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NAS CECIL FIELD, FL
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SAMPLING AND ANALYSIS REPORT ADDENDUM FOR FACILITY 1 BASE REALIGNMENT
AND CLOSURE REVISION 1 NAS CECIL FIELD FL
3/29/2000
TETRA TECH NUS INC

**Sampling and Analysis Report
Addendum
for
Facility 1
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 REPORT ADDENDUM
FOR
FACILITY 1
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.
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Foster Plaza 7
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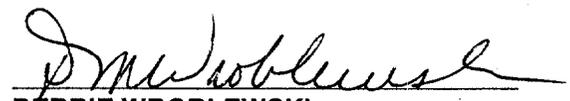
**CONTRACT NUMBER N62467-94-D-0888
CONTRACT TASK ORDER 0078**

MARCH 2000

PREPARED UNDER THE SUPERVISION OF:


MARK SPERANZA, P.E.
TASK ORDER MANAGER
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APPROVED FOR SUBMITTAL BY:


DEBBIE WROBLEWSKI
PROGRAM MANAGER
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The professional opinions rendered in this decision document identified as Sampling and Analysis Report Addendum for Facility 1, 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 P Speranza
Mark Speranza, P.E.
Professional Engineer No. PE0050304

Date: 3/31/00

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: January 17, 2000

NAME AND TITLE OF CERTIFYING OFFICIAL:

Mark Speranza, P.E.
Task Order Manager

SAMPLING AND ANALYSIS REPORT ADDENDUM
FACILITY 1
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Well CEF1MW1S, located southeast of Building 1, was installed and sampled in 1998 as part of the Phase II sampling and analysis program for Facility 1. When the well was sampled, a duplicate of the sample was also collected. In one sample, the concentration of heptachlor epoxide was 0.2 µg/l, and in the duplicate, the concentration was less than the detection limit of 0.05 µg/l. The average of these two values is 0.12 µg/l, which is less than the FDEP criteria of 0.2 µg/l.

On November 23, 1999, the well was sampled again and analyzed for pesticides. The detection limits for the sample were elevated, and the heptachlor epoxide concentration was reported as less than the detection limit of 0.25 µg/l. This value is slightly greater than the FDEP criteria. Analytical results are provided in Appendix A.

Based primarily on the results of the 1998 sampling, heptachlor epoxide is not present at concentrations greater than the FDEP criteria. Therefore, no further action is required and the color code should remain Light Green.

APPENDIX A

LABORATORY ANALYTICAL DATA

MEMO TO: MR. M. SPERANZA
DATE: JANUARY 12, 2000 – PAGE 2

EXECUTIVE SUMMARY

Laboratory performance: None.

Other Factors Affecting Data Quality: Both samples were diluted 5X.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (February, 1994), and the NFESC "Navy Installation Restoration Program Laboratory Quality Assurance Guide" (February, 1996). The text of this report has been formulated to address only those problems affecting data quality.

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



Justin Orbich

Chemist/Data Validator
Tetra Tech, NUS



Joseph A. Samchuck

Data Validation Quality Assurance Officer
Tetra Tech, NUS

Attachments:

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

DATA QUALIFIER DEFINITIONS:

U - Value is a nondetected result as reported by the laboratory and should not be considered present.

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%

APPENDIX A
Qualified Analytical Results

CTO078 - NAS CECIL FIELD

WATER DATA

Accutest, NJ

SDG: F5356

SAMPLE NUMBER:	CEF-B01-GW-01S-02	CEF-B01-GW-DU01		
SAMPLE DATE:	11/23/99	11/23/99	//	//
LABORATORY ID:	F5356-1	F5356-2		
QC_TYPE:	NORMAL	NORMAL		
% SOLIDS:	0.0 %	0.0 %	100.0 %	100.0 %
UNITS:	UG/L	UG/L		
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE									
PESTICIDES/PCBs												
4,4'-DDD	0.5	U		0.5	U							
4,4'-DDE	0.5	U		0.5	U							
4,4'-DDT	0.5	U		0.5	U							
ALDRIN	0.25	U		0.25	U							
ALPHA-BHC	0.25	U		0.25	U							
ALPHA-CHLORDANE	0.5	U		0.5	U							
BETA-BHC	0.25	U		0.25	U							
DELTA-BHC	0.25	U		0.25	U							
DIELDRIN	0.25	U		0.25	U							
ENDOSULFAN I	0.25	U		0.25	U							
ENDOSULFAN II	0.5	U		0.5	U							
ENDOSULFAN SULFATE	0.5	U		0.5	U							
ENDRIN	0.5	U		0.5	U							
ENDRIN ALDEHYDE	0.5	U		0.5	U							
ENDRIN KETONE	0.5	U		0.5	U							
GAMMA-BHC (LINDANE)	0.25	U		0.25	U							
GAMMA-CHLORDANE	0.5	U		0.5	U							
HEPTACHLOR	0.25	U		0.25	U							
HEPTACHLOR EPOXIDE	0.25	U		0.25	U							
METHOXYCHLOR	1	U		1	U							
TOXAPHENE	12	U		12	U							

77-101

APPENDIX B

Results as Reported by the Laboratory



Report of Analysis

Client Sample ID: CEF-B01-GW-01S-02	Date Sampled: 11/23/99
Lab Sample ID: F5356-1	Date Received: 11/24/99
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 3510C/8081A	
Project: NAS Cecil Field	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	ST01462.D	5	12/02/99	SKW	11/24/99	OP1103	GST66
Run #2							

Pesticide TCL List

CAS No.	Compound	Result	RL	Units	Q
309-00-2	Aldrin	ND	0.25	ug/l	
319-84-6	alpha-BHC	ND	0.25	ug/l	
319-85-7	beta-BHC	ND	0.25	ug/l	
319-86-8	delta-BHC	ND	0.25	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.25	ug/l	
5103-71-9	alpha-Chlordane	ND	0.50	ug/l	
5103-74-2	gamma-Chlordane	ND	0.50	ug/l	
60-57-1	Dieldrin	ND	0.25	ug/l	
72-54-8	4,4'-DDD	ND	0.50	ug/l	
72-55-9	4,4'-DDE	ND	0.50	ug/l	
50-29-3	4,4'-DDT	ND	0.50	ug/l	
72-20-8	Endrin	ND	0.50	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.50	ug/l	
7421-93-4	Endrin aldehyde	ND	0.50	ug/l	
53494-70-5	Endrin ketone	ND	0.50	ug/l	
959-98-8	Endosulfan-I	ND	0.25	ug/l	
33213-65-9	Endosulfan-II	ND	0.50	ug/l	
76-44-8	Heptachlor	ND	0.25	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.25	ug/l	
72-43-5	Methoxychlor	ND	1.0	ug/l	
8001-35-2	Toxaphene	ND	12	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		30-160%
2051-24-3	Decachlorobiphenyl	98%		30-160%

(a) Dilution required due to matrix interference.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound



Report of Analysis

Client Sample ID: CEF-B01-GW-DU01	Date Sampled: 11/23/99
Lab Sample ID: F5356-2	Date Received: 11/24/99
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 3510C/8081A	
Project: NAS Cecil Field	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	ST01463.D	5	12/02/99	SKW	11/24/99	OP1103	GST66
Run #2							

Pesticide TCL List

CAS No.	Compound	Result	RL	Units	Q
309-00-2	Aldrin	ND	0.25	ug/l	
319-84-6	alpha-BHC	ND	0.25	ug/l	
319-85-7	beta-BHC	ND	0.25	ug/l	
319-86-8	delta-BHC	ND	0.25	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.25	ug/l	
5103-71-9	alpha-Chlordane	ND	0.50	ug/l	
5103-74-2	gamma-Chlordane	ND	0.50	ug/l	
60-57-1	Dieldrin	ND	0.25	ug/l	
72-54-8	4,4'-DDD	ND	0.50	ug/l	
72-55-9	4,4'-DDE	ND	0.50	ug/l	
50-29-3	4,4'-DDT	ND	0.50	ug/l	
72-20-8	Endrin	ND	0.50	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.50	ug/l	
7421-93-4	Endrin aldehyde	ND	0.50	ug/l	
53494-70-5	Endrin ketone	ND	0.50	ug/l	
959-98-8	Endosulfan-I	ND	0.25	ug/l	
33213-65-9	Endosulfan-II	ND	0.50	ug/l	
76-44-8	Heptachlor	ND	0.25	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.25	ug/l	
72-43-5	Methoxychlor	ND	1.0	ug/l	
8001-35-2	Toxaphene	ND	12	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		30-160%
2051-24-3	Decachlorobiphenyl	95%		30-160%

(a) Dilution required due to matrix interference.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

APPENDIX C
Support Documentation

F5356

HOLDING TIME

12/14/99

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UG/L	CEF-B01-GW-01S-02	F5356-1	NORMAL	F5356	PEST	11/23/99	11/24/99	12/02/99	1	8	9
UG/L	CEF-B01-GW-DU01	F5356-2	NORMAL	F5356	PEST	11/23/99	11/24/99	12/02/99	1	8	9