville, Florida were developed in accordance with commonly accepted procedures consistent with applicable standards of practice. Decision documents are based on information obtained from others and under the supervision of the signing engineer. If conditions are determined to exist differently than those described in this document, then the undersigned professional engineer should be notified to evaluate the effects of any additional information on this project described in this report.

*Mark Speranza*

Mark Speranza, P.E.  
Professional Engineer No. PE0050304

Date: 8/25/00

*Mark Speranza*

## TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE NO.</u>
CERTIFICATION OF TECHNICAL DATA COMFORMITY .....	ii
PROFESSIONAL ENGINEERING AUTHORIZATION .....	iii
ACRONYMS .....	vi
1.0 INTRODUCTION .....	1-1
2.0 SITE DESCRIPTION .....	2-1
2.1 PHYSICAL SETTING .....	2-1
2.2 SITE HISTORY .....	2-1
2.3 SITE GEOLOGY AND HYDROGEOLOGY .....	2-1
3.0 PREVIOUS INVESTIGATIONS .....	3-1
4.0 FIELD INVESTIGATION .....	4-1
5.0 NATURE AND EXTENT OF CONTAMINATION .....	5-1
6.0 PRELIMINARY RISK EVALUATION .....	6-1
7.0 REMEDIAL ACTIVITIES .....	7-1
8.0 CONCLUSIONS AND RECOMMENDATIONS .....	8-1
8.1 CONCLUSIONS .....	8-1
8.2 RECOMMENDATIONS .....	8-1
REFERENCES .....	R-1

### APPENDIX

#### A ANALYTICAL LABORATORY RESULTS

## TABLES

<b><u>NUMBER</u></b>		<b><u>PAGE NO.</u></b>
5-1	Soil Analytical Results .....	5-3
5-2	Analytical Results Summary.....	5-4

## FIGURES

<b><u>NUMBER</u></b>		<b><u>PAGE NO.</u></b>
2-1	Site Location Map.....	2-3
3-1	Summary of Analytes in Soil Exceeding Soil Cleanup Target Levels .....	3-3
5-1	Remedial Design Plan Soil Excavation .....	5-5

## ACRONYMS

ABB-ES	ABB Environmental Services, Inc.
BCT	BRAC Cleanup Team
bgs	Below ground surface
BRAC	Base Realignment and Closure
CLEAN	Comprehensive Long-Term Environmental Action Navy
CTO	Contract Task Order
EBS	Environmental Baseline Survey
F.A.C.	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
HLA	Harding Lawson Associates
IBDS	Inorganic Background Data Set
mg/kg	Milligram per kilogram
NAGS	Naval Air Gunnery School
NAS	Naval Air Station
PRE	Preliminary risk evaluation
PSC	Potential source of contamination
QA/QC	Quality assurance/quality control
RAC	Remedial action contractor
SAOR	Sampling and Analysis Outline and Report
SCTL	Soil Cleanup Target Level
SOUTHNAVFACENGCOM	Southern Division Naval Facilities Engineering Command
TiNUS	Tetra Tech NUS, Inc.
U.S. EPA	United States Environmental Protection Agency

## 1.0 INTRODUCTION

This Technical Memorandum for Potential Source of Contamination (PSC) 41, part of the Yellow Water Area Mobile Target Range at Naval Air Station (NAS) Cecil Field, has been prepared by Tetra Tech NUS, Inc. (TtNUS) for the Department of the Navy Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM). The work was conducted under the Comprehensive Long-Term Environmental Action Navy (CLEAN) Program, Contract Number N62467-94-D-0888, Contract Task Order (CTO) 0078. The Base Realignment and Closure (BRAC) Cleanup Team (BCT) has elected to delineate, excavate, and dispose of soil at PSC 41 that is contaminated with arsenic.

TtNUS performed a field investigation at PSC 41 in June 1999 to supplement the results of previous investigations and to delineate the extent of arsenic-contaminated soil. The results of the field investigation were used to develop a Dig and Haul Package (remedial design plan) for a removal action consisting of soil excavation and off-site disposal of the arsenic-contaminated surface soil.

This technical memorandum presents information from the previous investigations, summarizes the related field operations, results, conclusions, and recommendations of the PSC investigation conducted in June 1999 by TtNUS, and the activities related to the removal action as described in the Construction Completion Report at PSC 41. The results of the investigation and removal action indicate that no further action is needed at this site.

## **2.0 SITE DESCRIPTION**

### **2.1 PHYSICAL SETTING**

PSC 41 is located in the southwestern section of the Yellow Water Weapons Area north of NAS Cecil Field Main Base (Figure 2-1). It was part of a mobile target range for small arms and machine guns. The PSC 41 site is centered around soil sample location 98S01001 collected by Harding Lawson Associates (HLA) as part of the Naval Air Gunnery School (NAGS) target range area on the southward-facing slope of the berm/backstop. The NAGS target range is located off Old Yellow Water Road and is vegetated with brush and trees.

### **2.2 SITE HISTORY**

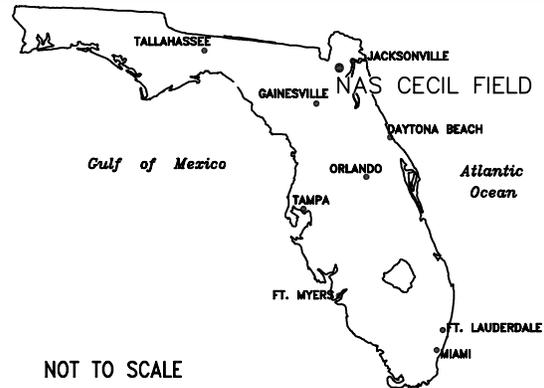
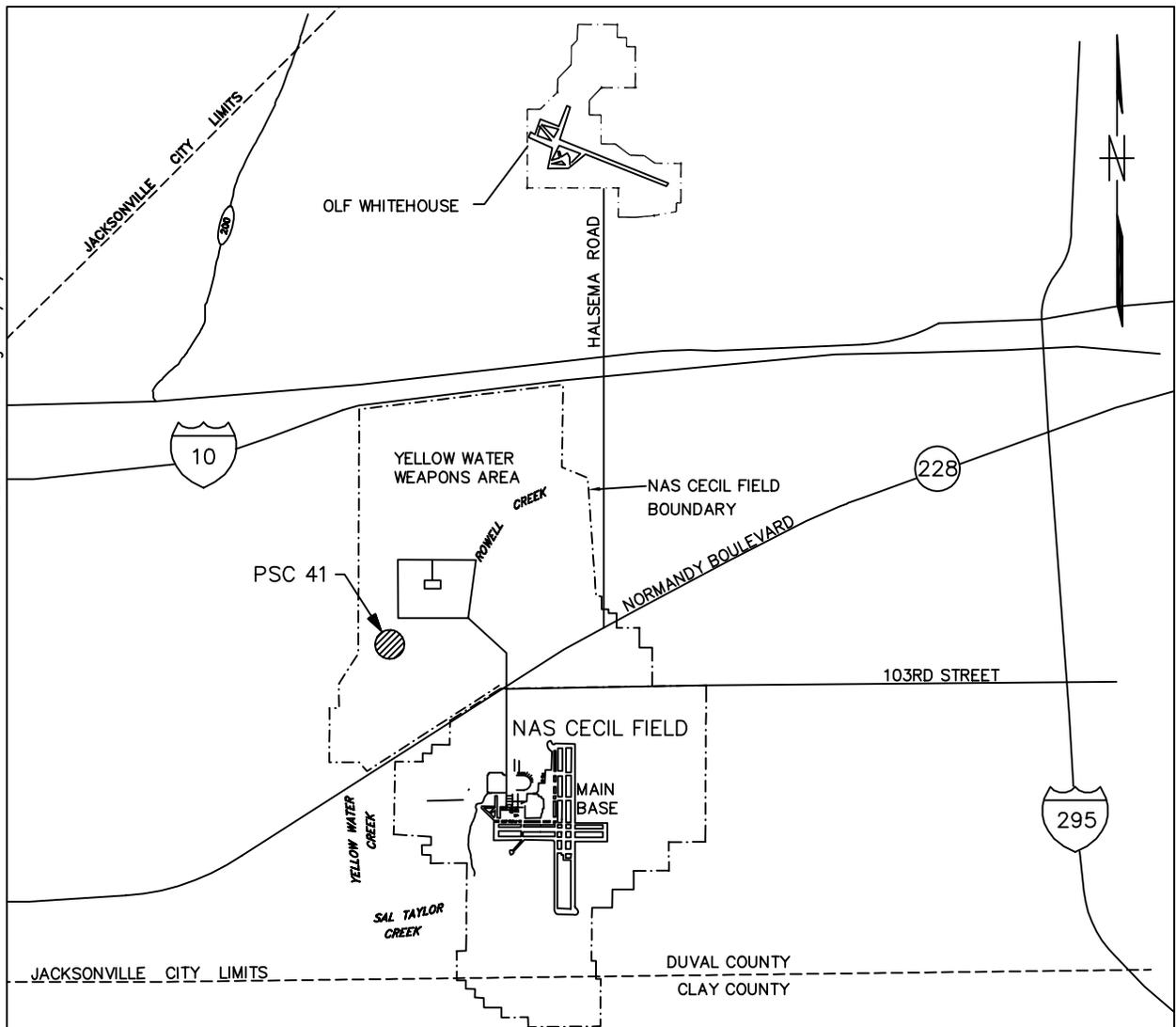
The facilities related to PSC 41 were constructed in support of the NAGS between the mid-1940s and the mid-1950s. Most of these facilities were abandoned and demolished. PSC 41 is a southward-facing slope of a berm/backstop likely to have been impacted by rounds fired at the mobile target range.

### **2.3 SITE GEOLOGY AND HYDROGEOLOGY**

PSC 41 is located between Operable Unit 5, Site 14 and Operable Unit 5, Site 15 in the Yellow Water Weapons Area. No site-specific subsurface investigation was performed. The geological and hydrogeological characteristics of the site are assumed to be similar to those described in the Remedial Investigation Report for OU 5, Sites 14 and 15 [ABB Environmental Services, Inc. (ABB-ES), 1997].

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COST/SCHED-AREA	
SCALE AS NOTED	



SITE LOCATION MAP  
PCS 41, YELLOW WATER WEAPONS AREA  
MOBILE TARGET RANGE  
NAVAL AIR STATION CECIL FIELD  
JACKSONVILLE, FLORIDA

CONTRACT NO. 7653	
APPROVED BY	DATE
APPROVED BY	DATE
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### 3.0 PREVIOUS INVESTIGATIONS

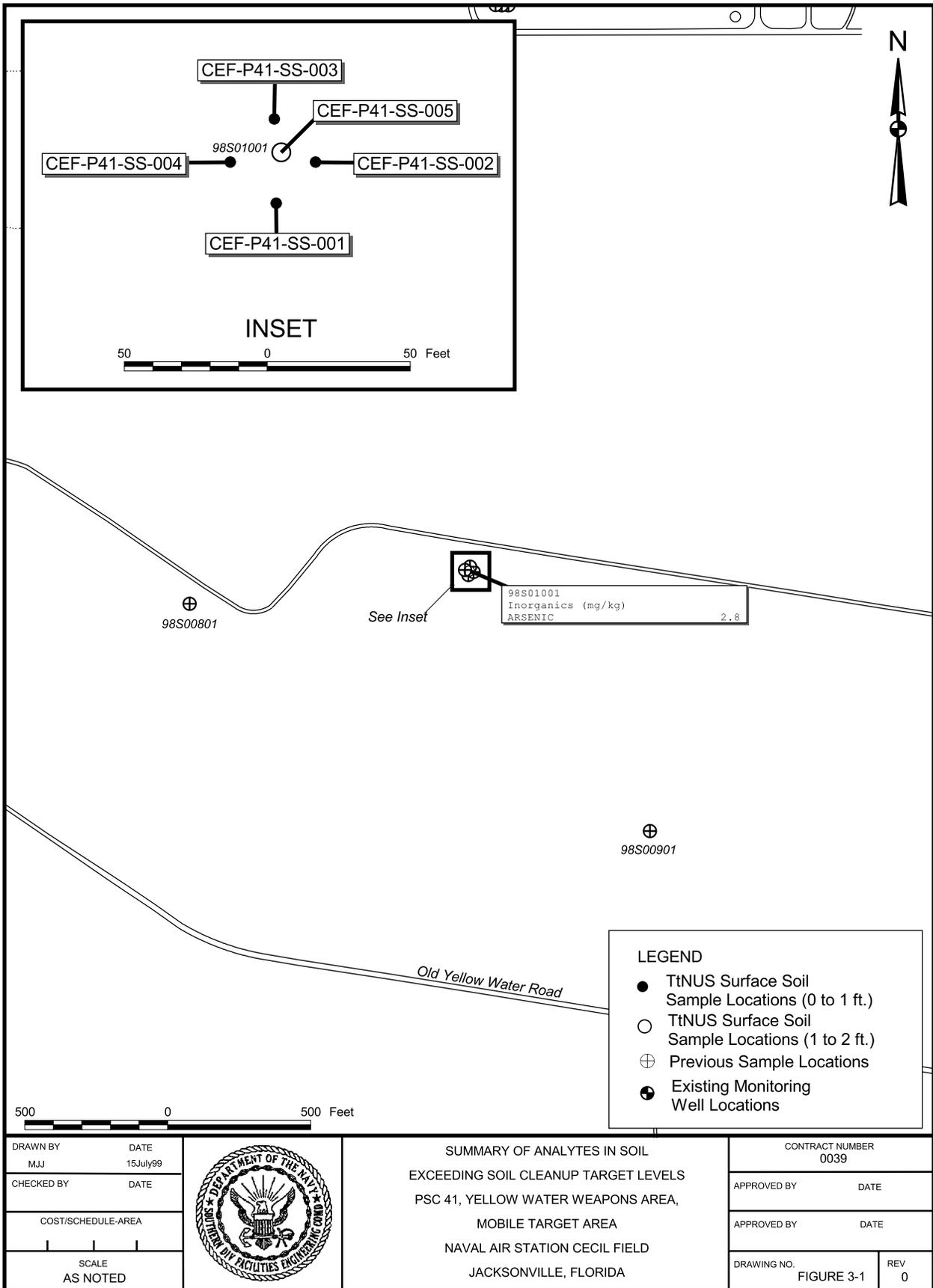
Environmental investigations at PSC 41 began in 1993 as part of a base-wide Environmental Baseline Survey (EBS). The following reports describe the results of investigations conducted prior to the TtNUS investigation at this site:

- EBS report (ABB-ES, 1994)
- Sampling and Analysis Outline and Report (SAOR), Yellow Water Weapons Area (HLA, 1999)

A summary of sampling locations and analytical data from the previous investigations is shown on Figure 3-1. The SAOR indicated the following.

- Arsenic was detected in the surface soil at a concentration in excess of the hi-cut value [HLA, 1998]).
- The area surrounding PSC 41 should remain classified as Grey until the arsenic has been resampled and delineated.
- The human health preliminary risk evaluation (PRE) calculated an excess lifetime cancer risk of  $6.5 \times 10^{-6}$  for the detected arsenic concentration using a residential surface soil exposure scenario.
- Arsenic was not detected in the soil samples collected at the other mobile target ranges. Concentrations of lead in the surface soil associated with the mobile target ranges do not exceed the target cleanup levels.

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## 4.0 FIELD INVESTIGATION

A soil sampling and analysis event was conducted at PSC 41 in June 1999 to delineate the extent of arsenic-contaminated surface soil. The field investigation was performed in accordance with the PSC 41 Sampling and Analysis Work Plan (TtNUS, 1999a). Sampling locations are shown on Figure 3-1.

Five soil samples were collected:

- Four surface soil samples (CEF-P41-SS-001, CEF-P41-SS-002, CEF-P41-SS-003, and CEF-P41-SS-004) were collected from a 0- to 1-foot depth at locations 15 feet south, east, north, and west, respectively, of the original soil sample location 98S01001. The sample collected previously at location 98S01001 had exceeded the hi-cut value for arsenic.
- One surface soil sample (CEF-P41-SS-005) was collected at a depth of 1 to 2 feet at the location of the highest arsenic concentration. This sample determined the vertical extent of contamination.
- One duplicate surface soil sample was collected for quality assurance/quality control (QA/QC) purposes at the CEF-P41-SS-002 location.

Soil samples were collected as grab samples using plastic, disposable trowels. Sampling activities were performed in accordance with the procedures described in the U.S. Environmental Protection Agency (U.S. EPA) Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (U.S. EPA Region IV, 1996) and the NAS Cecil Field Base-Wide Generic Work Plan (TtNUS, 1998). As agreed by the BCT, no rinsate and trip blanks were collected. In addition, field blanks were not collected because the sampling equipment was disposable.

The samples were analyzed for arsenic by U.S. EPA Method SW-846 6010B. ACCUTEST SouthEast, in Jacksonville, Florida, performed the analysis.

## 5.0 NATURE AND EXTENT OF CONTAMINATION

Analytical results for the soil samples collected during the field investigation are shown on Table 5-1 and complete laboratory data are included in Appendix A. The concentrations of individual samples were screened against the NAS Cecil Field site-specific Inorganic Background Data Set (IBDS) and the Florida Department of Environmental Protection (FDEP) criteria, as proposed in Florida Administrative Code (FAC) 62-777. The remediation goal for any site should never be less than the IBDS value. However, if a FDEP criterion is greater than the IBDS value, the FDEP criterion is regarded as the remediation goal.

Table 5-1 also compares the results to the FDEP Soil Cleanup Target Level (SCTL) for residential direct exposure (FDEP, 1999) and to the NAS Cecil Field site-specific IBDS concentration (HLA, 1998). Table 5-2 provides a summary for the positive detections of arsenic. Figures 3-1 and 5-1 show the location of the sampling point where the sample results exceeded the NAS Cecil Field IBDS value for arsenic.

The results of the sampling and analysis identified the horizontal and vertical extent of arsenic contamination in excess of the IBDS value. Based on the results of the sampling and analysis, the remedial design (dig and haul package) was prepared for excavation of the delineated area of arsenic contamination (TtNUS, 1999b).

A single excavation area of approximately 450 square feet was delineated. The estimated excavation volume for an excavation 1 foot deep is approximately 17 cubic yards. The excavation limits are shown on Figure 5-1.

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TABLE 5-1

**SOIL ANALYTICAL RESULTS  
SUMMARY OF POSITIVE DETECTIONS  
PSC 41 – YELLOW WATER WEAPONS AREA MOBILE TARGET RANGE  
NAVAL AIR STATION CECIL FIELD  
JACKSONVILLE, FLORIDA**

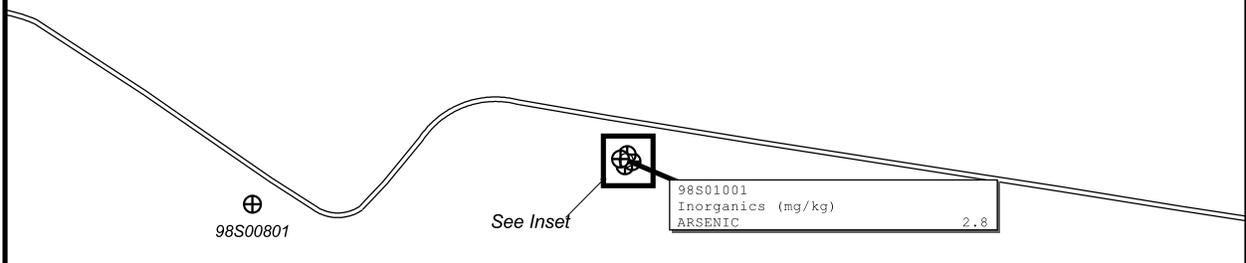
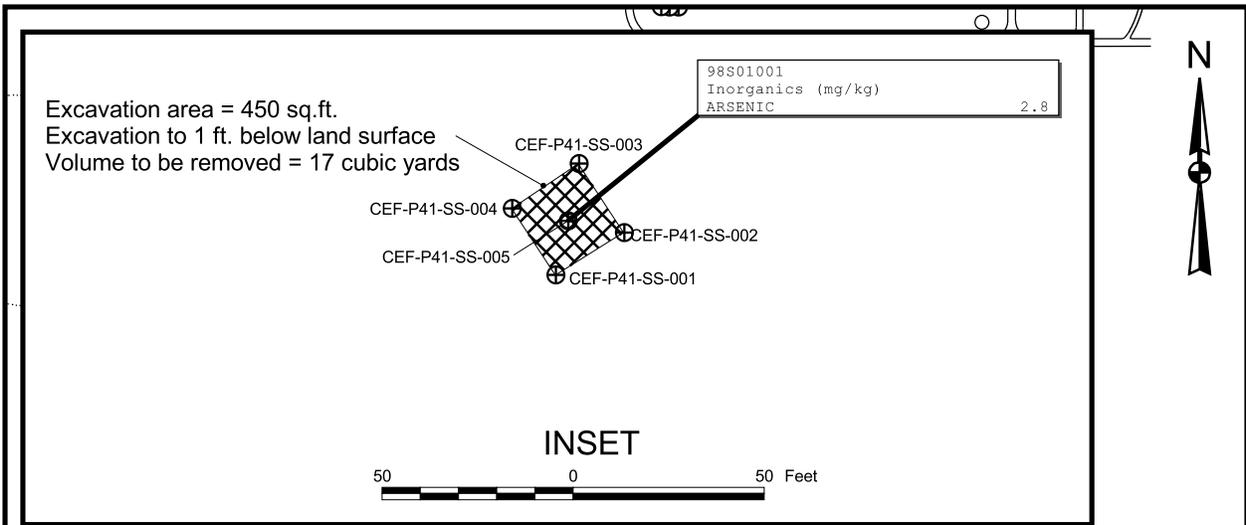
Analyte	NAS Cecil Field Inorganic Background Data Set <sup>(1)</sup>	FDEP SCTL for Residential Direct Exposure <sup>(2)</sup>	SS-001	SS-002		SS-003	SS-004	SS-005
				Sample	Duplicate			
<b>INORGANICS (mg/kg)</b>								
Arsenic	2.04	0.8	0.5	0.36 U	0.36 U	0.36	0.48	0.48

1 HLA, 1998

2 FDEP, 1999. Florida Administrative Code (FAC) 62-777.

**TABLE 5-2**  
**ANALYTICAL RESULTS SUMMARY**  
**PSC 41 - YELLOW WATER WEAPONS AREA MOBILE TARGET RANGE**  
**NAVAL AIR STATION CECIL FIELD**  
**JACKSONVILLE, FLORIDA**

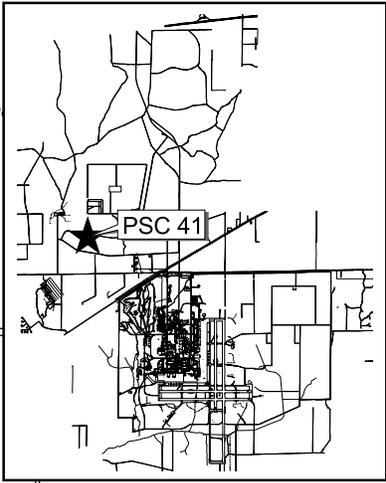
<b>Analyte</b>	<b>Frequency of Detection</b>	<b>Range of Detections</b>	<b>Location of Maximum Detection</b>	<b>Average of Positive Detects</b>
<b>INORGANICS (mg/kg)</b>				
Arsenic	4/5	0.36 - 0.5	SS-001	0.455



**LEGEND**

- ⊕ Existing Soil Sample Locations
- New Surface Soil Sample Locations (0 to 1 ft.)
- New Subsurface Soil Sample Locations (1 to 2 ft.)
- ▭ Buildings
- ▨ Excavation Area

- Notes:**
1. Warning: Obtain utility clearance before excavation.
  2. Extent of excavation to be marked by Tetra Tech NUS, Inc.
  3. Contaminant of concern is arsenic.
  4. Waste characterization, transport, and disposal of excavated soil are the responsibility of the remedial action contractor
  5. Return site to pre-excavation conditions.



DRAWN BY MJJ DATE 15 July 99			<b>REMEDIAL DESIGN PLAN SOIL EXCAVATION</b> PSC 41, YELLOW WATER WEAPONS AREA MOBILE TARGET AREA NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA		CONTRACT NUMBER 0039	
CHECKED BY JWL DATE 7/22/99					APPROVED BY	DATE
COST/SCHEDULE-AREA					APPROVED BY	DATE
SCALE AS NOTED					DRAWING NO. FIGURE 5-1	REV 0

## 6.0 PRELIMINARY RISK EVALUATION

The SAOR prepared by HLA included a preliminary risk evaluation (PRE) to assess the potential risk to human receptors posed by contaminants in the surface soil. As part of the PRE primary exposure pathways were evaluated to determine those pathways that potentially contribute to human health and ecological risks. The detected analytes were compared to readily available risk-based screening levels to assess the likelihood of adverse human health effects associated with potential exposure to surface soil. The concentrations of individual samples were also screened against the NAS Cecil Field site-specific IBDS and the FDEP criteria in FAC 62-777 as discussed in Section 5.0.

The results of the sampling at PSC 41 identified the extent of arsenic contamination in excess of the NAS Cecil Field site-specific IBDS concentration of 2.04 mg/kg. Soil with concentrations of detected arsenic above this level was excavated and disposed of at a permitted solid waste disposal facility. Arsenic concentrations in the soil samples collected outside the excavation area were not in excess of the IBDS value. Therefore, a site-specific human health risk assessment was not required. All soil concentrations of arsenic were also less than the U.S. EPA Region IV ecological screening value for arsenic in soil (10 mg/kg). Therefore, based on the concentrations measured in samples collected at PSC 41, arsenic does not pose a risk to ecological receptors at the site.

## 7.0 REMEDIAL ACTIVITIES

The Navy's Remedial Action Contractor (RAC), CH2M Hill Contractors, Inc., conducted the source removal activities for PSC 41 from December 1 through December 3, 1999. The RAC characterized, transported, and disposed of 22.9 tons of excavated arsenic-contaminated soil and restored the site to pre-excavation conditions. The excavated soil was transported and disposed of off site on December 8, 1999. The material used to backfill the excavation was from an uncontaminated source capable of supporting the same type of vegetation as the removed soil.

The soil was excavated using a backhoe and was stockpiled, bermed, and covered prior to being loaded into a truck, provided by Pritchett Trucking, for transportation and disposal. Soils were excavated to the horizontal excavation limits shown on Figure 5-1 and the vertical excavation limit of 1 foot below ground surface (bgs) as specified in the Dig and Haul Package (see Figure 5-1).

The excavated soil was transported to the Chesser Island Road Landfill, a Subtitle D solid waste disposal facility in Folkston, Georgia. Clark Environmental, Inc coordinated transportation and disposal of the arsenic-contaminated soil.

Clean fill material from the Stratton Road Fill dirt pit, operated by Marietta Sand Corporation, was used to backfill the excavation. The site was then graded and seeded with a mixture of rye and bahia grass. No confirmatory sampling and analyses were required, based on the Dig and Haul Package for PSC 41. A final inspection was conducted on December 15, 1999.

Detailed information on the remedial activities, including photographs, copies of the soil manifests, certificates of disposal, and certificate of clean fill, are provided in the Source Removal Report (CH2M Hill, 2000).

## **8.0 CONCLUSIONS AND RECOMMENDATIONS**

### **8.1 CONCLUSIONS**

Conclusions pertaining to PSC 41, the Yellow Water Weapons Area Mobile Target Range are as follows:

- Areas of soil where arsenic was detected at concentrations in excess of the IBDS value have been excavated and disposed of at a permitted solid waste disposal facility.
- The excavated area was restored to pre-excavation conditions with clean fill capable of supporting the same type of vegetation as the soil removed.
- Arsenic concentrations in the soil samples collected outside the excavation area were not in excess of the IBDS value.
- Since the removal action has been conducted, no contaminants or pathways pose a threat to the public health, welfare, or the environment.

### **8.2 RECOMMENDATIONS**

The removal action conducted at PSC 41 is protective of human health and the environment and utilized permanent solutions for the site. Since the removal action is complete, no further action is warranted. The recommendation for PSC 41 is No Further Action.

It is also recommended that the color classification of PSC 41 be changed from Grey to Dark Green to denote that releases of hazardous substances have occurred and remedial actions to protect human health and the environment have been taken.

## REFERENCES

ABB-ES (ABB Environmental Services, Inc.), 1994. Base Realignment and Closure Environmental Baseline Survey Report Naval Air Station (NAS) Cecil Field, November.

ABB-ES, 1997. Remedial Investigation, Operable Unit 5, Sites 14 and 15. Prepared for SOUTHNAVFACENCOM, North Charleston, South Carolina. NAS Cecil Field, Jacksonville, Florida. October.

CH2M Hill, 2000. Source Removal Report, Excavation of Arsenic-Contaminated Soil at PSC 41. Prepared for SOUTHNAVFACENCOM, North Charleston, South Carolina. NAS Cecil Field, Jacksonville, Florida. February 18.

FDEP (Florida Department of Environmental Protection), 1999. Contaminant Target Levels Rule, Soil, Groundwater and Surface Water Target Cleanup Levels, Florida Administrative Code (F.A.C.) Chapter 62-777, August.

HLA (Harding Lawson Associates), 1998. Inorganic Background Data Set.

HLA, 1999. Sampling and Analysis Outline and Report, Yellow Water Weapons Area, Base Realignment and Closure. Prepared for SOUTHNAVFACENCOM, North Charleston, South Carolina. NAS Cecil Field, Jacksonville, Florida. January.

TtNUS (Tetra Tech NUS, Inc.), 1998. Base-Wide Generic Work Plan at NAS Cecil Field, Jacksonville, Florida. Prepared for SOUTHNAVFACENCOM, North Charleston, South Carolina, October.

TtNUS, 1999a. Sampling and Analysis Work Plan, PSC 41, Yellow Water Area Mobile Target Area, NAS Cecil Field. Prepared for SOUTHNAVFACENCOM, North Charleston, South Carolina, May 11.

TtNUS, 1999b. Dig and Haul Package for PSC 41, Yellow Water Mobile Target Area, NAS Cecil Field. Prepared for SOUTHNAVFACENCOM, North Charleston, South Carolina, August 6.

U.S. EPA Region IV (U.S. Environmental Protection Agency, Region IV), 1996. Environmental Investigations Standard Operating Procedures and Quality Assurance Manual, Athens, Georgia.

**APPENDIX A**

**ANALYTICAL LABORATORY RESULTS**



**MEMO TO: M. SPERANZA**  
**DATE: JUNE 18, 1999 - PAGE 2**

**PITT-06-9-156**

Notes

A comparison of field duplicate pair, CEF-P41-SS-002-01 / CEF-P41-SS-DU01, is included in Appendix C.

Executive Summary

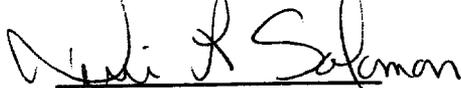
**Laboratory Performance: None.**

**Other Factors Affecting Data Quality: None.**

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Review", February 1994 and the NFESC document entitled "Navy Installation Restoration Laboratory Quality Assurance Guide " (NFESC 2/96).

The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the NFESC Guidelines and the Quality Assurance Project Plan (QAPP)."



Tetra Tech NUS  
Terri L. Solomon  
Chemist



Tetra Tech NUS  
Joseph A. Samchuck  
Quality Assurance Officer

**Attachments:**

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation.

# Report of Analysis

<b>Client Sample ID:</b> CEF-P41-SS-003-01	<b>Date Sampled:</b> 06/01/99
<b>Lab Sample ID:</b> F4228-3	<b>Date Received:</b> 06/02/99
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 97.5
<b>Project:</b> NAS Cecil Field	

## Metals Analysis

Analyte	Result	RDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.36 B	1.0	mg/kg	1	06/07/99	06/09/99 JK	SW846 6010A

---

RDL = Reported Detection Limit

000013

# Report of Analysis

<b>Client Sample ID:</b> CEF-P41-SS-004-01	<b>Date Sampled:</b> 06/01/99
<b>Lab Sample ID:</b> F4228-4	<b>Date Received:</b> 06/02/99
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 96.9
<b>Project:</b> NAS Cecil Field	

## Metals Analysis

Analyte	Result	RDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.48 B	1.0	mg/kg	1	06/07/99	06/09/99 JK	SW846 6010A

---

RDL = Reported Detection Limit

000014

# Report of Analysis

<b>Client Sample ID:</b> CEF-P41-SS-005-02	<b>Date Sampled:</b> 06/01/99
<b>Lab Sample ID:</b> F4228-5	<b>Date Received:</b> 06/02/99
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.5
<b>Project:</b> NAS Cecil Field	

## Metals Analysis

Analyte	Result	RDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.48 B	1.0	mg/kg	1	06/07/99	06/09/99 JK	SW846 6010A

---

RDL = Reported Detection Limit

000010

# Report of Analysis

**Client Sample ID:** CEF-P41-SS-DU01

**Lab Sample ID:** F4228-6

**Matrix:** SO - Soil

**Project:** NAS Cecil Field

**Date Sampled:** 06/01/99

**Date Received:** 06/02/99

**Percent Solids:** 97.0

## Metals Analysis

Analyte	Result	RDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.36 U	1.0	mg/kg	1	06/07/99	06/09/99 JK	SW846 6010A

RDL = Reported Detection Limit

000018

**CTO078 - NAS CECIL FIELD**  
**SOIL DATA**  
**Accutest, NJ**  
**SDG: F4228**

SAMPLE NUMBER:	CEF-P41-SS-001-01	CEF-P41-SS-002-01	CEF-P41-SS-003-01	CEF-P41-SS-004-01
SAMPLE DATE:	06/01/99	06/01/99	06/01/99	06/01/99
LABORATORY ID:	F4228-1	F4228-2	F4228-3	F4228-4
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	95.3 %	96.5 %	97.5 %	96.9 %
UNITS:	MG/KG	MG/KG	MG/KG	MG/KG
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE									
<b>INORGANICS</b>												
ARSENIC	0.50			0.36	U		0.36			0.48		

**CTO078 - NAS CECIL FIELD**

**SOIL DATA**  
**Accutest, NJ**  
**SDG: F4228**

SAMPLE NUMBER:	CEF-P41-SS-005-02	CEF-P41-SS-DU01		
SAMPLE DATE:	06/01/99	06/01/99	//	//
LABORATORY ID:	F4228-5	F4228-6		
QC_TYPE:	NORMAL	NORMAL		
% SOLIDS:	95.5 %	97.0 %	100.0 %	100.0 %
UNITS:	MG/KG	MG/KG		
FIELD DUPLICATE OF:		CEF-P41-SS-002-01		

	RESULT	QUAL	CODE									
<b>INORGANICS</b>												
ARSENIC	0.48			0.36	U							