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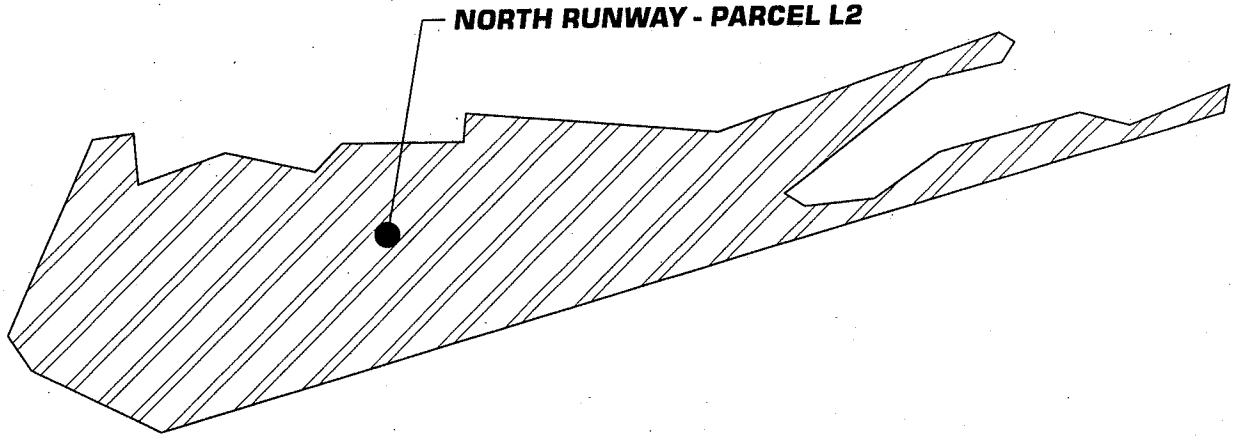
# NORTHROP GRUMMAN

BETHPAGE FACILITY




# PHASE II SITE ASSESSMENT
# NORTH RUNWAY - PARCEL L2

NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

**Dvirka and Bartilucci**
Consulting Engineers

MARCH 1997

**Dvirka and Bartilucci**
CONSULTING ENGINEERS

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March 10, 1997

John Cofman, P.E.
Lead Engineer
Environmental Technology and Compliance
Northrop Grumman Corporation
Mail Stop: D08-001
Bethpage, NY 11714-3582

Re: Phase II Site Assessment
North Runway - Parcel L2
Bethpage, New York
D&B No. 801/96-54

Dear Mr. Cofman:

Enclosed please find eight copies of the document entitled:

*"Phase II Site Assessment*
*North Runway - Parcel L2*
*Bethpage, New York"*

If you have any questions and/or comments, please do not hesitate to contact Mr. Errol Kitt or me at (516) 364-9890.

Very truly yours,

Richard M. Walka

Richard M. Walka
Vice President

RMW/cmc
cc: J. Ohlmann (NGC)
A. Postyn (NGC)
E. Kitt (D&B)
♦0801\RMW97-51.LTR

# PHASE II SITE ASSESSMENT

## NORTHROP GRUMMAN CORPORATION
## NORTH RUNWAY - PARCEL L2
## BETHPAGE, NEW YORK

**PREPARED FOR**

**NORTHROP GRUMMAN CORPORATION**
**BETHPAGE, NEW YORK**

**PREPARED BY**

**DVIRKA AND BARTILUCCI CONSULTING ENGINEERS**
**WOODBURY, NEW YORK**

**MARCH 1997**

♦0801/A0218706.DOC

**PHASE II SITE ASSESSMENT**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**BETHPAGE, NEW YORK**

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# Section 1

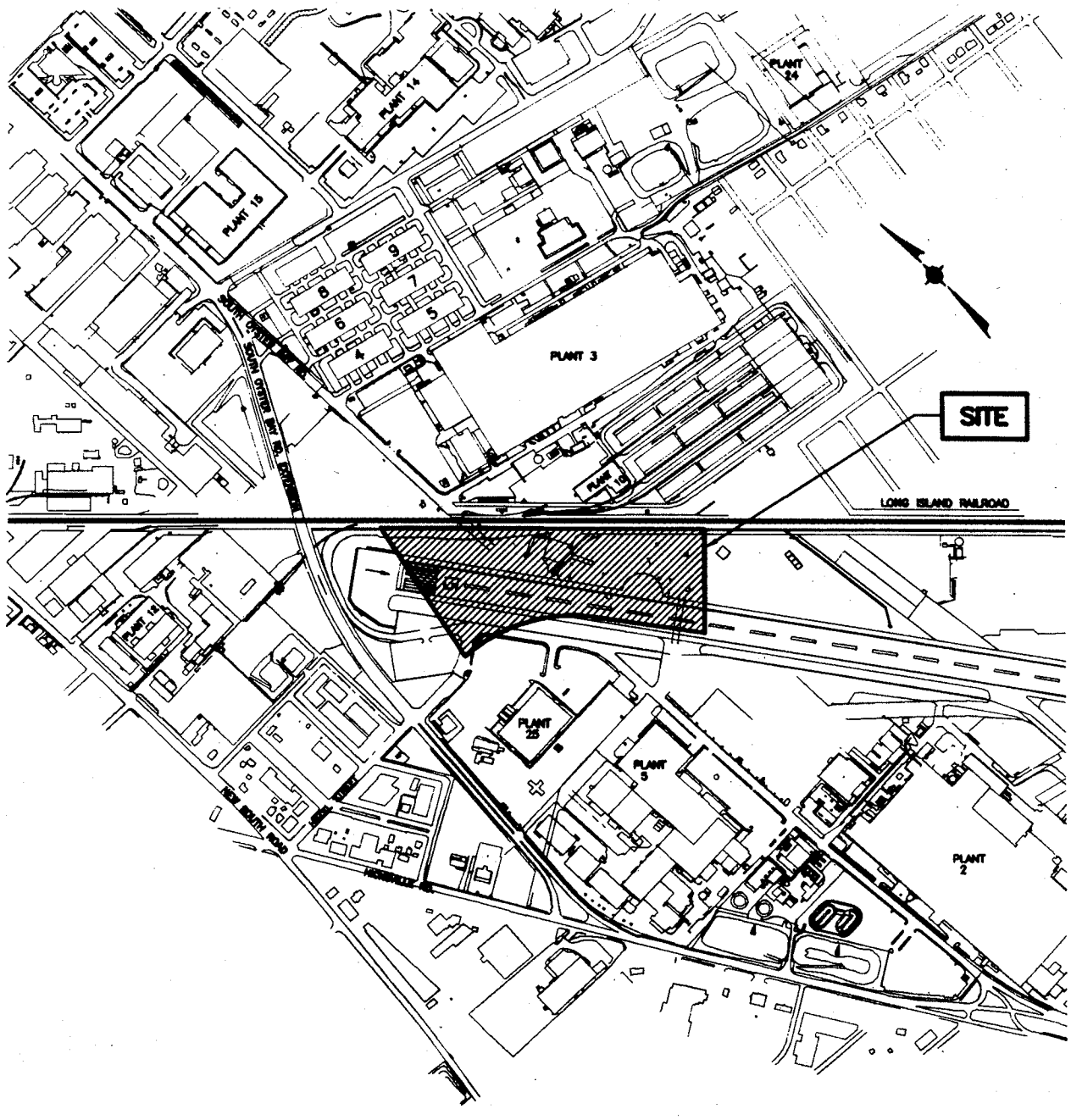
# 1.0 INTRODUCTION

This report presents the findings of a Phase II Site Assessment undertaken at the Northrop Grumman Corporation (NGC) property known as "North Runway - Parcel L2". The site is located approximately 400 feet east of the South Oyster Bay Road Extension, immediately south of the Long Island Railroad (LIRR) tracks in Bethpage, New York. A site location map is presented on Figure 1-1.

Dvirka and Bartilucci Consulting Engineers (D&B) was retained by NGC to undertake a Phase II Site Assessment at the North Runway - Parcel L2 site in order to investigate the presence of any soil contamination. D&B provided engineering services in connection with the field investigation, oversight of subcontractors, and preparation of this report.

The objective of this report is to document and present the results of the Phase II Site Assessment, which included the sampling of subsurface soil and the sampling of soil/sediment from the bottom of dry wells at the North Runway - Parcel L2 site. The report provides a presentation of the analytical results of soil and sediment samples, along with a comparison of these results to appropriate soil cleanup objectives, as well as conclusions.

A description of the site and other background information is presented in Section 2 of this report. The technical scope of work for the Phase II field investigation and the dry well soil/sediment sampling program is described in Section 3. The procedures followed throughout the course of the Phase II field investigation and dry well soil/sediment sampling program are described in Section 4. Section 5 presents the analytical results of the soil and sediment samples and the findings of the Phase II field investigation and dry well soil/sediment sampling program. Based on the findings, conclusions and a discussion of the reasons why we believe additional investigation activities and/or remedial actions are not warranted are provided in Section 6.

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NORTHROP GRUMMAN CORPORATION
NORTH RUNWAY – PARCEL L2

# SITE LOCATION MAP

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FIGURE 1-1

# Section 2

## 2.0 SITE DESCRIPTION/BACKGROUND

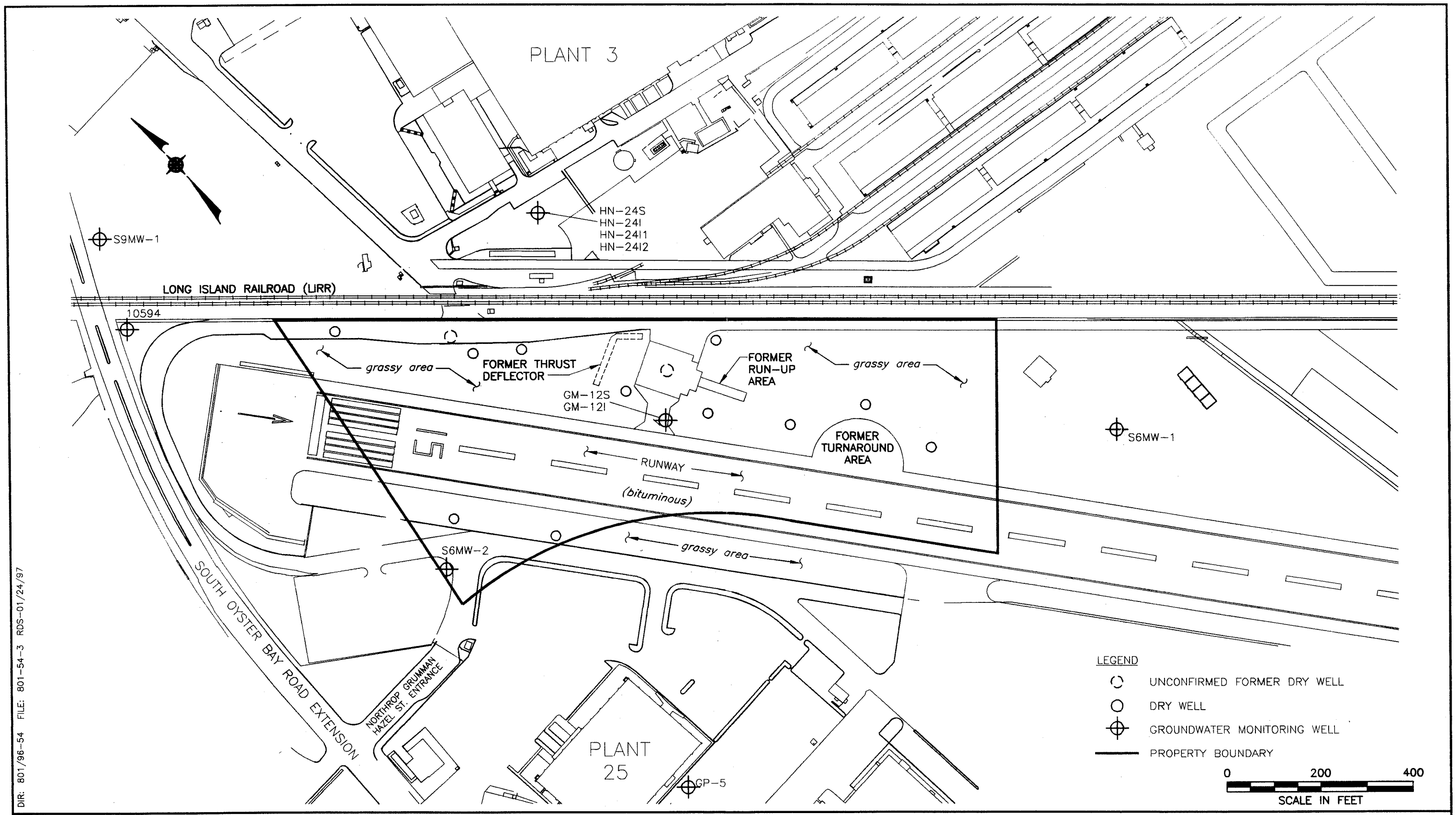
*Site Description*

A site plan of the North Runway - Parcel L2 property is presented on Figure 2-1. As shown on Figure 2-1, the site is located approximately 400 feet east of the South Oyster Bay Road Extension and immediately south of the LIRR tracks. The site is located within an area zoned Industrial H. Industrial and commercial properties are located to the north, east, south, and west.

The North Runway - Parcel L2 site encompasses approximately 15 acres and, other than the former runway and associated support roadways and tarmac areas, is currently undeveloped. Historically, the site was used as a runway for aircraft designed, developed, manufactured and tested by NGC. Prior to approximately 1955, the site was bisected by South Oyster Bay Road and the original runway ended in the southern part of the site. A semicircular concrete turnaround area is currently located at the end of the original runway in the southern part of the site. Sometime between 1950 and 1955, South Oyster Bay Road was re-routed to the west and the original runway was extended to the north. The runway was in use until 1990, at which time it was "closed."

In the 1960's, an aircraft run-up area was constructed in the grassy area northeast of the runway extension, which is centrally located within the site. The run-up area was used to "run-up" the aircraft engines as a systems check prior to take-off. A thrust deflector was located to the north of the run-up area, which was used to provide controlled deflection of aircraft exhaust. All aircraft maintenance and deicing procedures took place off-site further southeast in the vicinity of NGC Plant 4.

In addition to the site being used as a runway until 1990, the central part of the site is currently being used as a roadway connecting the northern and southern portions of the NGC facility, which are bisected by the LIRR tracks. Roadways crossing the western corner of the site

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NORTHROP GRUMMAN CORPORATION
NORTH RUNWAY – PARCEL L2

**SITE PLAN**

Dvirka and Bartilucci
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FIGURE 2-1

are currently being used as an extension from the NGC Hazel Street entrance to other parts of the facility. The North Runway - Parcel L2 site is currently inactive, with the exception of the roadways. The majority of the runway fixtures (i.e., lighting systems and thrust deflectors) have been removed.

The North Runway - Parcel L2 property is generally level with topography gradually sloping away from the runway to facilitate storm water drainage. Ground elevation (grade) is approximately 120 feet above mean sea level. The depth to groundwater beneath the site is approximately 53 feet below grade. Approximately half of the site is covered by asphalt, concrete or other impervious building materials due to the runway and associated roadways and tarmac areas. The remaining portions of the site are covered by grassy areas. NGC Quadrangle maps of the North Runway - Parcel L2 property indicate underground water supply, sanitary sewer, electrical, telephone and gas lines are located beneath the site, as well as several dry wells with interconnecting piping for storm water conveyance and management.

*Background*

The North Runway - Parcel L2 site is located downgradient of known sources of groundwater contamination. Previous investigations have documented groundwater contamination in the vicinity of and beneath the site. However, previous and ongoing investigations have documented the sources of groundwater contamination to be from off-site, upgradient locations.

D&B conducted an assessment, which included the North Runway - Parcel L2 site, in support of a Delisting Petition, dated February 1993, entitled "New York State Site Registry Delisting Petition - Site 6 (Runway)." In response to the Delisting Petition, on September 30, 1994, the New York State Department of Environmental Conservation (NYSDEC) removed the North Runway - Parcel L2 property from the Registry of Inactive Hazardous Waste Disposal Sites in New York.

D&B conducted a Phase I Site Assessment of the adjacent North Runway - Parcel L1 site in April 1996. North Runway - Parcel L1 is located to the north of Parcel L2, between the South Oyster Bay Road Extension and Parcel L2, immediately south of the LIRR tracks. According to the Phase I Site Assessment report, thrust deflectors were used at NGC to provide controlled deflection of aircraft exhaust.

Subsequent to the preparation of the Phase I Site Assessment report for the North Runway - Parcel L1 site, NGC indicated that herbicides and rodenticides may have been used for weed and vector control, respectively, along the end and edges of the runway. In addition, the thrust deflectors may have been constructed of treated wood which was painted with a wood preservative and other pigmented coatings.

Although herbicides that were utilized more recently on a limited basis included United States Environmental Protection Agency (USEPA)-registered, commercially available products, herbicides used in past applications were believed to have included formulations pre-dating USEPA's registration requirements. Arsenic-based compounds including arsenates and arsenites are commonly used as herbicides, insecticides, larvicides and pesticides, and arsenic is present in rodenticides. In addition, the thrust deflectors were reportedly constructed of "CCA" treated wood which contains arsenic.

It is important to note that while we identified these locations as potential areas of concern as part of the Phase I Site Assessment, we did so with the understanding that any constituents of concern detected were clearly not associated with releases from any chemical process operations, manufacturing, chemical storage, waste storage or chemical or oil releases or spills. In fact, the constituents are residuals associated with either exhaust from commercial or military aircraft or possibly from commercially available herbicides, rodenticides or wood treatment formulations sold "over the counter" and utilized in common runway maintenance programs. Regardless of whether these commercially available products were used either prior to or subsequent to EPA registration requirements would likely not significantly modify the chemical constituents utilized.

In any event, given the fact that the constituents detected are likely associated with the normal and intended use of commercially available products found in virtually all households and commercial establishments does not warrant classifying these areas as potential areas of concern requiring additional investigation and possibly future remediation.

# Section 3

## 3.0 SCOPE OF WORK

This section provides an overview of the recommended technical scope of work for the Phase II field investigation and dry well soil/sediment sampling program.

### 3.1 Phase II Field Investigation

The objective of the Phase II Site Assessment was to investigate potential contamination at the North Runway - Parcel L2 Site. While in the previous section we present a discussion of why we believe that the areas we recommended for targeted sampling do not "fit" the definition of "potential areas of environmental concern," nonetheless, these areas were selected for investigation based on previous studies conducted by D&B and a review of NGC documents. The following is an outline of the scope of work for the Phase II field investigation:

*Area Adjacent to Former Thrust Deflector on North Runway - Parcel L1*

- Advance three borings (L2-1, L2-2 and L2-3) adjacent to the boundary between Parcels L1 and L2, in the vicinity of the former thrust deflectors and previous borings designated NR1, NR24 and NR42 associated with Parcel L1, using a drill rig and collect split spoon soil samples at depths of 0 to 1 foot, 1 to 2 feet, 2 to 4 feet, 4 to 6 feet and 6 to 8 feet below grade at each boring location.

- Laboratory analysis of each soil sample (total of 15 samples) for: volatile organic compounds (VOCs) by USEPA Method 8240 (Method 8240), semivolatile organic compounds (SVOCs) by USEPA Method 8270 (Method 8270), total petroleum hydrocarbons (TPHCs) by USEPA Method 418.1 (Method 418.1), fuel-related constituents by New York State Department of Health (NYSDOH) Method 310-13 (Method 310-13) only if TPHCs are detected, and priority pollutant metals by USEPA Methods 6010 and 7471 (Methods 6010 and 7471).

*Perimeter and Center of Runway*

- Advance borings at eight locations (L2-4, L2-5, L2-6, L2-7, L2-8, L2-9, L2-10 and L2-11) along the perimeter of the site and beneath the runway at the center of the site, at approximately 400-foot intervals, using a drill rig and collect split spoon soil samples at depths of 0 to 1 foot, 1 to 2 feet, 2 to 4 feet and 4 to 6 feet below grade at each boring location.

- Laboratory analysis of each soil sample (total of 32 samples) for VOCs (Method 8240), SVOCs (Method 8270), TPHCs (Method 418.1), fuel-related constituents (Method 310-13) only if TPHCs are detected, and priority pollutant metals (Methods 6010 and 7471).

*Former Runway Turnaround*

- Advance three borings (L2-12, L2-13 and L2-14) along the edge of the former runway turnaround using a drill rig and collect split spoon soil samples at depths of 0 to 1 foot, 1 to 2 feet, 2 to 4 feet and 4 to 6 feet below grade at each boring location.

- Laboratory analysis of each soil sample (total of 12 samples) for VOCs (Method 8240), SVOCs (Method 8270), TPHCs (Method 418.1), fuel-related constituents (Method 310-13) only if TPHCs are detected, and priority pollutant metals (Methods 6010 and 7471).

*Former Run-Up Area Thrust Deflector*

- Advance four borings (L2-15, L2-16, L2-17 and L2-18) in the vicinity of the former thrust deflector at the former run-up area adjacent to the runway using a drill rig and collect split spoon soil samples at depths of 0 to 1 foot, 1 to 2 feet, 2 to 4 feet, 4 to 6 feet and 6 to 8 feet below grade at each boring location.

- Laboratory analysis of each soil sample (total of 20 samples) for VOCs (Method 8240), SVOCs (Method 8270), TPHCs (Method 418.1), fuel-related constituents (Method 310-13) only if TPHCs are detected, and priority pollutant metals (Methods 6010 and 7471).

## 3.2 Dry Well Soil/Sediment Sampling Program

D&B recommended that soil/sediment samples be collected from the bottom of each of four on-site dry wells. The dry well sampling program was undertaken after completion of the Phase II field investigation. The following is an outline of the scope of work for the dry well soil/sediment sampling program:

*Pump Out and Disposal of Dry Well Liquid*

- Pump out liquid, if present, in each dry well.

- Transport and disposal of all dry well liquid at NGC's Industrial Wastewater Treatment Plant (IWTP).

*Dry Well Soil/Sediment Sampling*

- Collect soil/sediment samples from the bottom of four dry wells (DWL2-1, DWL2-2, DWL2-3 and DWL2-4) located on the site. Advance a boring through the center of each dry well to a depth of 4 feet below the bottom of the dry well and collect split spoon soil/sediment samples at depths of 0 to 2 feet and 2 to 4 feet below the bottom of each dry well.

- Laboratory analysis of each soil/sediment sample (total of 8 samples) for VOCs (Method 8240), SVOCs (Method 8270), TPHCs (Method 418.1), fuel-related constituents (Method 310-13) only if TPHCs are detected, and priority pollutant metals (Methods 6010 and 7471).

# Section 4

## 4.0 FIELD ACTIVITIES

This section provides a brief description of the field activities conducted in support of the Phase II Site Assessment at the North Runway - Parcel L2 Site. Daily field activity reports, which are available in the project file, provide documentation of the Phase II field investigation and the dry well soil/sediment sampling program.

### 4.1 Phase II Field Investigation

Eighteen soil borings, designated L2-1 through L2-18, were advanced at the North Runway - Parcel L2 Site at locations described in Section 3.1 and illustrated on Figure 4-1. As indicated in Section 3.1, the Phase II field investigation at the North Runway - Parcel L2 addressed the following areas:

- Area Adjacent to Former Thrust Deflector on North Runway - Parcel L1
- Perimeter and Center of Runway
- Former Runway Turnaround
- Former Run-Up Area Thrust Deflector

All soil borings were advanced using a 4-1/4 inch hollow stem auger with samples collected using a 2-inch diameter split spoon sampler. Split spoon sampling was conducted at the Area Adjacent to Former Thrust Deflector on North Runway - Parcel L1 and the Former Run-up Area Thrust Deflector from 0 to 1 foot, 1 to 2 feet, 2 to 4 feet, 4 to 6 feet and 6 to 8 feet below grade. Split spoon sampling was conducted at the Perimeter and Center of Runway and the Former Runway Turnaround from 0 to 1 foot, 1 to 2 feet, 2 to 4 feet, and 4 to 6 feet below grade. A total of 79 soil samples were collected and analyzed for VOCs (Method 8240), SVOCs (Method 8270), TPHCs (Method 418.1), fuel-related constituents (Method 310-13) only if TPHCs were detected, and priority pollutant metals (Methods 6010 and 7471).

LONG ISLAND RAILROAD

L2-1
L2-2
L2-3
L2-4
L2-5
L2-6
L2-7
L2-8
L2-9
L2-10
L2-11
L2-12
L2-13
L2-14
L2-15
L2-16
L2-17
L2-18
DWL2-1
DWL2-2
DWL2-3
DWL2-4
S6MW-2
GM-12S
GM-12I

grassy area
grassy area
grassy area
FORMER THRUST DEFLECTOR
FORMER THRUST DEFLECTOR
FORMER RUN-UP AREA
FORMER TURNAROUND
FORMER LEACHING FIELD
RUNWAY
(bituminous)
(NORTH RUNWAY – PARCEL L1)
NORTHROP GRUMMAN HAZEL ST. ENTRANCE
SOUTH OYSTER BAY RD. EXT.

LEGEND:
- UNCONFIRMED FORMER DRY WELL
- DRY WELL
- DWL2-1 DRY WELL SAMPLE LOCATION
- L2-1 SOIL BORING SAMPLE LOCATION
- GM-12S GROUNDWATER MONITORING WELL
- PROPERTY BOUNDARY

0 120 240
SCALE IN FEET

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NORTHROP GRUMMAN CORPORATION
NORTH RUNWAY – PARCEL L2

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## SOIL BORING AND DRY WELL LOCATION MAP

FIGURE 4-1

All boring and sampling equipment, including the 4-1/4 inch hollow stem augers and 2-inch diameter split spoon samplers, was decontaminated between sample collection and sample locations using a high pressure steam cleaner. All decontamination water was contained in 55-gallon drums for proper disposal by NGC.

## 4.2 Dry Well Soil/Sediment Sampling Program

Soil/sediment samples were collected from four dry wells, identified on Figure 4-1 as DWL2-1, DWL2-2, DWL2-3, and DWL2-4, at the North Runway - Parcel L2 Site. Soil/sediment samples were collected by advancing a boring at the center of each dry well and collecting samples at 0 to 2 feet and 2 to 4 feet below the bottom of each dry well. Prior to collecting samples, liquids were removed/pumped out of the dry wells, if present, using a high pressure vacuum truck. Initially, the liquids removed from each dry well were transported and disposed of at the NGC Industrial Wastewater Treatment Plant (IWTP). However, due to the fact that one of the tanker trucks inadvertently contained a small amount of residual oil within its off load piping, liquids from the dry wells were also transported off-site by AB Oil Service Ltd. of Bohemia, New York and disposed at International Petroleum Corporation (IPC) of Delaware in Wilmington, Delaware.

All borings were advanced using a 4-1/4 inch hollow stem auger with samples collected using a 2-inch diameter split spoon sampler. Split spoon sampling was conducted from 0 to 2 feet and 2 to 4 feet below the bottom of each dry well. A total of 8 soil samples were collected and analyzed for VOCs (Method 8240), SVOCs (Method 8270), TPHCs (Method 418.1), fuel-related constituents (Method 310-13) only if TPHCs were detected, and priority pollutant metals (Methods 6010 and 7471).

All boring and sampling equipment, including the 4-1/4 inch diameter hollow stem augers and 2-inch diameter split spoon samplers, was decontaminated between sample collection and sample locations using a high pressure steam cleaner. All decontamination water was contained in 55-gallon drums for proper disposal by NGC.

# Section 5

## 5.0 FINDINGS

This section presents the findings of the Phase II Site Assessment including a summary of the analytical results of the soil and sediment samples obtained during the Phase II field investigation and dry well soil/sediment sampling program. Soil sample results are compared to the criterion included in Appendix A of the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) No. 4046 (referred to in this document as "NYSDEC TAGM criterion"), as well as the typical Eastern USA background soil contaminant concentration ranges included in the TAGM (referred to in this document as "Eastern USA background levels").

### 5.1 Phase II Subsurface Soil Sampling

As stated in Section 4.1, the Phase II field investigation at the North Runway - Parcel L2 Site was divided into four areas of concern:

- Area Adjacent to Former Thrust Deflector on North Runway - Parcel L1
- Perimeter and Center of Runway
- Former Runway Turnaround
- Former Run-Up Area Thrust Deflector

A total of 18 soil borings were advanced and subsurface soil samples collected in each area during the Phase II field investigation. The analytical results of these samples are presented on Tables B-1 through B-4 in Appendix B. A discussion of the analytical results, by area, is provided in the sections that follow.

#### 5.1.1 Area Adjacent to Former Thrust Deflector on North Runway - Parcel L1

As indicated in Section 4.1, a total of three borings were advanced and 15 soil samples were collected from the area adjacent to the former thrust deflector on North Runway - Parcel L1 at boring locations L2-1, L2-2 and L2-3 (i.e., five samples collected at each location) and

analyzed for VOCs, SVOCs, TPHCs/fuel-related constituents and priority pollutant metals. The results are summarized as follows:

Samples L2-1 through L2-3 (0-1', 1'-2', 2'-4', 4'-6' and 6'-8')

- Volatile Organic Compounds
  - Not detected above NYSDEC TAGM criterion.
- Semivolatile Organic Compounds
  - Benzo(a)anthracene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-1 (0-1', 1'-2' and 6'-8') and L2-3 (0-1').
  - Chrysene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-1 (0-1' and 1'-2').
  - Benzo(b)fluoranthene and benzo(k)fluoranthene were detected at concentrations exceeding the NYSDEC TAGM criteria in L2-1 (0-1').
  - Benzo(a)pyrene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-1 (0-1', 1'-2', 4'-6' and 6'-8'), L2-2 (0-1') and L2-3 (0-1' and 6'-8').
  - Total polycyclic aromatic hydrocarbons (PAHs) and total carcinogenic PAHs (CaPAHs) did not exceed the NYSDEC TAGM criteria in the soil samples collected at boring locations L2-1 through L2-3.
- Total Petroleum Hydrocarbons/Fuel-Related Constituents
  - TPHCs were detected at concentrations ranging from 16.6 mg/l/kg (mg/kg) in L2-2 (2'-4') to 53.2 mg/kg in L2-3 (0-1').
  - TPHCs were not detected in L2-1 (2'-4', 4'-6' and 6'-8'), L2-2 (1'-2' and 4'-6') and L2-3 (2'-4').
  - Fuel-related constituents, where analyzed, were not detected.
- Priority Pollutant Metals
  - Arsenic was detected at concentrations exceeding the Eastern USA background level of 12 mg/kg in L2-1 (0-1') and L2-3 (1'-2').
  - Mercury was detected at concentrations exceeding the Eastern USA background level of 0.2 mg/kg in L2-1 (0-1') and L2-3 (6'-8').
  - Zinc was detected at a concentration exceeding the Eastern USA background level of 50 mg/kg in L2-1 (0-1').
  - Priority pollutant metals were not detected above Eastern USA background levels in L2-1 (1'-2', 2'-4', 4'-6' and 6'-8'), L2-2 (0-1', 1'-2', 2'-4', 4'-6' and 6'-8') and L2-3 (0-1', 2'-4' and 4'-6').

5.1.2 Perimeter and Center of Runway

As indicated in Section 4.1, a total of eight borings were advanced and 32 soil samples were collected from the perimeter and center of the North Runway - Parcel L2 site at boring locations L2-4, L2-5, L2-6, L2-7, L2-8, L2-9, L2-10 and L2-11 (i.e., four samples collected at each location) and analyzed for VOCs, SVOCs, TPHCs/fuel-related constituents and priority pollutant metals. The results are summarized as follows:

Samples L2-4 through L2-11 (0-1', 1'-2', 2'-4' and 4'-6')

- Volatile Organic Compounds
  - Not detected above NYSDEC TAGM criterion.
- Semivolatile Organic Compounds
  - Benzo(a)anthracene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-5 (0-1' and 1'-2'), L2-6 (0-1'), L2-7 (0-1'), L2-8 (0-1') and L2-10 (0-1').
  - Chrysene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-5 (0-1' and 1'-2'), L2-6 (0-1'), L2-7 (0-1'), L2-8 (0-1') and L2-10 (0-1').
  - Benzo(b)fluoranthene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-5 (0-1') and L2-8 (0-1').
  - Benzo(k)fluoranthene was detected at a concentration exceeding the NYSDEC TAGM criterion in L2-5 (0-1').
  - Benzo(a)pyrene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-4 (0-1'), L2-5 (0-1' and 1'-2'), L2-6 (0-1'), L2-7 (0-1'), L2-8 (0-1') and L2-10 (0-1').
  - Dibenzo(a,h)anthracene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-5 (0-1' and 1'-2') and L2-10 (0-1').
  - Total PAHs and total CaPAHs exceeded the NYSDEC TAGM criteria in L2-5 (0-1').
- Total Petroleum Hydrocarbons/Fuel-Related Constituents
  - TPHCs were detected at concentrations ranging from 16.6 mg/kg in L2-9 (4'-6') to 8,700 mg/kg in L2-4 (0-1').
  - TPHCs were not detected in L2-5 (2'-4'), L2-6 (2'-4' and 4'-6'), L2-7 (1'-2', 2'-4' and 4'-6'), L2-10 (2'-4' and 4'-6') and L2-11 (2'-4').
  - Fuel-related constituents, where analyzed, were not detected.

- Priority Pollutant Metals

  - Arsenic was detected at concentrations exceeding the Eastern USA background level of 12 mg/kg in L2-5 (1'-2'), L2-6 (0-1' and 1'-2'), L2-9 (1'-2') and L2-10 (0-1').

  - Mercury was detected at concentrations exceeding the Eastern USA background level of 0.2 mg/kg in L2-5 (0-1' and 1'-2'), L2-6 (1'-2'), L2-9 (1'-2') and L2-10 (0-1').

  - Zinc was detected at concentrations exceeding the Eastern USA background level of 50 mg/kg in L2-6 (0-1'), L2-7 (0-1'), L2-9 (0-1') and L2-10 (0-1').

  - Beryllium was detected at a concentration exceeding the Eastern USA background level of 1.75 mg/kg in L2-4 (2'-4').

  - Priority pollutant metals were not detected above Eastern USA background levels in L2-4 (0-1', 1'-2', 2'-4' and 4'-6'), L2-5 (2'-4' and 4'-6'), L2-6 (2'-4' and 4'-6'), L2-7 (1'-2', 2'-4' and 4'-6'), L2-8 (0-1', 1'-2', 2'-4' and 4'-6'), L2-9 (2'-4' and 4'-6'), L2-10 (1'-2', 2'-4' and 4'-6') and L2-11 (0-1', 1'-2', 2'-4' and 4'-6').

5.1.3 Former Runway Turnaround

As indicated in Section 4.1, a total of three soil borings were advanced and 12 soil samples were collected from the former runway turnaround at boring locations L2-12, L2-13, and L2-14 (i.e., four samples collected at each location) and analyzed for VOCs, SVOCs, TPHCs/ fuel-related constituents and priority pollutant metals. The results are summarized as follows:

Samples L2-12 through L2-14 (0-1', 1'-2', 2'-4' and 4'-6')

- Volatile Organic Compounds
  - Not detected above NYSDEC TAGM criterion.
- Semivolatile Organic Compounds
  - Benzo(a)anthracene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-12 (0-1'), L2-13 (0-1' and 1'-2') and L2-14 (0-1').
  - Chrysene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-12 (0-1'), L2-13 (0-1' and 1'-2') and L2-14 (0-1').

- Benzo(b)fluoranthene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-12 (0-1'), L2-13 (0-1' and 1'-2') and L2-14 (0-1').
- Benzo(k)fluoranthene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-12 (0-1'), L2-13 (0-1') and L2-14 (0-1').
- Benzo(a)pyrene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-12 (0-1' and 1'-2'), L2-13 (0-1' and 1'-2') and L2-14 (0-1', 1'-2' and 2'-4').
- Dibenzo(a,h)anthracene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-12 (0-1' and 1'-2'), L2-13 (0-1' and 1'-2') and L2-14 (0-1').
- Total CaPAHs exceeded the NYSDEC TAGM criterion in L2-12 (0-1') and L2-14 (0-1').

- Total Petroleum Hydrocarbons/Fuel-Related Constituents
  - TPHCs were detected at concentrations ranging from 16.1 mg/kg in L2-14 (4'-6') to 943 mg/kg in L2-14 (1'-2').
  - TPHCs were not detected in L2-12 (2'-4' and 4'-6') and L2-13 (2'-4').
  - Fuel-related constituents, where analyzed, were not detected.
- Priority Pollutant Metals
  - Arsenic was detected at concentrations exceeding the Eastern USA background level of 12 mg/kg in L2-12 (0-1' and 1'-2'), L2-13 (1'-2') and L2-14 (0-1' and 1'-2').
  - Mercury was detected at concentrations exceeding the Eastern USA background level of 0.2 mg/kg in L2-12 (1'-2'), L2-13 (0-1' and 1'-2') and L2-14 (1'-2').
  - Zinc was detected at concentrations exceeding the Eastern USA background level of 50 mg/kg in L2-13 (1'-2') and L2-14 (0-1').
  - Priority pollutant metals were not detected above Eastern USA background levels in L2-12 (2'-4' and 4'-6'), L2-13 (2'-4' and 4'-6') and L2-14 (2'-4' and 4'-6').

### 5.1.4 Former Run-Up Area Thrust Deflector

As indicated in Section 4.1, a total of four soil borings were advanced and 20 soil samples were collected from the former run-up area thrust deflector at boring locations L2-15, L2-16, L2-17 and L2-18 (i.e., five samples collected at each location) and analyzed for VOCs, SVOCs, TPHCs/fuel-related constituents, and priority pollutant metals. The results are summarized as follows:

Samples L2-15 through L2-18 (0-1', 1'-2', 2'-4', 4'-6' and 6'-8')

- Volatile Organic Compounds
  - Not detected above NYSDEC TAGM criteria.
- Semivolatile Organic Compounds
  - Benzo(a)anthracene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-15 (0-1'), L2-16 (1'-2') and L2-18 (0-1').
  - Chrysene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-15 (0-1'), L2-16 (1'-2') and L2-18 (0-1').
  - Benzo(a)pyrene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-15 (0-1'), L2-16 (0-1' and 1'-2'), L2-17 (0-1' and 1'-2') and L2-18 (0-1').
  - Dibenzo(a,h)anthracene was detected at concentrations exceeding the NYSDEC TAGM criterion in L2-15 (0-1') and L2-16 (1'-2').
  - Total PAHs and total CaPAHs did not exceed the NYSDEC TAGM criteria in the soil samples collected at boring locations L2-15 through L2-18.
- Total Petroleum Hydrocarbons/Fuel-Related Constituents
  - TPHCs were detected at concentrations ranging from 13.1 mg/kg in L2-18 (4'-6') to 454 mg/kg in L2-15 (1'-2').
  - TPHCs were not detected in L2-15 (2'-4', 4'-6' and 6'-8'), L2-16 (2'-4', 4'-6' and 6'-8'), L2-17 (2'-4' and 4'-6') and L2-18 (2'-4').
  - Fuel-related constituents, where analyzed, were not detected.
- Priority Pollutant Metals
  - Arsenic was detected at concentrations exceeding the Eastern USA background level of 12 mg/kg in L2-16 (1'-2') and L2-18 (1'-2').
  - Mercury was detected at concentrations exceeding the Eastern USA background level of 0.2 mg/kg in L2-16 (1'-2'), L2-17 (1'-2') and L2-18 (1'-2').
  - Zinc was detected at a concentration exceeding the Eastern USA background level of 50 mg/kg in L2-15 (0-1').
  - Priority pollutant metals were not detected above Eastern USA background levels in L2-15 (1'-2', 2'-4', 4'-6' and 6'-8'), L2-16 (0-1', 2'-4', 4'-6' and 6'-8'), L2-17 (0-1', 2'-4', 4'-6' and 6'-8') and L2-18 (0-1', 2'-4', 4'-6' and 6'-8').

## 5.2 Dry Well Soil/Sediment Sampling

As previously discussed in Section 4.2, soil/sediment samples were collected from four dry wells DWL2-1, DWL2-2, DWL2-3 and DWL2-4 by advancing a boring through the center of each dry well and collecting samples from 0 to 2 feet and 2 to 4 feet below the bottom of each dry well. Prior to collecting these samples, the liquids were removed/pumped out from each dry well, if present, and transported and disposed of at the NGC IWTP, as well as off-site at the IPC facility in Wilmington, Delaware.

A total of eight soil/sediment samples were collected (i.e., two samples from each dry well) and analyzed for VOCs, SVOCs, TPHCs/fuel-related constituents and priority pollutant metals. The analytical results of these samples are presented on Tables B-1 through B-4 in Appendix B. The results are summarized as follows:

<u>Samples DWL2-1 through DWL2-4 (0-2' and 2'-4')</u>

- Volatile Organic Compounds
  - Not detected above NYSDEC TAGM criterion.
- Semivolatile Organic Compounds
  - Benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, and benzo(a)pyrene were detected at concentrations exceeding the NYSDEC TAGM criteria in DWL2-1 (0-2').
  - Benzo(a)pyrene was detected at a concentration exceeding the NYSDEC TAGM criterion in DWL2-3 (0-2').
  - Total CaPAHs exceeded the NYSDEC TAGM criterion in DWL2-1 (0-2').
- Total Petroleum Hydrocarbons/Fuel-Related Constituents
  - TPHCs were detected at concentrations ranging from 23 mg/kg in DWL2-1 (2'-4') to 730 mg/kg in DWL2-3 (0-2').
  - TPHCs were not detected in DWL2-2 (2'-4'), DWL2-3 (2'-4') and DWL2-4 (2'-4').
  - Fuel-related constituents, where analyzed, were not detected.
- Priority Pollutant Metals
  - Arsenic was detected at a concentration exceeding the Eastern USA background level of 12 mg/kg in DWL2-3 (0-2').

- Chromium, copper, lead, nickel and zinc were detected at concentrations exceeding the Eastern USA background levels in DWL2-1 (0'-2').
- Priority pollutant metals were not detected above Eastern USA background levels in DWL2-1 (2'-4'), DWL2-2 (0-2' and 2'-4'), DWL2-3 (2'-4') and DWL2-4 (0-2' and 2'-4').

## 5.3 Data Validation

Eighty-seven soil and sediment samples and four field blanks were collected during the Phase II Site Assessment at the North Runway - Parcel L2 site. The samples were analyzed for VOCs, SVOCs, TPHCs/fuel-related constituents, and priority pollutant metals. The analyses were performed by IEA, Inc., a subcontractor to D&B.

Data validation was completed in accordance with NYSDEC Quality Assurance/Quality Control (QA/QC) requirements. Twenty percent of the sample data and one hundred percent of the QC data (i.e., surrogate recoveries, matrix spike duplicates, blanks and calibrations) were reviewed yielding a "20% validation."

Sample analyses were performed in accordance with USEPA SW846 methodologies, as well as following NYSDEC Analytical Services Protocol (ASP) QA/QC requirements. All analyses were completed within the specified holding times with the exception of the reanalysis of the volatile fraction of L2-6 (0-1'). Since the results of the initial run are being used for this sample, no qualification of the data was necessary.

Instrument calibrations (initial and continuing) were analyzed at the appropriate frequency and met QC requirements. Several samples required analysis of the semivolatile fraction at a dilution due to the concentrations of targeted compounds present.

All results were deemed valid and usable for environmental assessment as qualified above.

# Section 6

## 6.0 CONCLUSIONS

Conclusions are presented in this section based upon the findings of the Phase II field investigation and dry well soil/sediment sampling program presented in Section 5.

For site assessment purposes, industry commonly relies on the NYSDEC TAGM No. 4046 - Determination of Soil Cleanup Objectives and Cleanup Levels, dated January 24, 1994. However, we emphasize that as is discussed in the introduction of the TAGM, the document is designed to provide a basis and procedure for NYSDEC Project Managers at "...individual Federal Superfund, State Superfund, 1986 EQBA Title 3 and Responsible Party (RP) sites..." to determine soil cleanup levels. The TAGM provides a number of methods to determine the degree to which these sites are cleaned up including recommended soil cleanup objectives (NYSDEC TAGM criteria) and Eastern USA background levels (for metals only).

However, the North Runway - Parcel L2 parcel is not a Federal Superfund or State Superfund site nor is it a 1986 EQBA Title 3 or RP site. In addition, as we have discussed in the introduction and at various other sections throughout this report, not only is the L-2 parcel not a Superfund site or hazardous waste site, but it also not associated with any industrial process operations, chemical storage areas or storage tanks or chemical spills. As a result, it would have been reasonable to not have identified any areas of environmental concern as part of the Phase I Site Assessment. However, in keeping with Northrop Grumman's conservative corporate policy of sampling and conducting laboratory analysis at all of its parcels prior to initiating real estate transactions, we present those findings in Section 5.0. As presented in Section 5.0, the constituents of concern detected are likely associated with the normal and intended use of commercially available products found in virtually all households and commercial establishments. In addition, we believe that the constituents detected are likely comparable to constituents which one would find with typical urban and suburban storm water associated with parking lots, roadways and highways, recharge basins serving this infrastructure and typical residential and commercial applications involving treated wood, herbicide and rodenticide utilization.

With that in mind, we do not believe that the data warrants classifying these areas as potential areas of concern requiring additional investigation and possible future remediation.

# Appendix A

# APPENDIX A

# BORING LOGS

DVIRKA AND BARTILUCCI

DRILLING CONTRACTOR
Driller Dennis
Inspector K. Robins
Rig Type CME 75
Drilling Method Split spoon
Drive Hammer Weight (2 inch) 140 lbs.

DRILLING LOG
PROJECT NAME GRUMMAN L2 - Site
PROJECT # 801/96-54
Location/Address

BORING NUMBER L2-1
Sheet 1 of 1
Boring Location

GROUNDWATER OBSERVATIONS

| | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather Cold 40°F
Date/Time Start 11/13/96
Date/Time Finish 11/13/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL |
|---|---|---|---|---|
| 0-1 | SS-1 | 6,10 | - | Dark Brown Top soil, dry roots, Black silt. |
| 1-2 | SS-2 | 10,20 | - | Dark Brown Top Soil, sand, silt, gravel, cobbles. |
| 2-4 | SS-3 | 20,22 | - | Brown coarse sand and subangular gravel, cobbles. dry. |
| | | 30,35 | | |
| 4-6 | SS-4 | 28,30 | - | Sand Brown C-m, some angular gravel, damp sand at 5½' (5½-6') Brown silt, fine Sand subrounded gravel. |
| | | 32,36 | | |
| 6-8 | SS-5 | 57,52 | - | Brown sand, medium well sorted qtz Sand, gravel. |
| | | 48,43 | | |
| | | | | END OF Boring AT 8 FT |

WELL SCHEMATIC

COMMENTS

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary

DVIRKA AND BARTILUCCI

| DRILLING CONTRACTOR | DRILLING LOG | BORING NUMBER |
|---|---|---|
| Driller Dennis | PROJECT NAME Grumman L2 site | Sheet 1 of 1 |
| Inspector Kr Robins | PROJECT # 801/96-54 | Boring Location |
| Rig Type CME 75 | Location/Address | |
| Drilling Method Splitspoon | | |
| Drive Hammer Weight 140 | | |

| GROUNDWATER OBSERVATIONS | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather Cold 40°F

Date/Time Start 11/13/96

Date/Time Finish 11/13/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL | WELL SCHEMATIC | COMMENTS |
|---|---|---|---|---|---|---|
| 0-1 | SS-1 | 6,12 | — | Topsoil, Dark Black Brown Sand, silt, roots, dry | | |
| 1-2 | SS-2 | 13,15 | — | (1-1½) Brown gtz Tan Medium Sand gravel, cobbles. | | |
| 2-4 | SS-3 | 12,13 | — | (1½-2) Orange Sand, wet medium-coarse trace silt, gravel. | | |
| | | 12,9 | | (2-3½) Brown-Orange wet Sand | | |
| 4-6 | SS-4 | 9,7 | — | (3½-4) Black clay, some silt. trace fine gravel. moist-wet | | |
| | | 6,9 | | (4'-5') Brown-Orange Saturated coarse Sand. | | |
| 6-8 | SS-5 | 9,10 | — | (5'-6') Black Clay, trace gravel, moist-Fill | | |
| | | 11,6 | | (6'-8') Black soft clay and silt, wet-damp Fill some Brown-Redish silt. | | |
| | | | | END of Boring AT 8FT | | |

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary

DVIRKA AND BARTILUCCI

| DRILLING CONTRACTOR | DRILLING LOG | BORING NUMBER L2-3 |
|---|---|---|
| Driller Dennis | PROJECT NAME Grumman L2-site | Sheet 1 of 1 |
| Inspector K. Robins | PROJECT # 901/96-54 | Boring Location |
| Rig Type CME75 | Location/Address | |
| Drilling Method Splitspoon | | |
| Drive Hammer Weight 140 Lbs | | |

| GROUNDWATER OBSERVATIONS | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather Cold 40°F

Date/Time Start 11/13/96

Date/Time Finish 11/13/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL | WELL SCHEMATIC | COMMENTS |
|---|---|---|---|---|---|---|
| 0-1 | SS-1 | 12,13 | - | Top Soil, Black Brown Sand, silt | | |
| 1-2 | SS-2 | 13,14 | - | Top Soil, Black-Brown sand, cobbles, gravel | | |
| 2-4 | SS-3 | 17,12 14,12 | - | Brown-Tan med-c Sand wet grading into Black-Brown clay and silt, damp, gravel | | |
| 4-6 | SS-4 | - | - | Black clay + silt, some sand, trace gravel. | | |
| 6-8 | SS-5 | 17,18 17,17 | - | Dark Brown clay, Tan Brown coarse Sand. Dark Brown compact Sand/silt | | |
| | | | | END OF Boring AT 8' | | |

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary

DVIRKA AND BARTILUCCI

| DRILLING CONTRACTOR | DRILLING LOG | BORING NUMBER L2-4 |
|---|---|---|
| Driller Dennis | PROJECT NAME Grumman L-2 site | Sheet 1 of 1 |
| Inspector K. Robins | PROJECT # 801/96-54 | Boring Location |
| Rig Type CME 75 | Location/Address | |
| Drilling Method Split Spoon | | |
| Drive Hammer Weight 140 | | |

| GROUNDWATER OBSERVATIONS | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | - | | |

Weather Sunny/cold

Date/Time Start 11/15/96

Date/Time Finish 11/15/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL | WELL SCHEMATIC | COMMENTS |
|---|---|---|---|---|---|---|
| 0-1 | SS-1 | 35/17 | — | (0-1') Black Fill, sand, cinders, gravel, cobble | | |
| 1-2 | SS-2 | 19/16 | — | (1'-2') Black Fill compacted sand, silt, gravel. | | |
| 2-4 | SS-3 | 13/12 15/18 | — | (2'-4') Black Fill, compact, silt, sand, fine gravel | | |
| 4-6 | SS-4 | 6,4 4,2 | — | (4-6) Brown-Orange Sand and Brown clay (SOFT) | | |
| | | | | END OF Boring at 6 FT | | |

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary

DVIRKA AND BARTILUCCI

**DRILLING CONTRACTOR**
Driller: Dennis
Inspector: K. Robins
Rig Type: CME 75
Drilling Method: 5 Platspoon
Drive Hammer Weight: 140lb

**DRILLING LOG**
PROJECT NAME: Grumman L2-Site
PROJECT #: 801/96-54
Location/Address:

**BORING NUMBER** L2-5
Sheet 1 of 1
Boring Location:

**GROUNDWATER OBSERVATIONS**

| | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather: Sunny / cold
Date/Time Start: 11/15/96
Date/Time Finish: 11/15/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL | WELL SCHEMATIC | COMMENTS |
|---|---|---|---|---|---|---|
| 0-1 | SS-1 | 45/2' | - | (0-1) Top soil, dark Brown silt, fine Sand, trace cobbles. | | |
| 1-2 | SS-2 | ↓ | - | (1-2) Top soil, silt, dark Brown color. | | |
| 2-4 | SS-3 | 30/2' | - | (2-4) Brown clay, sand, fine size | | |
| 4-6 | SS-4 | 105/2' | - | (4-6) (Soft) Brown - Tan coarse to medium Sand, fine gravel, damp | | |
| | | | | END of Boring at 6FT | | |

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary:

DVIRKA AND BARTILUCCI

**DRILLING CONTRACTOR**
Driller: Dennis
Inspector: K. Robins
Rig Type: CME75
Drilling Method: SPIN Sparge
Drive Hammer Weight: 140 lbs

**DRILLING LOG**
PROJECT NAME: Grumman L2-site
PROJECT #: 801/96-54
Location/Address:

**BORING NUMBER** L2-6
Sheet ____ of ____
Boring Location:

**GROUNDWATER OBSERVATIONS**

| | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather: Sunny / Cold
Date/Time Start: 11/15/96
Date/Time Finish: 11/15/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading |
|---|---|---|---|
| 0-1 | SS-1 | 25,25 | - |
| 1-2 | SS-2 | 15,20 | - |
| 2-4 | SS-3 | 30/2' | - |
| 4-6 | SS-4 | 45/2' | - |

**FIELD IDENTIFICATION OF MATERIAL**

0-6" Top soil
6"-10" Slag and ash stone, sand, silt Fill
(1'-2') Dark Brown - Red/Black fine sand, silt, fine gravel
(2-2 1/2) Brown clay and silt
(2 1/2-4'0) Orange course - med. Sand, trace gray clay and silt
(4'-6') Gray clay and silt, soft.
(5 1/2-6'0) Brown-Orange Sand course, fine gravel, (dump)

END OF Boring at 6FT

**WELL SCHEMATIC**

**COMMENTS**

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary:

OVIRKA AND BARTILUCCI

**DRILLING CONTRACTOR**
Driller: Dennis
Inspector: K. Robins
Rig Type: CME75
Drilling Method: split spoon
Drive Hammer Weight: 140 Lbs

**DRILLING LOG**
PROJECT NAME: Grumman L2-site
PROJECT #: 801/96-54
Location/Address:

**BORING NUMBER** L2-7
Sheet 1 of 1
Boring Location:

**GROUNDWATER OBSERVATIONS**

| | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather: Sunny/cold
Date/Time Start: 11/15/96
Date/Time Finish: 11/15/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL |
|---|---|---|---|---|
| 0-1 | SS-1 | 10,10 | - | Topsoil (0-6") |
| 1-2 | SS-2 | 10,10 | - | (6"-2') Fill, Black sand, silt slag, cinders, gravel. |
| 2-4 | SS-3 | 8,8 | - | (1-2') Brown-Black clayey Sand silt, slag, Fill, gravel |
| | | 10,7 | | (2-4) Brown-Orange course Sand, some gravel. |
| 4-6 | SS-4 | 10,8 | - | at (2.0-2.5) Brown clay |
| | | 5,7 | | (4'-5½) Brown clay and silt |
| | | | | (4-5½) Brown Sand coarse to medium size |
| | | | | (5½-6) Sand, little gravel |
| | | | | END OF Boring AT 6FT |

WELL SCHEMATIC

COMMENTS

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary:

DVIRKA AND BARTILUCCI

**DRILLING CONTRACTOR**
Driller: Dennis
Inspector: K. Robins
Rig Type: CME 75
Drilling Method: 3¼" HSA Split Spoon
Drive Hammer Weight: 140 Lbs

**DRILLING LOG**
PROJECT NAME: Grumman L2 - Site
PROJECT #: 301196-54
Location/Address:

**BORING NUMBER** L2-8
Sheet 1 of 1
Boring Location:

**GROUNDWATER OBSERVATIONS**

| | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather: Cold, windy
Date/Time Start: 11/13/96
Date/Time Finish: 11/13/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL |
|---|---|---|---|---|
| 0-1 | SS-1 | 15,25 | — | Asphalt. Black sand and gravel |
| 1-2 | SS-2 | 30,28 | — | 1-1.5 Brown coarse Sand and gravel, moist |
| 2-4 | SS-3 | 24,30 | — | 1.5-2.0 Black Fill, crushed cinder, slag. |
| | | 22,30 | | 2-3.0' Black-Gray compact silt and clay Fill |
| 4-6 | SS-4 | 38,42 | — | 3.0-3.5 Brown Red silt and clay |
| | | 42,49 | | 3.5-4.0 Tan coarse well graded qtz Sand |
| | | | | 4-6 Coarse sand, some med-fine angular gravel. |
| | | | | END OF Boring AT 6' |

WELL SCHEMATIC

COMMENTS

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary:

DVIRKA AND BARTILUCCI

| DRILLING CONTRACTOR | DRILLING LOG | BORING NUMBER L2-9 |
|---|---|---|
| Driller Dennis | PROJECT NAME Grumman | Sheet 1 of 1 |
| Inspector Keith Robins | | Boring Location |
| Rig Type CME 75 | PROJECT # 801/96-54 | |
| Drilling Method Splitspoon | Location/Address | |
| Drive Hammer Weight 140 lbs | | |

| GROUNDWATER OBSERVATIONS | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather Cold 40°F

Date/Time Start 11/13/96

Date/Time Finish 11/13/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL | WELL SCHEMATIC | COMMENTS |
|---|---|---|---|---|---|---|
| 0-1 | SS-1 | - | - | (0-1) asphalt, Black clay, silt, sand and gravel. Fill | | |
| 1-2 | SS-2 | - | - | (1-2) Black clayey silt, gravel, sand. Fill | | |
| 2-4 | SS-3 | - | - | (2-4) Brown Tan coarse-medium quartz. Sand and gravel. (dry) | | |
| 4-6 | SS-4 | - | - | (4-6) Brown Sand and gravel. | | |
| | | | | END OF Boring at 6 FT | | |

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary

DVIRKA AND BARTILUCCI

| DRILLING CONTRACTOR | DRILLING LOG | BORING NUMBER B2-10 |
|---|---|---|
| Driller Dennis | PROJECT NAME Grumman L2-Site | Sheet 1 of 1 |
| Inspector K. Robins | PROJECT # 801/96-54 | Boring Location |
| Rig Type CME 75 | Location/Address | |
| Drilling Method Split spoon | | |
| Drive Hammer Weight 140 lbs. | | |

| GROUNDWATER OBSERVATIONS | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather Cold 40°F

Date/Time Start 11/14/96

Date/Time Finish 11/14/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL | WELL SCHEMATIC | COMMENTS |
|---|---|---|---|---|---|---|
| 0-1 | SS-1 | - | - | (0-1) Brown clayey Topsoil | | |
| 1-2 | SS-2 | - | - | (1-2) Brown clay and silt | | |
| 2-4 | SS-3 | - | - | (2-4) Brown clay and silt | | |
| 4-6 | SS-4 | - | - | (4-6) Brown Tan fine-medium sand, little gravel. (wet) | | |
| | | | | END of Boring at 6 FT | | |

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary

DVIRKA AND BARTILUCCI

| DRILLING CONTRACTOR | DRILLING LOG | BORING NUMBER |
|---|---|---|
| Driller: Dennis | PROJECT NAME: Grumman L2-site | BORING NUMBER: L2-11 |
| Inspector: K. Robins | PROJECT #: | Sheet: 1 of 1 |
| Rig Type: CME75 | Location/Address: | Boring Location: |
| Drilling Method: Split Spoon | | |
| Drive Hammer Weight: 140 Lbs | | |

| GROUNDWATER OBSERVATIONS | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather: Cold 40°F

Date/Time Start: 11/14/96

Date/Time Finish: 11/14/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL | WELL SCHEMATIC | COMMENTS |
|---|---|---|---|---|---|---|
| 0-1 | SS-1 | 85/2" | — | 0-4" asphalt<br>4"-12" Dark Brown Sand and gravel cobbles, trace silt. | | |
| 1-2 | SS-2 | ↓ | — | (1-2') Dark Brown Sand, gravel, cobbles, silt. | | |
| 2-4 | SS-3 | 25,30<br>30,35 | — | (2-4) Dark Brown coarse-medium sand, gravel, trace silt, cobbles. | | |
| 4-6 | SS-4 | 35,33,<br>27,28 | — | (4'-6') Tan - Light Orange coarse to medium Sand, fine crushed gravel. dry<br><br>END OF Boring AT 6FT | | |

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary:

DVIRKA AND BARTILUCCI

| DRILLING CONTRACTOR | DRILLING LOG | BORING NUMBER |
|---|---|---|
| Driller: Dennis | PROJECT NAME: Grumman L2 - site | Sheet: 1 of 1 |
| Inspector: Keith Robins | PROJECT #: 801/96-54 | Boring Location: |
| Rig Type: CME 75 | Location/Address: | |
| Drilling Method: Split spoon | | |
| Drive Hammer Weight: 140 Lbs | | |

| GROUNDWATER OBSERVATIONS | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather: Cold 40°F

Date/Time Start: 11/13/96

Date/Time Finish: 11/13/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL | WELL SCHEMATIC | COMMENTS |
|---|---|---|---|---|---|---|
| 0-1 | SS-1 | - | - | Top Soil | | |
| 1-2 | SS-2 | - | - | Brown clayey Sand, silt, gravel | | |
| 2-4 | SS-3 | - | - | Brown clayey Sand, silt, trace gravel, medium sand, moist | | |
| 4-6 | SS-4 | - | - | Tan course Sand and fine gravel, some fine-medium Sand. | | |
| | | | | END OF Boring AT 6' | | |

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary:

DVIRKA AND BARTILUCCI

**DRILLING CONTRACTOR**
Driller: Dennis
Inspector: K. Robins
Rig Type: CME 75
Drilling Method: Split Spoon
Drive Hammer Weight: 140

**DRILLING LOG**
PROJECT NAME: Grumman L2 - Site
PROJECT #: 801/96-54
Location/Address:

**BORING NUMBER** L2-13
Sheet 1 of 1
Boring Location:

**GROUNDWATER OBSERVATIONS**

| | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather: Cold
Date/Time Start: 11/13/96
Date/Time Finish: 11/13/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL | WELL SCHEMATIC | COMMENTS |
|---|---|---|---|---|---|---|
| 0-1 | SS-1 | 3,3 | — | Top Soil | | |
| 1-2 | SS-2 | 6,7 | — | Top soil, clayey sand, cobbles | | |
| 2-4 | SS-3 | 6,6<br>7,7 | — | Clay Silt, Brown, Soft, trace organics. Brown sand at tip | | |
| 4-6 | SS-4 | 9,11<br>11,12 | — | Tan - Light Brown coarse Sand and fine subangular gravel. (dry) | | |
| | | | | END OF Boring at 6' | | |

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary:

DVIRKA AND BARTILUCCI

**DRILLING CONTRACTOR**
Driller: Dennis
Inspector: K. Robins
Rig Type: CME 75
Drilling Method: Split spoon
Drive Hammer Weight: 140 lbs.

**DRILLING LOG**
PROJECT NAME: Grumman L2 - site
PROJECT #: 801/96-54
Location/Address:

**BORING NUMBER** L2-14
Sheet 1 of 1
Boring Location:

**GROUNDWATER OBSERVATIONS**

| | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather: Cold 40s °F Windy
Date/Time Start: 11/13/96
Date/Time Finish: 11/13/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL |
|---|---|---|---|---|
| 0-1 | SS-1 | 8,10 | — | Top Soil |
| 1-2 | SS-2 | 17,20 | — | Black - Brown silt, compact, clay, trace slag, gravel Fill |
| 2-4 | SS-3 | 17,20 | — | Sand wet, coarse - medium, brown silt lense, dry sand and gravel below silt |
| | | 22,25 | | |
| 4-6 | SS-4 | | | Dry Brown - Tan qty Sand (coarse) Some fine angular gravel. |
| | | 19,17 | — | |
| | | 30,35 | | END OF Boring AT 6' |

WELL SCHEMATIC

COMMENTS

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary:

DVIRKA AND BARTILUCCI

**DRILLING CONTRACTOR**
Driller: Dennis
Inspector: K. Robbins
Rig Type: CME 75
Drilling Method: Splitspoon
Drive Hammer Weight: 140 Lbs.

**DRILLING LOG**
PROJECT NAME: Grumman L2-Site
PROJECT #: 801/96-54
Location/Address:

**BORING NUMBER** L2-15
Sheet 1 of 1
Boring Location:

**GROUNDWATER OBSERVATIONS**

| | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather: Sunny / cold
Date/Time Start: 11/15/96
Date/Time Finish: 11/15/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL |
|---|---|---|---|---|
| 0-1 | SS-1 | 6,4 | — | (0-1) Top Soil, sand, silt, gravel. |
| 1-2 | SS-2 | 15,15 | — | (1-2) Topsoil, brown sand and cobbles, silt |
| 2-4 | SS-3 | — | — | (2-4) Brown-Tan Clay and silt, moist-wet (at 3 FT), trace sand |
| 4-6 | SS-4 | 27,35 | — | (4'-6') Tan Sand. coarse-medium, cobbles, crushed gravel, poorly sorted, dry-damp. |
| | | 45,38 | | |
| 6-8 | SS-5 | 40,38 | — | (6'-8') Tan-Orange medium-coarse grained Sand, some fine gravel (dry). |
| | | 25,22 | | |
| | | | | END OF Boring AT 8 FT |

WELL SCHEMATIC

COMMENTS

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary:

DVIRKA AND BARTILUCCI

| DRILLING CONTRACTOR | DRILLING LOG | BORING NUMBER L2-16 |
|---|---|---|
| Driller Dennis | PROJECT NAME Grumman L2-Site | Sheet 1 of 1 |
| Inspector K. Robins | PROJECT # 801/96-54 | Boring Location |
| Rig Type CME 75 | Location/Address | |
| Drilling Method Splitspoon | | |
| Drive Hammer Weight 140 Lbs. | | |

| GROUNDWATER OBSERVATIONS | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather: Sunny/Cool

Date/Time Start: 11/15/96

Date/Time Finish: 11/15/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL | WELL SCHEMATIC | COMMENTS |
|---|---|---|---|---|---|---|
| 0-1 | SS-1 | 12,25 | - | (0-1') Topsoil, dark Brown silt, some grass, roots, dry | | |
| 1-2 | SS-2 | 27,27 | - | (1-2') Topsoil, dark brown silt, Sand, dry | | |
| 2-4 | SS-3 | 20,17 | - | (2-4) 0-4" Brown clay and silt | | |
| | | 22,28 | | 4"-15" Tan-Brown medium-coarse Sand, little gravel | | |
| 4-6 | SS-4 | 33,35 | - | (4-6) Tan-Light Brown coarse to fine Sand, little-Some gravel, moist | | |
| | | 43,70 | | | | |
| 6-8 | SS-5 | 80,90 | - | (6-8) Tan coarse Sand, little Some fine gravel. | | |
| | | 72,78 | | | | |
| | | | | END OF Boring AT 8 FT | | |

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary

DVIRKA AND BARTILUCCI

**DRILLING CONTRACTOR**
Driller: Dennis
Inspector: K. Robins
Rig Type: CME 75
Drilling Method: Splitspoon
Drive Hammer Weight: 140 lbs

**DRILLING LOG**
PROJECT NAME: Grumman L2-S.TE
PROJECT #: Boi/96-54
Location/Address:

**BORING NUMBER** L2-17
Sheet 1 of 1
Boring Location:

**GROUNDWATER OBSERVATIONS**

| | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather: Sunny/cold
Date/Time Start: 11/15/96
Date/Time Finish: 11/15/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL |
|---|---|---|---|---|
| 0-1 | SS-1 | 10,17 | — | (0-1) Top soil, dark brown silt, sand, roots, damp. |
| 1-2 | SS-2 | 18,20 | — | (1-2') Top soil / Dark Brown sand, silt, gravel, trace cobbles. (damp) |
| 2-4 | SS-3 | 25,28 | — | (2-3') Brown, silt, little clay, compact |
| | | 30,36 | | (3'-4') Brown Tan course - medium sand, fine gravel |
| 4-6 | SS-4 | 38,40 | — | (4-6) Light Tan Brown coarse to medium sand, some crushed gravel, poorly sorted, damp |
| | | 42,47 | | (6-8) Light Brown - Tan medium to coarse sand, fine gravel |
| 6-8 | SS-5 | 27,38 | — | (7.5-8.0) Orange coarse sand. |
| | | 25,45 | | END OF BORING AT 8FT |

WELL SCHEMATIC

COMMENTS

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary:

DVIRKA AND BARTILUCCI

| DRILLING CONTRACTOR | DRILLING LOG | BORING NUMBER L2-18 |
|---|---|---|
| Driller Dennis | PROJECT NAME Grumman L2-Site | Sheet 1 of 1 |
| Inspector K. Robins | PROJECT # 801/96-54 | Boring Location |
| Rig Type CME 75 | Location/Address | |
| Drilling Method Split spoon | | |
| Drive Hammer Weight 140 Lbs | | |

| GROUNDWATER OBSERVATIONS | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather Sunny/Cool

Date/Time Start 4/15/96

Date/Time Finish 4/15/96

Plot Plan

| Sample Depth | Sample Number | SPT Blows | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL | WELL SCHEMATIC | COMMENTS |
|---|---|---|---|---|---|---|
| 0-1 | SS-1 | 6,15 | — | (0-1') Dark Brown Top Soil, roots, silt | | |
| 1-2 | SS-2 | 12,22 | — | (1-2') Dark Brown Top soil, roots, silt, gravel | | |
| 2-4 | SS-3 | 9,11 | — | (2-3) Brown clay and silt | | |
| | | 12,8 | | (3-4') Tan quartz fine-medium sand, trace gravel. | | |
| 4-6 | SS-4 | 19,17 | — | (4'-6') Light tan coarse subrounded sand, fine-medium gravel, dry. | | |
| | | 20,30 | | (6'-8') Tan-Orange coarse-fine sand and gravel, trace silt. | | |
| 6-8 | SS-5 | 35,40 | — | END OF Boring AT 8 FT | | |
| | | 42,48 | | | | |

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary

DVIRKA AND BARTILUCCI

DRILLING CONTRACTOR
Driller: WALLY
Inspector: K. ROBINS
Rig Type: CME 75
Drilling Method: SPLITSPOON
Drive Hammer Weight: 140 LBS

DRILLING LOG
PROJECT NAME: Grumman L2-site
PROJECT #: 801/96-54
Location/Address:

BORING NUMBER: DW-1
Sheet: 1 of 1
Boring Location:

GROUNDWATER OBSERVATIONS

| | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather: SUNNY/WARM 60°F
Date/Time Start: 11/18/96
Date/Time Finish: 11/18/96

Plot Plan

| Sample Depth | Sample Number | SPT | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL | WELL SCHEMATIC | COMMENTS |
|---|---|---|---|---|---|---|
| 0-2 | SS-1 | - | - | 0-6" Black organic clayey silt. (wet)<br>6"-24" Dark Brown wet sand | | INside dry-well @ 16.5' |
| 2-4 | SS-2 | - | - | (2-4) Brown-Orange medium to Coarse Sand and gravel saturated<br>END OF Boring at 4 FT | | |

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary:

DVIRKA AND BARTILUCCI

| DRILLING CONTRACTOR | DRILLING LOG | BORING NUMBER DW-2 |
|---|---|---|
| Driller Daddy | PROJECT NAME Grumman L2-site | Sheet 1 of 1 |
| Inspector K. Robbins | PROJECT # 801/96-54 | Boring Location |
| Rig Type CME 75 | Location/Address | |
| Drilling Method Split Spoon | | |
| Drive Hammer Weight 140 Lbs | | |

| GROUNDWATER OBSERVATIONS | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather Sunny / warm

Date/Time Start 11/18/96

Date/Time Finish 11/18/96

Plot Plan

| Sample Depth | Sample Number | SPT | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL | WELL SCHEMATIC | COMMENTS |
|---|---|---|---|---|---|---|
| 0-2 | SS-1 | - | - | (0-2') Brown course sand, few gravel, cobbles, poorly sorted. | | Inside dry-well @ 15.5' |
| 2-4 | SS-2 | - | - | (2-4) Brown, coarse sand, some gravel, cobbles, poorly sorted. | | |
| | | | | END OF Boring at 4 FT | | |

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary

DVIRKA AND BARTILUCCI

| DRILLING CONTRACTOR | DRILLING LOG | BORING NUMBER DW-3 |
|---|---|---|
| Driller Wally | PROJECT NAME Grumman L2-site | Sheet 1 of 1 |
| Inspector K. Robins | PROJECT # 801/96-54 | Boring Location |
| Rig Type CME75 | Location/Address | |
| Drilling Method | | |
| Drive Hammer Weight | | |

| GROUNDWATER OBSERVATIONS | | | | Weather Sun/Warm | Plot Plan |
|---|---|---|---|---|---|
| Water Level | | | | | |
| Time | | | | Date/Time Start 11/18/96 | |
| Date | | | | Date/Time Finish 11/18/96 | |
| Casing Depth | | - | | | |

| Sample Depth | Sample Number | SPT | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL | WELL SCHEMATIC | COMMENTS |
|---|---|---|---|---|---|---|
| 0-2 | SS-1 | | | 0-4" Black Organic Silt, sand, trace twigs, leaves. | | Inside dry-well @ 9.5' |
| 2-4 | SS-2 | | | 4"-12" Brown Coarse Sand, silt, medium gravel, wet | | |
| | | | | (2-4) Brown - Light Orange coarse. to medium Sand and gravel, trace cobbles, silt (wet). | | |
| | | | | END OF Boring AT 4 FT | | |

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary

DVIRKA AND BARTILUCCI

| DRILLING CONTRACTOR | DRILLING LOG | BORING NUMBER DW-4 |
|---|---|---|
| Driller Wally | PROJECT NAME Grumman Landfill | Sheet 1 of 1 |
| Inspector K. Robbins | PROJECT # | Boring Location |
| Rig Type CME 75 | Location/Address | |
| Drilling Method Split spoon | | |
| Drive Hammer Weight 140 | | |

| GROUNDWATER OBSERVATIONS | | | |
|---|---|---|---|
| Water Level | | | |
| Time | | | |
| Date | | | |
| Casing Depth | | - | |

Weather: Warm / Sunny

Date/Time Start: 11/18/96

Date/Time Finish: 11/18/96

Plot Plan

| Sample Depth | Sample Number | SPT | PID/FID Reading | FIELD IDENTIFICATION OF MATERIAL | WELL SCHEMATIC | COMMENTS |
|---|---|---|---|---|---|---|
| 0-1 | SS-1 | — | — | (0-4") Abundant medium gravel | | Inside Dry Well @ 17.75' |
| | | | | (4"-24") Dark Brown course quartz sand, trace subrounded gravel, damp. | | |
| 1-2 | SS-2 | — | — | (2-4') 0-15" Dark Brown coarse to medium sand, trace gravel. | | |
| | | | | 15"-18" Tan course Sand | | |
| | | | | END OF Boring AT 4FT | | |

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary

# Appendix B

# APPENDIX B

# SOIL SAMPLING RESULTS

Cardinal

**TABLE B-1**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**VOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | AREA ADJACENT TO FORMER THRUST DEFLECTOR ON NORTH RUNWAY - PARCEL L1 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-1 | L2-1 | L2-1 | L2-1 | L2-1 | L2-2 | L2-2 | L2-2 | | |
| SAMPLE DEPTH | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 84 | 86 | 96 | 95 | 92 | 88 | 87 | 84 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Chloromethane | U | U | U | U | U | U | U | U | 10 | --- |
| Bromomethane | U | U | U | U | U | U | U | U | 10 | --- |
| Vinyl Chloride | U | U | U | U | U | U | U | U | 10 | 200 |
| Chloroethane | U | U | U | U | U | U | U | U | 10 | 1,900 |
| Methylene Chloride | U | U | U | U | U | U | U | U | 10 | 100 |
| Acetone | 10 JB | 12 B | 9 JB | 11 B | U | U | 9 JB | 86 B | 10 | 200 |
| Carbon Disulfide | U | U | U | U | U | U | U | U | 10 | 2,700 |
| 1,1-Dichloroethene | U | U | U | U | U | U | U | U | 10 | 400 |
| 1,1-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 200 |
| 1,2-Dichloroethene (total) | U | U | U | U | U | U | U | U | 10 | 300 |
| Chloroform | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,2-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 100 |
| 2-Butanone | U | U | U | U | U | U | U | 18 | 10 | 300 |
| 1,1,1-Trichloroethane | U | U | U | U | U | U | U | U | 10 | 800 |
| Carbon Tetrachloride | U | U | U | U | U | U | U | U | 10 | 600 |
| Bromodichloromethane | U | U | U | U | U | U | U | U | 10 | --- |
| 1,2-Dichloropropane | U | U | U | U | U | U | U | U | 10 | --- |
| cis-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | --- |
| Trichloroethene | U | U | U | U | U | U | U | U | 10 | 700 |
| Dibromochloromethane | U | U | U | U | U | U | U | U | 10 | --- |
| 1,1,2-Trichloroethane | U | U | U | U | U | U | U | U | 10 | --- |
| Benzene | U | U | U | U | U | U | U | U | 10 | 60 |
| trans-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | --- |
| Bromoform | U | U | U | U | U | U | U | U | 10 | --- |
| 4-Methyl-2-pentanone | U | U | U | U | U | U | U | U | 10 | 1,000 |
| 2-Hexanone | U | U | U | U | U | U | U | U | 10 | --- |
| Tetrachloroethene | 4 J | 53 | U | U | 1 J | 4 J | U | 2 J | 10 | 1,400 |
| 1,1,2,2-Tetrachloroethane | U | U | U | U | U | U | U | U | 10 | 600 |
| Toluene | U | U | U | U | U | U | U | U | 10 | 1,500 |
| Chlorobenzene | U | U | U | U | U | U | U | U | 10 | 1,700 |
| Ethylbenzene | U | U | U | U | U | U | U | U | 10 | 5,500 |
| Styrene | U | U | U | U | U | U | U | U | 10 | --- |
| Xylene (total) | U | U | U | U | U | U | U | U | 10 | 1,200 |
| TOTAL VOCs | 14 | 65 | 9 | 11 | 1 | 4 | 9 | 106 | | 10,000 |

QUALIFIERS :
U: Compound analyzed for but not detected.
J: Value less than CRDL, but greater than IDL.
B: Compound detected in method blank as well as sample, value estimated.

NOTES :
--- : Not established.



NRUNWAY\L2\VOCS.WK4/mh/kb

01/13/97

**TABLE B-1 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**VOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | AREA ADJACENT TO FORMER THRUST DEFLECTOR ON NORTH RUNWAY - PARCEL L1 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-2 | L2-2 | L2-3 | L2-3 | L2-3 | L2-3 | L2-3 | L2-4 | | |
| SAMPLE DEPTH | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 1' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 84 | 84 | 74 | 86 | 99 | 95 | 87 | 85 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Chloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromomethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Vinyl Chloride | U | U | U | U | U | U | U | U | 10 | 200 |
| Chloroethane | U | U | U | U | U | U | U | U | 10 | 1,900 |
| Methylene Chloride | 2 J | 4 J | 2 J | 2 J | 2 JB | U | 1 J | 6 | 10 | 100 |
| Acetone | 12 B | 32 B | 44 B | 19 B | 9 JB | 28 B | 8 JB | 10 JB | 10 | 200 |
| Carbon Disulfide | U | U | U | U | U | U | U | U | 10 | 2,700 |
| 1,1-Dichloroethene | U | U | U | U | U | U | U | U | 10 | 400 |
| 1,1-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 200 |
| 1,2-Dichloroethene (total) | U | U | U | U | U | U | U | U | 10 | 300 |
| Chloroform | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,2-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 100 |
| 2-Butanone | U | 5 J | U | U | U | 6 J | U | U | 10 | 300 |
| 1,1,1-Trichloroethane | U | U | U | U | U | U | U | U | 10 | 800 |
| Carbon Tetrachloride | U | U | U | U | U | U | U | U | 10 | 600 |
| Bromodichloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,2-Dichloropropane | U | U | U | U | U | U | U | U | 10 | ---- |
| cis-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Trichloroethene | U | U | U | U | U | U | U | 0.8 J | 10 | 700 |
| Dibromochloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,1,2-Trichloroethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Benzene | U | U | U | 2 J | U | U | U | U | 10 | 60 |
| trans-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromoform | U | U | U | U | U | U | U | U | 10 | ---- |
| 4-Methyl-2-pentanone | U | U | U | U | U | U | U | U | 10 | 1,000 |
| 2-Hexanone | U | U | U | U | U | U | U | U | 10 | ---- |
| Tetrachloroethene | U | U | 4 J | 2 J | U | U | 3 J | U | 10 | 1,400 |
| 1,1,2,2-Tetrachloroethane | U | U | U | U | U | U | U | U | 10 | 600 |
| Toluene | U | U | U | 1 J | U | U | U | U | 10 | 1,500 |
| Chlorobenzene | U | U | U | U | U | U | U | U | 10 | 1,700 |
| Ethylbenzene | U | U | U | U | U | U | U | U | 10 | 5,500 |
| Styrene | U | U | U | U | U | U | U | U | 10 | ---- |
| Xylene (total) | U | U | U | U | U | U | U | U | 10 | 1,200 |
| TOTAL VOCs | 14 | 41 | 50 | 26 | 11 | 34 | 12 | 17 | | 10,000 |

QUALIFIERS :
U: Compound analyzed for but not detected.
J: Value less than CRDL, but greater than IDL.
B: Compound detected in method blank as well as sample, value estimated.

NOTES :
---- : Not established.

**TABLE B-1 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**VOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-4 | L2-4 | L2-4 | L2-5 | L2-5 | L2-5 | L2-5 | L2-6 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 92 | 98 | 89 | 100 | 77 | 84 | 97 | 74 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Chloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromomethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Vinyl Chloride | U | U | U | U | U | U | U | U | 10 | 200 |
| Chloroethane | U | U | U | U | U | U | U | U | 10 | 1,900 |
| Methylene Chloride | 5 | 4 J | 5 J | 2 JB | 6 B | 8 B | 5 B | 8 B | 10 | 100 |
| Acetone | 48 B | 14 B | 46 B | 6 JB | 14 B | 14 B | 20 B | 14 B | 10 | 200 |
| Carbon Disulfide | U | U | U | U | U | U | U | U | 10 | 2,700 |
| 1,1-Dichloroethene | U | U | U | U | U | U | U | U | 10 | 400 |
| 1,1-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 200 |
| 1,2-Dichloroethene (total) | U | U | U | U | U | U | U | U | 10 | 300 |
| Chloroform | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,2-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 100 |
| 2-Butanone | 10 J | U | 7 J | U | U | U | U | U | 10 | 300 |
| 1,1,1-Trichloroethane | U | U | U | U | U | U | U | U | 10 | 800 |
| Carbon Tetrachloride | U | U | U | U | U | U | U | U | 10 | 600 |
| Bromodichloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,2-Dichloropropane | U | U | U | U | U | U | U | U | 10 | ---- |
| cis-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Trichloroethene | U | U | U | U | U | U | U | U | 10 | 700 |
| Dibromochloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,1,2-Trichloroethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Benzene | U | U | U | U | U | U | U | U | 10 | 60 |
| trans-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromoform | U | U | U | U | U | U | U | U | 10 | ---- |
| 4-Methyl-2-pentanone | U | U | U | U | U | U | U | U | 10 | 1,000 |
| 2-Hexanone | U | U | U | U | U | U | U | U | 10 | ---- |
| Tetrachloroethene | U | U | U | U | U | U | U | U | 10 | 1,400 |
| 1,1,2,2-Tetrachloroethane | U | U | U | U | U | U | U | U | 10 | 600 |
| Toluene | U | U | U | U | U | U | U | U | 10 | 1,500 |
| Chlorobenzene | U | U | U | U | U | U | U | U | 10 | 1,700 |
| Ethylbenzene | U | U | U | U | U | U | U | U | 10 | 5,500 |
| Styrene | U | U | U | U | U | U | U | U | 10 | ---- |
| Xylene (total) | U | U | U | U | U | U | U | U | 10 | 1,200 |
| TOTAL VOCs | 63 | 18 | 58 | 8 | 20 | 22 | 25 | 22 | | 10,000 |

QUALIFIERS :
U: Compound analyzed for but not detected.
J: Value less than CRDL, but greater than IDL.
B: Compound detected in method blank as well as sample, value estimated.

NOTES :
---- : Not established.

**TABLE B-1 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**VOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-6 | L2-6 | L2-6 | L2-7 | L2-7 | L2-7 | L2-7 | L2-8 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 86 | 94 | 81 | 75 | 88 | 97 | 96 | 91 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Chloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromomethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Vinyl Chloride | U | U | U | U | U | U | U | U | 10 | 200 |
| Chloroethane | U | U | U | U | U | U | U | U | 10 | 1,900 |
| Methylene Chloride | 2 J | 6 B | U | 3 JB | U | U | 10 B | 4 J | 10 | 100 |
| Acetone | 22 B | 27 B | 25 B | 23 B | 35 B | 28 B | 38 B | 11 | 10 | 200 |
| Carbon Disulfide | U | U | U | U | U | U | U | U | 10 | 2,700 |
| 1,1-Dichloroethene | U | U | U | U | U | U | U | U | 10 | 400 |
| 1,1-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 200 |
| 1,2-Dichloroethene (total) | U | U | U | U | U | U | U | U | 10 | 300 |
| Chloroform | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,2-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 100 |
| 2-Butanone | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,1,1-Trichloroethane | U | U | U | U | U | U | U | U | 10 | 800 |
| Carbon Tetrachloride | U | U | U | U | U | U | U | U | 10 | 600 |
| Bromodichloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,2-Dichloropropane | U | U | U | U | U | U | U | U | 10 | ---- |
| cis-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Trichloroethene | U | U | U | 4 J | U | U | U | U | 10 | 700 |
| Dibromochloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,1,2-Trichloroethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Benzene | U | U | U | U | U | U | U | U | 10 | 60 |
| trans-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromoform | U | U | U | U | U | U | U | U | 10 | ---- |
| 4-Methyl-2-pentanone | U | U | U | U | U | U | U | U | 10 | 1,000 |
| 2-Hexanone | U | U | U | U | U | U | U | U | 10 | ---- |
| Tetrachloroethene | U | U | U | U | U | U | U | U | 10 | 1,400 |
| 1,1,2,2-Tetrachloroethane | U | U | U | U | U | U | U | U | 10 | 600 |
| Toluene | U | U | U | U | U | U | U | 1 J | 10 | 1,500 |
| Chlorobenzene | U | U | U | U | U | U | U | U | 10 | 1,700 |
| Ethylbenzene | U | U | U | U | U | U | U | 3 J | 10 | 5,500 |
| Styrene | U | U | U | U | U | U | U | U | 10 | ---- |
| Xylene (total) | U | U | U | U | U | U | U | 23 | 10 | 1,200 |
| TOTAL VOCs | 24 | 33 | 25 | 30 | 35 | 28 | 48 | 42 | | 10,000 |

QUALIFIERS :
U: Compound analyzed for but not detected.
J: Value less than CRDL, but greater than IDL.
B: Compound detected in method blank as well as sample, value estimated.

NOTES :
---- : Not established.

**TABLE B-1 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**VOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-8 | L2-8 | L2-8 | L2-9 | L2-9 | L2-9 | L2-9 | L2-10 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/14/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 94 | 87 | 85 | 92 | 89 | 98 | 98 | 75 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Chloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromomethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Vinyl Chloride | U | U | U | U | U | U | U | U | 10 | 200 |
| Chloroethane | U | U | U | U | U | U | U | U | 10 | 1,900 |
| Methylene Chloride | 5 | 5 J | 5 J | 4 J | 4 J | 3 J | 4 JB | 4 JB | 10 | 100 |
| Acetone | 11 | 52 | 33 | U | 9 JB | 19 B | 35 B | 18 B | 10 | 200 |
| Carbon Disulfide | U | U | U | U | U | U | U | U | 10 | 2,700 |
| 1,1-Dichloroethene | U | U | U | U | U | U | U | U | 10 | 400 |
| 1,1-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 200 |
| 1,2-Dichloroethene (total) | U | U | U | U | U | U | U | U | 10 | 300 |
| Chloroform | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,2-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 100 |
| 2-Butanone | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,1,1-Trichloroethane | U | U | U | U | U | U | U | U | 10 | 800 |
| Carbon Tetrachloride | U | U | U | U | U | U | U | U | 10 | 600 |
| Bromodichloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,2-Dichloropropane | U | U | U | U | U | U | U | U | 10 | ---- |
| cis-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Trichloroethene | U | U | U | U | U | U | U | U | 10 | 700 |
| Dibromochloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,1,2-Trichloroethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Benzene | 0.7 J | U | U | U | U | U | U | U | 10 | 60 |
| trans-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromoform | U | U | U | U | U | U | U | U | 10 | ---- |
| 4-Methyl-2-pentanone | U | U | U | U | U | U | U | U | 10 | 1,000 |
| 2-Hexanone | U | U | U | U | U | U | U | U | 10 | ---- |
| Tetrachloroethene | U | U | U | U | U | U | U | U | 10 | 1,400 |
| 1,1,2,2-Tetrachloroethane | U | U | U | U | U | U | U | U | 10 | 600 |
| Toluene | U | U | U | 0.9 J | U | U | U | U | 10 | 1,500 |
| Chlorobenzene | U | U | U | U | U | U | U | U | 10 | 1,700 |
| Ethylbenzene | U | U | 0.9 J | U | U | U | U | U | 10 | 5,500 |
| Styrene | U | U | U | U | U | U | U | U | 10 | ---- |
| Xylene (total) | 0.9 J | U | 8 | 3 J | U | U | 1 J | U | 10 | 1,200 |
| TOTAL VOCs | 18 | 57 | 47 | 8 | 13 | 22 | 40 | 22 | | 10,000 |

QUALIFIERS :
U: Compound analyzed for but not detected.
J: Value less than CRDL, but greater than IDL.
B: Compound detected in method blank as well as sample, value estimated.

NOTES :
---- : Not established.

**TABLE B-1 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**VOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-10 | L2-10 | L2-10 | L2-11 | L2-11 | L2-11 | L2-11 | L2-12 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 72 | 72 | 98 | 89 | 82 | 75 | 97 | 83 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Chloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromomethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Vinyl Chloride | U | U | U | U | U | U | U | U | 10 | 200 |
| Chloroethane | U | U | U | U | U | U | U | U | 10 | 1,900 |
| Methylene Chloride | 5 JB | 4 JB | 5 B | 8 B | 9 B | 14 B | 3 JB | 2 J | 10 | 100 |
| Acetone | 20 B | 20 B | 18 B | 20 B | 21 B | 42 B | 7 JB | 46 B | 10 | 200 |
| Carbon Disulfide | U | U | U | U | U | U | U | U | 10 | 2,700 |
| 1,1-Dichloroethene | U | U | U | U | U | U | U | U | 10 | 400 |
| 1,1-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 200 |
| 1,2-Dichloroethene (total) | U | U | U | U | U | U | U | U | 10 | 300 |
| Chloroform | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,2-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 100 |
| 2-Butanone | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,1,1-Trichloroethane | U | U | U | U | U | U | U | U | 10 | 800 |
| Carbon Tetrachloride | U | U | U | U | U | U | U | U | 10 | 600 |
| Bromodichloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,2-Dichloropropane | U | U | U | U | U | U | U | U | 10 | ---- |
| cis-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Trichloroethene | U | U | U | U | U | U | U | U | 10 | 700 |
| Dibromochloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,1,2-Trichloroethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Benzene | U | U | U | U | U | U | U | U | 10 | 60 |
| trans-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromoform | U | U | U | U | U | U | U | U | 10 | ---- |
| 4-Methyl-2-pentanone | U | U | U | U | U | U | U | U | 10 | 1,000 |
| 2-Hexanone | U | U | U | U | U | U | U | U | 10 | ---- |
| Tetrachloroethene | U | U | U | U | U | U | U | 2 J | 10 | 1,400 |
| 1,1,2,2-Tetrachloroethane | U | U | U | U | U | U | U | U | 10 | 600 |
| Toluene | U | U | U | U | U | U | U | U | 10 | 1,500 |
| Chlorobenzene | U | U | U | U | U | U | U | U | 10 | 1,700 |
| Ethylbenzene | U | U | U | U | U | U | U | U | 10 | 5,500 |
| Styrene | U | U | U | U | U | U | U | U | 10 | ---- |
| Xylene (total) | U | U | U | U | U | U | U | U | 10 | 1,200 |
| TOTAL VOCs | 25 | 24 | 23 | 28 | 30 | 56 | 10 | 50 | | 10,000 |

QUALIFIERS :
U: Compound analyzed for but not detected.
J: Value less than CRDL, but greater than IDL.
B: Compound detected in method blank as well as sample, value estimated.

NOTES :
---- : Not established.

**TABLE B-1 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**VOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | FORMER RUNWAY TURNAROUND | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-12 | L2-12 | L2-12 | L2-13 | L2-13 | L2-13 | L2-13 | L2-14 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 87 | 96 | 85 | 87 | 89 | 92 | 94 | 81 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Chloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromomethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Vinyl Chloride | U | U | U | U | U | U | U | U | 10 | 200 |
| Chloroethane | U | U | U | U | U | U | U | U | 10 | 1,900 |
| Methylene Chloride | U | 2 J | 2 J | 2 J | U | U | U | U | 10 | 100 |
| Acetone | 7 JB | 69 B | 80 B | 86 B | 20 | 7 J | 9 J | U | 10 | 200 |
| Carbon Disulfide | U | U | U | U | U | U | U | U | 10 | 2,700 |
| 1,1-Dichloroethene | U | U | U | U | U | U | U | U | 10 | 400 |
| 1,1-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 200 |
| 1,2-Dichloroethene (total) | U | U | U | U | U | U | U | U | 10 | 300 |
| Chloroform | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,2-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 100 |
| 2-Butanone | U | U | 3 J | U | U | U | U | U | 10 | 300 |
| 1,1,1-Trichloroethane | U | U | U | U | U | U | U | U | 10 | 800 |
| Carbon Tetrachloride | U | U | U | U | U | U | U | U | 10 | 600 |
| Bromodichloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,2-Dichloropropane | U | U | U | U | U | U | U | U | 10 | ---- |
| cis-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Trichloroethene | U | U | U | U | U | U | U | U | 10 | 700 |
| Dibromochloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,1,2-Trichloroethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Benzene | U | U | U | U | U | U | U | U | 10 | 60 |
| trans-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromoform | U | U | U | U | U | U | U | U | 10 | ---- |
| 4-Methyl-2-pentanone | U | U | U | U | U | U | U | U | 10 | 1,000 |
| 2-Hexanone | U | U | U | U | U | U | U | U | 10 | ---- |
| Tetrachloroethene | 1 J | U | 2 J | U | 2 J | U | U | U | 10 | 1,400 |
| 1,1,2,2-Tetrachloroethane | U | U | U | U | U | U | U | U | 10 | 600 |
| Toluene | U | U | U | U | U | U | U | U | 10 | 1,500 |
| Chlorobenzene | U | U | U | U | U | U | U | U | 10 | 1,700 |
| Ethylbenzene | U | U | U | U | U | U | U | U | 10 | 5,500 |
| Styrene | U | U | U | U | U | U | U | U | 10 | ---- |
| Xylene (total) | U | U | U | U | U | U | U | 1 J | 10 | 1,200 |
| TOTAL VOCs | 8 | 71 | 87 | 88 | 22 | 7 | 9 | 1 | | 10,000 |

QUALIFIERS :
U: Compound analyzed for but not detected.
J: Value less than CRDL, but greater than IDL.
B: Compound detected in method blank as well as sample, value estimated.

NOTES :
---- : Not established.

**TABLE B-1 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**VOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | FORMER RUNWAY TURNAROUND | | | FORMER RUN-UP AREA THRUST DEFLECTOR | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-14 | L2-14 | L2-14 | L2-15 | L2-15 | L2-15 | L2-15 | L2-15 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 88 | 88 | 98 | 86 | 89 | 79 | 97 | 86 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Chloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromomethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Vinyl Chloride | U | U | U | U | U | U | U | U | 10 | 200 |
| Chloroethane | U | U | U | U | U | U | U | U | 10 | 1,900 |
| Methylene Chloride | 10 | 1 J | 1 J | 2 J | 2 J | 3 J | 2 J | 4 J | 10 | 100 |
| Acetone | 33 B | 22 | 9 J | 37 B | 39 B | 76 B | 46 B | 38 B | 10 | 200 |
| Carbon Disulfide | U | U | U | U | U | U | U | U | 10 | 2,700 |
| 1,1-Dichloroethene | U | U | U | U | U | U | U | U | 10 | 400 |
| 1,1-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 200 |
| 1,2-Dichloroethene (total) | U | U | U | U | U | U | U | U | 10 | 300 |
| Chloroform | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,2-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 100 |
| 2-Butanone | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,1,1-Trichloroethane | U | U | U | U | U | U | U | U | 10 | 800 |
| Carbon Tetrachloride | U | U | U | U | U | U | U | U | 10 | 600 |
| Bromodichloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,2-Dichloropropane | U | U | U | U | U | U | U | U | 10 | ---- |
| cis-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Trichloroethene | U | U | U | U | U | U | U | U | 10 | 700 |
| Dibromochloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,1,2-Trichloroethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Benzene | U | U | U | U | U | U | U | U | 10 | 60 |
| trans-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromoform | U | U | U | U | U | U | U | U | 10 | ---- |
| 4-Methyl-2-pentanone | U | U | U | U | U | U | U | U | 10 | 1,000 |
| 2-Hexanone | U | U | U | U | U | U | U | U | 10 | ---- |
| Tetrachloroethene | 0.9 J | U | U | U | U | U | U | U | 10 | 1,400 |
| 1,1,2,2-Tetrachloroethane | U | U | U | U | U | U | U | U | 10 | 600 |
| Toluene | U | U | U | U | U | U | U | U | 10 | 1,500 |
| Chlorobenzene | U | U | U | U | U | U | U | U | 10 | 1,700 |
| Ethylbenzene | U | U | U | U | U | U | U | U | 10 | 5,500 |
| Styrene | U | U | U | U | U | U | U | U | 10 | ---- |
| Xylene (total) | 1 J | U | U | U | U | U | U | U | 10 | 1,200 |
| TOTAL VOCs | 45 | 23 | 10 | 39 | 41 | 79 | 48 | 42 | | 10,000 |

QUALIFIERS :
U: Compound analyzed for but not detected.
J: Value less than CRDL, but greater than IDL.
B: Compound detected in method blank as well as sample, value estimated.

NOTES :
---- : Not established.

**TABLE B-1 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**VOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | FORMER RUN-UP AREA THRUST DEFLECTOR | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-16 | L2-16 | L2-16 | L2-16 | L2-16 | L2-17 | L2-17 | L2-17 | | |
| SAMPLE DEPTH | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | | |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 82 | 86 | 96 | 84 | 94 | 86 | 84 | 95 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Chloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromomethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Vinyl Chloride | U | U | U | U | U | U | U | U | 10 | 200 |
| Chloroethane | U | U | U | U | U | U | U | U | 10 | 1,900 |
| Methylene Chloride | 2 J | 2 J | 5 | 10 | 10 | 4 J | 5 J | 4 J | 10 | 100 |
| Acetone | 22 B | 19 B | 22 B | 38 B | 56 B | 53 B | 72 B | 59 B | 10 | 200 |
| Carbon Disulfide | U | U | U | U | U | U | U | U | 10 | 2,700 |
| 1,1-Dichloroethene | U | U | U | U | U | U | U | U | 10 | 400 |
| 1,1-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 200 |
| 1,2-Dichloroethene (total) | U | U | U | U | U | U | U | U | 10 | 300 |
| Chloroform | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,2-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 100 |
| 2-Butanone | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,1,1-Trichloroethane | U | U | U | U | U | U | U | U | 10 | 800 |
| Carbon Tetrachloride | U | U | U | U | U | U | U | U | 10 | 600 |
| Bromodichloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,2-Dichloropropane | U | U | U | U | U | U | U | U | 10 | ---- |
| cis-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Trichloroethene | U | U | U | U | U | U | U | U | 10 | 700 |
| Dibromochloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,1,2-Trichloroethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Benzene | U | U | U | U | U | U | U | U | 10 | 60 |
| trans-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromoform | U | U | U | U | U | U | U | U | 10 | ---- |
| 4-Methyl-2-pentanone | U | U | U | U | U | U | U | U | 10 | 1,000 |
| 2-Hexanone | U | U | U | U | U | U | U | U | 10 | ---- |
| Tetrachloroethene | U | U | U | U | U | U | U | U | 10 | 1,400 |
| 1,1,2,2-Tetrachloroethane | U | U | U | U | U | U | U | U | 10 | 600 |
| Toluene | 3 J | U | U | U | U | U | U | U | 10 | 1,500 |
| Chlorobenzene | U | U | U | U | U | U | U | U | 10 | 1,700 |
| Ethylbenzene | U | U | U | U | U | U | U | U | 10 | 5,500 |
| Styrene | U | U | U | U | U | U | U | U | 10 | ---- |
| Xylene (total) | 3 J | U | U | U | U | U | U | U | 10 | 1,200 |
| TOTAL VOCs | 30 | 21 | 27 | 48 | 66 | 57 | 77 | 63 | | 10,000 |

QUALIFIERS :
U: Compound analyzed for but not detected.
J: Value less than CRDL, but greater than IDL.
B: Compound detected in method blank as well as sample, value estimated.

NOTES :
---- : Not established.

**TABLE B-1 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**VOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | FORMER RUN-UP AREA THRUST DEFLECTOR | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-17 | L2-17 | L2-18 | L2-18 | L2-18 | L2-18 | L2-18 | DWL2-1 | CONTRACT | NYSDEC |
| SAMPLE DEPTH | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 2' | REQUIRED | TAGM 4046 |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/18/96 | DETECTION | APPENDIX A |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | LIMITS | CRITERIA |
| PERCENT SOLIDS | 96 | 98 | 83 | 80 | 85 | 97 | 94 | 59 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Chloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromomethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Vinyl Chloride | U | U | U | U | U | U | U | U | 10 | 200 |
| Chloroethane | U | U | U | U | U | U | U | U | 10 | 1,900 |
| Methylene Chloride | 1 J | 1 J | 4 JB | U | U | 2 J | 1 J | 9 | 10 | 100 |
| Acetone | 10 B | 12 B | 15 B | 17 B | 26 B | 33 B | 34 B | 71 | 10 | 200 |
| Carbon Disulfide | U | U | U | U | U | U | U | U | 10 | 2,700 |
| 1,1-Dichloroethene | U | U | U | U | U | U | U | U | 10 | 400 |
| 1,1-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 200 |
| 1,2-Dichloroethene (total) | U | U | U | U | U | U | U | U | 10 | 300 |
| Chloroform | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,2-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 100 |
| 2-Butanone | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,1,1-Trichloroethane | U | U | U | U | U | U | U | U | 10 | 800 |
| Carbon Tetrachloride | U | U | U | U | U | U | U | U | 10 | 600 |
| Bromodichloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,2-Dichloropropane | U | U | U | U | U | U | U | U | 10 | ---- |
| cis-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Trichloroethene | U | U | U | U | U | U | U | U | 10 | 700 |
| Dibromochloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,1,2-Trichloroethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Benzene | U | U | U | U | U | U | U | U | 10 | 60 |
| trans-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromoform | U | U | U | U | U | U | U | U | 10 | ---- |
| 4-Methyl-2-pentanone | U | U | U | U | U | U | U | U | 10 | 1,000 |
| 2-Hexanone | U | U | U | U | U | U | U | U | 10 | ---- |
| Tetrachloroethene | U | U | U | U | U | U | U | U | 10 | 1,400 |
| 1,1,2,2-Tetrachloroethane | U | U | U | U | U | U | U | U | 10 | 600 |
| Toluene | U | U | U | U | U | U | U | 2 J | 10 | 1,500 |
| Chlorobenzene | U | U | U | U | U | U | U | U | 10 | 1,700 |
| Ethylbenzene | U | U | U | U | U | U | U | U | 10 | 5,500 |
| Styrene | U | U | U | U | U | U | U | U | 10 | ---- |
| Xylene (total) | U | U | U | U | U | U | U | U | 10 | 1,200 |
| TOTAL VOCs | 11 | 13 | 19 | 17 | 26 | 35 | 35 | 82 | | 10,000 |

QUALIFIERS :
U: Compound analyzed for but not detected.
J: Value less than CRDL, but greater than IDL.
B: Compound detected in method blank as well as sample, value estimated.

NOTES :
---- : Not established.

**TABLE B-1 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**VOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | DRY WELL SOIL/SEDIMENT SAMPLING | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | DWL2-1 | DWL2-2 | DWL2-2 | DWL2-3 | DWL2-3 | DWL2-4 | DWL2-4 | FB-1 | | |
| SAMPLE DEPTH | 2' - 4' | 0 - 2' | 2' - 4' | 0 - 2' | 2' - 4' | 0 - 2' | 2' - 4' | -- | | |
| DATE OF COLLECTION | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 97 | 95 | 97 | 71 | 86 | 93 | 96 | NA | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/L) | (ug/kg) | (ug/kg) |
| Chloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromomethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Vinyl Chloride | U | U | U | U | U | U | U | U | 10 | 200 |
| Chloroethane | U | U | U | U | U | U | U | U | 10 | 1,900 |
| Methylene Chloride | 4 JB | 5 B | 2 JB | 11 J | 2 JB | 4 JB | 2 JB | U | 10 | 100 |
| Acetone | 51 B | 15 B | 11 B | 170 B | 11 JB | 50 B | 10 B | U | 10 | 200 |
| Carbon Disulfide | U | U | U | U | U | U | U | U | 10 | 2,700 |
| 1,1-Dichloroethene | U | U | U | U | U | U | U | U | 10 | 400 |
| 1,1-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 200 |
| 1,2-Dichloroethene (total) | U | U | U | U | U | U | U | U | 10 | 300 |
| Chloroform | U | U | U | U | U | U | U | 2 J | 10 | 300 |
| 1,2-Dichloroethane | U | U | U | U | U | U | U | U | 10 | 100 |
| 2-Butanone | U | U | U | U | U | U | U | U | 10 | 300 |
| 1,1,1-Trichloroethane | U | U | U | U | U | U | U | U | 10 | 800 |
| Carbon Tetrachloride | U | U | U | U | U | U | U | U | 10 | 600 |
| Bromodichloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,2-Dichloropropane | U | U | U | U | U | U | U | U | 10 | ---- |
| cis-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Trichloroethene | U | U | U | U | U | U | U | U | 10 | 700 |
| Dibromochloromethane | U | U | U | U | U | U | U | U | 10 | ---- |
| 1,1,2-Trichloroethane | U | U | U | U | U | U | U | U | 10 | ---- |
| Benzene | U | U | U | U | U | U | U | U | 10 | 60 |
| trans-1,3-Dichloropropene | U | U | U | U | U | U | U | U | 10 | ---- |
| Bromoform | U | U | U | U | U | U | U | U | 10 | ---- |
| 4-Methyl-2-pentanone | U | U | U | U | U | U | U | U | 10 | 1,000 |
| 2-Hexanone | U | U | U | U | U | U | U | U | 10 | ---- |
| Tetrachloroethene | U | U | U | U | U | U | U | U | 10 | 1,400 |
| 1,1,2,2-Tetrachloroethane | U | U | U | U | U | U | U | U | 10 | 600 |
| Toluene | U | U | U | 1,200 | U | 2 J | U | U | 10 | 1,500 |
| Chlorobenzene | U | U | U | U | U | U | U | U | 10 | 1,700 |
| Ethylbenzene | U | U | U | 4 J | U | U | U | U | 10 | 5,500 |
| Styrene | U | U | U | U | U | U | U | U | 10 | ---- |
| Xylene (total) | U | U | U | U | U | U | U | U | 10 | 1,200 |
| TOTAL VOCs | 55 | 20 | 13 | 1,385 | 13 | 56 | 12 | 2 | | 10,000 |

QUALIFIERS :
U: Compound analyzed for but not detected.
J: Value less than CRDL, but greater than IDL.
B: Compound detected in method blank as well as sample, value estimated.

NOTES :
-- : Not applicable.
---- : Not established.
NA : Information not available.

**TABLE B-1 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**VOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | FIELD BLANKS | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | FB-2 | FB-3 | FB-4 | | | | | | | |
| SAMPLE DEPTH | -- | -- | -- | | | | | | | |
| DATE OF COLLECTION | 11/13/96 | 11/15/96 | 11/15/96 | | | | | | | |
| DILUTION FACTOR | 1 | 1 | 1 | | | | | | | |
| PERCENT SOLIDS | NA | NA | NA | | | | | | | |
| UNITS | (ug/L) | (ug/L) | (ug/L) | | | | | | (ug/kg) | (ug/kg) |
| Chloromethane | U | U | U | | | | | | 10 | ---- |
| Bromomethane | U | U | U | | | | | | 10 | ---- |
| Vinyl Chloride | U | U | U | | | | | | 10 | 200 |
| Chloroethane | U | U | U | | | | | | 10 | 1,900 |
| Methylene Chloride | U | U | U | | | | | | 10 | 100 |
| Acetone | U | U | U | | | | | | 10 | 200 |
| Carbon Disulfide | U | U | U | | | | | | 10 | 2,700 |
| 1,1-Dichloroethene | U | U | U | | | | | | 10 | 400 |
| 1,1-Dichloroethane | U | U | U | | | | | | 10 | 200 |
| 1,2-Dichloroethene (total) | U | U | U | | | | | | 10 | 300 |
| Chloroform | 2 J | 2 J | U | | | | | | 10 | 300 |
| 1,2-Dichloroethane | U | U | U | | | | | | 10 | 100 |
| 2-Butanone | U | U | U | | | | | | 10 | 300 |
| 1,1,1-Trichloroethane | U | U | U | | | | | | 10 | 800 |
| Carbon Tetrachloride | U | U | U | | | | | | 10 | 600 |
| Bromodichloromethane | U | U | U | | | | | | 10 | ---- |
| 1,2-Dichloropropane | U | U | U | | | | | | 10 | ---- |
| cis-1,3-Dichloropropene | U | U | U | | | | | | 10 | ---- |
| Trichloroethene | U | U | U | | | | | | 10 | 700 |
| Dibromochloromethane | U | U | U | | | | | | 10 | ---- |
| 1,1,2-Trichloroethane | U | U | U | | | | | | 10 | ---- |
| Benzene | U | U | U | | | | | | 10 | 60 |
| trans-1,3-Dichloropropene | U | U | U | | | | | | 10 | ---- |
| Bromoform | U | U | U | | | | | | 10 | ---- |
| 4-Methyl-2-pentanone | U | U | U | | | | | | 10 | 1,000 |
| 2-Hexanone | U | U | U | | | | | | 10 | ---- |
| Tetrachloroethene | U | U | U | | | | | | 10 | 1,400 |
| 1,1,2,2-Tetrachloroethane | U | U | U | | | | | | 10 | 600 |
| Toluene | U | U | U | | | | | | 10 | 1,500 |
| Chlorobenzene | U | U | U | | | | | | 10 | 1,700 |
| Ethylbenzene | U | U | U | | | | | | 10 | 5,500 |
| Styrene | U | U | U | | | | | | 10 | ---- |
| Xylene (total) | U | U | U | | | | | | 10 | 1,200 |
| TOTAL VOCs | 2 | 2 | 0 | | | | | | | 10,000 |

QUALIFIERS :
U: Compound analyzed for but not detected.
J: Value less than CRDL, but greater than IDL.

NOTES :
-- : Not applicable.
---- : Not established.
NA : Information not available.

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

NR103(1-2)

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0340 SAS No.: _____ SDG No.: A0340

Matrix (soil/water): SOIL Lab Sample ID: 970340A-18

Level (low/med): LOW Date Received: 02/13/97

% Solids: 95.3

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | | | | NR |
| 7440-36-0 | Antimony | | | | NR |
| 7440-38-2 | Arsenic | | | | NR |
| 7440-39-3 | Barium | | | | NR |
| 7440-41-7 | Beryllium | | | | NR |
| 7440-43-9 | Cadmium | | | | NR |
| 7440-70-2 | Calcium | | | | NR |
| 7440-47-3 | Chromium | 37.2 | | N | P |
| 7440-48-4 | Cobalt | | | | NR |
| 7440-50-8 | Copper | | | | NR |
| 7439-89-6 | Iron | | | | NR |
| 7439-92-1 | Lead | | | | NR |
| 7439-95-4 | Magnesium | | | | NR |
| 7439-96-5 | Manganese | | | | NR |
| 7439-97-6 | Mercury | | | | NR |
| 7440-02-0 | Nickel | | | | NR |
| 7440-09-7 | Potassium | | | | NR |
| 7782-49-2 | Selenium | | | | NR |
| 7440-22-4 | Silver | | | | NR |
| 7440-23-5 | Sodium | | | | NR |
| 7440-28-0 | Thallium | | | | NR |
| 7440-62-2 | Vanadium | | | | NR |
| 7440-66-6 | Zinc | | | | NR |
| 57-12-5 | Cyanide | | | | NR |
| | | | | | |

Color Before: BROWN Clarity Before: OPAQUE Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

2

**TABLE B-2**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | AREA ADJACENT TO FORMER THRUST DEFLECTOR ON NORTH RUNWAY - PARCEL L1 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-1 | L2-1 | L2-1 | L2-1 | L2-1 | L2-2 | L2-2 | L2-2 | | |
| SAMPLE DEPTH | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | | |
| DILUTION FACTOR | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 91 | 86 | 87 | 94 | 95 | 88 | 92 | 82 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Phenol | U | U | U | U | U | U | U | U | 330 | 30 or MDL |
| bis(2-Chloroethyl)ether | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Chlorophenol | U | U | U | U | U | U | U | U | 330 | 800 |
| 1,3-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 1600 |
| 1,4-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 8500 |
| 1,2-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 7900 |
| 2-Methylphenol | U | U | U | U | U | U | U | U | 330 | 100 or MDL |
| 2,2'-oxybis(1-Chloropropane) | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Methylphenol | U | U | U | U | U | U | U | U | 330 | 900 |
| N-Nitroso-di-n-propylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachloroethane | U | U | U | U | U | U | U | U | 330 | ---- |
| Nitrobenzene | U | U | U | U | U | U | U | U | 330 | 200 or MDL |
| Isophorone | U | U | U | U | U | U | U | U | 330 | 4400 |
| 2-Nitrophenol | U | U | U | U | U | U | U | U | 330 | 330 or MDL |
| 2,4-Dimethylphenol | U | U | U | U | U | U | U | U | 330 | ---- |
| bis(2-Chloroethoxy)methane | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4-Dichlorophenol | U | U | U | U | U | U | U | U | 330 | 400 |
| 1,2,4-Trichlorobenzene | U | U | U | U | U | U | U | U | 330 | 3400 |
| Naphthalene | U | 9 J | U | U | U | U | U | U | 330 | 13000 |
| 4-Chloroaniline | U | U | U | U | U | U | U | U | 330 | 220 or MDL |
| Hexachlorobutadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Chloro-3-methylphenol | U | U | U | U | U | U | U | U | 330 | 240 or MDL |
| 2-Methylnaphthalene | U | 9 J | U | U | U | U | U | U | 330 | 36400 |
| Hexachlorocyclopentadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,6-Trichlorophenol | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,5-Trichlorophenol | U | U | U | U | U | U | U | U | 800 | 100 |
| 2-Chloronaphthalene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 430 or MDL |
| Dimethylphthalate | U | U | U | U | U | U | U | U | 330 | 2000 |
| Acenaphthylene | U | U | U | U | U | U | U | U | 330 | 41000 |
| 2,6-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | 1000 |
| 3-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 500 or MDL |
| Acenaphthene | 60 J | 64 J | U | U | 7 J | U | U | U | 330 | 50000 |
| 2,4-Dinitrophenol | U | U | U | U | U | U | U | U | 800 | 200 or MDL |
| 4-Nitrophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | AREA ADJACENT TO FORMER THRUST DEFLECTOR ON NORTH RUNWAY - PARCEL L1 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-1 | L2-1 | L2-1 | L2-1 | L2-1 | L2-2 | L2-2 | L2-2 | | |
| SAMPLE DEPTH | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | | |
| DILUTION FACTOR | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 91 | 86 | 87 | 94 | 95 | 88 | 92 | 82 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Dibenzofuran | 41 J | 24 J | U | U | 5 J | U | U | U | 330 | 6200 |
| 2,4-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | ---- |
| Diethylphthalate | U | 6 J | 7 J | U | 8 J | 10 J | 7 J | 11 J | 330 | 7100 |
| 4-Chlorophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Fluorene | 75 J | 68 J | U | U | 11 J | U | U | U | 330 | 50000 |
| 4-Nitroaniline | U | U | U | U | U | U | U | U | 800 | ---- |
| 4,6-Dinitro-2-methylphenol | U | U | U | U | U | U | U | U | 800 | ---- |
| N-Nitrosodiphenylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Bromophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachlorobenzene | U | U | U | U | U | U | U | U | 330 | 410 |
| Pentachlorophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |
| Phenanthrene | 1900 | 700 | U | 110 J | 290 J | 63 J | 8 J | 9 J | 330 | 50000 |
| Anthracene | 300 J | 97 J | U | 19 J | 50 J | 10 J | U | 2 J | 330 | 50000 |
| Carbazole | U | U | U | U | U | U | U | U | 330 | ---- |
| Di-n-butylphthalate | 11 JB | 6 JB | 8 JB | 6 JB | 6 JB | 6 JB | 6 JB | 10 JB | 330 | 8100 |
| Fluoranthene | 3700 | 960 | 11 J | 310 J | 780 | 140 J | 14 J | 18 J | 330 | 50000 |
| Pyrene | 3200 | 830 | 10 J | 250 J | 620 | 140 J | 12 J | 20 J | 330 | 50000 |
| Butylbenzylphthalate | U | U | U | U | U | U | U | U | 330 | 50000 |
| 3,3'-Dichlorobenzidine | U | U | U | U | U | U | U | U | 330 | ---- |
| Benzo(a)anthracene | 1600 | 400 | U | 110 J | 270 J | 61 J | 7 J | 11 J | 330 | 224 or MDL |
| Chrysene | 2000 | 440 | U | 130 J | 340 J | 79 J | 11 J | 15 J | 330 | 400 |
| bis(2-Ethylhexyl)phthalate | U | 52 J | 22 J | 100 J | 110 J | 120 J | 49 J | 55 J | 330 | 50000 |
| Di-n-octylphthalate | U | U | U | U | U | U | U | U | 330 | 50000 |
| Benzo(b)fluoranthene | 1600 | 330 J | U | 100 J | 250 J | 57 J | U | U | 330 | 1100 |
| Benzo(k)fluoranthene | 1300 | 320 J | U | 110 J | 280 J | 62 J | U | U | 330 | 1100 |
| Benzo(a)pyrene | 1700 | 380 J | U | 100 J | 260 J | 62 J | U | U | 330 | 61 or MDL |
| Indeno(1,2,3-cd)pyrene | 1000 | 240 J | U | 81 J | 190 J | 53 J | U | U | 330 | 3200 |
| Dibenzo(a,h)anthracene | U | U | U | U | U | U | U | U | 330 | 14 or MDL |
| Benzo(g,h,i)perylene | 990 | 260 J | U | 89 J | 210 J | 58 J | U | U | 330 | 50000 |
| Benzoic Acid | U | U | U | U | U | 19 J | U | 47 J | 330 | ---- |
| | | | | | | | | | | 100000 |
| TOTAL PAHs | 19425 | 5068 | 21 | 1409 | 3558 | 785 | 52 | 75 | | 10000 |
| TOTAL CaPAHs | 9200 | 2080 | 0 | 631 | 1590 | 374 | 18 | 26 | | 500000 |
| TOTAL SVOCs | 19477 | 5165 | 58 | 1515 | 3687 | 940 | 114 | 198 | | |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound detected in method blank as well as sample, value estimated.
J: Compound concentration is less then the CRDL but greater than the IDL.

NOTES
---- : Not established.
MDL: Method Detection Limit.
▒▒: Value exceeds the NYSDEC TAGM 4046 Appendix A criteria.

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | AREA ADJACENT TO FORMER THRUST DEFLECTOR ON NORTH RUNWAY - PARCEL L1 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-2 | L2-2 | L2-3 | L2-3 | L2-3 | L2-3 | L2-3 | L2-4 | | |
| SAMPLE DEPTH | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 1' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 88 | 83 | 84 | 85 | 93 | 81 | 83 | 86 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Phenol | U | U | U | U | U | U | U | U | 330 | 30 or MDL |
| bis(2-Chloroethyl)ether | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Chlorophenol | U | U | U | U | U | U | U | U | 330 | 800 |
| 1,3-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 1600 |
| 1,4-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 8500 |
| 1,2-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 7900 |
| 2-Methylphenol | U | U | U | U | U | U | U | U | 330 | 100 or MDL |
| 2,2'-oxybis(1-Chloropropane) | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Methylphenol | U | U | U | U | U | U | U | U | 330 | 900 |
| N-Nitroso-di-n-propylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachloroethane | U | U | U | U | U | U | U | U | 330 | ---- |
| Nitrobenzene | U | U | U | U | U | U | U | U | 330 | 200 or MDL |
| Isophorone | U | U | U | U | U | U | U | U | 330 | 4400 |
| 2-Nitrophenol | U | U | U | U | U | U | U | U | 330 | 330 or MDL |
| 2,4-Dimethylphenol | U | U | U | U | U | U | U | U | 330 | ---- |
| bis(2-Chloroethoxy)methane | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4-Dichlorophenol | U | U | U | U | U | U | U | U | 330 | 400 |
| 1,2,4-Trichlorobenzene | U | U | U | U | U | U | U | U | 330 | 3400 |
| Naphthalene | U | U | U | U | U | U | U | U | 330 | 13000 |
| 4-Chloroaniline | U | U | U | U | U | U | U | U | 330 | 220 or MDL |
| Hexachlorobutadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Chloro-3-methylphenol | U | U | U | U | U | U | U | U | 330 | 240 or MDL |
| 2-Methylnaphthalene | U | U | U | U | U | U | U | 15 J | 330 | 36400 |
| Hexachlorocyclopentadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,6-Trichlorophenol | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,5-Trichlorophenol | U | U | U | U | U | U | U | U | 800 | 100 |
| 2-Chloronaphthalene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 430 or MDL |
| Dimethylphthalate | U | U | U | U | U | U | U | U | 330 | 2000 |
| Acenaphthylene | U | U | U | U | U | U | U | U | 330 | 41000 |
| 2,6-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | 1000 |
| 3-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 500 or MDL |
| Acenaphthene | U | U | U | U | U | U | U | 28 J | 330 | 50000 |
| 2,4-Dinitrophenol | U | U | U | U | U | U | U | U | 800 | 200 or MDL |
| 4-Nitrophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | AREA ADJACENT TO FORMER THRUST DEFLECTOR ON NORTH RUNWAY - PARCEL L1 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-2 | L2-2 | L2-3 | L2-3 | L2-3 | L2-3 | L2-3 | L2-4 | | |
| SAMPLE DEPTH | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 1' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 88 | 83 | 84 | 85 | 93 | 81 | 83 | 86 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Dibenzofuran | U | U | U | U | U | U | U | 12 J | 330 | 6200 |
| 2,4-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | ---- |
| Diethylphthalate | 9 J | 8 J | U | U | 10 J | U | U | U | 330 | 7100 |
| 4-Chlorophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Fluorene | U | U | 10 J | U | U | U | U | 23 J | 330 | 50000 |
| 4-Nitroaniline | U | U | U | U | U | U | U | U | 800 | ---- |
| 4,6-Dinitro-2-methylphenol | U | U | U | U | U | U | U | U | 800 | ---- |
| N-Nitrosodiphenylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Bromophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachlorobenzene | U | U | U | U | U | U | U | U | 330 | 410 |
| Pentachlorophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |
| Phenanthrene | 21 J | 7 J | 240 J | 12 J | U | U | 180 J | 260 J | 330 | 50000 |
| Anthracene | 4 J | U | 40 J | 2 J | U | U | 43 J | 50 J | 330 | 50000 |
| Carbazole | U | U | U | U | U | U | U | U | 330 | ---- |
| Di-n-butylphthalate | 5 JB | 9 JB | 14 JB | U | U | U | 11 JB | 12 JB | 330 | 8100 |
| Fluoranthene | 44 J | 14 J | 580 | 27 J | U | U | 560 | 340 J | 330 | 50000 |
| Pyrene | 40 J | 14 J | 550 | 26 J | U | U | 490 | 180 J | 330 | 50000 |
| Butylbenzylphthalate | U | U | 23 J | U | U | U | U | U | 330 | 50000 |
| 3,3'-Dichlorobenzidine | U | U | U | U | U | U | U | U | 330 | ---- |
| Benzo(a)anthracene | 20 J | U | 240 J | U | U | U | 220 J | 130 J | 330 | 224 or MDL |
| Chrysene | 24 J | U | 300 J | U | U | U | 270 J | 170 J | 330 | 400 |
| bis(2-Ethylhexyl)phthalate | 91 J | 94 J | 31 J | 36 J | 83 J | 98 J | 160 J | 88 JB | 330 | 50000 |
| Di-n-octylphthalate | U | U | U | U | U | U | U | 15 J | 330 | 50000 |
| Benzo(b)fluoranthene | 17 J | U | 210 J | U | U | U | 200 J | 140 J | 330 | 1100 |
| Benzo(k)fluoranthene | 22 J | U | 220 J | U | U | U | 190 J | 140 J | 330 | 1100 |
| Benzo(a)pyrene | 21 J | U | 240 J | U | U | U | 220 J | 120 J | 330 | 61 or MDL |
| Indeno(1,2,3-cd)pyrene | 15 J | U | 210 J | U | U | U | 170 J | 32 J | 330 | 3200 |
| Dibenzo(a,h)anthracene | U | U | U | U | U | U | U | U | 330 | 14 or MDL |
| Benzo(g,h,i)perylene | 17 J | U | 220 J | U | U | U | 190 J | 27 J | 330 | 50000 |
| Benzoic Acid | U | 29 J | U | U | U | 73 J | U | U | 330 | ---- |
| TOTAL PAHs | 245 | 35 | 3060 | 67 | 0 | 0 | 2733 | 1640 | | 100000 |
| TOTAL CaPAHs | 119 | 0 | 1420 | 0 | 0 | 0 | 1270 | 732 | | 10000 |
| TOTAL SVOCs | 350 | 175 | 3128 | 103 | 93 | 171 | 2904 | 1782 | | 500000 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound detected in method blank as well as sample, value estimated.
J: Compound concentration is less then the CRDL but greater than the IDL.

NOTES
---- : Not established.
MDL: Method Detection Limit.
▒▒: Value exceeds the NYSDEC TAGM 4046 Appendix A criteria.

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-4 | L2-4 | L2-4 | L2-5 | L2-5 | L2-5 | L2-5 | L2-6 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 10 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 89 | 90 | 90 | 85 | 80 | 85 | 97 | 90 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Phenol | U | U | U | U | U | U | U | U | 330 | 30 or MDL |
| bis(2-Chloroethyl)ether | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Chlorophenol | U | U | U | U | U | U | U | U | 330 | 800 |
| 1,3-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 1600 |
| 1,4-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 8500 |
| 1,2-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 7900 |
| 2-Methylphenol | U | U | U | U | U | U | U | U | 330 | 100 or MDL |
| 2,2'-oxybis(1-Chloropropane) | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Methylphenol | U | U | U | U | U | U | U | U | 330 | 900 |
| N-Nitroso-di-n-propylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachloroethane | U | U | U | U | U | U | U | U | 330 | ---- |
| Nitrobenzene | U | U | U | U | U | U | U | U | 330 | 200 or MDL |
| Isophorone | U | U | U | U | U | U | U | U | 330 | 4400 |
| 2-Nitrophenol | U | U | U | U | U | U | U | U | 330 | 330 or MDL |
| 2,4-Dimethylphenol | U | U | U | U | U | U | U | U | 330 | ---- |
| bis(2-Chloroethoxy)methane | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4-Dichlorophenol | U | U | U | U | U | U | U | U | 330 | 400 |
| 1,2,4-Trichlorobenzene | U | U | U | U | U | U | U | U | 330 | 3400 |
| Naphthalene | U | U | U | U | U | U | U | 21 J | 330 | 13000 |
| 4-Chloroaniline | U | U | U | U | U | U | U | U | 330 | 220 or MDL |
| Hexachlorobutadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Chloro-3-methylphenol | U | U | U | U | U | U | U | U | 330 | 240 or MDL |
| 2-Methylnaphthalene | U | U | U | U | 8 J | U | U | 44 J | 330 | 36400 |
| Hexachlorocyclopentadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,6-Trichlorophenol | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,5-Trichlorophenol | U | U | U | U | U | U | U | U | 800 | 100 |
| 2-Chloronaphthalene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 430 or MDL |
| Dimethylphthalate | U | U | U | U | U | U | U | U | 330 | 2000 |
| Acenaphthylene | U | U | U | U | U | U | U | 12 J | 330 | 41000 |
| 2,6-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | 1000 |
| 3-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 500 or MDL |
| Acenaphthene | U | U | U | 750 J | 25 J | U | U | 42 J | 330 | 50000 |
| 2,4-Dinitrophenol | U | U | U | U | U | U | U | U | 800 | 200 or MDL |
| 4-Nitrophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-4 | L2-4 | L2-4 | L2-5 | L2-5 | L2-5 | L2-5 | L2-6 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 10 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 89 | 90 | 90 | 85 | 80 | 85 | 97 | 90 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Dibenzofuran | 5 J | U | U | 310 J | 10 J | U | U | 17 J | 330 | 6200 |
| 2,4-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | ---- |
| Diethylphthalate | 6 J | 12 J | 6 J | U | 7 J | U | 7 J | 7 J | 330 | 7100 |
| 4-Chlorophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Fluorene | 10 J | U | U | 830 J | 23 J | U | U | 31 J | 330 | 50000 |
| 4-Nitroaniline | U | U | U | U | U | U | U | U | 800 | ---- |
| 4,6-Dinitro-2-methylphenol | U | U | U | U | U | U | U | U | 800 | ---- |
| N-Nitrosodiphenylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Bromophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachlorobenzene | U | U | U | U | U | U | U | U | 330 | 410 |
| Pentachlorophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |
| Phenanthrene | 120 J | 7 J | 28 J | 12000 | 400 J | U | U | 500 | 330 | 50000 |
| Anthracene | 20 J | 1 J | 6 J | 2000 J | 68 J | U | U | 100 J | 330 | 50000 |
| Carbazole | U | U | U | U | U | U | U | U | 330 | ---- |
| Di-n-butylphthalate | 7 JB | 8 JB | 7 JB | U | 7 JB | 5 JB | 9 JB | 15 JB | 330 | 8100 |
| Fluoranthene | 160 J | 13 J | 60 J | 24000 | 870 | U | U | 1000 | 330 | 50000 |
| Pyrene | 150 J | 11 J | 42 J | 14000 | 760 | U | U | 800 | 330 | 50000 |
| Butylbenzylphthalate | U | U | U | U | U | U | U | 32 J | 330 | 50000 |
| 3,3'-Dichlorobenzidine | U | U | U | U | U | U | U | U | 330 | ---- |
| Benzo(a)anthracene | 71 J | U | 31 J | 11000 | 420 | U | U | 590 | 330 | 224 or MDL |
| Chrysene | 71 J | U | 33 J | 11000 | 460 | U | U | 700 | 330 | 400 |
| bis(2-Ethylhexyl)phthalate | 53 JB | 49 JB | 62 JB | U | 140 JB | 69 JB | 56 JB | 69 JB | 330 | 50000 |
| Di-n-octylphthalate | U | 6 J | U | U | U | U | U | 7 J | 330 | 50000 |
| Benzo(b)fluoranthene | 47 J | U | 26 J | 9800 | 310 J | U | U | 550 | 330 | 1100 |
| Benzo(k)fluoranthene | 46 J | U | 26 J | 7800 | 290 J | U | U | 530 | 330 | 1100 |
| Benzo(a)pyrene | 49 J | U | 28 J | 8100 | 340 J | U | U | 570 | 330 | 61 or MDL |
| Indeno(1,2,3-cd)pyrene | 26 J | U | U | 1700 J | 180 J | U | U | 190 J | 330 | 3200 |
| Dibenzo(a,h)anthracene | U | U | U | 710 J | 73 J | U | U | U | 330 | 14 or MDL |
| Benzo(g,h,i)perylene | 26 J | U | U | 1300 J | 160 J | U | U | 160 J | 330 | 50000 |
| Benzoic Acid | 17 J | U | U | U | U | U | U | U | 330 | ---- |
| TOTAL PAHs | 796 | 32 | 280 | 104980 | 4379 | 0 | 0 | 5796 | | 100000 |
| TOTAL CaPAHs | 310 | 0 | 144 | 50110 | 2073 | 0 | 0 | 3130 | | 10000 |
| TOTAL SVOCs | 884 | 107 | 355 | 105300 | 4551 | 74 | 72 | 5987 | | 500000 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound detected in method blank as well as sample, value estimated.
J: Compound concentration is less then the CRDL but greater than the IDL.

NOTES
---- : Not established.
MDL: Method Detection Limit.
: Value exceeds the NYSDEC TAGM 4046 Appendix A criteria.

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-6 | L2-6 | L2-6 | L2-7 | L2-7 | L2-7 | L2-7 | L2-8 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 85 | 85 | 81 | 90 | 92 | 93 | 90 | 99 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Phenol | U | U | U | U | U | U | U | U | 330 | 30 or MDL |
| bis(2-Chloroethyl)ether | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Chlorophenol | U | U | U | U | U | U | U | U | 330 | 800 |
| 1,3-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 1600 |
| 1,4-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 8500 |
| 1,2-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 7900 |
| 2-Methylphenol | U | U | U | U | U | U | U | U | 330 | 100 or MDL |
| 2,2'-oxybis(1-Chloropropane) | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Methylphenol | U | U | U | U | U | U | U | U | 330 | 900 |
| N-Nitroso-di-n-propylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachloroethane | U | U | U | U | U | U | U | U | 330 | ---- |
| Nitrobenzene | U | U | U | U | U | U | U | U | 330 | 200 or MDL |
| Isophorone | U | U | U | U | U | U | U | U | 330 | 4400 |
| 2-Nitrophenol | U | U | U | U | U | U | U | U | 330 | 330 or MDL |
| 2,4-Dimethylphenol | U | U | U | U | U | U | U | U | 330 | ---- |
| bis(2-Chloroethoxy)methane | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4-Dichlorophenol | U | U | U | U | U | U | U | U | 330 | 400 |
| 1,2,4-Trichlorobenzene | U | U | U | U | U | U | U | U | 330 | 3400 |
| Naphthalene | U | U | U | 18 J | U | U | U | U | 330 | 13000 |
| 4-Chloroaniline | U | U | U | U | U | U | U | U | 330 | 220 or MDL |
| Hexachlorobutadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Chloro-3-methylphenol | U | U | U | U | U | U | U | U | 330 | 240 or MDL |
| 2-Methylnaphthalene | U | U | U | 36 J | U | U | U | 10 J | 330 | 36400 |
| Hexachlorocyclopentadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,6-Trichlorophenol | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,5-Trichlorophenol | U | U | U | U | U | U | U | U | 800 | 100 |
| 2-Chloronaphthalene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 430 or MDL |
| Dimethylphthalate | U | U | U | U | U | U | U | U | 330 | 2000 |
| Acenaphthylene | U | U | U | 6 J | U | U | U | 530 | 330 | 41000 |
| 2,6-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | 1000 |
| 3-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 500 or MDL |
| Acenaphthene | U | U | U | 120 J | U | U | U | 19 J | 330 | 50000 |
| 2,4-Dinitrophenol | U | U | U | U | U | U | U | U | 800 | 200 or MDL |
| 4-Nitrophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-6 | L2-6 | L2-6 | L2-7 | L2-7 | L2-7 | L2-7 | L2-8 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 85 | 85 | 81 | 90 | 92 | 93 | 90 | 99 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Dibenzofuran | U | U | U | 25 J | U | U | U | U | 330 | 6200 |
| 2,4-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | ---- |
| Diethylphthalate | 7 J | 7 J | 14 J | U | U | 55 J | U | 11 JB | 330 | 7100 |
| 4-Chlorophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Fluorene | U | U | U | 66 J | U | U | U | 33 J | 330 | 50000 |
| 4-Nitroaniline | U | U | U | U | U | U | U | U | 800 | ---- |
| 4,6-Dinitro-2-methylphenol | U | U | U | U | U | U | U | U | 800 | ---- |
| N-Nitrosodiphenylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Bromophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachlorobenzene | U | U | U | U | U | U | U | U | 330 | 410 |
| Pentachlorophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |
| Phenanthrene | 26 J | U | U | 960 | U | U | U | 160 J | 330 | 50000 |
| Anthracene | 4 J | U | U | 240 J | U | U | U | 350 | 330 | 50000 |
| Carbazole | U | U | U | U | U | U | U | U | 330 | ---- |
| Di-n-butylphthalate | 8 JB | 7 JB | 13 JB | 7 JB | 10 JB | 6 JB | U | 12 JB | 330 | 8100 |
| Fluoranthene | 51 J | U | U | 1900 | U | U | U | 550 | 330 | 50000 |
| Pyrene | 51 J | U | U | 1900 | U | U | U | 810 | 330 | 50000 |
| Butylbenzylphthalate | U | U | U | U | U | U | U | U | 330 | 50000 |
| 3,3'-Dichlorobenzidine | U | U | U | U | U | U | U | U | 330 | ---- |
| Benzo(a)anthracene | 31 J | U | U | 1200 | U | U | U | 480 | 330 | 224 or MDL |
| Chrysene | 38 J | U | U | 1300 | U | U | U | 700 | 330 | 400 |
| bis(2-Ethylhexyl)phthalate | 37 JB | 55 JB | 82 JB | 50 JB | 83 JB | 100 JB | 59 JB | 29 JB | 330 | 50000 |
| Di-n-octylphthalate | U | U | U | U | U | U | U | U | 330 | 50000 |
| Benzo(b)fluoranthene | 31 J | U | U | 860 | U | U | U | 1400 | 330 | 1100 |
| Benzo(k)fluoranthene | 24 J | U | U | 1000 | U | U | U | 900 | 330 | 1100 |
| Benzo(a)pyrene | 31 J | U | U | 1200 | U | U | U | 1300 | 330 | 61 or MDL |
| Indeno(1,2,3-cd)pyrene | 22 J | U | U | 800 | U | U | U | 470 | 330 | 3200 |
| Dibenzo(a,h)anthracene | U | U | U | U | U | U | U | U | 330 | 14 or MDL |
| Benzo(g,h,i)perylene | U | U | U | 730 | U | U | U | 470 | 330 | 50000 |
| Benzoic Acid | U | U | U | U | U | U | U | U | 330 | ---- |
| TOTAL PAHs | 309 | 0 | 0 | 12300 | 0 | 0 | 0 | 8172 | | 100000 |
| TOTAL CaPAHs | 177 | 0 | 0 | 6360 | 0 | 0 | 0 | 5250 | | 10000 |
| TOTAL SVOCs | 361 | 69 | 109 | 12418 | 93 | 161 | 59 | 8234 | | 500000 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound detected in method blank as well as sample, value estimated.
J: Compound concentration is less then the CRDL but greater than the IDL.

NOTES
---- : Not established.
MDL: Method Detection Limit.
▒▒: Value exceeds the NYSDEC TAGM 4046 Appendix A criteria.

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-8 | L2-8 | L2-8 | L2-9 | L2-9 | L2-9 | L2-9 | L2-10 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/14/96 | | |
| DILUTION FACTOR | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 94 | 94 | 88 | 84 | 78 | 98 | 94 | 75 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Phenol | U | U | U | U | U | U | U | U | 330 | 30 or MDL |
| bis(2-Chloroethyl)ether | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Chlorophenol | U | U | U | U | U | U | U | U | 330 | 800 |
| 1,3-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 1600 |
| 1,4-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 8500 |
| 1,2-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 7900 |
| 2-Methylphenol | U | U | U | U | U | U | U | U | 330 | 100 or MDL |
| 2,2'-oxybis(1-Chloropropane) | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Methylphenol | U | U | U | U | U | U | U | U | 330 | 900 |
| N-Nitroso-di-n-propylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachloroethane | U | U | U | U | U | U | U | U | 330 | ---- |
| Nitrobenzene | U | U | U | U | U | U | U | U | 330 | 200 or MDL |
| Isophorone | U | U | U | U | U | U | U | U | 330 | 4400 |
| 2-Nitrophenol | U | U | U | U | U | U | U | U | 330 | 330 or MDL |
| 2,4-Dimethylphenol | U | U | U | U | U | U | U | U | 330 | ---- |
| bis(2-Chloroethoxy)methane | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4-Dichlorophenol | U | U | U | U | U | U | U | U | 330 | 400 |
| 1,2,4-Trichlorobenzene | U | U | U | U | U | U | U | U | 330 | 3400 |
| Naphthalene | U | U | U | U | U | U | U | 63 J | 330 | 13000 |
| 4-Chloroaniline | U | U | U | U | U | U | U | U | 330 | 220 or MDL |
| Hexachlorobutadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Chloro-3-methylphenol | U | U | U | U | U | U | U | U | 330 | 240 or MDL |
| 2-Methylnaphthalene | U | U | U | U | U | U | U | 73 J | 330 | 36400 |
| Hexachlorocyclopentadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,6-Trichlorophenol | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,5-Trichlorophenol | U | U | U | U | U | U | U | U | 800 | 100 |
| 2-Chloronaphthalene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 430 or MDL |
| Dimethylphthalate | U | U | U | U | U | U | U | U | 330 | 2000 |
| Acenaphthylene | 18 J | U | U | U | U | 16 J | U | U | 330 | 41000 |
| 2,6-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | 1000 |
| 3-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 500 or MDL |
| Acenaphthene | U | U | U | U | U | U | U | 140 J | 330 | 50000 |
| 2,4-Dinitrophenol | U | U | U | U | U | U | U | U | 800 | 200 or MDL |
| 4-Nitrophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-8 | L2-8 | L2-8 | L2-9 | L2-9 | L2-9 | L2-9 | L2-10 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/14/96 | | |
| DILUTION FACTOR | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 94 | 94 | 88 | 84 | 78 | 98 | 94 | 75 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Dibenzofuran | U | U | U | U | U | U | U | 130 J | 330 | 6200 |
| 2,4-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | ---- |
| Diethylphthalate | U | 10 JB | 65 JB | 82 JB | 33 JB | 14 JB | 42 JB | 11 JB | 330 | 7100 |
| 4-Chlorophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Fluorene | U | U | U | U | U | 10 J | U | 210 J | 330 | 50000 |
| 4-Nitroaniline | 68 J | U | U | U | U | U | U | U | 800 | ---- |
| 4,6-Dinitro-2-methylphenol | U | U | U | U | U | U | U | U | 800 | ---- |
| N-Nitrosodiphenylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Bromophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachlorobenzene | U | U | U | U | U | U | U | U | 330 | 410 |
| Pentachlorophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |
| Phenanthrene | U | U | U | 12 J | U | 46 J | U | 1500 | 330 | 50000 |
| Anthracene | U | U | U | 3 J | U | 11 J | U | 230 J | 330 | 50000 |
| Carbazole | U | U | U | U | U | U | U | U | 330 | ---- |
| Di-n-butylphthalate | 32 JB | 16 JB | 17 JB | 14 JB | 13 JB | 12 JB | 10 JB | 16 JB | 330 | 8100 |
| Fluoranthene | U | U | U | 32 J | 14 J | 53 J | U | 1400 | 330 | 50000 |
| Pyrene | 22 J | U | U | 27 J | 12 J | 33 J | U | 1100 | 330 | 50000 |
| Butylbenzylphthalate | U | U | U | U | U | U | U | U | 330 | 50000 |
| 3,3'-Dichlorobenzidine | U | U | U | U | U | U | U | U | 330 | ---- |
| Benzo(a)anthracene | U | U | U | 24 J | U | 23 J | U | 670 | 330 | 224 or MDL |
| Chrysene | 35 J | U | U | 30 J | U | 37 J | U | 790 | 330 | 400 |
| bis(2-Ethylhexyl)phthalate | 99 JB | 42 JB | 26 JB | 62 JB | 34 JB | 140 JB | 22 JB | 88 JB | 330 | 50000 |
| Di-n-octylphthalate | U | U | U | U | U | U | U | U | 330 | 50000 |
| Benzo(b)fluoranthene | U | U | U | 25 J | U | 30 J | U | 530 | 330 | 1100 |
| Benzo(k)fluoranthene | U | U | U | 22 J | U | 26 J | U | 440 | 330 | 1100 |
| Benzo(a)pyrene | U | U | U | 23 J | U | 26 J | U | 500 | 330 | 61 or MDL |
| Indeno(1,2,3-cd)pyrene | U | U | U | U | U | U | U | 280 J | 330 | 3200 |
| Dibenzo(a,h)anthracene | U | U | U | U | U | U | U | 100 J | 330 | 14 or MDL |
| Benzo(g,h,i)perylene | U | U | U | U | U | U | U | 300 J | 330 | 50000 |
| Benzoic Acid | U | U | 41 J | U | U | U | U | U | 330 | ---- |
| TOTAL PAHs | 75 | 0 | 0 | 198 | 26 | 311 | 0 | 8253 | | 100000 |
| TOTAL CaPAHs | 35 | 0 | 0 | 124 | 0 | 142 | 0 | 3310 | | 10000 |
| TOTAL SVOCs | 274 | 68 | 149 | 356 | 106 | 477 | 74 | 8571 | | 500000 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound detected in method blank as well as sample, value estimated.
J: Compound concentration is less then the CRDL but greater than the IDL.

NOTES
---- : Not established.
MDL: Method Detection Limit.
▒▒▒ : Value exceeds the NYSDEC TAGM 4046 Appendix A criteria.

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-10 | L2-10 | L2-10 | L2-11 | L2-11 | L2-11 | L2-11 | L2-12 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | | |
| PERCENT SOLIDS | 78 | 94 | 96 | 89 | 95 | 93 | 86 | 88 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Phenol | U | U | U | U | U | U | U | U | 330 | 30 or MDL |
| bis(2-Chloroethyl)ether | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Chlorophenol | U | U | U | U | U | U | U | U | 330 | 800 |
| 1,3-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 1600 |
| 1,4-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 8500 |
| 1,2-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 7900 |
| 2-Methylphenol | U | U | U | U | U | U | U | U | 330 | 100 or MDL |
| 2,2'-oxybis(1-Chloropropane) | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Methylphenol | U | U | U | U | U | U | U | U | 330 | 900 |
| N-Nitroso-di-n-propylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachloroethane | U | U | U | U | U | U | U | U | 330 | ---- |
| Nitrobenzene | U | U | U | U | U | U | U | U | 330 | 200 or MDL |
| Isophorone | U | U | U | U | U | U | U | U | 330 | 4400 |
| 2-Nitrophenol | U | U | U | U | U | U | U | U | 330 | 330 or MDL |
| 2,4-Dimethylphenol | U | U | U | U | U | U | U | U | 330 | ---- |
| bis(2-Chloroethoxy)methane | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4-Dichlorophenol | U | U | U | U | U | U | U | U | 330 | 400 |
| 1,2,4-Trichlorobenzene | U | U | U | U | U | U | U | U | 330 | 3400 |
| Naphthalene | U | U | U | U | U | U | U | 480 J | 330 | 13000 |
| 4-Chloroaniline | U | U | U | U | U | U | U | U | 330 | 220 or MDL |
| Hexachlorobutadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Chloro-3-methylphenol | U | U | U | U | U | U | U | U | 330 | 240 or MDL |
| 2-Methylnaphthalene | U | U | U | U | U | U | U | 360 J | 330 | 36400 |
| Hexachlorocyclopentadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,6-Trichlorophenol | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,5-Trichlorophenol | U | U | U | U | U | U | U | U | 800 | 100 |
| 2-Chloronaphthalene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 430 or MDL |
| Dimethylphthalate | U | U | U | U | U | U | U | U | 330 | 2000 |
| Acenaphthylene | U | U | U | U | U | U | U | U | 330 | 41000 |
| 2,6-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | 1000 |
| 3-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 500 or MDL |
| Acenaphthene | U | U | U | U | U | U | U | 780 J | 330 | 50000 |
| 2,4-Dinitrophenol | U | U | U | U | U | U | U | U | 800 | 200 or MDL |
| 4-Nitrophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-10 | L2-10 | L2-10 | L2-11 | L2-11 | L2-11 | L2-11 | L2-12 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | | |
| PERCENT SOLIDS | 78 | 94 | 96 | 89 | 95 | 93 | 86 | 88 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Dibenzofuran | U | U | U | U | U | U | U | 620 J | 330 | 6200 |
| 2,4-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | ---- |
| Diethylphthalate | U | 7 JB | 8 JB | 12 JB | 8 JB | 7 JB | 11 JB | U | 330 | 7100 |
| 4-Chlorophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Fluorene | U | U | U | U | U | U | U | 1200 J | 330 | 50000 |
| 4-Nitroaniline | U | U | U | U | U | U | U | U | 800 | ---- |
| 4,6-Dinitro-2-methylphenol | U | U | U | U | U | U | U | U | 800 | ---- |
| N-Nitrosodiphenylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Bromophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachlorobenzene | U | U | U | U | U | U | U | U | 330 | 410 |
| Pentachlorophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |
| Phenanthrene | 13 J | U | U | U | U | U | U | 6800 | 330 | 50000 |
| Anthracene | U | U | U | U | U | U | U | 1300 J | 330 | 50000 |
| Carbazole | U | U | U | U | U | U | U | U | 330 | ---- |
| Di-n-butylphthalate | 13 JB | 9 JB | 11 JB | 14 JB | 10 JB | 11 JB | 15 JB | U | 330 | 8100 |
| Fluoranthene | 32 J | 10 J | U | U | U | 7 J | U | 5700 | 330 | 50000 |
| Pyrene | 22 J | 7 J | U | U | U | U | U | 4400 | 330 | 50000 |
| Butylbenzylphthalate | U | U | U | U | U | U | U | U | 330 | 50000 |
| 3,3'-Dichlorobenzidine | U | U | U | U | U | U | U | U | 330 | ---- |
| Benzo(a)anthracene | 12 J | U | U | U | U | U | U | 2800 | 330 | 224 or MDL |
| Chrysene | 14 J | U | U | U | U | U | U | 3400 | 330 | 400 |
| bis(2-Ethylhexyl)phthalate | 90 JB | 84 JB | 66 JB | 69 JB | 55 JB | 48 JB | 87 JB | U | 330 | 50000 |
| Di-n-octylphthalate | U | U | U | U | U | U | U | U | 330 | 50000 |
| Benzo(b)fluoranthene | 12 J | U | U | U | U | 7 J | U | 2100 | 330 | 1100 |
| Benzo(k)fluoranthene | 13 J | U | U | U | U | 8 J | U | 1400 J | 330 | 1100 |
| Benzo(a)pyrene | U | U | U | U | U | U | U | 1800 J | 330 | 61 or MDL |
| Indeno(1,2,3-cd)pyrene | U | U | U | U | U | U | U | 820 J | 330 | 3200 |
| Dibenzo(a,h)anthracene | U | U | U | U | U | U | U | 430 J | 330 | 14 or MDL |
| Benzo(g,h,i)perylene | U | U | U | U | U | U | U | 800 J | 330 | 50000 |
| Benzoic Acid | U | U | U | U | U | U | U | U | 330 | ---- |
| TOTAL PAHs | 118 | 17 | 0 | 0 | 0 | 22 | 0 | 34210 | | 100000 |
| TOTAL CaPAHs | 51 | 0 | 0 | 0 | 0 | 15 | 0 | 12750 | | 10000 |
| TOTAL SVOCs | 221 | 117 | 85 | 95 | 73 | 88 | 113 | 35190 | | 500000 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound detected in method blank as well as sample, value estimated.
J: Compound concentration is less then the CRDL but greater than the IDL.

NOTES
---- : Not established.
MDL: Method Detection Limit.
: Value exceeds the NYSDEC TAGM 4046 Appendix A criteria.

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | FORMER RUNWAY TURNAROUND | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-12 | L2-12 | L2-12 | L2-13 | L2-13 | L2-13 | L2-13 | L2-14 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 5 | | |
| PERCENT SOLIDS | 79 | 91 | 96 | 89 | 86 | 87 | 97 | 74 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Phenol | U | U | U | U | U | U | U | U | 330 | 30 or MDL |
| bis(2-Chloroethyl)ether | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Chlorophenol | U | U | U | U | U | U | U | U | 330 | 800 |
| 1,3-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 1600 |
| 1,4-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 8500 |
| 1,2-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 7900 |
| 2-Methylphenol | U | U | U | U | 6 J | U | U | U | 330 | 100 or MDL |
| 2,2'-oxybis(1-Chloropropane) | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Methylphenol | U | U | U | U | 17 J | U | U | U | 330 | 900 |
| N-Nitroso-di-n-propylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachloroethane | U | U | U | U | U | U | U | U | 330 | ---- |
| Nitrobenzene | U | U | U | U | U | U | U | U | 330 | 200 or MDL |
| Isophorone | U | U | U | U | U | U | U | U | 330 | 4400 |
| 2-Nitrophenol | U | U | U | U | U | U | U | U | 330 | 330 or MDL |
| 2,4-Dimethylphenol | U | U | U | U | 25 J | U | U | U | 330 | ---- |
| bis(2-Chloroethoxy)methane | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4-Dichlorophenol | U | U | U | U | U | U | U | U | 330 | 400 |
| 1,2,4-Trichlorobenzene | U | U | U | U | U | U | U | U | 330 | 3400 |
| Naphthalene | 28 J | U | U | 200 J | 120 J | U | U | 200 J | 330 | 13000 |
| 4-Chloroaniline | U | U | U | U | U | U | U | U | 330 | 220 or MDL |
| Hexachlorobutadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Chloro-3-methylphenol | U | U | U | U | U | U | U | U | 330 | 240 or MDL |
| 2-Methylnaphthalene | 22 J | U | U | 150 J | 120 J | U | U | 240 J | 330 | 36400 |
| Hexachlorocyclopentadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,6-Trichlorophenol | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,5-Trichlorophenol | U | U | U | U | U | U | U | U | 800 | 100 |
| 2-Chloronaphthalene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 430 or MDL |
| Dimethylphthalate | U | U | U | U | U | U | U | U | 330 | 2000 |
| Acenaphthylene | U | U | U | 27 J | 18 J | U | U | U | 330 | 41000 |
| 2,6-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | 1000 |
| 3-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 500 or MDL |
| Acenaphthene | 39 J | U | U | 580 J | 320 J | U | U | 890 J | 330 | 50000 |
| 2,4-Dinitrophenol | U | U | U | U | U | U | U | U | 800 | 200 or MDL |
| 4-Nitrophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | FORMER RUNWAY TURNAROUND | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-12 | L2-12 | L2-12 | L2-13 | L2-13 | L2-13 | L2-13 | L2-14 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 5 | | |
| PERCENT SOLIDS | 79 | 91 | 96 | 89 | 86 | 87 | 97 | 74 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Dibenzofuran | 34 J | U | U | 310 J | 190 J | U | U | 580 J | 330 | 6200 |
| 2,4-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | ---- |
| Diethylphthalate | U | U | U | U | 8 JB | U | 8 JB | U | 330 | 7100 |
| 4-Chlorophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Fluorene | 58 J | U | U | 610 J | 480 | U | U | 1300 J | 330 | 50000 |
| 4-Nitroaniline | U | U | U | U | U | U | U | U | 800 | ---- |
| 4,6-Dinitro-2-methylphenol | U | U | U | U | U | U | U | U | 800 | ---- |
| N-Nitrosodiphenylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Bromophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachlorobenzene | U | U | U | U | U | U | U | U | 330 | 410 |
| Pentachlorophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |
| Phenanthrene | 460 | U | 19 J | 3600 | 2600 | U | U | 8600 | 330 | 50000 |
| Anthracene | 47 J | U | 3 J | 1000 | 580 | U | U | 1700 J | 330 | 50000 |
| Carbazole | U | U | U | U | U | U | U | U | 330 | ---- |
| Di-n-butylphthalate | U | 11 JB | U | 14 JB | 21 JB | 10 JB | 9 JB | 46 JB | 330 | 8100 |
| Fluoranthene | 440 | U | 21 J | 3900 | 3000 | U | U | 8300 | 330 | 50000 |
| Pyrene | 350 J | U | 16 J | 2400 | 1600 | U | U | 5700 | 330 | 50000 |
| Butylbenzylphthalate | U | U | U | 23 J | 41 J | U | U | U | 330 | 50000 |
| 3,3'-Dichlorobenzidine | U | U | U | U | U | U | U | U | 330 | ---- |
| Benzo(a)anthracene | 200 J | U | U | 2000 | 1500 | U | U | 3900 | 330 | 224 or MDL |
| Chrysene | 270 J | U | U | 2200 | 1800 | U | U | 4900 | 330 | 400 |
| bis(2-Ethylhexyl)phthalate | 30 J | 40 J | 110 J | 94 J | 91 JB | 30 JB | 44 JB | 410 JB | 330 | 50000 |
| Di-n-octylphthalate | U | U | U | U | U | U | U | U | 330 | 50000 |
| Benzo(b)fluoranthene | 180 J | U | U | 1600 | 1500 | U | U | 3000 | 330 | 1100 |
| Benzo(k)fluoranthene | 120 J | U | U | 1800 | 1100 | U | U | 2600 | 330 | 1100 |
| Benzo(a)pyrene | 160 J | U | U | 1600 | 1100 | U | U | 2900 | 330 | 61 or MDL |
| Indeno(1,2,3-cd)pyrene | 93 J | U | U | 400 J | 150 J | U | U | 1000 J | 330 | 3200 |
| Dibenzo(a,h)anthracene | 44 J | U | U | 190 J | 86 J | U | U | 480 J | 330 | 14 or MDL |
| Benzo(g,h,i)perylene | 100 J | U | U | 320 J | 120 J | U | U | 890 J | 330 | 50000 |
| Benzoic Acid | U | U | U | 54 J | U | U | U | U | 330 | ---- |
| TOTAL PAHs | 2589 | 0 | 59 | 22427 | 16074 | 0 | 0 | 46360 | | 100000 |
| TOTAL CaPAHs | 1067 | 0 | 0 | 9790 | 7236 | 0 | 0 | 19780 | | 10000 |
| TOTAL SVOCs | 2675 | 51 | 169 | 23072 | 16593 | 40 | 61 | 47636 | | 500000 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound detected in method blank as well as sample, value estimated.
J: Compound concentration is less then the CRDL but greater than the IDL.

NOTES
---- : Not established.
MDL: Method Detection Limit.
: Value exceeds the NYSDEC TAGM 4046 Appendix A criteria.

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | FORMER RUNWAY TURNAROUND | | | FORMER RUN-UP AREA THRUST DEFLECTOR | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-14 | L2-14 | L2-14 | L2-15 | L2-15 | L2-15 | L2-15 | L2-15 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 90 | 93 | 96 | 45 | 89 | 83 | 97 | 97 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Phenol | U | U | U | U | U | U | U | U | 330 | 30 or MDL |
| bis(2-Chloroethyl)ether | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Chlorophenol | U | U | U | U | U | U | U | U | 330 | 800 |
| 1,3-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 1600 |
| 1,4-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 8500 |
| 1,2-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 7900 |
| 2-Methylphenol | U | U | U | U | U | U | U | U | 330 | 100 or MDL |
| 2,2'-oxybis(1-Chloropropane) | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Methylphenol | U | U | U | U | U | U | U | U | 330 | 900 |
| N-Nitroso-di-n-propylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachloroethane | U | U | U | U | U | U | U | U | 330 | ---- |
| Nitrobenzene | U | U | U | U | U | U | U | U | 330 | 200 or MDL |
| Isophorone | U | U | U | U | U | U | U | U | 330 | 4400 |
| 2-Nitrophenol | U | U | U | U | U | U | U | U | 330 | 330 or MDL |
| 2,4-Dimethylphenol | U | U | U | U | U | U | U | U | 330 | ---- |
| bis(2-Chloroethoxy)methane | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4-Dichlorophenol | U | U | U | U | U | U | U | U | 330 | 400 |
| 1,2,4-Trichlorobenzene | U | U | U | U | U | U | U | U | 330 | 3400 |
| Naphthalene | 8 J | U | U | 120 J | 17 J | U | U | U | 330 | 13000 |
| 4-Chloroaniline | U | U | U | U | U | U | U | U | 330 | 220 or MDL |
| Hexachlorobutadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Chloro-3-methylphenol | U | U | U | U | U | U | U | U | 330 | 240 or MDL |
| 2-Methylnaphthalene | U | 8 J | U | 50 J | 22 J | U | U | U | 330 | 36400 |
| Hexachlorocyclopentadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,6-Trichlorophenol | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,5-Trichlorophenol | U | U | U | U | U | U | U | U | 800 | 100 |
| 2-Chloronaphthalene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 430 or MDL |
| Dimethylphthalate | U | U | U | U | U | U | U | U | 330 | 2000 |
| Acenaphthylene | 31 J | 14 J | U | 17 J | 11 J | U | U | U | 330 | 41000 |
| 2,6-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | 1000 |
| 3-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 500 or MDL |
| Acenaphthene | 30 J | 23 J | 11 J | 120 J | U | U | U | U | 330 | 50000 |
| 2,4-Dinitrophenol | U | U | U | U | U | U | U | U | 800 | 200 or MDL |
| 4-Nitrophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | FORMER RUNWAY TURNAROUND | | | FORMER RUN-UP AREA THRUST DEFLECTOR | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-14 | L2-14 | L2-14 | L2-15 | L2-15 | L2-15 | L2-15 | L2-15 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 90 | 93 | 96 | 45 | 89 | 83 | 97 | 97 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Dibenzofuran | 10 J | 11 J | 8 J | 62 J | U | U | U | U | 330 | 6200 |
| 2,4-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | ---- |
| Diethylphthalate | U | 14 JB | 9 JB | 15 JB | U | 9 JB | 7 JB | 7 JB | 330 | 7100 |
| 4-Chlorophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Fluorene | 22 J | 23 J | 20 J | 81 J | U | U | U | U | 330 | 50000 |
| 4-Nitroaniline | U | U | U | U | U | U | U | U | 800 | ---- |
| 4,6-Dinitro-2-methylphenol | U | U | U | U | U | U | U | U | 800 | ---- |
| N-Nitrosodiphenylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Bromophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachlorobenzene | U | U | U | U | U | U | U | U | 330 | 410 |
| Pentachlorophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |
| Phenanthrene | 270 J | 230 J | 120 J | 640 J | 59 J | U | U | U | 330 | 50000 |
| Anthracene | 68 J | 53 J | 25 J | 140 J | 15 J | U | U | U | 330 | 50000 |
| Carbazole | U | U | U | U | U | U | U | U | 330 | ---- |
| Di-n-butylphthalate | 16 JB | 15 JB | 12 JB | 19 JB | 8 JB | 11 JB | 8 JB | 10 JB | 330 | 8100 |
| Fluoranthene | 550 | 350 | 100 J | 790 | 88 J | U | U | U | 330 | 50000 |
| Pyrene | 250 J | 180 J | 76 J | 460 J | 49 J | U | U | U | 330 | 50000 |
| Butylbenzylphthalate | U | U | U | U | U | U | U | U | 330 | 50000 |
| 3,3'-Dichlorobenzidine | U | U | U | U | U | U | U | U | 330 | ---- |
| Benzo(a)anthracene | 220 J | 140 J | 46 J | 410 J | 38 J | U | U | U | 330 | 224 or MDL |
| Chrysene | 250 J | 170 J | 58 J | 460 J | 50 J | U | U | U | 330 | 400 |
| bis(2-Ethylhexyl)phthalate | 70 JB | 52 JB | 79 JB | 91 JB | 24 JB | 63 JB | 840 B | 45 JB | 330 | 50000 |
| Di-n-octylphthalate | U | U | U | U | U | U | U | U | 330 | 50000 |
| Benzo(b)fluoranthene | 290 J | 170 J | 30 J | 550 J | 58 J | U | U | U | 330 | 1100 |
| Benzo(k)fluoranthene | 200 J | 140 J | 26 J | 410 J | 55 J | U | U | U | 330 | 1100 |
| Benzo(a)pyrene | 200 J | 120 J | 25 J | 420 J | 49 J | U | U | U | 330 | 61 or MDL |
| Indeno(1,2,3-cd)pyrene | 38 J | 32 J | U | 77 J | U | U | U | U | 330 | 3200 |
| Dibenzo(a,h)anthracene | U | U | U | 29 J | U | U | U | U | 330 | 14 or MDL |
| Benzo(g,h,i)perylene | 32 J | 34 J | U | 65 J | U | U | U | U | 330 | 50000 |
| Benzoic Acid | U | U | U | U | U | U | U | U | 330 | ---- |
| TOTAL PAHs | 2459 | 1679 | 537 | 4789 | 489 | 0 | 0 | 0 | | 100000 |
| TOTAL CaPAHs | 1198 | 772 | 185 | 2356 | 250 | 0 | 0 | 0 | | 10000 |
| TOTAL SVOCs | 2555 | 1779 | 645 | 5026 | 543 | 83 | 855 | 62 | | 500000 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound detected in method blank as well as sample, value estimated.
J: Compound concentration is less then the CRDL but greater than the IDL.

NOTES
---- : Not established.
MDL: Method Detection Limit.
▒▒ : Value exceeds the NYSDEC TAGM 4046 Appendix A criteria.

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | FORMER RUN-UP AREA THRUST DEFLECTOR | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-16 | L2-16 | L2-16 | L2-16 | L2-16 | L2-17 | L2-17 | L2-17 | | |
| SAMPLE DEPTH | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | | |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 80 | 89 | 96 | 98 | 94 | 81 | 85 | 93 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Phenol | U | U | U | U | U | U | U | U | 330 | 30 or MDL |
| bis(2-Chloroethyl)ether | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Chlorophenol | U | U | U | U | U | U | U | U | 330 | 800 |
| 1,3-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 1600 |
| 1,4-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 8500 |
| 1,2-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 7900 |
| 2-Methylphenol | U | U | U | U | U | U | U | U | 330 | 100 or MDL |
| 2,2'-oxybis(1-Chloropropane) | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Methylphenol | U | U | U | U | U | U | U | U | 330 | 900 |
| N-Nitroso-di-n-propylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachloroethane | U | U | U | U | U | U | U | U | 330 | ---- |
| Nitrobenzene | U | U | U | U | U | U | U | U | 330 | 200 or MDL |
| Isophorone | U | U | U | U | U | U | U | U | 330 | 4400 |
| 2-Nitrophenol | U | U | U | U | U | U | U | U | 330 | 330 or MDL |
| 2,4-Dimethylphenol | U | U | U | U | U | U | U | U | 330 | ---- |
| bis(2-Chloroethoxy)methane | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4-Dichlorophenol | U | U | U | U | U | U | U | U | 330 | 400 |
| 1,2,4-Trichlorobenzene | U | U | U | U | U | U | U | U | 330 | 3400 |
| Naphthalene | 13 J | 10 J | U | U | U | U | U | U | 330 | 13000 |
| 4-Chloroaniline | U | U | U | U | U | U | U | U | 330 | 220 or MDL |
| Hexachlorobutadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Chloro-3-methylphenol | U | U | U | U | U | U | U | U | 330 | 240 or MDL |
| 2-Methylnaphthalene | 22 J | 11 J | U | U | U | 11 J | U | U | 330 | 36400 |
| Hexachlorocyclopentadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,6-Trichlorophenol | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,5-Trichlorophenol | U | U | U | U | U | U | U | U | 800 | 100 |
| 2-Chloronaphthalene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 430 or MDL |
| Dimethylphthalate | U | U | U | U | U | U | U | U | 330 | 2000 |
| Acenaphthylene | 9 J | 58 J | U | U | U | U | 8 J | U | 330 | 41000 |
| 2,6-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | 1000 |
| 3-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 500 or MDL |
| Acenaphthene | 19 J | 65 J | U | U | U | U | U | U | 330 | 50000 |
| 2,4-Dinitrophenol | U | U | U | U | U | U | U | U | 800 | 200 or MDL |
| 4-Nitrophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | FORMER RUN-UP AREA THRUST DEFLECTOR | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-16 | L2-16 | L2-16 | L2-16 | L2-16 | L2-17 | L2-17 | L2-17 | | |
| SAMPLE DEPTH | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | | |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 80 | 89 | 96 | 98 | 94 | 81 | 85 | 93 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Dibenzofuran | 12 J | 22 J | U | U | U | U | U | U | 330 | 6200 |
| 2,4-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | ---- |
| Diethylphthalate | U | 9 JB | 8 JB | 10 JB | U | U | 8 JB | 9 JB | 330 | 7100 |
| 4-Chlorophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Fluorene | 13 J | 45 J | U | U | U | U | U | U | 330 | 50000 |
| 4-Nitroaniline | U | U | U | U | U | U | U | U | 800 | ---- |
| 4,6-Dinitro-2-methylphenol | U | U | U | U | U | U | U | U | 800 | ---- |
| N-Nitrosodiphenylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Bromophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachlorobenzene | U | U | U | U | U | U | U | U | 330 | 410 |
| Pentachlorophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |
| Phenanthrene | 210 J | 780 | U | U | U | 68 J | 75 J | U | 330 | 50000 |
| Anthracene | 42 J | 220 J | U | U | U | 10 J | 17 J | U | 330 | 50000 |
| Carbazole | U | U | U | U | U | U | U | U | 330 | ---- |
| Di-n-butylphthalate | 17 JB | 19 JB | 12 JB | 7 JB | 7 JB | 13 JB | 11 JB | 10 JB | 330 | 8100 |
| Fluoranthene | 400 J | 1700 | U | U | U | 140 J | 120 J | U | 330 | 50000 |
| Pyrene | 240 J | 1000 | U | U | U | 110 J | 71 J | U | 330 | 50000 |
| Butylbenzylphthalate | U | U | U | U | U | 13 J | U | U | 330 | 50000 |
| 3,3'-Dichlorobenzidine | U | U | U | U | U | U | U | U | 330 | ---- |
| Benzo(a)anthracene | 180 J | 710 | U | U | U | 72 J | 61 J | U | 330 | 224 or MDL |
| Chrysene | 200 J | 730 | U | U | U | 94 J | 76 J | U | 330 | 400 |
| bis(2-Ethylhexyl)phthalate | 49 JB | 29 JB | 36 JB | 42 JB | 70 JB | 51 JB | 78 JB | 35 JB | 330 | 50000 |
| Di-n-octylphthalate | U | U | U | U | U | U | U | U | 330 | 50000 |
| Benzo(b)fluoranthene | 200 J | 790 | U | U | U | 93 J | 96 J | U | 330 | 1100 |
| Benzo(k)fluoranthene | 190 J | 780 | U | U | U | 82 J | 66 J | U | 330 | 1100 |
| Benzo(a)pyrene | 170 J | 680 | U | U | U | 83 J | 69 J | U | 330 | 61 or MDL |
| Indeno(1,2,3-cd)pyrene | 50 J | 170 J | U | U | U | 27 J | 14 J | U | 330 | 3200 |
| Dibenzo(a,h)anthracene | U | 68 J | U | U | U | U | U | U | 330 | 14 or MDL |
| Benzo(g,h,i)perylene | U | 160 J | U | U | U | 24 J | U | U | 330 | 50000 |
| Benzoic Acid | U | U | U | U | U | 50 J | U | U | 330 | ---- |
| TOTAL PAHs | 1936 | 7964 | 0 | 0 | 0 | 803 | 673 | 0 | | 100000 |
| TOTAL CaPAHs | 990 | 3926 | 0 | 0 | 0 | 451 | 382 | 0 | | 10000 |
| TOTAL SVOCs | 2036 | 8054 | 56 | 59 | 77 | 941 | 770 | 54 | | 500000 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound detected in method blank as well as sample, value estimated.
J: Compound concentration is less then the CRDL but greater than the IDL.

NOTES
---- : Not established.
MDL: Method Detection Limit.
▒▒ : Value exceeds the NYSDEC TAGM 4046 Appendix A criteria.

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | FORMER RUN-UP AREA THRUST DEFLECTOR | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-17 | L2-17 | L2-18 | L2-18 | L2-18 | L2-18 | L2-18 | DWL2-1 | | |
| SAMPLE DEPTH | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 2' | | |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/18/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | | |
| PERCENT SOLIDS | 97 | 96 | 81 | 80 | 87 | 97 | 94 | 65 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Phenol | U | U | U | U | U | U | U | U | 330 | 30 or MDL |
| bis(2-Chloroethyl)ether | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Chlorophenol | U | U | U | U | U | U | U | U | 330 | 800 |
| 1,3-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 1600 |
| 1,4-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 8500 |
| 1,2-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 7900 |
| 2-Methylphenol | U | U | U | U | U | U | U | U | 330 | 100 or MDL |
| 2,2'-oxybis(1-Chloropropane) | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Methylphenol | U | U | U | U | U | U | U | U | 330 | 900 |
| N-Nitroso-di-n-propylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachloroethane | U | U | U | U | U | U | U | U | 330 | ---- |
| Nitrobenzene | U | U | U | U | U | U | U | U | 330 | 200 or MDL |
| Isophorone | U | U | U | U | U | U | U | U | 330 | 4400 |
| 2-Nitrophenol | U | U | U | U | U | U | U | U | 330 | 330 or MDL |
| 2,4-Dimethylphenol | U | U | U | U | U | U | U | U | 330 | ---- |
| bis(2-Chloroethoxy)methane | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4-Dichlorophenol | U | U | U | U | U | U | U | U | 330 | 400 |
| 1,2,4-Trichlorobenzene | U | U | U | U | U | U | U | U | 330 | 3400 |
| Naphthalene | U | U | 130 J | U | U | U | U | 84 J | 330 | 13000 |
| 4-Chloroaniline | U | U | U | U | U | U | U | U | 330 | 220 or MDL |
| Hexachlorobutadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Chloro-3-methylphenol | U | U | U | U | U | U | U | U | 330 | 240 or MDL |
| 2-Methylnaphthalene | U | U | 71 J | U | U | U | U | U | 330 | 36400 |
| Hexachlorocyclopentadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,6-Trichlorophenol | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,5-Trichlorophenol | U | U | U | U | U | U | U | U | 800 | 100 |
| 2-Chloronaphthalene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 430 or MDL |
| Dimethylphthalate | U | U | U | U | U | U | U | U | 330 | 2000 |
| Acenaphthylene | U | U | U | U | U | U | U | 100 J | 330 | 41000 |
| 2,6-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | 1000 |
| 3-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 500 or MDL |
| Acenaphthene | U | U | 480 | U | U | U | U | U | 330 | 50000 |
| 2,4-Dinitrophenol | U | U | U | U | U | U | U | U | 800 | 200 or MDL |
| 4-Nitrophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | FORMER RUN-UP AREA THRUST DEFLECTOR | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-17 | L2-17 | L2-18 | L2-18 | L2-18 | L2-18 | L2-18 | DWL2-1 | | |
| SAMPLE DEPTH | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 2' | | |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/18/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | | |
| PERCENT SOLIDS | 97 | 96 | 81 | 80 | 87 | 97 | 94 | 65 | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Dibenzofuran | U | U | 180 J | U | U | U | U | 110 J | 330 | 6200 |
| 2,4-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | ---- |
| Diethylphthalate | 10 JB | 8 JB | 9 JB | 10 JB | 8 JB | 9 JB | 10 JB | U | 330 | 7100 |
| 4-Chlorophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Fluorene | U | U | 330 J | U | U | U | U | 240 J | 330 | 50000 |
| 4-Nitroaniline | U | U | U | U | U | U | U | U | 800 | ---- |
| 4,6-Dinitro-2-methylphenol | U | U | U | U | U | U | U | U | 800 | ---- |
| N-Nitrosodiphenylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Bromophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachlorobenzene | U | U | U | U | U | U | U | U | 330 | 410 |
| Pentachlorophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |
| Phenanthrene | U | U | 1900 | 51 J | U | U | U | 2100 J | 330 | 50000 |
| Anthracene | U | U | 570 | 10 J | U | U | U | 520 J | 330 | 50000 |
| Carbazole | U | U | U | U | U | U | U | U | 330 | ---- |
| Di-n-butylphthalate | 12 JB | 12 JB | 14 JB | 14 JB | 10 JB | 10 JB | 10 JB | 100 JB | 330 | 8100 |
| Fluoranthene | U | U | 1800 | 83 J | U | U | U | 4700 | 330 | 50000 |
| Pyrene | U | U | 1700 | 71 J | U | U | U | 2500 J | 330 | 50000 |
| Butylbenzylphthalate | U | U | U | U | U | U | U | 620 J | 330 | 50000 |
| 3,3'-Dichlorobenzidine | U | U | U | U | U | U | U | U | 330 | ---- |
| Benzo(a)anthracene | U | U | 1100 | 46 J | U | U | U | 1200 J | 330 | 224 or MDL |
| Chrysene | U | U | 1200 | 60 J | U | U | U | 2400 J | 330 | 400 |
| bis(2-Ethylhexyl)phthalate | 61 JB | 48 JB | 77 JB | 52 JB | 49 JB | 60 JB | 78 JB | 12000 B | 330 | 50000 |
| Di-n-octylphthalate | U | U | U | U | U | U | U | 2200 J | 330 | 50000 |
| Benzo(b)fluoranthene | U | U | 820 | 43 J | U | U | U | 2700 J | 330 | 1100 |
| Benzo(k)fluoranthene | U | U | 780 | 48 J | U | U | U | 2500 J | 330 | 1100 |
| Benzo(a)pyrene | U | U | 980 | 47 J | U | U | U | 1600 J | 330 | 61 or MDL |
| Indeno(1,2,3-cd)pyrene | U | U | 340 J | 22 J | U | U | U | 400 J | 330 | 3200 |
| Dibenzo(a,h)anthracene | U | U | U | U | U | U | U | U | 330 | 14 or MDL |
| Benzo(g,h,i)perylene | U | U | 260 J | U | U | U | U | 460 J | 330 | 50000 |
| Benzoic Acid | U | U | U | 26 J | U | U | U | U | 330 | ---- |
| TOTAL PAHs | 0 | 0 | 12390 | 481 | 0 | 0 | 0 | 21504 | | 100000 |
| TOTAL CaPAHs | 0 | 0 | 5220 | 266 | 0 | 0 | 0 | 10800 | | 10000 |
| TOTAL SVOCs | 83 | 68 | 12741 | 583 | 67 | 79 | 98 | 36534 | | 500000 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound detected in method blank as well as sample, value estimated.
J: Compound concentration is less then the CRDL but greater than the IDL.

NOTES
---- : Not established.
MDL: Method Detection Limit.
: Value exceeds the NYSDEC TAGM 4046 Appendix A criteria.

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | DRY WELL SOIL/SEDIMENT SAMPLING | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | DWL2-1 | DWL2-2 | DWL2-2 | DWL2-3 | DWL2-3 | DWL2-4 | DWL2-4 | FB-1 | | |
| SAMPLE DEPTH | 2' - 4' | 0 - 2' | 2' - 4' | 0 - 2' | 2' - 4' | 0 - 2' | 2' - 4' | -- | | |
| DATE OF COLLECTION | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 96 | 96 | 96 | 79 | 89 | 94 | 95 | NA | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/L) | (ug/kg) | (ug/kg) |
| Phenol | U | U | U | U | U | U | U | U | 330 | 30 or MDL |
| bis(2-Chloroethyl)ether | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Chlorophenol | U | U | U | U | U | U | U | U | 330 | 800 |
| 1,3-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 1600 |
| 1,4-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 8500 |
| 1,2-Dichlorobenzene | U | U | U | U | U | U | U | U | 330 | 7900 |
| 2-Methylphenol | U | U | U | U | U | U | U | U | 330 | 100 or MDL |
| 2,2'-oxybis(1-Chloropropane) | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Methylphenol | U | U | U | 220 J | U | U | U | U | 330 | 900 |
| N-Nitroso-di-n-propylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachloroethane | U | U | U | U | U | U | U | U | 330 | ---- |
| Nitrobenzene | U | U | U | U | U | U | U | U | 330 | 200 or MDL |
| Isophorone | U | U | U | U | U | U | U | U | 330 | 4400 |
| 2-Nitrophenol | U | U | U | U | U | U | U | U | 330 | 330 or MDL |
| 2,4-Dimethylphenol | U | U | U | U | U | U | U | U | 330 | ---- |
| bis(2-Chloroethoxy)methane | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4-Dichlorophenol | U | U | U | U | U | U | U | U | 330 | 400 |
| 1,2,4-Trichlorobenzene | U | U | U | U | U | U | U | U | 330 | 3400 |
| Naphthalene | U | U | U | 18 J | U | U | U | U | 330 | 13000 |
| 4-Chloroaniline | U | U | U | U | U | U | U | U | 330 | 220 or MDL |
| Hexachlorobutadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Chloro-3-methylphenol | U | U | U | U | U | U | U | U | 330 | 240 or MDL |
| 2-Methylnaphthalene | U | U | U | 19 J | U | U | U | U | 330 | 36400 |
| Hexachlorocyclopentadiene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,6-Trichlorophenol | U | U | U | U | U | U | U | U | 330 | ---- |
| 2,4,5-Trichlorophenol | U | U | U | U | U | U | U | U | 800 | 100 |
| 2-Chloronaphthalene | U | U | U | U | U | U | U | U | 330 | ---- |
| 2-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 430 or MDL |
| Dimethylphthalate | U | U | U | U | U | U | U | U | 330 | 2000 |
| Acenaphthylene | U | U | U | U | U | U | U | U | 330 | 41000 |
| 2,6-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | 1000 |
| 3-Nitroaniline | U | U | U | U | U | U | U | U | 800 | 500 or MDL |
| Acenaphthene | U | U | U | 20 J | U | U | U | U | 330 | 50000 |
| 2,4-Dinitrophenol | U | U | U | U | U | U | U | U | 800 | 200 or MDL |
| 4-Nitrophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | DRY WELL SOIL/SEDIMENT SAMPLING | | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | DWL2-1 | DWL2-2 | DWL2-2 | DWL2-3 | DWL2-3 | DWL2-4 | DWL2-4 | FB-1 | | |
| SAMPLE DEPTH | 2' - 4' | 0 - 2' | 2' - 4' | 0 - 2' | 2' - 4' | 0 - 2' | 2' - 4' | -- | | |
| DATE OF COLLECTION | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 96 | 96 | 96 | 79 | 89 | 94 | 95 | NA | | |
| UNITS | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/L) | (ug/kg) | (ug/kg) |
| Dibenzofuran | U | U | U | 15 J | U | U | U | U | 330 | 6200 |
| 2,4-Dinitrotoluene | U | U | U | U | U | U | U | U | 330 | ---- |
| Diethylphthalate | 8 JB | 9 JB | U | U | 7 JB | U | 7 JB | U | 330 | 7100 |
| 4-Chlorophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Fluorene | U | U | U | 32 J | U | U | U | U | 330 | 50000 |
| 4-Nitroaniline | U | U | U | U | U | U | U | U | 800 | ---- |
| 4,6-Dinitro-2-methylphenol | U | U | U | U | U | U | U | U | 800 | ---- |
| N-Nitrosodiphenylamine | U | U | U | U | U | U | U | U | 330 | ---- |
| 4-Bromophenyl-phenylether | U | U | U | U | U | U | U | U | 330 | ---- |
| Hexachlorobenzene | U | U | U | U | U | U | U | U | 330 | 410 |
| Pentachlorophenol | U | U | U | U | U | U | U | U | 800 | 100 or MDL |
| Phenanthrene | U | U | U | 270 J | U | U | U | U | 330 | 50000 |
| Anthracene | U | U | U | 43 J | U | U | U | U | 330 | 50000 |
| Carbazole | U | U | U | U | U | U | U | U | 330 | ---- |
| Di-n-butylphthalate | 8 JB | 10 JB | 11 JB | 23 JB | 8 JB | 23 JB | 8 JB | U | 330 | 8100 |
| Fluoranthene | U | U | U | 420 | U | 13 J | U | U | 330 | 50000 |
| Pyrene | U | U | U | 240 J | U | 14 J | U | U | 330 | 50000 |
| Butylbenzylphthalate | U | U | U | 32 J | U | U | U | U | 330 | 50000 |
| 3,3'-Dichlorobenzidine | U | U | U | U | U | U | U | U | 330 | ---- |
| Benzo(a)anthracene | U | U | U | 150 J | U | U | U | U | 330 | 224 or MDL |
| Chrysene | U | U | U | 270 J | U | U | U | U | 330 | 400 |
| bis(2-Ethylhexyl)phthalate | 71 JB | 73 JB | 71 JB | 130 JB | 160 JB | 90 JB | 92 JB | 2 JB | 330 | 50000 |
| Di-n-octylphthalate | U | U | U | U | U | U | U | U | 330 | 50000 |
| Benzo(b)fluoranthene | U | U | U | 220 J | U | U | U | U | 330 | 1100 |
| Benzo(k)fluoranthene | U | U | U | 210 J | U | U | U | U | 330 | 1100 |
| Benzo(a)pyrene | U | U | U | 160 J | U | U | U | U | 330 | 61 or MDL |
| Indeno(1,2,3-cd)pyrene | U | U | U | 30 J | U | U | U | U | 330 | 3200 |
| Dibenzo(a,h)anthracene | U | U | U | U | U | U | U | U | 330 | 14 or MDL |
| Benzo(g,h,i)perylene | U | U | U | 26 J | U | U | U | U | 330 | 50000 |
| Benzoic Acid | U | U | U | U | U | U | U | U | 330 | ---- |
| TOTAL PAHs | 0 | 0 | 0 | 2109 | 0 | 27 | 0 | 0 | | 100000 |
| TOTAL CaPAHs | 0 | 0 | 0 | 1040 | 0 | 0 | 0 | 0 | | 10000 |
| TOTAL SVOCs | 87 | 92 | 82 | 2548 | 175 | 140 | 107 | 2 | | 500000 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound detected in method blank as well as sample, value estimated.
J: Compound concentration is less then the CRDL but greater than the IDL.

NOTES
-- : Not applicable.
---- : Not established.
NA : Information not available.
MDL: Method Detection Limit.
▒▒ : Value exceeds the NYSDEC TAGM 4046 Appendix A criteria.

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | FIELD BLANKS | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | FB-2 | FB-3 | FB-4 | | | | | | |
| SAMPLE DEPTH | -- | -- | -- | | | | | | |
| DATE OF COLLECTION | 11/13/96 | 11/15/96 | 11/15/96 | | | | | | |
| DILUTION FACTOR | 1 | 1 | 1 | | | | | | |
| PERCENT SOLIDS | NA | NA | NA | | | | | | |
| UNITS | (ug/L) | (ug/L) | (ug/L) | | | | | (ug/kg) | (ug/kg) |
| Phenol | U | U | U | | | | | 330 | 30 or MDL |
| bis(2-Chloroethyl)ether | U | U | U | | | | | 330 | ---- |
| 2-Chlorophenol | U | U | U | | | | | 330 | 800 |
| 1,3-Dichlorobenzene | U | U | U | | | | | 330 | 1600 |
| 1,4-Dichlorobenzene | U | U | U | | | | | 330 | 8500 |
| 1,2-Dichlorobenzene | U | U | U | | | | | 330 | 7900 |
| 2-Methylphenol | U | U | U | | | | | 330 | 100 or MDL |
| 2,2'-oxybis(1-Chloropropane) | U | U | U | | | | | 330 | ---- |
| 4-Methylphenol | U | U | U | | | | | 330 | 900 |
| N-Nitroso-di-n-propylamine | U | U | U | | | | | 330 | ---- |
| Hexachloroethane | U | U | U | | | | | 330 | ---- |
| Nitrobenzene | U | U | U | | | | | 330 | 200 or MDL |
| Isophorone | U | U | U | | | | | 330 | 4400 |
| 2-Nitrophenol | U | U | U | | | | | 330 | 330 or MDL |
| 2,4-Dimethylphenol | U | U | U | | | | | 330 | ---- |
| bis(2-Chloroethoxy)methane | U | U | U | | | | | 330 | ---- |
| 2,4-Dichlorophenol | U | U | U | | | | | 330 | 400 |
| 1,2,4-Trichlorobenzene | U | U | U | | | | | 330 | 3400 |
| Naphthalene | U | U | U | | | | | 330 | 13000 |
| 4-Chloroaniline | U | U | U | | | | | 330 | 220 or MDL |
| Hexachlorobutadiene | U | U | U | | | | | 330 | ---- |
| 4-Chloro-3-methylphenol | U | U | U | | | | | 330 | 240 or MDL |
| 2-Methylnaphthalene | U | U | U | | | | | 330 | 36400 |
| Hexachlorocyclopentadiene | U | U | U | | | | | 330 | ---- |
| 2,4,6-Trichlorophenol | U | U | U | | | | | 330 | ---- |
| 2,4,5-Trichlorophenol | U | U | U | | | | | 800 | 100 |
| 2-Chloronaphthalene | U | U | U | | | | | 330 | ---- |
| 2-Nitroaniline | U | U | U | | | | | 800 | 430 or MDL |
| Dimethylphthalate | U | U | U | | | | | 330 | 2000 |
| Acenaphthylene | U | U | U | | | | | 330 | 41000 |
| 2,6-Dinitrotoluene | U | U | U | | | | | 330 | 1000 |
| 3-Nitroaniline | U | U | U | | | | | 800 | 500 or MDL |
| Acenaphthene | U | U | U | | | | | 330 | 50000 |
| 2,4-Dinitrophenol | U | U | U | | | | | 800 | 200 or MDL |
| 4-Nitrophenol | U | U | U | | | | | 800 | 100 or MDL |

**TABLE B-2 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| SAMPLE LOCATION | FIELD BLANKS | | | | | | | CONTRACT REQUIRED DETECTION LIMITS | NYSDEC TAGM 4046 APPENDIX A CRITERIA |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | FB-2 | FB-3 | FB-4 | | | | | | |
| SAMPLE DEPTH | -- | -- | -- | | | | | | |
| DATE OF COLLECTION | 11/13/96 | 11/15/96 | 11/15/96 | | | | | | |
| DILUTION FACTOR | 1 | 1 | 1 | | | | | | |
| PERCENT SOLIDS | NA | NA | NA | | | | | | |
| UNITS | (ug/L) | (ug/L) | (ug/L) | | | | | (ug/kg) | (ug/kg) |
| Dibenzofuran | U | U | U | | | | | 330 | 6200 |
| 2,4-Dinitrotoluene | U | U | U | | | | | 330 | ---- |
| Diethylphthalate | U | U | U | | | | | 330 | 7100 |
| 4-Chlorophenyl-phenylether | U | U | U | | | | | 330 | ---- |
| Fluorene | U | U | U | | | | | 330 | 50000 |
| 4-Nitroaniline | U | U | U | | | | | 800 | ---- |
| 4,6-Dinitro-2-methylphenol | U | U | U | | | | | 800 | ---- |
| N-Nitrosodiphenylamine | U | U | U | | | | | 330 | ---- |
| 4-Bromophenyl-phenylether | U | U | U | | | | | 330 | ---- |
| Hexachlorobenzene | U | U | U | | | | | 330 | 410 |
| Pentachlorophenol | U | U | U | | | | | 800 | 100 or MDL |
| Phenanthrene | U | U | U | | | | | 330 | 50000 |
| Anthracene | U | U | U | | | | | 330 | 50000 |
| Carbazole | U | U | U | | | | | 330 | ---- |
| Di-n-butylphthalate | U | U | 0.6 JB | | | | | 330 | 8100 |
| Fluoranthene | U | U | U | | | | | 330 | 50000 |
| Pyrene | U | U | U | | | | | 330 | 50000 |
| Butylbenzylphthalate | U | U | U | | | | | 330 | 50000 |
| 3,3'-Dichlorobenzidine | U | U | U | | | | | 330 | ---- |
| Benzo(a)anthracene | U | U | U | | | | | 330 | 224 or MDL |
| Chrysene | U | U | U | | | | | 330 | 400 |
| bis(2-Ethylhexyl)phthalate | U | 2 J | U | | | | | 330 | 50000 |
| Di-n-octylphthalate | U | U | U | | | | | 330 | 50000 |
| Benzo(b)fluoranthene | U | U | U | | | | | 330 | 1100 |
| Benzo(k)fluoranthene | U | U | U | | | | | 330 | 1100 |
| Benzo(a)pyrene | U | U | U | | | | | 330 | 61 or MDL |
| Indeno(1,2,3-cd)pyrene | U | U | U | | | | | 330 | 3200 |
| Dibenzo(a,h)anthracene | U | U | U | | | | | 330 | 14 or MDL |
| Benzo(g,h,i)perylene | U | U | U | | | | | 330 | 50000 |
| Benzoic Acid | U | U | U | | | | | 330 | ---- |
| TOTAL PAHs | 0 | 0 | 0 | | | | | | 100000 |
| TOTAL CaPAHs | 0 | 0 | 0 | | | | | | 10000 |
| TOTAL SVOCs | 0 | 2 | 0.6 | | | | | | 500000 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound detected in method blank as well as sample, value estimated.
J: Compound concentration is less then the CRDL but greater than the IDL.

NOTES
-- : Not applicable.
---- : Not established.
NA : Information not available.
MDL: Method Detection Limit.

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# TABLE B-3
## NORTHROP GRUMMAN CORPORATION
## NORTH RUNWAY - PARCEL L2
## SOIL SAMPLING RESULTS
## TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

| SAMPLE LOCATION | AREA ADJACENT TO FORMER THRUST DEFLECTOR ON NORTH RUNWAY - PARCEL L1 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-1 | L2-1 | L2-1 | L2-1 | L2-1 | L2-2 | L2-2 | L2-2 |
| SAMPLE DEPTH | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PERCENT SOLIDS | 85.3 | 88.0 | 88.4 | 94.2 | 94.7 | 85.4 | 91.9 | 84.8 |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Total Petroleum Hydrocarbons | 45.1 | 16.8 | U | U | U | 26.6 | U | 16.6 |
| Gasoline | U | U | N/A | N/A | N/A | U | N/A | U |
| Kerosene | U | U | N/A | N/A | N/A | U | N/A | U |
| Diesel | U | U | N/A | N/A | N/A | U | N/A | U |
| Residual Oil | U | U | N/A | N/A | N/A | U | N/A | U |
| #2 Fuel Oil | U | U | N/A | N/A | N/A | U | N/A | U |
| #4 Fuel Oil | U | U | N/A | N/A | N/A | U | N/A | U |
| #6 Fuel Oil | U | U | N/A | N/A | N/A | U | N/A | U |

QUALIFIERS
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

**TABLE B-3 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS**

| SAMPLE LOCATION | AREA ADJACENT TO FORMER THRUST DEFLECTOR ON NORTH RUNWAY - PARCEL L1 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-2 | L2-2 | L2-3 | L2-3 | L2-3 | L2-3 | L2-3 | L2-4 |
| SAMPLE DEPTH | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 1' |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/15/96 |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.1 |
| PERCENT SOLIDS | 70.5 | 85.5 | 81.8 | 88.4 | 87.3 | 81.9 | 87.1 | 87 |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Total Petroleum Hydrocarbons | U | 19.0 | 53.2 | 17.6 | U | 27.7 | 41.8 | 8,700 |
| Gasoline | N/A | U | U | U | N/A | U | U | U |
| Kerosene | N/A | U | U | U | N/A | U | U | U |
| Diesel | N/A | U | U | U | N/A | U | U | U |
| Residual Oil | N/A | U | U | U | N/A | U | U | U |
| #2 Fuel Oil | N/A | U | U | U | N/A | U | U | U |
| #4 Fuel Oil | N/A | U | U | U | N/A | U | U | U |
| #6 Fuel Oil | N/A | U | U | U | N/A | U | U | U |

QUALIFIERS
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

**TABLE B-3 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-4 | L2-4 | L2-4 | L2-5 | L2-5 | L2-5 | L2-5 | L2-6 |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 |
| DILUTION FACTOR | 1.1 | 1.1 | 1.1 | 1.2 | 1.3 | NA | 1.1 | 1.2 |
| PERCENT SOLIDS | 89 | 90 | 90 | 85 | 80 | NA | 83 | 90 |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Total Petroleum Hydrocarbons | 210 | 200 | 1,700 | 280 | 92 | U | 23 | 120 |
| Gasoline | U | U | U | U | U | N/A | U | U |
| Kerosene | U | U | U | U | U | N/A | U | U |
| Diesel | U | U | U | U | U | N/A | U | U |
| Residual Oil | U | U | U | U | U | N/A | U | U |
| #2 Fuel Oil | U | U | U | U | U | N/A | U | U |
| #4 Fuel Oil | U | U | U | U | U | N/A | U | U |
| #6 Fuel Oil | U | U | U | U | U | N/A | U | U |

QUALIFIERS
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

NOTES
NA : Information not available.

**TABLE B-3 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-6 | L2-6 | L2-6 | L2-7 | L2-7 | L2-7 | L2-7 | L2-8 |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/13/96 |
| DILUTION FACTOR | 1.2 | 1.2 | NA | 1.1 | NA | NA | NA | 1 |
| PERCENT SOLIDS | 85 | 85 | NA | 90 | NA | NA | NA | 92.7 |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Total Petroleum Hydrocarbons | 58 | U | U | 130 | U | U | U | 460 |
| Gasoline | U | N/A | N/A | U | N/A | N/A | N/A | U |
| Kerosene | U | N/A | N/A | U | N/A | N/A | N/A | U |
| Diesel | U | N/A | N/A | U | N/A | N/A | N/A | U |
| Residual Oil | U | N/A | N/A | U | N/A | N/A | N/A | U |
| #2 Fuel Oil | U | N/A | N/A | U | N/A | N/A | N/A | U |
| #4 Fuel Oil | U | N/A | N/A | U | N/A | N/A | N/A | U |
| #6 Fuel Oil | U | N/A | N/A | U | N/A | N/A | N/A | U |

QUALIFIERS
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

NOTES
NA : Information not available.

**TABLE B-3 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-8 | L2-8 | L2-8 | L2-9 | L2-9 | L2-9 | L2-9 | L2-10 |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/14/96 |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.3 |
| PERCENT SOLIDS | 94.3 | 93.4 | 90.4 | 90.8 | 83.2 | 96.9 | 94.1 | 75 |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Total Petroleum Hydrocarbons | 145 | 78.3 | 38.6 | 169 | 63.7 | 433 | 16.6 | 305 |
| Gasoline | U | U | U | U | U | U | U | U |
| Kerosene | U | U | U | U | U | U | U | U |
| Diesel | U | U | U | U | U | U | U | U |
| Residual Oil | U | U | U | U | U | U | U | U |
| #2 Fuel Oil | U | U | U | U | U | U | U | U |
| #4 Fuel Oil | U | U | U | U | U | U | U | U |
| #6 Fuel Oil | U | U | U | U | U | U | U | U |

QUALIFIERS
U: Compound analyzed for but not detected.

**TABLE B-3 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-10 | L2-10 | L2-10 | L2-11 | L2-11 | L2-11 | L2-11 | L2-12 |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' |
| DATE OF COLLECTION | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/13/96 |
| DILUTION FACTOR | 1.3 | NA | NA | 1.1 | 1.1 | NA | 1.1 | 1 |
| PERCENT SOLIDS | 78 | NA | NA | 94 | 95 | NA | 87 | 88.4 |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Total Petroleum Hydrocarbons | 19.2 | U | U | 129 | 86.0 | U | 147 | 352 |
| Gasoline | U | N/A | N/A | U | U | N/A | U | U |
| Kerosene | U | N/A | N/A | U | U | N/A | U | U |
| Diesel | U | N/A | N/A | U | U | N/A | U | U |
| Residual Oil | U | N/A | N/A | U | U | N/A | U | U |
| #2 Fuel Oil | U | N/A | N/A | U | U | N/A | U | U |
| #4 Fuel Oil | U | N/A | N/A | U | U | N/A | U | U |
| #6 Fuel Oil | U | N/A | N/A | U | U | N/A | U | U |

QUALIFIERS
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

NOTES
NA : Information not available.

**TABLE B-3 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS**

| SAMPLE LOCATION | FORMER RUNWAY TURNAROUND | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-12 | L2-12 | L2-12 | L2-13 | L2-13 | L2-13 | L2-13 | L2-14 |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PERCENT SOLIDS | 77.6 | 97.4 | 95.0 | 87.2 | 83.6 | 84.3 | 95.9 | 79.3 |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Total Petroleum Hydrocarbons | 78.5 | U | U | 407 | 477 | U | 16.3 | 478 |
| Gasoline | U | N/A | N/A | U | U | N/A | U | U |
| Kerosene | U | N/A | N/A | U | U | N/A | U | U |
| Diesel | U | N/A | N/A | U | U | N/A | U | U |
| Residual Oil | U | N/A | N/A | U | U | N/A | U | U |
| #2 Fuel Oil | U | N/A | N/A | U | U | N/A | U | U |
| #4 Fuel Oil | U | N/A | N/A | U | U | N/A | U | U |
| #6 Fuel Oil | U | N/A | N/A | U | U | N/A | U | U |

QUALIFIERS
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

**TABLE B-3 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS**

| SAMPLE LOCATION | FORMER RUNWAY TURNAROUND | | | FORMER RUN-UP AREA THRUST DEFLECTOR | | | | |
|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-14 | L2-14 | L2-14 | L2-15 | L2-15 | L2-15 | L2-15 | L2-15 |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 |
| DILUTION FACTOR | 1 | 1 | 1 | 2.2 | 1.1 | NA | 1 | 1 |
| PERCENT SOLIDS | 92.1 | 91.1 | 97.1 | 45 | 89 | NA | 96.28 | 97.41 |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Total Petroleum Hydrocarbons | 943 | 776 | 16.1 | 153 | 454 | U | U | U |
| Gasoline | U | U | U | U | U | N/A | N/A | N/A |
| Kerosene | U | U | U | U | U | N/A | N/A | N/A |
| Diesel | U | U | U | U | U | N/A | N/A | N/A |
| Residual Oil | U | U | U | U | U | N/A | N/A | N/A |
| #2 Fuel Oil | U | U | U | U | U | N/A | N/A | N/A |
| #4 Fuel Oil | U | U | U | U | U | N/A | N/A | N/A |
| #6 Fuel Oil | U | U | U | U | U | N/A | N/A | N/A |

QUALIFIERS
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

NOTES
NA : Information not available.

**TABLE B-3 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS**

| SAMPLE LOCATION | FORMER RUN-UP AREA THRUST DEFLECTOR | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-16 | L2-16 | L2-16 | L2-16 | L2-16 | L2-17 | L2-17 | L2-17 |
| SAMPLE DEPTH | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 |
| DILUTION FACTOR | 1.3 | 1.1 | NA | NA | NA | 1 | 5 | NA |
| PERCENT SOLIDS | 80 | 89 | NA | NA | NA | 82.87 | 88.6 | NA |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Total Petroleum Hydrocarbons | 75 | 280 | U | U | U | 40 | 310 | U |
| Gasoline | U | U | N/A | N/A | N/A | U | U | N/A |
| Kerosene | U | U | N/A | N/A | N/A | U | U | N/A |
| Diesel | U | U | N/A | N/A | N/A | U | U | N/A |
| Residual Oil | U | U | N/A | N/A | N/A | U | U | N/A |
| #2 Fuel Oil | U | U | N/A | N/A | N/A | U | U | N/A |
| #4 Fuel Oil | U | U | N/A | N/A | N/A | U | U | N/A |
| #6 Fuel Oil | U | U | N/A | N/A | N/A | U | U | N/A |

QUALIFIERS
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

NOTES
NA : Information not available.

**TABLE B-3 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS**

| SAMPLE LOCATION | FORMER RUN-UP AREA THRUST DEFLECTORS | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-17 | L2-17 | L2-18 | L2-18 | L2-18 | L2-18 | L2-18 | DWL2-1 |
| SAMPLE DEPTH | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 2' |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/18/96 |
| DILUTION FACTOR | NA | 1.0 | 1.2 | 1.3 | NA | NA | 1.1 | 15.0 |
| PERCENT SOLIDS | NA | 97 | 81 | 80 | NA | NA | 94 | 65 |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Total Petroleum Hydrocarbons | U | 23 | 124 | 73.1 | U | 13.1 | 13.2 | 380 |
| Gasoline | N/A | U | U | U | N/A | N/A | U | U |
| Kerosene | N/A | U | U | U | N/A | N/A | U | U |
| Diesel | N/A | U | U | U | N/A | N/A | U | U |
| Residual Oil | N/A | U | U | U | N/A | N/A | U | U |
| #2 Fuel Oil | N/A | U | U | U | N/A | N/A | U | U |
| #4 Fuel Oil | N/A | U | U | U | N/A | N/A | U | U |
| #6 Fuel Oil | N/A | U | U | U | N/A | N/A | U | U |

QUALIFIERS
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

NOTES
NA : Information not available.

**TABLE B-3 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS**

| SAMPLE LOCATION | DRY WELL SOIL/SEDIMENT SAMPLING | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | DWL2-1 | DWL2-2 | DWL2-2 | DWL2-3 | DWL2-3 | DWL2-4 | DWL2-4 | FB-1 |
| SAMPLE DEPTH | 2' - 4' | 0 - 2' | 2' - 4' | 0 - 2' | 2' - 4' | 0 - 2' | 2' - 4' | -- |
| DATE OF COLLECTION | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/13/96 |
| DILUTION FACTOR | 1.0 | 1.0 | NA | 1.3 | NA | 1.1 | NA | 1 |
| PERCENT SOLIDS | 96 | 96 | NA | 79 | NA | 94 | NA | 0.0 |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Total Petroleum Hydrocarbons | 23 | 26 | U | 730 | U | 24 | U | U |
| Gasoline | U | U | N/A | U | N/A | U | N/A | N/A |
| Kerosene | U | U | N/A | U | N/A | U | N/A | N/A |
| Diesel | U | U | N/A | U | N/A | U | N/A | N/A |
| Residual Oil | U | U | N/A | U | N/A | U | N/A | N/A |
| #2 Fuel Oil | U | U | N/A | U | N/A | U | N/A | N/A |
| #4 Fuel Oil | U | U | N/A | U | N/A | U | N/A | N/A |
| #6 Fuel Oil | U | U | N/A | U | N/A | U | N/A | N/A |

QUALIFIERS
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

NOTES
-- : Not applicable.
NA : Information not available.

**TABLE B-3 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS**

| SAMPLE LOCATION | FIELD BLANKS | | |
|---|---|---|---|
| SAMPLE IDENTIFICATION | FB-2 | FB-3 | FB-4 |
| SAMPLE DEPTH | -- | -- | -- |
| DATE OF COLLECTION | 11/13/96 | 11/15/96 | 11/15/96 |
| DILUTION FACTOR | 1 | 1 | 1 |
| PERCENT SOLIDS | 0.0 | 0.0 | 0.0 |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) |
| Total Petroleum Hydrocarbons | U | U | U |
| Gasoline | N/A | N/A | N/A |
| Kerosene | N/A | N/A | N/A |
| Diesel | N/A | N/A | N/A |
| Residual Oil | N/A | N/A | N/A |
| #2 Fuel Oil | N/A | N/A | N/A |
| #4 Fuel Oil | N/A | N/A | N/A |
| #6 Fuel Oil | N/A | N/A | N/A |

QUALIFIERS
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

NOTES
-- : Not applicable.

4

**TABLE B-4**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**PRIORITY POLLUTANT METALS**

| SAMPLE LOCATION | AREA ADJACENT TO FORMER THRUST DEFLECTOR ON NORTH RUNWAY - PARCEL L1 | | | | | | | | INSTRUMENT DETECTION LIMITS | EASTERN USA BACKGROUND LEVELS |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-1 | L2-1 | L2-1 | L2-1 | L2-1 | L2-2 | L2-2 | L2-2 | | |
| SAMPLE DEPTH | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 86.5 | 82.5 | 88.2 | 95.5 | 95.2 | 87.8 | 92.0 | 86.9 | | |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Antimony | U | U | U | U | U | U | U | U | 0.11 | ---- |
| Arsenic | 45.3 | 12.0 | 1.4 B | 3.8 | 7.8 | 10.7 | U | 4.2 | 0.282 | 3-12* |
| Beryllium | 0.82 B | 0.81 B | 0.63 B | 0.64 B | 0.54 B | U | U | U | 0.01 | 0-1.75 |
| Cadmium | 0.25 B | U | U | U | U | 0.42 B | 0.21 B | 0.42 B | 0.017 | 0.1-1, (10***) |
| Chromium | 16.3 | 7.5 | 2.8 | 8.2 | 5.8 | 7.0 | 1.0 B | 10.5 | 0.058 | 1.5-40*, (50***) |
| Copper | 25.6 | 12.8 | 3.2 B | 4.2 B | 5.8 | 19.7 | 1.9 B | 8.4 | 0.106 | 1-50 |
| Lead | 54.8 | 10.6 | 4.1 | 2.7 | 21.4 | 16.3 | 1.7 | 10.3 | 0.066 | 200-500** |
| Mercury | 0.29 | U | U | U | U | 0.12 | U | U | 0.1 | 0.001-0.2 |
| Nickel | 6.0 B | 3.6 B | 1.8 B | 2.7 B | 2.8 B | 3.9 B | 1.1 B | 6.2 B | 0.137 | 0.5-25 |
| Selenium | 1.8 | U | U | 1.2 | 1.4 | U | U | 2.8 | 0.229 | 0.1-3.9 |
| Silver | U | U | U | U | U | U | U | U | 0.032 | ---- |
| Thallium | U | U | U | U | U | U | U | U | 0.737 | ---- |
| Zinc | 63.7 | 21.4 | 8.3 | 8.7 | 21.9 | 13.1 | 8.8 | 18.5 | 0.734 | 9-50 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES
---- : Not established.
▒▒ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

**TABLE B-4 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**PRIORITY POLLUTANT METALS**

| SAMPLE LOCATION | AREA ADJACENT TO FORMER THRUST DEFLECTOR ON NORTH RUNWAY - PARCEL L1 | | | | | | | | INSTRUMENT DETECTION LIMITS | EASTERN USA BACKGROUND LEVELS |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-2 | L2-2 | L2-3 | L2-3 | L2-3 | L2-3 | L2-3 | L2-4 | | |
| SAMPLE DEPTH | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 1' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 87.2 | 82.2 | 78.1 | 82.8 | 89.3 | 80.9 | 87.2 | 90.0 | | |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Antimony | 5.6 U | 9.0 U | 11.8 U | 23.2 U | 3.0 U | 3.7 U | 8.7 U | 7.0 U | 0.11 | ---- |
| Arsenic | | | | | | | | 0.53 B | 0.282 | 3-12* |
| Beryllium | 0.28 B | 0.55 B | 0.49 B | 0.34 B | 0.29 B | 0.29 B | 0.49 B | | 0.01 | 0-1.75 |
| Cadmium | 5.0 | 11.7 | 9.5 | 4.9 | 6.9 | 6.4 | 8.5 | 5.5 | 0.017 | 0.1-1, (10***) |
| Chromium | 5.4 | 16.9 | 21.1 | 16.2 | 4.6 B | 9.7 | 15.6 | 8.7 | 0.058 | 1.5-40*, (50***) |
| Copper | 4.9 | 17.9 | 25.7 | 10.8 | 3.8 | 9.5 | 35.9 | 11.4 | 0.106 | 1-50 |
| Lead | | 0.10 | 0.12 | 0.20 | U | 0.17 | 0.22 | U | 0.066 | 200-500** |
| Mercury | 3.2 B | 7.1 B | 5.6 B | 3.0 B | 3.9 B | 3.9 B | 5.0 B | 4.6 B | 0.1 | 0.001-0.2 |
| Nickel | 1.1 | 3.2 | 1.2 | 1.4 | 2.4 | 1.8 | 1.5 | U | 0.137 | 0.5-25 |
| Selenium | U | U | U | U | U | U | U | U | 0.229 | 0.1-3.9 |
| Silver | U | 1.9 B | U | U | U | U | U | U | 0.032 | ---- |
| Thallium | 11.1 | 30.6 | 21.7 | 12.8 | 12.4 | 12.0 | 26.9 | 22.9 | 0.737 | ---- |
| Zinc | | | | | | | | | 0.734 | 9-50 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES
---- : Not established.
▒▒ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

**TABLE B-4 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**PRIORITY POLLUTANT METALS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | INSTRUMENT DETECTION LIMITS | EASTERN USA BACKGROUND LEVELS |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-4 | L2-4 | L2-4 | L2-5 | L2-5 | L2-5 | L2-5 | L2-6 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 90.9 | 88.4 | 92.7 | 87.9 | 79.8 | 84.9 | 97.2 | 89.4 | | |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Antimony | U | 2.1 B | 1.3 B | U | U | U | U | U | 0.11 | ---- |
| Arsenic | 9.8 | 2.4 | 5.2 | 11.9 | 36.0 | 1.5 B | U | 13.8 | 0.282 | 3-12* |
| Beryllium | 0.50 B | 2.4 | 0.61 B | 0.64 B | 0.70 B | 0.77 B | 0.40 B | 0.65 B | 0.01 | 0-1.75 |
| Cadmium | U | U | U | 0.27 B | U | U | U | U | 0.017 | 0.1-1, (10***) |
| Chromium | 5.8 | 1.9 B | 4.8 | 9.0 | 15.0 | 6.4 | 1.3 B | 7.5 | 0.058 | 1.5-40*, (50***) |
| Copper | 14.4 | 2.3 B | 7.9 | 21.7 | 36.9 | 3.4 B | 0.94 B | 25.0 | 0.106 | 1-50 |
| Lead | 13.9 | 2.5 | 5.7 | 152 | 83.9 | 4.1 | 0.44 B | 68.4 | 0.066 | 200-500** |
| Mercury | U | U | U | 0.23 | 0.58 | U | U | 0.14 | 0.1 | 0.001-0.2 |
| Nickel | 2.6 B | 1.4 B | 3.2 B | 3.2 B | 6.4 B | 2.8 B | 0.60 B | 8.7 | 0.137 | 0.5-25 |
| Selenium | U | U | U | U | 2.2 | U | U | U | 0.229 | 0.1-3.9 |
| Silver | U | U | U | U | U | U | U | U | 0.032 | ---- |
| Thallium | U | 4.0 | U | U | 3.0 | 1.8 B | U | U | 0.737 | ---- |
| Zinc | 11.7 | 4.8 | 17.6 | 38.7 | 27.0 | 8.6 | 3.2 B | 55.4 | 0.734 | 9-50 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES
---- : Not established.
▒▒ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

**TABLE B-4 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**PRIORITY POLLUTANT METALS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | INSTRUMENT DETECTION LIMITS | EASTERN USA BACKGROUND LEVELS |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-6 | L2-6 | L2-6 | L2-7 | L2-7 | L2-7 | L2-7 | L2-8 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 86.9 | 87.6 | 81.4 | 89.5 | 89.4 | 93.4 | 91.0 | 92.7 | | |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Antimony | U | U | U | U | U | U | U | U | 0.11 | ---- |
| Arsenic | 36.8 | 3.3 | 1.4 B | 5.3 | U | U | U | U | 0.282 | 3-12* |
| Beryllium | 0.52 B | 0.63 B | 0.58 B | 0.48 B | 0.46 B | 0.31 B | 0.58 B | U | 0.01 | 0-1.75 |
| Cadmium | U | U | U | 0.55 B | U | U | U | 0.16 B | 0.017 | 0.1-1, (10***) |
| Chromium | 9.0 | 9.7 | 13.0 | 22.2 | 7.3 | 2.9 | 8.8 | 3.8 | 0.058 | 1.5-40*, (50***) |
| Copper | 36.9 | 3.7 B | 6.9 | 18.8 | 4.7 B | 2.2 B | 6.4 | 8.4 | 0.106 | 1-50 |
| Lead | 71.5 | 4.4 | 8.4 | 62.4 | 6.6 | 1.4 | 3.8 | 3.4 | 0.066 | 200-500** |
| Mercury | 0.39 | U | U | U | U | U | U | U | 0.1 | 0.001-0.2 |
| Nickel | 2.6 B | 4.8 B | 6.8 B | 7.2 B | 5.6 B | 2.3 B | 4.8 B | 2.9 B | 0.137 | 0.5-25 |
| Selenium | 2.3 | U | U | 1.1 | U | U | U | U | 0.229 | 0.1-3.9 |
| Silver | U | U | U | U | U | U | U | U | 0.032 | ---- |
| Thallium | U | U | U | U | U | U | U | U | 0.737 | ---- |
| Zinc | 14.7 | 17.0 | 25.8 | 69.2 | 16.5 | 8.9 | 17.5 | 9.3 | 0.734 | 9-50 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES
---- : Not established.
▒▒ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

**TABLE B-4 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**PRIORITY POLLUTANT METALS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | INSTRUMENT DETECTION LIMITS | EASTERN USA BACKGROUND LEVELS |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-8 | L2-8 | L2-8 | L2-9 | L2-9 | L2-9 | L2-9 | L2-10 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/14/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 94.3 | 93.4 | 90.4 | 90.8 | 83.2 | 96.9 | 94.1 | 76.0 | | |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Antimony | U | U | U | U | U | U | U | U | 0.11 | ---- |
| Arsenic | 2.3 | U | U | 4.3 | 16.4 | U | U | 30.8 | 0.282 | 3-12* |
| Beryllium | U | U | U | U | U | U | U | 0.58 B | 0.01 | 0-1.75 |
| Cadmium | 0.22 B | 0.23 B | U | 0.40 B | 0.37 B | 0.26 B | 0.19 B | U | 0.017 | 0.1-1, (10***) |
| Chromium | 3.8 | 3.0 | 1.1 B | 5.4 | 9.5 | 4.1 | 2.0 | 18.6 | 0.058 | 1.5-40*, (50***) |
| Copper | 12.0 | 5.9 | 1.3 B | 6.7 | 26.0 | 2.1 B | 1.2 B | 32.7 | 0.106 | 1-50 |
| Lead | 4.2 | 4.8 | 1.0 | 18.1 | 42.9 | 2.4 | 1.2 | 100 | 0.066 | 200-500** |
| Mercury | U | U | U | U | 0.58 | U | U | 2.3 | 0.1 | 0.001-0.2 |
| Nickel | 3.6 B | 2.3 B | 1.0 B | 5.9 B | 4.8 B | 2.3 B | 2.7 B | 10.0 | 0.137 | 0.5-25 |
| Selenium | 2.0 | 1.2 | 1.0 | 1.0 | 1.5 | U | U | 1.5 | 0.229 | 0.1-3.9 |
| Silver | U | U | U | U | U | U | U | U | 0.032 | ---- |
| Thallium | U | U | U | 1.8 B | U | U | U | U | 0.737 | ---- |
| Zinc | 10.2 | 7.3 | 5.8 | 66.6 | 19.7 | 8.3 | 3.3 B | 68.7 | 0.734 | 9-50 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES
---- : Not established.
▒▒ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

**TABLE B-4 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**PRIORITY POLLUTANT METALS**

| SAMPLE LOCATION | PERIMETER AND CENTER OF NORTH RUNWAY - PARCEL L2 | | | | | | | | INSTRUMENT DETECTION LIMITS | EASTERN USA BACKGROUND LEVELS |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-10 | L2-10 | L2-10 | L2-11 | L2-11 | L2-11 | L2-11 | L2-12 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/14/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 83.6 | 95.3 | 94.7 | 94.1 | 93.6 | 92.9 | 87.3 | 87.9 | | |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Antimony | U | U | U | U | U | 1.3 B | U | U | 0.11 | ---- |
| Arsenic | 4.9 | 3.4 | 1.7 B | 2.6 | 1.8 | 2.7 | 2.8 | 13.2 | 0.282 | 3-12* |
| Beryllium | 0.59 B | 0.32 B | 0.28 B | 0.44 B | 0.32 B | 0.36 B | 0.49 B | U | 0.01 | 0-1.75 |
| Cadmium | U | U | U | U | U | U | U | 0.56 B | 0.017 | 0.1-1, (10***) |
| Chromium | 10.8 | 3.5 | 1.9 | 3.7 | 2.9 | 2.6 | 5.2 | 9.5 | 0.058 | 1.5-40*, (50***) |
| Copper | 7.7 | 3.7 B | 1.8 B | 10 | 2.0 B | 2.7 B | 4.0 B | 11.4 | 0.106 | 1-50 |
| Lead | 7.9 | 3.7 | 1.6 | 2.7 | 1.8 | 3.7 | 2.7 | 35.7 | 0.066 | 200-500** |
| Mercury | U | U | U | U | U | U | U | 0.20 | 0.1 | 0.001-0.2 |
| Nickel | 7.7 B | 4.1 B | 1.8 B | 6.9 B | 2.1 B | 2.0 B | 4.0 B | 5.2 B | 0.137 | 0.5-25 |
| Selenium | 1.1 | 1.1 | U | U | U | U | U | 1.3 | 0.229 | 0.1-3.9 |
| Silver | U | U | U | U | U | U | 0.25 B | U | 0.032 | ---- |
| Thallium | U | U | 1.4 B | U | U | U | U | U | 0.737 | ---- |
| Zinc | 23.9 | 15.8 | 16.9 | 31.7 | 10.2 | 9.5 | 16.3 | 38.6 | 0.734 | 9-50 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES
---- : Not established.
▒▒ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

**TABLE B-4 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**PRIORITY POLLUTANT METALS**

| SAMPLE LOCATION | FORMER RUNWAY TURNAROUND | | | | | | | | INSTRUMENT DETECTION LIMITS | EASTERN USA BACKGROUND LEVELS |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-12 | L2-12 | L2-12 | L2-13 | L2-13 | L2-13 | L2-13 | L2-14 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 73.9 | 88.3 | 96.2 | 85.2 | 83.6 | 84.3 | 95.9 | 79.3 | | |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Antimony | U | U | U | U | U | U | U | U | 0.11 | ---- |
| Arsenic | 34.0 | U | U | 11.3 | 18.0 | 3.0 | U | 13.4 | 0.282 | 3-12* |
| Beryllium | U | U | U | U | U | U | U | U | 0.01 | 0-1.75 |
| Cadmium | 0.54 B | U | U | 0.51 B | 0.63 B | 0.27 B | 0.22 B | 0.92 B | 0.017 | 0.1-1, (10***) |
| Chromium | 14.8 | 2.9 | 2.7 | 6.9 | 12.5 | 10.4 | 1.7 B | 15.2 | 0.058 | 1.5-40*, (50***) |
| Copper | 48.0 | 2.8 B | 1.6 B | 13.1 | 22.8 | 7.2 | 1.8 B | 21.6 | 0.106 | 1-50 |
| Lead | 89.1 | 2.5 | 1.2 | 61.2 | 105 | 6.0 | 1.8 | 94.3 | 0.066 | 200-500** |
| Mercury | 0.65 | U | U | 0.26 | 0.55 | U | U | 0.12 | 0.1 | 0.001-0.2 |
| Nickel | 7.2 B | 2.2 B | 1.4 B | 4.9 B | 8.5 B | 7.6 B | 1.7 B | 8.1 | 0.137 | 0.5-25 |
| Selenium | 2.4 | 1.6 | U | 2.0 | 2.2 | 1.9 | U | 1.8 | 0.229 | 0.1-3.9 |
| Silver | U | U | U | U | U | U | U | U | 0.032 | ---- |
| Thallium | U | U | U | U | U | U | U | U | 0.737 | ---- |
| Zinc | 30.5 | 5.5 | 4.3 | 36.2 | 52.6 | 19.1 | 5.3 | 50.4 | 0.734 | 9-50 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES
---- : Not established.
▒▒ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

**TABLE B-4 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**PRIORITY POLLUTANT METALS**

| SAMPLE LOCATION | FORMER RUNWAY TURNAROUND | | | FORMER RUN-UP AREA THRUST DEFLECTOR | | | | | INSTRUMENT DETECTION LIMITS | EASTERN USA BACKGROUND LEVELS |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-14 | L2-14 | L2-14 | L2-15 | L2-15 | L2-15 | L2-15 | L2-15 | | |
| SAMPLE DEPTH | 1' - 2' | 2' - 4' | 4' - 6' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | | |
| DATE OF COLLECTION | 11/13/96 | 11/13/96 | 11/13/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 92.1 | 91.1 | 97.1 | 86.8 | 87.4 | 87.3 | 97.5 | 96.5 | | |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Antimony | U | U | U | U | U | U | U | U | 0.11 | ---- |
| Arsenic | 18.4 | 6.4 | U | 6.8 | 7.6 | 4.5 | 0.92 B | U | 0.282 | 3-12* |
| Beryllium | U | U | U | 0.48 B | 0.45 B | 0.68 B | 0.29 B | 0.34 B | 0.01 | 0-1.75 |
| Cadmium | 0.50 B | 0.36 B | U | 0.25 B | U | U | U | U | 0.017 | 0.1-1, (10***) |
| Chromium | 7.7 | 4.3 | 3.4 | 8.6 | 7.1 | 13.2 | 1.9 | 3.7 | 0.058 | 1.5-40*, (50***) |
| Copper | 13.2 | 23.8 | 2.0 B | 30.5 | 10.7 | 7.4 | 1.6 B | 2.1 B | 0.106 | 1-50 |
| Lead | 28.2 | 7.9 | 1.8 | 65.2 | 26.2 | 5.6 | 0.78 | 1.0 | 0.066 | 200-500** |
| Mercury | 0.31 | U | U | 0.089 | U | U | U | U | 0.1 | 0.001-0.2 |
| Nickel | 4.6 B | 3.4 B | 2.2 B | 6.9 B | 4.4 B | 7.6 | 1.4 B | 1.8 B | 0.137 | 0.5-25 |
| Selenium | 1.3 | 1.4 | U | 1.1 | 1.0 | 1.8 | U | U | 0.229 | 0.1-3.9 |
| Silver | U | U | U | U | U | U | U | U | 0.032 | ---- |
| Thallium | U | U | U | U | U | U | U | U | 0.737 | ---- |
| Zinc | 19.4 | 13.5 | 6.3 | 93.3 | 26.7 | 22.5 | 6.2 | 12.5 | 0.734 | 9-50 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES
---- : Not established.
▒▒ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

**TABLE B-4 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**PRIORITY POLLUTANT METALS**

| SAMPLE LOCATION | FORMER RUN-UP AREA THRUST DEFLECTOR | | | | | | | | INSTRUMENT DETECTION LIMITS | EASTERN USA BACKGROUND LEVELS |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-16 | L2-16 | L2-16 | L2-16 | L2-16 | L2-17 | L2-17 | L2-17 | | |
| SAMPLE DEPTH | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | | |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 81.7 | 88.3 | 95.5 | 98.2 | 97.6 | 82.2 | 87.4 | 93.3 | | |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Antimony | U | U | U | U | U | U | U | U | 0.11 | ---- |
| Arsenic | 7.2 | 13.5 | 2.0 | U | 1.3 B | 8.2 | 9.1 | 3.3 | 0.282 | 3-12* |
| Beryllium | 0.60 B | 0.60 B | 0.45 B | 0.40 B | 0.43 B | 0.57 B | 0.38 B | 0.64 B | 0.01 | 0-1.75 |
| Cadmium | U | U | U | U | U | U | U | U | 0.017 | 0.1-1, (10***) |
| Chromium | 6.8 | 9.2 | 2.7 | 2.4 | 5.5 | 10.8 | 6.1 | 5.9 | 0.058 | 1.5-40*, (50***) |
| Copper | 12.8 | 17.0 | 2.3 B | 1.7 B | 2.3 B | 13.2 | 13.5 | 4.3 B | 0.106 | 1-50 |
| Lead | 35.0 | 39.1 | 1.5 | 0.60 | 1.8 | 38.5 | 37.2 | 2.4 | 0.066 | 200-500** |
| Mercury | U | 0.21 | U | U | U | U | 0.22 | U | 0.1 | 0.001-0.2 |
| Nickel | 3.0 B | 4.4 B | 1.8 B | 1.5 B | 2.2 B | 6.2 B | 3.3 B | 4.0 B | 0.137 | 0.5-25 |
| Selenium | 1.3 | 1.2 | U | U | U | U | 1.3 | U | 0.229 | 0.1-3.9 |
| Silver | U | U | U | U | U | U | U | U | 0.032 | ---- |
| Thallium | U | 1.7 B | U | U | U | U | U | U | 0.737 | ---- |
| Zinc | 27.1 | 24.7 | 8.1 | 3.8 | 6.4 | 47.5 | 22.0 | 11.8 | 0.734 | 9-50 |

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES
---- : Not established.
▒▒ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

**TABLE B-4 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**PRIORITY POLLUTANT METALS**

| SAMPLE LOCATION | FORMER RUN-UP AREA THRUST DEFLECTOR | | | | | | | | INSTRUMENT DETECTION LIMITS | EASTERN USA BACKGROUND LEVELS |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | L2-17 | L2-17 | L2-18 | L2-18 | L2-18 | L2-18 | L2-18 | DWL2-1 | | |
| SAMPLE DEPTH | 4' - 6' | 6' - 8' | 0 - 1' | 1' - 2' | 2' - 4' | 4' - 6' | 6' - 8' | 0 - 2' | | |
| DATE OF COLLECTION | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/15/96 | 11/18/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 97.9 | 97.5 | 83.0 | 80.4 | 92.9 | 96.5 | 95.6 | 66.3 | | |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Antimony | U | U | U | U | U | U | U | U | 0.11 | ---- |
| Arsenic | 1.4 B | 1.0 B | 9.6 | 25.0 | 3.0 | 1.5 B | 1.1 B | 9.9 | 0.282 | 3-12* |
| Beryllium | 0.42 B | 0.42 B | 0.48 B | 0.60 B | 0.56 B | 0.36 B | 0.36 B | 0.52 B | 0.01 | 0-1.75 |
| Cadmium | U | U | U | U | U | U | U | 6.8 | 0.017 | 0.1-1, (10***) |
| Chromium | 4.8 | 5.4 | 11.3 | 12.2 | 8.1 | 2.2 | 7.7 | 83.3 | 0.058 | 1.5-40*, (50***) |
| Copper | 1.9 B | 2.5 B | 12.6 | 28.9 | 5.7 | 2.3 B | 2.0 B | 110 | 0.106 | 1-50 |
| Lead | 0.83 | 0.86 | 32.6 | 59.8 | 3.6 | 0.94 | 1.1 | 1230 | 0.066 | 200-500** |
| Mercury | U | U | 0.12 | 0.81 | U | U | U | U | 0.1 | 0.001-0.2 |
| Nickel | 2.0 B | 1.9 B | 5.9 B | 5.2 B | 6.0 B | 4.4 B | 1.8 B | 30.8 | 0.137 | 0.5-25 |
| Selenium | U | U | U | 1.1 | U | U | U | U | 0.229 | 0.1-3.9 |
| Silver | U | U | U | U | U | U | U | 0.58 B | 0.032 | ---- |
| Thallium | 1.8 | U | U | 1.9 B | U | U | U | U | 0.737 | ---- |
| Zinc | 6.4 | 7.9 | 39.5 | 24.9 | 20.7 | 15.5 | 8.2 | 708 | 0.734 | 9-50 |

QUALIFIERS
U: Compound analyzed for but not detected.
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---- : Not established.
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* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

**TABLE B-4 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**PRIORITY POLLUTANT METALS**

| SAMPLE LOCATION | DRY WELL SOIL/SEDIMENT SAMPLING | | | | | | | | INSTRUMENT DETECTION LIMITS | EASTERN USA BACKGROUND LEVELS |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | DWL2-1 | DWL2-2 | DWL2-2 | DWL2-3 | DWL2-3 | DWL2-4 | DWL2-4 | FB-1 | | |
| SAMPLE DEPTH | 2' - 4' | 0 - 2' | 2' - 4' | 0 - 2' | 2' - 4' | 0 - 2' | 2' - 4' | -- | | |
| DATE OF COLLECTION | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/18/96 | 11/13/96 | | |
| DILUTION FACTOR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| PERCENT SOLIDS | 94.5 | 95.5 | 96.4 | 67.5 | 86.9 | 93.4 | 92.4 | 0.0 | | |
| UNITS | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (ug/L) | (mg/kg) | (mg/kg) |
| Antimony | U | U | U | U | U | U | U | U | 0.11 | ---- |
| Arsenic | U | U | U | 22.3 | 3.7 | 1.6 B | 2.4 | U | 0.282 | 3-12* |
| Beryllium | 0.28 B | 0.28 B | 0.23 B | 0.40 B | 0.22 B | 0.28 B | 0.31 B | U | 0.01 | 0-1.75 |
| Cadmium | U | U | U | 0.31 B | U | U | U | U | 0.017 | 0.1-1, (10***) |
| Chromium | 2.6 | 3.5 | 1.7 B | 6.2 | 3.7 | 2.3 | 4.0 | U | 0.058 | 1.5-40*, (50***) |
| Copper | 2.5 B | 2.1 B | 1.8 B | 7.6 | 1.9 B | 3.1 B | 4.0 B | 1.7 B | 0.106 | 1-50 |
| Lead | 4.0 | 2.5 | 1.9 | 31.5 | 2.2 | 16.9 | 10.4 | U | 0.066 | 200-500** |
| Mercury | U | U | U | U | U | U | U | U | 0.1 | 0.001-0.2 |
| Nickel | 2.0 B | 1.6 B | 1.7 B | 13.8 | 3.5 B | 2.5 B | 2.8 B | U | 0.137 | 0.5-25 |
| Selenium | 1.2 | U | U | U | U | U | U | U | 0.229 | 0.1-3.9 |
| Silver | U | U | U | U | U | U | U | U | 0.032 | ---- |
| Thallium | U | U | U | U | U | U | U | U | 0.737 | ---- |
| Zinc | 12.8 | 7.1 | 9.9 | 33.2 | 9.0 | 15.1 | 21.2 | 5.4 B | 0.734 | 9-50 |

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**TABLE B-4 (continued)**
**NORTHROP GRUMMAN CORPORATION**
**NORTH RUNWAY - PARCEL L2**
**SOIL SAMPLING RESULTS**
**PRIORITY POLLUTANT METALS**

| SAMPLE LOCATION | FIELD BLANKS | | | | | | | | INSTRUMENT DETECTION LIMITS | EASTERN USA BACKGROUND LEVELS |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE IDENTIFICATION | FB-2 | FB-3 | FB-4 | | | | | | | |
| SAMPLE DEPTH | -- | -- | -- | | | | | | | |
| DATE OF COLLECTION | 11/13/96 | 11/15/96 | 11/15/96 | | | | | | | |
| DILUTION FACTOR | 1 | 1 | 1 | | | | | | | |
| PERCENT SOLIDS | 0.0 | 0.0 | 0.0 | | | | | | | |
| UNITS | (ug/L) | (ug/L) | (ug/L) | | | | | | (mg/kg) | (mg/kg) |
| Antimony | U | U | U | | | | | | 0.11 | ---- |
| Arsenic | U | 7.7 B | U | | | | | | 0.282 | 3-12* |
| Beryllium | U | 2.0 B | U | | | | | | 0.01 | 0-1.75 |
| Cadmium | U | U | U | | | | | | 0.017 | 0.1-1, (10***) |
| Chromium | U | U | U | | | | | | 0.058 | 1.5-40*, (50***) |
| Copper | U | 1.9 B | U | | | | | | 0.106 | 1-50 |
| Lead | U | U | U | | | | | | 0.066 | 200-500** |
| Mercury | U | U | U | | | | | | 0.1 | 0.001-0.2 |
| Nickel | U | 1.4 B | U | | | | | | 0.137 | 0.5-25 |
| Selenium | U | U | U | | | | | | 0.229 | 0.1-3.9 |
| Silver | U | U | U | | | | | | 0.032 | ---- |
| Thallium | U | U | U | | | | | | 0.737 | ---- |
| Zinc | 9.7 B | 18.9 B | U | | | | | | 0.734 | 9-50 |

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