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NAS CECIL FIELD, FL
5090.3a

SAMPLING AND ANALYSIS WORK PLAN FOR OPERABLE UNIT 5 (OU 5) SITE 15 NAS
CECIL FIELD FL
3/29/2000
TETRA TECH NUS INC

**Sampling and Analysis Work Plan
Site 15, Operable Unit 5
Naval Air Station Cecil Field
Jacksonville, Florida**

**32215-005
04.02.05.0005**

March 29, 2000

Sampling and analysis of existing monitoring wells is proposed to investigate groundwater at Site 15. The locations of the existing wells are as shown in Figure A. The groundwater sampling effort is being conducted to determine if soil contamination in excess of the established leachability criteria has impacted groundwater. Previous soil investigations identified contamination in excess of FDEP Soil Cleanup Target Level for leachability for PAHs, lead, antimony, arsenic, 2,4,6-trinitrotoluene, 3-nitrotoluene, and 4-nitrotoluene.

The groundwater sampling activities and procedures described in this Work Plan will be performed in accordance with the U.S. EPA Region 4 Environmental Investigation Standard Operating Procedures and Quality Assurance Manual (EISOPQAM) and the Base-Wide Generic Work Plan for Naval Air Station (NAS) Cecil Field. Specifically, the Base-Wide Generic Work Plan includes procedures for management of investigation-derived wastes in Volume I and standard operating procedures in the Project Operations Plan in Volume II. **Purging of the wells prior to collection of the sample will be conducted in accordance with the SOP and it is important that the turbidity requirements are met. The groundwater will be sampled using low-flow techniques.** Due to the potentially remote locations of the monitoring wells to be sampled, it may be necessary to place the IDW drums in an area other than next to the wells so they are accessible by truck.

Personnel protection equipment and other waste trash (e.g. disposable trowels) will not be considered hazardous and will be disposed in a municipal landfill. Such trash will be collected in a plastic bag and disposed in a suitable trash receptacle.

Sampling handling, bottleware, preservation, and holding time requirements for the analysis proposed for this sampling event are as identified in the following table:

Analysis ⁽¹⁾	Analytical Method	Bottleware	Preservation	Holding Time ⁽²⁾
PAHs	SW-846 8310	2 1-liter amber glass; Teflon-lined lid	Cool to 4°C	7 days to extraction; 40 days to analysis
Lead, arsenic, and antimony	SW-846-6010B	1 1-liter HDPE	Cool to 4°C pH < 2 with NHO ₃	180 days to analysis
Energetics / Nitroaromatics (2,4,6-trinitrotoluene, 3-nitrotoluene, and 4-nitrotoluene)	SW-846-8330	1 2-liter amber glass	Cool to 4°C	7 days to extraction; 40 days to analysis

(1) Verify detection limits achieve GCTLs.

(2) Holding times are measured from the date/time of sample collection.

Analytical results will be provided on a 14-day turn around basis.

The laboratory contracted to do this work is as follows:

ACCUTEST SOUTHEAST
4405 Vineland Road, Suite C-15
Orlando, Florida 32881
Attention: Linda Williams
(407) 425-6700 Fax: (407) 425-0707

As agreed upon by the BCT, the collection of rinsate and trip blanks has been eliminated at NAS Cecil Field. In addition, field blanks will not be collected during this sampling program because there will be no decontamination of sampling equipment. In accordance with these changes, the following table summarizes the frequency and type of field Quality Assurance/Quality Control (QA/QC) samples to be collected for this sampling program.

Type of Samples	Frequency	Samples to be Collected
Field Duplicate	1/10 sample/matrix	1 groundwater
Lab MS/MSD	1/20 samples	1 groundwater ⁽¹⁾

⁽¹⁾ MS/MSD is a laboratory QA/QC requirement, separate sample not required, only additional volume.

As agreed upon by the BCT, formal data validation has been eliminated from the installation restoration program at NAS Cecil Field. However, the analytical data packages generated by the analytical laboratory will be reviewed by Tetra Tech NUS personnel to eliminate false positives and false negative results.

Table 1
Groundwater Sampling and Analysis
Site 15, OU5

Sample ID	Location	Analysis			
		Energetics / Nitroaromatics (2,4,6-trinitrotoluene, 3-nitrotoluene, and 4-nitrotoluene)	PAHs	Lead, arsenic, and antimony	
				Filtered	Unfiltered (1)
CEF-015-GW-01S-01	Existing Monitoring Well CEF-015-01S	X	X	X	X
CEF-015-GW-02S-01	Existing Monitoring Well CEF-015-02S	X	X	X	X
CEF-015-GW-03S-01	Existing Monitoring Well CEF-015-03S	X	X	X	X
CEF-015-GW-04S-01	Existing Monitoring Well CEF-015-04S	X	X	X	X
CEF-015-GW-05S-01	Existing Monitoring Well CEF-015-05S	X	X	X	X
CEF-015-GW-06S-01	Existing Monitoring Well CEF-015-06S	X	X	X	X
CEF-015-GW-07S-01	Existing Monitoring Well CEF-015-07S	X	X	X	X
CEF-015-GW-08S-01	Existing Monitoring Well CEF-015-08S	X	X	X	X

(1) Filter using a 1-micron filter during collection of the sample.

