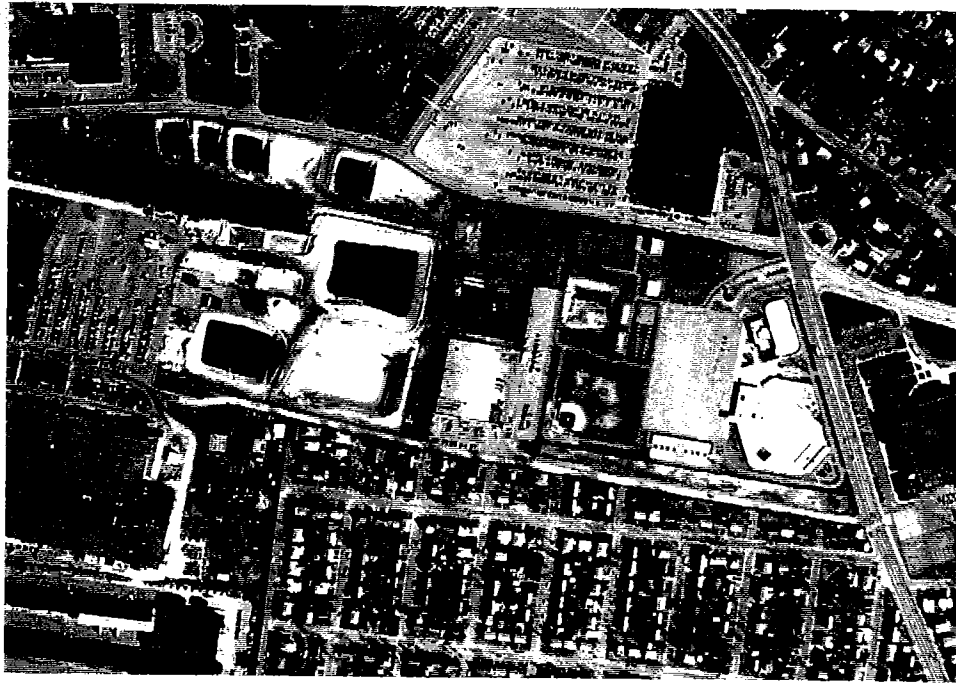


# **NORTHROP GRUMMAN**

BETHPAGE FACILITY

JULY 2001

## **PLANT 24 ACCESS ROAD SITE BETHPAGE FACILITY PCB Investigation/Delineation Program**



## **Report of Findings**

NORTHROP GRUMMAN CORPORATION  
BETHPAGE, NEW YORK



DVIRKA AND BARTILUCCI  
CONSULTING ENGINEERS  
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

***NORTHROP GRUMMAN***

Airborne Early Warning  
and Electronic Warfare Systems

**Integrated Systems Sector**  
Northrop Grumman Corporation  
South Oyster Bay Road  
Bethpage, New York 11714

ETC-01-249  
July 24, 2001

Steve Kaminski, Chief  
Eastern Engineering Section  
Bureau of Radiation & Hazardous Site Management, Room 460  
Division of Solid and Hazardous Materials  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, NY 12233-7250

**Re: Northrop Grumman Corporation  
Bethpage Facility, New York  
Plant 24 Access Road Site**

Dear Mr. Kaminski:

Enclosed please find two copies of the document entitled:

*“Plant 24 Access Road Site  
Bethpage Facility  
PCB Investigation/Delineation Program  
Report of Findings”*

By copy of this letter, the Report of Findings is also being submitted to the individuals identified at the end of this letter.



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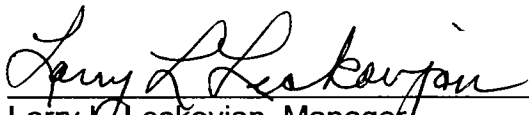
ETC-01-249  
July 24, 2001  
Page Two

Steve Kaminski, Chief  
Eastern Engineering Section  
Bureau of Radiation & Hazardous Site Management, Room 460  
Division of Solid and Hazardous Materials  
New York State Department of Environmental Conservation

If you have any questions and/or comments regarding the enclosed, please do not hesitate to give me a call at (516) 575-2385.

Very truly yours,

**NORTHROP GRUMMAN CORPORATION**



---

Larry O. Leskovjan, Manager  
Environmental Technology and Compliance  
Mail Stop: D08-001

cc: w/enclosure  
Henry Wilkie (NYSDEC)  
William Gilday (NYSDOH)  
Richard Walka (D&B)  
Brian Veith (D&B)

**PLANT 24 ACCESS ROAD SITE  
BETHPAGE FACILITY  
PCB INVESTIGATION/DELINEATION PROGRAM**

**REPORT OF FINDINGS**

*Prepared for:*

**NORTHROP GRUMMAN CORPORATION  
BETHPAGE, NEW YORK**

*Prepared by:*

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

**JULY 2001**

**PLANT 24 ACCESS ROAD SITE  
 BETHPAGE FACILITY  
 PCB INVESTIGATION/DELINEATION PROGRAM  
 FOR  
 NORTHROP GRUMMAN CORPORATION**

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# Section 1



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## 1.0 INTRODUCTION

The purpose of this report is to present the analytical results of the field investigation program undertaken by Dvirka and Bartilucci Consulting Engineers (D&B) on behalf of Northrop Grumman Corporation at its Plant 24 Access Road Site located in Bethpage, New York. This program, referred to as the PCB Investigation/Delineation Program, was undertaken to investigate and delineate the horizontal and vertical extent of polychlorinated biphenyl (PCB) concentrations at the site.

It should be noted that at the outset of this investigation/delineation program, it was determined that the entire surface of the Plant 24 Access Road Site property would be either scraped and removed or capped due to its proximity to a park and a residential community. For this reason, PCB concentrations greater than 1 ppm but less than 10 ppm were not delineated since 1 ppm is the TAGM 4046 Recommended Soil Cleanup Objective for surface soil. As a result, the PCB Investigation/Delineation Program focused on delineating PCB concentrations in excess of 10 ppm, which is the TAGM 4046 Recommended Soil Cleanup Objective for subsurface soil. In addition to the surface soil, subsurface soil exhibiting PCB concentrations exceeding 10 ppm is planned for future remediation activities which will effectively remediate the property to the TAGM 4046 PCB Recommended Soil Cleanup Objectives.

Section 2.0 of this report provides a description of the site, a summary of the overall investigation/delineation program, as well as a review of historical aerial photographs for the site and surrounding properties. A description of the field activities undertaken during the six phases of the field program are described in Section 3.0. Section 4.0 presents the findings of the program.

Appendix A of this report contains a letter from the New York State Department of Health regarding the need for additional soil sampling. A compendium of tables which present a summary of the analytical results of the soil samples collected during the field program is provided as Appendix B.

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## **2.0 SITE BACKGROUND**

This section provides a general description of the Plant 24 Access Road Site, a brief summary of the historic investigation and sampling programs conducted, and the results of a review of aerial photographs for the property.

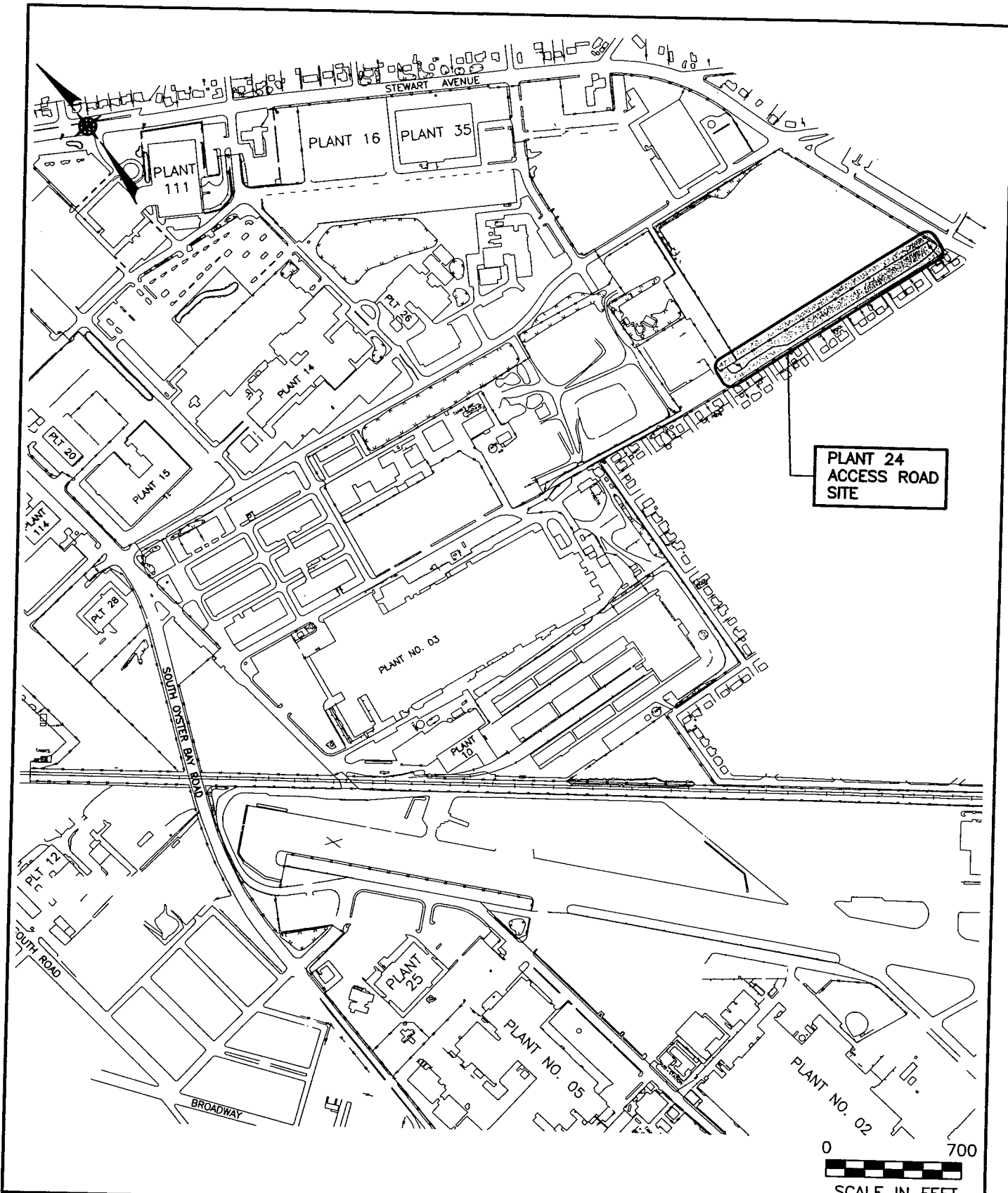
### **2.1 Site Description**

The Plant 24 Access Road Site is located at 901 Stewart Avenue in Bethpage, Town of Oyster Bay, New York and is situated in the northeastern portion of the Northrop Grumman Corporation Bethpage Facility. A map showing the location of the property in relation to the Bethpage Facility is provided as Figure 2-1.

The entire Plant 24 Access Road Site property is comprised of approximately 3.2 acres and is currently owned by Northrop Grumman Corporation. The site measures approximately 1,400 feet east to west and approximately 100 feet north to south. The site is bordered to the north by a Town of Oyster Bay Park, to the south by a residential development, to the east by Stewart Avenue and a high school, and to the west by the former Plant 24 building (currently owned by the Robert Plan Company). A roadway runs through the site in a generally east to west direction connecting Stewart Avenue to the former Plant 24 building which lends its name to the site. The areas to the north and south of the roadway are primarily covered with grass with some sandy areas. A site plan for the property is provided as Figure 2-2. The primary function of the site is as an access road for the former Plant 24 building.

The site is currently zoned Industrial H and is generally level with good drainage. Ground elevation is approximately 120 feet above mean sea level and the depth from ground surface to the upper glacial aquifer is approximately 58 feet. The Soil Conservation Service classifies the site as Urban Land. Urban land is defined as an area with at least 85 percent asphalt, concrete, or other impervious building materials, with most of the remaining small areas of soil being well drained Riverhead, Hempstead, or Enfield soils, or excessively drained udipsaments. Udipsaments (nearly level) are defined as manmade fill or borrow areas, most of

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PLANT 24  
ACCESS ROAD  
SITE

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SCALE IN FEET

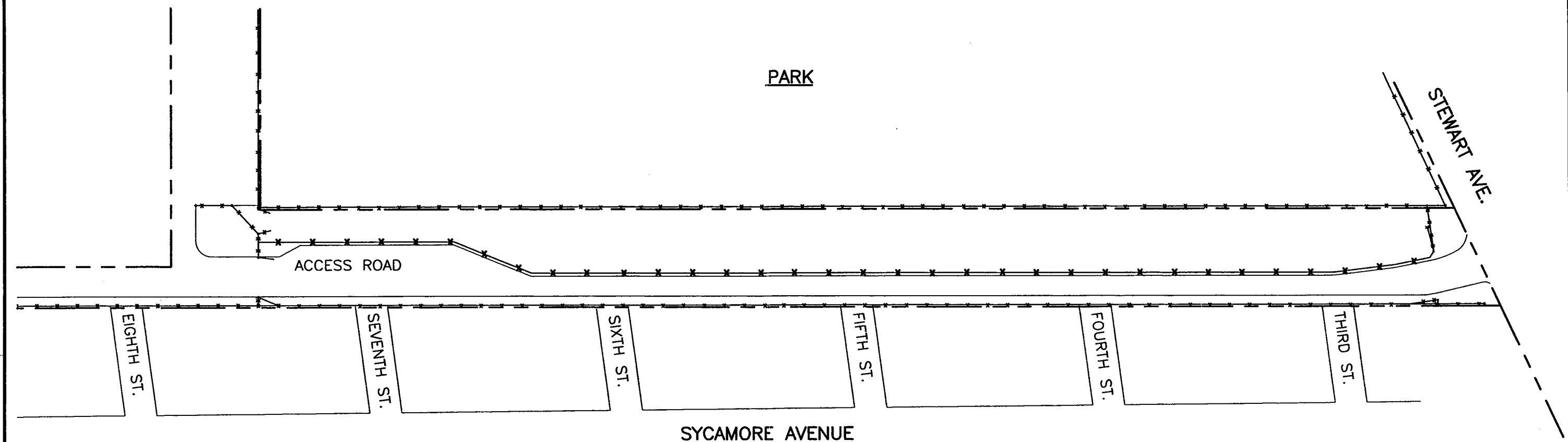
NORTHROP GRUMMAN CORPORATION  
BETHPAGE, NEW YORK

PLANT 24 ACCESS ROAD SITE  
SITE LOCATION MAP

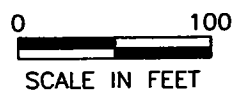


Dvirka and Bartilucci  
Consulting Engineers  
A Division of William F. Cosulich Associates, P.C.

FIGURE 2-1



- LEGEND:**
- PROPERTY LINE
  - \*-\* FENCE
  - \*-\* TEMPORARY FENCE



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**db** Dvirka and Bartilucci  
Consulting Engineers  
A Division of William F. Cosulich Associates, P.C.

NORTHROP GRUMMAN CORPORATION  
BETHPAGE FACILITY  
PLANT 24 ACCESS ROAD SITE

**SITE PLAN**

FIGURE 2-2

which are grassed with 0 to 3 percent slopes, which consist of very deep soils that are excessively drained to well-drained.

Subsequent to initiating this investigation and sampling program, Northrop Grumman Corporation completed the installation of a temporary fence along the northern edge of the access roadway. Along with the fences previously in place, this temporary fence completely restricts access to the grass area located north of the access road. Currently, the only access to this area is through a gate located on the western boundary of the property. This gate is maintained in a closed and locked position at all times.

## 2.2 Previous Investigation Programs

As part of Northrop Grumman Corporation's planned consolidation of the Bethpage Facility, numerous investigation and remediation programs have been conducted at the facility to assess the environmental condition of the properties prior to any real estate transactions. Following completion of these programs, a report was prepared to document the findings and conclusions of the work conducted for the property.

Two initial investigation programs were conducted which included sampling of the soil located on the Plant 24 Access Road Site for the purpose of characterizing on-site surface soil quality. The findings of these earlier investigations were the basis for undertaking this PCB Investigation/Delineation Program. These reports include:

- "Off-site Soil Sampling and PCB Analysis Report, NWIRP, Bethpage, New York – CTO 0089" prepared by Halliburton NUS Corporation, dated January 1995.
- "Phase I/Phase II Environmental Assessment, McKay Field Picnic Grounds, Ball Fields and Former Nursery Areas, Bethpage, New York," dated September 1997 and prepared by EDER Associates.

The investigation conducted by Halliburton NUS Corporation was initiated to determine whether PCB contamination from the Naval Weapons Industrial Reserve Plant Site 1 had migrated and impacted downwind off-site locations. Of the 17 locations sampled during this

investigation, two were located on the Plant 24 Access Road Site property. Soil samples were collected from one location on the eastern portion of the property and one location on the western portion of the property from the 0 to 6-inch depth interval below grade. Analysis of the samples indicated the presence of PCBs at concentrations of 5.0 mg/kg and 3.52 mg/kg, respectively.

Based upon the results of the Halliburton NUS Corporation soil sampling program, it was determined that further investigation of the soil located on the Plant 24 Access Road Site was warranted.

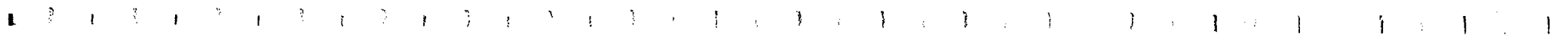
Following its review of the Halliburton NUS Corporation report, the New York State Department of Health (NYSDOH) requested that additional soil sampling be conducted to further investigate and delineate the PCB concentrations detected on the property. During subsequent communications with the NYSDOH, NGC indicated that the future plan for the site was for the land use to remain zoned as Industrial by the new owner of the Plant 24 building (Robert Plan Corporation). As a result of this discussion, NGC received correspondence from the NYSDOH dated December 27, 1995, which concluded that additional soil sampling on the property was not warranted. A copy of this letter is presented in Appendix A.

The portion of the investigation program undertaken by EDER Associates which focused on the site was developed to determine whether elevated concentrations of PCBs were present in soil located in the grass area north of the Plant 24 access road. Surface soil samples were collected from five locations evenly spaced across the property. PCBs were detected in each of the samples analyzed with concentrations ranging from 0.35 mg/kg to a maximum concentration of 10.0 mg/kg. The report concluded that since the property was zoned for industrial land use, no further action was warranted at that time, but if the land use were to change in the future, additional investigation and/or remediation of on-site soil may be necessary.

As a result of potential real estate transactions and a possible modification of the current land use for the property due to Northrop Grumman Corporation's planned consolidation of the Bethpage Facility, NGC decided that the grass areas located to the north and south of the access

road should be further investigated to determine whether PCBs may be present on-site at concentrations which exceed applicable regulatory thresholds.

# Section 3

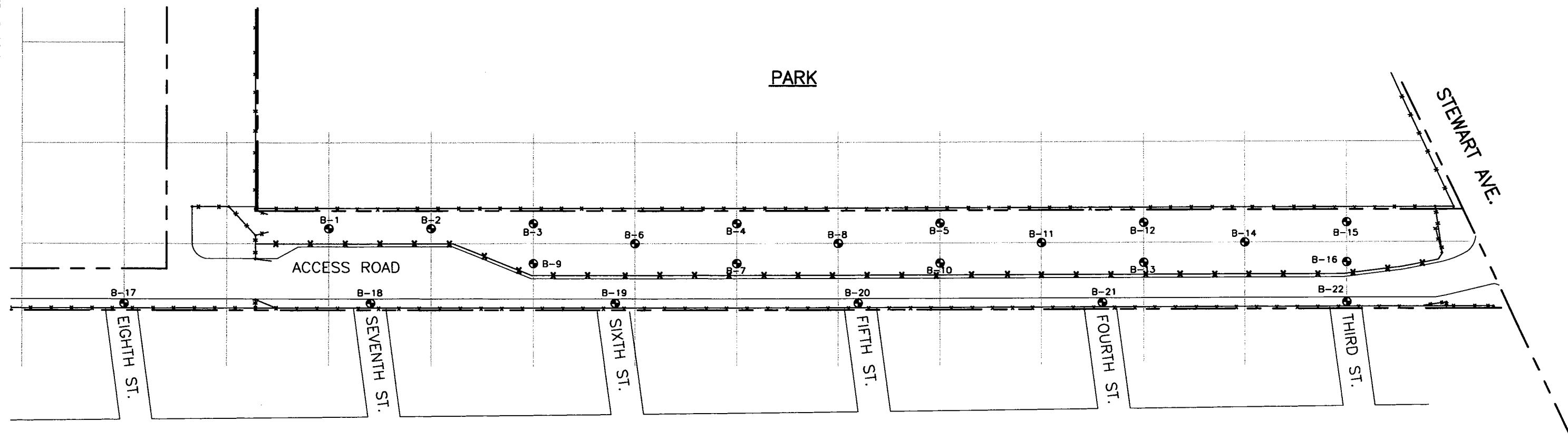


### **3.0 FIELD ACTIVITIES**

The scope of work associated with the PCB Investigation/Delineation Program originally included a single round of soil sample collection and analysis followed by a report of findings. However, due to the concentrations of polychlorinated biphenyls (PCBs) detected in the first phase of the program and then again in subsequent phases, a total of six phases of soil sampling and analysis have been completed at the property to date in an effort to delineate elevated concentrations of PCBs. Overall, a total of 106 soil borings have been advanced, with 430 soil samples collected and analyzed for PCBs. The following presents a summary of the field activities undertaken during each phase of the PCB Investigation/Delineation Program.

#### **3.1 First Phase Field Program**

In June 1999, at the request of NGC, the first phase of the PCB Investigation/Delineation Program was initiated by D&B to investigate the extent of PCB concentrations present in the surface and subsurface soil in the grass areas located north and south of the access road leading from Stewart Avenue to the former Plant 24 building. A figure depicting the first phase boring locations is provided as Figure 3-1. Soil samples were collected from 22 boring locations (denoted B-1 through B-22 on Figure 3-1) from the 0 to 0.5-foot depth interval (sample S1), the 0.5 to 1.5-foot depth interval (sample S2), the 1.5 to 2.5-foot depth interval (sample S3) and the 2.5 to 3.5-foot depth interval (sample S4) from each location. All of the S1 and S2 samples were sent to the laboratory and analyzed for PCBs while all of the S3 and S4 samples were sent to the laboratory and placed "on-hold." For a given boring, if the analytical results of the S2 sample exceeded 1 part per million (ppm), then the S3 and S4 samples from that boring were analyzed by the laboratory for PCBs. The S1 and/or S2 (surface) samples from borings B-3, B-4, B-5, B-9, B-12, B-13, B-14, B-15, B-16, B-19 and B-21 exhibited a PCB concentration greater than 1 ppm. In addition, the S3 and/or S4 (subsurface) samples from borings B-4, B-12, B-14 and B-15 exhibited a PCB concentration greater than 10 ppm.



**LEGEND:**

- FIRST PHASE SOIL BORING LOCATION
- PROPERTY LINE
- \*- FENCE
- \*- TEMPORARY FENCE



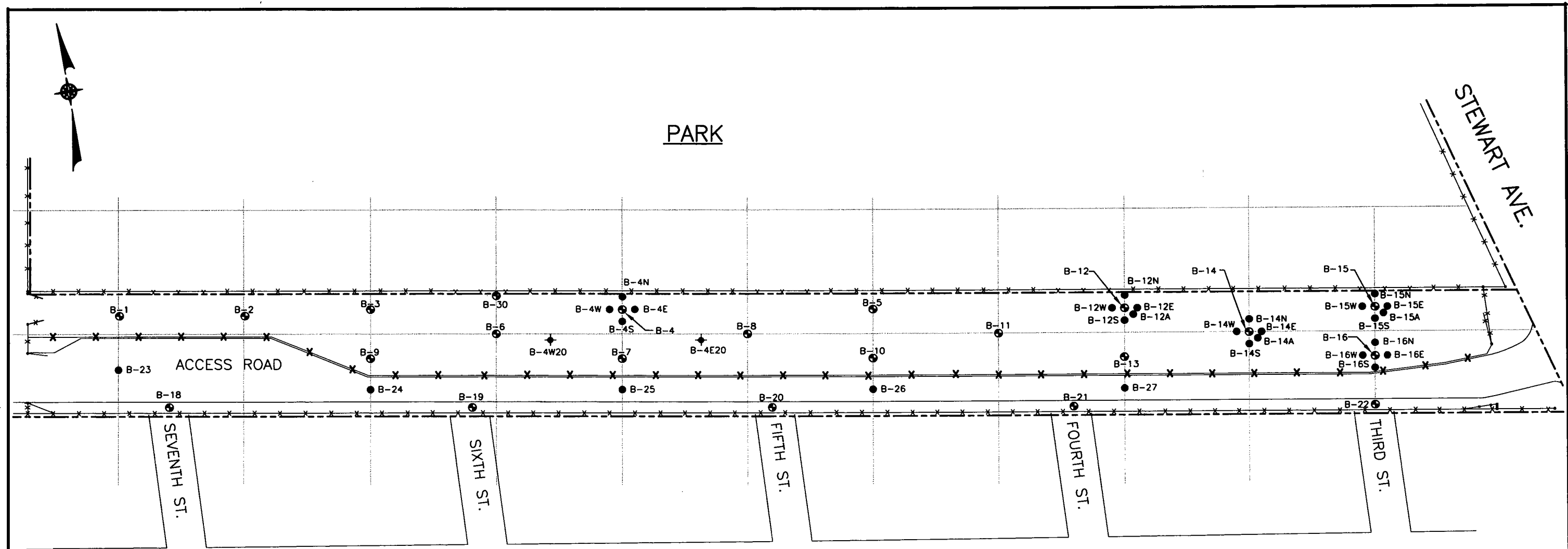
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It should be noted that during the first phase of the PCB Investigation/Delineation Program, the New York State Department of Environmental Conservation (NYSDEC) Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives were utilized as comparison/screening criteria. The TAGM 4046 Recommended Soil Cleanup Objective for PCBs is 1 ppm for surface soil and 10 ppm for subsurface soil. The TAGM 4046 cleanup objectives are utilized as comparison/screening values for unrestricted land use. Since this property was planned to continue as the Plant 24 access road, remain an industrial zoned parcel and be subjected to a deed restriction consistent with the current industrial use, subsequent phases of the field program utilized a PCB concentration of 10 ppm as a comparison/screening concentration.

### **3.2 Second Phase Field Program**

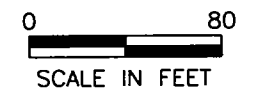
As a result of detecting PCB concentrations in excess of 10 ppm in some of the samples collected during the first phase of the program, it was determined that a second phase of the PCB Investigation/Delineation Program should be conducted to further define the areas where these concentrations were detected. In October 1999, the second phase of the program was conducted which involved advancing 23 soil borings adjacent to the first phase boring locations, as well as five borings through the centerline of the access road. The second phase borings were located adjacent to and/or 10 feet north, south, east and west of the first phase boring locations and were denoted by their respective first phase boring identification followed by either an "A" for adjacent, "N" for north, "S" for south, "E" for east or "W" for west. The five borings located within the road were denoted B-23 through B-27 consecutively from west to east. A figure depicting the second phase boring locations is provided as Figure 3-2. Soil samples were collected to depths of either 3.5 feet or 7.5 feet below grade, depending upon the analytical results of the first phase samples, in order to delineate the vertical and horizontal extents of PCB concentrations. Samples were collected from the 0 to 6-inch interval below grade and at 1-foot intervals from that point until the total depth of the boring was reached. Samples collected from the shallower intervals from each boring location were sent to the laboratory and analyzed while samples from deeper intervals were sent to the laboratory and placed "on-hold" pending an

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**LEGEND:**

- FIRST PHASE SOIL BORING LOCATION
- SECOND PHASE SOIL BORING LOCATION (ADVANCED TO A DEPTH OF 3.5 FT. BGS)
- SECOND PHASE SOIL BORING LOCATION (ADVANCED TO A DEPTH OF 7.5 FT. BGS)
- FENCE
- PROPERTY LINE
- TEMPORARY FENCE



NORTHROP GRUMMAN CORPORATION  
 BETHPAGE FACILITY  
 PLANT 24 ACCESS ROAD SITE  
**SECOND PHASE FIELD PROGRAM**  
**SOIL BORING LOCATION PLAN**

**db** Dvirka and Bartilucci  
 Consulting Engineers  
 A Division of William F. Cosulich Associates, P.C.

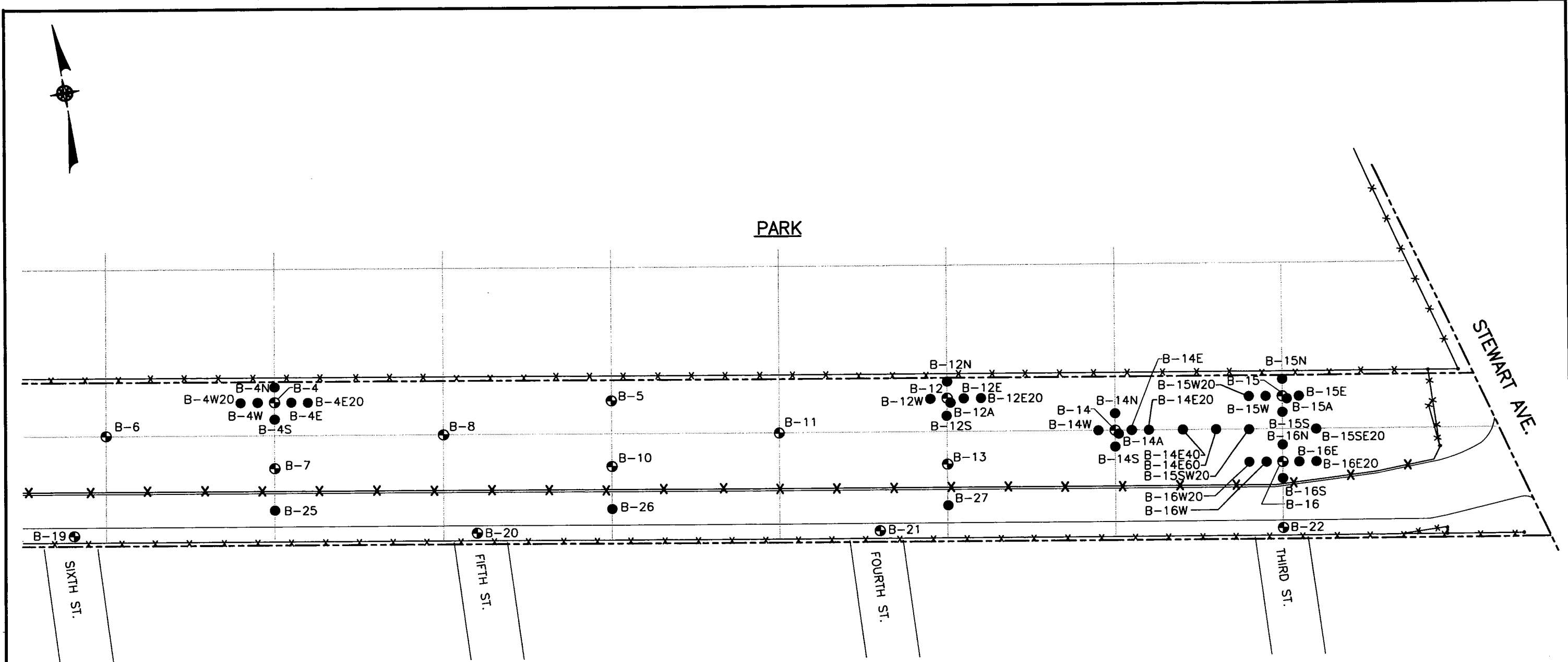
FIGURE 3-2

evaluation of the analytical results of the shallower samples. A total of 23 samples collected during the second phase field program exhibited PCB concentrations in excess of 10 ppm. These samples were collected from borings B-4E, B-4W, B-12A, B-12E, B-14A, B-14E, B-15A, B-15S, B-15W, B-16N, B-16E and B-16W.

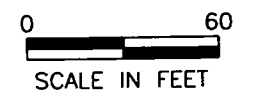
### **3.3 Third Phase Field Program**

As a result of detecting PCB concentrations in excess of 10 ppm in a number of the samples collected during the second phase of the program, it was determined that a third phase of the PCB Investigation/Delineation Program should be conducted to further delineate the areas where these concentrations were detected. In February 2000, the third phase of the PCB Investigation/Delineation Program was conducted which involved advancing 11 soil borings in the vicinity of the second phase boring locations. A figure depicting the third phase boring locations is provided as Figure 3-3. The third phase borings were advanced in the following locations: 20 feet to the east and west of boring B-4 (two locations); 20 feet to the east of boring B-12 (one location); 20 feet, 40 feet and 60 feet to the east of boring B-14 (three locations); 20 feet to the west, 20 feet to the south and west, and 20 feet to the south and east of boring B-15 (three locations); and, 20 feet to the east and west of boring B-16 (two locations). Each third phase boring location was denoted by the first phase boring identification, followed by a "S" for south, "E" for east and/or "W" for west, followed by the distance from the first phase boring location (in feet). The borings surrounding borings B-4 and B-16 were advanced to a depth of 4.5 feet below grade and the remainder were advanced to a depth of 5.5 feet below grade. Samples were collected from the 0 to 6-inch interval below grade and at 1-foot intervals from that point until the total depth of the boring was reached. Samples collected from shallower intervals were sent to the laboratory and analyzed while the samples from the two deeper intervals were sent to the laboratory and placed "on-hold" pending an evaluation of the analytical results of the shallower samples. A total of 14 samples from borings locations B-12E20, B-14E20, B-14E40, B-14E60, B-15W20, B-15SE20, B-15SW20, B-16E20 and B-16W20 exhibited PCB concentrations in excess of 10 ppm.

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- LEGEND:**
- FIRST PHASE SOIL BORING LOCATION
  - SECOND PHASE SOIL BORING LOCATION
  - THIRD PHASE SOIL BORING LOCATION (ADVANCED TO A DEPTH OF 4.5 FT. BGS)
  - THIRD PHASE SOIL BORING LOCATION (ADVANCED TO A DEPTH OF 5.5 FT. BGS)
  - PROPERTY LINE
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NORTHROP GRUMMAN CORPORATION  
 BETHPAGE FACILITY  
 PLANT 24 ACCESS ROAD SITE  
**THIRD PHASE FIELD PROGRAM  
 SOIL BORING LOCATION PLAN**

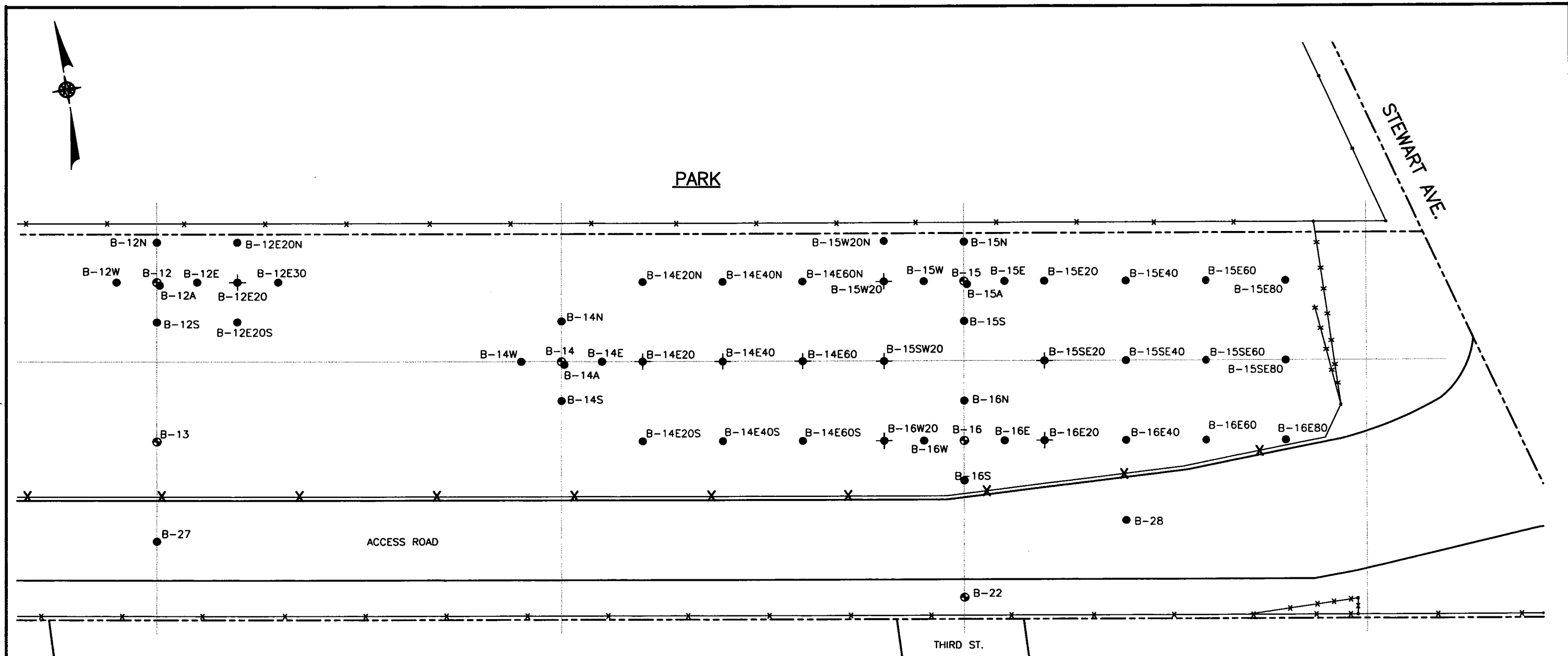
### **3.4 Fourth Phase Field Program**

As a result of detecting PCB concentrations in excess of 10 ppm in a number of the samples collected during the third phase of the program, it was determined that a fourth phase of the PCB Investigation/Delineation Program should be conducted to further delineate the areas where these concentrations were detected. In November 2000, the fourth phase of the PCB Investigation/Delineation Program was conducted which involved advancing 21 soil borings around and between the third phase boring locations. A figure depicting the fourth phase boring locations is provided as Figure 3-4. The fourth phase borings were advanced in the following locations: 10 feet to the north, south and east of boring B-12E20 (three locations); 20 feet to the north and south of borings B-14E20, B-14E40 and B-14E60 (six locations); 10 feet to the north of boring B-15W20 (one location); 20 feet, 40 feet, 60 feet and 80 feet to the east of boring B-15 (four locations); 20 feet, 40 feet and 60 feet to the east of boring B-15SE20 (three locations); 20 feet, 40 feet and 60 feet to the east of boring B-16E20 (three locations); and, 20 feet east and approximately 22 feet south of boring B-16E20 in the center of the road (one location). All of the fourth phase borings were advanced to a depth of 5.5 feet below grade. Samples were collected from the 0 to 6-inch interval below grade and at 1-foot intervals from that point until the total depth of the boring was reached. All S1, S2, S3 and S4 samples were sent to the laboratory and analyzed while the S5 and S6 samples were sent to the laboratory and placed "on-hold" pending an evaluation of the analytical results of the shallower samples. A total of 26 samples from boring locations B-12E30, B-14E20N, B-14E60N, B-14E60S, B-15W20N, B-15E20, B-15E40, B-15E60, B-15SE40, B-15SE60, B-16E40 and B-16E60 exhibited PCB concentrations in excess of 10 ppm.

### **3.5 Fifth Phase Field Program**

As a result of detecting PCB concentrations in excess of 10 ppm in a number of the samples collected during the fourth phase of the program, it was determined that a fifth phase of the PCB Investigation/Delineation Program should be conducted to further delineate the areas where these concentrations were detected. In December 2000, the fifth phase of the PCB Investigation/Delineation Program was conducted which involved advancing 13 soil borings

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LEGEND:

- ⊕ FIRST PHASE SOIL BORING LOCATION
- SECOND PHASE SOIL BORING LOCATION
- ⊕ THIRD PHASE SOIL BORING LOCATION
- FOURTH PHASE SOIL BORING LOCATION  
(ADVANCED TO A DEPTH OF 5.5 FEET BELOW GRADE)
- PROPERTY LINE
- x-x- FENCE
- x- TEMPORARY FENCE



NORTHROP GRUMMAN CORPORATION  
 BETHPAGE FACILITY  
 PLANT 24 ACCESS ROAD SITE  
**FOURTH PHASE FIELD PROGRAM**  
**SOIL BORING LOCATION PLAN**

**db** Dvirka and Bartilucci  
 Consulting Engineers  
 A Division of William F. Cosulich Associates, P.C.

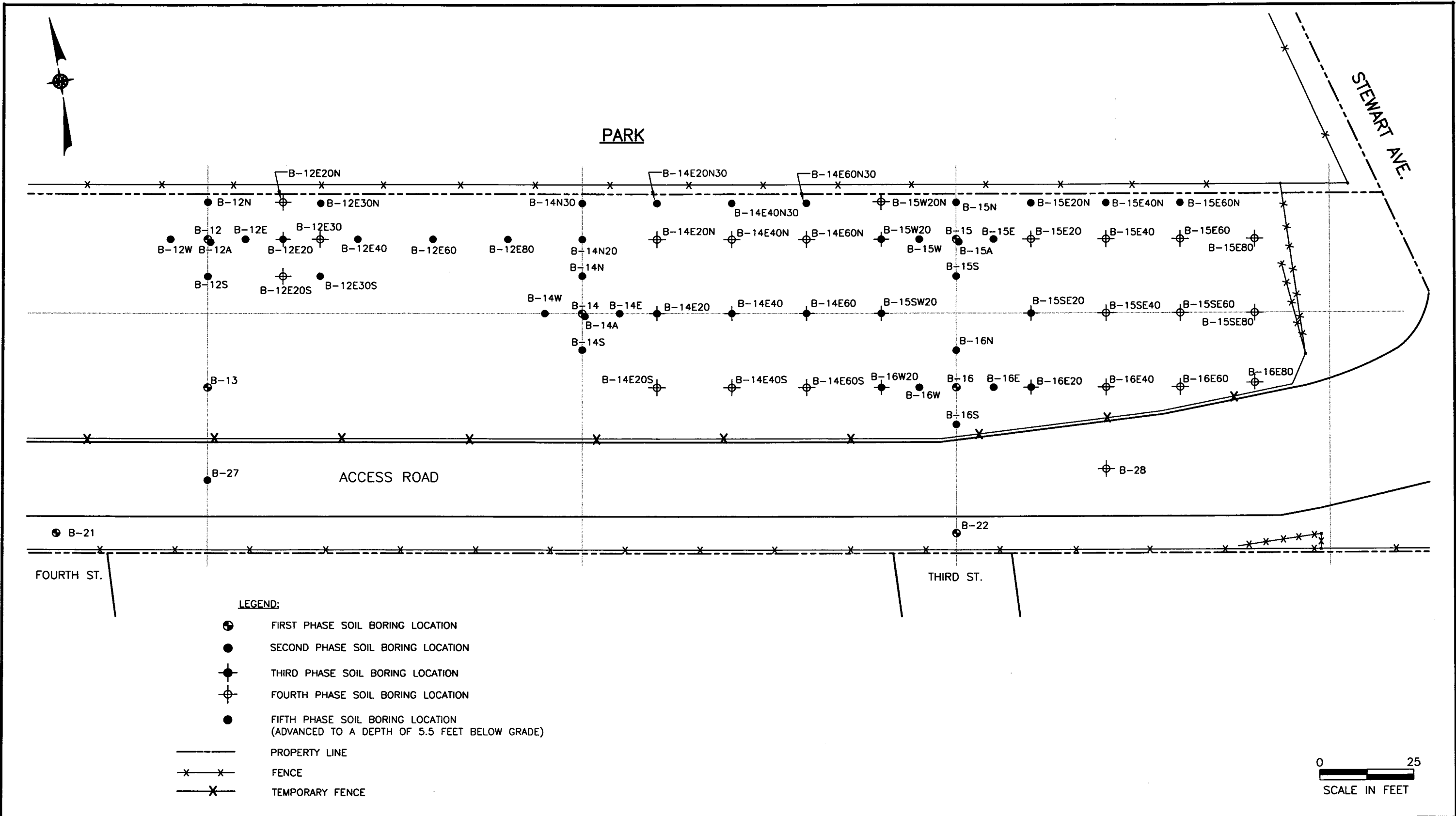
FIGURE 3-4

around and between the fourth phase boring locations. A figure depicting the fifth phase boring locations is provided as Figure 3-5. The fifth phase borings were advanced in the following locations: 10 feet to the north, south and east of boring B-12E30 (three locations); 60 feet and 80 feet to the east of boring B-12 (two locations); 20 feet and 30 feet to the north of boring B-14 (two locations); and, 10 feet to the north of borings B-14E20N, B-14E40N, B-14E60N, B-15E20, B-15E40 and B-15E60 (six locations). All of the fifth phase borings were advanced to a depth of 5.5 feet below grade. Samples were collected from the 0 to 6-inch interval below grade and at 1-foot intervals from that point until the total depth of the boring was reached. All S1, S2, S3 and S4 samples were sent to the laboratory and analyzed while the S5 and S6 samples were sent to the laboratory and placed "on-hold" pending an evaluation of the analytical results of the shallower samples. A total of 3 samples from boring locations B-12E40, B-14E20N30 and B-14E40N30 exhibited PCB concentrations in excess of 10 ppm.

### **3.6 Sixth Phase Field Program**

As a result of detecting PCB concentrations in excess of 10 ppm in some of the samples collected during the fifth phase of the program, it was determined that a sixth phase of the PCB Investigation/Delineation Program should be conducted to further delineate the areas where these concentrations were detected. In April 2001, the sixth phase of the PCB Investigation/Delineation Program was conducted which involved advancing 7 soil borings adjacent to second, fourth and fifth phase boring locations. Figures depicting the sixth phase boring locations are provided as Figures 3-6 and 3-7. The sixth phase borings were advanced in the following locations: 14 feet to the north and 10 feet to the south and east of boring B-12E40 (3 locations); 4 feet to the north of borings B-14E20N30, B-14E40N30 and B-15W20N (3 locations); and, adjacent to boring B-16N (1 location). In addition, borings were advanced at 5 locations adjacent to the north fence line: approximately 50 feet east and 9 feet north of first phase boring B-1; approximately 34 feet north of first phase boring B-6; approximately 50 feet east and 14 feet north of first phase boring B-4; approximately 50 feet east and 14 feet north of first phase boring B-5; and, approximately 10 feet east and 4 feet north of fifth phase boring B-15E40N.

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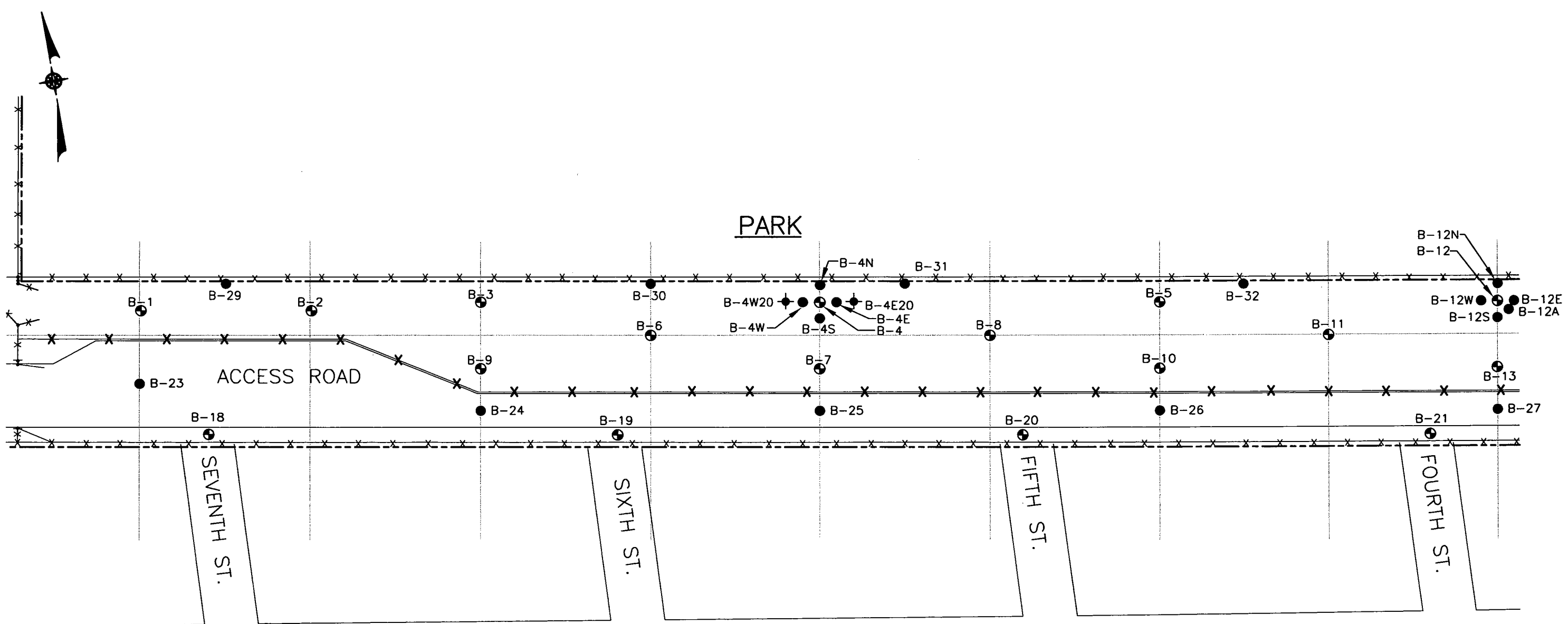


NORTHROP GRUMMAN CORPORATION  
 BETHPAGE FACILITY  
 PLANT 24 ACCESS ROAD SITE  
**FIFTH PHASE FIELD PROGRAM  
 SOIL BORING LOCATION PLAN**

**db** Dvirka and Bartilucci  
 Consulting Engineers  
 A Division of William F. Cosulich Associates, P.C.

FIGURE 3-5

TUE, JUL 24, 2001 04:13 P AWK F:\1572\1572-3-6.DWG



**LEGEND:**

- FIRST PHASE SOIL BORING LOCATION
- SECOND PHASE SOIL BORING LOCATION
- ⊕ THIRD PHASE SOIL BORING LOCATION
- ⊕ FOURTH PHASE SOIL BORING LOCATION
- ⊕ FIFTH PHASE SOIL BORING LOCATION
- SIXTH PHASE SOIL BORING LOCATION  
(ADVANCED TO A DEPTH OF 5.5 FEET BELOW GRADE)

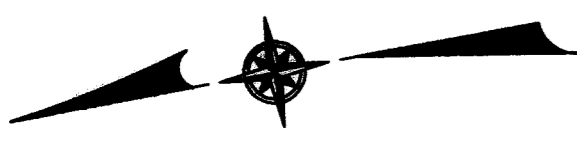
- x-x- TEMPORARY FENCE
- x-x- FENCE
- - - - - PROPERTY LINE



**db** Dvirka and Bartilucci  
 Consulting Engineers  
 A Division of William F. Cosulich Associates, P.C.

NORTHROP GRUMMAN CORPORATION  
 BETHPAGE FACILITY  
 PLANT 24 ACCESS ROAD SITE  
**SIXTH PHASE FIELD PROGRAM  
 SOIL BORING LOCATION PLAN – WEST**

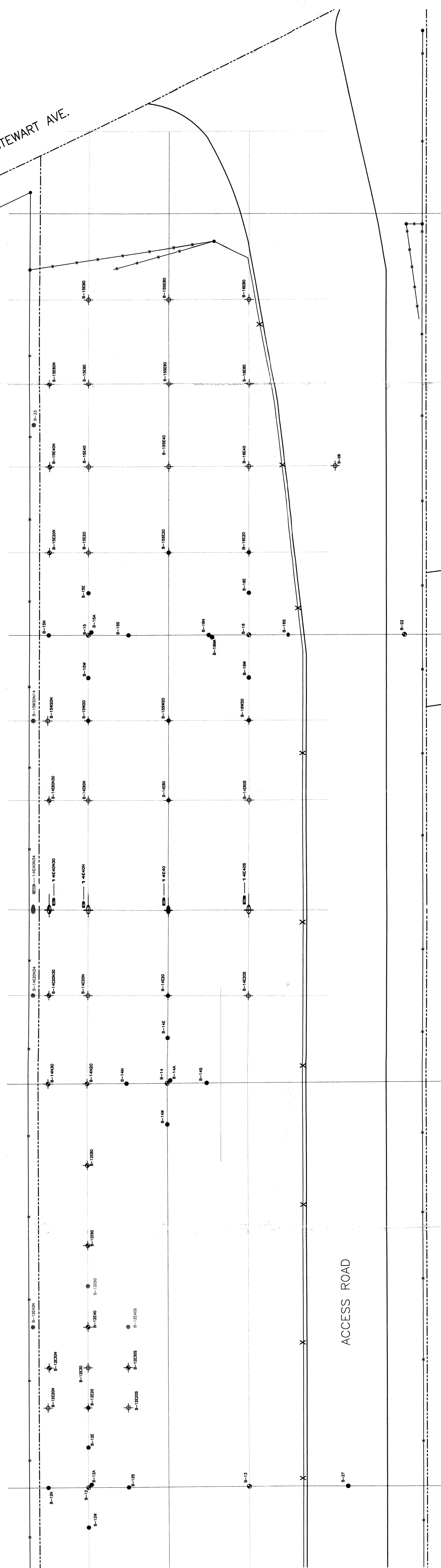
FIGURE 3-6



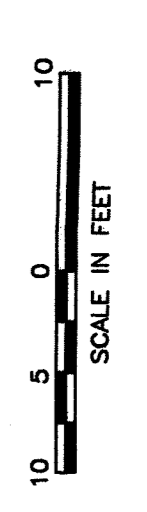
STEWART AVE.

THIRD ST

ACCESS ROAD



- LEGEND:**
- FIRST PHASE SOIL BORING LOCATION
  - SECOND PHASE SOIL BORING LOCATION
  - ⊙ THIRD PHASE SOIL BORING LOCATION
  - ⊕ FOURTH PHASE SOIL BORING LOCATION
  - ⊖ FIFTH PHASE SOIL BORING LOCATION
  - ⊗ SIXTH PHASE SOIL BORING LOCATION (ADVANCED TO A DEPTH OF 3.5 FEET BELOW GRADE)
  - ⊘ SIXTH PHASE SOIL BORING LOCATION (ADVANCED TO A DEPTH OF 7.5 FEET BELOW GRADE)
  - PROPERTY LINE
  - FENCE
  - X- TEMPORARY FENCE



NO.	DATE	REVISION

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.

PROJECT ENGINEER: M.R.H.  
 DRAWN BY: A.K.  
 CHECKED BY: B.M.V.  
 B.M.V.

**db**  
**DVIRKA AND BARTILUCCI**  
 CONSULTING ENGINEERS  
 A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

**NORTHROP GRUMMAN CORPORATION**  
**BETHPAGE FACILITY**  
**PLANT 24 ACCESS ROAD SITE**

**SIXTH PHASE FIELD PROGRAM**  
**SOIL BORING LOCATION PLAN - EAST**

PROJECT NO: 1572-06  
 DATE: MARCH 2001  
 SCALE: AS NOTED

DRAWING NO: **3-7**

All of the sixth phase borings, with the exception of B-16NA, were advanced to a depth of 5.5 feet below grade. Samples were collected from the 0 to 6-inch interval below grade and at 1-foot intervals from that point until the total depth of the boring was reached. All S1, S2, S3 and S4 samples were sent to the laboratory and analyzed while the S5 and S6 samples were sent to the laboratory and placed "on-hold" pending an evaluation of the analytical results of the shallower samples. At boring location B-16NA, the boring was advanced to a depth of 7.5 feet below grade with samples collected from the 3.5 to 7.5-foot depth interval below grade at 1-foot intervals. The S5 and S6 samples were analyzed while the S7 and S8 samples were sent to the laboratory and placed "on-hold" pending an evaluation of the analytical results of the shallower samples. In total, 1 sample from boring location B-32 exhibited a PCB concentration in excess of 10 ppm.

# Section 4



## 4.0 FINDINGS

This section presents the findings of the PCB Investigation/Delineation Program including a summary of the analytical results of the soil samples obtained during the six phases of the field program. As discussed in Section 3.0 of this report, a comparison/screening criterion of 10 ppm PCBs was utilized.

### 4.1 Sample Analytical Results

A total of 430 soil samples were collected and analyzed during the six phases of field activities conducted at the Plant 24 Access Road Site during the PCB Investigation/Delineation Program. All samples were analyzed for PCBs utilizing USEPA SW-846 Method 8082. All analyses were performed by Mitkem Corporation which is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory. In addition to the soil samples mentioned previously, matrix spike and matrix spike duplicate samples (MS/MSDs) were collected for Quality Assurance/Quality Control (QA/QC) purposes at a rate of one set of MS/MSDs per 20 soil samples collected.

The results of the analyses performed on the soil samples are summarized on Tables B-1 through B-6 provided in Appendix B of this report by the phase in which the samples were collected. Concentrations of total PCBs listed on the tables have been boxed and bolded if the concentration exceeds 10 ppm.

In order to graphically present the locations where PCB concentrations in excess of 10 ppm were detected at the Plant 24 Access Road Site property, two figures have been prepared. The first figure, Figure 4-1, summarizes the PCB concentrations in excess of 10 ppm surrounding borings B-4 and B-32, which are located in the north central portion of the Plant 24 Access Road Site property. The second figure, Figure 4-2, summarizes the PCB concentrations in excess of 10 ppm surrounding borings B-12, B-14, B-15 and B-16, which are located in the eastern portion of the Plant 24 Access Road Site property. These two regions are the only areas on the Plant 24 Access Road Site where PCB concentrations in excess of 10 ppm were detected

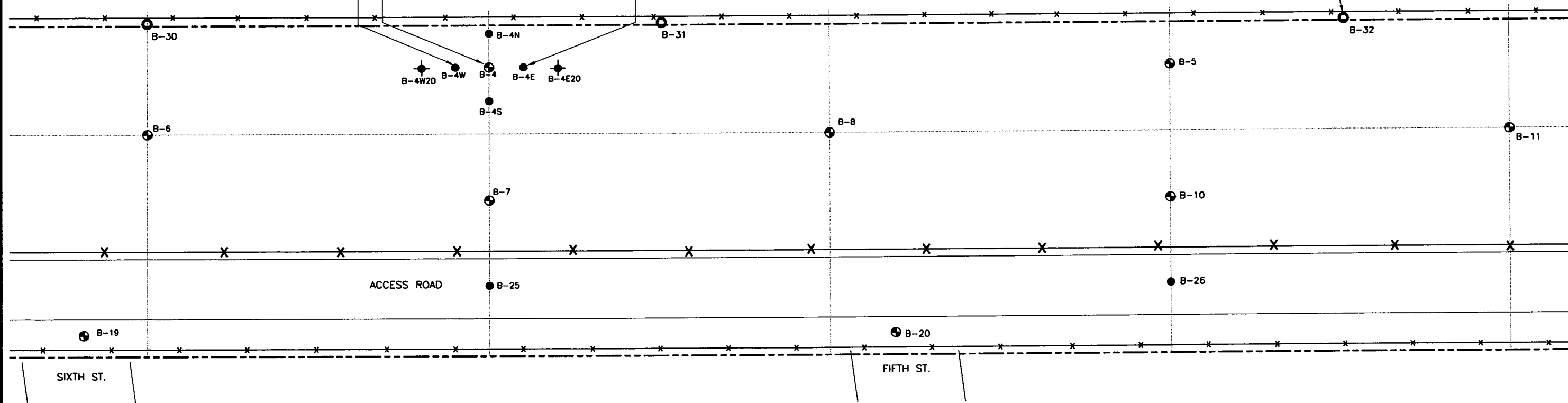


SAMPLE	DEPTH(FT)	CONCENTRATION(S)
B-04W S1	0-0.5'	<b>11.0</b>
B-04W S2	0.5'-1.5'	4.8
B-04W S3	1.5'-2.5'	0.3

SAMPLE	DEPTH(FT)	CONCENTRATION(S)
B-04 S1	0-0.5'	2.8
B-04 S2	0.5-1.5'	6.7
B-04 S3	1.5-2.5'	<b>11.0</b>
B-04 S4	2.5-3.5'	ND

SAMPLE	DEPTH(FT)	CONCENTRATION(S)
B-04E S1	0-0.5'	0.2
B-04E S2	0.5'-1.5'	1.0
B-04E S3	1.5'-2.5'	<b>13.0</b>
B-04E S4	2.5'-3.5'	ND
B-04E S5	3.5'-4.5'	ND

SAMPLE	DEPTH(FT)	CONCENTRATION(S)
B-32 S1	0-0.5'	0.7
B-32 S2	0.5'-1.5'	<b>16.0</b>
B-32 S3	1.5'-2.5'	1.0
B-32 S4	2.5'-3.5'	0.1

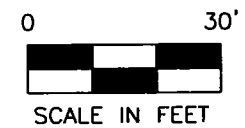


**LEGEND:**

- ⊕ FIRST PHASE SOIL BORING LOCATION
- SECOND PHASE SOIL BORING LOCATION
- ⊕ THIRD PHASE SOIL BORING LOCATION
- ⊕ FOURTH PHASE SOIL BORING LOCATION
- ⊕ FIFTH PHASE SOIL BORING LOCATION
- ⊕ SIXTH PHASE SOIL BORING LOCATION
- PROPERTY LINE
- x-x- FENCE
- x- TEMPORARY FENCE

**NOTES:**

1. ALL REPORTED CONCENTRATIONS ARE FOR TOTAL PCBs.
2. ALL CONCENTRATIONS ARE REPORTED IN UNITS OF PARTS PER MILLION (PPM).
3. BOXED AND BOLDED CONCENTRATIONS EXCEED 10 PPM.
4. ANALYTICAL RESULTS NOT PROVIDED ARE BELOW 10 PPM.
5. ND - NOT DETECTED.



NORTHROP GRUMMAN CORPORATION  
 BETHPAGE FACILITY  
 PLANT 24 ACCESS ROAD SITE  
**SUMMARY OF PCB CONCENTRATIONS  
 NORTH CENTRAL PORTION**

FIGURE 4-1

TUE, JUL 24, 2001 04:13 P AWK F:\1572\1572-18.DWG

during the PCB Investigation/Delineation Program. Overall, PCB concentrations ranged from nondetect to 89 ppm, with the exception of one sample where the detected PCB concentration was 3,400 ppm. Again, it should be noted that only analytical results for borings containing samples which exhibited PCB concentrations exceeding 10 ppm are provided on the figures.

#### **4.2 Data Validation**

Soil samples were collected and analyzed as part of the six phase field program. During all phases of the field program, sample analyses were performed by Mitkem Corporation, a subcontractor to Dvirka and Bartilucci Consulting Engineers, in accordance with USEPA SW-846 Method 8082.

All data packages have been reviewed for completeness and compliance with the analytical method. Twenty percent of the sample results and all of the QA/QC samples have been reviewed yielding a "20% validation." All of the samples results contained on the data summary tables have been checked against the hard copy data package for transcription errors and/or changes from the faxed preliminary results to the final results reported in the hard copy data package.

Some edits to the data summary tables were made due to several samples being re-analyzed at secondary dilutions due to compound concentrations exceeding the instrument calibration range.

No problems were found with the data. All results are deemed valid and usable for environmental assessment purposes.

#### **4.3 Summary of Findings**

Based upon the analytical results of the PCB Investigation/Delineation Program, we have identified the locations on the Plant 24 Access Road Site where PCBs are present at concentrations exceeding 10 ppm. Concentrations of PCBs in excess of 10 ppm were detected in

two primary areas at the Plant 24 Access Road Site property. These two areas include the following:

- North central portion (surrounding borings B-4 and B-32); and,
- Eastern portion (surrounding borings B-12, B-14, B-15 and B-16).

The following sections present a discussion of the findings associated with each of these two areas as a result of the field program.

#### 4.3.1 North Central Portion

Based upon the analytical results of the soil samples collected from the north central portion of the Plant 24 Access Road Site during the field program, PCB concentrations exceeding 10 ppm are present in the soil surrounding borings B-4 and B-32. The PCB concentrations detected in the samples collected and analyzed from this portion of the property ranged from nondetect to 16 ppm. As a result of subsequent delineation activities during later phases of the program, the horizontal and vertical extents of PCB concentrations have been determined.

##### *Horizontal Extent*

In the area surrounding boring B-4, PCBs were either not detected or were detected at concentrations below 10 ppm from all of the soil samples collected from the following borings locations: B-4N, B-4S, B-4W20 and B-4E20. These four "clean" borings were used to delineate the area where PCB concentrations exceeding 10 ppm were detected. The locations of these borings are shown on Figure 4-1.

In the area surrounding boring B-32, PCBs were either not detected or were detected at concentrations below 10 ppm from all of the soil samples collected from borings B-5, B-10 and B-11. These three "clean" borings were used to delineate the area where PCB concentrations exceeding 10 ppm were detected. The locations of these borings are shown on Figure 4-1.

### *Vertical Extent*

In the area surrounding boring B-4, the vertical extent of the PCB concentrations in excess of 10 ppm is limited to the upper 2.5 feet of soil below grade based on the analytical results of the individual soil samples collected from borings B-4, B-4W and B-4E. However, only one sample from each boring exceeded 10 ppm.

In the area surrounding boring B-32, the vertical extent of the PCB concentrations exceeding 10 ppm is limited to the upper 1.5 feet of soil below grade based on the analytical results of the individual soil samples collected from boring B-32. It should be noted that only one sample from boring B-32 exceeded 10 ppm.

#### 4.3.2 Eastern Portion

Based upon the analytical results of the soil samples collected from the eastern portion of the Plant 24 Access Road Site during the field program, PCB concentrations exceeding 10 ppm are present in the soil surrounding borings B-12, B-14, B-15 and B-16. The PCB concentrations detected in the samples collected and analyzed from this portion of the property ranged from nondetect to 89 ppm, with the exception of one sample where the detected PCB concentration was 3,400 ppm. As a result of subsequent delineation activities during later phases of the program, the horizontal and vertical extents of PCB concentrations have been determined. It should be noted that the PCB concentrations in excess of 10 ppm were sporadically distributed across this portion of the property.

### *Horizontal Extent*

The horizontal extent of the PCB concentrations in excess of 10 ppm is shown on Figure 4-2. The "clean" borings delineating the horizontal extent create two main areas: the area surrounding boring B-12 and the area encompassing borings B-14, B-15 and B-16.

### *Vertical Extent*

Based on the analytical results of the individual soil samples collected from the borings located within the areas described above, the vertical extent of the PCB concentrations in excess of 10 ppm is primarily limited to the upper 3.5 feet of soil below grade. However, PCB concentrations in excess of 10 ppm were detected below 3.5 feet at the following two boring locations: boring B-14E in the 3.5 to 4.5-foot depth interval below grade, and boring B-12A in the 5.5 to 6.5-foot depth interval below grade.

#### **4.4 Summary of Detected PCB Concentrations**

In total, 430 soil samples were collected and analyzed during the six phases of field activities conducted at the Plant 24 Access Road Site. As stated earlier, PCBs detected in the soil samples ranged in concentration from nondetect to 89 ppm, with the exception of one sample where the detected PCB concentration was 3,400 ppm. The following table presents the number of samples within specific concentration ranges.

<b>Concentration Range</b>	<b>Number of Samples</b>
Nondetect	91
Greater than nondetect but less than or equal to 10 ppm	260
Greater than 10 ppm but less than or equal to 50 ppm	70
Greater than 50 ppm	9
Total:	430

A "nondetect" result means that PCBs were analyzed for but not detected. The typical detection limit for the PCB analyses performed on the samples analyzed during this program was 0.033 ppm.

# Appendix A



**APPENDIX A**

**NEW YORK STATE  
DEPARTMENT OF HEALTH LETTER**



STATE OF NEW YORK  
DEPARTMENT OF HEALTH

Office of Public Health

11 University Place Albany, New York 12203-3399

Barbara A. DeBuono, M.D., M.P.H.  
Commissioner

Karen Schimke  
Executive Deputy Commissioner

December 27, 1995

Mr. John Ohlmann, Director  
Corporate Environmental Technology & Compliance  
Grumman Corporation  
Mail Stop: D08-GHQ  
Bethpage, NY 11714-3580

RE: Grumman Aerospace-Bethpage Facility  
Site #130003A  
Bethpage, Nassau Co.

Dear Mr. Ohlmann:

This letter is to clarify this department's position on the need for additional soil sampling to be performed in the area of Building 24 due to the presence of low levels of PCBs in surface soils. Our original evaluation of the surface soil data suggested the need for additional samples to be collected based on the lack of information regarding future plans for this area. We now understand that the building in this area is presently used for warehouse purposes and that the potential purchaser intends to continue this use. Based on the intended use of this property, this department does not see a need for additional sampling to be performed.

If you have any questions please call my staff at 518-458-6305.

Sincerely,

Steven Bates, P.E.  
Environmental Health Specialist IV  
Bureau of Environmental Exposure  
Investigation

lmw/95361PRO0052

cc: Dr. N. Kim  
Mr. S. Bates  
Mr. T. Vickerson  
Mr. T. Mulvihill - NCHD  
Mr. A. Shah - DEC Reg. 1

# Appendix B



**APPENDIX B**

**PCB INVESTIGATION/DELINEATION PROGRAM  
SOIL SAMPLE ANALYTICAL RESULTS**

## **FIRST PHASE SOIL SAMPLING RESULTS**

**TABLE B-1  
NORTHROP GRUMMAN CORPORATION  
PLANT 24 ACCESS ROAD SITE  
PCB INVESTIGATION/DELINEATION PROGRAM - FIRST PHASE  
SOIL SAMPLING RESULTS  
POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-01 S1	B-01 S2	B-02 S1	B-02 S2	B-03 S1	B-03 S2	B-03 S3	B-03 S4	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	0 - 0.5'	0.5' - 1.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	
DATE OF COLLECTION	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	
DILUTION FACTOR	1	1	1	1	1	10	1	1	
PERCENT SOLIDS	93	97	96	95	95	94	96	90	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	U	U	0.160 P	0.055 U	0.067 U	U	U	U	0.033
Aroclor-1254	U	U	U	U	U	7.200 U	0.092 P	0.280 P	0.033
Aroclor-1260	0.140 P	U	0.140 U	0.150 P	0.160 P	U	U	U	0.033
TOTAL PCBs	0.140	0	0.300	0.205	0.227	7.200	0.092	0.690	

**Qualifiers:**

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FIRST PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-04 S1	B-04 S2	B-04 S3	B-04 S4	B-05 S1	B-05 S2	B-05 S3	B-05 S4	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	
DATE OF COLLECTION	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	
DILUTION FACTOR	5	10	20	1	1	1	1	1	
PERCENT SOLIDS	75	86	83	83	95	93	87	99	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	2.800	6.700	11.000	U	1.000	1.200	1.000	U	0.033
Aroclor-1254	U	U	U	U	U	U	P	U	0.033
Aroclor-1260	U	U	U	U	0.210	0.150	U	U	0.033
<b>TOTAL PCBs</b>	2.800	6.700	<b>11.000</b>	0	1.210	1.350	1.000	0	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

 : Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FIRST PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-06 S1	B-06 S2	B-07 S1	B-07 S2	B-08 S1	B-08 S2	B-09 S1	B-09 S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	0 - 0.5'	0.5' - 1.5'	0 - 0.5'	0.5' - 1.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	97	90	89	85	89	98	89	85	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	U	U	0.150	U	U	U	U	U	0.033
Aroclor-1254	U	U	U	U	U	0.500 P	1.000	U	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
TOTAL PCBs	0	0	0.150	0	0	0.630	1.130	0	0.033

**Qualifiers:**

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FIRST PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-10 S1	B-10 S2	B-11 S1	B-11 S2	B-12 S1	B-12 S2	B-12 S3	B-12 S4	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	0 - 0.5'	0.5' - 1.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	
DATE OF COLLECTION	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	88	90	91	88	98	93	88	91	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	0.067	U	U	U	U	U	U	U	0.033
Aroclor-1254	U	U	U	U	13.000	0.900	5.800	20.000	0.033
Aroclor-1260	U	U	U	U	1.500	0.200	U	U	0.033
<b>TOTAL PCBs</b>	0.067	0	0	0	<b>14.500</b>	1.100	5.800	<b>20.000</b>	0.033

**Qualifiers:**

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FIRST PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-13 S1	B-13 S2	B-14 S1	B-14 S2	B-14 S3	B-14 S4	B-15 S1	B-15 S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	
DILUTION FACTOR	1	1	10	5	1	50	10	30	
PERCENT SOLIDS	93	89	93	86	96	69	77	94	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	2.000 P	0.230	7.600	2.400	2.500	U	5.700	18.000	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	0.087	1.600	0.870	0.680	23.000 P	U	U	0.033
<b>TOTAL PCBs</b>	<b>2.000</b>	<b>0.317</b>	<b>9.200</b>	<b>3.270</b>	<b>3.180</b>	<b>23.000</b>	<b>5.700</b>	<b>18.000</b>	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FIRST PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-15 S3	B-15 S4	B-16 S1	B-16 S2	B-16 S3	B-16 S4	B-17 S1	B-17 S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5 - 1.5'	
DATE OF COLLECTION	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/02/99	6/03/99	6/03/99	
DILUTION FACTOR	1	50	5	50	1	1	1	1	
PERCENT SOLIDS	87	93	94	93	85	82	95	84	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	2.200	31.000	2.000	31.000	0.061	P	0.370	1.000	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	0.180	U	U	U	U	U	0.033
<b>TOTAL PCBs</b>	2.200	<b>31.000</b>	2.180	<b>31.000</b>	0.061	0	0.370	1.000	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

  : Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FIRST PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-17 S3	B-17 S4	B-18 S1	B-18 S2	B-19 S1	B-19 S2	B-20 S1	B-20 S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	0 - 0.5'	0.5' - 1.5'	0 - 0.5'	0.5 - 1.5'	
DATE OF COLLECTION	6/03/99	6/03/99	6/03/99	6/03/99	6/03/99	6/03/99	6/03/99	6/03/99	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	89	90	93	86	94	87	95	96	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	0.140 P	U	0.042	0.520	1.700	0.410	0.120	U	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
<b>TOTAL PCBs</b>	0.140	0	0.042	0.520	1.700	0.410	0.120	0	

**Qualifiers:**

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FIRST PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-21 S1	B-21 S2	B-22 S1	B-22 S2					CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	0 - 0.5'	0.5 - 1.5'					
DATE OF COLLECTION	6/03/99	6/03/99	6/03/99	6/03/99					
DILUTION FACTOR	1	1	1	1					
PERCENT SOLIDS	91	94	90	89					
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)					(mg/kg)
Aroclor-1016	U	U	U	U					0.033
Aroclor-1221	U	U	U	U					0.067
Aroclor-1232	U	U	U	U					0.033
Aroclor-1242	U	U	U	U					0.033
Aroclor-1248	1.600	U	0.079	P					0.033
Aroclor-1254	U	U	U	U					0.033
Aroclor-1260	U	U	U	U					0.033
TOTAL PCBs	1.600	0	0.079	0					

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

## **SECOND PHASE SOIL SAMPLING RESULTS**

**TABLE B-2  
NORTHROP GRUMMAN CORPORATION  
PLANT 24 ACCESS ROAD SITE  
PCB INVESTIGATION/DELINEATION PROGRAM - SECOND PHASE  
SOIL SAMPLING RESULTS  
POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-04N S1	B-04N S2	B-04N S3	B-04S S1	B-04S S2	B-04S S3	B-04E S1	B-04E S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	
DILUTION FACTOR	10	1	1	10	1	10	1	10	
PERCENT SOLIDS	95	88	88	91	84	91	96	86	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	1.100	U	U	8.700	0.560 P	1.300	0.190	1.000 P	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	U	U	0.045	U	0.033
TOTAL PCBs	1.100	0	0	8.700	0.560	1.300	0.235	1.000	

**Qualifiers:**

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

: Value for Total PCBs exceeds 10 parts per million (ppm).

TABLE B-2 (continued)  
 NORTHROP GRUMMAN CORPORATION  
 PLANT 24 ACCESS ROAD SITE  
 PCB INVESTIGATION/DELINEATION PROGRAM - SECOND PHASE  
 SOIL SAMPLING RESULTS  
 POLYCHLORINATED BIPHENYLS

SAMPLE IDENTIFICATION	B-04E S3	B-04E S4	B-04E S5	B-04W S1	B-04W S2	B-04W S3	B-12A S1	B-12A S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	3.5' - 4.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	
DILUTION FACTOR	10	1	1	10	10	1	10	10	
PERCENT SOLIDS	90	91	81	96	94	86	95	82	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	13.000	U	U	11.000	4.200	0.190	9.700	11.000	P 0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	0.560	0.069	0.480	P	U 0.033
<b>TOTAL PCBs</b>	<b>13.000</b>	0	0	<b>11.000</b>	4.760	0.259	<b>10.180</b>	<b>11.000</b>	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

  : Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-2 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - SECOND PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-12A S3	B-12A S4	B-12A S5	B-12A S6	B-12A S7	B-12A S8	B-12N S1	B-12N S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	3.5' - 4.5'	4.5' - 5.5'	5.5' - 6.5'	6.5' - 7.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	
DILUTION FACTOR	10	10	1	1	10	1	10	10	
PERCENT SOLIDS	96	90	90	92	94	97	96	94	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	17.000 P	7.600 P	U	U	13.000	1.600	2.200	7.400	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
<b>TOTAL PCBs</b>	<b>17.000</b>	7.600	0	0	<b>13.000</b>	1.600	2.200	7.400	

**Qualifiers:**

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

  : Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-2 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - SECOND PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-12N S3	B-12N S4	B-12S S1	B-12S S2	B-12S S3	B-12S S4	B-12E S1	B-12E S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	
DILUTION FACTOR	10	10	10	10	10	10	10	10	
PERCENT SOLIDS	95	91	90	88	90	84	83	93	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016									
Aroclor-1221	U	U	U	U	U	U	U	U	0.033
Aroclor-1232	U	U	U	U	U	U	U	U	0.067
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	2.700	2.800	7.000	7.800	5.400	2.600	7.500	8.000	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	0.840	U	U	U	0.540	U	0.033
TOTAL PCBs	2.700	2.800	7.840	7.800	5.400	2.600	8.040	8.000	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-2 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - SECOND PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-12E S3	B-12E S4	B-12E S5	B-12E S6	B-12E S7	B-12E S8	B-12W S1	B-12W S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	3.5' - 4.5'	4.5' - 5.5'	5.5' - 6.5'	6.5' - 7.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	10/22/99	
DILUTION FACTOR	50	100	1	1	1	1	10	10	
PERCENT SOLIDS	91	87	81	82	86	98	90	93	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	
Aroclor-1221	U	U	U	U	U	U	U	U	0.033
Aroclor-1232	U	U	U	U	U	U	U	U	0.067
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	27.000	72.000	1.100	0.047	P	U	U	U	0.033
Aroclor-1254	U	U	U	U	U	U	8.600	8.400	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
<b>TOTAL PCBs</b>	<b>27.000</b>	<b>72.000</b>	1.100	0.047	0	0	9.130	8.950	0.033

**Qualifiers:**

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-2 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - SECOND PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-12W S3	B-12W S4	B-14A S1	B-14A S2	B-14A S3	B-14A S4	B-14N S1	B-14N S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	10/22/99	10/22/99	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	
DILUTION FACTOR	10	10	10	10	10	10	10	10	
PERCENT SOLIDS	92	95	94	87	93	86	92	94	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	7.800	3.200	12.000	18.000	5.700	0.730	6.600	0.460	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	0.360	U	U	U	U	3.400 P	U	U	0.033
<b>TOTAL PCBs</b>	8.160	3.200	<b>12.000</b>	<b>18.000</b>	5.700	4.130	6.600	0.460	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

  : Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-2 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - SECOND PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-14N S3	B-14N S4	B-14S S1	B-14S S2	B-14S S3	B-14S S4	B-14E S1	B-14E S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	
DILUTION FACTOR	10	10	10	1	10	10	100	10	
PERCENT SOLIDS	92	86	93	93	91	85	87	86	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	2.200	U	7.300	U	0.860	U	41.000	16.000	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	2.600 P	U	0.140 P	1.100 P	1.200 P	U	U	0.033
<b>TOTAL PCBs</b>	<b>2.200</b>	<b>2.600</b>	<b>7.300</b>	<b>0.140</b>	<b>1.960</b>	<b>1.200</b>	<b>41.000</b>	<b>16.000</b>	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

  : Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-2 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - SECOND PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-14E S3	B-14E S4	B-14E S5	B-14E S6	B-14E S7	B-14E S8	B-14W S1	B-14W S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	3.5' - 4.5'	4.5' - 5.5'	5.5' - 6.5'	6.5' - 7.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	
DILUTION FACTOR	100	100	10	10	1	1	10	10	
PERCENT SOLIDS	90	89	68	83	90	97	82	93	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016									
Aroclor-1221	U	U	U	U	U	U	U	U	0.033
Aroclor-1232	U	U	U	U	U	U	U	U	0.067
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	22.000	38.000	1.300	U	U	U	U	U	0.033
Aroclor-1254	U	U	U	U	0.130	U	9.200	1.100	0.033
Aroclor-1260	U	U	11.000 P	4.800 P	U	U	U	U	0.033
<b>TOTAL PCBs</b>	<b>22.000</b>	<b>38.000</b>	<b>12.300</b>	4.800	0.130	0	9.720	1.100	0.033

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-2 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - SECOND PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-14W S3	B-14W S4	B-15A S1	B-15A S2	B-15A S3	B-15A S4	B-15N S1	B-15N S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	
DILUTION FACTOR	10	1	100	100	10	10	10	1	
PERCENT SOLIDS	88	87	85	92	90	90	87	93	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	0.740	0.420	7.100	39.000	0.980 P	2.600	4.600	0.620	0.033
Aroclor-1254	U	U	U	U	0.930	U	1.500 P	U	0.033
Aroclor-1260	2.500 P	1.500 P	U	U	U	U	U	U	0.033
<b>TOTAL PCBs</b>	3.240	1.920	7.100	<b>39.000</b>	1.910	2.600	6.100	0.620	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

  : Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-2 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - SECOND PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-15N S3	B-15N S4	B-15S S1	B-15S S2	B-15S S3	B-15S S4	B-15S S5	B-15S S6	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	3.5' - 4.5'	4.5' - 5.5'	
DATE OF COLLECTION	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	10/21/99	
DILUTION FACTOR	10	1	20	20	10	10	10	1	
PERCENT SOLIDS	91	81	92	99	95	94	91	96	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	1.200 P	0.420	10.000	9.800	10.000	5.700	4.300	0.850	0.033
Aroclor-1254	U	0.140	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	0.570 P	1.300	U	U	0.033
<b>TOTAL PCBs</b>	1.200	0.560	10.000	9.800	<b>10.570</b>	7.000	4.300	0.850	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-3 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - THIRD PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-15SW20 S4	B-16E20 S1	B-16E20 S2	B-16E20 S3	B-16E20 S4	B-16E20 S5	B-16W20 S1	B-16W20 S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	3.5' - 4.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	02/08/00	02/08/00	02/08/00	02/08/00	02/08/00	02/08/00	02/08/00	02/08/00	
DILUTION FACTOR	1	10	20	20	1	1	1	20	
PERCENT SOLIDS	81	82	86	86	80	95	90	94	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	0.590	6.600 P	23.000	21.000	U	U	U	U	0.033
Aroclor-1254	U	U	U	U	0.270	0.054	0.470 P	20.000	0.033
Aroclor-1260	0.460 P	U	U	U	U	U	U	U	0.033
<b>TOTAL PCBs</b>	1.050	6.600	<b>23.000</b>	<b>21.000</b>	0.270	0.054	0.470	<b>20.000</b>	

**Qualifiers:**

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-3 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - THIRD PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-16W20 S3	B-16W20 S4							CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'							
DATE OF COLLECTION	02/08/00	02/08/00							
DILUTION FACTOR	10	1							
PERCENT SOLIDS	96	90							
UNITS	(mg/kg)	(mg/kg)							(mg/kg)
Aroclor-1016									
Aroclor-1221	U	U							0.033
Aroclor-1232	U	U							0.067
Aroclor-1242	U	U							0.033
Aroclor-1248	8.600	U							0.033
Aroclor-1254	U	U							0.033
Aroclor-1260	U	U							0.033
TOTAL PCBs	8.600	0							0.033

**Qualifiers:**

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

: Value for Total PCBs exceeds 10 parts per million (ppm).

## FOURTH PHASE SOIL SAMPLING RESULTS

**TABLE B-4**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FOURTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-12E20N S1	B-12E20N S2	B-12E20N S3	B-12E20N S4	B-12E20S S1	B-12E20S S2	B-12E20S S3	B-12E20S S4	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	
DATE OF COLLECTION	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	
DILUTION FACTOR	20	1	10	5	10	1	1	1	
PERCENT SOLIDS	92	97	91	89	87	90	92	85	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	8.000	0.260 P	4.400	2.300 P	3.600 P	1.600 P	0.380 P	U	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
<b>TOTAL PCBs</b>	<b>8.000</b>	<b>0.260</b>	<b>4.400</b>	<b>2.300</b>	<b>3.600</b>	<b>1.600</b>	<b>0.380</b>	<b>0</b>	

**Qualifiers:**

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-4 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FOURTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-12E30 S1	B-12E30 S2	B-12E30 S3	B-12E30 S4	B-14E20N S1	B-14E20N S2	B-14E20N S3	B-14E20N S4	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	
DATE OF COLLECTION	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	
DILUTION FACTOR	20	20	10	1	20	10	1	1	
PERCENT SOLIDS	91	94	95	85	93	88	90	93	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	7.100 P	15.000 P	5.900 P	0.680	13.000	8.900	0.600	0.320	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	1.100	2.100	U	U	0.033
<b>TOTAL PCBs</b>	7.100	<b>15.000</b>	5.900	0.680	<b>14.100</b>	<b>11.000</b>	0.600	0.320	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

 : Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-4 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FOURTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-14E20S S1	B-14E20S S2	B-14E20S S3	B-14E20S S4	B-14E40N S1	B-14E40N S2	B-14E40N S3	B-14E40N S4	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	
DATE OF COLLECTION	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	
DILUTION FACTOR	5	1	1	1	10	10	1	5	
PERCENT SOLIDS	92	92	91	76	89	91	91	87	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	2.700	U	U	U	4.300	3.100	0.360	2.100	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	1.300	0.810 P	0.200	U	0.650	0.190	0.380	0.033
TOTAL PCBs	2.700	1.300	0.810	0.200	4.300	3.750	0.550	2.480	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-4 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FOURTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-14E40S S1	B-14E40S S2	B-14E40S S3	B-14E40S S4	B-14E60N S1	B-14E60N S2	B-14E60N S3	B-14E60N S4	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	
DATE OF COLLECTION	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	
DILUTION FACTOR	10	1	1	1	10	100	100	100	
PERCENT SOLIDS	90	94	86	82	90	94	96	94	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	0.990 P	U	U	U	U	U	U	U	0.033
Aroclor-1254	U	U	U	U	3.200	11.000	25.000	30.000	0.033
Aroclor-1260	U	0.440 P	U	U	U	U	U	U	0.033
<b>TOTAL PCBs</b>	<b>0.990</b>	<b>0.440</b>	<b>0</b>	<b>0</b>	<b>3.200</b>	<b>11.000</b>	<b>25.000</b>	<b>30.000</b>	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-4 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FOURTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-14E60N S5	B-14E60N S6	B-14E60S S1	B-14E60S S2	B-14E60S S3	B-14E60S S4	B-15W20N S1	B-15W20N S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	3.5' - 4.5'	4.5' - 5.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	
DILUTION FACTOR	1	1	5	50	1	1	1	50	
PERCENT SOLIDS	88	97	92	92	93	88	85	96	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	0.840	U	2.100	18.000	0.170	U	1.400	15.000	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	0.180	0.059	0.440	U	0.033
<b>TOTAL PCBs</b>	0.840	0	2.100	<b>18.000</b>	0.350	0.059	1.840	<b>15.000</b>	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

  : Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-4 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FOURTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-15W20N S3	B-15W20N S4	B-15E20 S1	B-15E20 S2	B-15E20 S3	B-15E20 S4	B-15E20 S5	B-15E20 S6	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	3.5' - 4.5'	4.5' - 5.5'	
DATE OF COLLECTION	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	
DILUTION FACTOR	1	1	20	10	5000	100	1	1	
PERCENT SOLIDS	93	96	86	89	86	82	95	96	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	0.076	0.650	12.000	5.600 P	3,400.000	57.000	0.210	U	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	0.080	U	U	U	U	U	U	0.033
TOTAL PCBs	0.076	0.730	<b>12.000</b>	5.600	<b>3,400.000</b>	<b>57.000</b>	0.210	0	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-4 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FOURTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-15E40 S1	B-15E40 S2	B-15E40 S3	B-15E40 S4	B-15E60 S1	B-15E60 S2	B-15E60 S3	B-15E60 S4	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	
DATE OF COLLECTION	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	
DILUTION FACTOR	100	1	1	1	10	50	100	100	
PERCENT SOLIDS	86	88	92	85	94	88	91	86	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	51.000	1.000	0.690	0.140	2.200	29.000	48.000	56.000	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
<b>TOTAL PCBs</b>	<b>51.000</b>	1.000	0.690	0.140	2.200	<b>29.000</b>	<b>48.000</b>	<b>56.000</b>	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-4 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FOURTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-15E60 S5	B-15E60 S6	B-15E80 S1	B-15E80 S2	B-15E80 S3	B-15E80 S4	B-15SE40 S1	B-15SE40 S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	3.5' - 4.5'	4.5' - 5.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	
DILUTION FACTOR	1	1	1	1	10	1	10	100	
PERCENT SOLIDS	84	96	86	98	87	89	85	88	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	U	U	U	U	U	U	U	U	0.033
Aroclor-1254	U	U	0.350	0.560	2.700	U	5.400 P	50.000	0.033
Aroclor-1260	U	U	U	U	U	0.960	U	U	0.033
TOTAL PCBs	0	0	0.350	0.560	2.700	0.960	5.400	<b>50.000</b>	0.033

**Qualifiers:**

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

  : Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-4 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FOURTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-15SE40 S3	B-15SE40 S4	B-15SE40 S5	B-15SE40 S6	B-15SE60 S1	B-15SE60 S2	B-15SE60 S3	B-15SE60 S4	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	3.5' - 4.5'	4.5' - 5.5	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	
DATE OF COLLECTION	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	
DILUTION FACTOR	100	100	1	1	10	10	50	50	
PERCENT SOLIDS	88	84	90	97	86	90	89	87	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	67.000	89.000	U	U	U	U	U	U	0.033
Aroclor-1254	U	U	0.220	U	7.500	14.000	43.000	31.000	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
<b>TOTAL PCBs</b>	<b>67.000</b>	<b>89.000</b>	0.220	0	7.500	<b>14.000</b>	<b>43.000</b>	<b>31.000</b>	

**Qualifiers:**

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-4 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FOURTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-15SE60 S5	B-15SE60 S6	B-15SE80 S1	B-15SE80 S2	B-15SE80 S3	B-15SE80 S4	B-16E40 S1	B-16E40 S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	3.5' - 4.5'	4.5' - 5.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	93	95	90	91	94	93	89	90	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	0.570	0.850	0.700	0.760	0.880	5.600	13.000	36.000	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	0.170	0.200	0.300	1.400	U	U	0.033
<b>TOTAL PCBs</b>	<b>0.570</b>	<b>0.850</b>	<b>0.870</b>	<b>0.960</b>	<b>1.180</b>	<b>7.000</b>	<b>13.000</b>	<b>36.000</b>	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

  : Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-4 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FOURTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-16E40 S3	B-16E40 S4	B-16E40 S5	B-16E40 S6	B-16E60 S1	B-16E60 S2	B-16E60 S3	B-16E60 S4	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	3.5' - 4.5'	4.5' - 5.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	
DATE OF COLLECTION	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	
DILUTION FACTOR	50	1	1	1	10	50	50	1	
PERCENT SOLIDS	84	92	94	93	95	88	86	79	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	
Aroclor-1221	U	U	U	U	U	U	U	U	0.033
Aroclor-1232	U	U	U	U	U	U	U	U	0.067
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	42.000	0.250	0.059	U	2.400	43.000	32.000	U	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
<b>TOTAL PCBs</b>	<b>42.000</b>	0.250	0.059	0	2.400	<b>43.000</b>	<b>32.000</b>	0	

**Qualifiers:**

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-4 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FOURTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-16E60 S5	B-16E60 S6	B-16E80 S1	B-16E80 S2	B-16E80 S3	B-16E80 S4	B-28 S1	B-28 S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	3.5' - 4.5'	4.5' - 5.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	11/16/00	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	94	98	95	90	90	88	91	94	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	U	U	0.500	0.160	0.300	U	U	U	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	0.180	0.076	0.092	0.052	U	U	0.033
TOTAL PCBs	0	0	0.680	0.236	0.392	0.052	0	0	

**Qualifiers:**

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

: Value for Total PCBs exceeds 10 parts per million (ppm).

TABLE B-4 (continued)  
 NORTHROP GRUMMAN CORPORATION  
 PLANT 24 ACCESS ROAD SITE  
 PCB INVESTIGATION/DELINEATION PROGRAM - FOURTH PHASE  
 SOIL SAMPLING RESULTS  
 POLYCHLORINATED BIPHENYLS

SAMPLE IDENTIFICATION	B-28 S3	B-28 S4							CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'							
DATE OF COLLECTION	11/16/00	11/16/00							
DILUTION FACTOR	1	1							
PERCENT SOLIDS	93	91							
UNITS	(mg/kg)	(mg/kg)							(mg/kg)
Aroclor-1016	U	U							0.033
Aroclor-1221	U	U							0.067
Aroclor-1232	U	U							0.033
Aroclor-1242	U	U							0.033
Aroclor-1248	U	U							0.033
Aroclor-1254	U	U							0.033
Aroclor-1260	U	U							0.033
TOTAL PCBs	0	0							0.033

Qualifiers:

- U: Compound analyzed for but not detected.
- P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

## **FIFTH PHASE SOIL SAMPLING RESULTS**

**TABLE B-5  
NORTHROP GRUMMAN CORPORATION  
PLANT 24 ACCESS ROAD SITE  
PCB INVESTIGATION/DELINEATION PROGRAM - FIFTH PHASE  
SOIL SAMPLING RESULTS  
POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-12E30N S1	B-12E30N S2	B-12E30N S3	B-12E30N S4	B-12E30S S1	B-12E30S S2	B-12E30S S3	B-12E30S S4	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	
DATE OF COLLECTION	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	
DILUTION FACTOR	10	10	10	10	10	10	10	10	
PERCENT SOLIDS	91	93	94	91	86	91	88	91	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	7.200	0.900	1.400	8.600	6.600	1.300	0.370	0.790	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	1.700	U	U	U	0.033
TOTAL PCBs	7.200	0.900	1.400	8.600	8.300	1.300	0.370	0.790	

Qualifiers:

U: Compound analyzed for but not detected.

J: Concentration is less than the CRDL, value estimated.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-5 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FIFTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-12E40 S1	B-12E40 S2	B-12E40 S3	B-12E40 S4	B-12E40 S5	B-12E40 S6	B-12E60 S1	B-12E60 S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	3.5' - 4.5'	4.5' - 5.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	
DILUTION FACTOR	10	10	10	10	10	10	10	10	
PERCENT SOLIDS	95	94	92	95	91	98	89	93	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	1.000	0.440	15.000	2.900	6.400	U	0.580	U	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
<b>TOTAL PCBs</b>	1.000	0.440	<b>15.000</b>	2.900	6.400	0	0.580	0	

Qualifiers:

U: Compound analyzed for but not detected.

J: Concentration is less than the CRDL, value estimated.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

 : Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-5 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FIFTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-12E60 S3	B-12E60 S4	B-12E80 S1	B-12E80 S2	B-12E80 S3	B-12E80 S4	B-14N20 S1	B-14N20 S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	
DILUTION FACTOR	10	10	5	5	5	5	5	5	
PERCENT SOLIDS	94	90	92	93	94	95	89	93	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	1.300	U	0.770	0.220	U	U	0.880	2.000	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
<b>TOTAL PCBs</b>	1.300	0	0.770	0.220	0	0	0.880	2.000	0.033

Qualifiers:

U: Compound analyzed for but not detected.

J: Concentration is less than the CRDL, value estimated.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-5 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FIFTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-14N20 S3	B-14N20 S4	B-14N30 S1	B-14N30 S2	B-14N30 S3	B-14N30 S4	B-14E20N30 S1	B-14E20N30 S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	
DILUTION FACTOR	5	5	10	10	10	10	100	10	
PERCENT SOLIDS	90	94	90	96	96	97	94	96	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	0.660	U	3.900	U	U	U	U	U	0.033
Aroclor-1254	U	U	U	U	U	U	16.000	3.100	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
TOTAL PCBs	0.660	0	3.900	0	0	0	<b>16.000</b>	3.100	0.033

Qualifiers:

U: Compound analyzed for but not detected.

J: Concentration is less than the CRDL, value estimated.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-5 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FIFTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-14E20N30 S3	B-14E20N30 S4	B-14E40N30 S1	B-14E40N30 S2	B-14E40N30 S3	B-14E40N30 S4	B-14E60N30 S1	B-14E60N30 S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	
DILUTION FACTOR	10	10	10	50	10	10	10	10	
PERCENT SOLIDS	96	94	65	97	96	96	85	86	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	U	0.730	10.000	24.000	6.500	0.400	4.600	4.600	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
TOTAL PCBs	0	0.730	10.000	<b>24.000</b>	6.500	0.400	4.600	4.600	0.033

Qualifiers:

U: Compound analyzed for but not detected.

J: Concentration is less than the CRDL, value estimated.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-5 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FIFTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-14E60N30 S3	B-14E60N30 S4	B-15E20N S1	B-15E20N S2	B-15E20N S3	B-15E20N S4	B-15E40N S1	B-15E40N S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	
DILUTION FACTOR	10	10	10	10	10	10	10	10	
PERCENT SOLIDS	96	93	85	92	97	97	82	82	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	U	1.700	0.790	0.640	U	U	0.920	1.900	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
TOTAL PCBs	0	1.700	0.790	0.640	0	0	0.920	1.900	

Qualifiers:

U: Compound analyzed for but not detected.

J: Concentration is less than the CRDL, value estimated.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-5 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FIFTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-15E40N S3	B-15E40N S4	B-15E60N S1	B-15E60N S2	B-15E60N S3	B-15E60N S4	B-14A S5	B-14A S6	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	3.5' - 4.5'	4.5' - 5.5'	
DATE OF COLLECTION	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	12/18/00	
DILUTION FACTOR	10	10	10	10	10	10	5	5	
PERCENT SOLIDS	94	96	86	89	92	83	82	87	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	0.740	0.370	U	U	U	U	U	U	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
TOTAL PCBs	0.740	0.370	0	0	0	0	4.500	0	0.033

Qualifiers:

U: Compound analyzed for but not detected.

J: Concentration is less than the CRDL, value estimated.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-5 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - FIFTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-15A S5	B-15A S6							CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	3.5' - 4.5'	4.5' - 5.5'							
DATE OF COLLECTION	12/18/00	12/18/00							
DILUTION FACTOR	10	10							
PERCENT SOLIDS	92	94							
UNITS	(mg/kg)	(mg/kg)							(mg/kg)
Aroclor-1016	U	U							
Aroclor-1221	U	U							0.033
Aroclor-1232	U	U							0.067
Aroclor-1242	U	U							0.033
Aroclor-1248	2.800	0.600							0.033
Aroclor-1254	U	U							0.033
Aroclor-1260	U	U							0.033
TOTAL PCBs	2.800	0.600							0.033

Qualifiers:

- U: Compound analyzed for but not detected.
- J: Concentration is less than the CRDL, value estimated.
- P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**SIXTH PHASE SOIL SAMPLING RESULTS**

**TABLE B-6  
NORTHROP GRUMMAN CORPORATION  
PLANT 24 ACCESS ROAD SITE  
PCB INVESTIGATION/DELINEATION PROGRAM - SIXTH PHASE  
SOIL SAMPLING RESULTS  
POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-12E40N S1	B-12E40N S2	B-12E40N S3	B-12E40N S4	B-12E40S S1	B-12E40S S2	B-12E40S S3	B-12E40S S4	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	
DATE OF COLLECTION	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	94	95	87	86	96	93	92	94	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	1.100	0.430	0.100	0.090	0.770	0.280	0.490	0.250	0.033
Aroclor-1254	U	U	U	U	0.590	0.260	U	U	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
TOTAL PCBs	1.100	0.430	0.100	0.090	1.360	0.540	0.490	0.250	

**Qualifiers:**

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-6 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - SIXTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-12E50 S1	B-12E50 S2	B-12E50 S3	B-12E50 S4	B-14E20N34 S1	B-14E20N34 S2	B-14E20N34 S3	B-14E20N34 S4	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	
DATE OF COLLECTION	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	
DILUTION FACTOR	10	1	10	1	1	1	1	1	
PERCENT SOLIDS	94	95	96	89	90	98	96	94	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	5.300	0.420	5.900	1.400	1.200	0.100	U	U	0.033
Aroclor-1254	U	U	U	U	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
TOTAL PCBs	5.300	0.420	5.900	1.400	1.200	0.100	0	0	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-6 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - SIXTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-14E40N34 S1	B-14E40N34 S2	B-14E40N34 S3	B-14E40N34 S4	B-15W20N14 S1	B-15W20N14 S2	B-15W20N14 S3	B-15W20N14 S4	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	
DATE OF COLLECTION	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	
DILUTION FACTOR	1	1	1	1	5	1	1	1	
PERCENT SOLIDS	92	97	98	97	95	94	97	94	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	U	U	U	U	U	U	U	U	0.033
Aroclor-1254	0.860	U	U	U	2.500	0.140	U	U	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
TOTAL PCBs	0.860	0	0	0	2.500	0.140	0	0	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-6 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - SIXTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-16NA S5	B-16NA S6	B-29 S1	B-29 S2	B-29 S3	B-29 S4	B-30 S1	B-30 S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	3.5' - 4.5'	4.5' - 5.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	
DILUTION FACTOR	5	1	1	1	1	1	1	1	
PERCENT SOLIDS	86	87	92	94	97	91	96	92	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	U	0.240 P	0.190	U	U	U	U	U	0.033
Aroclor-1254	U	U	U	U	U	U	0.530	U	0.033
Aroclor-1260	2.500	U	0.110	0.140	U	U	0.340	U	0.033
TOTAL PCBs	2.500	0.240	0.300	0.140	0	0	0.870	0	0.033

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

: Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-6 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - SIXTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-30 S3	B-30 S4	B-31 S1	B-31 S2	B-31 S3	B-31 S4	B-32 S1	B-32 S2	CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	
DATE OF COLLECTION	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	83	93	98	88	91	90	93	91	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	0.033
Aroclor-1221	U	U	U	U	U	U	U	U	0.067
Aroclor-1232	U	U	U	U	U	U	U	U	0.033
Aroclor-1242	U	U	U	U	U	U	U	U	0.033
Aroclor-1248	U	U	0.560	U	U	U	0.660	16.000	0.033
Aroclor-1254	U	U	U	0.052	U	U	U	U	0.033
Aroclor-1260	U	U	U	U	U	U	U	U	0.033
<b>TOTAL PCBs</b>	0	0	0.560	0.052	0	0	0.660	<b>16.000</b>	

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

 : Value for Total PCBs exceeds 10 parts per million (ppm).

**TABLE B-6 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**PLANT 24 ACCESS ROAD SITE**  
**PCB INVESTIGATION/DELINEATION PROGRAM - SIXTH PHASE**  
**SOIL SAMPLING RESULTS**  
**POLYCHLORINATED BIPHENYLS**

SAMPLE IDENTIFICATION	B-32 S3	B-32 S4	B-33 S1	B-33 S2	B-33 S3	B-33 S4			CONTRACT REQUIRED DETECTION LIMIT
SAMPLE DEPTH	1.5' - 2.5'	2.5' - 3.5'	0 - 0.5'	0.5' - 1.5'	1.5' - 2.5'	2.5' - 3.5'			
DATE OF COLLECTION	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01	4/24/01			
DILUTION FACTOR	1	1	1	1	1	1			
PERCENT SOLIDS	90	94	92	94	87	91			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)			(mg/kg)
Aroclor-1016	U	U	U	U	U	U			0.033
Aroclor-1221	U	U	U	U	U	U			0.067
Aroclor-1232	U	U	U	U	U	U			0.033
Aroclor-1242	0.900	U	U	U	U	U			0.033
Aroclor-1248	U	0.110 P	0.100	0.036	U	U			0.033
Aroclor-1254	0.130	U	0.240	0.060	U	U			0.033
Aroclor-1260	U	U	U	U	U	U			0.033
TOTAL PCBs	1.030	0.110	0.340	0.096	0	0			0.033

Qualifiers:

U: Compound analyzed for but not detected.

P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

Notes:

 : Value for Total PCBs exceeds 10 parts per million (ppm).