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NAS CECIL FIELD, FL
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JANUARY 2000 TO JULY 2000 GROUNDWATER MONITORING LETTER REPORT FOR NORTH FUEL FARM NAS CECIL FIELD FL

10/20/2000

TETRA TECH NUS INC

N0013-5.7-28

TETRA TECH NUS, INC.
1401 Oven Park Drive • Suite 102 • Tallahassee, FL 32312
(850) 385-9899 • FAX (850) 385-9860 • www.tetratech.com

TTNUS/TAL-00-095/0013-6.2

October 20, 2000

Project Number 0013

Commanding Officer
Department of the Navy
SOUTHNAVFACENGCOM
ATTN: Mr. Nick Ugolini
2155 Eagle Drive
North Charleston, South Carolina 29406

Reference: Clean Contract No. N62467-94-D0888
Contract Task Order No. 0072

Subject: January 2000 - July 2000 Groundwater Monitoring Report
North Fuel Farm
Former Naval Air Station Cecil Field (NASCF), Florida

Dear Mr. Ugolini:

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit this semi-annual Groundwater Monitoring Report for the subject site. This report was prepared for the U.S. Navy Southern Division Naval Facilities Engineering Command (SOUTHNAVFACENGCOM) under Contract Task Order (CTO) 0072, for the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract Number N62467-94-D0888. This report summarizes the fieldwork and analytical results for semi-annual groundwater monitoring performed at the North Fuel Farm (NFF) (Figure 1) between July 11 and 14, 2000. The work was performed in accordance with the Base-wide Generic Work Plan for the former Naval Air Station Cecil Field (NASCF) Volumes I and II (1998).

FIELD INVESTIGATION

On July 11 through 14, 2000, TtNUS personnel collected groundwater samples from 17 monitoring wells, beginning with the well identification prefix CEF-076-, as follows: 11, 21, 30, 39D, 40D, 47I, 51D, 53I, 58I, 63S, 64I, 65D, 67I, 69S, 70I, 71D, and 80D. Monitoring wells CEF-076-75S, 76I and 77D were sampled by the remedial action contractor (RAC) prior to being abandoned in preparation for the current source removal activities at the NFF. The laboratory data for these monitoring wells was not available for this report. Prior to collecting groundwater samples, water level measurements were recorded for each well on July 11, 2000. Water level measurements were recorded to the nearest 0.01-foot. The depth to water ranged from 4.91 feet below top of casing (ft btoc) (CEF-76-30) to 11.79 ft btoc (CEF-76-65D). The water level measurements were subtracted from previously determined top-of-casing elevations to calculate the relative groundwater elevation in each well. The groundwater elevations were used to estimate the groundwater flow direction. However, the calculated elevations were very erratic and inconsistent with results from previous sampling events. It is assumed that the extensive soil excavation activities currently being conducted at the site are impacting the hydrogeology and affecting the water levels in the wells at the site. Therefore, no conclusions could be drawn from

the groundwater elevation data and an easterly groundwater flow direction is assumed based on past monitoring events.

Following collection, the samples were placed on ice and shipped to Severn Trent Laboratories, Inc. Savannah, in Savannah, Georgia via Federal Express. The samples were analyzed by United States Environmental Protection Agency (EPA) Method 8021B for benzene, toluene, ethylbenzene, total xylenes (BTEX) and methyl tert-butyl ether (MTBE); and EPA Method 8310 for polynuclear aromatic hydrocarbons (PAHs). The laboratory analytical results are summarized in Table 1 and depicted on Figure 2. The laboratory analytical reports are provided in Attachment A.

A brief discussion of the results for each well is provided below:

Shallow Monitoring Wells (0 to 25 feet below land surface (bls))

- CEF-76-11 (background) – no contaminants of concern (COCs) detected.
- CEF-76-21 – no COCs detected.
- CEF-76-30 – no COCs detected.

First Intermediate Zone Monitoring Wells (25 to 60 feet bls)

- CEF-76-39D – BTEX and naphthalene exceeded GCTLs.
- CEF-76-40D – no COCs detected.
- CEF-76-63S – xylenes detected below GCTLs.
- CEF-76-69S – benzene and xylenes exceeded GCTLs.
- CEF-76-75S – BTEX and naphthalene exceed GCTLs.

Second Intermediate Zone Monitoring Wells (60 to 90 feet bls)

- CEF-76-47I – no COCs detected.
- CEF-76-53I – no COCs detected.
- CEF-76-58I – BTEX exceeded GCTLs.
- CEF-76-64I – BTEX exceeded GCTLs.
- CEF-76-67I – no COCs detected.
- CEF-76-70I – BTEX and naphthalene exceeded GCTLs.
- CEF-76-71D – no COCs detected.
- CEF-76-76I – benzene and xylenes exceeded GCTLs.

Deep Zone Monitoring Wells (90 to 120 feet bls)

- CEF-76-51D – benzene exceeded GCTL.
- CEF-76-65D – benzene exceeded GCTL.
- CEF-76-77D – no COCs detected.
- CEF-76-80D – benzene exceeded GCTL.

CONCLUSIONS

No COCs were detected in samples collected from the shallow zone monitoring wells.

Laboratory analytical results from samples collected from the first intermediate zone (25 to 60 feet bls) monitoring wells indicate that COC concentrations exceed the GCTLs in that zone.

Laboratory analytical results from samples collected from the second intermediate zone (60 to 90 feet bls) monitoring wells indicate that COC concentrations exceed the GCTLs in that zone.

Laboratory analytical results from samples collected from the deep zone (90 to 120 feet bls) monitoring wells indicate that COC concentrations exceed the GCTLs in that zone.

RECOMMENDATIONS

The North Fuel Farm site is currently undergoing an extensive source removal involving the excavation of approximately 110,000 cubic yards of soil. The excavation extends from land surface to the water table. This extensive excavation could significantly alter the hydrogeology of the site, as suggested by the erratic water levels obtained during this sampling event. Therefore, TtNUS recommends that the NFF monitoring program be discontinued until the source removal is completed in January, 2001. Prior to resuming the monitoring program, TtNUS recommends that a supplemental assessment be conducted to evaluate the impact of the source removal on the dissolved hydrocarbon plume and hydrogeology of the site. If you have any questions with regard to this submittal, please contact me at (850) 385-9899.

Sincerely,

PAUL E. CALLIGAN
LICENSE NO. PG-0001864
STATE OF FLORIDA
PROFESSIONAL GEOLOGIST

Paul E. Calligan, P.G.
Task Order Manager
Florida License No. PG-0001864
Date: 10/20/00

MD/pc

Attachments

cc: Mr. M. Davidson
Mr. D. Grabka
Ms. D. Vaughn-Wright
Mr. S. Glass
Mr. S. Ross
Mr. M. Speranza
Ms. D. Wroblewski (Cover Letter Only)
Mr. M. Perry (Unbound)

FIGURES

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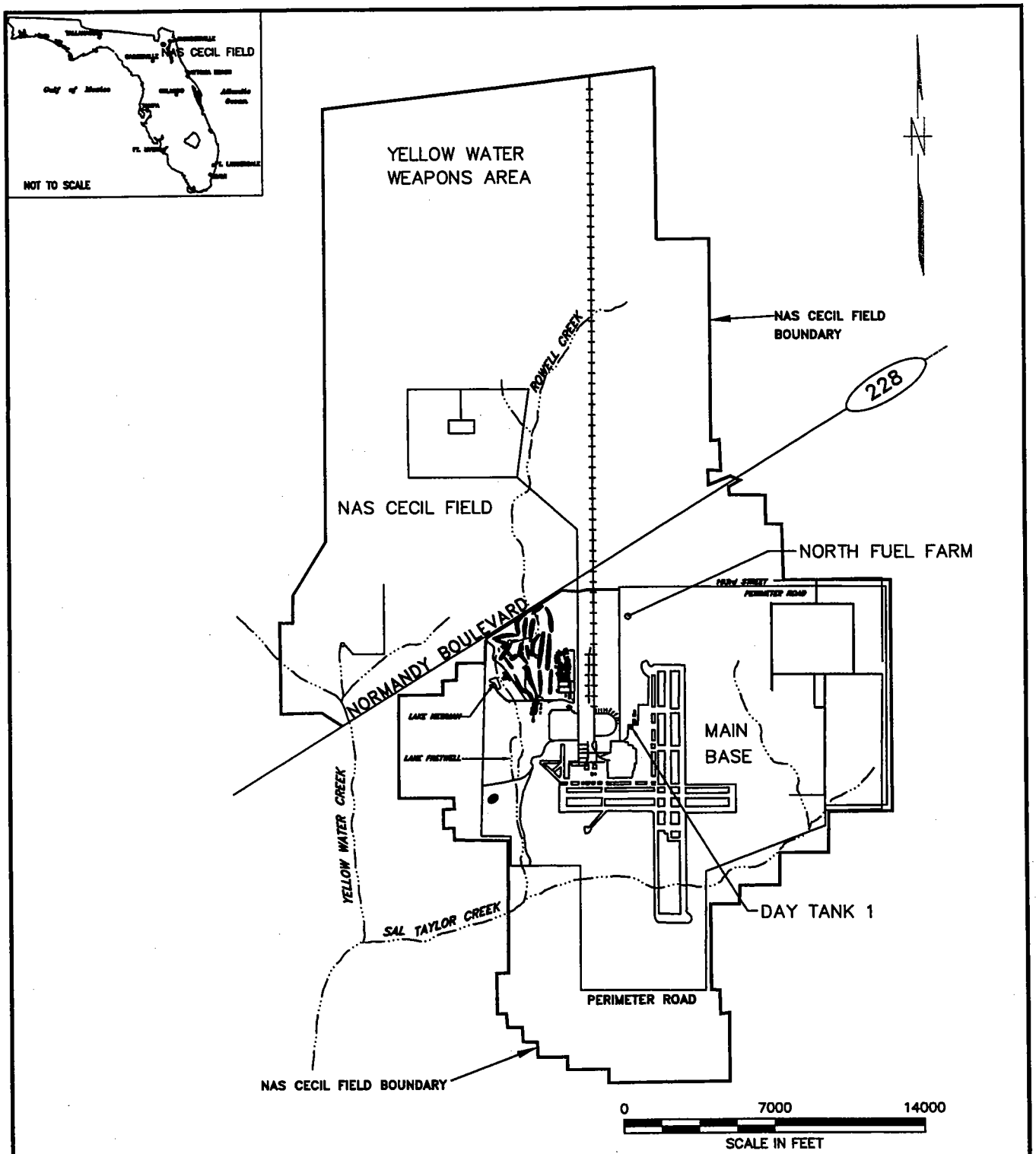

DRAWN BY KW	DATE 3/4/99	SITE LOCATION MAP GROUNDWATER MONITORING REPORT NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NO. 0013
CHECKED BY	DATE		APPROVED BY / DATE
COST/SCHED-AREA			APPROVED BY / DATE
SCALE AS NOTED			DRAWING NO. FIGURE 1 / REV. 0

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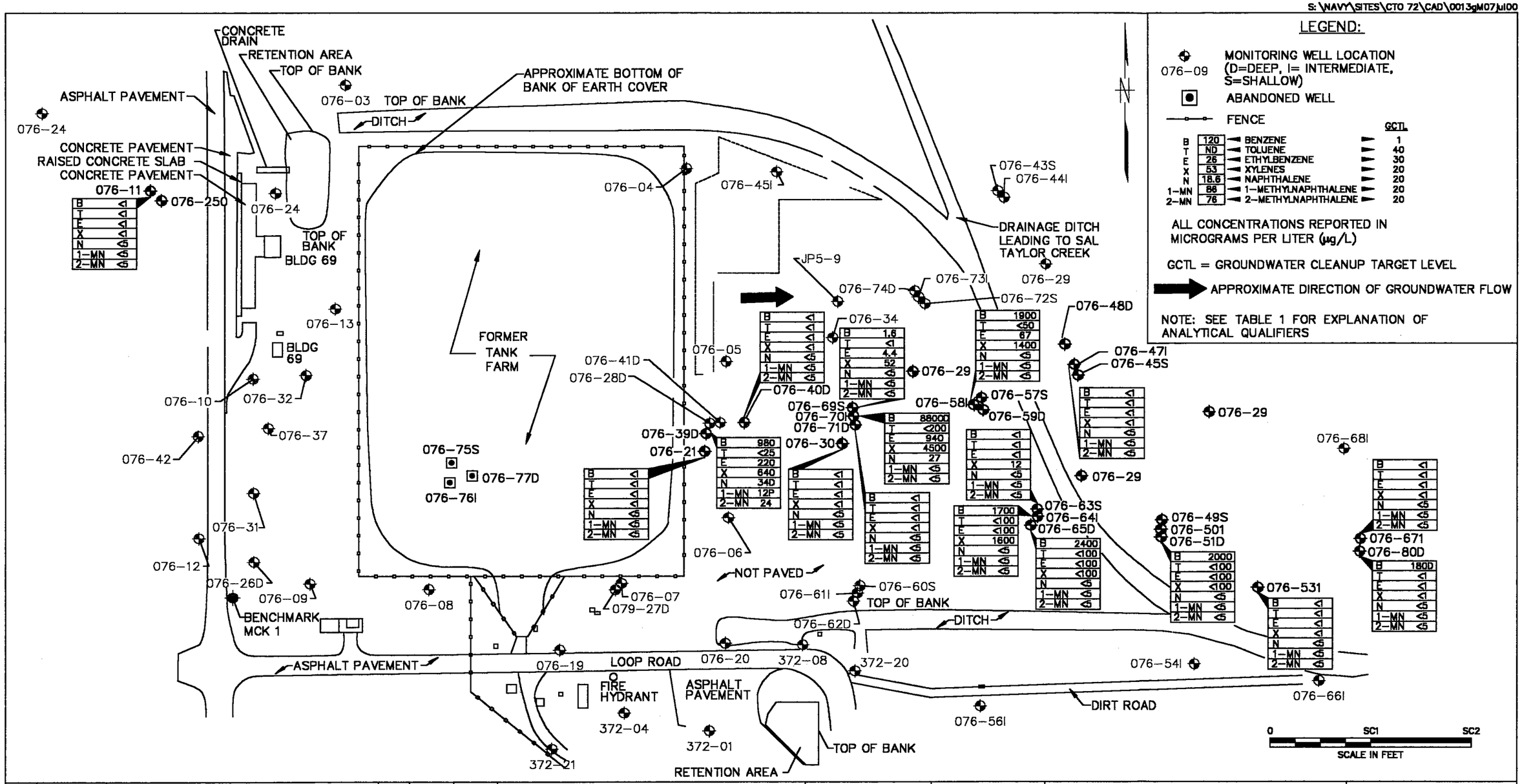

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DRAWN BY CW DATE 10/3/00
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COST/SCHED-AREA
SCALE AS NOTED

NORTH FUEL FARM
GROUNDWATER MONITORING WELL
DISSOLVED HYDROCARBON CONCENTRATIONS
JULY 2000
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

CONTRACT NO. 0013
APPROVED BY DATE
APPROVED BY DATE
DRAWING NO. FIGURE 2
REV. 0

FORM CADD NO. SDIV_BH.DWG – REV 0 – 1/20/98

TABLES

Table 1
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-76-11*							
Sample Date		1993	1996	1997	1998	1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses									
pH (standard units)		NC	NC	NC	NC	NC	4.29	4.09	4.32
Temperature (Fahrenheit)		NC	NC	NC	NC	NC	71.8	64.33	72
Conductivity (see notes)		NC	NC	NC	NC	NC	0.095	0.085	0.068
Turbidity (NTU)		NC	NC	NC	NC	NC	NM	165	28
Compounds									
Benzene (µg/L)	1	NC	NC	NC	NC	NC	ND	<1.0	<1.0
Toluene (µg/L)	40	NC	NC	NC	NC	NC	ND	<1.0	<1.0
Ethylbenzene (µg/L)	30	NC	NC	NC	NC	NC	ND	<1.0	<1.0
Xylenes (µg/L)	20	NC	NC	NC	NC	NC	ND	<1.0	<1.0
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (µg/L)	N/A	NC	NC	NC	NC	NC	ND	<5.0	<5.0
Methyl tert-butyl ether (µg/L)	35	NC	NC	NC	NC	NC	ND	<10	<10

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-21								
Sample Date		1994	1995	Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses										
pH (standard units)		NC	N/A	5.06	5.23	5.64	5.55	5.44	5.56	4.97
Temperature (Fahrenheit)		NC	N/A	77	82.3	63.5	69.08	76.6	68.3	76.5
Conductivity (see notes)		NC	N/A	98	51	135	0.053	0.060	0.80	0.065
Turbidity (NTU)		NC	N/A	NA	5.06	4.3	-10	NM	990	111
Compounds										
Benzene (µg/L)	1	ND	ND	NC	ND	ND	ND	ND	<1.0	<1.0
Toluene (µg/L)	40	1.1	ND	NC	ND	3	ND	ND	<1.0	<1.0
Ethylbenzene (µg/L)	30	ND	ND	NC	1.6	ND	ND	3.0	<1.0	<1.0
Xylenes (µg/L)	20	ND	ND	NC	ND	ND	<2.0	13.1	<1.0	<1.0
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (µg/L)	N/A	ND	ND	NC	ND	ND	<3.0	ND	<5.0	<5.0
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	NPR	NPR	NPR	ND	<10	<10

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-30							
Sample Date		1994	1995	1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses									
pH (standard units)		N/A	N/A	4.83	4.74	4.94	4.40	4.60	3.93
Temperature (Fahrenheit)		N/A	N/A	78.9	66.2	68.54	72.3	66.72	72.1
Conductivity (see notes)		N/A	N/A	60	33	0.023	0.036	0.15	0.049
Turbidity (NTU)		N/A	N/A	1.3	-0.07	1	NM	190	110
Compounds									
Benzene (µg/L)	1	ND	ND	ND	ND	ND	ND	<1.0	<1.0
Toluene (µg/L)	40	ND	ND	ND	ND	ND	ND	<1.0	<1.0
Ethylbenzene (µg/L)	30	ND	ND	ND	ND	ND	1.2	<1.0	<1.0
Xylenes (µg/L)	20	ND	ND	ND	ND	<2.0	4.3	<1.0	<1.0
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (µg/L)	N/A	ND	ND	ND	ND	<3.0	ND	<5.0	<5.0
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	NPR	NPR	ND	<10	<10

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-39D						
Sample Date		Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses								
pH (standard units)		4.8	4.94	4.65	4.84	5.3	5.19	4.89
Temperature (Fahrenheit)		78	78.2	69.8	72.86	71.6	68.23	73.2
Conductivity (see notes)		72	68	45	0.074	0.05	0.6	0.053
Turbidity (NTU)		2.7	1.91	1.32	16	NM	55	35
Compounds								
Benzene (μg/L)	1	NC	6200	9200	2000	120	610	980
Toluene (μg/L)	40	NC	ND	400	<100	ND	<25	<25
Ethylbenzene (μg/L)	30	NC	ND	1800	430	26	57	220
Xylenes (μg/L)	20	NC	2300	6400	2190	53	<50	640
Naphthalene (μg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	34D
1-methylnaphthalene (μg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	12P
2-methylnaphthalene (μg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	24
Total Naphthalenes (μg/L)	N/A	NC	218	157	101	18.6	5.8	70
Methyl tert-butyl ether (μg/L)	35	NPR	NPR	NPR	NPR	<50	<250	<250

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-40D					
Sample Date		Feb-1998	Jan-1999	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses							
pH (standard units)		4.89	5.13	5.13	5.8	5.79	7.2
Temperature (Fahrenheit)		69.8	71.06	71.06	73.4	62.76	74.3
Conductivity (see notes)		50	0.054	0.054	0.13	0.113	0.642
Turbidity (NTU)		0.3	8	8	NM	34.4	6
Compounds							
Benzene (µg/L)	1	8600	260	260	14	6.4	<1.0
Toluene (µg/L)	40	170	<10	<10	ND	<1.0	<1.0
Ethylbenzene (µg/L)	30	1700	40	40	ND	<1.0	<1.0
Xylenes (µg/L)	20	8900	202	202	ND	<1.0	<1.0
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (µg/L)	N/A	205	17.9	17.9	ND	<5.0	<5.0
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	ND	<10	<10

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-47I						
Sample Date		Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses								
pH (standard units)		5.18	5.35	5.22	5.02	5.16	5.19	4.87
Temperature (Fahrenheit)		74.2	86.6	66.2	69.08	71.4	66.52	70.2
Conductivity (see notes)		82	105	60	0.068	0.067	0.8	0.087
Turbidity (NTU)		20.3	5.49	9.47	12	NM	56	16
Compounds								
Benzene (µg/L)	1	NC	NC	NC	ND	ND	<1.0	<1.0
Toluene (µg/L)	40	NC	NC	NC	ND	ND	<1.0	<1.0
Ethylbenzene (µg/L)	30	NC	NC	NC	ND	ND	<1.0	<1.0
Xylenes (µg/L)	20	NC	NC	NC	<2.0	ND	<1.0	<1.0
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (µg/L)	N/A	NC	NC	NC	<3.0	ND	<5.0	<5.0
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	NPR	ND	<10	<10

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-51D						
Sample Date		Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses								
pH (standard units)		5.18	5.35	5.22	5.29	4.8	4.96	4.2
Temperature (Fahrenheit)		74.2	86.6	66.2	70.7	71.6	62.73	71.2
Conductivity (see notes)		82	105	60	0.044	0.08	0.093	0.099
Turbidity (NTU)		20.3	5.49	9.47	0	NM	0	-6
Compounds								
Benzene (µg/L)	1	NC	NC	NC	450	2000	3200	2000
Toluene (µg/L)	40	NC	NC	NC	<25	ND	<100	<100
Ethylbenzene (µg/L)	30	NC	NC	NC	<25	ND	<100	<100
Xylenes (µg/L)	20	NC	NC	NC	<50	ND	<100	<100
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (µg/L)	N/A	NC	NC	NC	<3.0	ND	<5.0	<5.0
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	NPR	ND	<1000	<1000

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-53I						
Sample Date		Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses								
pH (standard units)		5.22	6.2	5.03	5.23	5.19	5.05	4.58
Temperature (Fahrenheit)		75.2	81.7	69.8	69.26	72.3	68.63	70.2
Conductivity (see notes)		77	68	40	0.025	0.041	0.5	0.05
Turbidity (NTU)		5.5	4.98	1.8	10	NM	10	12.8
Compounds								
Benzene (µg/L)	1	NC	NC	NC	ND	ND	<1.0	<1.0
Toluene (µg/L)	40	NC	NC	NC	ND	ND	<1.0	<1.0
Ethylbenzene (µg/L)	30	NC	NC	NC	ND	ND	<1.0	<1.0
Xylenes (µg/L)	20	NC	NC	NC	<2.0	ND	<1.0	<1.0
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (µg/L)	N/A	NC	NC	NC	<3.0	ND	<5.0	<5.0
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	NPR	ND	<10	<10

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-58I						
Sample Date		Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses								
pH (standard units)		5.63	5.71	5.02	5.2	5.21	4.76	4.88
Temperature (Fahrenheit)		73.7	76.7	65.3	70.16	72.5	62.55	70.9
Conductivity (see notes)		179	111	85	0.047	0.083	0.93	0.079
Turbidity (NTU)		5.7	1.62	2.8	-10	NM	0	11.4
Compounds								
Benzene (µg/L)	1	NC	1100	150	3400	4600	2900	1900
Toluene (µg/L)	40	NC	ND	6.2	<100	ND	<100	<50
Ethylbenzene (µg/L)	30	NC	ND	2.6	110	320	200	67
Xylenes (µg/L)	20	NC	230	740	2400	2650	2240	1400
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (µg/L)	N/A	NC	ND	NC	<3.0	ND	<5.0	<5.0
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	NPR	ND	<1000	<500

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-63S						
Sample Date		Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses								
pH (standard units)		5.92	5.61	5.2	5.28	4.54	5.15	4.8
Temperature (Fahrenheit)		76	79.6	68.9	71.42	69.6	62.4	71.8
Conductivity (see notes)		88	70	39	0.05	0.035	0.52	0.051
Turbidity (NTU)		42.3	65.1	32.2	57	NM	230	290
Compounds								
Benzene (µg/L)	1	NC	ND	ND	ND	ND	<1.0	<1.0
Toluene (µg/L)	40	NC	ND	3	ND	ND	<1.0	<1.0
Ethylbenzene (µg/L)	30	NC	ND	ND	ND	ND	<1.0	<1.0
Xylenes (µg/L)	20	NC	ND	64	22.3	6.1	19.5	12
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (µg/L)	N/A	NC	ND	ND	<3.0	ND	<5.0	<5.0
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	NPR	ND	<10	<10

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-64I						
Sample Date		Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses								
pH (standard units)		5.49	5.12	4.92	4.86	4.09	4.78	4.26
Temperature (Fahrenheit)		73	78.8	68	70.34	73.4	61.95	71.6
Conductivity (see notes)		60	78	48	0.047	0.044	0.53	0.047
Turbidity (NTU)		3.8	2.99	1.92	11	NM	0	60.7
Compounds								
Benzene (µg/L)	1	NC	2900	3200	3300	2800	2600	1700
Toluene (µg/L)	40	NC	ND	ND	<100	74	<100	<100
Ethylbenzene (µg/L)	30	NC	ND	97	150	170	160	<100
Xylenes (µg/L)	20	NC	650	1680	1370	1930	2260	1600
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (µg/L)	N/A	NC	22.1	ND	2.6	ND	<5.0	<5.0
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	NPR	ND	<1000	<1000

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-65D						
Sample Date		Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses								
pH (standard units)		5.91	5.75	5.85	5.76	5.42	5.77	5.85
Temperature (Fahrenheit)		74	78.7	69.8	70.52	71.1	67.19	70.9
Conductivity (see notes)		89	214	178	0.172	0.172	2	0.182
Turbidity (NTU)		4.6	3.87	0.98	-10	NM	-10	11.2
Compounds								
Benzene (μg/L)	1	NC	1100	1300	1800	2600	2700	2400
Toluene (μg/L)	40	NC	ND	ND	<50	ND	<100	<100
Ethylbenzene (μg/L)	30	NC	ND	ND	<50	ND	<100	<100
Xylenes (μg/L)	20	NC	ND	ND	<100	ND	<100	<100
Naphthalene (μg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
1-methylnaphthalene (μg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (μg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (μg/L)	N/A	NC	ND	ND	<3.0	ND	<5.0	<5.0
Methyl tert-butyl ether (μg/L)	35	NPR	NPR	NPR	NPR	ND	<1000	<1000

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-67I						
Sample Date		Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses								
pH (standard units)		5.18	5.65	5.09	5.21	5.34	4.96	4.82
Temperature (Fahrenheit)		77	74.9	69.8	69.62	72.3	61.16	70
Conductivity (see notes)		119	87	70	0.039	0.062	0.077	0.068
Turbidity (NTU)		3	2.83	1.03	9	NM	2	-10
Compounds								
Benzene (µg/L)	1	NC	NC	NC	ND	ND	<1.0	<1.0
Toluene (µg/L)	40	NC	NC	NC	ND	ND	<1.0	<1.0
Ethylbenzene (µg/L)	30	NC	NC	NC	ND	ND	<1.0	<1.0
Xylenes (µg/L)	20	NC	NC	NC	<2.0	ND	<1.0	<1.0
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (µg/L)	N/A	NC	NC	NC	<3.0	ND	<5.0	<5.0
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	NPR	ND	<10	<10

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-69S						
Sample Date		Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses								
pH (standard units)		5.9	5.1	4.76	4.84	4.58	4.61	4.26
Temperature (Fahrenheit)		78	80.6	69.8	70.34	69.4	70.25	73
Conductivity (see notes)		188	58	45	0.023	0.032	0.4	0.038
Turbidity (NTU)		N/A	3.02	3.9	10	NM	4	10
Compounds								
Benzene (µg/L)	1	NC	63	370	210	ND	6.3	1.6
Toluene (µg/L)	40	NC	ND	11	<25	ND	<5.0	<1.0
Ethylbenzene (µg/L)	30	NC	8.8	77	41	10	6.6	4.4
Xylenes (µg/L)	20	NC	87	1130	880	133	122	52
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (µg/L)	N/A	NC	6.8	ND	6.2	ND	<5.0	<5.0
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	NPR	160	<50	<10

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-70I						
Sample Date		Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses								
pH (standard units)		5.15	5.14	5.04	5.07	4.7	4.91	4.77
Temperature (Fahrenheit)		73	81.5	68.9	70.34	73.4	69.13	70.7
Conductivity (see notes)		47	78	60	0.032	0.06	0.06	0.055
Turbidity (NTU)		4	0.68	0.81	11	NM	-10	-10
Compounds								
Benzene (µg/L)	1	NC	5200	1600	6200	9900	9800	8800D
Toluene (µg/L)	40	NC	ND	ND	<200	ND	<500	<200
Ethylbenzene (µg/L)	30	NC	ND	ND	<200	1300	990	940
Xylenes (µg/L)	20	NC	1300	1700	4400	6000	6600	4500
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	27
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (µg/L)	N/A	NC	10.9	ND	9.4	30	43	27D
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	NPR	ND	<5000	<2000

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-71D						
Sample Date		Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses								
pH (standard units)		7.1	7.36	7.14	6.94	6.7	7	6.88
Temperature (Fahrenheit)		78	80.7	64.4	69.44	73.4	61.64	70.5
Conductivity (see notes)		215	718	500	0.56	0.54	0.06	0.58
Turbidity (NTU)		8.7	1.72	0.39	-6	NM	0	1.8
Compounds								
Benzene (µg/L)	1	NC	ND	ND	ND	ND	<1.0	<1.0
Toluene (µg/L)	40	NC	ND	1	ND	ND	<1.0	<1.0
Ethylbenzene (µg/L)	30	NC	ND	ND	ND	ND	<1.0	<1.0
Xylenes (µg/L)	20	NC	ND	4.1	<2.0	ND	<1.0	<1.0
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (µg/L)	N/A	NC	ND	ND	<3.0	ND	<5.0	<5.0
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	NPR	ND	<10	<10

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-75S						
Sample Date		Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses								
pH (standard units)		5.15	5.52	5.13	4.85	4.00	4.68	NC
Temperature (Fahrenheit)		N/A	78.9	71.6	74.66	73.8	73.45	NC
Conductivity (see notes)		N/A	113	60	0.05	0.057	0.7	NC
Turbidity (NTU)		170	12.3	1.41	-10	NM	0	NC
Compounds								
Benzene (µg/L)	1	NC	150	350	ND	92	680	NC
Toluene (µg/L)	40	NC	120	91	ND	21	570	NC
Ethylbenzene (µg/L)	30	NC	290	440	ND	74	1600	NC
Xylenes (µg/L)	20	NC	3000	4300	<2.0	520	7500	NC
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	NC
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	NC
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	NC
Total Naphthalenes (µg/L)	N/A	NC	246	24	136	9.4	314	NC
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	NPR	270	<1000	NC

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-76I						
Sample Date		Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses								
pH (standard units)		5.05	6.38	5.36	5.24	5.51	5.33	NC
Temperature (Fahrenheit)		77.3	83.3	69.8	74.84	75.0	65.7	NC
Conductivity (see notes)		58	146	75	0.065	0.071	0.8	NC
Turbidity (NTU)		61	5.17	3.08	-10	NM	0	NC
Compounds								
Benzene (µg/L)	1	NC	3100	3300	<1.0	2300	1300	NC
Toluene (µg/L)	40	NC	ND	ND	<1.0	ND	<50	NC
Ethylbenzene (µg/L)	30	NC	ND	36	<1.0	ND	<50	NC
Xylenes (µg/L)	20	NC	ND	151	<2.0	340	195	NC
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	NC
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	NC
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	NC
Total Naphthalenes (µg/L)	N/A	NC	1	ND	<3.0	ND	ND	NC
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	<10	660	<500	NC

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-77D						
Sample Date		Jan-1997	Aug-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses								
pH (standard units)		6.91	6.71	6.83	6.99	7.08	6.96	NC
Temperature (Fahrenheit)		N/A	86.9	68	74.12	75.9	73.62	NC
Conductivity (see notes)		N/A	752	480	0.528	0.503	0.057	NC
Turbidity (NTU)		15.8	9.92	3.74	-10	NM	0	NC
Compounds								
Benzene (µg/L)	1	NC	ND	ND	ND	ND	<1.0	NC
Toluene (µg/L)	40	NC	ND	ND	ND	ND	<1.0	NC
Ethylbenzene (µg/L)	30	NC	ND	ND	ND	ND	<1.0	NC
Xylenes (µg/L)	20	NC	ND	ND	<2.0	ND	<1.0	NC
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	NC
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	NC
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	PRTN	NC
Total Naphthalenes (µg/L)	N/A	NC	ND	ND	<3.0	ND	<5.0	NC
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	NPR	ND	<10	NC

See notes at end of table.

Table 1 (cont'd)
Groundwater Sampling Results

Groundwater Monitoring Report
North Fuel Farm
Naval Air Station Cecil Field
Jacksonville, Florida

Monitoring Well	GCTL	CEF-076-80D					
Sample Date		Jan-1997	Feb-1998	Jan-1999	Jul-1999	Jan-2000	Jul-2000
Field Analyses							
pH (standard units)		6.04	5.87	5.86	5.3	5.79	5.33
Temperature (Fahrenheit)		75.4	69.8	68.36	71.6	68.94	71.8
Conductivity (see notes)		148	135	0.134	0.15	0.17	0.164
Turbidity (NTU)		2.49	2.23	-10	NM	0	-10
Compounds							
Benzene (µg/L)	1	NC	NC	18	67	96	180D
Toluene (µg/L)	40	NC	NC	ND	ND	<1.0	<1.0
Ethylbenzene (µg/L)	30	NC	NC	ND	ND	<1.0	<1.0
Xylenes (µg/L)	20	NC	NC	<2.0	ND	<1.0	<1.0
Naphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
1-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
2-methylnaphthalene (µg/L)	20	PRTN	PRTN	PRTN	PRTN	PRTN	<5.0
Total Naphthalenes (µg/L)	N/A	NC	NC	<3.0	ND	<5.0	<5.0
Methyl tert-butyl ether (µg/L)	35	NPR	NPR	NPR	ND	<10	<10

Notes:
N/A = not applicable.
NC = not collected.
ND = not detected.
PRTN = previously reported as total naphthalenes.
D = lab result following sample dilution and re-analysis.
P = lab qualifier indicating >40% replication difference between original sample result and diluted sample result.
umhos/cm = micromhos per centimeter (these units applicable to conductivity data from 1998 and earlier).
mS/cm = milliSiemens per centimeter (these units applicable to 1999 conductivity data).
NTU = nephelometric turbidity units.
* = Data from Jan-99 sampling event was only analyzed for nitrates.
--- = sample collected but lost at laboratory.
GCTL = Groundwater Cleanup Target Levels (shaded areas show no levels applicable for this program).
NM = not measured.
NPR = not previously reported.
µg/L = microgram per liter.

ATTACHMENT A

LABORATORY ANALYTICAL REPORTS

SEVERN TRENT SERVICES

CASE NARRATIVE

SDG# TTKW15
SL PROJECT#s S004537, S004619

Halogenated and Aromatic Volatiles (8021A) Fraction

The following samples were analyzed according to SW-846 Method 8021A.

SL#	SAMPLE DESCRIPTION	MATRIX
S004537*1	CEF-293-13-GW-04	Liquid
S004537*2	CEF-293-4-GW-04	Liquid
S004537*3	CEF-293-21-GW-04	Liquid
S004537*4	CEF-293-19-GW-04	Liquid
S004537*5	CEF-293-11-GW-04	Liquid
S004537*6	CEF-293-20-GW-04	Liquid
S004537*7	CEF-293-DU01-GW-04	Liquid
S004619*1	CEF-076-53I-GW-04	Liquid
S004619*2	CEF-076-51D-GW-04	Liquid
S004619*3	CEF-076-58I-GW-04	Liquid
S004619*4	CEF-076-47I-GW-04	Liquid
S004619*5	CEF-076-64I-GW-04	Liquid
S004619*6	CEF-076-63S-GW-04	Liquid
S004619*7	CEF-076-30-GW-04	Liquid
S004619*8	CEF-076-65D-GW-04	Liquid
S004619*9	CEF-076-DU02-GW-04	Liquid

Sample S004537-5 (CEF-293-11-GW-04) was the designated matrix spike/matrix spike duplicate, and all recoveries were within advisory limits.

Due to the abundance of target analytes, the following dilutions were required: samples S004619-2, S004619-5, and S004619-8 were analyzed at a primary dilution of 1:100; samples S004619-3 and S004619-9 were analyzed at a primary dilution of 1:50; sample S004537-5 was analyzed at a primary dilution of 1:5; sample S004537-1 was analyzed at a secondary dilution of 1:5; samples S004537-3 and S004537-4 were analyzed at a secondary dilution of 1:2; and sample S004537-7 was analyzed at a primary dilution of 1:2 and a secondary dilution of 1:5.

SEVERN TRENT SERVICES

CASE NARRATIVE

SDG# TTKW15
SL PROJECT#s S004537, S004619

Polynuclear Aromatics (8310) Fraction

The following samples were analyzed according to SW-846 method 8310.

SL#	SAMPLE DESCRIPTION	MATRIX
S004537*1	CEF-293-13-GW-04	Liquid
S004537*2	CEF-293-4-GW-04	Liquid
S004537*3	CEF-293-21-GW-04	Liquid
S004537*4	CEF-293-19-GW-04	Liquid
S004537*5	CEF-293-11-GW-04	Liquid
S004537*6	CEF-293-20-GW-04	Liquid
S004537*7	CEF-293-DU01-GW-04	Liquid
S004619*1	CEF-076-53I-GW-04	Liquid
S004619*2	CEF-076-51D-GW-04	Liquid
S004619*3	CEF-076-58I-GW-04	Liquid
S004619*4	CEF-076-47I-GW-04	Liquid
S004619*5	CEF-076-64I-GW-04	Liquid
S004619*6	CEF-076-63S-GW-04	Liquid
S004619*7	CEF-076-30-GW-04	Liquid
S004619*8	CEF-076-65D-GW-04	Liquid
S004619*9	CEF-076-DU02-GW-04	Liquid

Sample S004537-5 (CEF-293-11-GW-04) was the designated matrix spike/matrix spike duplicate. Due to the abundance of target analytes, the unspiked sample was analyzed at a secondary dilution of 1:10; therefore, the MS/MSD were also analyzed at 1:10. Surrogates were not recovered in the 1:10 dilutions and several spiking compounds were outside advisory limits in the MS/MSD due to abundance in the unspiked sample.

Sample S004537-1 was analyzed at a secondary dilution of 1:5 due to the abundance of target analytes. Results concurred and both sets of data have been provided.

Savannah Laboratories
a division of Severn Trent Laboratories, Inc.
5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165 • www.stlsavlab.com

LOG NO: S0-04619
Received: 13 JUL 00
Reported: 27 JUL 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

CC: HOWARD ENGLE/TALL,FL
Sampled By: Client
Code: 160200822

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
04619-6	CEF-076-63S-GW-04	07-12-00/14:10	TTKW15
04619-7	CEF-076-30-GW-04	07-12-00/15:30	TTKW15
04619-8	CEF-076-65D-GW-04	07-12-00/15:50	TTKW15
04619-9	CEF-076-DU02-GW-04	07-12-00	TTKW15

PARAMETER	04619-6	04619-7	04619-8	04619-9

Methods: EPA SW-846, Update III.

Angie Weimerskirk

Angie Weimerskirk, Project Manager

Final Page Of Report

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5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165 • www.stlsavlab.com

LOG NO: S0-TTKW15
Received: 11 JUL 00
Reported: 22 AUG 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

Requisition: N62467-94-D-0888/CTO72

CC: HOWARD ENGLE/TALL,FL

Project: North Fuel Farm/Day Tank 1
Sampled By: Client
Code: 112200822

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
TTKW15-1	Method Blank		TTKW15
TTKW15-2	Lab Control Standard % Recovery		TTKW15
TTKW15-3	LCS Accuracy Control Limit (%R)		TTKW15
TTKW15-4	Method Blank		TTKW15
TTKW15-5	Lab Control Standard % Recovery		TTKW15

PARAMETER	TTKW15-1	TTKW15-2	TTKW15-3	TTKW15-4	TTKW15-5
Halogenated and Aromatic Volatiles (8021)					
Benzene, ug/l	<1.0	80 %	48-152 %	<1.0	90 %
Ethylbenzene, ug/l	<1.0	---	---	<1.0	---
Toluene, ug/l	<1.0	90 %	62-133 %	<1.0	100 %
o-Xylene, ug/l	<1.0	---	---	<1.0	---
m&p-Xylene, ug/l	<1.0	---	---	<1.0	---
Surrogate - a,a,a-Trifluorotoluene	100 %	93 %	70-130 %	93 %	93 %
Methyl t-butyl ether (MTBE), ug/l	<10	---	---	<10	---
Dilution Factor	1	1	---	1	1
Analysis Date	07.13.00	07.13.00	---	07.14.00	07.14.00
Batch ID	1I0713	1I0713	---	1I0714	1I0714

Methods: EPA SW-846, Update III.

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LOG NO: S0-TTKW15
Received: 11 JUL 00
Reported: 22 AUG 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

Requisition: N62467-94-D-0888/CTO72

CC: HOWARD ENGLE/TALL,FL

Project: North Fuel Farm/Day Tank 1
Sampled By: Client
Code: 112200822

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
TTKW15-6	Method Blank		TTKW15
TTKW15-7	Lab Control Standard % Recovery		TTKW15
TTKW15-8	Method Blank		TTKW15
TTKW15-9	Lab Control Standard % Recovery		TTKW15
TTKW15-10	Method Blank		TTKW15

PARAMETER	TTKW15-6	TTKW15-7	TTKW15-8	TTKW15-9	TTKW15-10
Polynuclear Aromatics (8310)					
Halogenated and Aromatic Volatiles (8021)					
Benzene, ug/l	<1.0	90 %	<1.0	85 %	<1.0
Ethylbenzene, ug/l	<1.0	---	<1.0	---	<1.0
Toluene, ug/l	<1.0	95 %	<1.0	95 %	<1.0
o-Xylene, ug/l	<1.0	---	<1.0	---	<1.0
m&p-Xylene, ug/l	<1.0	---	<1.0	---	<1.0
Surrogate - a,a,a-Trifluorotoluene	93 %	93 %	97 %	87 %	97 %
Methyl t-butyl ether (MTBE), ug/l	<10	---	<10	---	<10
Dilution Factor	1	1	1	1	1
Analysis Date	07.18.00	07.18.00	07.19.00	07.19.00	07.20.00
Batch ID	1I0718	1I0718	1I0719	1I0719	1I0720

Methods: EPA SW-846, Update III.

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LOG NO: S0-TTKW15
Received: 11 JUL 00
Reported: 22 AUG 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

Requisition: N62467-94-D-0888/CTO72

CC: HOWARD ENGLE/TALL,FL

Project: North Fuel Farm/Day Tank 1
Sampled By: Client
Code: 112200822

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
TTKW15-11	Lab Control Standard % Recovery		TTKW15

PARAMETER	TTKW15-11
Polynuclear Aromatics (8310)	
Halogenated and Aromatic Volatiles (8021)	
Benzene, %	85 %
Toluene, %	95 %
Surrogate - a,a,a-Trifluorotoluene	87 %
Dilution Factor	1
Analysis Date	07.20.00
Batch ID	1I0720

Methods: EPA SW-846, Update III.

Angie Weimerskirk

Angie Weimerskirk, Project Manager

Savannah Laboratories
a division of Severn Trent Laboratories, Inc.
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LOG NO: S0-TTKW15
Received: 11 JUL 00
Reported: 22 AUG 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

Requisition: N62467-94-D-0888/CTO72

CC: HOWARD ENGLE/TALL,FL

Project: North Fuel Farm/Day Tank 1
Sampled By: Client
Code: 112200822

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
TTKW15-1	Method Blank		TTKW15
TTKW15-2	Lab Control Standard % Recovery		TTKW15
TTKW15-3	LCS Accuracy Control Limit (%R)		TTKW15
TTKW15-4	Method Blank		TTKW15
TTKW15-5	Lab Control Standard % Recovery		TTKW15

PARAMETER	TTKW15-1	TTKW15-2	TTKW15-3	TTKW15-4	TTKW15-5
Polynuclear Aromatics (8310)					
Acenaphthene, ug/l	<5.0	56 %	32-128 %	<5.0	49 %
Acenaphthylene, ug/l	<5.0	---	---	<5.0	---
Anthracene, ug/l	<5.0	---	---	<5.0	---
Benzo(a)anthracene, ug/l	<5.0	---	---	<5.0	---
Benzo(a)pyrene, ug/l	<5.0	---	---	<5.0	---
Benzo(b)fluoranthene, ug/l	<5.0	---	---	<5.0	---
Benzo(g,h,i)perylene, ug/l	<5.0	---	---	<5.0	---
Benzo(k)fluoranthene, ug/l	<5.0	---	---	<5.0	---
Chrysene, ug/l	<5.0	62 %	40-122 %	<5.0	64 %
Dibenzo(a,h)anthracene, ug/l	<5.0	---	---	<5.0	---
Fluoranthene, ug/l	<5.0	---	---	<5.0	---
Fluorene, ug/l	<5.0	57 %	31-130 %	<5.0	53 %
Indeno(1,2,3-cd)pyrene, ug/l	<5.0	---	---	<5.0	---
Naphthalene, ug/l	<5.0	52 %	15-130 %	<5.0	50 %
Phenanthrene, ug/l	<5.0	---	---	<5.0	---
Pyrene, ug/l	<5.0	64 %	29-137 %	<5.0	60 %
1-Methylnaphthalene, ug/l	<5.0	---	---	<5.0	---
2-Methylnaphthalene, ug/l	<5.0	---	---	<5.0	---
Surrogate - Terphenyl-d14	72 %	80 %	32-141 %	72 %	72 %
Dilution Factor	1	1	---	1	1
Prep Date	07.19.00	07.19.00	---	07.12.00	07.12.00
Analysis Date	07.21.00	07.21.00	---	07.14.00	07.14.00
Batch ID	0719J	0719J	---	0712J	0712J

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LOG NO: S0-04619
Received: 13 JUL 00
Reported: 27 JUL 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

CC: HOWARD ENGLE/TALL,FL
Sampled By: Client
Code: 160200822

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
04619-1	CEF-076-53I-GW-04	07-12-00/09:55	TTKW15
04619-2	CEF-076-51D-GW-04	07-12-00/10:10	TTKW15
04619-3	CEF-076-58I-GW-04	07-12-00/11:35	TTKW15
04619-4	CEF-076-47I-GW-04	07-12-00/11:40	TTKW15
04619-5	CEF-076-64I-GW-04	07-12-00/14:10	TTKW15

PARAMETER	04619-1	04619-2	04619-3	04619-4	04619-5
Halogenated and Aromatic Volatiles (8021)					
Benzene, ug/l	<1.0	2000	1900	<1.0	1700
Ethylbenzene, ug/l	<1.0	<100	67	<1.0	<100
Toluene, ug/l	<1.0	<100	<50	<1.0	<100
o-Xylene, ug/l	<1.0	<100	<50	<1.0	<100
m&p-Xylene, ug/l	<1.0	<100	1400	<1.0	1600
Surrogate - a,a,a-Trifluorotoluene	120 %	90 %	90 %	93 %	87 %
Methyl t-butyl ether (MTBE), ug/l	<10	<1000	<500	<10	<1000
Dilution Factor	1	100	50	1	100
Analysis Date	07.19.00	07.19.00	07.20.00	07.19.00	07.19.00
Batch ID	1I0719	1I0719	1I0720	1I0719	1I0719

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LOG NO: S0-04619
Received: 13 JUL 00
Reported: 27 JUL 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

CC: HOWARD ENGLE/TALL,FL
Sampled By: Client
Code: 160200822

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
04619-6	CEF-076-63S-GW-04	07-12-00/14:10	TTKW15
04619-7	CEF-076-30-GW-04	07-12-00/15:30	TTKW15
04619-8	CEF-076-65D-GW-04	07-12-00/15:50	TTKW15
04619-9	CEF-076-DU02-GW-04	07-12-00	TTKW15

PARAMETER	04619-6	04619-7	04619-8	04619-9
Halogenated and Aromatic Volatiles (8021)				
Benzene, ug/l	<1.0	<1.0	2400	1700
Ethylbenzene, ug/l	<1.0	<1.0	<100	<50
Toluene, ug/l	<1.0	<1.0	<100	<50
o-Xylene, ug/l	<1.0	<1.0	<100	<50
m&p-Xylene, ug/l	12	<1.0	<100	1300
Surrogate - a,a,a-Trifluorotoluene	93 %	90 %	90 %	87 %
Methyl t-butyl ether (MTBE), ug/l	<10	<10	<1000	<500
Dilution Factor	1	1	100	50
Analysis Date	07.20.00	07.20.00	07.19.00	07.20.00
Batch ID	1I0720	1I0720	1I0719	1I0720

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LOG NO: S0-04619
Received: 13 JUL 00
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Mr. Paul Calligan
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661 Anderson Drive
Pittsburgh, PA 15220

CC: HOWARD ENGLE/TALL,FL
Sampled By: Client
Code: 160200822

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
04619-1	CEF-076-53I-GW-04	07-12-00/09:55	TTKW15
04619-2	CEF-076-51D-GW-04	07-12-00/10:10	TTKW15
04619-3	CEF-076-58I-GW-04	07-12-00/11:35	TTKW15
04619-4	CEF-076-47I-GW-04	07-12-00/11:40	TTKW15
04619-5	CEF-076-64I-GW-04	07-12-00/14:10	TTKW15

PARAMETER	04619-1	04619-2	04619-3	04619-4	04619-5
Polynuclear Aromatics (8310)					
Acenaphthene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Acenaphthylene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Anthracene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(a)anthracene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(a)pyrene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(b)fluoranthene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(g,h,i)perylene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(k)fluoranthene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Chrysene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Dibenzo(a,h)anthracene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Fluoranthene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Fluorene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Indeno(1,2,3-cd)pyrene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Naphthalene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Phenanthrene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Pyrene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1-Methylnaphthalene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
2-Methylnaphthalene, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Surrogate - Terphenyl-d14	76 %	76 %	72 %	72 %	80 %
Dilution Factor	1	1	1	1	1
Prep Date	07.19.00	07.19.00	07.19.00	07.19.00	07.19.00
Analysis Date	07.21.00	07.21.00	07.21.00	07.21.00	07.21.00
Batch ID	0719J	0719J	0719J	0719J	0719J

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LOG NO: S0-04619
Received: 13 JUL 00
Reported: 27 JUL 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

CC: HOWARD ENGLE/TALL,FL
Sampled By: Client
Code: 160200822

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
04619-6	CEF-076-63S-GW-04	07-12-00/14:10	TTKW15
04619-7	CEF-076-30-GW-04	07-12-00/15:30	TTKW15
04619-8	CEF-076-65D-GW-04	07-12-00/15:50	TTKW15
04619-9	CEF-076-DU02-GW-04	07-12-00	TTKW15

PARAMETER	04619-6	04619-7	04619-8	04619-9
Polynuclear Aromatics (8310)				
Acenaphthene, ug/l	<5.0	<5.0	<5.0	<5.0
Acenaphthylene, ug/l	<5.0	<5.0	<5.0	<5.0
Anthracene, ug/l	<5.0	<5.0	<5.0	<5.0
Benzo(a)anthracene, ug/l	<5.0	<5.0	<5.0	<5.0
Benzo(a)pyrene, ug/l	<5.0	<5.0	<5.0	<5.0
Benzo(b)fluoranthene, ug/l	<5.0	<5.0	<5.0	<5.0
Benzo(g,h,i)perylene, ug/l	<5.0	<5.0	<5.0	<5.0
Benzo(k)fluoranthene, ug/l	<5.0	<5.0	<5.0	<5.0
Chrysene, ug/l	<5.0	<5.0	<5.0	<5.0
Dibenzo(a,h)anthracene, ug/l	<5.0	<5.0	<5.0	<5.0
Fluoranthene, ug/l	<5.0	<5.0	<5.0	<5.0
Fluorene, ug/l	<5.0	<5.0	<5.0	<5.0
Indeno(1,2,3-cd)pyrene, ug/l	<5.0	<5.0	<5.0	<5.0
Naphthalene, ug/l	<5.0	<5.0	<5.0	<5.0
Phenanthrene, ug/l	<5.0	<5.0	<5.0	<5.0
Pyrene, ug/l	<5.0	<5.0	<5.0	<5.0
1-Methylnaphthalene, ug/l	<5.0	<5.0	<5.0	<5.0
2-Methylnaphthalene, ug/l	<5.0	<5.0	<5.0	<5.0
Surrogate - Terphenyl-d14	80 %	80 %	72 %	72 %
Dilution Factor	1	1	1	1
Prep Date	07.19.00	07.19.00	07.19.00	07.19.00
Analysis Date	07.21.00	07.21.00	07.21.00	07.21.00
Batch ID	0719J	0719J	0719J	0719J

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER NFF 071202

PAGE 1 OF ____

PROJECT NO: 0013	SITE NAME: North Fuel farm Cecil Field	PROJECT MANAGER AND PHONE NUMBER: Paul Calligan 850 385 9865	LABORATORY NAME AND CONTACT: Savannah Labs, Angie Wiemaskirk 912-351 7857
SAMPLERS (SIGNATURE): [signature]		FIELD OPERATIONS LEADER AND PHONE NUMBER: Merv Dale 904 281 1941 x. 14	ADDRESS: 5102 La Roche Ave.
		CARRIER/WAYBILL NUMBER: Fedex 8217 5906 4870	CITY, STATE: Savannah, GA 31404

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2000	TIME	SAMPLE ID	MATRIX	GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs (8021B)	PAHs (8310)						COMMENTS
					CONTAINER TYPE PLASTIC (P) or GLASS (G)	G	G						
					PRESERVATIVE USED	HCL	none						
7/12	0955	CEF-076-53I-GW-04	GW	G	5	3	2						Cool to 4°C
	1010	CEF-076-51D-GW-04			5	3	2						
	1135	CEF-076-58I-GW-04			3	3							
	1140	CEF-076-47I-GW-04			3	3							
	1410	CEF-076-64I-GW-04			3	3							
	1410	CEF-076-63S-GW-04			3	3							
	1530	CEF-076-30-GW-04			3	3							
	1550	CEF-076-65D-GW-04			3	3							
	—	CEF-076-D402-GW-04			5	3	2						

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY [signature]	7/12/00	1745	1. RECEIVED BY [signature]	7/13/00	9:10
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS: SO 04619

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

3/99
FORM NO. TtNUS-001

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER NFF 071203 | PAGE 1 OF ____

PROJECT NO: 0013	SITE NAME: North Fuel Farm	PROJECT MANAGER AND PHONE NUMBER: Paul Gilligan 850 385 8866	LABORATORY NAME AND CONTACT: Savannah Labs, Angie Wiemerskirk 912-3.785
SAMPLERS (SIGNATURE): Cecil Field		FIELD OPERATIONS LEADER AND PHONE NUMBER: Mark Dale 904 281 1941 x.14	ADDRESS: 5102 La Roche Ave.
		CARRIER/WAYBILL NUMBER: Fedex 8217 5906 4870	CITY, STATE: Savannah, GA 31404

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: None

DATE YEAR 2000	TIME	SAMPLE ID	MATRIX	GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PAHs (8260)							COMMENTS
7/12	1410	CEF-076-635-GW-04	GW	G	2	2							Cool to 4°C
↓	1410	CEF-076-641-GW-04	↓	↓	2	2							
↓	1550	CEF-076-65D-GW-04	↓	↓	2	2							

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	7/12/00	1745	1. RECEIVED BY: F Swafford	7/13/00	9:10
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS: 5004619

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

3/99
FORM NO. TtNUS-001

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER NFF 071201 | PAGE 1 OF ____

PROJECT NO: 0013	SITE NAME: North Fuel Farm Cecil Field	PROJECT MANAGER AND PHONE NUMBER: Paul Calligan 850 385 9866	LABORATORY NAME AND CONTACT: Savannah Labs, Angie Wiemaskick 912-354-7858
SAMPLERS (SIGNATURE): Louis Rupp		FIELD OPERATIONS LEADER AND PHONE NUMBER: Merv Pole 904 281 1941 x.14	ADDRESS: 5102 La Roche Ave.
		CARRIER/WAYBILL NUMBER: Fedex 8217 5906 4870	CITY, STATE: Savannah, GA 31404

STANDARD TAT [X]
RUSH TAT [ ]
[ ] 24 hr. [ ] 48 hr. [ ] 72 hr. [ ] 7 day [ ] 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: None

DATE YEAR 2000	TIME	SAMPLE ID	MATRIX	GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PAHs (8310)								COMMENTS
7/12	1135	CEF-076-58I-GW-04	GW	G	2	2								Cool to 4°C
↓	1140	CEF-076-47I-GW-04	↓	↓	2	2								
↓	1530	CEF-076-30-GW-04	↓	↓	2	2								

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	7/12/00	1745	1. RECEIVED BY	7/13/00	9:10
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS: SO 04619

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

3/99
FORM NO. TtNUS-001

SEVERN TRENT SERVICES

CASE NARRATIVE

SDG# TTKW16
SL PROJECT#s S004673, S004716

Halogenated and Aromatic Volatiles (8021) Fraction

The following samples were analyzed according to SW-846 method 8021.

SL#	SAMPLE DESCRIPTION	MATRIX
S004673*1	CEF-293-14-GW-04	Liquid
S004673*2	CEF-076-71D-GW-04	Liquid
S004673*3	CEF-076-69S-GW-04	Liquid
S004673*4	CEF-076-70I-GW-04	Liquid
S004673*5	CEF-076-40D-GW-04	Liquid
S004673*6	CEF-076-21-GW-04	Liquid
S004673*7	CEF-076-39D-GW-04	Liquid
S004673*8	CEF-076-11-GW-04	Liquid
S004716*1	CEF-076-67I-GW-04	Liquid
S004716*2	CEF-076-80D-GW-04	Liquid
S004716*3	CEF-076-DU01-GW-04	Liquid

Sample S004716-2 (CEF-076-80D-GW-04) was the designated matrix spike/matrix spike duplicate. Due to the abundance of benzene the unspiked sample was analyzed at a secondary dilution of 1:10. The MS and MSD were also analyzed at dilutions of 1:10.

Due to the abundance of target analytes sample S004673-7 was analyzed at a dilution of 1:25 and sample S004673-4 was analyzed at a primary dilution of 1:200 and a secondary dilution of 1:500 and all data has been reported.

SEVERN TRENT SERVICES

CASE NARRATIVE

SDG# TTKW16
SL PROJECT#s S004673, S004716

Polynuclear Aromatics (8310) Fraction

The following samples were analyzed according to SW-846 method 8310.

SL#	SAMPLE DESCRIPTION	MATRIX
S004673*1	CEF-293-14-GW-04	Liquid
S004673*2	CEF-076-71D-GW-04	Liquid
S004673*3	CEF-076-69S-GW-04	Liquid
S004673*4	CEF-076-70I-GW-04	Liquid
S004673*5	CEF-076-40D-GW-04	Liquid
S004673*6	CEF-076-21-GW-04	Liquid
S004673*7	CEF-076-39D-GW-04	Liquid
S004673*8	CEF-076-11-GW-04	Liquid
S004716*1	CEF-076-67I-GW-04	Liquid
S004716*2	CEF-076-80D-GW-04	Liquid
S004716*3	CEF-076-DU01-GW-04	Liquid

Sample S004716-2 (CEF-076-80D-GW-04) was the designated matrix spike/matrix spike duplicate.

Due to the abundance of napthalene samples S004673-4 and S004673-7 were analyzed at secondary dilutions of 1:5. Results concurred and all data has been provided.

Savannah Laboratories
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LOG NO: S0-04716
Received: 15 JUL 00
Reported: 16 AUG 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

Requisition: N62467-94-D-0888/CTO72

CC: HOWARD ENGLE/TALL,FL

Project: North Fuel Farm/Day Tank 1
Sampled By: Client
Code: 173600817

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
04716-1	CEF-076-67I-GW-04	07-14-00/09:35	TTKW16
04716-2	CEF-076-80D-GW-04	07-14-00/09:30	TTKW16
04716-2-DL	CEF-076-80D-GW-04	07-14-00/09:30	TTKW16
04716-3	CEF-076-DU01-GW-04	07-14-00/00:00	TTKW16

PARAMETER	04716-1	04716-2	04716-2-DL	04716-3

Methods: EPA SW-846, Update III.

Angie Weimerskirk

Angie Weimerskirk, Project Manager

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a division of Severn Trent Laboratories, Inc.
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LOG NO: S0-04716
Received: 15 JUL 00
Reported: 16 AUG 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

Requisition: N62467-94-D-0888/CTO72

CC: HOWARD ENGLE/TALL,FL

Project: North Fuel Farm/Day Tank 1
Sampled By: Client
Code: 173600817

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
04716-1	CEF-076-67I-GW-04	07-14-00/09:35	TTKW16
04716-2	CEF-076-80D-GW-04	07-14-00/09:30	TTKW16
04716-2-DL	CEF-076-80D-GW-04	07-14-00/09:30	TTKW16
04716-3	CEF-076-DU01-GW-04	07-14-00/00:00	TTKW16

PARAMETER	04716-1	04716-2	04716-2-DL	04716-3
Halogenated and Aromatic Volatiles (8021)				
Benzene, ug/l	<1.0	180E	180D	<1.0
Ethylbenzene, ug/l	<1.0	<1.0	<10	<1.0
Toluene, ug/l	<1.0	<1.0	<10	<1.0
o-Xylene, ug/l	<1.0	<1.0	<10	<1.0
m&p-Xylene, ug/l	<1.0	<1.0	<10	<1.0
Surrogate - a,a,a-Trifluorotoluene	93 %	90 %	87 %	87 %
Methyl t-butyl ether (MTBE), ug/l	<10	<10	<100	<10
Dilution Factor	1	1	10	1
Analysis Date	07.20.00	07.20.00	07.21.00	07.21.00
Batch ID	1I0720	1I0720	1I0721	1I0721

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LOG NO: S0-04716
Received: 15 JUL 00
Reported: 16 AUG 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

Requisition: N62467-94-D-0888/CTO72

CC: HOWARD ENGLE/TALL,FL

Project: North Fuel Farm/Day Tank 1
Sampled By: Client
Code: 173600817

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
04716-1	CEF-076-67I-GW-04	07-14-00/09:35	TTKW16
04716-2	CEF-076-80D-GW-04	07-14-00/09:30	TTKW16
04716-2-DL	CEF-076-80D-GW-04	07-14-00/09:30	TTKW16
04716-3	CEF-076-DU01-GW-04	07-14-00/00:00	TTKW16

PARAMETER	04716-1	04716-2	04716-2-DL	04716-3
Polynuclear Aromatics (8310)				
Acenaphthene, ug/l	<5.0	<5.0	---	<5.0
Acenaphthylene, ug/l	<5.0	<5.0	---	<5.0
Anthracene, ug/l	<5.0	<5.0	---	<5.0
Benzo(a)anthracene, ug/l	<5.0	<5.0	---	<5.0
Benzo(a)pyrene, ug/l	<5.0	<5.0	---	<5.0
Benzo(b)fluoranthene, ug/l	<5.0	<5.0	---	<5.0
Benzo(g,h,i)perylene, ug/l	<5.0	<5.0	---	<5.0
Benzo(k)fluoranthene, ug/l	<5.0	<5.0	---	<5.0
Chrysene, ug/l	<5.0	<5.0	---	<5.0
Dibenzo(a,h)anthracene, ug/l	<5.0	<5.0	---	<5.0
Fluoranthene, ug/l	<5.0	<5.0	---	<5.0
Fluorene, ug/l	<5.0	<5.0	---	<5.0
Indeno(1,2,3-cd)pyrene, ug/l	<5.0	<5.0	---	<5.0
Naphthalene, ug/l	<5.0	<5.0	---	<5.0
Phenanthrene, ug/l	<5.0	<5.0	---	<5.0
Pyrene, ug/l	<5.0	<5.0	---	<5.0
1-Methylnaphthalene, ug/l	<5.0	<5.0	---	<5.0
2-Methylnaphthalene, ug/l	<5.0	<5.0	---	<5.0
Surrogate - Terphenyl-d14	76 %	76 %	---	72 %
Dilution Factor	1	1	---	1
Prep Date	07.19.00	07.19.00	---	07.19.00
Analysis Date	07.21.00	07.21.00	---	07.25.00
Batch ID	0719J	0719J	---	0719J

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LOG NO: S0-04673
Received: 14 JUL 00
Reported: 16 AUG 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

Requisition: N62467-94-D-0888/CTO72

CC: HOWARD ENGLE/TALL,FL

Project: North Fuel Farm/Day Tank 1
Sampled By: Client
Code: 173400817

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
04673-5	CEF-076-40D-GW-04	07-13-00/10:57	TTKW16
04673-6	CEF-076-21-GW-04	07-13-00/12:20	TTKW16
04673-7	CEF-076-39D-GW-04	07-13-00/12:37	TTKW16
04673-7-DL	CEF-076-39D-GW-04	07-13-00/12:37	TTKW16
04673-8	CEF-076-11-GW-04	07-13-00/14:10	TTKW16

PARAMETER	04673-5	04673-6	04673-7	04673-7-DL	04673-8

Methods: EPA SW-846, Update III.

Angie Weimerskirk

Angie Weimerskirk, Project Manager

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LOG NO: S0-04673
Received: 14 JUL 00
Reported: 16 AUG 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

Requisition: N62467-94-D-0888/CTO72

CC: HOWARD ENGLE/TALL,FL

Project: North Fuel Farm/Day Tank 1
Sampled By: Client
Code: 173400817

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
04673-1	CEF-293-14-GW-04	07-13-00/07:58	TTKW16
04673-2	CEF-076-71D-GW-04	07-13-00/09:22	TTKW16
04673-3	CEF-076-69S-GW-04	07-13-00/09:25	TTKW16
04673-4	CEF-076-70I-GW-04	07-13-00/10:32	TTKW16
04673-4-DL	CEF-076-70I-GW-04	07-13-00/10:32	TTKW16

PARAMETER	04673-1	04673-2	04673-3	04673-4	04673-4-DL
Halogenated and Aromatic Volatiles (8021)					
Benzene, ug/l	<1.0	<1.0	1.6	11000E	8800D
Ethylbenzene, ug/l	<1.0	<1.0	4.4	940	680D
Toluene, ug/l	<1.0	<1.0	<1.0	<200	<500
o-Xylene, ug/l	<1.0	<1.0	<1.0	<200	<500
m&p-Xylene, ug/l	<1.0	<1.0	52	4500	3800D
Surrogate - a,a,a-Trifluorotoluene	87 %	97 %	73 %	87 %	83 %
Methyl t-butyl ether (MTBE), ug/l	<10	<10	<10	<2000	<5000
Dilution Factor	1	1	1	200	500
Analysis Date	07.20.00	07.21.00	07.21.00	07.20.00	07.21.00
Batch ID	1I0720	1I0721	1I0721	1I0720	1I0721

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LOG NO: S0-04673
Received: 14 JUL 00
Reported: 16 AUG 00

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661 Anderson Drive
Pittsburgh, PA 15220

Requisition: N62467-94-D-0888/CTO72

CC: HOWARD ENGLE/TALL,FL

Project: North Fuel Farm/Day Tank 1
Sampled By: Client
Code: 173400817

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
04673-1	CEF-293-14-GW-04	07-13-00/07:58	TTKW16
04673-2	CEF-076-71D-GW-04	07-13-00/09:22	TTKW16
04673-3	CEF-076-69S-GW-04	07-13-00/09:25	TTKW16
04673-4	CEF-076-70I-GW-04	07-13-00/10:32	TTKW16
04673-4-DL	CEF-076-70I-GW-04	07-13-00/10:32	TTKW16

PARAMETER	04673-1	04673-2	04673-3	04673-4	04673-4-DL
Polynuclear Aromatics (8310)					
Acenaphthene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
Acenaphthylene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
Anthracene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
Benzo(a)anthracene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
Benzo(a)pyrene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
Benzo(b)fluoranthene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
Benzo(g,h,i)perylene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
Benzo(k)fluoranthene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
Chrysene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
Dibenzo(a,h)anthracene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
Fluoranthene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
Fluorene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
Indeno(1,2,3-cd)pyrene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
Naphthalene, ug/l	<5.0	<5.0	<5.0	28E	27D
Phenanthrene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
Pyrene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
1-Methylnaphthalene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
2-Methylnaphthalene, ug/l	<5.0	<5.0	<5.0	<5.0	<25
Surrogate - Terphenyl-d14	48 %	68 %	68 %	64 %	68 %
Dilution Factor	1	1	1	1	5
Prep Date	07.19.00	07.19.00	07.19.00	07.19.00	07.19.00
Analysis Date	07.21.00	07.21.00	07.21.00	07.22.00	07.25.00
Batch ID	0719J	0719J	0719J	0719J	0719J

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LOG NO: S0-04673
Received: 14 JUL 00
Reported: 16 AUG 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

Requisition: N62467-94-D-0888/CTO72

CC: HOWARD ENGLE/TALL,FL

Project: North Fuel Farm/Day Tank 1
Sampled By: Client
Code: 173400817

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
04673-5	CEF-076-40D-GW-04	07-13-00/10:57	TTKW16
04673-6	CEF-076-21-GW-04	07-13-00/12:20	TTKW16
04673-7	CEF-076-39D-GW-04	07-13-00/12:37	TTKW16
04673-7-DL	CEF-076-39D-GW-04	07-13-00/12:37	TTKW16
04673-8	CEF-076-11-GW-04	07-13-00/14:10	TTKW16

PARAMETER	04673-5	04673-6	04673-7	04673-7-DL	04673-8
Halogenated and Aromatic Volatiles (8021)					
Benzene, ug/l	<1.0	<1.0	980	---	<1.0
Ethylbenzene, ug/l	<1.0	<1.0	220	---	<1.0
Toluene, ug/l	<1.0	<1.0	<25	---	<1.0
o-Xylene, ug/l	<1.0	<1.0	<25	---	<1.0
m&p-Xylene, ug/l	<1.0	<1.0	640	---	<1.0
Surrogate - a,a,a-Trifluorotoluene	90 %	87 %	80 %	---	87 %
Methyl t-butyl ether (MTBE), ug/l	<10	<10	<250	---	<10
Dilution Factor	1	1	25	---	1
Analysis Date	07.20.00	07.21.00	07.20.00	---	07.21.00
Batch ID	1I0720	1I0721	1I0720	---	1I0721

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LOG NO: S0-04673
Received: 14 JUL 00
Reported: 16 AUG 00

Mr. Paul Calligan
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661 Anderson Drive
Pittsburgh, PA 15220

Requisition: N62467-94-D-0888/CTO72

CC: HOWARD ENGLE/TALL,FL

Project: North Fuel Farm/Day Tank 1
Sampled By: Client
Code: 173400817

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
04673-5	CEF-076-40D-GW-04	07-13-00/10:57	TTKW16
04673-6	CEF-076-21-GW-04	07-13-00/12:20	TTKW16
04673-7	CEF-076-39D-GW-04	07-13-00/12:37	TTKW16
04673-7-DL	CEF-076-39D-GW-04	07-13-00/12:37	TTKW16
04673-8	CEF-076-11-GW-04	07-13-00/14:10	TTKW16

PARAMETER	04673-5	04673-6	04673-7	04673-7-DL	04673-8
Polynuclear Aromatics (8310)					
Acenaphthene, ug/l	<5.0	<5.0	<5.0	<25	<5.0
Acenaphthylene, ug/l	<5.0	<5.0	7.1	<25	<5.0
Anthracene, ug/l	<5.0	<5.0	<5.0	<25	<5.0
Benzo(a)anthracene, ug/l	<5.0	<5.0	<5.0	<25	<5.0
Benzo(a)pyrene, ug/l	<5.0	<5.0	<5.0	<25	<5.0
Benzo(b)fluoranthene, ug/l	<5.0	<5.0	<5.0	<25	<5.0
Benzo(g,h,i)perylene, ug/l	<5.0	<5.0	<5.0	<25	<5.0
Benzo(k)fluoranthene, ug/l	<5.0	<5.0	<5.0	<25	<5.0
Chrysene, ug/l	<5.0	<5.0	<5.0	<25	<5.0
Dibenzo(a,h)anthracene, ug/l	<5.0	<5.0	<5.0	<25	<5.0
Fluoranthene, ug/l	<5.0	<5.0	<5.0	<25	<5.0
Fluorene, ug/l	<5.0	<5.0	<5.0	<25	<5.0
Indeno(1,2,3-cd)pyrene, ug/l	<5.0	<5.0	<5.0	<25	<5.0
Naphthalene, ug/l	<5.0	<5.0	32E	34D	<5.0
Phenanthrene, ug/l	<5.0	<5.0	<5.0	<25	<5.0
Pyrene, ug/l	<5.0	<5.0	<5.0	<25	<5.0
1-Methylnaphthalene, ug/l	<5.0	<5.0	12P	<25	<5.0
2-Methylnaphthalene, ug/l	<5.0	<5.0	24	<25	<5.0
Surrogate - Terphenyl-d14	72 %	72 %	76 %	84 %	72 %
Dilution Factor	1	1	1	5	1
Prep Date	07.19.00	07.19.00	07.19.00	07.19.00	07.19.00
Analysis Date	07.21.00	07.21.00	07.21.00	07.22.00	07.21.00
Batch ID	0719J	0719J	0719J	0719J	0719J

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LOG NO: S0-TTKW16
Received: 14 JUL 00
Reported: 16 AUG 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

Requisition: N62467-94-D-0888/CTO72

CC: HOWARD ENGLE/TALL,FL

Project: North Fuel Farm/Day Tank 1
Sampled By: Client
Code: 173700817

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
TTKW16-1	Method Blank		TTKW16
TTKW16-2	Lab Control Standard % Recovery		TTKW16
TTKW16-3	LCS Accuracy Control Limit (%R)		TTKW16
TTKW16-4	Method Blank		TTKW16
TTKW16-5	Lab Control Standard % Recovery		TTKW16

PARAMETER	TTKW16-1	TTKW16-2	TTKW16-3	TTKW16-4	TTKW16-5
Halogenated and Aromatic Volatiles (8021)					
Benzene, ug/l	<1.0	85 %	48-152 %	<1.0	100 %
Ethylbenzene, ug/l	<1.0	---	---	<1.0	---
Toluene, ug/l	<1.0	95 %	62-133 %	<1.0	95 %
o-Xylene, ug/l	<1.0	---	---	<1.0	---
m&p-Xylene, ug/l	<1.0	---	---	<1.0	---
Surrogate - a,a,a-Trifluorotoluene	97 %	87 %	70-130 %	90 %	87 %
Methyl t-butyl ether (MTBE), ug/l	<10	---	---	<10	---
Dilution Factor	1	1	---	1	1
Analysis Date	07.20.00	07.20.00	---	07.21.00	07.21.00
Batch ID	1I0720	1I0720	---	1I0721	1I0721

Methods: EPA SW-846, Update III.

Angie Weimerskirk

Angie Weimerskirk, Project Manager

Savannah Laboratories
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LOG NO: S0-TTKW16
Received: 14 JUL 00
Reported: 16 AUG 00

Mr. Paul Calligan
Tetra Tech NUS, Inc.
661 Anderson Drive
Pittsburgh, PA 15220

Requisition: N62467-94-D-0888/CTO72

CC: HOWARD ENGLE/TALL,FL

Project: North Fuel Farm/Day Tank 1
Sampled By: Client
Code: 173700817

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
TTKW16-1	Method Blank		TTKW16
TTKW16-2	Lab Control Standard % Recovery		TTKW16
TTKW16-3	LCS Accuracy Control Limit (%R)		TTKW16
TTKW16-4	Method Blank		TTKW16
TTKW16-5	Lab Control Standard % Recovery		TTKW16

PARAMETER	TTKW16-1	TTKW16-2	TTKW16-3	TTKW16-4	TTKW16-5
Polynuclear Aromatics (8310)					
Acenaphthene, ug/l	<5.0	56 %	32-128 %	---	---
Acenaphthylene, ug/l	<5.0	---	---	---	---
Anthracene, ug/l	<5.0	---	---	---	---
Benzo(a)anthracene, ug/l	<5.0	---	---	---	---
Benzo(a)pyrene, ug/l	<5.0	---	---	---	---
Benzo(b)fluoranthene, ug/l	<5.0	---	---	---	---
Benzo(g,h,i)perylene, ug/l	<5.0	---	---	---	---
Benzo(k)fluoranthene, ug/l	<5.0	---	---	---	---
Chrysene, ug/l	<5.0	62 %	40-122 %	---	---
Dibenzo(a,h)anthracene, ug/l	<5.0	---	---	---	---
Fluoranthene, ug/l	<5.0	---	---	---	---
Fluorene, ug/l	<5.0	57 %	31-130 %	---	---
Indeno(1,2,3-cd)pyrene, ug/l	<5.0	---	---	---	---
Naphthalene, ug/l	<5.0	52 %	15-130 %	---	---
Phenanthrene, ug/l	<5.0	---	---	---	---
Pyrene, ug/l	<5.0	64 %	29-137 %	---	---
1-Methylnaphthalene, ug/l	<5.0	---	---	---	---
2-Methylnaphthalene, ug/l	<5.0	---	---	---	---
Surrogate - Terphenyl-d14	72 %	80 %	32-141 %	---	---
Dilution Factor	1	1	---	---	---
Prep Date	07.19.00	07.19.00	---	---	---
Analysis Date	07.21.00	07.21.00	---	---	---
Batch ID	0719J	0719J	---	---	---

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER NFF-071300 | PAGE 1 OF 2

PROJECT NO: 0013	SITE NAME: NFF Cecil Field
PROJECT MANAGER AND PHONE NUMBER	Paul Calligan 850-385-9866
LABORATORY NAME AND CONTACT:	SAVANNAH Labs
SAMPLERS (SIGNATURE)	
FIELD OPERATIONS LEADER AND PHONE NUMBER	Mary Dale 904-281-1941 x.14
ADDRESS	5102 La Roche Ave.
CARRIER/WAYBILL NUMBER	Fedex 8219 5407 0700
CITY, STATE	SAVANNAH, GA 31404

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G
PRESERVATIVE USED: HCL None

DATE YEAR 2000	TIME	SAMPLE ID	MATRIX	GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs (8021B)	PAHs (8310)							COMMENTS
7/13	0922	CEF-076-71D-GW-04	GW	G	5	3	2							Cool to 4°C
	0925	CEF-076-69S-GW-04			5	3	2							
	1032	CEF-076-70I-GW-04			5	3	2							
	1057	CEF-076-40D-GW-04			5	3	2							
	1220	CEF-076-21-GW-04			3	3								
	1237	CEF-076-39D-GW-04			3	3								
	1410	CEF-076-11-GW-04			3	3								

1. RELINQUISHED BY R. Zook	DATE 7/13/00	TIME 1615	1. RECEIVED BY K Conner	DATE 7/14/00	TIME 920
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

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TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER NFF-071300 | PAGE 2 OF 2

PROJECT NO:	SITE NAME:	PROJECT MANAGER AND PHONE NUMBER	LABORATORY NAME AND CONTACT:
0013	NFF Cecil Field	Paul Callison 850-385-9866	Savannah Lab
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER AND PHONE NUMBER	ADDRESS
Allan Pate		Mers Dale 904-281-1941 x.14	5102 La Roche Ave.
		CARRIER/WAYBILL NUMBER	CITY, STATE
		Fedex 8219 5407 0700	Savannah, GA 31404

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G

PRESERVATIVE USED: None

TYPE OF ANALYSIS: PAHs (8310)

DATE YEAR 2000	TIME	SAMPLE ID	MATRIX	GRAB (G) COMP (C)	No. OF CONTAINERS	PAHs (8310)								COMMENTS
7/13	1237	CEF-076-37D-GW-04	GW	G	2	2								Cool to 4°C
↓	1220	CEF-076-21-GW-04	↓	↓	2	2								
↓	1410	CEF-076-11-GW-04	↓	↓	2	2								

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY Allan Pate	7/13/00	1615	1. RECEIVED BY K Conner	7/14/00	920
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

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CA-04673

FORM NO. TtNUS-001

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER WFF-071400 | PAGE 1 OF 1

PROJECT NO: 0013	SITE NAME: North Field Farm Cecil Field	PROJECT MANAGER AND PHONE NUMBER: Paul Calligan 850-385-9866	LABORATORY NAME AND CONTACT: Savannah Labs Angie Wieczorek 912 354 7858
SAMPLERS (SIGNATURE): [signature]		FIELD OPERATIONS LEADER AND PHONE NUMBER: Merv Dale 904-281-1941 x14	ADDRESS: 5102 La Roche Ave.
		CARRIER/WAYBILL NUMBER: Fedex	CITY, STATE: Savannah, GA 31404

STANDARD TAT [X]
RUSH TAT [ ]
[ ] 24 hr. [ ] 48 hr. [ ] 72 hr. [ ] 7 day [ ] 14 day

DATE YEAR 2000	TIME	SAMPLE ID	MATRIX	GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs (8021B)	PAHs (8310)							COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)						G	G							
PRESERVATIVE USED						HCl	None							
7/14	0935	CEF-076-67I-GW-04	GW	G	5	3	2							Cool to 4°C
7/14	0930	CEF-076-80D-GW-04	GW	G	5	3	2							
7/14	0930	CEF-076-MSMSD01-GW-04	GW	G	10	6	4							
7/14	0000	CEF-076-DUP01-GW-04	GW	G	5	3	2							

1. RELINQUISHED BY: [signature]	DATE 7/14/00	TIME 1230	1. RECEIVED BY: K Conner	DATE 7/15/00	TIME 1030
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

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FORM NO. TNNUS-001