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WORK PLAN FOR SOURCE CHARACTERIZATION ACTIVITIES AT BUILDING 502 TANK 502

NAS CECIL FIELD FL

11/1/2006

TETRA TECH NUS INC

Comprehensive Long-term Environmental Action Navy

CONTRACT NUMBER N62467-04-D-0055

Work Plan
for
Source Characterization Activities
at
Building 502, Tank 502

Naval Air Station Cecil Field
Jacksonville, Florida

Contract Task Order 0025

November 2006

Naval Facilities Engineering Command
Southeast
2155 Eagle Drive
North Charleston, South Carolina 29406

TETRA TECH NUS, Inc.

06JAX0114

WORK PLAN
FOR
SOURCE CHARACTERIZATION ACTIVITIES
AT
BUILDING 502, TANK 502

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

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

Submitted by:
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CONTRACT NUMBER N62467-04-D-0055
CONTRACT TASK ORDER 0025

NOVEMBER 2006

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ACRONYMS

ABB-ES	ABB Environmental Services, Inc.
BCT	BRAC Cleanup Team
BEI	Bechtel Environmental, Inc.
bls	Below land surface
BRAC	Base Realignment and Closure
CLEAN	Comprehensive Long-term Environmental Action Navy
COC	Contaminant of Concern
CTL	Cleanup Target Level
CTO	Contract Task Order
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FL-PRO	Florida Petroleum Range Organics
FOL	Field Operations Leader
ft	Foot or Feet
GCTL	Groundwater Cleanup Target Level
HLA	Hardin Lawson Associates
IDW	Investigation-Derived Waste
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter
NAS	Naval Air Station
NAVFAC SE	Naval Facilities Engineering Command Southeast
Navy	United States Navy
PAH	Polynuclear Aromatic Hydrocarbon
QA	Quality Assurance
QC	Quality Control
SAR	Site Assessment Report
SOP	Standard Operating Procedure
TOM	Task Order Manager
TRPH	Total Recoverable Petroleum Hydrocarbons
TtNUS	Tetra Tech NUS, Inc.
UST	Underground Storage Tank
VOC	Volatile Organic Compound

1.0 INTRODUCTION

Tetra Tech NUS, Inc. (TtNUS) has prepared this Work Plan for Source Characterization Activities at Building 502, Tank 502 at Naval Air Station (NAS) Cecil Field, Jacksonville, Florida. A site location map for Building 502, Tank 502 is presented as Figure 1-1. This work plan was prepared for the United States Navy (Navy), Naval Facilities Engineering Command Southeast (NAVFAC SE) under Contract Task Order (CTO) 0025 of the Comprehensive Long-term Environmental Action Navy (CLEAN) IV Contract Number N62467-04-D-0055.

This work plan will address the field activities associated with source contamination characterization and quarterly monitoring of existing monitoring wells at Building 502, Tank 502.

1.1 OBJECTIVES

Semi-annual groundwater monitoring at Building 502, Tank 502 indicated that recommended milestone objectives have not been reached. The concentrations of contaminants of concern (COCs) at source well CEF-502-1SR continue to exceed the Groundwater Cleanup Target Levels (GCTLs) specified in Chapter 62-770, Florida Administrative Code (FAC). As a result, TtNUS recommended that semi-annual monitoring of existing wells be continued and also recommended characterization of the source of contamination contributing to CEF-502-1SR (TtNUS, 2004b). This recommendation was discussed and approved at the December 2005 NAS Cecil Field Base Realignment and Closure (BRAC) Cleanup Team (BCT) meeting. In June 2006, the BCT approved reducing the frequency of monitoring from semi-annual to annual.

A total of 10 step-out soil borings will be installed surrounding source well CEF-502-1SR. In addition, existing wells will be sampled at the time of soil sampling. The data collected during the investigation will be used to prepare a brief Supplemental Site Assessment Letter Report detailing the results of the soil boring sampling, well sampling, and laboratory analytical results. In addition, conclusions and recommendations will be presented to the Navy regarding the future course of action for the site.

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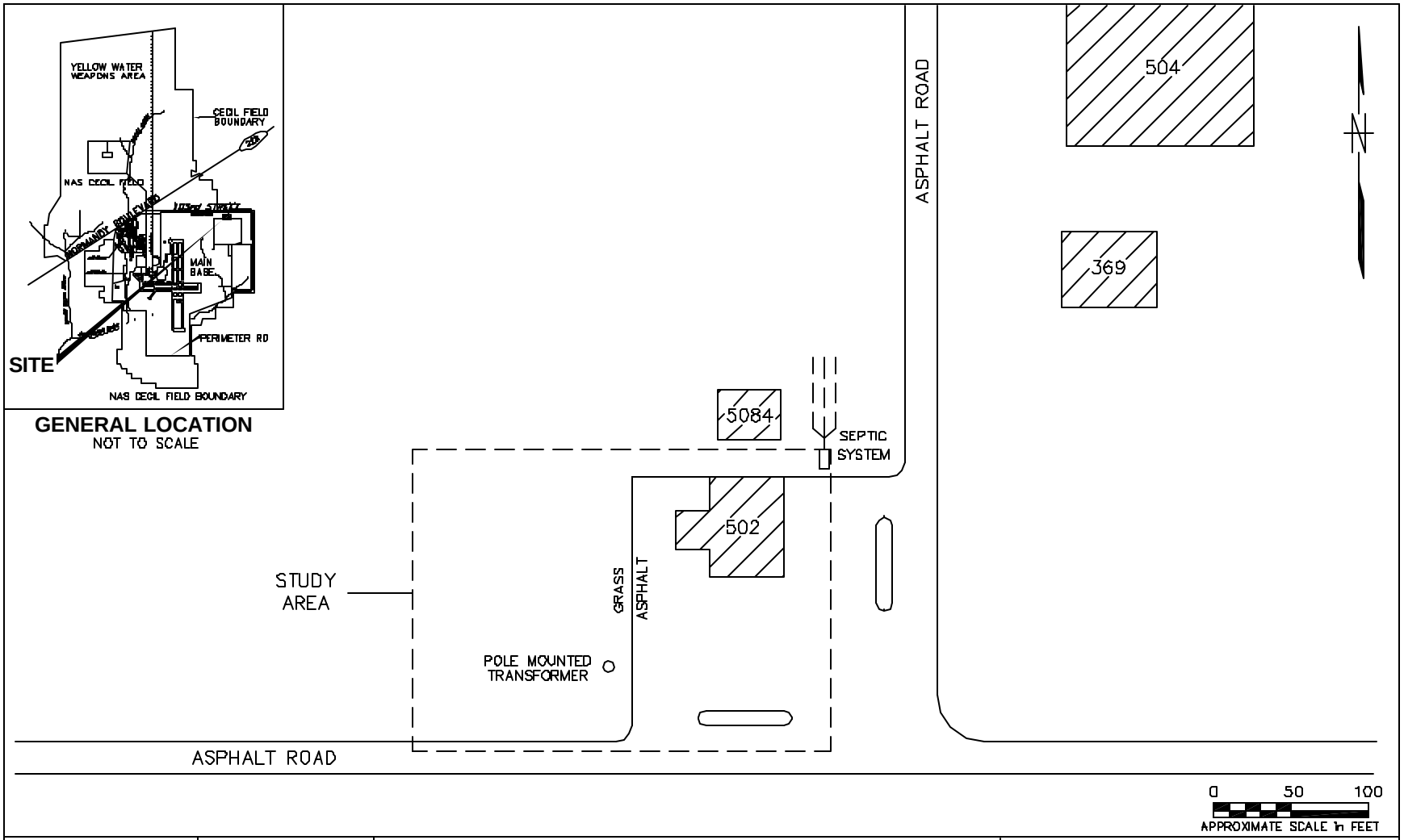

DRAWN BY LLK DATE 6/13/01		CONTRACT NO. 4093	
CHECKED BY DATE		APPROVED BY DATE	
COST/SCHED-AREA		APPROVED BY DATE	
SCALE AS NOTED		DRAWING NO. FIGURE 1-1	REV. 0

SITE LOCATION MAP
BUILDING 502
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

2.0 SITE HISTORY

Tank 502 was an 1,000-gallon underground storage tank (UST) located at Building 502, which originally served as a maintenance facility for equipment and vehicles associated with the Aviation Ordnance Area. The UST, which was installed in 1957, was used to supply fuel oil to a hot-water boiler [ABB Environmental Services, Inc. (ABB-ES), 1997a]. Tank 502 was removed on April 16, 1997, by Bechtel Environmental, Inc. (BEI). Approximately 5 tons of excessively contaminated soil were removed along with the UST at that time. A Closure Report was prepared and submitted to the Florida Department of Environmental Protection (FDEP) in July 1997 (BEI, 1997).

A Contamination Assessment Report found that confirmatory sampling did not provide adequate assessment of the horizontal and vertical extent of excessively contaminated soil, and a site assessment was recommended to delineate the extent of excessively contaminated soil and groundwater (ABB-ES, 1997b). An FDEP letter dated May 13, 1998, concurred with the findings that a site assessment is warranted under Chapter 62-770, FAC.

The subsequent Site Assessment Report (SAR) found excessively contaminated soil and petroleum-contaminated groundwater in excess of FDEP Cleanup Target Levels (CTLs) and recommended removal of contaminated soil followed by monitoring for natural attenuation of contaminated groundwater [Harding Lawson Associates (HLA), 1998]. COCs identified by the SAR for groundwater natural attenuation monitoring included benzene, ethylbenzene, xylenes, naphthalene, and total recoverable petroleum hydrocarbons (TRPH) that were previously detected in excess of GCTLs. The source removal was conducted in January 1999 (CH2M Hill Constructors, 1999).

A SAR Revision, completed following the source removal, recommended no further action for soil at Building 502, Tank 502 because the petroleum-contaminated soil with concentrations greater than CTLs was removed (HLA, 1999). It also recommended that 5 years of groundwater monitoring for natural attenuation be conducted at Building 502, Tank 502, with yearly milestones for benzene, ethylbenzene, xylenes, naphthalene, and TRPH due to previous exceedance of GCTLs (HLA, 1999). A letter from the FDEP (dated July 13, 1999) concurred with the findings of the SAR Revision and accepted the recommended yearly milestones. The approved monitoring program included sampling of wells CEF-502-1S, CEF-502-2S, CEF-502-4S, and CEF-502-5D for the parameters listed in United States Environmental Protection Agency method 8260 for volatile organic compounds (VOCs), USEPA Method 8310B for polynuclear aromatic hydrocarbons (PAHs), and TRPH by the FL-PRO method.

Monitoring wells CEF-502-2S and CEF-502-5D were abandoned during the tank removal and were later installed as wells CEF-502-6S and CEF-502-7D, respectively (HLA, 2000). On August 25, 1999, during

the first sampling event under the monitoring program, it was discovered that well CEF-502-1S had been abandoned, and that well CEF-502-4S could not be sampled due to low water table conditions. HLA conducted the second event on March 13, 2000, and only sampled wells CEF-502-4S, CEF-502-6S, and CEF-502-7D.

A July 6, 2000, FDEP letter concurred that semi-annual groundwater monitoring should continue in 2000/2001. It also stated that a monitoring well must be installed in the former location of CEF-502-1S, and stated that, based on both the current and historical data, a recommendation should be submitted for future actions at the site.

During March and April 2001, TtNUS conducted a supplemental site assessment. TtNUS personnel supervised the installation of a replacement well for CEF-502-1S (designated CEF-502-1SR) and sampled the four wells for VOCs, PAHs, and TRPH as required in the monitoring order. The SAR Addendum (TtNUS, 2001) recommended several modifications to the monitoring program including an additional well (CEF-502-8S) and an additional existing sampling location (CEF-502-3S). The recommendations were approved by the FDEP on August 3, 2001, and were implemented during the next semi-annual sampling event in December 2001.

Four semi-annual groundwater monitoring events were conducted from June 6, 2002, until January 28, 2004. Second Semi-Annual, Fourth Year Groundwater Monitoring Report found that concentrations of benzene, ethylbenzene, and total xylenes were less than their respective milestone objectives for Year Four. However, the concentrations of naphthalene and TRPH in well CEF-502-1SR were greater than the Year Four milestone objectives (TtNUS, 2004b).

Based on the results of the January 2004 groundwater monitoring event and a review of the historical data for this site, TtNUS recommended that additional site assessment activities be conducted in the vicinity of source well CEF-502-1SR to determine the cause of continued GCTL exceedances.

A decision was made at the BCT meeting in June, 2006 to decrease the groundwater sampling frequency at Building 502, Tank 502 from semi-annual to annual.

3.0 SCOPE OF WORK

The work in the following sections will be completed in accordance with FDEP and TtNUS Standard Operating Procedures (SOPs).

TtNUS personnel in charge will maintain a logbook in accordance with FDEP SOPs and TtNUS SOP SA-6.3. At the end of each day in the field, the Field Operations Leader (FOL) will complete a Daily Activities Record for any subcontractor activities (see Appendix A).

3.1 SOIL BORING INSTALLATION

Locations of 10 soil borings to be completed during additional assessment activities at Building 502 are shown on Figure 3-1. The locations of the borings will be recorded via global positioning system. The borings will be advanced to a depth of 5 feet (ft) below land surface (bls) or slightly below the water table, whichever occurs first, using a stainless steel, 3-inch internal diameter hand-auger assembly.

3.1.1 Field Screening Procedures

Soil samples will be collected from the hand auger bucket in the unsaturated zone at 1-ft vertical intervals beginning at 1 ft bls. Samples will be retained for field screening with an organic vapor analyzer equipped with a flame ionization detector at each of the soil boring locations.

Soil vapor analyses will be performed in accordance with the headspace screening method described in Chapter 62-770.200(2), FAC.

3.1.2 Soil Sampling Strategy for Fixed-Base Laboratory Analysis

Based on field screening results and visual observations, up to one soil sample will be collected from each location for fixed-base laboratory analysis. If there are no instrumental or visual indications of contamination, soil samples will be collected in the interval immediately above the water table. Soil samples will be submitted for analysis of PAHs, 1-methylnaphthalene, 2-methylnaphthalene, and TRPH. Excess soil, if any, will be placed in 55-gallon drums for off-site disposal.

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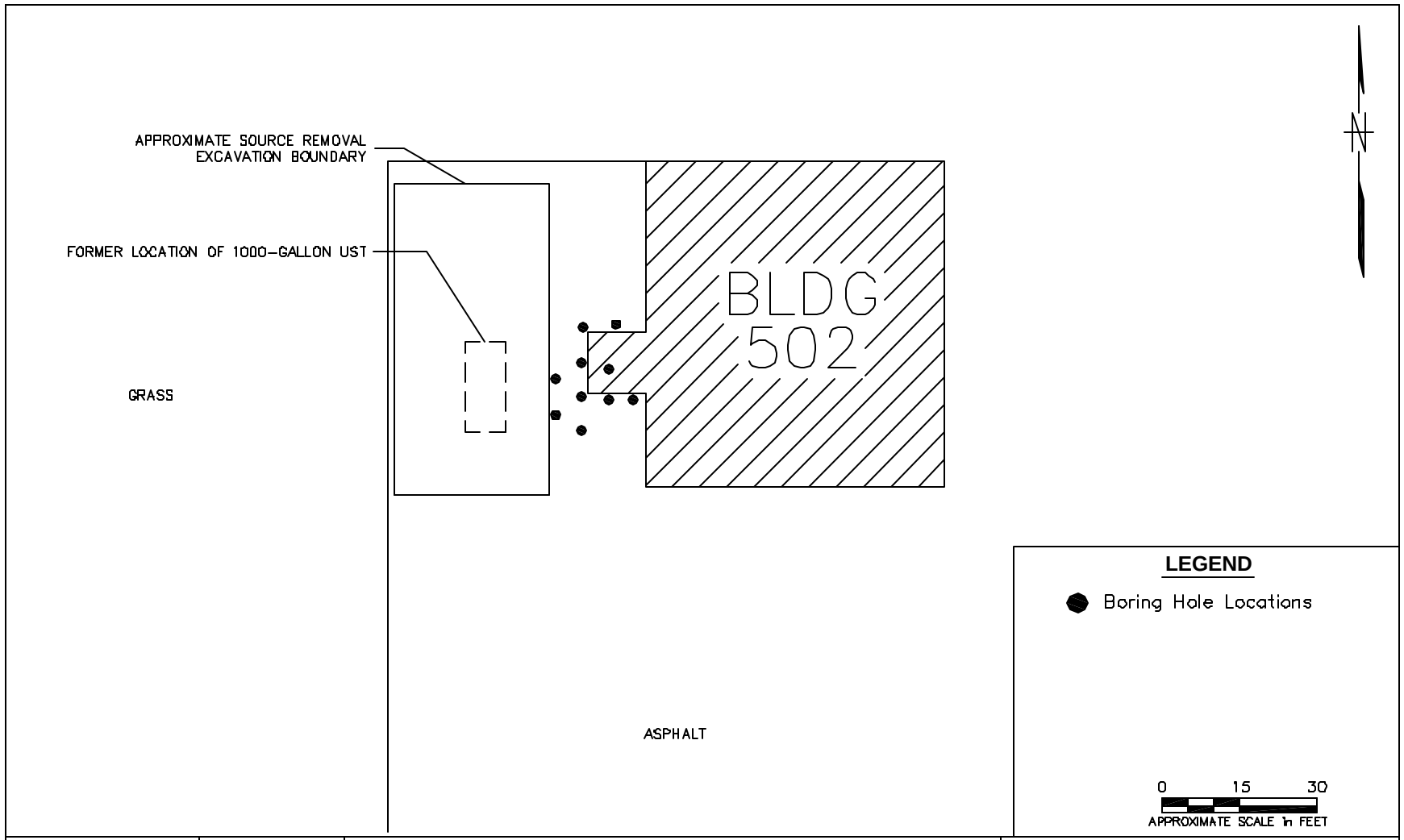

DRAWN BY DWH DATE 9/5/06	Proposed Boring Hole Locations September 5, 2006 BUILDING 502 NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NO. 4093	
CHECKED BY DATE		APPROVED BY DATE	
COST/SCHED-AREA		APPROVED BY DATE	
SCALE AS NOTED		DRAWING NO. FIGURE 3-1	REV. 0

3.1.3 Laboratory Analyses

Soil samples from borings surrounding source well CEF-502-1SR will be analyzed for site COCs (PAHs, 1-methylnaphthalene, 2-methylnaphthalene, and TRPH) using the methods outlined in Table 3-1.

TABLE 3-1
ANALYTICAL SOIL SAMPLING SUMMARY – BUILDING 502, TANK 502

Work Plan for Source Characterization Activities
Naval Air Station Cecil Field
Jacksonville, Florida

COC	Laboratory Method
PAHs, 1-methylnaphthalene, and 2-methylnaphthalene	SW-846 8310
TRPH	FL-PRO

Notes:
PAHs = polynuclear aromatic hydrocarbons
FL-PRO = Florida Petroleum Range Organics

3.2 GROUNDWATER ASSESSMENT ACTIVITIES

3.2.1 Permanent Monitoring Wells

Locations of the six permanent monitoring wells at Building 502 are shown in Figure 3-2. One round of annual sampling of the six existing wells will take place following soil sampling.

Prior to obtaining groundwater samples, synoptic water levels and total well depths will be measured and recorded on site-specific groundwater level measurement sheets (see Appendix A).

3.2.2 General Sampling Protocols

General sampling protocols will be in accordance with the FDEP SOPs and TtNUS SOP SA-1.1. The data will be recorded on groundwater sample log sheets and low flow purge data sheets (see Appendix A).

3.2.3 Aquifer Testing

Aquifer testing will not be necessary to determine aquifer characteristics because this site has been investigated extensively as documented in previous reports.

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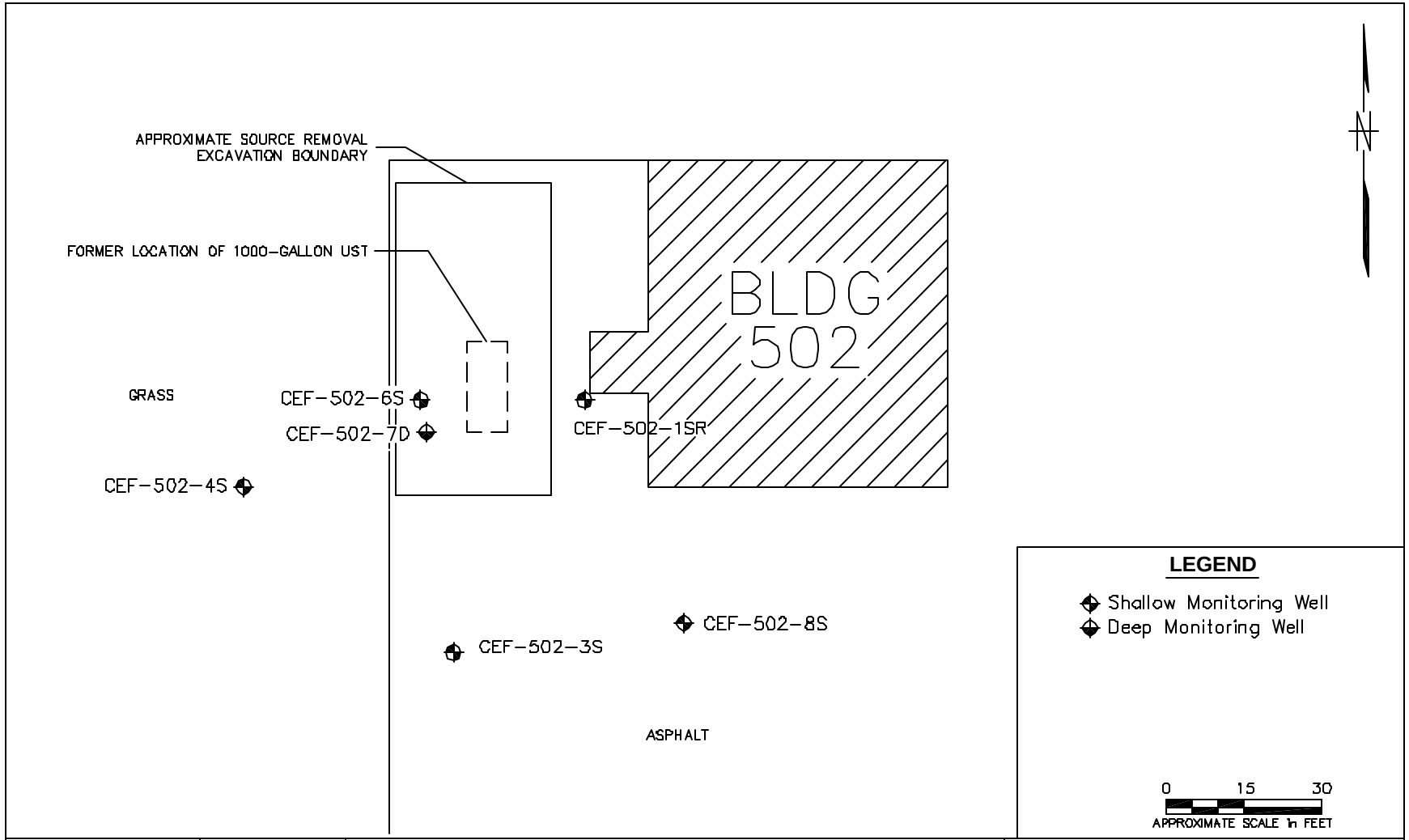

DRAWN BY DWH DATE 9/5/06	NAVFAC	Groundwater Monitering Well Locations September 5, 2006 BUILDING 502 NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NO. 4093
CHECKED BY DATE			APPROVED BY DATE
COST/SCHED-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 3-2 REV. 0

3.2.4 Laboratory Analysis

In accordance with the SAR, groundwater at the site will be analyzed for the COCs (VOCs, PAHs, 1-methylnaphthalene, 2-methylnaphthalene, and TRPH) using the methods outlined in Table 3-2.

TABLE 3-2
ANALYTICAL GROUNDWATER SAMPLING SUMMARY – BUILDING 502

Work Plan for Source Characterization Activities
Naval Air Station Cecil Field
Jacksonville, Florida

COC	Laboratory Method
PAHs, 1- methylnaphthalene and 2-methylnaphthalene	SW-846 8310
VOCs	SW-846 8260B
TRPH	FL-PRO

Notes:
VOCs = Volatile Organic Compounds

3.3 EQUIPMENT DECONTAMINATION

The equipment involved in supplemental assessment activities will be decontaminated prior to and during the respective field activities in accordance with FDEP SOPs and TtNUS SOP SA-7.1.

3.4 WASTE HANDLING

Investigation-derived waste (IDW) generated during the supplemental assessment activities is to be handled and disposed of in accordance with the TtNUS Decontamination of Field Equipment and Waste Handling SOP and NAS Cecil Field Practices.

3.5 SAMPLE HANDLING

Sample handling includes the selection of sample containers, preservatives, allowable holding times, and analytical methods. In addition, sample identification, packaging, and shipping will be addressed in this section. Sample handling procedures will be in accordance with FDEP SOPs and TtNUS SOP SA-6.1.

3.6 SAMPLE PACKAGING, SHIPPING, AND NOMENCLATURE

Samples will be packaged and shipped in accordance with the FDEP SOPs and TtNUS SOP SA-6.1. The FOL will be responsible for completing the following forms when samples are collected for shipping:

- Sample labels
- Chain-of-custody labels
- Appropriate labels applied to shipping coolers
- Chain-of custody Forms
- Federal Express Air Bills

The site has previously been assigned a unique facility number as follows: Building 502 = 502. Each sample will be assigned a unique sample identification number as follows:

1	2	3	4
General Site Name	**Facility Number**	**Sample Identifier**	**Boring Depth/Sequence Number**

Where:

1	General Site Name	CEF
2	Facility Number	502
3	Sample Identifier	Monitoring well/soil boring identification number
4	Boring Depth/Sequence number	See below

Soil samples collected during supplemental assessment activities will have a boring depth of 02 (for samples collected from 1 to 2 ft bls) and continuing consecutively, based on the depth from which the sample is collected.

For example, a soil sample collected at 3 ft bls from soil boring number one at the site would have the following nomenclature:

CEF-502-SB01-03

Groundwater samples will have a sequence number beginning at 08 (for the samples collected under this work plan) and continuing consecutively based on the sampling round.

For example, a groundwater sample collected from shallow monitoring well CEF-502-06S at the site during the first groundwater sampling round would have the following nomenclature:

CEF-502-06S-08

It should be noted that well CEF-502-01S was abandoned and replaced, and the replacement nomenclature for that particular well is augmented with an “R” as follows:

CEF-502-01SR

3.7 SAMPLE CUSTODY

Chain of custody for this usage begins with the release of the empty sample bottles from the laboratory and must be documented and maintained from that point forward. To maintain custody of sample bottles or samples, they must be in someone's physical possession, in a locked room or vehicle, or sealed with an intact custody seal. When the possession of the bottles or samples is transferred from one person to another, it will be documented in the field logbook and on the chain-of-custody form.

3.8 QUALITY CONTROL SAMPLES

In addition to periodic calibration of field equipment and appropriate documentation on a field calibration sheet (see Appendix A), quality control (QC) samples (field duplicates) will be collected or generated during environmental sampling activities. QC samples will be collected in accordance with the "Proposal for Reduction of Quality Assurance (QA) Sample Collection and Data Validation" from the NAS Cecil Field Installation Restoration and BRAC programs, which are summarized in Table 4-2.

TABLE 3-3
QUALITY CONTROL SAMPLE FREQUENCY

Work Plan for Source Characterization Activities
Naval Air Station Cecil Field
Jacksonville, Florida

Type of samples	Number of samples	Frequency
Field Duplicate	1 soil, 1 groundwater	1 per 10 samples per matrix

TtNUS personnel will perform a limited data validation review of data packages generated by the analytical laboratory to eliminate false positive and false negative results.

3.9 SITE MANAGEMENT AND BASE SUPPORT

TtNUS will perform this project with support from the Navy. This section of the work plan describes the project contacts, support personnel, project milestones, and time frames of all major events.

Throughout the duration of the investigation activities, work at NAS Cecil Field (now known as Cecil Commerce Center) will be coordinated through NAVFAC SE and FDEP. The primary contacts are as follows:

1. NAVFAC SE Engineer in Charge
   Mr. Mark Davidson
   (843) 820-5596

2. FDEP
Mr. David Grabka
(850) 488-3693

NAVFAC SE personnel will provide the following support functions:

- Provide existing engineering plans, drawings, diagrams, files, etc. to facilitate evaluation of the site under investigation.

- Provide all historical data, background geological and hydrogeological information, and initial site investigation documents.

Jacksonville Aviation Authority personnel will aid in arranging the following:

- Provide areas for storage of IDW as necessary.

The project will be staffed with personnel from the TtNUS Jacksonville, Florida office. During field activities, TtNUS will provide an FOL who is familiar with the scope of work to be completed and requirements of working at NAS Cecil Field. TtNUS personnel will conduct all soil and groundwater sampling activities.

Mr. Mark Peterson is the Assistant Task Order Manager (TOM) for CTO 0025 and will be the primary point of contact for the base and the FOL for source characterization activities at Building 502, Tank 502. He is responsible for cost and schedule control as well as technical performance. Mr. Peterson will provide senior level review and oversight during field activities.

3.10 CONTINGENCY PLAN

In the event of problems that may be encountered during site activities, the NAVFAC SE point of contact will be notified immediately, followed by the TtNUS Assistant TOM. The Assistant TOM will determine a course of action designed not to interfere with the schedule or budget. All contingency plans will be approved through the NAVFAC SE point of contact before being enacted.

4.0 GROUNDWATER MILESTONES

Table 4-1 contains the yearly milestones for benzene, ethylbenzene, xylenes, naphthalene, and TRPH that were established in the SAR and accepted by the FDEP in a letter dated July 13, 1999. Results from the Second Semi-Annual, Fourth Year (January 2004) sampling event showed that monitoring well CEF-502-1SR continued to exceed milestone objectives for naphthalene [40.4 micrograms per liter (µg/L)], 1-methylnaphthalene (49.9 µg/L), 2-methylnaphthalene (105 µg/L), and TRPH [7.42 milligrams per liter (mg/L)]. Results from all other wells have decreased to less than milestone objectives since the June 6, 2002, event.

Groundwater sampling to be conducted in accordance with this work plan will constitute Year 5 of the monitoring program.

TABLE 4-1
MILESTONE OBJECTIVES - BUILDING 502

Work Plan for Source Characterization Activities
Naval Air Station Cecil Field
Jacksonville, Florida

COCs	Units	End of				
		Year 1	Year 2	Year 3	Year 4	Year 5
Benzene	µg/L	26	13	6	3	< 1
Ethylbenzene	µg/L	60	50	40	30	< 30
Xylenes	µg/L	150	100	50	20	< 20
Naphthalene	µg/L	150	100	50	20	< 20
TRPH	mg/L	10	8	6	5	< 5

5.0 LEVEL OF EFFORT

Field activities including utility clearance, monitoring well installation and development, sampling, surveying, and IDW management at this site are proposed to begin on September 25, 2006, and take approximately 2 months to complete. The following is the anticipated level of effort for the activities associated with this investigation:

- Utility Clearances — 1 week
- Mobilization — 0.25 day
- Soil Sampling and Annual Monitor Well Sampling — 2 days
- Off-Site Laboratory Analyses — 30 days
- IDW Management/Disposal — 1 to 3 days

It is currently anticipated that tasks for this project will be completed with limited delays occurring during transition between tasks. However, delays during task transition are possible.

Assuming that nothing unusual is found during this scope of work, after the fieldwork is complete and the laboratory analytical data are received and processed, a letter report will be prepared for the site. Prior to final submittal of the document, TtNUS will present the results to the BCT.

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APPENDIX A

FIELD FORMS

Tetra Tech NUS, Inc.

DAILY ACTIVITIES RECORD

PROJECT NAME: _____ **PROJECT NUMBER:** _____

CLIENT: _____ **LOCATION:** _____

DATE: _____ **ARRIVAL TIME:** _____

Tt NUS PERSONNEL: _____ **DEPARTURE TIME:** _____

CONTRACTOR: _____ **DRILLER:** _____

ITEM	QUANTITY ESTIMATE	QUANTITY TODAY	PREVIOUS TOTAL QUANTITY	CUMULATIVE QUANTITY TO DATE

COMMENTS: _____

_____

_____

_____

APPROVED BY:

_____ _____

Tt NUS REPRESENTATIVE DRILLER

DATE: _____

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME : _____ INSTRUMENT NAME/MODEL: _____

SITE NAME: _____ MANUFACTURER: _____

PROJECT No.: _____ SERIAL NUMBER: _____

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: _____ **Project No.:** _____

Location: _____ **Personnel:** _____

Weather Conditions: _____ **Measuring Device:** _____

Tidally Influenced: Yes ____ No ____ **Remarks:** _____

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments

* All measurements to the nearest 0.01 foot

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: _____
Project No.: _____

[] Domestic Well Data
[] Monitoring Well Data
[] Other Well Type: _____
[] QA Sample Type: _____

Sample ID No.: _____
Sample Location: _____
Sampled By: _____
C.O.C. No.: _____
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: / Time:	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Method:								

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: _____
Project No.: _____

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other: _____
[] QA Sample Type: _____

Sample ID No.: _____
Sample Location: _____
Sampled By: _____
C.O.C. No.: _____

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):