

N60200.AR.002338
NAS CECIL FIELD, FL
5090.3a

SAMPLING AND ANALYSIS OUTLINE REPORT FOR FACILITY 193 BASE REALIGNMENT
AND CLOSURE REVISION 1 NAS CECIL FIELD FL
3/3/2000
TETRA TECH NUS INC

**Sampling and Analysis
Outline Report
for
Facility 193
Base Realignment and Closure**

Naval Air Station Cecil Field
Jacksonville, Florida



**Southern Division
Naval Facilities Engineering Command**

Contract Number N62467-94-D-0888

Contract Task Order 0078

March 2000

**SAMPLING AND ANALYSIS OUTLINE REPORT
FOR
FACILITY 193
BASE REALIGNMENT AND CLOSURE**

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

**COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT N62467-89-D-0088**

**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**

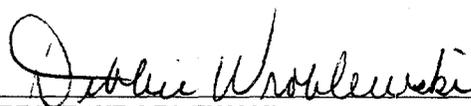
**CONTRACT NUMBER N62467-94-D-0888
CONTRACT TASK ORDER 0078**

MARCH 2000

PREPARED UNDER THE SUPERVISION OF:


**MARK SPERANZA, P.E.
TASK ORDER MANAGER
TETRA TECH NUS, INC.
PITTSBURGH, PENNSYLVANIA**

APPROVED FOR SUBMITTAL BY:


**DEBBIE WROBLEWSKI
PROGRAM MANAGER
TETRA TECH NUS, INC.
PITTSBURGH, PENNSYLVANIA**



The professional opinions rendered in this decision document identified as Sampling and Analysis Outline Report for Facility 193, 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: 3/2/00

Mark Speranza



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: February 18, 2000

NAME AND TITLE OF CERTIFYING OFFICIAL:

Mark Speranza, P.E.
Task Order Manager

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE NO.</u>
CERTIFICATION.....	ii
PROFESSIONAL ENGINEER AUTHORIZATION.....	iii
ACRONYMS.....	v
1.0 INTRODUCTION.....	1-1
2.0 SAMPLING AND ANALYSIS OUTLINE.....	2-1
3.0 RESULTS AND PRELIMINARY RISK EVALUATION.....	3-1
4.0 CONCLUSIONS AND RECOMMENDATION.....	4-1
REFERENCES.....	R-1

APPENDICES

A	LABORATORY ANALYTICAL DATA
B	BORING LOG AND MONITORING WELL CONSTRUCTION INFORMATION

FIGURE

<u>NUMBER</u>	<u>PAGE NO.</u>
1-1 Site Location Map.....	1-2
2-1 Sample Location.....	2-2

ACRONYMS

ABB-ES	ABB Environmental Services, Inc.
bgs	Below ground surface
BCT	BRAC Cleanup Team
BRAC	Base Realignment and Closure
CSR	Confirmatory Sampling Report
CTO	Contract Task Order
EISOPQAM	Environmental Investigations Standard Operating Procedures and Quality Assurance Manual
FDEP	Florida Department of Environmental Protection
GTCL	Groundwater Target Cleanup Level
ISI	Innovative Services International, Inc.
NAS	Naval Air Station
PRE	Preliminary Risk Evaluation
PVC	Polyvinyl chloride
TtNUS	Tetra Tech NUS, Inc.
U.S. EPA	United States Environmental Protection Agency

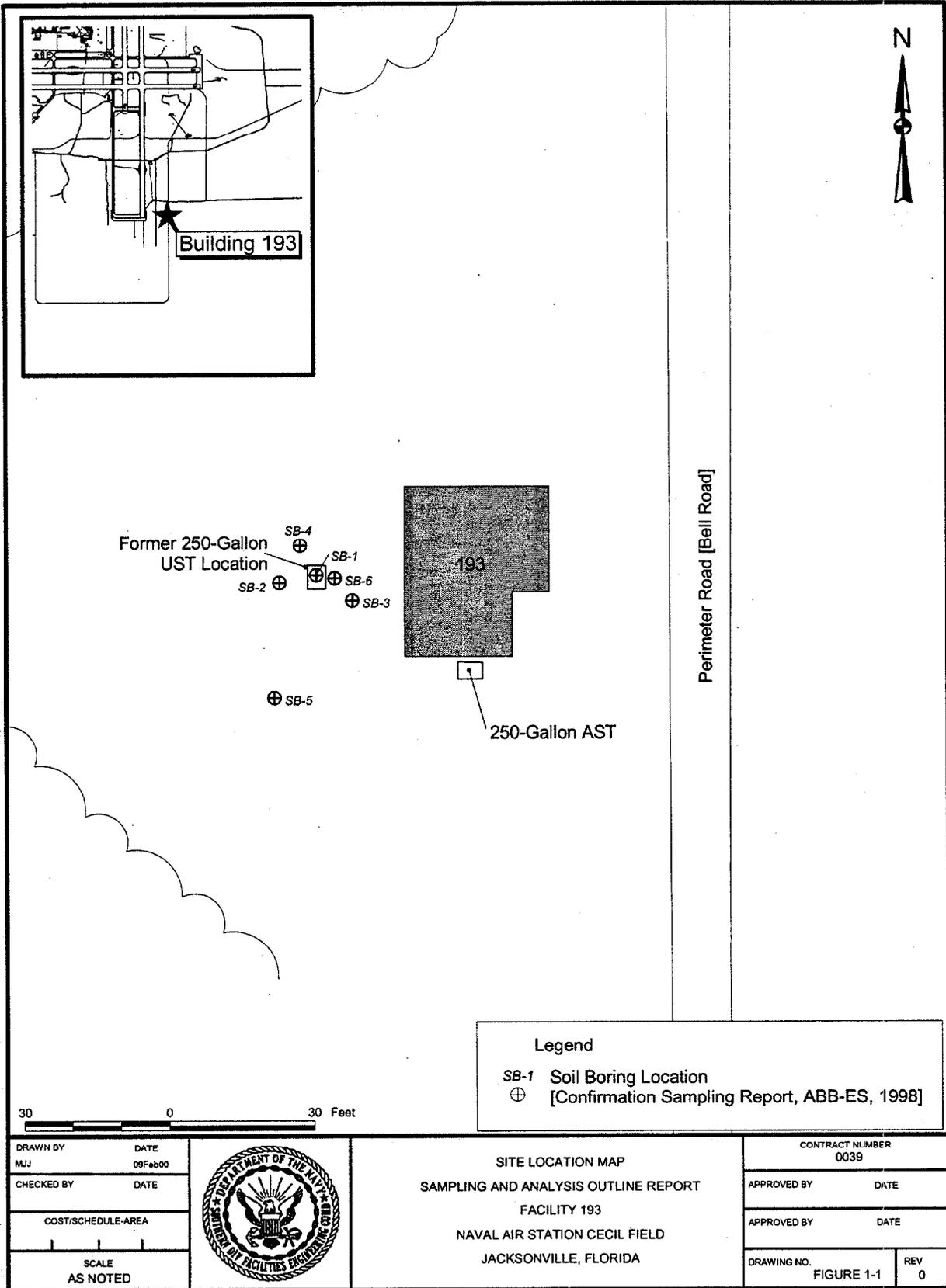
1.0 INTRODUCTION

Tetra Tech NUS, Inc. (TtNUS), under contract to Southern Division, Naval Facilities Engineering Command, has completed Base Realignment and Closure (BRAC) sampling and analysis for Facility 193 at Naval Air Station (NAS) Cecil Field. This program was conducted under Contract Number N62467-94-D-088, Contract Task Order (CTO) 0078. This report summarizes the related field operations, results, conclusions, and recommendation of the investigation.

Facility 193 is located in the Main Base Area west of the former Perimeter Road near the southern end of the north-south runway (see Figure 1-1). Tank G193, a 250-gallon underground storage tank located east of Facility 193, was used to store diesel fuel for the standby generator. The tank was removed and a closure assessment report was prepared and submitted to Florida Department of Environmental Protection (FDEP) in 1995 by Innovative Services International, Inc. (ISI) (ISI, 1995).

A temporary well was installed by ISI during the closure assessment, and groundwater from this well had a lead concentration (129 µg/L) exceeding the FDEP Groundwater Target Cleanup Level (GTCL) of 5 µg/L. Because lead is not a component of diesel fuel, the material stored in the tank, it was concluded that the elevated lead concentration might be a result of turbidity in the groundwater sample. No other groundwater contamination in excess of FDEP criteria was detected during the closure assessment. A Confirmatory Sampling Investigation was conducted at the site in 1997, and excessively contaminated soil was not detected in soil samples collected from the unsaturated zone during this investigation as described in the Confirmatory Sampling Report (CSR) [ABB Environmental Services, Inc. (ABB-ES), 1998].

Based on these results for soil and groundwater, no further action was recommended for Tank G193 in the CSR (ABB-ES, 1998). In a letter dated June 12, 1998, FDEP concurred with the no further action recommendation for the tank, but stated that a monitoring well was to be installed as part of the gray site investigation program to investigate the lead exceedance near the tank.



30 0 30 Feet

Legend
 SB-1 Soil Boring Location
 ⊕ [Confirmation Sampling Report, ABB-ES, 1998]

DRAWN BY MJJ	DATE 09Feb00
CHECKED BY	DATE
COST/SCHEDULE-AREA	
SCALE AS NOTED	



SITE LOCATION MAP
 SAMPLING AND ANALYSIS OUTLINE REPORT
 FACILITY 193
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA

CONTRACT NUMBER 0039	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO. FIGURE 1-1	REV 0

p:\gis\cecil\bltdg0193.spr 14Feb00 MJJ Site Location Layout

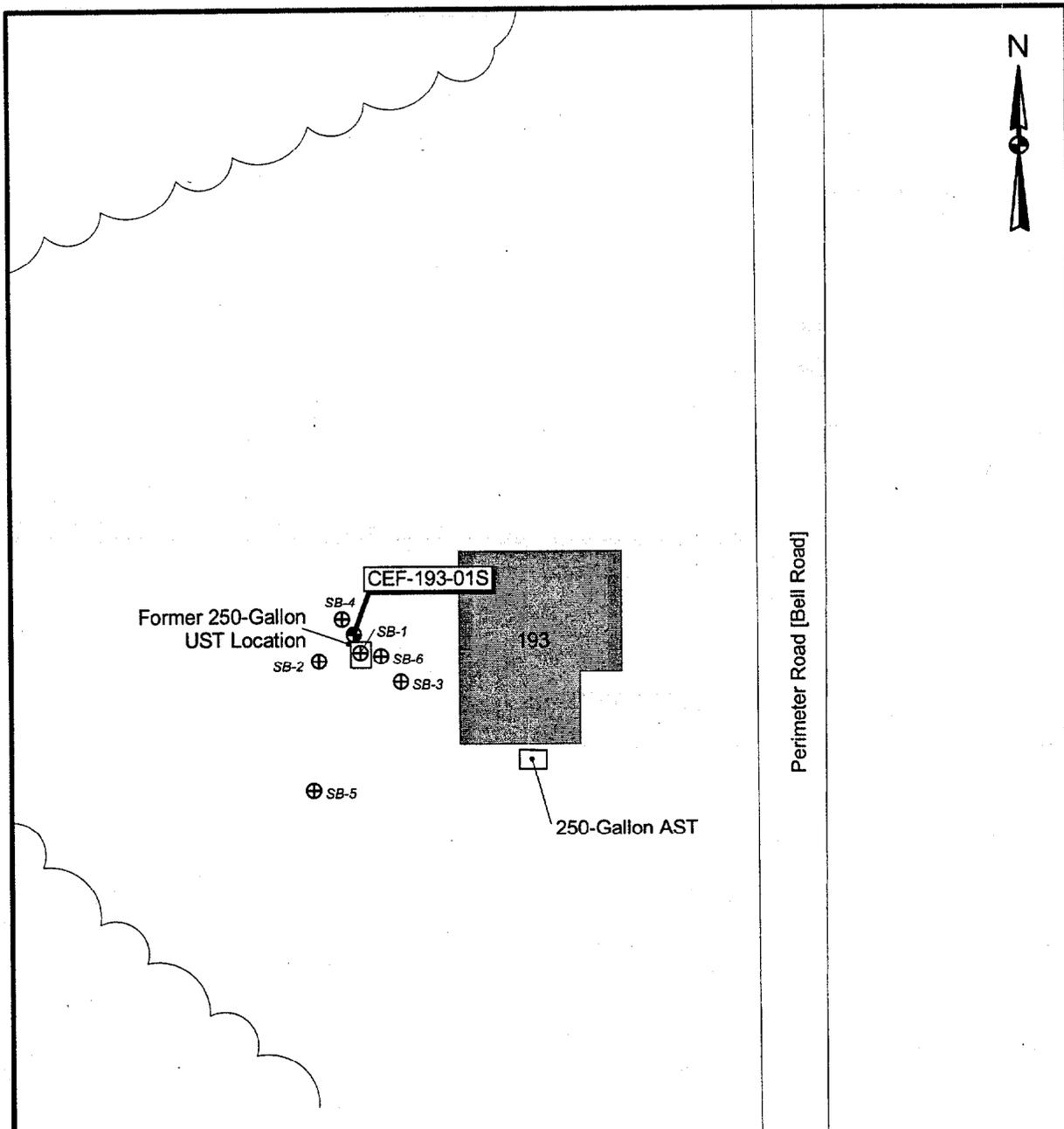
2.0 SAMPLING AND ANALYSIS OUTLINE

A Sampling and Analysis Plan for the assessment of this site was prepared by TtNUS and approved by the BRAC Cleanup Team (BCT) (TtNUS, 1999).

The investigation included the installation and sampling of one monitoring well near the location of the temporary well at which the lead exceedance was detected. Field activities were conducted in general conformance with the Base-Wide Generic Work Plan and the United States Environmental Protection Agency (U.S. EPA) Region V Environmental Investigation Standard Operating Procedures and Quality Assurance Manual (EISPOQAM) (TtNUS, 1998 and U.S. EPA, 1996). A site plan indicating the location of the monitoring well is presented on Figure 2-1. Analytical results are provided in Appendix A, and boring log and monitoring well construction information are presented in Appendix B.

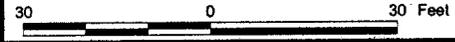
A groundwater sample (CEF-193-GW-01S) was collected from the newly installed well (CEF-193-MW-01S) and analyzed for lead.

The monitoring well (CEF-193-MW-01S) was constructed of 2-inch polyvinyl chloride (PVC) to a depth of approximately 15 feet below ground surface (bgs) with a 5-foot screen of 0.010 slot size. The well was developed prior to sampling, and the sample was collected on January 18, 2000 using low-flow sampling techniques and analyzed for lead.



Legend

SB-1 Soil Boring Location
 ⊕ [Confirmation Sampling Report, ABB-ES, 1998]
 ⊙ Monitoring Well



DRAWN BY: MJJ	DATE 09Feb00
CHECKED BY:	DATE
COST/SCHEDULE-AREA	
SCALE AS NOTED	



SAMPLE LOCATION MAP
 SAMPLING AND ANALYSIS OUTLINE REPORT
 FACILITY 193
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA

CONTRACT NUMBER 0039	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO. FIGURE 2-1	REV 0

p:\g1\cecl\bidg0193.apr 14Feb00 MJJ Sample Location Layout

3.0 RESULTS AND PRELIMINARY RISK EVALUATION

Lead was not detected in the groundwater sample collected at Facility 193. Based on this information, a human health preliminary risk evaluation (PRE) is not required for this site.

In addition, an ecological risk assessment is not required because soil contamination was not a concern at Facility 193 based on previous sampling.

4.0 CONCLUSIONS AND RECOMMENDATION

Lead was not detected in the groundwater sample collected at Facility 193. No other environmental concerns have been identified for this facility.

Based upon the findings of this evaluation, the color code for Facility 193 should be reclassified to Light Green. No further action or further evaluation is recommended.

REFERENCES

ABB-ES (ABB Environmental Services, Inc.), 1998. Confirmatory Sampling Report, Building 193, Tank G193, Naval Air Station, Cecil Field, Jacksonville, Florida. May.

ABB-ES, 1994. Base Realignment and Closure Environmental Baseline Survey Report, Naval Air Station, Cecil Field, Jacksonville, Florida.

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

FDEP, 1998, Letter from Michael J. Deliz, FDEP Remedial Project Manager to Bryan Kizer, SOUTHNAVFACENGCOM, RE: Confirmation Sampling Report, Tank G193, Building 193. June 12.

Tetra Tech NUS, Inc. (TtNUS), 1999. Sampling and Analysis Plan, Facility 193, Naval Air Station Cecil Field, Jacksonville, Florida. November.

TtNUS, 1998. Base-Wide Generic Work Plan, Naval Air Station Cecil Field, Jacksonville, Florida. October.

United States Environmental Protection Agency (U.S. EPA), 1996. Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM), May.

APPENDIX A

LABORATORY ANALYTICAL DATA

MEMO TO: M. SPERANZA - PAGE 2
DATE: FEBRUARY 15, 2000

Executive Summary

Laboratory Performance: Lead was present in the laboratory method / preparation blanks.

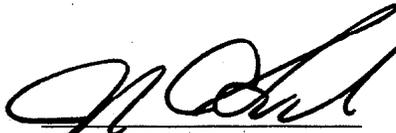
Other Factors Affecting Data Quality: None.

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
Gretchen A. Phipps


Tetra Tech NUS
Joseph A. Samchuck
Quality Control Officer

Attachments:

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

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

- A = Lab Blank Contamination
- B = Field Blank Contamination
- C = Calibration (i.e., % RSDs, %Ds, ICVs, CCVs, RPDs, RRFs, etc.) Noncompliance
- D = MS/MSD Noncompliance
- E = LCS/LCSD Noncompliance
- F = Lab Duplicate Imprecision
- G = Field Duplicate Imprecision
- H = Holding Time Exceedance
- I = ICP Serial Dilution Noncompliance
- J = GFAA PDS - GFAA MSA's $r < 0.995$
- K = ICP Interference - include ICSAB % R's
- L = Instrument Calibration Range Exceedance
- M = Sample Preservation
- N = Internal Standard Noncompliance
- O = Poor Instrument Performance (i.e., base-time drifting)
- P = Uncertainty near detection limit ($< 2 \times$ IDL for inorganics and $< CRQL$ for organics)
- Q = Other problems (can encompass a number of issues)
- R = Surrogates Recovery Noncompliance
- S = Pesticide/PCB Resolution
- T = % Breakdown Noncompliance for DDT and Endrin
- U = Pest/PCB D% between columns for positive results
- V = Non-linear calibrations, tuning $r < 0.995$ (correlation coefficient)
- W = EMPC result
- X = Signal to noise response drop
- Y = % Solid content is less than 30%

CTO07: AS CECIL FIELD
 WATER DATA
 Accutest, NJ
 SDG: F5686

SAMPLE NUMBER:	CEF-193-GW-01S-01	CEF-193-GW-DU01-01		
SAMPLE DATE:	01/18/00	01/18/00	//	//
LABORATORY ID:	F5686-1	F5686-2		
QC_TYPE:	NORMAL	NORMAL		
% SOLIDS:	0.0 %	0.0 %	100.0 %	100.0 %
UNITS:	UG/L	UG/L		
FIELD DUPLICATE OF:		CEF-193-GW-01S-01		

	RESULT	QUAL	CODE									
INORGANICS												
LEAD	1.6	U		1.6	U							

APPENDIX C
SUPPORT DOCUMENTATION



PROJECT NO: 0039		SITE NAME: Bldg 193		PROJECT MANAGER AND PHONE NUMBER: Joe Loun 412-921-7231			LABORATORY NAME AND CONTACT: Accutest Labs H. Behzadi		
SAMPLERS (SIGNATURE): <i>[Signature]</i>		FIELD OPERATIONS LEADER AND PHONE NUMBER: Merv Dale 904-981-0400			ADDRESS: 4405 Vineland Rd C-15				
STANDARD TAT <input type="checkbox"/>		CARRIER/WAYBILL NUMBER: FedEx 815439034574			CITY, STATE: Orlando, FL 32811				
RUSH TAT <input type="checkbox"/>		CONTAINER TYPE: PLASTIC (P) or GLASS (G)			TYPE OF ANALYSIS: SN TO COCORS Total Pb				
<input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 72 hr. <input type="checkbox"/> 7 day <input checked="" type="checkbox"/> 14 day		PRESERVATIVE USED:							
DATE YEAR: 1-18-00	TIME: 1700	MATRIX: GW	GRAB (G) COMP (C): G	NO. OF CONTAINERS: 1	TYPE OF ANALYSIS: SN TO COCORS Total Pb			COMMENTS: Cool to 4°C	
1-18-0000		CEF-193-GW-DU01-01	↓	↓	1	FS0061 (LMS/MSD) -2			
1-18-1605		CEF-193-GW-MSMS01-01	↓	↓	1	-(LMS/MSD)			
1. RELINQUISHED BY: <i>[Signature]</i>		DATE: 1-18-00	TIME: 1700	1. RECEIVED BY: 0039 DSO, OSARIO MWDale			DATE: 1-18-00	TIME: 1701	
2. RELINQUISHED BY: Merv Dale		DATE: 1-20-00	TIME: 1900	2. RECEIVED BY: Alex Wilson			DATE: 1-21-00	TIME: 1800	
3. RELINQUISHED BY:		DATE:	TIME:	3. RECEIVED BY:			DATE:	TIME:	

APPENDIX B

**BORING LOG AND MONITORING WELL
CONSTRUCTION INFORMATION**

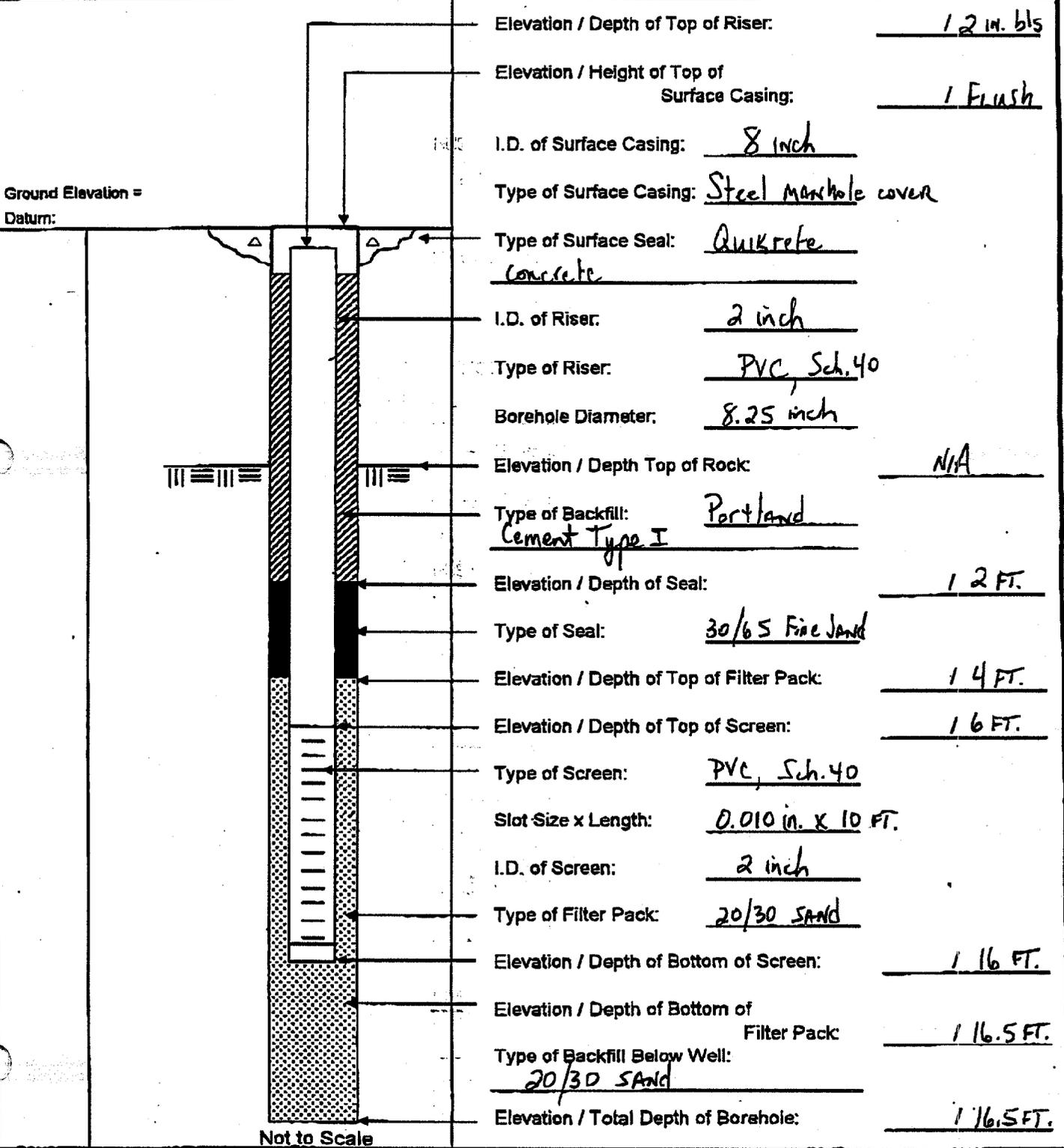


Tetra Tech NUS, Inc.

WELL No.: CEF-193-MW-015

MONITORING WELL SHEET

PROJECT: NAS CECIL FIELD DRILLING Co.: GPI BORING No.: Same as well
 PROJECT No.: 0039 DRILLER: N. SMARRITO DATE COMPLETED: 12/3/99
 SITE: MB18 DRILLING METHOD: Hollow Stem NORTHING: _____
 GEOLOGIST: M. DALE DEV. METHOD: Submersible EASTING: _____



b/s = below land surface