NORDIV REMEDIAL ACTION CONTRACT
CONTRACT N62472-94-D-0398
DELIVERY ORDER 0004

SITE 1 PRE-EXCAVATION SAMPLING RESULTS
DRAFT REPORT

NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
BETHPAGE, NEW YORK

JULY 1996

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1.0 INTRODUCTION

Foster Wheeler Environmental Corporation (Foster Wheeler Environmental) has been contracted by the Northern Division, Naval Facilities Engineering Command to perform the excavation and removal of contaminated soil at the Naval Weapons Industrial Reserve Plant (NWIRP), Bethpage, New York. Presented herein are the analytical results from the additional pre-excavation soil sampling at Site 1 conducted March through April, 1996. This report has been prepared under US Navy Contract N62472-94-D-0398, Delivery Order (DO) 0004.

1.1 Site Description

NWIRP-Bethpage is a 108-acre site located in Nassau County on Long Island, New York, approximately 30 miles east of New York City. The site is bordered on the north, west and south by the Grumman Aerospace complex, which covers approximately 605 acres, and on the east by a residential neighborhood. NWIRP-Bethpage is currently listed by the New York State Department of Environmental Conservation (NYSDEC) as an "inactive hazardous waste site" (#1-30-003B), as is the Northrop Grumman Corporation (#1-30-300A) and the Hooker/Ruco site (#1-30-004), located less than 1/2 mile west of the NWIRP-Bethpage site.

1.2 Site History

The NWIRP-Bethpage plant was established in 1933 and is still active. Since its inception, the primary mission for the facility has been the research prototyping, testing, design engineering, fabrication, and primary assembly of military aircraft.

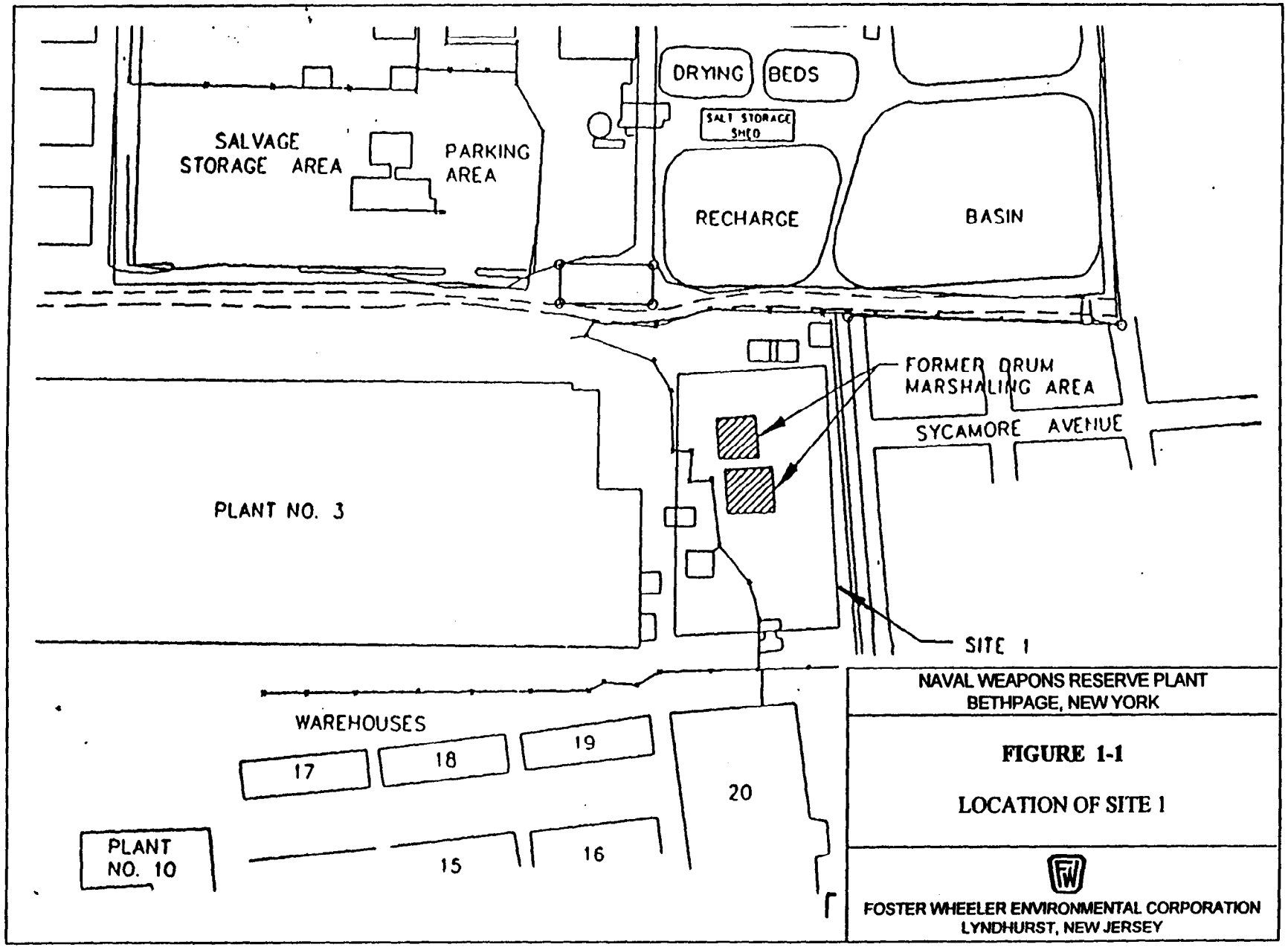
The facilities at NWIRP-Bethpage include four plants, two warehouse complexes (north and south), a salvage storage area, water recharge basins, an industrial wastewater treatment plant, and several smaller support buildings. The four plants are used either for assembly and prototype testing (Plant Nos. 3, 5 and 20) or as quality control laboratories (Plant No. 10).

Hazardous waste management practices for Grumman facilities on Long Island included the marshaling of drummed wastes on the NWIRP-Bethpage property. Such storage first took place on a surface over the cesspool field, east of Plant No. 3. In 1978, the collection and marshaling point was moved a few yards south of the original site, to an area on a concrete pad. In 1982, drummed waste storage was transferred to the present Drum Marshaling facility, located in the Salvage Storage Area.

The remediation to be performed under DO 0004 involves the removal of contaminated soil at Site 1 of the NWIRP-Bethpage site. A description of the site is presented below.

Site 1 - Former Drum Marshaling Area

Site 1 is located in the middle third of the NWIRP-Bethpage facility, and is found east of Plant 3 (see Figure 1-1). It contains a concrete drum storage pad, which is no longer active, and an


DRYING BEDS
SALT STORAGE SHED
SALVAGE STORAGE AREA
PARKING AREA
RECHARGE BASIN
FORMER DRUM MARSHALING AREA
SYCAMORE AVENUE
PLANT NO. 3
SITE 1
WAREHOUSES
17
18
19
20
PLANT NO. 10
15
16
NAVAL WEAPONS RESERVE PLANT
BETHPAGE, NEW YORK
FIGURE 1-1
LOCATION OF SITE 1
FOSTER WHEELER ENVIRONMENTAL CORPORATION
LYNDHURST, NEW JERSEY

abandoned cesspool leach field. In addition, this area has been used for storage of various types of equipment and heavy materials, including transformers.

Polychlorinated biphenyls (PCBs) were detected in the soils of the former drum marshaling area during the Remedial Investigations (RIs) conducted by Halliburton NUS in 1992 and 1993. In addition, concentrations of arsenic were present in the soils during the initial RI sampling.

An investigation of the site was conducted by Foster Wheeler Environmental in November and December 1995. Detected PCB concentrations for the Site 1 area ranged as high as 3,800 mg/kg, and concentrations greater than the 10 mg/kg soil level for excavation were present to a depth of 16 feet. The western, northwestern and eastern portions of Site 1 contained elevated PCB concentrations, with ranges from 12 mg/kg to 3,800 mg/kg in the 0 feet to 4 feet below grade soils and from 12 mg/kg to 310 mg/kg in the soils greater than 4 feet in depth. In general, Aroclors 1242, 1248 and 1254 were the PCB compounds detected.

In addition to the PCB concentrations, occurrences of volatile organic compounds, various polycyclic aromatic hydrocarbon (PAH) compounds, phenolic compounds and pesticides were present at Site 1. These compounds were present generally at relatively low concentrations (i.e., part per billion levels). A few constituents (including trichloroethene, tetrachloroethene, toluene and some of the PAHs) were present at low part per million concentrations (i.e., less than 11 mg/kg). Several metals were also detected. The frequency of exceedance and the distribution of locations for many of these metals suggest that these concentrations could be indicative of the site soils. The only exception is cadmium, which is associated with leach pit contamination.

2.0 ADDITIONAL PRE-EXCAVATION FIELD INVESTIGATION

2.1 Introduction

Upon completion of the original investigation activities in November and December 1995, and a review of the resulting data information, a decision to further investigate the Site 1 area was reached. The additional pre-excavation field investigation was performed from March 18 through April 26, 1996, in accordance with the original Work Plan, the original Sampling and Analysis Plan (SAP), and the Addendum to the SAP, presented under separate covers. The additional field activities consisted of the following subtasks, which will be described in the following subsections:

- Mobilization/Demobilization
- Surface Soil Sampling at Additional Soil Boring Locations
- Subsurface Soil Sampling at Previous and Additional Soil Boring Locations
- Subsurface Soil Sampling at Leach Pit Locations Within Potential Excavation Area
- Subsurface Soil Sampling at Leach Pit Locations Outside Potential Excavation Area
- Excavation of Leach Pit Connector Piping
- Site Survey

2.2 Description of Field Investigation

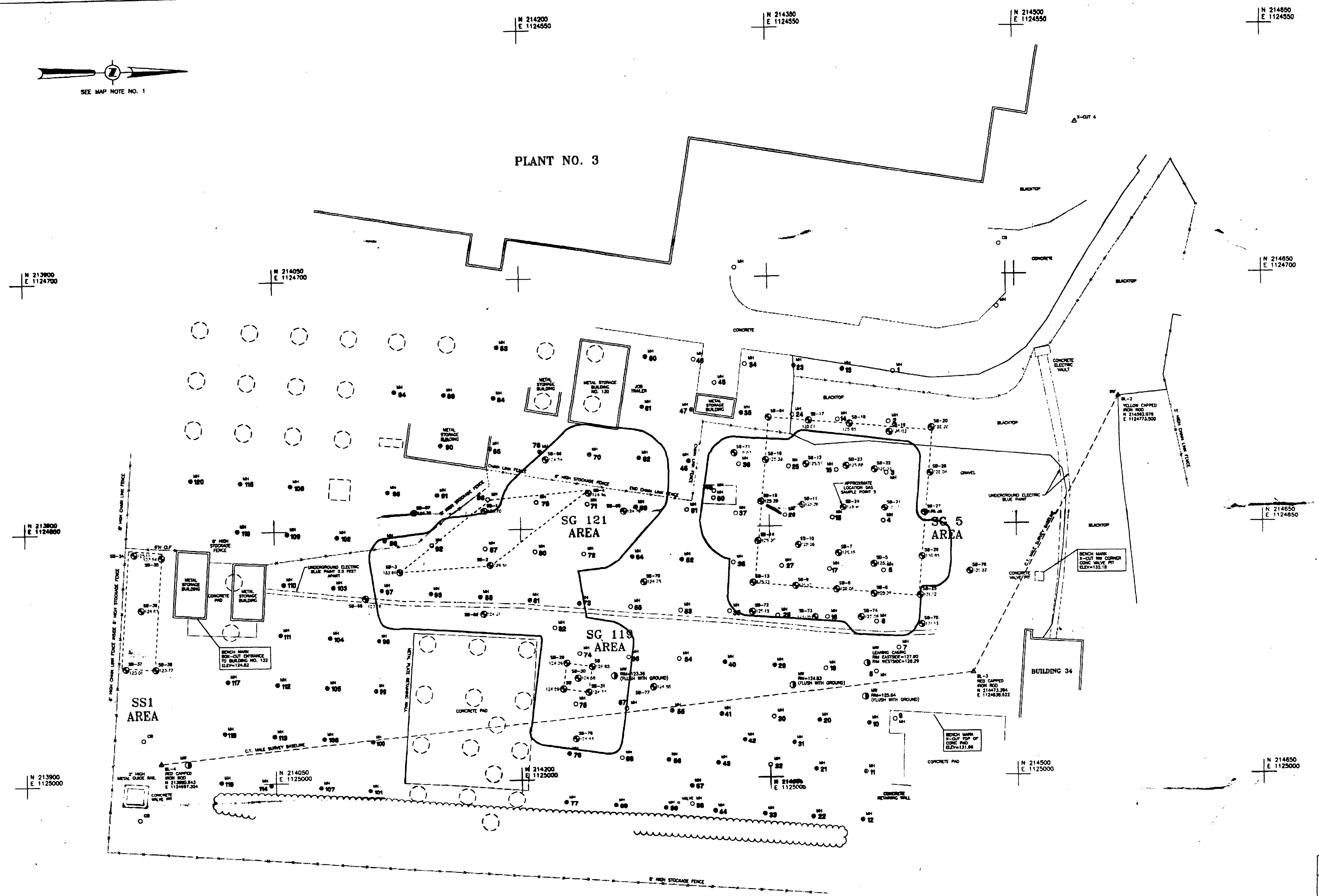
2.2.1 Mobilization/Demobilization

Prior to the start of the field activities, mobilization for the boring investigation commenced on March 18, 1996. The drilling subcontractor, R & L Well Drilling, mobilized their equipment and supplies to the NWIRP-Bethpage site. In addition, a decontamination pad was constructed at Site 1, and all drilling equipment and tools were decontaminated in preparation for the field work. Pressurized steam was used to remove all visible excess material from augers, rods, drill bits, the back of the drilling rig, and other parts of the rig which could contact augers, rods, and split-spoons.

Demobilization at the NWIRP-Bethpage site included the grouting of all the boring location holes, the re-covering of all the leach pit location holes, the decontamination of all equipment leaving the site, and the staging of drums utilized for disposal of drill cuttings, personnel protective equipment and decontamination fluids.

2.2.2 Surface Soil Sampling at Additional Soil Boring Locations

On March 19, 1996, 10 surface soil samples were collected at the NWIRP-Bethpage site. All of the samples were taken from the same locations as the additional soil borings (see Section 2.2.3 and Figure 2-1).



Map Notes:

1.) Coordinate Datum for this project is based on the New York State Plane Coordinate System, Long Island Zone (3104) established on the North American Datum of 1983 (NAD83) through the use of differential GPS techniques from Nassau County D.P.W. Stations 18E13NAZ, 18E12N and 11E11N.

2.) Elevation Datum for this project is the National Geodetic Vertical Datum of 1929 (NGVD29). Differential GPS Observations in conjunction with standard leveling techniques were employed to establish and verify elevations shown hereon.

3.) The limited underground structures shown hereon have been scaled from record plans provided to C.T. Male by Foster-Wheeler. C.T. Male does not guarentee that all underground structures or utilities have been shown as this was not part of the scope of work. Prior to any excavation or digging, the appropriate officals should be contacted to verify the existence of such facilities.

4.) All information shown hereon is the result of an actual "on-the-ground" field survey conducted by C.T. Male Associates, P.C. during the week of November 6, 1995, and on April 25, 1996.

Map Reference:

1.) "Grumman Bethpage Quadrangle no. 115 & 121 Civil", prepared by Lockwood, Kessler & Bartlett, Inc., Syosset, N.Y., dated June 1966.

LEGEND

MH MANHOLE
CB CATCH BASIN
MW MONITOR WELL
SB SOIL BORING
BL-1 C.T. MALE SURVEY BASELINE
IRF IRON ROD FOUND
SAMPLE AREA LIMIT
MH APPROXIMATE LOCATION MANHOLE TAKEN FROM MAP REFERENCE NO. 1
APPROXIMATE LOCATION UNDERGROUND STRUCTURE TAKEN FROM MAP REFERENCE NO. 1
LIMITS OF ORIGINAL POTENTIAL EXCAVATION, INCLUDING SIDE SLOPING (1/96)
LOCATION OF PIPING EXCAVATION

0 30 60 90 120

SCALE IN FEET

THIS DRAWING PRODUCED ON AUTOCAD
DO NOT REVISE MANUALLY

NAVAL WEAPONS RESERVE PLANT

GRUMMAN AEROSPACE FACILITY
BETHPAGE, N.Y.

FIGURE 2-1.

SAMPLING LOCATION MAP

FOSTER WHEELER ENVIRONMENTAL CORPORATION
LYNDHURST, NEW JERSEY

BASE MAP ADAPTED FROM C.T. MALE ASSOCIATES, P.C. PLANIMETRIC SURVEY - SITE 1, DRAWING NO. 95-525, DATE 5/6/96 REV 1

CAD FILE NAME: BE62396.DWG DATE: 07/03/96
PLOT SCALE: 1=30 TIME: 10:27 AM

FWD2R12.DWG

2.2.3 *Subsurface Soil Sampling at Previous and Additional Soil Boring Locations*

Ten additional soil borings, designated SB-69 through SB-78, were drilled at on-site locations between March 20 and March 22, 1996 (see Figure 2-1). The soil borings were advanced using hollow stem augers to a depth of 24 feet. Soil samples were taken with a 3-inch split-spoon at 4-foot intervals (i.e., 2 to 4 feet, 6 to 8 feet, 10 to 12 feet, 14 to 16 feet, 18 to 20 feet, and 22 to 24 feet). In addition, two previous locations (SB-04 and SB-15) were drilled from 18 feet to depths of 32 feet for SB-04 and 40 feet for SB-15. These soil borings were also advanced using hollow stem augers, and samples were collected with a 3-inch split-spoon at 4-foot intervals (i.e., 18 to 20 feet, 22 to 24 feet, 26 to 28 feet, 30 to 32 feet, 34 to 36 feet (SB-15 only), and 38 to 40 feet (SB-15 only)).

2.2.4 *Subsurface Soil Sampling at Leach Pit Locations within Potential Excavation Area*

Thirty leach pit locations within the potential excavation area were drilled between March 25 and April 10, 1996 (see Figure 2-1). The leach pit borings were advanced using hollow stem augers, and soil samples were collected continuously with a 3-inch split-spoon sampler. The lower soil intervals of these 30 leach pits were sampled (i.e., from 10 feet in depth to the approximate bottom of the leach pit as determined by a change in soil grade), with 10 percent (i.e., three locations) also having the upper soil interval of the leach pit sampled (i.e., from surface to 10 feet in depth). In addition, soil samples were collected from the soil interval directly under the bottom of the leach pit (after the change in soil grade) to 2 feet below and from 4 feet to 6 feet below the bottom of the leach pit.

2.2.5 *Subsurface Soil Sampling at Leach Pit Locations Outside Potential Excavation Area*

Forty-six leach pit locations outside the potential excavation area were drilled between March 25 and April 10, 1996 (see Figure 2-1). The leach pit borings were advanced using hollow stem augers, and continuous soil samples were taken with a 3-inch split-spoon. These leach pit locations had the upper and lower soil intervals sampled (i.e., two samples from surface to 10 feet and from 10 feet to approximate bottom). In addition, samples were collected from the soil interval directly under the bottom of the leach pit (after the change in soil grade) to 2 feet below and from 4 feet to 6 feet below the bottom of the leach pit.

2.2.6 *Excavation of Leach Pit Connector Piping*

On April 26, 1996, a trench was dug in the area between leach pit location LPT-26 and soil boring SB-15 with a bucket loader. A piece of non-perforated connector piping, which linked the leach pits, was found at an approximate depth of 3 feet below grade. The soils around the connector pipe were collected for sample analysis.

2.2.7 Site Survey

An additional site survey was conducted at the NWIRP-Bethpage site by C.T. Male Associates on April 25, 1996. The additional survey incorporated the new soil boring and leach pit sampling locations into the existing site survey map.

3.0 CONTAMINATION ASSESSMENT

3.1 Introduction

The pre-excavation field investigation conducted at the NWIRP-Bethpage site included the collection and analysis of soil samples from previous soil boring locations which were drilled deeper than the earlier investigation, from new soil boring locations, from leach pit locations within the potential area of excavation, from leach pit locations outside the potential area of excavation, and from near the leach pit connector piping. The soil boring and leach pit location samples were screened for total PCB concentrations on-site utilizing an immunoassay field screening methodology. As presented in the Addendum to the SAP provided under separate cover, the laboratory analytical requirements for the soil boring and leach pit samples were determined from the total PCB concentration detected in the field. In total, there were 331 soil samples analyzed for total PCBs using the on-site screening technology. The tabulated results of the PCB field screening investigation are summarized in Table A-1 of Appendix A.

Laboratory analyses of the environmental samples were conducted in accordance with NYSDEC Analytical Services Protocol methodologies, by Nytest Environmental Incorporated, a New York State Department of Health certified laboratory. There were 15 soil samples analyzed at the laboratory for PCBs. In addition, the laboratory analyzed 60 soil samples for Toxicity Characteristic Leach Procedure (TCLP) constituents and RCRA parameters (pH, corrosivity, ignitability and reactivity), 215 soil samples for Target Analyte List (TAL) metals, 3 soil samples for Target Compound List (TCL) volatile organics, and 2 soil samples for full TCL organics (volatiles, semi-volatiles and pesticides/PCBs) and TAL metals. The tabulated results for the laboratory samples are summarized in Tables A-2 through A-9 of Appendix A.

The data results for both the soil boring and leach pit soil samples analyzed for PCBs were compared to the soil level for excavation (10 mg/kg), and the TCLP results were reviewed against the regulatory TCLP maximum guidance concentrations. In addition, NYSDEC recommended that soil cleanup objective guidance concentrations be provided for comparison purposes on the appendix data tables for the TCL and TAL constituents.

3.2 Analytical Results

3.2.1 PCBs in Previous and Additional Soil Boring Locations

Eighty-three soil boring samples were analyzed for PCBs by field screening analysis, with 15 of these samples also being analyzed for PCBs by the laboratory. Of these, 10 were sampled from the previously installed soil borings (SB-04 and SB-15), and 73 were collected from the newly drilled soil borings (SB-69 through SB-78). Locations SB-04 and SB-15 were drilled from 18 feet to depths of 32 feet and 40 feet below grade, respectively. The ten new borings were installed from 0 feet to 24 feet below grade. Tabulated results for the PCB samples are located in Tables A-1 and A-2 of Appendix A.

In the two previously installed soil borings (SB-04 and SB-15), PCBs had been detected above the soil excavation level of 10 mg/kg to a depth of 16 feet. Total PCB concentrations detected by field screening analysis in SB-04 for the additional sampling ranged from 9 mg/kg to 1,385 mg/kg, with exceedance concentrations being detected at 18 to 20 feet (1,385 mg/kg), 22 to 24 feet (285 mg/kg), and 26 to 28 feet (40.7 mg/kg). Total PCB exceedances for location SB-15, also detected by field screening and presented in Table A-1 of Appendix A, occurred to a depth of 32 feet, with concentrations up to 540 mg/kg (at 26 to 28 feet). As shown in Table A-2, laboratory analysis of soils from these soil boring locations indicated exceedance detections of Aroclor 1248 in SB-04 (280 mg/kg at 22 to 24 feet and 11 mg/kg at 30 to 32 feet) and, in SB-15, both Aroclor 1242 (at 760 mg/kg at 22 to 24 feet) and Aroclor 1248 (at 93 mg/kg at 30 to 32 feet).

The 10 additional soil borings (SB-69 through SB-78) were advanced to refine the extent of the excavation area (see Figure 2-1 for locations). Concentrations of total PCBs ranged from non-detect (ND) to 49.5 mg/kg for these borings. In general, exceedance concentrations were within the first 4 feet of soil (i.e., either at 0 feet or at 2 to 4 feet), and these elevated PCB concentrations were 23.7 mg/kg (SB-69), 21.8 mg/kg (SB-70), 49.5 mg/kg and 17.9 mg/kg (SB-72), 10 mg/kg (SB-74), 12.5 mg/kg (SB-77), and 11 mg/kg (SB-78). As shown in Table A-2 of Appendix A, the primary PCB compound detected in the additional soil borings was Aroclor 1248.

3.2.2 PCBs in Leach Pit Locations

Two hundred and forty-eight samples were collected from the leach pits of Site 1 and analyzed for total PCBs by field immunoassay screening. Utilizing a detection limit of 1.0 mg/kg, the range of detected concentrations was from 1.0 mg/kg to 152 mg/kg. As shown in Table A-1 of Appendix A, 26 of the 248 samples, which correspond to 17 different leach pit locations, contained total PCB concentrations that exceeded the soil level for excavation (10 mg/kg). Total PCB exceedance detections ranged from 10.2 mg/kg (in LPT-51 at 10-12 feet) to 152 mg/kg (in LPT-71 at 14 to 16 feet). The leach pit locations with exceedance concentrations were distributed over the site, with the three locations near the center of the site (LPT-38, LPT-71 and LPT-75) being located in the potential excavation area. As shown on Figure 2-1, the other 14 leach pits are located on the northwestern (LPT-24), northern (LPT-39, -51, -52, and -53), northeastern (LPT-19, -20 and -43), and southern (LPT-102, -103, -104, -111, -112, and -116) portions of Site 1. Soil which contained these elevated total PCB concentrations were located at depths ranging from 0 feet to 22 feet below grade, with the majority of the exceedances present between 10 feet and 18 feet.

3.2.3 TCLP/RCRA Parameters in Leach Pit Locations

Thirty leach pits from within the boundaries of the potential excavation area were sampled, with a total of 40 samples being collected (including duplicates) and analyzed for TCLP constituents and RCRA characteristics (see Table A-3 and Figure 2-1). Trichloroethene and tetrachloroethene were detected at concentrations which exceeded their respective maximum guidance concentrations in three and five leach pit locations, respectively (see Table A-3 of Appendix A).

Trichloroethene was present at 7.3 mg/kg (LPT-15), 1.0 mg/kg (LPT-49) and 7.9 mg/kg (LPT-74), while concentrations for tetrachloroethene were 0.84 mg/kg (LPT-71, with 0.90 mg/kg in the duplicate), 0.88 mg/kg (LPT-72), 11 mg/kg (LPT-74), 1.4 mg/kg (LPT-79) and 1.6 mg/kg (LPT-80). As shown in Table A-3 of Appendix A, there were a few occurrences of three semi-volatiles (3- and 4-methylphenol, 2-methylphenol and 1,4-dichlorobenzene) and one pesticide (heptachlor epoxide). These occurrences, though, were relatively low (i.e., below 0.53 mg/kg for the semi-volatiles and below 0.0011 mg/kg for the pesticide) and did not exceed their respective maximum TCLP guidance concentrations. With the exception of selenium, the TCLP metals were all detected in at least one of the 40 leach pit samples (see Table A-3 of Appendix A). However, only cadmium was present at concentrations which exceeded its maximum TCLP guidance value of 1.0 mg/kg. This metal was detected at 1.8 mg/kg in LPT-06, 2.9 mg/kg in LPT-25, 1.5 mg/kg in LPT-37 (with a duplicate concentration of 3.1 mg/kg), 3.4 mg/kg in LPT-73, 1.1 mg/kg in LPT-74, and 2.3 mg/kg in LPT-75.

A total of 20 samples from 14 leach pits located outside of the potential excavation area boundaries were collected and analyzed for TCLP/RCRA parameters (see Table A-3 and Figure 2-1). As shown in Table A-3 of Appendix A, these samples contained two volatile organics (trichloroethene and tetrachloroethene), one semi-volatile (3- and 4-methylphenol), and two pesticides (heptachlor epoxide and gamma-BHC). The concentrations for these constituents were relatively low (i.e., less than 0.24 mg/kg for the volatiles, 0.02 mg/kg for the semi-volatiles, and 0.0008 mg/kg for the pesticides), and all were below their respective maximum guidance concentrations. Although all eight of the TCLP metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) were detected within at least one of the leach pit samples, cadmium was the only metal to be found at concentrations greater than its maximum TCLP guidance concentration. It was detected in locations LPT-19 at 1.7 mg/kg, LPT-20 at 2.0 mg/kg, LPT-43 at 10.4 mg/kg and 1.1 mg/kg, and LPT-53 at 6.5 mg/kg and 3.2 mg/kg (see Table A-3 and Figure 2-1).

3.2.4 TCL Volatiles in Leach Pit Locations

Volatile organic compounds were analyzed in three soil samples (see Appendix A, Table A-4). Of these samples, only the soils of leach pit LPT-49 contained elevated concentrations (i.e., up to 28,000 ppb), and many of these concentrations exceeded NYSDEC recommended soil guidance. Vinyl chloride (310 ppb); 1,1-dichloroethane (1,400 ppb); 1,2-dichloroethene (9,000 ppb); 1,1,1-trichloroethane (13,000 ppb); and trichloroethene (28,000 ppb) were all present at greater than their respective NYSDEC recommended soil guidance concentrations in the 0 feet to 2 feet below grade soil sample from LPT-49 (located to the south of MW-15; see Figure 2-1).

3.2.5 TAL Metals in Leach Pit Locations

Soil samples from the leach pits were also collected and analyzed for TAL metals. Two hundred and fifteen separate samples were obtained from 73 locations, and the results are presented in Table A-5 of Appendix A. Ten of the metals (arsenic, beryllium, cadmium, chromium, copper, iron, mercury, nickel, selenium, and zinc) had detected concentrations which were equal to or greater than their respective NYSDEC recommended soil cleanup objectives. Ranges of

exceedance concentrations for these metals were as follows: arsenic at 7.7 mg/kg to 77.6 mg/kg; beryllium at 0.16 mg/kg to 1.4 mg/kg; cadmium at 1 mg/kg to 3,020 mg/kg; chromium at 10 mg/kg to 1,000 mg/kg; copper at 25 mg/kg to 65,800 mg/kg; iron at 2,010 mg/kg to 97,800 mg/kg; mercury at 0.1 mg/kg to 3.7 mg/kg; nickel at 13.3 mg/kg to 73.2 mg/kg; selenium at 2 mg/kg to 6.3 mg/kg; and zinc at 20 mg/kg to 17,200 mg/kg. Generally, those metals with a lower frequency of exceedance (i.e., arsenic, beryllium, nickel and selenium, with frequencies between 0.06 and 0.18) were detected at their elevated concentrations outside of the potential excavation areas. In contrast, the metals detected more frequently at greater than recommended levels (i.e., frequencies of exceedance between 0.43 and 0.82 for cadmium, chromium, copper, iron, mercury and zinc) were collected from leach pits both inside and outside of the potential excavation areas. Leach pit locations which contained numerous exceedance concentrations and/or numerous notably elevated concentrations include LPT-19, -21, -29, -30, and -31 in the northeastern section of Site 1; LPT-54, -68, -74, and -76 in the eastern section; LPT-91 in the southwestern section; and LPT-113 in the southeastern section (see Table A-5 and Figure 2-1). In addition, several of the locations in which cadmium had been detected at greater than TCLP maximum guidance values (see Section 3.2.3), also contained cadmium at concentrations which exceeded NYSDEC recommended soil cleanup guidance. These leach pit locations included LPT-19, -20, -25, -37, -43, -53, -73, and -74; see Tables A-3 and A-5 of Appendix A and Figure 2-1.

3.2.6 TCL Organics and TAL Metals near Connector Piping

During the excavation of the leach pit connector piping, a sample (and a duplicate) of the surrounding soils were collected and analyzed for TCL organics and TAL metals (see Tables A-6 through A-9 of Appendix A). Tetrachloroethene and xylenes were detected in the soil at concentrations of 7 ppb and 12 ppb, respectively. As shown in Table A-7, six semi-volatiles were present in the soil sample and/or the duplicate soil sample. Detected at concentrations which were greater than NYSDEC recommended soil guidance concentrations were phenol (at 3,800 ug/kg and 200 ug/kg in the duplicate) and 4-methylphenol (at 1,500 ug/kg). Various pesticide compounds were detected in the soil, including alpha-BHC, heptachlor, endosulfan I, endosulfan II, DDE, DDD, and endrin aldehyde. Concentrations ranged from 3.8 ug/kg (for alpha-BHC) to 340 ppb (for heptachlor, which exceeded its NYSDEC recommended soil cleanup objective). In addition, Aroclor 1242 was found in the soils at concentrations of 140 mg/kg and 25 mg/kg in the soil sample and duplicate, respectively. These PCB concentrations are greater than the 10 mg/kg soil excavation limit; however, the connector piping location selected was chosen to be within the potential excavation area, so the elevated PCB concentrations are not unexpected. Cadmium, iron and zinc were all detected at concentrations greater than their respective NYSDEC recommended soil cleanup guidance concentrations (see Table A-9 of Appendix A). Concentrations were 19.9 mg/kg and 1.5 mg/kg for cadmium; 6,710 mg/kg and 4,880 mg/kg for iron; and 26.4 mg/kg for zinc. As shown in Table A-9, 16 other metals were also detected in the collected soil.

4.0 ALTERNATIVES ANALYSIS

The results of the pre-excavation sampling at Site 1 indicate that the volume and depth of contaminated soil is significantly greater than the original estimate. This volume has evolved with the inclusion of additional sampling data. The current estimated volume is 5,938 cubic yards of soil contaminated with total PCB concentrations between 10 and 500 mg/kg. The Remedial Design (RD) report requires that this soil be land disposed of off-site. Seven hundred and sixty (760) cubic yards of soil are contaminated at total PCB concentrations higher than 500 mg/kg. An additional 207 cubic yards are suspected of being contaminated with volatile organics above their TCLP regulatory limit. A portion of this soil is also contaminated with PCB and/or cadmium. Soils with total PCB concentrations above 500 mg/kg, or with volatile organics above TCLP regulatory limits, will be incinerated. An additional 113 cubic yards of soil are contaminated with cadmium above its TCLP regulatory limit, and 127 cubic yards of soil are contaminated with total PCB between 10 mg/kg and 500 mg/kg and cadmium above TCLP regulatory limits. These soils will require stabilization prior to land disposal. Soils contaminated by volatiles or cadmium above TCLP regulatory limits are located within and below several leach pits located at the site.

Section 4.1 presents a more detailed explanation of the current estimate of the volume of contaminated soil.

Based on the information developed during the pre-excavation sampling investigations, Foster Wheeler Environmental has re-evaluated the selected alternative using the new data, and has also evaluated two new alternatives. The alternatives evaluated in Section 4.2 are:

1. Excavation of all soil contaminated with total PCBs above 10 mg/kg. Soil contaminated with total PCBs between 10 and 500 mg/kg will be land disposed of off-site, while soil containing total PCB concentrations greater than 500 mg/kg will be incinerated off-site. This is the currently selected alternative. Total PCB contamination above the 10 mg/kg level for excavation has been detected to a depth of 32 feet at one location, and 28 feet at another. These depths will require that either a large volume of clean soil be excavated to maintain safe side slopes, or that sheet piles be installed.
2. Excavation of all soil contaminated with total PCBs above 10 mg/kg down to a maximum depth of 8 feet. Soil contaminated with PCBs between 10 and 500 mg/kg will be land disposed of off-site, and soil contaminated with PCBs greater than 500 mg/kg will be incinerated off-site. This alternative allows for the use of the property as an industrial site with restrictions on excavation.
3. Placement of a 6-inch thick asphalt cap over <u>all</u> of the Site 1 area. This alternative addresses migration of the contaminants, contains soil that is contaminated with PCB concentrations below 10 mg/kg, and allows utilization of the site for parking, light storage, etc.

These three alternatives represent the full range of alternatives available to remediate the site. Variations of each alternative can be developed as appropriate. For example, if soil contaminated with PCBs greater than 500 mg/kg can be landfilled, cost savings will be achieved.

4.1 Estimation of Contaminated Soil Volume

The long and largely undocumented operating history of Site 1 introduces significant uncertainty into the estimation of the extent and quantity of contaminated soil. The general procedure for analyzing contaminant distribution is to interpret the analytical data with respect to the site features and potential contaminant sources/mechanisms. This approach results in a contamination distribution that can be plotted considering not only the chemicals at each discrete sample points, but also between the points based on the potential sources and contaminant migration mechanisms. Such an approach allows the evaluator to intelligently interpolate between the data points. Because we do not have this level of data for this site, we have assumed potential contaminant sources based on our best possible understanding of site history and the data. Additional data and/or new or changed information could alter the configuration and volume of contaminated soil.

The data and site history indicate two potential sources of contamination, each with a different migration mechanism. The larger, generalized area of soil contamination is assumed to have resulted from surface storage and maintenance activities conducted at the site. The more limited soil contamination within several of the leach pits is assumed to have resulted from the placement of contaminated soil into these pits during closure of the leach field. The general area of soil contamination and the limited area of leach pit soil contamination are discussed further below.

4.1.1 PCB Contamination of Site Soils

General. The depth of PCB contamination above 10 mg/kg in the soil is shown on Figure 4-1. Contour lines are presented for the 0, 4, 8, 28 and 32 foot depths. In general, the soil between the surface and the indicated depth interval is contaminated with total PCB concentrations above 10 mg/kg. There are some exceptions that do not significantly affect the estimated volume estimate.

Data Interpretation. The contour line plots are the result of interpreting the data based on a surface dispersal/infiltration migration mechanism. This mechanism assumes that numerous small surface spills occurred in and around areas designated for staging or maintenance. As the distance from the center of the storage area increased, spillage became less frequent, reducing the amount of contaminant infiltrating through the surface soils. Contaminants may also have migrated by surface water and/or stormwater runoff, infiltration wind, or surface grading operations. As the contaminant was transported across the surface and away from the center of the area, the amount of the contaminant infiltrating vertically through the surface decreased due to surface spreading and dilution.

The depth of contamination of the five areas seen in Figure 4-1 can be viewed as being correlated to the distribution of contaminant infiltrating into the ground surface. Areas exhibiting deeper contamination are assumed to have experience a higher rate of spillage and/or contaminant infiltration, leading to the classic "bulls-eye"-type contours. These contours suggest five general locations that may have served as sources in the past.

PLANT NO. 3

SEE MAP NOTE NO. 1

Map Notes:

1.) Coordinate Datum for this project is based on the New York State Plane Coordinate System, Long Island Zone (3104) established on the North American Datum of 1983 (NAD83) through the use of differential GPS techniques from Nassau County D.P.W. Stations 18E13NAZ, 18E12N and 11E11N.

2.) Elevation Datum for this project is the National Geodetic Vertical Datum of 1929 (NGVD29). Differential GPS Observations in conjunction with standard leveling techniques were employed to establish and verify elevations shown hereon.

3.) The limited underground structures shown hereon have been scaled from record plans provided to C.T. Male by Foster-Wheeler. C.T. Male does not guarantee that all underground structures or utilities have been shown as this was not part of the scope of work. Prior to any excavation or digging, the appropriate officials should be contacted to verify the existence of such facilities.

4.) All information shown hereon is the result of an actual "on-the-ground" field survey conducted by C.T. Male Associates, P.C. during the week of November 6, 1995, and on April 25, 1996.

Map Reference:

1.) "Grumman Bethpage Quadrangle no. 115 & 121 Civil", prepared by Lockwood, Kessler & Bartlett, Inc., Syosset, N.Y., dated June 1966.

LEGEND

- MH MANHOLE
- CB CATCH BASIN
- MW MONITOR WELL
- SB SOIL BORING
- ▲ BL-1 C.T. MALE SURVEY BASELINE
- IRF IRON ROD FOUND
- MH APPROXIMATE LOCATION MANHOLE TAKEN FROM MAP REFERENCE NO. 1
- APPROXIMATE LOCATION UNDERGROUND STRUCTURE TAKEN FROM MAP REFERENCE NO. 1
- 8' DEPTH OF PCB CONTAMINATED SOIL

0 30 60 90 120

SCALE IN FEET

THIS DRAWING PRODUCED ON AUTOCAD
DO NOT REVISE MANUALLY

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BETHPAGE, N.Y.

FIGURE 4-1
DEPTH OF PCB CONTAMINATED SOIL

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LYNDHURST, NEW JERSEY

BASE MAP ADAPTED FROM C.T. MALE ASSOCIATES, P.C. PLANIMETRIC SURVEY - SITE 1, DRAWING NO. 95-525, DATE 5/6/96 REV 1

CAD FILE NAME: BET2R6.DWG PLOT SCALE: 1=30 DATE: 7/09/96 TIME: 10:22 AM

FWD2R12.DWG

CC74R02X

For four of the areas, the lack of a corresponding facility that may have served as a source for the contamination is the basis for concluding that the contamination in these areas is the result of surface storage and maintenance practices. Only in the area of soil borings SB-14/SB-15 is there physical evidence of a potential source facility. During the pre-excavation sampling the sampling team attempted to drill through leach pit 49 located approximately 30 feet south of soil boring SB-15. Air monitoring equipment indicated volatile air emissions above 4,000 units on photoionization detector. At a depth of 3.5 feet, the drill bit encountered a hard surface preventing further drilling. It is likely that the concrete structure around leach pits 49 and 50 is a concrete sump that was filled in at the same time as the leach pits. Analysis of the soil material taken from the manhole indicated the presence of TCE and several other volatiles. PCB was not analyzed in this sample. The elevated concentrations and great depth of PCB contamination in and around soil borings SB-14 and SB-15 may be the result of leakage from the concrete structure and/or surface spillage from filling and emptying operations.

Volume of Contaminated Soil. The volume of soil contaminated with total PCB concentrations above 10 mg/kg was calculated using the average areas within the 0, 4, 8, 28, and 32 foot contour lines. For each depth interval (0' - 4',4' - 8',8' - 28', and 8' - 32') the following formula was used:

$$V = \frac{1}{2}(A_{D1} + A_{D2}) \times (A_{D2} - A_{D1})$$

At several locations where 12 feet was the deepest observed depth of contamination, the volume for the depth interval 8' - 12' was calculated using the pyramid formula:

$$V = 1/3\ A_8 \times (12 - 8)$$

It should be noted that the 12-foot depth of contamination, where a maximum within an area, is limited by the 12-foot depth of the soil borings (SB-2, SB-5, SB-24, and SB-31). The actual depth at these locations may be greater, resulting in larger contaminated volume.

The volume of soil above a total PCB concentration of 500 mg/kg PCB was estimated through a detailed review of the concentrations to determine a thickness of contamination within the particular boring multiplied by an assumed area taken to be the area within the 8-foot contour line. Table 4-1 presents volumes for PCB soil contamination.

Table 4-1
Soil Volumes versus Depth for PCB Soil Contamination

Depth Interval (feet)	10 mg/kg < PCB < 500 mg/kg		PCB > 500 mg/kg	
	Volume (cubic yards)	Cumulative Volume (cubic yards)	Volume (cubic yards)	Cumulative Volume (cubic yards)
0 - 4	3,350	3,350	110	110
4 - 8	1,150	4,500	0	110
8 - 32	1,210	5,710	650	760

In addition to the volume calculations, an area versus depth curve was generated. The area under the curve was then determined by integration ($V_i = A_i \times \Delta D$) to generate volumes for each depth increment (ΔD). These volumes were within 1.5 to 4.5 percent of the above volumes.

4.1.2 PCB Contamination of Leach Pits

The leach pits at Site 1 are set out in a grid pattern. Pits are interconnected by drainage lines typically running north to south with, "herring bone" laterals off the main lines feeding the leach pits. The main and lateral drainage lines are believed to be clay tile. The leach pits are 8 foot diameter manholes constructed of stacked block walls without any visible mortar joints. Many of the pits were covered with a steel manhole cover. Based on soil boring information, the leach pits are generally 16 feet deep and do not have a bottom. These leach pits were backfilled with soil, and it is believed that at least a portion of this soil came from an off-site location. This is based on the observation that cadmium exceeded the TCLP limits in some of the pit soils but not in the site soils (see Section 3.0).

Figure 4-1 shows leach pits where PCB concentrations were detected above 10 mg/kg. All leach pit soil contained PCB levels below 500 mg/kg. Contaminated soil volume was calculated by reviewing the analytical data to determine the contaminated depth intervals. These intervals were chosen conservatively to include unsampled intervals adjacent to soil contaminated with PCB above the 10 mg/kg level. The contaminated thickness was then multiplied by the cross-sectional area of the 8 foot diameter leach pit.

$$V = \pi \times (4\text{-feet})^2 \times \text{contaminated thickness (in feet)}$$

The diameter of the leach pit is used because it is assumed that PCB contamination did not migrate laterally from the pits. This is considered to be the most likely case based on the following:

- the mobility of PCBs is extremely low;
- there is no consistent correlation between contamination in the leach pits and contamination in the surrounding soil; and
- since the contaminant is located above the groundwater table and the side walls of the leach pits were lined, there should not be a significant pathway for horizontal migration.

Where the leach pit is located within an excavated area, the volume of contaminated leach pit soil is reduced by the depth of any soil removed as part of the larger, general excavation. The results of these calculations are provided in Table 4-2.

Table 4-2
Volume of Leach Pit PCB Contamination Requiring Removal
(10 mg/kg < PCB < 500 mg/kg

Leach Pit Number	Less Than 8 feet Deep		Full Thickness	
	Volume (cubic yards)	Cumulative Volume (cubic yards)	Volume (cubic yards)	Cumulative Volume (cubic yards)
Located Within Limits of Excavation				
38	7	7	30	30
39	7	14	26	56
51	Removed with excavation		Removed with excavation	
52	11	25	37	93
53	11	36	26	119
71	Removed with excavation		Removed with excavation	
75	7	43	20	139
Located Outside Limits of Excavation				
19	15	15	15	15
20	0	15	13	28
24	0	15	11	39
43	0	15	15	54
102	0	15	4	58
103	0	15	4	62
104	0	15	4	66
111	0	15	4	70
112	0	15	4	74
116	0	15	15	89

4.1.3 Volatile Organic and Cadmium Contamination of Leach Pits

Fifteen leach pits contain soil with volatile organic compounds and/or cadmium above TCLP regulatory levels. Similar concentrations of volatile contaminants and cadmium have not been observed in the site soils. It is therefore likely that the soil within the pits did not originate from Site 1. Based on sampling observations, the typical depth of the leach pits is expected to be 16 feet. The entire depth of the appropriate leach pit will be considered contaminated, since only one sample within a pit was typically analyzed by TCLP. The locations and volumes within the leach pits are provided in Table 4-3.

Table 4-3
Volume of Soil in Leach Pits Contaminated With Volatile or Cadmium Above Regulatory Limits

Leach Pit Number	Volume in Leach Pit (cubic yards)	Additional Cumulative Volume (cubic yards)[1]	Contaminant	PCB Contaminated or Excavated Soil Volume (cubic yards)
Located Within Limits of Excavation				
15	30	22	Volatile Organic	8
25	30	44	Cadmium	8
37	30	44	Cadmium	30
49[2]	27	44	Volatile Organic	27
53	30	48	Cadmium	26
71	30	48	Volatile Organic	30
72	30	70	Volatile Organic	8
74	30	97	Volatile Organic, Cadmium	3
75	30	107	Cadmium	20
79	30	134	Volatile Organic	3
80	30	156	Volatile Organic	8
Located Outside Limits of Excavation				
6	30	30	Cadmium	0
19	30	45	Cadmium	15
20	30	62	Cadmium	13
43	30	77	Cadmium	15

Notes: 1. Volume is equal to total cumulative volumes in leach pits shown in second column less total cumulative volume of PCB or excavated soil shown in last column.
2. Suspected in-ground concrete tank.

The total volume of soil suspected to be contaminated with volatile organics (i.e., compounds detected above their TCLP regulatory levels) is approximately 207 cubic yards. This soil will require incineration. There is estimated to be 279 cubic yards of leach pit soil contaminated with cadmium. Due to land ban constraints, the soil must be treated or stabilized prior to land disposal.

4.2 Analysis of Alternatives

As previously discussed, three alternatives will be evaluated in this section. The first alternative is specified by the RD report. This alternative will not be described in detail, but the revised costs and risks, with regard to the additional data will be discussed.

4.2.1 *Excavation and Disposal of all Soil with Total PCB Concentrations Greater than 10 mg/kg*

Description. This is the currently approved alternative and includes the excavation and classification for disposal of all soil contaminated with PCBs above 10 mg/kg This will include both the soil within the general excavation area and the soil within the 15 leach pits located both inside and outside of the limits of the excavation. Soil contaminated with 10 to 500 mg/kg of total PCBs will be excavated and disposed of in an off-site landfill approved for PCB disposal. Soil contaminated with PCBs above 500 mg/kg will be incinerated. Disposal is made slightly more complex and costly due to the existence of volatile organic compounds and cadmium above their TCLP regulatory levels in the soil from several of the leach pits. Cadmium contaminated soil will require stabilization prior to disposal. Volatile contaminated soil will need to be incinerated.

The anticipated disposal method, contaminants, and corresponding soil quantities for this alternative are shown in Table 4-4.

Table 4-4
Anticipated Contaminated Soil Quantities for Complete Removal Alternative

Disposal Method	Contaminant	Quantity (cubic yards)	Quantity (tons)
Landfill	PCB	5,724	11,448
Stabilize and landfill	PCB and Cadmium	127	254
	Cadmium	113	226
Incineration	PCB >500 mg/kg	760	1,520
	PCB and Volatile Organics	84	168
	PCB, Volatile Organics and Cadmium	3	6
	Volatile Organics	93	186
	Volatile Organics and Cadmium	27	54

Prior to excavation, utilities within the work area must be relocated. In addition, a number of concrete foundations and small buildings located within the excavation area will be demolished. The building materials and concrete will be wipe tested to determine the appropriate disposal method.

Constructibility. OSHA requires that the sidewalls for excavations deeper than four feet in the site soil type be laid back to 1.5H:IV (29 CFR Ch. XVII, Subpart P, Appendix A) or that the side walls be sheeted and shored. In those areas of the excavation where the maximum observed depth of contamination is 12 feet or less, the excavation is very constructible and excavation slopes in these areas will naturally fall within the required 1.5:1 slopes. The depth of the required excavation at the two deepest points (28 feet and 32 feet) presents problems with feasibility and cost. The constructibility of these portions of the excavation using both 1.5:1 side slopes, and sheeting and shoring is discussed in the following paragraphs.

Excavation Without Shoring. Laying back the excavation side slopes to 1.5:1 will result in the excavation of soil that is considered to be clean (i.e., total PCBs below the 10 mg/kg level). The volume of this over-excavated soil will depend on the final configuration of the excavation, which will be determined by the actual extent of the contamination. Based on the assumption that the contamination at the 28 foot and 32 foot depths as shown on Figure 4-1, occur only at the corresponding boring locations, a minimum of 1,500 cubic yards of clean soil will have to be over-excavated. However, it is possible that the contamination at these depths is more extensive than just these two single points, resulting in clean, over-excavated volumes in the 2,000 to 4,000 cubic yards range. Additionally, a 1.5:1 slope would not be adequate to allow truck access. An access ramp at a safe slope of 10:1 would have to be constructed to allow truck access to the excavation. Due to the sandy nature of the soil, high traffic, and the depth and narrowness of the ramp, the safe side slopes for this ramp would probably be in excess of 2:1. The over-excavated soil will have to be tested for PCB before being utilized as backfill and being placed into the excavation. Since the anticipated depths shown on Figure 4-1 are for soil contaminated with PCBs at greater than 10 mg/kg, there is the potential that part of the excavated soil will have some concentration of PCB in it. It is assumed that this contaminated soil can be used as backfill for the excavation.

Excavation With Shoring. Shoring will reduce the volume of over-excavated soil to approximately 300 cubic yards and allow for completion of the deep excavations without placing men or equipment into them.

Sheet pile will be driven once the excavation in both areas reaches 8 feet. Proper placement of the sheet pile is critical. Placing the sheet pile too close could result in driving the sheet pile through the contaminated soil, preventing the excavation of contaminated soil outside of the sheet pile. Placement of the sheet pile too far away will result in additional over-excavation. In order to properly locate the alignment of the sheet pile, 40-foot deep soil borings will be installed along the proposed alignment to verify that the alignment is free of contamination.

For the purpose of the estimate, it is assumed that the sheet pile will be installed along the 8-foot contour line that surrounds soil borings SB-4 and SB-15 following excavation of these areas down to the 8-foot depth. This alignment may be modified based on the results of the borings installed along the proposed alignment.

Selected Excavation Method. Excavation using sheeting and shoring is selected due to the proximity of surrounding structures. Sheeting and shoring will remain the selected method as long as the minimum distance across the excavation at all points does not exceed 55 feet (the reach of a long-stick backhoe), or it is determined that the excavation slopes can be laid back without confliction with permanent structures.

Advantages. By removing all soil contaminated with total PCBs at 10 mg/kg or greater, this alternative satisfies the requirements of the RD report. No additional long-term remedial action or maintenance should be required. The potential exists for future site uses.

Disadvantages. Excavation of the contamination deeper than 12 feet will be costly and difficult. There is a significant risk that once the excavation is opened, it will not be possible to remove all the "strings" of PCB contamination above 10 mg/kg if that contamination has spread laterally. This alternative does not address soil contaminated with less than 10 mg/kg PCBs. Future site use may be restricted due to continued presence of low concentrations (i.e., less than 10 mg/kg) of PCBs in some areas.

Cost. The ballpark estimate for this alternative is $12,000,000.

4.2.2 *Excavation and Disposal of Soil with Total PCB Concentrations Greater than 10 mg/kg that are Shallower than 8 Feet*

Description. Under this alternative only the top 8 feet of soil contaminated with PCBs above 10 mg/kg will be removed. This will include both the soil within the general site excavation and the soil within the 15 contaminated leach pits located both inside and outside of the limits of the excavation. Soil contaminated with 10 to 500 mg/kg of total PCBs will be excavated and disposed of in an off-site landfill approved for PCB disposal. Soil contaminated with PCBs above 500 mg/kg will be incinerated. Disposal is made slightly more complex and costly due to the existence of volatiles and cadmium above their TCLP regulatory levels in the soil from several of the leach pits. Cadmium contaminated soil will require stabilization prior to disposal. Volatile contaminated soil will need to be incinerated.

This alternative will allow development of the site (with restrictions) while avoiding the deep excavation required by the RD report. The anticipated disposal method, contaminants, and corresponding soil quantities for this alternative are shown in Table 4-5.

Table 4-5
Anticipated Contaminated Soil Quantities for 8-foot Removal Alternative

Disposal Method	Contaminant	Quantity (cubic yards)	Quantity (tons)
Landfill	PCB	4,405	8,810
Stabilize and landfill	PCB and Cadmium	81	162
	Cadmium	52	104
Incineration	PCB >500 mg/kg	110	220
	PCB and Volatile Organics	69	138
	PCB, Volatile Organics, and Cadmium	3	6
	Volatile Organics	26	52
	Volatile Organics and Cadmium	11	22

Prior to excavation, utilities within the work area will be relocated. In addition, a number of concrete foundations and small buildings located within the excavation area will be demolished. The building materials and concrete will be wipe tested to determine the appropriate disposal method.

Constructibility. This alternative involves the execution of shallow excavations only and is considered to be easily constructible.

Advantages. By removing all soil contaminated with 10 mg/kg or greater of total PCBs within 8 feet of the surface, this alternative should allow development of the site for purposes that do not require deep excavation.

Disadvantages. This alternative does not remove soils contaminated with PCBs, cadmium, or volatiles that are present at depths greater than 8 feet. This will result in additional restrictions on land use, particularly with respect to excavations. In addition, the residual soils may be a continuing source of contaminants to the shallow groundwater as rainfall will continue to percolate through the remaining contaminated soil. Long-term monitoring to assess the status of soil contamination may be required. This alternative does not meet the requirements of the RD report and thus would require re-opening of the Record of Decision (ROD).

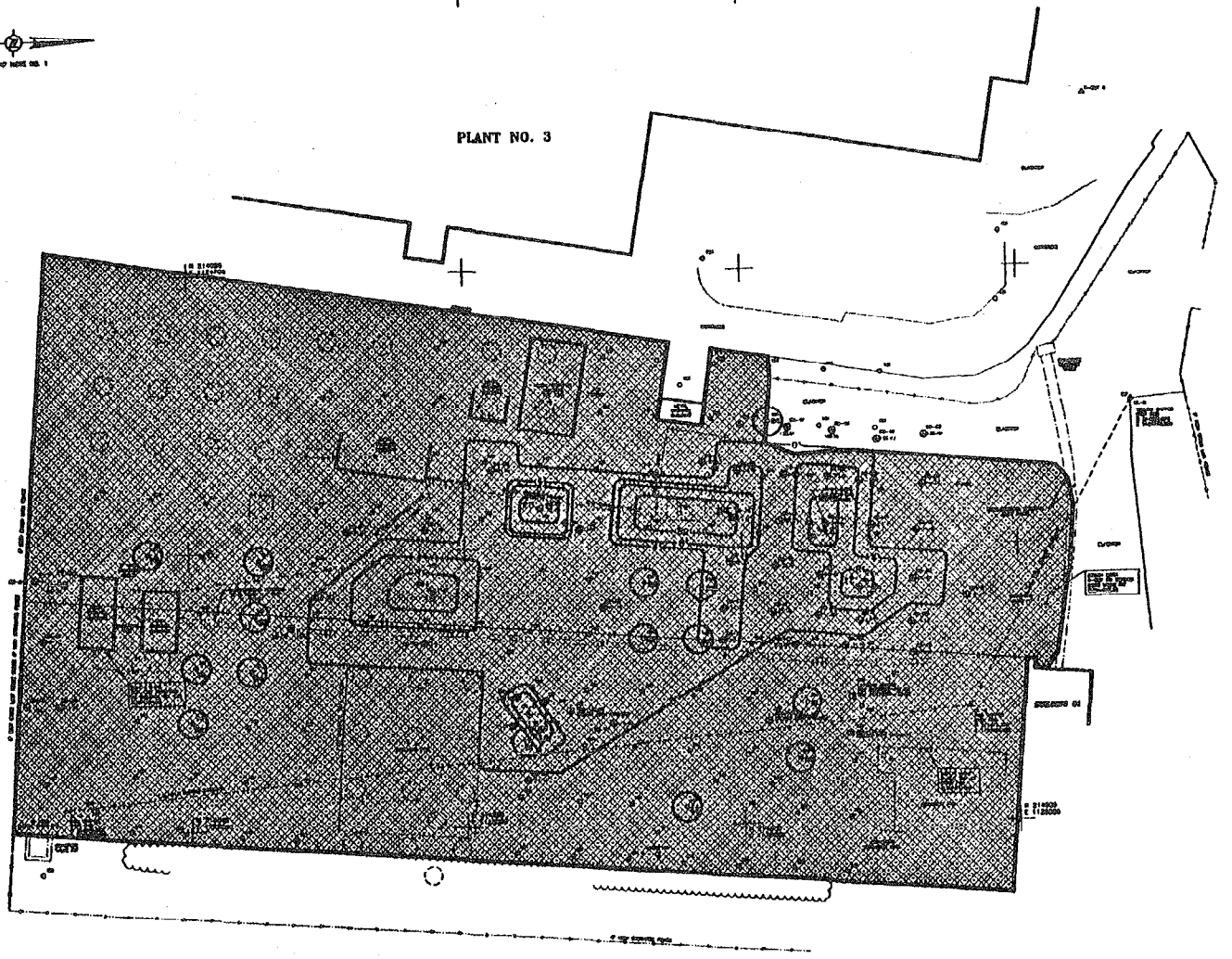
Cost. The comparative estimate for this alternative is $5,000,000.

4.2.3 Asphalt Pavement Cap

Description. Under this alternative, contaminated soil will be left on the site and the entire Site 1 area will be paved with a 6-inch thick asphalt cap. This cap will cover approximately 153,000 square feet and will extend across all areas between the southern fence line, the concrete apron east of Plant #3, the transportation center to the north, and the berm to the east. The extent of this area is shown on Figure 4-2. In addition, the soil within the suspected in-ground concrete tank at leach pit 49 will be removed and incinerated.

Following removal of the contents of the in-ground concrete tank, construction will begin by relocating utilities within the work area. A number of concrete foundations and small buildings located within the excavation area will be demolished. Building material will be tested, decontaminated (if necessary), and disposed of off site as solid waste. Concrete foundation and any building material that cannot be decontaminated will be placed below grade near the center of the site. Following demolition, the site will be regraded and filled with clean imported fill to form a 1 percent slope. To the extent possible the PCB-contaminated surface soil will be left in place and covered. Since the soil contaminated with PCBs above 10 mg/kg is located in the central portion of the site, there should be no surface soil contaminated above this level following grading.

After completion of the grading, the surface will be compacted to 95 percent of the maximum modified Proctor density. The asphalt cap will then be constructed of a 4-inch thick asphalt base course followed by a 2-inch thick paving course. Overall thickness will not be less than 6 inches. Standard design and construction methods will be used. At the northern and western edges of the pavement, the asphalt will transition into the existing concrete or asphalt pavement, or into the adjacent existing drainage structures for these pavements.



NAVAL WEAPONS RESERVE PLANT

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BETHPAGE, N.Y.

FIGURE 4-2
ASPHALT CAP

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Existing drainage structures will be upgraded if required to handle the increased runoff from the pavement. To the south and the east, new ditches will be constructed to drain runoff into the existing site drainage. All ditches, along the new pavement edge (whether these ditches are existing or new) will be asphalt-lined. Culvert crossings will be constructed at access points to the pavement.

The asphalt cap will require periodic inspection and maintenance. Maintenance will consist primarily of filling cracks. If used for traffic, the asphalt pavement will require periodic re-topping. The frequency of re-topping will depend on the traffic density and wheel loads. If heavy wheel loads are anticipated (i.e., loaded tractor trailers), the thickness of the pavement can be increased or the subgrade can be improved to reduce the potential for cracking through the full depth of the pavement.

Advantages. The advantages of this alternative are as follows:

- The excavation and transportation of PCB-contaminated soil is largely avoided;
- Remediation is not limited just to soil contaminated with PCBs above 10 mg/kg. All contaminated soil at the site is remediated;
- The asphalt cap will mitigate the migration of PCBs and other contaminants to the groundwater by preventing the infiltration of surface water; and
- The asphalt cap can be utilized in facility operations.

Disadvantages. This alternative requires that the ROD be re-opened. There may be a negative public perception since the contaminated soil is left on site. Future uses of the site would be limited to those that are consistent with the asphalt cap. The future construction of building foundations may be allowed, provided that proper planning and procedures are in place to monitor and control the excavation and to properly dispose of any contaminated soil. Continued maintenance of the asphalt cap will be required.

Cost. The comparative estimate for this alternative is $750,000. The 30-year maintenance cost is estimated to be approximately 20 percent of the initial cost, or $125,000.

4.3 Conclusions

The three alternatives presented above represent the range of available alternatives to remediate the site. The highest cost alternative is specified in the RD report and will enable unrestricted future land use. The least cost alternative requires long-term maintenance and monitoring, with severe restrictions on land use. The ultimate selection of an alternative must consider:

- Cost
- Future land use
- Regulatory approval
- Public perception

Upon selection of the preferred alternative, Foster Wheeler Environmental will develop a detailed cost estimate, revised work plan and schedule.

APPENDIX A
ANALYTICAL RESULT TABLES

LIST OF ANALYTICAL RESULT TABLES

ABBREVIATIONS AND QUALIFIERS UTILIZED IN RESULT TABLES

ppb	parts per billion (ug/kg or ug/L)
ppm	parts per million (mg/kg or mg/L)
TCLP	Toxicity Characteristic Leaching Procedure
RCRA	Resource Conservation and Recovery Act
TAL	Target Analyte List
TCL	Target Compound List
TICs	Tentatively Identified Compounds
U	Compound not detected at detection limits
J	Compound value is estimated
R	Compound value is rejected and deemed unusable
B (organics)	Compound was found in the associated laboratory blank
B (inorganics)	Analyte value is less than the method detection limit but greater than the instrument detection limit
D	Compound value reported is from a dilution analysis
P	A pesticide/Aroclor compound had a greater than 25 percent difference for the detected concentrations between two GC columns
NA	Not analyzed
[redacted]	Compound concentration is above the guidance value listed on the associated data table.

TABLE A-1
TOTAL POLYCHLORINATED BIPHENYLS (PCBs) BY IMMUNOASSAY FIELD SCREENING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID	SAMPLE DATE	TOTAL PCBs (ppm)
LPT01-0210	04/08/96	2.2
LPT01-1015	04/08/96	2.2
LPT01-1516	04/08/96	1.4
LPT01-1820	04/08/96	3
LPT03-1618	03/22/96	1 U
LPT03-2022	03/22/96	1 U
LPT04-1014	04/01/96	2.5
LPT04-1416	04/01/96	1 U
LPT04-1820	04/01/96	1 U
LPT06-1618	03/25/96	1 U
LPT06-2022	03/25/96	1.7
LPT08-0210	04/04/96	1 U
LPT08-1014	04/04/96	1 U
LPT08-1416	04/04/96	1 U
LPT08-1618	04/04/96	1 U
LPT15-1820	03/22/96	1.8
LPT15-2224	03/22/96	1 U
LPT16-1920	03/22/96	3.7
LPT16-2324	03/22/96	2.6
LPT19-0010	04/01/96	10.6
LPT19-1013	04/01/96	8.1
LPT19-1315	04/01/96	1 U
LPT19-1315D	04/01/96	1.2
LPT19-1618	04/01/96	1 U
LPT20-0210	04/02/96	2.9
LPT20-1017	04/02/96	16.7
LPT20-1718	04/02/96	2.9
LPT20-2022	04/02/96	2.1
LPT21-0210	04/03/96	3.8
LPT21-1017	04/03/96	8.3
LPT21-1718	04/03/96	1 U
LPT21-2123	04/03/96	6.8
LPT24-1218	04/05/96	13.4
LPT24-1820	04/05/96	1.8
LPT24-2224	04/05/96	2.8
LPT25-1618	03/22/96	1 U
LPT25-2022	03/22/96	1 U
LPT26-1516	03/22/96	1 U
LPT26-1921	03/22/96	1 U
LPT27-1618	03/25/96	1 U

Shading indicates that the concentration exceeds the soil level for excavation of 10 ppm.

TABLE A-1
TOTAL POLYCHLORINATED BIPHENYLS (PCBs) BY IMMUNOASSAY FIELD SCREENING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID	SAMPLE DATE	TOTAL PCBs (ppm)
LPT27-2022	03/25/96	1 U
LPT28-0210	03/26/96	1 U
LPT28-1016	03/26/96	8.1
LPT28-1618	03/26/96	2.3
LPT28-2022	03/26/96	1.7
LPT29-0410	04/01/96	1.8
LPT29-1014	04/01/96	2.6
LPT29-1416	04/01/96	1
LPT29-1820	04/01/96	1 U
LPT30-0010	04/02/96	1.7
LPT30-1018	04/02/96	2.2
LPT30-1820	04/02/96	1 U
LPT30-2022	04/02/96	1 U
LPT31-0210	04/03/96	1.5
LPT31-1017	04/03/96	1.3
LPT31-1718	04/03/96	1 U
LPT31-2022	04/03/96	1 U
LPT32-0210	04/04/96	1 U
LPT32-1016	04/04/96	1 U
LPT32-1016D	04/04/96	1 U
LPT32-1617	04/04/96	1 U
LPT32-1820	04/04/96	1 U
LPT34-0010	04/08/96	1.2
LPT34-1012	04/08/96	1 U
LPT34-1214	04/08/96	1 U
LPT34-1618	04/08/96	1 U
LPT36-1016	03/25/96	1.4
LPT36-1618	03/25/96	1 U
LPT36-2022	03/25/96	1 U
LPT37-1618	03/25/96	1 U
LPT37-2022	03/25/96	1 U
LPT38-1820	03/25/96	70
LPT38-1820D	03/25/96	101
LPT38-2224	03/25/96	1.6
LPT39-0010	03/26/96	16.9
LPT39-1018	03/26/96	15.9
LPT39-1820	03/26/96	2.1
LPT39-2224	03/26/96	1.6
LPT40-0410	04/01/96	1 U
LPT40-1016	04/01/96	2.4

Shading indicates that the concentration exceeds the soil level for excavation of 10 ppm.

TABLE A-1
TOTAL POLYCHLORINATED BIPHENYLS (PCBs) BY IMMUNOASSAY FIELD SCREENING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID	SAMPLE DATE	TOTAL PCBs (ppm)
LPT40-1618	04/01/96	4.8
LPT40-2022	04/01/96	2.2
LPT41-0210	04/02/96	1 U
LPT41-1017	04/02/96	2.7
LPT41-1718	04/02/96	1 U
LPT41-2022	04/02/96	1 U
LPT42-0410	04/03/96	1 U
LPT42-1018	04/03/96	2.4
LPT42-1018D	04/03/96	1 U
LPT42-1820	04/03/96	1 U
LPT42-2224	04/03/96	1 U
LPT43-0810	04/04/96	14.1
LPT43-1016	04/04/96	12.2
LPT43-1618	04/04/96	3.2
LPT43-2022	04/04/96	1.7
LPT45-1417	04/08/96	3.2
LPT45-1718	04/08/96	1 U
LPT45-2022	04/08/96	3.8
LPT48-0010	04/08/96	9
LPT48-1016	04/08/96	2.7
LPT48-1618	04/08/96	1.5
LPT48-2022	04/08/96	2.4
LPT51-0010	04/05/96	3.6
LPT51-1012	04/05/96	10.2
LPT51-1214	04/05/96	15.6
LPT51-1618	04/05/96	1 U
LPT52-0010	03/29/96	14.6
LPT52-1016	03/29/96	23.6
LPT52-1618	03/29/96	8.9
LPT52-2022	03/29/96	13.9
LPT53-0210	03/26/96	12.4
LPT53-1016	03/26/96	23.2
LPT53-1618	03/26/96	4.4
LPT53-2022	03/26/96	2.1
LPT54-0210	04/02/96	1 U
LPT54-1014	04/02/96	1 U
LPT54-1014D	04/02/96	2.9
LPT54-1416	04/02/96	1.6
LPT54-1820	04/02/96	1
LPT55-0210	04/03/96	1 U

Shading indicates that the concentration exceeds the soil level for excavation of 10 ppm.

TABLE A-1
TOTAL POLYCHLORINATED BIPHENYLS (PCBs) BY IMMUNOASSAY FIELD SCREENING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID	SAMPLE DATE	TOTAL PCBs (ppm)
LPT55-1016	04/03/96	1.4
LPT55-1618	04/03/96	1 U
LPT55-2022	04/03/96	1 U
LPT56-0210	04/04/96	1 U
LPT56-1015	04/04/96	1 U
LPT56-1516	04/04/96	1 U
LPT56-1820	04/04/96	1 U
LPT62-1012	04/08/96	2.6
LPT62-1214	04/08/96	1 U
LPT62-1618	04/08/96	6.1
LPT63-1012	04/05/96	1.8
LPT63-1214	04/05/96	1
LPT63-1618	04/05/96	3.1
LPT64-0010	03/29/96	6.5
LPT64-1015	03/29/96	2.5
LPT64-1517	03/29/96	1.9
LPT64-2022	03/29/96	1 U
LPT65-0210	03/26/96	1.7
LPT65-1018	03/26/96	3.5
LPT65-2224	03/26/96	2.8
LPT66-0210	04/02/96	2.6
LPT66-1014	04/02/96	2.3
LPT66-1416	04/02/96	1.6
LPT66-1820	04/02/96	1.6
LPT67-0210	04/03/96	1.8
LPT67-1016	04/03/96	2.3
LPT67-1618	04/03/96	1 U
LPT67-2022	04/03/96	1 U
LPT68-0810	04/04/96	6.7
LPT68-1017	04/04/96	9.2
LPT68-1718	04/04/96	1.2
LPT68-2022	04/04/96	1.9
LPT70-1016	04/08/96	1.5
LPT70-1618	04/08/96	3.6
LPT70-2022	04/08/96	1 U
LPT71-1416	04/01/96	152
LPT71-1416D	04/01/96	149.2
LPT71-1820	04/01/96	126.9
LPT72-1618	03/28/96	1.2
LPT72-2022	03/28/96	1.7

Shading indicates that the concentration exceeds the soil level for excavation of 10 ppm.

TABLE A-1
TOTAL POLYCHLORINATED BIPHENYLS (PCBs) BY IMMUNOASSAY FIELD SCREENING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID	SAMPLE DATE	TOTAL PCBs (ppm)
LPT73-1618	03/26/96	4.1
LPT73-1618D	03/26/96	4.1
LPT73-2022	03/26/96	3.8
LPT74-1018	04/02/96	4.9
LPT74-1820	04/02/96	3.8
LPT74-1820D	04/02/96	2.6
LPT74-2224	04/02/96	1.6
LPT75-1015	04/02/96	12.4
LPT75-1516	04/02/96	1 U
LPT75-1820	04/02/96	1 U
LPT76-0210	04/04/96	1 U
LPT76-1017	04/04/96	1 U
LPT76-1017D	04/04/96	1 U
LPT76-1718	04/04/96	1 U
LPT76-2022	04/04/96	1 U
LPT78-1015	04/08/96	2.1
LPT78-1516	04/08/96	1 U
LPT78-1820	04/08/96	1 U
LPT79-1820	04/01/96	1 U
LPT79-2224	04/01/96	1 U
LPT80-1618	03/28/96	7.8
LPT80-2022	03/28/96	7.2
LPT82-1018	04/02/96	1.2
LPT82-2022	04/02/96	1.3
LPT82-2224	04/02/96	1 U
LPT86-0210	04/01/96	1 U
LPT86-1015	04/01/96	1 U
LPT86-1516	04/01/96	1 U
LPT86-1820	04/01/96	1 U
LPT87-1618	03/28/96	3.8
LPT87-2022	03/28/96	1.1
LPT88-1618	03/27/96	1 U
LPT88-2022	03/27/96	1.2
LPT91-0210	04/09/96	1.9
LPT91-1013	04/09/96	1.4
LPT91-1314	04/09/96	2.4
LPT91-1618	04/09/96	1.6
LPT92-1618	03/28/96	1 U
LPT92-2022	03/28/96	1 U
LPT93-1820	03/27/96	1.8

Shading indicates that the concentration exceeds the soil level for excavation of 10 ppm.

TABLE A-1
TOTAL POLYCHLORINATED BIPHENYLS (PCBs) BY IMMUNOASSAY FIELD SCREENING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID	SAMPLE DATE	TOTAL PCBs (ppm)
LPT93-2022	03/27/96	1.3
LPT95-0210	04/09/96	1.4
LPT95-1012	04/09/96	2.7
LPT95-1214	04/09/96	3
LPT95-1618	04/09/96	4.1
LPT97-1416	03/27/96	1.7
LPT97-1820	03/27/96	9.7
LPT102-0210	04/09/96	1.9
LPT102-1012	04/09/96	13.1
LPT102-1214	04/09/96	1.9
LPT102-1618	04/09/96	1.7
LPT103-1214	03/27/96	24.1
LPT103-1416	03/27/96	1.7
LPT103-1820	03/27/96	2.9
LPT104-1214	03/27/96	16.5
LPT104-1416	03/27/96	2
LPT104-1820	03/27/96	1.1
LPT109-0210	04/09/96	1.2
LPT109-1014	04/09/96	1.7
LPT109-1416	04/09/96	1 U
LPT109-1820	04/09/96	1 U
LPT111-1214	03/27/96	42.4
LPT111-1416	03/27/96	2.4
LPT111-1820	03/27/96	1.3
LPT112-1214	03/27/96	11.3
LPT112-1416	03/27/96	1.8
LPT112-1820	03/27/96	2
LPT113-1216	03/28/96	3.8
LPT113-1618	03/28/96	1 U
LPT113-2022	03/28/96	3
LPT115-0410	04/10/96	1 U
LPT115-1015	04/10/96	2
LPT115-1015D	04/10/96	2.8
LPT115-1618	04/10/96	2.2
LPT115-2022	04/10/96	1.6
LPT116-0410	04/09/96	1.7
LPT116-1018	04/09/96	21.6
LPT116-1018D	04/09/96	6
LPT116-1921	04/09/96	2.3
LPT116-2224	04/09/96	3.6

Shading indicates that the concentration exceeds the soil level for excavation of 10 ppm.

TABLE A-1
TOTAL POLYCHLORINATED BIPHENYLS (PCBs) BY IMMUNOASSAY FIELD SCREENING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID	SAMPLE DATE	TOTAL PCBs (ppm)
LPT118-0010	03/28/96	5.9
LPT118-1014	03/28/96	1.5
LPT118-1416	03/28/96	2
LPT118-1820	03/28/96	1 U
LPT120-0210	04/10/96	1 U
LPT120-1016	04/10/96	1 U
LPT120-1618	04/10/96	1 U
LPT120-2023	04/10/96	1 U
SB04-1820	03/20/96	1385
SB04-2224	03/20/96	285
SB04-2628	03/21/96	40.7
SB04-3032	03/21/96	9
SB15-1820	03/20/96	435
SB15-2224	03/20/96	255
SB15-2628	03/21/96	540
SB15-3032	03/21/96	115
SB15-3436	04/05/96	1.5
SB15-3840	04/05/96	2.6
SB69-00	03/19/96	23.7
SB69-0204	03/20/96	5.2
SB69-0608	03/20/96	1 U
SB69-1416	03/20/96	1.2
SB69-1820	03/20/96	1 U
SB69-2224	03/20/96	1 U
SB70-00	03/19/96	21.8
SB70-0204	03/20/96	4.3
SB70-0608	03/20/96	1 U
SB70-1012	03/20/96	1 U
SB70-1416	03/20/96	1 U
SB70-1820	03/20/96	1 U
SB70-2224	03/20/96	1 U
SB71-00	03/19/96	2.2
SB71-0204	03/20/96	4.1
SB71-0608	03/20/96	1 U
SB71-1012	03/20/96	1 U
SB71-1416	03/20/96	1 U
SB71-1820	03/20/96	3.8
SB71-2224	03/20/96	1 U
SB72-00	03/19/96	49.5
SB72-0204	03/20/96	17.9

Shading indicates that the concentration exceeds the soil level for excavation of 10 ppm.

TABLE A-1
TOTAL POLYCHLORINATED BIPHENYLS (PCBs) BY IMMUNOASSAY FIELD SCREENING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID	SAMPLE DATE	TOTAL PCBs (ppm)
SB72-0608	03/20/96	2.1
SB72-1012	03/20/96	1.4
SB72-1416	03/20/96	2.1
SB72-1820	03/20/96	1.1
SB72-2224	03/20/96	1
SB73-00	03/19/96	8.9
SB73-0204	03/21/96	1.7
SB73-0608	03/21/96	1 U
SB73-1012	03/21/96	1 U
SB73-1416	03/21/96	1 U
SB73-1820	03/21/96	1 U
SB73-1820D	03/21/96	1 U
SB73-2224	03/21/96	1 U
SB74-00	03/19/96	4.1
SB74-0204	03/21/96	7.1
SB74-0608	03/21/96	2.7
SB74-1012	03/21/96	1.2
SB74-1012D	03/21/96	1.9
SB74-1416	03/21/96	1 U
SB74-1820	03/21/96	1 U
SB74-1820D	03/21/96	1 U
SB74-2224	03/21/96	1.2
SB75-00	03/19/96	1.5
SB75-0204	03/21/96	1.4
SB75-0608	03/21/96	1 U
SB75-1012	03/21/96	1.3
SB75-1416	03/21/96	1 U
SB75-1820	03/21/96	1.3
SB75-2224	03/21/96	2.2
SB76-00	03/19/96	1.8
SB76-0204	03/21/96	1.3
SB76-0608	03/21/96	1 U
SB76-1012	03/21/96	1 U
SB76-1416	03/21/96	1.2
SB76-1820	03/21/96	1 U
SB76-2224	03/21/96	1 U
SB77-00	03/19/96	12.5
SB77-0204	03/21/96	2.7
SB77-0608	03/21/96	1 U
SB77-1012	03/21/96	1 U

Shading indicates that the concentration exceeds the soil level for excavation of 10 ppm.

TABLE A-1
TOTAL POLYCHLORINATED BIPHENYLS (PCBs) BY IMMUNOASSAY FIELD SCREENING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID	SAMPLE DATE	TOTAL PCBs (ppm)
SB77-1416	03/21/96	1 U
SB77-1820	03/21/96	1.4
SB77-1820D	03/21/96	1 U
SB77-2224	03/21/96	1 U
SB78-00	03/19/96	8.3
SB78-0204	03/20/96	1.4
SB78-0608	03/20/96	1.4
SB78-1012	03/20/96	1
SB78-1416	03/20/96	2.3
SB78-1820	03/20/96	1.9
SB78-2224	03/20/96	1.9

Shading indicates that the concentration exceeds the soil level for excavation of 10 ppm.

TABLE A-2
POLYCHLORINATED BIPHENYLS (PCBs) BY LABORATORY ANALYSIS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID	SB04-2224	SB04-3032	SB15-2224	SB15-3032	SB15-3436	SB69-0204	SB70-0204	SB71-00	SB72-0608
LAB ID	SB0422	SB0430	SB1522	SB1530	SB1534	SB6902	SB7002	SB7100	SB7206
DATE	03/20/96	03/21/96	03/20/96	03/21/96	04/05/96	03/20/96	03/20/96	03/19/96	03/20/96
UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Aroclor-1016	83 U	84 U	83 U	83 U	82 U	85 U	92 U	88 U	86 U
Aroclor-1221	83 U	84 U	83 U	83 U	82 U	85 U	92 U	88 U	86 U
Aroclor-1232	83 U	84 U	83 U	83 U	82 U	85 U	92 U	88 U	86 U
Aroclor-1242	83 U	84 U	760,000 D	83 U	82 U	85 U	92 U	88 U	440
Aroclor-1248	280,000 D	11,000 D	83 U	93,000 D	47 J	8,400 JD	6,800 D	1,700	86 U
Aroclor-1254	83 U	84 U	83 U	83 U	82 U	85 U	92 U	88 U	400
Aroclor-1260	83 U	84 U	83 U	83 U	82 U	85 U	92 U	88 U	86 U

Shading indicates that the concentration exceeds the soil level for excavation of 10 ppm (10,000 ug/kg).

TABLE A-2
POLYCHLORINATED BIPHENYLS (PCBs) BY LABORATORY ANALYSIS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID	SB73-00	SB74-00	SB75-00	SB76-00	SB77-0204	SB78-00	RB-032096	RB-032196	RB-032296
LAB ID	SB7300	SB7400	SB7500	SB7600	SB7702	SB7800	FB0320	RB0321	RB0322
DATE	03/19/96	03/19/96	03/19/96	03/19/96	03/21/96	03/19/96	03/20/96	03/21/96	03/22/96
UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/L	ug/L	ug/L
Aroclor-1016	88 UJ	90 U	100 U	84 U	93 U	440 U	1.2 U	1.2 U	1.2 U
Aroclor-1221	88 U	90 U	100 U	84 U	93 U	440 U	2.4 U	2.4 U	2.4 U
Aroclor-1232	88 U	90 U	100 U	84 U	93 U	440 U	1.2 U	1.2 U	1.2 U
Aroclor-1242	88 U	90 U	100 U	84 U	93 U	440 U	1.2 U	7.6	1.2 U
Aroclor-1248	7,400 D	10,000 D	550	1,700	6,100 JD	11,000	1.2 U	1.2 U	1.2 U
Aroclor-1254	88 U	90 U	100 U	84 U	93 U	440 U	1.2 U	1.2 U	1.2 U
Aroclor-1260	88 UJ	90 U	100 U	84 U	93 U	440 U	1.2 U	1.2 U	1.2 U

Shading indicates that the concentration exceeds the soil level for excavation of 10 ppm (10,000 ug/kg).

TA_ _E A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT03-1016 LPT310 03/22/96 mg/L	LPT04-1014 LPT041 04/1/96 mg/L	LPT06-1016 LPT610 03/25/96 mg/L	LPT15-1216 LPT151 03/22/96 mg/L	LPT16-0910 LPT160 03/22/96 mg/L	LPT18-1012 LPT181 03/25/96 mg/L	LPT19-0010 LPT190 04/1/96 mg/kg
Vinyl chloride	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene	0.7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroform	6.0	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone	200	0.05 U	0.05 U	0.05 U	0.01 J	0.05 U	0.05 U	0.05 U
Carbon tetrachloride	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene	0.5	0.02 J	0.05 U	0.05 U	7.3 D	0.05 U	0.05 U	0.02 J
Benzene	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene	0.7	0.05 U	0.05 U	0.05 U	0.10	0.06	0.01 J	0.02 J
Chlorobenzene	100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Methylphenol	200	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ	0.04 U	0.04 U
3&4-Methylphenol	200	0.08 UJ	0.09	0.08 UJ	0.01 J	0.02 J	0.08 U	0.08 U
2,4-Dinitrotoluene	0.13	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ	0.04 U	0.04 U
Hexachlorobenzene	0.13	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ	0.04 U	0.04 U
Hexachlorobutadiene	0.5	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ	0.04 U	0.04 U
Hexachloroethane	3.0	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ	0.04 U	0.04 U
Nitrobenzene	2.0	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ	0.04 U	0.04 U
Pentachlorophenol	100	0.20 UJ	0.20 U	0.20 UJ	0.20 UJ	0.20 UJ	0.20 U	0.20 U
Pyridine	5.0	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ	0.04 U	0.04 U
2,4,5-Trichlorophenol	400	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ	0.04 U	0.04 U
2,4,6-Trichlorophenol	2.0	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ	0.04 U	0.04 U
1,4-Dichlorobenzene	7.5	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ	0.04 U	0.04 U
Chlordane	0.03	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Endrin	0.02	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U
Heptachlor & Heptachlor epoxide	0.008	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U
gamma-BHC (Lindane)	0.4	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U
Methoxychlor	10	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Toxaphene	0.5	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2,4-D	10	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2,4,5-TP	1.0	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

TABLE A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT03-1016 LPT310 03/22/96 mg/L	LPT04-1014 LPT041 04/1/96 mg/L	LPT06-1016 LPT610 03/25/96 mg/L	LPT15-1216 LPT151 03/22/96 mg/L	LPT16-0910 LPT160 03/22/96 mg/L	LPT18-1012 LPT181 03/25/96 mg/L	LPT19-0010 LPT190 04/1/96 mg/kg
Arsenic	5.0	0.039 U	0.039 U	0.039 U	0.14	0.051	0.039 U	0.039 U
Barium	100	0.40	0.68	0.54	0.72	0.70	0.27	0.77
Cadmium	1.0	0.50	0.0034 U	1.80	0.0034 U	0.0034 U	0.71	1.7
Chromium	5.0	0.24	0.0099 B	0.011	0.026	0.051	0.0099 B	0.20
Lead	5.0	0.038 U	0.038 U	0.059	0.038 U	0.038 U	0.052	0.24
Mercury	0.2	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00024	0.0002 U	0.0002 U
Selenium	1.0	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U
Silver	5.0	0.009 U	0.009 U	0.009 U	0.009 U	0.009 U	0.009 U	0.031
pH	--	6.25	9.10	8.75	9.15	9.01	8.35	9.15
Corrosivity (inch/yr)	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ignibibility (degrees F)	--	> 212	> 212	> 212	> 212	> 212	> 212	> 212
Reactivity S+CN (ppm/ppm)	--	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U

TABLE A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT20-1017 LPT201 04/2/96 mg/kg	LPT24-1218 LPT241 04/5/96 mg/kg	LPT25-1016 LPT251 03/22/96 mg/L	LPT26-1015 LPT261 03/22/96 mg/L	LPT27-1013 LPT271 03/25/96 mg/L	LPT36-1016 LPT361 03/25/96 mg/L	LPT37-0208 LPT372 03/25/96 mg/L
Vinyl chloride	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene	0.7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroform	6.0	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone	200	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Carbon tetrachloride	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene	0.5	0.05 U	0.05 U	0.05 U	0.01 J	0.05 U	0.05 U	0.05 U
Benzene	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene	0.7	0.05 U	0.05 U	0.01 J	0.01 J	0.05 U	0.05 U	0.05 U
Chlorobenzene	100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Methylphenol	200	0.04 U	0.04 U	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ
3&4-Methylphenol	200	0.08 U	0.08 U	0.08 UJ	0.08 U	0.08 UJ	0.08 UJ	0.08 UJ
2,4-Dinitrotoluene	0.13	0.04 U	0.04 U	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ
Hexachlorobenzene	0.13	0.04 U	0.04 U	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ
Hexachlorobutadiene	0.5	0.04 U	0.04 U	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ
Hexachloroethane	3.0	0.04 U	0.04 U	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ
Nitrobenzene	2.0	0.04 U	0.04 U	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ
Pentachlorophenol	100	0.20 U	0.20 U	0.20 UJ	0.20 U	0.20 UJ	0.20 UJ	0.20 UJ
Pyridine	5.0	0.04 U	0.04 U	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ
2,4,5-Trichlorophenol	400	0.04 U	0.04 U	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ
2,4,6-Trichlorophenol	2.0	0.04 U	0.04 U	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ
1,4-Dichlorobenzene	7.5	0.04 U	0.04 U	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ
Chlordane	0.03	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Endrin	0.02	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U
Heptachlor & Heptachlor epoxide	0.008	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U
gamma-BHC (Lindane)	0.4	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U
Methoxychlor	10	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Toxaphene	0.5	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2,4-D	10	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2,4,5-TP	1.0	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

TA_ _E A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT20-1017 LPT201 04/2/96 mg/kg	LPT24-1218 LPT241 04/5/96 mg/kg	LPT25-1016 LPT251 03/22/96 mg/L	LPT26-1015 LPT261 03/22/96 mg/L	LPT27-1013 LPT271 03/25/96 mg/L	LPT36-1016 LPT361 03/25/96 mg/L	LPT37-0208 LPT372 03/25/96 mg/L
Arsenic	5.0	0.036 U	0.036 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U
Barium	100	0.57	0.15 B	0.63	0.59	0.32	0.40	0.34
Cadmium	1.0	2 J	0.66	2.90	0.68	0.027	0.64	0.013
Chromium	5.0	0.0066 B	0.03	0.0074 U	0.02	0.0074 U	0.0074 U	0.0074 U
Lead	5.0	0.028	0.31	0.075	0.26	0.038 U	0.038 U	0.038 U
Mercury	0.2	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Selenium	1.0	0.031 U	0.031 U	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U
Silver	5.0	0.0069 B	0.004 U	0.009 U	0.009 U	0.009 U	0.009 U	0.013
pH	--	5.65	7.25	5.63	7.65	7.15	8.48	5.77
Corrosivity (inch/yr)	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ignibility (degrees F)	--	> 212	> 212	> 212	> 212	> 212	> 212	> 212
Reactivity S+CN (ppm/ppm)	--	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U

TABLE A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT37-1016 LPT371 03/25/96 mg/L	LPT37-1016D LPT37D 03/25/96 mg/L	LPT38-1018 LPT381 03/25/96 mg/L	LPT38-1820 LPT388 03/25/96 mg/kg	LPT38-1820D LPT38D 03/25/96 mg/kg	LPT39-0010 LPT390 03/26/96 mg/kg	LPT39-1018 LPT391 03/26/96 mg/kg
Vinyl chloride	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene	0.7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroform	6.0	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone	200	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Carbon tetrachloride	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene	0.5	0.05 U	0.05 U	0.01 J	0.05 U	0.05 U	0.05 U	0.05 U
Benzene	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene	0.7	0.03 J	0.03 J	0.14	0.13 J	0.07 J	0.05 U	0.04 J
Chlorobenzene	100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Methylphenol	200	0.04 UJ	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 U	0.04 U
3&4-Methylphenol	200	0.08 UJ	0.08 UJ	0.08 U	0.08 UJ	0.08 UJ	0.08 U	0.08 U
2,4-Dinitrotoluene	0.13	0.04 UJ	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 U	0.04 U
Hexachlorobenzene	0.13	0.04 UJ	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 U	0.04 U
Hexachlorobutadiene	0.5	0.04 UJ	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 U	0.04 U
Hexachloroethane	3.0	0.04 UJ	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 U	0.04 U
Nitrobenzene	2.0	0.04 UJ	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 U	0.04 U
Pentachlorophenol	100	0.20 UJ	0.20 UJ	0.20 U	0.20 UJ	0.20 UJ	0.20 U	0.20 U
Pyridine	5.0	0.04 UJ	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 U	0.04 U
2,4,5-Trichlorophenol	400	0.04 UJ	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 U	0.04 U
2,4,6-Trichlorophenol	2.0	0.04 UJ	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 U	0.04 U
1,4-Dichlorobenzene	7.5	0.04 UJ	0.04 UJ	0.04 U	0.04 UJ	0.04 UJ	0.04 U	0.04 U
Chlordane	0.03	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Endrin	0.02	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U
Heptachlor & Heptachlor epoxide	0.008	0.0003 U	0.0003 U	0.0003 U	0.0004	0.0004	0.0003 U	0.0003 U
gamma-BHC (Lindane)	0.4	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U
Methoxychlor	10	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Toxaphene	0.5	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2,4-D	10	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2,4,5-TP	1.0	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

TABLE A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT37-1016 LPT371 03/25/96 mg/L	LPT37-1016D LPT37D 03/25/96 mg/L	LPT38-1018 LPT381 03/25/96 mg/L	LPT38-1820 LPT388 03/25/96 mg/kg	LPT38-1820D LPT38D 03/25/96 mg/kg	LPT39-0010 LPT390 03/26/96 mg/kg	LPT39-1018 LPT391 03/26/96 mg/kg
Arsenic	5.0	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U
Barium	100	0.28	0.29	0.40	0.36	0.25	0.30	0.26
Cadmium	1.0	1.50	3.10	0.054	0.064	0.050	0.0086	0.79
Chromium	5.0	0.0093 B	0.009 B	0.0074 U	0.0074 U	0.0074 U	0.0074 U	0.0074 U
Lead	5.0	0.051	0.10	0.04	0.039	0.057	0.038 U	0.038 U
Mercury	0.2	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Selenium	1.0	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U
Silver	5.0	0.009 U	0.011	0.009 U	0.009 U	0.009 U	0.009 U	0.009 U
pH	--	5.58	4.45	5.29	4.65	4.70	5.68	5.40
Corrosivity (inch/yr)	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ignibibility (degrees F)	--	> 212	> 212	> 212	> 212	> 212	> 212	> 212
Reactivity S+CN (ppm/ppm)	--	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U

TABLE A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT43-0810 LPT430 04/4/96 mg/kg	LPT43-1016 LPT431 04/4/96 mg/kg	LPT49-0002 LPT490 03/26/96 mg/L	LPT51-1012 LPT511 04/5/96 mg/kg	LPT51-1214 LPT514 04/5/96 mg/kg	LPT52-0010 LPT520 03/29/96 mg/kg	LPT52-1016 LPT521 03/29/96 mg/kg
Vinyl chloride	0.2	0.05 U	0.05 U	0.04 J	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene	0.7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroform	6.0	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone	200	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Carbon tetrachloride	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene	0.5	0.05 U	0.05 U	1.0 D	0.01 J	0.05 U	0.05 U	0.05 U
Benzene	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene	0.7	0.05 U	0.05 U	0.01 J	0.23	0.05 U	0.04 J	0.06
Chlorobenzene	100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Methylphenol	200	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
3&4-Methylphenol	200	0.08 UJ	0.08 U	0.05 J	0.08 U	0.08 U	0.08 U	0.08 U
2,4-Dinitrotoluene	0.13	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Hexachlorobenzene	0.13	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Hexachlorobutadiene	0.5	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Hexachloroethane	3.0	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Nitrobenzene	2.0	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Pentachlorophenol	100	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Pyridine	5.0	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
2,4,5-Trichlorophenol	400	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
2,4,6-Trichlorophenol	2.0	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
1,4-Dichlorobenzene	7.5	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Chlordane	0.03	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Endrin	0.02	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U
Heptachlor & Heptachlor epoxide	0.008	0.0003 U	0.0003 U	0.0005 J	0.0004	0.0003	0.0003 U	0.0003 U
gamma-BHC (Lindane)	0.4	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0007	0.0003 U	0.0003 U
Methoxychlor	10	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Toxaphene	0.5	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2,4-D	10	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2,4,5-TP	1.0	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

TAE A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT43-0810 LPT430 04/4/96 mg/kg	LPT43-1016 LPT431 04/4/96 mg/kg	LPT49-0002 LPT490 03/26/96 mg/L	LPT51-1012 LPT511 04/5/96 mg/kg	LPT51-1214 LPT514 04/5/96 mg/kg	LPT52-0010 LPT520 03/29/96 mg/kg	LPT52-1016 LPT521 03/29/96 mg/kg
Arsenic	5.0	0.036 U	0.036 U	0.039 U	0.036 U	0.036 U	0.039 U	0.039 U
Barium	100	1.4	0.92	0.34	0.65	0.47	0.28	0.27
Cadmium	1.0	10.4	1.1	0.011	0.012	0.021	0.009	0.096
Chromium	5.0	0.049	0.018	0.0086 B	0.0023 U	0.015	0.0089 B	0.0074 U
Lead	5.0	0.24	0.14	0.062	0.027 U	0.056	0.038 U	0.038 U
Mercury	0.2	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Selenium	1.0	0.031 U	0.052	0.096 U	0.031 U	0.031 U	0.096 U	0.096 U
Silver	5.0	0.004 U	0.004 U	0.009 U	0.004 U	0.0069 B	0.009 U	0.47
pH	--	5.78	6.65	7.25	5.71	4.95	8.80	7.11
Corrosivity (inch/yr)	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ignibibility (degrees F)	--	> 212	> 212	> 212	> 212	> 212	> 212	> 212
Reactivity S+CN (ppm/ppm)	--	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U

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TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT52-2022 LPT522 03/29/96 mg/kg	LPT53-0210 LPT530 03/26/96 mg/kg	LPT53-1016 LPT531 03/26/96 mg/kg	LPT62-1012 LPT621 04/8/96 mg/L	LPT63-1012 LPT631 04/5/96 mg/L	LPT70-1016 LPT701 04/8/96 mg/L	LPT71-1014 LPT711 04/1/96 mg/L
Vinyl chloride	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene	0.7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroform	6.0	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone	200	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Carbon tetrachloride	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.03 J	0.05 U
Benzene	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene	0.7	0.02 J	0.05 U	0.03 J	0.05 U	0.05 J	0.21	0.55
Chlorobenzene	100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Methylphenol	200	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 UJ
3&4-Methylphenol	200	0.08 U	0.01 J	0.08 U	0.08 U	0.08 U	0.08 U	0.08 UJ
2,4-Dinitrotoluene	0.13	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 UJ
Hexachlorobenzene	0.13	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 UJ
Hexachlorobutadiene	0.5	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 UJ
Hexachloroethane	3.0	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 UJ
Nitrobenzene	2.0	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 UJ
Pentachlorophenol	100	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ
Pyridine	5.0	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 UJ
2,4,5-Trichlorophenol	400	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 UJ
2,4,6-Trichlorophenol	2.0	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 UJ
1,4-Dichlorobenzene	7.5	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 UJ
Chlordane	0.03	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Endrin	0.02	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U
Heptachlor & Heptachlor epoxide	0.008	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0006 J
gamma-BHC (Lindane)	0.4	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U
Methoxychlor	10	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Toxaphene	0.5	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2,4-D	10	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2,4,5-TP	1.0	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

TABLE A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT52-2022 LPT522 03/29/96 mg/kg	LPT53-0210 LPT530 03/26/96 mg/kg	LPT53-1016 LPT531 03/26/96 mg/kg	LPT62-1012 LPT621 04/8/96 mg/L	LPT63-1012 LPT631 04/5/96 mg/L	LPT70-1016 LPT701 04/8/96 mg/L	LPT71-1014 LPT711 04/1/96 mg/L
Arsenic	5.0	0.039 U	0.039 U	0.039 U	0.036 U	0.036 U	0.036 U	0.039 U
Barium	100	0.24	0.40	0.29	0.41	0.33	0.48	0.42
Cadmium	1.0	0.047	6.5	3.2	0.0069	0.0024 U	0.12	0.11
Chromium	5.0	0.0074 U	0.018	0.0074 U	0.033	0.0029 B	0.043	0.048
Lead	5.0	0.038 U	0.038 U	0.038 U	0.027 U	0.027 U	0.066	0.044
Mercury	0.2	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Selenium	1.0	0.096 U	0.096 U	0.096 U	0.031 U	0.031 U	0.031 U	0.096 U
Silver	5.0	0.009 U	0.009 U	0.009 U	0.004 U	0.004 U	0.004 U	0.009 U
pH	--	5.25	5.63	5.28	6.58	8.25	7.81	8.15
Corrosivity (inch/yr)	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ignibility (degrees F)	--	> 212	> 212	> 212	> 212	> 212	> 212	> 212
Reactivity S+CN (ppm/ppm)	--	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U

TABLE A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT71-1416 LPT714 04/1/96 mg/kg	LPT71-1416D LPT71D 04/1/96 mg/kg	LPT71-1820 LPT718 04/1/96 mg/kg	LPT72-1314 LPT721 03/28/96 mg/L	LPT73-0210 LPT730 03/26/96 mg/L	LPT73-0210D LPT73D 03/26/96 mg/L	LPT73-1016 LPT731 03/26/96 mg/L
Vinyl chloride	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene	0.7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroform	6.0	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone	200	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Carbon tetrachloride	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene	0.5	0.01 J	0.01 J	0.05 U	0.05	0.05 U	0.05 U	0.05 U
Benzene	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene	0.7	0.84 D	0.90 D	0.54	0.88 D	0.05 U	0.05 U	0.05 J
Chlorobenzene	100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Methylphenol	200	0.04 UJ	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
3&4-Methylphenol	200	0.08 UJ	0.08 UJ	0.08 U	0.04 J	0.08 U	0.08 U	0.08 U
2,4-Dinitrotoluene	0.13	0.04 UJ	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Hexachlorobenzene	0.13	0.04 UJ	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Hexachlorobutadiene	0.5	0.04 UJ	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Hexachloroethane	3.0	0.04 UJ	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Nitrobenzene	2.0	0.04 UJ	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Pentachlorophenol	100	0.20 UJ	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Pyridine	5.0	0.04 UJ	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
2,4,5-Trichlorophenol	400	0.04 UJ	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
2,4,6-Trichlorophenol	2.0	0.04 UJ	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
1,4-Dichlorobenzene	7.5	0.04 UJ	0.04 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Chlordane	0.03	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Endrin	0.02	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U
Heptachlor & Heptachlor epoxide	0.008	0.0007	0.0010 J	0.0007 J	0.0003 U	0.0003 U	0.0003 U	0.0003 U
gamma-BHC (Lindane)	0.4	0.0005	0.0008 J	0.0003 J	0.0003 U	0.0003 U	0.0003 U	0.0003 U
Methoxychlor	10	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Toxaphene	0.5	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2,4-D	10	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2,4,5-TP	1.0	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

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TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS

NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT71-1416 LPT714 04/1/96 mg/kg	LPT71-1416D LPT71D 04/1/96 mg/kg	LPT71-1820 LPT718 04/1/96 mg/kg	LPT72-1314 LPT721 03/28/96 mg/L	LPT73-0210 LPT730 03/26/96 mg/L	LPT73-0210D LPT73D 03/26/96 mg/L	LPT73-1016 LPT731 03/26/96 mg/L
Arsenic	5.0	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U
Barium	100	0.40	0.41	0.36	0.62	0.36	0.33	0.49
Cadmium	1.0	0.0057	0.0038 B	0.0048 B	0.62	0.006	0.0036 B	3.4 J
Chromium	5.0	0.015	0.013	0.0097 B	0.008 B	0.0074 U	0.0074 U	0.0074 U
Lead	5.0	0.038 U	0.038 U	0.038 U	0.13	0.038 U	0.038 U	0.038 U
Mercury	0.2	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00022	0.00027
Selenium	1.0	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U
Silver	5.0	0.009 U	0.009 U	0.009 U	0.009 U	0.009 U	0.009 U	0.009 U
pH	--	7.75	7.85	8.35	4.91	6.83	6.45	6.05
Corrosivity (inch/yr)	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ignibibility (degrees F)	--	> 212	> 212	> 212	> 212	> 212	> 212	> 212
Reactivity S+CN (ppm/ppm)	--	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U

TAble A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT74-1018 LPT740 04/2/96 mg/L	LPT75-1015 LPT750 04/2/96 mg/L	LPT78-1015 LPT781 04/8/96 mg/L	LPT79-1018 LPT791 04/1/96 mg/L	LPT80-1016 LPT801 03/28/96 mg/L	LPT82-1018 LPT821 04/2/96 mg/L	LPT87-1314 LPT871 03/28/96 mg/L
Vinyl chloride	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene	0.7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroform	6.0	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone	200	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Carbon tetrachloride	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene	0.5	7.9 D	0.01 J	0.01 J	0.39	0.05 U	0.02 J	0.05 J
Benzene	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene	0.7	11.0 D	0.14	0.27	1.40 D	1.60 D	0.04 J	0.30
Chlorobenzene	100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Methylphenol	200	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
3&4-Methylphenol	200	0.01 J	0.08 U	0.04 U	0.01 J	0.08 U	0.08 U	0.07 J
2,4-Dinitrotoluene	0.13	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Hexachlorobenzene	0.13	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Hexachlorobutadiene	0.5	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Hexachloroethane	3.0	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Nitrobenzene	2.0	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Pentachlorophenol	100	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Pyridine	5.0	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
2,4,5-Trichlorophenol	400	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
2,4,6-Trichlorophenol	2.0	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
1,4-Dichlorobenzene	7.5	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Chlordane	0.03	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Endrin	0.02	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U
Heptachlor & Heptachlor epoxide	0.008	0.0003 U	0.0003 U	0.0003 U	0.0006 J	0.0003 U	0.0003 U	0.0003 U
gamma-BHC (Lindane)	0.4	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U
Methoxychlor	10	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Toxaphene	0.5	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2,4-D	10	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2,4,5-TP	1.0	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

TABLE A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT74-1018 LPT740 04/2/96 mg/L	LPT75-1015 LPT750 04/2/96 mg/L	LPT78-1015 LPT781 04/8/96 mg/L	LPT79-1018 LPT791 04/1/96 mg/L	LPT80-1016 LPT801 03/28/96 mg/L	LPT82-1018 LPT821 04/2/96 mg/L	LPT87-1314 LPT871 03/28/96 mg/L
Arsenic	5.0	0.036 U	0.039 U	0.036 U	0.039 U	0.039 U	0.039 U	0.039 U
Barium	100	1.2	0.62	0.38	0.77	0.64	0.64	0.30
Cadmium	1.0	1.1	2.3	0.012	0.48	0.64	0.10	0.0034 U
Chromium	5.0	0.62	0.056	0.054	0.099	0.014	0.012	0.014
Lead	5.0	0.45	0.038 U	0.058	0.30	0.11	0.038 U	0.038 U
Mercury	0.2	0.0002 U	0.00063	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Selenium	1.0	0.031 U	0.096 U	0.031 U	0.096 U	0.096 U	0.096 U	0.096 U
Silver	5.0	0.004 U	0.009 U	0.004 U	0.009 U	0.009 U	0.009 U	0.009 U
pH	--	8.90	8.35	8.65	7.98	5.25	6.35	9.41
Corrosivity (inch/yr)	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ignibibility (degrees F)	--	> 212	> 212	> 212	> 212	> 212	> 212	> 212
Reactivity S+CN (ppm/ppm)	--	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U

TABLE A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT88-0610 LPT880 03/27/96 mg/L	LPT88-1016 LPT881 03/27/96 mg/L	LPT92-1016 LPT921 03/28/96 mg/L	LPT93-1018 LPT931 03/27/96 mg/L	LPT97-1214 LPT971 03/27/96 mg/L	LPT102-1012 LP1021 04/9/96 mg/kg	LPT103-1214 LP1031 03/27/96 mg/kg
Vinyl chloride	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene	0.7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chloroform	6.0	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone	200	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Carbon tetrachloride	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene	0.5	0.05 U	0.02 J	0.06	0.07	0.02 J	0.02 J	0.05 U
Benzene	0.5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene	0.7	0.02 J	0.63	0.54	0.60	0.19	0.06	0.04 J
Chlorobenzene	100	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2-Methylphenol	200	0.04 U	0.04 U	0.04 U	0.02 J	0.04 U	0.04 U	0.04 U
3&4-Methylphenol	200	0.08 U	0.08 U	0.04 J	0.52	0.01 J	0.08 U	0.08 U
2,4-Dinitrotoluene	0.13	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Hexachlorobenzene	0.13	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Hexachlorobutadiene	0.5	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Hexachloroethane	3.0	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Nitrobenzene	2.0	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Pentachlorophenol	100	0.20 U	0.20 U	0.20 U	0.02 J	0.20 U	0.20 U	0.20 U
Pyridine	5.0	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
2,4,5-Trichlorophenol	400	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
2,4,6-Trichlorophenol	2.0	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
1,4-Dichlorobenzene	7.5	0.04 U	0.04 U	0.04 U	0.02 J	0.04 U	0.04 U	0.04 U
Chlordane	0.03	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Endrin	0.02	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U	0.0006 U
Heptachlor & Heptachlor epoxide	0.008	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U
gamma-BHC (Lindane)	0.4	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U
Methoxychlor	10	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Toxaphene	0.5	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
2,4-D	10	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2,4,5-TP	1.0	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

TABLE A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT88-0610 LPT880 03/27/96 mg/L	LPT88-1016 LPT881 03/27/96 mg/L	LPT92-1016 LPT921 03/28/96 mg/L	LPT93-1018 LPT931 03/27/96 mg/L	LPT97-1214 LPT971 03/27/96 mg/L	LPT102-1012 LP1021 04/9/96 mg/kg	LPT103-1214 LP1031 03/27/96 mg/kg
Arsenic	5.0	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.036 U	0.039 U
Barium	100	0.30	0.11 B	0.57	0.44	0.29	0.57	0.29
Cadmium	1.0	0.0034 U	0.021	0.17	0.54	0.13	0.0024 U	0.42
Chromium	5.0	0.0074 U	0.0074 U	0.032	0.05	0.0074 U	0.06	0.020
Lead	5.0	0.038 U	0.038 U	0.039	0.038 U	0.04 J	0.064	0.071
Mercury	0.2	0.0002 U	0.00064	0.0002 U	0.00088	0.0002 U	0.00027	0.0002 U
Selenium	1.0	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	0.071	0.096 U
Silver	5.0	0.009 U	0.009 U	0.009 U	0.009 U	0.009 U	0.004 U	0.009 U
pH	--	5.35	3.68	6.65	9.55	4.90	9.85	5.96
Corrosivity (inch/yr)	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ignibility (degrees F)	--	> 212	> 212	> 212	> 212	> 212	> 212	> 212
Reactivity S+CN (ppm/ppm)	--	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U	1/1 U

TAL . A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT104-1214 LP1041 03/27/96 mg/kg	LPT111-1214 LP1112 03/27/96 mg/kg	LPT112-1214 LP1122 03/27/96 mg/kg	LPT116-1018 LP1161 04/9/96 mg/kg
Vinyl chloride	0.2	0.05 U	0.05 U	0.05 U	0.05 U
1,1-Dichloroethene	0.7	0.05 U	0.05 U	0.05 U	0.05 U
Chloroform	6.0	0.05 U	0.05 U	0.05 U	0.05 U
1,2-Dichloroethane	0.5	0.05 U	0.05 U	0.05 U	0.05 U
2-Butanone	200	0.05 U	0.05 U	0.05 U	0.05 U
Carbon tetrachloride	0.5	0.05 U	0.05 U	0.05 U	0.05 U
Trichloroethene	0.5	0.05 U	0.01 J	0.05 U	0.05 U
Benzene	0.5	0.05 U	0.05 U	0.05 U	0.05 U
Tetrachloroethene	0.7	0.05	0.02 J	0.02 J	0.05 U
Chlorobenzene	100	0.05 U	0.05 U	0.05 U	0.05 U
2-Methylphenol	200	0.04 U	0.04 UJ	0.04 U	0.04 U
3&4-Methylphenol	200	0.08 U	0.08 UJ	0.08 U	0.01 J
2,4-Dinitrotoluene	0.13	0.04 U	0.04 UJ	0.04 U	0.04 U
Hexachlorobenzene	0.13	0.04 U	0.04 UJ	0.04 U	0.04 U
Hexachlorobutadiene	0.5	0.04 U	0.04 UJ	0.04 U	0.04 U
Hexachloroethane	3.0	0.04 U	0.04 UJ	0.04 U	0.04 U
Nitrobenzene	2.0	0.04 U	0.04 UJ	0.04 U	0.04 U
Pentachlorophenol	100	0.20 U	0.20 UJ	0.20 U	0.20 U
Pyridine	5.0	0.04 U	0.04 UJ	0.04 U	0.04 U
2,4,5-Trichlorophenol	400	0.04 U	0.04 UJ	0.04 U	0.04 U
2,4,6-Trichlorophenol	2.0	0.04 U	0.04 UJ	0.04 U	0.04 U
1,4-Dichlorobenzene	7.5	0.04 U	0.04 UJ	0.04 U	0.04 U
Chlordane	0.03	0.003 U	0.003 U	0.003 U	0.003 U
Endrin	0.02	0.0006 U	0.0006 U	0.0006 U	0.0006 U
Heptachlor & Heptachlor epoxide	0.008	0.0003 U	0.0003 U	0.0003 U	0.0003 U
gamma-BHC (Lindane)	0.4	0.0003 U	0.0003 U	0.0003 U	0.0003 U
Methoxychlor	10	0.003 U	0.003 U	0.003 U	0.003 U
Toxaphene	0.5	0.03 U	0.03 U	0.03 U	0.03 U
2,4-D	10	0.1 U	0.1 U	0.1 U	0.1 U
2,4,5-TP	1.0	0.02 U	0.02 U	0.02 U	0.02 U

TABLE A-3
TCLP/RCRA PARAMETERS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	Maximum Concentrations for Toxicity Characteristic (ppm)	LPT104-1214 LP1041 03/27/96 mg/kg	LPT111-1214 LP1112 03/27/96 mg/kg	LPT112-1214 LP1122 03/27/96 mg/kg	LPT116-1018 LP1161 04/9/96 mg/kg
Arsenic	5.0	0.039 U	0.039 U	0.039 U	0.088
Barium	100	0.21	0.22	0.55	0.6
Cadmium	1.0	0.56	0.35	0.61	0.0066
Chromium	5.0	0.011	0.027	0.022	0.094
Lead	5.0	0.14	0.038 U	0.043	0.032
Mercury	0.2	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Selenium	1.0	0.096 U	0.096 U	0.096 U	0.031 U
Silver	5.0	0.009 U	0.009 U	0.009 U	0.004 U
pH	--	5.42	5.35	6.38	7.50
Corrosivity (inch/yr)	--	0.01 U	0.01 U	0.01 U	0.01 U
Ignibibility (degrees F)	--	> 212	> 212	> 212	> 212
Reactivity S+CN (ppm/ppm)	--	1/1 U	1/1 U	1/1 U	1/1 U

TABLE A-4
TCL VOLATILE ORGANIC COMPOUNDS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (ug/kg)	LPT40-1618 LPT406 04/1/96 ug/kg	LPT49-0002 LPT490 03/26/96 ug/kg	LPT109-0210 LP1090 04/9/96 ug/kg	RB-032696 RB0326 03/26/96 ug/L
Chloromethane	--	11 U	12 U	11 U	10 U
Bromomethane	--	11 U	12 U	11 U	10 U
Vinyl chloride	200	11 U	310 E	11 U	10 U
Chloroethane	1,900	11 U	12 U	11 U	10 U
Methylene chloride	100	11 U	28 U	11 U	9 JB
Acetone	200	11 U	35	11 U	10 U
Carbon disulfide	2,700	11 U	12 U	11 U	10 U
1,1-Dichloroethene	200	11 U	16	11 U	10 U
1,1-Dichloroethane	400	11 U	1,400 D	11 U	10 U
1,2-Dichloroethene (total)	300	11 U	9,000 D	11 U	10 U
Chloroform	300	11 U	12 U	11 U	10 U
1,2-Dichloroethane	100	11 U	12 U	11 U	10 U
2-Butanone	300	11 U	130	11 U	10 U
1,1,1-Trichloroethane	800	11 U	13,000 D	11 U	10 U
Carbon tetrachloride	600	11 U	12 U	11 U	10 U
Bromodichloroemethane	--	11 U	12 U	11 U	10 U
1,2-Dichloropropane	--	11 U	12 U	11 U	10 U
cis-1,3-Dichloropropene	--	11 U	12 U	11 U	10 U
Trichloroethene	700	11 U	28,000 D	11 U	10 U
Dibromochloromethane	60	11 U	12 U	11 U	10 U
1,1,2-Trichloroethane	--	11 U	34	11 U	10 U
Benzene	--	11 U	2 J	11 U	10 U
trans-1,3-Dichloropropene	--	11 U	12 U	11 U	10 U
Bromoform	--	11 U	12 U	11 U	10 U
4-Methyl-2-pentanone	1,000	11 U	120	11 U	10 U
2-Hexanone	--	11 U	12 U	11 U	10 U
Tetrachloroethene	600	23	82	11 U	10 U
1,1,2,2-Tetrachloroethane	1,400	11 U	12 U	11 U	10 U
Toluene	1,500	11 U	1,000 JD	11 U	10 U
Chlorobenzene	1,700	11 U	1 J	11 U	10 U
Ethylbenzene	5,500	11 U	20	11 U	10 U
Styrene	--	11 U	12 U	11 U	10 U
Xylenes (total)	1,200	11 U	100	11 U	10 U
Volatile TICs		84 J	2,020 J	--	--

TA_ _E A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT01-0210 LPT010 04/08/96 mg/kg	LPT01-1015 LPT011 04/08/96 mg/kg	LPT01-1516 LPT015 04/08/96 mg/kg	LPT01-1820 LPT018 04/08/96 mg/kg	LPT03-1618 LPT316 03/22/96 mg/kg	LPT03-2022 LPT032 03/22/96 mg/kg	LPT04-1416 LPT044 04/01/96 mg/kg	LPT04-1820 LPT048 04/01/96 mg/kg
Aluminum	--	2,760	2,560	1,290	3,770	707	1,080	723	1,270
Antimony	--	0.78 U	0.88 U	0.79 B	0.81 U	1.6 U	1.7 U	1.6 U	1.7 U
Arsenic	7.5	2.5	1.7 B	2.9 J	0.33 U	0.99 U	1.4 B	0.98 U	1 U
Barium	300	14.9 B	22.8 B	18.8 B	23 B	13.7 B	12.7 B	7.4 B	10 B
Beryllium	0.16	0.16 B	0.12 B	0.02 U	0.02 U	0.04 U	0.04 U	0.04 U	0.05 B
Cadmium	1.0	0.08 U	103	171	20.5	2	0.69 U	0.06 U	0.23 B
Calcium	--	51.7 B	140 B	181 B	1,010 B	102 B	121 B	56.3 U	161 B
Chromium	10	6.3	16	18.6	21.1	7.7	8	6.8	4.9
Cobalt	30	3.4 B	3.6 B	0.31 B	2.1 B	0.47 B	0.68 B	0.94 U	0.96 U
Copper	25	7.2	55.6	216	80.5	28.8	21.7	10.6	21.5
Iron	2,000	9,710	7,590	4,860 J	8,000	4,170	5,320	2,170	4,490
Lead	--	2.8	8.6	6.6	3.1	2	2.7	1.8	2.5
Magnesium	--	280 B	297 B	166 B	1,930	110 B	236 B	115 B	304 B
Manganese	--	147	151	9.1	91.3	8.5	26.8	10	14.2
Mercury	0.1	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11	0.14	0.11 U
Nickel	13	3.3 B	4.1 B	2 B	5.1 B	1.3 B	1.4 B	0.92 B	1.9 B
Potassium	--	431 B	529 B	213 U	1,040 B	102 U	202 B	316 B	212 U
Selenium	2.0	0.75 B	0.72 U	0.64 U	0.67 U	0.85 U	0.90 U	0.85 U	0.91 U
Silver	--	0.14 U	0.71 B	0.54 B	0.15 U	0.39 B	0.27 U	2	1.4 B
Sodium	--	102 U	115 U	103 U	107 U	117 U	123 U	133 B	70.6 U
Thallium	--	0.67 B	0.95 B	0.42 U	0.83 B	1.1 U	1.1 U	1.1 U	1.2 U
Vanadium	150	12.4	9 B	3.5 B	11.7	2.2 B	3.5 B	2.2 B	2.9 B
Zinc	20	15.1	29.1	27.6	23.3	7.9	12.5	8.7	7.8

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT06-1618 LPT616 03/25/96 mg/kg	LPT06-2022 LPT620 03/25/96 mg/kg	LPT08-0210 LPT080 04/04/96 mg/kg	LPT08-1014 LPT081 04/04/96 mg/kg	LPT08-1416 LPT084 04/04/96 mg/kg	LPT08-1618 LPT086 04/04/96 mg/kg	LPT15-1820 LPT158 03/22/96 mg/kg	LPT15-2224 LPT152 03/22/96 mg/kg
Aluminum	--	937	1,200	5,330	5,480	999	1,610	1,030	1,170 J
Antimony	--	1.7 U	1.7 U	1.9 U	1.9 U	1.7 U	1.7 U	1.7 U	1.6 U
Arsenic	7.5	1.1 B	0.99 U	3.5	2.7	1 U	1 U	1 U	0.99 U
Barium	300	11.7 B	10.1 B	19.3 B	51.9	26.3 B	16.4 B	11.8 B	4.4 B
Beryllium	0.16	0.04 U	0.04 U	0.05 U	0.09 B	0.04 U	0.04 U	0.04 U	0.04 U
Cadmium	1.0	0.74 B	0.85 B	0.56 B	329	4.1	0.61 B	10.8	0.66 U
Calcium	--	117 B	311 B	2,590	820 B	77.1 B	63.2 B	110 B	101 JB
Chromium	10	11.4	5.7	12.7	54.4	6.3	10.7	12.9	3.8
Cobalt	30	0.32 U	0.4 B	3.2 B	3.1 B	0.41 B	0.7 B	0.39 B	0.58 JB
Copper	25	28.7	31.3	25	1,430	19.6	34.9	60.1	12.7
Iron	2,000	2,350	4,040	7,950	7,100	1,590	3,370	3,200	3,330 J
Lead	--	2.2	1.5	14.8	33.5	2.6	1.8	10.9	1.9
Magnesium	--	157 B	405 B	1,700	697 B	193 B	294 B	232 B	263 B
Manganese	--	7.8	22.1	108	121	10.2	16.3	12.4	19.6 J
Mercury	0.1	0.1 U	0.11 U	0.12 U	0.31	0.1 U	0.1 U	0.35	0.1 U
Nickel	13	1.2 B	2 B	6.4 B	11.8	1.3 B	2.6 B	2.1 B	2.5 B
Potassium	--	156 B	156 B	349 B	424 B	212 B	278 B	168 B	136 B
Selenium	2.0	0.87 U	0.85 U	1 U	1 U	0.86 U	0.88 U	0.86 U	0.85 U
Silver	--	0.37 B	0.41 B	0.3 U	7.7	0.25 U	0.26 U	10	0.7 B
Sodium	--	120 U	117 U	163 B	2,660	886 B	343 B	766 B	180 B
Thallium	--	1.1 U	1.1 U	1.3 U	1.3 U	1.1 U	1.1 U	1.1 U	1.1 U
Vanadium	150	3.7 B	3.6 B	13.8	8.6 B	2.2 B	3.8 B	2.9 B	2.4 B
Zinc	20	10.8	14.4	51.9	393	10.3	10.3	34.3	12.4 J

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT16-1920 LPT161 03/22/96 mg/kg	LPT16-2324 LPT162 03/22/96 mg/kg	LPT19-1013 LPT191 04/01/96 mg/kg	LPT19-1315 LPT193 04/01/96 mg/kg	LPT19-1315D LPT19D 04/01/96 mg/kg	LPT19-1618 LPT196 04/01/96 mg/kg	LPT20-0210 LPT200 04/02/96 mg/kg	LPT20-1718 LPT207 04/02/96 mg/kg
Aluminum	--	1,590	2,440	8,990	1,230	1,060	2,210	4,220	1,150
Antimony	--	1.7 U	1.7 U	5.6 B	1.7 U	1.7 U	1.7 U	2 U	1.7 U
Arsenic	7.5	1.3 B	1.7 B	5.3	1 U	1 U	1 U	2.7	1 U
Barium	300	10.6 B	3.6 B	255	12.8 B	10.1 B	10.5 B	24.8 B	11.5 B
Beryllium	0.16	0.04 U	0.07 B	0.36 B	0.07 B	0.05 B	0.12 B	0.1 B	0.04 B
Cadmium	1.0	2.3	0.67 U	1,340	0.72 B	0.59 B	0.06 U	3	1,370
Calcium	--	220 B	136 B	3,910	90.3 B	91.2 B	76.6 B	183 B	112 B
Chromium	10	8.9	8.8	334	6.1	4.6	12.6	9.3	21.3
Cobalt	30	1.1 B	0.52 B	10.5 B	0.93 U	0.93 U	0.97 U	4.5 B	0.32 U
Copper	25	31.8	18.8	14,100	23.5	17.5	25.2	10.1	7.9
Iron	2,000	4,660	6,920	17,800	2,950	2,440	9,880	7,930	3,650
Lead	--	10.9	2.8	450	2.1	1.9	2.7	7.1	2.2
Magnesium	--	304 B	138 B	5,320	241 B	196 B	242 B	373 B	245 B
Manganese	--	17.3	11.8	504	12.2	9	11.3	195	18.3
Mercury	0.1	0.21	0.12	3.1	0.1 U	0.1 U	0.11	0.12 U	0.1 U
Nickel	13	2.7 B	1.1 B	36.6	1.4 B	1.7 B	2.7 B	4.8 B	0.61 B
Potassium	--	164 B	104 U	366 B	206 U	222 B	215 U	250 U	416 B
Selenium	2.0	0.86 U	0.87 U	3	0.89 U	0.88 U	1.1	1 U	0.89 U
Silver	--	2.6	1.1 B	26.3	0.26 U	0.26 U	0.27 U	0.31 U	0.26 U
Sodium	--	226 B	119 U	10,800	967 B	935 B	679 B	80.8 U	69.5 U
Thallium	--	1.1 U	1.1 U	2.4 B	1.1 U	1.1 U	1.1 U	1.3 U	1.1 U
Vanadium	150	2.7 B	6.3 B	13	2.9 B	2.7 B	4.3 B	12.1	2.7 B
Zinc	20	26.3	18.7	2,460	28.1 J	15 J	15.4	19.9	51

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT20-2022 LPT202 04/02/96 mg/kg	LPT21-0210 LPT210 04/03/96 mg/kg	LPT21-1017 LPT211 04/03/96 mg/kg	LPT21-1718 LPT217 04/03/96 mg/kg	LPT21-2123 LPT213 04/03/96 mg/kg	LPT24-1820 LPT248 04/05/96 mg/kg	LPT24-2224 LPT242 04/05/96 mg/kg	LPT25-1618 LPT256 03/22/96 mg/kg
Aluminum	--	1,170	2,790	5,440	3,960	1,610	758	486	738
Antimony	--	1.7 U	0.84 U	3.5 B	0.77 U	2.1 B	0.81 U	0.74 U	1.6 U
Arsenic	7.5	1 U	10	5.5	0.56 B	1.9 B	0.33 U	0.49 B	0.98 U
Barium	300	8.3 B	8.4 B	150	19.4 B	15.1 B	10.8 B	12.1 B	7.6 B
Beryllium	0.16	0.04 U	0.25 B	0.34 B	0.02 B	0.15 B	0.04 B	0.04 B	0.04 U
Cadmium	1.0	106	0.32 B	1,000	1.5	58.5	5	3	19.1
Calcium	--	105 B	170 B	13,000	312 B	481 B	75.7 B	66.2 B	101 B
Chromium	10	7.5	25.5	159	18.8	32.6	9.5	7	3.3
Cobalt	30	0.32 U	2.9 B	8.2 B	0.5 B	1.7 B	0.17 U	0.15 U	0.31 U
Copper	25	17.7	12.2	4,040	7.3	342	46.9	35.3	23
Iron	2,000	2,870	24,300	34,100	2,840	4,200	1,970	1,640	2,760
Lead	--	1.5	6.7	484	1.5	19.4	1.6	1.2	1.9
Magnesium	--	313 B	287 B	1,770	343 B	268 B	148 B	77.3 B	136 B
Manganese	--	16.8	46.8	300	17.1	42	8.3	7.1	8.2
Mercury	0.1	0.1 U	0.18	3.7	0.27	1.4	0.1 U	0.1 U	0.1 U
Nickel	13	1.9 B	4.2 B	52.4	2 B	11	1.3 B	0.75 B	1.4 B
Potassium	--	213 U	360 B	281 B	281 B	120 B	219 U	202 U	101 U
Selenium	2.0	0.88 U	2	3.2	0.63 U	0.89 U	0.66 U	0.61 U	0.85 U
Silver	--	0.26 U	0.15 U	88.9	0.14 B	6.3	0.14 U	0.13 U	0.39 B
Sodium	--	68.8 U	110 U	1,330 B	1,230	272 B	113 B	125 B	116 U
Thallium	--	1.1 U	2 B	2.1 B	0.41 U	1.1 U	0.43 U	0.4 U	1.1 U
Vanadium	150	2.8 B	29.1	8.5 B	2.3 B	4 B	2 B	1.3 B	1.9 B
Zinc	20	15.2	27.7	2,270	13.2	150	18.5	9.3	13.7

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT25-2022 LPT252 03/22/96 mg/kg	LPT26-1516 LPT265 03/22/96 mg/kg	LPT26-1921 LPT269 03/22/96 mg/kg	LPT27-1618 LPT276 03/25/96 mg/kg	LPT27-2022 LPT272 03/25/96 mg/kg	LPT28-0210 LPT280 03/26/96 mg/kg	LPT28-1016 LPT281 03/26/96 mg/kg	LPT28-1618 LPT286 03/26/96 mg/kg
Aluminum	--	1,190	1,010	1,310	866	1,280	4,040	4,050	1,090
Antimony	--	1.7 U	1.7 U	1.7 U	1.6 U	1.7 U	0.81 U	0.91 U	0.74 U
Arsenic	7.5	3	0.99 U	1 U	0.98 U	1 U	1.2 B	4.2	0.3 U
Barium	300	6.8 B	10.7 B	7 B	9.5 B	10.6 B	12.8 B	18.8 B	7.2 B
Beryllium	0.16	0.04 U	0.08 B	0.04 U	0.04 U	0.04 U	0.02 U	0.02 U	0.02 U
Cadmium	1.0	44.6	3.1	3.1	0.65 U	0.69 U	0.08 U	57.2	47.6
Calcium	--	119 B	147 B	156 B	88.6 B	187 B	133 B	402 B	69.2 B
Chromium	10	4.1	6.4	4.9	11.3	7.4	5.6	24.7	14.2
Cobalt	30	0.72 B	0.61 B	0.93 B	0.36 B	0.75 B	2.8 B	3.3 B	0.39 B
Copper	25	36.7	45.9	28.3	17.6	14.7	9	530	108
Iron	2,000	4,740	4,850	3,180	2,720	4,610	6,030	13,600	6,350
Lead	--	2	5.7	5.2	4.1	2.2	3.5	19.7	1.9
Magnesium	--	288 B	165 B	315 B	205 B	370 B	380 B	470 B	127 B
Manganese	--	17.7	25.1	24.3	11.1	18.8	89.5	151	11.1
Mercury	0.1	0.22	0.19	0.1 U	0.1 U	0.1 U	0.11 U	0.53	0.1 U
Nickel	13	2.2 B	1.5 B	2.5 B	1.4 B	3.3 B	3.2 B	9.1 B	1.8 B
Potassium	--	206 B	102 U	179 B	128 B	187 B	317 B	502 B	201 U
Selenium	2.0	0.88 U	0.85 U	0.89 U	0.84 U	0.89 U	0.67 U	0.74 U	0.61 U
Silver	--	0.26 U	0.85 B	1.5 B	0.25 U	0.26 U	0.15 U	5.4	0.13 U
Sodium	--	120 U	117 U	122 U	115 U	122 U	106 U	119 U	96.8 U
Thallium	--	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.44 U	0.49 U	0.4 U
Vanadium	150	2.7 B	2.7 B	3 B	2.1 B	3 B	10 B	15.9	4 B
Zinc	20	23.1	62.3	53.8	16.6	15.6	13.6	63.5	31.2

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT28-2022 LPT282 03/26/96 mg/kg	LPT29-0410 LPT290 04/01/96 mg/kg	LPT29-1014 LPT291 04/01/96 mg/kg	LPT29-1416 LPT294 04/01/96 mg/kg	LPT29-1820 LPT298 04/01/96 mg/kg	LPT30-0010 LPT300 04/02/96 mg/kg	LPT30-1018 LPT301 04/02/96 mg/kg	LPT30-1820 LPT308 04/02/96 mg/kg
Aluminum	--	1,620	5,840	5,670	842	1,100	2,980	11,900	1,100
Antimony	--	0.75 U	2.1 U	3.1 B	1.7 U	1.7 U	1.8 U	2.8 U	1.6 U
Arsenic	7.5	0.43 B	3.8	5	1 U	1 U	2.5	2.3 B	0.96 U
Barium	300	8.6 B	55.9	51.4	13.0 B	8 B	21.6 B	65.2 B	10.1 B
Beryllium	0.16	0.02 U	0.23 B	0.25 B	0.06 B	0.05 B	0.07 B	0.18 B	0.04 U
Cadmium	1.0	32.8	67.5	136	0.45 B	0.66 B	3.3	577	3.3
Calcium	--	116 B	644 B	1,090 B	85.1 B	110 B	1,260	852 B	77.5 B
Chromium	10	6.3	117	187	19	3.6	9.9	211	8.5
Cobalt	30	0.81 B	3.4 B	3.2 B	0.94 U	0.96 U	2.7 B	5.2 B	0.32 B
Copper	25	570	1,610	2,360	15.2	12.8	69.7	15,300	62.4
Iron	2,000	4,080	9,840	9,990	1,580	1,940	5,500	11,600	1,570
Lead	--	2.5	94.3	122	1.8	1.8	8.6	159	2.1
Magnesium	--	283 B	806 B	951 B	128 B	238 B	437 B	5,360	185 B
Manganese	--	31.4	223	412	7.7	11.1	109	1,340	13.6
Mercury	0.1	0.1 U	0.51	0.47	0.16	0.1 U	0.11 U	0.56	0.1 U
Nickel	13	3 B	14.7	20.4	2.1 B	1.3 B	3 B	21.9	0.92 B
Potassium	--	413 B	299 B	266 B	307 B	261 B	257 B	398 B	201 U
Selenium	2.0	0.61 U	1.6	2.1	0.9 U	0.89 U	0.91 U	1.8	0.83 U
Silver	--	0.13 U	3.6	4.6	0.27 U	0.26 U	0.27 U	13.6	0.25 U
Sodium	--	97.7 U	2,870	3,660	759 B	161 B	171 B	4,100	370 B
Thallium	--	0.4 U	1.4 U	1.2 U	1.1 U	1.1 U	1.2 U	2.8 B	1.1 U
Vanadium	150	4.2 B	11.6 B	11.1	2.2 B	2 B	8.8 B	8.8 B	1.5 B
Zinc	20	42.7	865	1,200	57.7	9.5	34.8	3,540	30.2

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT30-2022 LPT302 04/02/96 mg/kg	LPT31-0210 LPT312 04/03/96 mg/kg	LPT31-1017 LPT311 04/03/96 mg/kg	LPT31-1718 LPT317 04/03/96 mg/kg	LPT31-2022 LPT314 04/03/96 mg/kg	LPT32-0210 LPT320 04/04/96 mg/kg	LPT32-1016 LPT321 04/04/96 mg/kg	LPT32-1016D LPT32D 04/04/96 mg/kg
Aluminum	--	2,110	3,120	8,650	2,190	1,570	2,870	3,510	5,910
Antimony	--	1.7 U	1.8 U	1.5 B	1.9 U	0.76 U	1.9 U	0.87 U	1.9 U
Arsenic	7.5	1 U	1.8 B	1.2 B	1.2 U	0.31 U	9.7	5.3	11.8
Barium	300	16.9 B	12.8 B	69.1	11.2 B	8 B	11.5 B	92.8	75.7
Beryllium	0.16	0.04 U	0.07 B	0.37 B	0.05 U	0.07 B	0.2 B	0.18 B	0.35 B
Cadmium	1.0	2.9	0.48 B	1,220	2.9	2.3	0.58 B	259	362
Calcium	--	89.6 B	129 B	898 B	160 B	106 B	150 B	411 B	1,110
Chromium	10	6.8	8.5	180	9.7	5.1	18.9	45.7	71.9
Cobalt	30	0.57 B	2.8 B	8.9 B	0.41 B	0.36 B	2.8 B	3 B	4.8 B
Copper	25	29.6	15.6	11,500	22.7	20.4	16.1	1,300	1,910
Iron	2,000	2,610	5,450	10,700	2,620	1,950	14,600	13,500	30,900
Lead	--	1.8	4.5	328	2.6	2.7	6.3	34.9	59.3
Magnesium	--	400 B	250 B	5,480	214 B	177 B	241 B	799 B	1,210
Manganese	--	17.8	22.4	1,030	14.1	11.3	35.4	165	285
Mercury	0.1	0.1 U	0.11 U	0.79	0.31	0.13	0.21	0.18	0.38
Nickel	13	1.5 B	2.8 B	28.9	1.7 B	1.1 B	3.2 B	5.4 B	9.8
Potassium	--	323 B	222 U	310 B	166 B	128 B	314 B	264 B	260 B
Selenium	2.0	0.89 U	0.92 U	2.2	1 U	0.63 U	0.97 U	1 B	1.7
Silver	--	0.26 U	0.27 U	53.8	0.3 U	0.14 U	0.29 U	5.9	9.3
Sodium	--	492 B	71.9 U	2,460	1,160	388 B	129 B	172 B	249 B
Thallium	--	1.1 U	1.2 U	2.8	1.3 U	0.58 B	1.3 B	1.8 B	2.4
Vanadium	150	2.2 B	8.8 B	8.7 B	2.1 B	2 B	27.3	20.2	35.3
Zinc	20	20.6	17.9	5,430	19.8	16.5	23.2	537	781

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT32-1617 LPT326 04/04/96 mg/kg	LPT32-1820 LPT328 04/04/96 mg/kg	LPT34-0010 LPT340 04/08/96 mg/kg	LPT34-1012 LPT341 04/08/96 mg/kg	LPT34-1214 LPT342 04/08/96 mg/kg	LPT34-1618 LPT346 04/08/96 mg/kg	LPT36-1618 LPT366 03/25/96 mg/kg	LPT36-2022 LPT362 03/25/96 mg/kg
Aluminum	--	1,930	1,940	4,230	6,280	959	823	827	1,500
Antimony	--	1.6 U	1.7 U	0.81 U	0.96 U	0.82 U	0.8 U	1.8 U	1.7 U
Arsenic	7.5	0.97 U	1 U	2.2	2.7	1.9 B	0.86 B	1.1 U	1 U
Barium	300	15.9 B	21 B	22 B	27 B	10.3 B	10.3 B	35.8 B	15.5 B
Beryllium	0.16	0.04 U	0.05 B	0.02 U	0.28 B	0.03 B	0.04 B	0.04 U	0.04 U
Cadmium	1.0	9	1.5	0.08 U	10.6	10.2	2.8	15	7.8
Calcium	--	129 B	133 B	2,220	586 B	60.5 B	98.3 B	181 B	545 B
Chromium	10	6.9	4.1	7.4	13.4	9.9	6.9	12.5	9.4
Cobalt	30	0.44 B	0.44 B	6.2 B	2.9 B	0.29 B	0.54 B	0.33 U	0.95 B
Copper	25	74.7	16.1	34.9	50.9	48.9	31.1	67.3	36.9
Iron	2,000	2,480	2,440	11,900	12,600	2,350	1,620	2,220	3,550
Lead	--	4.1	1.4	5.6	7.9	5.2	4.3	6.1	6.9
Magnesium	--	238 B	195 B	1,830	948 B	120 B	238 B	178 B	456 B
Manganese	--	19.6	14.4	126	67.7	5.2	8.5	16.8	41.4
Mercury	0.1	0.2	0.1 U	0.11 U	0.12 U	2.2	1.2	0.11 U	0.11 U
Nickel	13	1.2 B	1.5 B	6.6 B	7.9 B	0.62 B	0.74 B	1.7 B	2.2 B
Potassium	--	201 U	218 U	857 B	1,080 B	182 B	266 B	110 U	174 B
Selenium	2.0	0.83 U	0.9 U	0.67 U	0.78 U	0.67 U	0.66 U	0.92 U	0.86 U
Silver	--	0.25 U	0.27 U	0.15 U	2.6	7.1	0.8 B	1.1 B	0.28 B
Sodium	--	706 B	101 B	327 B	147 B	158 B	136 B	125 U	118 U
Thallium	--	1.1 U	1.2 U	1.5 B	2.5	0.71 B	0.97 B	1.2 U	1.1 U
Vanadium	150	2.8 B	2.1 B	30.2	25.5	3.3 B	2.4 B	2.6 B	4.9 B
Zinc	20	35.3	15.9	24.6	31.3	16.3	13.8	17	16.2

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT37-1618 LPT376 03/25/96 mg/kg	LPT37-2022 LPT370 03/25/96 mg/kg	LPT38-2224 LPT382 03/25/96 mg/kg	LPT39-1820 LPT398 03/26/96 mg/kg	LPT39-2224 LPT392 03/26/96 mg/kg	LPT40-0410 LPT400 04/01/96 mg/kg	LPT40-1016 LPT401 04/01/96 mg/kg	LPT40-1618 LPT406 04/01/96 mg/kg
Aluminum	--	830	1,250	1,330	1,380	1,390	2,780	4,580	3,220
Antimony	--	1.7 U	1.7 U	1.7 U	0.81 U	0.78 U	0.86 U	0.91 U	0.78 U
Arsenic	7.5	1 U	1 U	1 U	0.33 U	1.7 B	2.1 B	0.73 B	1.2 B
Barium	300	10.5 B	7.6 B	8.4 B	13 B	4.6 B	13.5 B	21.9 B	11.7 B
Beryllium	0.16	0.04 U	0.04 U	0.04 U	0.02 U	0.02 U	0.07 B	0.06 B	0.12 B
Cadmium	1.0	1.6	0.69 U	0.68 U	9.4	0.2 B	0.09 U	22.7	5.2
Calcium	--	100 B	110 B	59 U	76.8 B	71.5 B	154 B	262 B	233 B
Chromium	10	6	5.8	7.5	10.5	6.2	6.6	40.1	9.7
Cobalt	30	0.31 U	0.7 B	0.32 U	0.59 B	0.68 B	2.7 B	1.9 B	1.8 B
Copper	25	14.1	8.9	46.4	100	14.3	55.1	1,200	137
Iron	2,000	3,090	4,190	3,110	3,430	5,830	6,400	4,680	3,860
Lead	--	2.1	2.1	1.5	2.1	1.5	4.5	26.5	7
Magnesium	--	137 B	296 B	169 B	288 B	145 B	345 B	814 B	310 B
Manganese	--	10.1	20.9	10.7	15.2	16.6	146	181	94.4
Mercury	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.12 U	0.35	1.4
Nickel	13	1.3 B	2.1 B	1.6 B	1.7 B	2.3 B	2.8 B	6.1 B	2.3 B
Potassium	--	103 U	232 B	109 B	297 B	246 B	335 B	529 B	212 U
Selenium	2.0	0.86 U	0.89 U	0.89 U	0.67 U	0.64 U	0.7 U	0.75 U	0.64 U
Silver	--	0.25 U	0.26 U	0.26 U	0.15 U	0.14 U	0.15 U	5.4	0.92 B
Sodium	--	118 U	122 U	121 U	106 U	135 B	228 B	2,560	764 B
Thallium	--	1.1 U	1.1 U	1.1 U	0.44 U	0.42 U	1.2 B	1.4 B	0.42 U
Vanadium	150	1.9 B	3.5 B	2.4 B	3.3 B	6.6 B	10.2 B	5.6 B	5.4 B
Zinc	20	10	11.1	9.4	22.2	15.4	15.1	302	51.4

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT40-2022 LPT402 04/01/96 mg/kg	LPT41-0210 LPT410 04/02/96 mg/kg	LPT41-1017 LPT411 04/02/96 mg/kg	LPT41-1718 LPT417 04/02/96 mg/kg	LPT41-2022 LPT412 04/02/96 mg/kg	LPT42-0410 LPT420 04/03/96 mg/kg	LPT42-1018 LPT421 04/03/96 mg/kg	LPT42-1018D LPT42D 04/03/96 mg/kg
Aluminum	--	995	2,860	2,810	1,020	1,970	4,720	6,090	6,390
Antimony	--	0.8 U	1.7 U	1.1 U	0.78 U	1.7 U	1.9 U	2.5 U	2.5 U
Arsenic	7.5	0.33 U	2.4	1.5 B	0.32 U	1 U	1.5 B	2.1 B	2.7 B
Barium	300	8.2 B	12.6 B	15.6 B	8.4 B	16.9 B	13.9 B	30.9 JB	122 J
Beryllium	0.16	0.05 B	0.09 B	0.03 U	0.04 B	0.04 U	0.05 U	0.06 U	0.11 B
Cadmium	1.0	0.08 U	0.22 B	5.3	0.48 B	0.66 B	0.07 U	2.6 J	33.2 J
Calcium	--	78.5 B	92.5 B	218 B	69.6 B	112 B	99.3 B	582 JB	2,480 J
Chromium	10	13.4	6.8	17.1	8	15.6	5.6	25.8 J	113 J
Cobalt	30	0.2 B	2.9 B	0.68 B	0.16 U	0.64 B	2.7 B	3.9 B	5.2 B
Copper	25	15.7	8.4	56.2	11.8	48.4	6.3	108 J	818 J
Iron	2,000	2,460	5,650	4,990	1,130	2,790	6,030	7,990 J	15,600 J
Lead	--	2.2	5.4	8.4	0.9	3.3	3.3	79 J	162 J
Magnesium	--	159 B	240 B	452 B	127 B	373 B	303 B	486 B	699 B
Manganese	--	16.6	124	25.2	6.3	18.7	97.1	117	165
Mercury	0.1	0.1 U	0.11 U	3.3	0.1 U	0.1 U	0.32	0.89 J	0.86
Nickel	13	1.8 B	3.1 B	2.4 B	0.4 B	1.2 B	3.1 B	6.3 JB	15.3 J
Potassium	--	217 U	213 U	281 B	115 U	246 B	242 U	313 U	493 B
Selenium	2.0	0.65 U	0.89 U	0.91 U	0.64 U	0.88 U	1 U	1.3 U	1.4 B
Silver	--	0.14 U	0.26 U	1.1 B	0.14 U	0.26 U	0.3 U	1.6 JB	4.3 J
Sodium	--	409 B	401 B	1,890	1,020	1,370	667 B	1,840	2,930
Thallium	--	0.43 U	1.1 U	1.1 B	0.42 U	1.1 U	1.3 U	1.7 U	1.6 U
Vanadium	150	1.1 B	8.3 B	5.3 B	1.1 B	2.5 B	9.7 B	12.6 B	11 B
Zinc	20	13.1	15.8	38.8	21	33.9	12.9	77.5 J	566 J

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT42-1820 LPT428 04/03/96 mg/kg	LPT42-2224 LPT422 04/03/96 mg/kg	LPT43-1618 LPT436 04/04/96 mg/kg	LPT43-2022 LPT432 04/04/96 mg/kg	LPT45-1417 LPT451 04/08/96 mg/kg	LPT45-1718 LPT457 04/08/96 mg/kg	LPT45-2022 LPT452 04/08/96 mg/kg	LPT48-0010 LPT480 04/08/96 mg/kg
Aluminum	--	694	711	1,040	837	5,570	1,270	2,870	4,590
Antimony	--	1.6 U	1.7 U	2 U	1.8 U	0.83 U	0.78 U	0.77 U	1.1 B
Arsenic	7.5	0.99 U	1 U	1.2 U	1.1 U	3.7	1.7 B	1.4 B	18.7
Barium	300	4.9 B	6.2 B	12 B	7.2 B	26.2 B	5.3 B	15.7 B	42 B
Beryllium	0.16	0.04 U	0.04 U	0.05 U	0.04 U	0.04 B	0.08 B	0.02 U	0.37 B
Cadmium	1.0	4.2	6.1	1.8	1.7	0.94 B	0.48 B	1.1	8.5
Calcium	--	56.8 U	80.4 B	351 B	66.3 B	1,340	80.2 B	596 B	1,400
Chromium	10	6.3	4.6	10.3	2.9	12.2	3.4	7.1	69.5
Cobalt	30	0.31 U	0.38 B	0.37 U	0.33 U	4.9 B	0.65 B	2 B	3.2 B
Copper	25	17	21.7	25.6	5.9	74.4	32.1	69.6	1,220
Iron	2,000	1,620	1,940	1,750	1,410	11,800	3,840	6,290	19,800
Lead	--	1.5	1.6	2.8	1	15.4	5.9	12.6	53.8
Magnesium	--	168 B	245 B	191 B	129 B	1,570	208 B	689 B	901 B
Manganese	--	10.2	11.4	14.1	7.6	128	11.4	41.8	92.1
Mercury	0.1	0.1 U	0.1 U	0.12 U	0.22	1.6	3.4	0.11 U	0.14 U
Nickel	13	1.6 B	1.2 B	1.2 B	0.92 B	6.3 B	0.71 B	3.8 B	7 B
Potassium	--	206 U	265 B	244 U	221 U	620 B	139 B	357 B	381 B
Selenium	2.0	0.85 U	0.86 U	1 U	0.92 U	0.75 B	0.7 B	0.63 U	2.7
Silver	--	0.25 U	0.25 U	0.3 U	0.27 U	7.1	5.9	11	29.8
Sodium	--	640 B	288 B	99.7 B	85.2 B	108 U	102 U	101 U	198 B
Thallium	--	1.1 U	1.1 U	1.3 U	1.2 U	2 B	1.4 B	0.41 U	0.57 B
Vanadium	150	1.6 B	2 B	1.5 B	1.2 B	19.3	3.7 B	12.8	103
Zinc	20	12.6	10.5	17.8	12.6	33.7	12.5	20	111

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT48-1016 LPT481 04/08/96 mg/kg	LPT48-1618 LPT486 04/08/96 mg/kg	LPT48-2022 LPT482 04/08/96 mg/kg	LPT49-0002 LPT490 03/26/96 mg/kg	LPT51-0010 LPT510 04/05/96 mg/kg	LPT51-1618 LPT516 04/05/96 mg/kg	LPT52-1618 LPT526 03/29/96 mg/kg	LPT53-1618 LPT536 03/26/96 mg/kg
Aluminum	--	2,380	2,820	1,790	8,790	5,290	1,330	1,130	798
Antimony	--	0.81 U	0.81 U	0.77 U	1.9 U	1.7 U	1.7 U	1.7 U	0.79 U
Arsenic	7.5	8.7	9.8	0.79 B	4.8	2.2	1 U	1 U	0.32 U
Barium	300	9.9 B	13.2 B	9.1 B	15.9 B	20.9 B	9.1 B	8.5 B	6.5 B
Beryllium	0.16	0.27 B	0.2 B	0.03 B	0.04 U	0.21 B	0.06 B	0.06 B	0.02 U
Cadmium	1.0	0.08 U	0.08 U	0.08 U	0.41 B	0.06 U	0.36 B	4.4	0.98 B
Calcium	--	388 B	313 B	109 B	7,190	337 B	178 B	102 B	60.4 B
Chromium	10	20	18.2	5.7	19.9	11.9	5.1	9.2	10.2
Cobalt	30	2.1 B	1.5 B	0.62 B	8.5 B	2.7 B	0.56 B	0.97 U	0.23 B
Copper	25	12.7	30.8	20.1	45.4	11.5	17.5	43.1	24
Iron	2,000	21,000	13,400	4,460	16,000	9,050	4,150	4,570	1,870
Lead	--	7.7	7.3	2.8	49.7	5.5	1.7	2.3 J	2.6
Magnesium	--	355 B	425 B	340 B	3,010	409 B	218 B	249 B	131 B
Manganese	--	55.6	39	17.1	143	69.5	14.8	12.6 J	9.3
Mercury	0.1	0.12	0.11 U	0.1 U	2.2	0.11 U	0.11 U	0.11 U	0.11 U
Nickel	13	3.1 B	2.4 B	1.7 B	7.5 B	5.2 B	1.3 B	1.5 B	1.3 B
Potassium	--	223 B	246 B	296 B	329 B	417 B	161 B	214 U	215 U
Selenium	2.0	1	0.66 U	0.63 U	0.97 U	0.87 U	0.88 U	0.89 U	0.65 U
Silver	--	3.5	1.7 B	0.24 B	0.52 B	0.26 U	0.26 U	0.26 U	0.14 U
Sodium	--	129 B	122 B	100 U	772 B	68.2 U	341 B	69.1 U	112 B
Thallium	--	2.9	2.1	0.41 U	1.6 B	1.1 U	1.1 U	1.1 U	0.43 U
Vanadium	150	27.1	18.9	4.9 B	46.7	16.9	2.9 B	2.9 B	2.6 B
Zinc	20	25.4	24.6	10.2	52.9	21.1	20.7	7.4	14

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT53-2022 LPT532 03/26/96 mg/kg	LPT54-0210 LPT540 04/02/96 mg/kg	LPT54-1014 LPT541 04/02/96 mg/kg	LPT54-1014D LPT54D 04/02/96 mg/kg	LPT54-1416 LPT544 04/02/96 mg/kg	LPT54-1820 LPT548 04/02/96 mg/kg	LPT55-0210 LPT550 04/03/96 mg/kg	LPT55-1016 LPT551 04/03/96 mg/kg
Aluminum	--	810	4,530	4,360 J	18,600 J	609 J	1,410	2,240	3,470
Antimony	--	0.81 U	0.81 U	0.95 U	5.1 B	0.75 U	0.82 U	0.82 U	0.98 U
Arsenic	7.5	0.33 U	2.2	2.6	3 B	0.41 B	0.34 U	1.3 B	1.8 B
Barium	300	6.6 B	13.3 B	57.5 J	177 J	6.3 B	14.2 B	10.8 B	44.2 B
Beryllium	0.16	0.02 U	0.02 U	0.14 JB	0.47 JB	0.02 U	0.05 B	0.08 B	0.11 B
Cadmium	1.0	1.2	0.08 U	86 J	3,020 J	0.15 B	1.9	0.08 U	73.6
Calcium	--	73.4 B	63.5 B	498 JB	2,550 J	58 B	160 B	86.7 B	901 B
Chromium	10	8.4	5.3	45.5 J	306 J	7.8	4.8	5.5	37.2
Cobalt	30	0.28 B	2.1 B	4.5 JB	17.8 J	0.34 B	0.58 B	1.6 B	1.9 B
Copper	25	12.2	7.9	740 J	15,300 J	5 J	30.3	3.1 B	534
Iron	2,000	1,860	6,810	22,400	30,200	1,260	1,840	4,790	5,960
Lead	--	2.5	3.3	86.4 J	492 J	0.71 J	1.8	2.1	41.7
Magnesium	--	142 B	321 B	602 JB	6,320 J	167 B	204 B	330 B	718 B
Manganese	--	9.3	86.3	185 J	1,160 J	6.3	12.3	89	99
Mercury	0.1	0.1 U	0.11 U	0.9 J	0.3 J	0.12	0.11 U	0.11 U	0.33
Nickel	13	1.4 B	2.8 B	9 JB	73.2 J	0.98 B	2.1 B	2 B	4.6 B
Potassium	--	219 U	286 B	275 B	393 B	109 U	127 B	238 B	322 B
Selenium	2.0	0.66 U	0.66 U	1.4 J	5.4 J	0.61 U	0.67 U	0.67 U	0.8 U
Silver	--	0.14 U	0.14 U	2.5 J	78.5 J	0.2 B	0.21 B	0.15 U	1.7 B
Sodium	--	106 U	106 U	756 JB	6,690 J	345 B	119 B	108 U	184 B
Thallium	--	0.43 U	1 B	2.5 J	4.7 J	0.4 U	0.49 B	0.45 B	1.2 B
Vanadium	150	2.9 B	9.4 B	8.6 B	12.7 B	2 B	2.8 B	7 B	6.6 B
Zinc	20	13.4	12.7	451 J	7,860 J	9.2	27.5	13.6	608

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TAL METALS IN LEACH PIT LOCATIONS

NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT55-1618 LPT556 04/03/96 mg/kg	LPT55-2022 LPT552 04/03/96 mg/kg	LPT56-0210 LPT560 04/04/96 mg/kg	LPT56-1015 LPT561 04/04/96 mg/kg	LPT56-1516 LPT565 04/04/96 mg/kg	LPT56-1820 LPT568 04/04/96 mg/kg	LPT62-1214 LPT622 04/08/96 mg/kg	LPT62-1618 LPT626 04/08/96 mg/kg
Aluminum	--	1,010	2,760	6,200	3,380	1,260	1,310	951	2,570
Antimony	--	0.79 U	1.8 U	3.6 B	1.9 U	1.7 U	1.7 U	0.74 U	0.81 U
Arsenic	7.5	0.32 U	2.8	48.6	7.7	3.1	1 U	0.74 B	6.8
Barium	300	7.4 B	21.9 B	12.5 B	15.2 B	11.4 B	13.6 B	8.1 B	8.8 B
Beryllium	0.16	0.04 B	0.1 B	0.8 B	0.07 B	0.06 B	0.04 U	0.02 B	0.19 B
Cadmium	1.0	0.91 B	23.5	0.75 B	17	0.74 B	2.1	0.08 B	0.08 U
Calcium	--	128 B	342 B	278 B	295 B	128 B	134 B	68.3 B	1,090
Chromium	10	4.1	26.2	65.2	49.8	9.9	9.7	7.6	35.4
Cobalt	30	0.36 B	1.9 B	5.6 B	0.97 B	0.69 B	0.55 B	0.43 B	2.7 B
Copper	25	8.1	199	35.4	94.2	20.4	28.2	20	24.7
Iron	2,000	1,350	5,600	92,200	9,520	5,900	2,410	2,900	17,700
Lead	--	0.93	19.1	10.6	14.8	3.4	2.7	3.3	8.9
Magnesium	--	200 B	420 B	475 B	224 B	239 B	360 B	171 B	846 B
Manganese	--	8.4	80.2	149	27.4	15.3	18	8.6	56.4
Mercury	0.1	0.1 U	0.15	0.11 U	0.11 U	0.1 U	0.1 U	0.15	0.11 U
Nickel	13	1 B	4 B	9.7	3.2 B	2.3 B	1.6 B	0.31 B	2.7 B
Potassium	--	134 B	281 B	866 B	297 B	127 B	223 B	163 B	212 B
Selenium	2.0	0.65 U	0.93 U	4.5	0.96 U	0.89 U	0.9 U	0.61 U	0.84 B
Silver	--	0.14 U	0.39 B	0.27 U	0.28 U	0.26 U	0.26 U	3.3	3.2
Sodium	--	123 B	223 B	157 B	158 B	69.2 U	70.3 B	143 B	146 B
Thallium	--	0.42 U	1.2 U	5.5	1.2 U	1.1 U	1.1 U	0.4 U	2.5
Vanadium	150	1.6 B	7.1 B	112	14.9	5.3 B	2.8 B	3.1 B	25.8
Zinc	20	14.3	195	57.5	86.4	15.6	23.3	12.7	27.2

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT63-1214 LPT632 04/05/96 mg/kg	LPT63-1618 LPT636 04/05/96 mg/kg	LPT64-0010 LPT640 03/29/96 mg/kg	LPT64-1015 LPT641 03/29/96 mg/kg	LPT64-1517 LPT645 03/29/96 mg/kg	LPT64-2022 LPT642 03/29/96 mg/kg	LPT65-0210 LPT650 03/26/96 mg/kg	LPT65-1018 LPT651 03/26/96 mg/kg
Aluminum	--	794	409	1,460	1,030	1,060	1,080	762	2,830
Antimony	--	0.79 U	0.82 U	1.8 U	1.8 U	1.6 U	1.6 U	0.83 U	2.1 B
Arsenic	7.5	0.32 U	0.34 U	2.8	2.7	0.97 U	6.1	0.34 U	18.3
Barium	300	10.7 B	6 B	16.5 B	12.7 B	7.3 B	4.2 B	6.4 B	15.1 B
Beryllium	0.16	0.02 U	0.02 U	0.12 B	0.08 B	0.04 B	0.07 B	0.02 U	0.34 B
Cadmium	1.0	0.08 U	0.08 U	11.6	8	17.7	20.4	0.92 B	29.7
Calcium	--	93.9 B	75 B	1,100	330 B	79.8 B	108 B	56.3 B	135 B
Chromium	10	8.7	9.5	13.5	14.2	18.6	8.6	7.3	40.7
Cobalt	30	0.2 B	0.17 U	2.6 B	2 B	1 B	1.2 B	0.18 B	2.2 B
Copper	25	13.2	21.4	218	94.4	171	63.8	NR	173
Iron	2,000	1,970	2,250	3,730	3,440	3,510	5,640	1,440	41,600
Lead	--	3	2.8	13.4	5.8	2.3	1.5	2.5	9.8
Magnesium	--	233 B	76.5 B	702 B	194 B	208 B	259 B	107 B	231 B
Manganese	--	6.1	9.4	81	83.4	10.4	26.2	7.4	60.5
Mercury	0.1	0.1 U	0.11 U	0.11 U	0.11 U	0.1 U	0.1 U	0.11 U	0.11 U
Nickel	13	1.5 B	1.6 B	3 B	3.3 B	1.7 B	1.8 B	1 B	4.4 B
Potassium	--	415 B	223 U	225 U	217 U	204 U	201 U	252 B	341 B
Selenium	2.0	0.65 U	0.67 U	0.92 U	0.92 U	0.84 U	0.83 U	0.69 U	1.4
Silver	--	1.9 B	0.54 B	0.27 U	0.27 U	0.25 U	0.25 U	0.15 U	0.51 B
Sodium	--	103 U	122 B	71.4 U	71.5 U	65.3 U	65 U	109 U	126 B
Thallium	--	0.42 U	0.44 U	1.2 U	1.2 U	1.1 U	1.1 U	0.45 U	2 B
Vanadium	150	3.1 B	1.7 B	4.3 B	3.7 B	3.4 B	3.5 B	2.3 B	50.7
Zinc	20	7.1	7.8	35.4	17.2	26.5	35	13.1	51.8

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT65-2224 LPT652 03/26/96 mg/kg	LPT66-0210 LPT660 04/02/96 mg/kg	LPT66-1014 LPT661 04/02/96 mg/kg	LPT66-1416 LPT664 04/02/96 mg/kg	LPT66-1820 LPT668 04/02/96 mg/kg	LPT67-0210 LPT670 04/03/96 mg/kg	LPT67-1016 LPT671 04/03/96 mg/kg	LPT67-1618 LPT676 04/03/96 mg/kg
Aluminum	--	1,050	3,010	5,050	1,330	1,610	6,760	4,390	1,500
Antimony	--	0.8 U	1.8 B	3.3 B	1.8 U	0.84 U	5.2 B	1.5 B	1.7 U
Arsenic	7.5	0.42 B	29.6	37.3	3.9	7.1	36.2	27.6	1 U
Barium	300	5.3 B	17.1 B	12.2 B	8.5 B	9.7 B	11.3 B	9.3 B	11 B
Beryllium	0.16	0.02 U	0.41 B	0.72 B	0.07 B	0.14 B	0.98 B	0.57 B	0.04 U
Cadmium	1.0	15.4	7.7	23	2.7	3.2	0.06 U	2.6	2.9
Calcium	--	86.5 B	426 B	175 B	77 B	81.3 B	153 B	152 B	108 B
Chromium	10	5.2	118	106	10.7	25.3	122	52.1	8.6
Cobalt	30	0.56 B	2.2 B	3.9 B	1.1 B	1.1 B	5.9 B	2.4 B	0.33 B
Copper	25	32.7	15.7	827	45.1	23.7	7.8	111	8.3
Iron	2,000	3,170	34,100	74,100	7,030	12,800	97,800	61,000	1,880
Lead	--	1.6	34.8	18.2	3.5	2.9	9.7	7.9	2.3
Magnesium	--	301 B	244 B	529 B	214 B	234 B	402 B	426 B	147 B
Manganese	--	26.3	66.9	135	18.3	25.1	106	137	8.3
Mercury	0.1	0.1 U	0.11 U	0.55	0.12	0.11 U	1.4	0.54	0.11
Nickel	13	2 B	4.9 B	10.3	2.4 B	2.6 B	11.1	5.2 B	1.1 B
Potassium	--	222 B	199 B	616 B	244 B	232 B	763 B	449 B	159 B
Selenium	2.0	0.66 U	1.8	3.7	0.91 U	1 B	5.1	3	0.87 U
Silver	--	0.14 U	0.15 U	0.85 B	0.27 U	0.33 B	0.27 U	0.15 U	0.26 U
Sodium	--	105 U	115 B	779 B	350 B	247 B	115 B	436 B	1,010
Thallium	--	0.43 U	3.2	6.1	1.2 U	0.89 B	6.5	5.5	1.1 U
Vanadium	150	2.5 B	51.5	90.8	9.1 B	18.5	128	69	1.6 B
Zinc	20	18.5	60.2	147	25	41.7	51.7	62	15.1

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT67-2022 LPT672 04/03/96 mg/kg	LPT68-0810 LPT680 04/04/96 mg/kg	LPT68-1017 LPT681 04/04/96 mg/kg	LPT68-1718 LPT687 04/04/96 mg/kg	LPT68-2022 LPT682 04/04/96 mg/kg	LPT70-1618 LPT706 04/08/96 mg/kg	LPT70-2022 LPT702 04/08/96 mg/kg	LPT72-1618 LPT726 03/28/96 mg/kg
Aluminum	--	1,650	3,390	3,290	1,310	1,290	2,770	1,360	878
Antimony	--	0.78 U	2.8 B	8.6 B	0.74 U	2 B	0.79 U	0.8 U	1.7 U
Arsenic	7.5	1.2 B	5.3	12.1	7.7	2.9	0.7 B	0.33 U	1.8 B
Barium	300	10.1 B	40.5 B	121	10.7 B	13.6 B	11.5 B	7.1 B	7.9 B
Beryllium	0.16	0.07 B	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.04 B	0.04 U
Cadmium	1.0	1.3	5.6	55.1	0.69 B	4	0.28 B	0.08 U	10.7
Calcium	--	125 B	6,830	4,030	208 B	714 B	140 B	70.1 B	89.3 B
Chromium	10	11.1	180	672	14.2	120	10.4	5	11.7
Cobalt	30	0.45 B	7.3 B	13.1	0.27 B	2.6 B	0.48 B	0.22 B	0.73 B
Copper	25	16.8	118	1,020	19.2	22,000	106	23.5	48
Iron	2,000	3,130	9,000	16,200	1,920	4,000	3,360	3,020	2,390
Lead	--	2.4	59.8	127	3.4	17.4	6.3	2.4	3.8
Magnesium	--	186 B	1,630	1,020 B	315 B	350 B	229 B	220 B	185 B
Manganese	--	11.4	71.6	117	11.9	26.2	21.6	14.8	9.7
Mercury	0.1	0.17	0.15	0.7	0.28	0.12	0.11 U	0.1 U	0.1 U
Nickel	13	1.3 B	18.5	43.2	1.6 B	8.9	1.5 B	0.74 B	1.9 B
Potassium	--	163 B	409 B	250 U	392 B	269 B	295 B	216 U	107 U
Selenium	2.0	0.64 U	0.75 U	0.83 B	0.61 U	0.69 U	0.65 U	0.65 U	1.5
Silver	--	0.14 U	2.5	6.7	0.13 U	78.2	4.6	0.82 B	0.26 U
Sodium	--	846 B	147 B	314 B	152 B	182 B	1,520	546 B	69.6 U
Thallium	--	0.52 B	0.49 U	1.6 B	0.4 U	0.45 U	0.43 U	0.43 U	1.1 U
Vanadium	150	3.8 B	14.1	12.5	2.1 B	0.21 U	2.3 B	1.6 B	3.3 B
Zinc	20	17.8	111	617	13.7	101	41.2	19.8	33.6

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT72-2022 LPT722 03/28/96 mg/kg	LPT73-1618 LPT736 03/26/96 mg/kg	LPT73-1618D LPT738 03/26/96 mg/kg	LPT73-2022 LPT732 03/26/96 mg/kg	LPT74-1820 LPT748 04/02/96 mg/kg	LPT74-1820D LPT74D 04/02/96 mg/kg	LPT74-2224 LPT742 04/02/96 mg/kg	LPT75-1516 LPT755 04/02/96 mg/kg
Aluminum	--	998	1,090	1,220	1,120	9,680 J	1,860 J	1,550	1,260
Antimony	--	1.7 U	0.77 U	0.8 U	0.78 U	2.5 B	0.75 U	1.7 U	1.7 U
Arsenic	7.5	1 U	0.32 U	0.33 U	0.32 U	2.7 J	1.3 JB	1 U	1.5 B
Barium	300	13 B	7.2 B	8.9 B	6.5 B	89.4 J	10.2 JB	9.4 B	13.2 B
Beryllium	0.16	0.04 U	0.02 U	0.02 U	0.02 U	0.36 JB	0.02 JB	0.05 B	0.04 U
Cadmium	1.0	5.8	41.8	62.2	21.5	336 J	3.3 J	0.83 B	1.3
Calcium	--	94 B	87 B	93.7 B	76.8 B	1,360 J	132 JB	84.6 B	57.9 U
Chromium	10	9.5	13.4	14.9	8.4	220 J	14 J	5.8	11.3
Cobalt	30	0.36 B	0.35 B	0.36 B	0.37 B	10.5 JB	0.37 JB	0.51 B	0.57 B
Copper	25	54.2	124	140	85.3	6,760 J	35.2 J	10.6	19.8
Iron	2,000	1,880	3,380	3,290	2,660	16,900 J	3,810 J	2,180	3,050
Lead	--	4.1	3.3	5.5	1.1	563 J	5.4 J	1.8	2.8
Magnesium	--	185 B	203 B	206 B	275 B	2,700 J	185 JB	203 B	301 B
Manganese	--	9.1	18.2	12.5	15.8	523 J	14.4 J	11.7	13.6
Mercury	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.13 U	0.11	0.1 U	0.22
Nickel	13	1.7 B	2.8 B	2.7 B	1.8 B	33.4 J	1 JB	1.5 B	2.5 B
Potassium	--	142 B	273 B	219 U	256 B	288 JB	157 JB	210 B	225 B
Selenium	2.0	0.88 U	0.63 U	0.66 U	0.64 U	2.6	0.62 U	0.86 U	0.87 U
Silver	--	0.26 U	0.14 U	0.14 U	0.14 U	45.7	0.14 U	0.25 U	0.26 U
Sodium	--	75.8 B	101 U	105 U	103 U	9,200 J	1,180 J	1,010	210 B
Thallium	--	1.1 U	0.42 U	0.43 U	0.42 U	1.8 JB	0.56 JB	1.1 U	1.1 U
Vanadium	150	2.5 B	3.1 B	2.6 B	2.8 B	8.8 JB	3.7 JB	1.8 B	4.2 B
Zinc	20	22.6	27.6	29	19.4	3,090 J	24.3 J	14.8	12.2

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT75-1820 LPT758 04/02/96 mg/kg	LPT76-0210 LPT760 04/04/96 mg/kg	LPT76-1017 LPT761 04/04/96 mg/kg	LPT76-1017D LPT76D 04/04/96 mg/kg	LPT76-1718 LPT767 04/04/96 mg/kg	LPT76-2022 LPT762 04/04/96 mg/kg	LPT78-1516 LPT785 04/08/96 mg/kg	LPT78-1820 LPT788 04/08/96 mg/kg
Aluminum	--	1,980	3,910	3,670 J	6,290 J	1,660	1,390	1,740	3,750
Antimony	--	1.7 U	2.2 B	1.9 U	4.5 B	1.8 B	1.7 U	0.78 U	0.78 U
Arsenic	7.5	1.5 B	11.5	14.7	19.4	4.8	1.2 B	0.32 U	0.32 U
Barium	300	16.1 B	9.9 B	17.3 B	27.2 B	10.2 B	13.1 B	8.5 B	9.8 B
Beryllium	0.16	0.04 U	0.28 B	0.28 JB	1.4 J	0.09 B	0.06 B	0.02 U	0.04 B
Cadmium	1.0	1.9	0.06 U	14.8 J	38.4 J	9.8	8.9	1	1.1
Calcium	--	80.7 B	247 B	216 B	347 B	109 B	104 B	83.3 B	92.6 B
Chromium	10	14	21.4	70 J	130 J	13.8	7	5.6	8.4
Cobalt	30	0.65 B	2.7 B	3 B	4.4 B	0.94 B	0.69 B	0.16 B	0.38 B
Copper	25	24.2	9.3	1,960 J	3,380 J	14.7	25.3	37.8	64
Iron	2,000	3,790	24,000	18,200 J	67,300 J	6,570	3,020	2,650	3,560
Lead	--	2.5	6.4	87.7	120	3.6	3.6	2.3	2.5
Magnesium	--	357 B	391 B	851 B	1,260	228 B	310 B	203 B	313 B
Manganese	--	19	74.4	365	461	28	48.3	12.6	20.2
Mercury	0.1	0.11 U	0.11 U	0.41 J	0.22 J	0.11 U	0.11 U	0.1 U	0.1 U
Nickel	13	2.8 B	4.6 B	6.2 JB	13.3 J	1.8 B	1.6 B	1.5 B	2 B
Potassium	--	259 B	429 B	233 U	431 B	227 B	174 B	300 B	363 B
Selenium	2.0	0.89 U	1.3	1.2 J	4 J	0.9 U	0.9 U	0.64 U	0.64 U
Silver	--	0.26 U	0.26 U	7.5	11.4	0.27 U	0.27 U	1.2 B	0.68 B
Sodium	--	178 B	130 B	120 JB	269 JB	215 B	199 B	560 B	940 B
Thallium	--	1.1 U	1.7 B	1.5 JB	4.8 J	1.2 U	1.1 U	0.42 U	0.51 B
Vanadium	150	2.9 B	40.1	37.8	51.7	6.8 B	2.5 B	2.3 B	2.6 B
Zinc	20	18.6	30	713	1,190	67	71.7	12.5	21.4

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT79-1820 LPT798 04/01/96 mg/kg	LPT79-2224 LPT792 04/01/96 mg/kg	LPT80-1618 LPT806 03/28/96 mg/kg	LPT80-2022 LPT802 03/28/96 mg/kg	LPT82-2022 LPT820 04/02/96 mg/kg	LPT82-2224 LPT822 04/02/96 mg/kg	LPT86-0210 LPT860 04/01/96 mg/kg	LPT86-1015 LPT861 04/01/96 mg/kg
Aluminum	--	1,410	2,250	745	1,780	2,940 J	1,570	5,880	5,020
Antimony	--	0.8 U	0.79 U	1.8 U	1.7 U	1.8 UJ	1.7 U	2.4 B	0.83 U
Arsenic	7.5	0.33 U	0.33 U	3.6	1.4 B	12.3 J	3	23.1	15.9
Barium	300	6.6 B	14.2 B	4.3 B	10.1 B	13.6 B	7.5 B	13.2 B	13.6 B
Beryllium	0.16	0.05 B	0.05 B	0.04 U	0.04 U	0.46 B	0.22 B	1.1 B	0.61 B
Cadmium	1.0	0.64 B	1.3	2.2	1.2	1.7 J	6.2	0.09 U	15.9
Calcium	--	43.7 B	109 B	60.4 U	1,990	289 B	57.7 U	188 B	264 B
Chromium	10	4.6	5.7	10.3	10.8	33 J	6.2	59.2	37.9
Cobalt	30	0.27 B	0.39 B	0.33 U	1.2 B	1.7 B	1.1 B	4.3 B	3.4 B
Copper	25	40.6 J	99	26.2	24.2	462 J	10.3	16.1	1,080
Iron	2,000	1,840 J	2,850	5,370	3,830	23,500 J	8,630	88,500	39,700
Lead	--	2.2	3.9	4.8	4.8	13.7	2.1	8.8	129
Magnesium	--	172 B	190 B	159 B	399 B	409 B	149 B	494 B	1,050 B
Manganese	--	12	11.5	10.1	36.6	67.2 J	37.2	125	204
Mercury	0.1	0.1 U	0.11 U	0.1 U	0.11 U	0.18	0.1 U	0.12 U	0.15
Nickel	13	1.3 B	1.5 B	1.2 B	2.4 B	4.5 B	2.4 B	9 B	7.9 B
Potassium	--	217 U	216 U	108 U	182 B	595 B	209 U	833 B	422 B
Selenium	2.0	0.65 U	0.65 U	0.91 U	0.86 U	1.3 J	0.87 U	6.3	3.5
Silver	--	0.55 B	1.1 B	0.27 B	0.26 U	0.27 U	0.26 U	0.16 U	30
Sodium	--	399 B	350 B	70.7 U	67.3 U	108 B	110 B	115 U	850 B
Thallium	--	1.8 B	1.1 B	1.2 U	1.1 U	1.3 JB	1.1 U	8.2	4.4
Vanadium	150	1.5 B	2 B	2.4 B	4.8 B	34.3 J	8.2 B	87.7	50.5
Zinc	20	28.2 J	52.9	12.3	18	114	19.9	60.2	524

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT86-1516 LPT865 04/01/96 mg/kg	LPT86-1820 LPT868 04/01/96 mg/kg	LPT87-1618 LPT876 03/28/96 mg/kg	LPT87-2022 LPT872 03/28/96 mg/kg	LPT88-1618 LPT886 03/27/96 mg/kg	LPT88-2022 LPT882 03/27/96 mg/kg	LPT91-0210 LPT910 04/09/96 mg/kg	LPT91-1013 LPT911 04/09/96 mg/kg
Aluminum	--	5,240	1,860	1,790	3,250	908	849	1,630	20,000
Antimony	--	0.82 U	0.77 U	1.7 U	1.7 U	0.75 U	0.77 U	0.84 U	10.1 B
Arsenic	7.5	19	2.5	1 U	1 U	0.31 U	0.31 U	1.7 B	2.2 B
Barium	300	15 B	11.6 B	11.6 B	12.2 B	7.4 B	4.9 B	11.4 B	23.7 B
Beryllium	0.16	0.74 B	0.09 B	0.04 U	0.04 U	0.02 U	0.02 U	0.14 B	0.34 B
Cadmium	1.0	7.7	4.5	0.38 B	0.3 B	1.7	2.1	0.09 U	13.3
Calcium	--	203 B	117 B	77.5 B	111 B	88.6 B	45.2 B	43.6 B	260 B
Chromium	10	52.1	9.5	8.6	9.1	7.1	5	3.8	1,000
Cobalt	30	3 B	0.75 B	0.34 B	0.69 B	0.18 B	0.27 B	3.2 B	5.4 B
Copper	25	236	146	70.3	223	22.6	30.3	6.1	65,800
Iron	2,000	48,100	8,590	2,710	3,060	1,560	1,290	5,760	8,550
Lead	--	20	8.9	3.2	3.8	3.9	2.9	1.8	347
Magnesium	--	516 B	289 B	187 B	994 B	140 B	136 B	226 B	30,300
Manganese	--	90	29.9	13.7	44.4	10	9.7	91.7	7,450
Mercury	0.1	0.11 U	0.11 U	0.1 U	0.12	0.1 U	0.13	0.14	0.31
Nickel	13	5.9 B	2.2 B	0.69 B	1.8 B	0.69 B	0.97 B	2.1 B	63.3
Potassium	--	580 B	257 B	108 B	291 B	110 U	118 B	228 U	252 B
Selenium	2.0	4.2	0.66 B	0.9 U	0.88 U	0.62 U	0.63 U	0.69 U	4.9
Silver	--	5.1	2.7	0.55 B	1.2 B	0.2 B	0.14 U	0.15 U	27.8
Sodium	--	234 B	180 B	1,630	2,300	135 B	100 U	110 U	6,900
Thallium	--	4.7	1.3 B	1.1 U	1.1 U	0.41 U	0.41 U	0.45 U	18.8
Vanadium	150	69.9	9.1 B	1.6 B	3.7 B	1.2 B	1.2 B	6.9 B	0.34 U
Zinc	20	144	77.7	46	115	36.1	33.7	12.8	17,200

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TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT91-1314 LPT913 04/09/96 mg/kg	LPT91-1618 LPT916 04/09/96 mg/kg	LPT92-1618 LPT926 03/28/96 mg/kg	LPT92-2022 LPT922 03/28/96 mg/kg	LPT93-1820 LPT938 03/27/96 mg/kg	LPT93-2022 LPT932 03/27/96 mg/kg	LPT95-0210 LPT950 04/09/96 mg/kg	LPT95-1012 LPT951 04/09/96 mg/kg
Aluminum	--	1,870	896	1,390	2,950	1,620	1,680	1,880	3,190
Antimony	--	0.74 U	0.78 U	1.7 U	1.7 U	0.76 U	0.8 U	0.83 U	0.84 U
Arsenic	7.5	0.41 B	0.32 U	1 U	4.6	0.31 U	0.37 B	1.5 B	1.6 B
Barium	300	8.4 B	5.7 B	4.8 B	26.7 B	9.3 B	12.6 B	12.5 B	17.1 B
Beryllium	0.16	0.04 B	0.03 B	0.05 B	0.04 U	0.02 U	0.02 U	0.15 B	0.18 B
Cadmium	1.0	4.3	2.3	0.32 B	0.99 B	0.09 B	0.16 B	0.09 U	4.1
Calcium	--	72.3 B	29.1 U	60.1 U	241 B	47.1 B	111 B	98.9 B	60 B
Chromium	10	3.6	3.2	4.9	21	3.3	2.6	5	16
Cobalt	30	0.4 B	0.16 U	0.96 U	1.3 B	0.2 B	0.46 B	3.1 B	3.9 B
Copper	25	35.8	55.3	38.2	73	107	31.3	11.6	995
Iron	2,000	1,190	886	2,050	7,920	1,340	2,010	7,010	7,050
Lead	--	12.1	4.6	2.4	3.2	3.2	3.2	2.8	18.1
Magnesium	--	247 B	121 B	133 B	819 B	199 B	271 B	271 B	701 B
Manganese	--	11.7	9.7	9.4	35.7	15.4	17.9	143	248
Mercury	0.1	1.3	0.1 U	0.1 U	0.13	0.17	0.19	0.11 U	0.2
Nickel	13	0.38 B	0.59 B	0.69 B	1.3 B	0.27 B	0.87 B	2.9 B	5 B
Potassium	--	192 B	211 U	218 B	750 B	150 B	191 B	386 B	229 U
Selenium	2.0	0.61 U	0.64 U	0.9 U	0.87 U	0.63 U	0.66 U	0.68 U	0.75 B
Silver	--	0.69 B	0.14 U	0.27 U	2.4	0.21 B	0.14 U	0.15 U	30.6
Sodium	--	1,230	500 B	665 B	463 B	1,350	1,460	109 U	1,090
Thallium	-	0.65 B	0.42 U	1.1 U	1.1 U	0.41 U	0.43 U	0.65 B	1.4 B
Vanadium	150	1.1 B	0.63 B	1.8 B	6.5 B	1.1 B	1.6 B	8.1 B	8.7 B
Zinc	20	26	24.9	17.9	38.4	34.5	20.8	15.4	231

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT95-1214 LPT952 04/09/96 mg/kg	LPT95-1618 LPT956 04/09/96 mg/kg	LPT97-1416 LPT974 03/27/96 mg/kg	LPT97-1820 LPT978 03/27/96 mg/kg	LPT102-0210 LP1020 04/09/96 mg/kg	LPT102-1214 LP1022 04/09/96 mg/kg	LPT102-1618 LP1026 04/09/96 mg/kg	LPT103-1416 LP1034 03/27/96 mg/kg
Aluminum	--	1,320	1,790	698	1,120	2,450	2,400	1,390	1,140
Antimony	--	0.79 U	0.78 U	0.78 U	1.7 U	0.88 U	0.76 U	0.81 U	1.6 U
Arsenic	7.5	0.32 U	0.32 U	0.32 U	1.8 B	1.8 B	0.31 U	1.3 B	0.97 U
Barium	300	6.4 B	7.9 B	8.6 B	19 B	13.1 B	20.6 B	12.8 B	8.3 B
Beryllium	0.16	0.02 U	0.02 U	0.02 U	0.04 U	0.15 B	0.05 B	0.02 B	0.04 U
Cadmium	1.0	7.6	8.9	0.08 U	4.9	0.09 U	0.09 B	4.5	7.3
Calcium	--	106 B	133 B	60 B	109 B	33 U	34.3 B	44.8 B	70.1 B
Chromium	10	4.9	7.4	2.8	11.4	4.1	3.8	11.5	9.5
Cobalt	30	0.16 U	0.26 B	0.24 B	0.61 B	3.4 B	0.16 U	0.17 U	0.43 B
Copper	25	10.2	34.2	8.1	160	6.2	7	38.9	90
Iron	2,000	1,430	1,980	1,320	3,150	6,260	841	5,550	4,050
Lead	--	6.8	9.6	6.6	20.4	2.5	2.3	4.3	10.6
Magnesium	--	184 B	185 B	178 B	180 B	245 B	126 B	133 B	191 B
Manganese	--	7.2	20.8	6.7	12.7	149	8	7.7	12.5
Mercury	0.1	0.1 U	0.13	0.1 U	0.15	0.11 U	0.1 U	0.1 U	0.15
Nickel	13	0.91 B	1 B	0.47 B	1.5 B	2.6 B	0.37 B	0.6 B	1.2 B
Potassium	--	336 B	211 U	115 U	127 B	239 U	206 U	221 U	99.6 U
Selenium	2.0	0.65 U	0.64 U	0.64 U	0.89 U	0.72 U	0.62 U	1 B	0.83 U
Silver	--	1 B	1.1 B	0.14 U	4.4	0.16 U	0.14 U	0.15 U	5.8
Sodium	--	747 B	825 B	120 B	167 B	178 B	1,030	519 B	67.7 B
Thallium	--	0.43 U	0.42 U	0.42 U	1.1 U	1.2 B	0.41 U	0.44 U	1.1 U
Vanadium	150	1.1 B	1.6 B	1.8 B	3 B	8.2 B	0.62 B	1.6 B	1.7 B
Zinc	20	20.5	32.6	11.4	47.1	13.8	10.3	24.5	64.3

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT103-1820 LP1038 03/27/96 mg/kg	LPT104-1416 LP1044 03/27/96 mg/kg	LPT104-1820 LP1048 03/27/96 mg/kg	LPT109-0210 LP1090 04/09/96 mg/kg	LPT109-1014 LP1091 04/09/96 mg/kg	LPT109-1416 LP1094 04/09/96 mg/kg	LPT109-1820 LP1098 04/09/96 mg/kg	LPT111-1416 LP1114 03/27/96 mg/kg
Aluminum	--	1,300	1,320	1,720	3,640	2,640	2,080	2,550	2,090 J
Antimony	--	1.6 U	1.7 U	1.8 U	0.88 U	0.92 U	0.77 U	0.81 U	1.6 U
Arsenic	7.5	0.98 U	1.1 B	1.1 U	2.9	2.5	0.31 U	1.1 B	0.99 U
Barium	300	8 B	10.9 B	17.8 B	18.8 B	27.7 B	16.4 B	15.9 B	21.3 B
Beryllium	0.16	0.04 U	0.04 U	0.04 U	0.27 B	0.18 B	0.02 U	0.14 B	0.04 U
Cadmium	1.0	3	1.8	0.37 B	0.09 U	3.1	0.14 B	0.29 B	0.26 B
Calcium	--	68.7 B	246 B	177 B	87.9 B	106 B	52.8 B	63.6 B	56.8 U
Chromium	10	12.2	15.5	8.4	7.3	17.7	7.6	7.9	28.5
Cobalt	30	0.4 B	0.37 B	0.88 B	9.8 B	3.6 B	0.54 B	2.8 B	0.54 B
Copper	25	75.9	34.1	18.6	41.1	226	8.4	30.7	21.5 J
Iron	2,000	3,010	3,540	3,130	10,700	8,820	2,400	7,650	2,950
Lead	--	4.8	5.5	1.9	6.1	32.6	3.5	5.3	5.4 J
Magnesium	--	202 B	174 B	644 B	491 B	316 B	637 B	342 B	388 B
Manganese	--	12.6	12.4	21.7	321	112	13	93.1	11.2
Mercury	0.1	0.1 U	0.11	0.1 U	0.31	0.41	0.13	0.16	0.19
Nickel	13	1.2 B	1.4 B	2 B	3.2 B	3 B	1.6 B	3.2 B	1.8 B
Potassium	--	110 B	107 B	311 B	527 B	326 B	776 B	304 B	234 B
Selenium	2.0	0.84 U	0.88 U	0.91 U	0.72 U	0.76 U	0.63 U	0.66 U	0.85 U
Silver	--	3	3.4	1 B	0.16 B	8.2	0.14 U	0.74 B	4.6
Sodium	--	139 B	69 U	70.7 U	151 B	707 B	573 B	345 B	204 B
Thallium	--	1.1 U	1.1 U	1.2 U	2.5	1.8 B	0.41 U	1.2 B	1.1 U
Vanadium	150	2.3 B	2.7 B	4.6 B	15.9	8.8 B	3.6 B	10.3 B	4.1 B
Zinc	20	32.5	30.6	22.6	30	101	15.4	33.8	17.8 J

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TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT111-1820 LP1118 03/27/96 mg/kg	LPT112-1416 LP1124 03/27/96 mg/kg	LPT112-1820 LP1128 03/27/96 mg/kg	LPT113-1216 LP1131 03/28/96 mg/kg	LPT113-1618 LP1136 03/28/96 mg/kg	LPT113-2022 LP1132 03/28/96 mg/kg	LPT115-0410 LP1150 04/10/96 mg/kg	LPT115-1015 LP1151 04/10/96 mg/kg
Aluminum	--	588	695	1,250	4,240	1,310	1,070	2,030	3,360
Antimony	--	1.8 U	1.7 U	1.7 U	2.3 B	1.7 U	1.7 U	0.86 U	0.86 U
Arsenic	7.5	1.1 U	1 U	1 U	77.6	1 U	1 U	2.8	2.4
Barium	300	8.3 B	5.4 B	8.4 B	39.7 B	18.9 B	6.5 B	8.9 B	28.1 JB
Beryllium	0.16	0.04 U	0.04 B	0.04 U	0.29 B	0.04 B	0.06 B	0.11 B	0.15 B
Cadmium	1.0	0.29 B	0.14 B	1.3	23.8	0.98 B	0.36 B	0.09 U	5.7
Calcium	--	71.5 B	59.1 U	58 U	9,490	226 B	160 B	47.4 B	63.2 JB
Chromium	10	6.5	3.2	11.2	71.7	6.6	5.3	4	15.4 J
Cobalt	30	0.33 U	0.35 B	0.91 U	6 B	0.97 U	0.98 U	2.1 B	3.1 B
Copper	25	13.4	11.3	44.8	1,830	35.2	15	2 B	281
Iron	2,000	1,110	1,430	1,170	12,800	3,090	2,710	5,400	10,500
Lead	--	1.8	1.4	3.7	88.6	2.6	1.9	2.9	36.1
Magnesium	--	133 B	115 B	169 B	5,000	337 B	296 B	177 B	294 B
Manganese	--	5.6	5.2	8.8	182	8.1	12.6	90	192 J
Mercury	0.1	0.1 U	0.1 U	0.1 U	1	0.1 U	0.1 U	2.3	0.3 J
Nickel	13	0.7 B	0.79 B	1.1 B	10.1	1.5 B	1.6 B	1.1 B	3.3 B
Potassium	--	108 U	106 U	202 U	302 B	214 U	216 U	216 B	333 B
Selenium	2.0	0.91 U	0.89 U	0.87 U	2	0.9 U	0.9 U	0.71 U	0.7 U
Silver	--	0.94 B	0.94 B	2.8	15.5	0.26 U	0.27 U	1.1 B	3.7 J
Sodium	--	70.6 U	69.2 U	67.9 U	88.4 B	69.8 U	70 U	122 B	136 B
Thallium	--	1.2 U	1.1 U	1.1 U	1.3 U	1.1 U	1.1 U	1.7 B	1.4 JB
Vanadium	150	1.7 B	1.7 B	0.98 B	15.1	3.1 B	2.2 B	7.4 B	9.3 B
Zinc	20	12.3	8.1	17.1	301	28.1	10.7	15.1	80.2 J

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TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT115-1015D LP115D 04/10/96 mg/kg	LPT115-1618 LP1156 04/10/96 mg/kg	LPT115-2022 LP1152 04/10/96 mg/kg	LPT116-0410 LP1160 04/09/96 mg/kg	LPT116-1018D LP116D 04/09/96 mg/kg	LPT116-1921 LP1169 04/09/96 mg/kg	LPT116-2224 LP1162 04/09/96 mg/kg	LPT118-0010 LP1180 03/28/96 mg/kg
Aluminum	--	3,350	774	1,500	2,280	2,310	1,470	1,890	4,550
Antimony	--	1.2 B	0.78 U	0.79 U	0.83 U	1 U	0.8 U	0.78 U	1.8 U
Arsenic	7.5	3.3	0.6 B	0.93 B	2.1 B	1.2 B	0.33 U	0.72 B	4.2
Barium	300	54.4 J	9.1 B	4.8 B	13.2 B	17 B	19.3 B	13.8 B	22.2 B
Beryllium	0.16	0.19 B	0.02 U	0.06 B	0.15 B	0.1 B	0.02 U	0.08 B	0.04 U
Cadmium	1.0	9	0.19 B	2.3	0.09 U	2.3	3.2	5.1	0.25 B
Calcium	--	110 JB	72.4 B	213 B	45.3 B	81.2 B	139 B	109 B	6,800
Chromium	10	40.1 J	10	10	5	15.1	16	14.7	11.8
Cobalt	30	4.8 B	0.45 B	0.49 B	3.7 B	2.3 B	0.5 B	1.4 B	2.4 B
Copper	25	333	9.7	14.8	6.2	107	24.4	92.5	29.3
Iron	2,000	15,200	1,850	3,050	7,520	5,440	2,840	4,590	6,260
Lead	--	55.9	3.3	1.5	2.9	8.3	3.4	6.3	22.1
Magnesium	--	310 B	144 B	415 B	295 B	255 B	297 B	298 B	754 B
Manganese	--	341 J	8.9	9.8	166	110	20.4	57.6	111
Mercury	0.1	2 J	0.63	0.23	0.11 U	0.27	0.1	0.11 U	0.14
Nickel	13	4.3 B	0.55 B	1.3 B	2.8 B	3.3 B	2.1 B	3.4 B	3.9 B
Potassium	--	358 B	165 B	150 B	357 B	276 U	216 U	213 B	248 B
Selenium	2.0	0.79 U	0.64 U	0.65 U	0.68 U	0.83 U	0.65 U	0.64 U	0.92 U
Silver	--	10.1 J	0.25 B	0.21 B	0.15 U	0.18 B	0.14 U	1.2 B	2.6
Sodium	--	199 B	121 B	115 B	109 U	716 B	163 B	380 B	71.8 U
Thallium	--	2.5 J	1.4 B	0.58 B	0.83 B	0.55 U	0.43 U	0.42 U	1.2 U
Vanadium	150	9.4 B	1.7 B	2.6 B	9.2 B	6.5 B	2.6 B	5.1 B	11.3
Zinc	20	136 J	17.1	17	15	60.8	20.2	37.9	27.5

TABLE A-5
TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	LPT118-1014 LP1181 03/28/96 mg/kg	LPT118-1416 LP1184 03/28/96 mg/kg	LPT118-1820 LP1188 03/28/96 mg/kg	LPT120-0210 LP1200 04/10/96 mg/kg	LPT120-1016 LPT120 04/10/96 mg/kg	LPT120-1618 LP1206 04/10/96 mg/kg	LPT120-2023 LP1202 04/10/96 mg/kg	RB-032696 RB0326 03/26/96 ug/L
Aluminum	--	2,440	1,120	968	2,220	3,100	1,200	943	116 B
Antimony	--	1.8 U	1.7 U	1.7 U	0.83 U	1.3 U	0.8 U	0.75 U	8.5 U
Arsenic	7.5	1.2 B	1 B	1 U	1.9 B	2.6 B	0.76 B	0.57 B	5.1 U
Barium	300	37.9 B	9.5 B	5.1 B	13 B	36.3 B	8.5 B	6 B	9.1 U
Beryllium	0.16	0.04 U	0.04 U	0.04 U	0.12 B	0.03 U	0.05 B	0.05 B	0.2 U
Cadmium	1.0	6.6	0.18 B	0.1 B	0.09 U	3.3	1.2	0.56 B	0.3 U
Calcium	--	2,660	209 B	110 B	61.5 B	264 B	84 B	108 B	293 U
Chromium	10	45.3	5.6	3	5.2	22.6	11.5	6	1 U
Cobalt	30	1.5 B	0.38 B	0.42 B	2.6 B	1.8 B	0.54 B	0.46 B	1.6 U
Copper	25	261	11.9	9.5	4.6 B	195	28.8	19.3	38.5
Iron	2,000	2,690	1,720	1,740	5,630	7,560	2,730	3,000	134
Lead	--	11.5	1.7	1.3	4.6	13.2	2.5	2.1	1.6 B
Magnesium	--	680 B	150 B	195 B	210 B	458 B	212 B	222 B	315 U
Manganese	--	31.1	7.2	8.9	128	54.4	19.6	17.9	10.3 B
Mercury	0.1	0.19	0.1 U	0.1 U	0.31	0.67	0.75	1.1	0.2 U
Nickel	13	2.8 B	1.3 B	1.2 B	1.6 B	3.4 B	0.81 B	1.3 B	3 B
Potassium	--	145 B	103 U	114 B	233 B	261 B	213 B	186 B	526 U
Selenium	2.0	0.92 U	0.86 U	0.88 U	0.68 U	1 U	0.66 U	0.62 U	4.4 U
Silver	--	19	1.2 B	0.81 B	1.7 B	0.36 B	0.24 B	0.25 B	1.3 U
Sodium	--	72 U	67.1 U	68.2 U	265 B	167 U	105 U	157 B	343 U
Thallium	--	1.2 U	1.1 U	1.1 U	1.7 B	0.69 U	0.85 B	1.2 B	5.6 U
Vanadium	150	3.2 B	1.8 B	2.1 B	7 B	6.8 B	2.5 B	2.2 B	1.5 U
Zinc	20	123	16	13.1	16.7	201	33.6	26.7	13.1 B

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TAL METALS IN LEACH PIT LOCATIONS
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	RB-032796 RB0327 03/27/96 ug/L	RB-032896 RB0328 03/28/96 ug/L	RB-040196 RB0401 04/01/96 ug/L	RB-040396 RB0403 04/03/96 ug/L	RB-040896 RB0408 04/08/96 ug/L
Aluminum	--	54 B	207	131 B	76.8 B	94.3 B
Antimony	--	3.9 U	8.5 U	8.5 U	3.9 U	3.9 U
Arsenic	7.5	1.6 U	12.1	5.1 U	1.6 U	1.6 U
Barium	300	5.2 U	9.1 U	9.1 U	5.2 U	5.2 U
Beryllium	0.16	0.1 U	1.3 B	0.25 B	0.1 U	0.1 U
Cadmium	1.0	0.4 U	2.2 B	0.3 U	0.4 U	0.4 U
Calcium	--	146 U	1,070 B	293 U	146 U	297 B
Chromium	10	0.6 U	3.6 B	2.1 B	0.6 U	1 B
Cobalt	30	0.8 U	2.8 B	1.6 U	0.8 U	0.8 U
Copper	25	1.3 U	18.5 B	27.1	1.3 U	47.8
Iron	2,000	829	891	984	472	1,700
Lead	--	1.5 U	15.9	1.6 B	1.5 U	2.8 B
Magnesium	--	139 U	315 U	315 U	139 U	139 U
Manganese	--	12 B	27.2	21.7	12.3 B	73.6
Mercury	0.1	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	13	1.2 U	11.3 B	2.7 B	1.2 U	5.5 B
Potassium	--	1,060 U	526 U	526 U	1,060 U	572 U
Selenium	2.0	3.2 U	7.4	4.4 U	3.2 U	3.2 U
Silver	--	0.7 U	3.5 B	1.3 U	1.2 B	0.7 U
Sodium	--	511 U	5,940	588 B	511 U	1,590 B
Thallium	--	2.1 U	5.6 U	5.6 U	2.1 U	2.1 U
Vanadium	150	1 U	1.7 B	1.5 U	1 U	1 U
Zinc	20	219	82.8	38.1	2.1 U	27.8

TABLE A-6
TCL VOLATILE ORGANIC COMPOUNDS NEAR CONNECTOR PIPING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (ug/kg)	Piping Soil PE1426 04/26/96 ug/kg	Piping Soil Dup PED426 04/26/96 ug/kg
Chloromethane	--	11 U	10 U
Bromomethane	--	11 U	10 U
Vinyl chloride	200	11 U	10 U
Chloroethane	1,900	11 U	10 U
Methylene chloride	100	11 U	10 U
Acetone	200	11 U	10 U
Carbon disulfide	2,700	11 U	10 U
1,1-Dichloroethene	200	11 U	10 U
1,1-Dichloroethane	400	11 U	10 U
1,2-Dichloroethene (total)	300	11 U	10 U
Chloroform	300	11 U	10 U
1,2-Dichloroethane	100	11 U	10 U
2-Butanone	300	11 U	10 U
1,1,1-Trichloroethane	800	11 U	10 U
Carbon tetrachloride	600	11 U	10 U
Bromodichloroemethane	--	11 U	10 U
1,2-Dichloropropane	--	11 U	10 U
cis-1,3-Dichloropropene	--	11 U	10 U
Trichloroethene	700	11 U	10 U
Dibromochloromethane	60	11 U	10 U
1,1,2-Trichloroethane	--	11 U	10 U
Benzene	--	11 U	10 U
trans-1,3-Dichloropropene	--	11 U	10 U
Bromoform	--	11 U	10 U
4-Methyl-2-pentanone	1,000	11 U	10 U
2-Hexanone	--	11 U	10 U
Tetrachloroethene	600	11 U	7 J
1,1,2,2-Tetrachloroethane	1,400	11 U	10 U
Toluene	1,500	11 U	10 U
Chlorobenzene	1,700	11 U	10 U
Ethylbenzene	5,500	11 U	10 U
Styrene	--	11 U	10 U
Xylenes (total)	1,200	11 U	12
Volatile TICs	--	253 J	613 J

TABLE A-7
TCL SEMI-VOLATILE ORGANIC COMPOUNDS NEAR CONNECTOR PIPING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (ug/kg)	Pipe Excavation PE1426 04/26/96 ug/kg	Pipe Excavation Dup PED426 04/26/96 ug/kg
Phenol	30	3,800 JD	200 J
Bis(2-chloroethyl)ether	50,000	330 UJ	350 U
2-Chlorophenol	800	330 UJ	350 U
1,3-Dichlorobenzene	50,000	330 UJ	350 U
1,4-Dichlorobenzene	50,000	330 UJ	350 U
1,2-Dichlorobenzene	50,000	330 UJ	350 U
2-Methylphenol	900	250 J	350 U
Bis(2-chloroisopropyl)ether	50,000	330 UJ	350 U
4-Methylphenol	900	1,500 J	88 J
N-nitroso-di-n-propylamine	50,000	330 UJ	350 U
Hexachloroethane	50,000	330 UJ	350 U
Nitrobenzene	200	330 UJ	350 U
Isophorone	4,400	330 UJ	350 U
2-Nitrophenol	330	330 UJ	350 U
2,4-Dimethylphenol	50,000	1,700 J	97 J
Bis(2-chloroethoxy)methane	50,000	330 UJ	350 U
2,4-Dichlorophenol	400	330 UJ	350 U
1,2,4-Trichlorobenzene	50,000	420 J	350 U
Naphthalene	13,000	330 UJ	350 U
4-Chloroaniline	220	330 UJ	350 U
Hexachlorobutadiene	50,000	330 UJ	350 U
4-Chloro-3-methylphenol	240	330 UJ	350 U
2-Methylnaphthalene	36,400	1,900 J	100 J
Hexachlorocyclopentadiene	50,000	330 UJ	350 U
2,4,6-Trichlorophenol	50,000	330 UJ	350 U
2,4,5-Trichlorophenol	100	800 UJ	840 U
2-Chloronaphthalene	50,000	330 UJ	350 U
2-Nitroaniline	430	800 UJ	840 U
Dimethylphthalate	2,000	330 UJ	350 U
Acenaphthylene	41,000	330 UJ	350 U
2,6-Dinitrotoluene	1,000	330 UJ	350 U
3-Nitroaniline	500	800 UJ	840 U
Acenaphthene	50,000	330 UJ	350 U
2,4-Dinitrophenol	200	800 UJ	840 U
4-Nitrophenol	100	800 UJ	840 U
Dibenzofuran	6,200	330 UJ	350 U
2,4-Dinitrotoluene	50,000	330 UJ	350 U
Diethylphthalate	7,100	330 UJ	350 U
4-Chlorophenyl phenyl ether	50,000	330 UJ	350 U
Fluorene	50,000	330 UJ	350 U
4-Nitroaniline	50,000	800 UJ	840 U
4,6-Dinitro-2-methylphenol	50,000	800 UJ	840 U
N-nitrosodiphenylamine	50,000	330 UJ	350 U
4-Bromophenyl phenyl ether	50,000	330 UJ	350 U
Hexachlorobenzene	410	330 UJ	350 U

TABLE A-7
TCL SEMI-VOLATILE ORGANIC COMPOUNDS NEAR CONNECTOR PIPING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (ug/kg)	Pipe Excavation PE1426 04/26/96 ug/kg	Pipe Excavation Dup PED426 04/26/96 ug/kg
Pentachlorophenol	1,000	800 UJ	840 U
Phenanthrene	50,000	330 UJ	350 U
Anthracene	50,000	330 UJ	350 U
Carbazole	50,000	330 UJ	350 U
Di-n-butylphthalate	8,100	330 UJ	350 U
Fluoranthene	50,000	330 UJ	350 U
Pyrene	50,000	330 UJ	350 U
Butylbenzylphthalate	50,000	330 UJ	350 U
3,3'-Dichlorobenzidine	50,000	330 UJ	350 U
Benzo[a]anthracene	224	330 UJ	350 U
Chrysene	400	330 UJ	350 U
Bis(2-ethylhexyl)phthalate	50,000	330 UJ	350 U
Di-n-octylphthalate	50,000	330 UJ	350 U
Benzo[b]fluoranthene	1,100	330 UJ	350 U
Benzo[k]fluoranthene	1,100	330 UJ	350 U
Benzo[a]pyrene	61	330 UJ	350 U
Indeno(1,2,3-cd)pyrene	3,200	330 UJ	350 U
Dibenz[a,h]anthracene	14	330 UJ	350 U
Benzo[g,h,i]perylene	50,000	330 UJ	350 U
Semi-Volatile TICs	--	22,110 JB	29,680 JB

TABLE A-8
TCL PESTICIDES/PCBS NEAR CONNECTOR PIPING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (ug/kg)	Pipe Excavation PE1426 04/26/96 ug/kg	Pipe Excavation Dup PED426 04/26/96 ug/kg
alpha-BHC	110	3.8 JP	1.8 UJ
beta-BHC	200	1.8 UJ	1.8 UJ
delta-BHC	--	1.8 UJ	1.8 UJ
gamma-BHC (Lindane)	60	1.8 UJ	1.8 UJ
Heptachlor	100	340 J	78 JP
Aldrin	41	1.8 UJ	1.8 UJ
Heptachlor epoxide	20	1.8 UJ	1.8 UJ
Endosulfan I	900	110 JP	26 JP
Dieldrin	44	3.5 UJ	3.5 UJ
4,4'-DDE	2,100	3.5 UJ	93 JP
Endrin	100	3.5 UJ	3.5 UJ
Endosulfan II	900	99 J	21 J
4,4'-DDD	2,900	14 JP	3.5 UJ
Endosulfan sulfate	1,000	3.5 UJ	3.5 UJ
4,4'-DDT	2,100	3.5 UJ	3.5 UJ
Methoxychlor	10,000	18 UJ	18 UJ
Endrin ketone	--	3.5 UJ	3.5 UJ
Endrin aldehyde	--	8.1 JP	3.5 UJ
alpha-Chlordane	540	1.8 UJ	1.8 UJ
gamma-Chlordane	540	1.8 UJ	1.8 UJ
Toxaphene	--	180 UJ	180 UJ
Aroclor-1016	10,000	35 UJ	35 UJ
Aroclor-1221	10,000	72 UJ	71 UJ
Aroclor-1232	10,000	35 UJ	35 UJ
Aroclor-1242	10,000	140,000 JD	25,000 JD
Aroclor-1248	10,000	35 UJ	35 UJ
Aroclor-1254	10,000	35 UJ	35 UJ
Aroclor-1260	10,000	35 UJ	35 UJ

TABLE A-9
TAL METALS NEAR CONNECTOR PIPING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT - BETHPAGE

SAMPLE ID LAB ID DATE UNITS	New York State Recommended Soil Cleanup Objective Levels (mg/kg)	Pipe Excavation PE1426 04/26/96 mg/kg	Pipe Excavation Dup PED426 04/26/96 mg/kg
Aluminum	--	4,840	3,150
Antimony	--	0.82 U	0.75 U
Arsenic	7.5	1.5 B	1.3 B
Barium	300	17.7 B	11.2 B
Beryllium	0.16	0.08 B	0.06 B
Cadmium	1.0	19.9 J	1.5 J
Calcium	--	190 JB	110 JB
Chromium	10	9.7	6.2
Cobalt	30	2.5 B	2 B
Copper	25	23.4	21.2
Iron	2,000	6,710	4,880
Lead	--	11.2 J	3.7 J
Magnesium	--	633 B	499 B
Manganese	--	139 J	80.6 J
Mercury	0.1	0.11 U	0.11 U
Nickel	13	3.6 B	2.6 B
Potassium	--	208 B	151 B
Selenium	2.0	0.8 B	0.62 U
Silver	--	0.15 U	0.13 U
Sodium	--	107 U	98.5 U
Thallium	--	0.94 B	0.4 U
Vanadium	150	8.3 B	5.5 B
Zinc	20	26.4 J	12.4 J