

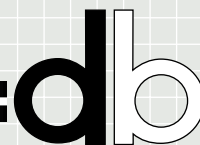
# **NORTHROP GRUMMAN**



## **Town of Oyster Bay Bethpage Community Park Soil Sampling Program Bethpage, New York**

### **Report of Findings**

June 2002



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



Northrop Grumman Corporation  
**Airborne Early Warning and  
Electronic Warfare Systems**  
South Oyster Bay Road  
Bethpage, NY 11714-3581

ETC02L-010  
June 10, 2002

Roger Murphy, P.E., Supervisor  
Eastern Corrective Action Section  
Bureau of Solid Waste and Corrective Action, 8<sup>th</sup> Floor  
Division of Solid and Hazardous Materials  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, NY 12233-7358

Re: **Town of Oyster Bay Bethpage Community Park  
Soil Sampling Program  
Bethpage, NY**

Dear Mr. Murphy:

Enclosed please find three (3) copies of the document entitled:

*"Town of Oyster Bay  
Bethpage Community Park  
Soil Sampling Program  
Bethpage, New York  
Report of Findings"*

By copy of this letter, the enclosed report is being submitted to Mr. H. Wilkie and L. Rosenmann of the New York State Department of Environmental Conservation and Messrs. R. Fedigan and W. Gilday of the New York State Department of Health.

If you have any questions and/or comments regarding the enclosed, please do not hesitate to give me a call at (516) 575-2333.

Very truly yours,

Larry Leskovjan  
Manager  
Environmental, Safety, Health &  
Medical Services  
M/S: Z18-025

Enclosure

cc: H. Wilkie (NYSDEC); R. Fedigan (NYSDOH); W. Gilday (NYSDOH); L. Rosenmann (NYSDEC)  
L. Lovisolo (BP Public Library); B. McKay (NCDH); S. Hix (Gannet Fleming); T. Kelly (NCDPW);  
M. Russo (TOB DPW); J. Colter (Navy); J. Hare (Navy)



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**TOWN OF OYSTER BAY  
BETHPAGE COMMUNITY PARK  
SOIL SAMPLING PROGRAM  
BETHPAGE, NEW YORK**

**REPORT OF FINDINGS**

*Prepared for:*

**NORTHROP GRUMMAN CORPORATION  
South Oyster Bay Road  
Bethpage, New York**

*Prepared by:*

**DVIRKA AND BARTILUCCI CONSULTING ENGINEERS  
330 Crossways Park Drive  
Woodbury, New York**

**JUNE 2002**

**TOWN OF OYSTER BAY  
 BETHPAGE COMMUNITY PARK  
 SOIL SAMPLING PROGRAM  
 BETHPAGE, NEW YORK  
 REPORT OF FINDINGS**

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## **1.0 INTRODUCTION**

The purpose of this report is to present the analytical results of a field investigation program conducted by Dvirka and Bartilucci Consulting Engineers on behalf of Northrop Grumman Corporation (NGC) at the Town of Oyster Bay Bethpage Community Park located in Bethpage, New York. This program was undertaken by NGC to characterize the overall condition of soil quality within the park.

Section 2.0 of this report provides a description of the park property and presents a brief summary of the site history and previous investigation programs. A description of the field activities and overall scope of the soil sampling program undertaken within the park is described in Section 3.0. Section 4.0 presents the findings of the soil sampling program.

Appendix A of this report provides analytical summary tables presenting the results of the soil samples collected during the field program. Quality Assurance/Quality Control forms prepared in support of the data validation completed on the samples are presented in Appendix B.

## **2.0 SITE BACKGROUND**

This section provides a general description of the Town of Oyster Bay Bethpage Community Park and surrounding areas and presents a brief summary of site history and previous investigation programs conducted on the property.

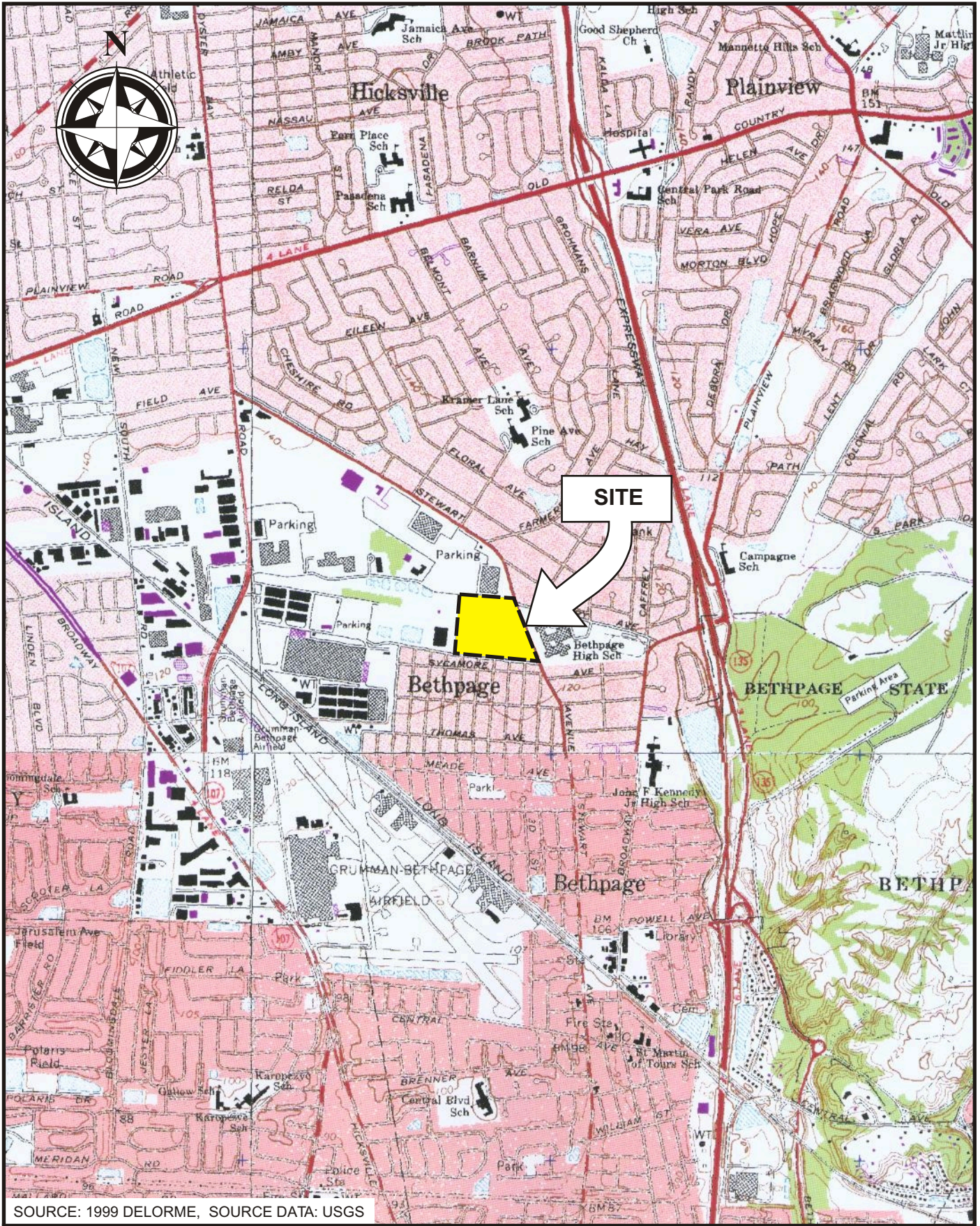
### **2.1 Site Description**

The Town of Oyster Bay Bethpage Community Park is located on Stewart Avenue in Bethpage, Nassau County, New York and is situated adjacent to the northeastern portion of the Northrop Grumman Corporation (NGC) Bethpage Facility. A figure showing the location of the property in relation to the surrounding areas is provided as Figure 2-1.

The entire Bethpage Community Park property is comprised of approximately 18 acres and is currently owned by the Town of Oyster Bay. The site is bordered by the Cherry Avenue Extension and a Robert Plan Company building (formerly NGC's Plant 30) to the north, Stewart Avenue and a high school to the east, the Plant 24 Access Road Site (currently owned by NGC) to the south, and a Robert Plan Company building (formerly NGC's Plant 24) and the McKay Field property, ball fields and former nursery areas (currently owned by NGC) to the west. The park is available to community residents year round. The major features and structures located on the park property include the following:

- Tennis courts
- Paddleball courts
- Covered picnic area
- Two playground areas
- Baseball field
- Two swimming pools
- Covered ice skating rink
- Shuffleboard courts
- Basketball court
- Horseshoe courts
- Park offices
- Parking lot
- Bicycle rack area
- Recharge basin





RLA/MAPS/NORTHROP1572(02/08/02)



TOWN OF OYSTER BAY  
BETHPAGE COMMUNITY PARK  
BETHPAGE, NEW YORK  
**SITE LOCATION MAP**

FIGURE 2-1



A site plan for the property is provided as Figure 2-2. The site 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 (Ug). 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 Udipsamments. Udipsamments are defined as manmade fills or borrow areas, most of which are grassed with 0 to 60 percent slopes, which consist of very deep soils that are excessively drained to well-drained.

## **2.2 Site History**

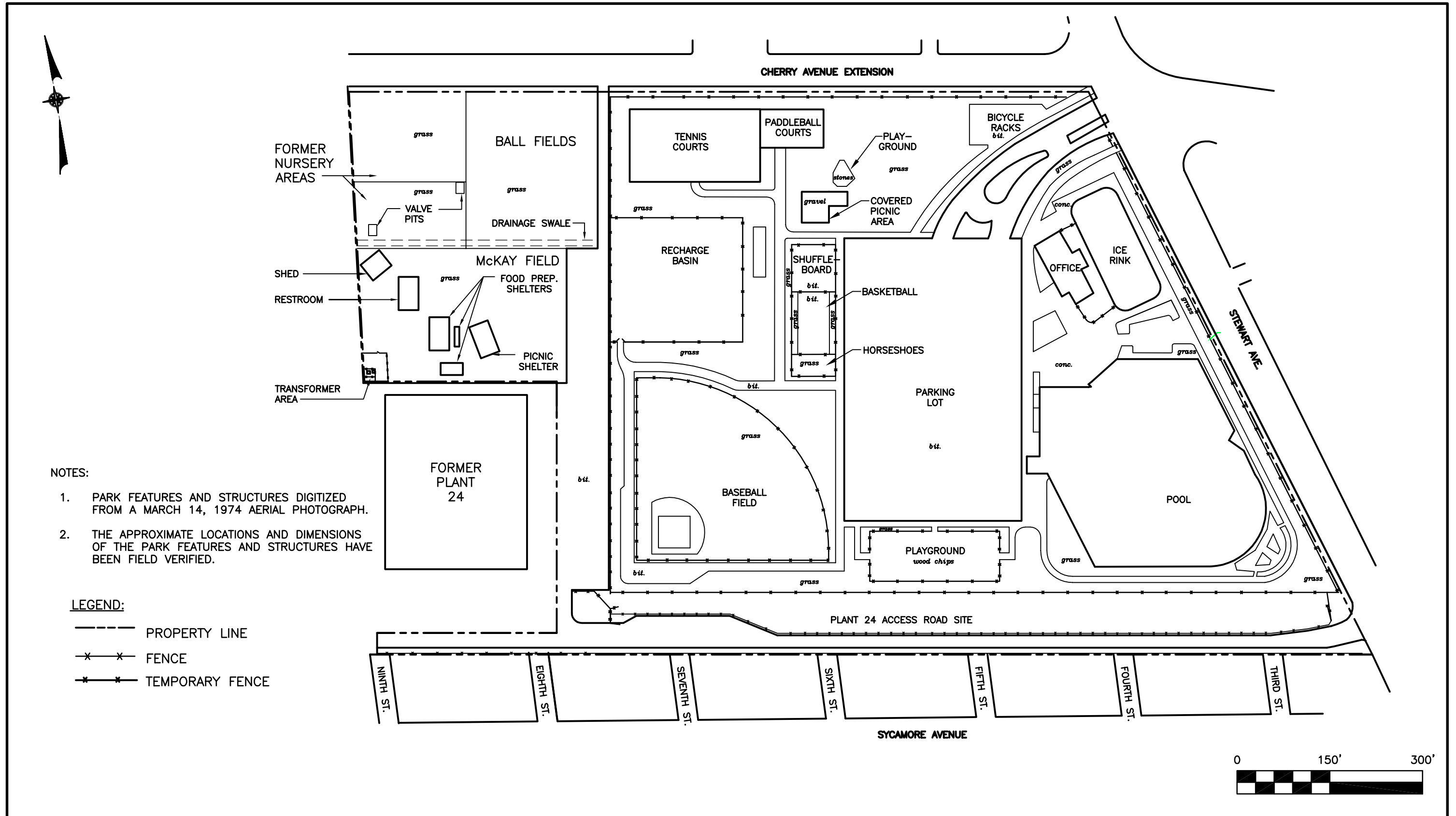
The area comprising what is now the Town of Oyster Bay Bethpage Community Park was primarily farmland until the 1940s. Around this time, the property was purchased by Grumman Aircraft Engineering Corporation (the former name of Northrop Grumman Corporation) as part of the Bethpage Facility. The site was not involved with any of the manufacturing operations undertaken at the Bethpage Facility and no buildings or structures were ever erected on the property by Grumman Aircraft Engineering Corporation.

According to Northrop Grumman Corporation records, the property comprising the park was donated by Grumman Aircraft Engineering Corporation to the Town of Oyster Bay on October 17, 1962. Shortly thereafter, the park as it appears now was constructed on the property.

Aerial photographs of the Grumman Aircraft Engineering Corporation Bethpage Facility dated from before the transfer of property show the site as undeveloped and indicate some “earthwork operations” and areas that appear to contain surface water.

Northrop Grumman Corporation does not have any information regarding the operations conducted by the Town of Oyster Bay subsequent to the property transfer.

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TOWN OF OYSTER BAY  
 BETHPAGE COMMUNITY PARK  
 BETHPAGE, NEW YORK  
**SITE PLAN AND  
 SURROUNDING AREAS**

FIGURE 2-2

### 2.3 Previous Investigations

On November 16 and 17, 1994, an investigation was conducted by Halliburton NUS Corporation on behalf of the U.S. Department of the Navy to determine whether polychlorinated biphenyl (PCB) contamination from the Naval Weapons Industrial Reserve Plant (NWIRP) Site 1 had migrated and impacted downwind off-site locations. Of the 17 locations sampled during this investigation, one was located on the Bethpage Community Park property adjacent to the basketball court. A soil sample was collected in this location from the 0 to 6-inch depth interval below grade and analyzed for PCBs. The analytical results of this sample indicated that PCBs were not present at concentrations exceeding the New York State Department of Environmental Conservation's Technical and Administrative Guidance Memorandum (TAGM) No. 4046 Recommended Soil Cleanup Objective. The results of the program were summarized in the report entitled, "Off-site Soil Sampling and PCB Analysis Report, NWIRP, Bethpage, New York – CTO 0089." No recommendations for additional sampling were presented in the report since PCB concentrations in excess of the TAGM criteria were not detected.

In April 1998, the Town of Oyster Bay retained EDER Associates (EDER) to conduct a surface soil sampling program within the Bethpage Community Park to determine whether PCBs were present in the surface soil. As part of this program, EDER collected surface soil samples from 5 locations within the park including the picnic area (2 locations), the baseball field (2 locations) and the area between the ice rink and the pool along Stewart Avenue (1 location). Soil samples were collected from the surface at each location and analyzed for PCBs. The analytical results of the surface soil samples indicated that PCBs were not present at concentrations exceeding the NYSDEC's TAGM 4046 Recommended Soil Cleanup Objective. The results of the program were summarized in the letter report entitled, "Soil Sampling – Polychlorinated Biphenyls, Bethpage Community Park" dated April 27, 1998. No recommendations for additional sampling were presented in the letter report since PCB concentrations in excess of the TAGM criteria were not detected.

### **3.0 FIELD PROGRAM**

This section provides a description of the soil sampling program undertaken within the Town of Oyster Bay Bethpage Community Park. The field activity portion of the program was conducted March 5 through 7, 2002.

All work conducted within the Bethpage Community Park was performed in accordance with the document entitled "Town of Oyster Bay Bethpage Community Park, Soil Sampling Program, Bethpage, New York, Site-Specific Work Plan" dated February 2002. The Site-Specific Work Plan was approved by the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH).

#### **3.1 Objectives and Approach**

The purpose of the soil sampling program is to characterize the environmental quality of the surface and subsurface soil located within the Town of Oyster Bay Bethpage Community Park. Northrop Grumman Corporation (NGC) decided to undertake this program as a result of concentrations of polychlorinated biphenyls (PCBs) in excess of the Technical and Administrative Guidance Memorandum (TAGM) No. 4046 Recommended Soil Cleanup Objectives detected on an adjacent NGC-owned property referred to as the Plant 24 Access Road Site.

In order to characterize the soil located in the park, soil probes were advanced at the nodes of a 100-foot grid overlain across the entire park. Probes were advanced at grass covered as well as exposed soil areas as this is where human exposure would be most prevalent; sampling of soil located beneath impervious areas (e.g., concrete, asphalt, etc.) or park features (e.g., tennis, paddleball, basketball and shuffle board courts; pools; buildings; ice rink; etc.) was not conducted during this program. However, in accordance with the NYSDOH's request, two probes were advanced within the large parking lot located in the park and one additional probe was advanced in the area of the south dugout on the baseball field. It should be noted that some probe locations were slightly moved from their node locations in order to fall within the grass or

soil areas. Also, some additional probes were located along the south fence line of the park where concentrations of PCBs were detected on the Plant 24 Access Road Site in excess of the TAGM 4046 soil criteria. In total, 60 soil probes were advanced within the Town of Oyster Bay Bethpage Community Park during the soil sampling program in accordance with the Site-Specific Work Plan dated February 2002.

In addition, as requested by the NYSDEC, surface soil samples were collected from “exposure point locations” in order to determine potential human exposure. “Exposure point locations” are defined as areas where humans may come into direct contact with soil as a result of disturbing the soil, usually during a specific type of recreation activity. Examples of exposure point locations investigated within the Bethpage Community Park include the following:

- Bases on the baseball diamond
- “Landing areas” beneath slides in the playground areas
- Areas beneath swing sets, rings, slide rail and monkey bars within the playground areas
- Horseshoe pits within the horseshoe courts

These areas were selected based upon visual observation of soil disturbance within the individual areas during site reconnaissance performed by representatives of Dvirka and Bartilucci Consulting Engineers on behalf of Northrop Grumman Corporation. These areas are the only locations within the park where soil disturbance as a result of human activity was observed. In total, 19 exposure point locations were identified within the park. A location-specific description of each exposure point sampling location is provided in Table 3-1.

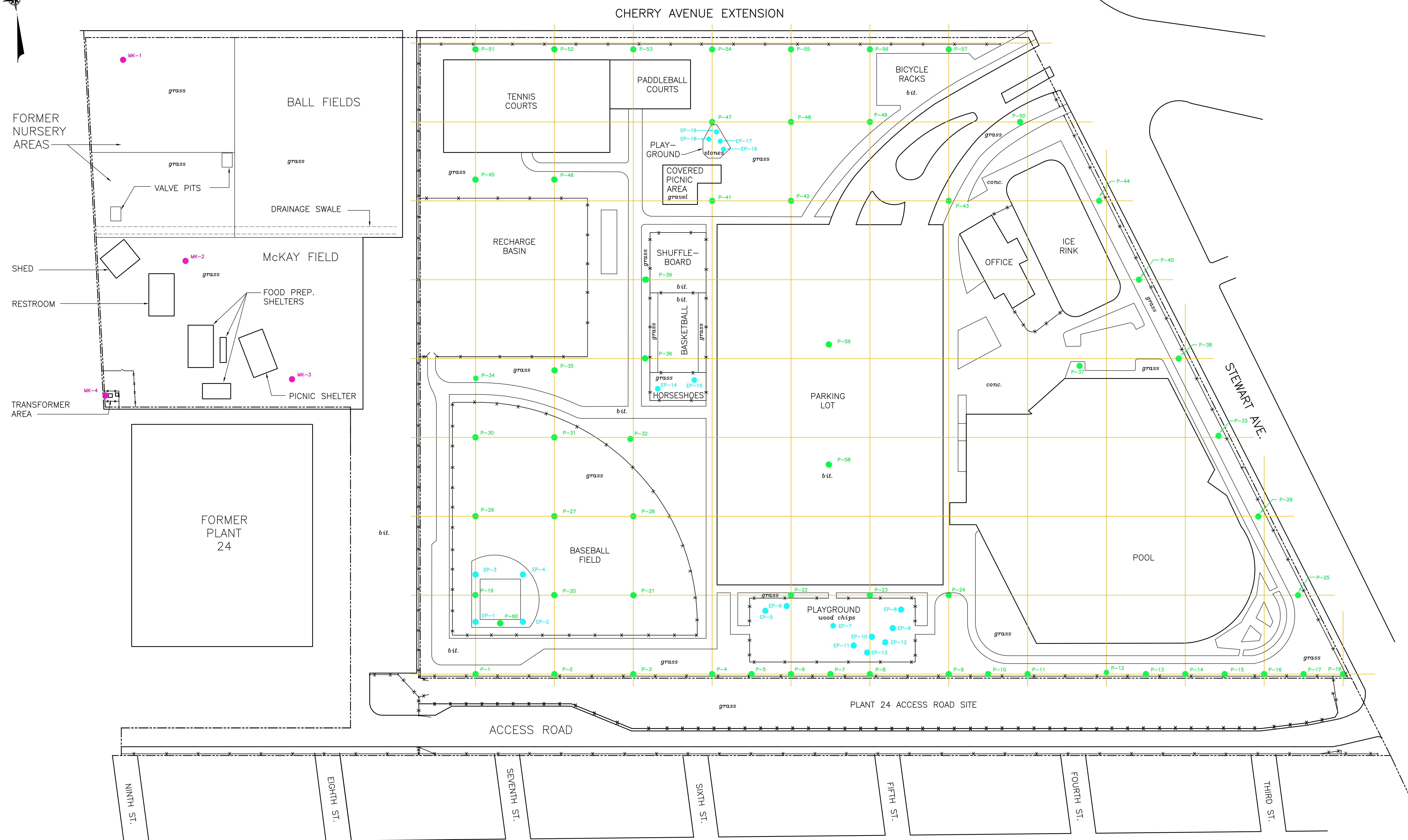
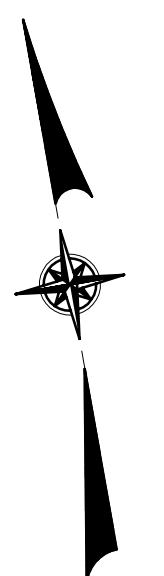
The soil probe locations and exposure point sampling locations are presented on Figure 3-1.

In addition to the sample locations within the Town of Oyster Bay Bethpage Community Park described above, at the request of the NYSDOH, surface soil samples were collected from an adjacent Northrop Grumman-owned property referred to as the McKay Field Property and

**Table 3-1**

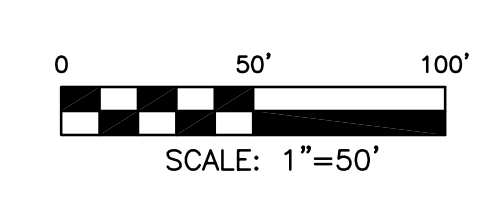
**NORTHROP GRUMMAN CORPORATION  
TOWN OF OYSTER BAY  
BETHPAGE COMMUNITY PARK SAMPLING PROGRAM  
EXPOSURE POINT SAMPLE LOCATION DESCRIPTION**

<b>Sample ID</b>	<b>Sampling Location</b>
EP-1	Baseball field – home plate
EP-2	Baseball field – first base
EP-3	Baseball field – third base
EP-4	Baseball field – second base
EP-5	South playground – area beneath swing set
EP-6	South playground – landing area beneath slide
EP-7	South playground – area beneath rings
EP-8	South playground – area beneath swing set
EP-9	South playground – area beneath rings
EP-10	South playground – area beneath slide rail
EP-11	South playground – landing area beneath slide
EP-12	South playground – landing area beneath slide
EP-13	South playground – landing area beneath slide
EP-14	Horseshoe court – southwest horseshoe pit
EP-15	Horseshoe court – northeast horseshoe pit
EP-16	North playground – landing area beneath slide
EP-17	North playground – landing area beneath pole
EP-18	North playground – area beneath ladder
EP-19	North playground – landing area beneath slide



**NOTES:**  
 1. PARK FEATURES AND STRUCTURES DIGITIZED FROM A MARCH 14, 1974 AERIAL PHOTOGRAPH.  
 2. THE APPROXIMATE LOCATIONS AND DIMENSIONS OF THE PARK FEATURES AND STRUCTURES HAVE BEEN FIELD VERIFIED.

- LEGEND:**
- — — — — PROPERTY LINE
  - x — x — FENCE
  - x — x — TEMPORARY FENCE
  - SOIL PROBE LOCATION (ADVANCED TO A DEPTH OF 8 FEET BELOW GRADE)
  - EXPOSURE POINT SAMPLING LOCATION (COLLECTED FROM THE 0-2" DEPTH INTERVAL)
  - SURFACE SOIL SAMPLING LOCATION (COLLECTED FROM THE 0-2" DEPTH INTERVAL)



NO.	DATE	REVISION	INT.
—	04/02	ORIGINAL DRAWING	M.R.H.

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

PROJECT ENGINEER: B.M.V.  
 DRAWN BY: L.V.G.  
 DESIGNED BY: M.R.H.  
 CHECKED BY: B.M.V.



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

**TOWN OF OYSTER BAY**  
 BETHPAGE COMMUNITY PARK  
 SOIL PROBE LOCATION PLAN

PROJECT NO. 1572-06	DRAWING NO. <b>3-1</b>
DATE JUNE 2002	SCALE AS NOTED

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Former Nursery Areas. Sampling on this property was requested by the NYSDOH in areas where PCBs were previously detected at concentrations *below* the TAGM 4046 Recommended Soil Cleanup Objectives. In total, four surface soil samples were collected from the 0 to 2-inch depth interval below grade from the McKay Field and Former Nursery Areas and analyzed for PCBs. The locations where these four surface soil samples were collected is shown on Figure 3-1.

### **3.2 Field Activities**

At the request of Northrop Grumman Corporation, on March 5 through 7, 2002, Dvirka and Bartilucci Consulting Engineers (D&B) undertook the soil sampling program within the Town of Oyster Bay Bethpage Community Park. During the course of the field program, D&B utilized the Site-Specific Work Plan prepared for the project and approved by both the NYSDEC and NYSDOH.

The following sections present a general description of the soil sampling conducted at the soil probe locations, the exposure point locations and the McKay Field Property and Former Nursery Areas locations.

#### **3.2.1 Soil Probe Locations**

Prior to initiation of the field program, a grid was overlain on the park by a licensed surveyor. Based on this grid, the locations of the soil probes were established as shown on Figure 3-1. Since the site plan for the park was digitized from a 1974 aerial photograph and some changes to the park layout were made in the intervening 28 years, two of the original probe locations (i.e., P-37 and P-50) had to be moved since they fell on asphalt or concrete. A complete description of the changes to the sampling locations proposed in the Site-Specific Work Plan is described in section 3.3 of this report. It should be noted that Figure 3-1 has been updated to reflect the current park layout and probe locations.

At each probe location, a soil probe was advanced to 8 feet below grade utilizing the Geoprobe sampling system with either 2-foot or 4-foot sleeves. Soil samples were retrieved from the entire depth of the probe and characterized by a field geologist representing D&B. Soil samples were collected from each probe from the 0 to 2-inch, 2-inch to 2-foot, 2 to 4-foot, 4 to 6-foot and 6 to 8-foot depth intervals below grade for laboratory analysis. All soil samples were placed in pre-cleaned laboratory-supplied sample jars, labeled, placed on ice and packed into a sample cooler for delivery to the laboratory. All soil samples collected were denoted by their respective probe number (as shown on Figure 3-1) followed by a sample number which represented its depth below grade as follows: all samples collected from the 0 to 2-inch depth interval were denoted "S1," the 2-inch to 2-foot depth interval "S2," the 2 to 4-foot depth interval "S3," the 4 to 6-foot depth interval "S4," and the 6 to 8-foot depth interval "S5." It should be noted that S1 samples (0 to 2-inch depth interval) were not collected from the two probes located within the parking lot (probes P-58 and P-59) since this depth interval represented asphalt and gravel only.

Following collection of soil samples at each probe location, all non-disposable drilling and sampling equipment was properly decontaminated utilizing the procedures outlined in the Site-Specific Work Plan. All disposable drilling and sampling equipment was properly discarded following its one-time use.

In total, 60 soil probes were advanced within the Bethpage Community Park and 298 soil samples were collected for laboratory analysis. All soil samples collected from probes advanced within the Bethpage Community Park were analyzed for PCBs and Resource Conservation and Recovery Act (RCRA) metals. The laboratory utilized to perform the laboratory analyses on the soil samples (Mitkem Corporation) participates in the NYSDOH Environmental Laboratory Approval Program.

It should be noted that four soil probe locations (i.e., P-12, P-32, P-33 and P-34) had to be moved from their original proposed locations due to access limitations. A complete description of the changes to the sampling locations proposed in the Site-Specific Work Plan is

described in Section 3.3 of this report. It should be noted that Figure 3-1 has been updated to reflect the correct probe locations.

### 3.2.2 Exposure Point Locations

The exposure point locations were located as proposed in the Site-Specific Work Plan in areas where soil disturbance due to human activity was observed. It should be noted that four exposure point locations (i.e., EP-16, EP-17, EP-18 and EP-19) had to be moved from their original proposed locations since the area where they were proposed was reconstructed. A complete description of the changes to the sampling locations proposed in the Site-Specific Work Plan is described in section 3.3 of this report. It should be noted that Figure 3-1 has been updated to reflect the correct exposure point locations.

At each exposure point location, soil samples were collected from the 0 to 2-inch depth interval below grade utilizing a stainless steel trowel. Care was exercised to prevent the collection of wood chips, grass and other surface debris with the soil sample. All soil samples were placed in pre-cleaned laboratory-supplied sample jars, labeled, placed on ice and packed into a sample cooler for delivery to the laboratory. All soil samples collected were denoted by their respective exposure point location number as shown on Figure 3-1.

Following collection of soil samples at each exposure point location, all non-disposable sampling equipment was properly decontaminated utilizing the procedures outlined in the Site-Specific Work Plan. All disposable sampling equipment was properly discarded following its one-time use.

In total, 19 soil samples were collected from exposure point locations for laboratory analysis. All exposure point soil samples collected from within the Bethpage Community Park were analyzed for PCBs and RCRA metals.

### 3.2.3 McKay Field and Former Nursery Areas Locations

The McKay Field and Former Nursery Areas locations were located as proposed in the Site-Specific Work Plan as requested by the NYSDOH.

At each location, surface soil samples were collected from the 0 to 2-inch depth interval below grade utilizing a stainless steel trowel. Care was exercised to prevent the collection of wood chips, grass and other surface debris with the soil sample. All soil samples were placed in pre-cleaned laboratory-supplied sample jars, labeled, placed on ice and packed into a sample cooler for delivery to the laboratory. All soil samples collected were denoted by their respective location number as shown on Figure 3-1.

Following collection of surface soil samples at each location, all non-disposable sampling equipment was properly decontaminated utilizing the procedures outlined in the Site-Specific Work Plan. All disposable sampling equipment was properly discarded following its one-time use.

In total, 4 surface soil samples were collected from the McKay Field and Former Nursery Areas locations for laboratory analysis. All soil samples collected from McKay Field and the Former Nursery Areas were analyzed for PCBs.

### **3.3 Changes to Proposed Sample Locations**

It was necessary to move ten of the proposed sampling locations within the Town of Oyster Bay Bethpage Community Park. This was the result of access limitations, as well as the fact that the site plan for the park was digitized from a 1974 aerial photograph and some changes to the park layout were made in the intervening 28 years. Rather than add or delete any of the sampling locations proposed in the Site-Specific Work Plan, the locations were moved to the nearest areas where the obstruction was no longer present. The following lists the affected sampling locations along with the reason which necessitated the move.

- Probe P-12 – This probe was moved 2 feet to the north due to a tree which prevented the sampling rig from accessing the proposed location.
- Probe P-32 – This probe was moved 2 feet to the south and 4 feet to the west to avoid an underground sewer line encountered while drilling in the proposed location.
- Probe P-33 – This probe was moved 2 feet to the north to avoid a sprinkler and fire hydrant water line located in the grass strip running parallel to Stewart Avenue.
- Probe P-34 – This probe was moved 16 feet to the south to avoid a mound of stockpiled soil located south of the recharge basin.

It should be noted that subsequent to the field activities performed during the soil sampling program, this soil was removed and a concrete pad poured in the area. The pad extends from the recharge basin south to the path and from the western fence line east to approximately midway between probes P-34 and P-35. The purpose of this pad is unknown.

- Probe P-37 – This probe was moved 35 feet to the west and 10 feet to the south to fall within a soil area since the proposed probe location fell within an area covered with concrete. This change was necessary because the original site plan did not accurately reflect the boundaries of the concrete within this area.
- Probe P-50 – This probe was moved 9.5 feet to the west since the proposed location fell on an asphalt path. This change was necessary because the original site plan did not accurately reflect the boundaries of this asphalt path.
- Exposure Point Locations EP-16, EP-17, EP-18 and EP-19 – These exposure point locations had to be relocated due to the reconstruction of the playground. This reconstruction occurred sometime between August 2001 when the site plan was field verified and March 2002 when the field activities were undertaken.

It should also be noted that, as a result of the reconstruction, the surface of the playground area had been changed. Previously, the area was soil covered with a layer of wood chips. Currently, the area is soil covered with 9 to 12 inches of small stone. As a result, the exposure point samples were collected from beneath the stone layer located in this area, approximately 9 to 12 inches below grade.

Please note that Figure 3-1 presented in this report has been updated to reflect the correct locations of all sampling performed during the soil sampling program.

## **4.0 FINDINGS**

This section presents the findings of the soil sampling program undertaken within the Town of Oyster Bay Bethpage Community Park, as well as the Northrop Grumman-owned properties referred to as McKay Field and the Former Nursery Areas, including a summary of the analytical results of the soil samples obtained during the field program.

### **4.1 Sample Analytical Results**

A total of 317 soil samples were collected and analyzed during the field activities conducted in the Town of Oyster Bay Bethpage Community Park during the soil sampling program. All samples were analyzed for polychlorinated biphenyls (PCBs) utilizing USEPA SW846 Method 8082 and Resource Conservation and Recovery Act (RCRA) metals utilizing USEPA SW846 Method 6010/7471.

A total of four surface soil samples were collected and analyzed during the field activities conducted at the Northrop Grumman-owned properties referred to as McKay Field and the Former Nursery Areas during the soil sampling program. All samples were analyzed for PCBs utilizing USEPA SW846 Method 8082.

All analyses were performed by Mitkem Corporation which participates in the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP). 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. In total, 17 sets of MS/MSD samples were collected during the soil sampling program for PCB and RCRA metal analyses.

The results of the laboratory analyses performed on the soil samples are summarized on Tables A-1 through A-3 presented in Appendix A of this report as follows:

- Table A-1 summarizes the PCB and RCRA metal analytical results for the soil samples collected from the soil probes advanced within the Bethpage Community Park.
- Table A-2 summarizes the PCB and RCRA metal analytical results for the soil samples collected from the exposure point locations within the Bethpage Community Park.
- Table A-3 summarizes the PCB analytical results for the surface soil samples collected from McKay Field and the Former Nursery Areas.

#### 4.1.1 Soil Screening Criteria

The criteria listed in Appendix A of the New York State Department of Environmental Conservation's (NYSDEC's) Technical and Administrative Guidance Memorandum (TAGM) No. 4046 – "Determination of Soil Cleanup Objectives and Cleanup Levels" has been selected as soil screening criteria for the soil sampling program. As a result, the Recommended Soil Cleanup Objectives listed in TAGM 4046 for Total PCBs of 1 part per million (ppm) for surface soil and 10 ppm for subsurface soil have been established as screening criteria. It should be noted that, in accordance with the NYSDOH, surface soil has been determined to include both the S1 samples (0 to 2-inch depth interval below grade) and the S2 samples (2-inch to 2-foot depth interval below grade); i.e., "surface soil" corresponds to the first two feet of soil below grade. In addition, the Eastern USA Background Levels listed in TAGM 4046 have been established as screening criteria for RCRA metals. It should be noted that criteria listed in the revised draft TAGM 4046 dated April 7, 1995 for cadmium and chromium of 10 ppm and 50 ppm, respectively, have been established as screening criteria for these two metals.

The soil screening criteria described in the preceding paragraph is presented in the right-hand column on the laboratory analytical summary tables presented in Appendix A. If, for a given constituent, the concentration of the constituent detected in the soil sample exceeds the screening criterion then the constituent concentration has been boxed and bolded on the table.

In order to graphically present the locations where individual constituent concentrations exceeded the soil screening criteria within the Town of Oyster Bay Bethpage Community Park, ten figures have been prepared. One set of five figures summarizes the PCB concentrations

detected in excess of the soil screening criteria by depth interval and the other set of five figures summarizes the individual RCRA metal concentrations detected in excess of the soil screening criteria by depth interval. These ten figures are presented at the end of this section as follows:

<u>Figure No.</u>	<u>Analysis</u>	<u>Depth Interval Below Grade</u>
4-1	PCBs	0 to 2 inches
4-2	PCBs	2 inches to 2 feet
4-3	PCBs	2 to 4 feet
4-4	PCBs	4 to 6 feet
4-5	PCBs	6 to 8 feet
4-6	RCRA Metals	0 to 2 inches
4-7	RCRA Metals	2 inches to 2 feet
4-8	RCRA Metals	2 to 4 feet
4-9	RCRA Metals	4 to 6 feet
4-10	RCRA Metals	6 to 8 feet

Again, it should be noted that only analytical results for probes containing samples which exhibited constituent concentrations exceeding the soil screening criteria are provided on the figures.

## 4.2 Data Validation

Surface and subsurface soil samples were collected from the Town of Oyster Bay Bethpage Community Park during the week of March 4, 2002. The samples were analyzed for PCBs and RCRA metals, with the exception of the McKay Field Property samples which were analyzed for PCBs only. Mitkem Corporation, a subcontractor to Dvirka and Bartilucci Consulting Engineers, performed the sample analyses in accordance with USEPA SW846 methods and New York State Department of Environmental Conservation (NYSDEC) 6/00 Analytical Services Protocol (ASP) Quality Assurance/Quality Control (QA/QC) requirements.



The data packages submitted by Mitkem Corporation have been reviewed for completeness and compliance with the specified methods. Twenty percent of the environmental sample results and all of the QA/QC sample results have been checked for transcription and/or calculation errors to yield a “20% Validation.” The findings of the review process are summarized below. Copies of the data validation summary forms are contained in Appendix B of this report.

All samples were initially analyzed within the method specified holding times.

Sample “P-13 S5” required re-extraction due to surrogate recoveries being below QC limits. The extract was performed outside of holding time but the recoveries were within QC limits so the results from the re-extraction have been deemed the best set and are included in the data summary tables.

Sample “P-5 S4” had percent solids of 37%; therefore, all results for this sample have been qualified as estimated possibly biased high. Protocol states that all analytical results for a sample with less than 50% solids shall be qualified as estimated. The raw data for the percent moisture calculation has been reviewed and deemed to be correct.

No other problems were found with the sample results. All data has been deemed valid and usable for environmental assessment purposes as qualified above.

### **4.3 Summary of Findings**

The sections which follow provide a summary of the analytical results of the soil samples collected from the Town of Oyster Bay Bethpage Community Park and McKay Field and Former Nursery Areas. The discussion has been organized and presented by soil probe location, exposure point location, and sample locations specific to McKay Field and the Former Nursery Areas.

#### 4.3.1 Soil Probe Locations

The discussion of the findings of the analytical results of the soil samples collected from soil probes advanced within the Bethpage Community Park has been organized and presented by analysis and sample depth interval. The sections which follow summarize the PCB and RCRA metal concentrations in excess of the soil screening criteria which were detected in the soil samples collected from the soil probes by analysis and each depth interval.

##### 4.3.1.1 – PCBs

The following summarizes the PCB concentrations in excess of the soil screening criteria detected in the soil samples collected during this program by depth interval.

##### *0 to 2-Inch Depth Interval Below Grade*

The 0 to 2-inch depth interval is represented by the S1 samples presented on Table A-1 in Appendix A of this report.

In total, 58 soil samples were collected from the 0 to 2-inch depth interval below grade from soil probes advanced within the Bethpage Community Park as shown on Figure 3-1 provided in this report. It should be noted that soil samples were not collected from this depth interval from the two probes advanced within the parking lot (P-58 and P-59) since this depth interval represented asphalt and gravel only.

The soil screening criterion for PCBs for this depth interval is 1 ppm. A summary of the PCB concentrations detected in the soil samples collected from the 0 to 2-inch depth interval is provided in the following table:

<u>Constituent</u>	<u>Total No. of Samples in Depth Interval</u>	<u>No. of Samples Exceeding the Soil Screening Criterion</u>	<u>Concentration Range (ppm)</u>	<u>Probe Exhibiting Highest Concentration</u>
Total PCBs	58	13	Nondetect – 23	P-31

PCBs were detected in 13 soil samples exceeding the soil screening criterion. These samples were collected from probes located in the baseball field and adjacent area to the north (probes P-31 and P-35), near the south playground area (probe P-24), along the southern fence line (probes P-2, P-12, P-14 and P-15), along the Stewart Avenue fence line (probes P-25, P-29 P-33 and P-37) and in the north grass area (probes P-42 and P-47).

Figure 4-1, presented at the end of this section, summarizes the PCB concentrations which exceeded the soil screening criterion for the 0 to 2-inch depth interval.

*2-Inch to 2-Foot Depth Interval Below Grade*

The 2-inch to 2-foot depth interval is represented by the S2 samples presented on Table A-1 in Appendix A of this report.

In total, 60 soil samples were collected from the 2-inch to 2-foot depth interval below grade from soil probes advanced within the Bethpage Community Park as shown on Figure 3-1 provided in this report.

The soil screening criterion for PCBs for this depth interval is 1 ppm. A summary of the PCB concentrations detected in the soil samples collected from the 2-inch to 2-foot depth interval is provided in the following table:

<u>Constituent</u>	<u>Total No. of Samples in Depth Interval</u>	<u>No. of Samples Exceeding the Soil Screening Criterion</u>	<u>Concentration Range (ppm)</u>	<u>Probe Exhibiting Highest Concentration</u>
Total PCBs	60	11	Nondetect – 19.2	P-36

PCBs were detected in 11 soil samples exceeding the soil screening criterion. These samples were collected from probes located in the baseball field and adjacent area to the north (probes P-30, P-31, P-32, P-34, P-35 and P-36), along the southern fence line (probes P-4 and P-9), near the south playground area (probe P-24) and in the north grass area (probes P-47 and P-48).

Figure 4-2, presented at the end of this section, summarizes the PCB concentrations which exceeded the soil screening criterion for the 2-inch to 2-foot depth interval.

#### *2 to 4-Foot Depth Interval Below Grade*

The 2 to 4-foot depth interval is represented by the S3 samples presented on Table A-1 in Appendix A of this report.

In total, 60 soil samples were collected from the 2 to 4-foot depth interval below grade from soil probes advanced within the Bethpage Community Park as shown on Figure 3-1 provided in this report.

The soil screening criterion for PCBs for this depth interval is 10 ppm. A summary of the PCB concentrations detected in the soil samples collected from the 2 to 4-foot depth interval is provided in the following table:

<u>Constituent</u>	<u>Total No. of Samples in Depth Interval</u>	<u>No. of Samples Exceeding the Soil Screening Criterion</u>	<u>Concentration Range (ppm)</u>	<u>Probe Exhibiting Highest Concentration</u>
Total PCBs	60	5	Nondetect – 550	P-31

PCBs were detected in 5 soil samples exceeding the soil screening criterion. These samples were collected from probes located in the baseball field and adjacent area to the north (probes P-30, P-31 and P-36), along the southern fence line (probe P-9) and near the south playground area (probe P-22).

Figure 4-3, presented at the end of this section, summarizes the PCB concentrations which exceeded the soil screening criterion for the 2 to 4-foot depth interval.

#### *4 to 6-Foot Depth Interval Below Grade*

The 4 to 6-foot depth interval is represented by the S4 samples presented on Table A-1 in Appendix A of this report.

In total, 60 soil samples were collected from the 4 to 6-foot depth interval below grade from soil probes advanced within the Bethpage Community Park as shown on Figure 3-1 provided in this report.

The soil screening criterion for PCBs for this depth interval is 10 ppm. A summary of the PCB concentrations detected in the soil samples collected from the 4 to 6-foot depth interval is provided in the following table:

<u>Constituent</u>	<u>Total No. of Samples in Depth Interval</u>	<u>No. of Samples Exceeding the Soil Screening Criterion</u>	<u>Concentration Range (ppm)</u>	<u>Probe Exhibiting Highest Concentration</u>
Total PCBs	60	7	Nondetect – 880	P-31

PCBs were detected in 7 soil samples exceeding the soil screening criterion. These samples were collected from probes located in the baseball field and adjacent area to the north (probes P-20, P-26, P-28, P-31, P-34 and P-60) and in the north grass area (probe P-47).

Figure 4-4, presented at the end of this section, summarizes the PCB concentrations which exceeded the soil screening criterion for the 4 to 6-foot depth interval.

*6 to 8-Foot Depth Interval Below Grade*

The 6 to 8-foot depth interval is represented by the S5 samples presented on Table A-1 in Appendix A of this report.

In total, 60 soil samples were collected from the 6 to 8-foot depth interval below grade from soil probes advanced within the Bethpage Community Park as shown on Figure 3-1 provided in this report.

The soil screening criterion for PCBs for this depth interval is 10 ppm. A summary of the PCB concentrations detected in the soil samples collected from the 6 to 8-foot depth interval is provided in the following table:

<u>Constituent</u>	<u>Total No. of Samples in Depth Interval</u>	<u>No. of Samples Exceeding the Soil Screening Criterion</u>	<u>Concentration Range (ppm)</u>	<u>Probe Exhibiting Highest Concentration</u>
Total PCBs	60	7	Nondetect – 41	P-27

PCBs were detected in 7 soil samples exceeding the soil screening criterion. These samples were collected from probes located in the baseball field and adjacent area to the north (probes P-19, P-26, P-27, P-28, P-31, P-34 and P-60).

Figure 4-5, presented at the end of this section, summarizes the PCB concentrations which exceeded the soil screening criterion for the 6 to 8-foot depth interval.

#### 4.3.1.2 – RCRA Metals

The following summarizes the RCRA metals concentrations in excess of the soil screening criteria detected in the soil samples collected during this program by depth interval.

##### *0 to 2-Inch Depth Interval Below Grade*

The 0 to 2-inch depth interval is represented by the S1 samples presented on Table A-1 in Appendix A of this report.

In total, 58 soil samples were collected from the 0 to 2-inch depth interval below grade from soil probes advanced within the Bethpage Community Park as shown on Figure 3-1 provided in this report. It should be noted that soil samples were not collected from this depth interval from the two probes advanced within the parking lot (P-58 and P-59) since this depth interval represented asphalt and gravel only.

A summary of the RCRA metal concentrations detected in the soil samples collected from the 0 to 2-inch depth interval is provided in the following table:

<b><u>Constituent</u></b>	<b><u>Total No. of Samples in Depth Interval</u></b>	<b><u>No. of Samples Exceeding the Soil Screening Criterion</u></b>	<b><u>Concentration Range (ppm)</u></b>	<b><u>Probe Exhibiting Highest Concentration</u></b>
Arsenic	58	9	2.3 – 16.9	P-18
Barium	58	0	13.1 – 328	P-36

<u>Constituent</u>	<u>Total No. of Samples in Depth Interval</u>	<u>No. of Samples Exceeding the Soil Screening Criterion</u>	<u>Concentration Range (ppm)</u>	<u>Probe Exhibiting Highest Concentration</u>
Cadmium	58	0	0.16 – 5.9	P-31
Chromium	58	8	7.8 – 364	P-31
Lead	58	0	5.2 – 200	P-29
Mercury	58	21	Nondetect – 0.31	P-44 and P-52
Selenium	58	0	Nondetect – 1.6	P-32
Silver	58	--	Nondetect – 12.8	P-30

Arsenic was detected in 9 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located along the southern fence line (probes P-13 and P-18), along the Stewart Avenue fence line (probe P-33), adjacent to the ice rink (probe P-43) and along the northern fence line (probes P-51, P-52, P-53, P-55 and P-56).

Chromium was detected in 8 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located in the baseball field and adjacent area to the north (probes P-30, P-31, P-32, P-34 and P-35), along the southern fence line (probes P-2 and P-4) and along the Stewart Avenue fence line (probe P-44).

Mercury was detected in 21 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located in the baseball field area (probes P-26 and P-32), along the southern fence line (probes P-2, P-12, P-13 and P-14), along the Stewart Avenue fence line (probes P-29, P-33, P-44 and P-50), in the north grass area (probes P-41, P-42, P-48 and P-49) and along the northern fence line (probes P-51, P-52, P-53, P-54, P-55, P-56 and P-57).

For barium, cadmium, lead and selenium, none of the concentrations detected in the soil samples analyzed from this depth interval exceeded their respective soil screening criterion.



Figure 4-6, presented at the end of this section, summarizes the RCRA metal concentrations which exceeded their respective soil screening criterion for the 0 to 2-inch depth interval.

*2-Inch to 2-Foot Depth Interval Below Grade*

The 2-inch to 2-foot depth interval is represented by the S2 samples presented on Table A-1 in Appendix A of this report.

In total, 60 soil samples were collected from the 2-inch to 2-foot depth interval below grade from soil probes advanced within the Bethpage Community Park as shown on Figure 3-1 provided in this report.

A summary of the RCRA metal concentrations detected in the soil samples collected from the 2-inch to 2-foot depth interval is provided in the following table:

<u>Constituent</u>	<u>Total No. of Samples in Depth Interval</u>	<u>No. of Samples Exceeding the Soil Screening Criterion</u>	<u>Concentration Range (ppm)</u>	<u>Probe Exhibiting Highest Concentration</u>
Arsenic	60	4	0.79 – 24.3	P-55
Barium	60	0	3.5 – 58.5	P-53
Cadmium	60	1	Nondetect – 21.5	P-36
Chromium	60	16	5.2 – 857	P-36
Lead	60	1	1.2 – 594	P-7
Mercury	60	13	Nondetect – 0.52	P-18
Selenium	60	0	Nondetect – 0.91	P-34
Silver	60	--	Nondetect – 21.4	P-3

Arsenic was detected in 4 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located along the southern fence line (probe P-18) and along the northern fence line (probes P-51, P-53 and P-55).

Cadmium was detected in 1 soil sample exceeding its respective soil screening criterion. This sample was collected from a probe located in the area to the north of the baseball field (probe P-36).

Chromium was detected in 16 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located in the baseball field and adjacent area to the north (probes P-30, P-31, P-32, P-34, P-35 and P-36), along the southern fence line (probes P-1, P-2, P-3, P-4 and P-7), along the Stewart Avenue fence line (probes P-25 and P-33), in the area south of the tennis courts (probes P-45 and P-46) and in the north grass area (P-47).

Lead was detected in 1 soil sample exceeding its respective soil screening criterion. This sample was collected from a probe located along the southern fence line (probe P-7).

Mercury was detected in 13 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located in the baseball field and adjacent area to the north (probes P-26, P-31 and P-36), along the southern fence line (P-3, P-8, P-13 and P-18), along the Stewart Avenue fence line (probe P-37) and along the northern fence line (probes P-53, P-54, P-55, P-56 and P-57).

For barium and selenium, none of the concentrations detected in the soil samples analyzed from this depth interval exceeded their respective soil screening criterion. Figure 4-7, presented at the end of this section, summarizes the RCRA metal concentrations which exceeded their respective soil screening criterion for the 2-inch to 2-foot depth interval.

*2 to 4-Foot Depth Interval Below Grade*

The 2 to 4-foot depth interval is represented by the S3 samples presented on Table A-1 in Appendix A of this report.

In total, 60 soil samples were collected from the 2 to 4-foot depth interval below grade from soil probes advanced within the Bethpage Community Park as shown on Figure 3-1 provided in this report.

A summary of the RCRA metal concentrations detected in the soil samples collected from the 2 to 4-foot depth interval is provided in the following table:

<u>Constituent</u>	<u>Total No. of Samples in Depth Interval</u>	<u>No. of Samples Exceeding the Soil Screening Criterion</u>	<u>Concentration Range (ppm)</u>	<u>Probe Exhibiting Highest Concentration</u>
Arsenic	60	3	0.79 – 15.7	P-22 and P-59
Barium	60	0	3.1 – 79.6	P-38
Cadmium	60	0	Nondetect – 6.9	P-31
Chromium	60	21	1.9 – 971	P-5
Lead	60	0	0.94 – 134	P-1
Mercury	60	7	Nondetect – 0.54	P-21
Selenium	60	0	Nondetect – 1.8	P-27
Silver	60	--	Nondetect – 22.7	P-26

Arsenic was detected in 3 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located in the baseball field area (probe P-27), near the south playground area (probe P-22) and in the parking lot (probe P-59).

Chromium was detected in 21 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located in the baseball field and adjacent area to the north (probes P-20, P-26, P-27, P-30, P-31, P-32, P-34, P-35, P-36 and P-60), along the southern fence line (probes P-1, P-2 and P-5), near the south playground area (probe P-22), along the Stewart Avenue fence line (probes P-25, P-29, P-33, P-40 and P-44) and in the area south of the tennis courts (probes P-45 and P-46).

Mercury was detected in 7 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located in the baseball field area (probes P-21 and P-27), along the southern fence line (probes P-1 and P-3), near the south playground area (probe P-22), in the north grass area (probe P-49) and along the northern fence line (probe P-57).

For barium, cadmium, lead and selenium, none of the concentrations detected in the soil samples analyzed from this depth interval exceeded their respective soil screening criterion. Figure 4-8, presented at the end of this section, summarizes the RCRA metal concentrations which exceeded their respective soil screening criterion for the 2 to 4-foot depth interval.

#### *4 to 6-Foot Depth Interval Below Grade*

The 4 to 6-foot depth interval is represented by the S4 samples presented on Table A-1 in Appendix A of this report.

In total, 60 soil samples were collected from the 4 to 6-foot depth interval below grade from soil probes advanced within the Bethpage Community Park as shown on Figure 3-1 provided in this report.

A summary of the RCRA metal concentrations detected in the soil samples collected from the 4 to 6-foot depth interval is provided in the following table:

<u>Constituent</u>	<u>Total No. of Samples in Depth Interval</u>	<u>No. of Samples Exceeding the Soil Screening Criterion</u>	<u>Concentration Range (ppm)</u>	<u>Probe Exhibiting Highest Concentration</u>
Arsenic	60	3	0.39 – 472	P-5
Barium	60	1	2.7 – 5,470	P-5
Cadmium	60	3	Nondetect – 56.3	P-5
Chromium	60	18	1.1 – 124,000	P-5
Lead	60	2	0.44 – 1,410	P-5
Mercury	60	4	Nondetect – 18.5	P-5
Selenium	60	1	Nondetect – 5.0	P-1
Silver	60	--	Nondetect – 14.2	P-26

It should be noted that the sample analyzed from probe P-5 had a percent moisture of 63 percent. For this reason, as discussed in the data validation section of this report, the analytical results for this soil sample have been qualified as estimated possibly biased high.

Arsenic was detected in 3 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located along the southern fence line (probes P-1 and P-5) and near the south playground area (probe P-22).

Barium was detected in 1 soil sample exceeding its respective soil screening criterion. This sample was collected from a probe located along the southern fence line (probe P-5).

Cadmium was detected in 3 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located in the area to the north of the baseball field (probe P-34) and along the southern fence line (probes P-1 and P-5).

Chromium was detected in 18 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located in the baseball field and adjacent

area to the north (probes P-20, P-26, P-27, P-28, P-30, P-31, P-32, P-34, P-35, P-36 and P-60), along the southern fence line (probes P-1, P-2, P-5 and P-14), near the south playground area (probe P-22), along the Stewart Avenue fence line (probe P-40) and in the area south of the tennis courts (probe P-46).

Lead was detected in 2 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located along the southern fence line (probe P-5) and near the south playground area (probe P-22).

Mercury was detected in 4 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located along the southern fence line (probes P-1 and P-5) and in the north grass area (probes P-48 and P-49).

Selenium was detected in 1 soil sample exceeding its respective soil screening criterion. This sample was collected from a probe located along the southern fence line (probe P-1).

Figure 4-9, presented at the end of this section, summarizes the RCRA metal concentrations which exceeded their respective soil screening criterion for the 4 to 6-foot depth interval.

#### *6 to 8-Foot Depth Interval Below Grade*

The 6 to 8-foot depth interval is represented by the S5 samples presented on Table A-1 in Appendix A of this report.

In total, 60 soil samples were collected from the 6 to 8-foot depth interval below grade from soil probes advanced within the Bethpage Community Park as shown on Figure 3-1 provided in this report.

A summary of the RCRA metal concentrations detected in the soil samples collected from the 6 to 8-foot depth interval is provided in the following table:

<u>Constituent</u>	<u>Total No. of Samples in Depth Interval</u>	<u>No. of Samples Exceeding the Soil Screening Criterion</u>	<u>Concentration Range (ppm)</u>	<u>Probe Exhibiting Highest Concentration</u>
Arsenic	60	0	0.59 – 7.3	P-28
Barium	60	0	2.5 – 61.9	P-58
Cadmium	60	2	Nondetect – 13.7	P-34
Chromium	60	15	1.6 – 760	P-34
Lead	60	0	0.55 – 48.2	P-28
Mercury	60	2	Nondetect – 0.30	P-48
Selenium	60	0	Nondetect – 1.0	P-36
Silver	60	--	Nondetect – 11.3	P-27

Cadmium was detected in 2 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located in the baseball field and adjacent area to the north (probes P-31 and P-34).

Chromium was detected in 15 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located in the baseball field and adjacent area to the north (probes P-19, P-26, P-27, P-28, P-30, P-31, P-32, P-34, P-35, P-36 and P-60), along the southern fence line (probes P-1, P-5 and P-14) and in the area south of the tennis courts (probe P-46).

Mercury was detected in 2 soil samples exceeding its respective soil screening criterion. These samples were collected from probes located in the baseball field area (probe P-60) and in the north grass area (probe P-48).

For arsenic, barium, lead and selenium, none of the concentrations detected in the soil samples analyzed from this depth interval exceeded their respective soil screening criterion.

Figure 4-10, presented at the end of this section, summarizes the RCRA metal concentrations which exceeded their respective soil screening criterion for the 6 to 8-foot depth interval.

#### 4.3.2 Exposure Point Locations

The PCB and RCRA metal analytical results for the soil samples collected from the exposure point locations are summarized on Table A-2 provided in Appendix A of this report. A description of the exceedances are summarized below.

In total, 19 soil samples were collected from the exposure point locations shown on Figure 3-1 provided in this report. All exposure point soil samples were analyzed for PCBs and RCRA metals.

##### *PCBs*

All exposure point soil samples were below the PCB soil screening criterion of 1 ppm with the exception of the soil samples collected from exposure point locations EP-17 (1.57 ppm), EP-18 (1.98 ppm) and EP-19 (1.26 ppm). All of three of these exposure point locations are situated within the north playground area located in the park.

It should be noted that, as discussed in Section 3.3 of this report, the north playground area was reconstructed sometime between August 2001 when D&B field verified the site plan and March 2002 when the field activities were conducted. Prior to the reconstruction, the surface of the north playground area was covered with wood chips underlain by soil. Exposure point samples were proposed in areas beneath slides where the wood chips had been “pushed aside” and soil disturbance was observed. Following the reconstruction of the playground area, the surface was covered with approximately 9 to 12 inches of stone. Due to the application of this layer of stone, areas of exposed soil were no longer noted in the this area. However, rather than delete the samples, which were proposed in the NYSDEC/NYSDOH-approved Site-Specific Work Plan, new areas beneath slides were selected to replace the old locations, even though the stone layer prevented soil disturbance due to recreation activities from occurring. As



a result, the exposure point samples collected from the north playground area were retrieved from beneath the stone layer, 9 to 12 inches below grade. Therefore, human contact with the soil exhibiting PCB concentrations in excess of the soil screening criterion is not likely.

#### *RCRA Metals*

All exposure point soil samples were below the soil screening criterion for metals with the exception of the soil sample collected from exposure point location EP-19. Arsenic was detected at a concentration of 33.5 ppm in sample EP-19 which exceeds the soil screening criterion of 12 ppm. This exposure point location is situated within the north playground area located in the park.

However, as discussed above, since the soil from where this soil sample was collected is located approximately 9 to 12 inches beneath a stone layer, human contact with this soil is not likely.

#### 4.3.3 McKay Field and Former Nursery Areas

The PCB analytical results for the surface soil samples collected from the McKay Field and Former Nursery Areas locations are summarized on Table A-3 provided in Appendix A of this report. A description of the exceedances are summarized below.

In total, four surface soil samples were collected from the McKay Field and Former Nursery Areas locations shown on Figure 3-1 provided in this report. All surface soil samples collected from this area were analyzed for PCBs.

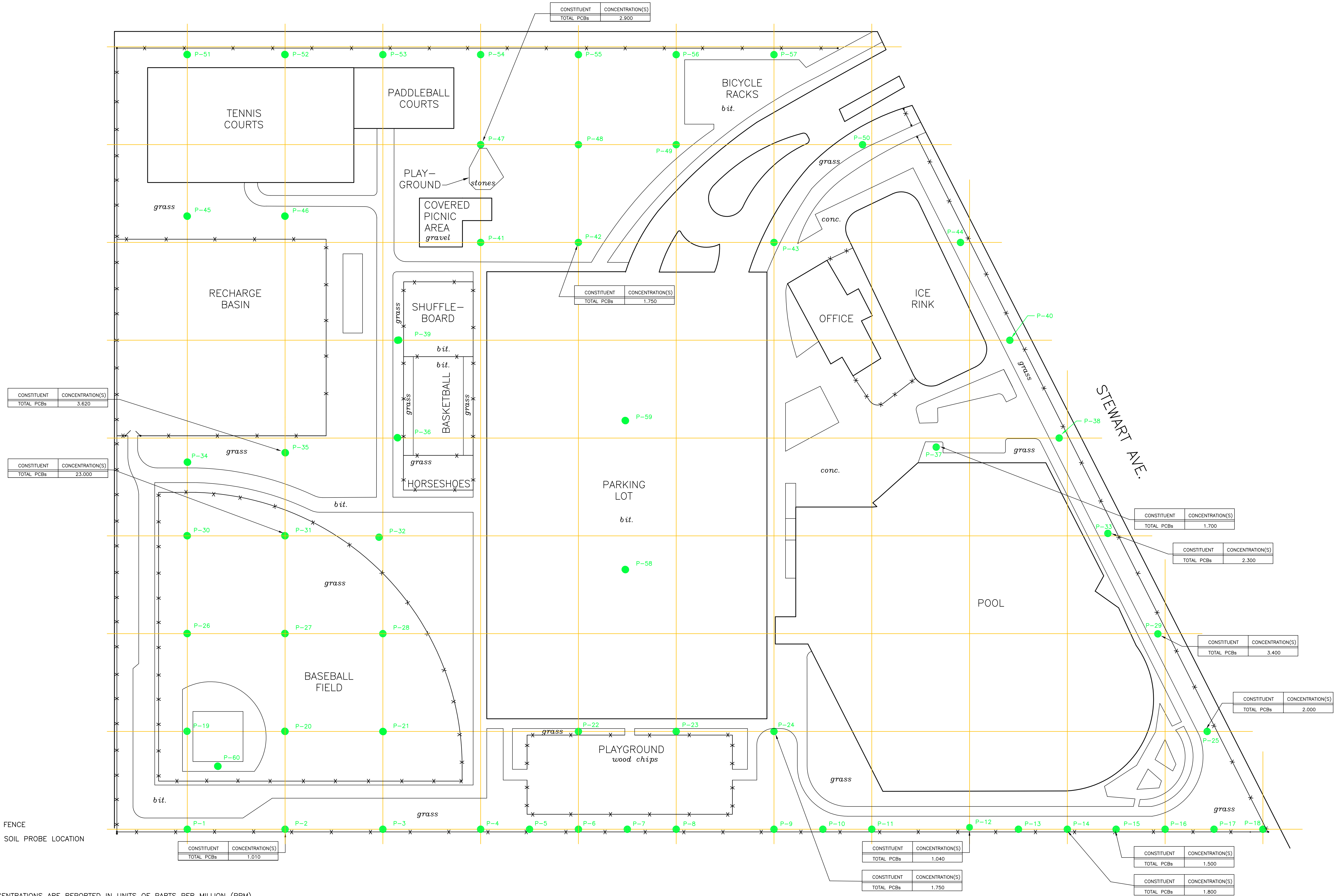
#### *PCBs*

All surface soil samples were below the PCB soil screening criterion of 1 ppm with the exception of the soil samples collected from locations MK-2 (1.74 ppm) and MK-4 (6.1 ppm).

Sample MK-2 is located to the northeast of the restroom building on the McKay Field property and sample MK-4 is located within the transformer area located on the McKay Field property.

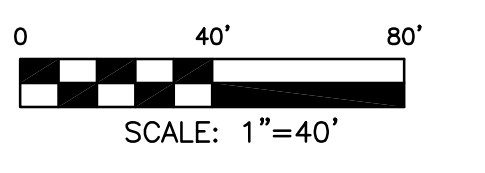
It should be noted that sample MK-4 was collected from the transformer area which is located behind a closed and locked gate. The only access to this area is through a gate from the Northrop Grumman Corporation property to the west of McKay Field. As a result, human contact with the soil located in this area is not likely.

CHERRY AVENUE EXTENSION



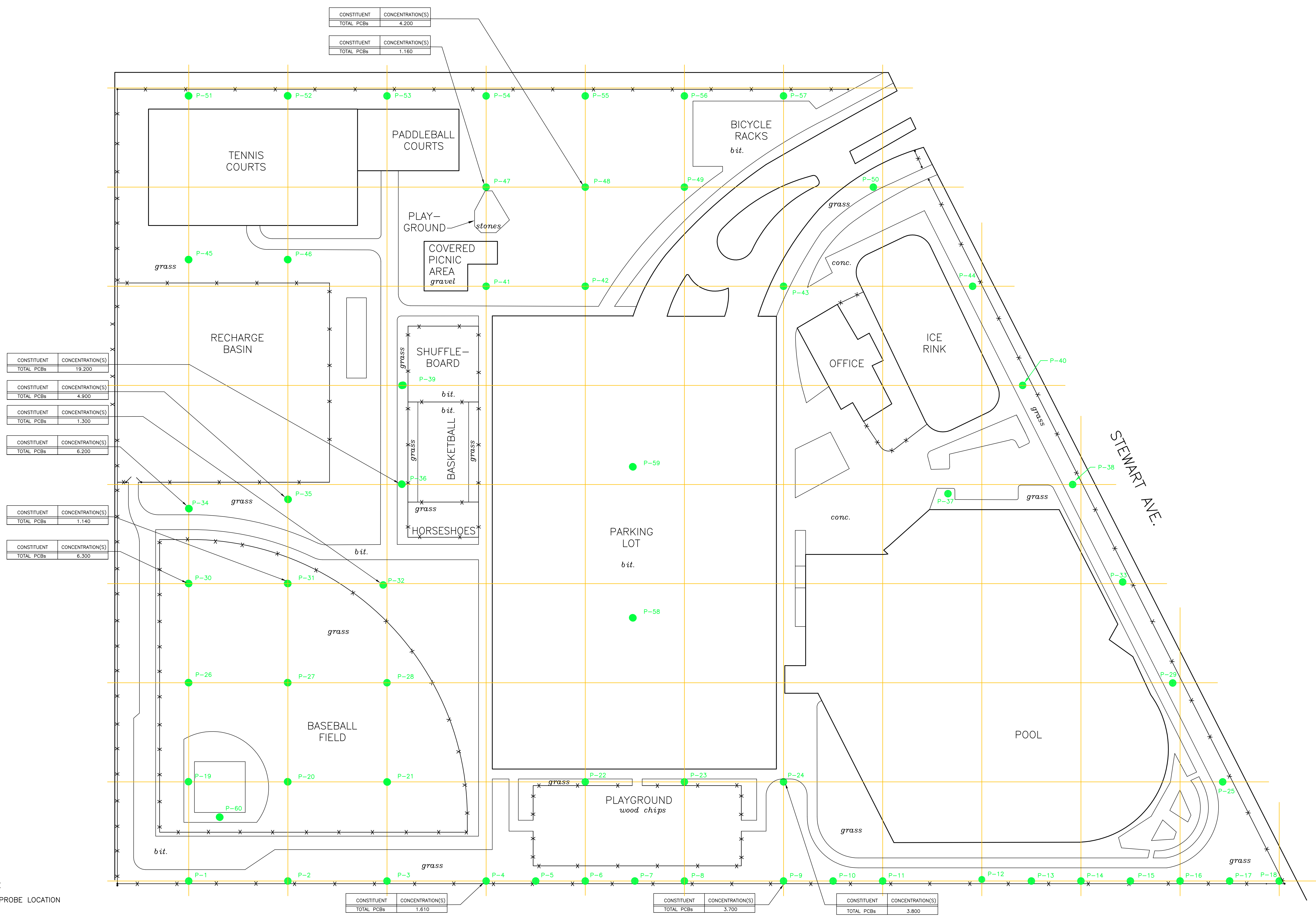
**LEGEND:**  
 -x-x- FENCE  
 ● SOIL PROBE LOCATION

- NOTES:**
1. ALL CONCENTRATIONS ARE REPORTED IN UNITS OF PARTS PER MILLION (PPM).
  2. ANALYTICAL RESULTS NOT PROVIDED ARE BELOW THE RECOMMENDED SOIL CLEANUP OBJECTIVE.
  3. SOIL SAMPLES WERE NOT COLLECTED FROM THE 0 TO 2-INCH DEPTH INTERVAL FROM PROBES P-58 AND P-59.



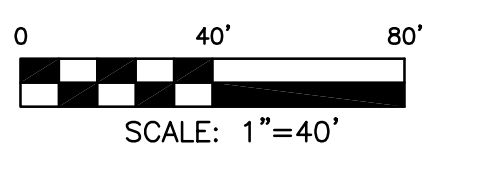
NO.	DATE	REVISION	INT.	UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.	 <b>DVIRKA AND BARTILUCCI</b> CONSULTING ENGINEERS A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.	<b>NORTHROP GRUMMAN CORPORATION</b> BETHPAGE FACILITY BETHPAGE, NEW YORK	<b>TOWN OF OYSTER BAY</b> BETHPAGE COMMUNITY PARK SUMMARY OF PCB CONCENTRATIONS 0 TO 2-INCH DEPTH INTERVAL BELOW GRADE	PROJECT NO.	DRAWING NO.
	04/02	ORIGINAL DRAWING	M.R.H.					1572-06	4-1
								DATE:	AS NOTED
								SCALE:	

CHERRY AVENUE EXTENSION



**LEGEND:**  
 X-X FENCE  
 ● SOIL PROBE LOCATION

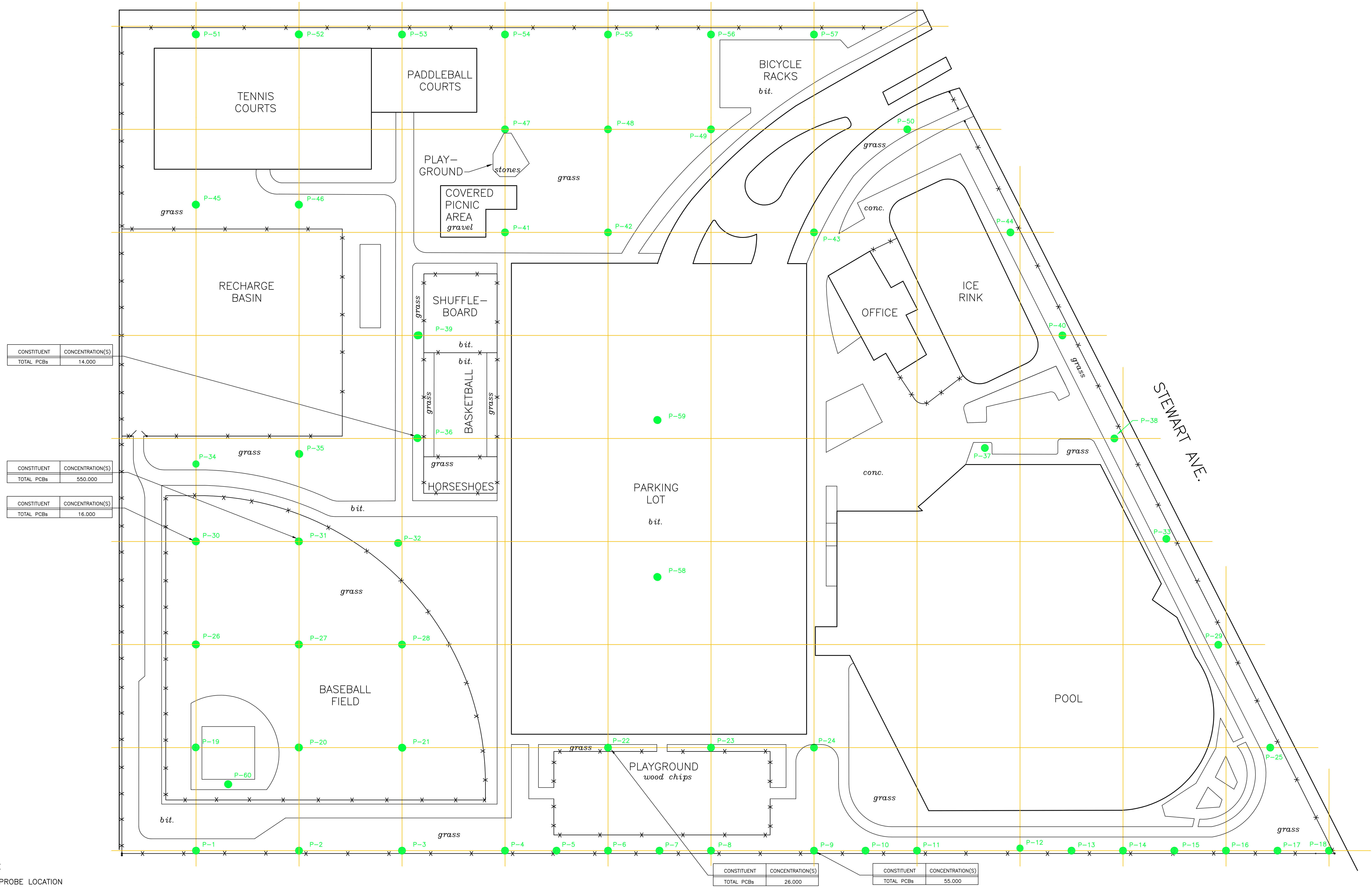
**NOTES:**  
 1. ALL CONCENTRATIONS ARE REPORTED IN UNITS OF PARTS PER MILLION (PPM).  
 2. ANALYTICAL RESULTS NOT PROVIDED ARE BELOW THE RECOMMENDED SOIL CLEANUP OBJECTIVE.



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NO.	DATE	REVISION	INT.																																		
—	04/02	ORIGINAL DRAWING	M.R.H.																																		

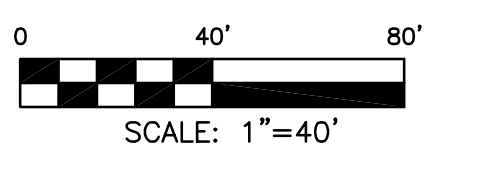


CHERRY AVENUE EXTENSION



**LEGEND:**  
 X-X FENCE  
 ● SOIL PROBE LOCATION

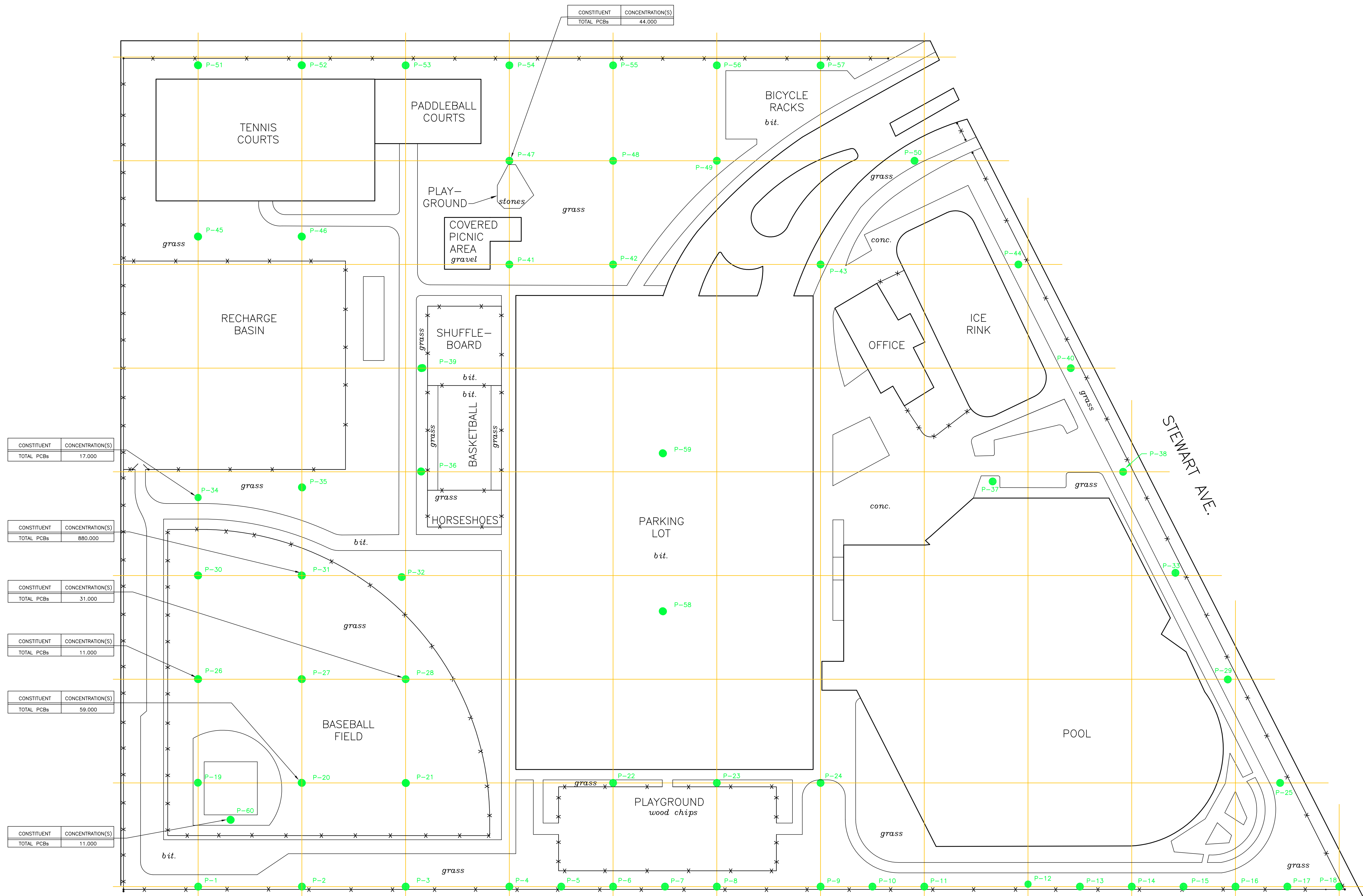
- NOTES:**
- ALL CONCENTRATIONS ARE REPORTED IN UNITS OF PARTS PER MILLION (PPM).
  - ANALYTICAL RESULTS NOT PROVIDED ARE BELOW THE RECOMMENDED SOIL CLEANUP OBJECTIVE.



NO. DATE REVISION INT.		UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.			<b>NORTHROP GRUMMAN CORPORATION</b> <b>BETHPAGE FACILITY</b> <b>BETHPAGE, NEW YORK</b>	<b>TOWN OF OYSTER BAY</b> <b>BETHPAGE COMMUNITY PARK</b> <b>SUMMARY OF PCB CONCENTRATIONS</b> <b>2 TO 4-FOOT DEPTH INTERVAL BELOW GRADE</b>	PROJECT NO. 1572-06	DRAWING NO. <b>4-3</b>
04/02 ORIGINAL DRAWING M.R.H.		PROJECT ENGINEER: B.M.V.	DRAWN BY: L.V.G.				DATE: JUNE 2002	SCALE: AS NOTED
		DESIGNED BY: M.R.H.	CHECKED BY: B.M.V.					

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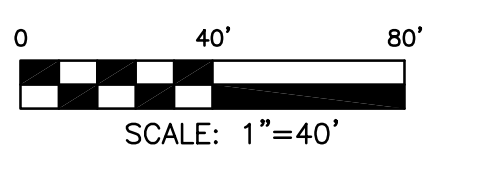
CHERRY AVENUE EXTENSION



CONSTITUENT	CONCENTRATION(S)
TOTAL PCBs	44,000
TOTAL PCBs	17,000
TOTAL PCBs	880,000
TOTAL PCBs	31,000
TOTAL PCBs	11,000
TOTAL PCBs	59,000
TOTAL PCBs	11,000

**LEGEND:**  
 -x-x- FENCE  
 ● SOIL PROBE LOCATION

**NOTES:**  
 1. ALL CONCENTRATIONS ARE REPORTED IN UNITS OF PARTS PER MILLION (PPM).  
 2. ANALYTICAL RESULTS NOT PROVIDED ARE BELOW THE RECOMMENDED SOIL CLEANUP OBJECTIVE.

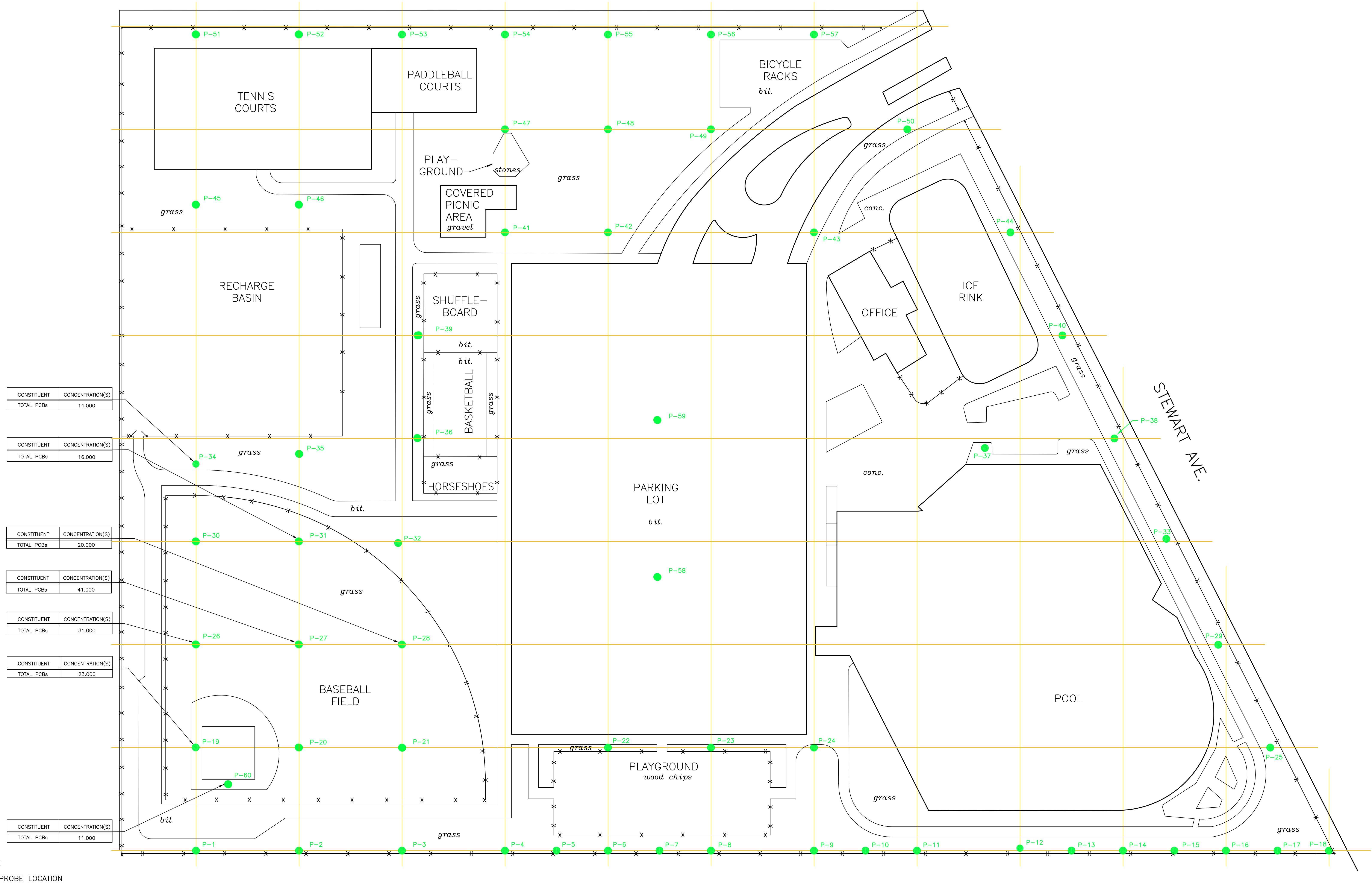


NO.	DATE	REVISION	INT.	UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.	 <b>DVIRKA AND BARTILUCCI</b> CONSULTING ENGINEERS A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.	NORTHROP GRUMMAN CORPORATION BETHPAGE FACILITY BETHPAGE, NEW YORK	TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK SUMMARY OF PCB CONCENTRATIONS 4 TO 6-FOOT DEPTH INTERVAL BELOW GRADE	PROJECT NO.	1572-06	DRAWING NO.	<b>4-4</b>
---	04/02	ORIGINAL DRAWING	M.R.H.					DATE:	JUNE 2002	SCALE:	

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CHERRY AVENUE EXTENSION



CONSTITUENT	CONCENTRATION(S)
TOTAL PCBs	14.000

CONSTITUENT	CONCENTRATION(S)
TOTAL PCBs	16.000

CONSTITUENT	CONCENTRATION(S)
TOTAL PCBs	20.000

CONSTITUENT	CONCENTRATION(S)
TOTAL PCBs	41.000

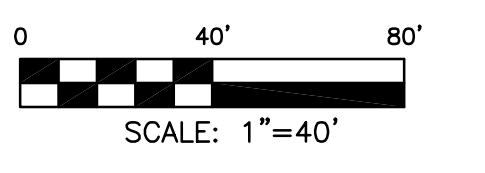
CONSTITUENT	CONCENTRATION(S)
TOTAL PCBs	31.000

CONSTITUENT	CONCENTRATION(S)
TOTAL PCBs	23.000

CONSTITUENT	CONCENTRATION(S)
TOTAL PCBs	11.000

- LEGEND:**
- x — x — FENCE
  - SOIL PROBE LOCATION

- NOTES:**
- ALL CONCENTRATIONS ARE REPORTED IN UNITS OF PARTS PER MILLION (PPM).
  - ANALYTICAL RESULTS NOT PROVIDED ARE BELOW THE RECOMMENDED SOIL CLEANUP OBJECTIVE.



NO.	DATE	REVISION	INT.
—	04/02	ORIGINAL DRAWING	M.R.H.

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

PROJECT ENGINEER: B.M.V.  
DESIGNED BY: M.R.H.

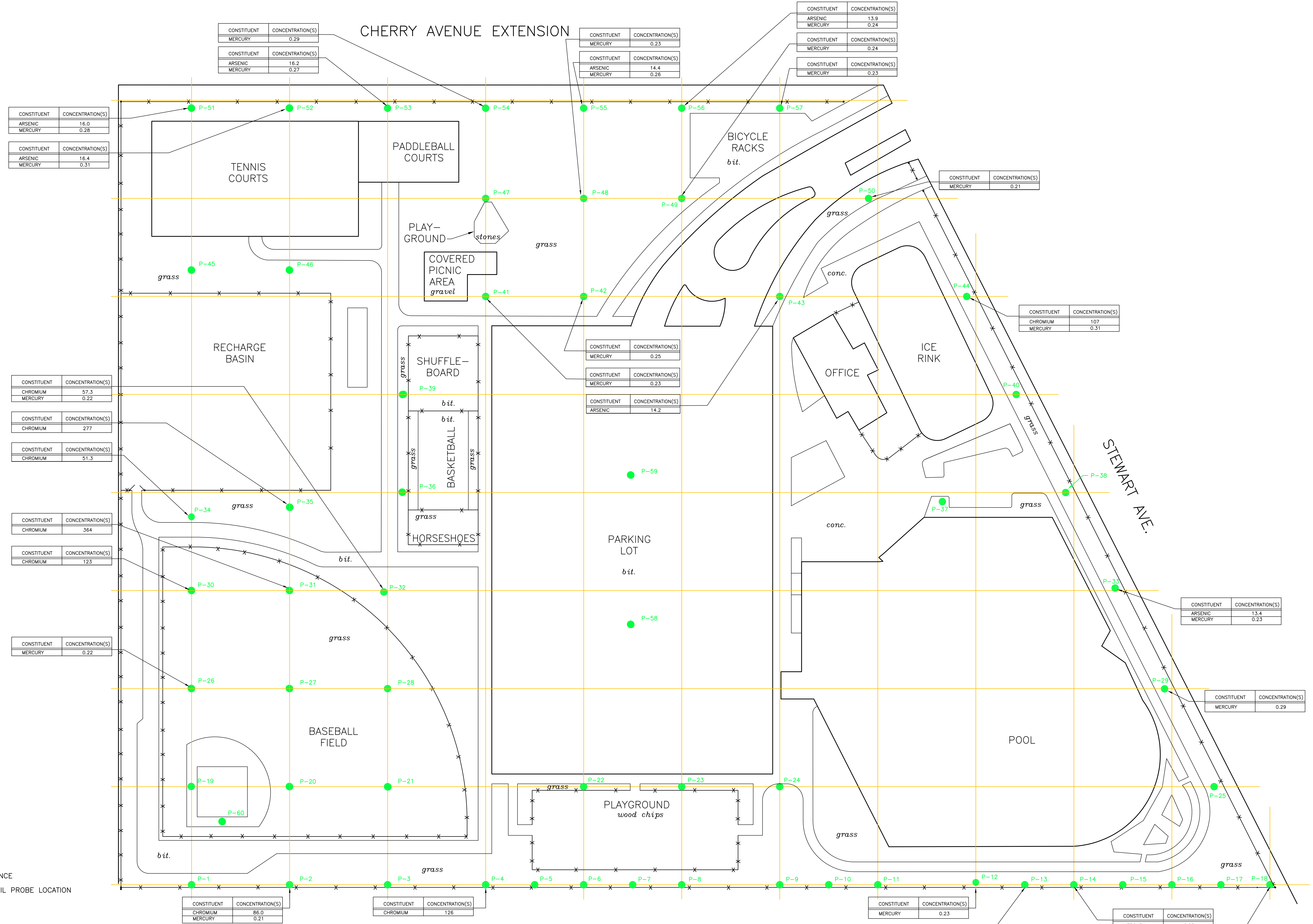
DRAWN BY: L.V.G.  
CHECKED BY: B.M.V.

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

NORTHROP GRUMMAN CORPORATION  
BETHPAGE FACILITY  
BETHPAGE, NEW YORK

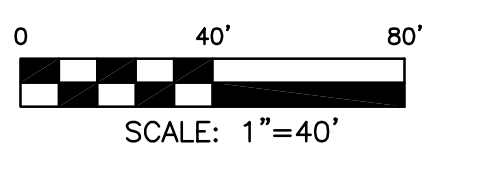
TOWN OF OYSTER BAY  
BETHPAGE COMMUNITY PARK  
SUMMARY OF PCB CONCENTRATIONS  
6 TO 8-FOOT DEPTH INTERVAL BELOW GRADE


PROJECT NO. 1572-06	DRAWING NO. <b>4-5</b>
DATE JUNE 2002	SCALE AS NOTED



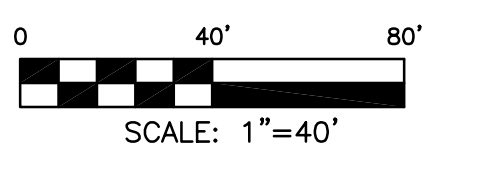
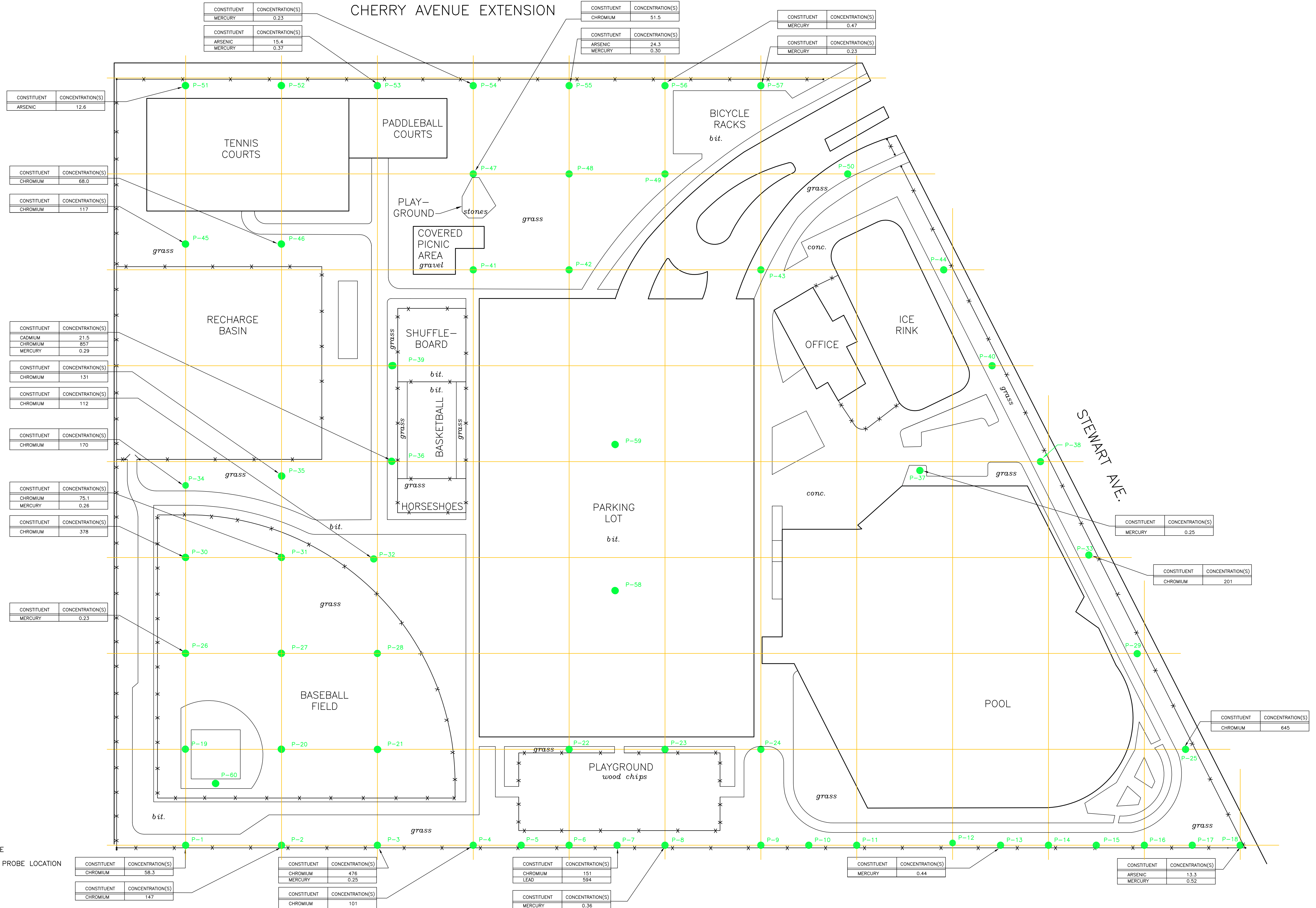
**LEGEND:**  
 X-X FENCE  
 ● SOIL PROBE LOCATION

- NOTES:**
1. ALL CONCENTRATIONS ARE REPORTED IN UNITS OF PARTS PER MILLION (PPM).
  2. ANALYTICAL RESULTS NOT PROVIDED ARE BELOW THE EASTERN USA BACKGROUND LEVEL.
  3. SOIL SAMPLES WERE NOT COLLECTED FROM THE 0 TO 2-INCH DEPTH INTERVAL FROM PROBES P-58 AND P-59.



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---	04/02	ORIGINAL DRAWING	M.R.H.					DATE:	JUNE 2002	SCALE:	

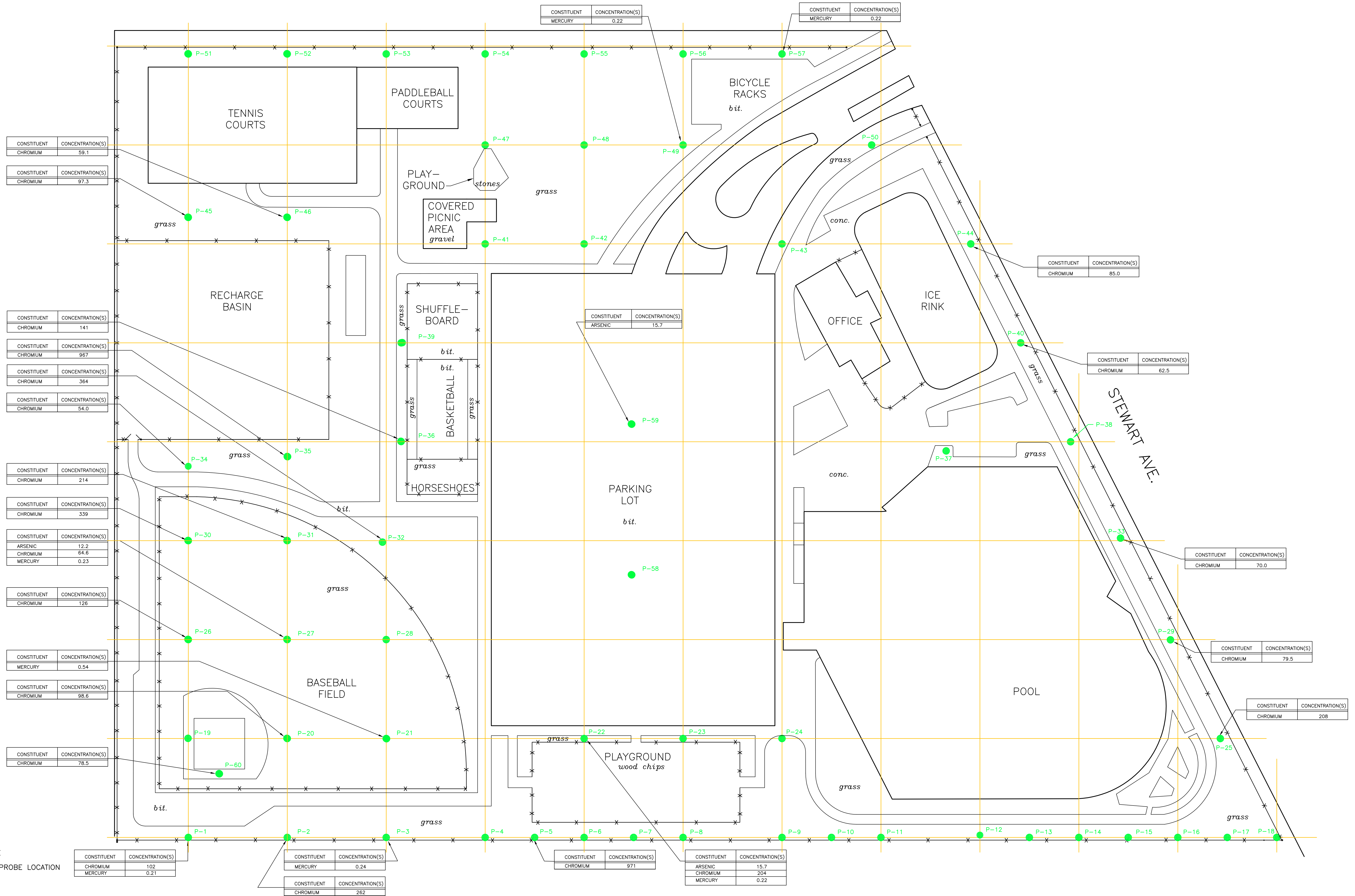




NO.	DATE	REVISION	INT.	UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.		<b>NORTHROP GRUMMAN CORPORATION</b> BETHPAGE FACILITY BETHPAGE, NEW YORK	<b>TOWN OF OYSTER BAY</b> BETHPAGE COMMUNITY PARK SUMMARY OF RCRA METAL CONCENTRATIONS 2-INCH TO 2-FOOT DEPTH INTERVAL BELOW GRADE	PROJECT NO.	DRAWING NO.
---	04/02	ORIGINAL DRAWING	M.R.H.					1572-06	4-7
				PROJECT ENGINEER:	DESIGNED BY:			DATE:	SCALE:
				B.M.V.	M.R.H.			JUNE 2002	AS NOTED
				DRAWN BY:	CHECKED BY:				
				L.V.G.	B.M.V.				

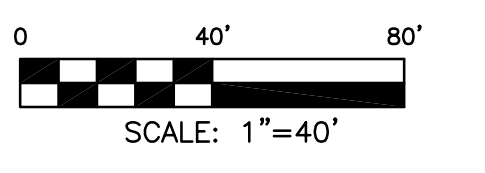


# CHERRY AVENUE EXTENSION



**LEGEND:**  
 X-X FENCE  
 ● SOIL PROBE LOCATION

**NOTES:**  
 1. ALL CONCENTRATIONS ARE REPORTED IN UNITS OF PARTS PER MILLION (PPM).  
 2. ANALYTICAL RESULTS NOT PROVIDED ARE BELOW THE EASTERN USA BACKGROUND LEVEL.

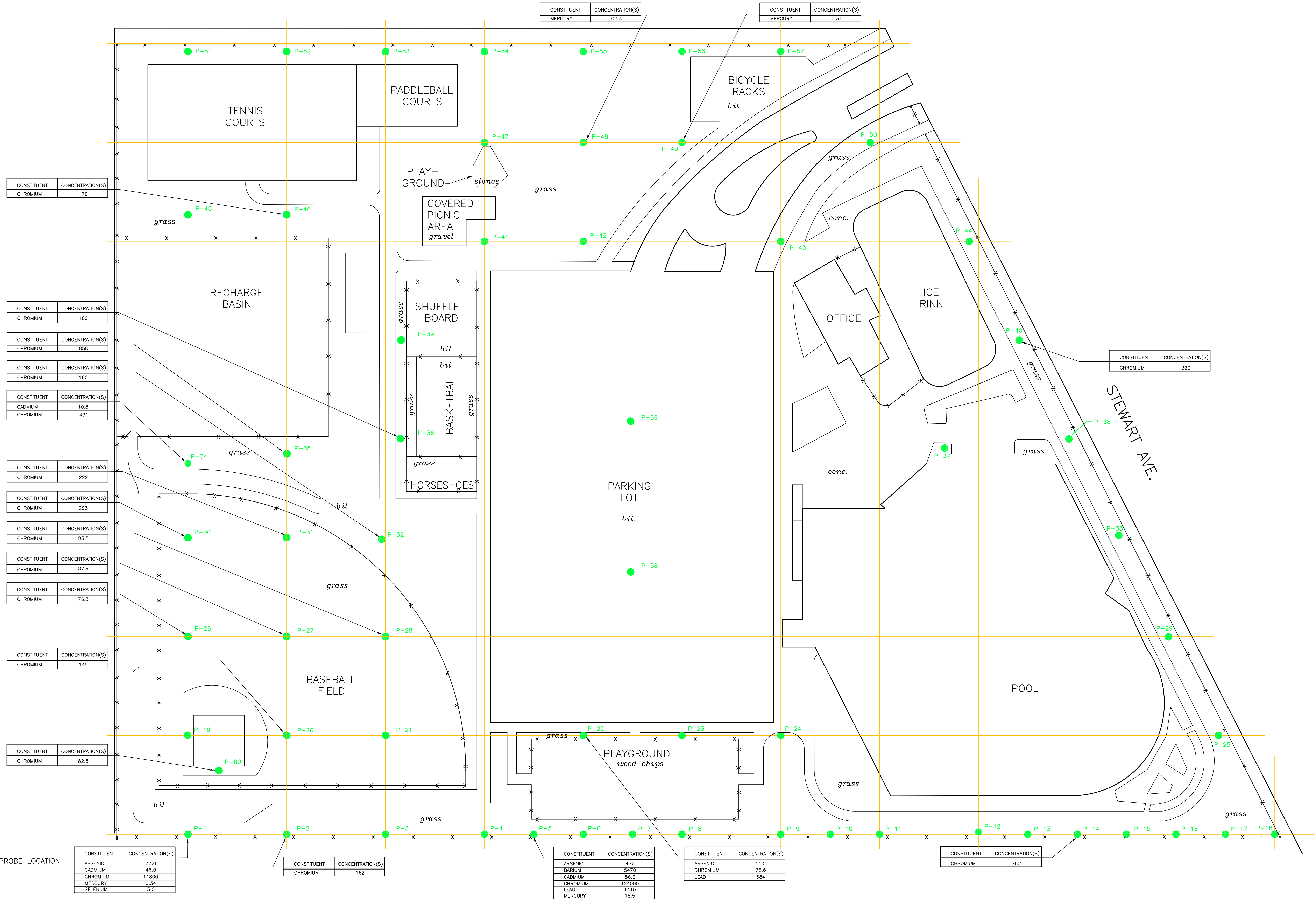


NO. DATE		REVISION	INT.	UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.			<b>NORTHROP GRUMMAN CORPORATION</b> BETHPAGE FACILITY BETHPAGE, NEW YORK	<b>TOWN OF OYSTER BAY</b> BETHPAGE COMMUNITY PARK SUMMARY OF RCRA METAL CONCENTRATIONS 2 TO 4-FOOT DEPTH INTERVAL BELOW GRADE	PROJECT NO. 1572-06	DRAWING NO. <b>4-8</b>
04/02 ORIGINAL DRAWING			M.R.H.	PROJECT ENGINEER: B.M.V.	DRAWN BY: L.V.G.				DATE: JUNE 2002	SCALE: AS NOTED

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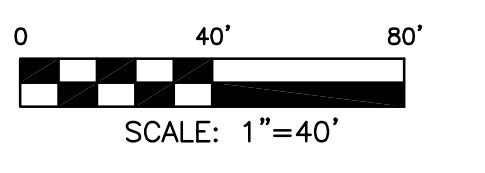


CHERRY AVENUE EXTENSION



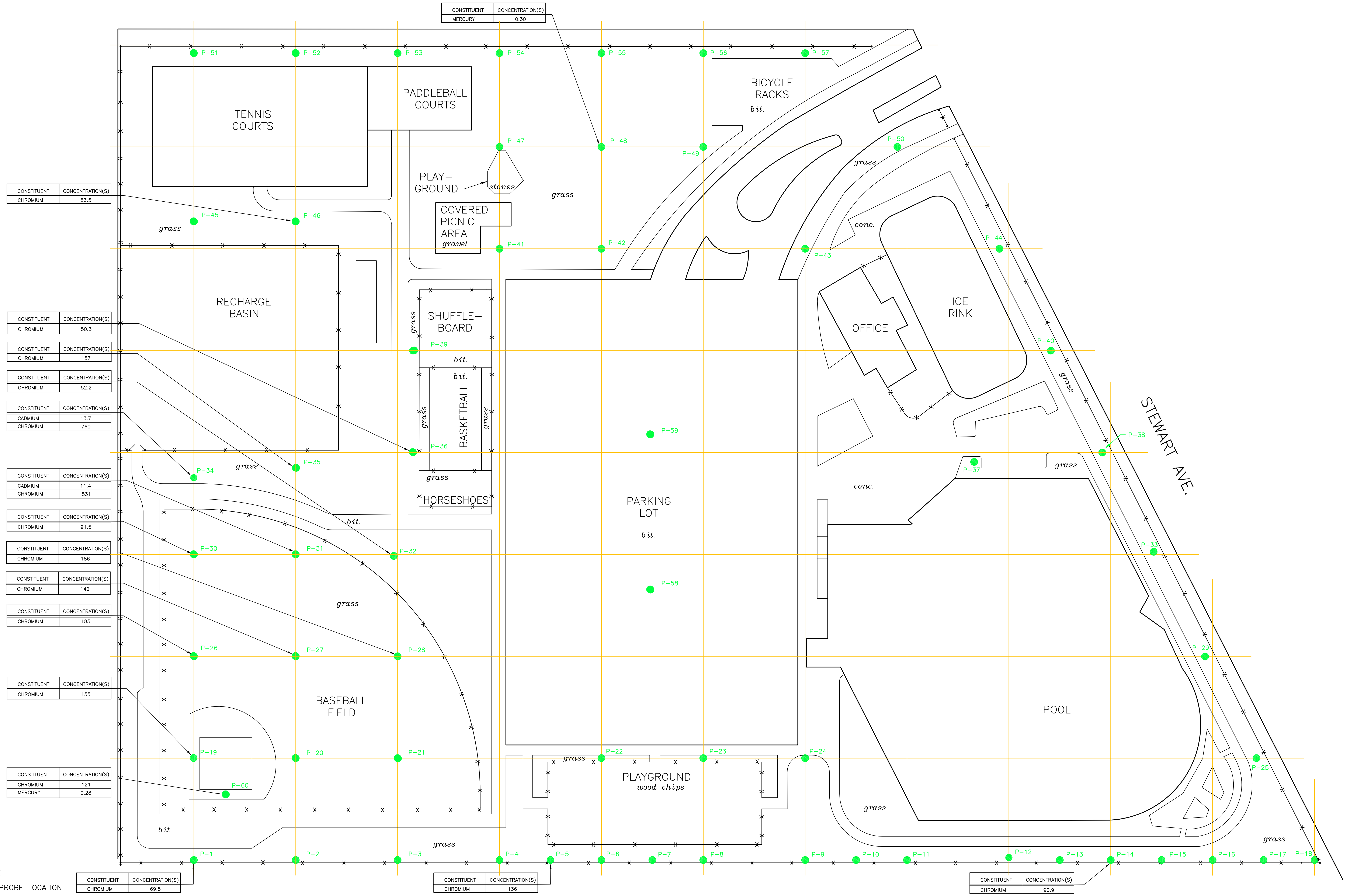
LEGEND:  
 X-X FENCE  
 ● SOIL PROBE LOCATION

NOTES:  
 1. ALL CONCENTRATIONS ARE REPORTED IN UNITS OF PARTS PER MILLION (PPM).  
 2. ANALYTICAL RESULTS NOT PROVIDED ARE BELOW THE EASTERN USA BACKGROUND LEVEL.



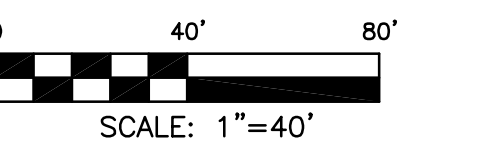
NO.	DATE	REVISION	INT.	UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.	 <b>DVIRKA AND BARTILUCCI</b> CONSULTING ENGINEERS A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.	<b>NORTHROP GRUMMAN CORPORATION</b> BETHPAGE FACILITY BETHPAGE, NEW YORK	<b>TOWN OF OYSTER BAY</b> BETHPAGE COMMUNITY PARK SUMMARY OF RCRA METAL CONCENTRATIONS 4 TO 6-FOOT DEPTH INTERVAL BELOW GRADE	PROJECT NO.	1572-06	DRAWING NO.	<b>4-9</b>
---	04/02	ORIGINAL DRAWING	M.R.H.					PROJECT ENGINEER:	B.M.V.	DRAWN BY:	
				DESIGNED BY:	M.R.H.	CHECKED BY:	B.M.V.				

# CHERRY AVENUE EXTENSION



**LEGEND:**  
 X-X FENCE  
 ● SOIL PROBE LOCATION

- NOTES:**
- ALL CONCENTRATIONS ARE REPORTED IN UNITS OF PARTS PER MILLION (PPM).
  - ANALYTICAL RESULTS NOT PROVIDED ARE BELOW THE EASTERN USA BACKGROUND LEVEL.



NO.	DATE	REVISION	INT.
01	04/02	ORIGINAL DRAWING	M.R.H.

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

PROJECT ENGINEER: B.M.V.  
 DRAWN BY: L.V.G.  
 DESIGNED BY: M.R.H.  
 CHECKED BY: B.M.V.

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

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

**TOWN OF OYSTER BAY**  
**BETHPAGE COMMUNITY PARK**  
**SUMMARY OF RCRA METAL CONCENTRATIONS**  
**6 TO 8-FOOT DEPTH INTERVAL BELOW GRADE**

PROJECT NO.	1572-06	DRAWING NO.	<b>4-10</b>
DATE	JUNE 2002		
SCALE	AS NOTED		



**APPENDIX A**

**SOIL SAMPLING PROGRAM  
SOIL SAMPLE ANALYTICAL RESULTS**

## **SOIL PROBE LOCATIONS**

**TABLE 1**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-1					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-1 S1	P-1 S2	P-1 S3	P-1 S4	P-1 S5			
SAMPLE IDENTIFICATION	P-1 S1	P-1 S2	P-1 S3	P-1 S4	P-1 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	86	95	92	89	98			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	7.6	3.7	3.6	33.0	1.4	3.0	-	3 - 12*
Barium	32.9	22.3	22.2	152	12.6	3.0	-	15 - 600
Cadmium	1.1	4.7	2.3	46.0	1.2	2.0	-	0.1 - 1, (10****)
Chromium	46.3	58.3	102	11800	69.5	3.0	-	1.5 - 40*, (50****)
Lead	51.9	19.0	134	139	0.55	1.0	-	200 - 500**
Mercury	0.20	0.087	0.21	0.34	U	0.1	-	0.001 - 0.2
Selenium	0.74 B	0.75 B	0.48 B	5.0 B	0.73 B	8.0	-	0.1 - 3.9
Silver	4.6	5.7	4.3	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.200 P	0.170	U	U	U	-	0.033	---
Aroclor-1254	U	U	0.870	U	U	-	0.033	---
Aroclor-1260	U	0.075 P	U	0.220	U	-	0.033	---
TOTAL PCBs	0.200	0.245	0.870	0.220	0			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-2					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS	
	P-2 S1	P-2 S2	P-2 S3	P-2 S4	P-2 S5				
SAMPLE IDENTIFICATION	P-2 S1	P-2 S2	P-2 S3	P-2 S4	P-2 S5				
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'				
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02				
DILUTION FACTOR	1	1	1	1	1				
PERCENT SOLIDS	82	92	91	94	94				
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)	
<u>RCRA Metals</u>									
Arsenic	10.6	7.0	4.2	3.0	2.7	3.0	-	3 - 12*	
Barium	30.9	23.2	33.1	17.2	16.8	3.0	-	15 - 600	
Cadmium	2.2	3.2	4.9	3.6	0.79	2.0	-	0.1 - 1, (10***)	
Chromium	<b>86.0</b>	<b>147</b>	<b>262</b>	<b>162</b>	13.9	3.0	-	1.5 - 40*, (50***)	
Lead	49.0	28.3	48.5	20.8	2.5	1.0	-	200 - 500**	
Mercury	<b>0.21</b>	0.18	0.066	0.036		0.1	-	0.001 - 0.2	
Selenium	0.59 B					U	8.0	-	0.1 - 3.9
Silver	5.6	5.7	12.1	5.0		U	2.0	-	---
<u>PCBs</u>									
Aroclor-1016	U	U	U	U	U	-	0.033	---	
Aroclor-1221	U	U	U	U	U	-	0.067	---	
Aroclor-1232	U	U	U	U	U	-	0.033	---	
Aroclor-1242	U	U	U	U	U	-	0.033	---	
Aroclor-1248	0.620	0.340	U	U	U	-	0.033	---	
Aroclor-1254	0.390	U	U	U	U	-	0.033	---	
Aroclor-1260	U	U	0.220 P	U	U	-	0.033	---	
TOTAL PCBs	<b>1.010</b>	0.340	0.220	0	0			1/10 ****	

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).



**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-3					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-3 S1	P-3 S2	P-3 S3	P-3 S4	P-3 S5			
SAMPLE IDENTIFICATION	P-3 S1	P-3 S2	P-3 S3	P-3 S4	P-3 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	88	93	93	98	97			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	6.2	4.8	10.6	2.3	1.8	3.0	-	3 - 12*
Barium	20.9	27.0	25.0	11.0	2.5 B	3.0	-	15 - 600
Cadmium	1.1	5.4	1.4	0.60	0.13 B	2.0	-	0.1 - 1, (10***)
Chromium	44.5	476	10.4	14.7	2.2	3.0	-	1.5 - 40*, (50***)
Lead	28.6	54.8	39.1	3.7	0.71	1.0	-	200 - 500**
Mercury	0.13	0.25	0.24			0.1	-	0.001 - 0.2
Selenium	U	U	0.55 B	U	U	8.0	-	0.1 - 3.9
Silver	2.3	21.4	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	0.240	U	U	U	-	0.033	---
Aroclor-1254	0.260 P	U	U	U	U	-	0.033	---
Aroclor-1260	U	0.400 P	U	0.350	U	-	0.033	---
TOTAL PCBs	0.260	0.640	0	0.350	0			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-4					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-4 S1	P-4 S2	P-4 S3	P-4 S4	P-4 S5			
SAMPLE IDENTIFICATION	P-4 S1	P-4 S2	P-4 S3	P-4 S4	P-4 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	83	94	88	87	97			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	4.5	3.5	2.9	3.4	0.87 B	3.0	-	3 - 12*
Barium	18.0	19.1	15.7	47.9	6.6 B	3.0	-	15 - 600
Cadmium	1.4	2.6	0.37	0.35	0.096 B	2.0	-	0.1 - 1, (10***)
Chromium	<b>126</b>	<b>101</b>	8.1	14.8	2.6	3.0	-	1.5 - 40*, (50***)
Lead	48.0	17.6	4.4	6.0	1.1	1.0	-	200 - 500**
Mercury	0.097	0.067	U	U	U	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	U	8.0	-	0.1 - 3.9
Silver	2.3	2.3	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.290	1.300	U	U	U	-	0.033	---
Aroclor-1254	0.310	0.310 P	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.600	<b>1.610</b>	0	0	0			1/10 ****

**Qualifiers:**

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**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-5					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-5 S1	P-5 S2	P-5 S3	P-5 S4	P-5 S5			
SAMPLE IDENTIFICATION	P-5 S1	P-5 S2	P-5 S3	P-5 S4	P-5 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	77	88	76	37	86			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	10.3	2.9	6.3	472	5.6	3.0	-	3 - 12*
Barium	43.2	20.2	63.5	5470	33.4	3.0	-	15 - 600
Cadmium	1.2	0.72	0.49	56.3	0.63	2.0	-	0.1 - 1, (10***)
Chromium	37.2	14.3	971	124000	136	3.0	-	1.5 - 40*, (50***)
Lead	41.1	7.5	37.5	1410	4.9	1.0	-	200 - 500**
Mercury	0.17	0.078	0.040 B	18.5	0.025 B	0.1	-	0.001 - 0.2
Selenium	0.64 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	1.2 B	0.33 B	0.21 B	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	0.300 P	0.120	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	2.600	0.099	-	0.033	---
TOTAL PCBs	0.300	0.120	0	2.600	0.099			1/10 ****

**Qualifiers:**

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**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-6					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-6 S1	P-6 S2	P-6 S3	P-6 S4	P-6 S5			
SAMPLE IDENTIFICATION	P-6 S1	P-6 S2	P-6 S3	P-6 S4	P-6 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	80	92	93	96	93			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	8.3	4.2	3.0	3.0	5.0	3.0	-	3 - 12*
Barium	30.4	15.2	13.2	10.4	59.5	3.0	-	15 - 600
Cadmium	1.3	0.41	0.38	0.32	0.46	2.0	-	0.1 - 1, (10***)
Chromium	35.5	11.6	10.8	5.9	15.4	3.0	-	1.5 - 40*, (50***)
Lead	40.6	9.6	8.9	2.7	7.9	1.0	-	200 - 500**
Mercury	0.16	0.047	0.020 B	U	U	0.1	-	0.001 - 0.2
Selenium	0.77 B	0.56 B	U	U	U	8.0	-	0.1 - 3.9
Silver	2.1	0.29 B	0.16 B	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	0.380 P	0.180 P	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.380	0.180	0	0	0			1/10 ****

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**Notes:**

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- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-7					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-7 S1	P-7 S2	P-7 S3	P-7 S4	P-7 S5			
SAMPLE IDENTIFICATION	P-7 S1	P-7 S2	P-7 S3	P-7 S4	P-7 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	88	87	93	94	83			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	8.7	6.2	3.4	2.9	4.8	3.0	-	3 - 12*
Barium	26.7	40.4	23.8	30.1	33.3	3.0	-	15 - 600
Cadmium	1.5	2.3	0.58	0.39	0.77	2.0	-	0.1 - 1, (10***)
Chromium	49.6	151	9.1	10.2	12.5	3.0	-	1.5 - 40*, (50***)
Lead	37.6	594	4.8	4.5	7.5	1.0	-	200 - 500**
Mercury	0.15	0.19	0.015 B	U	0.022 B	0.1	-	0.001 - 0.2
Selenium	0.44 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	2.7	14.9	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.270	0.290	U	U	U	-	0.033	---
Aroclor-1254	0.340 P	0.220 P	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.610	0.510	0	0	0			1/10 ****

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**Notes:**

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- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-8					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-8 S1	P-8 S2	P-8 S3	P-8 S4	P-8 S5			
SAMPLE IDENTIFICATION	P-8 S1	P-8 S2	P-8 S3	P-8 S4	P-8 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	83	84	84	94	100			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	6.2	10.3	7.2	0.98 B	0.94	3.0	-	3 - 12*
Barium	22.6	45.1	26.9	4.2 B	3.3 B	3.0	-	15 - 600
Cadmium	0.67	1.2	1.0	U	0.12 B	2.0	-	0.1 - 1, (10***)
Chromium	18.0	38.8	16.5	1.9	1.7	3.0	-	1.5 - 40*, (50***)
Lead	32.6	72.0	8.6	0.96	0.84	1.0	-	200 - 500**
Mercury	0.19	0.36	0.032 B	U	U	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	U	8.0	-	0.1 - 3.9
Silver	1.5 B	0.93 B	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.150	0.150	U	U	U	-	0.033	---
Aroclor-1254	0.210 P	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.360	0.150	0	0	0			1/10 ****

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- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-9					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-9 S1	P-9 S2	P-9 S3	P-9 S4	P-9 S5			
SAMPLE IDENTIFICATION	P-9 S1	P-9 S2	P-9 S3	P-9 S4	P-9 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1 / 5	1 / 100	1 / 5	1			
PERCENT SOLIDS	85	89	89	94	93			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	6.0	7.0	5.6	4.0	2.0	3.0	-	3 - 12*
Barium	27.9	19.9	26.7	17.7	10.4	3.0	-	15 - 600
Cadmium	0.98	1.4	2.3	0.88	1.7	2.0	-	0.1 - 1, (10***)
Chromium	21.2	14.7	18.3	21.1	12.1	3.0	-	1.5 - 40*, (50***)
Lead	26.7	26.1	24.4	14.1	17.4	1.0	-	200 - 500**
Mercury	0.12	0.095	0.12	0.14	0.024	0.1	-	0.001 - 0.2
Selenium	U	0.49 B	U	U	U	8.0	-	0.1 - 3.9
Silver	2.8	U	1.3 B	1.9	0.34 B	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.350	3.700 P	55.000	3.100	U	-	0.033	---
Aroclor-1254	U	U	U	U	0.067	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
<b>TOTAL PCBs</b>	<b>0.350</b>	<b>3.700</b>	<b>55.000</b>	<b>3.100</b>	<b>0.067</b>			<b>1/10 ****</b>

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-10					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-10 S1	P-10 S2	P-10 S3	P-10 S4	P-10 S5			
SAMPLE IDENTIFICATION	P-10 S1	P-10 S2	P-10 S3	P-10 S4	P-10 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	82	96	97	96	98			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	9.3	0.94 B	2.6	0.39 B	0.81 B	3.0	-	3 - 12*
Barium	24.2	3.5 B	12.7	2.7 B	3.3 B	3.0	-	15 - 600
Cadmium	0.79	0.17 B	0.46	U	U	2.0	-	0.1 - 1, (10****)
Chromium	21.8	9.7	14.6	1.1	2.0	3.0	-	1.5 - 40*, (50****)
Lead	51.6	1.2	5.9	0.73	0.68	1.0	-	200 - 500**
Mercury	0.15	U	0.040	0.041	U	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	U	8.0	-	0.1 - 3.9
Silver	1.7	U	0.13 B	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.380 P	0.190	0.860 P	U	U	-	0.033	---
Aroclor-1254	0.430 P	U	0.072 P	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.810	0.190	0.932	0	0			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).



**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-11					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-11 S1	P-11 S2	P-11 S3	P-11 S4	P-11 S5			
SAMPLE IDENTIFICATION	P-11 S1	P-11 S2	P-11 S3	P-11 S4	P-11 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1 / 10	1 / 10	1			
PERCENT SOLIDS	86	97	91	97	98			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	7.9	2.8	3.3	0.88 B	1.1	3.0	-	3 - 12*
Barium	19.5	6.3 B	14.4	4.8 B	4.4 B	3.0	-	15 - 600
Cadmium	0.50	0.61	0.41	0.14 B	0.16 B	2.0	-	0.1 - 1, (10***)
Chromium	16.9	37.0	9.8	3.9	2.2	3.0	-	1.5 - 40*, (50***)
Lead	29.5	2.4	4.2	1.3	1.0	1.0	-	200 - 500**
Mercury	0.16	U	0.023 B	U	U	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	U	8.0	-	0.1 - 3.9
Silver	0.85 B	U	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	3.500	3.200	U	-	0.033	---
Aroclor-1254	0.210 P	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.210	0	3.500	3.200	0			1/10 ****

**Qualifiers:**

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- B: Constituent concentration is less than the CRDL, but greater than the IDL.
- P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-12					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-12 S1	P-12 S2	P-12 S3	P-12 S4	P-12 S5			
SAMPLE IDENTIFICATION	P-12 S1	P-12 S2	P-12 S3	P-12 S4	P-12 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	81	95	97	96	95			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	10.6	1.3	0.94	2.6	1.0	3.0	-	3 - 12*
Barium	20.9	6.2 B	5.1 B	6.9 B	8.7 B	3.0	-	15 - 600
Cadmium	0.59	0.12 B	0.12 B	0.25 B	0.38	2.0	-	0.1 - 1, (10***)
Chromium	22.0	13.4	9.1	40.3	16.2	3.0	-	1.5 - 40*, (50***)
Lead	57.6	2.6	1.3	2.9	1.7	1.0	-	200 - 500**
Mercury	<b>0.23</b>	0.028 B	U	0.020 B	U	0.1	-	0.001 - 0.2
Selenium	1.3 B	0.50 B	0.53 B	0.55 B	0.45 B	8.0	-	0.1 - 3.9
Silver	0.78 B	U	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.500 P	U	0.036	0.160	0.130	-	0.033	---
Aroclor-1254	0.540	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	<b>1.040</b>	0	0.036	0.160	0.130			1/10 ****

**Qualifiers:**

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**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-13					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-13 S1	P-13 S2	P-13 S3	P-13 S4	P-13 S5			
SAMPLE IDENTIFICATION	P-13 S1	P-13 S2	P-13 S3	P-13 S4	P-13 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	84	93	96	94	98			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	<b>13.7</b>	2.8	0.79 B	1.9	0.85 B	3.0	-	3 - 12*
Barium	24.5	9.8	5.2 B	13.8	4.7 B	3.0	-	15 - 600
Cadmium	0.59	0.19 B	0.23 B	0.96	U	2.0	-	0.1 - 1, (10****)
Chromium	19.1	18.2	26.2	30.2	2.2	3.0	-	1.5 - 40*, (50****)
Lead	39.2	5.7	1.3	2.7	0.93	1.0	-	200 - 500**
Mercury	<b>0.25</b>	<b>0.44</b>	U	0.018 B	U	0.1	-	0.001 - 0.2
Selenium	1.1 B	0.59 B	U	0.65 B	0.50 B	8.0	-	0.1 - 3.9
Silver	0.63 B	U	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	0.190	0.076	-	0.033	---
Aroclor-1254	0.330 P	0.038 P	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.330	0.038	0	0.190	0.076			1/10 ****

**Qualifiers:**

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**Notes:**

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- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-14					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-14 S1	P-14 S2	P-14 S3	P-14 S4	P-14 S5			
SAMPLE IDENTIFICATION	P-14 S1	P-14 S2	P-14 S3	P-14 S4	P-14 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	83	93	98	96	99			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	7.6	7.2	0.93	3.0	2.3	3.0	-	3 - 12*
Barium	26.4	20.1	3.3 B	11.0	4.7 B	3.0	-	15 - 600
Cadmium	0.76	0.27 B	U	0.30	0.13 B	2.0	-	0.1 - 1, (10***)
Chromium	27.4	22.2	12.7	<b>76.4</b>	<b>90.9</b>	3.0	-	1.5 - 40*, (50***)
Lead	107	16.6	1.4	17.5	8.0	1.0	-	200 - 500**
Mercury	<b>0.25</b>	0.19	0.023 B	0.046	0.031 B	0.1	-	0.001 - 0.2
Selenium	0.79 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	0.23 B	U	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	1.800	0.170 P	U	0.420	0.230	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
<b>TOTAL PCBs</b>	<b>1.800</b>	0.170	0	0.420	0.230			1/10 ****

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**Notes:**

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- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-15					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-15 S1	P-15 S2	P-15 S3	P-15 S4	P-15 S5			
SAMPLE IDENTIFICATION	P-15 S1	P-15 S2	P-15 S3	P-15 S4	P-15 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	84	95	95	91	97			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	7.8	2.1	1.2	4.0	1.4	3.0	-	3 - 12*
Barium	18.1	10.4	5.1 B	23.4	6.6 B	3.0	-	15 - 600
Cadmium	0.49	0.12 B	0.12 B	0.28 B	0.11 B	2.0	-	0.1 - 1, (10***)
Chromium	25.9	13.0	46.8	18.7	3.2	3.0	-	1.5 - 40*, (50***)
Lead	51.2	3.8	2.5	7.8	1.3	1.0	-	200 - 500**
Mercury	0.19	0.021 B	U	0.043 B	U	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	U	8.0	-	0.1 - 3.9
Silver	2.5	U	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	1.500	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
<b>TOTAL PCBs</b>	<b>1.500</b>	0	0	0	0			1/10 ****

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**Notes:**

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- \* : New York State Background.
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- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-16					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-16 S1	P-16 S2	P-16 S3	P-16 S4	P-16 S5			
SAMPLE IDENTIFICATION	P-16 S1	P-16 S2	P-16 S3	P-16 S4	P-16 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	87	93	96	96	98			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	7.0	1.2	2.3	2.2	0.87 B	3.0	-	3 - 12*
Barium	19.2	6.3 B	19.3	7.7 B	3.0 B	3.0	-	15 - 600
Cadmium	0.50	0.20 B	0.20 B	U	U	2.0	-	0.1 - 1, (10***)
Chromium	31.9	16.9	9.8	5.2	2.1	3.0	-	1.5 - 40*, (50***)
Lead	43.4	2.3	3.8	3.1	1.3	1.0	-	200 - 500**
Mercury	0.14	U	0.020 B	U	U	0.1	-	0.001 - 0.2
Selenium	0.73 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	4.7	U	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	0.550	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.550	0	0	0	0			1/10 ****

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**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-17					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-17 S1	P-17 S2	P-17 S3	P-17 S4	P-17 S5			
SAMPLE IDENTIFICATION	P-17 S1	P-17 S2	P-17 S3	P-17 S4	P-17 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	94	98	95	89	92			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	4.4	1.1	1.1	3.2	5.0	3.0	-	3 - 12*
Barium	13.1	5.3 B	6.5 B	16.3	5.4 B	3.0	-	15 - 600
Cadmium	0.36	0.24 B	U	0.17 B	0.46	2.0	-	0.1 - 1, (10***)
Chromium	15.9	17.0	3.3	8.2	5.8	3.0	-	1.5 - 40*, (50***)
Lead	20.5	2.8	1.5	5.1	2.7	1.0	-	200 - 500**
Mercury	0.065	U	U	0.019 B	U	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	0.74 B	8.0	-	0.1 - 3.9
Silver	1.1 B	0.77 B	0.12 B	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	0.250	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.250	0	0	0	0			1/10 ****

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-18					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-18 S1	P-18 S2	P-18 S3	P-18 S4	P-18 S5			
SAMPLE IDENTIFICATION	P-18 S1	P-18 S2	P-18 S3	P-18 S4	P-18 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	84	87	92	97	98			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	<b>16.9</b>	<b>13.3</b>	3.8	1.5	1.4	3.0	-	3 - 12*
Barium	28.1	23.5	23.8	5.2 B	4.4 B	3.0	-	15 - 600
Cadmium	0.63	0.38	0.37	U	U	2.0	-	0.1 - 1, (10****)
Chromium	14.9	16.0	15.9	3.9	3.9	3.0	-	1.5 - 40*, (50****)
Lead	101	67.5	34.8	1.6	1.6	1.0	-	200 - 500**
Mercury	0.19	<b>0.52</b>	0.070	U	0.026 B	0.1	-	0.001 - 0.2
Selenium	0.69 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	U	U	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	0.470 P	0.260 P	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.470	0.260	0	0	0			1/10 ****

**Qualifiers:**

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- B: Constituent concentration is less than the CRDL, but greater than the IDL.
- P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).



**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-19					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-19 S1	P-19 S2	P-19 S3	P-19 S4	P-19 S5			
SAMPLE IDENTIFICATION	P-19 S1	P-19 S2	P-19 S3	P-19 S4	P-19 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	1	20			
PERCENT SOLIDS	94	90	92	92	89			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	2.3	4.2	6.2	2.8	5.6	3.0	-	3 - 12*
Barium	17.5	23.8	26.4	17.7	35.1	3.0	-	15 - 600
Cadmium	0.74	0.96	0.70	0.16 B	4.7	2.0	-	0.1 - 1, (10***)
Chromium	35.2	49.7	33.9	9.4	155	3.0	-	1.5 - 40*, (50***)
Lead	6.8	11.6	25.0	5.0	32.3	1.0	-	200 - 500**
Mercury	0.032 B	0.078	0.11	0.016 B	0.20	0.1	-	0.001 - 0.2
Selenium	0.83 B	0.78 B	0.81 B	0.59 B	0.74 B	8.0	-	0.1 - 3.9
Silver	2.9	0.95 B	1.50 B	U	4.1	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	23.000	-	0.033	---
Aroclor-1248	0.440	U	0.300	U	U	-	0.033	---
Aroclor-1254	U	0.550	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.440	0.550	0.300	0	23.000			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-20					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-20 S1	P-20 S2	P-20 S3	P-20 S4	P-20 S5			
SAMPLE IDENTIFICATION	P-20 S1	P-20 S2	P-20 S3	P-20 S4	P-20 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	100	10			
PERCENT SOLIDS	89	95	93	93	96			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	4.2	4.5	3.5	6.4	4.2	3.0	-	3 - 12*
Barium	20.1	16.0	25.6	51.7	17.9	3.0	-	15 - 600
Cadmium	0.29 B	0.48	0.98	8.1	2.3	2.0	-	0.1 - 1, (10***)
Chromium	7.8	18.8	<b>98.6</b>	<b>149</b>	34.8	3.0	-	1.5 - 40*, (50***)
Lead	6.1	41.1	9.4	33.0	21.3	1.0	-	200 - 500**
Mercury	U	0.060	0.040	0.19	0.11	0.1	-	0.001 - 0.2
Selenium	U	U	0.38 B	U	U	8.0	-	0.1 - 3.9
Silver	U	0.26 B	0.97 B	3.9	2.0	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	0.120	59.000	5.600	-	0.033	---
Aroclor-1254	U	0.110 P	0.200	U	0.700	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0	0.110	0.320	<b>59.000</b>	6.300			1/10 ****

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-21					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-21 S1	P-21 S2	P-21 S3	P-21 S4	P-21 S5			
SAMPLE IDENTIFICATION	P-21 S1	P-21 S2	P-21 S3	P-21 S4	P-21 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	85	94	89	88	86			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	10.1	3.3	9.0	4.3	3.5	3.0	-	3 - 12*
Barium	30.7	15.3	24.3	21.7	48.9	3.0	-	15 - 600
Cadmium	0.71	0.44	0.46	0.98	0.35	2.0	-	0.1 - 1, (10***)
Chromium	28.5	40.6	10.9	24.8	13.6	3.0	-	1.5 - 40*, (50***)
Lead	29.3	6.9	22.4	11.0	6.5	1.0	-	200 - 500**
Mercury	0.16	0.047	0.54	0.097	U	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	U	8.0	-	0.1 - 3.9
Silver	1.7	0.18 B	0.60 B	1.0 B	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.060 U	0.120 U	0.046	0.560	U	-	0.033	---
Aroclor-1254	U	U	U	0.230	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.060	0.120	0.046	0.790	0			1/10 ****

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**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-22					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-22 S1	P-22 S2	P-22 S3	P-22 S4	P-22 S5			
SAMPLE IDENTIFICATION	P-22 S1	P-22 S2	P-22 S3	P-22 S4	P-22 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1 / 50	1	1			
PERCENT SOLIDS	83	86	83	86	98			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	9.8	8.9	<b>15.7</b>	<b>14.5</b>	0.77 B	3.0	-	3 - 12*
Barium	22.7	16.9	68.5	131	3.4 B	3.0	-	15 - 600
Cadmium	0.62	0.51	4.8	9.1	U	2.0	-	0.1 - 1, (10****)
Chromium	16.7	12.0	<b>204</b>	<b>76.6</b>	1.6	3.0	-	1.5 - 40*, (50****)
Lead	45.7	41.4	<b>71.1</b>	<b>584</b>	1.2	1.0	-	200 - 500**
Mercury	0.12	0.12	<b>0.22</b>	0.071	U	0.1	-	0.001 - 0.2
Selenium	0.67 B	U	1.1 B	0.68 B	U	8.0	-	0.1 - 3.9
Silver	0.22 B	0.33 B	2.9	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	26.000 P	0.085 P	U	-	0.033	---
Aroclor-1254	0.110 P	0.160 P	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.110	0.160	<b>26.000</b>	0.085	0			1/10 ****

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**Notes:**

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- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-23					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-23 S1	P-23 S2	P-23 S3	P-23 S4	P-23 S5			
SAMPLE IDENTIFICATION	P-23 S1	P-23 S2	P-23 S3	P-23 S4	P-23 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	85	96	91	84	96			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	10.4	2.5	2.4	3.8	2.2	3.0	-	3 - 12*
Barium	19.7	8.2 B	16.4	16.7	8.0 B	3.0	-	15 - 600
Cadmium	0.52	0.25 B	0.36	2.1	2.7	2.0	-	0.1 - 1, (10***)
Chromium	12.2	9.3	9.3	20.1	29.4	3.0	-	1.5 - 40*, (50***)
Lead	38.8	4.5	5.4	12.1	6.8	1.0	-	200 - 500**
Mercury	0.16	0.026 B	U	0.046	0.032	0.1	-	0.001 - 0.2
Selenium	0.46 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	0.14 B	U	U	1.2 B	2.2	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	0.570 P	U	U	-	0.033	---
Aroclor-1254	0.140 P	0.041 P	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.140	0.041	0.570	0	0			1/10 ****

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

**Notes:**

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- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-24					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-24 S1	P-24 S2	P-24 S3	P-24 S4	P-24 S5			
SAMPLE IDENTIFICATION	P-24 S1	P-24 S2	P-24 S3	P-24 S4	P-24 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1 / 5	1	1	1			
PERCENT SOLIDS	89	87	95	98	96			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	9.7	5.6	3.4	0.83 B	1.6	3.0	-	3 - 12*
Barium	20.3	16.4	12.4	7.4 B	14.5	3.0	-	15 - 600
Cadmium	0.98	0.86	0.75	0.28	0.55	2.0	-	0.1 - 1, (10***)
Chromium	24.2	24.5	18.1	3.7	10.5	3.0	-	1.5 - 40*, (50***)
Lead	36.8	24.3	37.3	1.9	12.8	1.0	-	200 - 500**
Mercury	0.090	0.098	0.036	0.017 B	0.023 B	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	U	8.0	-	0.1 - 3.9
Silver	1.9	0.93 B	0.35 B	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	1.100	2.500 P	1.100 P	0.270 P	0.330 P	-	0.033	---
Aroclor-1254	0.650	1.300	0.750	0.300	0.350	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
<b>TOTAL PCBs</b>	<b>1.750</b>	<b>3.800</b>	1.850	0.570	0.680			1/10 ****

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-25					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-25 S1	P-25 S2	P-25 S3	P-25 S4	P-25 S5			
SAMPLE IDENTIFICATION	P-25 S1	P-25 S2	P-25 S3	P-25 S4	P-25 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/07/02	3/07/02	3/07/02	3/07/02	3/07/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	78	95	95	88	98			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	8.7	7.4	2.7	1.3	1.9	3.0	-	3 - 12*
Barium	28.7	22.5	13.4	20.0	3.8 B	3.0	-	15 - 600
Cadmium	0.89	9.8	3.0	U	U	2.0	-	0.1 - 1, (10***)
Chromium	27.4	<b>645</b>	<b>208</b>	8.5	3.8	3.0	-	1.5 - 40*, (50***)
Lead	88.7	26.0	10.4	4.0	1.4	1.0	-	200 - 500**
Mercury	0.19	0.12	0.029 B	0.020 B	U	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	U	8.0	-	0.1 - 3.9
Silver	2.4	1.9	0.29 B	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	2.000	0.190 P	0.120 P	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	<b>2.000</b>	0.190	0.120	0	0			1/10 ****

**Qualifiers:**

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- B: Constituent concentration is less than the CRDL, but greater than the IDL.
- P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-26					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-26 S1	P-26 S2	P-26 S3	P-26 S4	P-26 S5			
SAMPLE IDENTIFICATION	P-26 S1	P-26 S2	P-26 S3	P-26 S4	P-26 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	1 / 10	1 / 20			
PERCENT SOLIDS	100	94	95	88	89			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	8.8	5.2	2.9	3.2	5.3	3.0	-	3 - 12*
Barium	25.7	18.8	14.7	20.8	54.8	3.0	-	15 - 600
Cadmium	0.51	0.44	3.7	2.6	7.1	2.0	-	0.1 - 1, (10***)
Chromium	12.4	19.5	<b>126</b>	<b>76.3</b>	<b>185</b>	3.0	-	1.5 - 40*, (50***)
Lead	32.1	17.0	91.8	19.0	36.0	1.0	-	200 - 500**
Mercury	<b>0.22</b>	<b>0.23</b>	0.077	0.083	0.17	0.1	-	0.001 - 0.2
Selenium	0.75 B	U	1.2 B	0.48 B	0.74 B	8.0	-	0.1 - 3.9
Silver	0.16 B	1.5	22.7	14.2	4.7	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	11.000	31.000	-	0.033	---
Aroclor-1248	U	0.310	1.300	U	U	-	0.033	---
Aroclor-1254	U	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	0.120	U	U	-	0.033	---
TOTAL PCBs	0	0.310	1.420	<b>11.000</b>	<b>31.000</b>			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).



**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-27					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-27 S1	P-27 S2	P-27 S3	P-27 S4	P-27 S5			
SAMPLE IDENTIFICATION	P-27 S1	P-27 S2	P-27 S3	P-27 S4	P-27 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1 / 5	1 / 10	1 / 50			
PERCENT SOLIDS	72 / 82	87	92	90	88			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	8.4	2.6	12.2	3.1	5.8	3.0	-	3 - 12*
Barium	25.9	13.6	59.7	26.6	35.1	3.0	-	15 - 600
Cadmium	1.1	0.34	2.7	2.5	7.1	2.0	-	0.1 - 1, (10***)
Chromium	37.6	17.2	64.6	87.9	142	3.0	-	1.5 - 40*, (50***)
Lead	31.9	7.4	46.0	16.6	35.8	1.0	-	200 - 500**
Mercury	0.18	0.091	0.23	0.10	0.12	0.1	-	0.001 - 0.2
Selenium	0.87 B	0.51 B	1.8	0.65 B	0.96 B	8.0	-	0.1 - 3.9
Silver	3.3	0.94 B	2.4	3.0	11.3	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	5.200	8.100	U	-	0.033	---
Aroclor-1248	0.320	0.400	U	U	41.000	-	0.033	---
Aroclor-1254	0.180 P	0.130	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.500	0.530	5.200	8.100	41.000			1/10 ****

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**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-28					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-28 S1	P-28 S2	P-28 S3	P-28 S4	P-28 S5			
SAMPLE IDENTIFICATION	P-28 S1	P-28 S2	P-28 S3	P-28 S4	P-28 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	1 / 50	1 / 20			
PERCENT SOLIDS	81	92	93	93	81			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	9.1	3.0	1.5	4.5	7.3	3.0	-	3 - 12*
Barium	26.8	12.9	6.7 B	24.9	28.5	3.0	-	15 - 600
Cadmium	1.1	0.41	0.30	5.9	0.75	2.0	-	0.1 - 1, (10***)
Chromium	31.1	14.1	14.1	<b>93.5</b>	<b>186</b>	3.0	-	1.5 - 40*, (50***)
Lead	33.4	6.2	2.4	22.8	48.2	1.0	-	200 - 500**
Mercury	0.20	0.029 B	0.028 B	0.14	U	0.1	-	0.001 - 0.2
Selenium	0.94 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	4.2	0.79 B	0.14 B	6.0	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.200 P	0.380	0.450	28.000	20.000	-	0.033	---
Aroclor-1254	0.200 P	U	U	3.000	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.400	0.380	0.450	<b>31.000</b>	<b>20.000</b>			1/10 ****

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

**Notes:**

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- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-29					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-29 S1	P-29 S2	P-29 S3	P-29 S4	P-29 S5			
SAMPLE IDENTIFICATION	P-29 S1	P-29 S2	P-29 S3	P-29 S4	P-29 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/07/02	3/07/02	3/07/02	3/07/02	3/07/02			
DILUTION FACTOR	1 / 10	1	1	1	1			
PERCENT SOLIDS	67	94	96	93	100			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<u>RCRA Metals</u>								
Arsenic	11.8	6.0	1.9	4.6	0.70 B	3.0	-	3 - 12*
Barium	41.2	17.7	11.1	17.8	3.7 B	3.0	-	15 - 600
Cadmium	1.4	0.42	1.0	1.3	0.10 B	2.0	-	0.1 - 1, (10***)
Chromium	35.1	33.7	<b>79.5</b>	37.7	2.4	3.0	-	1.5 - 40*, (50***)
Lead	200	25.3	3.5	41.8	1.3	1.0	-	200 - 500**
Mercury	<b>0.29</b>	0.087	U	0.035	U	0.1	-	0.001 - 0.2
Selenium	0.64 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	2.5	1.3 B	0.12 B	4.7	U	2.0	-	---
<u>PCBs</u>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	3.400	0.790	U	0.320	U	-	0.033	---
Aroclor-1260	U	U	0.034	U	U	-	0.033	---
TOTAL PCBs	<b>3.400</b>	0.790	0.034	0.320	0			1/10 ****

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**Notes:**

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- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-30					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-30 S1	P-30 S2	P-30 S3	P-30 S4	P-30 S5			
SAMPLE IDENTIFICATION	P-30 S1	P-30 S2	P-30 S3	P-30 S4	P-30 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1 / 10	1 / 10	1 / 10	1 / 10			
PERCENT SOLIDS	78	90	90	91	94			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	7.4	4.1	4.1	5.1	3.0	3.0	-	3 - 12*
Barium	32.5	26.4	28.8	31.3	16.5	3.0	-	15 - 600
Cadmium	2.6	5.5	5.1	5.9	3.0	2.0	-	0.1 - 1, (10***)
Chromium	<b>123</b>	<b>378</b>	<b>339</b>	<b>293</b>	<b>91.5</b>	3.0	-	1.5 - 40*, (50***)
Lead	44.7	24.9	27.2	31.8	23.6	1.0	-	200 - 500**
Mercury	0.15	0.11	0.089	0.14	0.071	0.1	-	0.001 - 0.2
Selenium	0.75 B	0.58 B	0.61 B	0.85 B	0.44 B	8.0	-	0.1 - 3.9
Silver	12.8	5.6	4.5	5.7	8.3	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.680	6.300	16.000	9.900	8.000	-	0.033	---
Aroclor-1254	U	U	U	U	U	-	0.033	---
Aroclor-1260	0.170 P	U	U	U	U	-	0.033	---
TOTAL PCBs	0.850	<b>6.300</b>	<b>16.000</b>	9.900	8.000			1/10 ****

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**Notes:**

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- \* : New York State Background.
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- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-31					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-31 S1	P-31 S2	P-31 S3	P-31 S4	P-31 S5			
SAMPLE IDENTIFICATION	P-31 S1	P-31 S2	P-31 S3	P-31 S4	P-31 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1 / 20	1	1 / 1000	1 / 2000	1 / 10			
PERCENT SOLIDS	89	85	91	92	92			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	2.6	6.9	4.9	4.7	5.5	3.0	-	3 - 12*
Barium	19.1	53.5	48.1	43.2	47.0	3.0	-	15 - 600
Cadmium	5.9	1.5	6.9	8.5	<b>11.4</b>	2.0	-	0.1 - 1, (10****)
Chromium	<b>364</b>	<b>75.1</b>	<b>214</b>	<b>222</b>	<b>531</b>	3.0	-	1.5 - 40*, (50****)
Lead	22.8	36.7	39.5	38.5	37.0	1.0	-	200 - 500**
Mercury	0.13	<b>0.26</b>	0.16	0.17	0.11	0.1	-	0.001 - 0.2
Selenium	0.45 B	0.72 B	0.87 B	0.78 B	0.98 B	8.0	-	0.1 - 3.9
Silver	2.3	5.8	4.9	4.1	3.9	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	550.000	880.000	16.000	-	0.033	---
Aroclor-1248	23.000	0.750	U	U	U	-	0.033	---
Aroclor-1254	U	0.390	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
<b>TOTAL PCBs</b>	<b>23.000</b>	<b>1.140</b>	<b>550.000</b>	<b>880.000</b>	<b>16.000</b>			1/10 ****

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-32					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-32 S1	P-32 S2	P-32 S3	P-32 S4	P-32 S5			
SAMPLE IDENTIFICATION	P-32 S1	P-32 S2	P-32 S3	P-32 S4	P-32 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1 / 10	1	1			
PERCENT SOLIDS	76	92	91	88	88			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	10.3	7.0	5.3	2.0	1.1 B	3.0	-	3 - 12*
Barium	35.2	21.3	25.2	20.4	12.3	3.0	-	15 - 600
Cadmium	1.8	2.7	5.8	1.9	1.2	2.0	-	0.1 - 1, (10***)
Chromium	<b>57.3</b>	<b>112</b>	<b>364</b>	<b>160</b>	<b>52.2</b>	3.0	-	1.5 - 40*, (50***)
Lead	44.2	29.3	25.8	8.8	2.4	1.0	-	200 - 500**
Mercury	<b>0.22</b>	0.14	0.14	0.13	0.081	0.1	-	0.001 - 0.2
Selenium	1.6 B	0.88 B	0.74 B	0.43 B	U	8.0	-	0.1 - 3.9
Silver	6.4	4.9	2.4	0.43 B	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.230 P	1.300	7.200	0.180	0.120 P	-	0.033	---
Aroclor-1254	0.450 P	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	0.220 P	0.160	-	0.033	---
TOTAL PCBs	0.680	<b>1.300</b>	7.200	0.400	0.280			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-33					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-33 S1	P-33 S2	P-33 S3	P-33 S4	P-33 S5			
SAMPLE IDENTIFICATION	P-33 S1	P-33 S2	P-33 S3	P-33 S4	P-33 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/07/02	3/07/02	3/07/02	3/07/02	3/07/02			
DILUTION FACTOR	1 / 10	1	1	1	1			
PERCENT SOLIDS	81	95	95	96	97			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	<b>13.4</b>	3.8	2.1	2.1	0.82 B	3.0	-	3 - 12*
Barium	33.8	16.1	12.8	8.7 B	3.7 B	3.0	-	15 - 600
Cadmium	0.81	1.1	1.0	0.82	U	2.0	-	0.1 - 1, (10****)
Chromium	28.9	<b>201</b>	<b>70.0</b>	14.4	2.2	3.0	-	1.5 - 40*, (50****)
Lead	97.6	10.0	4.1	2.8	1.4	1.0	-	200 - 500**
Mercury	<b>0.23</b>	0.057	U	U	U	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	U	8.0	-	0.1 - 3.9
Silver	0.88 B	0.38 B	U	0.73 B	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	2.300	0.260 P	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
<b>TOTAL PCBs</b>	<b>2.300</b>	0.260	0	0	0			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-34					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-34 S1	P-34 S2	P-34 S3	P-34 S4	P-34 S5			
SAMPLE IDENTIFICATION	P-34 S1	P-34 S2	P-34 S3	P-34 S4	P-34 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1 / 10	1 / 10	1 / 10	1 / 20			
PERCENT SOLIDS	83	89	90	92	92			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	8.4	8.1	4.5	4.8	4.3	3.0	-	3 - 12*
Barium	31.6	30.3	28.8	32.6	25.8	3.0	-	15 - 600
Cadmium	1.4	3.2	1.4	<b>10.8</b>	<b>13.7</b>	2.0	-	0.1 - 1, (10***)
Chromium	<b>51.3</b>	<b>170</b>	<b>54.0</b>	<b>431</b>	<b>760</b>	3.0	-	1.5 - 40*, (50***)
Lead	53.2	26.8	19.7	36.2	29.1	1.0	-	200 - 500**
Mercury	0.18	0.18	0.14	0.098	0.14	0.1	-	0.001 - 0.2
Selenium	0.85 B	0.91 B	0.87 B	0.87 B	0.54 B	8.0	-	0.1 - 3.9
Silver	2.4	3.7	2.2	6.4	3.9	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	10.000	17.000	U	-	0.033	---
Aroclor-1248	0.440	6.200	U	U	14.000	-	0.033	---
Aroclor-1254	U	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.440	<b>6.200</b>	10.000	<b>17.000</b>	<b>14.000</b>			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).



**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-35					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-35 S1	P-35 S2	P-35 S3	P-35 S4	P-35 S5			
SAMPLE IDENTIFICATION	P-35 S1	P-35 S2	P-35 S3	P-35 S4	P-35 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1 / 10	1 / 10	1	1	1			
PERCENT SOLIDS	90	88	94	95	61			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	6.1	8.1	7.0	6.6	2.7	3.0	-	3 - 12*
Barium	26.9	25.9	32.4	30.6	17.6	3.0	-	15 - 600
Cadmium	5.7	2.7	2.3	2.1	0.60	2.0	-	0.1 - 1, (10***)
Chromium	<b>277</b>	<b>131</b>	<b>967</b>	<b>858</b>	<b>157</b>	3.0	-	1.5 - 40*, (50***)
Lead	30.2	28.7	26.3	23.1	6.3	1.0	-	200 - 500**
Mercury	0.16	0.17	0.085	0.11	0.046 B	0.1	-	0.001 - 0.2
Selenium	0.84 B	0.88 B	U	0.52 B	U	8.0	-	0.1 - 3.9
Silver	5.1	4.0	0.14 B	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	2.700	3.800	0.140	0.052 P	0.069 P	-	0.033	---
Aroclor-1254	0.920	1.100	0.140	U	U	-	0.033	---
Aroclor-1260	U	U	U	0.080	0.054	-	0.033	---
TOTAL PCBs	<b>3.620</b>	<b>4.900</b>	0.280	0.132	0.123			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-36					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-36 S1	P-36 S2	P-36 S3	P-36 S4	P-36 S5			
SAMPLE IDENTIFICATION	P-36 S1	P-36 S2	P-36 S3	P-36 S4	P-36 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1 / 10	1 / 10	1 / 10	1 / 10			
PERCENT SOLIDS	80	77	89	83	85			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	7.5	6.0	3.2	5.8	6.9	3.0	-	3 - 12*
Barium	328	35.5	23.5	42.2	52.6	3.0	-	15 - 600
Cadmium	1.4	<b>21.5</b>	6.0	5.7	5.2	2.0	-	0.1 - 1, (10****)
Chromium	43.8	<b>857</b>	<b>141</b>	<b>180</b>	<b>50.3</b>	3.0	-	1.5 - 40*, (50****)
Lead	38.0	42.2	17.7	18.1	17.8	1.0	-	200 - 500**
Mercury	0.16	<b>0.29</b>	0.18	0.15	0.15	0.1	-	0.001 - 0.2
Selenium	1.1 B	0.76 B	0.78 B	1.6 B	1.0 B	8.0	-	0.1 - 3.9
Silver	2.2	2.8	3.5	1.9	3.0	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	14.000	U	U	-	0.033	---
Aroclor-1248	0.270	18.000	U	6.200	5.500	-	0.033	---
Aroclor-1254	U	U	U	U	U	-	0.033	---
Aroclor-1260	0.110 P	1.200	U	U	U	-	0.033	---
TOTAL PCBs	0.380	<b>19.200</b>	<b>14.000</b>	6.200	5.500			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-37					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-37 S1	P-37 S2	P-37 S3	P-37 S4	P-37 S5			
SAMPLE IDENTIFICATION	P-37 S1	P-37 S2	P-37 S3	P-37 S4	P-37 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	87	95	97	93	93			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	7.9	5.1	8.7	2.1	1.5	3.0	-	3 - 12*
Barium	20.7	11.7	4.6 B	7.1 B	3.8 B	3.0	-	15 - 600
Cadmium	0.97	0.33	0.61	0.38	0.22 B	2.0	-	0.1 - 1, (10***)
Chromium	17.0	7.6	10.9	24.3	3.2	3.0	-	1.5 - 40*, (50***)
Lead	38.7	9.9	4.8	2.3	1.6	1.0	-	200 - 500**
Mercury	0.14	0.25	U	U	U	0.1	-	0.001 - 0.2
Selenium	0.50 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	1.1 B	0.26 B	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	1.700	0.290 P	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
<b>TOTAL PCBs</b>	<b>1.700</b>	0.290	0	0	0			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-38					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-38 S1	P-38 S2	P-38 S3	P-38 S4	P-38 S5			
SAMPLE IDENTIFICATION	P-38 S1	P-38 S2	P-38 S3	P-38 S4	P-38 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/07/02	3/07/02	3/07/02	3/07/02	3/07/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	75	90	96	97	99			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	10	9.7	1.9	1.2	2.0	3.0	-	3 - 12*
Barium	76.4	30.1	79.6	25.0	3.1 B	3.0	-	15 - 600
Cadmium	0.78	0.33	0.28 B	U	U	2.0	-	0.1 - 1, (10***)
Chromium	24.2	13.0	26.4	2.3	20.3	3.0	-	1.5 - 40*, (50***)
Lead	118	26.9	3.7	3.1	1.2	1.0	-	200 - 500**
Mercury	0.17	0.12	U	U	U	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	U	8.0	-	0.1 - 3.9
Silver	0.58 B	0.21 B	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	0.910 P	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.910	0	0	0	0			1/10 ****

**Qualifiers:**

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- B: Constituent concentration is less than the CRDL, but greater than the IDL.
- P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-39					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-39 S1	P-39 S2	P-39 S3	P-39 S4	P-39 S5			
SAMPLE IDENTIFICATION	P-39 S1	P-39 S2	P-39 S3	P-39 S4	P-39 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	90	96	97	99	95			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	3.7	1.8	0.85 B	0.77 B	0.59 B	3.0	-	3 - 12*
Barium	16.4	11.3	5.2 B	3.3 B	4.5 B	3.0	-	15 - 600
Cadmium	0.80	0.50	0.16 B	0.16 B	0.14 B	2.0	-	0.1 - 1, (10***)
Chromium	24.5	8.8	4.8	2.2	4.3	3.0	-	1.5 - 40*, (50***)
Lead	23.3	2.0	1.1	0.44	1.1	1.0	-	200 - 500**
Mercury	0.063	U	U	U	U	0.1	-	0.001 - 0.2
Selenium	0.64 B	0.58 B	0.37 B	0.50 B	U	8.0	-	0.1 - 3.9
Silver	3.9	0.21 B	0.11 B	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.061	0.036	0.088	U	0.050	-	0.033	---
Aroclor-1254	U	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.061	0.036	0.088	0	0.050			1/10 ****

**Qualifiers:**

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- B: Constituent concentration is less than the CRDL, but greater than the IDL.
- P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-40					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-40 S1	P-40 S2	P-40 S3	P-40 S4	P-40 S5			
SAMPLE IDENTIFICATION	P-40 S1	P-40 S2	P-40 S3	P-40 S4	P-40 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/07/02	3/07/02	3/07/02	3/07/02	3/07/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	80	94	95	94	95			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<u>RCRA Metals</u>								
Arsenic	8.9	7.7	1.7	3.6	1.3	3.0	-	3 - 12*
Barium	38.2	18.9	13.5	22.6	6.5 B	3.0	-	15 - 600
Cadmium	0.79	0.46	1.5	0.56	0.25 B	2.0	-	0.1 - 1, (10***)
Chromium	26.9	17.6	<b>62.5</b>	<b>320</b>	10	3.0	-	1.5 - 40*, (50***)
Lead	101	25.2	5.6	9.2	2.4	1.0	-	200 - 500**
Mercury	0.19	0.088	0.025 B	0.034 B	U	0.1	-	0.001 - 0.2
Selenium	U	U	U	0.52 B	U	8.0	-	0.1 - 3.9
Silver	1.1 B	1.8	U	U	U	2.0	-	---
<u>PCBs</u>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	0.320 P	0.041 P	0.430	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.320	0.041	0.430	0	0			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-41					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-41 S1	P-41 S2	P-41 S3	P-41 S4	P-41 S5			
SAMPLE IDENTIFICATION	P-41 S1	P-41 S2	P-41 S3	P-41 S4	P-41 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1 / 5	1			
PERCENT SOLIDS	84	93	89	85	91			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	8.7	2.4	6.7	8.5	3.2	3.0	-	3 - 12*
Barium	30.3	14.4	30.0	28.4	17.5	3.0	-	15 - 600
Cadmium	1.6	1.9	1.4	1.1	0.44	2.0	-	0.1 - 1, (10***)
Chromium	48.2	18.8	14.7	47.2	20.0	3.0	-	1.5 - 40*, (50***)
Lead	44.2	8.2	24.7	21.6	7.7	1.0	-	200 - 500**
Mercury	<b>0.23</b>	0.049	0.16	0.17	0.022 B	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	0.86 B	8.0	-	0.1 - 3.9
Silver	3.6	2.5	1.5 B	1.1 B	1.4 B	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.500	0.390	0.620	2.600	0.093	-	0.033	---
Aroclor-1254	0.330 P	0.430	0.390 P	0.620	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.830	0.820	1.010	3.220	0.093			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-42					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-42 S1	P-42 S2	P-42 S3	P-42 S4	P-42 S5			
SAMPLE IDENTIFICATION	P-42 S1	P-42 S2	P-42 S3	P-42 S4	P-42 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1 / 5	1	1			
PERCENT SOLIDS	78	93	91	98	98			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	10.9	2.1	4.3	2.1	1.1	3.0	-	3 - 12*
Barium	33.0	16.1	46.5	5.3 B	7.3 B	3.0	-	15 - 600
Cadmium	1.5	0.91	1.2	0.27 B	0.16 B	2.0	-	0.1 - 1, (10***)
Chromium	28.3	17.4	44.8	8.8	3.1	3.0	-	1.5 - 40*, (50***)
Lead	43.3	5.7	11.4	1.7	1.4	1.0	-	200 - 500**
Mercury	<b>0.25</b>	0.032 B	0.057	0.022 B	U	0.1	-	0.001 - 0.2
Selenium	0.57 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	2.3	1.4 B	1.1 B	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	1.000	0.270	3.500 P	0.042	U	-	0.033	---
Aroclor-1254	0.750	0.130	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	<b>1.750</b>	0.400	3.500	0.042	0			1/10 ****

**Qualifiers:**

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- B: Constituent concentration is less than the CRDL, but greater than the IDL.
- P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).



**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-43					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-43 S1	P-43 S2	P-43 S3	P-43 S4	P-43 S5			
SAMPLE IDENTIFICATION	P-43 S1	P-43 S2	P-43 S3	P-43 S4	P-43 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	86 / 96	95	97	97	97			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	14.2	1.9	0.93	1.1	0.85 B	3.0	-	3 - 12*
Barium	27.3	7.0 B	3.6 B	6.4 B	3.8 B	3.0	-	15 - 600
Cadmium	0.93	0.22 B	0.091 B	0.20 B	0.11 B	2.0	-	0.1 - 1, (10***)
Chromium	18.9	5.2	1.9	3.2	1.9	3.0	-	1.5 - 40*, (50***)
Lead	53.5	2.5	0.94	1.6	0.89	1.0	-	200 - 500**
Mercury	0.17	0.017 B	U	U	U	0.1	-	0.001 - 0.2
Selenium	0.54 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	0.69 B	U	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	0.130 P	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.130	0	0	0	0			1/10 ****

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-44					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-44 S1	P-44 S2	P-44 S3	P-44 S4	P-44 S5			
SAMPLE IDENTIFICATION	P-44 S1	P-44 S2	P-44 S3	P-44 S4	P-44 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/07/02	3/07/02	3/07/02	3/07/02	3/07/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	80	98	93	96	98			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<u>RCRA Metals</u>								
Arsenic	10.7	5.8	1.5	4.9	0.85 B	3.0	-	3 - 12*
Barium	94.2	13.9	8.1 B	15.8	8.1 B	3.0	-	15 - 600
Cadmium	1.0	0.38	1.7	0.68	U	2.0	-	0.1 - 1, (10***)
Chromium	<b>107</b>	17.8	<b>85.0</b>	26.1	2.5	3.0	-	1.5 - 40*, (50***)
Lead	164	43.1	4.8	55.5	1.1	1.0	-	200 - 500**
Mercury	<b>0.31</b>	0.15	0.089	0.078	U	0.1	-	0.001 - 0.2
Selenium	0.54 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	U	U	U	U	U	2.0	-	---
<u>PCBs</u>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	0.068	U	U	-	0.033	---
Aroclor-1254	0.320 P	U	0.099	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.320	0	0.167	0	0			1/10 ****

**Qualifiers:**

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**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-45					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-45 S1	P-45 S2	P-45 S3	P-45 S4	P-45 S5			
SAMPLE IDENTIFICATION	P-45 S1	P-45 S2	P-45 S3	P-45 S4	P-45 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	90	94	92	91	90			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	6.6	3.1	2.5	2.7	2.8	3.0	-	3 - 12*
Barium	18.6	19.6	16.5	16.2	17.6	3.0	-	15 - 600
Cadmium	1.0	3.4	3.1	0.27 B	0.28 B	2.0	-	0.1 - 1, (10***)
Chromium	35.3	<b>117</b>	<b>97.3</b>	14.1	32.8	3.0	-	1.5 - 40*, (50***)
Lead	24.4	11.7	5.5	3.4	4.1	1.0	-	200 - 500**
Mercury	0.17	0.055	0.057	U	0.026 B	0.1	-	0.001 - 0.2
Selenium	0.68 B	0.85 B	0.74 B	0.73 B	0.77 B	8.0	-	0.1 - 3.9
Silver	3.1	1.3 B	0.25 B	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.410	0.400	0.390 P	0.430 P	0.320 P	-	0.033	---
Aroclor-1254	0.250 P	0.300	0.210	0.210	0.190	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.660	0.700	0.600	0.640	0.510			1/10 ****

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-46					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-46 S1	P-46 S2	P-46 S3	P-46 S4	P-46 S5			
SAMPLE IDENTIFICATION	P-46 S1	P-46 S2	P-46 S3	P-46 S4	P-46 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1 / 5	1			
PERCENT SOLIDS	86	92	93	92	90			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	10.2	3.4	4.2	3.9	4.0	3.0	-	3 - 12*
Barium	28.9	20.3	19.7	26.8	34.0	3.0	-	15 - 600
Cadmium	1.5	2.4	4.1	8.2	4.2	2.0	-	0.1 - 1, (10***)
Chromium	38.2	<b>68.0</b>	<b>59.1</b>	<b>176</b>	<b>83.5</b>	3.0	-	1.5 - 40*, (50***)
Lead	33.9	13.2	14.0	20.9	13.7	1.0	-	200 - 500**
Mercury	0.18	0.028 B	0.049	0.060	0.036 B	0.1	-	0.001 - 0.2
Selenium	0.63 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	2.9	1.3 B	1.7	1.3 B	0.94 B	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.400	U	0.670	2.700	0.370	-	0.033	---
Aroclor-1254	0.240 P	0.240	0.410	1.200	0.410	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.640	0.240	1.080	3.900	0.780			1/10 ****

**Qualifiers:**

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- B: Constituent concentration is less than the CRDL, but greater than the IDL.
- P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-47					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-47 S1	P-47 S2	P-47 S3	P-47 S4	P-47 S5			
SAMPLE IDENTIFICATION	P-47 S1	P-47 S2	P-47 S3	P-47 S4	P-47 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1 / 50	2			
PERCENT SOLIDS	82	86	91	90	94			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	6.2	7.0	2.3	4.3	2.6	3.0	-	3 - 12*
Barium	25.7	25.2	15.3	31.6	19.8	3.0	-	15 - 600
Cadmium	1.8	1.7	1.1	1.2	0.65	2.0	-	0.1 - 1, (10***)
Chromium	30.1	51.5	8.5	22.3	23.8	3.0	-	1.5 - 40*, (50***)
Lead	46.9	76.9	6.1	11.2	9.7	1.0	-	200 - 500**
Mercury	0.15	0.11	0.071	0.098	0.030 B	0.1	-	0.001 - 0.2
Selenium	0.87 B	0.67 B	0.71 B	1.0 B	0.83 B	8.0	-	0.1 - 3.9
Silver	5.6	13.1	0.37 B	0.97 B	0.43 B	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	44.000	2.000	-	0.033	---
Aroclor-1248	1.800 P	0.660	0.480	U	U	-	0.033	---
Aroclor-1254	1.100	0.500	0.180	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	<b>2.900</b>	<b>1.160</b>	0.660	<b>44.000</b>	2.000			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-48					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-48 S1	P-48 S2	P-48 S3	P-48 S4	P-48 S5			
SAMPLE IDENTIFICATION	P-48 S1	P-48 S2	P-48 S3	P-48 S4	P-48 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1 / 10	1 / 10	1	1			
PERCENT SOLIDS	83	91	88	89	91			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	9.9	3.8	3.4	8.2	5.3	3.0	-	3 - 12*
Barium	31.2	34.2	19.1	34.1	26.1	3.0	-	15 - 600
Cadmium	0.99	2.1	2.2	0.73	0.97	2.0	-	0.1 - 1, (10***)
Chromium	24.1	30.9	14.3	18.0	18.4	3.0	-	1.5 - 40*, (50***)
Lead	33.6	15.9	15.5	24.8	17.2	1.0	-	200 - 500**
Mercury	<b>0.23</b>	0.071	0.13	<b>0.23</b>	<b>0.30</b>	0.1	-	0.001 - 0.2
Selenium	0.58 B	U	U	U	0.41 B	8.0	-	0.1 - 3.9
Silver	2.3	4.5	2.6	1.9	2.1	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.970 P	2.800	2.300	0.650	1.000	-	0.033	---
Aroclor-1254	U	1.400	1.700	1.100 P	0.720	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.970	<b>4.200</b>	4.000	1.750	1.720			1/10 ****

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**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-49					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-49 S1	P-49 S2	P-49 S3	P-49 S4	P-49 S5			
SAMPLE IDENTIFICATION	P-49 S1	P-49 S2	P-49 S3	P-49 S4	P-49 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	80	89	89	88	91			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	10.2	5.5	3.9	5.1	4.9	3.0	-	3 - 12*
Barium	29.8	20.0	19.5	27.0	29.9	3.0	-	15 - 600
Cadmium	1.1	0.98	0.54	0.81	0.61	2.0	-	0.1 - 1, (10***)
Chromium	29.8	36.4	12.4	22.3	15.0	3.0	-	1.5 - 40*, (50****)
Lead	49.3	18.0	14.5	17.2	15.4	1.0	-	200 - 500**
Mercury	<b>0.24</b>	0.096	<b>0.22</b>	<b>0.31</b>	0.13	0.1	-	0.001 - 0.2
Selenium	U	U	U	0.51 B	U	8.0	-	0.1 - 3.9
Silver	4.6	8.0	1.8	4.6	1.9	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	0.400 P	0.810	1.600	0.610	-	0.033	---
Aroclor-1254	0.120 P	0.350 P	0.780	1.900	0.610	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.120	0.750	1.590	3.500	1.220			1/10 ****

**Qualifiers:**

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**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-50					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-50 S1	P-50 S2	P-50 S3	P-50 S4	P-50 S5			
SAMPLE IDENTIFICATION	P-50 S1	P-50 S2	P-50 S3	P-50 S4	P-50 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	81	95	94	96	98 / 97			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	11.6	2.1	2.6	1.7	1.1	3.0	-	3 - 12*
Barium	33.2	9.5	20.4	12.8	8.9 B	3.0	-	15 - 600
Cadmium	1.2	0.28	0.34	0.23 B	0.19 B	2.0	-	0.1 - 1, (10***)
Chromium	22.7	7.8	9.4	5.7	1.9	3.0	-	1.5 - 40*, (50***)
Lead	156	4.3	4.2	3.0	1.0	1.0	-	200 - 500**
Mercury	<b>0.21</b>	U	0.025 B	U	U	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	U	8.0	-	0.1 - 3.9
Silver	0.76 B	0.094 B	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	0.300 P	0.080	U	U	-	0.033	---
Aroclor-1254	0.300 P	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.300	0.300	0.080	0	0			1/10 ****

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**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).



**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-51					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-51 S1	P-51 S2	P-51 S3	P-51 S4	P-51 S5			
SAMPLE IDENTIFICATION	P-51 S1	P-51 S2	P-51 S3	P-51 S4	P-51 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	79	89	92	85	98			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<u>RCRA Metals</u>								
Arsenic	<b>16.0</b>	<b>12.6</b>	3.0	1.1	0.99	3.0	-	3 - 12*
Barium	37.5	24.7	29.3	7.7 B	3.6 B	3.0	-	15 - 600
Cadmium	0.73	0.47	0.31	U	U	2.0	-	0.1 - 1, (10****)
Chromium	17.5	12.2	10.0	3.1	2.1	3.0	-	1.5 - 40*, (50****)
Lead	78.8	31.9	5.1	1.2	1.4	1.0	-	200 - 500**
Mercury	<b>0.28</b>	0.20	0.024 B	U	U	0.1	-	0.001 - 0.2
Selenium	1.0 B	0.61 B	U	U	U	8.0	-	0.1 - 3.9
Silver	U	0.20 B	U	U	U	2.0	-	---
<u>PCBs</u>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	U	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0	0	0	0	0			1/10 ****

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**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-52					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-52 S1	P-52 S2	P-52 S3	P-52 S4	P-52 S5			
SAMPLE IDENTIFICATION	P-52 S1	P-52 S2	P-52 S3	P-52 S4	P-52 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	83	90	98	98	96			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<u>RCRA Metals</u>								
Arsenic	16.4	7.8	1.3	2.1	4.1	3.0	-	3 - 12*
Barium	32.3	20.6	5.9 B	11.7	25.9	3.0	-	15 - 600
Cadmium	0.77	0.35	U	0.16 B	0.38	2.0	-	0.1 - 1, (10****)
Chromium	16.0	8.4	2.8	5.2	11.0	3.0	-	1.5 - 40*, (50****)
Lead	97.8	17.3	1.4	2.5	5.1	1.0	-	200 - 500**
Mercury	0.31	0.11	U	0.025 B	0.016 B	0.1	-	0.001 - 0.2
Selenium	0.81 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	U	U	U	U	U	2.0	-	---
<u>PCBs</u>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	0.043 P	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.043	0	0	0	0			1/10 ****

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**Notes:**

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- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-53					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-53 S1	P-53 S2	P-53 S3	P-53 S4	P-53 S5			
SAMPLE IDENTIFICATION	P-53 S1	P-53 S2	P-53 S3	P-53 S4	P-53 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	76	83	84	98	97			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	<b>16.2</b>	<b>15.4</b>	5.2	1.4	1.4	3.0	-	3 - 12*
Barium	56.1	58.5	43.3	9.6	5.0 B	3.0	-	15 - 600
Cadmium	1.6	1.4	0.48	0.13 B	0.17 B	2.0	-	0.1 - 1, (10****)
Chromium	20.5	17.3	13.8	3.2	2.6	3.0	-	1.5 - 40*, (50****)
Lead	101	86.4	6.6	1.3	1.1	1.0	-	200 - 500**
Mercury	<b>0.27</b>	<b>0.37</b>	0.049	0.018 B	0.049	0.1	-	0.001 - 0.2
Selenium	0.60 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	0.13 B	U	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	0.220 P	0.079 P	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.220	0.079	0	0	0			1/10 ****

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**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-54					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-54 S1	P-54 S2	P-54 S3	P-54 S4	P-54 S5			
SAMPLE IDENTIFICATION	P-54 S1	P-54 S2	P-54 S3	P-54 S4	P-54 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	82	86	95	99	99			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	11.6	11.8	1.4	1.1	3.5	3.0	-	3 - 12*
Barium	25.3	22.2	5.9 B	6.9 B	14.7	3.0	-	15 - 600
Cadmium	0.59	0.55	U	0.096 B	0.30	2.0	-	0.1 - 1, (10***)
Chromium	18.9	16.9	4.4	2.6	8.1	3.0	-	1.5 - 40*, (50***)
Lead	74.3	50.7	2.3	0.99	1.6	1.0	-	200 - 500**
Mercury	<b>0.29</b>	<b>0.23</b>	0.030	U	U	0.1	-	0.001 - 0.2
Selenium	0.94 B	U	U	U	U	8.0	-	0.1 - 3.9
Silver	0.49 B	0.53 B	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	0.180	U	U	U	U	-	0.033	---
Aroclor-1254	0.160 P	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.340	0	0	0	0			1/10 ****

**Qualifiers:**

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- B: Constituent concentration is less than the CRDL, but greater than the IDL.
- P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-55					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-55 S1	P-55 S2	P-55 S3	P-55 S4	P-55 S5			
SAMPLE IDENTIFICATION	P-55 S1	P-55 S2	P-55 S3	P-55 S4	P-55 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	83	87	96	98	97			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	<b>14.4</b>	<b>24.3</b>	3.2	1.7	0.89 B	3.0	-	3 - 12*
Barium	32.5	22.2	3.1 B	15.8	10.9	3.0	-	15 - 600
Cadmium	0.98	0.47	U	0.11 B	U	2.0	-	0.1 - 1, (10****)
Chromium	21.5	9.2	4.6	5.0	2.8	3.0	-	1.5 - 40*, (50****)
Lead	95.1	29.5	0.98	2.0	1.1	1.0	-	200 - 500**
Mercury	<b>0.26</b>	<b>0.30</b>	U	U	U	0.1	-	0.001 - 0.2
Selenium	U	0.44 B	U	U	U	8.0	-	0.1 - 3.9
Silver	1.5 B	U	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	0.082 P	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.082	0	0	0	0			1/10 ****

**Qualifiers:**

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- B: Constituent concentration is less than the CRDL, but greater than the IDL.
- P: Concentration estimated, possibly biased low since primary and confirmation column concentrations had a percent difference >25%; lower value reported.

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-56					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-56 S1	P-56 S2	P-56 S3	P-56 S4	P-56 S5			
SAMPLE IDENTIFICATION	P-56 S1	P-56 S2	P-56 S3	P-56 S4	P-56 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	79	86	84	98	98			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	<b>13.9</b>	8.8	2.9	1.9	0.99	3.0	-	3 - 12*
Barium	39.9	21.8	38.3	7.1 B	4.5 B	3.0	-	15 - 600
Cadmium	0.98	0.43	0.35	0.17 B	0.092 B	2.0	-	0.1 - 1, (10***)
Chromium	24.5	11.7	12.9	5.9	2.1	3.0	-	1.5 - 40*, (50***)
Lead	135	15.7	5.7	2.1	0.88	1.0	-	200 - 500**
Mercury	<b>0.24</b>	<b>0.47</b>	0.049	0.036	U	0.1	-	0.001 - 0.2
Selenium	0.50 B	0.67 B	U	U	U	8.0	-	0.1 - 3.9
Silver	0.70 B	U	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	U	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0	0	0	0	0			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-57					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-57 S1	P-57 S2	P-57 S3	P-57 S4	P-57 S5			
SAMPLE IDENTIFICATION	P-57 S1	P-57 S2	P-57 S3	P-57 S4	P-57 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	81	77	86	95	98			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	6.3	9.2	7.8	0.88 B	0.91	3.0	-	3 - 12*
Barium	24.8	25.7	19.7	2.7 B	3.0 B	3.0	-	15 - 600
Cadmium	0.87	1.0	0.44	U	U	2.0	-	0.1 - 1, (10***)
Chromium	30.5	30.7	8.7	2.0	2.4	3.0	-	1.5 - 40*, (50***)
Lead	108	65.4	20.5	0.80	0.90	1.0	-	200 - 500**
Mercury	<b>0.23</b>	<b>0.23</b>	<b>0.22</b>	0.025 B	U	0.1	-	0.001 - 0.2
Selenium	U	U	0.45 B	U	U	8.0	-	0.1 - 3.9
Silver	3.4	4.7	0.39 B	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	0.310 P	U	U	U	-	0.033	---
Aroclor-1254	0.250 P	0.260 P	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0.250	0.570	0	0	0			1/10 ****

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**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-58				INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-58 S2	P-58 S3	P-58 S4	P-58 S5			
SAMPLE IDENTIFICATION	P-58 S2	P-58 S3	P-58 S4	P-58 S5			
SAMPLE DEPTH	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1			
PERCENT SOLIDS	96	88	97	87			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>							
Arsenic	0.79 B	3.5	1.7	3.4	3.0	-	3 - 12*
Barium	9.2	26.9	8.4 B	61.9	3.0	-	15 - 600
Cadmium	U	0.97	U	0.17 B	2.0	-	0.1 - 1, (10***)
Chromium	32.8	24.2	5.2	16.2	3.0	-	1.5 - 40*, (50***)
Lead	1.4	13.8	1.4	7.8	1.0	-	200 - 500**
Mercury	U	0.10	U	U	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	8.0	-	0.1 - 3.9
Silver	U	1.3 B	U	U	2.0	-	---
<b>PCBs</b>							
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	U	0.750	U	U	-	0.033	---
Aroclor-1254	0.150	0.230 P	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	-	0.033	---
TOTAL PCBs	0.150	0.980	0	0			1/10 ****

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**Notes:**

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- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).



**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-59				INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-59 S2	P-59 S3	P-59 S4	P-59 S5			
SAMPLE IDENTIFICATION	P-59 S2	P-59 S3	P-59 S4	P-59 S5			
SAMPLE DEPTH	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1			
PERCENT SOLIDS	96	82	76	98			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>							
Arsenic	1.9	15.7	2.7	1.7	3.0	-	3 - 12*
Barium	7.9 B	26.2	39.0	5.9 B	3.0	-	15 - 600
Cadmium	0.45	1.7	0.17 B	U	2.0	-	0.1 - 1, (10***)
Chromium	19.2	16.7	16.0	2.4	3.0	-	1.5 - 40*, (50***)
Lead	2.8	5.3	7.7	0.98	1.0	-	200 - 500**
Mercury	U	U	0.088	U	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	8.0	-	0.1 - 3.9
Silver	U	U	U	U	2.0	-	---
<b>PCBs</b>							
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	U	U	U	U	-	0.033	---
Aroclor-1254	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	-	0.033	---
TOTAL PCBs	0	0	0	0			1/10 ****

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- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 1 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - SOIL PROBE LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	Probe P-60					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	P-60 S1	P-60 S2	P-60 S3	P-60 S4	P-60 S5			
SAMPLE IDENTIFICATION	P-60 S1	P-60 S2	P-60 S3	P-60 S4	P-60 S5			
SAMPLE DEPTH	0 - 2"	2" - 2'	2' - 4'	4' - 6'	6' - 8'			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	1 / 10	1 / 10			
PERCENT SOLIDS	94	95	94	100	100			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	3.1	4.8	2.4	4.8	6.3	3.0	-	3 - 12*
Barium	97.6	26.2	16.7	30.4	37.2	3.0	-	15 - 600
Cadmium	0.16 B	0.68	0.62	3.5	7.3	2.0	-	0.1 - 1, (10***)
Chromium	9.1	27.9	<b>78.5</b>	<b>82.5</b>	<b>121</b>	3.0	-	1.5 - 40*, (50***)
Lead	5.2	14.2	6.8	22.1	36.1	1.0	-	200 - 500**
Mercury	U	0.069	0.11	0.18	<b>0.28</b>	0.1	-	0.001 - 0.2
Selenium	0.40 B	0.80 B	0.70 B	0.76 B	0.77 B	8.0	-	0.1 - 3.9
Silver	U	0.87 B	0.38 B	3.7	7.7	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	11.000	11.000	-	0.033	---
Aroclor-1248	U	0.220	0.110	U	U	-	0.033	---
Aroclor-1254	U	U	U	U	U	-	0.033	---
Aroclor-1260	U	0.050 P	U	U	U	-	0.033	---
TOTAL PCBs	0	0.270	0.110	<b>11.000</b>	<b>11.000</b>			1/10 ****

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- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

## **EXPOSURE POINT LOCATIONS**

**TABLE 2  
NORTHROP GRUMMAN CORPORATION  
TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK  
SOIL SAMPLING PROGRAM - EXPOSURE POINT LOCATIONS  
RCRA METALS AND PCBs**

SAMPLE LOCATION	Baseball Field					S. Playground	INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	EP-1	EP-2	EP-3	EP-4	EP-5				
SAMPLE DEPTH	0 - 2"	0 - 2"	0 - 2"	0 - 2"	0 - 2"				
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02				
DILUTION FACTOR	1	1	1	1	1				
PERCENT SOLIDS	89	90	90	91	76				
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)	
<u>RCRA Metals</u>									
Arsenic	2.6	3.1	3.6	5.0	1.1 B	3.0	-	3 - 12*	
Barium	22.2	17.9	17.0	17.2	8.2 B	3.0	-	15 - 600	
Cadmium	0.14 B	0.17 B	0.17 B	0.18 B	0.13 B	2.0	-	0.1 - 1, (10***)	
Chromium	7.7	8.1	8.6	11.0	4.8	3.0	-	1.5 - 40*, (50****)	
Lead	4.8	5.0	4.9	4.9	5.4	1.0	-	200 - 500**	
Mercury	U	U	U	U	0.018 B	0.1	-	0.001 - 0.2	
Selenium	0.42 B	0.44 B	0.48 B	0.65 B	U	8.0	-	0.1 - 3.9	
Silver	U	U	U	U	U	2.0	-	---	
<u>PCBs</u>									
Aroclor-1016	U	U	U	U	U	-	0.033	---	
Aroclor-1221	U	U	U	U	U	-	0.067	---	
Aroclor-1232	U	U	U	U	U	-	0.033	---	
Aroclor-1242	U	U	U	U	U	-	0.033	---	
Aroclor-1248	U	U	U	U	U	-	0.033	---	
Aroclor-1254	U	U	U	U	U	-	0.033	---	
Aroclor-1260	U	U	U	U	U	-	0.033	---	
TOTAL PCBs	0	0	0	0	0			1/10 ****	

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 2 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - EXPOSURE POINT LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	South Playground					INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
	EP-6	EP-7	EP-8	EP-9	EP-10			
SAMPLE IDENTIFICATION	EP-6	EP-7	EP-8	EP-9	EP-10			
SAMPLE DEPTH	0 - 2"	0 - 2"	0 - 2"	0 - 2"	0 - 2"			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02	3/05/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	78	76	87	94	94			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	0.61 B	5.3	1.3	5.8	7.0	3.0	-	3 - 12*
Barium	4.3 B	10.4 B	4.4 B	7.5 B	14.9	3.0	-	15 - 600
Cadmium	0.13 B	0.38	0.12 B	0.37	0.55	2.0	-	0.1 - 1, (10****)
Chromium	4.3	8.1	5.1	12.7	20.9	3.0	-	1.5 - 40*, (50****)
Lead	7.6	7.3	4.5	6.8	11.9	1.0	-	200 - 500**
Mercury	U	U	U	U	0.022 B	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	U	8.0	-	0.1 - 3.9
Silver	U	U	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	0.082	0.048	-	0.033	---
Aroclor-1254	U	U	U	0.075	0.044	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0	0	0	0.157	0.092			1/10 ****

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**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 2 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - EXPOSURE POINT LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	South Playground			Horseshoe Pits		INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	EP-11	EP-12	EP-13	EP-14	EP-15			
SAMPLE DEPTH	0 - 2"	0 - 2"	0 - 2"	0 - 2"	0 - 2"			
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/06/02	3/06/02			
DILUTION FACTOR	1	1	1	1	1			
PERCENT SOLIDS	86	94	85	86	88			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(mg/kg)	(mg/kg)
<b>RCRA Metals</b>								
Arsenic	2.0	2.1	3.4	4.3	4.1	3.0	-	3 - 12*
Barium	7.8 B	5.4 B	12.6	16.6	15.9	3.0	-	15 - 600
Cadmium	0.22 B	0.28	0.48	0.24 B	0.23 B	2.0	-	0.1 - 1, (10****)
Chromium	5.5	7.7	12.5	7.6	7.5	3.0	-	1.5 - 40*, (50****)
Lead	10.5	9.0	8.1	5.9	5.0	1.0	-	200 - 500**
Mercury	0.020 B	U	0.029 B	U	U	0.1	-	0.001 - 0.2
Selenium	U	U	U	U	U	8.0	-	0.1 - 3.9
Silver	U	U	U	U	U	2.0	-	---
<b>PCBs</b>								
Aroclor-1016	U	U	U	U	U	-	0.033	---
Aroclor-1221	U	U	U	U	U	-	0.067	---
Aroclor-1232	U	U	U	U	U	-	0.033	---
Aroclor-1242	U	U	U	U	U	-	0.033	---
Aroclor-1248	U	U	U	U	U	-	0.033	---
Aroclor-1254	U	U	U	U	U	-	0.033	---
Aroclor-1260	U	U	U	U	U	-	0.033	---
TOTAL PCBs	0	0	0	0	0			1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

**TABLE 2 (continued)**  
**NORTHROP GRUMMAN CORPORATION**  
**TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK**  
**SOIL SAMPLING PROGRAM - EXPOSURE POINT LOCATIONS**  
**RCRA METALS AND PCBs**

SAMPLE LOCATION	North Playground							
SAMPLE IDENTIFICATION	EP-16	EP-17	EP-18	EP-19		INSTRUMENT DETECTION LIMIT	CONTRACT REQUIRED DETECTION LIMIT	EASTERN USA BACKGROUND LEVELS
SAMPLE DEPTH	0 - 2"	0 - 2"	0 - 2"	0 - 2"				
DATE OF COLLECTION	3/06/02	3/06/02	3/06/02	3/06/02				
DILUTION FACTOR	1	1	1	1				
PERCENT SOLIDS	85	88	81	78				
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		(ug/L)	(mg/kg)	(mg/kg)
<u>RCRA Metals</u>								
Arsenic	4.7	4.5	5.0	33.5		3.0	-	3 - 12*
Barium	13.0	22.3	15.7	19.7		3.0	-	15 - 600
Cadmium	0.68	1.2	1.1	0.75		2.0	-	0.1 - 1, (10****)
Chromium	15.9	19.7	21.7	36.7		3.0	-	1.5 - 40*, (50****)
Lead	12.7	14.1	15.9	18.5		1.0	-	200 - 500**
Mercury	0.044 B	0.076	0.068	0.063		0.1	-	0.001 - 0.2
Selenium	U	U	U	U		8.0	-	0.1 - 3.9
Silver	1.9	1.7	3.5	2.2		2.0	-	---
<u>PCBs</u>								
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	0.180	1.200 P	1.400 P	1.000		-	0.033	---
Aroclor-1254	0.100	0.370	0.580	0.260		-	0.033	---
Aroclor-1260	U	U	U	U		-	0.033	---
<b>TOTAL PCBs</b>	0.280	<b>1.570</b>	<b>1.980</b>	<b>1.260</b>				1/10 ****

**Qualifiers:**

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

**Notes:**

- : Not established.
- \* : New York State Background.
- \*\* : Background for metropolitan or suburban areas.
- \*\*\* : Proposed revised criteria in TAGM 4046 Appendix A.
- \*\*\*\* : Recommended Soil Cleanup Objective is 1 mg/kg for surface soil and 10 mg/kg for subsurface soil.
- : Value exceeds the Eastern USA Background Level (metals) or Recommended Soil Cleanup Objective (PCBs).

## **McKAY FIELD PROPERTY LOCATIONS**



**TABLE 3  
NORTHROP GRUMMAN CORPORATION  
TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK  
SOIL SAMPLING PROGRAM - McKAY FIELD PROPERTY LOCATIONS  
POLYCHLORINATED BIPHENYLS**

SAMPLE LOCATION	McKay Field Property				CONTRACT REQUIRED DETECTION LIMIT	RECOMMENDED SOIL CLEANUP OBJECTIVES
SAMPLE IDENTIFICATION	MK-1	MK-2	MK-3	MK-4		
SAMPLE DEPTH	0 - 2"	0 - 2"	0 - 2"	0 - 2"		
DATE OF COLLECTION	3/05/02	3/05/02	3/05/02	3/05/02		
DILUTION FACTOR	1	1	1	10		
PERCENT SOLIDS	76	82	66	85		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(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	0.071	1.000	0.460 P	6.100	0.033	---
Aroclor-1254	0.063	0.740	0.440 P	U	0.033	---
Aroclor-1260	U	U	U	U	0.033	---
<b>TOTAL PCBs</b>	0.134	<b>1.740</b>	0.900	<b>6.100</b>		1/10 *

Qualifiers:

U: Constituent 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:

--- : Not established.

\*

: Value exceeds the Recommended Soil Cleanup Objective.

**APPENDIX B**

**DATA VALIDATION DOCUMENTATION**



Data Validation Check List

SDG: A0339  
Number of Samples: 39 soils  
Analysis: PCB-PCPA Metals

Contractual Compliance

	VOA	SVOA	Pest/PCB	Metals
Tunes:	/	/	NA	NA
Surrogate Recoveries	/	/		NA
Blanks	/	/		
Initial Calibrations	/	/		
Continuing Calibrations	pl	pl		
Spikes	R			
Duplicates	/	/		
Laboratory Control Samples	NA	NA		

Comments/Notes: VTSP, 3/6/02 extracted 3/10/02

metals Rux 3/8

Several samples rux, at a dilution due to high levels of target compounds present.



A0340

Data Validation Check List

SDG:

A0340

Number of Samples:

29 soils

Analysis:

PCB, RCRA metals

Contractual Compliance

Tunes:

Surrogate Recoveries

Blanks

Initial Calibrations

Continuing Calibrations

Spikes

Duplicates

Laboratory Control Samples

Comments/Notes:

VOA  
/

SVOA  
/

RP  
Pest/PCB  
NA  
✓  
✓  
✓  
✓  
P-34-52 Recov out due to PCB in sample  
MK-3 ok  
P-34-52 Recov out due to PCB in sample  
MK-3 ok  
NA

RCRA  
Metals  
NA  
NA  
✓  
✓  
✓  
✓  
✓  
NA

collected 3/5/02  
ext 3/12

VTSR 3/6

Data Validation Check List

SDG: A0354  
Number of Samples: 40 souls PCB/metals  
Analysis: PCB - Metals

Contractual Compliance

	VOA	SVOA	Pest/PCB	Metals
Tunes:	<del>_____</del>	<del>_____</del>	NA	NA
Surrogate Recoveries	<del>_____</del>	<del>_____</del>	✓	NA
Blanks	<del>_____</del>	<del>_____</del>	✓	✓
Initial Calibrations	<del>pl _____</del>	<del>pl _____</del>	✓	✓
Continuing Calibrations	<del>pl _____</del>	<del>pl _____</del>	✓	✓
Spikes	<del>_____</del>	<del>_____</del>	✓	✓
Duplicates	<del>_____</del>	<del>_____</del>	✓	✓
Laboratory Control Samples	NA	NA	✓	✓

Comments/Notes:

P-13 S5 Rerun 3 sur low in  
initial run - re extract  
all recoveries OK  
used results from re-extraction

All results OK





Data Validation Check List

SDG:

A0359

Number of Samples:

40 soils, PCB/PCRA Metals

Analysis:

PCB, PCRA metals

Contractual Compliance

	VOA	SVOA	Pest/PCB	Metals
Tunes:	<del>_____</del>	<del>_____</del>	NA	NA
Surrogate Recoveries	<del>_____</del>	<del>_____</del>	✓	NA
Blanks	<del>_____</del>	<del>_____</del>	✓	✓
Initial Calibrations	<del>_____</del>	<del>_____</del>	✓	✓
Continuing Calibrations	<del>_____</del>	<del>_____</del>	✓	✓
Spikes	<del>_____</del>	<del>_____</del>	✓	✓
Duplicates	<del>_____</del>	<del>_____</del>	✓	✓
Laboratory Control Samples	NA	NA	✓	✓

Comments/Notes:

OK all samples seen within holding times no problems found



