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NAS CECIL FIELD, FL  
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SEMI-ANNUAL GROUNDWATER MONITORING LETTER REPORT FOR BUILDING 502  
TANK 502 NAS CECIL FIELD FL  
10/23/2002  
TETRA TECH NUS INC



## **TETRA TECH NUS, INC.**

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Document Tracking Number 03JAX0003

October 23, 2002

Project Number N4093

Mr. David Grabka  
Remedial Project Manager  
Technical Review/Federal Facilities  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Reference: CLEAN Contract Number N62467-94-D-0888  
Contract Task Order Number 0209

Subject: Semi-Annual Groundwater Monitoring Report (June 2002)  
Building 502, Tank 502  
Naval Air Station Cecil Field  
Jacksonville, Florida

Dear Mr. Grabka:

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit this semi-annual Groundwater Monitoring Report for the referenced Contract Task Order (CTO) for Building 502, Tank 502. This groundwater monitoring report was prepared for the United States 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 quality at 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 Plan Approval Order (NAMP AO) issued by the Florida Department of Environmental Protection (FDEP) on July 13, 1999 (Attachment A) and as modified by subsequent reports [Harding Lawson Associates (HLA), 2000; TtNUS, 2001].

The fieldwork and analytical results of the groundwater sampling conducted at the site in June 2002 are summarized in this report. The work was performed in general accordance with the Base-wide Generic Work Plan Volumes I and II (TtNUS, 1998). The location of the site is presented on Figure 1.

### **SITE BACKGROUND**

Tank Site 502 was formerly a 1000-gallon underground storage tank (UST) located on the west side of Building 502. The UST was removed by Bechtel on April 16, 1997, along with 5 tons of contaminated soil (HLA, 2000). Based on subsequent site investigation results, a monitoring program was approved to sample monitoring wells CEF-502-1S, CEF-502-4S, CEF-502-2S, and CEF-502-5D (FDEP, 1999). Monitoring wells CEF-502-2S and CEF-502-5D were abandoned during the tank removal and were later installed as wells CEF-502-6S and CEF-502-7D, respectively (HLA, 2000). On August 25, 1999, during the first sampling event under the monitoring program, it was discovered that well CEF-502-1S had been abandoned, and well CEF-502-4S could not be sampled due to low water table conditions. HLA conducted the second event on March 13, 2000 and only sampled wells CEF-502-4S, CEF-502-6S, and



CEF-502-7D. The summary table of detections from the second HLA report is included as Attachment B. During March and April of 2001, TtNUS conducted a supplement site assessment. TtNUS personnel supervised the installation of a replacement well for CEF-502-1S (which is now designated CEF-502-1SR) and sampled the four wells required in the monitoring order. The Site Assessment Report (SAR) Addendum (TtNUS, 2001) recommended several modifications including an additional well (CEF-502-8S) and an additional existing sampling location (CEF-502-3S). The recommendations were approved by the FDEP on August 3, 2001 and were implemented during the next semi-annual sampling event held in December 2001. The subsequent groundwater monitoring report recommended continued monitoring.

## FIELD OPERATIONS

On June 6, 2002, water level measurements were recorded from each of the monitoring wells prior to sample collection. The depth to water ranged from 7.14 feet (ft) below top-of-casing (btoc) (CEF-502-3S) to 8.38 ft btoc (CEF-502-1SR). The depth-to-water measurements, along with top of casing elevations, were used to calculate groundwater elevations.

On June 6, 2002, groundwater samples were collected from five shallow monitoring wells (CEF-502-1SR, CEF-502-3S, CEF-502-4S, CEF-502-6S, and CEF-502-8S) and one deep monitoring well (CEF-502-7D) (Figure 1). Following collection, the samples were placed on ice and subsequently shipped under chain-of-custody to Accutest Laboratory in Orlando, Florida. The laboratory analyzed the samples for volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method SW846 8260B, polynuclear aromatic hydrocarbons (PAHs) by USEPA Method SW846 8310, and total recoverable petroleum hydrocarbons (TRPH) by Florida Petroleum Range Organics (FL-PRO). The reported detection limits for these methods meet the requirements for the similar methods recommended in the NAMPAO.

## RESULTS

Groundwater elevation data from the June 2002 event and the previous sampling events are shown on Table 1. The groundwater flow direction with elevation data for June 2002 is shown on Figure 2. Based on the data, the inferred direction of groundwater flow has changed since December 2001 from flowing to the northwest and northeast to flowing slightly to the southwest.

Compounds of concern (COCs) reported by the laboratory for the groundwater samples collected for this sampling event were compared to FDEP Groundwater Cleanup Target Levels (GCTLs) and Natural Attenuation Default Source Concentrations (NADSCs). The data and comparable standards are indicated on Table 2, and the results for naphthalene compounds and TRPH are illustrated on Figure 3. Four COCs (naphthalene, 1-methylnaphthalene, 2-methylnaphthalene, and TRPH) were reported at values exceeding GCTLs in samples collected from well CEF-502-1SR. Those same values were below the NADSCs. The benzene GCTL was exceeded in perimeter well CEF-502-4S at a concentration of 1.2 parts per billion. A copy of the laboratory report for the June 6, 2002 sampling event is provided as Attachment C.

## CONCLUSIONS AND RECOMMENDATIONS

This event is considered the first of two for 2002, and it is also the beginning of the third year of monitoring for the site. A comparison of the results for monitoring well CEF-502-1SR between the June 2002 sampling event with the last two events appears to indicate that groundwater COCs have decreased slightly with a relatively low water table. Based on these results, TtNUS recommends continued monitoring.



If you have any questions with regard to this submittal, please contact me at (850) 806-0202.

Sincerely,

A handwritten signature in black ink that reads "Paul E. Calligan".

Paul E. Calligan, P.G.  
Task Order Manager

A handwritten signature in black ink that reads "Mervin W. Dale".

Mervin W. Dale, P.G.  
Florida Professional Geologist  
P.G. Number 0001917

PEC/mwd

Attachments (9)

pc: W. Hansel, SOUTHNAVFACENCOM  
D. Taylor, USEPA  
D. Wroblewski, TtNUS (cover letter only)  
M. Perry, TtNUS (unbound)  
Project File

## TABLES

**Table 1**  
**Groundwater Elevation and Monitoring Well Construction Data**

Semi-Annual Groundwater Monitoring Report  
 Building 502, Tank 502  
 Naval Air Station Cecil Field  
 Jacksonville, Florida

| Well Number | Total Depth (ft, bls) | Top of Casing Elevation (ft NAVD) | April 9, 2001            |                          | December 11, 2001        |                          | March 4, 2002            |                          | June 6, 2002             |                          |
|-------------|-----------------------|-----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|             |                       |                                   | Depth to Water (ft btoc) | Water Elevation (ft msl) | Depth to Water (ft btoc) | Water Elevation (ft msl) | Depth to Water (ft btoc) | Water Elevation (ft msl) | Depth to Water (ft btoc) | Water Elevation (ft msl) |
| CEF-502-1SR | 12.48                 | 82.16                             | 6.31                     | 75.85                    | 5.27                     | 76.89                    | 4.65                     | 77.51                    | 8.38                     | 73.78                    |
| CEF-502-3S  | 12.22                 | 80.68                             | 5.03                     | 75.65                    | 3.77                     | 76.91                    | 3.03                     | 77.65                    | 7.14                     | 73.54                    |
| CEF-502-4S  | 12.36                 | 80.68                             | 5.07                     | 75.61                    | 3.73                     | 76.95                    | 3.02                     | 77.66                    | 7.18                     | 73.50                    |
| CEF-502-6S  | 14.80                 | 81.70                             | 5.72                     | 75.98                    | 5.20                     | 76.50                    | 4.64                     | 77.06                    | 7.90                     | 73.80                    |
| CEF-502-7D  | 29.95                 | 81.65                             | 6.00                     | 75.65                    | 4.87                     | 76.78                    | 4.21                     | 77.44                    | 7.84                     | 73.81                    |
| CEF-502-8S  | 13.57                 | 81.75                             | NA                       | NM                       | 4.83                     | 76.92                    | 4.14                     | 77.61                    | 8.00                     | 73.75                    |

Notes: bls = below land surface  
 msl = mean sea level  
 NAVD = North American Vertical Datum, 1988  
 NA = not applicable  
 NM = not measured

**Table 2**  
**Summary of Detections in Groundwater**  
Semi-Annual Groundwater Monitoring Report  
Building 502, Tank 502  
Naval Air Station Cecil Field  
Jacksonville, Florida  
Page 1 of 3

| Compounds Detected                      |          | GCTL <sup>1</sup> | NADSC <sup>2</sup> | Source Well CEF-502-1SR |             |            | Perimeter Well CEF-502-3S |          |  |
|---|----------|-------------------|--------------------|-------------------------|-------------|------------|---------------------------|----------|--|
| Sample ID: CEF-502-GW-                  | 1SR-02   |                   |                    | 1SR-03                  | 1SR-04      | 3S-03      | 3S-03B                    | 3S-04    |  |
| Date Sampled                            | 4/9/2001 |                   |                    | 12/11/2001              | 6/6/2002    | 12/11/2001 | 3/4/2002                  | 6/6/2002 |  |
| <b>PAHs (USEPA Method 8270C) (µg/L)</b> |          |                   |                    |                         |             |            |                           |          |  |
| Acenaphthene                            | 20       | 200               | 3.7                | 5.9                     | 16          | 1.1 J      | <1.0                      | 4.1      |  |
| Fluorene                                | 280      | 280               | 4.5                | 5.5                     | 6.4J        | 0.7 J      | <1.0                      | <2.1     |  |
| Phenanthrene                            | 210      | 2100              | 1.7                | 3.3                     | 8.2         | <1.1       | <1.0                      | <2.1     |  |
| 1-Methylnaphthalene                     | 20       | 200               | <b>63</b>          | <b>93</b>               | <b>84</b>   | <b>28</b>  | 11                        | <2.1     |  |
| 2-Methylnaphthalene                     | 20       | 200               | <b>85</b>          | <b>130</b>              | <b>126</b>  | <b>25</b>  | <1.0                      | <2.1     |  |
| Naphthalene                             | 20       | 200               | <b>66</b>          | <b>96</b>               | <b>21.2</b> | 3.4        | <1.0                      | <2.1     |  |
| <b>VOCs (USEPA Method 8260B) (µg/L)</b> |          |                   |                    |                         |             |            |                           |          |  |
| Chlorobenzene                           | 100      |                   | <1.0               | <1.0                    | <1.0        | <1.0       | NS                        | <1.0     |  |
| Benzene                                 | 1        | 10                | <1.0               | <1.0                    | <1.0        | <1.0       | <1.0                      | <1.0     |  |
| Ethylbenzene                            | 30       | 300               | 13                 | 5.9                     | 13.5        | <1.0       | NS                        | <1.0     |  |
| Total Xylenes                           | 20       | 200               | 4.8                | 1.2 J                   | 5.5         | <3.0       | NS                        | <3.0     |  |
| <b>FL-PRO (mg/L)</b>                    |          |                   |                    |                         |             |            |                           |          |  |
| TRPH                                    | 5        | 50                | <b>24</b>          | <b>36</b>               | <b>19.8</b> | 1.5        | NS                        | 0.743    |  |

See notes at end of table

**Table 2**  
**Summary of Detections in Groundwater**

Semi-Annual Groundwater Monitoring Report  
Building 502, Tank 502  
Naval Air Station Cecil Field  
Jacksonville, Florida  
Page 2 of 3

| Compounds Detected                      | GCTL <sup>1</sup> | NADSC <sup>2</sup> | Perimeter Well CEF-502-4S |           |            | Source Well CEF-502-6S |           |            |          |
|---|-------------------|--------------------|---------------------------|-----------|------------|------------------------|-----------|------------|----------|
|   |                   |                    | Sample ID: CEF-502-GW-    | 4S-02     | 4S-03      | 4S-04                  | 6S-02     | 6S-03      | 6S-04    |
|   |                   |                    | Date Sampled              | 4/10/2001 | 12/11/2001 | 6/6/2002               | 4/9/2001  | 12/11/2001 | 6/6/2002 |
| <b>PSHs (USEPA Method 8270C) (µg/L)</b> |                   |                    |                           |           |            |                        |           |            |          |
| Acenaphthene                            | 20                | 200                | <1.0                      | <1.3      | 4.6        | 1.2                    | 3.8       | 4.2        |          |
| Fluorene                                | 280               | 280                | <1.0                      | <1.3      | <2.3       | 0.48 J                 | 2.3       | <2.1       |          |
| Phenanthrene                            | 210               | 2100               | <1.0                      | <1.3      | <2.3       | <1.0                   | 0.89 J    | <2.1       |          |
| 1-Methylnaphthalene                     | 20                | 200                | <1.0                      | 1.2 J     | 1.6 J      | 7.4                    | <b>28</b> | <2.1       |          |
| 2-Methylnaphthalene                     | 20                | 200                | <1.0                      | 1.6       | 3.7        | 0.96 J                 | <b>41</b> | <2.1       |          |
| Naphthalene                             | 20                | 200                | <1.0                      | <1.3      | <2.3       | 2.0                    | 5.0       | <2.1       |          |
| <b>VOCs (USEPA Method 8260B) (µg/L)</b> |                   |                    |                           |           |            |                        |           |            |          |
| Chlorobenzene                           | 100               |                    | <1.0                      | <1.0      | <1.0       | <1.0                   | <1.0      | <1.0       |          |
| Benzene                                 | 1                 | 10                 | <1.0                      | <1.0      | <1.2       | <1.0                   | <1.0      | <1.0       |          |
| Ethylbenzene                            | 30                | 300                | 0.92 J                    | <1.0      | <1.0       | 2.4                    | 0.54 J    | <1.0       |          |
| Total Xylenes                           | 20                | 200                | <2.0                      | <3.0      | <3.0       | <2.0                   | 0.43 J    | <3.0       |          |
| <b>FL-PRO (mg/L)</b>                    |                   |                    |                           |           |            |                        |           |            |          |
| TRPH                                    | 5                 | 50                 | 1.1                       | 0.46 J    | 0.581      | 1.5                    | 1.5       | 1.02       |          |

See notes at end of table

**Table 2**  
**Summary of Detections in Groundwater**

Semi-Annual Groundwater Monitoring Report  
Building 502, Tank 502  
Naval Air Station Cecil Field  
Jacksonville, Florida  
Page 3 of 3

| Compounds Detected                      | GCTL <sup>1</sup> | NADSC <sup>2</sup> | Perimeter Well CEF-502-7D |          |            | Source Well CEF-502-8S |            |
|---|-------------------|--------------------|---------------------------|----------|------------|------------------------|------------|
|   |                   |                    | 7D-02                     | 7D-03    | 7D-04      | 8S-03                  | 8S-04      |
|   |                   |                    | Date Sampled              | 4/9/2001 | 12/11/2001 | 6/6/2002               | 12/11/2001 |
| <b>PAHs (USEPA Method 8270C) (µg/L)</b> |                   |                    |                           |          |            |                        |            |
| Acenaphthene                            | 20                | 200                | <1.0                      | <1.1     | 4.2        | <1.1                   | 4.3        |
| Fluorene                                | 280               | 280                | <1.0                      | <1.1     | <2.1       | <1.1                   | <2.2       |
| Phenanthrene                            | 210               | 2100               | <1.0                      | <1.1     | <2.1       | <1.1                   | <2.2       |
| 1-Methylnaphthalene                     | 20                | 200                | <1.0                      | <1.1     | <2.1       | <1.1                   | <2.2       |
| 2-Methylnaphthalene                     | 20                | 200                | <1.0                      | <1.1     | <2.1       | <1.1                   | <2.2       |
| Naphthalene                             | 20                | 200                | <1.0                      | <1.1     | <2.1       | <1.1                   | <2.2       |
| <b>VOCs (USEPA Method 8260B) (µg/L)</b> |                   |                    |                           |          |            |                        |            |
| Chlorobenzene                           | 100               |                    | <1.0                      | 0.33 J   | <1.0       | <1.0                   | <1.0       |
| Benzene                                 | 1                 | 10                 | <1.0                      | <1.0     | <1.0       | <1.0                   | <1.0       |
| Ethylbenzene                            | 30                | 300                | <1.0                      | <1.0     | <1.0       | <1.0                   | <1.0       |
| Total Xylenes                           | 20                | 200                | <1.0                      | <3.0     | <3.0       | <3.0                   | <3.0       |
| <b>FL-PRO (mg/L)</b>                    |                   |                    |                           |          |            |                        |            |
| TRPH                                    | 5                 | 50                 | <1.0                      | 0.23 J   | 0.26       | 0.45 J                 | 0.352      |

NOTES:

<sup>1</sup>GCTL based on Chapter 62-770, FAC.

<sup>2</sup>NADSC as promulgated in Chapter 62-770.690, FAC.

**Bold** values are above GCTLs.

J = estimated

µg/L = micrograms per liter

mg/L = milligrams per liter

NS = not sampled

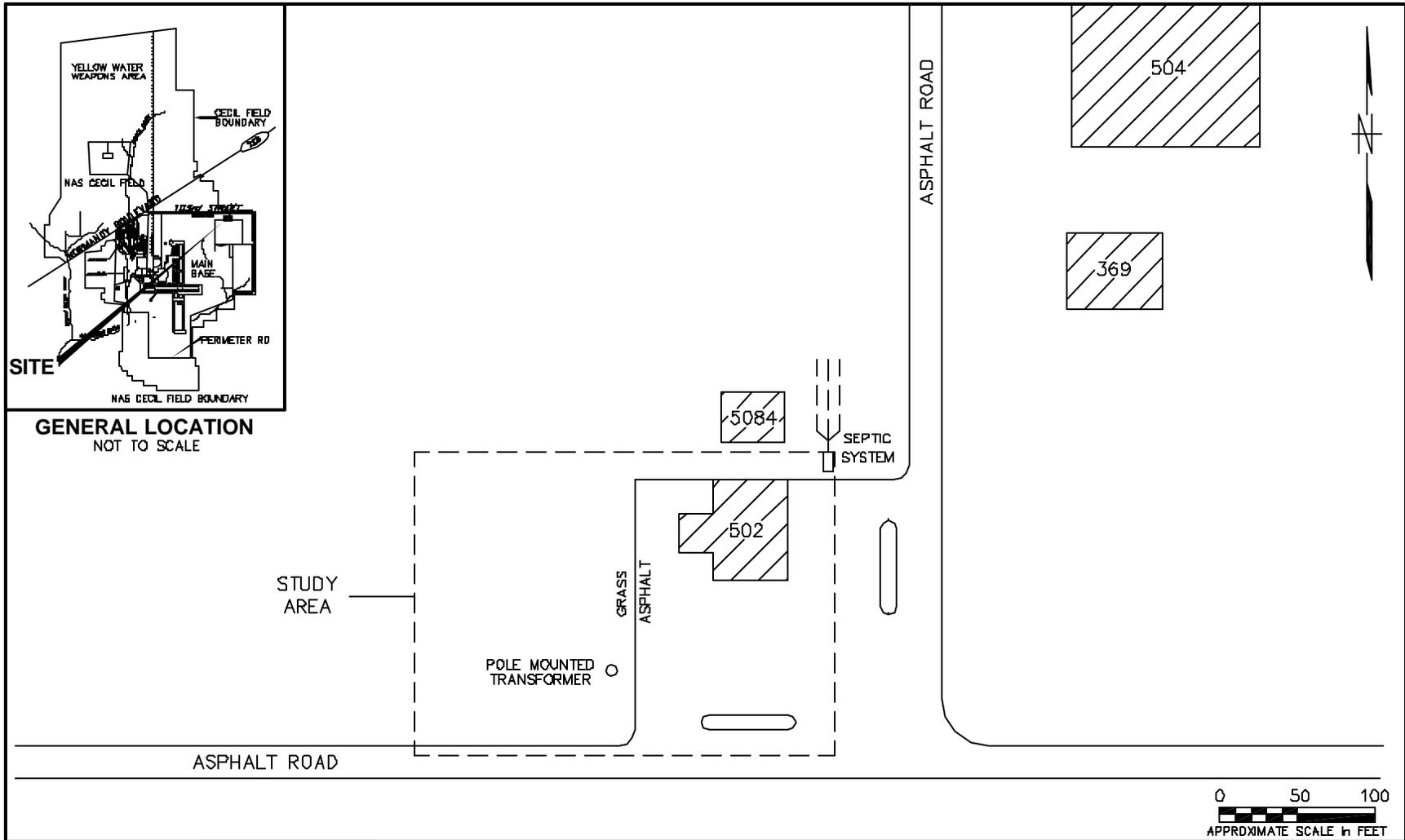
< = less than

**Table 3**  
**Recommended Milestone Objectives**  
**For Monitoring Well CEF-502-6S (formerly CEF-502-2S)**

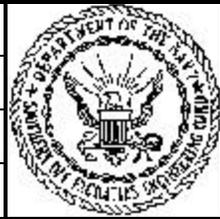
Semi-Annual Groundwater Monitoring Report  
 Building 502, Tank 502  
 Naval Air Station Cecil Field  
 Jacksonville, Florida

| COCs                | Units | End Of |        |        |        |        |
|---------------------|-------|--------|--------|--------|--------|--------|
|                     |       | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Naphthalene         | µg/L  | 55     | 45     | 35     | 25     | <20    |
| 1-Methylnaphthalene | µg/L  | 55     | 45     | 35     | 25     | <20    |
| 2-Methylnaphthalene | µg/L  | 74     | 61     | 46     | 31     | <20    |
| TRPH                | mg/L  | 20     | 16     | 12     | 8      | <5     |

## FIGURES

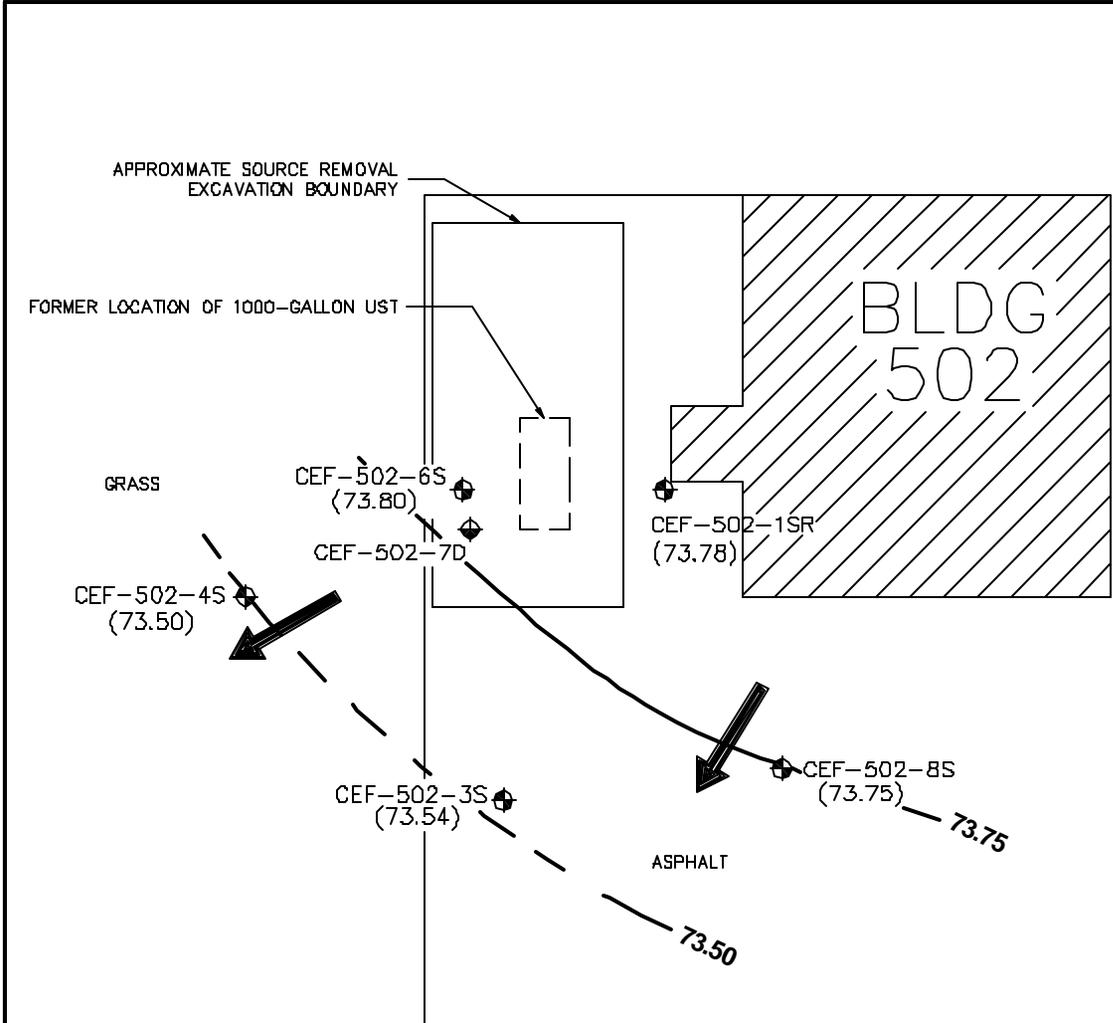


|                   |                 |
|-------------------|-----------------|
| DRAWN BY<br>LLK   | DATE<br>6/13/01 |
| CHECKED BY        | DATE            |
| COST/SCHED-AREA   |                 |
| SCALE<br>AS NOTED |                 |



SITE LOCATION MAP  
 BUILDING 502  
 NAVAL AIR STATION CECIL FIELD  
 JACKSONVILLE, FLORIDA

|                         |           |
|-------------------------|-----------|
| CONTRACT NO.<br>4093    |           |
| APPROVED BY             | DATE      |
| APPROVED BY             | DATE      |
| DRAWING NO.<br>FIGURE 1 | REV.<br>0 |



**NOTE:** Monitoring Well CEF-502-1SR is a replacement well for CEF-502-1S and is located in approximately the same place.

**LEGEND**

- ◆ SHALLOW MONITORING WELL
- ◐ DEEP MONITORING WELL
- (73.50) WATER TABLE ELEVATION (FT MSL)
- 73.50— EQUIPOTENTIAL LINE (FT MSL)
- ➔ INFERRED DIRECTION of GROUNDWATER FLOW
- MSL = MEAN SEA LEVEL

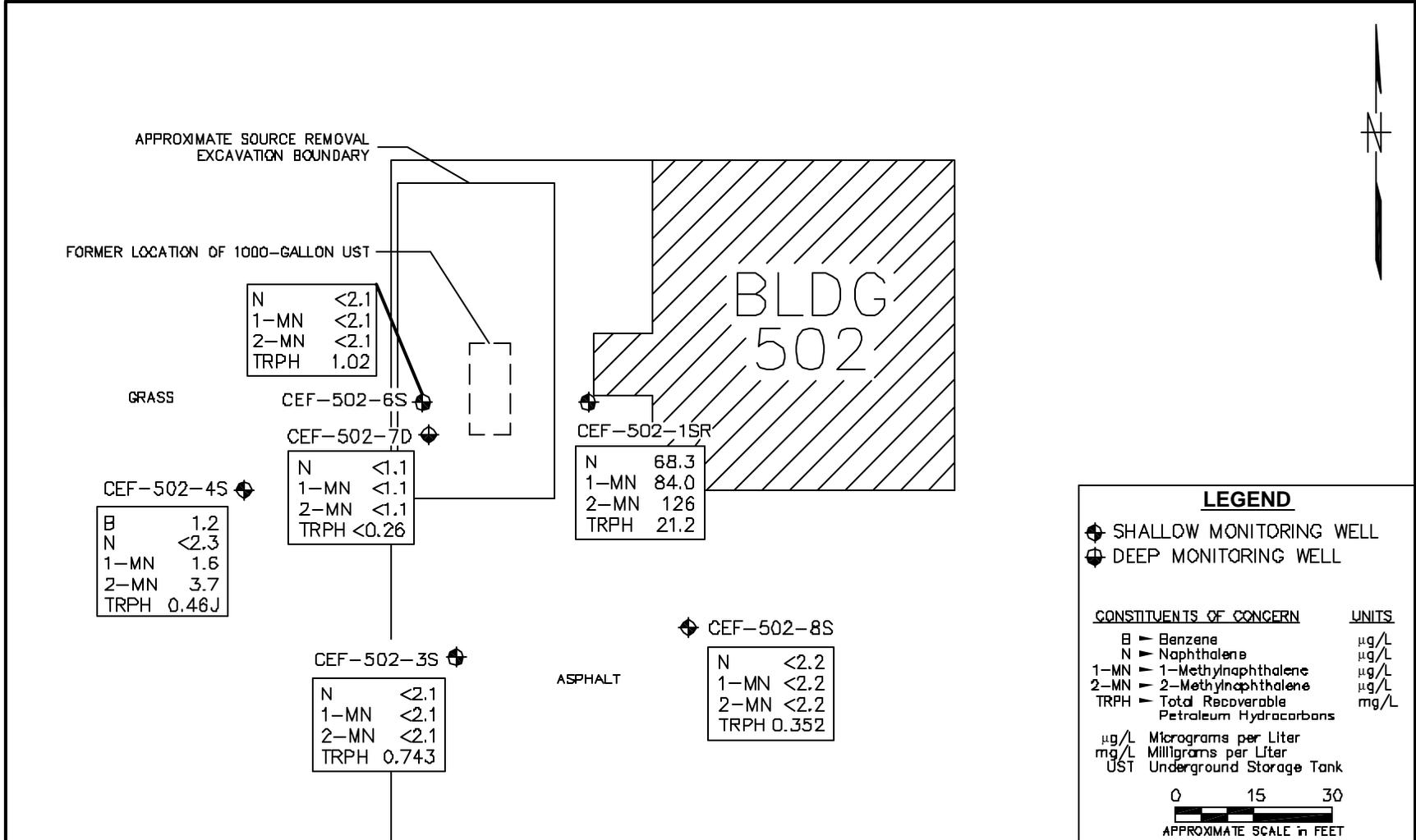
0 15 30  
APPROXIMATE SCALE In FEET

|                   |                 |
|-------------------|-----------------|
| DRAWN BY<br>LLK   | DATE<br>2/25/02 |
| CHECKED BY        | DATE            |
| COST/SCHED-AREA   |                 |
| SCALE<br>AS NOTED |                 |



GROUNDWATER FLOW MAP  
JUNE 6, 2002  
BUILDING 502  
NAVAL AIR STATION CECIL FIELD  
JACKSONVILLE, FLORIDA

|              |          |
|--------------|----------|
| CONTRACT NO. | 4093     |
| APPROVED BY  | DATE     |
| APPROVED BY  | DATE     |
| DRAWING NO.  | FIGURE 2 |
| REV.         | 0        |



**LEGEND**

◆ SHALLOW MONITORING WELL  
 ⊕ DEEP MONITORING WELL

| CONSTITUENTS OF CONCERN                         | UNITS                    |
|---|--------------------------|
| B ▶ Benzene                                     | µg/L                     |
| N ▶ Naphthalene                                 | µg/L                     |
| 1-MN ▶ 1-Methylnaphthalene                      | µg/L                     |
| 2-MN ▶ 2-Methylnaphthalene                      | µg/L                     |
| TRPH ▶ Total Recoverable Petroleum Hydrocarbons | mg/L                     |
| µg/L  | Micrograms per Liter     |
| mg/L  | Milligrams per Liter     |
| UST   | Underground Storage Tank |

0 15 30  
 APPROXIMATE SCALE in FEET

|                   |                 |
|-------------------|-----------------|
| DRAWN BY<br>LLK   | DATE<br>2/25/02 |
| CHECKED BY        | DATE            |
| COST/SCHED-AREA   |                 |
| SCALE<br>AS NOTED |                 |



HYDROCARBON CONCENTRATIONS IN GROUNDWATER  
 JUNE 6, 2002  
 BUILDING 502  
 NAVAL AIR STATION CECIL FIELD  
 JACKSONVILLE, FLORIDA

|              |          |           |
|--------------|----------|-----------|
| CONTRACT NO. | 4093     |           |
| APPROVED BY  | DATE     |           |
| APPROVED BY  | DATE     |           |
| DRAWING NO.  | FIGURE 3 | REV.<br>0 |

**ATTACHMENT A**

**FDEP NAMPAAO**



Job Bush  
Governor

## Department of Environmental Protection

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

David B. Struhs  
Secretary

July 13, 1999

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Commanding Officer  
Mr. Bryan Kizer, Code 1842  
SOUTHNAVFACENGCOM  
Post Office Box 190010  
North Charleston, SC 29419-9010

RE: Site Assessment Report and Monitoring Only Proposal for  
Facility 502, Tank 502, Naval Air Station Cecil Field,  
Florida.

Dear Mr. Kizer:

I have reviewed the Site Assessment Report Revision and  
Monitoring Only Proposal for Natural Attenuation dated April 1999  
(received April 23, 1999), submitted for this site. Based upon  
my review and comments, the enclosed Monitoring Only Plan for  
Natural Attenuation was signed by Mr. John M. Ruddell, Director  
of the Division of Waste Management.

If I can be of any further assistance with this matter,  
please contact me at (850) 921-9991.

Sincerely,

Michael J. Deliz, P.G.  
Remedial Project Manager

13-JULY-99

Date

CC: Debbie Vaughn-Wright, USEPA  
John Flowe, City of Jacksonville  
Scott Glass, SOUTHNAVFACENGCOM  
Dave Kruzicki, NAS Cecil Field  
Eric Blomberg, HLA - Tallahassee

TJB JD JJC ESN EW

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

Printed on recycled paper.



Jeb Bush  
Governor

## Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400  
July 13, 1999

David B. Struhs  
Secretary

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Commanding Officer  
Mr. Bryan Kizer, Code 1842  
SOUTHNAVFACENGCOM  
Post Office Box 190010  
North Charleston, South Carolina 29419-0068

Subject: Monitoring Only Plan Approval  
Order Facility 502, Tank 502,  
Naval Air Station, Cecil Field

Dear Mr. Kizer:

The Bureau of Waste Cleanup has completed the review of the Site Assessment Report and Monitoring Only Proposal for Natural Attenuation dated April 1999 (received April 23, 1999), submitted for this site. Pursuant to Rule 62-770.690, Florida Administrative Code (F.A.C.), the Department approves the monitoring only proposal. 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 Monitoring Only 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.

| <u>Monitoring Wells</u>                                  | <u>Parameters</u>     | <u>Frequency</u> |
|--|-----------------------|------------------|
| CEF-502-1S, CEF-502-2S,<br>CEF-502-4S, and<br>CEF-502 5D | 602, 8310, and FL-PRO | Semi-annual      |

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

*Printed on recycled paper.*

Mr. Bryan Kizer  
Page Two  
July 13, 1999

If concentrations of chemicals 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, as described in Rule 62-70.690(7)(f), F.A.C.

Contaminated wells:

CEF-502-1S and CEF-502-2S: 100 µg/l Benzene; 200 µg/l Xylene; 300 µg/l Ethylbenzene; 400 µg/l Toluene; 200 µg/l Naphthalene; and 50 mg/l TRPH.

Perimeter wells:

CEF-502-4S and CEF-502-5D: 1 µg/l Benzene; 20 µg/l Xylene; 30 µg/l Ethylbenzene; 40 µg/l Toluene; 20 µg/l Naphthalene; and 5 mg/l TRPH

The approved Remedial Action by Natural Attenuation monitoring period is 5 years. Milestone objectives should be established if monitoring is projected to take greater than one year. 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>Benzene</u> | <u>MW-CEF-<br/>502-2S</u> |
|----------------|---------------------------|
| End of year 1  | 26                        |
| End of year 2  | 13                        |
| End of year 3  | 6                         |
| End of year 4  | 3                         |
| End of year 5  | <1                        |

| <u>Ethylbenzene</u> | <u>MW-CEF-<br/>502-2S</u> |
|---------------------|---------------------------|
| End of year 1       | 60                        |
| End of year 2       | 50                        |
| End of year 3       | 40                        |
| End of year 4       | 30                        |
| End of year 5       | <30                       |

Mr. Bryan Kizer  
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| <u>Xylene</u> | <u>MW-CEF-</u><br><u>502-2S</u> |
|---------------|---------------------------------|
| End of year 1 | 150                             |
| End of year 2 | 100                             |
| End of year 3 | 50                              |
| End of year 4 | 20                              |
| End of year 5 | <20                             |

| <u>Naphthalene</u> | <u>MW-CEF-</u><br><u>502-2S</u> |
|--------------------|---------------------------------|
| End of year 1      | 150                             |
| End of year 2      | 100                             |
| End of year 3      | 50                              |
| End of year 4      | 20                              |
| End of year 5      | <20                             |

| <u>TRPH</u>   | <u>MW-CEF-</u><br><u>502-2S</u> |
|---------------|---------------------------------|
| End of year 1 | 10                              |
| End of year 2 | 8                               |
| End of year 3 | 6                               |
| End of year 4 | 5                               |
| End of year 5 | <5                              |

If the applicable No Further Action criteria in Rule 62-70.680, F.A.C., are achieved 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 achieved following one year of monitoring, then a report summarizing the monitoring program should be submitted, including a proposal as described in Rule 62-770.690(7)(g).

Persons affected by this Order have the following options:

If you choose to accept the above decision by the Department 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:

**ATTACHMENT B**

**TABLE B-4 FROM HLA JUNE 5, 2000 LETTER REPORT**

**Table B-4  
Summary of Groundwater Analytical Results**

Building 502, Tank 502  
Naval Air Station Cecil Field  
Jacksonville, Florida

| Compound  | Source Area<br>Monitoring Wells |        |            |        |            |        | Perimeter<br>Monitoring Wells |        |            |        |            |        | FL<br>GCTL | Action Levels <sup>1</sup> |           | 1year<br>Milestone<br>Objectives<br>(Source) <sup>1</sup> |
|---|---------------------------------|--------|------------|--------|------------|--------|-------------------------------|--------|------------|--------|------------|--------|------------|----------------------------|-----------|---|
|   | CEF-502-1S                      |        | CEF-502-2S |        | CEF-502-6S |        | CEF-502-4S                    |        | CEF-502-5D |        | CEF-502-7D |        |            | Source                     | Perimeter |   |
|   | Mar-97                          | Sep-99 | Jun-98     | Sep-99 | Sep-99     | Mar-00 | Jun-98                        | Mar-00 | Jun-98     | Mar-00 | Sep-99     | Mar-00 |            |                            |           |   |
| <b>Volatle Organic Aromatics</b>                |                                 |        |            |        |            |        |                               |        |            |        |            |        |            |                            |           |   |
| Benzene   | ND                              | NS     | 26         | NS     | 4.8        | 4.6    | ND                            | 1.5    | ND         | NS     | ND         | ND     | 1          | 100                        | 1         | 26  |
| Ethylbenzene                                    | 19                              | NS     | 68         | NS     | 29         | 29     | ND                            | 3.4    | ND         | NS     | ND         | ND     | 30         | 300                        | 30        | 60  |
| Toluene   | ND                              | NS     | 14         | NS     | ND         | 3.2    | ND                            | ND     | ND         | NS     | ND         | ND     | 40         | 400                        | 40        | 150   |
| Xylenes   | 7.9                             | NS     | 180        | NS     | 55         | 45     | ND                            | ND     | ND         | NS     | ND         | ND     | 20         | 200                        | 20        | 150   |
| 1,2-Dichlorobenzene                             | ND                              | NS     | ND         | NS     | ND         | ND     | ND                            | ND     | ND         | NS     | 1.1        | ND     | 600        |                            |           |   |
| 1,4-Dichlorobenzene                             | ND                              | NS     | ND         | NS     | ND         | ND     | ND                            | ND     | 1.3        | NS     | 3.6        | 2.5    | 75         |                            |           |   |
| <b>Polynuclear Aromatic Hydrocarbons</b>        |                                 |        |            |        |            |        |                               |        |            |        |            |        |            |                            |           |   |
| Naphthalene                                     | 160                             | NS     | 200        | NS     | 70         | 80     | ND                            | ND     | ND         | NS     | 0.8        | ND     | 20         | 200                        | 20        | 150   |
| 1-Methylnaphthalene                             | 150                             | NS     | 200        | NS     | 230        | 110    | 1.3                           | ND     | ND         | NS     | 3.4        | ND     | 20         |                            |           |   |
| 2-Methylnaphthalene                             | 200                             | NS     | 260        | NS     | 200        | 85     | ND                            | ND     | ND         | NS     | 3.2        | ND     | 20         |                            |           |   |
| Anthracene                                      | ND                              | NS     | ND         | NS     | 2          | ND     | ND                            | ND     | ND         | NS     | ND         | ND     |            |                            |           |   |
| Fluoranthene                                    | ND                              | NS     | 8.3        | NS     | ND         | ND     | ND                            | ND     | ND         | NS     | 0.23       | ND     | 280        |                            |           |   |
| Fluorene  | ND                              | NS     | ND         | NS     | 11         | 3.1    | ND                            | ND     | ND         | NS     | ND         | ND     | 280        |                            |           |   |
| <b>Total Recoverable Petroleum Hydrocarbons</b> |                                 |        |            |        |            |        |                               |        |            |        |            |        |            |                            |           |   |
| TRPH  | 7.5                             | NS     | 1.3        | NS     | 2.3        | 1.1    | ND                            | ND     | ND         | NS     | ND         | ND     | 5          | 50                         | 5         | 10  |

**Notes:**  
VOC and PAH concentrations are in micrograms per liter. TRPH concentrations are in milligrams per liter  
<sup>1</sup>As specified in the Monitoring Only Plan Approval Order (FDEP, July 1999)  
Only detected compounds, and compounds identified as contaminants of concern by FDEP are listed.  
GCTL= groundwater cleanup target level  
ND=not detected  
NS=not sampled (Monitoring wells CEF-502-2S and CEF-502-5D were replaced by monitoring wells CEF-502-6S and CEF-502-7D. Monitoring well CEF-502-4S has very slow recharge)  
Results for current sampling event are shaded

**ATTACHMENT C**  
**GROUNDWATER ANALYTICAL REPORT – JUNE 2002**



Volatiles Fractions

All quality control criteria were met for this fraction.

Polycyclic Aromatic Hydrocarbons Fraction

All quality control criteria were met for this fraction.

Total Petroleum Hydrocarbon Fraction

All quality control criteria were met for this fraction.

Field Duplicate Analysis

| Analyte             | CEF-502-GW-1SR-04 | CEF-502-DUP01-04 | RPD   |
|---------------------|-------------------|------------------|-------|
| Ethylbenzene        | 13.5              | 13.7             | <1%   |
| Total Xylenes       | 5.5               | 6.3              | 13.6% |
| 1-Methylnaphthalene | 109               | 84               | 25.9% |
| 2-Methylnaphthalene | 165               | 126              | 26.8% |
| Fluorene            | 6.4J              | 5.6J             | 13.3% |
| Naphthalene         | 84.8              | 68.3             | 21.6% |
| TPH                 | 19.8              | 21.2             | 6.83% |

No data qualifications were made based on field duplicate data.

Executive Summary

**Laboratory performance:** No other factors affected data quality.

**Other factors affecting data quality:** No other factors affected data quality.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (February, 1996), and the NFESC guidelines "Navy Installation Restoration Chemical Data Quality Manual" (September, 1999). The text of the report has been formulated to address only those problems affecting data quality.

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

  
\_\_\_\_\_  
Michael J. Akers  
Project Chemist  
Tetra Tech NUS, Inc.

F13470

HOLDING TIME

07/08/02

| Units | Nsample           | Lab Id      | Qc Type | Sdg    | Sort | Samp Date | Exit Date | Anal Date | SAMP_DATE TO EXTR_DATE | EXTR_DATE TO ANAL_DATE | SAMP_DATE TO ANAL_DATE |
|-------|-------------------|-------------|---------|--------|------|-----------|-----------|-----------|------------------------|------------------------|------------------------|
| %     | CEF-502-DUP01-04  | F13470-7    | NORMAL  | F13470 | OV   | 06/06/02  | / /       | 06/12/02  | 0                      | 0                      | 0 6                    |
| %     | CEF-502-GW-1SR-04 | F13470-1    | NORMAL  | F13470 | OV   | 06/06/02  | / /       | 06/12/02  | 0                      | 0                      | 0 6                    |
| %     | CEF-502-GW-3S-04  | F13470-4    | NORMAL  | F13470 | OV   | 06/06/02  | / /       | 06/11/02  | 0                      | 0                      | 0 5                    |
| %     | CEF-502-GW-4S-04  | F13470-5    | NORMAL  | F13470 | OV   | 06/06/02  | / /       | 06/11/02  | 0                      | 0                      | 0 5                    |
| %     | CEF-502-GW-6S-04  | F13470-2    | NORMAL  | F13470 | OV   | 06/06/02  | / /       | 06/11/02  | 0                      | 0                      | 0 5                    |
| %     | CEF-502-GW-7D-04  | F13470-3    | NORMAL  | F13470 | OV   | 06/06/02  | / /       | 06/11/02  | 0                      | 0                      | 0 5                    |
| %     | CEF-502-GW-8S-04  | F13470-6    | NORMAL  | F13470 | OV   | 06/06/02  | / /       | 06/11/02  | 0                      | 0                      | 0 5                    |
| %     | F13434-2MS        | F13434-2MS  | MS      | F13470 | OV   | 06/11/02  | / /       | 06/11/02  | 0                      | 0                      | 0 0                    |
| %     | F13434-2MSD       | F13434-2MSD | MSD     | F13470 | OV   | 06/11/02  | / /       | 06/11/02  | 0                      | 0                      | 0 0                    |
| %     | F13490-3MS        | F13490-3MS  | MS      | F13470 | OV   | 06/12/02  | / /       | 06/12/02  | 0                      | 0                      | 0 0                    |
| %     | F13490-3MSD       | F13490-3MSD | MSD     | F13470 | OV   | 06/12/02  | / /       | 06/12/02  | 0                      | 0                      | 0 0                    |
| UG/L  | VBLK1             | VC455-MB    | M_BLANK | F13470 | OV   | 06/11/02  | / /       | 06/12/02  | 0                      | 0                      | 0 1                    |
| %     | VC454-BS          | VC454-BS    | BSP     | F13470 | OV   | 06/11/02  | / /       | 06/11/02  | 0                      | 0                      | 0 0                    |
| %     | VC455-BS          | VC455-BS    | BSP     | F13470 | OV   | 06/12/02  | / /       | 06/12/02  | 0                      | 0                      | 0 0                    |
| %     | CEF-502-DUP01-04  | F13470-7    | NORMAL  | F13470 | PAH  | 06/06/02  | 06/11/02  | 06/13/02  | 5                      | 2                      | 7                      |
| %     | CEF-502-GW-1SR-04 | F13470-1    | NORMAL  | F13470 | PAH  | 06/06/02  | 06/11/02  | 06/13/02  | 5                      | 2                      | 7                      |
| %     | CEF-502-GW-3S-04  | F13470-4    | NORMAL  | F13470 | PAH  | 06/06/02  | 06/11/02  | 06/12/02  | 5                      | 1                      | 6                      |
| %     | CEF-502-GW-4S-04  | F13470-5    | NORMAL  | F13470 | PAH  | 06/06/02  | 06/11/02  | 06/12/02  | 5                      | 1                      | 6                      |
| %     | CEF-502-GW-6S-04  | OP5297-MSD  | MS      | F13470 | PAH  | 06/06/02  | 06/11/02  | 06/12/02  | 5                      | 1                      | 6                      |
| %     | CEF-502-GW-7D-04  | F13470-3    | NORMAL  | F13470 | PAH  | 06/06/02  | 06/11/02  | 06/12/02  | 5                      | 1                      | 6                      |
| %     | CEF-502-GW-8S-04  | F13470-6    | NORMAL  | F13470 | PAH  | 06/06/02  | 06/11/02  | 06/12/02  | 5                      | 1                      | 6                      |
| %     | OP5297-BS         | OP5297-BS   | BSP     | F13470 | PAH  | 06/11/02  | 06/11/02  | 06/12/02  | 0                      | 1                      | 1                      |
| UG/L  | PBL2              | OP5297-MB   | M_BLANK | F13470 | PAH  | 06/10/02  | 06/11/02  | 06/12/02  | 1                      | 1                      | 2                      |
| UG/L  | PBLK1             | OP5297-MB   | M_BLANK | F13470 | PAH  | 06/10/02  | 06/11/02  | 06/13/02  | 1                      | 2                      | 3                      |

| Units | Nsample           | Lab Id     | Qc Type | Sdg    | Sort | Samp Date | Extr Date | Anal Date | SAMP_DATE TO EXTR_DATE | EXTR_DATE TO ANAL_DATE | SAMP_DATE TO ANAL_DATE |
|-------|-------------------|------------|---------|--------|------|-----------|-----------|-----------|------------------------|------------------------|------------------------|
| %     | CEF-502-DUP01-04  | F13470-7   | NORMAL  | F13470 | TPH  | 06/06/02  | 06/10/02  | 06/12/02  | 4                      | 2                      | 6                      |
| %     | CEF-502-GW-1SR-04 | F13470-1   | NORMAL  | F13470 | TPH  | 06/06/02  | 06/10/02  | 06/12/02  | 4                      | 2                      | 6                      |
| %     | CEF-502-GW-3S-04  | F13470-4   | NORMAL  | F13470 | TPH  | 06/06/02  | 06/10/02  | 06/12/02  | 4                      | 2                      | 6                      |
| %     | CEF-502-GW-4S-04  | F13470-5   | NORMAL  | F13470 | TPH  | 06/06/02  | 06/10/02  | 06/12/02  | 4                      | 2                      | 6                      |
| %     | CEF-502-GW-6S-04  | OP5295-MSD | MS      | F13470 | TPH  | 06/06/02  | 06/10/02  | 06/11/02  | 4                      | 1                      | 5                      |
| %     | CEF-502-GW-7D-04  | F13470-3   | NORMAL  | F13470 | TPH  | 06/06/02  | 06/10/02  | 06/12/02  | 4                      | 2                      | 6                      |
| %     | CEF-502-GW-8S-04  | F13470-6   | NORMAL  | F13470 | TPH  | 06/06/02  | 06/10/02  | 06/12/02  | 4                      | 2                      | 6                      |
| %     | OP5295-BS         | OP5295-BS  | BSP     | F13470 | TPH  | 06/10/02  | 06/10/02  | 06/11/02  | 0                      | 1                      | 1                      |
| MG/L  | PBL2              | OP5295-MB  | M_BLANK | F13470 | TPH  | 06/10/02  | 06/10/02  | 06/11/02  | 0                      | 1                      | 1                      |
| MG/L  | PBLK1             | OP5295-MB  | M_BLANK | F13470 | TPH  | 06/10/02  | 06/10/02  | 06/12/02  | 0                      | 2                      | 2                      |

### Sample Summary

Tetra Tech, NUS

Job No: F13470

NAS Cecil Field-N4093

Project No: BLDG.502,Tank 502

| Sample Number | Collected Date | Time By  | Received | Matrix Code | Type         | Client Sample ID  |
|---------------|----------------|----------|----------|-------------|--------------|-------------------|
| F13470-1      | 06/06/02       | 10:35 LK | 06/07/02 | AQ          | Ground Water | CEF-502-GW-1SR-04 |
| F13470-2      | 06/06/02       | 13:15 LK | 06/07/02 | AQ          | Ground Water | CEF-502-GW-6S-04  |
| F13470-3      | 06/06/02       | 13:25 LK | 06/07/02 | AQ          | Ground Water | CEF-502-GW-7D-04  |
| F13470-4      | 06/06/02       | 14:50 LK | 06/07/02 | AQ          | Ground Water | CEF-502-GW-3S-04  |
| F13470-5      | 06/06/02       | 14:50 LK | 06/07/02 | AQ          | Ground Water | CEF-502-GW-4S-04  |
| F13470-6      | 06/06/02       | 14:45 LK | 06/07/02 | AQ          | Ground Water | CEF-502-GW-8S-04  |
| F13470-7      | 06/06/02       | 00:00 LK | 06/07/02 | AQ          | Ground Water | CEF-502-DUP01-04  |

## Report of Analysis

Client Sample ID: CEF-502-GW-1SR-04  
 Lab Sample ID: F13470-1  
 Matrix: AQ - Ground Water  
 Method: SW846 8260B  
 Project: NAS Cecil Field-N4093

Date Sampled: 06/06/02  
 Date Received: 06/07/02  
 Percent Solids: n/a

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | C0010096.D | 1  | 06/12/02 | JG | n/a       | n/a        | VC455            |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## Purgeable Aromatics, Full List

| CAS No.   | Compound                | Result | RL  | Units | Q |
|-----------|-------------------------|--------|-----|-------|---|
| 71-43-2   | Benzene                 | ND     | 1.0 | ug/l  |   |
| 108-90-7  | Chlorobenzene           | ND     | 1.0 | ug/l  |   |
| 541-73-1  | m-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 95-50-1   | o-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 106-46-7  | p-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | 13.5   | 1.0 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 1.0 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 1.0 | ug/l  |   |
| 1330-20-7 | Xylene (total)          | 5.5    | 3.0 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 99%    |        | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106%   |        | 80-120% |
| 2037-26-5  | Toluene-D8            | 102%   |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 94%    |        | 80-120% |

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-502-GW-1SR-04     | Date Sampled:   | 06/06/02 |
| Lab Sample ID:    | F13470-1              | Date Received:  | 06/07/02 |
| Matrix:           | AQ - Ground Water     | Percent Solids: | n/a      |
| Method:           | EPA 8310 SW846 3510C  |                 |          |
| Project:          | NAS Cecil Field-N4093 |                 |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1              | AA011004.D | 1  | 06/13/02 | MRE | 06/11/02  | OP5297     | GAA507           |
| Run #2 <sup>a</sup> | AA011005.D | 4  | 06/13/02 | MRE | 06/11/02  | OP5297     | GAA507           |

| Run #  | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 970 ml         | 1.0 ml       |
| Run #2 | 970 ml         | 1.0 ml       |

## Polynuclear Aromatic Hydrocarbons

| CAS No.  | Compound               | Result            | RL   | Units | Q |
|----------|------------------------|-------------------|------|-------|---|
| 83-32-9  | Acenaphthene           | ND <sup>b</sup>   | 16   | ug/l  |   |
| 208-96-8 | Acenaphthylene         | ND <sup>b</sup>   | 16   | ug/l  |   |
| 120-12-7 | Anthracene             | ND                | 2.1  | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND                | 0.21 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND                | 0.21 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND                | 0.21 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND                | 0.21 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND                | 0.21 | ug/l  |   |
| 218-01-9 | Chrysene               | ND                | 2.1  | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND                | 0.21 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND                | 2.1  | ug/l  |   |
| 86-73-7  | Fluorene               | 5.6 <sup>b</sup>  | 8.2  | ug/l  | J |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND                | 0.21 | ug/l  |   |
| 91-20-3  | Naphthalene            | 68.3 <sup>b</sup> | 8.2  | ug/l  |   |
| 90-12-0  | 1-Methylnaphthalene    | 84.0 <sup>b</sup> | 8.2  | ug/l  |   |
| 91-57-6  | 2-Methylnaphthalene    | 126 <sup>b</sup>  | 8.2  | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND <sup>b</sup>   | 8.2  | ug/l  |   |
| 129-00-0 | Pyrene                 | ND                | 2.1  | ug/l  |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 84-15-1 | o-Terphenyl          | 98%    | 101%   | 33-141% |
| 92-94-4 | p-Terphenyl          | 85%    | 89%    | 31-122% |

(a) All hits confirmed by spectral match using a diode array detector.

(b) Result is from Run# 2

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

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### Report of Analysis

|                          |                         |                        |          |
|--------------------------|-------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | CEF-502-GW-1SR-04       | <b>Date Sampled:</b>   | 06/06/02 |
| <b>Lab Sample ID:</b>    | F13470-1                | <b>Date Received:</b>  | 06/07/02 |
| <b>Matrix:</b>           | AQ - Ground Water       | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | FLORIDA-PRO SW846 3510C |                        |          |
| <b>Project:</b>          | NAS Cecil Field-N4093   |                        |          |

| Run #  | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | OP21301.D | 10 | 06/12/02 | SKW | 06/10/02  | OP5295     | GOP787           |
| Run #2 |           |    |          |     |           |            |                  |

| Run #  | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 970 ml         | 1.0 ml       |
| Run #2 |                |              |

| CAS No. | Compound             | Result | RL     | Units   | Q |
|---------|----------------------|--------|--------|---------|---|
|         | TPH (C8-C40)         | 21.2   | 2.6    | mg/l    |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |   |
| 84-15-1 | o-Terphenyl          | 112%   |        | 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

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> CEF-502-GW-6S-04 |                                |
| <b>Lab Sample ID:</b> F13470-2            | <b>Date Sampled:</b> 06/06/02  |
| <b>Matrix:</b> AQ - Ground Water          | <b>Date Received:</b> 06/07/02 |
| <b>Method:</b> SW846 8260B                | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NAS Cecil Field-N4093     |                                |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | C0010085.D | 1  | 06/11/02 | JG | n/a       | n/a        | VC454            |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

Purgeable Aromatics, Full List

| CAS No.   | Compound                | Result | RL  | Units | Q |
|-----------|-------------------------|--------|-----|-------|---|
| 71-43-2   | Benzene                 | ND     | 1.0 | ug/l  |   |
| 108-90-7  | Chlorobenzene           | ND     | 1.0 | ug/l  |   |
| 541-73-1  | m-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 95-50-1   | o-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 106-46-7  | p-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 1.0 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 1.0 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 1.0 | ug/l  |   |
| 1330-20-7 | Xylene (total)          | ND     | 3.0 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   |        | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107%   |        | 80-120% |
| 2037-26-5  | Toluene-D8            | 102%   |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 95%    |        | 80-120% |

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

|                          |                       |                        |          |
|--------------------------|-----------------------|------------------------|----------|
| <b>Client Sample ID:</b> | CEF-502-GW-6S-04      | <b>Date Sampled:</b>   | 06/06/02 |
| <b>Lab Sample ID:</b>    | F13470-2              | <b>Date Received:</b>  | 06/07/02 |
| <b>Matrix:</b>           | AQ - Ground Water     | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | EPA 8310 SW846 3510C  |                        |          |
| <b>Project:</b>          | NAS Cecil Field-N4093 |                        |          |

|        | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 | AA010986.D | 1  | 06/12/02 | MRE | 06/11/02  | OP5297     | GAA506           |
| Run #2 |            |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 950 ml         | 1.0 ml       |
| Run #2 |                |              |

## Polynuclear Aromatic Hydrocarbons

| CAS No.  | Compound               | Result | RL   | Units | Q |
|----------|------------------------|--------|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 4.2  | ug/l  |   |
| 208-96-8 | Acenaphthylene         | ND     | 4.2  | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 2.1  | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 0.21 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 0.21 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 0.21 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 0.21 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 0.21 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 2.1  | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 0.21 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 2.1  | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 2.1  | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 0.21 | ug/l  |   |
| 91-20-3  | Naphthalene            | ND     | 2.1  | ug/l  |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 2.1  | ug/l  |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 2.1  | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 2.1  | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 2.1  | ug/l  |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 84-15-1 | o-Terphenyl          | 81%    |        | 33-141% |
| 92-94-4 | p-Terphenyl          | 86%    |        | 31-122% |

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

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> CEF-502-GW-6S-04 | <b>Date Sampled:</b> 06/06/02  |
| <b>Lab Sample ID:</b> F13470-2            | <b>Date Received:</b> 06/07/02 |
| <b>Matrix:</b> AQ - Ground Water          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> FLORIDA-PRO SW846 3510C    |                                |
| <b>Project:</b> NAS Cecil Field-N4093     |                                |

|        | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | OP21287.D | 1  | 06/11/02 | SKW | 06/10/02  | OP5295     | GOP786           |
| Run #2 |           |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 960 ml         | 1.0 ml       |
| Run #2 |                |              |

| CAS No. | Compound             | Result | RL     | Units   | Q |
|---------|----------------------|--------|--------|---------|---|
|         | TPH (C8-C40)         | 1.02   | 0.26   | mg/l    |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |   |
| 84-15-1 | o-Terphenyl          | 95%    |        | 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

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> CEF-502-GW-7D-04 |                                |
| <b>Lab Sample ID:</b> F13470-3            | <b>Date Sampled:</b> 06/06/02  |
| <b>Matrix:</b> AQ - Ground Water          | <b>Date Received:</b> 06/07/02 |
| <b>Method:</b> SW846 8260B                | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NAS Cecil Field-N4093     |                                |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | C0010086.D | 1  | 06/11/02 | JG | n/a       | n/a        | VC454            |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

Purgeable Aromatics, Full List

| CAS No.   | Compound                | Result | RL  | Units | Q |
|-----------|-------------------------|--------|-----|-------|---|
| 71-43-2   | Benzene                 | ND     | 1.0 | ug/l  |   |
| 108-90-7  | Chlorobenzene           | ND     | 1.0 | ug/l  |   |
| 541-73-1  | m-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 95-50-1   | o-Dichlorobenzene       | 0.65   | 1.0 | ug/l  | J |
| 106-46-7  | p-Dichlorobenzene       | 2.5    | 1.0 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 1.0 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 1.0 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 1.0 | ug/l  |   |
| 1330-20-7 | Xylene (total)          | ND     | 3.0 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   |        | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106%   |        | 80-120% |
| 2037-26-5  | Toluene-D8            | 102%   |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 97%    |        | 80-120% |

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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

|                          |                       |                        |          |
|--------------------------|-----------------------|------------------------|----------|
| <b>Client Sample ID:</b> | CEF-502-GW-7D-04      | <b>Date Sampled:</b>   | 06/06/02 |
| <b>Lab Sample ID:</b>    | F13470-3              | <b>Date Received:</b>  | 06/07/02 |
| <b>Matrix:</b>           | AQ - Ground Water     | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | EPA 8310 SW846 3510C  |                        |          |
| <b>Project:</b>          | NAS Cecil Field-N4093 |                        |          |

| Run #  | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 | AA010989.D | 1  | 06/12/02 | MRE | 06/11/02  | OP5297     | GAA506           |
| Run #2 |            |    |          |     |           |            |                  |

| Run #  | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 960 ml         | 1.0 ml       |
| Run #2 |                |              |

## Polynuclear Aromatic Hydrocarbons

| CAS No.  | Compound               | Result | RL   | Units | Q |
|----------|------------------------|--------|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 4.2  | ug/l  |   |
| 208-96-8 | Acenaphthylene         | ND     | 4.2  | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 2.1  | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 0.21 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 0.21 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 0.21 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 0.21 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 0.21 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 2.1  | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 0.21 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 2.1  | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 2.1  | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 0.21 | ug/l  |   |
| 91-20-3  | Naphthalene            | ND     | 2.1  | ug/l  |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 2.1  | ug/l  |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 2.1  | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 2.1  | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 2.1  | ug/l  |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 84-15-1 | o-Terphenyl          | 62%    |        | 33-141% |
| 92-94-4 | p-Terphenyl          | 82%    |        | 31-122% |

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

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> CEF-502-GW-7D-04 | <b>Date Sampled:</b> 06/06/02  |
| <b>Lab Sample ID:</b> F13470-3            | <b>Date Received:</b> 06/07/02 |
| <b>Matrix:</b> AQ - Ground Water          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> FLORIDA-PRO SW846 3510C    |                                |
| <b>Project:</b> NAS Cecil Field-N4093     |                                |

| Run #  | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | OP21291.D | 1  | 06/12/02 | SKW | 06/10/02  | OP5295     | GOP786           |
| Run #2 |           |    |          |     |           |            |                  |

| Run #  | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 970 ml         | 1.0 ml       |
| Run #2 |                |              |

| CAS No. | Compound             | Result | RL     | Units   | Q |
|---------|----------------------|--------|--------|---------|---|
|         | TPH (C8-C40)         | ND     | 0.26   | mg/l    |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |   |
| 84-15-1 | o-Terphenyl          | 76%    |        | 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**

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> CEF-502-GW-3S-04 |                                |
| <b>Lab Sample ID:</b> F13470-4            | <b>Date Sampled:</b> 06/06/02  |
| <b>Matrix:</b> AQ - Ground Water          | <b>Date Received:</b> 06/07/02 |
| <b>Method:</b> SW846 8260B                | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NAS Cecil Field-N4093     |                                |

| Run #1 | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #2 | C0010087.D | 1  | 06/11/02 | JG | n/a       | n/a        | VC454            |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #2 | 5.0 ml       |

**Purgeable Aromatics, Full List**

| CAS No.   | Compound                | Result | RL  | Units | Q |
|-----------|-------------------------|--------|-----|-------|---|
| 71-43-2   | Benzene                 | ND     | 1.0 | ug/l  |   |
| 108-90-7  | Chlorobenzene           | ND     | 1.0 | ug/l  |   |
| 541-73-1  | m-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 95-50-1   | o-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 106-46-7  | p-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 1.0 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 1.0 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 1.0 | ug/l  |   |
| 1330-20-7 | Xylene (total)          | ND     | 3.0 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100%   |        | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106%   |        | 80-120% |
| 2037-26-5  | Toluene-D8            | 102%   |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 94%    |        | 80-120% |

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 compound

## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> CEF-502-GW-3S-04 |                                |
| <b>Lab Sample ID:</b> F13470-4            | <b>Date Sampled:</b> 06/06/02  |
| <b>Matrix:</b> AQ - Ground Water          | <b>Date Received:</b> 06/07/02 |
| <b>Method:</b> EPA 8310 SW846 3510C       | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NAS Cecil Field-N4093     |                                |

| Run #  | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 | AA010990.D | 1  | 06/12/02 | MRE | 06/11/02  | OP5297     | GAA506           |
| Run #2 |            |    |          |     |           |            |                  |

| Run #  | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 970 ml         | 1.0 ml       |
| Run #2 |                |              |

## Polynuclear Aromatic Hydrocarbons

| CAS No.  | Compound               | Result | RL   | Units | Q |
|----------|------------------------|--------|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 4.1  | ug/l  |   |
| 208-96-8 | Acenaphthylene         | ND     | 4.1  | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 2.1  | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 0.21 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 0.21 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 0.21 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 0.21 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 0.21 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 2.1  | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 0.21 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 2.1  | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 2.1  | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 0.21 | ug/l  |   |
| 91-20-3  | Naphthalene            | ND     | 2.1  | ug/l  |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 2.1  | ug/l  |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 2.1  | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 2.1  | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 2.1  | ug/l  |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 84-15-1 | o-Terphenyl          | 76%    |        | 33-141% |
| 92-94-4 | p-Terphenyl          | 90%    |        | 31-122% |

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 compound

### Report of Analysis

|                          |                         |                        |          |
|--------------------------|-------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | CEF-502-GW-3S-04        | <b>Date Sampled:</b>   | 06/06/02 |
| <b>Lab Sample ID:</b>    | F13470-4                | <b>Date Received:</b>  | 06/07/02 |
| <b>Matrix:</b>           | AQ - Ground Water       | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | FLORIDA-PRO SW846 3510C |                        |          |
| <b>Project:</b>          | NAS Cecil Field-N4093   |                        |          |

| Run #  | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | OP21292.D | 1  | 06/12/02 | SKW | 06/10/02  | OP5295     | GOP786           |
| Run #2 |           |    |          |     |           |            |                  |

| Run #  | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 980 ml         | 1.0 ml       |
| Run #2 |                |              |

| CAS No. | Compound             | Result | RL     | Units   | Q |
|---------|----------------------|--------|--------|---------|---|
|         | TPH (C8-C40)         | 0.743  | 0.26   | mg/l    |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |   |
| 84-15-1 | o-Terphenyl          | 84%    |        | 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

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> CEF-502-GW-4S-04 | <b>Date Sampled:</b> 06/06/02  |
| <b>Lab Sample ID:</b> F13470-5            | <b>Date Received:</b> 06/07/02 |
| <b>Matrix:</b> AQ - Ground Water          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                |                                |
| <b>Project:</b> NAS Cecil Field-N4093     |                                |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | C0010088.D | 1  | 06/11/02 | JG | n/a       | n/a        | VC454            |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## Purgeable Aromatics, Full List

| CAS No.   | Compound                | Result | RL  | Units | Q |
|-----------|-------------------------|--------|-----|-------|---|
| 71-43-2   | Benzene                 | 1.2    | 1.0 | ug/l  |   |
| 108-90-7  | Chlorobenzene           | ND     | 1.0 | ug/l  |   |
| 541-73-1  | m-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 95-50-1   | o-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 106-46-7  | p-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 1.0 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 1.0 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 1.0 | ug/l  |   |
| 1330-20-7 | Xylene (total)          | ND     | 3.0 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   |        | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106%   |        | 80-120% |
| 2037-26-5  | Toluene-D8            | 102%   |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 92%    |        | 80-120% |

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

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> CEF-502-GW-4S-04 |                                |
| <b>Lab Sample ID:</b> F13470-5            | <b>Date Sampled:</b> 06/06/02  |
| <b>Matrix:</b> AQ - Ground Water          | <b>Date Received:</b> 06/07/02 |
| <b>Method:</b> EPA 8310 SW846 3510C       | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NAS Cecil Field-N4093     |                                |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | AA010992.D | 1  | 06/12/02 | MRE | 06/11/02  | OP5297     | GAA506           |
| Run #2              |            |    |          |     |           |            |                  |

| Run #  | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 880 ml         | 1.0 ml       |
| Run #2 |                |              |

## Polynuclear Aromatic Hydrocarbons

| CAS No.  | Compound               | Result | RL   | Units | Q |
|----------|------------------------|--------|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 4.6  | ug/l  |   |
| 208-96-8 | Acenaphthylene         | ND     | 4.6  | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 2.3  | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 0.23 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 0.23 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 0.23 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 0.23 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 0.23 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 2.3  | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 0.23 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 2.3  | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 2.3  | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 0.23 | ug/l  |   |
| 91-20-3  | Naphthalene            | ND     | 2.3  | ug/l  |   |
| 90-12-0  | 1-Methylnaphthalene    | 1.6    | 2.3  | ug/l  | J |
| 91-57-6  | 2-Methylnaphthalene    | 3.7    | 2.3  | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 2.3  | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 2.3  | ug/l  |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 84-15-1 | o-Terphenyl          | 78%    |        | 33-141% |
| 92-94-4 | p-Terphenyl          | 83%    |        | 31-122% |

(a) All hits confirmed by spectral match using a diode array detector.

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

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> CEF-502-GW-4S-04 |                                |
| <b>Lab Sample ID:</b> F13470-5            | <b>Date Sampled:</b> 06/06/02  |
| <b>Matrix:</b> AQ - Ground Water          | <b>Date Received:</b> 06/07/02 |
| <b>Method:</b> FLORIDA-PRO SW846 3510C    | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NAS Cecil Field-N4093     |                                |

|        | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | OP21293.D | 1  | 06/12/02 | SKW | 06/10/02  | OP5295     | GOP786           |
| Run #2 |           |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 870 ml         | 1.0 ml       |
| Run #2 |                |              |

| CAS No. | Compound             | Result | RL     | Units   | Q |
|---------|----------------------|--------|--------|---------|---|
|         | TPH (C8-C40)         | 0.581  | 0.29   | mg/l    |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |   |
| 84-15-1 | o-Terphenyl          | 79%    |        | 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

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> CEF-502-GW-8S-04 | <b>Date Sampled:</b> 06/06/02  |
| <b>Lab Sample ID:</b> F13470-6            | <b>Date Received:</b> 06/07/02 |
| <b>Matrix:</b> AQ - Ground Water          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                |                                |
| <b>Project:</b> NAS Cecil Field-N4093     |                                |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | C0010089.D | 1  | 06/11/02 | JG | n/a       | n/a        | VC454            |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## Purgeable Aromatics, Full List

| CAS No.   | Compound                | Result | RL  | Units | Q |
|-----------|-------------------------|--------|-----|-------|---|
| 71-43-2   | Benzene                 | ND     | 1.0 | ug/l  |   |
| 108-90-7  | Chlorobenzene           | ND     | 1.0 | ug/l  |   |
| 541-73-1  | m-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 95-50-1   | o-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 106-46-7  | p-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 1.0 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 1.0 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 1.0 | ug/l  |   |
| 1330-20-7 | Xylene (total)          | ND     | 3.0 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100%   |        | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106%   |        | 80-120% |
| 2037-26-5  | Toluene-D8            | 102%   |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 95%    |        | 80-120% |

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

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> CEF-502-GW-8S-04 |                                |
| <b>Lab Sample ID:</b> F13470-6            | <b>Date Sampled:</b> 06/06/02  |
| <b>Matrix:</b> AQ - Ground Water          | <b>Date Received:</b> 06/07/02 |
| <b>Method:</b> EPA 8310 SW846 3510C       | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NAS Cecil Field-N4093     |                                |

| Run #  | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 | AA010993.D | 1  | 06/12/02 | MRE | 06/11/02  | OP5297     | GAA506           |
| Run #2 |            |    |          |     |           |            |                  |

| Run #  | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 930 ml         | 1.0 ml       |
| Run #2 |                |              |

## Polynuclear Aromatic Hydrocarbons

| CAS No.  | Compound               | Result | RL   | Units | Q |
|----------|------------------------|--------|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 4.3  | ug/l  |   |
| 208-96-8 | Acenaphthylene         | ND     | 4.3  | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 2.2  | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 0.22 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 0.22 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 0.22 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 0.22 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 0.22 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 2.2  | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 0.22 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 2.2  | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 2.2  | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 0.22 | ug/l  |   |
| 91-20-3  | Naphthalene            | ND     | 2.2  | ug/l  |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 2.2  | ug/l  |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 2.2  | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 2.2  | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 2.2  | ug/l  |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 84-15-1 | o-Terphenyl          | 68%    |        | 33-141% |
| 92-94-4 | p-Terphenyl          | 92%    |        | 31-122% |

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**

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> CEF-502-GW-8S-04 | <b>Date Sampled:</b> 06/06/02  |
| <b>Lab Sample ID:</b> F13470-6            | <b>Date Received:</b> 06/07/02 |
| <b>Matrix:</b> AQ - Ground Water          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> FLORIDA-PRO SW846 3510C    |                                |
| <b>Project:</b> NAS Cecil Field-N4093     |                                |

|        | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | OP21294.D | 1  | 06/12/02 | SKW | 06/10/02  | OP5295     | GOP786           |
| Run #2 |           |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 950 ml         | 1.0 ml       |
| Run #2 |                |              |

| CAS No. | Compound             | Result | RL     | Units   | Q |
|---------|----------------------|--------|--------|---------|---|
|         | TPH (C8-C40)         | 0.352  | 0.26   | mg/l    |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |   |
| 84-15-1 | o-Terphenyl          | 85%    |        | 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

|                          |                       |                        |          |
|--------------------------|-----------------------|------------------------|----------|
| <b>Client Sample ID:</b> | CEF-502-DUP01-04      | <b>Date Sampled:</b>   | 06/06/02 |
| <b>Lab Sample ID:</b>    | F13470-7              | <b>Date Received:</b>  | 06/07/02 |
| <b>Matrix:</b>           | AQ - Ground Water     | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B           |                        |          |
| <b>Project:</b>          | NAS Cecil Field-N4093 |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | C0010097.D | 1  | 06/12/02 | JG | n/a       | n/a        | VC455            |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## Purgeable Aromatics, Full List

| CAS No.   | Compound                | Result | RL  | Units | Q |
|-----------|-------------------------|--------|-----|-------|---|
| 71-43-2   | Benzene                 | ND     | 1.0 | ug/l  |   |
| 108-90-7  | Chlorobenzene           | ND     | 1.0 | ug/l  |   |
| 541-73-1  | m-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 95-50-1   | o-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 106-46-7  | p-Dichlorobenzene       | ND     | 1.0 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | 13.7   | 1.0 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 1.0 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 1.0 | ug/l  |   |
| 1330-20-7 | Xylene (total)          | 6.3    | 3.0 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100%   |        | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101%   |        | 80-120% |
| 2037-26-5  | Toluene-D8            | 99%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 98%    |        | 80-120% |

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-502-DUP01-04      | Date Sampled:   | 06/06/02 |
| Lab Sample ID:    | F13470-7              | Date Received:  | 06/07/02 |
| Matrix:           | AQ - Ground Water     | Percent Solids: | n/a      |
| Method:           | EPA 8310 SW846 3510C  |                 |          |
| Project:          | NAS Cecil Field-N4093 |                 |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1              | AA011006.D | 1  | 06/13/02 | MRE | 06/11/02  | OP5297     | GAA507           |
| Run #2 <sup>a</sup> | AA011007.D | 4  | 06/13/02 | MRE | 06/11/02  | OP5297     | GAA507           |

| Run #  | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 970 ml         | 1.0 ml       |
| Run #2 | 970 ml         | 1.0 ml       |

## Polynuclear Aromatic Hydrocarbons

| CAS No.  | Compound               | Result            | RL   | Units | Q |
|----------|------------------------|-------------------|------|-------|---|
| 83-32-9  | Acenaphthene           | ND <sup>b</sup>   | 16   | ug/l  |   |
| 208-96-8 | Acenaphthylene         | ND <sup>b</sup>   | 16   | ug/l  |   |
| 120-12-7 | Anthracene             | ND                | 2.1  | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND                | 0.21 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND                | 0.21 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND                | 0.21 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND                | 0.21 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND                | 0.21 | ug/l  |   |
| 218-01-9 | Chrysene               | ND                | 2.1  | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND                | 0.21 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND                | 2.1  | ug/l  |   |
| 86-73-7  | Fluorene               | 6.4 <sup>b</sup>  | 8.2  | ug/l  | J |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND                | 0.21 | ug/l  |   |
| 91-20-3  | Naphthalene            | 84.8 <sup>b</sup> | 8.2  | ug/l  |   |
| 90-12-0  | 1-Methylnaphthalene    | 109 <sup>b</sup>  | 8.2  | ug/l  |   |
| 91-57-6  | 2-Methylnaphthalene    | 165 <sup>b</sup>  | 8.2  | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND <sup>b</sup>   | 8.2  | ug/l  |   |
| 129-00-0 | Pyrene                 | ND                | 2.1  | ug/l  |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 84-15-1 | o-Terphenyl          | 103%   | 103%   | 33-141% |
| 92-94-4 | p-Terphenyl          | 79%    | 85%    | 31-122% |

(a) All hits confirmed by spectral match using a diode array detector.

(b) Result is from Run# 2

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**

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> CEF-502-DUP01-04 |                                |
| <b>Lab Sample ID:</b> F13470-7            | <b>Date Sampled:</b> 06/06/02  |
| <b>Matrix:</b> AQ - Ground Water          | <b>Date Received:</b> 06/07/02 |
| <b>Method:</b> FLORIDA-PRO SW846 3510C    | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NAS Cecil Field-N4093     |                                |

|        | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|-----|-----------|------------|------------------|
| Run #1 | OP21302.D | 10 | 06/12/02 | SKW | 06/10/02  | OP5295     | GOP787           |
| Run #2 |           |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 970 ml         | 1.0 ml       |
| Run #2 |                |              |

| CAS No. | Compound             | Result | RL     | Units   | Q |
|---------|----------------------|--------|--------|---------|---|
|         | TPH (C8-C40)         | 19.8   | 2.6    | mg/l    |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |   |
| 84-15-1 | o-Terphenyl          | 111%   |        | 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

