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NAS CECIL FIELD, FL
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"SECOND SEMI-ANNUAL/ANNUAL GROUNDWATER MONITORING LETTER REPORT
YEAR 1 FOR BUILDING 860 TANKS 860 A, B AND D NAS CECIL FIELD FL"

3/26/2002

TETRA TECH NUS INC

**TETRA TECH NUS, INC.**

661 Andersen Drive ■ Pittsburgh, Pennsylvania 15220-2745
(412) 921-7090 ■ FAX (412) 921-4040 ■ www.tetrattech.com

Document Tracking No. 02JAX0072

March 26, 2002

Project Number N0394

Commander; Southern Division
Naval Facilities Engineering Command
ATTN: Mr. Wayne Hansel (Code ES24)
2155 Eagle Drive
North Charleston, South Carolina 29406

Reference: CLEAN Contract No. N62467-94-D-0888
Contract Task Order No. 0108

Subject: Groundwater Monitoring Report
2nd Semi-Annual/Annual Report, 1st Year (February 2002)
Building 860 –Tanks 860 A/B/D
Naval Air Station Cecil Field
Jacksonville, Florida

Dear Mr. Hansel:

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit this Groundwater Monitoring Report for the referenced Contract Task Order (CTO). This report was prepared by TtNUS for the U.S. Navy Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM) under the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract Number N62467-94-D-0888. The objective of this task is to monitor groundwater associated with the site semi-annually. The guidance document for this report is Chapter 62-770, Florida Administrative Code (FAC). The sampling program was accomplished in general accordance with the Natural Attenuation Monitoring Only Plan (MOP) Approval Order that was issued by the Florida Department of Environmental Protection (FDEP) on April 6, 2001 (Attachment A). This report summarizes the fieldwork and analytical results for the subject site that was conducted in February 2002. The work was performed in general accord with the Base-wide Generic Work Plan Volumes I and II (TtNUS, 1998).

FIELD OPERATIONS

Figure 1 shows the location of the site. On February 1, 2002, water level measurements were obtained from eight monitoring wells prior to sample collection. The depth to water ranged from 5.72 to 6.60 feet (ft) below top of casing (btoc). The depth-to-water measurements, along with top-of-casing elevations, were used to calculate groundwater elevations.

Groundwater samples were collected on February 1, 2002 from five monitoring wells in general accordance with the MOP Approval Order, and analyzed for total recoverable petroleum hydrocarbons (TRPH). Those wells included CEF-860-2S (perimeter well), CEF-860-3S (contaminated well), CEF-860-4S (contaminated well), CEF-860-7S (perimeter well), and CEF-860-8S (perimeter well).

Following collection efforts, the groundwater samples were shipped on ice and under chain of custody to Accutest Laboratories in Orlando, Florida, for analysis. The samples were analyzed using the Florida - Petroleum Range Organics (FL-PRO) method for TRPH.

RESULTS

Figure 2 illustrates the groundwater elevations as measured on February 1, 2002. The groundwater contours indicate the flow is to the northwest. Table 1 provides the water table elevation data for the event.

The laboratory reports for this event are provided as Attachment B, and the results are summarized in Table 2. The laboratory data indicates that TRPH concentrations were below the applicable GCTL and milestone objectives in all of the five monitoring wells that were sampled.

The historical laboratory data for the site is included on Table 3. This table indicates the historical TRPH data for well CEF-860-2S is generally below the GCTL with the single exception during the August 2001 sampling event. The historical data for the contaminated wells (CEF-860-3S and CEF-860-4S) indicates that the TRPH concentrations for those wells are decreasing. The historical data for the downgradient perimeter wells (CEF-860-7S and CEF-860-8S) continues to indicate little to no impact from TRPH.

CONCLUSIONS AND RECOMMENDATIONS

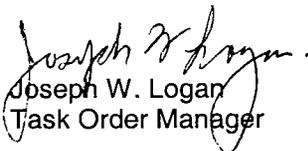
Groundwater flow direction to the northwest has remained generally unchanged for this site.

Figure 3 depicts TRPH concentrations that were detected in the groundwater samples. The analytical data shows that the TRPH concentrations are below the GCTL. The groundwater flow has consistently been to the northwest for the past two events and well CEF-860-7S appears to be side gradient to flow from the contaminated wells. The contaminated well (CEF-860-4S) that CEF-860-7S was intended to monitor, has been reported with a TRPH concentration below the GCTL for the last two events. For these reasons, TtNUS recommends:

1. Dropping well CEF-860-7S from the monitoring program.
2. One more sampling event to determine no further action in accordance with the MOP Approval Order.

The next semi-annual sampling event is scheduled for August 2002. If you have any questions with regard to this submittal, or if we can be of assistance in any way, please contact Joe Logan at (412) 921-7231.

Sincerely,


Joseph W. Logan
Task Order Manager


Debbie Wroblewski
Program Manager

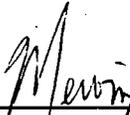
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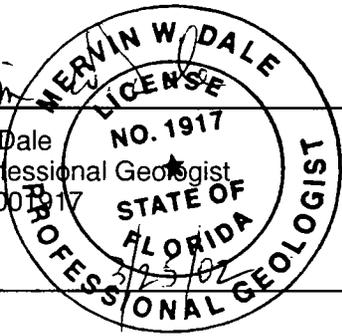
Attachments (9)

cc: D. Grabka, FDEP
D. Taylor, USEPA
D. Wroblewski, TtNUS (cover letter only)
M. Perry, TtNUS (unbound)/File CTO 108
Project File

PROFESSIONAL REVIEW CERTIFICATION

The 2nd Semi-Annual/Annual Groundwater Monitoring Report, 1st Year (February 2002) for Building 860, Tank 860 A/B/D was prepared using sound hydrogeologic principles and judgment. This report is based on the groundwater monitoring activities and associated information detailed in the text and appended to this report. If conditions are determined to exist that differ from those described, the undersigned geologist should be notified to evaluate the effects of any additional information on the monitoring activities described in this report. This report was developed for Building 860, Tanks 860 A/B/D at the former NAS Cecil Field, Jacksonville, Florida, and should not be construed to apply to any other site.


Mervin W. Dale
Florida Professional Geologist
P.G. No. 0001917



Date

TABLES

TABLE 1

MONITORING WELL CONSTRUCTION AND WATER TABLE ELEVATION DATA
 BUILDING 860 TANKS A/B/D
 GROUNDWATER MONITORING REPORT
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA

Monitoring Well Identification	Total depth (feet, btoc)	Screened interval (feet, btoc)	Top of casing elevation (feet, msl)	February 18, 2001		August 6, 2001		February 1, 2002	
				Depth to water (feet, btoc)	Water Level Elevation (feet, msl)	Depth to water (feet, btoc)	Water Level Elevation (feet, msl)	Depth to water (feet, btoc)	Water Level Elevation (feet, msl)
CEF-860-1S	15	5-15	74.63	7.30	67.33	6.05	68.58	6.60	68.03
CEF-860-2S	14	4-14	73.53	6.41	67.12	5.30	68.23	5.93	67.60
CEF-860-3S	14	4-14	73.73	6.58	67.15	5.44	68.29	6.09	67.64
CEF-860-4S	14	4-14	74.35	6.98	67.37	5.76	68.59	6.44	67.91
CEF-860-5S	14	4-14	74.46	7.02	67.44	5.84	68.62	6.51	67.95
CEF-860-6S	14	4-14	74.02	6.41	67.61	5.23	68.79	5.89	68.13
CEF-860-7S	14	4-14	73.35	6.19	67.16	5.00	68.35	5.72	67.63
CEF-860-8S	14	4-14	73.35	6.70	66.65	5.51	67.84	6.22	67.13

Notes:

btoc = below top of casing

msl = mean sea level

Elevation is referenced to 1988 NGVD

TABLE 2

SUMMARY OF DETECTIONS
 BUILDING 860 TANKS A/B/D
 GROUNDWATER MONITORING REPORT
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA

Location	Contaminated Monitoring Wells		Perimeter Monitoring Wells			Action Levels for Perimeter Wells/ Contaminated Wells	Milestone Objective for contaminated wells after year 1
	CEF-860-3S	CEF-860-4S	CEF-860-2S	CEF-860-7S	CEF-860-8S		
Sample Date	1-Feb-02	1-Feb-02	1-Feb-02	1-Feb-02	1-Feb-02		
Total Petroleum Hydrocarbons (mg/L)							
TRPH	0.975	0.364	0.559	0.28U	0.326	5/50	13

Notes:

Bold values are greater than action levels.
 mg/L - milligram per liter
 U = undetected at detection limit shown.

TABLE 3

HISTORICAL ANALYTICAL DATA
 BUILDING 860 TANKS A/B/D
 GROUNDWATER MONITORING REPORT
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA
 PAGE 1 OF 4

Location	FDEP	CEF-860-1S	CEF-860-1S	CEF-860-1S
Sample Number	GCTL	CEF-860-1S	CEF-860-GW-1S-03	CEF-860-GW-DU06
Sample Date	FAC 62-777	10-Jul-98	10-May-00	10-May-00
Well Depth, feet		15	15	15

Volatile Organic Compounds (µg/L)

ETHYLBENZENE	30	21	NM	NM
XYLENES	20	1.7	NM	NM

Semivolatile Organic Compounds (µg/L)

1-METHYLNAPHTHALENE	20	40	2 U	2 U
2-METHYLNAPHTHALENE	20	45	2 U	2 U
ACENAPHTHENE	20	2 U	2 U	2 U
ANTHRACENE	2100	3	2 U	2 U
BENZO(G,H,I)PERYLENE	210	0.2 U	0.2 U	0.2 U
NAPHTHALENE	20	27	2 U	2 U
PHENANTHRENE	210	2.6	2 U	2 U
PYRENE	210	3	2 U	2 U

Total Petroleum Hydrocarbons (mg/L)

TRPH	5	12	3.33	2.88
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Location	FDEP	CEF-860-2S	CEF-860-2S	CEF-860-2S	CEF-860-2S
Sample Number	GCTL	CEF-860-GW-2S-01	CEF-860-GW-2S	CEF-860-GW-2S-01A	CEF-860-2S-05
Sample Date	FAC 62-777	6-Oct-99	6-Aug-01	11-Sep-01	1-Feb-02
Well Depth, feet		14	14	14	14

Volatile Organic Compounds (µg/L)

ETHYLBENZENE	30	1 U	NM	NM	NM
XYLENES	20	3 U	NM	NM	NM

Semivolatile Organic Compounds (µg/L)

1-METHYLNAPHTHALENE	20	1 U	NM	NM	NM
2-METHYLNAPHTHALENE	20	1 U	NM	NM	NM
ACENAPHTHENE	20	1 U	NM	NM	NM
ANTHRACENE	2100	1 U	NM	NM	NM
BENZO(G,H,I)PERYLENE	210	0.16 U	NM	NM	NM
NAPHTHALENE	20	1 U	NM	NM	NM
PHENANTHRENE	210	1 U	NM	NM	NM
PYRENE	210	1 U	NM	NM	NM

Total Petroleum Hydrocarbons (mg/L)

TRPH	5	1.09	17.4	0.215	0.559
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See notes at end of table.

TABLE 3

HISTORICAL ANALYTICAL DATA
 BUILDING 860 TANKS A/B/D
 GROUNDWATER MONITORING REPORT
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA
 PAGE 2 OF 4

Location	FDEP	CEF-860-3S	CEF-860-3S	CEF-860-3S	CEF-860-3S
Sample Number	GCTL	CEF-860-GW-3S-01	CEF-860-GW-3S-03	CEF-860-GW-3S	CEF-860-3S-05
Sample Date	FAC 62-777	7-Oct-99	10-May-00	6-Aug-01	1-Feb-02
Well Depth, feet		14	14	14	14
Volatile Organic Compounds (µg/L)					
ETHYLBENZENE	30	1 U	NM	NM	NM
XYLENES	20	3 U	NM	NM	NM
Semivolatile Organic Compounds (µg/L)					
1-METHYLNAPHTHALENE	20	1.1 UJ	2 U	NM	NM
2-METHYLNAPHTHALENE	20	1.1 UJ	2 U	NM	NM
ACENAPHTHENE	20	1.1 UJ	2 U	NM	NM
ANTHRACENE	2100	1 U	2 U	NM	NM
BENZO(G,H,I)PERYLENE	210	0.17 UJ	0.2 U	NM	NM
NAPHTHALENE	20	1.1 UJ	2 U	NM	NM
PHENANTHRENE	210	1.1 UJ	2 U	NM	NM
PYRENE	210	1 UJ	2 U	NM	NM
Total Petroleum Hydrocarbons (mg/L)					
TRPH	5	6.86	13.6	5.62	0.975
Location					
Sample Number	FDEP	CEF-860-4S	CEF-860-4S	CEF-860-4S	CEF-860-4S
Sample Date	GCTL	CEF-860-GW-4S-01	CEF-860-GW-4S-03	CEF-860-GW-4S	CEF-860-GW-4S
Sample Date	FAC 62-777	7-Oct-99	10-May-00	6-Aug-01	1-Feb-02
Well Depth, feet		14	14	14	14
Volatile Organic Compounds (µg/L)					
ETHYLBENZENE	30	1 U	NM	NM	NM
XYLENES	20	3 U	NM	NM	NM
Semivolatile Organic Compounds (µg/L)					
1-METHYLNAPHTHALENE	20	1 UJ	2 U	NM	NM
2-METHYLNAPHTHALENE	20	1 UJ	2 U	NM	NM
ACENAPHTHENE	20	1 UJ	2 U	NM	NM
ANTHRACENE	2100	1 U	2 U	NM	NM
BENZO(G,H,I)PERYLENE	210	0.44 J	0.2 U	NM	NM
NAPHTHALENE	20	1 UJ	2 U	NM	NM
PHENANTHRENE	210	1 UJ	2 U	NM	NM
PYRENE	210	1 UJ	2 U	NM	NM
Total Petroleum Hydrocarbons (mg/L)					
TRPH	5	26	10.9	0.389	0.364

See notes at end of table.

TABLE 3

HISTORICAL ANALYTICAL DATA
 BUILDING 860 TANKS A/B/D
 GROUNDWATER MONITORING REPORT
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA
 PAGE 3 OF 4

Location	FDEP	CEF-860-5S	CEF-860-5S	CEF-860-5S
Sample Number	GCTL	CEF-860-GW-5S-01	CEF-860-GW-DU02	CEF-860-GW-5S-03
Sample Date	FAC 62-777	6-Oct-99	6-Oct-99	10-May-00
Well Depth, feet		14	14	14
Volatile Organic Compounds (µg/L)				
ETHYLBENZENE	30	1 U	1 U	NM
XYLENES	20	3 U	3 U	NM
Semivolatile Organic Compounds (µg/L)				
1-METHYLNAPHTHALENE	20	16.5	11	10
2-METHYLNAPHTHALENE	20	18.1	11.8	12.7
ACENAPHTHENE	20	13.4	9.8	2 U
ANTHRACENE	2100	1 U	1 U	2 U
BENZO(G,H,I)PERYLENE	210	0.15 U	0.15 U	0.2 U
NAPHTHALENE	20	21.7	15.5	13.8
PHENANTHRENE	210	2.6	1.8	2 U
PYRENE	210	1 U	1 U	2 U
Total Petroleum Hydrocarbons (mg/L)				
TRPH	5	13.5	16.5	5.48

Location	FDEP	CEF-860-6S	CEF-860-6S
Sample Number	GCTL	CEF-860-GW-6S-02	CEF-860-GW-DU03-02
Sample Date	FAC 62-777	18-Feb-00	18-Feb-00
Well Depth, feet		14	14
Volatile Organic Compounds (µg/L)			
ETHYLBENZENE	30	1 U	1 U
XYLENES	20	3 U	3 U
Semivolatile Organic Compounds (µg/L)			
1-METHYLNAPHTHALENE	20	1 U	1 U
2-METHYLNAPHTHALENE	20	1 U	1 U
ACENAPHTHENE	20	1 U	1 U
ANTHRACENE	2100	1 U	1 U
BENZO(G,H,I)PERYLENE	210	0.16 U	0.16 U
NAPHTHALENE	20	1 U	1 U
PHENANTHRENE	210	1 U	1 U
PYRENE	210	1 U	1 U
Total Petroleum Hydrocarbons (mg/L)			
TRPH	5	0.25 U	0.28 U

See notes at end of table.

TABLE 3

HISTORICAL ANALYTICAL DATA
 BUILDING 860 TANKS A/B/D
 GROUNDWATER MONITORING REPORT
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA
 PAGE 4 OF 4

Location	FDEP GCTL FAC 62-777	CEF-860-7S CEF-860-GW-7S-02 18-Feb-00 14	CEF-860-7S CEF-860-GW-7S 6-Aug-01 14	CEF-860-7S CEF-860-GW-DUP1 6-Aug-01 14	CEF-860-7S CEF-860-GW-7S 1-Feb-02 14
Sample Number					
Sample Date					
Well Depth, feet					
Volatile Organic Compounds (µg/L)					
ETHYLBENZENE	30	1 U	NM	NM	NM
XYLENES	20	3 U	NM	NM	NM
Semivolatile Organic Compounds (µg/L)					
1-METHYLNAPHTHALENE	20	NM	NM	NM	NM
2-METHYLNAPHTHALENE	20	NM	NM	NM	NM
ACENAPHTHENE	20	NM	NM	NM	NM
ANTHRACENE	2100	NM	NM	NM	NM
BENZO(G,H,I)PERYLENE	210	NM	NM	NM	NM
NAPHTHALENE	20	NM	NM	NM	NM
PHENANTHRENE	210	NM	NM	NM	NM
PYRENE	210	NM	NM	NM	NM
Total Petroleum Hydrocarbons (mg/L)					
TRPH	5	0.28 U	0.25 U	0.25 U	0.28 U

Location	FDEP GCTL FAC 62-777	CEF-860-8S CEF-860-GW-8S-02 18-Feb-00 14	CEF-860-8S CEF-860-GW-8S 6-Aug-01 14	CEF-860-8S CEF-860-GW-8S 1-Feb-02 14
Sample Number				
Sample Date				
Well Depth, feet				
Volatile Organic Compounds (µg/L)				
ETHYLBENZENE	30	1 U	NM	NM
XYLENES	20	3 U	NM	NM
Semivolatile Organic Compounds (µg/L)				
1-METHYLNAPHTHALENE	20	NM	NM	NM
2-METHYLNAPHTHALENE	20	NM	NM	NM
ACENAPHTHENE	20	NM	NM	NM
ANTHRACENE	2100	NM	NM	NM
BENZO(G,H,I)PERYLENE	210	NM	NM	NM
NAPHTHALENE	20	NM	NM	NM
PHENANTHRENE	210	NM	NM	NM
PYRENE	210	NM	NM	NM
Total Petroleum Hydrocarbons (mg/L)				
TRPH	5	0.907	0.28 U	0.326

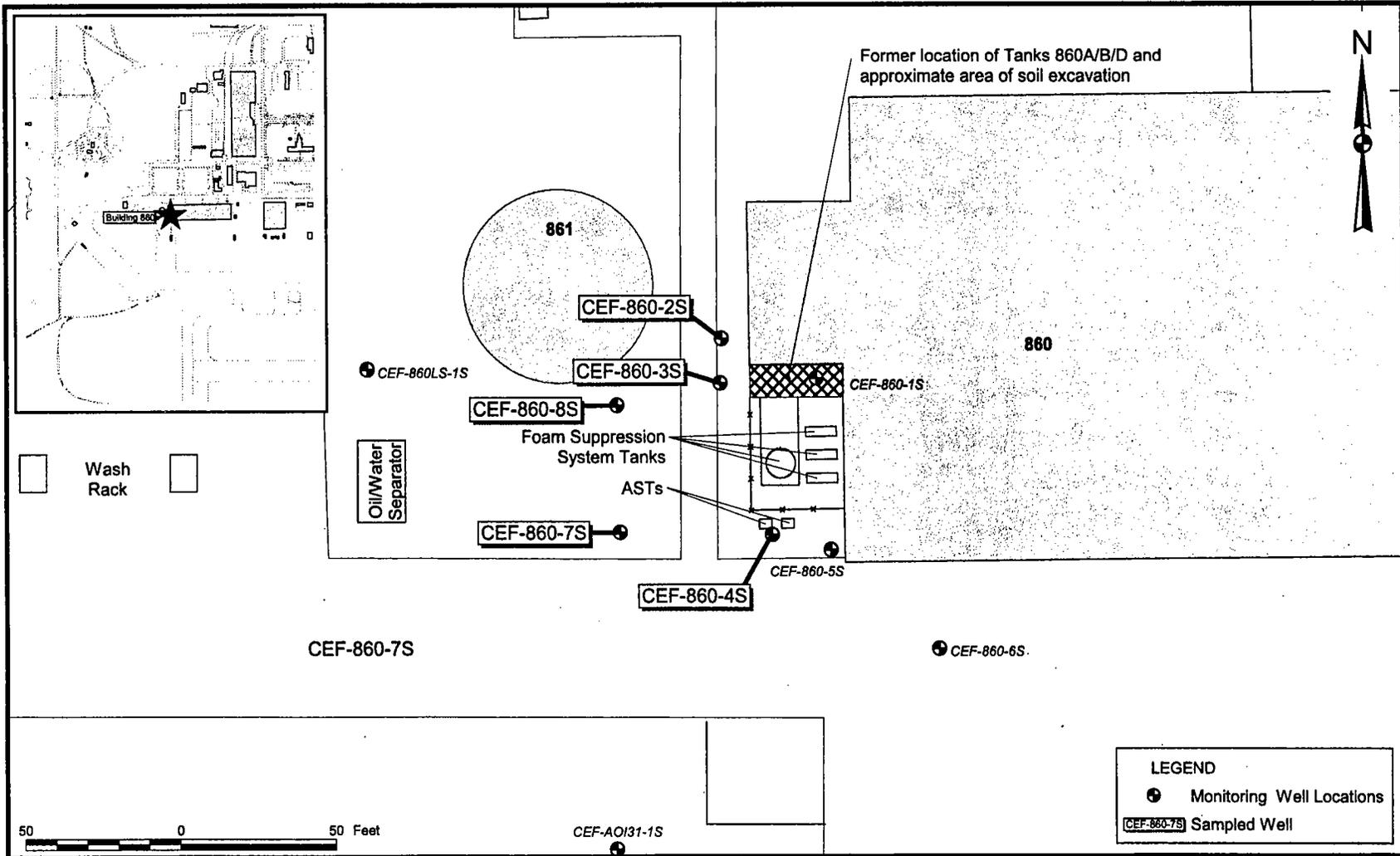
Notes:

GCTL - Groundwater Cleanup Target Level
 Bold values are greater than criteria.
 µg/L - microgram per liter

mg/L - milligram per liter
 NM - Not measured
 U - Undetected at detection limit shown

J - Estimated value

FIGURES

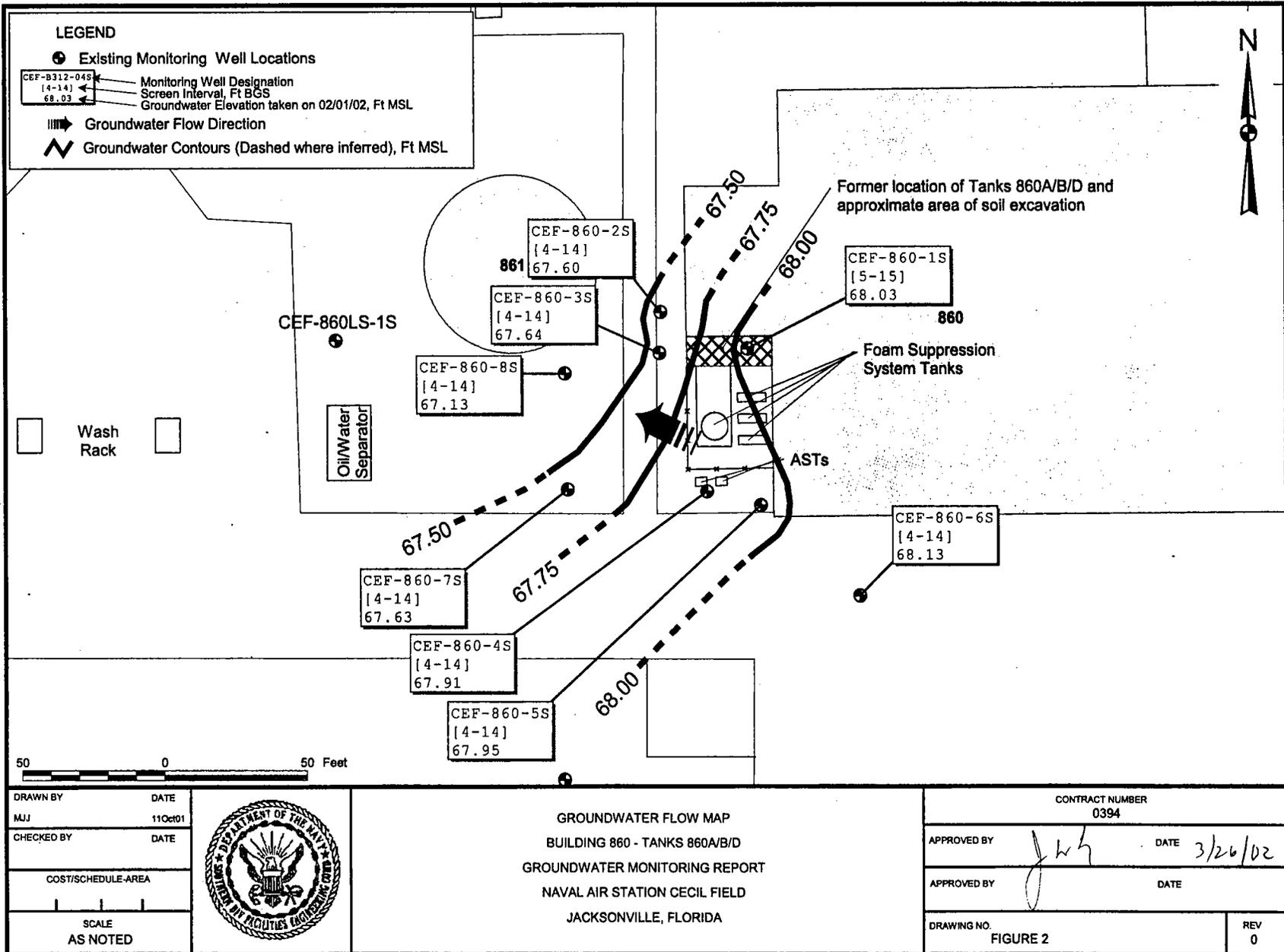


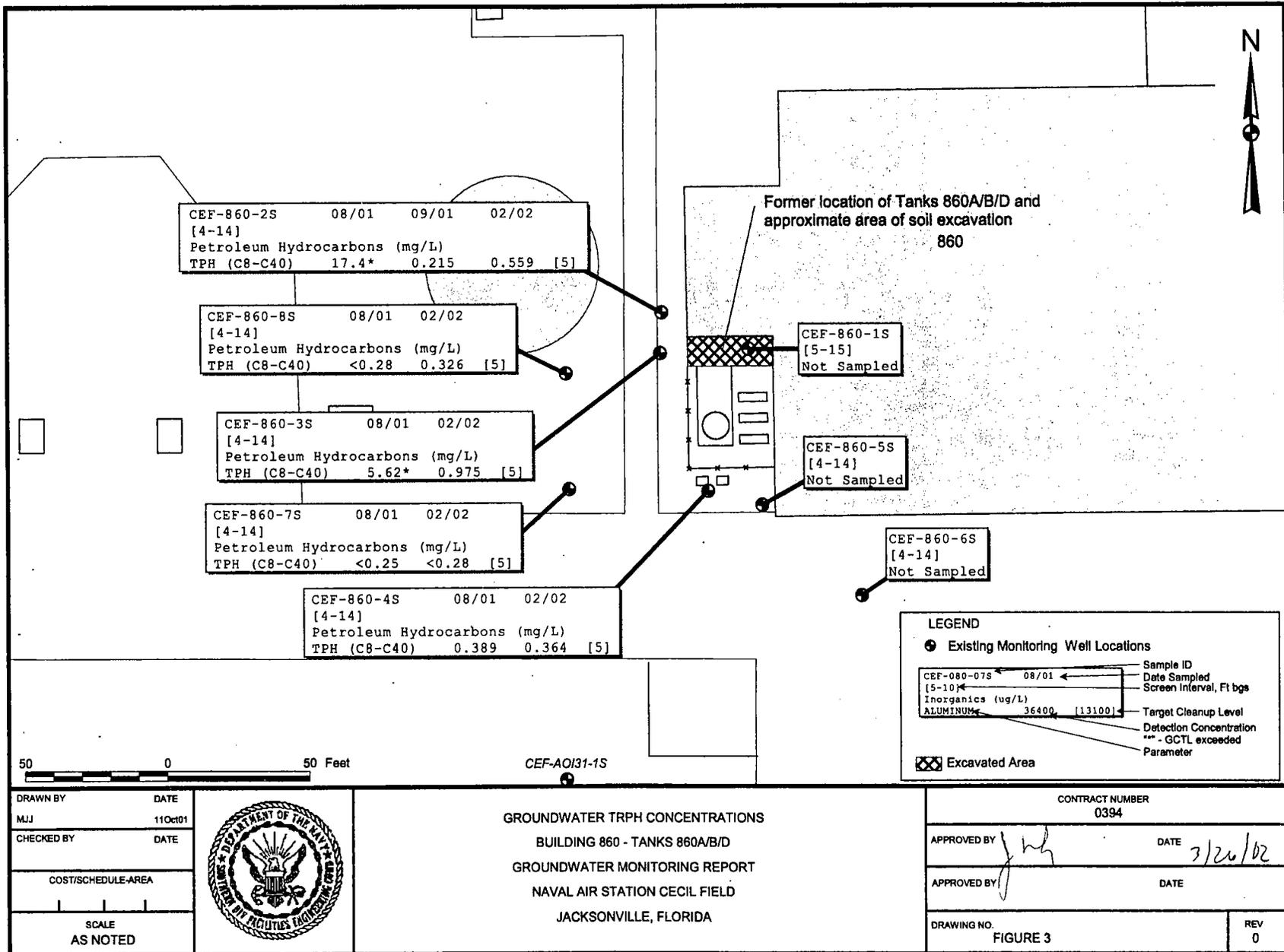
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MJJ	20Dec99
CHECKED BY	DATE
COST/SCHEDULE-AREA	
SCALE	
AS NOTED	



SITE PLAN
 BUILDING 860 - TANKS 860A/B/D
 GROUNDWATER MONITORING REPORT
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA

CONTRACT NUMBER	
0394	
APPROVED BY	DATE
<i>[Signature]</i>	3/26/02
APPROVED BY	DATE
DRAWING NO.	REV
FIGURE 1	0





ATTACHMENT A
FDEP MONA APPROVAL ORDER



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

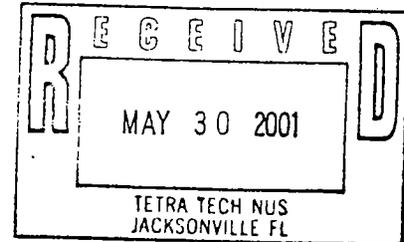
CC Dale
Callyan

(CTD 108)

David B. Struhs
Secretary

April 6, 2001

Mr. Nick Ugolini
Code 1843 (UST RPM)
Southern Division
Naval Facilities Engineering Command
Post Office Box 190010
North Charleston, South Carolina 29419-9010



RE: **Site Assessment Report Addendum, Building 860, Tanks 860 +
A/B/D, Naval Air Station Cecil Field, Jacksonville, Florida**

Dear Mr. Ugolini:

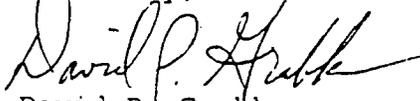
I have completed the review of the Site Assessment Report Addendum (SARA) and Monitoring Only Proposal (MOP) for Building 860, Tanks 860 A/B/D, Naval Air Station Cecil Field, dated March 2001 (received March 19, 2001), prepared and submitted by Tetra Tech NUS, Inc. The SAR provides adequate evidence that natural attenuation at this site will reduce contaminant concentrations to below groundwater cleanup target levels (GCTLs) in five years. I have attached a Monitoring Only Plan Approval Order signed by Douglas A. Jones specifying the actions to be taken in monitoring the site.

Based on the information provided in the SARA, petroleum contaminated soil has been removed to the extent practicable. Building footings, containment wall footings, a road and the water table has limited further removal of contaminated soil. The contaminated soil remaining does not appear to be at concentrations that would cause groundwater contamination above the Departments GCTLs. Also, most of the contaminated soil remaining on site is located beneath structures that act as a cap to prevent leaching of the contaminants to groundwater. As proposed in the SARA, institutional controls should be put in place to restrict access to the residual contaminated material and restrict the site for industrial use. The restrictions should also require that the roadway and earth cover be maintained in good condition.

If I can be of any further assistance with this matter, please contact me at (850) 488-3693.

Mr. Nick Ugolini
Building 860, Tanks 860 A/B/D
Naval Air Station Cecil Field
April 6, 2001
Page Two

Sincerely,



David P. Grabka
Remedial Project Manager

cc: Scott Glass, Southern Division
Debbie Vaughn-Wright, USEPA Region 4
Mark Speranza, TetraTech NUS, Pittsburgh
Sam Ross, CH2M Hill Constructors, Inc.
Mike Fitzsimmons, FDEP Northeast District

TJB



JJC



ESN



Mr. Nick Ugolini
Building 860, Tanks 860 A/B/D
Cecil Field Naval Air Station

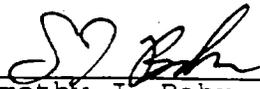
P.G. CERTIFICATION

SARA/MOP for Building 860, Tanks 860 A/B/D

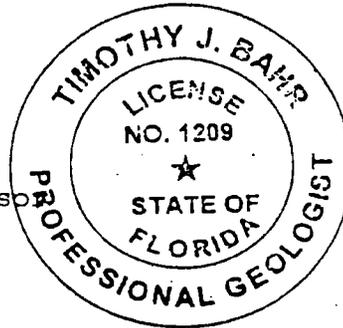
I hereby certify that in my professional judgement, the components of this Site Assessment Report Addendum and Monitoring Only Plan for Building 860, Tanks 860 A/B/D, Cecil Field Naval Air Station, Jacksonville, Florida, satisfy the requirements set forth in Chapter 62-770, F.A.C., and that the geological interpretations in this report provide reasonable assurances of achieving the Assessment objectives stated in Chapter 62-770, F.A.C.

I personally completed this review.

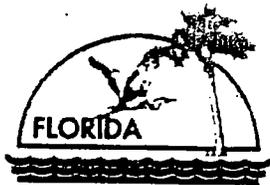
This review was conducted by David P. Grabka working under my supervision.



Timothy J. Bahr, P.G.
Professional Geologist Supervisor
Technical Review Section



4/6/01
Date



Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

April 6, 2001

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Nick Ugolini
Code 1843 (UST RPM)
Southern Division
Naval Facilities Engineering Command
Post Office Box 190010
North Charleston, South Carolina 29419-9010

Subject: Natural Attenuation Monitoring Plan Approval Order
Building 860, Tanks 860 A/B/D
Cecil Field Naval Air Station
Jacksonville, Duval County

Dear Mr. Ugolini:

The Bureau of Waste Cleanup has completed the review of the Site Assessment Report Addendum and Natural Attenuation Monitoring Plan dated March 2001 (received March 19, 2001), submitted for the petroleum product discharge discovered at this site. Pursuant to Rule 62-770.690, Florida Administrative Code (F.A.C.), the Department of Environmental Protection (Department) approves the Natural Attenuation Monitoring Plan. Pursuant to Rule 62-770.690(7), F.A.C., you are required to complete the monitoring program outlined below. The first sampling event should be performed within 60 days of receipt of this Natural Attenuation Monitoring Plan Approval Order (Order). Water-level measurements should be made immediately prior to each sampling event. The analytical results (laboratory report), chain of custody, cumulative summary table of the analytical results, site map(s) illustrating the most recent analytical results, and the water-level elevation information (cumulative summary table and most recent flow interpretation map), should be submitted to the Department within 60 days of sample collection.

The monitoring wells to be sampled, the sampling parameters, and the sampling frequency are as follows:

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

Mr. Nick Ugolini
April 6, 2001
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<u>Monitoring Wells</u>	<u>Contaminants of Concern</u>	<u>Frequency</u>	<u>Duration</u>
CEF-860-3S, CEF-860-4S, CEF-860-2S, CEF-860-7S, CEF-860-8S	TRPH	Semi-annual	Five years

The approved Remedial Action by Natural Attenuation monitoring period is five years. The sampling frequency will be evaluated following the submittal of the first annual report to determine whether semiannual or annual sampling may be appropriate.

The following are the "milestone" objectives that will be used for annual evaluation of remediation progress by natural attenuation. An explanation of the progress relative to these milestone objectives, and the need for corrective action (if applicable), should be provided in the annual evaluation:

<u>TRPH</u>	<u>CEF-860-3S</u>	<u>CEF-860-4S</u>
End of year 1	13 mg/l	13 mg/l
End of year 2	11 mg/l	11 mg/l
End of year 5	<5 mg/l	<5 mg/l

If concentrations of contaminants of concern in any of the designated wells increase above the action levels listed below, the well or wells must be resampled no later than 30 days after the initial positive results are known. If the results of the resampling confirm the initial sampling results, then a proposal must be submitted to the Department, as described in Rule 62-770.690(7)(f), F.A.C.

Contaminated wells:

CEF-860-3S and CEF-860-4S: 50 mg/l TRPH

Perimeter well (temporary point of compliance):

CEF-860-2S, CEF-860-7S and CEF-860-8S: 5 mg/l TRPH

If the applicable No Further Action criteria in Rule 62-770.680, F.A.C., are met at the end of the monitoring period, a Site Rehabilitation Completion Report, summarizing the monitoring program and containing documentation supporting the opinion that the cleanup objectives have been achieved, should be submitted as required in Rule 62-770.690(8), F.A.C. If the applicable No Further Action criteria in Rule 62-770.680, F.A.C., are not met following five years of monitoring, then a report summarizing the monitoring program should be submitted, including a proposal as described in Rule 62-770.690(7)(g), F.A.C.

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Legal Issues

The Department's Order shall become final unless a timely petition for an administrative proceeding (hearing) is filed under Sections 120.569 and 120.57, Florida Statutes (F.S.), within 21 days of receipt of this Order. The procedures for petitioning for a hearing are set forth below.

Persons affected by this Order have the following options:

If you choose to accept the above decision by the Department about the Site Assessment Report Addendum you do not have to do anything. This Order is final and effective as of the date on the top of the first page of this Order.

If you disagree with the decision, you may do one of the following:

- (1) File a petition for administrative hearing with the Department's Office of General Counsel within 21 days of receipt of this Order; or
- (2) File a request for an extension of time to file a petition for hearing with the Department's Office of General Counsel within 21 days of receipt of this Order. Such a request should be made if you wish to meet with the Department in an attempt to informally resolve any disputes without first filing a petition for hearing.

Please be advised that mediation of this decision pursuant to Section 120.573, F.S., is not available.

How to Request an Extension of Time to File a Petition for Hearing

For good cause shown, pursuant to Rule 62-110.106(4), F.A.C., the Department may grant a request for an extension of time to file a petition for hearing. Such a request must be filed (received) in the Department's Office of General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, within 21 days of receipt of this Order. Petitioner, if different from Commanding Officer, Southern Division Naval Facilities Engineering Command, shall mail a copy of the request to Commanding Officer, Southern Division Naval Facilities Engineering Command at the time of filing. Timely filing a request for an extension of time tolls the time period within which a petition for administrative hearing must be made.

How to File a Petition for Administrative Hearing

A person whose substantial interests are affected by this Order may petition for an administrative hearing under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, within 21 days of receipt of this Order. Petitioner, if different from Commanding Officer,

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Southern Division Naval Facilities Engineering Command , shall mail a copy of the petition to Commanding Officer, Southern Division Naval Facilities Engineering Command at the time of filing. Failure to file a petition within this time period shall waive the right of anyone who may request an administrative hearing under Sections 120.569 and 120.57, F.S.

Pursuant to Section 120.54(5)(b)4.a., F.S. (1998, Supp.), and Rule 28-106.201, F.A.C., a petition for administrative hearing shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the name, address, and telephone number of the petitioner's representative, if any, the site owner's name and address, if different from the petitioner, the FDEP facility number, and the name and address of the facility;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) An explanation of how each petitioner's substantial interests are or will be affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by the petitioner, or a statement that there are no disputed facts;
- (e) A statement of the ultimate facts alleged, including a statement of the specific facts the petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the Department to take with respect to the Department's action or proposed action.

This Order is final and effective as of the date on the top of the first page of this Order. Timely filing a petition for administrative hearing postpones the date this Order takes effect until the Department issues either a final order pursuant to an administrative hearing or an order responding to supplemental information provided pursuant to meetings with the Department.

Judicial Review

Any party to this Order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days after this Order is filed with the clerk of the Department (see below).

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Questions

Any questions regarding the Department's review of your Site Assessment Report Addendum should be directed to David P. Grabka at (850) 488-3693. Questions regarding legal issues should be referred to the Department's Office of General Counsel at (850) 488-9314. Contact with any of the above does not constitute a petition for administrative hearing or request for an extension of time to file a petition for administrative hearing.

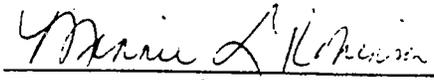
Sincerely,

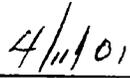

Douglas A. Jones, Chief
Bureau of Waste Cleanup
Division of Waste Management

DAJ/dpg

cc: Mike Fitzsimmons, FDEP Northeast District Office
Scott Glass, Southern Division
Debbie Vaughn-Wright, USEPA Region 4
Mark Speranza, Tetra Tech NUS, Pittsburgh
Sam Ross, CH2M Hill Constructors, Inc.
File

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to
§120.52 Florida Statutes, with the
designated Department Clerk, receipt
of which is hereby acknowledged.


Clerk
(or Deputy Clerk)


Date

ATTACHMENT B
GROUNDWATER ANALYTICAL REPORTS

Report of Analysis

Client Sample ID:	CEF-860-3S-05	Date Sampled:	02/01/02
Lab Sample ID:	F12208-1	Date Received:	02/02/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	FLORIDA-PRO SW846 3510C		
Project:	NAS Cecil Field 0039		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19686.D	1	02/08/02	SKW	02/06/02	OP4610	GOP732
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.975	0.28	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	103%		55-130%	

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-860-7S-05	Date Sampled:	02/01/02
Lab Sample ID:	F12208-2	Date Received:	02/02/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	FLORIDA-PRO SW846 3510C		
Project:	NAS Cecil Field 0039		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	OP19687.D	1	02/08/02	SKW	02/06/02	OP4610	GOP732

CAS No.	Compound	Result	RL	Units Q
	TPH (C8-C40)	ND	0.28	mg/l
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	98%		55-130%

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-860-2S-05	Date Sampled:	02/01/02
Lab Sample ID:	F12208-3	Date Received:	02/02/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	FLORIDA-PRO SW846 3510C		
Project:	NAS Cecil Field 0039		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19688.D	1	02/08/02	SKW	02/06/02	OP4610	GOP732
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.559	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	98%		55-130%

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-860-8S-05	Date Sampled:	02/01/02
Lab Sample ID:	F12208-5	Date Received:	02/02/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	FLORIDA-PRO SW846 3510C		
Project:	NAS Cecil Field 0039		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	OP19690.D	1	02/08/02	SKW	02/06/02	OP4610	GOP732

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.326	0.25	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	94%		55-130%	

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-860-4S-05	Date Sampled:	02/01/02
Lab Sample ID:	F12208-6	Date Received:	02/02/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	FLORIDA-PRO SW846 3510C		
Project:	NAS Cecil Field 0039		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19691.D	1	02/08/02	SKW	02/06/02	OP4610	GOP732
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.364	0.28	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	88%		55-130%	

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-860-DUP1-05	Date Sampled:	02/01/02
Lab Sample ID:	F12208-4	Date Received:	02/02/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	FLORIDA-PRO SW846 3510C		
Project:	NAS Cecil Field 0039		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19689.D	1	02/08/02	SKW	02/06/02	OP4610	GOP732
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.874	0.25	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	96%		55-130%	

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



TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER CF 860-0201021

FR208
PAGE 1

PROJECT NO: N0394	SITE NAME: CECIL FIELD B-860, TANKS 8600 A30	PROJECT MANAGER AND PHONE NUMBER Joe Logan 412 921 7231	LABORATORY NAME AND CONTACT: ACCUTEST LINDA WILLIAMS
SAMPLERS (SIGNATURE) <i>[Signatures]</i>		FIELD OPERATIONS LEADER AND PHONE NUMBER MARVIN Dale 904 281 0400	ADDRESS 4405 Vine land Rd, Ste C-15
		CARRIER/WAYBILL NUMBER FEDEX 8311 6072 7222	CITY, STATE ORLANDO, FL 32811

STANDARD TAT <input checked="" type="checkbox"/>	CONTAINER TYPE PLASTIC (P) or GLASS (G)
RUSH TAT <input type="checkbox"/>	PRESERVATIVE USED
<input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 72 hr. <input type="checkbox"/> 7 day <input type="checkbox"/> 14 day	

DATE YEAR	TIME	SAMPLE ID	MATRIX	GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS		COMMENTS
						TETRA	FL-ARO	
2/1	0950	CEF-860-35-05	GW	G	2	2		Cool to 4°C
2/1	0951	CEF-860-75-05	GW	G	2	2		
2/1	1000	CEF-860-25-05	GW	G	2	2		WORK Release
2/1	0000	CEF-860-DuPl-05	GW	G	2	2		CF-2930 MO

1. RELINQUISHED BY <i>[Signature]</i>	DATE 2/1/02	TIME 1230	1. RECEIVED BY <i>[Signature]</i>	DATE 02/01/02	TIME 1200
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS: Cooler 1

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE)

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FORM NO. TINUS-001



TETRA TECH NUS, INC.

CHAIN OF CUSTODY

| NUMBER CF860-020102 |

PAGE 1 OF 1
F12208

PROJECT NO: N0394		SITE NAME: CECIL FIELD B. 860, TANKS 860A80		PROJECT MANAGER AND PHONE NUMBER Joe Logan 412 921 7231			LABORATORY NAME AND CONTACT: ACCUTEST LINDA WILLIAMS				
SAMPLERS (SIGNATURE) 		FIELD OPERATIONS LEADER AND PHONE NUMBER MERV DALE 904 281 0400			ADDRESS 4405 Vero Land Rd. Ste C-15			CITY, STATE ORLANDO, FL 32811			
STANDARD TAT <input checked="" type="checkbox"/> 21 DAYS RUSH TAT <input type="checkbox"/> <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 72 hr. <input type="checkbox"/> 7 day <input type="checkbox"/> 14 day		CONTAINER TYPE PLASTIC (P) or GLASS (G) G			PRESERVATIVE USED H2SO4			TYPE OF ANALYSIS TR PH FL-PRO			
DATE YEAR 2002		MATRIX			GRAB (G) COMP (C)						No. OF CONTAINERS
TIME		SAMPLE ID			COMMENTS						
2/1		1002 CEF-860-85-05			GW G 2 2			Cool to 4°C			
2/1		1045 CEF-860-45-05			GW G 2 2						
2/1		1045 CEF-860-MSMSD-05			GW G 4 4			Wax Release CF-30			
1. RELINQUISHED BY 		DATE 2/1/02		TIME 1230		1. RECEIVED BY 		DATE 2/1/02		TIME 1600	
2. RELINQUISHED BY		DATE		TIME		2. RECEIVED BY		DATE		TIME	
3. RELINQUISHED BY		DATE		TIME		3. RECEIVED BY		DATE		TIME	
COMMENTS COOLER 2		28									

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