

General Electric Company

SITE CHARACTERIZATION SUMMARY REPORT

Remedial Investigation and Feasibility Study of
Surface Drainageways
Dewey Loeffel Landfill Superfund Site
Nassau, New York

August XX, 2017

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DEWEY LOEFFEL LANDFILL SUPERFUND SITE, NASSAU, NEW YORK

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1 INTRODUCTION

The Administrative Settlement Agreement and Order on Consent for Remedial Investigation and Feasibility Study of Surface Drainageways, Index No. CERCLA-02-2013-2030 (Consent Order), was executed between the United States Environmental Protection Agency (USEPA) and the General Electric Company (GE) for the Dewey Loeffel Landfill Superfund Site (the Site). The Consent Order became effective on November 6, 2013, and includes as Appendix 2 a Statement of Work (SOW) for the Remedial Investigation/Feasibility Study (RI/FS) of the Surface Drainageways at the Site. The Site includes four components: the Landfill (LF); Groundwater (GW); the Western Drainageway (WD); and, the Southern Drainageway (SD). The WD and SD components make up the Surface Drainageways. The Site components are described further in Section 1.3, and a Site Location Map is presented as Figure 1-1.

The Consent Order requires (among other things) the development of a Site Characterization Summary Report (SCSR). This SCSR has been developed by Arcadis of New York, Inc. (Arcadis), on behalf of GE, in accordance with the Consent Order and Section V of the SOW.

1.1 Purpose and Objectives

The overall objective of the SCSR is to present a site characterization that describes areas of the WD and SD that may pose a threat to human health or the environment. To do this, the SCSR describes the Site's physiography, geology, and hydrology, and defines potential surface and subsurface pathways of migration and locations of potential reservoirs of polychlorinated biphenyls (PCBs) and other potential constituents of concern. The potential sources of PCBs and other potential constituents of concern are identified in this SCSR, and the nature, extent, and volume of the sources are characterized, including their physical and chemical constituents as well as their concentrations at incremental locations relative to background concentrations in the soil and sediment of the WD and SD. This SCSR also evaluates the potential contaminant degradation process, and information regarding the contaminant fate and transport is summarized.

This SCSR includes a compilation of the available existing data for the WD and SD components of the Site, including for sediment, soil, surface water, and fish. A Phase 1 RI was performed in the fall of 2015 to gather additional physical and chemical data in order to better define and understand the nature and extent of potential constituents of concern in the WD and SD, and focus the subsequent RI activities (i.e., Phase 2). Additionally, the fish and surface water monitoring programs were continued within the WD by GE in 2014, 2015, and 2016. The data summarized in this SCSR includes the results of the Phase 1 RI and the results of previous investigations of the Site as they related to the WD and SD.

1.2 Site History and Background

As described in the Consent Order, from approximately 1952 to 1968, the LF was owned and operated by several companies, including the Loeffel Waste Oil and Removal Service Company (Loeffel Companies) as a waste disposal facility. During this time, the disposal area consisted of two waste lagoons located in the western and central portions of the current LF footprint, a 6-foot deep oil pit in the east central portion,

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four 30,000-gallon aboveground storage tanks, and a drum disposal area located in the southeastern portion.

Disposal operations at the LF ceased in 1968 by order of the State of New York. Between 1970 and 1975, remedial actions undertaken by the Loeffel Companies included covering and grading the drum disposal area, oil pit and lagoons, and constructing a system of drainage ditches around the LF. From 1974 to 1980, the Loeffel Companies also operated a waste oil transfer station utilizing the four 30,000-gallon aboveground storage tanks.

On September 23, 1980, GE entered into an agreement with the New York State Department of Environmental Conservation (NYSDEC) which required GE to perform field investigations, submit an engineering report which discussed the collected data, identify remedial alternatives, and recommend a remedial alternative. A remedy was subsequently selected by NYSDEC and involved the installation of soil-bentonite cutoff wall around the LF, an overlying clay cap, and a leachate collection system below the cap within the cutoff wall. The design of the remedy was performed by GE and approved by NYSDEC. The remedy was subsequently implemented in 1983 and 1984 by NYSDEC using funding provided by GE, Schenectady Chemicals, Inc. (now SI Group, Inc. [SI Group]), and Bendix Corporation (now part of Honeywell International, Inc.). NYSDEC subsequently performed operation, maintenance and monitoring activities at the LF, which, since 1991 (but with the exception of 1994), included the removal of leachate from the LF for off-site treatment.

Beginning in 1983, NYSDEC and/or GE performed a variety of response actions at the Site. Some of this remedial work was performed in accordance with two Records of Decision (RODs) issued by NYSDEC, including the following:

- In January 2001, the NYSDEC issued a ROD that included elements specific to the LF and GW components of the Site based on the results of an RI/FS performed by GE under the oversight of NYSDEC (NYSDEC 2001). Although those components are described in Section 1.3 of this SCSR, the activities described in this SCSR do not pertain to the LF or GW components of the Site; and
- In January 2002, the NYSDEC issued a ROD for the Surface Drainageways based on the results of an RI/FS performed by GE under the oversight of NYSDEC (NYSDEC 2002). This ROD selected a remedy for the WD, but no further action was selected for the SD.

The NYSDEC's 2002 ROD issued by NYSDEC for the Surface Drainageways included the following remedial action elements for the WD:

- A remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, operation and maintenance, and monitoring of the remedial program;
- Complete the NYSDEC approved Interim Remedial Measures (removal of contaminated soils and sediments from the Former Mead Road Pond Area, the spoil banks adjacent to the former Mead Road Pond, the Low-lying Area, and the Northwest Drainage Ditch);
- Removal and proper disposal of PCB contaminated sediments from T11A;
- Removal and proper disposal of PCB-impacted sediment and soil in a former impoundment on the Valatie Kill known as Area 28, which is located just downstream of the Krouner Road/Hoags Corners Road bridge;

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- Complete appropriate site restoration activities in the areas disturbed by the removals in T11A and the Valatie Kill;
- Assess the effectiveness of the remedy by implementing a long-term monitoring program to determine the trends in the PCB concentrations in various media (biota, sediment, water) which will include:
 - o Annual biota sampling in T11A, the Valatie Kill, and Nassau Lake, along with reference locations.
 - o Annual surficial sediment sampling in T11A, in the Valatie Kill, and in Nassau Lake.
 - o Annual suspended sediment sampling in Nassau Lake.
 - o Surface water sampling, especially during high flow events, in the vicinity of the disposal site, in T11A, in the Valatie Kill, and in Nassau Lake.
- Implement institutional controls such as fish consumption advisories against consumption of fish from the impacted portion of the Valatie Kill and Nassau Lake;
- Establish an inspection program to ensure that the dam which impounds Nassau Lake will continue to do so for as long as it is necessary to contain the PCB contaminated sediments in Nassau Lake; and
- Perform remedial review to determine if the remedy is protective of human health and the environment and meets the goals of the remedy.

From 2001 through 2004, GE removed approximately 15,000 tons of sediment and soil from the Former Mead Road Pond Area, Tributary T11A, and Area 28 of the Valatie Kill for off-site transportation and disposal. The NYSDEC's 2002 ROD also included a long-term monitoring program for the WD. Since issuance of the NYSDEC's 2002 ROD, GE has funded and/or performed many monitoring activities in the WD (e.g., surface water sampling, fish sampling) as discussed in detail in Section 2 of this SCSR.

Beginning in late March 2008, NYSDEC also extracted groundwater from three bedrock extraction wells located to the south of the LF on a seasonal basis, operating during the spring, summer, and fall months. Along with leachate from the LF, the extracted groundwater was transported for off-site treatment and disposal. NYSDEC continued operating the groundwater extraction wells on a seasonal basis through October 2011.

At the request of NYSDEC, USEPA proposed the site for inclusion on the National Priorities List (NPL) on March 4, 2010. The Site was subsequently added to the NPL on March 10, 2011.

USEPA subsequently took over operation of the leachate collection system at the LF and the groundwater extraction wells to the south of the LF on October 31, 2011. USEPA winterized the groundwater extraction system (including erection of a pole barn to enclose the existing and an additional storage tank at the LF), allowing year-round extraction of groundwater for off-site treatment and disposal.

The Administrative Settlement Agreement and Order on Consent for a Removal Action, Index No. CERCLA-02-2012-2005 (Removal Order) was entered into by USEPA, GE and SI Group, and became effective on April 16, 2012 (USEPA 2012). Pursuant to the Removal Order, GE and SI Group assumed responsibility from USEPA for continued operation and maintenance of the leachate collection system at the LF and the groundwater extraction wells south of the LF on August 1, 2012. The leachate and extracted groundwater continued to be transported for off-site treatment and disposal. Under the

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Removal Order, GE and SI Group also conducted pre-design and design activities for a treatment system that would, once constructed, eliminate the need for continued trucking from the Site. Construction was completed in December 2013 and the treatment system is fully operational.

On October 7, 2013, a separate Administrative Settlement Agreement and Order on Consent for Remedial Investigation and Feasibility Study of the LF and GW, Index No. CERCLA-02-2013-2008 entered into by USEPA, GE and SI Group became effective (USEPA 2013a). That agreement does not cover the RI/FS for the WD and SD, and is not associated with this SCSR. Instead, the SCSR is associated with the November 6, 2013 Administrative Settlement Agreement and Order on Consent for Remedial Investigation and Feasibility Study of Surface Drainageways, Index No. CERCLA-02-2013-2030 (USEPA 2013b).

On November 21, 2013, GE submitted to USEPA a proposal for additional sampling in the Former Mead Road Pond Area and Tributary T11A (portions of the WD) under Paragraph 47.f of the Removal Order (Arcadis 2013). This proposal presented a sampling and analysis plan for additional sediment and soil sampling in the Former Mead Road Pond Area (including the Northwest Drainage Ditch) and Tributary T11A. Responses to USEPA comments were provided on December 5, 2013 and USEPA approved the Paragraph 47.f proposal on December 6, 2013. The samples in the Former Mead Road Pond Area were collected on December 18, 2013 and the samples in Tributary T11A were collected on January 14 and 15, 2014. Results of sediment and soil sampling for these components of the WD are included in this SCSR.

Finally, in accordance with the Consent Order and Section II of the SOW, GE submitted to USEPA a Phase 1 RI Work Plan on January 21, 2014, including a Health and Safety Plan (HASP) and Quality Assurance Project Plan (QAPP). The USEPA provided comments on July 11, 2014, and responses were provided on August 15, 2014. The USEPA provided additional comments on October 3, 2014, and responses were provided on November 18, 2014. The USEPA provided a third set of comments on March 11, 2015, and responses were provided on May 12, 2015. On June 1, 2015 GE submitted to USEPA a revised Phase 1 RI Work Plan (Arcadis 2015a) on which the USEPA provided comments on June 30, 2015. A final response to comments was submitted July 23, 2015 and Work Sheet 14 in the QAPP was updated and submitted to USEPA for review on August 4, 2015. The Phase 1 RI Work Plan (including the HASP and QAPP) was approved by USEPA on August 6, 2015.

The Phase 1 RI Work Plan presented a detailed description, rationale, and schedule for the first phase of the RI, which generally included field reconnaissance and site survey, project mapping, the collection and analysis of sediment and soil samples to assess the presence of PCBs and other potential constituents of concern, and the continuation of the surface water and fish monitoring programs. The sediment and soil samples in the SD and WD area were collected in November and December 2015.

1.3 Site Description

The Site is located in the Town of Nassau, Rensselaer County, New York, and includes the following four components, as described in the SOW attached to the Consent Order:

- LF, defined as the Dewey Loeffel Landfill proper, including contaminated soils associated with prior landfill operations and leachate and other areas where contaminants may have migrated, but not including the GW, SD, and WD components of the Site, as defined below.

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- GW, defined as all groundwater contamination at the Site and any other areas where contaminants may have migrated, but not including the LF, SD, and WD.
- SD, defined as the Southeast Drainage Ditch, Valley Stream and Smith Pond, but not including the GW, LF, and WD.
- WD, defined as the Northwest Drainage Ditch, former Mead Road Pond, Tributary T11A, Valatie Kill and Nassau Lake, and any other area where contaminants have migrated, but not including the LF, GW, and SD.

Only the WD and SD are the subject of this SCSR, and are described in further detail in the sections that follow. Investigation activities for the LF and GW components of the Site are being addressed under a separate consent order between USEPA, GE and SI Group (USEPA 2013a).

1.3.1 Western Drainageway

The WD begins where the drainage from the LF flows under Mead Road into the Northwest Drainage Ditch, and then continues through a channel in the former Mead Road Pond. The WD continues through Tributary T11A to the confluence with the Valatie Kill. The Valatie Kill then travels about 2.7 miles before entering the northeastern end of Nassau Lake, and then exits at the southern end of Nassau Lake. The five areas of the WD are shown on Figure 1-1 and described in more detail below.

Northwest Drainage Ditch and Former Mead Road Pond Area

The Former Mead Road Pond Area is located to the northwest and west of the LF. A majority of the surface water runoff from the LF flows under Mead Road through two 30-inch-diameter culvert pipes into the Northwest Drainage Ditch, which travels in a westerly direction about 400 feet before passing the Low Lying Area, a small one-acre bog just northeast of the former Mead Road Pond. The drainage channel extends another 400 feet (through the inlet to the former Mead Road Pond, the former Mead Road Pond, and the outlet from the former Mead Road Pond) before entering Tributary T11A. Based on qualitative visual observations (calibrated flow measurement device for Tributary T11A was installed in May 2016, and quantitative flow rate information is not yet available), the drainage channel through the Former Mead Road Pond Area has low and intermittent flow rates, although flow is highly variable based on precipitation and snowmelt events. The watershed area is approximately 25 acres as measured at the end of the outlet from the former Mead Road Pond (inlet to Tributary T11A).

Tributary T11A

Tributary T11A is a small stream that flows northwesterly through a steep-sided, wooded ravine from the Former Mead Road Pond Area to the Valatie Kill. The tributary is about 1,900 feet long and slopes at an approximate 7 percent grade. Tributary T11A often has low and, in the upper reach, intermittent flow rates, although the flow is highly variable based on precipitation and snowmelt events. The total watershed area for Tributary T11A is approximately 75 acres as measured at its confluence with the Valatie Kill.

Valatie Kill Upstream from Nassau Lake

Following the confluence with Tributary T11A, the Valatie Kill travels in a southwesterly direction. The watershed area for the Valatie Kill is approximately 6,000 acres at United States Geological Survey

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(USGS) gaging station 01360640, which is located just upstream from the Krouner Road/Hoags Corners Road bridge, approximately 1.7 miles below the confluence of the Valatie Kill with Tributary T11A and approximately 1.0 miles upstream of the inlet to Nassau Lake. The average annual flow in the Valatie Kill at the gaging station is approximately 14 cubic feet per second (cfs) (see Table 1-1).

Nassau Lake

Nassau Lake is a shallow, 173-acre impoundment. The Valatie Kill accounts for approximately 60% of Nassau Lake's watershed area. Nassau Lake is impounded at the southern end (outlet) by the Nassau Lake Dam. Nassau Lake and the properties surrounding it are privately owned. Nassau Lake has an average water depth of approximately 7 feet with a maximum depth of approximately 11 feet. About 40% of the lake's surface area has water depths less than 5 feet.

Pursuant to the Second Stipulation and Order of Partial Settlement between New York State and GE, dated March 26, 2003, GE designed and constructed a new dam for Nassau Lake. Operation and ownership of the new dam was turned over to the Nassau Lake Park Improvement Association (NLPIA) in May 2009.

Valatie Kill Downstream from Nassau Lake

Downstream of the Nassau Lake Dam, the Valatie Kill continues to travel south, creating a natural boundary between the towns of Nassau and Schodack. After about 8 miles, the Valatie Kill empties into Kinderhook Lake, and continues to travel south from the lake outlet until terminating in Valatie, NY at the confluence with Kinderhook Creek.

1.3.2 Southern Drainageway

The SD begins where the drainage from the LF flows south into the Southeast Drainage Ditch, which travels approximately 0.4 miles to the confluence with Valley Stream. Valley Stream originates in Mud Pond about 1.3 miles upstream from the confluence with the Southeast Drainage Ditch and then flows about 1.1 miles downstream from this confluence into Smith Pond, a roughly 35-acre pond. After exiting Smith Pond, Valley Stream travels about 1.6 miles before entering the southeastern end of Nassau Lake. Valley Stream accounts for approximately 35% of the Nassau Lake watershed area. The SD is shown on Figure 1-1.

2 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

This section presents an overview of the previous investigation and remediation activities conducted for the WD and SD components of the Site. The flow within the WD and SD is highly variable based on precipitation and snowmelt events, and minor variations in the channel alignment are possible. As such, the distinction between sediment and soil samples is also variable. For previous investigations and remedial actions as well as proposed investigations and remedial actions, the distinction between sediment (i.e., roughly defined as unconsolidated particulate material submerged below water) and soil samples is based on the presence of water at the time of investigation design and/or sampling.

Tables presenting the historical data are presented in Appendix A. A summary of major sampling and remedial efforts is provided as Table 2-1.

2.1 Sediment and Soil in Western Drainageway

Previous investigations of the WD were conducted between 1979 and 2014, and have consisted of multiple sediment and soil sampling events at many locations throughout the WD, by or on behalf of NYSDEC and GE. In addition, USEPA conducted sediment and soil sampling in the WD in 2009 and sediment sampling in the WD in 2014. In total, more than 1,500 sediment and soil samples have been collected from the WD to date.

Northwest Drainage Ditch and Former Mead Road Pond Area

Sediment/soil sampling events were performed in the Former Mead Road Pond Area between 1988 and 1991, and again during the previous RI between 1992 and 1996. In 2000, several sampling events were also performed during pre-design activities associated with the former Mead Road Pond Interim Remedial Measures (IRM).

Prior to the performance of the IRM in the Former Mead Road Pond Area in 2001, concentrations of Total PCB Aroclors in sediment and soil samples in the Northwest Drainage Ditch, Low Lying Area, former Mead Road Pond spoil banks and outlet from the former Mead Road Pond (all of which had a higher concentration of PCBs than the pond itself) were up to 470 parts per million (ppm, which is equivalent to milligrams per kilogram), 18 ppm, 410 ppm and 180 ppm, respectively. During the IRM, NYSDEC and/or GE collected a total of 24 confirmation samples to guide additional excavations in select areas and to confirm the limits of excavation. The IRM included the removal of approximately 9,600 tons (6,400 cubic yards [cy]) of PCB-impacted sediment and soil. For the Northwest Drainage Ditch and Low-Lying Area, excavation depths ranged from 1 foot to 2 feet, while the Former Mead Road Pond Area excavation ranged from 1 foot to 7 feet.

In 2009, USEPA collected four additional sediment/soil samples from the drainage channel in the Former Mead Road Pond Area. These results were all well below the pre-IRM levels, with Total PCB Aroclor concentrations at non-detect (ND) in two samples, 0.17 ppm in the third sample, and an estimated concentration of 3.5 ppm in the fourth sample (from the inlet to the former Mead Road Pond).

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On June 23, 2011, GE collected 16 sediment samples (plus one duplicate sample) from the drainage channel in the Former Mead Road Pond Area to further assess the potential for transport of PCBs into Tributary T11A. PCB concentrations in those sediment samples ranged from ND to 12.8 ppm. These results were summarized in a letter report submitted to NYSDEC (Arcadis 2011).

On December 18, 2013, GE collected 41 additional sediment/soil samples in the Former Mead Road Pond Area in accordance with the Paragraph 47.f proposal. PCB concentrations in those samples ranged from ND to 18.1 ppm.

For the 61 samples collected after the IRM (2009 through 2013), the Total PCB concentration has ranged from ND to 18 ppm, with an average of 1.71 ppm and a median of 0.40 ppm. Appendix A1, Tables A1-3 through A1-5 provide the historic soil and sediment sampling PCB results for the Northwest Drainage Ditch and the Former Mead Road Pond Area (including the Low-Lying area), and Figure 2-1A through 2-1C illustrates the results. A summary of the historic PCB data, by year, for samples collected from the Northwest Drainage Ditch and Former Mead Road Pond Area is provided in Appendix A1, Table A1-14.

Tributary T11A

Sediment/soil sampling events were performed in Tributary T11A in 1989 and again during the previous RI between 1993 and 1996. Additionally, sediment/soil sampling was conducted in 2002 during pre-design activities associated with the excavation of fine-grained sediment in Tributary T11A.

The concentrations of Total PCB Aroclors in sediment samples collected in Tributary T11A prior to the remedial action ranged up to 230 ppm. In July 2002 total of 116 fine-grained sediment samples were collected from 97 locations in Tributary T11A as part of predesign sampling activities (BBL 2002). Of the analytical results observed, 4 of the 116 samples (3%) exhibited Total PCB Aroclor results greater than 50 ppm and 15 samples (13%) exhibited results less than 1.0 ppm. The average Total PCB concentration was calculated to be 10.4 ppm and the median was calculated to be 4.0 ppm.

Approximately 1,200 tons (760 cy) of fine-grained sediment was removed from Tributary T11A from October 2002 through January 2003 from depths ranging from about 2/3 foot to 2.5 feet (about 1 foot on average). During the excavation activities, and as directed by NYSDEC, GE collected four confirmation samples to confirm the limits of the excavations. Additional excavation was completed at three of these locations. Six other confirmation sample locations were targeted at the direction of NYSDEC, but samples could not be collected due to a lack of sediment (i.e., excavation into the native till).

In 2009, NYSDEC collected four additional soil samples in Tributary T11A. These results included a maximum Total PCB Aroclor concentration of 22 ppm. USEPA also collected six sediment samples from Tributary T11A in 2009, with a maximum concentration of 0.77 ppm Total PCB Aroclors.

In April and August 2010, GE collected a total of 51 sediment samples and 115 soil samples to better characterize PCB concentrations in the Tributary T11A ravine. Sediment PCB concentrations ranged from 0.30 to 22.6 ppm, while soil PCB concentrations ranged from 0.05 to 407 ppm. The results of the April and August sampling events were summarized in letter reports submitted to NYSDEC (Arcadis 2010a, Arcadis 2010b).

As a follow-up to the 2010 sampling, on June 23, 2011, GE collected 47 additional soil samples with PCB concentrations ranging from 0.12 to 1,340 ppm. The results of this sampling event were summarized in a letter report submitted to NYSDEC (Arcadis 2011).

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On January 14 and 15, 2014, GE collected a total of 91 additional samples (90 soil and 1 sediment) in the T11A area in accordance with the Paragraph 47.f proposal. The samples were collected from Sample Site F, from areas outside the extent of stream (OES) based on a 25-year, 24-hour rainfall event, and from areas inside extent of stream (IES) based on a 25-year, 24-hour rainfall event. For the 18 soil samples collected from Sample Site F, PCB concentrations ranged from ND to 274 ppm. For the 60 soil samples collected from OES, PCB concentrations ranged from ND to 107 ppm. Finally, for the 12 soil samples collected from IES, PCB concentrations ranged from 0.25 ppm to 264 ppm and the one sediment sample was 14.2 ppm. The IES samples were also analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), 1,4-Dioxane, pesticides, metals, dioxins/furans, and PCB congeners. A summary of the non-PCB analyses is provided in Appendix A2, Table A2-1.

In summary, for the 58 sediment and 256 soil samples collected between 2009 and 2014, the Total PCB Aroclor concentration has ranged from 0.19 ppm to 23 ppm for sediment and from ND to 1,340 ppm for soil. For sediment, the average is calculated to be 4.7 ppm and the median is 3.2 ppm, while for soil the average and median are calculated to be 29 ppm and 2.3 ppm, respectively. The highest concentration samples (i.e., those samples with results greater than 50 ppm) were observed to be limited to the top 12 inches of soil (either the 0 to 6-inch or the 6- to 12-inch interval) (Figures 2-1A and 2-1B). As indicated on Figure 2-1C, no locations deeper than 12-inches were observed to have Total PCBs greater than 5 ppm.

Compared with the 116 sediment samples collected during predesign sampling activities prior to remediation of Tributary T11A in 2002/2003 (discussed above), the average and median Total PCB concentrations calculated for the sediment samples collected since 2009 (4.7 ppm and 3.2 ppm, respectively) are observed to be lower than for samples collected prior to remediation (10.4 ppm and 4.0 ppm, respectively).

Appendix A1, Tables A1-6 through A1-8 provide the historic soil and sediment sampling PCB results for the Tributary T11A (post-remediation), and Figures 2-1A through 2-1C illustrate the results. A summary of the historic PCB data, by year, for samples collected from Tributary T11A is provided in Appendix A1, Table A1-14. Representative photographs of Tributary T11A are included in Appendix B.

Valatie Kill

Sediment/soil sampling events were performed in the Valatie Kill during the previous RI between 1992 and 1996. Sampling events were also performed in 1998 and 1999 from low lying areas adjacent to the Valatie Kill. Additional soil/sediment sampling was performed during pre-design activities associated with the excavation of sediment and soil in Area 28, which was an impoundment located just downstream from the Krouner Road/Hoags Corners Road bridge.

Prior to the remedial action at Area 28 of the Valatie Kill, concentrations of Total PCB Aroclors in Area 28 ranged up to 120 ppm. Approximately 4,000 tons (2,500 cy) of sediment and soil were removed from Area 28 from mid-2003 through mid-2004, from depths ranging from 0.5 feet to 7 feet. During the Area 28 remedial action, 10 confirmation samples were collected at locations and depths specified by NYSDEC to confirm the limits of the excavations. The maximum Total PCB Aroclor concentration in those samples was 0.92 ppm. In other areas of the Valatie Kill, the maximum historic Total PCB Aroclor concentration was 6.3 ppm in a sample collected in 1993 near Mead Road downstream from the confluence of Tributary T11A.

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In 2009, USEPA collected 12 additional sediment and soil samples in the Valatie Kill between the confluence with Tributary T11A and the inlet to Nassau Lake. Those results also indicated concentrations of PCBs generally between 0.0 ppm and 1.0 ppm, with a maximum Total PCB Aroclor concentration of 1.3 ppm.

In May 2014, USEPA collected four additional sediment samples including two in the Valatie Kill upstream of the confluence with Tributary T11A (background), one between the confluence with Tributary T11A and the inlet to Nassau Lake, and one immediately downstream of Nassau Lake. The results of this sampling event were summarized by the USEPA in a 2015 report (USEPA 2015), and indicated a maximum Total PCB Aroclor concentration of 0.049 ppm in a sample collected near Mead Road downstream from the confluence of Tributary T11A. The Total PCB Aroclor concentration of the two background locations was observed to be ND at both locations. The samples were also analyzed for VOCs, SVOCs, 1,4-dioxane, pesticides, and metals.

In summary, for the 62 sediment/soil samples collected between 1993 and 2014 (excluding samples collected from areas that have since been remediated), the Total PCB concentration has ranged from ND to 6.3 ppm, with an average of 1.2 ppm and a median of 0.87 ppm. Appendix A1, Tables A1-9 through A1-11 provide the historic soil and sediment sampling PCB results for the Valatie Kill, and Figures A1-1A through A1-1C (Appendix A) illustrate the historic results. A summary of the historic PCB data, by year, for samples collected from the Valatie Kill is provided in Appendix A1, Table A1-14.

Nassau Lake

Sampling events were performed in Nassau Lake during the previous RI between 1993 and 1997. NYSDEC and GE also conducted a split sampling event in 1998. Total PCB concentrations ranged from ND to 8.5 ppm, with an average of 1.7 ppm and a median of 1.6 ppm. The maximum Total PCB Aroclor concentration for all of these sampling events was 8.5 ppm in a sample collected in 1993 from the northeastern quadrant of the lake.

In 1998 and 2000, 26 soil samples were collected from five parcels immediately adjacent to Nassau Lake. Most samples had concentrations of PCBs less than 1.0 ppm, with a maximum Total PCB Aroclor concentration of 2.2 ppm. The sample with the reported concentration of 2.2 ppm was collected in 1998 from Parcel 202.1-1-36, which is located near at the outlet of the Valatie Kill. The same general location was sampled again in 2000 and returned a result of ND.

In 2009, USEPA collected 18 additional sediment samples in Nassau Lake during two sampling events. Most samples had concentrations of PCBs less than 1.0 ppm, with a maximum estimated Total PCB Aroclor concentration of 1.7 ppm in a sample collected from the northeastern quadrant of the lake.

In summary, for the 188 in-lake sediment and 26 shoreline soil samples collected between 1992 and 2009, the Total PCB concentration has ranged from ND to 8.5 ppm for sediment and from ND to 2.2 ppm for soil. For sediment, the average is calculated to be 1.6 ppm and the median is 1.4 ppm, while for soil the average and median are calculated to be 0.39 ppm and 0.34 ppm, respectively. Appendix A1, Tables A1-12 through A1-13 provide the historic soil and sediment sampling PCB results for Nassau Lake, and Figures A1-2A through A1-2C (Appendix A) illustrate the historic results. A summary of the historic PCB data, by year, for samples collected from Nassau Lake is provided in Appendix A1, Table A1-14.

2.2 Sediment and Soil in Southern Drainageway

Previous investigations of the SD were conducted between 1979 and 2002, and have consisted of multiple sediment, soil, surface water, and fish sampling events at various locations throughout the SD. Sediment sampling events in the SD were performed by NYSDEC and GE between 1988 and 1993 with results showing Total PCB Aroclor concentrations to be ND at all but two locations: one in the Southeast Drainage Ditch, where a concentration of 1.4 ppm was reported, and the other at the confluence of Valley Stream and Nassau Lake (i.e., in Nassau Lake at the Valley Stream Outlet), where an estimated concentration of 0.13 ppm was reported.¹ The NYSDEC's 2002 ROD stated that the SD "was not significantly impacted by hazardous wastes from the site, based upon the results of sediment and biota sampling." Further, the NYSDEC's 2002 ROD did not prescribe any further characterization, remediation, or monitoring within the SD.

In 2009, USEPA conducted two sampling events at ten locations within the SD. A total of 20 sediment samples (plus two duplicates) were collected with all but four sample results ND for Total PCB Aroclors. The four samples with detections of Total PCB Aroclors were all collected from the Southeast Drainage Ditch, between the LF and Valley Stream. Total PCB Aroclor concentrations in these four samples were less than 1.0 ppm, ranging from 0.030 to 0.74 ppm.

For the 35 sediment/soil samples collected between 1988 and 2009, the Total PCB concentration has ranged from ND to 1.4 ppm, with an average of 0.27 ppm and a median of 0.053 ppm. Appendix A1, Tables A1-1 through A1-2 provide the historic sediment/soil sampling PCB results for the SD, and Figure A1-3A (Appendix A) illustrates the historic results. A summary of the historic PCB data, by year, for samples collected from the various water bodies of the SD (i.e., Southeast Drainage Ditch, Valley Stream, Smith Pond) is provided in Appendix A1, Table A1-14.

2.3 Surface Water Sampling

Surface water sampling at the Site has been conducted since the 1980s. From 2004 through 2010, GE conducted two annual surface water and suspended sediment monitoring events at one location in Tributary T11A and two locations in the Valatie Kill. On December 22, 2010, GE submitted to NYSDEC a Statement of Work to implement an expanded surface water monitoring program that included the collection of surface water samples during three annual events at up to 14 locations in Tributary T11A and the Valatie Kill (see Figure 2-2) using methods that result in lower detection limits than those used previously. This was proposed in an effort to better assess the transport of PCBs, including into and out of Tributary T11A, and the potential implications for PCB concentrations in fish. NYSDEC approved implementation of this Statement of Work on June 9, 2011.

Surface water samples were collected during three events per year in 2011, 2012, and 2013. A letter report that summarized the activities performed and results of the surface water sampling was submitted to NYSDEC and USEPA for each year.

¹ Based on the location from which the sample was collected, it is assumed that the estimated concentration of 0.13 ppm is likely representative of the conditions in Nassau Lake and does not necessarily represent the conditions in the stream.

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For 2014, 2015, and 2016, the surface water sampling was completed in general accordance with the Phase 1 RI Work Plan originally submitted to USEPA on January 22, 2014 and last revised on June 1, 2015, which was approved by USEPA on August 6, 2015. The results of the sampling event from 2011 through 2016 were summarized in a May 2017 report (Arcadis 2017a). Copies of the 2014 (Arcadis 2015c), 2015 (Arcadis 201a), and 2016 Surface Water Monitoring Reports are included in Appendix C.

2.4 Fish Sampling

Fish tissue collections at the Site have been conducted since the late 1970s. From 2002 through 2008, the fish collections were conducted by NYSDEC in general accordance with the Long-Term Monitoring of PCB in Biota of the Valatie Kill Drainage System (NYSDEC, 2002). NYSDEC took the lead on the fish sampling during this time period, with manpower and equipment assistance by Arcadis (formerly Blasland, Bouck and Lee, Inc. [BBL]) on behalf of GE. GE also funded the laboratory analyses for these fish monitoring efforts.

In December 2008, at the request of NYSDEC, GE developed a Statement of Work for the fish monitoring program, which was subsequently approved by NYSDEC on April 23, 2009. The fish monitoring program was conducted at 12 locations (see Figure 2-3) annually in accordance with that SOW from 2009 through 2012. In 2013, GE requested and NYSDEC approved implementation of a revised Statement of Work to conduct the fish monitoring program and expanded upon the target sample sizes for several species. For 2014, 2015, and 2016, the fish monitoring program was completed in general accordance with the Phase 1 RI Work Plan originally submitted to USEPA on January 22, 2014 and last revised on June 1, 2015, which was approved by USEPA on August 6, 2015. The results of the 2016 sampling event, which included an assessment of the historical fish sampling data, were summarized in a May 2017 report (Arcadis 2017b). Copies of the 2014 (Arcadis 2015b), 2015 (Arcadis 2016b), and 2016 Fish Monitoring Reports are included in Appendix D.

3 SUMMARY OF THE PHASE 1 RI ACTIVITIES

This section of the SCSR provides a summary of the work completed by GE under the Consent Order for the first phase of the RI. The work performed as part of the Phase 1 RI was performed in accordance with the procedures outlined in the Phase 1 RI Work Plan as well as the site-specific HASP and QAPP provided to USEPA with the Phase 1 RI Work Plan (Arcadis 2015a).

3.1 Basemap and Database Development

In addition to the specific field activities described below, aerial photography was collected of the WD, including in/around Nassau Lake, and the SD downstream from the LF. The data was digitized and referenced to North American Datum of 1983 and North American Vertical Datum of 1988, and topographic mapping was developed from the aerial photography. Additionally, available 100-year and 500-year floodplain mapping as developed by the Federal Emergency Management Agency (FEMA) was reviewed and included in the digitized topographic mapping. It was determined the FEMA maps aligned relatively closely with field observations so no supplemental hydraulic modeling was performed.

The topographic mapping and available FEMA floodplain mapping added to the database developed for the project. Additionally, a number of other elements obtained or developed as part of the Phase 1 RI activities were added to the project database, including:

- Wetland areas, based on Nationwide Wetlands Inventory Geographic Information System (GIS) database, New York State Freshwater Wetlands Mapping, and site-specific wetlands delineation data;
- Soil types, as currently mapped by Rensselaer County Soil Conservation District;
- Parcel boundaries;
- Parcel ownership and zoning, as provided by Rensselaer County and adjusted as appropriate via field reconnaissance (i.e., separate GIS layer for refined land use information);
- Flow data from USGS gaging station 01360640 (Table 1-1);
- Sample data including: sample locations, sample collection dates (and times for surface water data), sample descriptions (including soil or fish types), and laboratory analytical results.

The wetland areas and soil types are illustrated on Figures 3-1 and 3-2, respectively. Parcel boundary and sample location information collected during the Phase 1 RI activities is illustrated on Figures 3-3 through 3-6B. The Microsoft Access™ database, supplemented by GIS mapping, also includes available information from relevant investigations previously conducted at the Site. Per the SOW, the electronic database summarizing the Phase 1 RI sampling data and an associated GIS map set will be provided directly to USEPA.

3.2 Property Access and Effect on Sampling

As required by the Consent Order and associated SOW, GE used best efforts to obtain access from the owners of all parcels needed to perform the field reconnaissance and sampling activities described herein. GE contacted property owners via mailed letters, telephone, and/or in person as necessary to

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obtain completed access agreements. GE was ultimately able to obtain access and sampling permission from all property owners necessary to complete Phase 1 RI activities for its representatives and contractors, as well as for USEPA and its contractors and oversight officials.

For field reconnaissance activities, access was not granted to one property on the Valatie Kill near Mead Road and one property on Valley Stream downstream of Smith Pond. However, the field reconnaissance was largely unaffected as the stream could be viewed from the opposite bank in areas across from where access was not granted.

For sampling activities, access was not granted to several properties. Throughout the process, GE provided updates to USEPA on its outreach efforts and progress. Because some owners did not grant access, the effected properties were removed from consideration for sampling and, instead, access was sought from a near-by property owner. The following sample locations were adjusted from what was proposed in the Phase 1 RI Work Plan:

- Valatie Kill Upstream of Nassau Lake: Transect 4 was moved downstream slightly and rotated; and
- Nassau Lake: Transects 12 and 15 were both moved slightly south.

3.3 Field Reconnaissance Results

Information gathered during past reconnaissance efforts was reviewed, to the extent practicable, and used to guide the field reconnaissance proposed in the Phase 1 RI Work Plan. To build off the past efforts, field reconnaissance of the Valatie Kill, Southeast Drainage Ditch, and Valley Stream was performed September 28 and 29 and October 7 and 8, 2015 to document, using field notes, photography, and position, relevant stream features such as riffles, depositional areas (e.g., sand bars, gravel bars), backwater areas, and evidence of bank undercutting or scour. In addition, during the reconnaissance potential depositional areas outside of the current active drainageway channels were identified, such as abandoned channels and oxbows, secondary high flow channels, wetlands, and other topographic depressions within the floodplains. During field reconnaissance, geomorphology (i.e., width of the stream, bank slope, presence of sand bars/gravel bars, man-made structures affecting stream flow, etc.) was assessed to aid in understanding transport of sediments (and associated PCBs) in the WD and SD to guide the sampling activities outlined in the Phase 1 RI Work Plan. Proposed modifications to the Phase 1 RI Work Plan were shown on updated tables and figures that were prepared after the field reconnaissance and provided to USEPA for review.

For both the WD and SD, the stream characteristics indicate flashy waterways with little sediment deposition in the main channels, especially in the Valatie Kill and to a lesser extent, Valley Stream.² The Southeast Drainage Ditch characteristics can be summarized as a flatter area with low-flow conditions compared to Valley Stream. Representative photographs and descriptions from the field reconnaissance activities are included in Appendix E.

² Flashy waterways are waterway that rapidly collects flows from the steep slopes of its watershed and produces water level peaks that occur soon after rain and/or snow melt, and quickly subside after the cessation of rainfall.

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The presence of features that could minimize access to the stream and floodplain areas were noted (e.g., steep and/or rocky stream banks, fences/gates, “Posted” or “No Trespassing” signs, very densely vegetated or wetland areas that make physical access difficult, evidence of frequent flood inundation), and were used to help guide the sampling activities outlined in the Phase 1 RI Work Plan. Additionally, field reconnaissance confirmed that the actual zoning use is consistent with the zoning defined on the maps established by the local government. Specifically, areas along the Drainageways are largely defined as Rural Residential, except for areas around Nassau Lake that are defined as Waterfront Residential.

Within the Town of Nassau Comprehensive Plan (Town of Nassau 2010), a Rural Residential landscape is best described as “primarily single family residential on large separated parcels, except in the hamlets where greater density is found.” Further, ‘agriculture occupies about half of the open land, however, most of the town is in forest cover.’ The Town of Nassau Comprehensive Plan generally describes Waterfront Residential lots as only those that have water frontage (Town of Nassau 2010).

Bank full elevations were estimated at multiple locations throughout the streams, as were other stream and bank characteristics such as width, depth, predominant substrate, and flood-prone areas. Representative notes and photographs showing the stream and bank characteristics are included in Appendix E.

3.4 Nassau Lake Bathymetric Data Collection

Water depth measurements and soft sediment probing were performed October 12 through 14, 2015 at locations throughout the lake to assess sediment thickness and surface data for Nassau Lake. Field reconnaissance of the shoreline areas of Nassau Lake was also performed at this time. Water depth measurements and soft sediment probing were conducted from a boat across the entire lake with a spacing of approximately one location per two acres, resulting in a total of 84 locations in Nassau Lake, as illustrated on Figure 3-3.

The water surface elevation during the water depth measurements and soft sediment probing activities was approximately 413.1 feet above mean sea level (amsl). Water depths measured ranged from 0.9 feet to 12.2 feet, with an average water depth of 6.8 feet. Based on water depth measurements at each of the 84 probing locations, water depth contours were developed and are illustrated on Figure 3-3.

Of the 84 locations at which the sediment was probed, refusal was reached at only 44% of the locations. As illustrated on Figure 3-3, the locations at which refusal was reached are mostly around the perimeter of the lake. The average sediment thickness at locations at which refusal was reached was observed to be approximately 5 feet (range of 0.3 to 12.0 feet). When considering the other 47 locations for which refusal was not reached, and using the maximum depth reached without refusal (i.e., the maximum reach of the 20-foot probe given water depth and sediment thickness), the average soft sediment thickness observed is greater than 7 feet, and the maximum soft sediment thickness is greater than 14 feet. Figure 3-3 indicates a schematic of the varying soft sediment thicknesses represented in Nassau Lake as estimated based on the soft sediment probing activities. As discussed, at more than half of the locations refusal was not reached, and as such the soft sediment thicknesses are likely greater than is illustrated on Figure 3-3.

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During sediment probing efforts, grab samples of sediment were collected at 16 locations and visually characterized. A summary of the observations at those 16 locations is provided in Table 3-1. In general, sediments were observed to be soft clays in the top two feet, with an underlying layer of stiff silty clays with organics. At multiple locations, an organic layer was observed approximately 2 feet below sediment surface, possibly representing a vegetative layer from before the lake was dammed over which deposition has occurred through the water column of Nassau Lake.

As summarized in the Loeffel Site Environs Remedial Investigations Phase 1 Report (BBL 1995), during 1993 investigations certain sediment cores were finely-sectioned to estimate sediment deposition rates and mixing depth. The deposition rates observed in the cores ranged from 0.125 inches/year (SDN007-9S, northern quarter, about halfway east/west, near 2015 probing location 28 in Table 3-1) to 0.18 inches/year, with an overall average of 0.155 inches/year (SDN007-39S, towards eastern shore, about halfway north/south, just north of NL15-IL-SED-13). Mixing depth had slightly less variability and was estimated to range from 1.75 inches (SDN007-9S) to 1.9 inches (SDN007-16S, near 2015 probing location 48 in Table 3-1). Chemical analysis in each of the finely-sectioned sediment cores indicated potentially greater rates of sediment loading to Nassau Lake in the 1950s and 1960s than rates at the time of the analysis. Based on the average estimate rate of sediment deposition presented in the Loeffel Site Environs Remedial Investigations Phase 1 Report (BBL 1995), the total sediment deposition for Nassau Lake was estimated to be approximately 700,000 kilograms/year (kg/year).

For comparison, an estimate of total annual sediment deposition in Nassau Lake was also made from Total Suspended Solid (TSS) concentrations at the Valatie Kill inlet (BBL 1995). The mean instantaneous suspended sediment load entering the lake during the TSS sampling events was calculated to be 10,000 kg/day. However, because a number of sampling events specifically targeted high-flow events, a flow-stratified approach was used with this data to estimate an annual sediment load to Nassau Lake of 500,000 kg/year.³

³ Sampling programs to evaluate sediment or sediment related constituents are often focused on high flow sampling, during the period when sediment transport is greatest. As a result, when viewed from an annual perspective the high flow period may be over represented. To minimize this bias, a flow-stratified approach weights the suspended sediment load data for high flow and low flow events based on the number of days high flow and low flow events are observed. The high flow/ low flow cutoff is determined by observation of TSS versus flow and identifying the flow at which substantial increases in TSS occurs. Basically, one develops either an average suspended sediment load or a regression relation between flow and suspended sediment load for both low flow and high flow conditions. If simple averages are used, one first looks at the available flow data for the channel (i.e., using the USGS gauge) and determines average number of days per year at high flow conditions and average number of days per year at low flow conditions. The number of days at each respective flow are then multiplied by the respective daily loading average for each condition, high flow and low flow subtotals added and an annual average load thus computed. As an alternative, using available data, regression relations between flow and suspended sediment loading are developed for both high and low flow condition. Daily flows from the USGS gage are used in the regression relations to determine estimated daily loads. These daily suspended sediment loads are then summed for a period of a year or several years to determine an annual loading.

3.5 Sediment and Soil Sampling and Analyses and Results

This section describes the sediment and soil sampling activities conducted within the WD and SD as part of the Phase 1 RI activities. A summary of the sampling and analyses program is provided in Section 3.5.1. The results of the program are summarized in Sections 3.5.2 and 3.5.3. Copies of the Phase 1 RI Notes are included in Appendix F. For development of statistics presented in these sections, blind duplicate samples were not counted individually in the quantity of samples, and results were averaged with the parent sample.

3.5.1 Sample Collection and Laboratory Analytical Methods

In November and December 2015, sediment and soil samples were collected from the selected locations in accordance with the Phase 1 RI Work Plan. Soil and sediment samples were collected and processed in accordance with the QAPP. To assess the precision and accuracy of the field sampling and analytical methods, quality assurance/quality control samples were also collected, as specified in the QAPP.

All sediment and soil samples were analyzed for PCB Aroclors by USEPA Method 8082B and Total Organic Carbon (TOC) by the Lloyd Kahn Method. In addition, select samples were analyzed for Target Compounds List (TCL) and Target Analyte List (TAL) constituents, 1,4-Dioxane, PCB congeners, dioxins/furans, grain size, and bulk density were by the following methods:

- USEPA Methods 6010B and 7471A for metals (including mercury);
- USEPA Method 8081A for pesticides;
- USEPA Method 8260C for VOCs;
- USEPA Method 8270C for SVOCs;
- USEPA Method 8270D for 1,4-Dioxane;
- Modified Green Bay Mass Balance Method for PCB congeners;
- USEPA Method 8290 for dioxins/furans;
- American Society for Testing and Materials (ASTM) Method D422-63 for grain size; and
- ASTM Method D4531-86 for bulk density.

Except for grain size and bulk density, sediment and soil analytical results underwent full data validation to evaluate data quality and usability. Data validation was conducted in accordance with USEPA's October 1999 National Functional Guidance for Data Validation and USEPA's October 2006 Region II Guidelines for Organic Data Validation, SOP HW-45 Revision 1 (USEPA 1999, USEPA 2006). Data was reviewed in accordance with the USEPA National Functional Guidance for Data Validation that was most current at the time of validation, in addition to USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, USEPA 540/R-99-008, May 1999 as applied to the methodology used. Note that validation was performed prior to issuance of USEPA's January 2017 National Functional Guidance for Data Validation, and USEPA 2006 SOP HW-45 Revision 1 referenced is a technical guidance document that was also used as an aid during validation of this data set. The verification/validation and review of the laboratory data packages submitted with this report identified a few minor quality assurance/quality control (QA/QC) non-compliance issues that would result in the estimation of that data. The details of the data verification/validation review are within the resulting Data Usability Reports for the validated analytical results, provided as Appendix G. A memo summarizing the QA/QC deviations that would require a rejection of specific data is included at the front of Appendix G.

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For calculating Total PCBs, if an individual Aroclor was ND, it was not included in the summation to calculate Total PCB. For the dioxin/furan analysis, calculation of the total Toxicity Equivalency Quotient (TEQ) concentrations for all sample results were calculated using the Toxicity Equivalency Factors (TEFs) issued by USEPA in 2010 (USEPA 2010), based on the revised TEFs developed by the World Health Organization (WHO) in 2005 (van den Berg 2006). Note, PCBs are not included in the TEQ calculation.

A summary of the sampling and analysis program, including the number of samples collected and the analyses, is provided in Tables 3-2 and 3-3. Figures 3-4A through 3-6B illustrate the locations from which samples were collected, along with the Total PCB Aroclor results. A summary of the Total PCB Aroclor results for the Phase 1 RI sampling activities is provided in Table 3-4, while Tables 3-5, 3-7, and 3-9 provide the PCB and TOC analytical results for samples collected during the Phase 1 RI sampling activities. A summary of the non-PCB Aroclor results for the Phase 1 RI sampling activities is provided in Table 3-6, 3-8, 3-10, 3-11, and 3-12, and the non-PCB Aroclor results for samples collected during the Phase 1 RI sampling activities is provided in Appendix A2.

3.5.2 Western Drainageway Program and Results

Sampling was performed in the WD at 242 locations to better define the nature and extent of PCBs in the Valatie Kill upstream of Nassau Lake and Nassau Lake, as well as in Valatie Kill downstream of the dam at the southern end of Nassau Lake, and also to evaluate other constituents. A combination of single-point samples and transect samples were utilized to assess the Valatie Kill and Nassau Lake. This section summarizes the sampling performed in the Valatie Kill and Nassau Lake, as well as the associated analytical results.

Valatie Kill Upstream from Nassau Lake

Ten sample transects were established along the Valatie Kill to cover the approximate extent of the floodplain in order to better define the extent of constituents along the length of the Valatie Kill and across its floodplain. The locations of these transects are illustrated on Figures 3-4A through 3-4C. At each transect, one sediment sample was collected from one location within the channel. In addition, soil samples were collected from five locations on each side of the bank full channel (for 10 total soil locations per transect). A total of 10 transects were sampled for a total of 10 sediment locations and 100 soil locations. Sediment and soil samples were collected at depth intervals of 0 to 6 inches, 6 to 12 inches, and 12 to 24 inches (or until refusal, if shallower). As shown in Table 3-2, a total of 19 sediment and 269 soil for a total of 288 samples were collected from transects in the Valatie Kill upstream of Nassau Lake.

Further, 25 additional sediment or soil judgmental samples were collected from 23 locations selected during field reconnaissance to target specific geomorphic features (i.e., width of the stream, bank slope, presence of sand bars/gravel bars, man-made structures affecting stream flow). Sediment and soil samples were collected at depth intervals of 0 to 6 inches and 6 to 12 inches. As shown in Table 3-2, 15 sediment and 10 soil judgmental samples were collected from the Valatie Kill upstream of Nassau Lake.

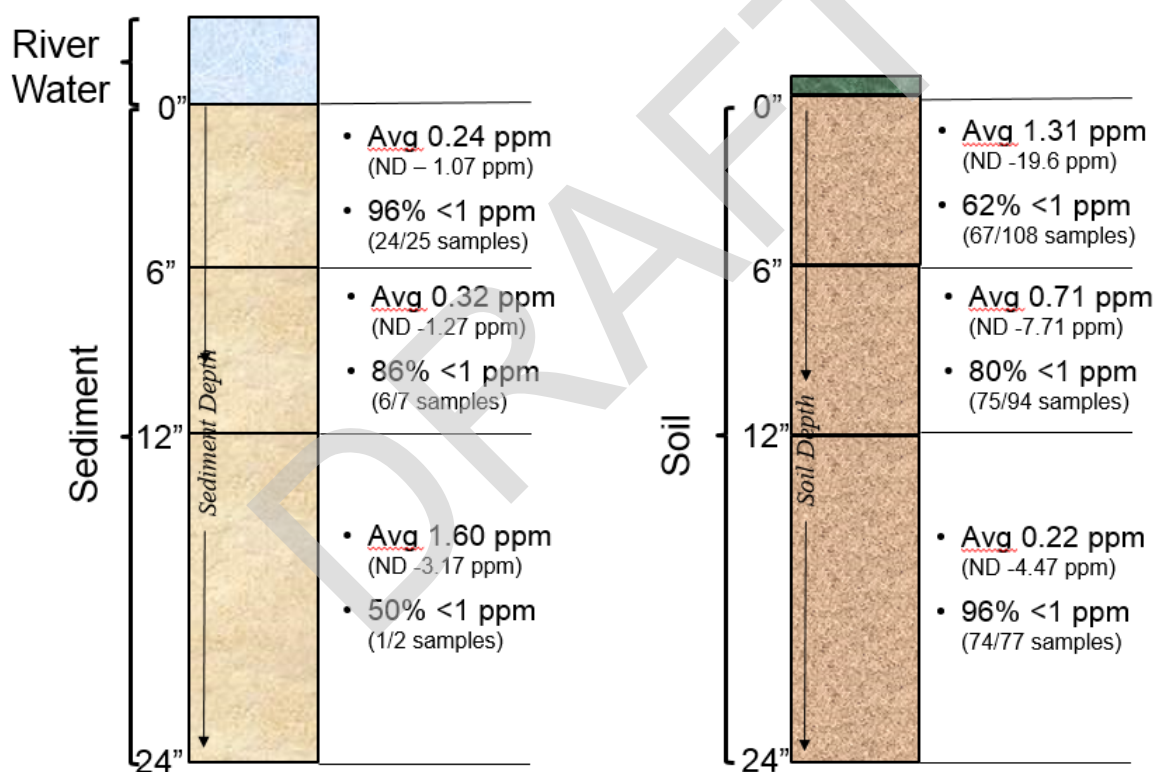
All of the samples collected were submitted for PCB Aroclor and TOC analyses, with analysis of a subset of the samples for other TCL/TAL constituents, 1,4-Dioxane, PCB congeners, and dioxins/furans. The specific subset of samples was selected based on field observations and professional judgment and was biased toward locations in and near the bank full channel. A subset of samples were also analyzed for

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grain size and bulk density. The number of samples submitted for each analysis is summarized in Table 3-3.

For sediment and soil samples collected from the Valatie Kill upstream of Nassau Lake, the Total PCB Aroclor results are summarized in Table 3-4 and illustrated on Figures 3-4A through 3-4C.

Total PCB Aroclor results for soil samples (i.e., including both judgmental and transect locations) ranged from ND to 19.6 ppm, with an average of 0.81 ppm (median of 0.13 ppm). A total of 110 (39%) of the soil samples were observed to be ND, and an additional 106 (38%) were detected at concentrations above ND but less than 1.0 ppm. For the 34 judgmental and transect sediment samples, concentrations range from ND to 3.17 ppm, with an average of 0.34 ppm (median of 0.10 ppm). A total of 4 (12%) of the sediment (including judgmental) samples were observed to be ND, and an additional 27 (79%) were detected at concentrations above ND but less than 1.0 ppm. A summary of sample results (i.e., average, range, percent ND), by depth, for the Valatie Kill sediments and floodplain soils is illustrated below.



The median value was observed to be equal to or less than the average value for all sediment and floodplain soil samples, for all depth intervals.

In general, results indicate concentrations of PCB Aroclor in the sediments and adjacent soils of the Valatie Kill upstream of Nassau Lake were predominantly less than 1.0 ppm, with 77% of the soil samples less than 1.0 ppm and 91% of the sediment samples less than 1.0 ppm. The higher concentrations of PCBs were observed in samples collected from the first four transects closest to the confluence with Tributary T11A (Transects 01 through 04). Specifically, the nine highest Total PCB Aroclor results observed in the Valatie Kill upstream of Nassau Lake were observed in and upstream of Transect 04

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(ranging from 4.51 to 19.6 ppm). The highest result observed downstream of Transect 04 was in the 12 to 24-inch depth interval at location VK-T09-W-SL-01 (4.47 ppm), and the average Total PCB Aroclor concentration downstream of Transect 04 was observed to be 0.36 ppm (median of 0.056 ppm). The Total PCB Aroclor sediment and soil results for each sample collected from the Valatie Kill upstream of Nassau Lake are presented in Table 3-5.

A summary of the results of other analytical testing performed on samples collected from Valatie Kill upstream of Nassau Lake, including a list of the compounds analyzed and the frequency of detection, minimum, maximum, median, and mean for each compound, is presented in Table 3-6. Of the 10 soil samples submitted for analysis of PCB Congeners, Total PCB results ranged from 0.0038 to 4.99 ppm. Results were correlated with the results from the Total PCB Aroclor analyses, but on average were approximately 1.26 ppm higher than the Aroclor results.⁴ Dioxin-like PCBs (i.e., Congener #26) were detected in 2 of the 10 samples at concentrations ranging from 0.0010 ppm to 0.0023 ppm.

Only five VOCs were detected in any of the soil samples collected from the Valatie Kill upstream of Nassau Lake (2-Butanone, Acetone, Dichloromethane, Trichloroethene, and Trichlorofluoromethane), and 50% of the samples had no detection of any VOCs. For SVOCs, detections were only observed in two samples: VK15-T02-E-SL-01-0006 (2-Methylnaphthalene and Naphthalene) and VK15-T07-E-SL-01-0006 (Phenol). As shown in Table 3-6, most metals were detected in each of the 20 samples analyzed from the Valatie Kill upstream of Nassau Lake, and certain pesticides were observed in the majority of the 20 samples analyzed.

TEQ concentrations based on the revised TEFs developed by the WHO for the five samples submitted for dioxin/furan range from 5.3 to 6.6 parts per trillion (ppt). As presented in Table 3-6, six individual dioxin/furans were detected in the samples collected from the Valatie Kill, including the following:

- 1,2,3,4,6,7,8-HpCDD at concentrations ranging up to 15 ppt;
- 1,2,3,4,6,7,8-HpCDF at concentrations ranging up to 13 ppt;
- 2,3,4,6,7,8-HxCDF at a concentration of 5.5 ppt;
- 2,3,4,7,8-PeCDF at a concentration of 5.4 ppt;
- 2,3,7,8-TCDF at concentrations ranging up to 2.3 ppt; and
- OCDD at concentrations ranging up to 200 ppt.

A summary of the geotechnical results for the soil and sediment samples collected from Valatie Kill upstream of Nassau Lake, including the minimum, maximum, median, and mean for each criterion, is presented in Table 3-6. On average, soil material was observed to be primarily silts and clays, fine sand, and medium sand, with gravel and coarse sand comprising less than 10% of the soil samples. Conversely, the average sediment material was observed to be primarily gravel, coarse sand, and medium sand, with silts and clays and fine sand comprising less than 10% of the sediment samples.

The data from the non-PCB analyses for the Valatie Kill upstream of Nassau Lake is provided in Appendix A2, Tables A2-2 and A2-3.

⁴ Note that no correlation factor between Total PCBs on a Congener basis and Total PCBs on an Aroclor basis can be discerned from this limited data set, especially considering the different analytical methodologies.

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Nassau Lake

Sediment samples were collected from a total of 30 locations within Nassau Lake, as summarized in Table 3-4 and illustrated on Figures 3-5A through 3-5C. Sediment samples were collected at depth intervals of 0 to 6 inches, 6 to 12 inches and 12 to 18 inches (or refusal, if shallower), resulting in 88 total samples. In addition, 28 samples were collected from the 18 to 24-inch interval and archived for potential analysis; four of these samples were later released for analysis bring the total up to 92 samples analyzed and are included in the results presented in this section.

In addition, sediment and soil samples were collected from 15 transects established along the shoreline of Nassau Lake (Figures 3-5A through 3-5C). At each transect, three locations were sampled:

- A sediment location between the summer high water level (413.0 feet amsl) and winter low water level (411.5 feet amsl);
- A soil location between the summer high water level (413.0 feet amsl) and the 10-year flood elevation (415.8 feet amsl), but closer to the 10-year flood elevation; and
- A soil location between the 10-year flood elevation (415.8 feet amsl) and the 25-year flood elevation (416.0 feet amsl), but closer to the 25-year flood elevation.

Shoreline sediment and soil samples were collected at approximate depth intervals of 0 to 6 inches and 6 to 12 inches (or refusal, if shallower), resulting in 24 sediment and 56 soil samples from the 15 transects.

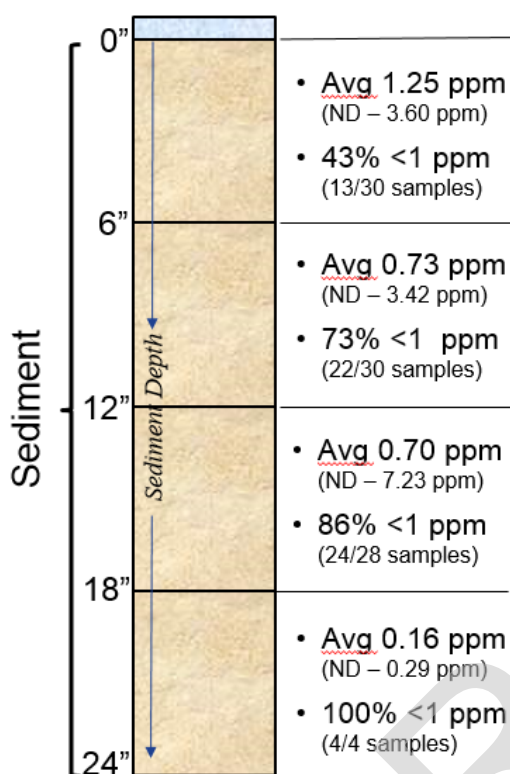
All of the samples collected were submitted for PCB Aroclor and TOC analyses, with analysis of a subset of the samples for other TCL/TAL constituents, 1,4-Dioxane, PCB congeners, and dioxins/furans. A subset of samples was also analyzed for grain size and bulk density. The number of samples submitted for each analysis is summarized in Table 3-3.

For the 80 sediment or soil samples collected from the 15 transects around the perimeter of Nassau Lake, the Total PCB Aroclor results are summarized in Table 3-4 and illustrated on Figures 3-5A through 3-5B. In general, results indicate ND or concentrations of less than 1.0 ppm PCB Aroclor in most of the sediments and soils around the perimeter of Nassau Lake. The Total PCB Aroclor results were observed to range from ND to 0.85 ppm with an average 0.11 ppm (median of 0.03 ppm) for the 24 sediment samples, and from ND to 1.79 ppm with an average 0.10 ppm (median of 0.03 ppm) for the 56 soil samples. A total of 16 sediment and 43 soil samples (67% for the sediment and 77% for the soil samples) were ND, and a total of 8 sediment and 11 soil samples (33% for the sediment and 20% for the soil samples) were detected at concentrations above ND but less than 1.0 ppm. Of all 80 samples collected from the 15 transects around the perimeter of Nassau Lake, only two soil samples were observed to have Total PCB Aroclor results greater than 1.0 ppm (1.56 ppm and 1.79 ppm), both at Transect 07 on the south shore of the lake; 98% of the transect soil and sediment samples were observed to be less than 1.0 ppm Total PCB Aroclors.

For the 92 sediment samples collected from deeper section within Nassau Lake, the Total PCB Aroclor results are summarized in Table 3-7 and illustrated on Figures 3-5A through 3-5C. The Total PCB Aroclor results ranged from ND to 7.23 ppm, and average of 0.87 ppm (median of 0.27 ppm). A total of 31 samples (34%) were ND, and a total of 32 samples (35%) were detected at concentrations above ND but less than 1.0 ppm. The average of the remaining 31% of the samples (greater than 1.0 ppm) was 2.26 ppm (median of 2.13 ppm). In general, the higher results observed within Nassau Lake were along the

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thalweg of the lake (historic river channel running through the lake). A summary of sample results (i.e., average, range, percent ND), by depth, for Nassau Lake sediments is illustrated below.



The median value was observed to be equal to or less than the average value for all depth intervals.

The highest concentrations of Total PCB Aroclor were observed in the sample interval of 12 to 18 inches in the area closest to the outlet of the Valatie Kill (see Figure 3-5C). For locations where the 12 to 18-inch sample Total PCB Aroclor result was observed to be greater than 1 ppm (NL15-IL-SED-05, -06, -08, and -28), the archived 18 to 24 inch interval was also analyzed. The results from the deepest intervals analyzed at these locations returned were observed to be ND or less than 1.0 ppm. As illustrated on Figures 3-5A through 3-5C, when looking at the Nassau Lake data set as a whole, the concentration of Total PCB Aroclors was observed to generally decrease with sediment depth. The Total PCB Aroclor sediment and soil results for each sample collected in and around Nassau Lake are presented in Table 3-7.

A summary of the results of other analytical testing performed on sediment samples collected from within Nassau Lake, including a list of the compounds analyzed and the frequency of detection, minimum, maximum, median, and mean for each compound, is presented in Table 3-8. Of the five sediment samples submitted for analysis of PCB Congeners, Total PCB results ranged from 0.33 to 5.4 ppm. Results were generally correlated with the results from the Total PCB Aroclor analysis, but on average

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were approximately 1.22 ppm higher than the Aroclor results.⁵ Dioxin-like PCBs (i.e., Congener #26) were detected in three of the five samples at concentrations ranging from 0.0056 ppm to 0.019 ppm.

Only three VOCs were detected in any of the sediment samples collected from Nassau Lake (2-Butanone, Acetone, Carbon disulfide). For SVOCs, no detections were observed. As shown in Table 3-8, most metals were detected in each of the five sediment samples analyzed from within Nassau Lake, and certain pesticides were observed in each of the five sediment samples analyzed.

The TEQ concentrations based on the revised TEFs developed by the WHO for the three sediment samples submitted for dioxin/furan range from 4.46 to 28.9 ppt. As presented in Table 3-8, 10 individual dioxin/furans were detected in the samples collected from Nassau Lake, including the following:

- 1,2,3,4,6,7,8-HpCDD at concentrations ranging up to 40 ppt;
- 1,2,3,4,6,7,8-HpCDF at a concentration of 25 ppt;
- 1,2,3,4,7,8-HxCDF at concentrations ranging up to 13 ppt;
- 1,2,3,6,7,8-HxCDF at a concentration of 12 ppt;
- 1,2,3,7,8-PeCDF at concentrations ranging up to 21 ppt;
- 2,3,4,6,7,8-HxCDF at concentrations ranging up to 16 ppt;
- 2,3,4,7,8-PeCDF at concentrations ranging up to 31 ppt;
- 2,3,7,8-TCDF at concentrations ranging up to 45 ppt;
- OCDD at concentrations ranging up to 520 ppt; and
- OCDF at concentrations ranging up to 27 ppt.

A summary of the geotechnical results for the sediment samples collected from within Nassau Lake, including the minimum, maximum, median, and mean for each criterion, is presented in Table 3-8. On average, material was observed to be primarily silts and clays, medium sand, and fine sand, with gravel and coarse sand comprising only about 15% of the sediment samples.

The data from the non-PCB analyses for Nassau Lake is provided in Appendix A2, Tables A2-4 and A2-5.

Valatie Kill Downstream from Nassau Lake

Four sediment samples were collected downstream of the dam at the southern end of Nassau Lake. Samples were collected from four locations at an approximate depth interval of 0 to 6 inches. All four samples were ND for PCB Aroclors.

3.5.3 Southern Drainageway Program and Results

Sampling was performed in the SD at 32 locations to better define the nature and extent of PCBs in the Southeast Drainage Ditch, Valley Stream, and Smith Pond, and also to evaluate other constituents, thereby focusing the scope and extent of the Phase 2 RI activities. Given the narrow width and shallow depth of the SD and consistent with previous sampling by USEPA, single-point samples were determined

⁵ Note that no correlation factor between Total PCBs on a Congener basis and Total PCBs on an Aroclor basis can be discerned from this limited data set, especially considering the different analytical methodologies.

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to be more appropriate than transects. This section summarizes the sampling performed in the Southeast Drainage Ditch and Valley Stream (including Smith Pond).

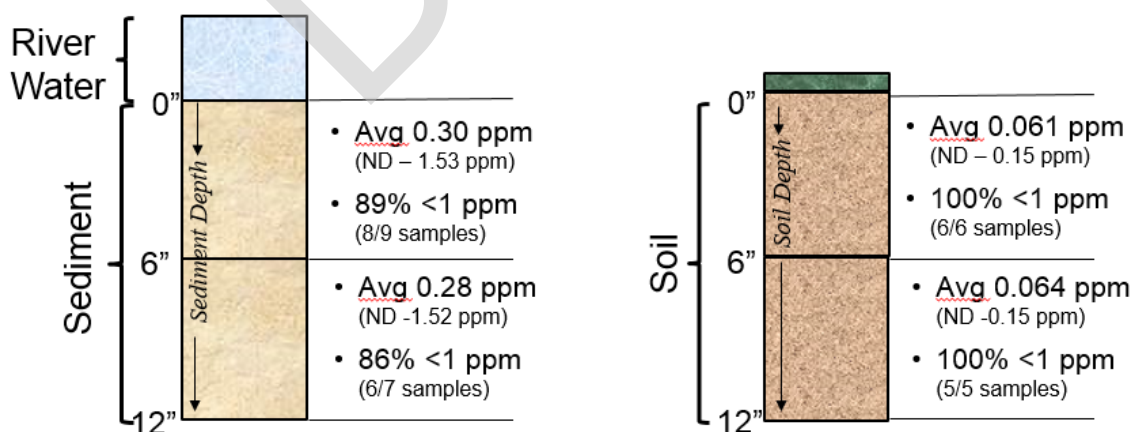
Southeast Drainage Ditch

For the Southeast Drainage Ditch, sediment or soil samples were collected from 12 locations spaced relatively evenly along the Southeast Drainage Ditch to represent the current stream channel up to the approximate bank full elevation. In addition, soil samples were collected at three additional locations selected to represent the area just above the approximate bank full elevation.

Sediment and soil samples were collected at approximate depth intervals of 0 to 6 inches and 6 to 12 inches (or refusal, if shallower). As shown in Table 3-2, a total of 16 sediment and 11 soil samples were collected from the Southeast Drainage Ditch.

All samples collected from the Southeast Drainage Ditch were submitted for PCB Aroclors and TOC analyses, with analysis of a subset of samples for other TCL/TAL constituents, 1,4-Dioxane, PCB congeners, and dioxins/furans. The specific subset of samples was selected based on field observations and professional judgment, and was biased toward depositional areas of the stream channel. A subset of samples was also analyzed for grain size and bulk density. The number of samples submitted for each analysis is summarized in Table 3-3.

For samples collected from the Southeast Drainage Ditch, the Total PCB Aroclor results are summarized in Table 3-9 and illustrated on Figures 3-6A and 3-6B. For sediment samples, the Total PCB Aroclor results range from ND to 1.53 ppm with an average of 0.29 ppm (median of 0.071 ppm) with only two samples having Total PCB Aroclor results greater than 1.0 ppm. Those two results (1.53 and 1.52 ppm) were both observed at sample location SEDD15-SED-01 (0 to 6 inches and 6 to 12 inches) immediately adjacent to the LF. For soil samples, the Total PCB Aroclor results range from ND to 0.15 ppm with an average of 0.062 ppm (median of 0.041 ppm). Overall, 93% of the Southeast Drainage Ditch soil and sediment samples were observed to be less than 1.0 ppm Total PCB Aroclors. A summary of sample results (i.e., average, range, percent ND), by depth, for the Southeast Drainage Ditch is illustrated below.



The median value was observed to be equal to or less than the average value for both sediment and soil samples, for all depth intervals.

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A summary of the results of other analytical testing performed on three sediment samples and one soil sample collected from the Southeast Drainage Ditch, including a list of the compounds analyzed and the frequency of detection, minimum, maximum, median, and mean for each compound, is presented in Table 3-10. Of the two sediment samples and one soil sample submitted for analysis of PCB Congeners, Total PCB results ranged from 0.22 to 3.1 ppm, again with the only result greater than 1.0 ppm being observed at sample location SEDD15-SED-01 immediately adjacent to the LF. Dioxin-like PCBs (i.e., Congener #26) were detected in one of the three samples at a concentration of 0.0097 ppm.

Only seven VOCs were detected in any of the sediment samples collected from the Southeast Drainage Ditch (2-Butanone, Acetone, Benzene, Chlorobenzene, cis-1,2-Dichloroethene, Dichloromethane, Trichloroethene). For SVOCs, no detections were observed. As shown in Table 3-10, most metals were detected in each of the three sediment samples analyzed from the Southeast Drainage Ditch, and certain pesticides were observed in each of the three sediment samples analyzed. The TEQ concentrations based on the revised TEFs developed by the WHO for the one sediment sample submitted for dioxin/furan was 5.65 ppt. As presented in Table 3-10, one individual dioxin/furan (OCDD) was detected in the sample collected from the Southeast Drainage Ditch, at a concentration of 38.5 ppt.

A summary of the geotechnical results for the three sediment samples collected from the Southeast Drainage Ditch, including the minimum, maximum, median, and mean for each criterion, is presented in Table 3-10. On average, material was observed to be primarily silts and clays, medium sand, and fine sand, with gravel and coarse sand comprising only about 6% of the sediment samples.

The data from the non-PCB analyses for the Southeast Drainage Ditch is provided in Appendix A2, Tables A2-6 and A2-7.

Valley Stream (including Smith Pond)

For the section of Valley Stream between the confluence with the Southeast Drainage Ditch and Smith Pond, sediment or soil samples were collected from seven locations spaced relatively evenly along the Valley Stream to represent the current stream channel up to the approximate bank full elevation, and soil samples were collected at two locations to represent the area just above the approximate bank full elevation. For the section of Valley Stream between Smith Pond and the inlet to Nassau Lake, sediment or soil samples were collected from three locations spaced relatively evenly along the Valley Stream to represent the current stream channel up to the approximate bank full elevation. Samples were also collected from five locations in Smith Pond.

Sediment and soil samples were collected at approximate depth intervals of 0 to 6 inches and 6 to 12 inches (or refusal, if shallower). As shown in Table 3-2, a total of 20 sediment and 10 soil samples were collected from Valley Stream (including Smith Pond).

All samples collected from Valley Stream and Smith Pond were submitted for PCB Aroclors and TOC analyses, with analysis of a subset of the samples for other TCL/TAL constituents, 1,4-Dioxane, and PCB congeners. The specific subset of samples was selected based on field observations and professional judgment, and was biased toward depositional areas of the channel in Valley Stream and the inlet portion of Smith Pond. A subset of samples was also analyzed for grain size and bulk density. The number of samples submitted for each analysis is summarized in Table 3-3.

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For samples collected from Valley Stream (including Smith Pond), the Total PCB Aroclor results are summarized in Table 3-9 and illustrated on Figures 3-6A and 3-6B. For sediment samples, the Total PCB Aroclor results ranged from ND to 0.10 ppm with an average of 0.07 ppm (median of 0.60 ppm). Of the 20 sediment samples, only two were observed to have detectable Total PCB Aroclor results. Those two results (0.078 and 0.10 ppm) were both observed in Smith Pond in the 0 to 6-inch interval. For soil samples, the Total PCB Aroclor results range from ND to 0.10 ppm with an average of 0.04 ppm (median of 0.04 ppm). Of the 10 soil samples analyzed, only one was observed to have detectable Total PCB Aroclor results. That result (0.10 ppm) was observed in the 0 to 6-inch interval in the first sample collected downstream of Smith Pond. Overall, 100% of the Valley Stream (including Smith Pond), soil and sediment samples were observed to be less than 1.0 ppm Total PCB Aroclors.

A summary of the results of other analytical testing performed on two sediment samples and one soil sample collected from Valley Stream and Smith Pond, including a list of the compounds analyzed and the frequency of detection, minimum, maximum, median, and mean for each compound, is presented in Tables 3-11 and 3-12, respectively. Of the two sediment samples submitted for analysis of PCB Congeners, Total PCB results ranged from 0.035 (in Valley Stream) to 0.75 ppm (in Smith Pond). Dioxin-like PCBs (i.e., Congener #26) were ND in the two samples.

Only seven VOCs were detected in any of the sediment samples collected from Valley Stream (including Smith Pond) (2-Butanone, Acetone, Benzene, Chlorobenzene, Dichloromethane, m,p-Xylene, Toluene). For SVOCs, no detections were observed in the samples collected from Valley Stream itself; however, some SVOCs were detected in the sediment sample collected at the inlet portion of Smith Pond. As shown in Tables 3-11 and -12, most metals were detected in each of the two sediment samples and one soil sample analyzed from Valley Stream and Smith Pond, and only two pesticides were observed two sediment samples analyzed (Endrin ketone, p,p'DDE). No pesticides were detected in the soil sample collected.

A summary of the geotechnical results for the sediment and soil samples collected from Valley Stream, including the minimum, maximum, median, and mean for each criterion, is presented in Table 3-11. Sediment material was observed to be primarily silts and clays, fine sand, and medium sand, with gravel and coarse sand comprising less than 1% of the sediment sample. Soil material was observed to be primarily silts and clays, medium sand, and fine sand, with gravel and coarse sand comprising less than 2% of the soil sample.

The data from the non-PCB analyses for Valley Stream and Smith Pond is provided in Appendix A2, Tables A2-6 and A2-7.

3.6 PCB Volatilization Evaluation

Ambient air sampling for PCBs was previously conducted near the shoreline of Nassau Lake in September 1997. The purpose of the sampling was to assess the PCB concentrations in ambient air around Nassau Lake and obtain correlated meteorological data to assess whether Nassau Lake is a source of PCBs to ambient air. Ambient air sampling was also performed along the shoreline of Burden Lake as a reference. The sampling activities, results, and conclusions were presented in a report titled, "Ambient Air Sampling for PCBs near Nassau Lake" (BBL 1997). The conclusion presented in that report was that PCBs were ND in ambient air along the shoreline downwind of Nassau Lake. Nonetheless, as

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required by the Consent Order and associated SOW, the data collected in 1997 was re-evaluated as part of the Phase 1 RI activities.

In summary, the 1997 sampling consisted of three consecutive 8-hour high-volume sampling events at five locations. The events began on September 9, 1997 and lasted until September 11, 1997. The re-evaluation confirmed that samples were collected in accordance with USEPA Compendium Method TO-4 and analyzed for seven PCB Aroclors using gas chromatography with electron capture detection consistent with USEPA Method 608. With an average sample volume of 123 m³, the detection limit was confirmed to be 0.004 micrograms per cubic meter (µg/m³). The re-evaluation of the raw data collected in 1997 confirmed that PCBs were ND at a concentration of 0.004 µg/m³ in ambient air along the shoreline downwind of Nassau Lake. Based on the results of this re-evaluation, no additional air sampling for PCBs is warranted during Phase 2 of the RI.

DRAFT

4 PRELIMINARY CONCEPTUAL SITE MODEL

This section of the Phase 1 RI Work plan provides a preliminary conceptual site model based on the historical results for the Site and the results from the first phase of the RI.

4.1 Physical Characteristics

The Site is located in the Hudson River Valley and is characterized by hills and highlands (O'Brien & Gere 2014). The climate of the Site is typical of the Northeast, with average annual temperatures in the mid-40's degrees Fahrenheit. Annual rainfall is approximately 40 to 50 inches with the monthly average rainfall ranging from near 3 inches to as much as 7 inches.

The elevation for the Site ranges from approximately 400 feet NAVD88 at Nassau Lake to near 700 feet NAVD88 at the highest elevation of the drainageways near the LF. The LF itself sits between two wooded hills with peak elevations of at least 100 feet above the highest point of the LF – one to the northeast and one to the southwest. Surface water from the LF drains predominantly to the northwest through the Northwest Drainage Ditch towards Tributary T11A, which discharges via the Valatie Kill into the northeast corner of Nassau Lake. As a much smaller portion of the surface water from the LF flows to the southeast through the Southeast Drainage Ditch towards Valley Stream, which flows through Smith Pond and discharges into the southeast side of Nassau Lake. As stated above and in NYSDEC's 2002 ROD, in a large part due to the minimal surface water drainage to the southeast, the SD "was not significantly impacted by hazardous wastes from the site."

Tributary T11A is a steep and rocky 1,900-foot long ravine, with sharp banks on either side of the channel. Valatie Kill is also characterized as a rocky channel with little deposition due to the gradient in the channel which produces water velocities that allow little sediment deposition. The Southeast Drainage Ditch, especially near the LF, is a low relatively flat swale to Valley Stream, which is a rocky channel.

A nearly contiguous layer of glacial till is over the underlying shale bedrock. The till in the region is generally a firm heterogeneous mixture of unsorted material rich in clay and ranging in size from clay to boulders.

Additional details related to the natural state (physiography), topography, surface drainage, and geology of the Site can be found in the Loeffel Site Environs Remedial Investigations Phase 1 Report (BBL 1995) and the Site Characterization Summary Report (O'Brien & Gere 2014).

4.2 Hydrogeological Conditions

As indicated in Table 1-1, for a period of 25 years from 1991 through 2015, the monthly average flows for the Valatie Kill, as recorded at USGS Gaging Station 01360640, ranged from approximately 7 cfs (July, August, and September) to near 30 cfs (March), with an annual average of about 14 cfs over the 25-year period of record. The lowest monthly mean in the past 25 years was 0.3 cfs (July 1991), and the maximum monthly mean in the past 25 years was 61.5 cfs (March 2011).

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Annual average flows for the 25-year period of record show no significant trend over time. However, the average flows recorded during the middle portion of the period of record (i.e., 1995 to 2010) were observed to be slightly higher than those at either the beginning or end of this time frame. In general, the Valatie Kill has been observed to react quickly to rain events, with flows increasing significantly as runoff flows down the steep ravine banks into the channel.

A new flow measurement structure installed near the discharge of Tributary T11A during May 2016 will be used to generate flow data in that portion of the Drainageway. Similar to the Valatie Kill, Tributary T11A reacts quickly to rain events.

Additional details related to the hydrogeological conditions of the Site can be found in the Loeffel Site Environs Remedial Investigations Phase 1 Report (BBL 1995) and the Site Characterization Summary Report (O'Brien & Gere 2014).

4.3 Nature and Extent

The analytical results for the sediment, soil, surface water, and fish samples collected at the Site have been reviewed to characterize the nature and extent of the contamination at the Site. The nature and extent for each of the Drainageways is detailed below. Table 4-1 provides a summary of the historic results and Phase 1 RI results for sediment and soil sampling.

4.3.1 Western Drainageway

The PCB Aroclor analytical results for samples collected from the WD indicate Tributary T11A continues to be a potential source of PCB to the rest of the WD; however, the PCB levels in the remainder of the WD are on average less than 1.0 ppm. The nature and extent of contaminants in specific areas of the WD are discussed further in the remainder of this section.

Northwest Drainage Ditch

The Northwest Drainage Ditch is a densely wooded area for about the first 400 feet followed by a culvert pipe that runs in a stone-lined channel for about another 400 feet (Former Mead Road Pond Area) before discharging into Tributary T11A. Access is controlled by a single property owner.

As indicated in Section 2.1, concentrations of Total PCB Aroclors in sediment and soil since performance of the IRM in 2001 are on average less than 2.0 ppm, ranging from ND to 18 ppm, with a median concentration of 0.40 ppm (see Appendix A1, Table A1-14).

Total PCB Aroclor concentrations in surface water at the outlet of the Northwest Drainage Ditch into Tributary T11A are less than 1.0 parts per billion (ppb, which is equivalent to micrograms per liter [$\mu\text{g/L}$]) (maximum concentration of 0.283 ppb] in 2014). See Appendix C for additional details on surface water sampling results.

Because of generally low and intermittent flow rates, the area is not an ideal fish habitat. Forage fish species collected at Station Numbers 1 and 2 include primarily blacknose dace with creek chubs to a lesser extent. Overall, Total PCB Aroclor results in forage fish species have decreased in concentration over time. Over ten years of data collection from 2005 through 2015, Aroclor 1260 was observed in 100% of the fish samples with detectable concentrations of PCBs collected at Station 1 and 2. Aroclor

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1248 and 1254 were the only other Aroclors found to be contributing to Total PCB concentrations for fish collected from Station 1 and 2 during that 10-year period and only observed at a frequency of 3% for Station 1 and 1.2% for Station 2 of the fish samples with detectable concentrations of PCBs. Specifically, for Station 1 and 2:

- Aroclor 1248 was detected in creek chub and brook trout, both in 2006. Concentrations ranged from 0.11 ppm to 0.27 ppm, and contributed from 5.8% to 6.5% to the Total PCB concentration for the fish sample for which Aroclor 1248 was detected; and
- Aroclor 1254 was detected one creek chub in 2005 at a concentration of 0.78 ppm. Aroclor 1254 contributed 10.2% to the Total PCB concentration that fish sample.

Edible-sized fish are not generally observed in the Northwest Drainage Ditch. See Appendix D for additional details on fish sampling results.

Tributary T11A

Tributary T11A is approximately 1,900 feet long on a contiguous property owned by one owner (the same owner as the Northwest Drainage Ditch). Tributary T11A is at the bottom of a steep ravine with dense vegetation on the banks and numerous fallen trees.

As indicated in Section 2.1, concentrations of Total PCB Aroclors in sediment and especially soil are the highest observed within the WD. Total PCB Aroclor concentrations range from ND to 1,300 ppm, with 11 soil sample results greater than 50 ppm (Appendix A1), all located within the top foot of material.

Surface water results, while less than 1 ppb (1000 ng/L), are generally observed to be over an order of magnitude above the results observed in the Valatie Kill as shown in the Surface Water Temporal Trends figure in Appendix H. Aroclor 1260 is the most predominant Aroclor contributing to Total PCB concentrations observed in the surface water results for Tributary T11A. To a lesser extent, over history, Aroclors 1221, 1248, and 1254 have also been observed to contribute to the Total PCB results for Tributary T11A. In 2016, only Aroclor 1254 was detected (other than Aroclor 1260), and was only observed in four samples collected from five stations over three monitoring events. See Appendix C for additional details on surface water sampling results.

Fish sampling is conducted at Station 3, 4 and 5 that divide Tributary T11A into three segments (i.e., upper, middle and lower thirds). Forage fish species primarily include blacknose dace, creek chubs and brook trout. Overall, Total PCB Aroclor results in forage fish species have stayed fairly constant throughout time, with some decrease in concentration observed in recent years after the remediation performed in 2001 and 2002. Over ten years of data collection from 2005 through 2015, Aroclor 1260 was observed in 100% of the fish samples with detectable concentrations of PCBs collected at Station 3, 4, and 5. No other Aroclors were detected in fish from those three stations over the recent 10-year period.

The temporal trends in Total PCB Aroclor for Blacknose Dace at Station 3 and Brook Trout (forage size) at Station 5 are shown in the Tributary T11A figure in Appendix H. Edible-sized fish are not generally observed in Tributary T11A, and none were observed during 2016 sampling. See Appendix D for additional details on fish sampling results.

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Valatie Kill Upstream of Nassau Lake

For long stretches, the Valatie Kill upstream of Nassau Lake is densely wooded and rural in most areas, however, other stretches are adjacent to or cross residential properties. The Valatie Kill touches approximately 25 individual parcels between Tributary T11A and Nassau Lake. Much of the Valatie Kill channel has little depositional material, and existing sediment is primarily gravel, coarse sand and medium sand.

As indicated in Sections 2.1 and 3.5.2, since remediation of Area 28, concentrations of Total PCB Aroclors observed in sediment and soil are generally less than 1.0 ppm, with the majority of higher concentrations observed in the extent between the outlet of Tributary T11A and the area immediately downstream of Mead Road. As summarized in Table 4-1, Phase 1 RI Total PCB Aroclor results are on average similar to or lower than historic results for samples collected from the Valatie Kill. Additionally, as with historic results, Aroclor 1260 is the most predominant Aroclor contributing to Total PCB concentrations observed in the soil/sediment of the Valatie Kill. Aroclors 1254, 1248, and 1242 have also been observed, to a small extent. For the Phase 1 RI results, only Aroclor 1242 was detected one time (0.031 ppm at VK15-T08-E-SL-02).

When comparing the data set for the Valatie Kill upstream of Nassau Lake from prior to 2015 (i.e., historic) to the results observed during implementation of the Phase 1 RI, average and median Total PCBs results for the Valatie Kill have reduced over time. Pre-2009 data provided an average of 1.5 ppm and a median of 1.1 ppm, for 2009 sampling the average was observed to be 0.40 ppm and the median was 0.20 ppm, and the one sample collected from the Valatie Kill upstream of Nassau Lake in 2014 provided a result of 0.049 ppm (see Appendix A1, Table A1-14). The average and median observed based on the 2015 data set (i.e., average of 0.39 ppm and median of 0.15 ppm, see Table 4-1) are on par with the 2009 data set, and are lower than the average/median results observed prior to 2009.

As discussed in Section 3.5, non-PCB parameters were analysed during the Phase 1 RI sampling activities. Although no screening values have yet been selected for the Site, for reference purposes the non-PCB parameters were compared to the residential soil values provided in the USEPA Regional Screening Levels (RSLs) tables for target cancer risk equal to 1E-06 and for a target hazard quotient of 0.1 (USEPA 2016). A copy of the table is provided in Appendix A3. Metals such as aluminium, arsenic, cobalt, iron, manganese, and thallium and the pesticide dieldrin were detected at concentrations higher than the USEPA screening value; however, these detected concentrations have not yet been compared to background levels near the Site. None of the other non-PCB analytes were detected at concentrations greater than the screening values considered. As discussed in Section 5.1, the need for collection of additional background sediment and soil samples, including for non-PCB analysis, will be evaluated during development of the Phase 2 RI Work Plan.

Surface water results for Total PCB Aroclor collected from the six locations between the outlet of Tributary T11A and Nassau Lake are higher than the samples collected in the Valatie Kill upstream of the outlet of Tributary T11A, but are still less than 1 ppb (maximum concentration of 0.053 ppb (53 ng/L) in 2015) and generally have been averaging 10-11 ng/L (parts per trillion) in the last five years as shown in the Surface Water Temporal Trends Figure in Appendix H. These results are over an order-of-magnitude less than the results observed in Tributary T11A. Similar to the Aroclor distribution observed in Tributary T11A, Aroclor 1260 is the most predominant Aroclor contributing to Total PCB concentrations observed in the surface water results for the Valatie Kill. To a lesser extent Aroclors 1221, 1248, and 1254 have also

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been observed to contribute to the Total PCB results for the Valatie Kill. In 2016, Aroclor 1254 was detected only in the background sample during one sampling event, and Aroclor 1221 was observed in all samples collected during two of the three monitoring events at the nine stations in the Valatie Kill.⁶ See Appendix C for additional details on surface water sampling results.

Fish sampling is conducted in the Valatie Kill at Station Number 7 (below confluence with T11A) and Station Numbers 8 through 10 (above, at, and below Area 28). Forage fish species primarily include blacknose dace, creek chubs, longnose dace and white sucker with brook trout and common shiner to a lesser extent. Edible fish species primarily include brook trout and white sucker.

Overall, Total PCB Aroclor results in both forage and edible fish species have decreased in concentration after the remediation performed in 2001 and 2002. Specifically, for edible fish species collected from Stations 7 through 10 since 2002, the Total PCB average concentration at each station can be summarized as follows:

- Station 7: since 2002 brook trout average Total PCB concentration ranged from 0.78 ppm to 9.2 ppm, with an average Total PCB concentration of 2.6 ppm observed in 2016, and white sucker average Total PCB concentration ranged from 0.10 ppm to 6.6 ppm, with an average Total PCB concentration of 1.2 ppm observed in 2016;
- Station 8: since 2002 brook trout average Total PCB concentration ranged from 1.1 ppm to 5.6 ppm, with an average Total PCB concentration of 1.3 ppm observed in 2016, and white sucker average Total PCB concentration ranged from 0.65 ppm to 5.0 ppm, with an average Total PCB concentration of 1.1 ppm observed in 2016;
- Station 9: since 2002 white sucker average Total PCB concentration ranged from 0.58 ppm to 2.1 ppm, with an average Total PCB concentration of 0.69 ppm observed in 2016; and
- Station 10: brook trout average Total PCB concentration ranged from 0.78 ppm to 2.2 ppm, with an average Total PCB concentration of 0.88 ppm observed in 2016, and white sucker average Total PCB concentration ranged from 0.43 ppm to 2.1 ppm, with an average Total PCB concentration of 0.76 ppm observed in 2016.

There is currently a fish consumption advisory in place for the Valatie Kill between County Route 18 and Nassau Lake. The advisory specifies “eat none”, and additional information can be found in the New York State Department of Health’s (NYSDOH’s) Health Advice on Eating Sportfish and Game.

Finally, over ten years of data collection from 2005 through 2015, Aroclor 1260 was observed in 100% of the fish samples with detectable concentrations of PCBs collected at Station 7 through 10. Aroclor 1254 was the only other Aroclor found to be contributing to Total PCB concentrations for fish collected from Station Numbers 8 through 10 during that 10-year period, at frequency of 0.45% of the fish samples with detectable concentrations of PCBs. Specifically, for Station Numbers 8 through 10, Aroclor 1254 was detected in a blacknose dace and a yellow perch in 2005 and a brook trout in 2011. Concentrations

⁶ All Aroclor 1221 detected in 2016 was qualified as “Aroclor 1221 is being used to report an alternate PCB pattern exhibited by the sample – actual Aroclor 1221 is not present in the sample but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

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ranged from 0.082 ppm to 0.58 ppm, and contributed from 10% to 29% to the Total PCB concentration for the respective fish sample for which Aroclor 1254 was detected. The last recorded non-Aroclor 1260 detection at the Site was observed in the adult brook trout collected at Station 8 in 2011.

The temporal trends in Total PCB Aroclor for Longnose Dace at Station 9 are shown in the Valatie Kill figure in Appendix H. See Appendix D for additional details on fish sampling results.

Nassau Lake

Nassau Lake is a shallow, 173-acre impoundment. It is surrounded by many individual parcels and is used for recreational use.

As indicated in Sections 2.1 and 3.5.2, concentrations of Total PCB Aroclors in Nassau Lake sediment have never been higher than 10 ppm with the highest concentrations in the north-eastern quadrant of the lake (i.e., closest to the Valatie Kill outlet). With regard to the Phase 1 RI results, the in-lake sediment samples indicate detectable Total PCB Aroclor concentrations in the 0- to 6-inch and 6- to 12-inch depth intervals less than 4 ppm. Little pattern was observed with regard to the spatial orientation of the range of results for the 0- to 6-inch interval, and only a minor correlation was observed in the 6- to 12-inch interval between the higher results and the general thalweg of the lake. For the 12- to 18-inch depth interval, detected results above 1 ppm were observed only in the shallow delta area at the outlet from the Valatie Kill. In general, the results in this shallow delta area imply higher levels of PCBs were historically introduced to the lake, but have since been covered with a 1-foot layer of cleaner deposition material.

As with historic results, Aroclor 1260 is the most predominant Aroclor contributing to Total PCB concentrations observed in the sediment of Nassau Lake. Aroclors 1254, 1248, and 1242 have also been observed at the Site, to a small extent. For the Phase 1 RI results, Aroclor 1254 was detected 18 times, generally in deeper depth intervals, at concentrations ranging from 0.027 ppm (NL15-IL-SED-21) to 1.5 ppm (NL15-IL-SED-06). Aroclor 1248 was detected only once in the 2015 samples at a concentration of 0.65 (NL15-IL-SED-06).

When comparing the data set for Nassau Lake sediments from prior to 2015 (i.e., historic) to the results observed during implementation of the Phase 1 RI, average and median Total PCBs concentrations for Nassau Lake have reduced in over time. Pre-2009 data provided an average of 1.7 ppm and a median of 1.6 ppm and for 2009 sampling the average was observed to be 0.52 ppm and the median was 0.23 ppm. The average and median observed based on the 2015 data set (i.e., average of 0.87 ppm and median of 0.27 ppm) are lower than the average/median results observed prior to 2009 and similar to the 2009 results.

As discussed in Section 3.5, non-PCB parameters were analysed during the Phase 1 RI sampling activities. Although no screening values have yet been selected for the Site, for reference purposes the non-PCB parameters were compared to the residential soil values provided in the USEPA RSLs tables for target cancer risk equal to 1E-06 and for a target hazard quotient of 0.1 (USEPA 2016). A copy of the table is provided in Appendix A3. Metals such as aluminium, arsenic, cobalt, iron, manganese, and thallium and the pesticide dieldrin were detected at concentrations higher than the USEPA screening value; however, these detected concentrations have not yet been compared to background levels near the Site. None of the other non-PCB analytes were detected at concentrations greater than the screening values considered. As discussed in Section 5.1, the need for collection of additional background

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sediment and soil samples, including for non-PCB analysis, will be evaluated during development of the Phase 2 RI Work Plan.

For shoreline soil samples, the highest concentration (2.2 ppm) of Total PCB Aroclors was observed from historic sampling completed more than 15 years ago, and as discussed in Section 2.1, the same general location was sampled again in 2000 and returned a result of ND. Additionally, during Phase 1 RI sampling efforts the Total PCB Aroclor results from only one sample location was greater than 1 ppm at the south end of the lake.

As indicated in Table 4-1, Phase 1 RI Total PCB Aroclor results for in-lake sediment and shoreline soil samples are on average similar to or slightly lower than historic results for samples collected from the same areas in and around Nassau Lake.

Fish sampling at Station Number 11 in Nassau Lake includes a wide range of edible species, and overall the Total PCB Aroclor results in the fish have generally decreased in concentration over time.

Specifically, for edible fish species collected from Station 11 since 2002, the Total PCB average concentration can be summarized as follows for each of the species collected:

- American eel: since 2002 average Total PCB concentration ranged from 2.2 ppm to 15.1 ppm, with an average Total PCB concentration of 9.2 ppm observed in 2015 (no American eels were observed in 2016);
- Bluegill: since 2002 average Total PCB concentration ranged from 0.81 ppm to 2.0 ppm, with an average Total PCB concentration of 0.88 ppm observed in 2016;
- Pumpkinseed: since 2002 average Total PCB concentration ranged from 0.63 ppm to 2.0 ppm, with an average Total PCB concentration of 0.63 ppm observed in 2016;
- Yellow perch: since 2002 average Total PCB concentration ranged from 0.66 ppm to 1.9 ppm, with an average Total PCB concentration of 0.84 ppm observed in 2016;
- Bullhead: since 2002 average Total PCB concentration ranged from 0.60 ppm to 3.8 ppm, with an average Total PCB concentration of 0.60 ppm observed in 2016; and
- Largemouth bass: since 2002 average Total PCB concentration ranged from 0.93 ppm to 6.8 ppm, with an average Total PCB concentration of 0.93 ppm observed in 2016.

There is currently a fish consumption advisory in place for Nassau Lake. The advisory specifies “eat none”, and additional information can be found in the NYSDOH’s Health Advice on Eating Sportfish and Game.

Over ten years of data collection from 2005 through 2015, Aroclor 1260 was observed in 100% of the fish samples with detectable concentrations of PCBs collected at Station 11. Aroclor 1248 and 1254 were the only other Aroclors found to be contributing to total PCB concentrations for fish collected from Station Number 11 during that 10-year period, at a frequency of 0.14% and 1.2% of the fish samples with detectable concentrations of PCBs, respectively. Specifically, for Station 11:

- Aroclor 1248 was detected in one yellow perch in 2009 at a concentration of 0.0254 ppm. In this case, Aroclor 1248 contributed 5.1% to the Total PCB concentration for the fish sample; and

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- Aroclor 1254 was detected American eel and largemouth bass species in 2016 (once) and 2007 (eight samples) at concentrations ranging from 0.075 ppm to 2.0 ppm. Aroclor 1254 contributed between 7.0% and 28% to the Total PCB concentration for those nine fish samples.

The temporal trends in Total PCB Aroclor for American Eel and Largemouth Bass at Station 11 are shown in the Nassau Lake figure in Appendix H. See Appendix D for additional details on fish sampling results.

Valatie Kill Downstream of Nassau Lake

The Valatie Kill downstream from Nassau Lake is densely wooded in most areas, however, other stretches are adjacent to or cross residential properties. Much of the Valatie Kill channel has little depositional material, and existing sediment is primarily gravel, coarse sand and medium sand.

As indicated in Table 4-1, the analytical results of the sediment samples collected in the Valatie Kill downstream of Nassau Lake for 2015 were ND for Total PCB Aroclors although one sample collected by USEPA in 2014 had a detection at 0.0054 ppm. Additionally, fish sampling at Station Number 12 indicate that the concentration of Total PCB Aroclors in the Valatie Kill downstream of Nassau Lake were similar to fish collected at Station Number 6, which is the background location in the Valatie Kill upstream from Tributary T11A. For example, the average Total PCB concentrations in fish from Station 12 and Station 6 are both 1.1 ppm for the available data collected through 2015.

Over ten years of data collection from 2005 through 2015, Aroclor 1260 was observed in 99.6% and 100% of the fish samples with detectable concentrations of PCBs collected at Station Numbers 6 and 12, respectively. Aroclor 1248 and 1254 were the only other Aroclors found to be contributing to total PCB concentrations for fish collected from Station Number 12 during that 10-year period, at 3.6% and 22% of the fish samples with detectable concentrations of PCBs, respectively. Specifically, for Station Number 11:

- Aroclor 1248 was detected in seven samples in 2006, including cutlips minnow, longnose dace, redbreast sunfish, and white sucker, at a concentration ranging from 0.032 ppm to 0.089 ppm. Aroclor 1248 contributed from 5.3% to 8.0% to the Total PCB concentration for the seven fish samples; and
- Aroclor 1254 was detected nine species over sampling events in 2005, 2007, 2009, and 2010. Concentrations ranged from 0.022 ppm to 0.67 ppm. Aroclor 1254 contributed between 9.1% and 33% to the Total PCB concentration for the fish samples for which Aroclor 1254 was detected.

For Station Number 6, Aroclor 1254 was observed in 3.9% of the fish samples with detectable concentrations of PCBs. Specifically, Aroclor 1254 was observed in 2005 and 2007 in creek chub, blacknose dace, common shiner, redbreast sunfish, and white sucker at concentrations ranging from 0.019 ppm to 0.15 ppm. Aroclor 1254 contributed between 7.6% and 10.9% to the Total PCB concentration for the fish samples for which Aroclor 1254 was detected.

See Appendix D for additional details on fish sampling results.

4.3.2 Southern Drainageway

The SD is densely wooded in most areas and the dense vegetation makes the area difficult to traverse. However, other stretches are adjacent to or cross residential properties with recreational paths and cleared areas throughout.

The nature and extent of PCB contamination in the SD is minimal and limited to the Southeast Drainage Ditch immediately adjacent to the LF. Of nearly 40 historical sample results for the SD, 24 were non-detect for PCBs and the highest concentration was 1.4 ppm from a sample located in the Southeast Drainage Ditch by the LF. All twelve samples collected from six locations in Valley Stream (two upstream of Smith Pond and four downstream of Smith Pond) by USEPA in 2009 were ND for PCBs. As indicated in Table 4-1, the highest Total PCB Aroclor result (1.53 ppm) in the SD from the Phase 1 RI sampling was in the Southeast Drainage Ditch immediately adjacent to the LF and for Valley Stream (including Smith Pond), all soil and sediment samples from the Phase 1 RI sampling were less than 1.0 ppm.

As with historic results, Aroclor 1260 is the most predominant Aroclor contributing to Total PCB concentrations observed in the soil/sediment of the Southern Drainageway. Aroclors 1254, 1248, and 1242 have also been observed, to a small extent. For the Phase 1 RI, Aroclor 1242 was detected only once (0.071 ppm at SEDD15-SL-01ABF) and Aroclor 1248 was detected only three times (0.078 ppm and 0.10 ppm, both in Smith Pond, and 0.10 ppm at VS15-SL-08 [downstream of Smith Pond]).

As discussed in Section 3.5, non-PCB parameters were analysed during the Phase 1 RI sampling activities. Although no screening values have yet been selected for the Site, for reference purposes the non-PCB parameters were compared to the residential soil values provided in the USEPA RSLs tables for target cancer risk equal to 1E-06 and for a target hazard quotient of 0.1 (USEPA 2016). A copy of the table is provided in Appendix A3.

For the Southeast Drainage Ditch and Valley Stream, metals such as aluminium, arsenic, cobalt, iron, manganese, and thallium were detected at concentrations higher than the USEPA screening value; however, these detected concentrations have not yet been compared to background levels near the Site. None of the other non-PCB analytes were detected at concentrations greater than the screening values considered. For Smith Pond, metals such as aluminium, arsenic, cobalt, iron, and manganese were detected and SVOCs such as Benzo(a) anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, and Indeno(1,2,3-cd)pyrene were detected at concentrations higher than the USEPA screening values. However, these detected concentrations have not yet been compared to background levels near the Site. None of the other non-PCB analytes were detected at concentrations greater than the screening values considered. As discussed in Section 5.1, the need for collection of additional background sediment and soil samples, including for non-PCB analysis, will be evaluated during development of the Phase 2 RI Work Plan.

4.4 Preliminary Conceptual Site Model

The preliminary conceptual site model for the WD and SD is based on the analytical results for the sediment, soil, surface water, and fish samples collected at the Site (as discussed above).

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Western Drainageway

The preliminary conceptual site model for the WD indicates Tributary T11A remains a potential PCB source area for the Valatie Kill and Nassau Lake. Based on the observed decrease in Total PCB Aroclor for fish species at multiply locations within the WD, the remediation performed in 2001-2004 (Northwest Drainage Area, Tributary T11a, and Area 28 in the Valatie Kill) appears to have been effective in reducing Total PCB Aroclor within the WD. While additional study will be conducted during Phase 2 of the RI, PCB concentrations in the Valatie Kill and Nassau Lake, are generally present at lower concentrations relative to those observed in T11A.

Southern Drainageway

The results of the Phase 1 RI activities support the the statement in NYSDEC's 2002 ROD that the SD "was not significantly impacted by hazardous wastes from the site." No part of the SD is considered to be a contaminant source to downstream waterways or floodplain areas. Further, except for perhaps the Southeast Drainage Ditch immediately adjacent to the LF, the Phase 1 RI results support no further characterization or monitoring within the SD is necessary.

5 RECOMMENDATIONS

Pursuant to the Consent Order and associated SOW, this SCSR presents the additional data necessary to complete the RI/FS for the Drainageways. Details will be included in the Phase 2 RI Work Plan to be submitted to USEPA.

5.1 Additional Data Needs

Based on a review of the results of the historic and Phase 1 RI investigations for the Site, the additional data collection activities listed below will be evaluated during preparation of the Phase 2 RI Work Plan.

- Updating the fish sampling program;
- Updating the surface water monitoring program, including flow data collection from the Tributary T11A weir installed in May 2016;
- Use of sediment traps and/or analysis of recently deposited sediment in Nassau Lake to evaluate the PCB concentration in suspended sediments within the lake;
- Use of high resolution cores in Nassau Lake to determine historical PCB contamination and evaluate potential recovery trends for the Feasibility Study;
- The need for collection of additional sediment and soil samples in the Northwest Drainage Ditch, Tributary T11A, and the Valatie Kill;
- The need for collection of additional sediment and soil samples in the Southeast Drainage Ditch immediately downstream from the LF; and
- The need for collection of additional background sediment and soil samples, including for PCB and non-PCB analysis.

Additionally, a proposal for a Stage 1A Cultural Resource Assessment will be included in the Phase 2 RI Work Plan. A purpose of the Stage 1A Cultural Resource Assessment is to determine the potential presence of cultural, archaeological, and historical resources within the boundaries of the Site, and specifically to indicate whether such resources may be located within areas subject to remedial action.

The intent of each potential additional data collection activity is to further define the nature and extent of contamination in the Drainageways, which will in turn support the forthcoming screening level ecological risk assessment and human health risk assessment. The data set and the associated assessments will then be used to define the alternative(s) to be presented in the forthcoming Feasibility Study report.

5.2 Phase 2 RI Work Plan Activities

The anticipated schedule for future implementation of the overall RI/FS, as outlined in the Consent Order and associated SOW, is presented in Appendix I and assumes 60 days for initial USEPA review of documents and 21 days for USEPA review and approval of revised documents. Within 30 days after submittal of this SCSR, or such longer time as specified in writing by USEPA, GE will make a presentation to USEPA and the NYSDEC on the findings of the SCSR. This meeting will also include a

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discussion of potential data collection activities to be evaluated during preparation of the Phase 2 RI Work Plan

The Phase 2 RI Work Plan will include, among other things, a detailed description and schedule for Phase 2 of the RI. The Phase 2 RI Work Plan will supplement existing data and propose appropriate investigations to satisfy the identified data gaps in current understanding of the sources of contamination, nature and extent of the contamination, and the characteristics of the Site as they relate to the WD and SD in accordance with the general requirements presented in the SOW. The timeframes for key activities generally related to the Phase 2 RI Work Plan are presented in the below table. USEPA may specify a longer timeframe for a particular activity.

Table 5-1 Key Activities Related to Phase 2 RI Work Plan

Activity	Timeframe/Comments
Present SCSR findings to USEPA and NYSDEC	Within 30 days after submittal of the SCSR to USEPA
Submit Phase 2 RI/FS Work Plan to USEPA	Within 60 days after USEPA's approval of the SCSR
Implement the Phase 2 RI/FS Work Plan	Following USEPA's written approval or modification of the Phase 2 RI/FS Work Plan
Submit Fate and Transport Memorandum	If USEPA determines that a fate and transport model is required, within 90 days following that determination
Submit Reuse Assessment Report	If USEPA determines that a reuse assessment is required, within 45 days following that determination
Submit validated analytical data for Phase 2 RI activities	Within 75 days following completion of the sampling event
Submit SCSR Addendum	Within 60 days following submittal to USEPA of the final set of validated data from the Phase 2 RI activities

In addition to evaluation of the additional data needs discussed in Section 5.1, the Phase 2 RI Work Plan will include a revised QAPP and HASP. The schedule presented in Appendix I will also be updated and included in the Phase 2 RI Work Plan.

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TABLES

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Table 1-1
Summary of Flow Recorded for the Valatie Kill
Site Characterization Summary Report
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Year	Monthly Mean (cubic feet per second)												Average
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1991	8.7	12.7	23.2	16.7	13.2	1.5	0.3	2.1	2.6	16.6	26.5	17.8	11.8
1992	8.4	3.8	13.1	20.6	10.9	3.7	2.6	2.0	0.7	1.7	9.6	15.2	7.7
1993	16.3	3.4	36.1	52.7	6.3	1.5	0.5	0.4	0.9	2.0	12.4	18.9	12.6
1994	4.9	12.8	44.0	45.8	14.2	5.1	1.7	6.3	2.3	1.9	1.8	8.4	12.4
1995	15.9	5.1	34.2	12.6	4.1	1.1	1.2	2.0	0.5	7.9	23.5	5.6	9.5
1996	40.1	13.9	18.1	49.4	41.7	14.1	14.8	1.7	7.9	8.4	10.5	39.2	21.6
1997	9.6	13.3	18.8	28.8	18.7	2.1	2.8	1.1	0.9	1.3	14.3	13.9	10.5
1998	29.4	15.3	28.2	15.0	15.9	25.1	4.2	0.8	0.5	2.3	2.5	2.3	11.8
1999	30.4	14.8	28.5	7.7	19.2	1.7	2.0	3.2	22.7	20.5	15.1	11.0	14.7
2000	10.9	29.7	28.3	29.8	23.7	47.9	10.9	29.7	5.9	5.2	7.7	25.2	21.2
2001	4.5	11.5	24.7	44.4	3.5	7.2	1.2	0.5	1.3	0.8	1.5	4.7	8.8
2002	4.4	12.1	20.5	14.7	17.6	26.0	2.1	0.8	1.7	8.4	20.5	28.1	13.1
2003	16.0	9.2	50.9	24.2	14.4	9.2	10.8	24.0	10.2	32.8	29.1	52.1	23.6
2004	10.2	3.0	24.9	21.6	12.3	5.6	3.7	6.9	22.1	9.8	12.6	22.1	12.9
2005	31.0	15.6	40.3	23.4	4.0	2.8	2.9	1.0	1.0	48.7	28.4	27.5	18.9
2006	44.1	18.2	5.6	16.8	13.9	38.0	8.5	6.7	5.6	11.7	22.7	12.2	17.0
2007	16.4	2.7	48.9	45.4	7.1	3.6	6.2	1.4	4.5	11.2	12.9	12.7	14.4
2008	15.7	35.5	53.8	19.4	4.7	6.4	14.2	12.4	6.4	17.9	12.4	36.1	19.6
2009	8.3	12.0	23.5	9.7	6.7	14.2	38.5	24.1	3.4	7.0	13.7	15.8	14.7
2010	20.5	7.3	37.0	9.6	3.7	5.1	2.3	2.0	0.9	15.9	12.6	16.0	11.1
2011	7.7	9.0	61.5	26.5	23.2	7.4	4.6	25.9	44.2	15.5	16.0	27.5	22.4
2012	13.4	7.8	9.6	6.8	20.3	3.9	0.8	2.6	3.8	8.3	5.9	13.0	8.0
2013	16.5	13.7	22.7	15.9	25.0	29.7	15.1	9.5	20.0	6.9	9.4	20.9	17.1
2014	28.5	6.4	24.2	25.7	13.8	4.1	8.0	2.8	0.6	2.5	4.0	26.8	12.3
2015	9.5	4.2	10.0	32.8	3.7	11.0	10.2	2.2	4.9	5.5	3.7	8.9	8.9
2016	15.4	30.7	15.0	11.2	6.5	3.5	1.5	3.3	0.8	2.4	7.1	13.1	9.2
Average of													
Monthly Discharge	16.8	12.4	28.7	24.1	13.4	10.8	6.6	6.7	6.8	10.5	12.9	19.0	14.1

Notes:

- Flow data obtained from USGS website for:
USGS Gaging Station 01360640 - Valatie Kill Near Nassau, New York
Rensselaer County, New York
Hydrologic Unit Code 02020006
Latitude 42°33'07", Longitude 73°35'31" NAD27
Drainage Area of 9.48 Square Miles
Gage Datum of 450 Feet Above Sea Level NGVD29
- Data from October 2014 through December 2016 is provisional.

Table 2-1
Summary of Major Soil/Sediment Sampling and Remedial Efforts for the Drainageways
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Date	Program	Reference	Area(s)	Event
1988 to 1991	NA	BBL. 1992. Remedial Investigation Work Plan, Loeffel Site Environs. July.	NWDD and Former Mead Road Pond Area	Soil/sediment sampling
			Tributary T11A	Soil/sediment sampling
			Southeast Drainage Ditch	Soil/sediment sampling
1992 and 1993	GE's Initial RI Phase I, Stage A	BBL. 1993. Loeffel Site Environs Remedial Investigation Interim Phase I Report. October.	NWDD and Former Mead Road Pond Area	Soil/sediment sampling
			Tributary T11A	Soil/sediment sampling
			Valatie Kill Upstream of Nassau Lake	Soil/sediment sampling
			Nassau Lake	Sediment sampling
			Southeast Drainage Ditch	Soil/sediment sampling
			Smith Pond	Soil/sediment sampling
			Valley Stream	Soil/sediment sampling
1993 and 1994	GE's Initial RI Phase I, Stage B	BBL. 1995. Loeffel Site Environs Remedial Investigation Phase I Report. April.	NWDD and Former Mead Road Pond Area	Soil/sediment sampling
			Valatie Kill Upstream of Nassau Lake	Soil/sediment sampling
			Nassau Lake	Sediment sampling (from sediment traps)
1996 and 1997	GE's Initial RI Phase II	BBL. 1997. Loeffel Site Environs Remedial Investigation Phase II Report. May.	NWDD and Former Mead Road Pond Area	Soil/sediment sampling
			Tributary T11A	Soil/sediment sampling
			Valatie Kill Upstream of Nassau Lake	Soil/sediment sampling
			Nassau Lake	Sediment sampling
1998	Residential Soil Sampling	BBL. 1999. Letter dated January 6, 1999 to NYSDEC Reporting Residential Soil Sampling.	Nassau Lake	Soil sampling
1998 and 1999	GE's voluntary supplemental RI activities	BBL. 1999. Loeffel Site Environs Revised Feasibility Study Report: Nassau Lake Drainage Basin. June.	Valatie Kill Upstream of Nassau Lake	Soil/sediment sampling
			Nassau Lake	Sediment sampling
1999	GE's Areas 27 & 28 sampling program	BBL. 1999. Letter dated July 15, 1999 to NYSDEC Reporting Low-Lying Areas 27 & 28 Soil Sampling.	Valatie Kill	Soil/sediment sampling
2000	Residential Soil Sampling	BBL. 2000. Letter dated May 16, 2000 to NYSDEC Reporting Soil Sampling Results, Parcel 202.1-1-36, Portion of Area 28, and House Trailer at Mead Road Pond.	Mead Road Pond Area	Soil sampling
			Valatie Kill	Soil sampling
			Nassau Lake	Soil sampling
2000	GE's Mead Road Pond IRM PDI Sampling	BBL. 2000. Revised Interim Remedial Measures Work Plan, Mead Road Pond Area. October.	NWDD and Former Mead Road Pond Area	Soil/sediment sampling
2001	GE's Mead Road Pond IRM	BBL. 2002. Completion Report: Mead Road Pond Areas Interim Remedial Measures. February.	NWDD and Former Mead Road Pond Area	Removal of approximately 9,600 tons (6,400 cy) of material with confirmation sampling
2002	NA	NYSDEC. 2002. Record of Decision, Dewey Loeffel Site Operable Unit 3, Site Number 4-42-006. January.	Drainageways	NYSDEC issued ROD specific to the Drainageways
2002	GE's Tributary T11A Remedial Action PDI Sampling	BBL. 2002. Letter dated August 16, 2002 to NYSDEC Reporting Predesign Sampling Results in Tributary T11A.	Tributary T11A	Soil/sediment sampling
2002 and 2003	GE's Tributary T11A Remedial Action	BBL. 2003. Tributary T11A Completion Report. March.	Tributary T11A	Removal of approximately 1,200 tons (760 cy) of material with confirmation sampling
2003	GE's Area 28 Removal Action PDI Sampling	BBL. 2003. Letter dated April 28, 2003 to NYSDEC Reporting Predesign Sampling Results and Material Volume Estimate for Area 28.	Valatie Kill	Soil/sediment sampling
2003 and 2004	GE's Area 28 Removal Action	BBL. 2004. Area 28 Remedial Action Completion Report. October.	Valatie Kill	Removal of approximately 4,000 tons (2,200 cy) of material with confirmation sampling

Table 2-1
Summary of Major Soil/Sediment Sampling and Remedial Efforts for the Drainageways
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Date	Program	Reference	Area(s)	Event
2009	NYSDEC Sampling		Tributary T11A	Soil/sediment sampling
2009	USEPA Sampling		NWDD and Former Mead Road Pond Area	Soil/sediment sampling
			Tributary T11A	Soil/sediment sampling
			Valatie Kill	Soil/sediment sampling
			Southeast Drainage Ditch	Soil/sediment sampling
			Smith Pond	Soil/sediment sampling
			Valley Stream	Soil/sediment sampling
2010	GE's Supplemental Investigation of Tributary T11A	Arcadis. 2010. Supplemental Investigation of Tributary T11A. June. Arcadis. 2010. Supplemental Investigation of Tributary T11A – Phase 2. October.	Tributary T11A	Soil/sediment sampling
2011	GE's Supplemental Investigation of Tributary T11A and Mead Road Pond	Arcadis. 2011. Supplemental Investigation of Tributary T11A and Mead Road Pond. August.	NWDD and Former Mead Road Pond Area	Soil/sediment sampling
			Tributary T11A	Soil/sediment sampling
2013	NA	NA	Drainageways	The Administrative Settlement Agreement and Order on Consent for Remedial Investigation and Feasibility Study of Surface Drainageways was executed between the USEPA and GE (November)
2013	Paragraph 47.f Additional Sampling	Arcadis. 2013. Paragraph 47.f Proposal for Additional Sampling in the Mead Road Pond Area and Tributary T11A. November.	NWDD and Former Mead Road Pond Area	Soil/sediment sampling
2014			Tributary T11A	Soil/sediment sampling
2014	USEPA Sampling	USEPA. 2015. Superfund Support Team Sampling Report for the Dewey Loeffel Landfill Superfund Site in Nassau, Rensselaer County, New York. February.	Valatie Kill	Soil/sediment sampling
2015	GE's Phase 1 RI activities	Arcadis. 2017. Site Characterization Summary Report. July.	Drainageways	Soil/sediment sampling

Note:

1. Additional references are provided in the text of the Site Characterization Summary Report.

Abbreviations:

cy = cubic yards

GE = General Electric

IRM = Interim Remedial Measures

NWDD = Northwest Drainage Ditch

NYSDEC = New York State Department of Environmental Conservation

RI = Remedial Investigation

ROD = Record of Decision

USEPA = United States Environmental Protection Agency

Table 3-1
Summary of Sediment Probing Grab Sample Observations
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location (listed north to south, west to east)	Date	Water Depth	Sediment Probing Depth	Description
		(feet)	(feet)	
1 – near north shoreline, north of NL15-IL-SED-01 and -02	10/12/2015	4.5	0.3	Gravely silt with ~20% fine gravel, organics, leaves
2 – near north shoreline, just east of NL15-IL-SED-01	10/12/2015	5.3	2.9	Soft silt over stiff clay, fibers, over sand/gravel
10 – north end, middle east/west, between NL15-IL-SED-01 and -04	10/12/2015	6.3	>9.0	Soft to stiff silty clay top foot, organics (peat?) second foot, no odor
18 – at outlet from Valatie Kill, near NL15-IL-SED-06	10/12/2015	0.9	4.0	Silty clay with fine sand and organics (roots, twigs, bark, and some shells)
19 – near west shoreline, just offshore from Transect 12	10/12/2015	6.2	>8.8	Soft silt with organics, over an organic layer (peat?)
24 – near east shoreline, just east of NL15-IL-SED-08	10/12/2015	3.1	3.8	Silty clay with sand and organics (leaves), over stiff clay
28 – middle east/west, two locations east of NL15-IL-SED-09	10/13/2015	7.7	>7.3	Loose to stiff silty clay, over peat layer about two feet down
30 – near east shoreline, just offshore from Transect 2	10/13/2015	5.6	4.7	Soft silty clay with sand, over thin organic layer (at two feet down) then a layer of stiff silty clay
32 – near west shoreline, just west of NL15-IL-SED-11	10/13/2015	5.7	7.9	Soft silty clay, over stiff silty clay with organics (fibrous organics at two feet deep)
44 – near west shoreline, just northwest of NL15-IL-SED-14	10/13/2015	6.5	12.0	One foot soft to stiff silty clay, over silty clay with fibrous organics
48 – near middle of lake, just west of NL15-IL-SED-13	10/13/2015	12.2	>7.8	Soft silty clay
61 – middle east/west, just east of NL15-IL-SED-16	10/14/2015	9.1	>11.0	Silty clay, over silty clay with organics at one and a half feet deep
64 – near west shoreline, just southwest of NL15-IL-SED-17	10/14/2015	6.3	>14.0	Silty clay, over organic layer (at one foot deep) then a layer of stiff clay
73 – at outlet from Valley Stream, just west of NL15-IL-SED-21	10/13/2015	5.1	7.9	Soft silty clay, over firm silty clay with some sand and organics
75 – near west shoreline, southwest corner of the lake	10/13/2015	6.1	7.9	Soft silty clay over organic tight layer
81 – towards outlet from Nassau Lake, just west of NL15-IL-SED-24	10/13/2015	5.1	4.1	Soft silty clay with organics, over stiff silty clay with organics

Note:
For locations with ">" for sediment probing depth, no refusal was reached.

Table 3-2
Summary of Phase 1 RI Sediment and Soil Samples Collected
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Number of Sample Locations			Target Sample Intervals (inches) ¹	Number of Samples Analyzed ²			Number of Blind Duplicates			
	Sediment	Soil	Total		Sediment	Soil	Total	Sediment	Soil	Total	
Western Drainageway											
Valatie Kill Upstream of Nassau Lake											
Transect Samples	10	100	110	0-6, 6-12, 12-24	19	269	288	2	16	18	
Judgmental Samples	15	8	23	0-6, 6-12	15	10	25	1	0	1	
Subtotal Valatie Kill Upstream of Nassau Lake	25	108	133	--	34	279	313	3	16	19	
Nassau Lake											
Lake Samples	30	0	30	0-6, 6-12, 12-18	88	0	88	5	0	5	
Lake Samples Taken off Archive	4	0	4	18-24	4	0	4	0	0	0	
Lake Samples Archived	24	0	24	18-24	0	0	0	0	0	0	
Shoreline Samples (Below Summer/High Water Level)	15	0	15	0-6, 6-12	24	0	24	1	0	1	
Shoreline Samples (Above Summer/High Water Level)	0	30	30	0-6, 6-12	0	56	56	0	4	4	
Subtotal Nassau Lake	73	30	103	--	116	56	172	6	4	10	
Valatie Kill Downstream of Nassau Lake											
Downstream of Dam	4	0	4	0-6	4	0	4	0	0	0	
Subtotal Valatie Kill Downstream of Nassau Lake	4	0	4	--	4	0	4	7	8	0	
Subtotal Western Drainageway	102	138	240	--	154	335	489	16	28	29	
Southern Drainageway											
Southeast Drainage Ditch	9	3	12	0-6, 6-12	16	5	21	3	0	3	
Southeast Drainage Ditch (above bank full elevation)	0	3	3	0-6, 6-12	0	6	6	0	0	0	
Valley Stream Between Southeast Drainage Ditch and Smith Pond	4	3	7	0-6, 6-12	7	4	11	2	0	2	
Valley Stream Between Southeast Drainage Ditch and Smith Pond (above bank full elevation)	0	2	2	0-6, 6-12	0	4	4	0	1	1	
Smith Pond	5	0	5	0-6, 6-12	10	0	10	0	0	0	
Valley Stream Between Smith Pond and Nassau Lake	2	1	3	0-6, 6-12	3	2	5	1	0	1	
Subtotal Southern Drainageway	20	12	32	--	36	21	57	6	1	7	
Subtotal Western and Southern Drainageways	122	150	272	--	190	356	546	22	29	36	

Notes:

1. Samples were collected from the depth increments listed or to refusal if shallower.

2. Blind duplicate samples are not included.

3. See Table 4 for details on the total number of samples per analysis.

Table 3-3
Summary of Types and Number of Laboratory Analyses for Phase 1 RI Sediment and Soil Samples
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Number of Total Samples ¹	Number of Samples per Analysis ^{1,2}					
		PCB	TOC	TCL/TAL / 1,4-Dioxane	PCB (mGBM)	Dioxin/Furan	Grain Size/ Bulk Density
Western Drainageway							
Valatie Kill Upstream of Nassau Lake							
Transect Samples	288	288	288	20	10	5	33
Judgmental Samples	25	25	25	0	0	0	0
Subtotal Valatie Kill Upstream of Nassau Lake	313	313	313	20	10	5	33
Nassau Lake							
Lake Samples	88	88	88	5	5	3	9
Lake Samples Taken off Archive	4	4	4	0	0	0	0
Lake Samples Archived	0	0	0	0	0	0	0
Shoreline Samples (Below Summer/High Water Level)	24	24	24	0	0	0	0
Shoreline Samples (Above Summer/High Water Level)	56	56	56	0	0	0	0
Subtotal Nassau Lake	172	172	172	5	5	3	0
Valatie Kill Downstream of Nassau Lake							
Downstream of Dam	4	4	4	0	0	0	0
Subtotal Valatie Kill Downstream of Nassau Lake	4	4	4	0	0	0	0
Subtotal Western Drainageway	489	489	489	25	15	8	33
Southern Drainageway							
Southeast Drainage Ditch	21	21	21	3	3	1	3
Southeast Drainage Ditch (above bank full elevation)	6	6	6	0	0	0	0
Valley Stream Between Southeast Drainage Ditch and Smith Pond	11	11	11	2	1	0	2
Valley Stream Between Southeast Drainage Ditch and Smith Pond (above bank full elevation)	4	4	4	0	0	0	0
Smith Pond	10	10	10	1	1	0	0
Valley Stream Between Smith Pond and Nassau Lake	5	5	5	0	0	0	0
Subtotal Southern Drainageway	57	57	57	6	5	1	5
Subtotal Western and Southern Drainageways	546	546	546	31	20	9	38

Notes:

1. Blind duplicate samples are not included. Duplicate results were averaged to results in one analytical result per location and depth interval.

2. All samples were analyzed for total organic carbon (TOC) by Lloyd Kahn method and polychlorinated biphenyl (PCB) by SW-846 method 8082. Additionally, a subset of samples in the Western Drainageway and Southern Drainageway were also analyzed for other Target Compound List (TCL) and Target Analyte List (TAL) constituents, including volatile organic compounds (VOCs) by SW-846 method 8260, semi-volatile organic compounds (SVOCs) by SW-846 method 8270, 1,4-dioxane by SW-846 method 8270D, pesticides by method SW-846 8081, metals including mercury by SW-846 methods 6010B and 7471A. Additionally, a subset of samples will be analyzed for PCB congeners by modified Green Bay Mass Balance (mGBM) method, dioxins/furans by SW-846 method 8290, grain size by American Society for Testing and Materials (ASTM) method D422-63 and bulk density by ASTM C29/29M.

Table 3-4
Summary of Total PCB Aroclor Results for Phase 1 RI Sediment and Soil Samples
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location		Total Number of Samples	Sample Interval (inches)	Sediment Samples							Soil Samples								
				Number of Samples	Number ND	% ND	Number < 1 ppm	% < 1 ppm	Maximum Result	Average	Median	Number of Samples	Number ND	% ND	Number < 1 ppm	% < 1 ppm	Maximum Result	Average	Median
Western Drainageway																			
Valatie Kill Upstream of Nassau Lake																			
Transect Samples	288	0 - 6	10	1	10%	9	90%	0.58	0.15	0.10	100	18	18%	42	42%	19.6	1.37	0.58	
		6 - 12	7	0	0%	6	86%	1.27	0.32	0.11	92	35	38%	39	42%	7.71	0.71	0.14	
		12 - 24	2	1	50%	0	0%	3.17	1.60	1.60	77	57	74%	17	22%	4.47	0.22	0.032	
Judgmental Samples	25	0 - 6	15	2	13%	12	80%	1.07	0.30	0.070	8	0	0%	7	88%	2.54	0.54	0.20	
		6 - 12	0	--	--	--	--	--	--	--	2	0	0%	1	50%	1.28	0.78	0.78	
Subtotal Valatie Kill Upstream of Nassau Lake		313		34	4	12%	27	79%	3.17	0.34	0.10	279	110	39%	106	38%	19.6	0.81	0.13
Nassau Lake																			
Lake Samples	88	0 - 6	30	2	7%	11	37%	3.60	1.25	1.24	0	--	--	--	--	--	--	--	
		6 - 12	30	8	27%	14	47%	3.42	0.73	0.21	0	--	--	--	--	--	--	--	
		12 - 18	28	19	68%	5	18%	7.23	0.70	0.18	0	--	--	--	--	--	--	--	
Lake Samples Taken off Archive		4	18-24	4	2	50%	2	50%	0.29	0.16	0.16	0	--	--	--	--	--	--	
Shoreline Samples (Below Summer/High Water Level)	24	0 - 6	15	10	67%	5	33%	0.56	0.090	0.03	0	--	--	--	--	--	--	--	
		6 - 12	9	6	67%	3	33%	0.85	0.14	0.03	0	--	--	--	--	--	--	--	
Shoreline Samples (Above Summer/High Water Level)	56	0 - 6	0	--	--	--	--	--	--	--	30	22	73%	7	23%	1.56	0.091	0.030	
		6 - 12	0	--	--	--	--	--	--	--	26	21	81%	4	15%	1.79	0.11	0.030	
Subtotal Nassau Lake		172		116	47	41%	40	34%	7.23	0.71	0.19	56	43	77%	11	20%	1.79	0.10	0.030
Valatie Kill Downstream of Nassau Lake																			
Downstream of Dam		4	0 - 6	4	4	100%	0	0%	ND	ND	ND	0	--	--	--	--	--	--	
Subtotal Valatie Kill Downstream of Nassau Lake		4		4	4	100%	0	0%	ND	ND	ND	0	--	--	--	--	--	--	
Subtotal Western Drainageway		489		154	55	36%	67	44%	7.23	0.61	0.18	335	153	46%	117	35%	19.6	0.69	0.06
Southern Drainageway																			
Southeast Drainage Ditch	21	0 - 6	9	4	44%	4	44%	1.53	0.30	0.089	3	2	67%	1	33%	0.15	0.080	0.059	
		6 - 12	7	5	71%	1	14%	1.52	0.28	0.046	2	2	100%	0	0%	ND	ND	ND	
Southeast Drainage Ditch (above bank full elevation)	6	0 - 6	0	--	--	--	--	--	--	--	3	3	100%	0	0%	ND	ND	ND	
		6 - 12	0	--	--	--	--	--	--	--	3	1	33%	2	67%	0.15	0.083	0.071	
Valley Stream Between Southeast Drainage Ditch and Smith Pond	11	0 - 6	4	4	100%	0	0%	ND	ND	ND	3	3	100%	0	0%	ND	ND	ND	
		6 - 12	3	3	100%	0	0%	ND	ND	ND	1	1	100%	0	0%	ND	ND	ND	
Valley Stream Between Southeast Drainage Ditch and Smith Pond (above bank full elevation)	4	0 - 6	0	--	--	--	--	--	--	--	2	2	100%	0	0%	ND	ND	ND	
		6 - 12	0	--	--	--	--	--	--	--	2	2	100%	0	0%	ND	ND	ND	
Smith Pond	10	0 - 6	5	3	60%	2	40%	0.102	0.10	0.075	0	--	--	--	--	--	--	--	
		6 - 12	5	5	100%	0	0%	ND	ND	ND	0	--	--	--	--	--	--	--	
Valley Stream Between Smith Pond and Nassau Lake	5	0 - 6	2	2	100%	0	0%	ND	ND	ND	1	0	0%	1	100%	0.10	0.10	0.10	
		6 - 12	1	1	100%	0	0%	ND	ND	ND	1	1	100%	0	0%	ND	ND	ND	
Subtotal Southern Drainageway		57		36	27	75%	7	19%	1.53	0.17	0.061	21	17	81%	4	19%	0.15	0.053	0.040
Total Western and Southern Drainageways		546		190	82	43%	74	39%	7.2	--	--	356	170	48%	121	34%	19.6	--	--

Notes:
1. Blind duplicate samples are not included. Duplicate results were averaged to results in one analytical result per location and depth interval.
2. "% <1" includes only detected results (i.e., is independent of "% ND" summary)

Table 3-5

**Phase 1 RI Sediment and Soil Sample PCB Aroclor and TOC Analytical Results –
Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York**

Location ID	Sample Depth (Inches)	Date	Sample Name	Total PCBs (Aroclors) (ppm)	Total Organic Carbon (ppm)
Judgmental Samples - Sediment					
VK15-J07-SED	0 - 6	12/11/15	VK15-J07-SED-0006	0.359	7,800
VK15-J12-SED	0 - 6	11/17/15	VK15-J12-SED-0006	ND(0.0509)	1,600
VK15-J14-SED	0 - 6	11/17/15	VK15-J14-SED-0006	0.064	1,200
VK15-J16-SED	0 - 6	12/15/15	VK15-J16-SED-0006	0.0701	7,600
VK15-J17-SED	0 - 6	12/15/15	VK15-J17-SED-0006	0.0267 J	1,800
VK15-J18-SED	0 - 6	12/15/15	VK15-J18-SED-0006	0.675	55,000
VK15-J19-SED	0 - 6	12/15/15	VK15-J19-SED-0006	ND(0.0578 J) [0.377 J]	1,600 J [8,600 J]
VK15-J20-SED	0 - 6	12/15/15	VK15-J20-SED-0006	0.556	14,000
VK15-J21-SED	0 - 6	12/15/15	VK15-J21-SED-0006	0.933	18,000
VK15-J09-SED	0 - 6	12/15/15	VK15-J09-SED-0006	ND(0.063)	10,000
VK15-J11-SED	0 - 6	11/17/15	VK15-J11-SED-0006	0.0452 J	2,800
VK15-J01-SED	0 - 6	11/16/15	VK15-J01-SED-0006	1.07	26,000
VK15-J02-SED	0 - 6	11/13/15	VK15-J02-SED-0006	0.429	7,500
VK15-J03-SED	0 - 6	11/13/15	VK15-J03-SED-0006	0.029 J	34,000
VK15-J05-SED	0 - 6	11/17/15	VK15-J05-SED-0006	0.0571 J	8,400
Judgmental Samples - Soil					
VK15-J08-SL	0 - 6	12/11/15	VK15-J08-SL-0006	0.572	62,000
VK15-J22-SL	0 - 6	11/17/15	VK15-J22-SL-0006	0.576	10,000
VK15-J23-SL	6 - 12	11/17/15	VK15-J23-SL-0612	1.28	11,000
VK15-J24-SL	0 - 6	11/17/15	VK15-J24-SL-0006	2.54	15,000
VK15-J25-SL	6 - 12	11/17/15	VK15-J25-SL-0612	0.271	11,000 J
VK15-J13-SL	0 - 6	11/17/15	VK15-J13-SL-0006	0.205	18,000
VK15-J15-SL	0 - 6	11/17/15	VK15-J15-SL-0006	0.0238 J	1,200
VK15-J10-SL	0 - 6	11/17/15	VK15-J10-SL-0006	0.144	6,300
VK15-J04-SL	0 - 6	11/17/15	VK15-J04-SL-0006	0.0308 J	16,000 J
VK15-J06-SL	0 - 6	11/17/15	VK15-J06-SL-0006	0.199	8,200
Transect Samples - Sediment					
VK15-T01-SED-01	0 - 4	12/11/15	VK15-T01-SED-01-0004	0.167	2,800
VK15-T02-SED-01	0 - 3	12/14/15	VK15-T02-SED-01-0003	0.257	5,700
VK15-T03-SED-01	0 - 6	12/14/15	VK15-T03-SED-01-0006	0.0568 J [0.236 J]	2,200 [2,000]
	6 - 8	12/14/15	VK15-T03-SED-01-0608	0.113	2,100
VK15-T04-SED-01	0 - 6	11/17/15	VK15-T04-SED-01-0006	0.0411 J	1,000
	6 - 11	11/17/15	VK15-T04-SED-01-0611	0.0559	2,400
VK15-T05-SED-01	0 - 6	11/13/15	VK15-T05-SED-01-0006	0.108	6,000
	6 - 8	11/13/15	VK15-T05-SED-01-0608	0.453	12,000
VK15-T06-SED-01	0 - 6	12/15/15	VK15-T06-SED-01-0006	0.0974	2,000 J
	6 - 7	12/15/15	VK15-T06-SED-01-0607	0.0632	3,500 J
VK15-T07-SED-01	0 - 5	12/15/15	VK15-T07-SED-01-0005	0.0621	4,300
VK15-T08-SED-01	0 - 6	11/13/15	VK15-T08-SED-01-0006	0.0373 J	3,100 J
	6 - 12	11/13/15	VK15-T08-SED-01-0612	1.27	7,300 J
	12 - 24	11/13/15	VK15-T08-SED-01-1224	3.17	12,000 J
VK15-T09-SED-01	0 - 6	11/13/15	VK15-T09-SED-01-0006	0.58	6,800
	6 - 12	11/13/15	VK15-T09-SED-01-0612	0.0508 J	2,700
	12 - 24	11/13/15	VK15-T09-SED-01-1224	ND(0.0544)	1,700
VK15-T10-SED-01	0 - 6	11/17/15	VK15-T10-SED-01-0006	ND(0.0557) [ND(0.0589)]	930 [1,300]
	6 - 9	11/17/15	VK15-T10-SED-01-0609	0.216	34,000
Transect Samples - Soil					
VK15-T01-E-SL-01	0 - 6	12/10/15	VK15-T01-E-SL-01-0006	2.34	20,000
	6 - 12	12/10/15	VK15-T01-E-SL-01-0612	0.734	8,400
	12 - 21	12/10/15	VK15-T01-E-SL-01-1221	ND(0.0583)	3,500
VK15-T01-E-SL-02	0 - 6	12/11/15	VK15-T01-E-SL-02-0006	7.48	24,000
	6 - 12	12/11/15	VK15-T01-E-SL-02-0612	3.29 J	15,000
	12 - 22	12/11/15	VK15-T01-E-SL-02-1222	0.171	13,000
VK15-T01-E-SL-03	0 - 6	12/11/15	VK15-T01-E-SL-03-0006	9.24	30,000
	6 - 12	12/11/15	VK15-T01-E-SL-03-0612	3.21	11,000
	12 - 19	12/11/15	VK15-T01-E-SL-03-1219	ND(0.0629)	5,600
VK15-T01-E-SL-04	0 - 6	12/11/15	VK15-T01-E-SL-04-0006	19.6	44,000
	6 - 12	12/11/15	VK15-T01-E-SL-04-0612	ND(0.099)	63,000
	12 - 24	12/11/15	VK15-T01-E-SL-04-1224	ND(0.0841)	31,000

Table 3-5

**Phase 1 RI Sediment and Soil Sample PCB Aroclor and TOC Analytical Results –
Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York**

Location ID	Sample Depth (Inches)	Date	Sample Name	Total PCBs (Aroclors) (ppm)	Total Organic Carbon (ppm)
Transect Samples - Soil (continued)					
VK15-T01-E-SL-05	0 - 6	12/11/15	VK15-T01-E-SL-05-0006	ND(0.0804)	50,000
	6 - 12	12/11/15	VK15-T01-E-SL-05-0612	ND(0.0652)	26,000
	12 - 24	12/11/15	VK15-T01-E-SL-05-1224	ND(0.0742)	23,000
VK15-T01-W-SL-01	0 - 6	12/10/15	VK15-T01-W-SL-01-0006	3.84	14,000
	6 - 12	12/10/15	VK15-T01-W-SL-01-0612	0.543	7,600
	12 - 19	12/10/15	VK15-T01-W-SL-01-1219	ND(0.0568)	2,900
VK15-T01-W-SL-02	0 - 6	12/11/15	VK15-T01-W-SL-02-0006	2.37	67,000
	6 - 12	12/11/15	VK15-T01-W-SL-02-0612	0.407 J [0.201 J]	7,100 [7,500]
VK15-T01-W-SL-03	0 - 6	12/15/15	VK15-T01-W-SL-03-0006	1.89	56,000 J
	6 - 12	12/15/15	VK15-T01-W-SL-03-0612	ND(0.0562)	3,000 J
	12 - 15	12/15/15	VK15-T01-W-SL-03-1215	ND(0.0552)	5,800 J
VK15-T01-W-SL-04	0 - 6	12/14/15	VK15-T01-W-SL-04-0006	0.505	94,000
	6 - 12	12/14/15	VK15-T01-W-SL-04-0612	0.519	21,000
	12 - 21	12/14/15	VK15-T01-W-SL-04-1221	ND(0.057)	5,500
VK15-T01-W-SL-05	0 - 6	12/14/15	VK15-T01-W-SL-05-0006	0.212	17,000 J
	6 - 12	12/14/15	VK15-T01-W-SL-05-0612	ND(0.0613)	6,700 J
	12 - 24	12/14/15	VK15-T01-W-SL-05-1224	ND(0.0614)	5,500 J
VK15-T02-E-SL-01	0 - 6	12/11/15	VK15-T02-E-SL-01-0006	1.8	10,000
	6 - 12	12/11/15	VK15-T02-E-SL-01-0612	1.88	21,000
	12 - 17	12/11/15	VK15-T02-E-SL-01-1217	ND(0.0633)	18,000
VK15-T02-E-SL-02	0 - 6	12/14/15	VK15-T02-E-SL-02-0006	1.98	16,000
	6 - 12	12/14/15	VK15-T02-E-SL-02-0612	0.308 [0.173]	6,700 [5,000]
	12 - 15	12/14/15	VK15-T02-E-SL-02-1215	ND(0.0606)	2,900
VK15-T02-E-SL-03	0 - 6	12/14/15	VK15-T02-E-SL-03-0006	3.3	31,000
	6 - 12	12/14/15	VK15-T02-E-SL-03-0612	0.715	10,000
	12 - 20	12/14/15	VK15-T02-E-SL-03-1220	0.0665 J	6,300
VK15-T02-E-SL-04	0 - 6	12/14/15	VK15-T02-E-SL-04-0006	ND(0.0619)	9,200 J
	6 - 12	12/14/15	VK15-T02-E-SL-04-0612	0.139	16,000 J
VK15-T02-E-SL-05	0 - 6	12/14/15	VK15-T02-E-SL-05-0006	0.0249 J	17,000 J
	6 - 12	12/14/15	VK15-T02-E-SL-05-0612	ND(0.0634)	13,000 J
VK15-T02-W-SL-01	0 - 6	12/11/15	VK15-T02-W-SL-01-0006	2.35	15,000
	6 - 12	12/11/15	VK15-T02-W-SL-01-0612	0.206	7,600
	12 - 20	12/11/15	VK15-T02-W-SL-01-1220	ND(0.0663)	8,900
VK15-T02-W-SL-02	0 - 6	12/14/15	VK15-T02-W-SL-02-0006	2.99	15,000 J
	6 - 12	12/14/15	VK15-T02-W-SL-02-0612	1.97	15,000 J
	12 - 24	12/14/15	VK15-T02-W-SL-02-1224	0.0463 J	8,200 J
VK15-T02-W-SL-03	0 - 6	12/14/15	VK15-T02-W-SL-03-0006	2.53	21,000
	6 - 12	12/14/15	VK15-T02-W-SL-03-0612	0.927	13,000
	12 - 22	12/14/15	VK15-T02-W-SL-03-1222	ND(0.059)	6,800
VK15-T02-W-SL-04	0 - 6	12/14/15	VK15-T02-W-SL-04-0006	2.04 [1.47]	27,000 J [17,000]
	6 - 12	12/14/15	VK15-T02-W-SL-04-0612	0.128	11,000 J
	12 - 19	12/14/15	VK15-T02-W-SL-04-1219	ND(0.0571)	1,200
VK15-T02-W-SL-05	0 - 6	12/14/15	VK15-T02-W-SL-05-0006	1.27	29,000
	6 - 12	12/14/15	VK15-T02-W-SL-05-0612	0.061	11,000
VK15-T03-E-SL-01	0 - 6	12/11/15	VK15-T03-E-SL-01-0006	1.81	13,000
	6 - 11	12/11/15	VK15-T03-E-SL-01-0611	0.126	9,100
VK15-T03-E-SL-02	0 - 6	12/14/15	VK15-T03-E-SL-02-0006	8.83	13,000
	6 - 12	12/14/15	VK15-T03-E-SL-02-0612	5.21	10,000
	12 - 18	12/14/15	VK15-T03-E-SL-02-1218	0.896	11,000
VK15-T03-E-SL-03	0 - 6	12/14/15	VK15-T03-E-SL-03-0006	3.6	34,000
	6 - 12	12/14/15	VK15-T03-E-SL-03-0612	0.274	12,000
	12 - 19	12/14/15	VK15-T03-E-SL-03-1219	ND(0.0637)	5,700
VK15-T03-E-SL-04	0 - 6	12/14/15	VK15-T03-E-SL-04-0006	2.24	15,000
	6 - 12	12/14/15	VK15-T03-E-SL-04-0612	0.0837	10,000
	12 - 20	12/14/15	VK15-T03-E-SL-04-1220	ND(0.0626) [ND(0.0624)]	4,300 [4,200]
VK15-T03-E-SL-05	0 - 6	12/14/15	VK15-T03-E-SL-05-0006	3.54	41,000
	6 - 12	12/14/15	VK15-T03-E-SL-05-0612	0.188	21,000
VK15-T03-W-SL-01	12 - 19	12/14/15	VK15-T03-E-SL-05-1219	0.196	8,600
	0 - 4	12/11/15	VK15-T03-W-SL-01-0004	0.861 [1.01]	25,000 J [18,000 J]

Table 3-5
Phase 1 RI Sediment and Soil Sample PCB Aroclor and TOC Analytical Results –
Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID	Sample Depth (Inches)	Date	Sample Name	Total PCBs (Aroclors) (ppm)	Total Organic Carbon (ppm)
Transect Samples - Soil (continued)					
VK15-T03-W-SL-02	0 - 6	12/14/15	VK15-T03-W-SL-02-0006	1.66	33,000
	6 - 12	12/14/15	VK15-T03-W-SL-02-0612	0.489	7,600
	12 - 19	12/14/15	VK15-T03-W-SL-02-1219	ND(0.0651)	7,800
VK15-T03-W-SL-03	0 - 6	12/14/15	VK15-T03-W-SL-03-0006	1.4	28,000
	6 - 9	12/14/15	VK15-T03-W-SL-03-0609	0.196	13,000
VK15-T03-W-SL-04	0 - 6	12/14/15	VK15-T03-W-SL-04-0006	0.541	24,000
	6 - 12	12/14/15	VK15-T03-W-SL-04-0612	ND(0.0631)	5,300
	12 - 23	12/14/15	VK15-T03-W-SL-04-1223	ND(0.062)	2,200
VK15-T03-W-SL-05	0 - 6	12/14/15	VK15-T03-W-SL-05-0006	0.311	29,000
	6 - 10	12/14/15	VK15-T03-W-SL-05-0610	ND(0.0718)	14,000
VK15-T04-E-SL-01	0 - 6	11/17/15	VK15-T04-E-SL-01-0006	2.82	12,000
	6 - 12	11/17/15	VK15-T04-E-SL-01-0612	4.51	7,700
	12 - 19	11/17/15	VK15-T04-E-SL-01-1219	0.198	1,700
VK15-T04-E-SL-02	0 - 6	11/17/15	VK15-T04-E-SL-02-0006	5.35	20,000
	6 - 12	11/17/15	VK15-T04-E-SL-02-0612	5.24	8,200
	12 - 15	11/17/15	VK15-T04-E-SL-02-1215	0.171	2,200
VK15-T04-E-SL-03	0 - 6	11/17/15	VK15-T04-E-SL-03-0006	1.56	11,000
	6 - 12	11/17/15	VK15-T04-E-SL-03-0612	7.71	8,600
	12 - 22	11/17/15	VK15-T04-E-SL-03-1222	0.0693	1,100
VK15-T04-E-SL-04	0 - 6	11/17/15	VK15-T04-E-SL-04-0006	0.638	5,300
	6 - 12	11/17/15	VK15-T04-E-SL-04-0612	0.525	34,000
	12 - 17	11/17/15	VK15-T04-E-SL-04-1217	ND(0.0809)	24,000
VK15-T04-E-SL-05	0 - 6	11/17/15	VK15-T04-E-SL-05-0006	1.2	15,000
	6 - 12	11/17/15	VK15-T04-E-SL-05-0612	1.26	12,000
	12 - 16	11/17/15	VK15-T04-E-SL-05-1216	0.489	15,000
VK15-T04-W-SL-01	0 - 6	11/17/15	VK15-T04-W-SL-01-0006	0.428	16,000
	6 - 12	11/17/15	VK15-T04-W-SL-01-0612	1.75	13,000
	12 - 24	11/17/15	VK15-T04-W-SL-01-1224	7.45 J [0.952 J]	19,000 J [110,000 J]
VK15-T04-W-SL-02	0 - 6	11/17/15	VK15-T04-W-SL-02-0006	1.26	24,000
	6 - 12	11/17/15	VK15-T04-W-SL-02-0612	1.18	19,000
	12 - 18	11/17/15	VK15-T04-W-SL-02-1218	0.0733	1,600
VK15-T04-W-SL-03	0 - 6	11/17/15	VK15-T04-W-SL-03-0006	2.26	14,000
	6 - 12	11/17/15	VK15-T04-W-SL-03-0612	2.39	6,200
	12 - 18	11/17/15	VK15-T04-W-SL-03-1218	0.0719	1,500
VK15-T04-W-SL-04	0 - 6	11/17/15	VK15-T04-W-SL-04-0006	0.585	7,100
	6 - 12	11/17/15	VK15-T04-W-SL-04-0612	2.02	13,000
	12 - 17	11/17/15	VK15-T04-W-SL-04-1217	0.131	3,900
VK15-T04-W-SL-05	0 - 6	11/17/15	VK15-T04-W-SL-05-0006	0.0996	27,000
	6 - 12	11/17/15	VK15-T04-W-SL-05-0612	ND(0.0603)	8,800
	12 - 21	11/17/15	VK15-T04-W-SL-05-1221	ND(0.0562)	4,400
VK15-T05-E-SL-01	0 - 6	11/12/15	VK15-T05-E-SL-01-0006	ND(0.0605)	3,000
VK15-T05-E-SL-02	0 - 6	11/13/15	VK15-T05-E-SL-02-0006	0.138 [ND(0.0532)]	22,000 J [9,300 J]
VK15-T05-E-SL-03	0 - 6	11/13/15	VK15-T05-E-SL-03-0006	0.0604	14,000 J
	6 - 10	11/13/15	VK15-T05-E-SL-03-0610	ND(0.0536)	6,100
VK15-T05-E-SL-04	0 - 6	11/13/15	VK15-T05-E-SL-04-0006	0.0356 J	35,000
VK15-T05-E-SL-05	0 - 6	11/13/15	VK15-T05-E-SL-05-0006	ND(0.0686)	59,000
	6 - 12	11/13/15	VK15-T05-E-SL-05-0612	ND(0.0587)	15,000
VK15-T05-W-SL-01	0 - 6	11/12/15	VK15-T05-W-SL-01-0006	0.174	29,000
	6 - 12	11/12/15	VK15-T05-W-SL-01-0612	ND(0.0649)	13,000
VK15-T05-W-SL-02	0 - 6	11/13/15	VK15-T05-W-SL-02-0006	ND(0.0684)	26,000
	6 - 12	11/13/15	VK15-T05-W-SL-02-0612	ND(0.0626)	9,700
	12 - 24	11/13/15	VK15-T05-W-SL-02-1224	ND(0.0592)	2,200
VK15-T05-W-SL-03	0 - 6	11/13/15	VK15-T05-W-SL-03-0006	ND(0.0938)	120,000
	6 - 12	11/13/15	VK15-T05-W-SL-03-0612	ND(0.0626)	13,000
	12 - 24	11/13/15	VK15-T05-W-SL-03-1224	ND(0.0597)	3,500
VK15-T05-W-SL-04	0 - 6	11/13/15	VK15-T05-W-SL-04-0006	ND(0.0686) [ND(0.0722)]	26,000 J [46,000 J]
	6 - 12	11/13/15	VK15-T05-W-SL-04-0612	ND(0.0636)	14,000
VK15-T05-W-SL-05	0 - 6	11/13/15	VK15-T05-W-SL-05-0006	ND(0.0674)	34,000

Table 3-5

**Phase 1 RI Sediment and Soil Sample PCB Aroclor and TOC Analytical Results –
Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York**

Location ID	Sample Depth (Inches)	Date	Sample Name	Total PCBs (Aroclors) (ppm)	Total Organic Carbon (ppm)
Transect Samples - Soil (continued)					
VK15-T06-E-SL-01	0 - 6	12/15/15	VK15-T06-E-SL-01-0006	0.0296 J	47,000
	6 - 12	12/15/15	VK15-T06-E-SL-01-0612	ND(0.0614)	13,000
	12 - 18	12/15/15	VK15-T06-E-SL-01-1218	ND(0.0593)	1,700
VK15-T06-E-SL-02	0 - 6	12/15/15	VK15-T06-E-SL-02-0006	ND(0.0684)	25,000
	6 - 12	12/15/15	VK15-T06-E-SL-02-0612	ND(0.0604)	15,000
	12 - 22	12/15/15	VK15-T06-E-SL-02-1222	ND(0.0578)	4,300
VK15-T06-E-SL-03	0 - 6	12/15/15	VK15-T06-E-SL-03-0006	ND(0.061)	35,000
	6 - 12	12/15/15	VK15-T06-E-SL-03-0612	ND(0.0615)	20,000
	12 - 17	12/15/15	VK15-T06-E-SL-03-1217	ND(0.0577)	3,300
VK15-T06-E-SL-04	0 - 6	12/15/15	VK15-T06-E-SL-04-0006	0.523 [0.395]	21,000 J [17,000 J]
	6 - 12	12/15/15	VK15-T06-E-SL-04-0612	0.148	7,700
	12 - 17	12/15/15	VK15-T06-E-SL-04-1217	ND(0.059)	1,900
VK15-T06-E-SL-05	0 - 6	12/15/15	VK15-T06-E-SL-05-0006	0.785	31,000
	6 - 12	12/15/15	VK15-T06-E-SL-05-0612	0.0419 J	15,000
	12 - 15	12/15/15	VK15-T06-E-SL-05-1215	ND(0.0717)	17,000
VK15-T06-W-SL-01	0 - 6	12/15/15	VK15-T06-W-SL-01-0006	1.12	11,000 J
	6 - 12	12/15/15	VK15-T06-W-SL-01-0612	1.32	8,000 J
	12 - 14	12/15/15	VK15-T06-W-SL-01-1214	0.404	22,000 J
VK15-T06-W-SL-02	0 - 6	12/15/15	VK15-T06-W-SL-02-0006	0.795	28,000 J
	6 - 12	12/15/15	VK15-T06-W-SL-02-0612	0.325	13,000 J
VK15-T06-W-SL-03	0 - 6	12/15/15	VK15-T06-W-SL-03-0006	0.565	24,000 J
	6 - 12	12/15/15	VK15-T06-W-SL-03-0612	0.117	16,000 J
	12 - 17	12/15/15	VK15-T06-W-SL-03-1217	ND(0.061)	5,900 J
VK15-T06-W-SL-04	0 - 6	12/15/15	VK15-T06-W-SL-04-0006	0.682	17,000 J
	6 - 10	12/15/15	VK15-T06-W-SL-04-0610	0.142	13,000 J
VK15-T06-W-SL-05	0 - 6	12/15/15	VK15-T06-W-SL-05-0006	0.791 J [0.0681 J]	15,000 J [14,000 J]
	6 - 11	12/15/15	VK15-T06-W-SL-05-0611	ND(0.0631)	8,300 J
VK15-T07-E-SL-01	0 - 6	12/14/15	VK15-T07-E-SL-01-0006	1.72	14,000
	6 - 12	12/14/15	VK15-T07-E-SL-01-0612	0.631	11,000
	12 - 24	12/14/15	VK15-T07-E-SL-01-1224	ND(0.0642)	10,000
VK15-T07-E-SL-02	0 - 6	12/15/15	VK15-T07-E-SL-02-0006	1.02	21,000
	6 - 12	12/15/15	VK15-T07-E-SL-02-0612	0.0255 J	9,300
	12 - 20	12/15/15	VK15-T07-E-SL-02-1220	ND(0.0651)	10,000
VK15-T07-E-SL-03	0 - 6	12/15/15	VK15-T07-E-SL-03-0006	2.41	15,000
	6 - 12	12/15/15	VK15-T07-E-SL-03-0612	ND(0.0671)	7,700
	12 - 16	12/15/15	VK15-T07-E-SL-03-1216	ND(0.0886)	57,000
VK15-T07-E-SL-04	0 - 6	12/15/15	VK15-T07-E-SL-04-0006	0.822	35,000
	6 - 12	12/15/15	VK15-T07-E-SL-04-0612	0.666	22,000
	12 - 24	12/15/15	VK15-T07-E-SL-04-1224	ND(0.0757)	56,000
VK15-T07-E-SL-05	0 - 6	12/15/15	VK15-T07-E-SL-05-0006	0.449	40,000
	6 - 12	12/15/15	VK15-T07-E-SL-05-0612	0.0945	38,000
	12 - 24	12/15/15	VK15-T07-E-SL-05-1224	ND(0.0655)	23,000
VK15-T07-W-SL-01	0 - 6	12/14/15	VK15-T07-W-SL-01-0006	2.12 [1.52]	25,000 J [22,000]
VK15-T07-W-SL-02	0 - 6	12/15/15	VK15-T07-W-SL-02-0006	0.184	42,000
	6 - 12	12/15/15	VK15-T07-W-SL-02-0612	0.134	16,000
	12 - 19	12/15/15	VK15-T07-W-SL-02-1219	ND(0.074)	21,000
VK15-T07-W-SL-03	0 - 6	12/15/15	VK15-T07-W-SL-03-0006	0.0326 J	48,000
	6 - 12	12/15/15	VK15-T07-W-SL-03-0612	ND(0.0617)	9,500
	12 - 15	12/15/15	VK15-T07-W-SL-03-1215	ND(0.0609)	6,000 J
VK15-T07-W-SL-04	0 - 6	12/15/15	VK15-T07-W-SL-04-0006	ND(0.0694)	37,000 J
	6 - 12	12/15/15	VK15-T07-W-SL-04-0612	ND(0.0675)	26,000
	12 - 22	12/15/15	VK15-T07-W-SL-04-1222	ND(0.0594)	2,000
VK15-T07-W-SL-05	0 - 5	12/15/15	VK15-T07-W-SL-05-0005	ND(0.0673)	15,000
VK15-T08-E-SL-01	0 - 6	11/11/15	VK15-T08-E-SL-01-0006	0.865	27,000
	6 - 12	11/11/15	VK15-T08-E-SL-01-0612	1.22	14,000
	12 - 24	11/11/15	VK15-T08-E-SL-01-1224	0.0413 J	3,400
VK15-T08-E-SL-02	0 - 6	11/11/15	VK15-T08-E-SL-02-0006	1.82	67,000
	6 - 12	11/11/15	VK15-T08-E-SL-02-0612	0.548	38,000
	12 - 24	11/11/15	VK15-T08-E-SL-02-1224	0.0271 J [ND(0.0686)]	11,000 J [12,000]

Table 3-5

**Phase 1 RI Sediment and Soil Sample PCB Aroclor and TOC Analytical Results –
Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York**

Location ID	Sample Depth (Inches)	Date	Sample Name	Total PCBs (Aroclors) (ppm)	Total Organic Carbon (ppm)
Transect Samples - Soil (continued)					
VK15-T08-E-SL-03	0 - 6	11/11/15	VK15-T08-E-SL-03-0006	1.59	120,000
	6 - 12	11/11/15	VK15-T08-E-SL-03-0612	ND(0.111)	120,000
VK15-T08-E-SL-04	0 - 6	11/13/15	VK15-T08-E-SL-04-0006	0.245 J	24,000 J
	6 - 12	11/13/15	VK15-T08-E-SL-04-0612	0.618	180,000 J
	12 - 22	11/13/15	VK15-T08-E-SL-04-1222	ND(0.272)	320,000
VK15-T08-E-SL-05	0 - 6	11/16/15	VK15-T08-E-SL-05-0006	ND(0.181)	200,000 J
	6 - 12	11/16/15	VK15-T08-E-SL-05-0612	ND(0.182)	260,000 J
	12 - 24	11/16/15	VK15-T08-E-SL-05-1224	ND(0.302)	420,000 J
VK15-T08-W-SL-01	0 - 6	11/13/15	VK15-T08-W-SL-01-0006	0.522	32,000
	6 - 12	11/13/15	VK15-T08-W-SL-01-0612	0.596 J [1.01 J]	7,200 J [14,000 J]
	12 - 20	11/13/15	VK15-T08-W-SL-01-1220	0.644	31,000
VK15-T08-W-SL-02	0 - 6	11/13/15	VK15-T08-W-SL-02-0006	0.432	15,000 J
	6 - 12	11/13/15	VK15-T08-W-SL-02-0612	0.503	13,000 J
	12 - 22	11/13/15	VK15-T08-W-SL-02-1222	0.555	3,400 J
VK15-T08-W-SL-03	0 - 6	11/13/15	VK15-T08-W-SL-03-0006	1.04	49,000 J
	6 - 12	11/13/15	VK15-T08-W-SL-03-0612	2.64	24,000 J
	12 - 17	11/13/15	VK15-T08-W-SL-03-1217	1.93	26,000 J
VK15-T08-W-SL-04	0 - 6	11/16/15	VK15-T08-W-SL-04-0006	0.291	9,600 J
	0 - 6	11/16/15	VK15-T08-W-SL-05-0006	1.63	72,000 J
VK15-T08-W-SL-05	6 - 12	11/16/15	VK15-T08-W-SL-05-0612	0.609	16,000
	12 - 14	11/16/15	VK15-T08-W-SL-05-1214	ND(0.141)	67,000
	0 - 6	11/12/15	VK15-T09-E-SL-01-0006	1.03	17,000
VK15-T09-E-SL-01	6 - 12	11/12/15	VK15-T09-E-SL-01-0612	2.11	12,000
	12 - 24	11/12/15	VK15-T09-E-SL-01-1224	ND(0.0671)	13,000
	0 - 6	11/12/15	VK15-T09-E-SL-02-0006	1.89	23,000
VK15-T09-E-SL-02	6 - 12	11/12/15	VK15-T09-E-SL-02-0612	0.998	12,000
	12 - 24	11/12/15	VK15-T09-E-SL-02-1224	ND(0.0688)	12,000
	0 - 6	11/12/15	VK15-T09-E-SL-03-0006	1.26 [1]	62,000 J [22,000 J]
VK15-T09-E-SL-03	6 - 12	11/12/15	VK15-T09-E-SL-03-0612	0.689	19,000
	12 - 18	11/12/15	VK15-T09-E-SL-03-1218	ND(0.0701)	54,000
	0 - 6	11/13/15	VK15-T09-E-SL-04-0006	ND(0.0689)	12,000
VK15-T09-E-SL-04	6 - 12	11/13/15	VK15-T09-E-SL-04-0612	ND(0.0657)	2,800
	12 - 19	11/13/15	VK15-T09-E-SL-04-1219	ND(0.0569)	1,400
	0 - 6	11/13/15	VK15-T09-E-SL-05-0006	ND(0.0766)	30,000
VK15-T09-E-SL-05	6 - 12	11/13/15	VK15-T09-E-SL-05-0612	ND(0.0657)	3,600
	12 - 24	11/13/15	VK15-T09-E-SL-05-1224	ND(0.0596)	1,300
	0 - 6	11/12/15	VK15-T09-W-SL-01-0006	0.88	24,000
VK15-T09-W-SL-01	6 - 12	11/12/15	VK15-T09-W-SL-01-0612	1.23	13,000
	12 - 24	11/12/15	VK15-T09-W-SL-01-1224	4.47 J	18,000
	0 - 6	11/12/15	VK15-T09-W-SL-02-0006	0.058 J	14,000
VK15-T09-W-SL-02	6 - 12	11/12/15	VK15-T09-W-SL-02-0612	ND(0.0621)	18,000
	12 - 24	11/12/15	VK15-T09-W-SL-02-1224	ND(0.059)	6,500
	0 - 6	11/12/15	VK15-T09-W-SL-03-0006	0.0522 J	61,000
VK15-T09-W-SL-03	6 - 12	11/12/15	VK15-T09-W-SL-03-0612	ND(0.0706)	38,000
	12 - 24	11/12/15	VK15-T09-W-SL-03-1224	ND(0.0609)	2,100
	0 - 6	11/12/15	VK15-T09-W-SL-04-0006	ND(0.0728)	42,000
VK15-T09-W-SL-04	6 - 12	11/12/15	VK15-T09-W-SL-04-0612	ND(0.0641)	20,000
	12 - 24	11/12/15	VK15-T09-W-SL-04-1224	ND(0.0567) [ND(0.0596)]	2,400 [3,900]
	0 - 6	11/12/15	VK15-T09-W-SL-05-0006	ND(0.0722)	34,000
VK15-T09-W-SL-05	6 - 12	11/12/15	VK15-T09-W-SL-05-0612	ND(0.0657)	21,000
	12 - 24	11/12/15	VK15-T09-W-SL-05-1224	ND(0.0585)	2,300
VK15-T10-E-SL-01	0 - 6	11/16/15	VK15-T10-E-SL-01-0006	0.0957	6,900
	6 - 12	11/16/15	VK15-T10-E-SL-01-0612	ND(0.0616)	3,700
	12 - 14	11/16/15	VK15-T10-E-SL-01-1214	ND(0.0619)	2,600
VK15-T10-E-SL-02	0 - 6	11/17/15	VK15-T10-E-SL-02-0006	0.0768	4,800
	6 - 12	11/17/15	VK15-T10-E-SL-02-0612	ND(0.0607)	5,000
	12 - 22	11/17/15	VK15-T10-E-SL-02-1222	ND(0.0588)	4,100

Table 3-5

**Phase 1 RI Sediment and Soil Sample PCB Aroclor and TOC Analytical Results –
Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York**

Location ID	Sample Depth (Inches)	Date	Sample Name	Total PCBs (Aroclors) (ppm)	Total Organic Carbon (ppm)
Transect Samples - Soil (continued)					
VK15-T10-E-SL-03	0 - 6	11/17/15	VK15-T10-E-SL-03-0006	0.224	11,000
	6 - 12	11/17/15	VK15-T10-E-SL-03-0612	ND(0.0601)	9,000
	12 - 17	11/17/15	VK15-T10-E-SL-03-1217	ND(0.0618)	9,400
VK15-T10-E-SL-04	0 - 6	11/17/15	VK15-T10-E-SL-04-0006	ND(0.0714)	19,000
	6 - 12	11/17/15	VK15-T10-E-SL-04-0612	0.172	13,000
	12 - 24	11/17/15	VK15-T10-E-SL-04-1224	ND(0.0599)	2,100
VK15-T10-E-SL-05	0 - 6	11/17/15	VK15-T10-E-SL-05-0006	0.0537 J [0.0471 J]	26,000 [23,000]
	6 - 12	11/17/15	VK15-T10-E-SL-05-0612	ND(0.0644)	8,700
	12 - 24	11/17/15	VK15-T10-E-SL-05-1224	ND(0.0581)	1,400
VK15-T10-W-SL-01	0 - 6	11/16/15	VK15-T10-W-SL-01-0006	0.383	9,000
	6 - 12	11/16/15	VK15-T10-W-SL-01-0612	0.123	4,600
	12 - 14	11/16/15	VK15-T10-W-SL-01-1214	ND(0.0567)	4,500
VK15-T10-W-SL-02	0 - 6	11/16/15	VK15-T10-W-SL-02-0006	0.307	18,000
	6 - 12	11/16/15	VK15-T10-W-SL-02-0612	ND(0.0606)	2,700
	12 - 24	11/16/15	VK15-T10-W-SL-02-1224	ND(0.0604)	6,500
VK15-T10-W-SL-03	0 - 6	11/16/15	VK15-T10-W-SL-03-0006	0.406	7,000
	6 - 12	11/16/15	VK15-T10-W-SL-03-0612	ND(0.0598)	6,000
	12 - 24	11/16/15	VK15-T10-W-SL-03-1224	ND(0.06)	3,600
VK15-T10-W-SL-04	0 - 6	11/16/15	VK15-T10-W-SL-04-0006	0.587	36,000
	6 - 12	11/16/15	VK15-T10-W-SL-04-0612	0.109	9,200
	12 - 19	11/16/15	VK15-T10-W-SL-04-1219	ND(0.0653)	9,600
VK15-T10-W-SL-05	0 - 6	11/17/15	VK15-T10-W-SL-05-0006	0.299	21,000
	6 - 12	11/17/15	VK15-T10-W-SL-05-0612	0.214	15,000
	12 - 24	11/17/15	VK15-T10-W-SL-05-1224	ND(0.0598)	3,000

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Table 3-6
Summary of Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical and Geotechnical Results –
Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Analyte	Units	Number of Samples Analyzed	Frequency of Detection	% ND	Minimum	Maximum	Average	Median
PCB Congeners								
Total PCBs	ppm	10	10	0%	0.00383	4.99	1.43	1.19
Volatile Organic Compounds								
2-Butanone	ppb	20	1	95%	ND	37	5.31	3.50
Acetone	ppb	20	5	75%	ND	240	19.8	3.88
Dichloromethane	ppb	20	1	95%	ND	2	3.54	3.50
Trichloroethene	ppb	20	4	80%	ND	4	3.26	3.50
Trichlorofluoromethane	ppb	20	1	95%	ND	24	4.49	3.50
Semi-Volatile Organic Compounds								
2-Methylnaphthalene	ppb	20	1	95%	ND	130	215	215
Naphthalene	ppb	20	1	95%	ND	150	216	215
Phenol	ppb	20	1	95%	ND	240	221	218
Metals								
Aluminum	ppm	20	20	0%	2640	17800	13200	13400
Antimony	ppm	20	16	20%	ND	2.1	1.23	1.10
Arsenic	ppm	20	20	0%	0.99	8.6	4.88	5.13
Barium	ppm	20	20	0%	49.6	213	147	146
Beryllium	ppm	20	20	0%	0.14	0.84	0.652	0.660
Cadmium	ppm	20	13	35%	ND	5.7	1.22	1.28
Calcium	ppm	20	20	0%	337	2230	1060	975
Chromium	ppm	20	20	0%	6.5	48.9	21.2	18.8
Cobalt	ppm	20	20	0%	2.1	13.4	9.88	10.6
Copper	ppm	20	20	0%	3.3	28.8	16.6	16.1
Iron	ppm	20	20	0%	5550	36800	27600	27700
Lead	ppm	20	20	0%	2.5	111	20.2	15.2
Magnesium	ppm	19	19	0%	745	4590	3410	3610
Manganese	ppm	20	20	0%	360	2540	1390	1410
Mercury	ppm	20	12	40%	ND	0.097	0.0370	0.0265
Nickel	ppm	20	20	0%	3.2	19.1	14.8	15.8
Potassium	ppm	20	20	0%	269	840	634	687
Selenium	ppm	20	19	5%	ND	10.7	6.14	5.95
Silver	ppm	20	19	5%	ND	3.8	2.51	2.95
Sodium	ppm	20	7	65%	ND	86.7	120	146
Thallium	ppm	20	20	0%	0.62	10	4.73	4.25
Vanadium	ppm	20	20	0%	1.6	19.7	13.7	13.0
Zinc	ppm	20	20	0%	16.2	99	74.2	79.8
Pesticides								
alpha Chlordane	ppb	20	1	95%	ND	0.58	1.09	1.10
alpha-BHC	ppb	20	3	85%	ND	0.64	1.03	1.10
delta-BHC	ppb	20	2	90%	ND	1.5	1.13	1.10
Dieldrin	ppb	20	18	10%	ND	60	13.0	10.5
Endosulfan I	ppb	20	2	90%	ND	2.9	1.19	1.13
Endosulfan II	ppb	20	14	30%	ND	35	8.37	5.85
Endosulfan sulfate	ppb	20	10	50%	ND	19	4.45	1.95
Endrin	ppb	20	12	40%	ND	18	3.78	2.85

Table 3-6
Summary of Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical and Geotechnical Results –
Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Analyte	Units	Number of Samples Analyzed	Frequency of Detection	% ND	Minimum	Maximum	Average	Median
Pesticides (continued)								
Endrin aldehyde	ppb	20	14	30%	ND	22	5.39	3.63
Endrin ketone	ppb	20	16	20%	ND	85	20.7	15.0
gamma Chlordane	ppb	20	11	45%	ND	14	2.00	1.25
Heptachlor epoxide	ppb	20	6	70%	ND	5.7	1.41	1.13
Methoxychlor	ppb	20	9	55%	ND	67	10.3	2.26
p,p'-DDD	ppb	20	2	90%	ND	8.6	1.81	1.13
p,p'-DDE	ppb	20	4	80%	ND	4.8	1.47	1.13
p,p'-DDT	ppb	20	15	25%	ND	270	47.2	27.0
Dioxans/Furans								
1,2,3,4,6,7,8-HpCDD	ppt	5	4	20%	ND	15	8.62	8.50
1,2,3,4,6,7,8-HpCDF	ppt	5	4	20%	ND	13	8.76	10.0
2,3,4,6,7,8-HxCDF	ppt	5	1	80%	ND	5.5	3.04	2.45
2,3,4,7,8-PeCDF	ppt	5	1	80%	ND	5.4	3.05	2.50
2,3,7,8-TCDF	ppt	5	3	40%	ND	2.3	1.41	1.90
OCDD	ppt	5	5	0%	32	200	126	130
TEQ	ppt	5	5	0%	0.032	3.3	1.07	0.650
Total HpCDD	ppt	5	4	20%	ND	27	14.9	16.0
Total HpCDF	ppt	5	4	20%	ND	23	16.3	20.0
Total HxCDF	ppt	5	4	20%	ND	79	46.3	53.0
Total PeCDF	ppt	5	4	20%	ND	140	83.7	86.0
Total TCDF	ppt	5	4	20%	ND	43	24.1	24.0
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	5	5	0%	5.25	6.63	6.06	6.04
Geotechnical Data								
Bulk Density	lb/cf	33	NA	NA	57.6	139.4	84.0	76.2
Percent Moisture (%)	%	33	NA	NA	6.6	62.3	26.6	24.9
Grain Size - Gravel	%	33	NA	NA	0.9	75.1	10.8	1.80
Grain Size - Coarse Sand	%	33	NA	NA	1.3	18.9	4.42	1.70
Grain Size - Medium Sand	%	33	NA	NA	4.4	73	19.9	18.5
Grain Size - Fine Sand	%	33	NA	NA	0.8	53.9	27.9	29.5
Grain Size - Silt/Clay	%	33	NA	NA	1.1	76.1	37.0	36.9

Table 3-7
**Phase 1 RI Sediment and Soil Sample PCB Aroclor and TOC Analytical Results –
Nassau Lake and Valatie Kill Downstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York**

Location ID	Sample Depth (Inches)	Date	Sample Name	Total PCBs (Aroclors) (ppm)	Total Organic Carbon (ppm)
In-Lake Samples - Sediment					
NL15-IL-SED-01	0 - 6	11/19/15	NL15-IL-SED-01-0006	2.85	100,000
	6 - 12	11/19/15	NL15-IL-SED-01-0612	0.0895 J	67,000
	12 - 18	11/19/15	NL15-IL-SED-01-1218	ND(0.246)	350,000
NL15-IL-SED-02	0 - 6	11/19/15	NL15-IL-SED-02-0006	2.22	57,000
	6 - 12	11/19/15	NL15-IL-SED-02-0612	2.13	46,000
	12 - 18	11/19/15	NL15-IL-SED-02-1218	0.0252 J	3,200
NL15-IL-SED-03	0 - 6	11/20/15	NL15-IL-SED-03-0006	1.295	84,000
	6 - 12	11/20/15	NL15-IL-SED-03-0612	0.179	150,000
	12 - 18	11/20/15	NL15-IL-SED-03-1218	ND(0.367)	420,000
NL15-IL-SED-04	0 - 6	11/19/15	NL15-IL-SED-04-0006	1.17	43,000
	6 - 12	11/19/15	NL15-IL-SED-04-0612	3.35	35,000
	12 - 18	11/19/15	NL15-IL-SED-04-1218	ND(0.0739)	15,000
NL15-IL-SED-05	0 - 6	11/20/15	NL15-IL-SED-05-0006	0.0543 J	42,000
	6 - 12	11/20/15	NL15-IL-SED-05-0612	0.12 J	43,000
	12 - 18	11/20/15	NL15-IL-SED-05-1218	2.129	20,000
	18 - 24	11/20/15	NL15-IL-SED-05-1824	ND(0.0556)	2,700
NL15-IL-SED-06	0 - 6	11/20/15	NL15-IL-SED-06-0006	0.723	37,000
	6 - 12	11/20/15	NL15-IL-SED-06-0612	1.01	30,000
	12 - 18	11/20/15	NL15-IL-SED-06-1218	9.78 J [4.67 J]	27,000 J [23,000]
	18 - 24	11/20/15	NL15-IL-SED-06-1824	0.271	32,000
NL15-IL-SED-07	0 - 6	11/19/15	NL15-IL-SED-07-0006	1.95	84,000
	6 - 12	11/19/15	NL15-IL-SED-07-0612	ND(0.21)	230,000
	12 - 18	11/19/15	NL15-IL-SED-07-1218	ND(0.459)	480,000
NL15-IL-SED-08	0 - 6	11/20/15	NL15-IL-SED-08-0006	0.736	29,000
	6 - 12	11/20/15	NL15-IL-SED-08-0612	1.18	34,000
	12 - 18	11/20/15	NL15-IL-SED-08-1218	4.021	29,000
	18 - 24	11/20/15	NL15-IL-SED-08-1824	ND(0.0904)	28,000
NL15-IL-SED-09	0 - 6	12/02/15	NL15-IL-SED-09-0006	0.587 J	490,000 J
	6 - 12	12/02/15	NL15-IL-SED-09-0612	ND(0.372)	510,000 J
	12 - 18	12/02/15	NL15-IL-SED-09-1218	ND(0.438)	600,000 J
NL15-IL-SED-10	0 - 6	12/02/15	NL15-IL-SED-10-0006	2.37	52,000 J
	6 - 12	12/02/15	NL15-IL-SED-10-0612	0.116 J	45,000 J
	12 - 18	12/02/15	NL15-IL-SED-10-1218	ND(0.137)	59,000 J
NL15-IL-SED-11	0 - 6	11/20/15	NL15-IL-SED-11-0006	1.312	120,000
	6 - 12	11/20/15	NL15-IL-SED-11-0612	ND(0.388)	440,000
	12 - 18	11/20/15	NL15-IL-SED-11-1218	ND(0.388)	200,000
NL15-IL-SED-12	0 - 6	12/02/15	NL15-IL-SED-12-0006	1.475	54,000 J
	6 - 12	12/02/15	NL15-IL-SED-12-0612	0.128 J [0.165]	76,000 J [69,000]
	12 - 18	12/02/15	NL15-IL-SED-12-1218	ND(0.188)	92,000 J
NL15-IL-SED-13	0 - 6	11/19/15	NL15-IL-SED-13-0006	3.6	79,000
	6 - 12	11/19/15	NL15-IL-SED-13-0612	0.116	49,000
	12 - 18	11/19/15	NL15-IL-SED-13-1218	ND(0.13)	54,000
NL15-IL-SED-14	0 - 6	11/20/15	NL15-IL-SED-14-0006	0.313 J	330,000
	6 - 12	11/20/15	NL15-IL-SED-14-0612	ND(0.454)	360,000
	12 - 18	11/20/15	NL15-IL-SED-14-1218	ND(0.369)	300,000
NL15-IL-SED-15	0 - 6	12/02/15	NL15-IL-SED-15-0006	2.33	59,000
	6 - 12	12/02/15	NL15-IL-SED-15-0612	ND(0.599)	260,000
	12 - 18	12/02/15	NL15-IL-SED-15-1218	ND(0.55)	290,000
NL15-IL-SED-16	0 - 6	12/02/15	NL15-IL-SED-16-0006	1.65	57,000
	6 - 12	12/02/15	NL15-IL-SED-16-0612	ND(0.122)	58,000
	12 - 18	12/02/15	NL15-IL-SED-16-1218	ND(0.349)	260,000
NL15-IL-SED-17	0 - 6	11/20/15	NL15-IL-SED-17-0006	0.325	190,000
	6 - 12	11/20/15	NL15-IL-SED-17-0612	ND(0.363)	480,000 J
	12 - 18	11/20/15	NL15-IL-SED-17-1218	ND(0.435)	530,000 J
NL15-IL-SED-18	0 - 6	12/02/15	NL15-IL-SED-18-0006	1.49 J [1.53]	80,000 [83,000]
	6 - 12	12/02/15	NL15-IL-SED-18-0612	1.05	270,000
	12 - 18	12/02/15	NL15-IL-SED-18-1218	ND(0.37)	200,000

Table 3-7

**Phase 1 RI Sediment and Soil Sample PCB Aroclor and TOC Analytical Results –
Nassau Lake and Valatie Kill Downstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Superfund Site - Nassau, New York**

Location ID	Sample Depth (Inches)	Date	Sample Name	Total PCBs (Aroclors) (ppm)	Total Organic Carbon (ppm)
In-Lake Samples - Sediment (continued)					
NL15-IL-SED-19	0 - 6	11/19/15	NL15-IL-SED-19-0006	0.0478 J	38,000
	6 - 12	11/19/15	NL15-IL-SED-19-0612	0.0706 J	41,000
	12 - 18	11/19/15	NL15-IL-SED-19-1218	0.0414 J	2,500
NL15-IL-SED-20	0 - 6	12/03/15	NL15-IL-SED-20-0006	2.153	75,000
	6 - 12	12/03/15	NL15-IL-SED-20-0612	0.239 J	350,000
	12 - 18	12/03/15	NL15-IL-SED-20-1218	ND(0.338)	470,000
NL15-IL-SED-21	0 - 6	11/20/15	NL15-IL-SED-21-0006	ND(0.0547)	17,000
	6 - 10	11/20/15	NL15-IL-SED-21-0610	0.0268 J	2,800
NL15-IL-SED-22	0 - 6	12/03/15	NL15-IL-SED-22-0006	ND(0.0649)	2,700
	6 - 13	12/03/15	NL15-IL-SED-22-0613	0.0442 J	1,600
NL15-IL-SED-23	0 - 6	12/03/15	NL15-IL-SED-23-0006	1.426	60,000
	6 - 12	12/03/15	NL15-IL-SED-23-0612	ND(0.344)	490,000
	12 - 18	12/03/15	NL15-IL-SED-23-1218	ND(0.409) [ND(0.384)]	480,000 J [520,000]
NL15-IL-SED-24	0 - 6	11/19/15	NL15-IL-SED-24-0006	0.259	29,000
	6 - 12	11/19/15	NL15-IL-SED-24-0612	0.669	48,000
	12 - 18	11/19/15	NL15-IL-SED-24-1218	0.517	45,000
NL15-IL-SED-25	0 - 6	11/19/15	NL15-IL-SED-25-0006	1.18	41,000
	6 - 12	11/19/15	NL15-IL-SED-25-0612	1.88	94,000
	12 - 18	11/19/15	NL15-IL-SED-25-1218	ND(0.0807)	52,000
NL15-IL-SED-26	0 - 6	11/20/15	NL15-IL-SED-26-0006	0.121 J	74,000 J
	6 - 12	11/20/15	NL15-IL-SED-26-0612	0.626	74,000 J
	12 - 18	11/20/15	NL15-IL-SED-26-1218	0.594	59,000 J
NL15-IL-SED-27	0 - 6	11/20/15	NL15-IL-SED-27-0006	2.397	72,000
	6 - 12	11/20/15	NL15-IL-SED-27-0612	0.44	280,000
	12 - 18	11/20/15	NL15-IL-SED-27-1218	ND(0.312)	460,000
NL15-IL-SED-28	0 - 6	11/19/15	NL15-IL-SED-28-0006	0.523	51,000
	6 - 12	11/19/15	NL15-IL-SED-28-0612	0.548	45,000
	12 - 18	11/19/15	NL15-IL-SED-28-1218	2.041	30,000
	18 - 24	11/19/15	NL15-IL-SED-28-1824	0.291	31,000
NL15-IL-SED-29	0 - 6	12/03/15	NL15-IL-SED-29-0006	0.611	47,000
	6 - 12	12/03/15	NL15-IL-SED-29-0612	2.818 J [3.325]	48,000 [37,000]
	12 - 18	12/03/15	NL15-IL-SED-29-1218	0.101 J	14,000
NL15-IL-SED-30	0 - 6	12/03/15	NL15-IL-SED-30-0006	2.268	57,000
	6 - 12	12/03/15	NL15-IL-SED-30-0612	3.422	55,000
	12 - 18	12/03/15	NL15-IL-SED-30-1218	ND(0.122)	55,000
Shoreline Samples - Sediment					
NL15-T01-SED-01	0 - 6	11/17/15	NL15-T01-SED-01-0006	0.556	29,000
	6 - 12	11/17/15	NL15-T01-SED-01-0612	0.845	36,000
NL15-T02-SED-01	0 - 6	11/18/15	NL15-T02-SED-01-0006	ND(0.0591)	5,000 J
NL15-T03-SED-01	0 - 6	11/18/15	NL15-T03-SED-01-0006	ND(0.0554)	1,800 J
	6 - 7	11/18/15	NL15-T03-SED-01-0607	ND(0.0566)	1,000 J
NL15-T04-SED-01	0 - 6	11/18/15	NL15-T04-SED-01-0006	ND(0.0543)	6,000 J
	6 - 12	11/18/15	NL15-T04-SED-01-0612	ND(0.0569)	3,400 J
NL15-T05-SED-01	0 - 6	11/18/15	NL15-T05-SED-01-0006	ND(0.0569)	3,700 J
	6 - 9	11/18/15	NL15-T05-SED-01-0609	ND(0.0541)	2,400 J
NL15-T06-SED-01	0 - 6	11/18/15	NL15-T06-SED-01-0006	ND(0.0594)	17,000 J
	6 - 12	11/18/15	NL15-T06-SED-01-0612	ND(0.0574)	3,600 J
NL15-T07-SED-01	0 - 3	11/18/15	NL15-T07-SED-01-0003	ND(0.058)	5,000 J
NL15-T08-SED-01	0 - 6	11/18/15	NL15-T08-SED-01-0006	ND(0.0562)	11,000
NL15-T09-SED-01	0 - 5	11/18/15	NL15-T09-SED-01-0005	ND(0.057) [ND(0.0554)]	7,900 J [16,000 J]
NL15-T10-SED-01	0 - 6	11/18/15	NL15-T10-SED-01-0006	0.031 J	5,400
NL15-T11-SED-01	0 - 6	11/18/15	NL15-T11-SED-01-0006	0.0704	11,000
	6 - 12	11/18/15	NL15-T11-SED-01-0612	ND(0.0569)	1,800
NL15-T12-SED-01	0 - 6	11/18/15	NL15-T12-SED-01-0006	ND(0.0573)	11,000
NL15-T13-SED-01	0 - 6	11/18/15	NL15-T13-SED-01-0006	ND(0.0562)	3,500
	6 - 9	11/18/15	NL15-T13-SED-01-0609	0.0253 J	2,800
NL15-T14-SED-01	0 - 6	11/19/15	NL15-T14-SED-01-0006	0.187	26,000
	6 - 12	11/19/15	NL15-T14-SED-01-0612	0.222	11,000

Table 3-7

**Phase 1 RI Sediment and Soil Sample PCB Aroclor and TOC Analytical Results –
Nassau Lake and Valatie Kill Downstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York**

Location ID	Sample Depth (Inches)	Date	Sample Name	Total PCBs (Aroclors) (ppm)	Total Organic Carbon (ppm)
Shoreline Samples - Sediment (continued)					
NL15-T15-SED-01	0 - 6	11/18/15	NL15-T15-SED-01-0006	0.23	13,000
	6 - 10	11/18/15	NL15-T15-SED-01-0610	ND(0.0593)	2,800
Shoreline Samples - Soil					
NL15-T01-SL-01	0 - 6	11/17/15	NL15-T01-SL-01-0006	ND(0.0566)	18,000
	6 - 12	11/17/15	NL15-T01-SL-01-0612	ND(0.0665)	27,000
NL15-T01-SL-02	0 - 6	11/17/15	NL15-T01-SL-02-0006	ND(0.0579)	15,000
	6 - 12	11/17/15	NL15-T01-SL-02-0612	ND(0.0536)	9,700
NL15-T02-SL-01	0 - 6	11/18/15	NL15-T02-SL-01-0006	ND(0.0625) [ND(0.0616)]	48,000 J [24,000 J]
	6 - 12	11/18/15	NL15-T02-SL-01-0612	ND(0.0792)	40,000 J
NL15-T02-SL-02	0 - 6	11/18/15	NL15-T02-SL-02-0006	ND(0.0614)	33,000 J
	6 - 8	11/18/15	NL15-T02-SL-02-0608	ND(0.0536)	11,000 J
NL15-T03-SL-01	0 - 6	11/18/15	NL15-T03-SL-01-0006	ND(0.0572)	6,400 J
	6 - 12	11/18/15	NL15-T03-SL-01-0612	ND(0.0549)	3,200 J
NL15-T03-SL-02	0 - 6	11/18/15	NL15-T03-SL-02-0006	0.108	11,000 J
	6 - 12	11/18/15	NL15-T03-SL-02-0612	0.121	6,500 J
NL15-T04-SL-01	0 - 6	11/18/15	NL15-T04-SL-01-0006	ND(0.0599)	25,000 J
	6 - 12	11/18/15	NL15-T04-SL-01-0612	ND(0.0581)	12,000 J
NL15-T04-SL-02	0 - 6	11/18/15	NL15-T04-SL-02-0006	0.0252 J	20,000 J
	6 - 12	11/18/15	NL15-T04-SL-02-0612	ND(0.0595)	12,000 J
NL15-T05-SL-01	0 - 6	11/18/15	NL15-T05-SL-01-0006	0.0457 J	29,000
	6 - 12	11/18/15	NL15-T05-SL-01-0612	ND(0.0566)	3,000
NL15-T05-SL-02	0 - 6	11/18/15	NL15-T05-SL-02-0006	0.0737	30,000
	6 - 12	11/18/15	NL15-T05-SL-02-0612	0.118	14,000
NL15-T06-SL-01	0 - 6	11/18/15	NL15-T06-SL-01-0006	ND(0.0578)	20,000
	6 - 9	11/18/15	NL15-T06-SL-01-0609	ND(0.051)	3,400
NL15-T06-SL-02	0 - 6	11/18/15	NL15-T06-SL-02-0006	ND(0.0555) [ND(0.0627)]	11,000 J [27,000 J]
	6 - 9	11/18/15	NL15-T06-SL-02-0609	ND(0.0537)	2,200
NL15-T07-SL-01	0 - 6	11/18/15	NL15-T07-SL-01-0006	0.162	43,000
	6 - 9	11/18/15	NL15-T07-SL-01-0609	0.31	42,000
NL15-T07-SL-02	0 - 6	11/18/15	NL15-T07-SL-02-0006	1.56	49,000
	6 - 8	11/18/15	NL15-T07-SL-02-0608	1.79	55,000
NL15-T08-SL-01	0 - 6	11/18/15	NL15-T08-SL-01-0006	ND(0.0744)	87,000 J
	6 - 10	11/18/15	NL15-T08-SL-01-0610	ND(0.0702)	98,000 J
NL15-T08-SL-02	0 - 6	11/18/15	NL15-T08-SL-02-0006	ND(0.0651)	40,000 J
	6 - 12	11/18/15	NL15-T08-SL-02-0612	0.0303 J	46,000 J
NL15-T09-SL-01	0 - 6	11/18/15	NL15-T09-SL-01-0006	0.0481 J	25,000 J
	6 - 12	11/18/15	NL15-T09-SL-01-0612	ND(0.0538)	8,300 J
NL15-T09-SL-02	0 - 6	11/18/15	NL15-T09-SL-02-0006	ND(0.0559)	12,000 J
	6 - 10	11/18/15	NL15-T09-SL-02-0610	ND(0.0529)	3,800 J
NL15-T10-SL-01	0 - 6	11/18/15	NL15-T10-SL-01-0006	ND(0.0601)	51,000 J
	6 - 12	11/18/15	NL15-T10-SL-01-0612	ND(0.0631)	45,000 J
NL15-T10-SL-02	0 - 6	11/18/15	NL15-T10-SL-02-0006	0.0511 J	24,000 J
	6 - 12	11/18/15	NL15-T10-SL-02-0612	ND(0.0604)	20,000 J
NL15-T11-SL-01	0 - 6	11/18/15	NL15-T11-SL-01-0006	ND(0.0733 J) [ND(0.0601)]	98,000 [98,000]
NL15-T11-SL-02	0 - 6	11/18/15	NL15-T11-SL-02-0006	ND(0.059)	43,000
NL15-T12-SL-01	0 - 6	11/18/15	NL15-T12-SL-01-0006	ND(0.0624)	31,000
	6 - 12	11/18/15	NL15-T12-SL-01-0612	ND(0.0553)	4,500
NL15-T12-SL-02	0 - 6	11/18/15	NL15-T12-SL-02-0006	ND(0.0617)	34,000
	6 - 11	11/18/15	NL15-T12-SL-02-0611	ND(0.0607)	9,100
NL15-T13-SL-01	0 - 6	11/18/15	NL15-T13-SL-01-0006	ND(0.0569)	19,000
NL15-T13-SL-02	0 - 5	11/18/15	NL15-T13-SL-02-0005	ND(0.0534)	18,000
NL15-T14-SL-01	0 - 6	11/19/15	NL15-T14-SL-01-0006	ND(0.0567)	11,000 J
	6 - 12	11/19/15	NL15-T14-SL-01-0612	ND(0.0509)	2,300
NL15-T14-SL-02	0 - 6	11/19/15	NL15-T14-SL-02-0006	ND(0.0555)	9,200
	6 - 12	11/19/15	NL15-T14-SL-02-0612	ND(0.0533)	840

Table 3-7
Phase 1 RI Sediment and Soil Sample PCB Aroclor and TOC Analytical Results –
Nassau Lake and Valatie Kill Downstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID	Sample Depth (Inches)	Date	Sample Name	Total PCBs (Aroclors) (ppm)	Total Organic Carbon (ppm)
Shoreline Samples - Soil (continued)					
NL15-T15-SL-01	0 - 6	11/18/15	NL15-T15-SL-01-0006	ND(0.0601)	28,000
	6 - 10	11/18/15	NL15-T15-SL-01-0610	ND(0.062)	14,000
NL15-T15-SL-02	0 - 6	11/18/15	NL15-T15-SL-02-0006	ND(0.0627)	35,000
	6 - 11	11/18/15	NL15-T15-SL-02-0611	ND(0.0624 J) [ND(0.0639)]	22,000 [24,000]
Downstream of Dam Samples - Sediment					
VK15-DSD-SED-01	0 - 6	11/16/15	VK15-DSD-SED-01-0006	ND(0.152)	90,000
VK15-DSD-SED-02	0 - 6	11/16/15	VK15-DSD-SED-02-0006	ND(0.0577)	1,900
VK15-DSD-SED-03	0 - 6	11/16/15	VK15-DSD-SED-03-0006	ND(0.076)	18,000
VK15-DSD-SED-04	0 - 6	11/16/15	VK15-DSD-SED-04-0006	ND(0.0601)	3,400 J

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Table 3-8
Summary of Phase 1 RI Sediment Sample Non-PCB Aroclor or -TOC Analytical and Geotechnical Results – Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Analyte	Units	Number of Samples Analyzed	Frequency of Detection	% ND	Minimum	Maximum	Average	Median
PCB Congeners								
Total PCBs	ppm	5	5	0%	0.33	5.40	3.26	2.85
Volatile Organics								
2-Butanone	ppb	5	5	0%	70	260	149	82.0
Acetone	ppb	5	5	0%	380	1300	724	440
Carbon disulfide	ppb	5	3	40%	ND	32	22.8	25.0
Semi-Volatile Organics								
No detections								
Inorganics								
Aluminum	ppm	5	5	0%	15200	27200	22900	24200
Antimony	ppm	5	5	0%	1.5	2.7	2.10	2.10
Arsenic	ppm	5	5	0%	5.1	10.5	7.14	6.90
Barium	ppm	5	5	0%	259	415	370	395
Beryllium	ppm	5	5	0%	0.88	1.5	1.30	1.40
Calcium	ppm	5	5	0%	2390	3730	3200	3370
Chromium	ppm	5	5	0%	19.9	31.2	27.1	27.9
Cobalt	ppm	5	5	0%	14.5	17.2	15.7	15.2
Copper	ppm	5	5	0%	43.4	160	124	137
Iron	ppm	5	5	0%	36100	46100	41300	41200
Lead	ppm	5	5	0%	26.3	129	77.2	79.1
Magnesium	ppm	5	5	0%	4740	5480	5120	5170
Manganese	ppm	5	5	0%	898	3590	1690	1410
Mercury	ppm	5	4	20%	ND	0.29	0.176	0.190
Nickel	ppm	5	5	0%	22.7	29.6	26.3	25.5
Potassium	ppm	5	5	0%	987	2010	1700	1790
Selenium	ppm	5	5	0%	4.2	7.2	6.18	6.60
Silver	ppm	5	5	0%	4.1	5.1	4.46	4.50
Sodium	ppm	5	5	0%	63.8	192	152	168
Thallium	ppm	5	5	0%	2.6	18	7.28	6.00
Vanadium	ppm	5	5	0%	15.2	31.8	26.7	28.4
Zinc	ppm	5	5	0%	116	238	180	178
Pesticides								
Dieldrin	ppb	5	5	0%	1.1	38	21.2	25.0
Endosulfan II	ppb	5	4	20%	ND	16	10.2	11.0
Endrin	ppb	5	1	80%	ND	12	5.28	4.20
Endrin aldehyde	ppb	5	5	0%	0.9	19	13.6	15.0
Endrin ketone	ppb	5	4	20%	ND	36	22.4	28.0
gamma Chlordane	ppb	5	4	20%	ND	20	7.53	4.90
Heptachlor epoxide	ppb	5	2	60%	ND	13	6.30	4.35
Methoxychlor	ppb	5	2	60%	ND	41	15.3	8.00
p,p'-DDT	ppb	5	5	0%	4.5	130	74.1	87.0

Table 3-8
Summary of Phase 1 RI Sediment Sample Non-PCB Aroclor or -TOC Analytical and Geotechnical Results – Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Analyte	Units	Number of Samples Analyzed	Frequency of Detection	% ND	Minimum	Maximum	Average	Median
Dioxins/Furans								
1,2,3,4,6,7,8-HpCDD	ppt	3	2	33%	ND	40	25.7	35.0
1,2,3,4,6,7,8-HpCDF	ppt	3	2	33%	ND	25	17.3	25.0
1,2,3,4,7,8-HxCDF	ppt	3	2	33%	ND	13	8.65	11.0
1,2,3,6,7,8-HxCDF	ppt	3	1	67%	ND	12	6.32	5.00
1,2,3,7,8-PeCDF	ppt	3	2	33%	ND	21	13.3	17.0
2,3,4,6,7,8-HxCDF	ppt	3	2	33%	ND	16	10.3	13.0
2,3,4,7,8-PeCDF	ppt	3	2	33%	ND	31	18.3	22.0
2,3,7,8-TCDF	ppt	3	2	33%	ND	45	25.8	32.0
OCDD	ppt	3	3	0%	21	520	340	480
OCDF	ppt	3	2	33%	ND	27	18.3	24.0
TEQ	ppt	3	3	0%	0.021	26	15.0	19.0
Total HpCDD	ppt	3	2	33%	ND	81	52.0	73.0
Total HpCDF	ppt	3	2	33%	ND	43	23.3	25.0
Total HxCDF	ppt	3	2	33%	ND	150	90.7	120
Total PeCDF	ppt	3	2	33%	ND	510	297	380
Total TCDF	ppt	3	3	0%	14	450	258	310
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	3	3	0%	4.46	28.9	18.5	22.1
Geotechnical Data								
Bulk Density	lb/cf	9	NA	NA	57.7	134.9	75.8	65.5
Percent Moisture (%)	%	9	NA	NA	19.9	89.2	72.5	84.8
Grain Size - Gravel	%	9	NA	NA	0	40.3	6.73	1.10
Grain Size - Coarse Sand	%	9	NA	NA	0.4	21.6	9.03	10.2
Grain Size - Medium Sand	%	9	NA	NA	6.9	52.1	25.0	25.7
Grain Size - Fine Sand	%	9	NA	NA	5.3	23.6	14.5	14.2
Grain Size - Silt/Clay	%	9	NA	NA	5.3	70.7	44.7	43.5

Table 3-9
Phase 1 RI Sediment and Soil Sample PCB Aroclor and TOC Analytical Results –
Southern Drainageway
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID	Sample Depth (Inches)	Date	Sample Name	Total PCBs (Aroclors) (ppm)	Total Organic Carbon (ppm)
Southeast Drainage Ditch - Sediment					
SEDD15-SED-01	0 - 6	11/10/15	SEDD15-SED-01-0006	1.53	5,500 J
	6 - 12	11/10/15	SEDD15-SED-01-0612	1.52	3,800 J
SEDD15-SED-02	0 - 6	11/10/15	SEDD15-SED-02-0006	0.0818 J	79,000 J
	6 - 12	11/10/15	SEDD15-SED-02-0612	ND(0.1)	77,000 J
SEDD15-SED-04	0 - 4	12/04/15	SEDD15-SED-04-0004	ND(0.0931)	65,000
SEDD15-SED-05	0 - 3	12/03/15	SEDD15-SED-05-0003	0.0596 J	47,000
SEDD15-SED-06	0 - 6	12/04/15	SEDD15-SED-06-0006	ND(0.0683)	15,000
	6 - 8	12/04/15	SEDD15-SED-06-0608	ND(0.0682)	18,000
SEDD15-SED-08	0 - 6	12/04/15	SEDD15-SED-08-0006	0.162	49,000
	6 - 12	12/04/15	SEDD15-SED-08-0612	ND(0.0828 J) [ND(0.085)]	32,000 J [35,000]
SEDD15-SED-09	0 - 6	12/03/15	SEDD15-SED-09-0006	0.353	85,000
	6 - 12	12/03/15	SEDD15-SED-09-0612	0.446	85,000
SEDD15-SED-10	0 - 6	12/04/15	SEDD15-SED-10-0006	ND(0.171)	77,000
	6 - 12	12/04/15	SEDD15-SED-10-0612	ND(0.0838)	36,000
SEDD15-SED-11	0 - 6	12/04/15	SEDD15-SED-11-0006	ND(0.186)	93,000
	6 - 12	12/04/15	SEDD15-SED-11-0612	ND(0.0751)	27,000 J
Southeast Drainage Ditch - Soil					
SEDD15-SL-01ABF	0 - 6	11/10/15	SEDD15-SL-01ABF-0006	ND(0.0888)	75,000 J
	6 - 12	11/10/15	SEDD15-SL-01ABF-0612	0.0713 J	38,000 J
SEDD15-SL-02ABF	0 - 6	12/04/15	SEDD15-SL-02ABF-0006	ND(0.0822)	52,000
	6 - 12	12/04/15	SEDD15-SL-02ABF-0612	ND(0.0584)	2,700
SEDD15-SL-03	0 - 6	12/04/15	SEDD15-SL-03-0006	ND(0.0685)	58,000
SEDD15-SL-03ABF	0 - 6	12/04/15	SEDD15-SL-03ABF-0006	ND(0.0765)	38,000
	6 - 12	12/04/15	SEDD15-SL-03ABF-0612	0.147	39,000
SEDD15-SL-07	0 - 6	12/04/15	SEDD15-SL-07-0006	0.147	38,000
	6 - 12	12/04/15	SEDD15-SL-07-0612	ND(0.0689)	23,000
SEDD15-SL-12	0 - 6	12/04/15	SEDD15-SL-12-0006	ND(0.117)	50,000
	6 - 10	12/04/15	SEDD15-SL-12-0610	ND(0.0794)	34,000
Valley Stream - Sediment					
VS15-SED-01	0 - 6	11/10/15	VS15-SED-01-0006	ND(0.0924)	56,000 J
	6 - 11	11/10/15	VS15-SED-01-0611	ND(0.0896) [ND(0.0862)]	39,000 J [32,000 J]
VS15-SED-03	0 - 6	11/11/15	VS15-SED-03-0006	ND(0.0777)	21,000
VS15-SED-06	0 - 6	11/11/15	VS15-SED-06-0006	ND(0.0609)	9,500
	6 - 12	11/11/15	VS15-SED-06-0612	ND(0.0798)	17,000
VS15-SED-07	0 - 6	11/11/15	VS15-SED-07-0006	ND(0.0819)	39,000
	6 - 12	11/11/15	VS15-SED-07-0612	ND(0.0663)	10,000
VS15-SED-09	0 - 6	11/11/15	VS15-SED-09-0006	ND(0.0752)	9,200
VS15-SED-10	0 - 6	11/11/15	VS15-SED-10-0006	ND(0.125)	16,000
	6 - 12	11/11/15	VS15-SED-10-0612	ND(0.0721) [ND(0.076)]	4,300 J [12,000 J]
Valley Stream - Soil					
VS15-SL-01ABF	0 - 6	11/11/15	VS15-SL-01ABF-0006	ND(0.0664)	32,000
	6 - 12	11/11/15	VS15-SL-01ABF-0612	ND(0.0571)	17,000
VS15-SL-02	0 - 6	11/11/15	VS15-SL-02-0006	ND(0.0643)	11,000
VS15-SL-02ABF	0 - 6	11/11/15	VS15-SL-02ABF-0006	ND(0.0652)	19,000
	6 - 12	11/11/15	VS15-SL-02ABF-0612	ND(0.0734) [ND(0.0719)]	15,000 [13,000]
VS15-SL-04	0 - 6	11/10/15	VS15-SL-04-0006	ND(0.0797)	23,000 J
VS15-SL-05	0 - 6	11/11/15	VS15-SL-05-0006	ND(0.0873)	28,000
	6 - 8	11/11/15	VS15-SL-05-0608	ND(0.0882)	17,000
VS15-SL-08	0 - 6	12/04/15	VS15-SL-08-0006	0.101	11,000
	6 - 12	12/04/15	VS15-SL-08-0612	ND(0.0868)	48,000
Smith Pond - Sediment					
SP15-SED-01	0 - 6	12/03/15	SP15-SED-01-0006	ND(0.477)	240,000
	6 - 12	12/03/15	SP15-SED-01-0612	ND(0.275)	190,000
SP15-SED-02	0 - 6	12/03/15	SP15-SED-02-0006	0.102 J	230,000
	6 - 12	12/03/15	SP15-SED-02-0612	ND(0.177)	190,000
SP15-SED-03	0 - 6	12/03/15	SP15-SED-03-0006	0.0778 J	120,000
	6 - 12	12/03/15	SP15-SED-03-0612	ND(0.116)	74,000
SP15-SED-04	0 - 6	12/03/15	SP15-SED-04-0006	ND(0.135)	66,000
	6 - 12	12/03/15	SP15-SED-04-0612	ND(0.144)	77,000
SP15-SED-05	0 - 6	12/03/15	SP15-SED-05-0006	ND(0.143)	62,000
	6 - 12	12/03/15	SP15-SED-05-0612	ND(0.137)	54,000

Table 3-10
Summary of Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical and Geotechnical Results -
Southeast Drainage Ditch
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Analyte	Units	Number of Samples Analyzed	Frequency of Detection	% ND	Minimum	Maximum	Average	Median
PCB Congeners								
Total PCBs	ppm	3	3	0%	0.215	3.09	1.42	0.961
Volatile Organics								
2-Butanone	ppb	3	3	0%	9	19	15.5	18.0
Acetone	ppb	3	3	0%	34	130	81.7	79.0
Benzene	ppb	3	2	33%	ND	2	4.25	3.25
Chlorobenzene	ppb	3	1	67%	ND	4	4.08	4.00
cis-1,2-Dichloroethene	ppb	3	1	67%	ND	4	4.67	3.50
Dichloromethane	ppb	3	2	33%	ND	5	3.67	3.50
Trichloroethene	ppb	3	1	67%	ND	3	4.67	3.50
Semi-Volatile Organics								
No detections								
Inorganics								
Aluminum	ppm	3	3	0%	11200	19000	15800	16500
Antimony	ppm	3	3	0%	1	1.7	1.42	1.40
Arsenic	ppm	3	3	0%	6.5	13.9	10.6	11.4
Barium	ppm	3	3	0%	190	502	326	286
Beryllium	ppm	3	3	0%	0.64	1.3	1.00	1.00
Cadmium	ppm	3	3	0%	1.7	4.3	2.95	2.70
Calcium	ppm	3	3	0%	1540	2420	1990	1880
Chromium	ppm	3	3	0%	13.1	48.9	27.7	20.5
Cobalt	ppm	3	3	0%	13.6	15.5	14.3	13.7
Copper	ppm	3	3	0%	14.8	34	25.0	24.7
Iron	ppm	3	3	0%	28800	39600	36600	37500
Lead	ppm	3	3	0%	12.9	45.2	25.9	19.6
Magnesium	ppm	3	3	0%	2500	5000	3470	2760
Manganese	ppm	3	3	0%	827	3790	2090	1660
Mercury	ppm	3	2	33%	ND	0.2	0.0922	0.0505
Nickel	ppm	2	2	0%	13.8	21	17.7	17.7
Potassium	ppm	3	3	0%	601	1490	1040	1000
Selenium	ppm	3	3	0%	5.5	9.4	8.27	9.20
Silver	ppm	3	2	33%	ND	4.5	2.75	3.40
Sodium	ppm	3	1	67%	ND	46.9	198	210
Thallium	ppm	3	3	0%	1.7	10.1	5.80	5.60
Vanadium	ppm	3	3	0%	14.8	31.6	21.3	17.5
Zinc	ppm	3	3	0%	75.6	155	108	90.0

Table 3-10
Summary of Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical and Geotechnical Results -
Southeast Drainage Ditch
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Analyte	Units	Number of Samples Analyzed	Frequency of Detection	% ND	Minimum	Maximum	Average	Median
Pesticides								
Aldrin	ppb	3	1	67%	ND	1.9	1.91	1.90
alpha Chlordane	ppb	3	1	67%	ND	2.1	1.98	2.10
alpha-BHC	ppb	3	1	67%	ND	0.83	1.04	0.850
delta-BHC	ppb	3	1	67%	ND	1.3	1.71	1.43
Dieldrin	ppb	3	3	0%	0.87	12	6.15	5.30
Endosulfan I	ppb	3	1	67%	ND	2	1.43	1.43
Endosulfan II	ppb	3	1	67%	ND	8.8	4.21	2.40
Endosulfan sulfate	ppb	3	1	67%	ND	24	9.28	2.40
Endrin	ppb	3	1	67%	ND	2.4	2.08	2.40
Endrin aldehyde	ppb	3	1	67%	ND	5.9	2.73	1.43
Endrin ketone	ppb	3	2	33%	ND	12	7.68	9.60
gamma Chlordane	ppb	3	1	67%	ND	2	1.94	2.00
Heptachlor	ppb	3	1	67%	ND	0.56	1.46	1.43
Heptachlor epoxide	ppb	3	1	67%	ND	3.2	2.34	2.40
Methoxychlor	ppb	3	1	67%	ND	4.1	3.85	4.10
p,p'-DDD	ppb	3	2	33%	ND	8.3	3.93	2.40
p,p'-DDE	ppb	3	2	33%	ND	5.2	2.42	1.20
p,p'-DDT	ppb	3	2	33%	ND	36	18.5	18.0
Dioxins/Furans								
1,2,3,4,6,7,8-HpCDF	ppt	1	1	0%	ND	5	3.73	3.73
2,3,7,8-TCDF	ppt	1	1	0%	ND	1.3	0.895	0.895
OCDD	ppt	1	1	0%	25	52	38.5	38.5
OCDF	ppt	1	1	0%	ND	13	8.95	8.95
TEQ	ppt	1	1	0%	0.025	0.24	0.133	0.133
Total HpCDF	ppt	1	1	0%	ND	5	3.73	3.73
Total HxCDF	ppt	1	1	0%	ND	17	9.73	9.73
Total PeCDF	ppt	1	1	0%	5.6	26	15.8	15.8
Total TCDF	ppt	1	1	0%	2.2	11	6.60	6.60
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	1	1	0%	5.59	5.71	5.65	5.65
Geotechnical Data								
Bulk Density	lb/cf	3	NA	NA	72.9	91.2	83.1	85.1
Percent Moisture (%)	%	3	NA	NA	51.5	73	62.3	62.5
Grain Size - Gravel	%	3	NA	NA	1.3	3.4	2.13	1.70
Grain Size - Coarse Sand	%	3	NA	NA	2.2	7	4.00	2.80
Grain Size - Medium Sand	%	3	NA	NA	16.7	45.1	33.6	39.0
Grain Size - Fine Sand	%	3	NA	NA	10.2	34.7	23.9	26.7
Grain Size - Silt/Clay	%	3	NA	NA	9.8	68.6	36.4	30.8

Table 3-11

Summary of Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical and Geotechnical Results - Valley Stream
 Site Characterization Summary Report
 Dewey Loeffel Landfill Superfund Site - Nassau, New York

Analyte	Units	Number of Samples Analyzed	Frequency of Detection	% ND	Minimum	Maximum	Average	Median
PCB Congeners								
Total PCBs	ppm	1	1	0%	0.0353	0.0353	0.0353	0.0353
Volatile Organics								
Acetone	ppb	2	2	0%	310	400	355	355
Benzene	ppb	2	2	0%	2	3	2.50	2.50
Dichloromethane	ppb	2	1	50%	ND	15	10.0	10.0
Toluene	ppb	2	2	0%	3	3	3.00	3.00
Semi-Volatile Organics								
No detections								
Inorganics								
Aluminum	ppm	2	2	0%	20300	20600	20500	20500
Antimony	ppm	2	2	0%	0.74	0.99	0.865	0.865
Arsenic	ppm	2	2	0%	2.4	7.7	5.05	5.05
Barium	ppm	2	2	0%	280	316	298	298
Beryllium	ppm	2	2	0%	1	1.1	1.05	1.05
Cadmium	ppm	2	2	0%	0.14	0.3	0.220	0.220
Calcium	ppm	2	2	0%	1710	1790	1750	1750
Chromium	ppm	2	2	0%	30.5	31.9	31.2	31.2
Cobalt	ppm	2	2	0%	10	11.2	10.6	10.6
Copper	ppm	2	2	0%	10	13.3	11.7	11.7
Iron	ppm	2	2	0%	22700	24200	23500	23500
Lead	ppm	2	2	0%	10	16	13.0	13.0
Magnesium	ppm	2	2	0%	3710	3760	3740	3740
Manganese	ppm	2	2	0%	508	793	651	651
Mercury	ppm	2	2	0%	0.034	0.043	0.0385	0.0385
Nickel	ppm	2	2	0%	16.8	17	16.9	16.9
Potassium	ppm	2	2	0%	1030	1070	1050	1050
Selenium	ppm	2	2	0%	3.7	4.2	3.95	3.95
Silver	ppm	2	2	0%	2.4	2.4	2.40	2.40
Sodium	ppm	2	1	50%	ND	168	179	179
Thallium	ppm	2	2	0%	0.93	1.8	1.37	1.37
Vanadium	ppm	2	2	0%	17.8	20.2	19.0	19.0
Zinc	ppm	2	2	0%	84.3	90.6	87.5	87.5
Pesticides								
Endrin ketone	ppb	2	1	50%	ND	0.72	0.785	0.785
Geotechnical Data								
Bulk Density	lb/cf	2	NA	NA	71.2	83.5	77.4	77.4
Percent Moisture (%)	%	2	NA	NA	41.4	48.1	44.8	44.8
Grain Size - Gravel	%	2	NA	NA	0.1	0.2	0.150	0.150
Grain Size - Coarse Sand	%	2	NA	NA	0.5	0.9	0.700	0.700
Grain Size - Medium Sand	%	2	NA	NA	24.4	31.1	27.8	27.8
Grain Size - Fine Sand	%	2	NA	NA	24.7	29.5	27.1	27.1
Grain Size - Silt/Clay	%	2	NA	NA	38.1	50.3	44.2	44.2

Table 3-12
Summary of Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results – Smith Pond
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Analyte	Units	Number of Samples Analyzed	Frequency of Detection	% ND	Value
PCB Congeners					
Total PCBs	ppm	1	1	0%	0.748
Volatile Organics					
2-Butanone	ppb	1	1	0%	37
Acetone	ppb	1	1	0%	13
Chlorobenzene	ppb	1	1	0%	12
Dichloromethane	ppb	1	1	0%	14
m,p-Xylene	ppb	1	1	0%	11
Semi-Volatile Organics					
Benzo(a)anthracene	ppb	1	1	0%	870
Benzo(a)pyrene	ppb	1	1	0%	890
Benzo(b)fluoranthene	ppb	1	1	0%	800
Benzo(g,h,i)perylene	ppb	1	1	0%	1400
Benzo(k)fluoranthene	ppb	1	1	0%	920
Chrysene	ppb	1	1	0%	1200
Dibenz(a,h)anthracene	ppb	1	1	0%	1400
Fluoranthene	ppb	1	1	0%	850
Indeno(1,2,3-cd)pyrene	ppb	1	1	0%	1300
Phenanthrene	ppb	1	1	0%	730
Pyrene	ppb	1	1	0%	980
Inorganics					
Aluminum	ppm	1	1	0%	16400
Arsenic	ppm	1	1	0%	4.7
Barium	ppm	1	1	0%	416
Beryllium	ppm	1	1	0%	0.8
Cadmium	ppm	1	1	0%	1.9
Calcium	ppm	1	1	0%	6230
Chromium	ppm	1	1	0%	19.3
Cobalt	ppm	1	1	0%	11.4
Copper	ppm	1	1	0%	29.8
Iron	ppm	1	1	0%	23700
Lead	ppm	1	1	0%	38.3
Magnesium	ppm	1	1	0%	2620
Manganese	ppm	1	1	0%	795
Nickel	ppm	1	1	0%	17.7
Potassium	ppm	1	1	0%	1430
Selenium	ppm	1	1	0%	7.1
Silver	ppm	1	1	0%	2.7
Vanadium	ppm	1	1	0%	20.2
Zinc	ppm	1	1	0%	122
Pesticides					
p,p'-DDE	ppb	1	1	0%	5.1

Table 3-13
Notes for Tables 3-4 through 3-12
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Qualifier Type	Lab Qualifiers	Definition
Inorganic/Organic	J	The compound was positively identified; however, the associated numerical value is an estimated concentration only.
Inorganic/Organic	ND	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
Inorganic/Organic	ND(B)	Compound considered non-detect at the listed value due to associated blank contamination.
Inorganic/Organic	ND(J)	The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
Organic	EJ	The compound was quantitated above the calibration range. The associated numerical value is an estimated concentration only.
Organic	JN	The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
Organic	R	The sample results are rejected.
Acronym Type	Acronym	Definition
Sample IDs	NL	Nassau Lake
Sample IDs	VK	Valatie Kill
Sample IDs	DSD	Downstream of Dam
Sample IDs	SEDD	Southeast Drainage Ditch
Sample IDs	VS	Valley Stream
Sample IDs	SP	Smith Pond
Matrix	SL	Soil
Matrix	SED	Sediment
Sample Location Type	IL	In-Lake
Sample Location Type	T	Transect
Sample Location Type	J	Judgmental
Orientation	E	East
Orientation	W	West
Orientation	ABF	Above Bank Full
Constituents	PCB	Polychlorinated Biphenyls
Constituents	TOC	Total Organic Carbon
Constituents	VOCs	Volatile Organic Compounds
Constituents	SVOCs	Semi-Volatile Organic Compounds
Units	ppm	parts per million (equivalent to mg/kg)
Units	ppb	parts per billion
Units	ppt	parts per trillion
Units	lb/cf	pounds per cubic foot
Units	%	percent
Other	NS	Not sampled for the given parameter

Notes:

1. Samples were analyzed by Pace Analytical Services, Inc. in Schenectady, New York
2. Total PCBs are the sum of individual Aroclors or Congeners, as appropriate.
3. Samples results presented in brackets ("[]") are for duplicate samples.
4. For VK15-T09 samples, sample IDs designated with a W are physically located on the east side of the Valatie Kill.
5. For summary statistics, only analytes that were detected at least once are listed.

Table 4-1
Summary of Total PCB Aroclor Results for Historic and Phase 1 RI Sediment and Soil Samples
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Total Number of Samples	Total PCB Aroclor Results (ppm)			
		Minimum	Maximum	Average	Median
Western Drainageway					
Northwestern Drainage Ditch / Mead Road Pond Area					
Sediment Samples	(105)	(ND)	(13)	(0.85)	(0.50)
Soil Samples	(16)	(ND)	(18)	(2.8)	(0.53)
Tributary T11A					
Sediment Samples	(58)	(0.19)	(23)	(4.7)	(3.2)
Soil Samples	(256)	(ND)	(1,300)	(29)	(2.3)
Valatie Kill Upstream of Nassau Lake					
Sediment/Soil Samples	(62)	(ND)	(6.3)	(1.2)	(0.87)
Sediment Samples	34	ND	3.2	0.34	0.10
Soil Samples	279	ND	20	0.81	0.13
Nassau Lake					
In-Lake Sediment	(188)	(ND)	(8.5)	(1.6)	(1.4)
	92	ND	7.2	0.87	0.27
Shoreline Sediment Samples	24	ND	0.85	0.11	0.029
Shoreline Soil Samples	(26)	(ND)	(2.2)	(0.39)	(0.34)
	56	ND	1.8	0.10	0.030
Valatie Kill Downstream of Nassau Lake					
Sediment Samples	(1)	(0.0054)	(0.0054)	(0.0054)	(0.0054)
	4	ND	ND	ND	ND
Southern Drainageway					
Southeast Drainage Ditch					
Sediment Samples	(21)	(ND)	(1.4)	(0.43)	(0.19)
	16	ND	1.5	0.29	0.071
Soil Samples	11	ND	0.15	0.062	0.041
Valley Stream - Upstream of Smith Pond					
SedimentSamples	(4)	(ND)	(ND)	(ND)	(ND)
	7	ND	ND	ND	ND
Soil Samples	8	ND	ND	ND	ND
Smith Pond					
Sediment Samples	(4)	(ND)	(ND)	(ND)	(ND)
	10	ND	0.10	0.10	0.075
Valley Stream - Downstream of Smith Pond					
Sediment Samples	(6)	(ND)	(ND)	(ND)	(ND)
	3	ND	ND	ND	ND
Soil Samples	2	ND	0.10	0.072	0.072

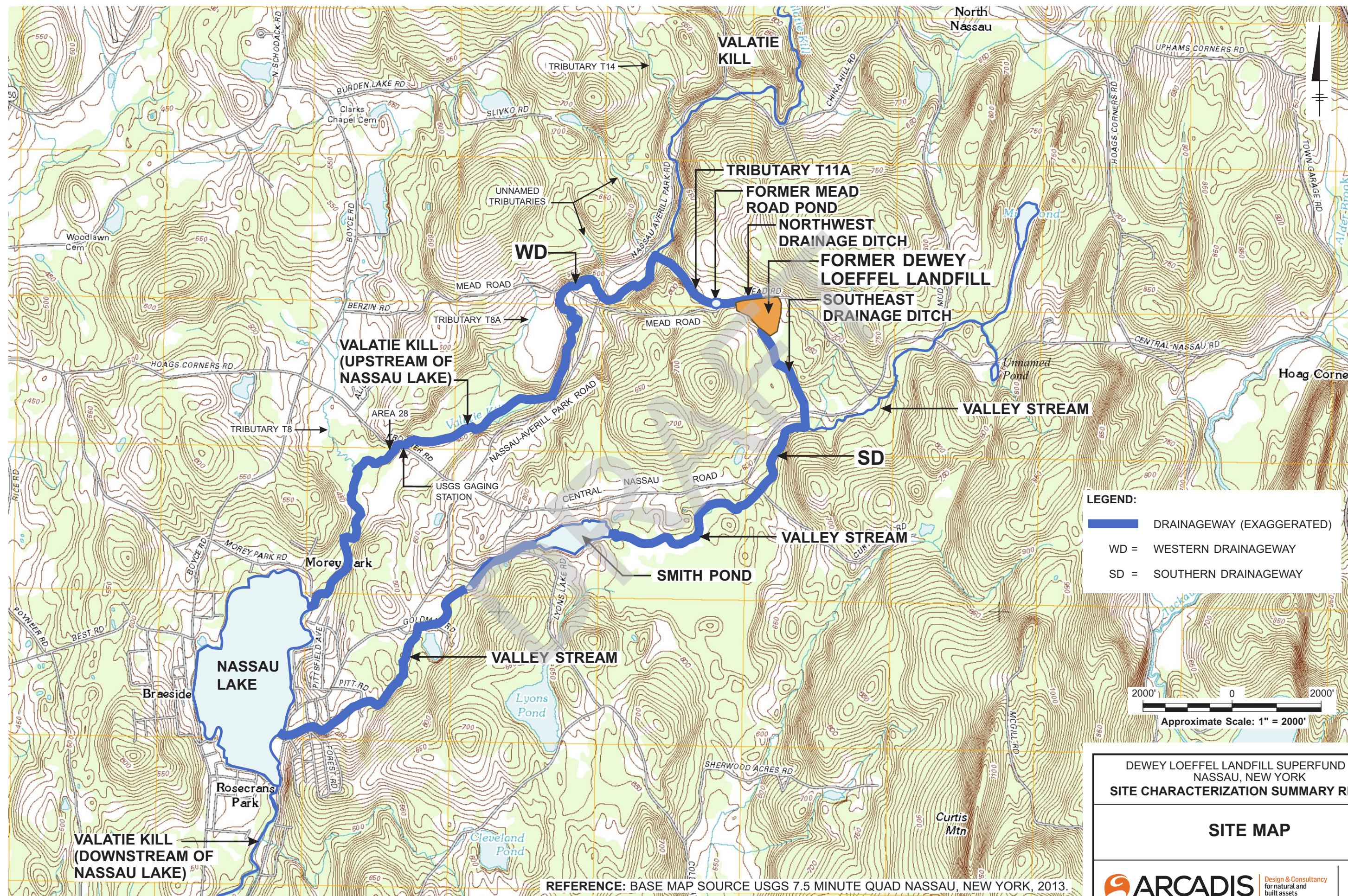
Notes:

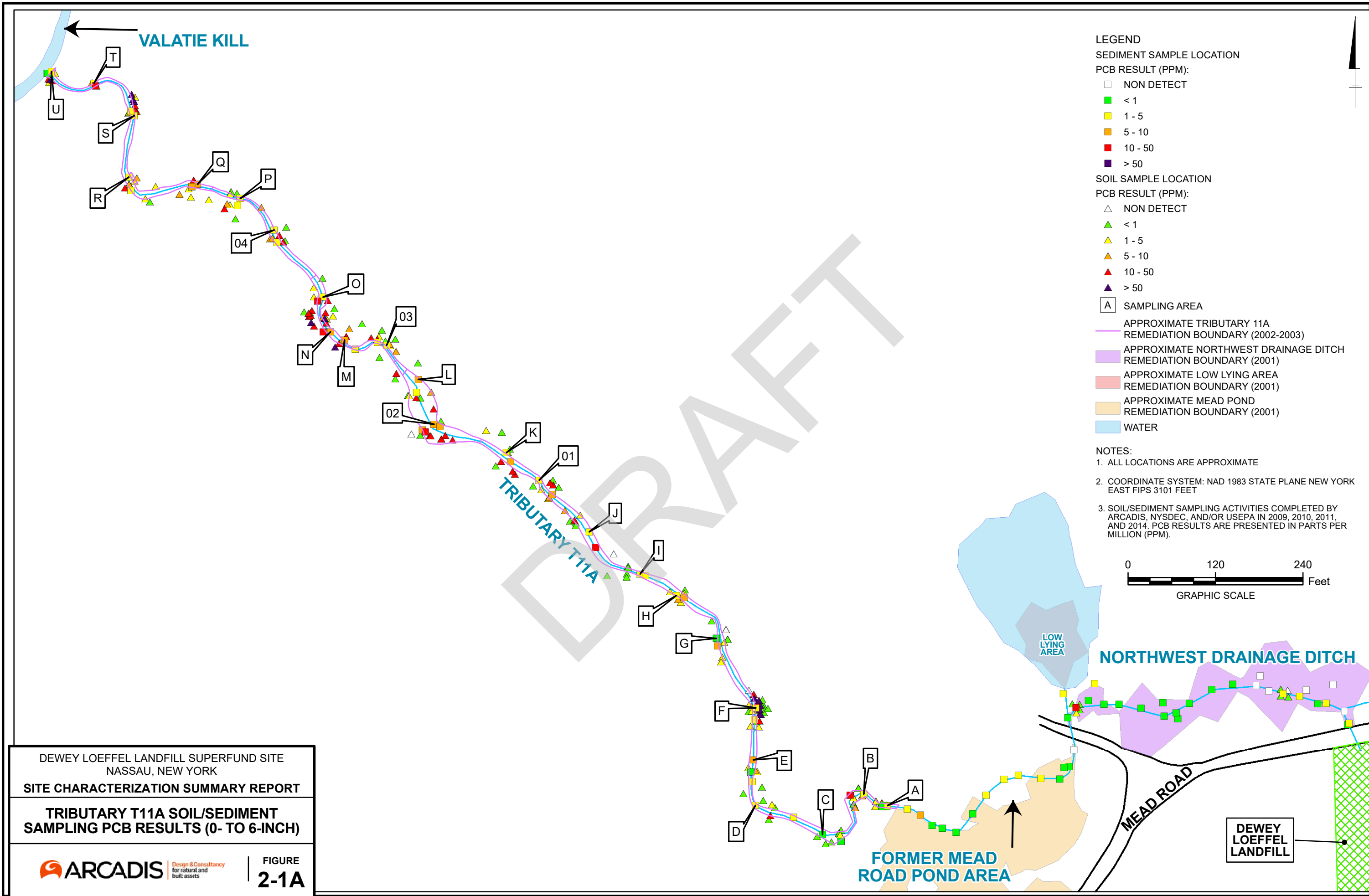
1. Phase 1 RI results are summarized with associated historic results in parenthetical.
2. Total PCB Aroclor Results are rounded to two significant figures.
3. Duplicate results were averaged to support statistics provided. For Phase 1 RI statistics, ND values are assumed to be half the detection limit in calculations.
4. Historic results from samples collected within remediated areas are not included. Summary presented includes samples listed in Appendix A of the Site Characteristic Summary Report.
5. ND = non detect; ppm = parts per million.

FIGURES

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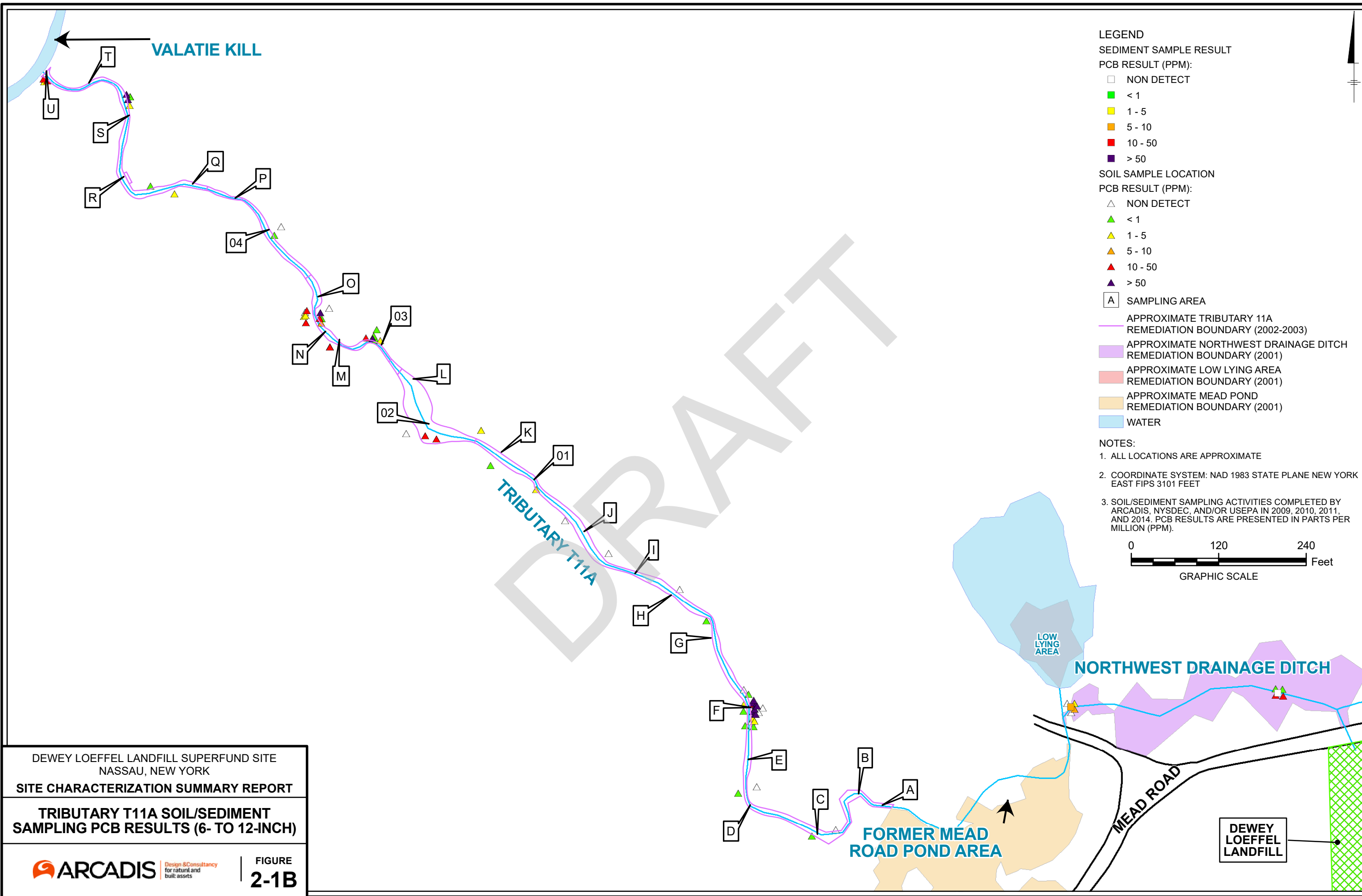
DEWEY LOEFFEL LANDFILL SUPERFUND SITE
NASSAU, NEW YORK

SITE CHARACTERIZATION SUMMARY REPORT

TRIBUTARY T11A SOIL/SEDIMENT
SAMPLING PCB RESULTS (0- TO 6-INCH)

ARCADIS Design & Consultancy
for natural and
built assets

FIGURE
2-1A



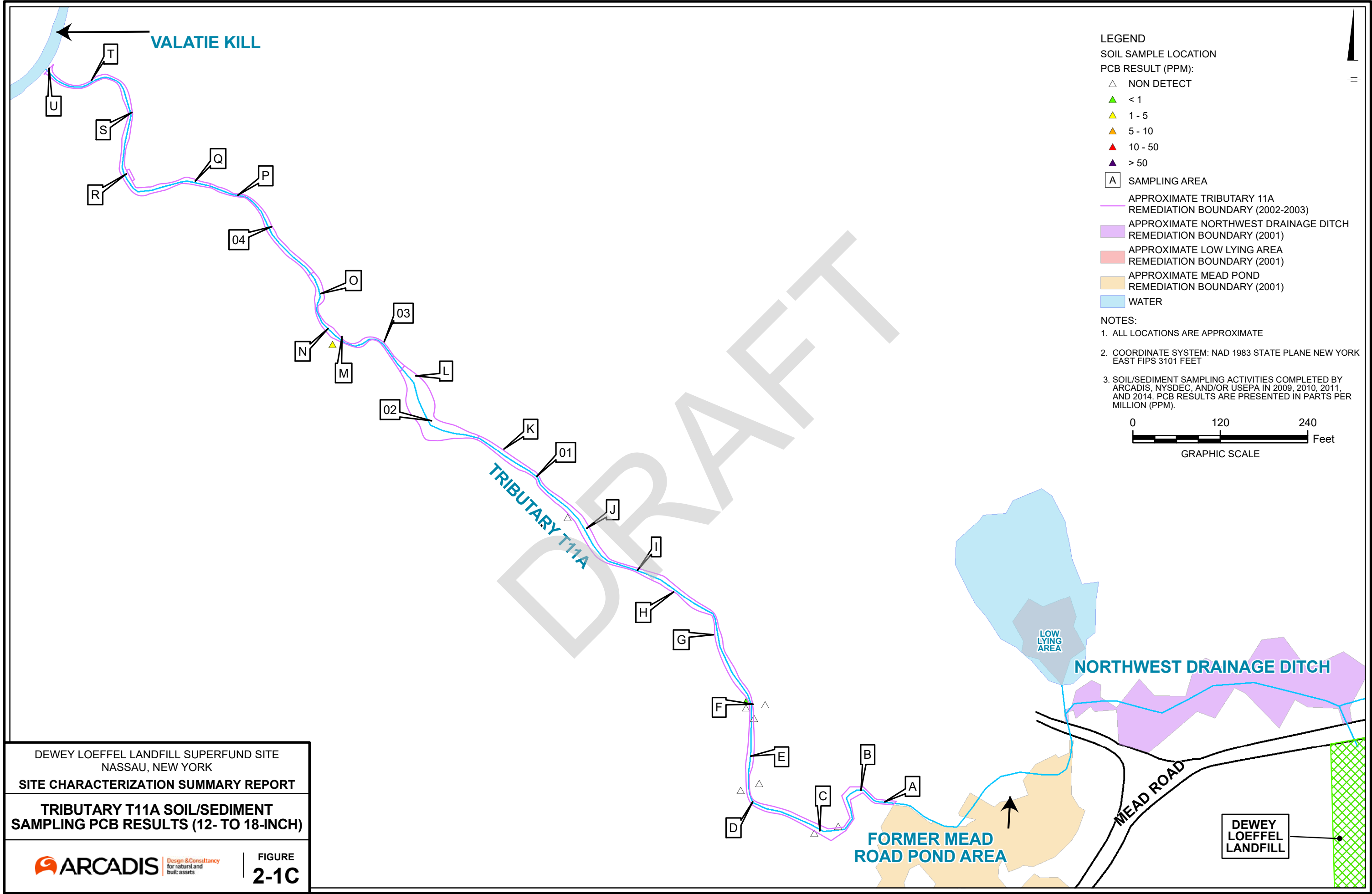
DEWEY LOEFFEL LANDFILL SUPERFUND SITE
NASSAU, NEW YORK

SITE CHARACTERIZATION SUMMARY REPORT

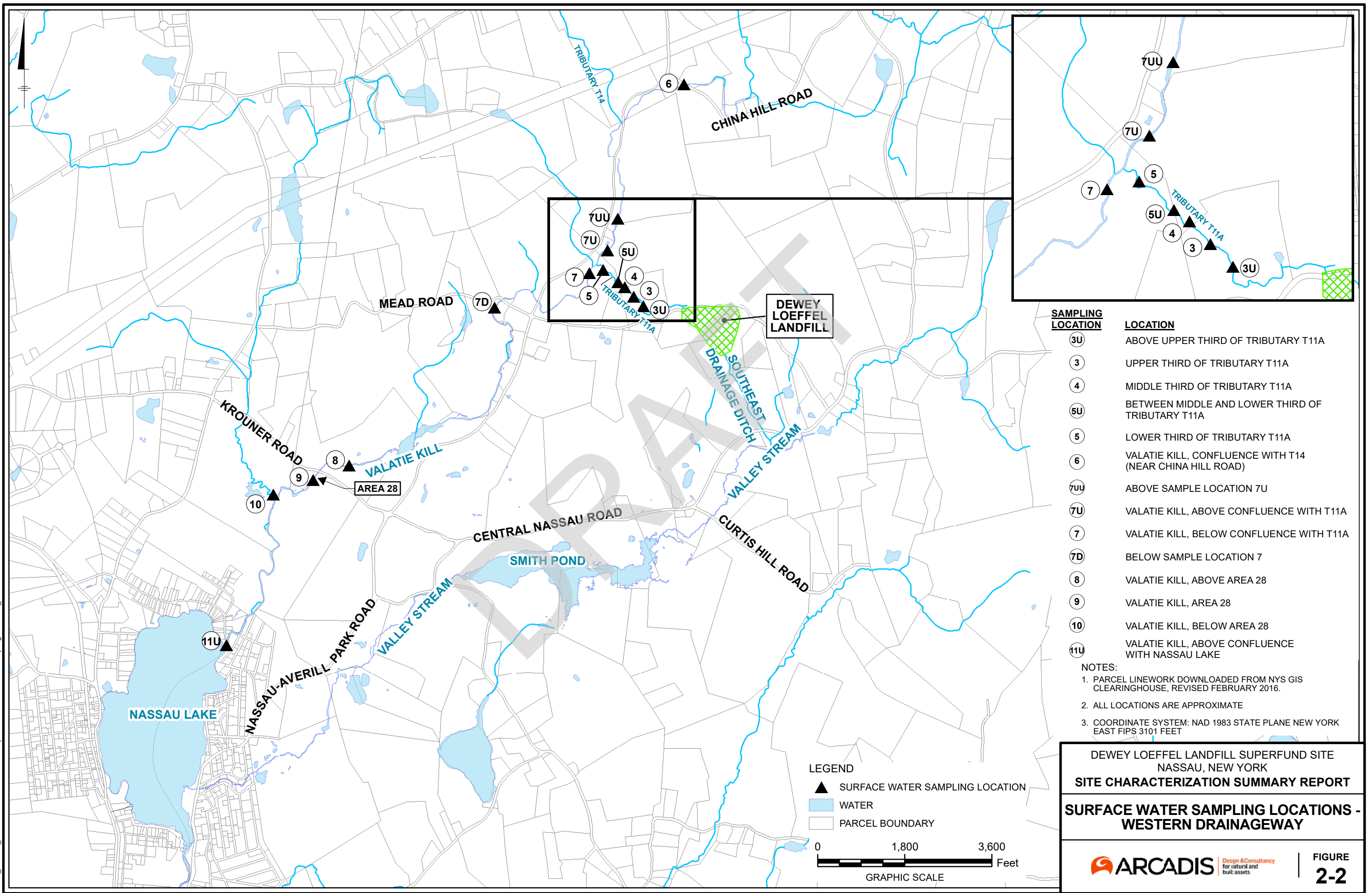
TRIBUTARY T11A SOIL/SEDIMENT
SAMPLING PCB RESULTS (6- TO 12-INCH)

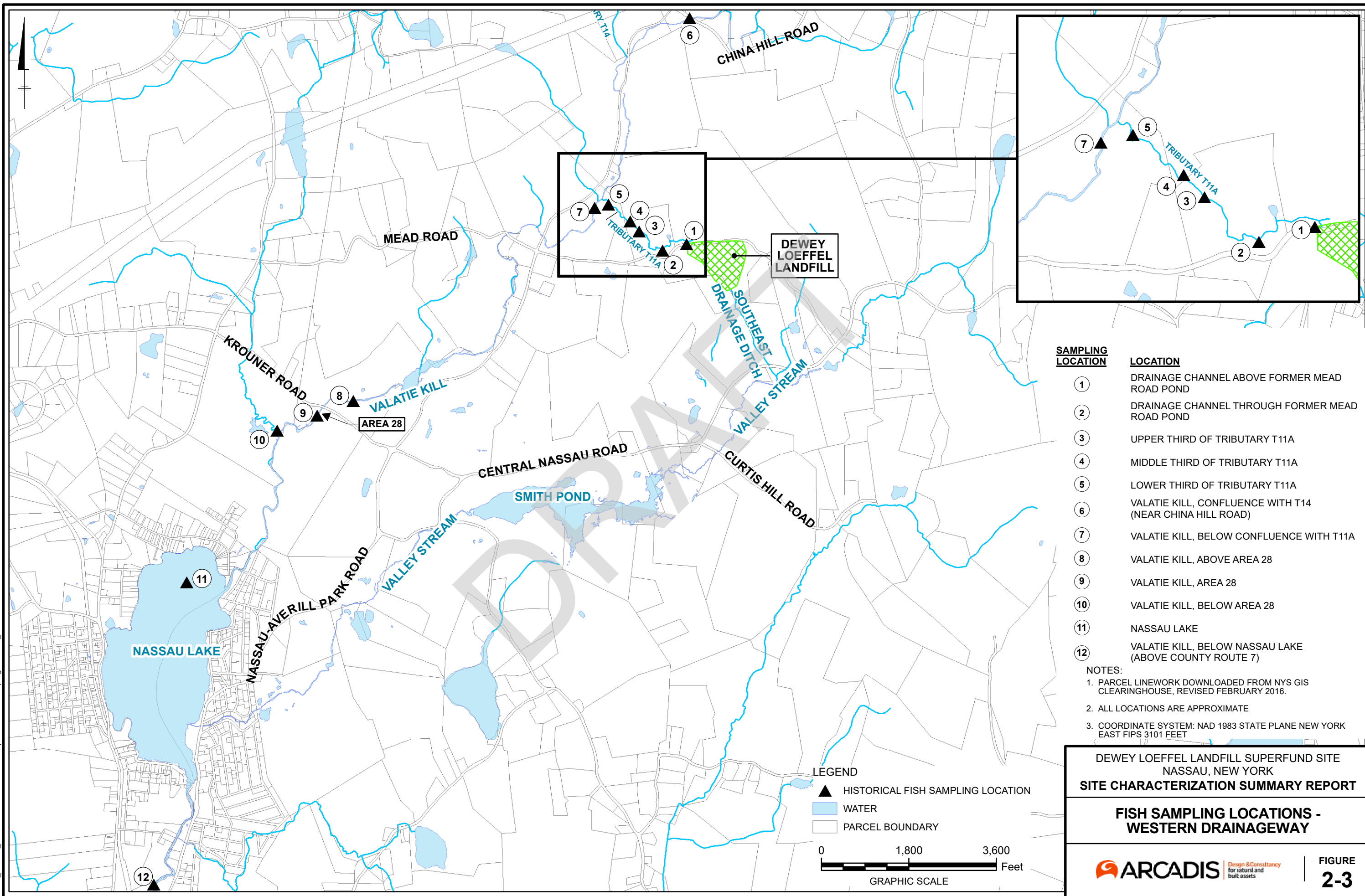
Design & Consultancy
for natural and
built assets

FIGURE
2-1B



City: SYR Div/Group: IMDV Created By: K.IVES Last Saved By: K.IVES
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SAMPLING LOCATION	LOCATION
1	DRAINAGE CHANNEL ABOVE FORMER MEAD ROAD POND
2	DRAINAGE CHANNEL THROUGH FORMER MEAD ROAD POND
3	UPPER THIRD OF TRIBUTARY T11A
4	MIDDLE THIRD OF TRIBUTARY T11A
5	LOWER THIRD OF TRIBUTARY T11A
6	VALATIE KILL, CONFLUENCE WITH T14 (NEAR CHINA HILL ROAD)
7	VALATIE KILL, BELOW CONFLUENCE WITH T11A
8	VALATIE KILL, ABOVE AREA 28
9	VALATIE KILL, AREA 28
10	VALATIE KILL, BELOW AREA 28
11	NASSAU LAKE
12	VALATIE KILL, BELOW NASSAU LAKE (ABOVE COUNTY ROUTE 7)

NOTES:

1. PARCEL LINEWORK DOWNLOADED FROM NYS GIS CLEARINGHOUSE, REVISED FEBRUARY 2016.

2. ALL LOCATIONS ARE APPROXIMATE

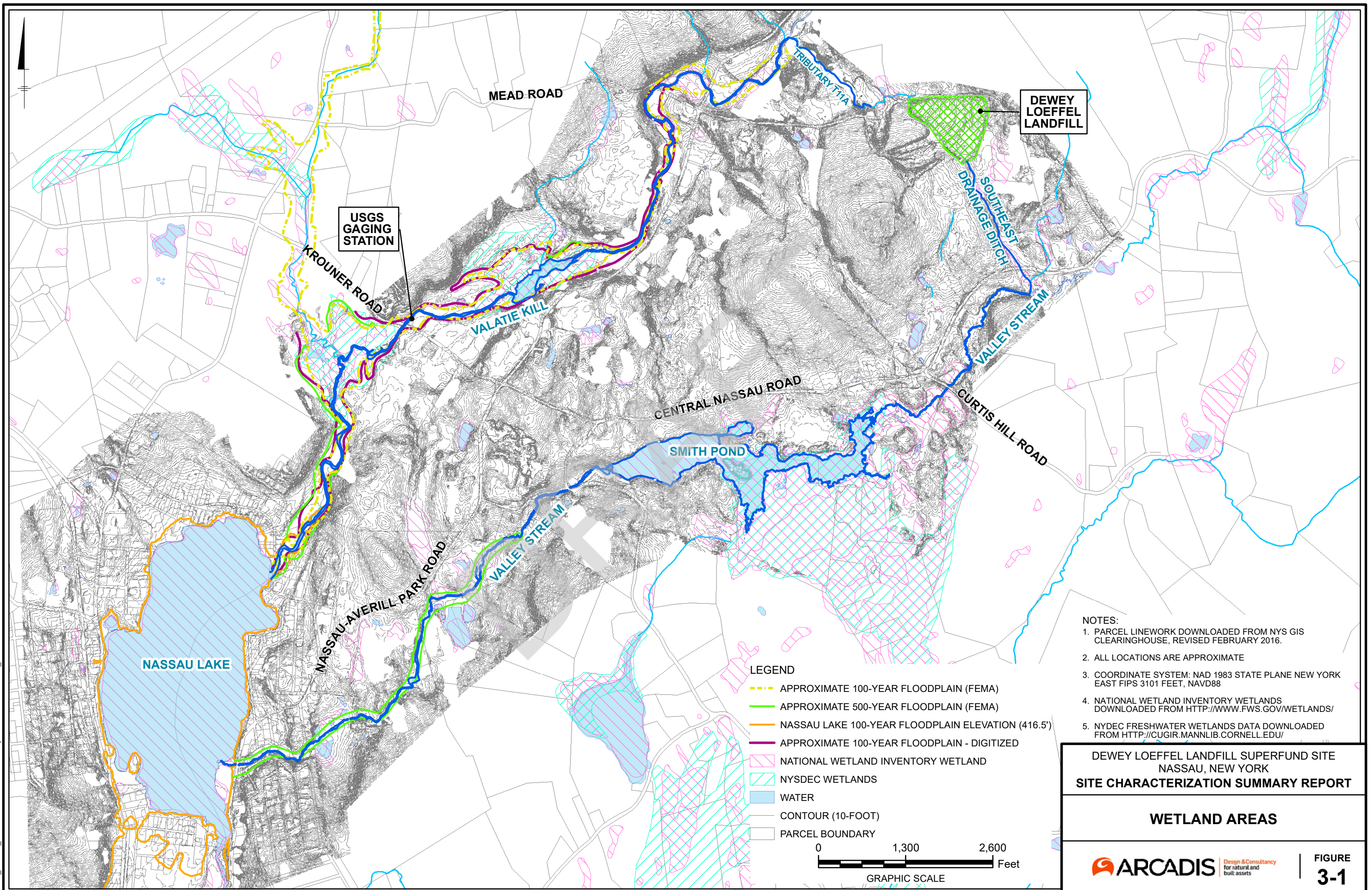
3. COORDINATE SYSTEM: NAD 1983 STATE PLANE NEW YORK EAST FIPS 3101 FEET

DEWEY LOEFFEL LANDFILL SUPERFUND SITE
NASSAU, NEW YORK
SITE CHARACTERIZATION SUMMARY REPORT

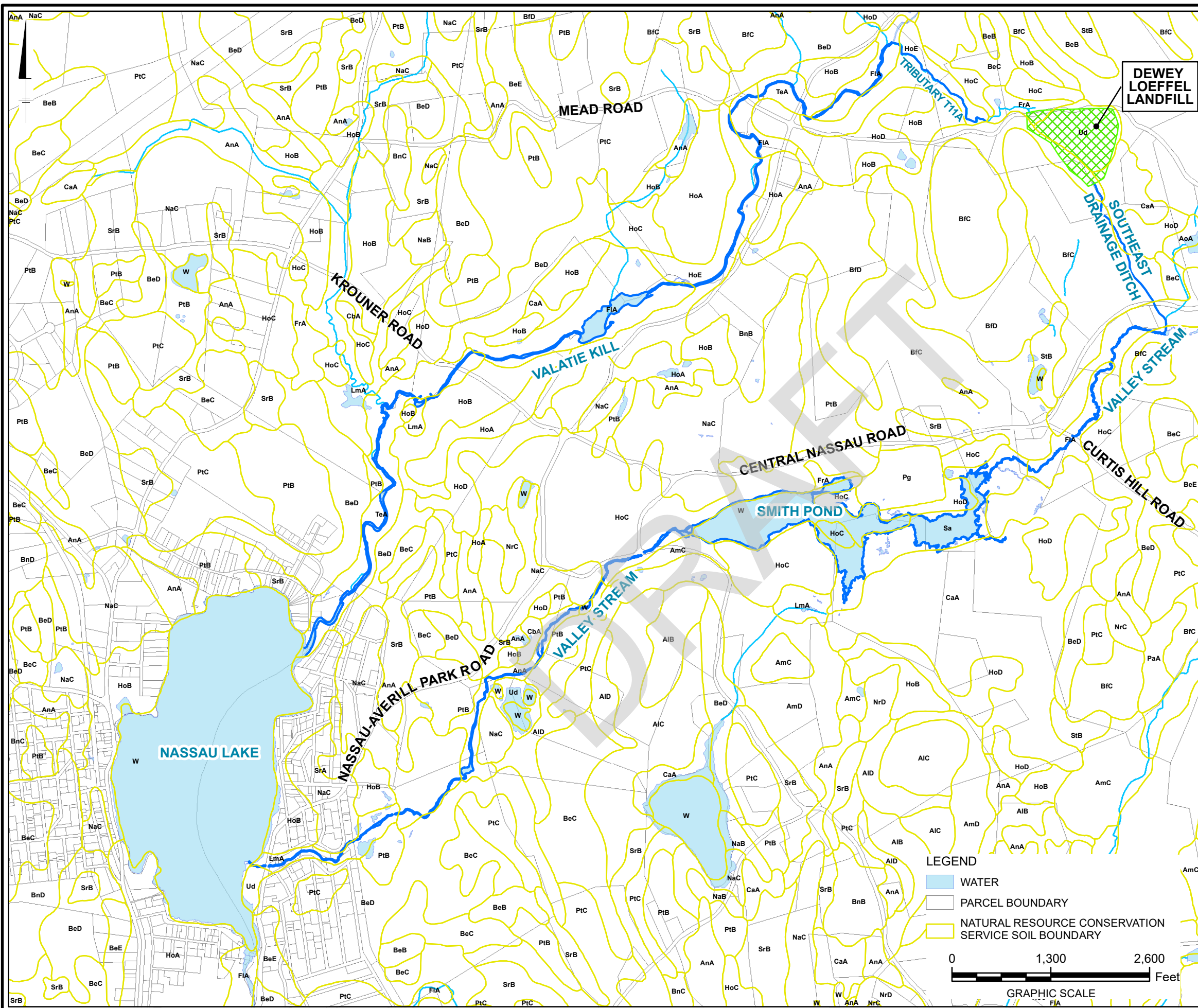
FISH SAMPLING LOCATIONS -
WESTERN DRAINAGEWAY

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FIGURE
2-3



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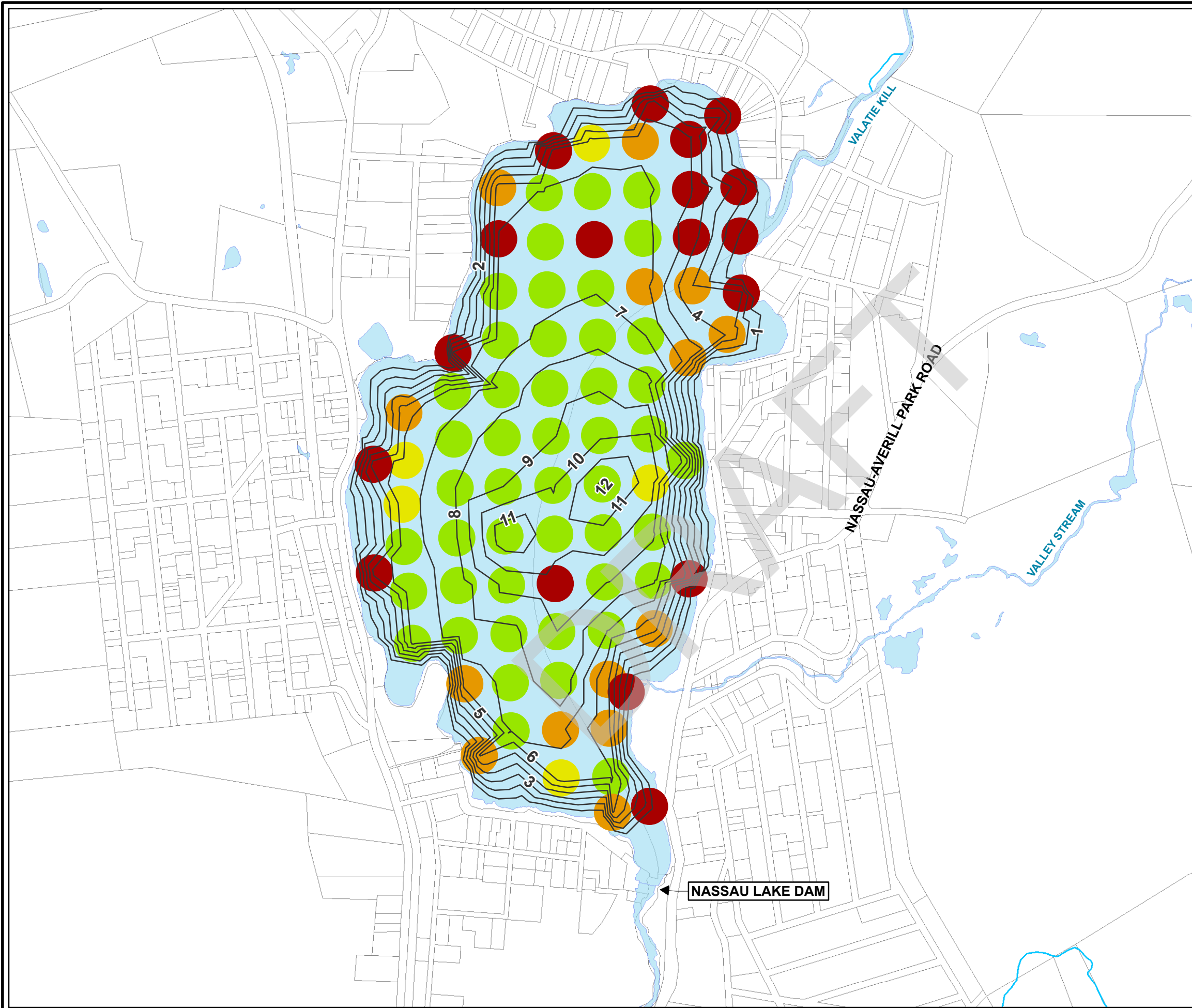
Soil Type	Description
AIB	Albrights silt loam, 3 to 8 percent slopes
AIC	Albrights silt loam, 8 to 15 percent slopes
AID	Albrights silt loam, 15 to 25 percent slopes
AmC	Albrights very stony silt loam, 3 to 15 percent slopes
AmD	Albrights very stony silt loam, 15 to 40 percent slopes
AnA	Alden silt loam, 0 to 3 percent slopes
AoA	Alden very stony silt loam, 0 to 3 percent slopes
BeB	Bernardston gravelly silt loam, 3 to 8 percent slopes
BeC	Bernardston gravelly silt loam, 8 to 15 percent slopes
BeD	Bernardston gravelly silt loam, 15 to 25 percent slopes
BeE	Bernardston gravelly silt loam, 25 to 35 percent slopes
BfC	Bernardston very stony silt loam, 3 to 15 percent slopes
BfD	Bernardston very stony silt loam, 15 to 40 percent slopes
BnB	Bernardston-Nassau complex, undulating
BnC	Bernardston-Nassau complex, rolling
BnD	Bernardston-Nassau complex, hilly
CaA	Catden muck, 0 to 2 percent slopes
CbA	Castile gravelly silt loam, 0 to 5 percent slopes
FIA	Fluvaquents-Udfluvents complex, 0 to 3 percent slopes
FrA	Fredon silt loam, 0 to 4 percent slopes
GID	Glover very stony loam, very rocky, moderately steep
HoA	Hoosic gravelly sandy loam, 0 to 3 percent slopes
HoB	Hoosic gravelly sandy loam, 3 to 8 percent slopes
HoC	Hoosic gravelly sandy loam, rolling
HoD	Hoosic gravelly sandy loam, hilly
HoE	Hoosic gravelly sandy loam, steep
LmA	Limerick silt loam, 0 to 3 percent slopes
NaB	Nassau-Manlius complex, undulating
NaC	Nassau-Manlius complex, rolling
NrC	Nassau-Rock outcrop, complex, rolling
NrD	Nassau-Rock outcrop complex, hilly
PaA	Palms muck, 0 to 1 percent slopes
Pg	Pits, gravel
PtB	Pittstown gravelly silt loam, 3 to 8 percent slopes
PtC	Pittstown gravelly silt loam, 8 to 15 percent slopes
Sa	Saprist and Aquents, ponded
ScA	Scio very fine sandy loam, 0 to 3 percent slopes
SrA	Scriba silt loam, 0 to 3 percent slopes
SrB	Scriba silt loam, 3 to 8 percent slopes
StB	Scriba very stony silt loam, 3 to 8 percent slopes
TeA	Teel silt loam, 0 to 3 percent slopes
Ud	Udorthents, loamy
W	Water

- NOTES:
1. PARCEL LINEWORK DOWNLOADED FROM NYS GIS CLEARINGHOUSE, REVISED FEBRUARY 2016.
 2. ALL LOCATIONS ARE APPROXIMATE
 3. COORDINATE SYSTEM: NAD 1983 STATE PLANE NEW YORK EAST FIPS 3101 FEET, NAVD88
 4. SOIL BOUNDARY DATA PROVIDED BY THE NATURAL RESOURCES CONSERVATION SERVICE ([HTTP://WEBSOILSURVEY.SC.EGOV.USDA.GOV](http://websoilsurvey.sc.egov.usda.gov))

DEWEY LOEFFEL LANDFILL SUPERFUND SITE
NASSAU, NEW YORK
SITE CHARACTERIZATION SUMMARY REPORT

SOIL TYPES





LEGEND

SEDIMENT PROBING DEPTH (FEET)

0 - 4

4 - 8

8 - 12

REFUSAL NOT REACHED

WATER DEPTH CONTOUR (1 FOOT)

WATER

PARCEL BOUNDARY



NOTES:

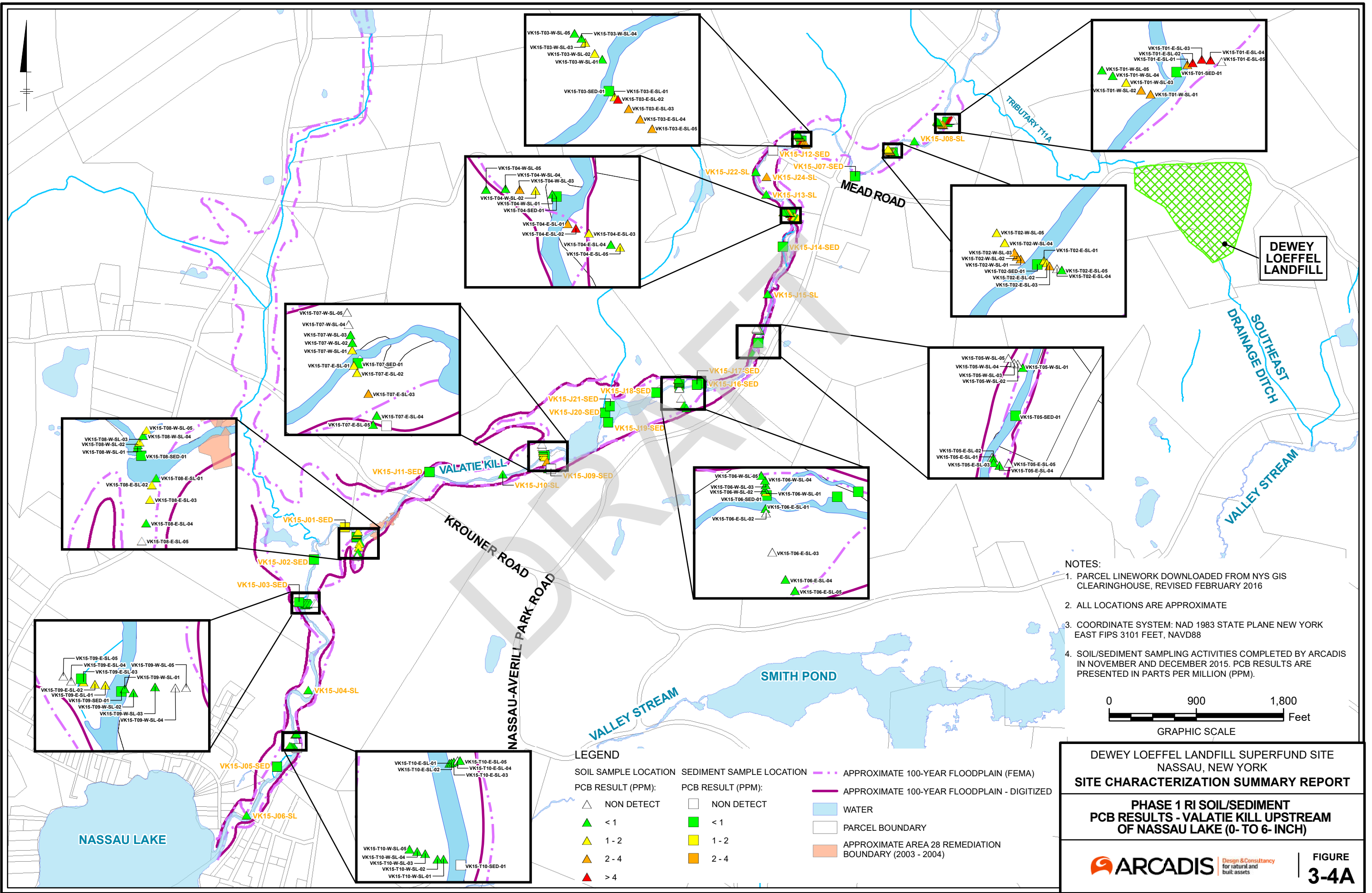
1. PARCEL LINEWORK DOWNLOADED FROM NYS GIS CLEARINGHOUSE, REVISED FEBRUARY 2016.
2. ALL LOCATIONS ARE APPROXIMATE
3. COORDINATE SYSTEM: NAD 1983 STATE PLANE NEW YORK EAST FIPS 3101 FEET, NAVD88
5. WATER DEPTH MEASUREMENT AND SOFT SEDIMENT PROBING ACTIVITIES COMPLETED BY ARCADIS ON OCTOBER 12-14, 2015. AT THE TIME AT WHICH MEASUREMENTS WERE RECORDED THE AVERAGE WATER SURFACE ELEVATION WAS OBSERVED TO BE 413 FEET NAVD88.

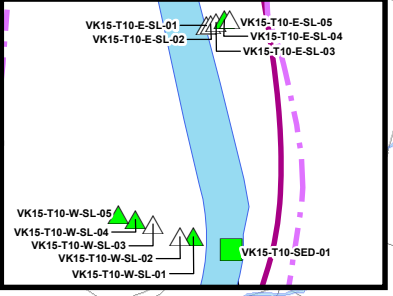
DEWEY LOEFFEL LANDFILL SUPERFUND SITE
NASSAU, NEW YORK
SITE CHARACTERIZATION SUMMARY REPORT

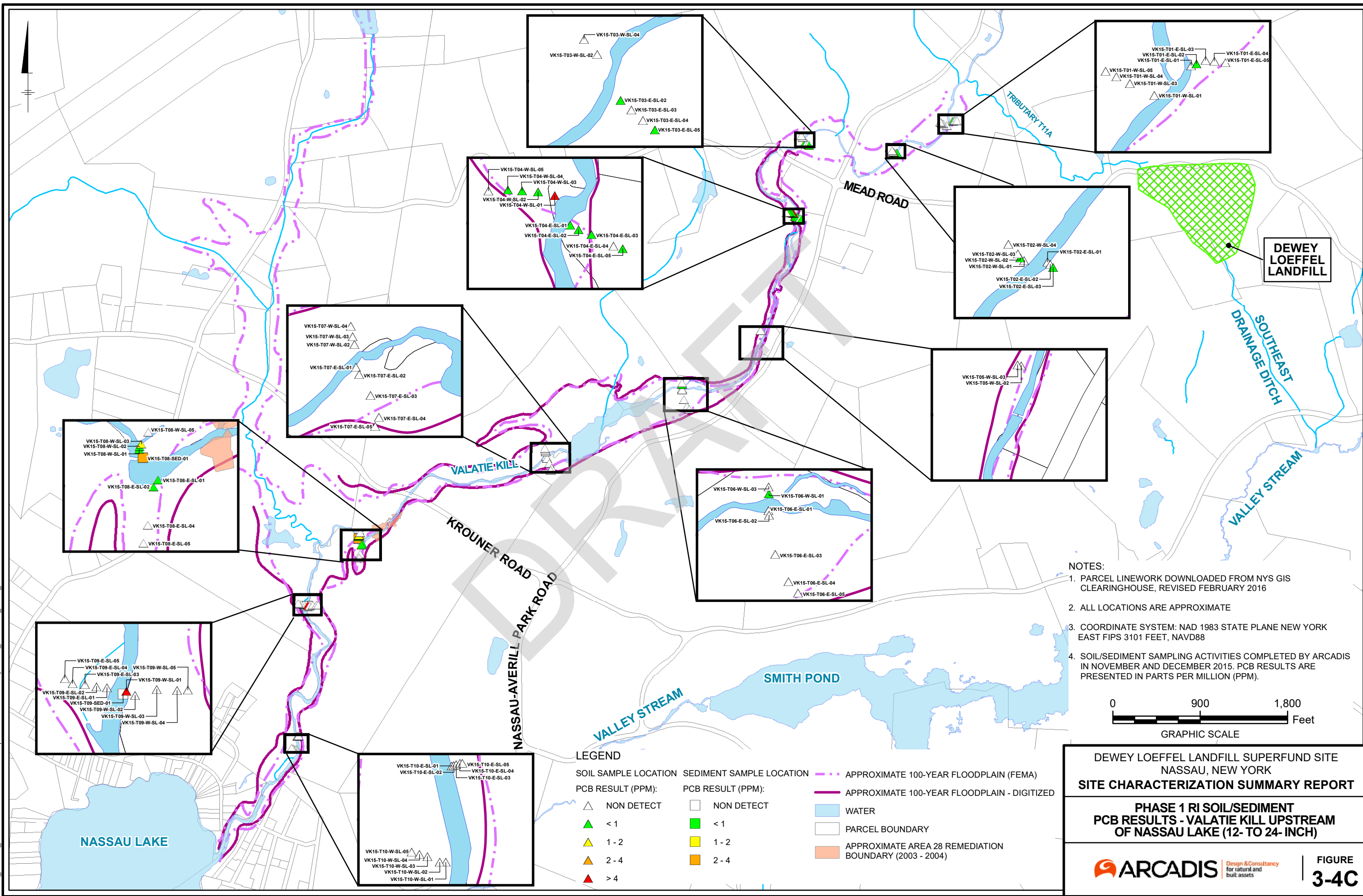
NASSAU LAKE BATHYMETRY

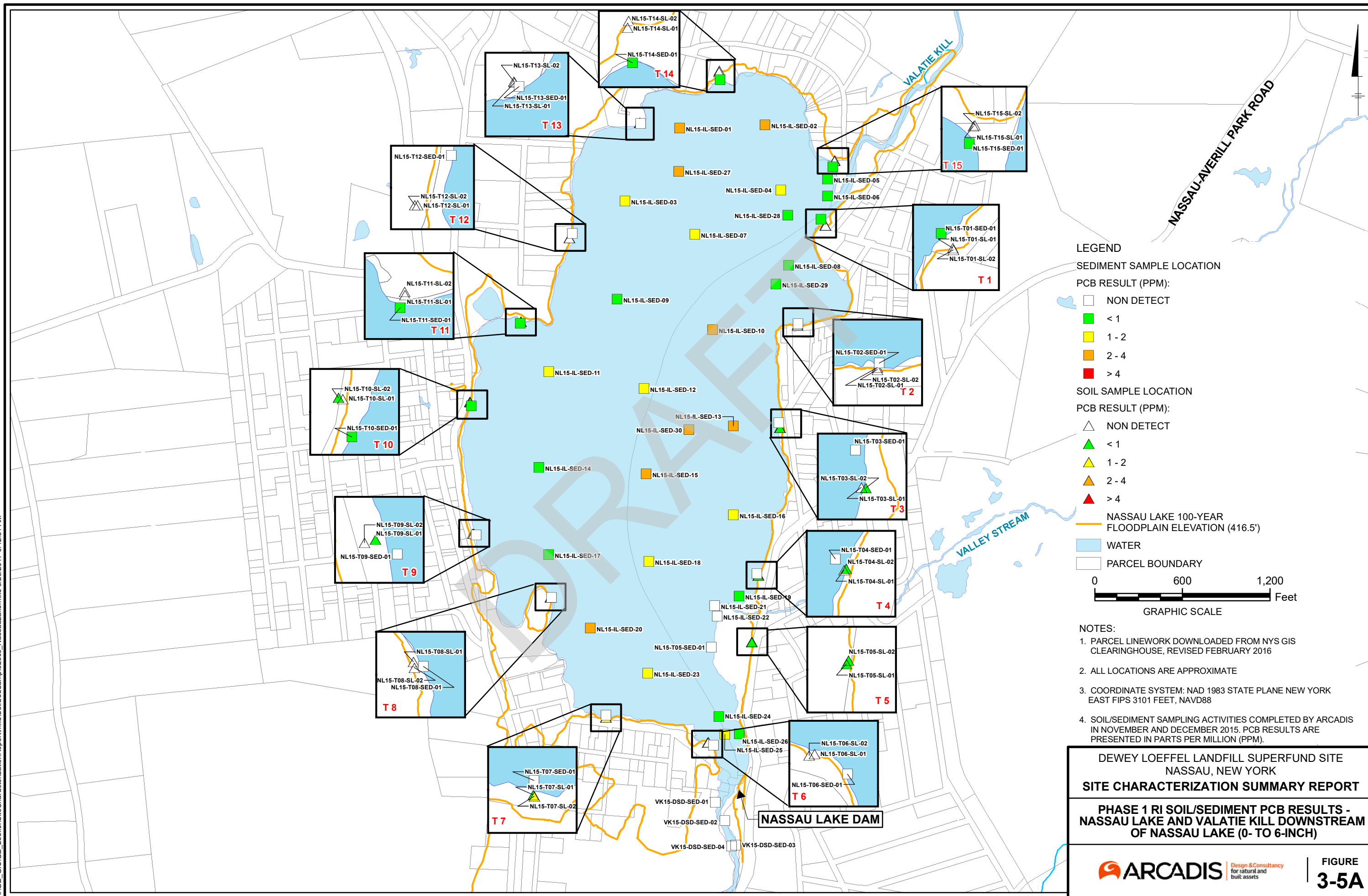


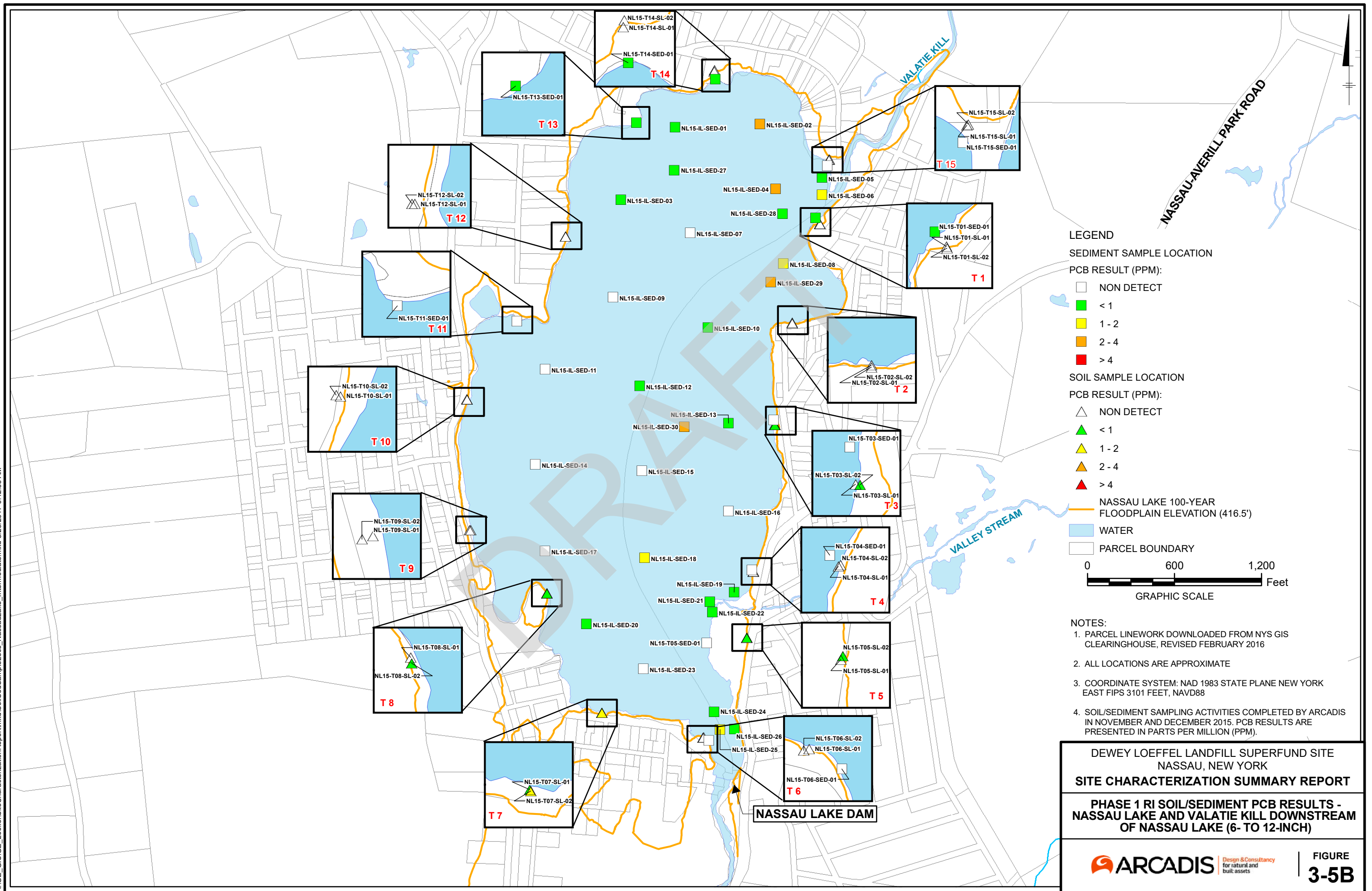
FIGURE
3-3

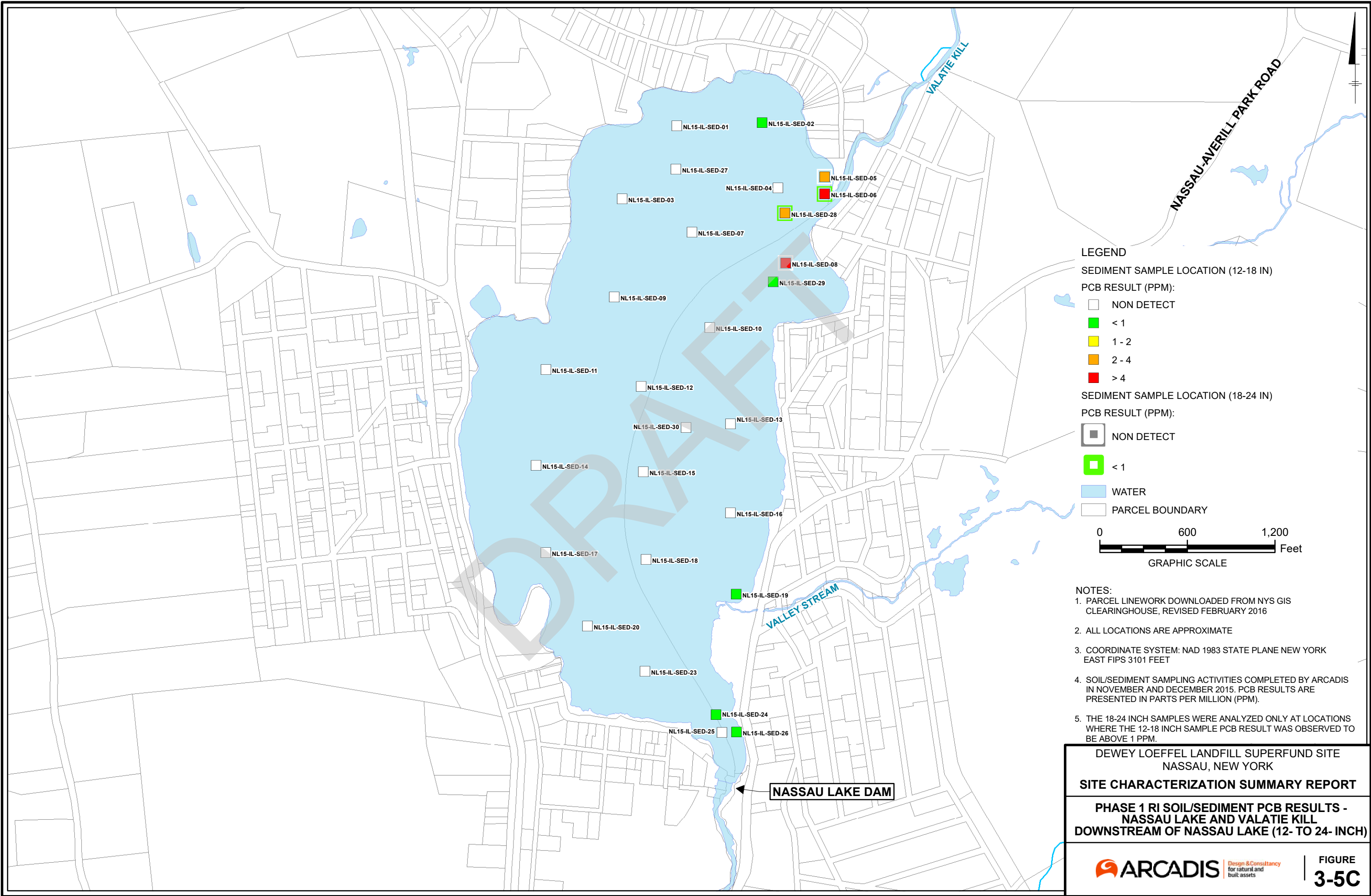




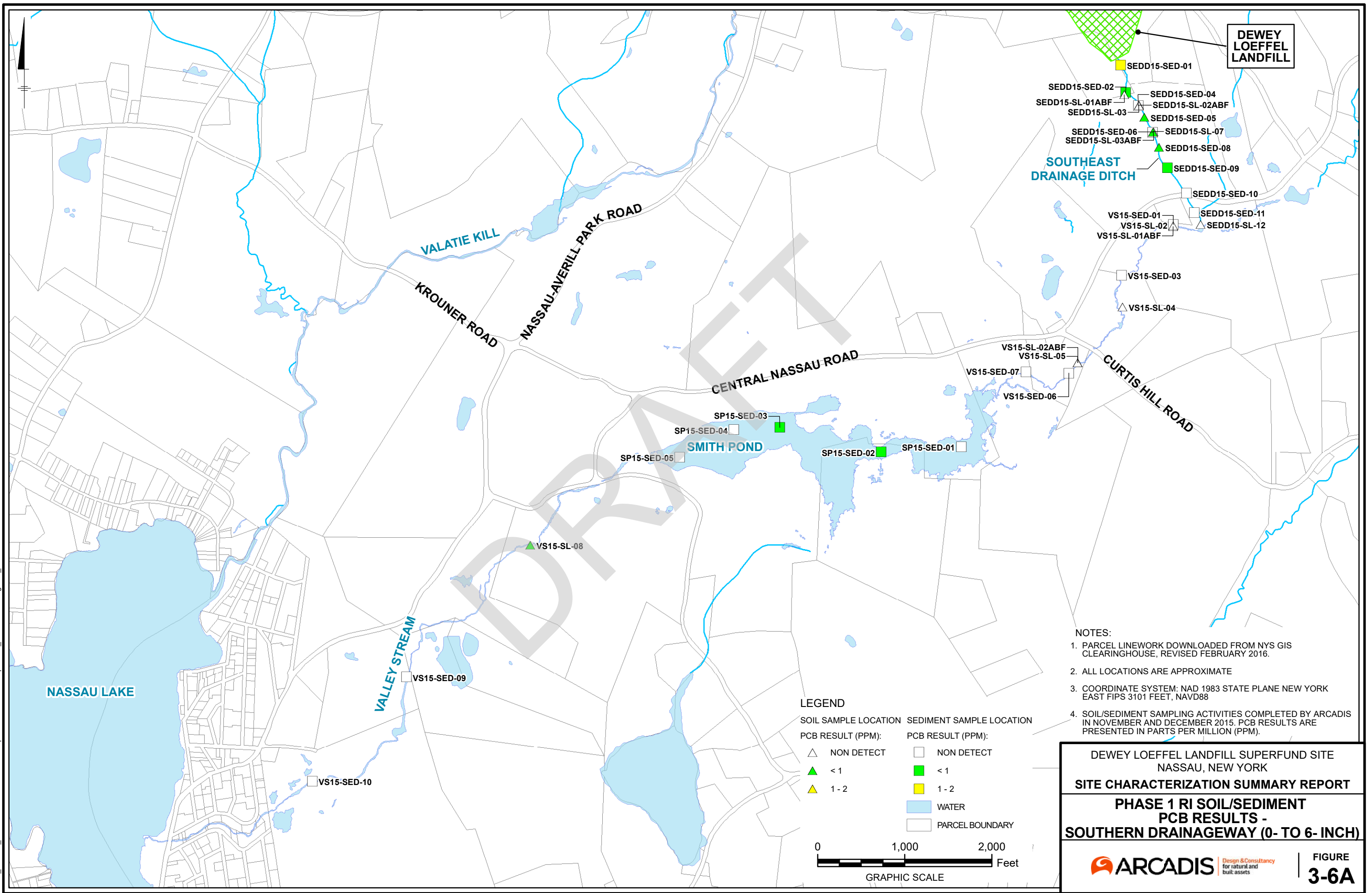




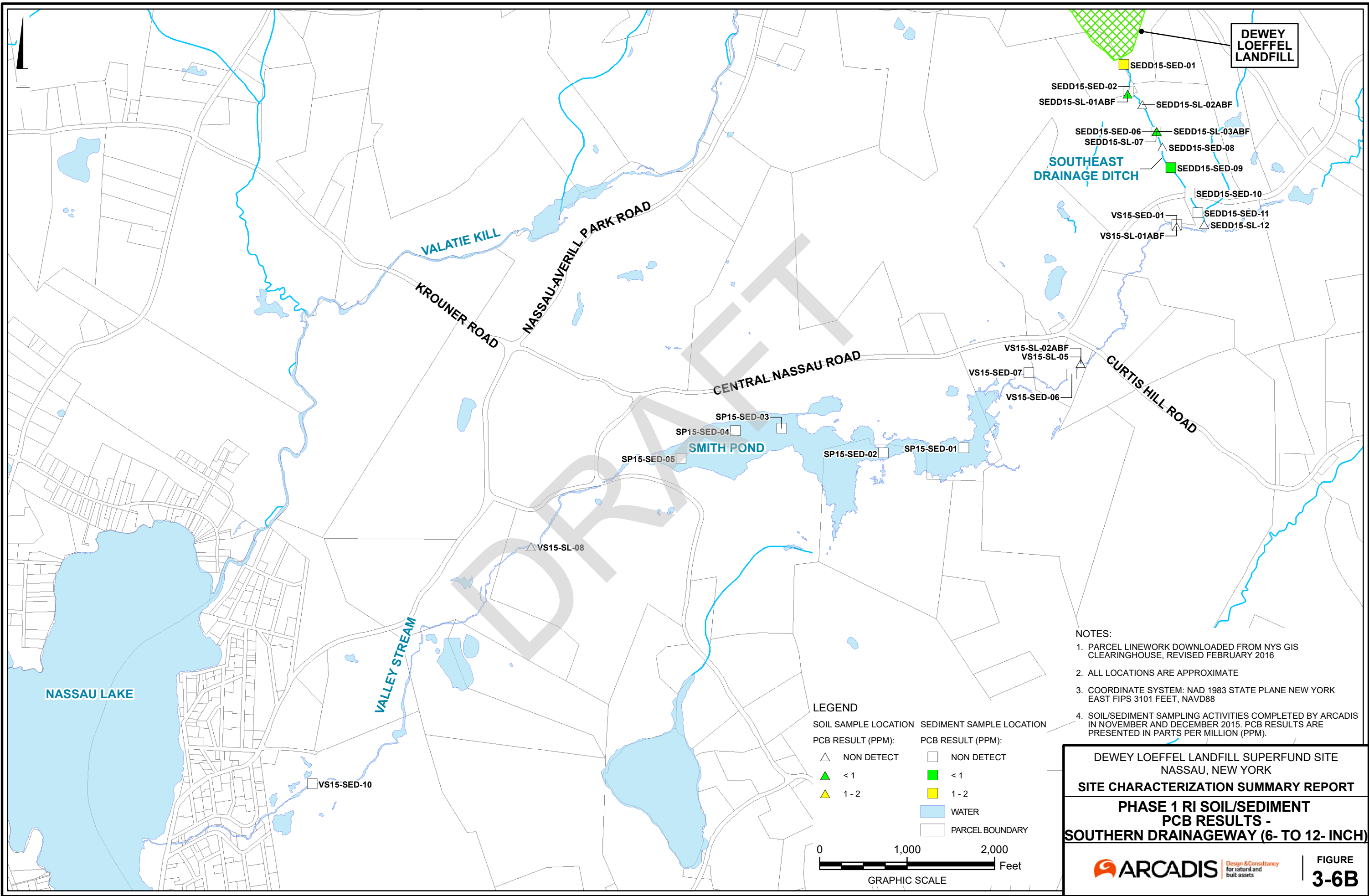




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APPENDIX A

Supplemental Soil / Sediment Data and USEPA Regional Screening Levels

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Appendix A – Supplemental Soil / Sediment Data and USEPA Regional Screening Levels

Appendix A contains the following sub-sections:

- A1. Tables presenting the historic soil/sediment data collected prior to Phase 1 Remedial Investigation (RI) sampling.
- A2. A list of the non-PCB compounds analyzed as part of the Paragraph 47.f proposal for T11A sampling program, and presents the frequency of detection, minimum, maximum, median, and mean for each compound. Additionally, includes the raw data for non-PCB compounds analyzed as part of the Phase 1 RI sampling program (summary statistics are provided in Tables 3-x to 3-x of the Site Characterization Summary Report for the various sections of the drainageway [i.e., Valatie Kill, Nassau Lake, etc.]).
- A3. A copy of the United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) tables (May 2016) for target cancer risk (TR) equal to 1E-06 and for both target hazard quotients (THQ) equal to 0.1 and 1.0. The tables were downloaded from <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-may-2016>.

Additionally, at the request of the USEPA, below is a summary of the approach used to calculate Total PCBs for the historic soil/sediment data collected prior to Phase 1 RI sampling, and which Aroclors were historically detected in soil/sediment samples.

- Total PCB values represent the summation of individual Aroclors, if such Aroclors were detected. If an individual Aroclor is non-detect (ND), it is not included in the summation to calculate Total PCBs.
- If the Total PCB value is ND, half the compound quantitation limit, if available, was used for statistics such as mean and median concentration.
- Typically, Aroclors 1248, 1254, and 1260 are the Aroclors that are individually detected, with Aroclor 1260 being the predominant site-specific Aroclor.

APPENDIX A1

Historical Soil / Sediment Data Collected Prior to Phase 1 RI Sampling

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TABLES

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Table A1-1
Southeast Drainage Ditch Pre-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Southern Drainageway						
Southeast Drainage Ditch Below Landfill	L5	5/1988	Sediment	Unknown	0.26 J	
		9/1988	Sediment	Unknown	0.32	
		12/1988	Sediment	Unknown	1.2	
		10/1989	Sediment	Unknown	0.13	
		7/1990	Sediment	Unknown	0.32	
		6/1991	Sediment	Unknown	0.86	
	SDS010-1C [SD506C]	10/22/1992	Sediment	Unknown	0.57 [0.67]	
	SDS010-2C		Sediment	Unknown	1.3	
	SDS010-3C		Sediment	Unknown	1.4	
	SDS010-4C		Sediment	Unknown	1.4	
Southeast Drainage Ditch At Central Nassau Road	L6	6/1991	Sediment	Unknown	ND	
	SDS011-1C	10/21/1992	Sediment	Unknown	ND (0.13)	
	SDS011-2C		Sediment	Unknown	ND (0.050)	
Smith Pond Outlet	SDS012-1C	6/23/1993	Sediment	Unknown	ND (0.19 J)	
	SDS012-2C		Sediment	Unknown	ND (0.050 J)	

Notes and Definitions:

1. Samples results presented in brackets ("[]") are for duplicate samples.

J - The compound was positively identified; however, the associated numerical value is an estimated concentration only.

ND - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

ppm - parts per million

Table A1-2
Southeast Drainage Ditch 2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Southern Drainageway						
Southeast Drainage Ditch Below Landfill	DLL-SED26	6/9/2009	Sediment	0-6	0.075	USEPA samples
	DLL-SED26A	8/7/2009	Sediment	0-6	0.74	USEPA samples
Southeast Drainage Ditch Halfway To Valley Stream	DLL-SED25	6/9/2009	Sediment	0-6	ND (0.058)	USEPA samples
	DLL-SED25A	8/7/2009	Sediment	0-6	0.030 J	USEPA samples
Southeast Drainage Ditch At Central Nassau Road	DLL-SED22 [DLL-SED23]	6/9/2009	Sediment	0-6	ND (0.047)	USEPA samples
			Sediment	0-6	[ND (0.045)]	USEPA samples
	DLL-SED24	6/9/2009	Sediment	0-6	ND (0.11)	USEPA samples
	DLL-SED22A [DLL-SED23A]	8/7/2009	Sediment	0-6	ND (0.040)	USEPA samples
			Sediment	0-6	[ND (0.038)]	USEPA samples
	DLL-SED24A	8/7/2009	Sediment	0-6	0.19 J	USEPA samples
Valley Stream At Curtis Hill Road	DLL-SED21	6/9/2009	Sediment	0-6	ND (0.042)	USEPA samples
	DLL-SED21A	8/7/2009	Sediment	0-6	ND (0.044)	USEPA samples
Valley Stream Above Smith Pond	DLL-SED20	6/9/2009	Sediment	0-6	ND (0.050)	USEPA samples
	DLL-SED20A	8/7/2009	Sediment	0-6	ND (0.220)	USEPA samples
Smith Pond Outlet	DLL-SED19	6/9/2009	Sediment	0-6	ND (0.041)	USEPA samples
	DLL-SED19A	8/7/2009	Sediment	0-6	ND (0.039)	USEPA samples
Valley Stream Below Smith Pond	DLL-SED17	6/8/2009	Sediment	0-6	ND (0.053)	USEPA samples
	DLL-SED17A	8/6/2009	Sediment	0-6	ND (0.039)	USEPA samples
Valley Stream Halfway Between Smith Pond And Nassau Lake	DLL-SED16	6/8/2009	Sediment	0-6	ND (0.054)	USEPA samples
	DLL-SED16A	8/6/2009	Sediment	0-6	ND (0.042)	USEPA samples
Valley Stream Above Nassau Lake	DLL-SED15	6/8/2009	Sediment	0-6	ND (0.045)	USEPA samples
	DLL-SED15A	8/6/2009	Sediment	0-6	ND (0.046)	USEPA samples

Notes and Definitions:

1. Samples results presented in brackets ("[]") are for duplicate samples.

J - The compound was positively identified; however, the associated numerical value is an estimated concentration only.

ND - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

ppm - parts per million

Table A1-3
Northwest Drainage Ditch Pre-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Northwest Drainage Ditch	SD4-1-1	6/17/1993	Sediment	0-3	0.25	
	SD4-1-8	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0)	
		2000	Sediment	12-24	ND (1.0)	
	SD4-1-9	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0)	
		2000	Sediment	12-24	ND (1.0) [ND (1.0)]	
	SD4-1-15	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0)	
		2000	Sediment	12-24	ND (1.0)	
		2000	Sediment	24-36	ND (1.0)	
	SD4-1-16	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0)	
		2000	Sediment	12-24	ND (1.0)	
	SD4-1-18	1993-96	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0)	
	SD4-1-19	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0)	
		2000	Sediment	12-24	ND (1.0)	
	SD4-1-20	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0)	
		2000	Sediment	12-24	ND (1.0)	
	SD4-1-22	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0)	
		2000	Sediment	12-24	ND (1.0)	
	SD4-1-23	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0)	
		2000	Sediment	12-24	ND (1.0)	
	SD4-1-24	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0) [ND (1.0)]	
		2000	Sediment	12-24	ND (1.0)	
	SD4-1-25	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	1.8	
		2000	Sediment	12-24	ND (1.0)	
	SDN002-1S	10/29/1992	Sediment	0-3	0.35 J	
		10/29/1992	Sediment	3-6	0.13 J	
		10/29/1992	Sediment	6-18	0.16 J	
	SDN002-2S	2000	Sediment	0-3	0.53 J	
		2000	Sediment	3-6	0.44	
		2000	Sediment	6-12	0.29	

Table A1-3
Northwest Drainage Ditch Pre-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Low Lying Area	SDN-001-6S	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0)	
		2000	Sediment	12-24	ND (1.0) [ND (1.0)]	
	SDN-001-7S	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0)	
		2000	Sediment	12-24	ND (1.0) [ND (1.0)]	
	SDN-001-8S	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0)	
		2000	Sediment	12-24	ND (1.0)	
	SDN-001-9S	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0)	
		2000	Sediment	12-24	ND (1.0)	
	SDN-001-10S	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0)	
	SDN-001-11S	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0) [ND (1.0)]	
	SDN-001-12S	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0) [ND (1.0)]	
	SDN-001-13S	2000	Sediment	0-3	ND (1.0)	
		2000	Sediment	3-12	ND (1.0)	

Notes and Definitions:

1. Samples results presented in brackets ("[]") are for duplicate samples.

J - The compound was positively identified; however, the associated numerical value is an estimated concentration only.

ND - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

ppm - parts per million

Table A1-4
Northwest Drainage Ditch 2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Northwest Drainage Ditch	DLL-SED12	6/9/2009	Sediment	0-6	0.17	USEPA Samples
	DLL-SED12A	8/8/2009	Sediment	0-6	3.5 C	USEPA Samples
	DLL-SED13	6/9/2009	Sediment	0-6	ND (0.042)	USEPA Samples
	DLL-SED13A	8/8/2009	Sediment	0-6	ND (0.037)	USEPA Samples

Notes and Definitions:

ND - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

ppm - parts per million

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Table A1-5
Northwest Drainage Ditch Post-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York



Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Northwest Drainage Ditch	NWDD-SED-A3	December 2013	Sediment	0-6	ND (0.119)	
	NWDD-SED-A4 [DUP-1]	December 2013	Sediment	0-6	ND (0.0974) [ND (0.100)]	
	NWDD-SED-B1	December 2013	Sediment	6-10	ND (0.108)	
	NWDD-SED-B3	December 2013	Sediment	0-6	ND (0.0944)	
	NWDD-SED-B4	December 2013	Sediment	0-6	0.3499	
	NWDD-SED-B5	December 2013	Sediment	0-6	0.535	
	NWDD-SS-B1	December 2013	Soil	0-6	ND (0.0970)	
				6-11	0.0998	
	NWDD-SS-B2	December 2013	Soil	0-6	0.199	
				6-12	0.494	
	NWDD-SS-B3	December 2013	Soil	0-6	0.565	
				6-12	18.1	
	NWDD-SS-B4	December 2013	Soil	0-6	0.483	
				6-12	14.3	
	NWDD-SED-C3	December 2013	Sediment	0-6	0.138	
	NWDD-SED-C4	December 2013	Sediment	0-6	0.163	
	NWDD-SED-D3	December 2013	Sediment	0-6	0.239	
	NWDD-SED-E1	December 2013	Sediment	6-9	8.42	
	NWDD-SED-E3	December 2013	Sediment	0-6	1.481	
	NWDD-SS-E1	December 2013	Soil	0-6	0.657	
				6-12	1.39	
	NWDD-SS-E2	December 2013	Soil	0-6	0.138	
				6-12	ND (0.0695)	
	NWDD-SS-E3	December 2013	Soil	0-6	0.632	
				6-12	5.82	
	NWDD-SS-E4	December 2013	Soil	0-6	1.19	
				6-11	ND (0.0704)	
	NWDD-SED-F3	December 2013	Sediment	0-6	ND (0.0547)	
	NWDD-SED-F4	December 2013	Sediment	0-6	1.111	
	NWDD-SED-G3 [DUP-2]	December 2013	Sediment	0-6	1.278 [0.456]	
	NWDD-SED-G4	December 2013	Sediment	0-6	0.741	
	NWDD-SED-H3	December 2013	Sediment	0-6	0.156	
	NWDD-SED-H4	December 2013	Sediment	0-6	9.19	
	NWDD-SED-H5	December 2013	Sediment	0-6	1.15	
	NWDD-JDG-1	December 2013	Sediment	0-6	ND (0.0834)	
	NWDD-JDG-2	December 2013	Sediment	0-6	0.0928	
NWDD-JDG-3	December 2013	Sediment	0-6	1.01		
NWDD-JDG-4	December 2013	Sediment	0-6	ND (0.0825)		
NWDD-JDG-5	December 2013	Sediment	0-6	0.201		
NWDD-JDG-6	December 2013	Sediment	0-6	0.110		
NWDD-JDG-7	December 2013	Sediment	0-6	1.23		
NWDD-SED-A1	June 2011	Sediment	0-6	0.118		
NWDD-SED-A2	June 2011	Sediment	0-6	2.91		
NWDD-SED-B1 [DUP-3]	June 2011	Sediment	0-6	4.96 [6.07]		
NWDD-SED-B2	June 2011	Sediment	0-6	ND (0.0648)		

Table A1-5
Northwest Drainage Ditch Post-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Northwest Drainage Ditch	NWDD-SED-C1	June 2011	Sediment	0-6	0.618	
	NWDD-SED-C2	June 2011	Sediment	0-6	0.3486	
	NWDD-SED-D1	June 2011	Sediment	0-6	0.557	
	NWDD-SED-D2	June 2011	Sediment	0-6	0.584	
	NWDD-SED-E1	June 2011	Sediment	0-6	12.76	
	NWDD-SED-E2	June 2011	Sediment	0-6	0.73	
	NWDD-SED-F1	June 2011	Sediment	0-6	0.0925	
	NWDD-SED-F2	June 2011	Sediment	0-6	0.3959	
	NWDD-SED-G1	June 2011	Sediment	0-6	2.18	
	NWDD-SED-G2	June 2011	Sediment	0-6	1.63	
	NWDD-SED-H1	June 2011	Sediment	0-6	0.2158	
	NWDD-SED-H2	June 2011	Sediment	0-6	0.0874	

Notes and Definitions:

1. Samples results presented in brackets ("[]") are for duplicate samples.

ND - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

ppm - parts per million

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Table A1-6
Tributary T11A Pre-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
None						

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Table A1-7
Tributary T11A 2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Tributary T11A	Soil/Sed #1	7/28/2009	Soil	0-6	2.1	NYSDEC Samples
	Soil/Sed #2	7/28/2009	Soil	0-6	22	NYSDEC Samples
	Site 1	8/7/2009	Soil	0-6	5.2	NYSDEC Samples
	Site 2	8/7/2009	Soil	0-6	3.8	NYSDEC Samples
	DLL-SED09	6/8/2009	Sediment	0-6	0.25 J	USEPA Samples
	DLL-SED09A	8/7/2009	Sediment	0-6	0.68 D	USEPA Samples
	DLL-SED10	6/9/2009	Sediment	0-6	0.34	USEPA Samples
	DLL-SED10A	8/8/2009	Sediment	0-6	0.77	USEPA Samples
	DLL-SED11	6/9/2009	Sediment	0-6	0.19	USEPA Samples
	DLL-SED11A	8/8/2009	Sediment	0-6	0.56	USEPA Samples

Notes and Definitions:

J - The compound was positively identified; however, the associated numerical value is an estimated concentration only.

D - The reported value is based on a diluted sample analysis.

ppm - parts per million

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Table A1-8
Tributary T11A Post-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)
Western Drainageway					
A	SS-A-1	8/2010	Soil	0-6	9.4
	SS-A-2	8/2010	Soil	0-6	1.6
	SS-A-3	8/2010	Soil	0-6	2.7
	SED-A-1	8/2010	Sediment	0-6	4.9
	SED-A-2	8/2010	Sediment	0-6	0.297
B	SS-B-1 [DUP-7]	8/2010	Soil	0-6	0.79 [0.87]
	SS-B-2	8/2010	Soil	0-6	2.4
	SS-B-3 [DUP-10]	8/2010	Soil	0-6	0.41 [0.38]
	SS-B-4	8/2010	Soil	0-6	7.8
	SS-B-5	8/2010	Soil	0-6	9.6
	SED-B-1	8/2010	Sediment	0-6	1.6
C	SED-B-2	8/2010	Sediment	0-6	17
	SS-C-1	8/2010	Soil	0-6	0.28
	SS-C-2	8/2010	Soil	0-6	2.5
	SS-C-3	8/2010	Soil	0-6	0.37
	SS-C-4	8/2010	Soil	0-6	0.75
	SED-C-1	8/2010	Sediment	0-6	0.44
D	SED-C-2	8/2010	Sediment	0-6	0.35
	SS-D-1	8/2010	Soil	0-6	0.45
	SS-D-2	8/2010	Soil	0-6	1.1
	SS-D-3	8/2010	Soil	0-6	0.11
	SS-D-4	8/2010	Soil	0-6	21
	SS-D-5	8/2010	Soil	0-6	0.56
E	SED-D-1	8/2010	Sediment	0-6	1.9
	SED-D-2	8/2010	Sediment	0-6	4.9
	SS-E-1	8/2010	Soil	0-6	2.4
	SS-E-2	8/2010	Soil	0-6	6.6
	SS-E-3	8/2010	Soil	0-6	3.0
	SED-E-1	8/2010	Sediment	0-6	9.4
F	SED-E-2	8/2010	Sediment	0-6	1.5
	SS-F-1 [DUP-8]	8/2010	Soil	0-6	96 [115]
	SS-F-1 (6-12)	6/2011	Soil	6-12	1,340
	SS-F-2	8/2010	Soil	0-6	82
	SS-F-2 (6-12)	6/2011	Soil	6-12	94
	SS-F-3	8/2010	Soil	0-6	2.3
	SS-F-4	8/2010	Soil	0-6	2.3
	SS-F-5	6/2011	Soil	0-6	16
	SS-F-5 (6-12)	6/2011	Soil	6-12	3.0
	SS-F-6	6/2011	Soil	0-6	443
	SS-F-6 (6-12)	6/2011	Soil	6-12	349
	SS-F-7	6/2011	Soil	0-6	95
	SS-F-7 (6-12)	6/2011	Soil	6-12	264
	SS-F-8 [DUP-13]	6/2011	Soil	0-6	0.11 [0.13]
	SS-F-8 (6-12)	6/2011	Soil	6-12	60
	SS-F-9	6/2011	Soil	0-6	166
	SS-F-9 (6-12)	6/2011	Soil	6-12	1,120
	SED-F-1	8/2010	Sediment	0-6	4.0

Table A1-8
Tributary T11A Post-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)
Western Drainageway					
F	SED-F-2	8/2010	Sediment	0-6	1.7
	SS-F-10	January 2014	Soil	0-6	4.80
			Soil	6-10	0.3962
	SS-F-11	January 2014	Soil	0-6	0.0657
			Soil	6-12	ND (0.0638)
			Soil	12-15	ND (0.0612)
	SS-F-12	January 2014	Soil	0-4	0.940
	SS-F-13	January 2014	Soil	0-6	18.90
			Soil	6-9	51.1
	SS-F-14	January 2014	Soil	0-6	274.2
			Soil	0-6	12.4
	SS-F-15	January 2014	Soil	6-10	0.545
			Soil	0-6	ND (0.0692)
	SS-F-16	January 2014	Soil	6-12	ND (0.0670)
			Soil	0-6	1.5672
	SS-F-17	January 2014	Soil	6-12	0.1319
			Soil	0-6	2.28
	SS-F-18 [DUP-4]	January 2014	Soil	6-12	1.17
			Soil	12-18	0.165 [0.1462]
G	SS-G-1 [DUP-9]	8/2010	Soil	0-6	0.17 [0.15]
	SS-G-2	8/2010	Soil	0-6	2.1
	SS-G-3	8/2010	Soil	0-6	4.8
	SS-G-4	8/2010	Soil	0-6	2.2
	SED-G-1	8/2010	Sediment	0-6	0.97
	SED-G-2	8/2010	Sediment	0-6	5.6
H	SS-H-1	8/2010	Soil	0-6	1.1
	SS-H-2	8/2010	Soil	0-6	2.6
	SS-H-3	8/2010	Soil	0-6	1.2
	SS-H-4	8/2010	Soil	0-6	6.4
	SED-H-1	8/2010	Sediment	0-6	1.7
	SED-H-2	8/2010	Sediment	0-6	6.2
I	SS-I-1	8/2010	Soil	0-6	0.49
	SS-I-2	8/2010	Soil	0-6	0.24
	SS-I-3	8/2010	Soil	0-6	0.21
	SS-I-4	8/2010	Soil	0-6	0.68
	SED-I-1	8/2010	Sediment	0-6	2.9
	SED-I-2	8/2010	Sediment	0-6	2.7
J	SS-J-1	8/2010	Soil	0-6	3.2
	SS-J-2	8/2010	Soil	0-6	12
	SS-J-3	8/2010	Soil	0-6	0.95
	SS-J-4	8/2010	Soil	0-6	0.44
	SED-J-1	8/2010	Sediment	0-6	3.4
	SED-J-2	8/2010	Sediment	0-6	16
1	SS-01A	4/2010	Soil	0-6	9.3
	SS-01B	4/2010	Soil	0-6	3.3
	SS-01B (6-11)	8/2010	Soil	6-11	3.3
	SS-01C	8/2010	Soil	0-6	0.45

Table A1-8
Tributary T11A Post-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)
Western Drainageway					
1	SS-01D	8/2010	Soil	0-6	37
	SED-01A	4/2010	Sediment	0-6	4.5
	SED-01B	4/2010	Sediment	0-6	7.4
K	SS-K-1	8/2010	Soil	0-6	0.22
	SS-K-2	8/2010	Soil	0-6	0.052
	SS-K-3	8/2010	Soil	0-6	35
	SS-K-4	8/2010	Soil	0-6	38
	SED-K-1	8/2010	Sediment	0-6	2.2
	SED-K-2	8/2010	Sediment	0-6	5.3
2	SS-02A	4/2010	Soil	0-6	28
	SS-02A (6-9)	8/2010	Soil	6-9	13
	SS-02B [DUP-1]	4/2010	Soil	0-6	32 [30]
	SS-02B (6-10)	8/2010	Soil	6-10	12
	SS-02C	8/2010	Soil	0-6	29
	SS-02D	8/2010	Soil	0-6	0.40
	SS-02E	8/2010	Soil	0-6	25
	SED-02A	4/2010	Sediment	0-6	10
	SED-02B	4/2010	Sediment	0-6	5.8
L	SED-02C	4/2010	Sediment	0-6	9.5
	SS-L-1	8/2010	Soil	0-6	6.4
	SS-L-2	8/2010	Soil	0-6	0.78
	SS-L-3	8/2010	Soil	0-6	30
	SS-L-4	8/2010	Soil	0-6	4.4
	SS-L-5	8/2010	Soil	0-6	0.84
	SED-L-1	8/2010	Sediment	0-6	5.6
	SED-L-2	8/2010	Sediment	0-6	5.0
3	SS-03A	4/2010	Soil	0-6	7.4
	SS-03B	4/2010	Soil	0-6	18
	SS-03B (6-9)	8/2010	Soil	6-9	63
	SS-03C	8/2010	Soil	0-6	0.38
	SS-03D	8/2010	Soil	0-6	6.4
	SS-03E	8/2010	Soil	0-6	0.93
	SS-03F	6/2011	Soil	0-6	0.32
	SS-03F (6-12)	6/2011	Soil	6-12	3.7
	SS-03G	6/2011	Soil	0-6	1.7
	SS-03G (6-12)	6/2011	Soil	6-12	0.52
	SS-03H	6/2011	Soil	0-6	33
	SS-03H (6-12)	6/2011	Soil	6-12	35
	SED-03A	4/2010	Sediment	0-6	1.8
	SED-03B	4/2010	Sediment	0-6	3.3
M	SS-M-1	8/2010	Soil	0-6	7.9
	SS-M-2	8/2010	Soil	0-6	10
	SS-M-3	8/2010	Soil	0-6	1.2
	SS-M-4	8/2010	Soil	0-6	12
	SED-M-1	8/2010	Sediment	0-6	6.5
	SED-M-2	8/2010	Sediment	0-6	3.1

Table A1-8
Tributary T11A Post-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)
Western Drainageway					
N	SS-N-1	8/2010	Soil	0-6	3.1
	SS-N-2	8/2010	Soil	0-6	79
	SS-N-2 (6-12)	6/2011	Soil	6-12	44
	SS-N-3	8/2010	Soil	0-6	50
	SS-N-3 (6-12)	6/2011	Soil	6-12	5.0
	SS-N-4	8/2010	Soil	0-6	10
	SS-N-5	8/2010	Soil	0-6	0.20
	SS-N-6	6/2011	Soil	0-6	11
	SS-N-6 (6-12)	6/2011	Soil	6-12	7.1
	SS-N-7	6/2011	Soil	0-6	1.8
	SS-N-7 (6-12)	6/2011	Soil	6-12	0.33
	SS-N-8	6/2011	Soil	0-6	21
	SS-N-8 (6-12)	6/2011	Soil	6-12	50
	SS-N-9	6/2011	Soil	0-6	53
	SS-N-9 (6-12)	6/2011	Soil	6-12	50
	SS-N-10 [DUP-12]	6/2011	Soil	0-6	11 [11]
	SS-N-10 (6-12)	6/2011	Soil	6-12	2.4
	SS-N-11	6/2011	Soil	0-6	12
	SS-N-11 (6-12)	6/2011	Soil	6-12	11
	SED-N-1	8/2010	Sediment	0-6	5.2
	SED-N-2	8/2010	Sediment	0-6	19
O	SS-O-1	8/2010	Soil	0-6	0.22
	SS-O-2	8/2010	Soil	0-6	2.7
	SS-O-3	8/2010	Soil	0-6	3.0
	SED-O-1	8/2010	Sediment	0-6	4.2
	SED-O-2	8/2010	Sediment	0-6	22.6
4	SS-04A	4/2010	Soil	0-6	5.4
	SS-04B	4/2010	Soil	0-6	31
	SS-04B (6-10)	8/2010	Soil	6-10	0.78
	SS-04C	8/2010	Soil	0-6	0.32
	SS-04D	8/2010	Soil	0-6	16
	SED-04A	4/2010	Sediment	0-6	2.6
	SED-04B	4/2010	Sediment	0-6	2.9
P	SS-P-1	8/2010	Soil	0-6	0.37
	SS-P-2	8/2010	Soil	0-6	3.6
	SS-P-3	8/2010	Soil	0-6	6.4
	SS-P-4	8/2010	Soil	0-6	28
	SED-P-1	8/2010	Sediment	0-6	2.0
	SED-P-2	8/2010	Sediment	0-6	3.2
Q	SS-Q-1	8/2010	Soil	0-6	13
	SS-Q-2	8/2010	Soil	0-6	1.5
	SS-Q-3	8/2010	Soil	0-6	4.7
	SS-Q-4	8/2010	Soil	0-6	3.4
	SED-Q-1	8/2010	Sediment	0-6	6.3
	SED-Q-2 [DUP-2]	8/2010	Sediment	0-6	4.0 [7.1]

Table A1-8
Tributary T11A Post-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)
Western Drainageway					
R	SS-R-1	8/2010	Soil	0-6	5.9
	SS-R-2	8/2010	Soil	0-6	2.4
	SS-R-3 [DUP-5]	8/2010	Soil	0-6	5.3 [8.0]
	SS-R-4	8/2010	Soil	0-6	23
	SED-R-1	8/2010	Sediment	0-6	1.8
	SED-R-2 [DUP-3]	8/2010	Sediment	0-6	2.0 [2.3]
S	SS-S-1	8/2010	Soil	0-6	5.3
	SS-S-2	8/2010	Soil	0-6	39
	SS-S-3	8/2010	Soil	0-6	4.4
	SS-S-4	8/2010	Soil	0-6	0.33
	SED-S-1	8/2010	Sediment	0-6	2.4
	SED-S-2	8/2010	Sediment	0-6	3.6
T	SS-T-1	8/2010	Soil	0-6	10
	SS-T-2 [DUP-4]	8/2010	Soil	0-6	2.1 [2.4]
	SED-T-1	8/2010	Sediment	0-6	3.2
	SED-T-2	8/2010	Sediment	0-6	10
U	SS-U-1	8/2010	Soil	0-6	2.2
	SS-U-2 [DUP-6]	8/2010	Soil	0-6	88 [10]
	SS-U-2	6/2011	Soil	0-6	22
	SS-U-2 (6-12)	6/2011	Soil	6-12	3.3
	SS-U-3	6/2011	Soil	0-6	14
	SS-U-3 (6-12)	6/2011	Soil	6-12	12
	SS-U-4	6/2011	Soil	0-6	2.3
	SS-U-4 (6-12)	6/2011	Soil	6-12	2.1
	SS-U-5	6/2011	Soil	0-6	11
	SS-U-5 (6-12)	6/2011	Soil	6-12	20
	SED-U-1	8/2010	Sediment	0-6	1.1
	SED-U-2	8/2010	Sediment	0-6	0.80
Judgmental	SS-JDG-1	8/2010	Soil	0-6	407
	SS-JDG-1 (6-12)	6/2011	Soil	6-12	222
	SS-JDG-1A	6/2011	Soil	0-6	29
	SS-JDG-1A (6-12)	6/2011	Soil	6-12	4.7
	SS-JDG-1B	6/2011	Soil	0-6	1.4
	SS-JDG-1B (6-12) [DUP-11]	6/2011	Soil	6-12	0.49 [0.49]
	SS-JDG-1C	6/2011	Soil	0-6	144
	SS-JDG-1C (6-12)	6/2011	Soil	6-12	82
	SS-JDG-2	8/2010	Soil	0-6	3.7
	SS-JDG-3	8/2010	Soil	0-6	6.8
	SS-JDG-4	8/2010	Soil	0-6	10
	SS-JDG-5	8/2010	Soil	0-6	0.19
	SS-JDG-6	8/2010	Soil	0-6	15
	SS-JDG-7	8/2010	Soil	0-6	12
	SS-JDG-8	8/2010	Soil	0-6	0.45
	SS-JDG-9	8/2010	Soil	0-6	9.2
	SS-JDG-10	8/2010	Soil	0-6	0.27
	SS-JDG-11	8/2010	Soil	0-6	0.27

Table A1-8
Tributary T11A Post-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)
Western Drainageway					
Outside Extent of Stream	OES-N-1	January 2014	Soil	0-6	0.594
			Soil	6-12	ND (0.0587)
			Soil	12-16	ND (0.0581)
	OES-N-2	January 2014	Soil	0-6	0.0557 J
			Soil	6-12	ND (0.0632)
			Soil	12-16	ND (0.0623)
	OES-N-3	January 2014	Soil	0-6	0.277
			Soil	6-12	ND (0.0681)
	OES-N-4	January 2014	Soil	0-6	0.169
			Soil	6-12	ND (0.0670)
			Soil	12-18	ND (0.0636)
	OES-N-5 [DUP-5]	January 2014	Soil	0-6	0.33 [0.511]
	OES-N-6	January 2014	Soil	0-6	0.0447 J
	OES-N-7 [DUP-7]	January 2014	Soil	0-6	ND (0.0563) [ND (0.0546)]
			Soil	0-6	0.0555 J
	OES-N-8	January 2014	Soil	0-6	0.0555 J
			Soil	6-8	ND (0.0621)
	OES-N-9	January 2014	Soil	0-6	ND (0.0629)
			Soil	6-8	ND (0.0550)
	OES-N-10	January 2014	Soil	0-6	0.211
	OES-N-11	January 2014	Soil	0-6	1.42
			Soil	6-11	1.34
	OES-N-12	January 2014	Soil	0-7	0.461
	OES-N-13	January 2014	Soil	0-6	0.954
			Soil	6-11	0.179
	OES-N-14	January 2014	Soil	0-6	0.075
			Soil	6-13	ND (0.0582)
	OES-N-15	January 2014	Soil	0-6	0.0751
			Soil	6-11	ND (0.0559)
	OES-N-16	January 2014	Soil	0-7	0.0525 J
	OES-N-17	January 2014	Soil	0-6	2.10
			Soil	6-12	0.145
	OES-S-1	January 2014	Soil	0-6	0.147
			Soil	6-12	0.0326 J
			Soil	12-16	ND (0.0587)
	OES-S-2	January 2014	Soil	0-6	0.144 J
			Soil	6-12	0.136 J
			Soil	12-14	ND (0.0677)
	OES-S-3	January 2014	Soil	0-6	0.237
			Soil	6-12	0.101
			Soil	12-14	ND (0.0634)
	OES-S-4	January 2014	Soil	0-6	0.356
			Soil	6-11	0.44
	OES-S-5	January 2014	Soil	0-5	0.0298 J
	OES-S-6	January 2014	Soil	0-6	0.126
			Soil	6-12	ND (0.0578)
			Soil	12-14	ND (0.0615)

Table A1-8
Tributary T11A Post-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)
Western Drainageway					
Outside Extent of Stream	OES-S-7	January 2014	Soil	0-6	0.286
			Soil	6-12	0.0735
	OES-S-8	January 2014	Soil	0-6	ND (0.0608)
			Soil	6-9	ND (0.0575)
	OES-S-9	January 2014	Soil	0-5	0.189
	OES-S-10 [DUP-8]	January 2014	Soil	0-6	107
			Soil	6-12	37.1 [28.4]
			Soil	12-15	1.96
	OES-S-11	January 2014	Soil	0-6	0.0714
			Soil	6-11	ND (0.0865)
	OES-S-12	January 2014	Soil	0-7	0.0474 J
	OES-S-13	January 2014	Soil	0-6	8.24
			Soil	6-12	2.89
	OES-S-14	January 2014	Soil	0-5	0.545
Inside Extent of Stream	IES-1	January 2014	Soil	6-12	3.99
	IES-2	January 2014	Soil	6-12	264
	IES-3 [DUP-6]	January 2014	Soil	6-12	22.7 [26.8]
	IES-4	January 2014	Soil	0-6	1.15
	IES-5	January 2014	Soil	0-6	37
	IES-6	January 2014	Soil	0-6	18.3
	IES-7	January 2014	Sediment	0-6	14.2
	IES-8	January 2014	Soil	6-12	0.253
	IES-9	January 2014	Soil	0-6	11.9
	IES-10	January 2014	Soil	0-6	5.87
	IES-11	January 2014	Soil	0-6	1.06
	IES-12	January 2014	Soil	0-6	12.5
	IES-13	January 2014	Soil	0-6	52.4

Notes and Definitions:

1. Samples results presented in brackets ("[]") are for duplicate samples.

J - The compound was positively identified; however, the associated numerical value is an estimated concentration only.

ND - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

ppm - parts per million

Table A1-9
Valatie Kill Pre-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Valatie Kill Terrace	SD8-10-1	6/15/1993	Soil/Sediment		3.2	
	SD8-18-1	6/15/1993	Soil/Sediment		6.2 D [6.4]	
	SD8-27-4	6/14/1993	Soil/Sediment		0.26	
	SD8-29-2	6/17/1993	Soil/Sediment		2.9	
	SD8-29-3	6/21/1993	Soil/Sediment		3.0	
	SD8-29-4	6/21/1993	Soil/Sediment		1.9	
	SD8-33-2	6/22/1993	Soil/Sediment		0.93 J	
Valatie Kill Channel Deposit	SD8-13-1	6/15/1993	Soil/Sediment	0-3	ND (0.040)	
	SD8-13-2	6/15/1993	Soil/Sediment		3.0	
	SD8-15-1	6/15/1993	Soil/Sediment		2.1	
	SD8-20-1	6/22/1993	Soil/Sediment		0.19 J	
	SD8-21-1	6/22/1993	Soil/Sediment		2.8	
	SD8-24-1	6/22/1993	Soil/Sediment		ND (0.050)	
	SD8-25-1	6/22/1993	Soil/Sediment		0.060 J [0.050 J]	
	SD8-27-2	6/23/1993	Soil/Sediment		0.17 J	
	SD8-27-3	6/23/1993	Soil/Sediment		1.8 J	
	SD8-29-5	6/21/1993	Soil/Sediment		1.6	
	SD8-29-6	6/21/1993	Soil/Sediment		2.2	
	SD8-30-1	6/22/1993	Soil/Sediment		2.7	
	SD8-31-1	6/22/1993	Soil/Sediment		ND (0.050)	
	SD8-31-2	6/22/1993	Soil/Sediment		0.73 J	
	SD8-32-1	6/22/1993	Soil/Sediment		0.58 J [0.80]	
	SD8-33-1	6/22/1993	Soil/Sediment		1.5 J	
	SD8-35-1	6/22/1993	Soil/Sediment		3.3	
	SD8-35-2	6/22/1993	Soil/Sediment		1.1 J	
	SD8-35-3	6/22/1993	Soil/Sediment		0.23 J	
	SD8-35-4A	6/17/1993	Soil/Sediment		1.6	
	SD8-35-4B	6/17/1993	Soil/Sediment	3-6	2.4	
	SD8-35-4C	6/17/1993	Soil/Sediment	6-12	1.6	
	SD8-35-4D	6/17/1993	Soil/Sediment	12-24	ND (0.050)	
Valatie Kill Bank	SD8-16-1	6/15/1993	Soil/Sediment	0-3	1.8	
	SD8-17-1	6/15/1993	Soil/Sediment		1.0 J	
	SD8-33-3	6/22/1993	Soil/Sediment		0.10 J	
Valatie Kill Aggrading Bar	SD8-23-1	6/22/1993	Soil/Sediment		0.060 J	
	SD8-26-1	6/23/1993	Soil/Sediment		0.050 J	
Valatie Kill Secondary Channel	SD8-24-2	6/22/1993	Soil/Sediment		0.99	
	SD8-25-2	6/22/1993	Soil/Sediment		ND (0.060)	
	SD8-27-1	6/23/1993	Soil/Sediment		0.24	
	SD8-29-1	6/17/1993	Soil/Sediment		3.7	
	SD8-31-3	6/22/1993	Soil/Sediment		0.81 J	
Valatie Kill Area 19	SD8-19-1	9/27/1994	Soil/Sediment	0-3	5.1	
	SD8-19-2	9/27/1994	Soil/Sediment		3.6	
	SD8-19-3	10/17/1996	Soil/Sediment		1.4	
	SD8-19-4	10/17/1996	Soil/Sediment		0.084	

Table A1-9
Valatie Kill Pre-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Valatie Kill Area 29	SD8-29-7	6/23/1994	Soil/Sediment	0-3	2.5	
		6/23/1994	Soil/Sediment	3-6	0.23 J	
		6/23/1994	Soil/Sediment	6-12	ND (0.094)	
		6/23/1994	Soil/Sediment	12-24	ND (0.11)	
	SD8-29-8	6/23/1994	Soil/Sediment	0-3	1.1	

Notes and Definitions:

1. Samples results presented in brackets ("[]") are for duplicate samples.

J - The compound was positively identified; however, the associated numerical value is an estimated concentration only.

ND - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

ppm - parts per million

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Table A1-10
Valatie Kill 2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Valatie Kill	DLL-SED02	6/8/2009	Soil/Sediment	0-6	0.10 J	USEPA Samples
	DLL-SED02A	8/7/2009	Soil/Sediment	0-6	0.28	USEPA Samples
	DLL-SED03	6/8/2009	Soil/Sediment	0-6	0.015 J	USEPA Samples
	DLL-SED03A	8/7/2009	Soil/Sediment	0-6	0.50 J	USEPA Samples
	DLL-SED04	6/8/2009	Soil/Sediment	0-6	0.022 J	USEPA Samples
	DLL-SED04A	8/7/2009	Soil/Sediment	0-6	0.049 J	USEPA Samples
	DLL-SED05	6/8/2009	Soil/Sediment	0-6	0.18 J	USEPA Samples
	DLL-SED05A	8/7/2009	Soil/Sediment	0-6	0.94 D	USEPA Samples
	DLL-SED06	6/8/2009	Soil/Sediment	0-6	0.18 J	USEPA Samples
	DLL-SED06A	8/7/2009	Soil/Sediment	0-6	1.0 D	USEPA Samples
	DLL-SED07	6/8/2009	Soil/Sediment	0-6	0.22 J	USEPA Samples
	DLL-SED07A	8/7/2009	Soil/Sediment	0-6	1.3 D	USEPA Samples

Notes and Definitions:

J - The compound was positively identified; however, the associated numerical value is an estimated concentration only.

D - The reported value is based on a diluted sample analysis.

ppm - parts per million

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Table A1-11
Valatie Kill Post-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Valatie Kill Upstream of Tributary T11A Outlet	DLL-BGSED-01	5/19/2014	Sediment	Unknown	ND (0.043)	USEPA Samples
	DLL-BGSED-02	5/19/2014	Sediment	Unknown	ND (0.041)	USEPA Samples
Valatie Kill Krouner Road	DLL-SED-01	5/19/2014	Sediment	Unknown	0.049 J	USEPA Samples
Valatie Kill Immediately Downstream of Nassau Lake	DLL-SED-03	5/20/2014	Sediment	Unknown	0.0054 J	USEPA Samples
Valatie Kill Further Downstream of Nassau Lake	DLL-SED-04	5/20/2014	Sediment	Unknown	0.0089 J	USEPA Samples
	DLL-SED-05	5/20/2014	Sediment	Unknown	ND (0.057)	USEPA Samples
Kinderhook Lake	DLL-SED-06	5/20/2014	Sediment	Unknown	ND (0.047)	USEPA Samples
	DLL-SED-07	5/20/2014	Sediment	Unknown	ND (0.045)	USEPA Samples

Notes and Definitions:

J - The compound was positively identified; however, the associated numerical value is an estimated concentration only.

D - The reported value is based on a diluted sample analysis.

ppm - parts per million

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Table A1-12
Nassau Lake Pre-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Inlet to Lake	STR-11	5/10/1994	Sediment	Unknown	2.2 [2.2]	
Northern Location	STR-N2	11/4/1993	Sediment		2.8 [1.1 J]	
	STR-N3	5/10/1994	Sediment		1.6	
	STR-N4	12/27/1994	Sediment		2.7	
	STR-N5	12/27/1994	Sediment		2.7 [2.8]	
Southern Location	STR-S1	11/4/1993	Sediment		ND (0.040 J)	
Nassau Lake	SDN007-09AS	2/11/1993	Sediment	0-0.5	2.5	
	SDN007-09BS	2/11/1993	Sediment	0.5-1	2.1	
	SDN007-09CS	2/11/1993	Sediment	1-2	3.4	
	SDN007-09DS	2/11/1993	Sediment	2-3	3.1	
	SDN007-09ES	2/11/1993	Sediment	3-4	4.1	
	SND007-09FS	2/11/1993	Sediment	4-5	4.8 [2.3]	
	SND007-09GS	2/11/1993	Sediment	5-6	3.6	
	SDN007-09HS	2/11/1993	Sediment	6-7	2.3	
	SDN007-09IS	2/11/1993	Sediment	7-8	0.60 J	
	SDN007-09JS	2/11/1993	Sediment	8-9	0.31 J	
	SDN007-09KS	2/11/1993	Sediment	9-10	0.70	
	SDN007-09LS	2/11/1993	Sediment	10-11	0.31 J	
	SDN007-09MS	2/11/1993	Sediment	11-12	ND (0.15)	
	SDN007-16AS	2/11/1993	Sediment	0-0.5	1.6	
	SDN007-16BS	2/11/1993	Sediment	0.5-1	2.0 J	
	SDN007-16CS	2/11/1993	Sediment	1-2	1.7	
	SDN007-16DS	2/11/1993	Sediment	2-3	3.3	
	SDN007-16ES	2/11/1993	Sediment	2-3	2.3	
	SDN007-16FS	2/11/1993	Sediment	4-5	3.6	
	SDN007-16GS	2/11/1993	Sediment	5-6	3.5 [1.3]	
	SDN007-16HS	2/11/1993	Sediment	6-7	4.5	
	SDN007-16IS	2/11/1993	Sediment	7-8	1.4	
	SDN007-16JS	2/11/1993	Sediment	8-9	0.57	
	SDN007-16KS	2/11/1993	Sediment	9-10	0.28 J	
	SDN007-16LS	2/11/1993	Sediment	10-11	ND (0.14)	
	SDN007-16MS	2/11/1993	Sediment	11-12	ND (0.15)	
	SDN007-29AS	2/9/1993	Sediment	0-6	0.78	
	SDN007-29BS	2/9/1993	Sediment	6-12	0.57 J	
	SDN007-29CS	2/9/1993	Sediment	12-24	ND (0.36)	
	SDN007-29DS	2/9/1993	Sediment	24-36	ND (0.36)	
	SDN007-39AS	2/11/1993	Sediment	0-0.5	ND (0.58)	
	SDN007-39BS	2/11/1993	Sediment	0.5-1	ND (0.50)	
	SDN007-39CS	2/11/1993	Sediment	1-2	0.87 J	
	SDN007-39DS	2/11/1993	Sediment	2-3	2.3 J	
	SDN007-39ES	2/11/1993	Sediment	3-4	1.2	
	SDN007-39FS	2/11/1993	Sediment	4-5	1.5	
	SDN007-39GS	2/11/1993	Sediment	5-6	3.2	
	SDN007-39HS	2/11/1993	Sediment	6-7	3.7	
	SDN007-39IS	2/11/1993	Sediment	7-8	3.0	
	SDN007-39JS	2/11/1993	Sediment	8-9	1.3	
	SDN007-39KS	2/11/1993	Sediment	9-10	0.48	

Table A1-12
Nassau Lake Pre-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Nassau Lake	SDN007-39LS	2/11/1993	Sediment	10-11	0.21 J	
	SDN007-39MS	2/11/1993	Sediment	11-12	ND (0.15)	
	SDN007-42AS	2/10/1993	Sediment	0-6	3.9 J	
	SDN007-42BS	2/10/1993	Sediment	6-12	0.39 J	
	SDN007-42CS	2/10/1993	Sediment	12-24	ND (0.20) [ND (0.20)]	
	SDN007-42DS	2/10/1993	Sediment	24-36	ND (0.23)	
	SDN007-43AS	2/10/1993	Sediment	0-6	9.5 [7.5]	
	SDN007-43BS	2/10/1993	Sediment	6-12	1.8	
	SDN007-43CS	2/10/1993	Sediment	12-24	ND (0.064)	
	SDN007-43DS	2/10/1993	Sediment	24-36	ND (0.058)	
	SDN007-44AS	2/9/1993	Sediment	0-6	1.8	
	SDN007-44BS	2/9/1993	Sediment	6-12	0.33 J	
	SDN007-44CS	2/9/1993	Sediment	12-24	ND (0.40)	
	SDN007-44DS	2/9/1993	Sediment	24-36	ND (0.31)	
	SDN007-45AS	2/10/1993	Sediment	0-6	0.49 J [1.1]	
	SDN007-45BS	2/10/1993	Sediment	6-12	ND (0.12)	
	SDN007-45CS	2/10/1993	Sediment	12-24	ND (0.33)	
	SDN007-45DS	2/10/1993	Sediment	24-36	ND (0.16)	
	SDN007-01S	10/19/1992	Sediment	0-3	4.0	
	SDN007-02S	10/19/1992	Sediment	0-3	3.6	
	SDN007-03S	10/19/1992	Sediment	0-3	1.2	
	SDN007-04S	10/19/1992	Sediment	0-3	2.8	
	SDN007-05S	10/19/1992	Sediment	0-3	3.7	
	SDN007-06S	10/19/1992	Sediment	0-3	3.8	
	SDN007-07S	10/19/1992	Sediment	0-3	4.0	
	SDN007-08S	10/20/1992	Sediment	0-3	3.4	
	SDN007-09S	10/20/1992	Sediment	0-3	2.9	
	SDN007-10S	10/20/1992	Sediment	0-3	2.1	
	SDN007-11S	10/20/1992	Sediment	0-3	1.7	
	SDN007-12S	10/20/1992	Sediment	0-3	2.2	
	SDN007-13S	10/20/1992	Sediment	0-3	3.1	
	SDN007-14S	10/20/1992	Sediment	0-3	2.0	
	SDN007-15S	10/20/1992	Sediment	0-3	2.3	
	SDN007-16S	10/20/1992	Sediment	0-3	2.2 [3.5]	
	SDN007-17S	10/20/1992	Sediment	0-3	2.0	
	SDN007-18S	10/20/1992	Sediment	0-3	2.3	
	SDN007-19S	10/20/1992	Sediment	0-3	1.9	
	SDN007-20S	10/20/1992	Sediment	0-3	2.2	
	SDN007-21S	10/20/1992	Sediment	0-3	3.6	
	SDN007-22S	10/21/1992	Sediment	0-3	1.7 J	
	SDN007-23S	10/21/1992	Sediment	0-3	0.90 J	
	SDN007-24S	10/21/1992	Sediment	0-3	1.9 J	
	SDN007-25S	10/21/1992	Sediment	0-3	2.1 J	
	SDN007-26S	10/21/1992	Sediment	0-3	0.79 J	
	SDN007-27S	10/21/1992	Sediment	0-3	0.98 J	
	SDN007-28S	10/21/1992	Sediment	0-3	0.28 J	
	SDN007-29S	10/21/1992	Sediment	0-3	1.5 J	

Table A1-12
Nassau Lake Pre-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Nassau Lake	SDN007-30S	10/21/1992	Sediment	0-3	0.86 [0.97]	
	SDN007-31S	10/21/1992	Sediment	0-3	1.6	
	SDN007-32S	10/21/1992	Sediment	0-3	2.4	
	SDN007-33S	10/21/1992	Sediment	0-3	3.1	
	SDN007-34S	10/22/1992	Sediment	0-3	0.85 J	
	SDN007-35S	10/22/1992	Sediment	0-3	1.6 J	
	SDN007-36S	10/22/1992	Sediment	0-3	2.5	
	SDN007-37S	10/22/1992	Sediment	0-3	3.0	
	SDN007-38S	10/22/1992	Sediment	0-3	3.4 [2.8]	
	SDN007-39S	10/22/1992	Sediment	0-3	2.9	
	SDN007-40S	10/22/1992	Sediment	0-3	2.2	
	SDN007-41S	10/22/1992	Sediment	0-3	1.6	
	SDS013-1C	10/20/1992	Sediment	0-3	ND (0.080)	
	SDS013-2C	10/20/1992	Sediment	0-3	0.13 J	
	SDN-007-4C-1	10/22/1996	Sediment	0-0.5	1.7 [1.4]	
	SDN-007-4C-2		Sediment	0-0.5	1.2	
	SDN-007-4C-3		Sediment	0-0.5	1.1	
	SDN007-9C-1A	1/29/1997	Sediment	0-0.5	2.4	
	SDN007-9C-2A		Sediment	0-0.5	0.56 [1.2]	
	SDN007-9C-3A		Sediment	0-0.5	1.7	
	NAS-2	9/4/1998	Sediment	0.0-0.8	1.2	
		9/4/1998	Sediment	0.8-1.6	0.98	
		9/4/1998	Sediment	1.6-3.1	0.89	
		9/4/1998	Sediment	3.1-4.7	1.7	
		9/4/1998	Sediment	4.7-6.3	2.0	
		9/4/1998	Sediment	6.3-7.9	2.6	
		9/4/1998	Sediment	7.9-9.4	8.6 [8.3]	
		9/4/1998	Sediment	9.4-11.0	1.6	
		9/4/1998	Sediment	11.0-12.6	0.19	
		9/4/1998	Sediment	12.6-16.5	ND	
	NAS-3	9/4/1998	Sediment	0.0-0.8	0.96	
		9/4/1998	Sediment	0.8-1.6	1.5	
		9/4/1998	Sediment	1.6-3.1	0.90	
		9/4/1998	Sediment	3.1-4.7	1.3	
		9/4/1998	Sediment	4.7-6.3	2.1	
		9/4/1998	Sediment	6.3-7.9	2.6	
		9/4/1998	Sediment	7.9-9.4	5.4	
		9/4/1998	Sediment	9.4-11.0	0.75	
		9/4/1998	Sediment	11.0-12.6	0.070	
		9/4/1998	Sediment	12.6-16.5	ND	

Table A1-12
Nassau Lake Pre-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Nassau Lake	NAS-4	9/4/1998	Sediment	0.0-0.8	4.8	
		9/4/1998	Sediment	0.8-1.6	1.7	
		9/4/1998	Sediment	1.6-3.1	2.3	
		9/4/1998	Sediment	3.1-4.7	1.7 [0.74]	
		9/4/1998	Sediment	4.7-6.3	3.5	
		9/4/1998	Sediment	6.3-7.9	7.2	
		9/4/1998	Sediment	7.9-9.4	1.3	
		9/4/1998	Sediment	9.4-11.0	0.18	
		9/4/1998	Sediment	11.0-12.6	ND	
		9/4/1998	Sediment	12.6-14.2	ND	
		9/4/1998	Sediment	14.2-17.3	ND	
		9/4/1998	Sediment	17.3-21.3	ND	
	NAS-5	9/9/1998	Sediment	0.0-1.6	0.60	
		9/9/1998	Sediment	1.6-3.1	0.49	
		9/9/1998	Sediment	3.1-4.7	1.4 [0.87]	
		9/9/1998	Sediment	4.7-6.3	2.5	
		9/9/1998	Sediment	6.3-7.9	1.1	
		9/9/1998	Sediment	7.9-9.4	0.71	
		9/9/1998	Sediment	9.4-13.4	ND	
	NAS-6	9/9/1998	Sediment	0.0-1.6	1.5	
		9/9/1998	Sediment	1.6-3.1	1.5	
	NAS-6	9/9/1998	Sediment	3.1-4.7	1.7	
		9/9/1998	Sediment	4.7-6.3	1.4	
		9/9/1998	Sediment	6.3-7.9	2.8	
		9/9/1998	Sediment	7.9-9.4	2.2	
		9/9/1998	Sediment	9.4-13.4	0.18	
	NAS-7	9/9/1998	Sediment	0.0-0.8	1.8	
		9/9/1998	Sediment	0.8-1.6	1.8	
		9/9/1998	Sediment	1.6-3.1	1.4	
		9/9/1998	Sediment	3.1-4.7	3.0	
		9/9/1998	Sediment	4.7-6.3	4.0	
		9/9/1998	Sediment	6.3-7.9	0.20	
		9/9/1998	Sediment	7.9-9.4	0.17	
		9/9/1998	Sediment	9.4-11.0	ND [ND]	
		9/9/1998	Sediment	11.0-14.2	ND	
		9/9/1998	Sediment	14.2-18.1	ND	
Parcel 202.1-1-36	SS-1	9/4/1998	Soil	0-3	1.5 [1.3]	
	SS-2	9/4/1998	Soil	0-3	2.2	
	SS-3	9/4/1998	Soil	0-3	0.46	
Parcel 202.9-1-63	SS-1	9/4/1998	Soil	0-3	0.27	
	SS-2	9/4/1998	Soil	0-3	0.12	
	SS-3	9/4/1998	Soil	0-3	0.17	
	SS-4	9/4/1998	Soil	0-3	0.22	
	SS-5	9/4/1998	Soil	0-3	0.22	
	SS-6	9/4/1998	Soil	0-3	0.40	

Table A1-12
Nassau Lake Pre-2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Parcel 201.16-1-6	SS-1	9/9/1998	Soil	0-3	0.06	
	SS-2	9/9/1998	Soil	0-3	0.05	
	SS-3	9/9/1998	Soil	0-3	ND (0.021)	
Parcel 201.16-1-8	SS-1	9/9/1998	Soil	0-3	ND (0.026)	
	SS-2	9/9/1998	Soil	0-3	ND (0.023)	
	SS-3	9/9/1998	Soil	0-3	ND (0.018)	
Parcel 201.16-1-4	SS-1	9/9/1998	Soil	0-3	0.03	
	SS-2	9/9/1998	Soil	0-3	0.05	
Parcel 202.1-1-36	SS-2	4/19/2000	Soil	0-2	ND (1.0)	
		4/19/2000	Soil	3-12	ND (1.0)	
		4/19/2000	Soil	12-24	ND (1.0)	
	SS-4	4/19/2000	Soil	0-2	ND (1.0)	
		4/19/2000	Soil	2-12	ND (1.0)	
		4/19/2000	Soil	12-24	ND (1.0)	
	SS-5	4/19/2000	Soil	0-2	ND (1.0)	
		4/19/2000	Soil	2-12	ND (1.0)	
		4/19/2000	Soil	12-24	ND (1.0)	

Notes and Definitions:

1. Samples results presented in brackets ("[]") are for duplicate samples.

J - The compound was positively identified; however, the associated numerical value is an estimated concentration only.

ND - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

Table A1-13
Nassau Lake 2009 Total PCB Aroclor Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Location	Sample Identification	Date	Matrix	Sample Interval (inches)	Result (ppm)	Comment
Western Drainageway						
Nassau Lake	DLL-SED01	6/8/2009	Sediment	0-6	0.27 J	USEPA Samples
	DLL-SED01A	8/6/2009	Sediment	0-6	0.065	USEPA Samples
	DLL-SED14	8/6/2009	Sediment	0-6	ND (0.042)	USEPA Samples
	DLL-SED14A	8/6/2009	Sediment	0-6	ND (0.042)	USEPA Samples
	DLL-SED28A	8/6/2009	Sediment	0-6	0.18 J	USEPA Samples
	DLL-SED29A	8/6/2009	Sediment	0-6	0.095 J	USEPA Samples
	DLL-SED30A	8/6/2009	Sediment	0-6	ND (0.14)	USEPA Samples
	DLL-SED31A	8/6/2009	Sediment	0-6	NS	USEPA Samples
	DLL-SED32A	8/6/2009	Sediment	0-6	ND (0.20)	USEPA Samples
	DLL-SED33A	8/6/2009	Sediment	0-6	ND (0.18)	USEPA Samples
	DLL-SED34A	8/5/2009	Sediment	0-6	1.7 J	USEPA Samples
	DLL-SED35A	8/5/2009	Sediment	0-6	0.85 J	USEPA Samples
	DLL-SED36A	8/5/2009	Sediment	0-6	1.1 J	USEPA Samples
	DLL-SED37A	8/5/2009	Sediment	0-6	0.78 J	USEPA Samples
	DLL-SED38A	8/5/2009	Sediment	0-6	1.2 J	USEPA Samples
	DLL-SED39A	8/5/2009	Sediment	0-6	0.81 J	USEPA Samples
	DLL-SED40A	8/5/2009	Sediment	0-6	1.0 J	USEPA Samples
	DLL-SED41A	8/5/2009	Sediment	0-6	0.96 J	USEPA Samples
	DLL-SED42A	8/5/2009	Sediment	0-6	0.069 J	USEPA Samples

Notes and Definitions:

J - The compound was positively identified; however, the associated numerical value is an estimated concentration only.

ND - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

NS - Not sampled.

ppm - parts per million

Table A1-14
Summary of Historic PCB Data
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Sample Dates	Table Reference	Sample Area	Number of Samples	Percentage Non-Detect	Minimum Result	Maximum Result	Average	Median
Southern Drainageway								
Pre-2009	A-1	Southeast Drainage Ditch	13	23%	ND	1.4	0.61	0.32
		Smith Pond	2	100%	ND	ND	ND	ND
2009	A-2	Southeast Drainage Ditch	8	38%	ND	0.74	0.15	0.043
		Valley Stream (upstream of Smith Pond)	4	100%	ND	ND	ND	ND
		Smith Pond	2	100%	ND	ND	ND	ND
		Valley Stream (downstream of Smith Pond)	6	100%	ND	ND	ND	ND
Western Drainageway								
Pre-2009	A-3	Northwest Drainage Ditch	60	87%	ND	1.8	0.50	0.50
	A-9	Valatie Kill (upstream of Nassau Lake)	49	14%	ND	6.3	1.5	1.1
	A-12	Nassau Lake	170	16%	ND	8.5	1.7	1.6
	A-12	Properties Adjacent to Nassau Lake	26	50%	ND	2.2	0.39	0.34
2009	A-4	Northwest Drainage Ditch	4	50%	ND	3.5	0.93	0.096
	A-7	Tributary T11A	10	0%	0.19	22	3.6	0.73
	A-10	Valatie Kill (upstream of Nassau Lake)	12	0%	0.015	1.3	0.40	0.20
	A-13	Nassau Lake	18	28%	ND	1.7	0.52	0.23
Post-2009	A-5	Northwest Drainage Ditch	57	23%	ND	18	1.8	0.48
	A-8	Tributary T11A	304	8%	ND	1,300	25	2.7
	A-11	Valatie Kill (background)	2	100%	ND	ND	ND	ND
		Valatie Kill (upstream of Nassau Lake)	1	0%	0.049	0.049	0.049	0.049
		Valatie Kill (immediately downstream of Nassau Lake)	1	0%	0.0054	0.0054	0.0054	0.0054

Notes and Definitions:

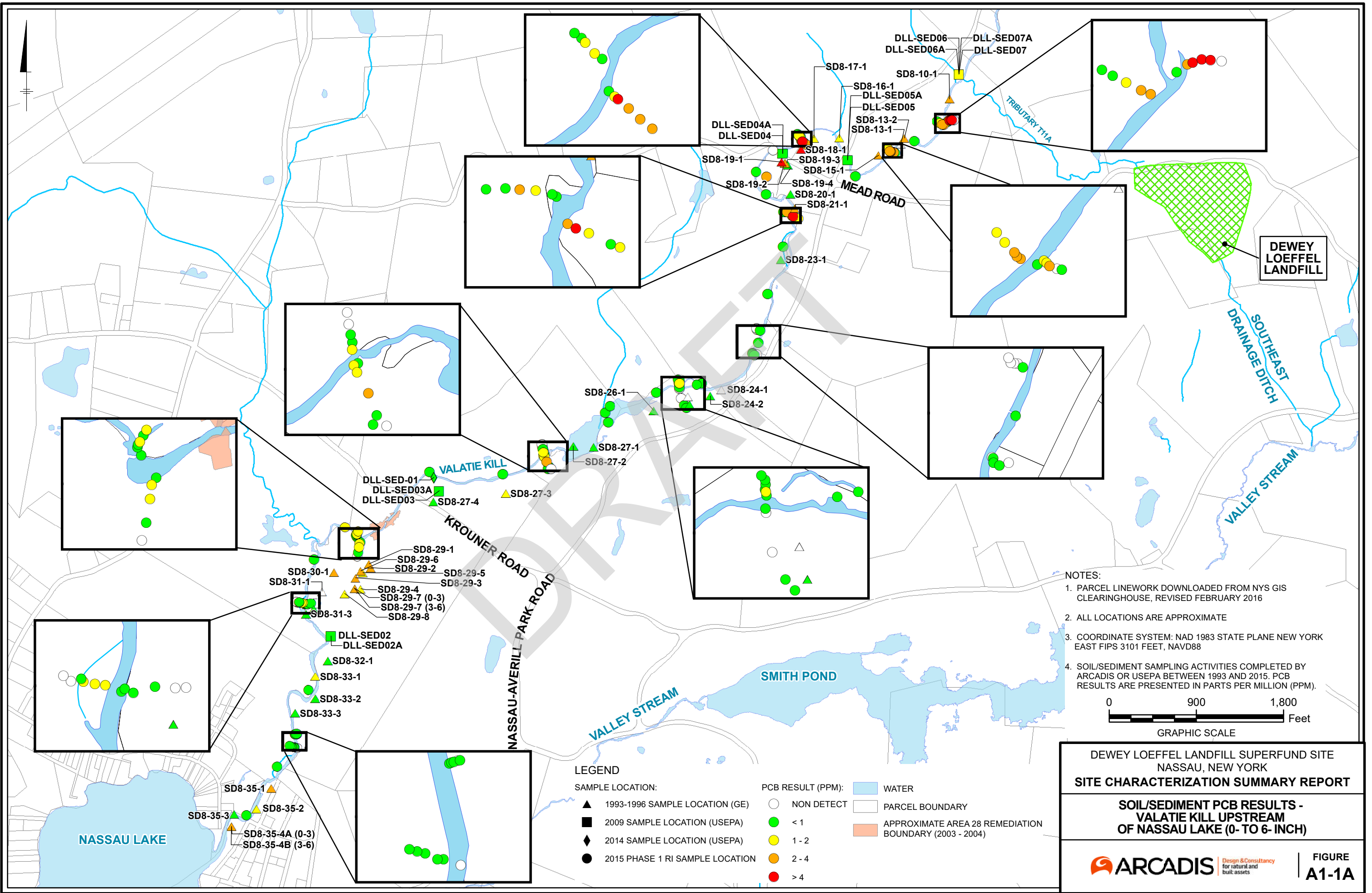
1. Samples results are presented as parts per million (ppm) and rounded to two significant figures.
- ND - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

FIGURES

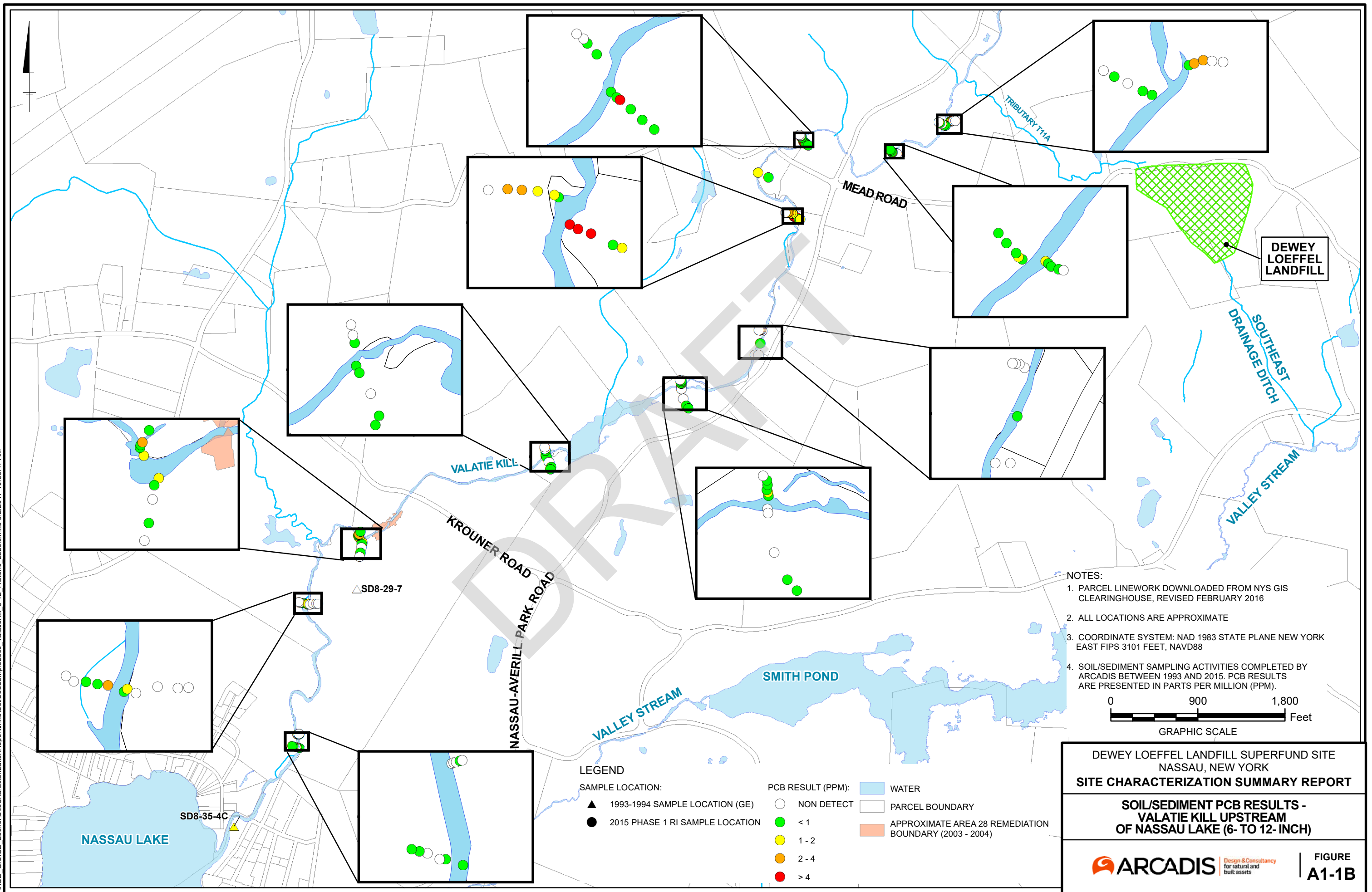
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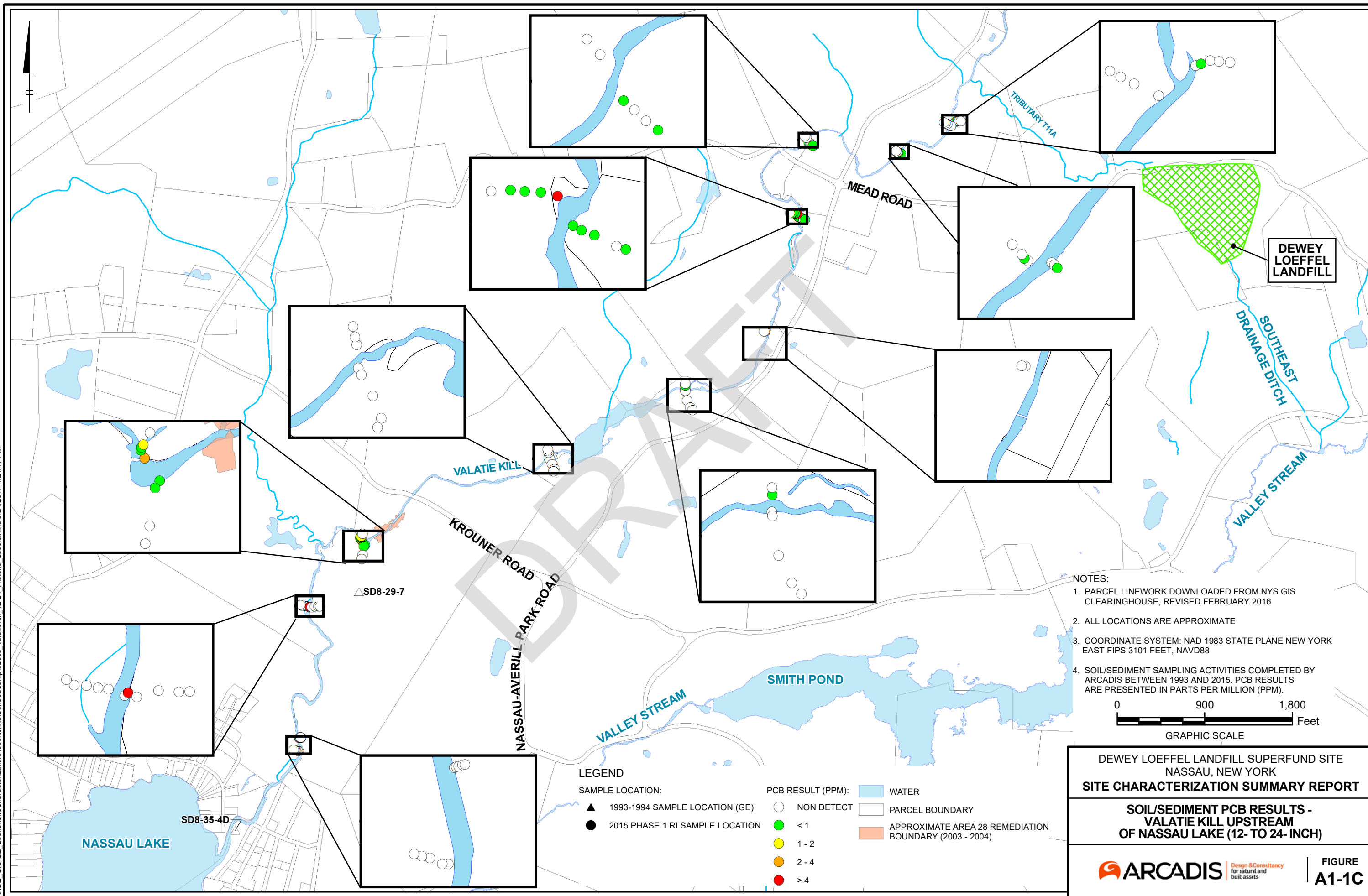
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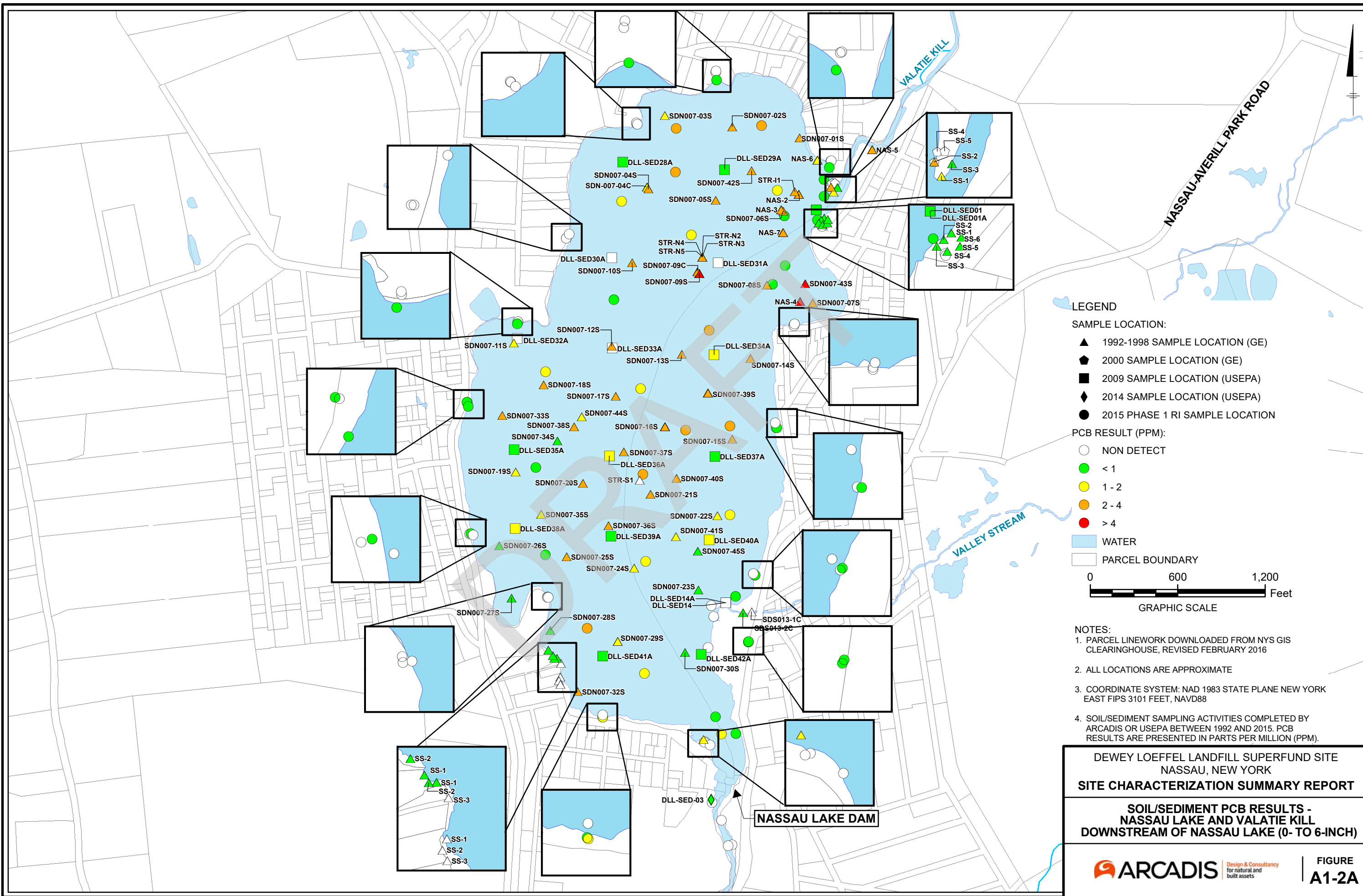


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LEGEND

SAMPLE LOCATION:

- ▲ 1992-1998 SAMPLE LOCATION (GE)
- ◆ 2000 SAMPLE LOCATION (GE)
- 2009 SAMPLE LOCATION (USEPA)
- ◆ 2014 SAMPLE LOCATION (USEPA)
- 2015 PHASE 1 RI SAMPLE LOCATION

PCB RESULT (PPM):

- NON DETECT
- < 1
- 1 - 2
- 2 - 4
- > 4

- WATER
- PARCEL BOUNDARY



NOTES:

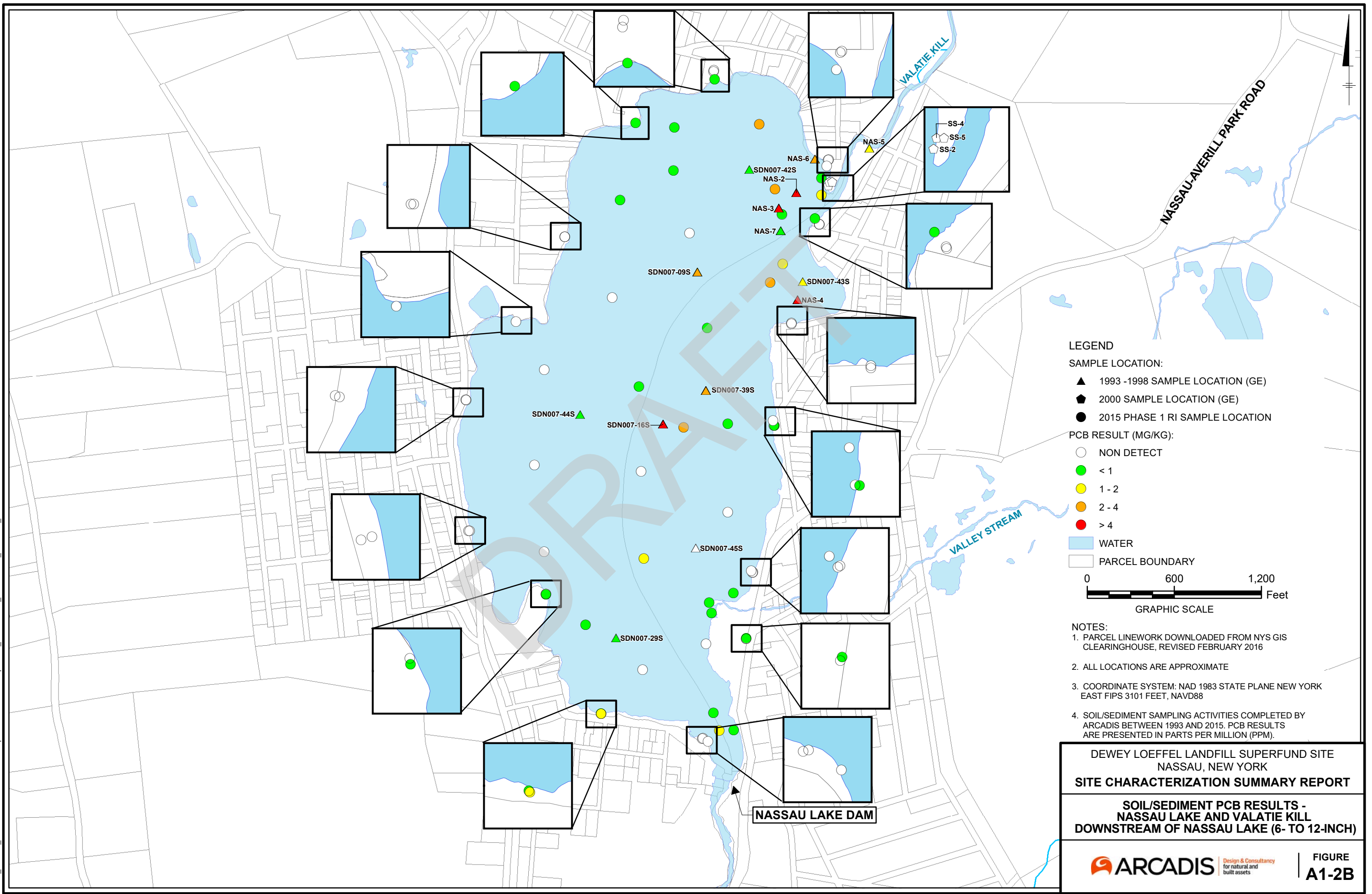
1. PARCEL LINEWORK DOWNLOADED FROM NYS GIS CLEARINGHOUSE, REVISED FEBRUARY 2016
2. ALL LOCATIONS ARE APPROXIMATE
3. COORDINATE SYSTEM: NAD 1983 STATE PLANE NEW YORK EAST FIPS 3101 FEET, NAVD88
4. SOIL/SEDIMENT SAMPLING ACTIVITIES COMPLETED BY ARCADIS OR USEPA BETWEEN 1992 AND 2015. PCB RESULTS ARE PRESENTED IN PARTS PER MILLION (PPM).

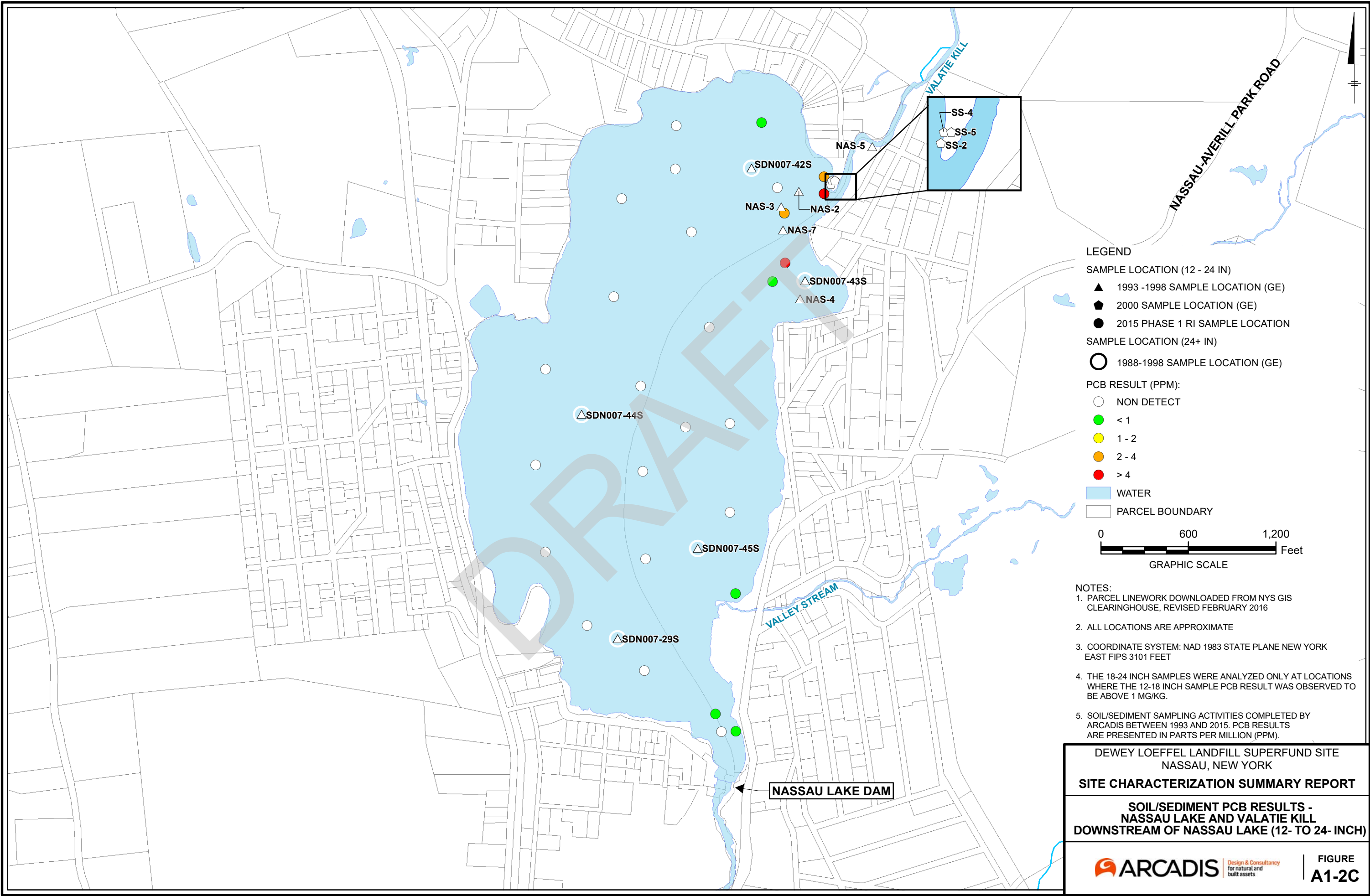
DEWEY LOEFFEL LANDFILL SUPERFUND SITE
NASSAU, NEW YORK
SITE CHARACTERIZATION SUMMARY REPORT

SOIL/SEDIMENT PCB RESULTS -
NASSAU LAKE AND VALATIE KILL
DOWNSTREAM OF NASSAU LAKE (0- TO 6-INCH)

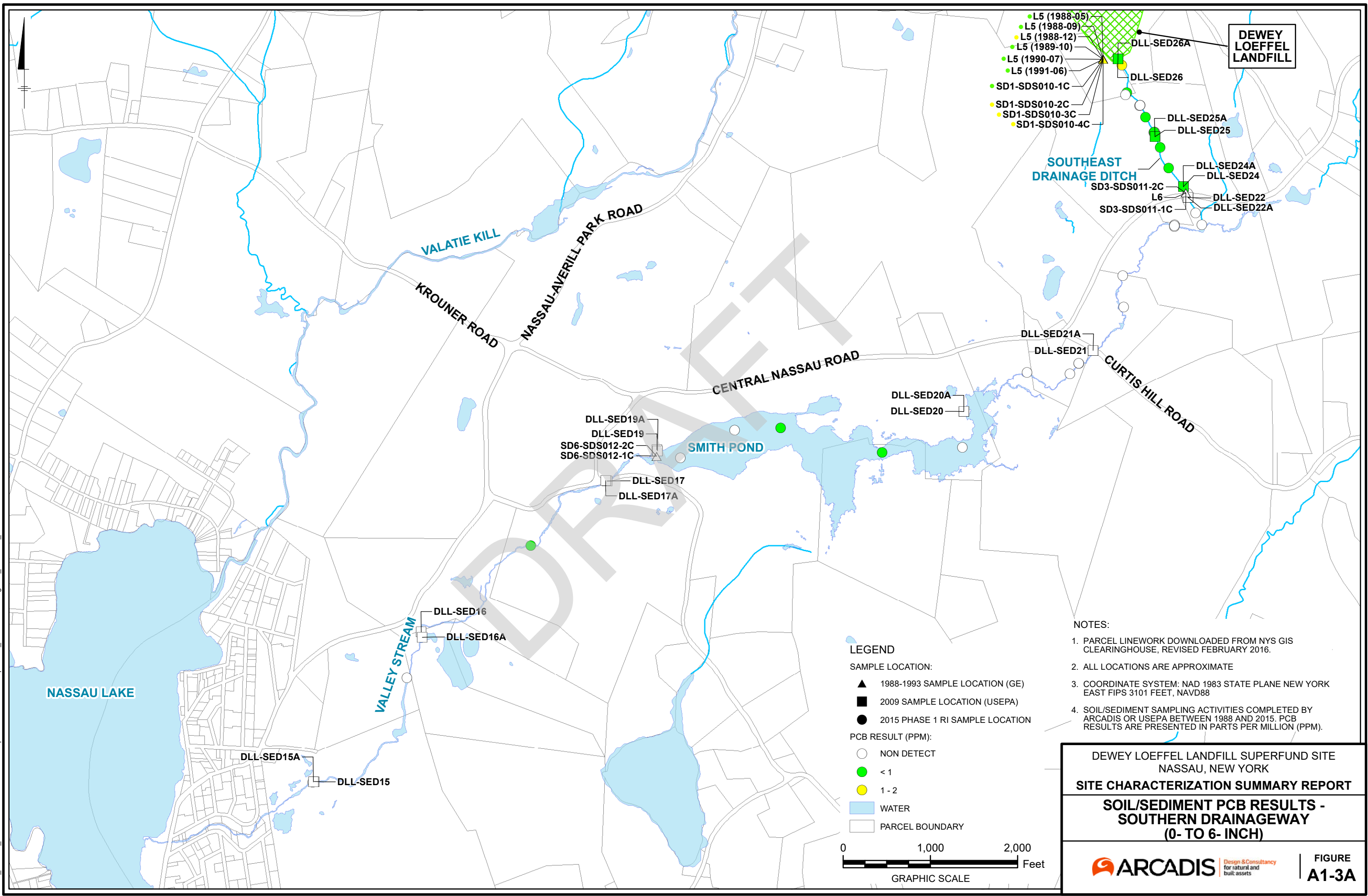


FIGURE
A1-2A





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APPENDIX A2

Phase 1 RI Sampling Program Summary for Non-PCB Constituents

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Table A2-1
Summary of 2014 Non-PCB Analyses for Tributary T11A
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Analyte	Number of Samples Analyzed	Frequency of Detection	% ND	Minimum	Maximum	Average	Median
Volatile Organic Compounds							
1,2,4-Trichlorobenzene	13	1	92%	ND	2.0	1.5	1.6
1,4-Dichlorobenzene	13	3	77%	ND	5.2	2.0	1.8
2-Butanone	13	8	38%	ND	25	8.9	7.5
Acetone	13	7	46%	ND	383	69.6	38.6
Benzene	13	1	92%	ND	1.1	1.4	1.3
Carbon disulfide	13	1	92%	ND	1.6	1.5	1.6
Chlorobenzene	13	1	92%	ND	5.3	1.7	1.3
Ethylbenzene	13	1	92%	ND	8.1	1.9	1.3
Isopropylbenzene	13	1	92%	ND	1.8	1.5	1.3
m&p Xylene	13	1	92%	ND	44	4.7	1.3
o-Xylene	13	2	85%	ND	25	3.3	1.3
Toluene	13	6	54%	ND	16	2.8	1.7
Trichloroethene	13	11	15%	ND	6.9	2.6	2.0
Semi-Volatile Organic Compounds							
Benzo(a)pyrene	13	1	92%	ND	234	141	136
Pesticides							
Endosulfan II	13	13	0%	0.0145	11	1.2	0.6
Heptachlor Epoxide	13	1	92%	ND	0.12	0.011	0.0020
Hexachlorobenzene	13	9	31%	ND	0.43	0.050	0.0078
Metals							
Aluminum	13	13	0%	9,080	16,500	13,618	14,050
Antimony	13	1	92%	ND	3.1	0.59	0.39
Arsenic	13	13	0%	2.7	21	10	8.6
Barium	13	13	0%	160	497	267	243
Beryllium	13	10	23%	ND	1.0	0.69	0.70
Calcium	13	13	0%	950	5,230	2,061	1,695
Chromium	13	13	0%	12	22	17	17
Cobalt	13	13	0%	8.3	16	12	12
Copper	13	13	0%	12	44	26	25
Iron	13	13	0%	21,000	35,900	27,208	28,900
Lead	13	13	0%	11	42	27	28
Magnesium	13	13	0%	2,640	5,360	4,240	4,210
Manganese	13	13	0%	385	6,710	2,723	2,510
Mercury	13	10	23%	ND	0.18	0.12	0.11
Nickel	13	13	0%	15	26	22	23
Potassium	13	13	0%	805	1,610	1,127	1,063
Selenium	13	6	54%	ND	4.1	1.6	1.0
Silver	13	1	92%	ND	1.2	0.60	0.56
Sodium	13	1	92%	ND	96	43	39
Vanadium	13	13	0%	12	21	16	16
Zinc	13	13	0%	70	119	96	99
1,4-Dioxane							
1,4-Dioxane	13	11	15%	ND	0.017	0.028	0.010
Dioxans/Furans							
Total TCDF	13	12	8%	ND	0.015	0.0013	0.00011
Total TCDD	13	7	46%	ND	0.000074	0.0000079	0.0000018
Total PeCDF	13	12	8%	ND	0.040	0.0037	0.00035
Total PeCDD	13	3	77%	ND	0.00017	0.000019	0.0000036
Total HxCDF	13	12	8%	ND	0.037	0.0032	0.00020
Total HxCDD	13	4	69%	ND	0.00052	0.000048	0.0000036
Total HpCDF	13	11	15%	ND	0.0052	0.00046	0.000037
Total HpCDD	13	7	46%	ND	0.00070	0.000070	0.0000084
OCDF	13	6	54%	ND	0.00050	0.000057	0.000014
OCDD	13	12	8%	ND	0.0012	0.00020	0.000095

Notes:

1. Samples were analyzed by Pace Analytical Services, Inc. in Schenectady, New York
2. All results are presented in parts per million (ppm)
3. Only analytes that were detected at least once are listed.
4. ND - Non-detect

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T01-E-SL-01 0 - 6 12/10/2015 VK15-T01-E-SL-01-0006	VK15-T01-W-SL-01 6 - 12 12/10/2015 VK15-T01-W-SL-01-0612
PCB Congeners			
Total PCBs (Congeners)	ppm	2.7	NS
VOCs			
1,1,1-Trichloroethane	ppb	ND(7)	ND(7)
1,1,2,2-Tetrachloroethane	ppb	ND(7 J)	ND(7 J)
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	ND(7)	ND(7)
1,1,2-Trichloroethane	ppb	ND(7)	ND(7)
1,1-Dichloroethane	ppb	ND(7)	ND(7)
1,1-Dichloroethene	ppb	ND(7)	ND(7)
1,2,4-Trichlorobenzene	ppb	ND(7 J)	ND(7 J)
1,2-Dibromo-3-chloropropane	ppb	ND(7)	ND(7)
1,2-Dibromoethane	ppb	ND(7)	ND(7)
1,2-Dichlorobenzene	ppb	ND(7 J)	ND(7 J)
1,2-Dichloroethane	ppb	ND(7)	ND(7)
1,2-Dichloropropane	ppb	ND(7)	ND(7)
1,3-Dichlorobenzene	ppb	ND(7 J)	ND(7 J)
1,4-Dichlorobenzene	ppb	ND(7 J)	ND(7 J)
2-Butanone	ppb	ND(7)	ND(7)
2-Hexanone	ppb	ND(7)	ND(7)
4-Methyl-2-pentanone	ppb	ND(7 J)	ND(7 J)
Acetone	ppb	ND(7)	ND(7)
Benzene	ppb	ND(7)	ND(7)
Bromodichloromethane	ppb	ND(7)	ND(7)
Bromoform	ppb	ND(7)	ND(7)
Bromomethane	ppb	ND(7)	ND(7)
Carbon disulfide	ppb	ND(7)	ND(7)
Carbon tetrachloride	ppb	ND(7)	ND(7)
Chlorobenzene	ppb	ND(7)	ND(7)
Chloroethane	ppb	ND(7)	ND(7)
Chloroform	ppb	ND(7)	ND(7)
Chloromethane	ppb	ND(7)	ND(7)
cis-1,2-Dichloroethene	ppb	ND(7)	ND(7)
cis-1,3-Dichloropropene	ppb	ND(7)	ND(7)
Cyclohexane	ppb	ND(7)	ND(7)
Dibromochloromethane	ppb	ND(7)	ND(7)
Dichlorodifluoromethane	ppb	ND(7)	ND(7)
Dichloromethane	ppb	ND(7 B)	2 J
Ethylbenzene	ppb	ND(7)	ND(7)
Isopropylbenzene	ppb	ND(7)	ND(7)
m,p-Xylene	ppb	ND(7)	ND(7)
Methyl tert-butyl ether	ppb	ND(7)	ND(7)
o-Xylene	ppb	ND(7)	ND(7)
Styrene	ppb	ND(7)	ND(7)
Tetrachloroethene	ppb	ND(7)	ND(7)
Toluene	ppb	ND(7)	ND(7)
trans-1,2-Dichloroethene	ppb	ND(7)	ND(7)
trans-1,3-Dichloropropene	ppb	ND(7)	ND(7)
Trichloroethene	ppb	ND(7)	ND(7)
Trichlorofluoromethane	ppb	ND(7)	ND(7)
Vinyl chloride	ppb	ND(7)	ND(7)
SVOCs			
1,1'-Biphenyl	ppb	ND(480)	ND(370)
1,4-Dioxane	ppb	ND(91)	ND(77)
2,4,5-Trichlorophenol	ppb	ND(1,200)	ND(940)
2,4,6-Trichlorophenol	ppb	ND(480)	ND(370 J)
2,4-Dichlorophenol	ppb	ND(480)	ND(370)
2,4-Dimethylphenol	ppb	ND(480)	ND(370)
2,4-Dinitrophenol	ppb	ND(1,200)	ND(940)
2,4-Dinitrotoluene	ppb	ND(480)	ND(370)
2,6-Dinitrotoluene	ppb	ND(480)	ND(370)
2-Chloronaphthalene	ppb	ND(480)	ND(370)
2-Chlorophenol	ppb	ND(480)	ND(370)
2-Methylnaphthalene	ppb	ND(480)	ND(370)
2-Methylphenol	ppb	ND(480)	ND(370)
2-Nitroaniline	ppb	ND(1,200)	ND(940)
2-Nitrophenol	ppb	ND(480)	ND(370)

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T01-E-SL-01 0 - 6 12/10/2015 VK15-T01-E-SL-01-0006	VK15-T01-W-SL-01 6 - 12 12/10/2015 VK15-T01-W-SL-01-0612
SVOCs (continued)			
3,3'-Dichlorobenzidine	ppb	ND(480)	ND(370)
3-Methylphenol/4-Methylphenol	ppb	ND(960)	ND(750)
3-Nitroaniline	ppb	ND(1,200)	ND(940)
4,6-Dinitro-2-methylphenol	ppb	ND(1,200)	ND(940)
4-Bromophenyl-phenylether	ppb	ND(480)	ND(370)
4-Chloro-3-methylphenol	ppb	ND(480)	ND(370)
4-Chloroaniline	ppb	ND(480)	ND(370)
4-Chlorophenyl-phenylether	ppb	ND(480)	ND(370)
4-Nitroaniline	ppb	ND(1,200)	ND(940)
4-Nitrophenol	ppb	ND(1,200)	ND(940)
Acenaphthene	ppb	ND(480)	ND(370)
Acenaphthylene	ppb	ND(480)	ND(370)
Anthracene	ppb	ND(480)	ND(370)
Benzo(a)anthracene	ppb	ND(480)	ND(370)
Benzo(a)pyrene	ppb	ND(480)	ND(370)
Benzo(b)fluoranthene	ppb	ND(480)	ND(370)
Benzo(g,h,i)perylene	ppb	ND(480)	ND(370)
Benzo(k)fluoranthene	ppb	ND(480)	ND(370)
bis(2-chloroethoxy)methane	ppb	ND(480)	ND(370)
bis(2-chloroethyl)ether	ppb	ND(480)	ND(370)
bis(2-Chloroisopropyl)ether	ppb	ND(480)	ND(370)
bis(2-Ethylhexyl)phthalate	ppb	ND(480)	ND(370)
Butylbenzylphthalate	ppb	ND(480)	ND(370)
Carbazole	ppb	ND(480)	ND(370)
Chrysene	ppb	ND(480)	ND(370)
Dibenz(a,h)anthracene	ppb	ND(480)	ND(370)
Dibenzofuran	ppb	ND(480)	ND(370)
Diethylphthalate	ppb	ND(480)	ND(370)
Dimethylphthalate	ppb	ND(480)	ND(370)
Di-n-butylphthalate	ppb	ND(480)	ND(370)
Di-n-octylphthalate	ppb	ND(480)	ND(370)
Fluoranthene	ppb	ND(480)	ND(370)
Fluorene	ppb	ND(480)	ND(370)
Hexachlorobenzene	ppb	ND(480)	ND(370)
Hexachlorobutadiene	ppb	ND(480)	ND(370)
Hexachlorocyclopentadiene	ppb	ND(480 J)	ND(370)
Hexachloroethane	ppb	ND(480)	ND(370)
Indeno(1,2,3-cd)pyrene	ppb	ND(480)	ND(370)
Isophorone	ppb	ND(480)	ND(370)
Naphthalene	ppb	ND(480)	ND(370)
Nitrobenzene	ppb	ND(480)	ND(370)
N-Nitroso-di-n-propylamine	ppb	ND(480)	ND(370)
N-Nitrosodiphenylamine	ppb	ND(480)	ND(370)
Pentachlorophenol	ppb	ND(1,200 J)	ND(940 J)
Phenanthrene	ppb	ND(480)	ND(370)
Phenol	ppb	ND(480)	ND(370)
Pyrene	ppb	ND(480)	ND(370)
Inorganics			
Aluminum	ppm	15,000	13,700
Antimony	ppm	1 J	1.1 J
Arsenic	ppm	8.4 J	8.6 J
Barium	ppm	213	144
Beryllium	ppm	0.84	0.72
Cadmium	ppm	1.5	5.7
Calcium	ppm	1,560	629
Chromium	ppm	17.5	27.6
Cobalt	ppm	11.6	10.6
Copper	ppm	22.4	19.8
Iron	ppm	30,800	34,800
Lead	ppm	21.3	15.1
Magnesium	ppm	NS	4,130
Manganese	ppm	2,540	1,860
Mercury	ppm	0.041 J	ND(0.04)
Nickel	ppm	16.6	16.3
Potassium	ppm	707 J	616 J

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T01-E-SL-01 0 - 6 12/10/2015 VK15-T01-E-SL-01-0006	VK15-T01-W-SL-01 6 - 12 12/10/2015 VK15-T01-W-SL-01-0612
Inorganics (continued)			
Selenium	ppm	9.8 J	ND(0.51)
Silver	ppm	3.8 J	0.38 J
Sodium	ppm	ND(350)	ND(260)
Thallium	ppm	8.7	6.2
Vanadium	ppm	15.8	13.7
Zinc	ppm	84.3	76.8
Pesticides			
Aldrin	ppb	ND(2.3)	ND(2)
alpha Chlordane	ppb	ND(2.3)	ND(2)
alpha-BHC	ppb	ND(2.3)	ND(2)
beta-BHC	ppb	ND(2.3)	ND(2)
delta-BHC	ppb	ND(2.3)	ND(2)
Dieldrin	ppb	17	11
Endosulfan I	ppb	ND(2.3)	ND(2)
Endosulfan II	ppb	14 J	6 J
Endosulfan sulfate	ppb	7.4 JN	2.7 JN
Endrin	ppb	5.4 JN	2.9 JN
Endrin aldehyde	ppb	10 J	3.7 JN
Endrin ketone	ppb	36 JN	17 JN
gamma Chlordane	ppb	1.7 J	0.9 J
gamma-BHC	ppb	ND(2.3)	ND(2)
Heptachlor	ppb	ND(2.3)	ND(2)
Heptachlor epoxide	ppb	ND(2.3)	ND(2)
Methoxychlor	ppb	9.1 JN	4 JN
p,p'-DDD	ppb	ND(2.3)	ND(2)
p,p'-DDE	ppb	ND(2.3)	ND(2)
p,p'-DDT	ppb	110	49
Toxaphene	ppb	ND(91)	ND(78)
Dioxins/Furans			
1,2,3,4,6,7,8-HpCDD	ppt	9.5	NS
1,2,3,4,6,7,8-HpCDF	ppt	11	NS
1,2,3,4,7,8,9-HpCDF	ppt	ND(5)	NS
1,2,3,4,7,8-HxCDD	ppt	ND(5)	NS
1,2,3,4,7,8-HxCDF	ppt	ND(5)	NS
1,2,3,6,7,8-HxCDD	ppt	ND(5)	NS
1,2,3,6,7,8-HxCDF	ppt	ND(5)	NS
1,2,3,7,8,9-HxCDD	ppt	ND(5)	NS
1,2,3,7,8,9-HxCDF	ppt	ND(5)	NS
1,2,3,7,8-PeCDD	ppt	ND(5)	NS
1,2,3,7,8-PeCDF	ppt	ND(5)	NS
2,3,4,6,7,8-HxCDF	ppt	5.5	NS
2,3,4,7,8-PeCDF	ppt	ND(5)	NS
2,3,7,8-TCDD	ppt	ND(1)	NS
2,3,7,8-TCDF	ppt	2.3	NS
OCDD	ppt	160	NS
OCDF	ppt	ND(10)	NS
TEQ	ppt	1.1	NS
Total HpCDD	ppt	16	NS
Total HpCDF	ppt	20	NS
Total HxCDD	ppt	ND(5)	NS
Total HxCDF	ppt	79	NS
Total PeCDD	ppt	ND(5)	NS
Total PeCDF	ppt	140	NS
Total TCDD	ppt	ND(1)	NS
Total TCDF	ppt	43	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	6.38	NS

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T02-E-SL-01 0 - 6 12/11/2015 VK15-T02-E-SL-01-0006	VK15-T02-W-SL-01 6 - 12 12/11/2015 VK15-T02-W-SL-01-0612
PCB Congeners			
Total PCBs (Congeners)	ppm	1.14	NS
VOCs			
1,1,1-Trichloroethane	ppb	ND(10)	ND(6)
1,1,2,2-Tetrachloroethane	ppb	ND(10 J)	ND(6 J)
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	ND(10)	ND(6)
1,1,2-Trichloroethane	ppb	ND(10)	ND(6)
1,1-Dichloroethane	ppb	ND(10)	ND(6)
1,1-Dichloroethene	ppb	ND(10)	ND(6)
1,2,4-Trichlorobenzene	ppb	ND(10 J)	ND(6 J)
1,2-Dibromo-3-chloropropane	ppb	ND(10 J)	ND(6 J)
1,2-Dibromoethane	ppb	ND(10)	ND(6)
1,2-Dichlorobenzene	ppb	ND(10 J)	ND(6 J)
1,2-Dichloroethane	ppb	ND(10)	ND(6)
1,2-Dichloropropane	ppb	ND(10)	ND(6)
1,3-Dichlorobenzene	ppb	ND(10 J)	ND(6 J)
1,4-Dichlorobenzene	ppb	ND(10 J)	ND(6 J)
2-Butanone	ppb	ND(10)	ND(6)
2-Hexanone	ppb	ND(10)	ND(6)
4-Methyl-2-pentanone	ppb	ND(10 J)	ND(6 J)
Acetone	ppb	ND(10 J)	ND(6 J)
Benzene	ppb	ND(10)	ND(6)
Bromodichloromethane	ppb	ND(10)	ND(6)
Bromoform	ppb	ND(10)	ND(6)
Bromomethane	ppb	ND(10)	ND(6)
Carbon disulfide	ppb	ND(10)	ND(6)
Carbon tetrachloride	ppb	ND(10)	ND(6)
Chlorobenzene	ppb	ND(10)	ND(6)
Chloroethane	ppb	ND(10)	ND(6)
Chloroform	ppb	ND(10)	ND(6)
Chloromethane	ppb	ND(10)	ND(6)
cis-1,2-Dichloroethene	ppb	ND(10)	ND(6)
cis-1,3-Dichloropropene	ppb	ND(10)	ND(6)
Cyclohexane	ppb	ND(10)	ND(6)
Dibromochloromethane	ppb	ND(10)	ND(6)
Dichlorodifluoromethane	ppb	ND(10)	ND(6)
Dichloromethane	ppb	ND(10 B)	ND(6 B)
Ethylbenzene	ppb	ND(10)	ND(6)
Isopropylbenzene	ppb	ND(10)	ND(6)
m,p-Xylene	ppb	ND(10)	ND(6)
Methyl tert-butyl ether	ppb	ND(10)	ND(6)
o-Xylene	ppb	ND(10)	ND(6)
Styrene	ppb	ND(10)	ND(6)
Tetrachloroethene	ppb	ND(10)	ND(6)
Toluene	ppb	ND(10)	ND(6)
trans-1,2-Dichloroethene	ppb	ND(10)	ND(6)
trans-1,3-Dichloropropene	ppb	ND(10)	ND(6)
Trichloroethene	ppb	4 J	1 J
Trichlorofluoromethane	ppb	ND(10)	ND(6)
Vinyl chloride	ppb	ND(10)	ND(6)
SVOCs			
1,1'-Biphenyl	ppb	ND(430)	ND(430)
1,4-Dioxane	ppb	ND(97)	ND(90)
2,4,5-Trichlorophenol	ppb	ND(1,100)	ND(1,100)
2,4,6-Trichlorophenol	ppb	ND(430)	ND(430)
2,4-Dichlorophenol	ppb	ND(430)	ND(430)
2,4-Dimethylphenol	ppb	ND(430)	ND(430)
2,4-Dinitrophenol	ppb	ND(1,100 J)	ND(1,100 J)
2,4-Dinitrotoluene	ppb	ND(430)	ND(430)
2,6-Dinitrotoluene	ppb	ND(430)	ND(430)
2-Chloronaphthalene	ppb	ND(430)	ND(430)
2-Chlorophenol	ppb	ND(430)	ND(430)
2-Methylnaphthalene	ppb	130 J	ND(430)
2-Methylphenol	ppb	ND(430)	ND(430)
2-Nitroaniline	ppb	ND(1,100)	ND(1,100)
2-Nitrophenol	ppb	ND(430)	ND(430)

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T02-E-SL-01 0 - 6 12/11/2015 VK15-T02-E-SL-01-0006	VK15-T02-W-SL-01 6 - 12 12/11/2015 VK15-T02-W-SL-01-0612
SVOCs (continued)			
3,3'-Dichlorobenzidine	ppb	ND(430)	ND(430)
3-Methylphenol/4-Methylphenol	ppb	ND(870)	ND(870)
3-Nitroaniline	ppb	ND(1,100)	ND(1,100)
4,6-Dinitro-2-methylphenol	ppb	ND(1,100)	ND(1,100)
4-Bromophenyl-phenylether	ppb	ND(430)	ND(430)
4-Chloro-3-methylphenol	ppb	ND(430)	ND(430)
4-Chloroaniline	ppb	ND(430)	ND(430)
4-Chlorophenyl-phenylether	ppb	ND(430)	ND(430)
4-Nitroaniline	ppb	ND(1,100)	ND(1,100)
4-Nitrophenol	ppb	ND(1,100)	ND(1,100)
Acenaphthene	ppb	ND(430)	ND(430)
Acenaphthylene	ppb	ND(430)	ND(430)
Anthracene	ppb	ND(430)	ND(430)
Benzo(a)anthracene	ppb	ND(430)	ND(430)
Benzo(a)pyrene	ppb	ND(430)	ND(430)
Benzo(b)fluoranthene	ppb	ND(430)	ND(430)
Benzo(g,h,i)perylene	ppb	ND(430)	ND(430)
Benzo(k)fluoranthene	ppb	ND(430 J)	ND(430)
bis(2-chloroethoxy)methane	ppb	ND(430)	ND(430)
bis(2-chloroethyl)ether	ppb	ND(430)	ND(430)
bis(2-Chloroisopropyl)ether	ppb	ND(430 J)	ND(430)
bis(2-Ethylhexyl)phthalate	ppb	ND(430)	ND(430)
Butylbenzylphthalate	ppb	ND(430)	ND(430)
Carbazole	ppb	ND(430)	ND(430)
Chrysene	ppb	ND(430)	ND(430)
Dibenz(a,h)anthracene	ppb	ND(430)	ND(430)
Dibenzofuran	ppb	ND(430)	ND(430)
Diethylphthalate	ppb	ND(430)	ND(430)
Dimethylphthalate	ppb	ND(430)	ND(430)
Di-n-butylphthalate	ppb	ND(430)	ND(430)
Di-n-octylphthalate	ppb	ND(430)	ND(430)
Fluoranthene	ppb	ND(430)	ND(430)
Fluorene	ppb	ND(430)	ND(430)
Hexachlorobenzene	ppb	ND(430)	ND(430)
Hexachlorobutadiene	ppb	ND(430)	ND(430)
Hexachlorocyclopentadiene	ppb	ND(430 J)	ND(430 J)
Hexachloroethane	ppb	ND(430)	ND(430)
Indeno(1,2,3-cd)pyrene	ppb	ND(430)	ND(430)
Isophorone	ppb	ND(430)	ND(430)
Naphthalene	ppb	150 J	ND(430)
Nitrobenzene	ppb	ND(430)	ND(430)
N-Nitroso-di-n-propylamine	ppb	ND(430)	ND(430)
N-Nitrosodiphenylamine	ppb	ND(430)	ND(430)
Pentachlorophenol	ppb	ND(1,100)	ND(1,100 J)
Phenanthrene	ppb	ND(430)	ND(430)
Phenol	ppb	ND(430)	ND(430)
Pyrene	ppb	ND(430)	ND(430)
Inorganics			
Aluminum	ppm	12,500	15,100
Antimony	ppm	1.1 J	1.1 J
Arsenic	ppm	4.8	5.9
Barium	ppm	130	145
Beryllium	ppm	0.6	0.71
Cadmium	ppm	1.5	1.8
Calcium	ppm	1,040	773
Chromium	ppm	17.1	20.8
Cobalt	ppm	9.1	11.1
Copper	ppm	14.1	14.3
Iron	ppm	26,000	32,100
Lead	ppm	14.8	13.9
Magnesium	ppm	3,410	3,900
Manganese	ppm	1,180	1,040
Mercury	ppm	ND(0.046)	ND(0.047)
Nickel	ppm	14	15.8
Potassium	ppm	753	738

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T02-E-SL-01 0 - 6 12/11/2015 VK15-T02-E-SL-01-0006	VK15-T02-W-SL-01 6 - 12 12/11/2015 VK15-T02-W-SL-01-0612
Inorganics (continued)			
Selenium	ppm	8.1	10.4
Silver	ppm	2.9	3.5
Sodium	ppm	36.7 J	86.7 J
Thallium	ppm	4.6	3.9
Vanadium	ppm	13	15.6
Zinc	ppm	71	69
Pesticides			
Aldrin	ppb	ND(2.4)	ND(2.2)
alpha Chlordane	ppb	ND(2.4)	ND(2.2)
alpha-BHC	ppb	0.57 J	ND(2.2)
beta-BHC	ppb	ND(2.4)	ND(2.2)
delta-BHC	ppb	ND(2.4)	ND(2.2)
Dieldrin	ppb	9.1	3.3
Endosulfan I	ppb	ND(2.4)	ND(2.2)
Endosulfan II	ppb	4.9 J	ND(2.2)
Endosulfan sulfate	ppb	ND(2.4)	ND(2.2)
Endrin	ppb	2.5 JN	ND(2.2)
Endrin aldehyde	ppb	3.2 JN	ND(2.2)
Endrin ketone	ppb	12 JN	5.7 JN
gamma Chlordane	ppb	1.4 J	ND(2.2)
gamma-BHC	ppb	ND(2.4)	ND(2.2)
Heptachlor	ppb	ND(2.4)	ND(2.2)
Heptachlor epoxide	ppb	ND(2.4)	ND(2.2)
Methoxychlor	ppb	17 JN	1.6 J
p,p'-DDD	ppb	ND(2.4)	ND(2.2)
p,p'-DDE	ppb	ND(2.4)	ND(2.2)
p,p'-DDT	ppb	36	18
Toxaphene	ppb	ND(93)	ND(88)
Dioxins/Furans			
1,2,3,4,6,7,8-HpCDD	ppt	NS	NS
1,2,3,4,6,7,8-HpCDF	ppt	NS	NS
1,2,3,4,7,8,9-HpCDF	ppt	NS	NS
1,2,3,4,7,8-HxCDD	ppt	NS	NS
1,2,3,4,7,8-HxCDF	ppt	NS	NS
1,2,3,6,7,8-HxCDD	ppt	NS	NS
1,2,3,6,7,8-HxCDF	ppt	NS	NS
1,2,3,7,8,9-HxCDD	ppt	NS	NS
1,2,3,7,8,9-HxCDF	ppt	NS	NS
1,2,3,7,8-PeCDD	ppt	NS	NS
1,2,3,7,8-PeCDF	ppt	NS	NS
2,3,4,6,7,8-HxCDF	ppt	NS	NS
2,3,4,7,8-PeCDF	ppt	NS	NS
2,3,7,8-TCDD	ppt	NS	NS
2,3,7,8-TCDF	ppt	NS	NS
OCDD	ppt	NS	NS
OCDF	ppt	NS	NS
TEQ	ppt	NS	NS
Total HpCDD	ppt	NS	NS
Total HpCDF	ppt	NS	NS
Total HxCDD	ppt	NS	NS
Total HxCDF	ppt	NS	NS
Total PeCDD	ppt	NS	NS
Total PeCDF	ppt	NS	NS
Total TCDD	ppt	NS	NS
Total TCDF	ppt	NS	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	NS	NS

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T03-E-SL-01 0 - 6 12/11/2015 VK15-T03-E-SL-01-0006	VK15-T03-W-SL-01 0 - 4 12/11/2015 VK15-T03-W-SL-01-0004
PCB Congeners			
Total PCBs (Congeners)	ppm	1.73	NS
VOCs			
1,1,1-Trichloroethane	ppb	ND(9 J)	ND(7 J) [ND(8)]
1,1,2,2-Tetrachloroethane	ppb	ND(9)	ND(7) [ND(8 J)]
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	ND(9)	ND(7) [ND(8)]
1,1,2-Trichloroethane	ppb	ND(9)	ND(7) [ND(8)]
1,1-Dichloroethane	ppb	ND(9)	ND(7) [ND(8)]
1,1-Dichloroethene	ppb	ND(9)	ND(7) [ND(8)]
1,2,4-Trichlorobenzene	ppb	ND(9)	ND(7) [ND(8 J)]
1,2-Dibromo-3-chloropropane	ppb	ND(9)	ND(7) [ND(8)]
1,2-Dibromoethane	ppb	ND(9)	ND(7) [ND(8)]
1,2-Dichlorobenzene	ppb	ND(9)	ND(7) [ND(8 J)]
1,2-Dichloroethane	ppb	ND(9)	ND(7) [ND(8)]
1,2-Dichloropropane	ppb	ND(9)	ND(7) [ND(8)]
1,3-Dichlorobenzene	ppb	ND(9 J)	ND(7 J) [ND(8 J)]
1,4-Dichlorobenzene	ppb	ND(9 J)	ND(7 J) [ND(8 J)]
2-Butanone	ppb	ND(9)	ND(7) [ND(8)]
2-Hexanone	ppb	ND(9)	ND(7 J) [ND(8)]
4-Methyl-2-pentanone	ppb	ND(9 J)	ND(7 J) [ND(8 J)]
Acetone	ppb	ND(9)	ND(7) [ND(8)]
Benzene	ppb	ND(9)	ND(7) [ND(8)]
Bromodichloromethane	ppb	ND(9)	ND(7) [ND(8)]
Bromoform	ppb	ND(9)	ND(7 J) [ND(8)]
Bromomethane	ppb	ND(9)	ND(7) [ND(8)]
Carbon disulfide	ppb	ND(9)	ND(7) [ND(8)]
Carbon tetrachloride	ppb	ND(9)	ND(7) [ND(8)]
Chlorobenzene	ppb	ND(9)	ND(7) [ND(8)]
Chloroethane	ppb	ND(9)	ND(7) [ND(8)]
Chloroform	ppb	ND(9)	ND(7) [ND(8)]
Chloromethane	ppb	ND(9)	ND(7) [ND(8)]
cis-1,2-Dichloroethene	ppb	ND(9)	ND(7) [ND(8)]
cis-1,3-Dichloropropene	ppb	ND(9)	ND(7 J) [ND(8)]
Cyclohexane	ppb	ND(9)	ND(7) [ND(8)]
Dibromochloromethane	ppb	ND(9)	ND(7) [ND(8)]
Dichlorodifluoromethane	ppb	R	R [R]
Dichloromethane	ppb	ND(9)	ND(7) [ND(8)]
Ethylbenzene	ppb	ND(9)	ND(7) [ND(8)]
Isopropylbenzene	ppb	ND(9)	ND(7) [ND(8)]
m,p-Xylene	ppb	ND(9)	ND(7) [ND(8)]
Methyl tert-butyl ether	ppb	ND(9)	ND(7) [ND(8)]
o-Xylene	ppb	ND(9)	ND(7) [ND(8)]
Styrene	ppb	ND(9)	ND(7) [ND(8)]
Tetrachloroethene	ppb	ND(9)	ND(7) [ND(8)]
Toluene	ppb	ND(9)	ND(7) [ND(8)]
trans-1,2-Dichloroethene	ppb	ND(9)	ND(7) [ND(8)]
trans-1,3-Dichloropropene	ppb	ND(9)	ND(7) [ND(8)]
Trichloroethene	ppb	ND(9)	ND(7) [ND(8)]
Trichlorofluoromethane	ppb	ND(9)	ND(7) [ND(8)]
Vinyl chloride	ppb	ND(9)	ND(7) [ND(8)]
SVOCs			
1,1'-Biphenyl	ppb	ND(420)	ND(410) [ND(470)]
1,4-Dioxane	ppb	ND(89)	ND(91) [ND(90)]
2,4,5-Trichlorophenol	ppb	ND(1,100)	ND(1,000 J) [ND(1,200 J)]
2,4,6-Trichlorophenol	ppb	ND(420)	ND(410 J) [ND(470 J)]
2,4-Dichlorophenol	ppb	ND(420)	ND(410) [ND(470)]
2,4-Dimethylphenol	ppb	ND(420)	ND(410) [ND(470)]
2,4-Dinitrophenol	ppb	ND(1,100)	ND(1,000) [ND(1,200)]
2,4-Dinitrotoluene	ppb	ND(420)	ND(410) [ND(470)]
2,6-Dinitrotoluene	ppb	ND(420)	ND(410) [ND(470)]
2-Chloronaphthalene	ppb	ND(420)	ND(410) [ND(470)]
2-Chlorophenol	ppb	ND(420)	ND(410) [ND(470)]
2-Methylnaphthalene	ppb	ND(420)	ND(410) [ND(470)]
2-Methylphenol	ppb	ND(420)	ND(410) [ND(470)]
2-Nitroaniline	ppb	ND(1,100)	ND(1,000) [ND(1,200)]
2-Nitrophenol	ppb	ND(420)	ND(410) [ND(470)]

Table A2-2
**Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York**

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T03-E-SL-01 0 - 6 12/11/2015 VK15-T03-E-SL-01-0006	VK15-T03-W-SL-01 0 - 4 12/11/2015 VK15-T03-W-SL-01-0004
SVOCs (continued)			
3,3'-Dichlorobenzidine	ppb	ND(420)	ND(410) [ND(470)]
3-Methylphenol/4-Methylphenol	ppb	ND(850)	ND(830) [ND(930)]
3-Nitroaniline	ppb	ND(1,100)	ND(1,000) [ND(1,200)]
4,6-Dinitro-2-methylphenol	ppb	ND(1,100)	ND(1,000) [ND(1,200)]
4-Bromophenyl-phenylether	ppb	ND(420)	ND(410) [ND(470)]
4-Chloro-3-methylphenol	ppb	ND(420)	ND(410) [ND(470)]
4-Chloroaniline	ppb	ND(420)	ND(410) [ND(470)]
4-Chlorophenyl-phenylether	ppb	ND(420)	ND(410) [ND(470)]
4-Nitroaniline	ppb	ND(1,100)	ND(1,000) [ND(1,200)]
4-Nitrophenol	ppb	ND(1,100)	ND(1,000) [ND(1,200)]
Acenaphthene	ppb	ND(420)	ND(410) [ND(470)]
Acenaphthylene	ppb	ND(420)	ND(410) [ND(470)]
Anthracene	ppb	ND(420)	ND(410) [ND(470)]
Benzo(a)anthracene	ppb	ND(420)	ND(410) [ND(470)]
Benzo(a)pyrene	ppb	ND(420)	ND(410) [ND(470)]
Benzo(b)fluoranthene	ppb	ND(420)	ND(410) [ND(470)]
Benzo(g,h,i)perylene	ppb	ND(420)	ND(410) [ND(470)]
Benzo(k)fluoranthene	ppb	ND(420)	ND(410) [ND(470)]
bis(2-chloroethoxy)methane	ppb	ND(420)	ND(410) [ND(470)]
bis(2-chloroethyl)ether	ppb	ND(420)	ND(410) [ND(470)]
bis(2-Chloroisopropyl)ether	ppb	ND(420)	ND(410) [ND(470)]
bis(2-Ethylhexyl)phthalate	ppb	ND(420)	ND(410) [ND(470)]
Butylbenzylphthalate	ppb	ND(420)	ND(410) [ND(470)]
Carbazole	ppb	ND(420)	ND(410) [ND(470)]
Chrysene	ppb	ND(420)	ND(410) [ND(470)]
Dibenz(a,h)anthracene	ppb	ND(420)	ND(410) [ND(470)]
Dibenzofuran	ppb	ND(420)	ND(410) [ND(470)]
Diethylphthalate	ppb	ND(420)	ND(410) [ND(470)]
Dimethylphthalate	ppb	ND(420)	ND(410) [ND(470)]
Di-n-butylphthalate	ppb	ND(420)	ND(410) [ND(470)]
Di-n-octylphthalate	ppb	ND(420)	ND(410) [ND(470)]
Fluoranthene	ppb	ND(420)	ND(410) [ND(470)]
Fluorene	ppb	ND(420)	ND(410) [ND(470)]
Hexachlorobenzene	ppb	ND(420)	ND(410) [ND(470)]
Hexachlorobutadiene	ppb	ND(420)	ND(410) [ND(470)]
Hexachlorocyclopentadiene	ppb	ND(420 J)	ND(410 J) [ND(470 J)]
Hexachloroethane	ppb	ND(420)	ND(410) [ND(470)]
Indeno(1,2,3-cd)pyrene	ppb	ND(420)	ND(410) [ND(470)]
Isophorone	ppb	ND(420)	ND(410) [ND(470)]
Naphthalene	ppb	ND(420)	ND(410) [ND(470)]
Nitrobenzene	ppb	ND(420)	ND(410) [ND(470)]
N-Nitroso-di-n-propylamine	ppb	ND(420)	ND(410) [ND(470)]
N-Nitrosodiphenylamine	ppb	ND(420)	ND(410) [ND(470)]
Pentachlorophenol	ppb	ND(1,100 J)	ND(1,000 J) [ND(1,200 J)]
Phenanthrene	ppb	ND(420)	ND(410) [ND(470)]
Phenol	ppb	ND(420)	ND(410) [ND(470)]
Pyrene	ppb	ND(420)	ND(410) [ND(470)]
Inorganics			
Aluminum	ppm	12,100 J	10,400 J [11,600 J]
Antimony	ppm	ND(3.5 J)	ND(3.4 J) [ND(3.8)]
Arsenic	ppm	5.8	4.7 [5.2]
Barium	ppm	168	134 [160]
Beryllium	ppm	0.65	0.53 [0.58]
Cadmium	ppm	1.4 J	1.2 J [1.5 J]
Calcium	ppm	1,240	1,870 J [1,990 J]
Chromium	ppm	17.4 J	16 [18.1 J]
Cobalt	ppm	9.3 J	8.3 J [9.8 J]
Copper	ppm	15.6	12.5 [13.8]
Iron	ppm	26,300	24,800 [27,000]
Lead	ppm	16.6 J	13.5 J [15.1 J]
Magnesium	ppm	2,910 J	2,960 J [3,340 J]
Manganese	ppm	2,050	1,640 [2,420]
Mercury	ppm	ND(0.05)	ND(0.042) [ND(0.052)]
Nickel	ppm	12.9	12.3 [14.1]
Potassium	ppm	475	503 [538]

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T03-E-SL-01 0 - 6 12/11/2015 VK15-T03-E-SL-01-0006	VK15-T03-W-SL-01 0 - 4 12/11/2015 VK15-T03-W-SL-01-0004
Inorganics (continued)			
Selenium	ppm	8.7	8 [8.7]
Silver	ppm	3.1 J	2.8 J [3.3 J]
Sodium	ppm	ND(295)	ND(290) [ND(321)]
Thallium	ppm	6.9 J	5.5 J [8.1 J]
Vanadium	ppm	13	11.6 [12.4]
Zinc	ppm	71.7 J	74.5 J [83.3 J]
Pesticides			
Aldrin	ppb	ND(2.2)	ND(2.4 J) [ND(2.4)]
alpha Chlordane	ppb	ND(2.2)	ND(2.4 J) [ND(2.4)]
alpha-BHC	ppb	ND(2.2)	ND(2.4 J) [ND(2.4)]
beta-BHC	ppb	ND(2.2)	ND(2.4 J) [ND(2.4)]
delta-BHC	ppb	ND(2.2)	ND(2.4 J) [ND(2.4)]
Dieldrin	ppb	11	8.7 J [8.5]
Endosulfan I	ppb	ND(2.2)	ND(2.4 J) [ND(2.4)]
Endosulfan II	ppb	7 J	5.6 J [5.1 J]
Endosulfan sulfate	ppb	3.3 JN	ND(2.4 J) [ND(2.4)]
Endrin	ppb	3.1 JN	ND(2.4 J) [ND(2.4)]
Endrin aldehyde	ppb	4.7 JN	3.8 JN [3.5 JN]
Endrin ketone	ppb	18 JN	14 JN [14 JN]
gamma Chlordane	ppb	2 J	1 J [0.81 J]
gamma-BHC	ppb	ND(2.2)	ND(2.4 J) [ND(2.4)]
Heptachlor	ppb	ND(2.2)	ND(2.4 J) [ND(2.4)]
Heptachlor epoxide	ppb	ND(2.2)	ND(2.4 J) [ND(2.4)]
Methoxychlor	ppb	ND(4.3)	ND(4.7 J) [ND(4.6)]
p,p'-DDD	ppb	ND(2.2)	ND(2.4 J) [ND(2.4)]
p,p'-DDE	ppb	ND(2.2)	ND(2.4 J) [ND(2.4)]
p,p'-DDT	ppb	57 J	44 J [41 J]
Toxaphene	ppb	ND(88)	ND(96) [ND(93)]
Dioxins/Furans			
1,2,3,4,6,7,8-HpCDD	ppt	7.8	NS
1,2,3,4,6,7,8-HpCDF	ppt	7.5	NS
1,2,3,4,7,8,9-HpCDF	ppt	ND(5.2)	NS
1,2,3,4,7,8-HxCDD	ppt	ND(5.2)	NS
1,2,3,4,7,8-HxCDF	ppt	ND(5.2)	NS
1,2,3,6,7,8-HxCDD	ppt	ND(5.2)	NS
1,2,3,6,7,8-HxCDF	ppt	ND(5.2)	NS
1,2,3,7,8,9-HxCDD	ppt	ND(5.2)	NS
1,2,3,7,8,9-HxCDF	ppt	ND(5.2)	NS
1,2,3,7,8-PeCDD	ppt	ND(5.2)	NS
1,2,3,7,8-PeCDF	ppt	ND(5.2)	NS
2,3,4,6,7,8-HxCDF	ppt	ND(5.2)	NS
2,3,4,7,8-PeCDF	ppt	ND(5.2)	NS
2,3,7,8-TCDD	ppt	ND(1)	NS
2,3,7,8-TCDF	ppt	ND(1)	NS
OCDD	ppt	110	NS
OCDF	ppt	ND(10)	NS
TEQ	ppt	0.26	NS
Total HpCDD	ppt	13	NS
Total HpCDF	ppt	15	NS
Total HxCDD	ppt	ND(5.2)	NS
Total HxCDF	ppt	42	NS
Total PeCDD	ppt	ND(5.2)	NS
Total PeCDF	ppt	70	NS
Total TCDD	ppt	ND(1)	NS
Total TCDF	ppt	18	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	6.04	NS

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T04-E-SL-01 0 - 6 11/17/2015 VK15-T04-E-SL-01-0006	VK15-T04-W-SL-01 6 - 12 11/17/2015 VK15-T04-W-SL-01-0612
PCB Congeners			
Total PCBs (Congeners)	ppm	4.9863	NS
VOCs			
1,1,1-Trichloroethane	ppb	ND(9)	ND(7)
1,1,2,2-Tetrachloroethane	ppb	ND(9)	ND(7)
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	ND(9)	ND(7)
1,1,2-Trichloroethane	ppb	ND(9)	ND(7)
1,1-Dichloroethane	ppb	ND(9)	ND(7)
1,1-Dichloroethene	ppb	ND(9)	ND(7)
1,2,4-Trichlorobenzene	ppb	ND(9)	ND(7)
1,2-Dibromo-3-chloropropane	ppb	ND(9)	ND(7)
1,2-Dibromoethane	ppb	ND(9)	ND(7)
1,2-Dichlorobenzene	ppb	ND(9)	ND(7)
1,2-Dichloroethane	ppb	ND(9)	ND(7)
1,2-Dichloropropane	ppb	ND(9)	ND(7)
1,3-Dichlorobenzene	ppb	ND(9)	ND(7)
1,4-Dichlorobenzene	ppb	ND(9)	ND(7)
2-Butanone	ppb	ND(9)	ND(7)
2-Hexanone	ppb	ND(9 J)	ND(7)
4-Methyl-2-pentanone	ppb	ND(9 J)	ND(7 J)
Acetone	ppb	26 J	ND(7)
Benzene	ppb	ND(9)	ND(7)
Bromodichloromethane	ppb	ND(9)	ND(7)
Bromoform	ppb	ND(9)	ND(7)
Bromomethane	ppb	ND(9)	ND(7)
Carbon disulfide	ppb	ND(9)	ND(7)
Carbon tetrachloride	ppb	ND(9)	ND(7)
Chlorobenzene	ppb	ND(9)	ND(7)
Chloroethane	ppb	ND(9)	ND(7)
Chloroform	ppb	ND(9 J)	ND(7 J)
Chloromethane	ppb	ND(9)	ND(7)
cis-1,2-Dichloroethene	ppb	ND(9)	ND(7)
cis-1,3-Dichloropropene	ppb	ND(9)	ND(7)
Cyclohexane	ppb	ND(9)	ND(7)
Dibromochloromethane	ppb	ND(9)	ND(7)
Dichlorodifluoromethane	ppb	ND(9)	ND(7)
Dichloromethane	ppb	ND(9 J)	ND(7)
Ethylbenzene	ppb	ND(9)	ND(7)
Isopropylbenzene	ppb	ND(9)	ND(7)
m,p-Xylene	ppb	ND(9)	ND(7)
Methyl tert-butyl ether	ppb	ND(9)	ND(7)
o-Xylene	ppb	ND(9)	ND(7)
Styrene	ppb	ND(9)	ND(7)
Tetrachloroethene	ppb	ND(9)	ND(7)
Toluene	ppb	ND(9)	ND(7)
trans-1,2-Dichloroethene	ppb	ND(9)	ND(7)
trans-1,3-Dichloropropene	ppb	ND(9)	ND(7)
Trichloroethene	ppb	2 J	2 J
Trichlorofluoromethane	ppb	ND(9)	ND(7)
Vinyl chloride	ppb	ND(9)	ND(7)
SVOCs			
1,1'-Biphenyl	ppb	ND(420)	ND(480)
1,4-Dioxane	ppb	ND(83)	ND(98)
2,4,5-Trichlorophenol	ppb	ND(1,000)	ND(1,200)
2,4,6-Trichlorophenol	ppb	ND(420)	ND(480)
2,4-Dichlorophenol	ppb	ND(420)	ND(480)
2,4-Dimethylphenol	ppb	ND(420)	ND(480)
2,4-Dinitrophenol	ppb	ND(1,000 J)	ND(1,200 J)
2,4-Dinitrotoluene	ppb	ND(420)	ND(480)
2,6-Dinitrotoluene	ppb	ND(420)	ND(480)
2-Chloronaphthalene	ppb	ND(420)	ND(480)
2-Chlorophenol	ppb	ND(420)	ND(480)
2-Methylnaphthalene	ppb	ND(420)	ND(480)
2-Methylphenol	ppb	ND(420)	ND(480)
2-Nitroaniline	ppb	ND(1,000)	ND(1,200)
2-Nitrophenol	ppb	ND(420)	ND(480)

Table A2-2
**Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York**

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T04-E-SL-01 0 - 6 11/17/2015 VK15-T04-E-SL-01-0006	VK15-T04-W-SL-01 6 - 12 11/17/2015 VK15-T04-W-SL-01-0612
SVOCs (continued)			
3,3'-Dichlorobenzidine	ppb	ND(420)	ND(480)
3-Methylphenol/4-Methylphenol	ppb	ND(830)	ND(950)
3-Nitroaniline	ppb	ND(1,000)	ND(1,200)
4,6-Dinitro-2-methylphenol	ppb	ND(1,000)	ND(1,200)
4-Bromophenyl-phenylether	ppb	ND(420)	ND(480)
4-Chloro-3-methylphenol	ppb	ND(420)	ND(480)
4-Chloroaniline	ppb	ND(420)	ND(480)
4-Chlorophenyl-phenylether	ppb	ND(420)	ND(480)
4-Nitroaniline	ppb	ND(1,000)	ND(1,200)
4-Nitrophenol	ppb	ND(1,000)	ND(1,200)
Acenaphthene	ppb	ND(420)	ND(480)
Acenaphthylene	ppb	ND(420)	ND(480)
Anthracene	ppb	ND(420)	ND(480)
Benzo(a)anthracene	ppb	ND(420)	ND(480)
Benzo(a)pyrene	ppb	ND(420)	ND(480)
Benzo(b)fluoranthene	ppb	ND(420)	ND(480)
Benzo(g,h,i)perylene	ppb	ND(420)	ND(480)
Benzo(k)fluoranthene	ppb	ND(420 J)	ND(480 J)
bis(2-chloroethoxy)methane	ppb	ND(420 J)	ND(480 J)
bis(2-chloroethyl)ether	ppb	ND(420)	ND(480)
bis(2-Chloroisopropyl)ether	ppb	ND(420 J)	ND(480 J)
bis(2-Ethylhexyl)phthalate	ppb	ND(420)	ND(480)
Butylbenzylphthalate	ppb	ND(420)	ND(480)
Carbazole	ppb	ND(420)	ND(480)
Chrysene	ppb	ND(420)	ND(480)
Dibenz(a,h)anthracene	ppb	ND(420)	ND(480)
Dibenzofuran	ppb	ND(420)	ND(480)
Diethylphthalate	ppb	ND(420)	ND(480)
Dimethylphthalate	ppb	ND(420)	ND(480)
Di-n-butylphthalate	ppb	ND(420)	ND(480)
Di-n-octylphthalate	ppb	ND(420)	ND(480)
Fluoranthene	ppb	ND(420)	ND(480)
Fluorene	ppb	ND(420)	ND(480)
Hexachlorobenzene	ppb	ND(420)	ND(480)
Hexachlorobutadiene	ppb	ND(420)	ND(480)
Hexachlorocyclopentadiene	ppb	ND(420 J)	ND(480 J)
Hexachloroethane	ppb	ND(420)	ND(480)
Indeno(1,2,3-cd)pyrene	ppb	ND(420)	ND(480)
Isophorone	ppb	ND(420)	ND(480)
Naphthalene	ppb	ND(420)	ND(480)
Nitrobenzene	ppb	ND(420)	ND(480)
N-Nitroso-di-n-propylamine	ppb	ND(420)	ND(480)
N-Nitrosodiphenylamine	ppb	ND(420)	ND(480)
Pentachlorophenol	ppb	ND(1,000)	ND(1,200)
Phenanthrene	ppb	ND(420)	ND(480)
Phenol	ppb	ND(420)	ND(480)
Pyrene	ppb	ND(420)	ND(480)
Inorganics			
Aluminum	ppm	13,400	12,200
Antimony	ppm	0.97 J	2.1 J
Arsenic	ppm	5.4	5.5
Barium	ppm	144	163
Beryllium	ppm	0.66	0.65
Cadmium	ppm	ND(0.16)	ND(0.17)
Calcium	ppm	1,470	2,230
Chromium	ppm	16.9	15.4
Cobalt	ppm	10.7	10.6
Copper	ppm	28.8	28.4
Iron	ppm	32,500 J	29,500
Lead	ppm	18.3	16.4
Magnesium	ppm	3,960	3,590
Manganese	ppm	1,770 J	2,050
Mercury	ppm	0.044	0.035 J
Nickel	ppm	17	16.3
Potassium	ppm	715	733

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T04-E-SL-01 0 - 6 11/17/2015 VK15-T04-E-SL-01-0006	VK15-T04-W-SL-01 6 - 12 11/17/2015 VK15-T04-W-SL-01-0612
Inorganics (continued)			
Selenium	ppm	3.8	3.3
Silver	ppm	3.2 J	3
Sodium	ppm	ND(320)	ND(330)
Thallium	ppm	8.5	10
Vanadium	ppm	12.9	12.7
Zinc	ppm	81	80.8
Pesticides			
Aldrin	ppb	ND(2.1)	ND(2.4)
alpha Chlordane	ppb	ND(2.1)	ND(2.4)
alpha-BHC	ppb	ND(2.1)	ND(2.4)
beta-BHC	ppb	ND(2.1)	ND(2.4)
delta-BHC	ppb	ND(2.1)	ND(2.4)
Dieldrin	ppb	49	10
Endosulfan I	ppb	ND(2.1)	ND(2.4)
Endosulfan II	ppb	35 J	6.1 J
Endosulfan sulfate	ppb	18 JN	3.4 JN
Endrin	ppb	10 JN	3.2 JN
Endrin aldehyde	ppb	22 JN	4.5 JN
Endrin ketone	ppb	85 JN	14 JN
gamma Chlordane	ppb	3	1.6 J
gamma-BHC	ppb	ND(2.1)	ND(2.4)
Heptachlor	ppb	ND(2.1)	ND(2.4)
Heptachlor epoxide	ppb	2.1	ND(2.4)
Methoxychlor	ppb	20 JN	ND(2.4)
p,p'-DDD	ppb	ND(2.1)	ND(2.4)
p,p'-DDE	ppb	ND(2.1)	ND(2.4)
p,p'-DDT	ppb	270	48
Toxaphene	ppb	ND(84)	ND(94)
Dioxins/Furans			
1,2,3,4,6,7,8-HpCDD	ppt	NS	NS
1,2,3,4,6,7,8-HpCDF	ppt	NS	NS
1,2,3,4,7,8,9-HpCDF	ppt	NS	NS
1,2,3,4,7,8-HxCDD	ppt	NS	NS
1,2,3,4,7,8-HxCDF	ppt	NS	NS
1,2,3,6,7,8-HxCDD	ppt	NS	NS
1,2,3,6,7,8-HxCDF	ppt	NS	NS
1,2,3,7,8,9-HxCDD	ppt	NS	NS
1,2,3,7,8,9-HxCDF	ppt	NS	NS
1,2,3,7,8-PeCDD	ppt	NS	NS
1,2,3,7,8-PeCDF	ppt	NS	NS
2,3,4,6,7,8-HxCDF	ppt	NS	NS
2,3,4,7,8-PeCDF	ppt	NS	NS
2,3,7,8-TCDD	ppt	NS	NS
2,3,7,8-TCDF	ppt	NS	NS
OCDD	ppt	NS	NS
OCDF	ppt	NS	NS
TEQ	ppt	NS	NS
Total HpCDD	ppt	NS	NS
Total HpCDF	ppt	NS	NS
Total HxCDD	ppt	NS	NS
Total HxCDF	ppt	NS	NS
Total PeCDD	ppt	NS	NS
Total PeCDF	ppt	NS	NS
Total TCDD	ppt	NS	NS
Total TCDF	ppt	NS	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	NS	NS

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T05-E-SL-01 0 - 6 11/12/2015 VK15-T05-E-SL-01-0006	VK15-T05-W-SL-01 6 - 12 11/12/2015 VK15-T05-W-SL-01-0612
PCB Congeners			
Total PCBs (Congeners)	ppm	0.0536 J	NS
VOCs			
1,1,1-Trichloroethane	ppb	ND(5)	ND(5)
1,1,2,2-Tetrachloroethane	ppb	ND(5)	ND(5)
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	ND(5)	ND(5)
1,1,2-Trichloroethane	ppb	ND(5)	ND(5)
1,1-Dichloroethane	ppb	ND(5)	ND(5)
1,1-Dichloroethene	ppb	ND(5)	ND(5)
1,2,4-Trichlorobenzene	ppb	ND(5)	ND(5)
1,2-Dibromo-3-chloropropane	ppb	ND(5)	ND(5)
1,2-Dibromoethane	ppb	ND(5)	ND(5)
1,2-Dichlorobenzene	ppb	ND(5)	ND(5)
1,2-Dichloroethane	ppb	ND(5)	ND(5)
1,2-Dichloropropane	ppb	ND(5)	ND(5)
1,3-Dichlorobenzene	ppb	ND(5)	ND(5)
1,4-Dichlorobenzene	ppb	ND(5)	ND(5)
2-Butanone	ppb	ND(5)	ND(5)
2-Hexanone	ppb	ND(5)	ND(5)
4-Methyl-2-pentanone	ppb	ND(5 J)	ND(5 J)
Acetone	ppb	ND(5)	ND(5)
Benzene	ppb	ND(5)	ND(5)
Bromodichloromethane	ppb	ND(5)	ND(5)
Bromoform	ppb	ND(5)	ND(5)
Bromomethane	ppb	ND(5)	ND(5)
Carbon disulfide	ppb	ND(5)	ND(5)
Carbon tetrachloride	ppb	ND(5)	ND(5)
Chlorobenzene	ppb	ND(5)	ND(5)
Chloroethane	ppb	ND(5)	ND(5)
Chloroform	ppb	ND(5 J)	ND(5 J)
Chloromethane	ppb	ND(5)	ND(5)
cis-1,2-Dichloroethene	ppb	ND(5)	ND(5)
cis-1,3-Dichloropropene	ppb	ND(5)	ND(5)
Cyclohexane	ppb	ND(5)	ND(5)
Dibromochloromethane	ppb	ND(5)	ND(5)
Dichlorodifluoromethane	ppb	ND(5)	ND(5)
Dichloromethane	ppb	ND(5)	ND(5)
Ethylbenzene	ppb	ND(5)	ND(5)
Isopropylbenzene	ppb	ND(5)	ND(5)
m,p-Xylene	ppb	ND(5)	ND(5)
Methyl tert-butyl ether	ppb	ND(5)	ND(5)
o-Xylene	ppb	ND(5)	ND(5)
Styrene	ppb	ND(5)	ND(5)
Tetrachloroethene	ppb	ND(5)	ND(5)
Toluene	ppb	ND(5)	ND(5)
trans-1,2-Dichloroethene	ppb	ND(5)	ND(5)
trans-1,3-Dichloropropene	ppb	ND(5)	ND(5)
Trichloroethene	ppb	ND(5)	ND(5)
Trichlorofluoromethane	ppb	ND(5)	ND(5)
Vinyl chloride	ppb	ND(5)	ND(5)
SVOCs			
1,1'-Biphenyl	ppb	ND(400)	ND(420)
1,4-Dioxane	ppb	ND(80)	ND(92)
2,4,5-Trichlorophenol	ppb	ND(1,000)	ND(1,100)
2,4,6-Trichlorophenol	ppb	ND(400)	ND(420)
2,4-Dichlorophenol	ppb	ND(400)	ND(420)
2,4-Dimethylphenol	ppb	ND(400)	ND(420)
2,4-Dinitrophenol	ppb	ND(1,000)	ND(1,100)
2,4-Dinitrotoluene	ppb	ND(400)	ND(420)
2,6-Dinitrotoluene	ppb	ND(400)	ND(420)
2-Chloronaphthalene	ppb	ND(400)	ND(420)
2-Chlorophenol	ppb	ND(400)	ND(420)
2-Methylnaphthalene	ppb	ND(400)	ND(420)
2-Methylphenol	ppb	ND(400)	ND(420)
2-Nitroaniline	ppb	ND(1,000)	ND(1,100)
2-Nitrophenol	ppb	ND(400)	ND(420)

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T05-E-SL-01 0 - 6 11/12/2015 VK15-T05-E-SL-01-0006	VK15-T05-W-SL-01 6 - 12 11/12/2015 VK15-T05-W-SL-01-0612
SVOCs (continued)			
3,3'-Dichlorobenzidine	ppb	ND(400)	ND(420)
3-Methylphenol/4-Methylphenol	ppb	ND(790)	ND(840)
3-Nitroaniline	ppb	ND(1,000)	ND(1,100)
4,6-Dinitro-2-methylphenol	ppb	ND(1,000)	ND(1,100)
4-Bromophenyl-phenylether	ppb	ND(400)	ND(420)
4-Chloro-3-methylphenol	ppb	ND(400)	ND(420)
4-Chloroaniline	ppb	ND(400)	ND(420)
4-Chlorophenyl-phenylether	ppb	ND(400)	ND(420)
4-Nitroaniline	ppb	ND(1,000)	ND(1,100)
4-Nitrophenol	ppb	ND(1,000 J)	ND(1,100 J)
Acenaphthene	ppb	ND(400)	ND(420)
Acenaphthylene	ppb	ND(400)	ND(420)
Anthracene	ppb	ND(400)	ND(420)
Benzo(a)anthracene	ppb	ND(400)	ND(420)
Benzo(a)pyrene	ppb	ND(400)	ND(420)
Benzo(b)fluoranthene	ppb	ND(400)	ND(420)
Benzo(g,h,i)perylene	ppb	ND(400)	ND(420)
Benzo(k)fluoranthene	ppb	ND(400)	ND(420)
bis(2-chloroethoxy)methane	ppb	ND(400)	ND(420)
bis(2-chloroethyl)ether	ppb	ND(400)	ND(420)
bis(2-Chloroisopropyl)ether	ppb	ND(400)	ND(420)
bis(2-Ethylhexyl)phthalate	ppb	ND(400)	ND(420)
Butylbenzylphthalate	ppb	ND(400)	ND(420)
Carbazole	ppb	ND(400)	ND(420)
Chrysene	ppb	ND(400)	ND(420)
Dibenz(a,h)anthracene	ppb	ND(400)	ND(420)
Dibenzofuran	ppb	ND(400)	ND(420)
Diethylphthalate	ppb	ND(400)	ND(420)
Dimethylphthalate	ppb	ND(400)	ND(420)
Di-n-butylphthalate	ppb	ND(400)	ND(420)
Di-n-octylphthalate	ppb	ND(400)	ND(420)
Fluoranthene	ppb	ND(400)	ND(420)
Fluorene	ppb	ND(400)	ND(420)
Hexachlorobenzene	ppb	ND(400)	ND(420)
Hexachlorobutadiene	ppb	ND(400)	ND(420)
Hexachlorocyclopentadiene	ppb	ND(400)	ND(420)
Hexachloroethane	ppb	ND(400)	ND(420)
Indeno(1,2,3-cd)pyrene	ppb	ND(400)	ND(420)
Isophorone	ppb	ND(400)	ND(420)
Naphthalene	ppb	ND(400)	ND(420)
Nitrobenzene	ppb	ND(400)	ND(420)
N-Nitroso-di-n-propylamine	ppb	ND(400)	ND(420)
N-Nitrosodiphenylamine	ppb	ND(400)	ND(420)
Pentachlorophenol	ppb	ND(1,000)	ND(1,100)
Phenanthrene	ppb	ND(400)	ND(420)
Phenol	ppb	ND(400)	ND(420)
Pyrene	ppb	ND(400)	ND(420)
Inorganics			
Aluminum	ppm	2,640	17,800
Antimony	ppm	ND(3.6)	1.3 J
Arsenic	ppm	0.99	4.9
Barium	ppm	49.6	200
Beryllium	ppm	0.14 J	0.77
Cadmium	ppm	ND(0.15)	4.3
Calcium	ppm	337	684
Chromium	ppm	6.5	48.9
Cobalt	ppm	2.1 J	13.4
Copper	ppm	3.3	16
Iron	ppm	5,550	36,800
Lead	ppm	2.5	15.4
Magnesium	ppm	745	4,590
Manganese	ppm	934	823
Mercury	ppm	ND(0.041)	0.042 J
Nickel	ppm	3.2	19.1
Potassium	ppm	269 J	764

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T05-E-SL-01 0 - 6 11/12/2015 VK15-T05-E-SL-01-0006	VK15-T05-W-SL-01 6 - 12 11/12/2015 VK15-T05-W-SL-01-0612
Inorganics (continued)			
Selenium	ppm	0.51 J	9.3
Silver	ppm	1	ND(0.58)
Sodium	ppm	65.8 J	ND(290)
Thallium	ppm	2.4	1.7
Vanadium	ppm	1.6 J	14.6
Zinc	ppm	16.2	93.3
Pesticides			
Aldrin	ppb	ND(2.1)	ND(2.2)
alpha Chlordane	ppb	ND(2.1)	ND(2.2)
alpha-BHC	ppb	ND(2.1)	ND(2.2)
beta-BHC	ppb	ND(2.1)	ND(2.2)
delta-BHC	ppb	ND(2.1)	ND(2.2)
Dieldrin	ppb	1.9 J	ND(2.2)
Endosulfan I	ppb	ND(2.1)	0.73 J
Endosulfan II	ppb	0.54 J	ND(2.2)
Endosulfan sulfate	ppb	ND(2.1)	ND(2.2)
Endrin	ppb	ND(2.1)	ND(2.2)
Endrin aldehyde	ppb	ND(2.1)	0.49 J
Endrin ketone	ppb	ND(2.1)	ND(2.2)
gamma Chlordane	ppb	ND(2.1)	ND(2.2)
gamma-BHC	ppb	ND(2.1)	ND(2.2)
Heptachlor	ppb	ND(2.1)	ND(2.2)
Heptachlor epoxide	ppb	0.58 J	ND(2.2)
Methoxychlor	ppb	ND(4)	ND(4.3)
p,p'-DDD	ppb	ND(2.1)	ND(2.2)
p,p'-DDE	ppb	ND(2.1)	0.62 J
p,p'-DDT	ppb	6.1	ND(2.2)
Toxaphene	ppb	ND(81)	ND(87)
Dioxins/Furans			
1,2,3,4,6,7,8-HpCDD	ppt	ND(4.6)	NS
1,2,3,4,6,7,8-HpCDF	ppt	ND(4.6)	NS
1,2,3,4,7,8,9-HpCDF	ppt	ND(4.6)	NS
1,2,3,4,7,8-HxCDD	ppt	ND(4.6)	NS
1,2,3,4,7,8-HxCDF	ppt	ND(4.6)	NS
1,2,3,6,7,8-HxCDD	ppt	ND(4.6)	NS
1,2,3,6,7,8-HxCDF	ppt	ND(4.6)	NS
1,2,3,7,8,9-HxCDD	ppt	ND(4.6)	NS
1,2,3,7,8,9-HxCDF	ppt	ND(4.6)	NS
1,2,3,7,8-PeCDD	ppt	ND(4.6)	NS
1,2,3,7,8-PeCDF	ppt	ND(4.6)	NS
2,3,4,6,7,8-HxCDF	ppt	ND(4.6)	NS
2,3,4,7,8-PeCDF	ppt	ND(4.6)	NS
2,3,7,8-TCDD	ppt	ND(0.91)	NS
2,3,7,8-TCDF	ppt	ND(0.91)	NS
OCDD	ppt	32	NS
OCDF	ppt	ND(9.1)	NS
TEQ	ppt	0.032	NS
Total HpCDD	ppt	ND(4.6)	NS
Total HpCDF	ppt	ND(4.6)	NS
Total HxCDD	ppt	ND(4.6)	NS
Total HxCDF	ppt	ND(4.6)	NS
Total PeCDD	ppt	ND(4.6)	NS
Total PeCDF	ppt	ND(4.6)	NS
Total TCDD	ppt	ND(0.91)	NS
Total TCDF	ppt	ND(0.91)	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	5.25	NS

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T06-E-SL-01 0 - 6 12/15/2015 VK15-T06-E-SL-01-0006	VK15-T06-W-SL-01 0 - 6 12/15/2015 VK15-T06-W-SL-01-0006
PCB Congeners			
Total PCBs (Congeners)	ppm	0.0437 J	NS
VOCs			
1,1,1-Trichloroethane	ppb	ND(8)	ND(7)
1,1,2,2-Tetrachloroethane	ppb	ND(8 J)	ND(7 J)
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	ND(8)	ND(7)
1,1,2-Trichloroethane	ppb	ND(8)	ND(7)
1,1-Dichloroethane	ppb	ND(8)	ND(7)
1,1-Dichloroethene	ppb	ND(8)	ND(7)
1,2,4-Trichlorobenzene	ppb	ND(8 J)	ND(7 J)
1,2-Dibromo-3-chloropropane	ppb	ND(8 J)	ND(7 J)
1,2-Dibromoethane	ppb	ND(8)	ND(7)
1,2-Dichlorobenzene	ppb	ND(8)	ND(7 J)
1,2-Dichloroethane	ppb	ND(8)	ND(7)
1,2-Dichloropropane	ppb	ND(8 J)	ND(7)
1,3-Dichlorobenzene	ppb	ND(8 J)	ND(7 J)
1,4-Dichlorobenzene	ppb	ND(8 J)	ND(7 J)
2-Butanone	ppb	ND(8)	ND(7)
2-Hexanone	ppb	ND(8)	ND(7)
4-Methyl-2-pentanone	ppb	ND(8 J)	ND(7 J)
Acetone	ppb	60 J	ND(7 J)
Benzene	ppb	ND(8)	ND(7)
Bromodichloromethane	ppb	ND(8)	ND(7)
Bromoform	ppb	ND(8)	ND(7)
Bromomethane	ppb	ND(8)	ND(7)
Carbon disulfide	ppb	ND(8)	ND(7)
Carbon tetrachloride	ppb	ND(8)	ND(7)
Chlorobenzene	ppb	ND(8)	ND(7)
Chloroethane	ppb	ND(8)	ND(7)
Chloroform	ppb	ND(8)	ND(7)
Chloromethane	ppb	ND(8)	ND(7)
cis-1,2-Dichloroethene	ppb	ND(8)	ND(7)
cis-1,3-Dichloropropene	ppb	ND(8)	ND(7)
Cyclohexane	ppb	ND(8)	ND(7)
Dibromochloromethane	ppb	ND(8)	ND(7)
Dichlorodifluoromethane	ppb	R	ND(7)
Dichloromethane	ppb	ND(8)	ND(7 B)
Ethylbenzene	ppb	ND(8)	ND(7)
Isopropylbenzene	ppb	ND(8)	ND(7)
m,p-Xylene	ppb	ND(8)	ND(7)
Methyl tert-butyl ether	ppb	ND(8)	ND(7)
o-Xylene	ppb	ND(8)	ND(7)
Styrene	ppb	ND(8)	ND(7)
Tetrachloroethene	ppb	ND(8)	ND(7)
Toluene	ppb	ND(8)	ND(7)
trans-1,2-Dichloroethene	ppb	ND(8)	ND(7)
trans-1,3-Dichloropropene	ppb	ND(8)	ND(7)
Trichloroethene	ppb	ND(8)	ND(7)
Trichlorofluoromethane	ppb	ND(8)	ND(7)
Vinyl chloride	ppb	ND(8)	ND(7)
SVOCs			
1,1'-Biphenyl	ppb	ND(470)	ND(480)
1,4-Dioxane	ppb	ND(91)	ND(96)
2,4,5-Trichlorophenol	ppb	ND(1,200)	ND(1,200 J)
2,4,6-Trichlorophenol	ppb	ND(470)	ND(480 J)
2,4-Dichlorophenol	ppb	ND(470)	ND(480)
2,4-Dimethylphenol	ppb	ND(470)	ND(480)
2,4-Dinitrophenol	ppb	ND(1,200 J)	ND(1,200)
2,4-Dinitrotoluene	ppb	ND(470)	ND(480)
2,6-Dinitrotoluene	ppb	ND(470)	ND(480)
2-Chloronaphthalene	ppb	ND(470)	ND(480)
2-Chlorophenol	ppb	ND(470)	ND(480)
2-Methylnaphthalene	ppb	ND(470)	ND(480)
2-Methylphenol	ppb	ND(470)	ND(480)
2-Nitroaniline	ppb	ND(1,200)	ND(1,200)
2-Nitrophenol	ppb	ND(470)	ND(480)

Table A2-2
**Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York**

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T06-E-SL-01 0 - 6 12/15/2015 VK15-T06-E-SL-01-0006	VK15-T06-W-SL-01 0 - 6 12/15/2015 VK15-T06-W-SL-01-0006
SVOCs (continued)			
3,3'-Dichlorobenzidine	ppb	ND(470)	ND(480)
3-Methylphenol/4-Methylphenol	ppb	ND(930)	ND(960)
3-Nitroaniline	ppb	ND(1,200)	ND(1,200)
4,6-Dinitro-2-methylphenol	ppb	ND(1,200)	ND(1,200)
4-Bromophenyl-phenylether	ppb	ND(470)	ND(480)
4-Chloro-3-methylphenol	ppb	ND(470)	ND(480)
4-Chloroaniline	ppb	ND(470)	ND(480)
4-Chlorophenyl-phenylether	ppb	ND(470)	ND(480)
4-Nitroaniline	ppb	ND(1,200)	ND(1,200)
4-Nitrophenol	ppb	ND(1,200)	ND(1,200)
Acenaphthene	ppb	ND(470)	ND(480)
Acenaphthylene	ppb	ND(470)	ND(480)
Anthracene	ppb	ND(470)	ND(480)
Benzo(a)anthracene	ppb	ND(470)	ND(480)
Benzo(a)pyrene	ppb	ND(470)	ND(480)
Benzo(b)fluoranthene	ppb	ND(470)	ND(480)
Benzo(g,h,i)perylene	ppb	ND(470)	ND(480)
Benzo(k)fluoranthene	ppb	ND(470)	ND(480)
bis(2-chloroethoxy)methane	ppb	ND(470)	ND(480)
bis(2-chloroethyl)ether	ppb	ND(470)	ND(480)
bis(2-Chloroisopropyl)ether	ppb	ND(470)	ND(480)
bis(2-Ethylhexyl)phthalate	ppb	ND(470)	ND(480)
Butylbenzylphthalate	ppb	ND(470)	ND(480)
Carbazole	ppb	ND(470)	ND(480)
Chrysene	ppb	ND(470)	ND(480)
Dibenz(a,h)anthracene	ppb	ND(470)	ND(480)
Dibenzofuran	ppb	ND(470)	ND(480)
Diethylphthalate	ppb	ND(470)	ND(480)
Dimethylphthalate	ppb	ND(470)	ND(480)
Di-n-butylphthalate	ppb	ND(470)	ND(480)
Di-n-octylphthalate	ppb	ND(470)	ND(480)
Fluoranthene	ppb	ND(470)	ND(480)
Fluorene	ppb	ND(470)	ND(480)
Hexachlorobenzene	ppb	ND(470)	ND(480)
Hexachlorobutadiene	ppb	ND(470)	ND(480)
Hexachlorocyclopentadiene	ppb	ND(470 J)	ND(480)
Hexachloroethane	ppb	ND(470)	ND(480)
Indeno(1,2,3-cd)pyrene	ppb	ND(470)	ND(480)
Isophorone	ppb	ND(470)	ND(480)
Naphthalene	ppb	ND(470)	ND(480)
Nitrobenzene	ppb	ND(470)	ND(480)
N-Nitroso-di-n-propylamine	ppb	ND(470)	ND(480)
N-Nitrosodiphenylamine	ppb	ND(470)	ND(480)
Pentachlorophenol	ppb	ND(1,200 J)	ND(1,200 J)
Phenanthrene	ppb	ND(470)	ND(480)
Phenol	ppb	ND(470)	ND(480)
Pyrene	ppb	ND(470)	ND(480)
Inorganics			
Aluminum	ppm	15,300	12,400
Antimony	ppm	ND(4.1 B)	1.1 J
Arsenic	ppm	5.3	5.5
Barium	ppm	106	177
Beryllium	ppm	0.63	0.66
Cadmium	ppm	1.2	1.5
Calcium	ppm	657	1,430
Chromium	ppm	20.7	20.1
Cobalt	ppm	9.5	10.6
Copper	ppm	12.2	16.5
Iron	ppm	25,900	27,800
Lead	ppm	28.5	19.8
Magnesium	ppm	2,530	3,630
Manganese	ppm	858	1,910
Mercury	ppm	0.071	0.028 J
Nickel	ppm	11.7	15.8
Potassium	ppm	508	587

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T06-E-SL-01 0 - 6 12/15/2015 VK15-T06-E-SL-01-0006	VK15-T06-W-SL-01 0 - 6 12/15/2015 VK15-T06-W-SL-01-0006
Inorganics (continued)			
Selenium	ppm	9.1	9.1
Silver	ppm	2.8	3.2 J
Sodium	ppm	ND(344)	38.1 J
Thallium	ppm	3.1	6.3
Vanadium	ppm	19.6	14.2
Zinc	ppm	68.9	83.2
Pesticides			
Aldrin	ppb	ND(2.4)	ND(2.5)
alpha Chlordane	ppb	ND(2.4)	ND(2.5)
alpha-BHC	ppb	ND(2.4)	ND(2.5)
beta-BHC	ppb	ND(2.4)	ND(2.5)
delta-BHC	ppb	ND(2.4)	ND(2.5)
Dieldrin	ppb	ND(2.4)	12
Endosulfan I	ppb	ND(2.4)	ND(2.5)
Endosulfan II	ppb	ND(2.4)	5.7 J
Endosulfan sulfate	ppb	ND(2.4)	3 JN
Endrin	ppb	ND(2.4)	3 JN
Endrin aldehyde	ppb	ND(2.4)	ND(2.5)
Endrin ketone	ppb	7 JN	18 JN
gamma Chlordane	ppb	ND(2.4)	ND(2.5)
gamma-BHC	ppb	ND(2.4)	ND(2.5)
Heptachlor	ppb	ND(2.4)	ND(2.5)
Heptachlor epoxide	ppb	ND(2.4)	ND(2.5)
Methoxychlor	ppb	ND(2.4)	4.8 JN
p,p'-DDD	ppb	ND(2.4)	7.5 JN
p,p'-DDE	ppb	1.9 J	ND(2.5)
p,p'-DDT	ppb	4.6	54
Toxaphene	ppb	ND(94)	ND(97)
Dioxins/Furans			
1,2,3,4,6,7,8-HpCDD	ppt	NS	NS
1,2,3,4,6,7,8-HpCDF	ppt	NS	NS
1,2,3,4,7,8,9-HpCDF	ppt	NS	NS
1,2,3,4,7,8-HxCDD	ppt	NS	NS
1,2,3,4,7,8-HxCDF	ppt	NS	NS
1,2,3,6,7,8-HxCDD	ppt	NS	NS
1,2,3,6,7,8-HxCDF	ppt	NS	NS
1,2,3,7,8,9-HxCDD	ppt	NS	NS
1,2,3,7,8,9-HxCDF	ppt	NS	NS
1,2,3,7,8-PeCDD	ppt	NS	NS
1,2,3,7,8-PeCDF	ppt	NS	NS
2,3,4,6,7,8-HxCDF	ppt	NS	NS
2,3,4,7,8-PeCDF	ppt	NS	NS
2,3,7,8-TCDD	ppt	NS	NS
2,3,7,8-TCDF	ppt	NS	NS
OCDD	ppt	NS	NS
OCDF	ppt	NS	NS
TEQ	ppt	NS	NS
Total HpCDD	ppt	NS	NS
Total HpCDF	ppt	NS	NS
Total HxCDD	ppt	NS	NS
Total HxCDF	ppt	NS	NS
Total PeCDD	ppt	NS	NS
Total PeCDF	ppt	NS	NS
Total TCDD	ppt	NS	NS
Total TCDF	ppt	NS	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	NS	NS

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T07-E-SL-01 0 - 6 12/14/2015 VK15-T07-E-SL-01-0006	VK15-T07-W-SL-01 0 - 6 12/14/2015 VK15-T07-W-SL-01-0006
PCB Congeners			
Total PCBs (Congeners)	ppm	1.34	NS
VOCs			
1,1,1-Trichloroethane	ppb	ND(13)	ND(8)
1,1,2,2-Tetrachloroethane	ppb	ND(13 J)	ND(8 J)
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	ND(13)	ND(8)
1,1,2-Trichloroethane	ppb	ND(13)	ND(8)
1,1-Dichloroethane	ppb	ND(13)	ND(8)
1,1-Dichloroethene	ppb	ND(13)	ND(8)
1,2,4-Trichlorobenzene	ppb	ND(13 J)	ND(8 J)
1,2-Dibromo-3-chloropropane	ppb	ND(13)	ND(8)
1,2-Dibromoethane	ppb	ND(13)	ND(8)
1,2-Dichlorobenzene	ppb	ND(13 J)	ND(8 J)
1,2-Dichloroethane	ppb	ND(13)	ND(8)
1,2-Dichloropropane	ppb	ND(13)	ND(8)
1,3-Dichlorobenzene	ppb	ND(13 J)	ND(8 J)
1,4-Dichlorobenzene	ppb	ND(13 J)	ND(8 J)
2-Butanone	ppb	ND(13)	ND(8)
2-Hexanone	ppb	ND(13)	ND(8)
4-Methyl-2-pentanone	ppb	ND(13 J)	ND(8 J)
Acetone	ppb	ND(13)	ND(8)
Benzene	ppb	ND(13)	ND(8)
Bromodichloromethane	ppb	ND(13)	ND(8)
Bromoform	ppb	ND(13)	ND(8)
Bromomethane	ppb	ND(13)	ND(8)
Carbon disulfide	ppb	ND(13)	ND(8)
Carbon tetrachloride	ppb	ND(13)	ND(8)
Chlorobenzene	ppb	ND(13)	ND(8)
Chloroethane	ppb	ND(13)	ND(8)
Chloroform	ppb	ND(13)	ND(8)
Chloromethane	ppb	ND(13)	ND(8)
cis-1,2-Dichloroethene	ppb	ND(13)	ND(8)
cis-1,3-Dichloropropene	ppb	ND(13)	ND(8)
Cyclohexane	ppb	ND(13)	ND(8)
Dibromochloromethane	ppb	ND(13)	ND(8)
Dichlorodifluoromethane	ppb	R	R
Dichloromethane	ppb	ND(13 B)	ND(8 B)
Ethylbenzene	ppb	ND(13)	ND(8)
Isopropylbenzene	ppb	ND(13)	ND(8)
m,p-Xylene	ppb	ND(13)	ND(8)
Methyl tert-butyl ether	ppb	ND(13)	ND(8)
o-Xylene	ppb	ND(13)	ND(8)
Styrene	ppb	ND(13)	ND(8)
Tetrachloroethene	ppb	ND(13)	ND(8)
Toluene	ppb	ND(13)	ND(8)
trans-1,2-Dichloroethene	ppb	ND(13)	ND(8)
trans-1,3-Dichloropropene	ppb	ND(13)	ND(8)
Trichloroethene	ppb	ND(13)	ND(8)
Trichlorofluoromethane	ppb	24	ND(8)
Vinyl chloride	ppb	ND(13)	ND(8)
SVOCs			
1,1'-Biphenyl	ppb	ND(430)	ND(460)
1,4-Dioxane	ppb	ND(88)	ND(93)
2,4,5-Trichlorophenol	ppb	ND(1,100 J)	ND(1,200 J)
2,4,6-Trichlorophenol	ppb	ND(430 J)	ND(460 J)
2,4-Dichlorophenol	ppb	ND(430)	ND(460)
2,4-Dimethylphenol	ppb	ND(430)	ND(460)
2,4-Dinitrophenol	ppb	ND(1,100)	ND(1,200)
2,4-Dinitrotoluene	ppb	ND(430)	ND(460)
2,6-Dinitrotoluene	ppb	ND(430)	ND(460)
2-Chloronaphthalene	ppb	ND(430)	ND(460)
2-Chlorophenol	ppb	ND(430)	ND(460)
2-Methylnaphthalene	ppb	ND(430)	ND(460)
2-Methylphenol	ppb	ND(430)	ND(460)
2-Nitroaniline	ppb	ND(1,100)	ND(1,200)
2-Nitrophenol	ppb	ND(430)	ND(460)

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T07-E-SL-01 0 - 6 12/14/2015 VK15-T07-E-SL-01-0006	VK15-T07-W-SL-01 0 - 6 12/14/2015 VK15-T07-W-SL-01-0006
SVOCs (continued)			
3,3'-Dichlorobenzidine	ppb	ND(430)	ND(460)
3-Methylphenol/4-Methylphenol	ppb	ND(870)	ND(920)
3-Nitroaniline	ppb	ND(1,100)	ND(1,200)
4,6-Dinitro-2-methylphenol	ppb	ND(1,100)	ND(1,200)
4-Bromophenyl-phenylether	ppb	ND(430)	ND(460)
4-Chloro-3-methylphenol	ppb	ND(430)	ND(460)
4-Chloroaniline	ppb	ND(430)	ND(460)
4-Chlorophenyl-phenylether	ppb	ND(430)	ND(460)
4-Nitroaniline	ppb	ND(1,100)	ND(1,200)
4-Nitrophenol	ppb	ND(1,100)	ND(1,200)
Acenaphthene	ppb	ND(430)	ND(460)
Acenaphthylene	ppb	ND(430)	ND(460)
Anthracene	ppb	ND(430)	ND(460)
Benzo(a)anthracene	ppb	ND(430)	ND(460)
Benzo(a)pyrene	ppb	ND(430)	ND(460)
Benzo(b)fluoranthene	ppb	ND(430)	ND(460)
Benzo(g,h,i)perylene	ppb	ND(430)	ND(460)
Benzo(k)fluoranthene	ppb	ND(430)	ND(460)
bis(2-chloroethoxy)methane	ppb	ND(430)	ND(460)
bis(2-chloroethyl)ether	ppb	ND(430)	ND(460)
bis(2-Chloroisopropyl)ether	ppb	ND(430)	ND(460)
bis(2-Ethylhexyl)phthalate	ppb	ND(430)	ND(460)
Butylbenzylphthalate	ppb	ND(430)	ND(460)
Carbazole	ppb	ND(430)	ND(460)
Chrysene	ppb	ND(430)	ND(460)
Dibenz(a,h)anthracene	ppb	ND(430)	ND(460)
Dibenzofuran	ppb	ND(430)	ND(460)
Diethylphthalate	ppb	ND(430)	ND(460)
Dimethylphthalate	ppb	ND(430)	ND(460)
Di-n-butylphthalate	ppb	ND(430)	ND(460)
Di-n-octylphthalate	ppb	ND(430)	ND(460)
Fluoranthene	ppb	ND(430)	ND(460)
Fluorene	ppb	ND(430)	ND(460)
Hexachlorobenzene	ppb	ND(430)	ND(460)
Hexachlorobutadiene	ppb	ND(430)	ND(460)
Hexachlorocyclopentadiene	ppb	ND(430 J)	ND(460 J)
Hexachloroethane	ppb	ND(430)	ND(460)
Indeno(1,2,3-cd)pyrene	ppb	ND(430)	ND(460)
Isophorone	ppb	ND(430)	ND(460)
Naphthalene	ppb	ND(430)	ND(460)
Nitrobenzene	ppb	ND(430)	ND(460)
N-Nitroso-di-n-propylamine	ppb	ND(430)	ND(460)
N-Nitrosodiphenylamine	ppb	ND(430)	ND(460)
Pentachlorophenol	ppb	ND(1,100 J)	ND(1,200 J)
Phenanthrene	ppb	ND(430)	ND(460)
Phenol	ppb	240 J	ND(460)
Pyrene	ppb	ND(430)	ND(460)
Inorganics			
Aluminum	ppm	14,600	16,600
Antimony	ppm	1.3 J	1.1 J
Arsenic	ppm	6.8	7.1
Barium	ppm	201	144
Beryllium	ppm	0.8	0.79
Cadmium	ppm	1.7	1.5
Calcium	ppm	1,270	623
Chromium	ppm	23	24.6
Cobalt	ppm	11.5	11.7
Copper	ppm	17.1	16.1
Iron	ppm	31,600	32,300
Lead	ppm	111	26.1
Magnesium	ppm	3,720	3,650
Manganese	ppm	2,260	1,900
Mercury	ppm	0.084	0.097
Nickel	ppm	16.9	15.1
Potassium	ppm	547	667

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T07-E-SL-01 0 - 6 12/14/2015 VK15-T07-E-SL-01-0006	VK15-T07-W-SL-01 0 - 6 12/14/2015 VK15-T07-W-SL-01-0006
Inorganics (continued)			
Selenium	ppm	10	10.7
Silver	ppm	3.6	3.6
Sodium	ppm	ND(300)	ND(340)
Thallium	ppm	7.2	6.5
Vanadium	ppm	17	19.7
Zinc	ppm	99	80.6
Pesticides			
Aldrin	ppb	ND(2.2)	ND(2.3)
alpha Chlordane	ppb	ND(2.2)	ND(2.3)
alpha-BHC	ppb	ND(2.2)	ND(2.3)
beta-BHC	ppb	ND(2.2)	ND(2.3)
delta-BHC	ppb	ND(2.2)	ND(2.3)
Dieldrin	ppb	23	16
Endosulfan I	ppb	ND(2.2)	ND(2.3)
Endosulfan II	ppb	19 J	13 J
Endosulfan sulfate	ppb	10 JN	6.4 J
Endrin	ppb	6.1 JN	5 JN
Endrin aldehyde	ppb	12 JN	8 JN
Endrin ketone	ppb	49 JN	36 JN
gamma Chlordane	ppb	1.3 J	1.7 J
gamma-BHC	ppb	ND(2.2)	ND(2.3)
Heptachlor	ppb	ND(2.2)	ND(2.3)
Heptachlor epoxide	ppb	0.55 J	ND(2.3)
Methoxychlor	ppb	13 JN	48 JN
p,p'-DDD	ppb	ND(2.2)	ND(2.3)
p,p'-DDE	ppb	ND(2.2)	4.8 J
p,p'-DDT	ppb	140 J	92 J
Toxaphene	ppb	ND(88)	ND(92)
Dioxins/Furans			
1,2,3,4,6,7,8-HpCDD	ppt	8.5	NS
1,2,3,4,6,7,8-HpCDF	ppt	13	NS
1,2,3,4,7,8,9-HpCDF	ppt	ND(4.7)	NS
1,2,3,4,7,8-HxCDD	ppt	ND(4.7)	NS
1,2,3,4,7,8-HxCDF	ppt	ND(4.7)	NS
1,2,3,6,7,8-HxCDD	ppt	ND(4.7)	NS
1,2,3,6,7,8-HxCDF	ppt	ND(4.7)	NS
1,2,3,7,8,9-HxCDD	ppt	ND(4.7)	NS
1,2,3,7,8,9-HxCDF	ppt	ND(4.7)	NS
1,2,3,7,8-PeCDD	ppt	ND(4.7)	NS
1,2,3,7,8-PeCDF	ppt	ND(4.7)	NS
2,3,4,6,7,8-HxCDF	ppt	ND(4.7)	NS
2,3,4,7,8-PeCDF	ppt	5.4	NS
2,3,7,8-TCDD	ppt	ND(0.95)	NS
2,3,7,8-TCDF	ppt	1.9	NS
OCDD	ppt	130	NS
OCDF	ppt	ND(9.5)	NS
TEQ	ppt	3.3	NS
Total HpCDD	ppt	16	NS
Total HpCDF	ppt	23	NS
Total HxCDD	ppt	ND(4.7)	NS
Total HxCDF	ppt	53	NS
Total PeCDD	ppt	ND(4.7)	NS
Total PeCDF	ppt	120	NS
Total TCDD	ppt	ND(0.95)	NS
Total TCDF	ppt	35	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	6.63	NS

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T08-E-SL-01 12 - 24 11/11/2015 VK15-T08-E-SL-01-1224	VK15-T08-W-SL-01 12 - 20 11/13/2015 VK15-T08-W-SL-01-1220
PCB Congeners			
Total PCBs (Congeners)	ppm	NS	1.24
VOCs			
1,1,1-Trichloroethane	ppb	ND(5)	ND(6)
1,1,2,2-Tetrachloroethane	ppb	ND(5)	ND(6)
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	ND(5)	ND(6)
1,1,2-Trichloroethane	ppb	ND(5)	ND(6)
1,1-Dichloroethane	ppb	ND(5)	ND(6)
1,1-Dichloroethene	ppb	ND(5)	ND(6)
1,2,4-Trichlorobenzene	ppb	ND(5)	ND(6)
1,2-Dibromo-3-chloropropane	ppb	ND(5)	ND(6)
1,2-Dibromoethane	ppb	ND(5)	ND(6)
1,2-Dichlorobenzene	ppb	ND(5)	ND(6)
1,2-Dichloroethane	ppb	ND(5)	ND(6)
1,2-Dichloropropane	ppb	ND(5)	ND(6)
1,3-Dichlorobenzene	ppb	ND(5)	ND(6)
1,4-Dichlorobenzene	ppb	ND(5)	ND(6)
2-Butanone	ppb	ND(5 J)	37 J
2-Hexanone	ppb	ND(5 J)	ND(6 J)
4-Methyl-2-pentanone	ppb	ND(5 J)	ND(6 J)
Acetone	ppb	8 J	240 EJ
Benzene	ppb	ND(5)	ND(6)
Bromodichloromethane	ppb	ND(5)	ND(6)
Bromoform	ppb	ND(5)	ND(6)
Bromomethane	ppb	ND(5)	ND(6)
Carbon disulfide	ppb	ND(5)	ND(6)
Carbon tetrachloride	ppb	ND(5)	ND(6)
Chlorobenzene	ppb	ND(5)	ND(6)
Chloroethane	ppb	ND(5)	ND(6)
Chloroform	ppb	ND(5 J)	ND(6 J)
Chloromethane	ppb	ND(5)	ND(6)
cis-1,2-Dichloroethene	ppb	ND(5)	ND(6)
cis-1,3-Dichloropropene	ppb	ND(5)	ND(6)
Cyclohexane	ppb	ND(5)	ND(6)
Dibromochloromethane	ppb	ND(5)	ND(6)
Dichlorodifluoromethane	ppb	ND(5)	ND(6)
Dichloromethane	ppb	ND(5 J)	ND(6 J)
Ethylbenzene	ppb	ND(5)	ND(6)
Isopropylbenzene	ppb	ND(5)	ND(6)
m,p-Xylene	ppb	ND(5)	ND(6)
Methyl tert-butyl ether	ppb	ND(5)	ND(6)
o-Xylene	ppb	ND(5)	ND(6)
Styrene	ppb	ND(5)	ND(6)
Tetrachloroethene	ppb	ND(5)	ND(6)
Toluene	ppb	ND(5)	ND(6)
trans-1,2-Dichloroethene	ppb	ND(5)	ND(6)
trans-1,3-Dichloropropene	ppb	ND(5)	ND(6)
Trichloroethene	ppb	ND(5)	ND(6)
Trichlorofluoromethane	ppb	ND(5)	ND(6)
Vinyl chloride	ppb	ND(5)	ND(6)
SVOCs			
1,1'-Biphenyl	ppb	ND(410)	ND(480)
1,4-Dioxane	ppb	ND(83)	ND(120)
2,4,5-Trichlorophenol	ppb	ND(1,000)	ND(1,200)
2,4,6-Trichlorophenol	ppb	ND(410)	ND(480)
2,4-Dichlorophenol	ppb	ND(410)	ND(480)
2,4-Dimethylphenol	ppb	ND(410)	ND(480)
2,4-Dinitrophenol	ppb	ND(1,000 J)	ND(1,200 J)
2,4-Dinitrotoluene	ppb	ND(410)	ND(480)
2,6-Dinitrotoluene	ppb	ND(410)	ND(480)
2-Chloronaphthalene	ppb	ND(410)	ND(480)
2-Chlorophenol	ppb	ND(410)	ND(480)
2-Methylnaphthalene	ppb	ND(410)	ND(480)
2-Methylphenol	ppb	ND(410)	ND(480)
2-Nitroaniline	ppb	ND(1,000)	ND(1,200)
2-Nitrophenol	ppb	ND(410)	ND(480)

Table A2-2
**Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York**

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T08-E-SL-01 12 - 24 11/11/2015 VK15-T08-E-SL-01-1224	VK15-T08-W-SL-01 12 - 20 11/13/2015 VK15-T08-W-SL-01-1220
SVOCs (continued)			
3,3'-Dichlorobenzidine	ppb	ND(410)	ND(480)
3-Methylphenol/4-Methylphenol	ppb	ND(820)	ND(950)
3-Nitroaniline	ppb	ND(1,000)	ND(1,200)
4,6-Dinitro-2-methylphenol	ppb	ND(1,000 J)	ND(1,200 J)
4-Bromophenyl-phenylether	ppb	ND(410)	ND(480)
4-Chloro-3-methylphenol	ppb	ND(410)	ND(480)
4-Chloroaniline	ppb	ND(410)	ND(480)
4-Chlorophenyl-phenylether	ppb	ND(410)	ND(480)
4-Nitroaniline	ppb	ND(1,000)	ND(1,200)
4-Nitrophenol	ppb	ND(1,000 J)	ND(1,200 J)
Acenaphthene	ppb	ND(410)	ND(480)
Acenaphthylene	ppb	ND(410)	ND(480)
Anthracene	ppb	ND(410)	ND(480)
Benzo(a)anthracene	ppb	ND(410)	ND(480)
Benzo(a)pyrene	ppb	ND(410)	ND(480)
Benzo(b)fluoranthene	ppb	ND(410)	ND(480)
Benzo(g,h,i)perylene	ppb	ND(410)	ND(480)
Benzo(k)fluoranthene	ppb	ND(410)	ND(480)
bis(2-chloroethoxy)methane	ppb	ND(410)	ND(480)
bis(2-chloroethyl)ether	ppb	ND(410)	ND(480)
bis(2-Chloroisopropyl)ether	ppb	ND(410)	ND(480)
bis(2-Ethylhexyl)phthalate	ppb	ND(410)	ND(480)
Butylbenzylphthalate	ppb	ND(410)	ND(480)
Carbazole	ppb	ND(410)	ND(480)
Chrysene	ppb	ND(410)	ND(480)
Dibenz(a,h)anthracene	ppb	ND(410)	ND(480)
Dibenzofuran	ppb	ND(410)	ND(480)
Diethylphthalate	ppb	ND(410)	ND(480)
Dimethylphthalate	ppb	ND(410)	ND(480)
Di-n-butylphthalate	ppb	ND(410)	ND(480)
Di-n-octylphthalate	ppb	ND(410)	ND(480)
Fluoranthene	ppb	ND(410)	ND(480)
Fluorene	ppb	ND(410)	ND(480)
Hexachlorobenzene	ppb	ND(410)	ND(480)
Hexachlorobutadiene	ppb	ND(410)	ND(480)
Hexachlorocyclopentadiene	ppb	ND(410 J)	ND(480 J)
Hexachloroethane	ppb	ND(410)	ND(480)
Indeno(1,2,3-cd)pyrene	ppb	ND(410)	ND(480)
Isophorone	ppb	ND(410)	ND(480)
Naphthalene	ppb	ND(410)	ND(480)
Nitrobenzene	ppb	ND(410)	ND(480)
N-Nitroso-di-n-propylamine	ppb	ND(410)	ND(480)
N-Nitrosodiphenylamine	ppb	ND(410)	ND(480)
Pentachlorophenol	ppb	ND(1,000 J)	ND(1,200 J)
Phenanthrene	ppb	ND(410)	ND(480)
Phenol	ppb	ND(410)	ND(480)
Pyrene	ppb	ND(410)	ND(480)
Inorganics			
Aluminum	ppm	16,400	12,500
Antimony	ppm	0.74 J	1.2 J
Arsenic	ppm	1.5	3.2
Barium	ppm	161	128
Beryllium	ppm	0.8	0.65
Cadmium	ppm	ND(0.15)	ND(0.16)
Calcium	ppm	1,350	909
Chromium	ppm	29.8	17.4
Cobalt	ppm	9.7	11.4
Copper	ppm	19.9	12.2
Iron	ppm	21,200	25,400
Lead	ppm	9.2	15.2
Magnesium	ppm	3,910	3,680
Manganese	ppm	360	610
Mercury	ppm	0.024 J	ND(0.049)
Nickel	ppm	19	18.4
Potassium	ppm	840	787

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T08-E-SL-01 12 - 24 11/11/2015 VK15-T08-E-SL-01-1224	VK15-T08-W-SL-01 12 - 20 11/13/2015 VK15-T08-W-SL-01-1220
Inorganics (continued)			
Selenium	ppm	3.4	3.7
Silver	ppm	1.9	0.14 J
Sodium	ppm	37.4 J	58.6 J
Thallium	ppm	0.62	1.6
Vanadium	ppm	19.5	12.4
Zinc	ppm	66.2	92.3
Pesticides			
Aldrin	ppb	ND(1.7)	ND(2.5)
alpha Chlordane	ppb	ND(1.7)	0.58 J
alpha-BHC	ppb	ND(1.7)	0.47 J
beta-BHC	ppb	ND(1.7)	ND(2.5)
delta-BHC	ppb	ND(1.7)	1.5 J
Dieldrin	ppb	0.43 J	13
Endosulfan I	ppb	ND(1.7)	ND(2.5)
Endosulfan II	ppb	ND(1.7)	6.2 J
Endosulfan sulfate	ppb	ND(1.7)	4.8 JN
Endrin	ppb	ND(1.7)	4.8 JN
Endrin aldehyde	ppb	ND(1.7)	5.2 JN
Endrin ketone	ppb	ND(1.7)	16 JN
gamma Chlordane	ppb	ND(1.7)	ND(2.5)
gamma-BHC	ppb	ND(1.7)	ND(2.5)
Heptachlor	ppb	ND(1.7)	ND(2.5)
Heptachlor epoxide	ppb	ND(1.7)	3
Methoxychlor	ppb	ND(3.2)	ND(4.9)
p,p'-DDD	ppb	ND(1.7)	ND(2.5)
p,p'-DDE	ppb	ND(1.7)	ND(2.5)
p,p'-DDT	ppb	ND(1.7)	ND(2.5)
Toxaphene	ppb	ND(65)	ND(99)
Dioxins/Furans			
1,2,3,4,6,7,8-HpCDD	ppt	NS	NS
1,2,3,4,6,7,8-HpCDF	ppt	NS	NS
1,2,3,4,7,8,9-HpCDF	ppt	NS	NS
1,2,3,4,7,8-HxCDD	ppt	NS	NS
1,2,3,4,7,8-HxCDF	ppt	NS	NS
1,2,3,6,7,8-HxCDD	ppt	NS	NS
1,2,3,6,7,8-HxCDF	ppt	NS	NS
1,2,3,7,8,9-HxCDD	ppt	NS	NS
1,2,3,7,8,9-HxCDF	ppt	NS	NS
1,2,3,7,8-PeCDD	ppt	NS	NS
1,2,3,7,8-PeCDF	ppt	NS	NS
2,3,4,6,7,8-HxCDF	ppt	NS	NS
2,3,4,7,8-PeCDF	ppt	NS	NS
2,3,7,8-TCDD	ppt	NS	NS
2,3,7,8-TCDF	ppt	NS	NS
OCDD	ppt	NS	NS
OCDF	ppt	NS	NS
TEQ	ppt	NS	NS
Total HpCDD	ppt	NS	NS
Total HpCDF	ppt	NS	NS
Total HxCDD	ppt	NS	NS
Total HxCDF	ppt	NS	NS
Total PeCDD	ppt	NS	NS
Total PeCDF	ppt	NS	NS
Total TCDD	ppt	NS	NS
Total TCDF	ppt	NS	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	NS	NS

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T09-E-SL-01 0 - 6 11/12/2015 VK15-T09-E-SL-01-0006	VK15-T09-W-SL-01 12 - 24 11/12/2015 VK15-T09-W-SL-01-1224
PCB Congeners			
Total PCBs (Congeners)	ppm	1.07	NS
VOCs			
1,1,1-Trichloroethane	ppb	ND(7)	ND(8)
1,1,2,2-Tetrachloroethane	ppb	ND(7)	ND(8)
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	ND(7)	ND(8)
1,1,2-Trichloroethane	ppb	ND(7)	ND(8)
1,1-Dichloroethane	ppb	ND(7)	ND(8)
1,1-Dichloroethene	ppb	ND(7)	ND(8)
1,2,4-Trichlorobenzene	ppb	ND(7)	ND(8)
1,2-Dibromo-3-chloropropane	ppb	ND(7)	ND(8)
1,2-Dibromoethane	ppb	ND(7)	ND(8)
1,2-Dichlorobenzene	ppb	ND(7)	ND(8)
1,2-Dichloroethane	ppb	ND(7)	ND(8)
1,2-Dichloropropane	ppb	ND(7)	ND(8)
1,3-Dichlorobenzene	ppb	ND(7)	ND(8)
1,4-Dichlorobenzene	ppb	ND(7)	ND(8)
2-Butanone	ppb	ND(7)	ND(8)
2-Hexanone	ppb	ND(7)	ND(8)
4-Methyl-2-pentanone	ppb	ND(7 J)	ND(8 J)
Acetone	ppb	ND(7)	ND(8)
Benzene	ppb	ND(7)	ND(8)
Bromodichloromethane	ppb	ND(7)	ND(8)
Bromoform	ppb	ND(7)	ND(8)
Bromomethane	ppb	ND(7)	ND(8)
Carbon disulfide	ppb	ND(7)	ND(8)
Carbon tetrachloride	ppb	ND(7)	ND(8)
Chlorobenzene	ppb	ND(7)	ND(8)
Chloroethane	ppb	ND(7)	ND(8)
Chloroform	ppb	ND(7 J)	ND(8 J)
Chloromethane	ppb	ND(7)	ND(8)
cis-1,2-Dichloroethene	ppb	ND(7)	ND(8)
cis-1,3-Dichloropropene	ppb	ND(7)	ND(8)
Cyclohexane	ppb	ND(7)	ND(8)
Dibromochloromethane	ppb	ND(7)	ND(8)
Dichlorodifluoromethane	ppb	ND(7)	ND(8)
Dichloromethane	ppb	ND(7)	ND(8)
Ethylbenzene	ppb	ND(7)	ND(8)
Isopropylbenzene	ppb	ND(7)	ND(8)
m,p-Xylene	ppb	ND(7)	ND(8)
Methyl tert-butyl ether	ppb	ND(7)	ND(8)
o-Xylene	ppb	ND(7)	ND(8)
Styrene	ppb	ND(7)	ND(8)
Tetrachloroethene	ppb	ND(7)	ND(8)
Toluene	ppb	ND(7)	ND(8)
trans-1,2-Dichloroethene	ppb	ND(7)	ND(8)
trans-1,3-Dichloropropene	ppb	ND(7)	ND(8)
Trichloroethene	ppb	ND(7)	ND(8)
Trichlorofluoromethane	ppb	ND(7)	ND(8)
Vinyl chloride	ppb	ND(7)	ND(8)
SVOCs			
1,1'-Biphenyl	ppb	ND(440)	ND(480)
1,4-Dioxane	ppb	ND(90)	ND(100)
2,4,5-Trichlorophenol	ppb	ND(1,100)	ND(1,200)
2,4,6-Trichlorophenol	ppb	ND(440)	ND(480)
2,4-Dichlorophenol	ppb	ND(440)	ND(480)
2,4-Dimethylphenol	ppb	ND(440)	ND(480)
2,4-Dinitrophenol	ppb	ND(1,100)	ND(1,200)
2,4-Dinitrotoluene	ppb	ND(440)	ND(480)
2,6-Dinitrotoluene	ppb	ND(440)	ND(480)
2-Chloronaphthalene	ppb	ND(440)	ND(480)
2-Chlorophenol	ppb	ND(440)	ND(480)
2-Methylnaphthalene	ppb	ND(440)	ND(480)
2-Methylphenol	ppb	ND(440)	ND(480)
2-Nitroaniline	ppb	ND(1,100)	ND(1,200)
2-Nitrophenol	ppb	ND(440)	ND(480)

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T09-E-SL-01 0 - 6 11/12/2015 VK15-T09-E-SL-01-0006	VK15-T09-W-SL-01 12 - 24 11/12/2015 VK15-T09-W-SL-01-1224
SVOCs (continued)			
3,3'-Dichlorobenzidine	ppb	ND(440)	ND(480)
3-Methylphenol/4-Methylphenol	ppb	ND(890)	ND(950)
3-Nitroaniline	ppb	ND(1,100)	ND(1,200)
4,6-Dinitro-2-methylphenol	ppb	ND(1,100)	ND(1,200)
4-Bromophenyl-phenylether	ppb	ND(440)	ND(480)
4-Chloro-3-methylphenol	ppb	ND(440)	ND(480)
4-Chloroaniline	ppb	ND(440)	ND(480)
4-Chlorophenyl-phenylether	ppb	ND(440)	ND(480)
4-Nitroaniline	ppb	ND(1,100)	ND(1,200)
4-Nitrophenol	ppb	ND(1,100 J)	ND(1,200 J)
Acenaphthene	ppb	ND(440)	ND(480)
Acenaphthylene	ppb	ND(440)	ND(480)
Anthracene	ppb	ND(440)	ND(480)
Benzo(a)anthracene	ppb	ND(440)	ND(480)
Benzo(a)pyrene	ppb	ND(440)	ND(480)
Benzo(b)fluoranthene	ppb	ND(440)	ND(480)
Benzo(g,h,i)perylene	ppb	ND(440)	ND(480)
Benzo(k)fluoranthene	ppb	ND(440)	ND(480)
bis(2-chloroethoxy)methane	ppb	ND(440)	ND(480)
bis(2-chloroethyl)ether	ppb	ND(440)	ND(480)
bis(2-Chloroisopropyl)ether	ppb	ND(440)	ND(480)
bis(2-Ethylhexyl)phthalate	ppb	ND(440)	ND(480)
Butylbenzylphthalate	ppb	ND(440)	ND(480)
Carbazole	ppb	ND(440)	ND(480)
Chrysene	ppb	ND(440)	ND(480)
Dibenz(a,h)anthracene	ppb	ND(440)	ND(480)
Dibenzofuran	ppb	ND(440)	ND(480)
Diethylphthalate	ppb	ND(440)	ND(480)
Dimethylphthalate	ppb	ND(440)	ND(480)
Di-n-butylphthalate	ppb	ND(440)	ND(480)
Di-n-octylphthalate	ppb	ND(440)	ND(480)
Fluoranthene	ppb	ND(440)	ND(480)
Fluorene	ppb	ND(440)	ND(480)
Hexachlorobenzene	ppb	ND(440)	ND(480)
Hexachlorobutadiene	ppb	ND(440)	ND(480)
Hexachlorocyclopentadiene	ppb	ND(440)	ND(480)
Hexachloroethane	ppb	ND(440)	ND(480)
Indeno(1,2,3-cd)pyrene	ppb	ND(440)	ND(480)
Isophorone	ppb	ND(440)	ND(480)
Naphthalene	ppb	ND(440)	ND(480)
Nitrobenzene	ppb	ND(440)	ND(480)
N-Nitroso-di-n-propylamine	ppb	ND(440)	ND(480)
N-Nitrosodiphenylamine	ppb	ND(440)	ND(480)
Pentachlorophenol	ppb	ND(1,100)	ND(1,200)
Phenanthrene	ppb	ND(440)	ND(480)
Phenol	ppb	ND(440)	ND(480)
Pyrene	ppb	ND(440)	ND(480)
Inorganics			
Aluminum	ppm	13,400	13,400
Antimony	ppm	0.85 J	0.81 J
Arsenic	ppm	3.7	3.2
Barium	ppm	155	150
Beryllium	ppm	0.69	0.72
Cadmium	ppm	0.2	0.17 J
Calcium	ppm	1,210	761
Chromium	ppm	27.8	27.8
Cobalt	ppm	10	10.5
Copper	ppm	12.8	13
Iron	ppm	29,200	26,000
Lead	ppm	12.7	12.9
Magnesium	ppm	3,550	3,610
Manganese	ppm	1,640	771
Mercury	ppm	0.036 J	ND(0.058)
Nickel	ppm	15.1	15.7
Potassium	ppm	744	819

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T09-E-SL-01 0 - 6 11/12/2015 VK15-T09-E-SL-01-0006	VK15-T09-W-SL-01 12 - 24 11/12/2015 VK15-T09-W-SL-01-1224
Inorganics (continued)			
Selenium	ppm	3.6	3.8
Silver	ppm	3.1	2.7
Sodium	ppm	ND(310)	ND(350)
Thallium	ppm	3	1.6
Vanadium	ppm	11.3	12.1
Zinc	ppm	81.6	82.7
Pesticides			
Aldrin	ppb	ND(2.3)	ND(2.5)
alpha Chlordane	ppb	ND(2.3)	ND(2.5)
alpha-BHC	ppb	ND(2.3)	0.64 J
beta-BHC	ppb	ND(2.3)	ND(2.5)
delta-BHC	ppb	ND(2.3)	1.1 J
Dieldrin	ppb	11	60
Endosulfan I	ppb	ND(2.3)	2.9 JN
Endosulfan II	ppb	8.1 J	30 J
Endosulfan sulfate	ppb	ND(2.3)	19 JN
Endrin	ppb	2.8 JN	18 JN
Endrin aldehyde	ppb	3.6 JN	19 JN
Endrin ketone	ppb	21 JN	58 JN
gamma Chlordane	ppb	1.5 J	14
gamma-BHC	ppb	ND(2.3)	ND(2.5)
Heptachlor	ppb	ND(2.3)	ND(2.5)
Heptachlor epoxide	ppb	0.53 J	5.7 JN
Methoxychlor	ppb	ND(4.4)	67 JN
p,p'-DDD	ppb	ND(2.3)	8.6 JN
p,p'-DDE	ppb	ND(2.3)	4.2 JN
p,p'-DDT	ppb	ND(2.3)	ND(2.5)
Toxaphene	ppb	ND(90)	ND(97)
Dioxins/Furans			
1,2,3,4,6,7,8-HpCDD	ppt	15	NS
1,2,3,4,6,7,8-HpCDF	ppt	10	NS
1,2,3,4,7,8,9-HpCDF	ppt	ND(4.9)	NS
1,2,3,4,7,8-HxCDD	ppt	ND(4.9)	NS
1,2,3,4,7,8-HxCDF	ppt	ND(4.9)	NS
1,2,3,6,7,8-HxCDD	ppt	ND(4.9)	NS
1,2,3,6,7,8-HxCDF	ppt	ND(4.9)	NS
1,2,3,7,8,9-HxCDD	ppt	ND(4.9)	NS
1,2,3,7,8,9-HxCDF	ppt	ND(4.9)	NS
1,2,3,7,8-PeCDD	ppt	ND(4.9)	NS
1,2,3,7,8-PeCDF	ppt	ND(4.9)	NS
2,3,4,6,7,8-HxCDF	ppt	ND(4.9)	NS
2,3,4,7,8-PeCDF	ppt	ND(4.9)	NS
2,3,7,8-TCDD	ppt	ND(0.99)	NS
2,3,7,8-TCDF	ppt	1.9	NS
OCDD	ppt	200	NS
OCDF	ppt	ND(9.9)	NS
TEQ	ppt	0.65	NS
Total HpCDD	ppt	27	NS
Total HpCDF	ppt	21	NS
Total HxCDD	ppt	ND(4.9)	NS
Total HxCDF	ppt	55	NS
Total PeCDD	ppt	ND(4.9)	NS
Total PeCDF	ppt	86	NS
Total TCDD	ppt	ND(0.99)	NS
Total TCDF	ppt	24	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	5.99	NS

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T10-E-SL-01 0 - 6 11/16/2015 VK15-T10-E-SL-01-0006	VK15-T10-W-SL-01 6 - 12 11/16/2015 VK15-T10-W-SL-01-0612
PCB Congeners			
Total PCBs (Congeners)	ppm	0.003833 J	NS
VOCs			
1,1,1-Trichloroethane	ppb	ND(5)	ND(5)
1,1,2,2-Tetrachloroethane	ppb	ND(5)	ND(5)
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	ND(5)	ND(5)
1,1,2-Trichloroethane	ppb	ND(5)	ND(5)
1,1-Dichloroethane	ppb	ND(5)	ND(5)
1,1-Dichloroethene	ppb	ND(5)	ND(5)
1,2,4-Trichlorobenzene	ppb	ND(5)	ND(5)
1,2-Dibromo-3-chloropropane	ppb	ND(5)	ND(5)
1,2-Dibromoethane	ppb	ND(5)	ND(5)
1,2-Dichlorobenzene	ppb	ND(5)	ND(5)
1,2-Dichloroethane	ppb	ND(5)	ND(5)
1,2-Dichloropropane	ppb	ND(5)	ND(5)
1,3-Dichlorobenzene	ppb	ND(5)	ND(5)
1,4-Dichlorobenzene	ppb	ND(5)	ND(5)
2-Butanone	ppb	ND(5)	ND(5)
2-Hexanone	ppb	ND(5 J)	ND(5 J)
4-Methyl-2-pentanone	ppb	ND(5 J)	ND(5 J)
Acetone	ppb	7 J	ND(5 J)
Benzene	ppb	ND(5)	ND(5)
Bromodichloromethane	ppb	ND(5)	ND(5)
Bromoform	ppb	ND(5)	ND(5)
Bromomethane	ppb	ND(5)	ND(5)
Carbon disulfide	ppb	ND(5)	ND(5)
Carbon tetrachloride	ppb	ND(5)	ND(5)
Chlorobenzene	ppb	ND(5)	ND(5)
Chloroethane	ppb	ND(5)	ND(5)
Chloroform	ppb	ND(5 J)	ND(5 J)
Chloromethane	ppb	ND(5)	ND(5)
cis-1,2-Dichloroethene	ppb	ND(5)	ND(5)
cis-1,3-Dichloropropene	ppb	ND(5)	ND(5)
Cyclohexane	ppb	ND(5)	ND(5)
Dibromochloromethane	ppb	ND(5)	ND(5)
Dichlorodifluoromethane	ppb	ND(5)	ND(5)
Dichloromethane	ppb	ND(5 J)	ND(5 J)
Ethylbenzene	ppb	ND(5)	ND(5)
Isopropylbenzene	ppb	ND(5)	ND(5)
m,p-Xylene	ppb	ND(5)	ND(5)
Methyl tert-butyl ether	ppb	ND(5)	ND(5)
o-Xylene	ppb	ND(5)	ND(5)
Styrene	ppb	ND(5)	ND(5)
Tetrachloroethene	ppb	ND(5)	ND(5)
Toluene	ppb	ND(5)	ND(5)
trans-1,2-Dichloroethene	ppb	ND(5)	ND(5)
trans-1,3-Dichloropropene	ppb	ND(5)	ND(5)
Trichloroethene	ppb	ND(5)	ND(5)
Trichlorofluoromethane	ppb	ND(5)	ND(5)
Vinyl chloride	ppb	ND(5)	ND(5)
SVOCs			
1,1'-Biphenyl	ppb	ND(420)	ND(420)
1,4-Dioxane	ppb	ND(87)	ND(86)
2,4,5-Trichlorophenol	ppb	ND(1,000)	ND(1,100)
2,4,6-Trichlorophenol	ppb	ND(420)	ND(420)
2,4-Dichlorophenol	ppb	ND(420)	ND(420)
2,4-Dimethylphenol	ppb	ND(420)	ND(420)
2,4-Dinitrophenol	ppb	ND(1,000 J)	ND(1,100 J)
2,4-Dinitrotoluene	ppb	ND(420)	ND(420)
2,6-Dinitrotoluene	ppb	ND(420)	ND(420)
2-Chloronaphthalene	ppb	ND(420)	ND(420)
2-Chlorophenol	ppb	ND(420)	ND(420)
2-Methylnaphthalene	ppb	ND(420)	ND(420)
2-Methylphenol	ppb	ND(420)	ND(420)
2-Nitroaniline	ppb	ND(1,000)	ND(1,100)
2-Nitrophenol	ppb	ND(420)	ND(420)

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T10-E-SL-01 0 - 6 11/16/2015 VK15-T10-E-SL-01-0006	VK15-T10-W-SL-01 6 - 12 11/16/2015 VK15-T10-W-SL-01-0612
SVOCs (continued)			
3,3'-Dichlorobenzidine	ppb	ND(420)	ND(420)
3-Methylphenol/4-Methylphenol	ppb	ND(830)	ND(840)
3-Nitroaniline	ppb	ND(1,000)	ND(1,100)
4,6-Dinitro-2-methylphenol	ppb	ND(1,000 J)	ND(1,100 J)
4-Bromophenyl-phenylether	ppb	ND(420)	ND(420)
4-Chloro-3-methylphenol	ppb	ND(420)	ND(420)
4-Chloroaniline	ppb	ND(420)	ND(420)
4-Chlorophenyl-phenylether	ppb	ND(420)	ND(420)
4-Nitroaniline	ppb	ND(1,000)	ND(1,100)
4-Nitrophenol	ppb	ND(1,000 J)	ND(1,100 J)
Acenaphthene	ppb	ND(420)	ND(420)
Acenaphthylene	ppb	ND(420)	ND(420)
Anthracene	ppb	ND(420)	ND(420)
Benzo(a)anthracene	ppb	ND(420)	ND(420)
Benzo(a)pyrene	ppb	ND(420)	ND(420)
Benzo(b)fluoranthene	ppb	ND(420)	ND(420)
Benzo(g,h,i)perylene	ppb	ND(420)	ND(420)
Benzo(k)fluoranthene	ppb	ND(420)	ND(420)
bis(2-chloroethoxy)methane	ppb	ND(420)	ND(420)
bis(2-chloroethyl)ether	ppb	ND(420)	ND(420)
bis(2-Chloroisopropyl)ether	ppb	ND(420)	ND(420)
bis(2-Ethylhexyl)phthalate	ppb	ND(420)	ND(420)
Butylbenzylphthalate	ppb	ND(420)	ND(420)
Carbazole	ppb	ND(420)	ND(420)
Chrysene	ppb	ND(420)	ND(420)
Dibenz(a,h)anthracene	ppb	ND(420)	ND(420)
Dibenzofuran	ppb	ND(420)	ND(420)
Diethylphthalate	ppb	ND(420)	ND(420)
Dimethylphthalate	ppb	ND(420)	ND(420)
Di-n-butylphthalate	ppb	ND(420)	ND(420)
Di-n-octylphthalate	ppb	ND(420)	ND(420)
Fluoranthene	ppb	ND(420)	ND(420)
Fluorene	ppb	ND(420)	ND(420)
Hexachlorobenzene	ppb	ND(420)	ND(420)
Hexachlorobutadiene	ppb	ND(420)	ND(420)
Hexachlorocyclopentadiene	ppb	ND(420 J)	ND(420 J)
Hexachloroethane	ppb	ND(420)	ND(420)
Indeno(1,2,3-cd)pyrene	ppb	ND(420)	ND(420)
Isophorone	ppb	ND(420)	ND(420)
Naphthalene	ppb	ND(420)	ND(420)
Nitrobenzene	ppb	ND(420)	ND(420)
N-Nitroso-di-n-propylamine	ppb	ND(420)	ND(420)
N-Nitrosodiphenylamine	ppb	ND(420)	ND(420)
Pentachlorophenol	ppb	ND(1,000 J)	ND(1,100 J)
Phenanthrene	ppb	ND(420)	ND(420)
Phenol	ppb	ND(420)	ND(420)
Pyrene	ppb	ND(420)	ND(420)
Inorganics			
Aluminum	ppm	12,700	10,900
Antimony	ppm	0.78 J	0.68 J
Arsenic	ppm	3	3.1
Barium	ppm	116	93.7
Beryllium	ppm	0.51	0.49
Cadmium	ppm	ND(0.15)	ND(0.15)
Calcium	ppm	433	598
Chromium	ppm	14	13.3
Cobalt	ppm	7.1	8
Copper	ppm	17.6	18.8
Iron	ppm	27,500	24,600
Lead	ppm	9.2	10.5
Magnesium	ppm	2,830	3,210
Manganese	ppm	477	651
Mercury	ppm	0.024 J	0.024 J
Nickel	ppm	11.6	12.5
Potassium	ppm	442	450

Table A2-2

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VK15-T10-E-SL-01 0 - 6 11/16/2015 VK15-T10-E-SL-01-0006	VK15-T10-W-SL-01 6 - 12 11/16/2015 VK15-T10-W-SL-01-0612
Inorganics (continued)			
Selenium	ppm	3.6	3.2
Silver	ppm	2.5	2.4
Sodium	ppm	ND(290)	36.3 J
Thallium	ppm	1.9	3.1
Vanadium	ppm	12.5	10.8
Zinc	ppm	52.1	53.7
Pesticides			
Aldrin	ppb	ND(2.2)	ND(2.2)
alpha Chlordane	ppb	ND(2.2)	ND(2.2)
alpha-BHC	ppb	ND(2.2)	ND(2.2)
beta-BHC	ppb	ND(2.2)	ND(2.2)
delta-BHC	ppb	ND(2.2)	ND(2.2)
Dieldrin	ppb	1.3 J	0.7 J
Endosulfan I	ppb	ND(2.2)	ND(2.2)
Endosulfan II	ppb	ND(2.2)	ND(2.2)
Endosulfan sulfate	ppb	ND(2.2)	ND(2.2)
Endrin	ppb	ND(2.2)	ND(2.2)
Endrin aldehyde	ppb	1.2 J	ND(2.2)
Endrin ketone	ppb	2.6 JN	ND(2.2)
gamma Chlordane	ppb	ND(2.2)	ND(2.2)
gamma-BHC	ppb	ND(2.2)	ND(2.2)
Heptachlor	ppb	ND(2.2)	ND(2.2)
Heptachlor epoxide	ppb	ND(2.2)	ND(2.2)
Methoxychlor	ppb	ND(4.2)	ND(4.2)
p,p'-DDD	ppb	ND(2.2)	ND(2.2)
p,p'-DDE	ppb	ND(2.2)	ND(2.2)
p,p'-DDT	ppb	6.3 J	5 J
Toxaphene	ppb	ND(85)	ND(86)
Dioxins/Furans			
1,2,3,4,6,7,8-HpCDD	ppt	NS	NS
1,2,3,4,6,7,8-HpCDF	ppt	NS	NS
1,2,3,4,7,8,9-HpCDF	ppt	NS	NS
1,2,3,4,7,8-HxCDD	ppt	NS	NS
1,2,3,4,7,8-HxCDF	ppt	NS	NS
1,2,3,6,7,8-HxCDD	ppt	NS	NS
1,2,3,6,7,8-HxCDF	ppt	NS	NS
1,2,3,7,8,9-HxCDD	ppt	NS	NS
1,2,3,7,8,9-HxCDF	ppt	NS	NS
1,2,3,7,8-PeCDD	ppt	NS	NS
1,2,3,7,8-PeCDF	ppt	NS	NS
2,3,4,6,7,8-HxCDF	ppt	NS	NS
2,3,4,7,8-PeCDF	ppt	NS	NS
2,3,7,8-TCDD	ppt	NS	NS
2,3,7,8-TCDF	ppt	NS	NS
OCDD	ppt	NS	NS
OCDF	ppt	NS	NS
TEQ	ppt	NS	NS
Total HpCDD	ppt	NS	NS
Total HpCDF	ppt	NS	NS
Total HxCDD	ppt	NS	NS
Total HxCDF	ppt	NS	NS
Total PeCDD	ppt	NS	NS
Total PeCDF	ppt	NS	NS
Total TCDD	ppt	NS	NS
Total TCDF	ppt	NS	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	NS	NS

Table A2-3
Phase 1 RI Sediment and Soil Sample Geotechnical Results – Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID:		VK15-T01-SED-01	VK15-T04-SED-01	VK15-T07-SED-01
Sample Depth (Inches):		0 - 4	0 - 11	0 - 5
Date:		12/11/2015	11/17/2015	12/15/2015
Sample Name:	Units	VK15-T01-SED-01-0004	VK15-T04-SED-01-0011	VK15-T07-SED-01-0005
Geotechnical Data - Sediment				
Bulk Density	lb/cf	139.4	116.9	131.1
Percent Moisture	%	15.1	29.1	14.9
Grain Size - Gravel	%	54.8	48.3	75.1
Grain Size - Coarse Sand	%	18.9	12.6	16.8
Grain Size - Medium Sand	%	19.1	20.5	4.4
Grain Size - Fine Sand	%	5.9	10.2	0.8
Grain Size - Silt/Clay	%	1.2	8.4	2.9

Location ID:		VK15-T01-E-SL-01	VK15-T01-E-SL-04	VK15-T01-W-SL-02	VK15-T02-E-SL-03	VK15-T02-W-SL-01	VK15-T02-W-SL-05
Sample Depth (Inches):		0 - 21	0 - 24	0 - 12	0 - 20	0 - 20	0 - 12
Date:		12/10/2015	12/11/2015	12/11/2015	12/14/2015	12/11/2015	12/14/2015
Sample Name:	Units	VK15-T01-E-SL-01-0021	VK15-T01-E-SL-04-0024	VK15-T01-W-SL-02-0012	VK15-T02-E-SL-03-0020	VK15-T02-W-SL-01-0020	VK15-T02-W-SL-05-0012
Geotechnical Data - Soil							
Bulk Density	lb/cf	74.5	66.0	93.5	73.4	105.2	88.4
Percent Moisture	%	25.4	48.8	24.1	28.1	26.1	15.3
Grain Size - Gravel	%	2.7	0.0	19.2	0.9	8.3	43.4
Grain Size - Coarse Sand	%	11.5	0.3	5.3	1.4	3.4	10.8
Grain Size - Medium Sand	%	27.6	17.8	19.8	20.0	14.0	14.2
Grain Size - Fine Sand	%	14.8	32.5	31.2	29.1	43.0	12.3
Grain Size - Silt/Clay	%	43.2	49.4	24.5	48.7	31.3	19.4

Location ID:		VK15-T03-E-SL-02	VK15-T03-E-SL-05	VK15-T03-W-SL-04	VK15-T04-E-SL-01	VK15-T04-E-SL-04	VK15-T04-W-SL-03
Sample Depth (Inches):		0 - 18	0 - 19	0 - 23	0 - 19	0 - 17	0 - 18
Date:		12/14/2015	12/14/2015	12/14/2015	11/17/2015	11/17/2015	11/17/2015
Sample Name:	Units	VK15-T03-E-SL-02-0018	VK15-T03-E-SL-05-0019	VK15-T03-W-SL-04-0023	VK15-T04-E-SL-01-0019	VK15-T04-E-SL-04-0017	VK15-T04-W-SL-03-0018
Geotechnical Data - Soil							
Bulk Density	lb/cf	72.7	70.6	71.9	81.3	130.3	76.2
Percent Moisture	%	24.9	30.4	28.5	19.5	21.5	23.5
Grain Size - Gravel	%	0.8	0.0	0.2	2.3	6.2	4.0
Grain Size - Coarse Sand	%	4.3	0.1	0.4	4.7	11.9	5.3
Grain Size - Medium Sand	%	16.5	31.5	18.0	23.7	73.0	23.8
Grain Size - Fine Sand	%	17.8	31.5	31.1	40.0	7.8	29.5
Grain Size - Silt/Clay	%	60.6	36.9	50.2	29.4	1.1	37.4

Table A2-3
Phase 1 RI Sediment and Soil Sample Geotechnical Results – Valatie Kill Upstream of Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID:		VK15-T05-E-SL-03	VK15-T05-W-SL-02	VK15-T05-W-SL-05	VK15-T06-E-SL-02	VK15-T06-W-SL-01	VK15-T06-W-SL-04
Sample Depth (Inches):		0 - 10	0 - 24	0 - 6	0 - 22	0 - 14	0 - 10
Date:		11/13/2015	11/13/2015	11/19/2015	12/15/2015	12/15/2015	12/15/2015
Sample Name:	Units	VK15-T05-E-SL-03-0010	VK15-T05-W-SL-02-0024	VK15-T05-W-SL-05-0006	VK15-T06-E-SL-02-0022	VK15-T06-W-SL-01-0014	VK15-T06-W-SL-04-0010
Geotechnical Data - Soil							
Bulk Density	lb/cf	93.8	70.7	69.8	73.4	91.6	82.6
Percent Moisture	%	6.6	23.5	26.0	21.1	36.5	23.3
Grain Size - Gravel	%	56.7	0.2	0.7	8.5	0.7	4.9
Grain Size - Coarse Sand	%	14.2	0.3	0.3	4.8	1.1	3.7
Grain Size - Medium Sand	%	21.0	8.2	25.6	12.8	9.0	18.5
Grain Size - Fine Sand	%	5.7	27.2	25.6	20.2	53.9	37.0
Grain Size - Silt/Clay	%	2.4	64.1	47.9	53.7	35.3	36.0

Location ID:		VK15-T07-E-SL-01	VK15-T07-E-SL-05	VK15-T07-W-SL-03	VK15-T08-E-SL-02	VK15-T08-W-SL-02	VK15-T08-W-SL-05
Sample Depth (Inches):		0 - 24	0 - 24	0 - 15	0 - 24	0 - 22	0 - 14
Date:		12/14/2015	12/15/2015	12/15/2015	11/11/2015	11/13/2015	11/16/2015
Sample Name:	Units	VK15-T07-E-SL-01-0024	VK15-T07-E-SL-05-0024	VK15-T07-W-SL-03-0015	VK15-T08-E-SL-02-0024	VK15-T08-W-SL-02-0022	VK15-T08-W-SL-05-0014
Geotechnical Data - Soil							
Bulk Density	lb/cf	76.2	57.6	71.7	71.8	97.2	80.6
Percent Moisture	%	24.6	34.6	22.5	43.2	28.1	62.3
Grain Size - Gravel	%	0.0	0.0	8.6	1.7	0.3	0.6
Grain Size - Coarse Sand	%	0.1	0.1	1.0	1.7	0.7	1.1
Grain Size - Medium Sand	%	6.9	10.0	15.5	38.5	32.3	23.4
Grain Size - Fine Sand	%	37.1	42.4	15.3	24.5	50.3	34.5
Grain Size - Silt/Clay	%	55.9	47.5	59.6	33.6	16.5	40.5

Location ID:		VK15-T09-E-SL-03	VK15-T09-W-SL-01	VK15-T09-W-SL-04	VK15-T10-E-SL-02	VK15-T10-E-SL-05	VK15-T10-W-SL-03
Sample Depth (Inches):		0 - 18	0 - 24	0 - 24	0 - 22	0 - 24	0 - 24
Date:		11/12/2015	11/12/2015	11/12/2015	11/17/2015	11/17/2015	11/16/2015
Sample Name:	Units	VK15-T09-E-SL-03-0018	VK15-T09-W-SL-01-0024	VK15-T09-W-SL-04-0024	VK15-T10-E-SL-02-0022	VK15-T10-E-SL-05-0024	VK15-T10-W-SL-03-0024
Geotechnical Data - Soil							
Bulk Density	lb/cf	79.1	70.9	70.6	76.6	68.8	76.2
Percent Moisture	%	32.7	26.4	23.4	19.0	30.9	18.7
Grain Size - Gravel	%	2.9	1.8	0.0	0.0	0.9	2.5
Grain Size - Coarse Sand	%	3.4	0.7	0.1	0.0	1.3	3.7
Grain Size - Medium Sand	%	31.4	8.5	7.8	11.5	5.1	25.9
Grain Size - Fine Sand	%	36.7	46.8	16.6	52.8	16.5	39.9
Grain Size - Silt/Clay	%	25.5	42.2	75.0	35.6	76.1	28.0

Table A2-4
**Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York**

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	NL15-IL-SED-01 0 - 6 11/19/2015 NL15-IL-SED-01-0006	NL15-IL-SED-07 0 - 6 11/19/2015 NL15-IL-SED-07-0006
PCB Congeners			
Total PCBs (Congeners)	ppm	2.85	5.34
VOCs			
1,1,1-Trichloroethane	ppb	ND(15)	ND(30)
1,1,2,2-Tetrachloroethane	ppb	ND(15)	ND(30)
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	ND(15)	ND(30)
1,1,2-Trichloroethane	ppb	ND(15)	ND(30)
1,1-Dichloroethane	ppb	ND(15)	ND(30)
1,1-Dichloroethene	ppb	ND(15)	ND(30)
1,2,4-Trichlorobenzene	ppb	ND(15)	ND(30)
1,2-Dibromo-3-chloropropane	ppb	ND(15)	ND(30)
1,2-Dibromoethane	ppb	ND(15)	ND(30)
1,2-Dichlorobenzene	ppb	ND(15)	ND(30)
1,2-Dichloroethane	ppb	ND(15)	ND(30)
1,2-Dichloropropane	ppb	ND(15)	ND(30)
1,3-Dichlorobenzene	ppb	ND(15)	ND(30)
1,4-Dichlorobenzene	ppb	ND(15)	ND(30)
2-Butanone	ppb	74 J	260 J
2-Hexanone	ppb	ND(15)	ND(30)
4-Methyl-2-pentanone	ppb	ND(15 J)	ND(30 J)
Acetone	ppb	440 J	1,300 EJ
Benzene	ppb	ND(15)	ND(30)
Bromodichloromethane	ppb	ND(15)	ND(30)
Bromoform	ppb	ND(15)	ND(30)
Bromomethane	ppb	ND(15)	ND(30)
Carbon disulfide	ppb	32	25 J
Carbon tetrachloride	ppb	ND(15)	ND(30)
Chlorobenzene	ppb	ND(15)	ND(30)
Chloroethane	ppb	ND(15)	ND(30)
Chloroform	ppb	ND(15 J)	ND(30 J)
Chloromethane	ppb	ND(15)	ND(30)
cis-1,2-Dichloroethene	ppb	ND(15)	ND(30)
cis-1,3-Dichloropropene	ppb	ND(15)	ND(30)
Cyclohexane	ppb	ND(15)	ND(30)
Dibromochloromethane	ppb	ND(15)	ND(30)
Dichlorodifluoromethane	ppb	ND(15 J)	ND(30 J)
Dichloromethane	ppb	ND(15)	ND(30)
Ethylbenzene	ppb	ND(15)	ND(30)
Isopropylbenzene	ppb	ND(15)	ND(30)
m,p-Xylene	ppb	ND(15)	ND(30)
Methyl tert-butyl ether	ppb	ND(15)	ND(30)
o-Xylene	ppb	ND(15)	ND(30)
Styrene	ppb	ND(15)	ND(30)
Tetrachloroethene	ppb	ND(15)	ND(30)
Toluene	ppb	ND(15)	ND(30)
trans-1,2-Dichloroethene	ppb	ND(15)	ND(30)
trans-1,3-Dichloropropene	ppb	ND(15)	ND(30)
Trichloroethene	ppb	ND(15)	ND(30)
Trichlorofluoromethane	ppb	ND(15)	ND(30)
Vinyl chloride	ppb	ND(15)	ND(30)
SVOCs			
1,1'-Biphenyl	ppb	ND(1,600)	ND(1,600)
1,4-Dioxane	ppb	ND(320)	R
2,4,5-Trichlorophenol	ppb	ND(4,100)	ND(4,100)
2,4,6-Trichlorophenol	ppb	ND(1,600)	ND(1,600)
2,4-Dichlorophenol	ppb	ND(1,600)	ND(1,600)
2,4-Dimethylphenol	ppb	ND(1,600)	ND(1,600)
2,4-Dinitrophenol	ppb	ND(4,100)	ND(4,100)
2,4-Dinitrotoluene	ppb	ND(1,600)	ND(1,600)
2,6-Dinitrotoluene	ppb	ND(1,600)	ND(1,600)
2-Chloronaphthalene	ppb	ND(1,600)	ND(1,600)
2-Chlorophenol	ppb	ND(1,600)	ND(1,600)
2-Methylnaphthalene	ppb	ND(1,600)	ND(1,600)
2-Methylphenol	ppb	ND(1,600)	ND(1,600)

Table A2-4

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	NL15-IL-SED-01 0 - 6 11/19/2015 NL15-IL-SED-01-0006	NL15-IL-SED-07 0 - 6 11/19/2015 NL15-IL-SED-07-0006
SVOCs (continued)			
2-Nitroaniline	ppb	ND(4,100)	ND(4,100)
2-Nitrophenol	ppb	ND(1,600)	ND(1,600)
3,3'-Dichlorobenzidine	ppb	ND(1,600)	ND(1,600)
3-Methylphenol/4-Methylphenol	ppb	ND(3,300)	ND(3,200)
3-Nitroaniline	ppb	ND(4,100)	ND(4,100)
4,6-Dinitro-2-methylphenol	ppb	ND(4,100)	ND(4,100)
4-Bromophenyl-phenylether	ppb	ND(1,600)	ND(1,600)
4-Chloro-3-methylphenol	ppb	ND(1,600)	ND(1,600)
4-Chloroaniline	ppb	ND(1,600)	ND(1,600)
4-Chlorophenyl-phenylether	ppb	ND(1,600)	ND(1,600)
4-Nitroaniline	ppb	ND(4,100)	ND(4,100)
4-Nitrophenol	ppb	ND(4,100)	ND(4,100)
Acenaphthene	ppb	ND(1,600)	ND(1,600)
Acenaphthylene	ppb	ND(1,600)	ND(1,600)
Anthracene	ppb	ND(1,600)	ND(1,600)
Benzo(a)anthracene	ppb	ND(1,600)	ND(1,600)
Benzo(a)pyrene	ppb	ND(1,600)	ND(1,600)
Benzo(b)fluoranthene	ppb	ND(1,600)	ND(1,600)
Benzo(g,h,i)perylene	ppb	ND(1,600)	ND(1,600)
Benzo(k)fluoranthene	ppb	ND(1,600 J)	ND(1,600 J)
bis(2-chloroethoxy)methane	ppb	ND(1,600 J)	ND(1,600 J)
bis(2-chloroethyl)ether	ppb	ND(1,600)	ND(1,600)
bis(2-Chloroisopropyl)ether	ppb	ND(1,600 J)	ND(1,600 J)
bis(2-Ethylhexyl)phthalate	ppb	ND(1,600)	ND(1,600)
Butylbenzylphthalate	ppb	ND(1,600)	ND(1,600)
Carbazole	ppb	ND(1,600)	ND(1,600)
Chrysene	ppb	ND(1,600)	ND(1,600)
Dibenz(a,h)anthracene	ppb	ND(1,600)	ND(1,600)
Dibenzofuran	ppb	ND(1,600)	ND(1,600)
Diethylphthalate	ppb	ND(1,600)	ND(1,600)
Dimethylphthalate	ppb	ND(1,600)	ND(1,600)
Di-n-butylphthalate	ppb	ND(1,600)	ND(1,600)
Di-n-octylphthalate	ppb	ND(1,600)	ND(1,600)
Fluoranthene	ppb	ND(1,600)	ND(1,600)
Fluorene	ppb	ND(1,600)	ND(1,600)
Hexachlorobenzene	ppb	ND(1,600)	ND(1,600)
Hexachlorobutadiene	ppb	ND(1,600)	ND(1,600)
Hexachlorocyclopentadiene	ppb	ND(1,600 J)	ND(1,600 J)
Hexachloroethane	ppb	ND(1,600)	ND(1,600)
Indeno(1,2,3-cd)pyrene	ppb	ND(1,600)	ND(1,600)
Isophorone	ppb	ND(1,600)	ND(1,600)
Naphthalene	ppb	ND(1,600)	ND(1,600)
Nitrobenzene	ppb	ND(1,600)	ND(1,600)
N-Nitroso-di-n-propylamine	ppb	ND(1,600)	ND(1,600)
N-Nitrosodiphenylamine	ppb	ND(1,600)	ND(1,600)
Pentachlorophenol	ppb	ND(4,100)	ND(4,100)
Phenanthrene	ppb	ND(1,600)	ND(1,600)
Phenol	ppb	ND(1,600 J)	ND(1,600 J)
Pyrene	ppb	ND(1,600)	ND(1,600)
Inorganics			
Aluminum	ppm	27,200	24,200
Antimony	ppm	2.7 J	2.1 J
Arsenic	ppm	10.5	6.1
Barium	ppm	415	373
Beryllium	ppm	1.5	1.3
Cadmium	ppm	ND(0.56)	ND(0.56)
Calcium	ppm	3,730	3,150
Chromium	ppm	31.2	27.5
Cobalt	ppm	17.2	15.2
Copper	ppm	160	135
Iron	ppm	40,700	36,100
Lead	ppm	129	72.3
Magnesium	ppm	5,330	4,740

Table A2-4
**Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York**

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	NL15-IL-SED-01 0 - 6 11/19/2015 NL15-IL-SED-01-0006	NL15-IL-SED-07 0 - 6 11/19/2015 NL15-IL-SED-07-0006
Inorganics (continued)			
Manganese	ppm	1,050	898
Mercury	ppm	0.29	0.19
Nickel	ppm	29.6	25.5
Potassium	ppm	2,010	1,790
Selenium	ppm	6.7	6.2
Silver	ppm	4.5	4.1
Sodium	ppm	192 J	168 J
Thallium	ppm	3.1	2.6
Vanadium	ppm	31.8	27.2
Zinc	ppm	238	176
Pesticides			
Aldrin	ppb	ND(8.4)	ND(8.4)
alpha Chlordane	ppb	ND(8.4)	ND(8.4)
alpha-BHC	ppb	ND(8.4)	ND(8.4)
beta-BHC	ppb	ND(8.4)	ND(8.4)
delta-BHC	ppb	ND(8.4)	ND(8.4)
Dieldrin	ppb	25	29
Endosulfan I	ppb	ND(8.4)	ND(8.4)
Endosulfan II	ppb	10 JN	11 JN
Endosulfan sulfate	ppb	ND(8.4)	ND(8.4)
Endrin	ppb	ND(8.4)	ND(8.4)
Endrin aldehyde	ppb	15 JN	18 JN
Endrin ketone	ppb	28 JN	33 JN
gamma Chlordane	ppb	4.9 J	20
gamma-BHC	ppb	ND(8.4)	ND(8.4)
Heptachlor	ppb	ND(8.4)	ND(8.4)
Heptachlor epoxide	ppb	ND(8.4)	13
Methoxychlor	ppb	ND(16)	ND(16)
p,p'-DDD	ppb	ND(8.4)	ND(8.4)
p,p'-DDE	ppb	ND(8.4)	ND(8.4)
p,p'-DDT	ppb	87	100
Toxaphene	ppb	ND(330)	ND(330)
Dioxins/Furans			
1,2,3,4,6,7,8-HpCDD	ppt	40	NS
1,2,3,4,6,7,8-HpCDF	ppt	25	NS
1,2,3,4,7,8,9-HpCDF	ppt	ND(10)	NS
1,2,3,4,7,8-HxCDD	ppt	ND(10)	NS
1,2,3,4,7,8-HxCDF	ppt	11	NS
1,2,3,6,7,8-HxCDD	ppt	ND(10)	NS
1,2,3,6,7,8-HxCDF	ppt	ND(10)	NS
1,2,3,7,8,9-HxCDD	ppt	ND(10)	NS
1,2,3,7,8,9-HxCDF	ppt	ND(10)	NS
1,2,3,7,8-PeCDD	ppt	ND(10)	NS
1,2,3,7,8-PeCDF	ppt	17	NS
2,3,4,6,7,8-HxCDF	ppt	13	NS
2,3,4,7,8-PeCDF	ppt	22	NS
2,3,7,8-TCDD	ppt	ND(2)	NS
2,3,7,8-TCDF	ppt	32	NS
OCDD	ppt	520	NS
OCDF	ppt	27	NS
TEQ	ppt	19	NS
Total HpCDD	ppt	81	NS
Total HpCDF	ppt	43	NS
Total HxCDD	ppt	ND(10)	NS
Total HxCDF	ppt	120	NS
Total PeCDD	ppt	ND(10)	NS
Total PeCDF	ppt	380	NS
Total TCDD	ppt	ND(2)	NS
Total TCDF	ppt	310	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	22.1	NS

Table A2-4

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	NL15-IL-SED-11 0 - 6 11/20/2015 NL15-IL-SED-11-0006	NL15-IL-SED-13 0 - 6 11/19/2015 NL15-IL-SED-13-0006	NL15-IL-SED-19 0 - 6 11/19/2015 NL15-IL-SED-19-0006
PCB Congeners				
Total PCBs (Congeners)	ppm	NS	5.4	0.333 J
VOCs				
1,1,1-Trichloroethane	ppb	NS	ND(61)	ND(9)
1,1,2,2-Tetrachloroethane	ppb	NS	ND(61)	ND(9)
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	NS	ND(61)	ND(9)
1,1,2-Trichloroethane	ppb	NS	ND(61)	ND(9)
1,1-Dichloroethane	ppb	NS	ND(61)	ND(9)
1,1-Dichloroethene	ppb	NS	ND(61)	ND(9)
1,2,4-Trichlorobenzene	ppb	NS	ND(61)	ND(9)
1,2-Dibromo-3-chloropropane	ppb	NS	ND(61)	ND(9)
1,2-Dibromoethane	ppb	NS	ND(61)	ND(9)
1,2-Dichlorobenzene	ppb	NS	ND(61)	ND(9)
1,2-Dichloroethane	ppb	NS	ND(61)	ND(9)
1,2-Dichloropropane	ppb	NS	ND(61)	ND(9)
1,3-Dichlorobenzene	ppb	NS	ND(61)	ND(9)
1,4-Dichlorobenzene	ppb	NS	ND(61)	ND(9)
2-Butanone	ppb	NS	82 J	70 J
2-Hexanone	ppb	NS	ND(61)	ND(9)
4-Methyl-2-pentanone	ppb	NS	ND(61 J)	ND(9)
Acetone	ppb	NS	400 J	380 EJ
Benzene	ppb	NS	ND(61)	ND(9)
Bromodichloromethane	ppb	NS	ND(61)	ND(9)
Bromoform	ppb	NS	ND(61)	ND(9)
Bromomethane	ppb	NS	ND(61)	ND(9)
Carbon disulfide	ppb	NS	ND(61)	ND(9)
Carbon tetrachloride	ppb	NS	ND(61)	ND(9)
Chlorobenzene	ppb	NS	ND(61)	ND(9)
Chloroethane	ppb	NS	ND(61)	ND(9)
Chloroform	ppb	NS	ND(61 J)	ND(9)
Chloromethane	ppb	NS	ND(61)	ND(9)
cis-1,2-Dichloroethene	ppb	NS	ND(61)	ND(9)
cis-1,3-Dichloropropene	ppb	NS	ND(61)	ND(9)
Cyclohexane	ppb	NS	ND(61)	ND(9)
Dibromochloromethane	ppb	NS	ND(61)	ND(9)
Dichlorodifluoromethane	ppb	NS	ND(61 J)	ND(9 J)
Dichloromethane	ppb	NS	ND(61)	ND(9)
Ethylbenzene	ppb	NS	ND(61)	ND(9)
Isopropylbenzene	ppb	NS	ND(61)	ND(9)
m,p-Xylene	ppb	NS	ND(61)	ND(9)
Methyl tert-butyl ether	ppb	NS	ND(61)	ND(9)
o-Xylene	ppb	NS	ND(61)	ND(9)
Styrene	ppb	NS	ND(61)	ND(9)
Tetrachloroethene	ppb	NS	ND(61)	ND(9)
Toluene	ppb	NS	ND(61)	ND(9)
trans-1,2-Dichloroethene	ppb	NS	ND(61)	ND(9)
trans-1,3-Dichloropropene	ppb	NS	ND(61)	ND(9)
Trichloroethene	ppb	NS	ND(61)	ND(9)
Trichlorofluoromethane	ppb	NS	ND(61)	ND(9)
Vinyl chloride	ppb	NS	ND(61)	ND(9)
SVOCs				
1,1'-Biphenyl	ppb	NS	ND(1,700)	ND(790)
1,4-Dioxane	ppb	NS	ND(300)	ND(150)
2,4,5-Trichlorophenol	ppb	NS	ND(4,200)	ND(2,000)
2,4,6-Trichlorophenol	ppb	NS	ND(1,700)	ND(790)
2,4-Dichlorophenol	ppb	NS	ND(1,700)	ND(790)
2,4-Dimethylphenol	ppb	NS	ND(1,700)	ND(790)
2,4-Dinitrophenol	ppb	NS	ND(4,200)	ND(2,000 J)
2,4-Dinitrotoluene	ppb	NS	ND(1,700)	ND(790)
2,6-Dinitrotoluene	ppb	NS	ND(1,700)	ND(790)
2-Chloronaphthalene	ppb	NS	ND(1,700)	ND(790)
2-Chlorophenol	ppb	NS	ND(1,700)	ND(790)
2-Methylnaphthalene	ppb	NS	ND(1,700)	ND(790)
2-Methylphenol	ppb	NS	ND(1,700)	ND(790)

Table A2-4
Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	NL15-IL-SED-11 0 - 6 11/20/2015 NL15-IL-SED-11-0006	NL15-IL-SED-13 0 - 6 11/19/2015 NL15-IL-SED-13-0006	NL15-IL-SED-19 0 - 6 11/19/2015 NL15-IL-SED-19-0006
SVOCs (continued)				
2-Nitroaniline	ppb	NS	ND(4,200)	ND(2,000)
2-Nitrophenol	ppb	NS	ND(1,700)	ND(790)
3,3'-Dichlorobenzidine	ppb	NS	ND(1,700)	ND(790)
3-Methylphenol/4-Methylphenol	ppb	NS	ND(3,300)	ND(1,600)
3-Nitroaniline	ppb	NS	ND(4,200)	ND(2,000)
4,6-Dinitro-2-methylphenol	ppb	NS	ND(4,200)	ND(2,000)
4-Bromophenyl-phenylether	ppb	NS	ND(1,700)	ND(790)
4-Chloro-3-methylphenol	ppb	NS	ND(1,700)	ND(790)
4-Chloroaniline	ppb	NS	ND(1,700)	ND(790)
4-Chlorophenyl-phenylether	ppb	NS	ND(1,700)	ND(790)
4-Nitroaniline	ppb	NS	ND(4,200)	ND(2,000)
4-Nitrophenol	ppb	NS	ND(4,200)	ND(2,000)
Acenaphthene	ppb	NS	ND(1,700)	ND(790)
Acenaphthylene	ppb	NS	ND(1,700)	ND(790)
Anthracene	ppb	NS	ND(1,700)	ND(790)
Benzo(a)anthracene	ppb	NS	ND(1,700)	ND(790)
Benzo(a)pyrene	ppb	NS	ND(1,700)	ND(790)
Benzo(b)fluoranthene	ppb	NS	ND(1,700)	ND(790)
Benzo(g,h,i)perylene	ppb	NS	ND(1,700)	ND(790)
Benzo(k)fluoranthene	ppb	NS	ND(1,700 J)	ND(790 J)
bis(2-chloroethoxy)methane	ppb	NS	ND(1,700 J)	ND(790 J)
bis(2-chloroethyl)ether	ppb	NS	ND(1,700)	ND(790)
bis(2-Chloroisopropyl)ether	ppb	NS	ND(1,700 J)	ND(790 J)
bis(2-Ethylhexyl)phthalate	ppb	NS	ND(1,700)	ND(790)
Butylbenzylphthalate	ppb	NS	ND(1,700)	ND(790)
Carbazole	ppb	NS	ND(1,700)	ND(790)
Chrysene	ppb	NS	ND(1,700)	ND(790)
Dibenz(a,h)anthracene	ppb	NS	ND(1,700)	ND(790)
Dibenzofuran	ppb	NS	ND(1,700)	ND(790)
Diethylphthalate	ppb	NS	ND(1,700)	ND(790)
Dimethylphthalate	ppb	NS	ND(1,700)	ND(790)
Di-n-butylphthalate	ppb	NS	ND(1,700)	ND(790)
Di-n-octylphthalate	ppb	NS	ND(1,700)	ND(790)
Fluoranthene	ppb	NS	ND(1,700)	ND(790)
Fluorene	ppb	NS	ND(1,700)	ND(790)
Hexachlorobenzene	ppb	NS	ND(1,700)	ND(790)
Hexachlorobutadiene	ppb	NS	ND(1,700)	ND(790)
Hexachlorocyclopentadiene	ppb	NS	ND(1,700 J)	ND(790 J)
Hexachloroethane	ppb	NS	ND(1,700)	ND(790)
Indeno(1,2,3-cd)pyrene	ppb	NS	ND(1,700)	ND(790)
Isophorone	ppb	NS	ND(1,700)	ND(790)
Naphthalene	ppb	NS	ND(1,700)	ND(790)
Nitrobenzene	ppb	NS	ND(1,700)	ND(790)
N-Nitroso-di-n-propylamine	ppb	NS	ND(1,700)	ND(790)
N-Nitrosodiphenylamine	ppb	NS	ND(1,700)	ND(790)
Pentachlorophenol	ppb	NS	ND(4,200)	ND(2,000)
Phenanthrene	ppb	NS	ND(1,700)	ND(790)
Phenol	ppb	NS	ND(1,700 J)	ND(790 J)
Pyrene	ppb	NS	ND(1,700)	ND(790)
Inorganics				
Aluminum	ppm	NS	24,300	15,200
Antimony	ppm	NS	2.1 J	1.5 J
Arsenic	ppm	NS	7.1	5.1
Barium	ppm	NS	406	259
Beryllium	ppm	NS	1.4	0.88
Cadmium	ppm	NS	ND(0.61)	ND(0.28)
Calcium	ppm	NS	3,380	2,390
Chromium	ppm	NS	27.9	19.9
Cobalt	ppm	NS	14.8	14.5
Copper	ppm	NS	137	43.4
Iron	ppm	NS	46,100	42,200
Lead	ppm	NS	79.1	26.3
Magnesium	ppm	NS	4,870	5,170

Table A2-4
**Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York**

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	NL15-IL-SED-11 0 - 6 11/20/2015 NL15-IL-SED-11-0006	NL15-IL-SED-13 0 - 6 11/19/2015 NL15-IL-SED-13-0006	NL15-IL-SED-19 0 - 6 11/19/2015 NL15-IL-SED-19-0006
Inorganics (continued)				
Manganese	ppm	NS	1,510	3,590
Mercury	ppm	NS	0.24	ND(0.084)
Nickel	ppm	NS	25.2	22.7
Potassium	ppm	NS	1,760	987
Selenium	ppm	NS	7.2	4.2
Silver	ppm	NS	5.1	4.1
Sodium	ppm	NS	170 J	63.8 J
Thallium	ppm	NS	6.7	18
Vanadium	ppm	NS	28.4	15.2
Zinc	ppm	NS	178	116
Pesticides				
Aldrin	ppb	NS	ND(8.7)	ND(3.5)
alpha Chlordane	ppb	NS	ND(8.7)	ND(3.5)
alpha-BHC	ppb	NS	ND(8.7)	ND(3.5)
beta-BHC	ppb	NS	ND(8.7)	ND(3.5)
delta-BHC	ppb	NS	ND(8.7)	ND(3.5)
Dieldrin	ppb	NS	38	1.1 J
Endosulfan I	ppb	NS	ND(8.7)	ND(3.5)
Endosulfan II	ppb	NS	16 J	ND(3.5)
Endosulfan sulfate	ppb	NS	ND(8.7)	ND(3.5)
Endrin	ppb	NS	12 JN	ND(3.5)
Endrin aldehyde	ppb	NS	19 JN	0.9 J
Endrin ketone	ppb	NS	36 JN	ND(3.5)
gamma Chlordane	ppb	NS	7.5 J	ND(3.5)
gamma-BHC	ppb	NS	ND(8.7)	ND(3.5)
Heptachlor	ppb	NS	ND(8.7)	ND(3.5)
Heptachlor epoxide	ppb	NS	ND(8.7)	ND(3.5)
Methoxychlor	ppb	NS	41 JN	ND(6.9)
p,p'-DDD	ppb	NS	ND(8.7)	ND(3.5)
p,p'-DDE	ppb	NS	ND(8.7)	ND(3.5)
p,p'-DDT	ppb	NS	130	4.5 J
Toxaphene	ppb	NS	ND(340)	ND(140)
Dioxins/Furans				
1,2,3,4,6,7,8-HpCDD	ppt	35	NS	NS
1,2,3,4,6,7,8-HpCDF	ppt	25	NS	NS
1,2,3,4,7,8,9-HpCDF	ppt	ND(12)	NS	NS
1,2,3,4,7,8-HxCDD	ppt	ND(12)	NS	NS
1,2,3,4,7,8-HxCDF	ppt	13	NS	NS
1,2,3,6,7,8-HxCDD	ppt	ND(12)	NS	NS
1,2,3,6,7,8-HxCDF	ppt	12	NS	NS
1,2,3,7,8,9-HxCDD	ppt	ND(12)	NS	NS
1,2,3,7,8,9-HxCDF	ppt	ND(12)	NS	NS
1,2,3,7,8-PeCDD	ppt	ND(12)	NS	NS
1,2,3,7,8-PeCDF	ppt	21	NS	NS
2,3,4,6,7,8-HxCDF	ppt	16	NS	NS
2,3,4,7,8-PeCDF	ppt	31	NS	NS
2,3,7,8-TCDD	ppt	ND(2.3)	NS	NS
2,3,7,8-TCDF	ppt	45	NS	NS
OCDD	ppt	480	NS	NS
OCDF	ppt	24	NS	NS
TEQ	ppt	26	NS	NS
Total HpCDD	ppt	73	NS	NS
Total HpCDF	ppt	25	NS	NS
Total HxCDD	ppt	ND(12)	NS	NS
Total HxCDF	ppt	150	NS	NS
Total PeCDD	ppt	ND(12)	NS	NS
Total PeCDF	ppt	510	NS	NS
Total TCDD	ppt	ND(2.3)	NS	NS
Total TCDF	ppt	450	NS	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	28.9	NS	NS

Table A2-4

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	NL15-IL-SED-21 0 - 6 11/20/2015 NL15-IL-SED-21-0006	NL15-IL-SED-25 0 - 6 11/19/2015 NL15-IL-SED-25-0006
PCB Congeners			
Total PCBs (Congeners)	ppm	NS	2.37 J
VOCs			
1,1,1-Trichloroethane	ppb	NS	ND(23)
1,1,2,2-Tetrachloroethane	ppb	NS	ND(23)
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	NS	ND(23)
1,1,2-Trichloroethane	ppb	NS	ND(23)
1,1-Dichloroethane	ppb	NS	ND(23)
1,1-Dichloroethene	ppb	NS	ND(23)
1,2,4-Trichlorobenzene	ppb	NS	ND(23)
1,2-Dibromo-3-chloropropane	ppb	NS	ND(23)
1,2-Dibromoethane	ppb	NS	ND(23)
1,2-Dichlorobenzene	ppb	NS	ND(23)
1,2-Dichloroethane	ppb	NS	ND(23)
1,2-Dichloropropane	ppb	NS	ND(23)
1,3-Dichlorobenzene	ppb	NS	ND(23)
1,4-Dichlorobenzene	ppb	NS	ND(23)
2-Butanone	ppb	NS	260 J
2-Hexanone	ppb	NS	ND(23)
4-Methyl-2-pentanone	ppb	NS	ND(23)
Acetone	ppb	NS	1,100 EJ
Benzene	ppb	NS	ND(23)
Bromodichloromethane	ppb	NS	ND(23)
Bromoform	ppb	NS	ND(23)
Bromomethane	ppb	NS	ND(23)
Carbon disulfide	ppb	NS	22 J
Carbon tetrachloride	ppb	NS	ND(23)
Chlorobenzene	ppb	NS	ND(23)
Chloroethane	ppb	NS	ND(23)
Chloroform	ppb	NS	ND(23)
Chloromethane	ppb	NS	ND(23)
cis-1,2-Dichloroethene	ppb	NS	ND(23)
cis-1,3-Dichloropropene	ppb	NS	ND(23)
Cyclohexane	ppb	NS	ND(23)
Dibromochloromethane	ppb	NS	ND(23)
Dichlorodifluoromethane	ppb	NS	ND(23 J)
Dichloromethane	ppb	NS	ND(23)
Ethylbenzene	ppb	NS	ND(23)
Isopropylbenzene	ppb	NS	ND(23)
m,p-Xylene	ppb	NS	ND(23)
Methyl tert-butyl ether	ppb	NS	ND(23)
o-Xylene	ppb	NS	ND(23)
Styrene	ppb	NS	ND(23)
Tetrachloroethene	ppb	NS	ND(23)
Toluene	ppb	NS	ND(23)
trans-1,2-Dichloroethene	ppb	NS	ND(23)
trans-1,3-Dichloropropene	ppb	NS	ND(23)
Trichloroethene	ppb	NS	ND(23)
Trichlorofluoromethane	ppb	NS	ND(23)
Vinyl chloride	ppb	NS	ND(23)
SVOCs			
1,1'-Biphenyl	ppb	NS	ND(1,600)
1,4-Dioxane	ppb	NS	ND(350)
2,4,5-Trichlorophenol	ppb	NS	ND(4,100)
2,4,6-Trichlorophenol	ppb	NS	ND(1,600)
2,4-Dichlorophenol	ppb	NS	ND(1,600)
2,4-Dimethylphenol	ppb	NS	ND(1,600)
2,4-Dinitrophenol	ppb	NS	ND(4,100 J)
2,4-Dinitrotoluene	ppb	NS	ND(1,600)
2,6-Dinitrotoluene	ppb	NS	ND(1,600)
2-Chloronaphthalene	ppb	NS	ND(1,600)
2-Chlorophenol	ppb	NS	ND(1,600)
2-Methylnaphthalene	ppb	NS	ND(1,600)
2-Methylphenol	ppb	NS	ND(1,600)

Table A2-4

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	NL15-IL-SED-21 0 - 6 11/20/2015 NL15-IL-SED-21-0006	NL15-IL-SED-25 0 - 6 11/19/2015 NL15-IL-SED-25-0006
SVOCs (continued)			
2-Nitroaniline	ppb	NS	ND(4,100)
2-Nitrophenol	ppb	NS	ND(1,600)
3,3'-Dichlorobenzidine	ppb	NS	ND(1,600)
3-Methylphenol/4-Methylphenol	ppb	NS	ND(3,300)
3-Nitroaniline	ppb	NS	ND(4,100)
4,6-Dinitro-2-methylphenol	ppb	NS	ND(4,100)
4-Bromophenyl-phenylether	ppb	NS	ND(1,600)
4-Chloro-3-methylphenol	ppb	NS	ND(1,600)
4-Chloroaniline	ppb	NS	ND(1,600)
4-Chlorophenyl-phenylether	ppb	NS	ND(1,600)
4-Nitroaniline	ppb	NS	ND(4,100)
4-Nitrophenol	ppb	NS	ND(4,100)
Acenaphthene	ppb	NS	ND(1,600)
Acenaphthylene	ppb	NS	ND(1,600)
Anthracene	ppb	NS	ND(1,600)
Benzo(a)anthracene	ppb	NS	ND(1,600)
Benzo(a)pyrene	ppb	NS	ND(1,600)
Benzo(b)fluoranthene	ppb	NS	ND(1,600)
Benzo(g,h,i)perylene	ppb	NS	ND(1,600)
Benzo(k)fluoranthene	ppb	NS	ND(1,600 J)
bis(2-chloroethoxy)methane	ppb	NS	ND(1,600 J)
bis(2-chloroethyl)ether	ppb	NS	ND(1,600)
bis(2-Chloroisopropyl)ether	ppb	NS	ND(1,600 J)
bis(2-Ethylhexyl)phthalate	ppb	NS	ND(1,600)
Butylbenzylphthalate	ppb	NS	ND(1,600)
Carbazole	ppb	NS	ND(1,600)
Chrysene	ppb	NS	ND(1,600)
Dibenz(a,h)anthracene	ppb	NS	ND(1,600)
Dibenzofuran	ppb	NS	ND(1,600)
Diethylphthalate	ppb	NS	ND(1,600)
Dimethylphthalate	ppb	NS	ND(1,600)
Di-n-butylphthalate	ppb	NS	ND(1,600)
Di-n-octylphthalate	ppb	NS	ND(1,600)
Fluoranthene	ppb	NS	ND(1,600)
Fluorene	ppb	NS	ND(1,600)
Hexachlorobenzene	ppb	NS	ND(1,600)
Hexachlorobutadiene	ppb	NS	ND(1,600)
Hexachlorocyclopentadiene	ppb	NS	ND(1,600 J)
Hexachloroethane	ppb	NS	ND(1,600)
Indeno(1,2,3-cd)pyrene	ppb	NS	ND(1,600)
Isophorone	ppb	NS	ND(1,600)
Naphthalene	ppb	NS	ND(1,600)
Nitrobenzene	ppb	NS	ND(1,600)
N-Nitroso-di-n-propylamine	ppb	NS	ND(1,600)
N-Nitrosodiphenylamine	ppb	NS	ND(1,600)
Pentachlorophenol	ppb	NS	ND(4,100)
Phenanthrene	ppb	NS	ND(1,600)
Phenol	ppb	NS	ND(1,600 J)
Pyrene	ppb	NS	ND(1,600)
Inorganics			
Aluminum	ppm	NS	23,500
Antimony	ppm	NS	2.1 J
Arsenic	ppm	NS	6.9
Barium	ppm	NS	395
Beryllium	ppm	NS	1.4
Cadmium	ppm	NS	ND(0.61)
Calcium	ppm	NS	3,370
Chromium	ppm	NS	28.8
Cobalt	ppm	NS	16.9
Copper	ppm	NS	144
Iron	ppm	NS	41,200
Lead	ppm	NS	79.5
Magnesium	ppm	NS	5,480

Table A2-4
**Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York**

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	NL15-IL-SED-21 0 - 6 11/20/2015 NL15-IL-SED-21-0006	NL15-IL-SED-25 0 - 6 11/19/2015 NL15-IL-SED-25-0006
Inorganics (continued)			
Manganese	ppm	NS	1,410
Mercury	ppm	NS	0.12 J
Nickel	ppm	NS	28.6
Potassium	ppm	NS	1,930
Selenium	ppm	NS	6.6
Silver	ppm	NS	4.5
Sodium	ppm	NS	167 J
Thallium	ppm	NS	6
Vanadium	ppm	NS	31
Zinc	ppm	NS	190
Pesticides			
Aldrin	ppb	NS	ND(8.5)
alpha Chlordane	ppb	NS	ND(8.5)
alpha-BHC	ppb	NS	ND(8.5)
beta-BHC	ppb	NS	ND(8.5)
delta-BHC	ppb	NS	ND(8.5)
Dieldrin	ppb	NS	13 J
Endosulfan I	ppb	NS	ND(8.5)
Endosulfan II	ppb	NS	12 J
Endosulfan sulfate	ppb	NS	ND(8.5)
Endrin	ppb	NS	ND(8.5)
Endrin aldehyde	ppb	NS	15 J
Endrin ketone	ppb	NS	13 JN
gamma Chlordane	ppb	NS	3.5 J
gamma-BHC	ppb	NS	ND(8.5)
Heptachlor	ppb	NS	ND(8.5)
Heptachlor epoxide	ppb	NS	8.2 J
Methoxychlor	ppb	NS	16 JN
p,p'-DDD	ppb	NS	ND(8.5)
p,p'-DDE	ppb	NS	ND(8.5)
p,p'-DDT	ppb	NS	49 J
Toxaphene	ppb	NS	ND(330)
Dioxins/Furans			
1,2,3,4,6,7,8-HpCDD	ppt	ND(3.9)	NS
1,2,3,4,6,7,8-HpCDF	ppt	ND(3.9)	NS
1,2,3,4,7,8,9-HpCDF	ppt	ND(3.9)	NS
1,2,3,4,7,8-HxCDD	ppt	ND(3.9)	NS
1,2,3,4,7,8-HxCDF	ppt	ND(3.9)	NS
1,2,3,6,7,8-HxCDD	ppt	ND(3.9)	NS
1,2,3,6,7,8-HxCDF	ppt	ND(3.9)	NS
1,2,3,7,8,9-HxCDD	ppt	ND(3.9)	NS
1,2,3,7,8,9-HxCDF	ppt	ND(3.9)	NS
1,2,3,7,8-PeCDD	ppt	ND(3.9)	NS
1,2,3,7,8-PeCDF	ppt	ND(3.9)	NS
2,3,4,6,7,8-HxCDF	ppt	ND(3.9)	NS
2,3,4,7,8-PeCDF	ppt	ND(3.9)	NS
2,3,7,8-TCDD	ppt	ND(0.79)	NS
2,3,7,8-TCDF	ppt	ND(0.79)	NS
OCDD	ppt	21	NS
OCDF	ppt	ND(7.9)	NS
TEQ	ppt	0.021	NS
Total HpCDD	ppt	ND(3.9)	NS
Total HpCDF	ppt	ND(3.9)	NS
Total HxCDD	ppt	ND(3.9)	NS
Total HxCDF	ppt	ND(3.9)	NS
Total PeCDD	ppt	ND(3.9)	NS
Total PeCDF	ppt	ND(3.9)	NS
Total TCDD	ppt	ND(0.79)	NS
Total TCDF	ppt	14	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	4.46	NS

Table A2-5
Phase 1 RI Sediment Sample Geotechnical Results – Nassau Lake
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	NL15-IL-SED-01 0 - 18 11/19/2015 NL15-IL-SED-01-0018	NL15-IL-SED-04 0 - 18 11/19/2015 NL15-IL-SED-04-0018	NL15-IL-SED-07 0 - 18 11/19/2015 NL15-IL-SED-07-0018	NL15-IL-SED-11 0 - 18 11/20/2015 NL15-IL-SED-11-0018	NL15-IL-SED-14 0 - 18 11/20/2015 NL15-IL-SED-14-0018
Geotechnical Data - Sediment						
Bulk Density	lb/cf	70.4	86.4	65.1	59.3	65.5
Percent Moisture	%	78.0	59.0	85.9	86.2	89.2
Grain Size - Gravel	%	0.1	0.2	15.8	1.1	1.6
Grain Size - Coarse Sand	%	1.0	0.4	11.7	21.6	3.7
Grain Size - Medium Sand	%	52.1	32.7	6.9	13.4	42.6
Grain Size - Fine Sand	%	17.5	23.2	5.3	8.9	23.6
Grain Size - Silt/Clay	%	29.3	43.5	60.1	55.0	28.5

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	NL15-IL-SED-17 0 - 18 11/20/2015 NL15-IL-SED-17-0018	NL15-IL-SED-21 0 - 10 11/20/2015 NL15-IL-SED-21-0010	NL15-IL-SED-24 0 - 18 11/19/2015 NL15-IL-SED-24-0018	NL15-IL-SED-27 0 - 18 11/20/2015 NL15-IL-SED-27-0018
Geotechnical Data - Sediment					
Bulk Density	lb/cf	65.0	134.9	77.8	57.7
Percent Moisture	%	87.8	19.9	61.7	84.8
Grain Size - Gravel	%	0.0	40.3	1.5	0.0
Grain Size - Coarse Sand	%	10.2	14.6	2.1	16.0
Grain Size - Medium Sand	%	10.0	25.7	33.9	8.0
Grain Size - Fine Sand	%	9.2	14.2	21.8	6.7
Grain Size - Silt/Clay	%	70.7	5.3	40.8	69.3

Table A2-6

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Southern Drainageway
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	SEDD15-SED-01 0 - 6 11/10/2015 SEDD15-SED-01-0006	SEDD15-SED-05 0 - 3 12/3/2015 SEDD15-SED-05-0003
PCB Congeners			
Total PCBs (Congeners)	ppm	3.09	NS
VOCs			
1,1,1-Trichloroethane	ppb	ND(7)	ND(9 J) [ND(10)]
1,1,2,2-Tetrachloroethane	ppb	ND(7)	ND(9 J) [ND(10 J)]
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	ND(7)	ND(9 J) [ND(10)]
1,1,2-Trichloroethane	ppb	ND(7)	ND(9 J) [ND(10)]
1,1-Dichloroethane	ppb	ND(7)	ND(9) [ND(10)]
1,1-Dichloroethene	ppb	ND(7)	ND(9) [ND(10)]
1,2,4-Trichlorobenzene	ppb	ND(7)	ND(9 J) [ND(10 J)]
1,2-Dibromo-3-chloropropane	ppb	ND(7)	ND(9 J) [ND(10 J)]
1,2-Dibromoethane	ppb	ND(7)	ND(9 J) [ND(10)]
1,2-Dichlorobenzene	ppb	ND(7)	ND(9 J) [ND(10 J)]
1,2-Dichloroethane	ppb	ND(7)	ND(9) [ND(10)]
1,2-Dichloropropane	ppb	ND(7)	ND(9) [ND(10)]
1,3-Dichlorobenzene	ppb	ND(7)	ND(9 J) [ND(10 J)]
1,4-Dichlorobenzene	ppb	ND(7)	ND(9 J) [ND(10 J)]
2-Butanone	ppb	19 J	9 [10]
2-Hexanone	ppb	ND(7 J)	ND(9 J) [ND(10)]
4-Methyl-2-pentanone	ppb	ND(7 J)	ND(9 J) [ND(10 J)]
Acetone	ppb	130 J	38 J [34 J]
Benzene	ppb	2 J	ND(9 J) [2 J]
Bromodichloromethane	ppb	ND(7)	ND(9) [ND(10)]
Bromoform	ppb	ND(7)	ND(9 J) [ND(10)]
Bromomethane	ppb	ND(7)	ND(9) [ND(10)]
Carbon disulfide	ppb	ND(7)	ND(9) [ND(10)]
Carbon tetrachloride	ppb	ND(7)	ND(9 J) [ND(10)]
Chlorobenzene	ppb	ND(7)	ND(9) [ND(10)]
Chloroethane	ppb	ND(7)	ND(9) [ND(10)]
Chloroform	ppb	ND(7 J)	ND(9) [ND(10)]
Chloromethane	ppb	ND(7)	ND(9) [ND(10)]
cis-1,2-Dichloroethene	ppb	ND(7)	2 J [4 J]
cis-1,3-Dichloropropene	ppb	ND(7)	ND(9 J) [ND(10)]
Cyclohexane	ppb	ND(7)	ND(9 J) [ND(10)]
Dibromochloromethane	ppb	ND(7)	ND(9) [ND(10)]
Dichlorodifluoromethane	ppb	ND(7)	ND(9) [ND(10)]
Dichloromethane	ppb	ND(7 J)	2 J [3 J]
Ethylbenzene	ppb	ND(7)	ND(9 J) [ND(10)]
Isopropylbenzene	ppb	ND(7)	ND(9 J) [ND(10 J)]
m,p-Xylene	ppb	ND(7)	ND(9) [ND(10)]
Methyl tert-butyl ether	ppb	ND(7)	ND(9) [ND(10)]
o-Xylene	ppb	ND(7)	ND(9 J) [ND(10)]
Styrene	ppb	ND(7)	ND(9 J) [ND(10)]
Tetrachloroethene	ppb	ND(7)	ND(9 J) [ND(10)]
Toluene	ppb	ND(7)	ND(9 J) [ND(10)]
trans-1,2-Dichloroethene	ppb	ND(7)	ND(9) [ND(10)]
trans-1,3-Dichloropropene	ppb	ND(7)	ND(9) [ND(10)]
Trichloroethene	ppb	ND(7)	3 J [3 J]
Trichlorofluoromethane	ppb	ND(7)	ND(9) [ND(10)]
Vinyl chloride	ppb	ND(7)	ND(9) [ND(10)]
SVOCs			
1,1'-Biphenyl	ppb	ND(490)	ND(580) [ND(620)]
1,4-Dioxane	ppb	ND(100)	ND(120) [ND(120)]
2,4,5-Trichlorophenol	ppb	ND(1,200)	ND(1,500) [ND(1,600)]
2,4,6-Trichlorophenol	ppb	ND(490)	ND(580) [ND(620)]
2,4-Dichlorophenol	ppb	ND(490)	ND(580) [ND(620)]
2,4-Dimethylphenol	ppb	ND(490)	ND(580 J) [ND(620)]
2,4-Dinitrophenol	ppb	ND(1,200)	ND(1,500 J) [ND(1,600 J)]
2,4-Dinitrotoluene	ppb	ND(490)	ND(580) [ND(620 J)]

Table A2-6
Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Southern Drainageway
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	SEDD15-SED-01 0 - 6 11/10/2015 SEDD15-SED-01-0006	SEDD15-SED-05 0 - 3 12/3/2015 SEDD15-SED-05-0003
SVOCs (continued)			
2,6-Dinitrotoluene	ppb	ND(490)	ND(580) [ND(620)]
2-Chloronaphthalene	ppb	ND(490)	ND(580) [ND(620 J)]
2-Chlorophenol	ppb	ND(490)	ND(580) [ND(620)]
2-Methylnaphthalene	ppb	ND(490)	ND(580) [ND(620 J)]
2-Methylphenol	ppb	ND(490)	ND(580 J) [ND(620)]
2-Nitroaniline	ppb	ND(1,200)	ND(1,500) [ND(1,600)]
2-Nitrophenol	ppb	ND(490)	ND(580) [ND(620)]
3,3'-Dichlorobenzidine	ppb	ND(490)	R [ND(620)]
3-Methylphenol/4-Methylphenol	ppb	ND(980)	ND(1,200 J) [ND(1,200)]
3-Nitroaniline	ppb	ND(1,200)	ND(1,500 J) [ND(1,600)]
4,6-Dinitro-2-methylphenol	ppb	ND(1,200)	ND(1,500 J) [ND(1,600 J)]
4-Bromophenyl-phenylether	ppb	ND(490)	ND(580) [ND(620)]
4-Chloro-3-methylphenol	ppb	ND(490)	ND(580) [ND(620 J)]
4-Chloroaniline	ppb	ND(490)	ND(580 J) [ND(620)]
4-Chlorophenyl-phenylether	ppb	ND(490)	ND(580) [ND(620)]
4-Nitroaniline	ppb	ND(1,200)	ND(1,500) [ND(1,600)]
4-Nitrophenol	ppb	ND(1,200 J)	ND(1,500) [ND(1,600)]
Acenaphthene	ppb	ND(490)	ND(580) [ND(620)]
Acenaphthylene	ppb	ND(490)	ND(580) [ND(620 J)]
Anthracene	ppb	ND(490)	ND(580) [ND(620)]
Benzo(a)anthracene	ppb	ND(490)	ND(580) [ND(620)]
Benzo(a)pyrene	ppb	ND(490)	ND(580) [ND(620)]
Benzo(b)fluoranthene	ppb	ND(490)	ND(580) [ND(620)]
Benzo(g,h,i)perylene	ppb	ND(490)	ND(580) [ND(620)]
Benzo(k)fluoranthene	ppb	ND(490)	ND(580) [ND(620)]
bis(2-chloroethoxy)methane	ppb	ND(490)	ND(580) [ND(620)]
bis(2-chloroethyl)ether	ppb	ND(490)	ND(580) [ND(620)]
bis(2-Chloroisopropyl)ether	ppb	ND(490)	ND(580) [ND(620)]
bis(2-Ethylhexyl)phthalate	ppb	ND(490)	ND(580) [ND(620)]
Butylbenzylphthalate	ppb	ND(490)	ND(580) [ND(620)]
Carbazole	ppb	ND(490)	ND(580) [ND(620)]
Chrysene	ppb	ND(490)	ND(580) [ND(620)]
Dibenz(a,h)anthracene	ppb	ND(490)	ND(580) [ND(620)]
Dibenzofuran	ppb	ND(490)	ND(580) [ND(620)]
Diethylphthalate	ppb	ND(490)	ND(580) [ND(620)]
Dimethylphthalate	ppb	ND(490)	ND(580) [ND(620)]
Di-n-butylphthalate	ppb	ND(490)	ND(580) [ND(620)]
Di-n-octylphthalate	ppb	ND(490)	ND(580) [ND(620)]
Fluoranthene	ppb	ND(490)	ND(580) [ND(620)]
Fluorene	ppb	ND(490)	ND(580) [ND(620 J)]
Hexachlorobenzene	ppb	ND(490)	ND(580) [ND(620)]
Hexachlorobutadiene	ppb	ND(490)	ND(580) [ND(620)]
Hexachlorocyclopentadiene	ppb	ND(490)	ND(580 J) [ND(620 J)]
Hexachloroethane	ppb	ND(490)	ND(580) [ND(620)]
Indeno(1,2,3-cd)pyrene	ppb	ND(490)	ND(580) [ND(620)]
Isophorone	ppb	ND(490)	ND(580) [ND(620)]
Naphthalene	ppb	ND(490)	ND(580) [ND(620)]
Nitrobenzene	ppb	ND(490)	ND(580) [ND(620)]
N-Nitroso-di-n-propylamine	ppb	ND(490)	ND(580) [ND(620)]
N-Nitrosodiphenylamine	ppb	ND(490)	ND(580) [ND(620)]
Pentachlorophenol	ppb	ND(1,200)	ND(1,500 J) [ND(1,600 J)]
Phenanthrene	ppb	ND(490)	ND(580) [ND(620)]
Phenol	ppb	ND(490)	ND(580) [ND(620)]
Pyrene	ppb	ND(490)	ND(580) [ND(620)]

Table A2-6
Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Southern Drainageway
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	SEDD15-SED-01 0 - 6 11/10/2015 SEDD15-SED-01-0006	SEDD15-SED-05 0 - 3 12/3/2015 SEDD15-SED-05-0003
Inorganics			
Aluminum	ppm	16,500	11,200 J [12,300 J]
Antimony	ppm	1.4 J	1 J [1.3 J]
Arsenic	ppm	6.5	9 [13.7]
Barium	ppm	190	276 [296]
Beryllium	ppm	1	0.64 [0.78]
Cadmium	ppm	4.3	1.7 J [2 J]
Calcium	ppm	1,880	1,540 [1,800]
Chromium	ppm	48.9	13.1 J [14.5 J]
Cobalt	ppm	13.7	13.6 [13.6]
Copper	ppm	24.7	14.8 [17.5]
Iron	ppm	37,500	28,800 [36,400]
Lead	ppm	12.9	18.4 J [20.7 J]
Magnesium	ppm	5,000	2,500 [2,800]
Manganese	ppm	827	3,790 J [3,750 J]
Mercury	ppm	ND(0.052)	0.048 J [0.053 J]
Nickel	ppm	21	13.8 [15.1]
Potassium	ppm	1,490	601 [652]
Selenium	ppm	9.2	5.5 [6.9]
Silver	ppm	ND(0.68)	3.1 J [3.7 J]
Sodium	ppm	46.9 J	ND(401) [ND(440)]
Thallium	ppm	1.7	10.1 J [10.1 J]
Vanadium	ppm	14.8	15.8 [19.2]
Zinc	ppm	90	75.6 [84.3]
Pesticides			
Aldrin	ppb	1.9 JN	ND(2.9) [ND(2.8)]
alpha Chlordane	ppb	2.1	ND(2.9) [ND(2.8)]
alpha-BHC	ppb	ND(1.7)	ND(2.9) [ND(2.8)]
beta-BHC	ppb	ND(1.7)	ND(2.9) [ND(2.8)]
delta-BHC	ppb	1.3 J	ND(2.9) [ND(2.8)]
Dieldrin	ppb	12	0.87 JN [ND(2.8)]
Endosulfan I	ppb	ND(1.7)	ND(2.9) [ND(2.8)]
Endosulfan II	ppb	8.8	ND(2.9) [ND(2.8)]
Endosulfan sulfate	ppb	24	ND(2.9) [ND(2.8)]
Endrin	ppb	2.4 JN	ND(2.9) [ND(2.8)]
Endrin aldehyde	ppb	ND(1.7)	ND(2.9) [ND(2.8)]
Endrin ketone	ppb	9.6 JN	ND(2.9) [ND(2.8)]
gamma Chlordane	ppb	2	ND(2.9) [ND(2.8)]
gamma-BHC	ppb	ND(1.7)	ND(2.9) [ND(2.8)]
Heptachlor	ppb	0.56 J	ND(2.9) [ND(2.8)]
Heptachlor epoxide	ppb	3.2 J	ND(2.9) [ND(2.8)]
Methoxychlor	ppb	4.1 JN	ND(5.6) [ND(5.4)]
p,p'-DDD	ppb	8.3 JN	0.78 JN [ND(2.8)]
p,p'-DDE	ppb	ND(1.7)	1 J [ND(2.8)]
p,p'-DDT	ppb	36	ND(2.9) [ND(2.8)]
Toxaphene	ppb	ND(66)	ND(110) [ND(110)]
Dioxins/Furans			
1,2,3,4,6,7,8-HpCDD	ppt	ND(4.9) [ND(4.9)]	NS
1,2,3,4,6,7,8-HpCDF	ppt	ND(4.9) [5]	NS
1,2,3,4,7,8,9-HpCDF	ppt	ND(4.9) [ND(4.9)]	NS
1,2,3,4,7,8-HxCDD	ppt	ND(4.9) [ND(4.9)]	NS
1,2,3,4,7,8-HxCDF	ppt	ND(4.9) [ND(4.9)]	NS
1,2,3,6,7,8-HxCDD	ppt	ND(4.9) [ND(4.9)]	NS
1,2,3,6,7,8-HxCDF	ppt	ND(4.9) [ND(4.9)]	NS
1,2,3,7,8,9-HxCDD	ppt	ND(4.9) [ND(4.9)]	NS
1,2,3,7,8,9-HxCDF	ppt	ND(4.9) [ND(4.9)]	NS
1,2,3,7,8-PeCDD	ppt	ND(4.9) [ND(4.9)]	NS
1,2,3,7,8-PeCDF	ppt	ND(4.9) [ND(4.9)]	NS
2,3,4,6,7,8-HxCDF	ppt	ND(4.9) [ND(4.9)]	NS

Table A2-6
Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Southern Drainageway
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	SEDD15-SED-01 0 - 6 11/10/2015 SEDD15-SED-01-0006	SEDD15-SED-05 0 - 3 12/3/2015 SEDD15-SED-05-0003
Dioxins/Furans (continued)			
2,3,4,7,8-PeCDF	ppt	ND(4.9) [ND(4.9)]	NS
2,3,7,8-TCDD	ppt	ND(0.98) [ND(0.98)]	NS
2,3,7,8-TCDF	ppt	ND(0.98) [1.3]	NS
OCDD	ppt	25 J [52 J]	NS
OCDF	ppt	ND(9.8 J) [13]	NS
TEQ	ppt	0.025 [0.24]	NS
Total HpCDD	ppt	ND(4.9) [ND(4.9)]	NS
Total HpCDF	ppt	ND(4.9) [5]	NS
Total HxCDD	ppt	ND(4.9) [ND(4.9)]	NS
Total HxCDF	ppt	ND(4.9 J) [17 J]	NS
Total PeCDD	ppt	ND(4.9) [ND(4.9)]	NS
Total PeCDF	ppt	5.6 J [26 J]	NS
Total TCDD	ppt	ND(0.98) [ND(0.98)]	NS
Total TCDF	ppt	2.2 J [11 J]	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	5.59 [5.71]	NS

Table A2-6
Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Southern Drainageway
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	SEDD15-SED-09 0 - 6 12/3/2015 SEDD15-SED-09-0006	SEDD15-SL-07 0 - 6 12/4/2015 SEDD15-SL-07-0006	SP15-SED-01 0 - 6 12/3/2015 SP15-SED-01-0006
PCB Congeners				
Total PCBs (Congeners)	ppm	0.961 J	0.215 J	0.748 J
VOCs				
1,1,1-Trichloroethane	ppb	ND(15)	NS	ND(52)
1,1,2,2-Tetrachloroethane	ppb	ND(15 J)	NS	ND(52 J)
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	ND(15)	NS	ND(52)
1,1,2-Trichloroethane	ppb	ND(15)	NS	ND(52)
1,1-Dichloroethane	ppb	ND(15)	NS	ND(52)
1,1-Dichloroethene	ppb	ND(15)	NS	ND(52)
1,2,4-Trichlorobenzene	ppb	ND(15 J)	NS	ND(52 J)
1,2-Dibromo-3-chloropropane	ppb	ND(15 J)	NS	ND(52 J)
1,2-Dibromoethane	ppb	ND(15)	NS	ND(52)
1,2-Dichlorobenzene	ppb	ND(15 J)	NS	ND(52 J)
1,2-Dichloroethane	ppb	ND(15)	NS	ND(52)
1,2-Dichloropropane	ppb	ND(15)	NS	ND(52)
1,3-Dichlorobenzene	ppb	ND(15 J)	NS	ND(52 J)
1,4-Dichlorobenzene	ppb	ND(15 J)	NS	ND(52 J)
2-Butanone	ppb	18	NS	37 J
2-Hexanone	ppb	ND(15)	NS	ND(52)
4-Methyl-2-pentanone	ppb	ND(15 J)	NS	ND(52 J)
Acetone	ppb	79 J	NS	13 J
Benzene	ppb	ND(15)	NS	ND(52)
Bromodichloromethane	ppb	ND(15)	NS	ND(52)
Bromoform	ppb	ND(15)	NS	ND(52)
Bromomethane	ppb	ND(15)	NS	ND(52)
Carbon disulfide	ppb	ND(15)	NS	ND(52)
Carbon tetrachloride	ppb	ND(15)	NS	ND(52)
Chlorobenzene	ppb	4 J	NS	12 J
Chloroethane	ppb	ND(15)	NS	ND(52)
Chloroform	ppb	ND(15)	NS	ND(52)
Chloromethane	ppb	ND(15)	NS	ND(52)
cis-1,2-Dichloroethene	ppb	ND(15)	NS	ND(52)
cis-1,3-Dichloropropene	ppb	ND(15)	NS	ND(52)
Cyclohexane	ppb	ND(15)	NS	ND(52)
Dibromochloromethane	ppb	ND(15)	NS	ND(52)
Dichlorodifluoromethane	ppb	ND(15)	NS	ND(52)
Dichloromethane	ppb	5 J	NS	14 J
Ethylbenzene	ppb	ND(15)	NS	ND(52)
Isopropylbenzene	ppb	ND(15 J)	NS	ND(52 J)
m,p-Xylene	ppb	ND(15)	NS	11 J
Methyl tert-butyl ether	ppb	ND(15)	NS	ND(52)
o-Xylene	ppb	ND(15)	NS	ND(52)
Styrene	ppb	ND(15)	NS	ND(52)
Tetrachloroethene	ppb	ND(15)	NS	ND(52)
Toluene	ppb	ND(15)	NS	ND(52)
trans-1,2-Dichloroethene	ppb	ND(15)	NS	ND(52)
trans-1,3-Dichloropropene	ppb	ND(15)	NS	ND(52)
Trichloroethene	ppb	ND(15)	NS	ND(52)
Trichlorofluoromethane	ppb	ND(15)	NS	ND(52)
Vinyl chloride	ppb	ND(15)	NS	ND(52)
SVOCs				
1,1'-Biphenyl	ppb	ND(960)	NS	ND(3,400)
1,4-Dioxane	ppb	ND(200)	NS	ND(830)
2,4,5-Trichlorophenol	ppb	ND(2,400)	NS	ND(8,600)
2,4,6-Trichlorophenol	ppb	ND(960)	NS	ND(3,400)
2,4-Dichlorophenol	ppb	ND(960)	NS	ND(3,400)
2,4-Dimethylphenol	ppb	ND(960)	NS	ND(3,400)
2,4-Dinitrophenol	ppb	ND(2,400 J)	NS	ND(8,600 J)
2,4-Dinitrotoluene	ppb	ND(960)	NS	ND(3,400 J)

Table A2-6
Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Southern Drainageway
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	SEDD15-SED-09 0 - 6 12/3/2015 SEDD15-SED-09-0006	SEDD15-SL-07 0 - 6 12/4/2015 SEDD15-SL-07-0006	SP15-SED-01 0 - 6 12/3/2015 SP15-SED-01-0006
SVOCs (continued)				
2,6-Dinitrotoluene	ppb	ND(960)	NS	ND(3,400)
2-Chloronaphthalene	ppb	ND(960)	NS	ND(3,400 J)
2-Chlorophenol	ppb	ND(960)	NS	ND(3,400)
2-Methylnaphthalene	ppb	ND(960)	NS	ND(3,400)
2-Methylphenol	ppb	ND(960)	NS	ND(3,400)
2-Nitroaniline	ppb	ND(2,400)	NS	ND(8,600)
2-Nitrophenol	ppb	ND(960)	NS	ND(3,400)
3,3'-Dichlorobenzidine	ppb	ND(960)	NS	ND(3,400)
3-Methylphenol/4-Methylphenol	ppb	ND(1,900)	NS	ND(6,900)
3-Nitroaniline	ppb	ND(2,400)	NS	ND(8,600)
4,6-Dinitro-2-methylphenol	ppb	ND(2,400)	NS	ND(8,600 J)
4-Bromophenyl-phenylether	ppb	ND(960)	NS	ND(3,400)
4-Chloro-3-methylphenol	ppb	ND(960)	NS	ND(3,400)
4-Chloroaniline	ppb	ND(960)	NS	ND(3,400)
4-Chlorophenyl-phenylether	ppb	ND(960)	NS	ND(3,400)
4-Nitroaniline	ppb	ND(2,400)	NS	ND(8,600)
4-Nitrophenol	ppb	ND(2,400)	NS	ND(8,600)
Acenaphthene	ppb	ND(960)	NS	ND(3,400)
Acenaphthylene	ppb	ND(960)	NS	ND(3,400 J)
Anthracene	ppb	ND(960)	NS	ND(3,400)
Benzo(a)anthracene	ppb	ND(960)	NS	870 J
Benzo(a)pyrene	ppb	ND(960)	NS	890 J
Benzo(b)fluoranthene	ppb	ND(960)	NS	800 J
Benzo(g,h,i)perylene	ppb	ND(960)	NS	1,400 J
Benzo(k)fluoranthene	ppb	ND(960 J)	NS	920 J
bis(2-chloroethoxy)methane	ppb	ND(960)	NS	ND(3,400)
bis(2-chloroethyl)ether	ppb	ND(960)	NS	ND(3,400)
bis(2-Chloroisopropyl)ether	ppb	ND(960 J)	NS	ND(3,400)
bis(2-Ethylhexyl)phthalate	ppb	ND(960)	NS	ND(3,400)
Butylbenzylphthalate	ppb	ND(960)	NS	ND(3,400)
Carbazole	ppb	ND(960)	NS	ND(3,400)
Chrysene	ppb	ND(960)	NS	1,200 J
Dibenz(a,h)anthracene	ppb	ND(960)	NS	1,400 J
Dibenzofuran	ppb	ND(960)	NS	ND(3,400)
Diethylphthalate	ppb	ND(960)	NS	ND(3,400)
Dimethylphthalate	ppb	ND(960)	NS	ND(3,400)
Di-n-butylphthalate	ppb	ND(960)	NS	ND(3,400)
Di-n-octylphthalate	ppb	ND(960)	NS	ND(3,400)
Fluoranthene	ppb	ND(960)	NS	850 J
Fluorene	ppb	ND(960)	NS	ND(3,400 J)
Hexachlorobenzene	ppb	ND(960)	NS	ND(3,400)
Hexachlorobutadiene	ppb	ND(960)	NS	ND(3,400)
Hexachlorocyclopentadiene	ppb	ND(960 J)	NS	ND(3,400 J)
Hexachloroethane	ppb	ND(960)	NS	ND(3,400)
Indeno(1,2,3-cd)pyrene	ppb	ND(960)	NS	1,300 J
Isophorone	ppb	ND(960)	NS	ND(3,400)
Naphthalene	ppb	ND(960)	NS	ND(3,400)
Nitrobenzene	ppb	ND(960)	NS	ND(3,400)
N-Nitroso-di-n-propylamine	ppb	ND(960)	NS	ND(3,400)
N-Nitrosodiphenylamine	ppb	ND(960)	NS	ND(3,400)
Pentachlorophenol	ppb	ND(2,400)	NS	ND(8,600 J)
Phenanthrene	ppb	ND(960)	NS	730 J
Phenol	ppb	ND(960)	NS	ND(3,400)
Pyrene	ppb	ND(960)	NS	980 J

Table A2-6
Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Southern Drainageway
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	SEDD15-SED-09 0 - 6 12/3/2015 SEDD15-SED-09-0006	SEDD15-SL-07 0 - 6 12/4/2015 SEDD15-SL-07-0006	SP15-SED-01 0 - 6 12/3/2015 SP15-SED-01-0006
Inorganics				
Aluminum	ppm	19,000	NS	16,400
Antimony	ppm	1.7 J	NS	ND(28.4 J)
Arsenic	ppm	13.9	NS	4.7 J
Barium	ppm	502	NS	416
Beryllium	ppm	1.3	NS	0.8 J
Cadmium	ppm	2.7	NS	1.9
Calcium	ppm	2,420	NS	6,230
Chromium	ppm	20.5	NS	19.3
Cobalt	ppm	15.5	NS	11.4 J
Copper	ppm	34	NS	29.8
Iron	ppm	39,600	NS	23,700
Lead	ppm	45.2	NS	38.3
Magnesium	ppm	2,760	NS	2,620
Manganese	ppm	1,660	NS	795
Mercury	ppm	0.2	NS	ND(0.41)
Nickel	ppm	NS	NS	17.7 J
Potassium	ppm	1,000	NS	1,430 J
Selenium	ppm	9.4	NS	7.1
Silver	ppm	4.5	NS	2.7 J
Sodium	ppm	ND(674)	NS	ND(2,360)
Thallium	ppm	5.6	NS	ND(4.7)
Vanadium	ppm	31.6	NS	20.2 J
Zinc	ppm	155	NS	122
Pesticides				
Aldrin	ppb	ND(4.8)	NS	ND(22)
alpha-Chlordane	ppb	ND(4.8)	NS	ND(22)
alpha-BHC	ppb	0.83 J	NS	ND(22)
beta-BHC	ppb	ND(4.8)	NS	ND(22)
delta-BHC	ppb	ND(4.8)	NS	ND(22)
Dieldrin	ppb	5.3 J	NS	ND(22)
Endosulfan I	ppb	2 J	NS	ND(22)
Endosulfan II	ppb	ND(4.8)	NS	ND(22)
Endosulfan sulfate	ppb	ND(4.8)	NS	ND(22)
Endrin	ppb	ND(4.8)	NS	ND(22)
Endrin aldehyde	ppb	5.9 J	NS	ND(22)
Endrin ketone	ppb	12 J	NS	ND(22)
gamma-Chlordane	ppb	ND(4.8)	NS	ND(22)
gamma-BHC	ppb	ND(4.8)	NS	ND(22)
Heptachlor	ppb	ND(4.8)	NS	ND(22)
Heptachlor epoxide	ppb	ND(4.8)	NS	ND(22)
Methoxychlor	ppb	ND(9.4)	NS	ND(42)
p,p'-DDD	ppb	ND(4.8)	NS	ND(22)
p,p'-DDE	ppb	5.2	NS	5.1 J
p,p'-DDT	ppb	18	NS	ND(22)
Toxaphene	ppb	ND(190)	NS	ND(860)
Dioxins/Furans				
1,2,3,4,6,7,8-HpCDD	ppt	NS	NS	NS
1,2,3,4,6,7,8-HpCDF	ppt	NS	NS	NS
1,2,3,4,7,8,9-HpCDF	ppt	NS	NS	NS
1,2,3,4,7,8-HxCDD	ppt	NS	NS	NS
1,2,3,4,7,8-HxCDF	ppt	NS	NS	NS
1,2,3,6,7,8-HxCDD	ppt	NS	NS	NS
1,2,3,6,7,8-HxCDF	ppt	NS	NS	NS
1,2,3,7,8,9-HxCDD	ppt	NS	NS	NS
1,2,3,7,8,9-HxCDF	ppt	NS	NS	NS
1,2,3,7,8-PeCDD	ppt	NS	NS	NS
1,2,3,7,8-PeCDF	ppt	NS	NS	NS
2,3,4,6,7,8-HxCDF	ppt	NS	NS	NS

Table A2-6
Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Southern Drainageway
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	SEDD15-SED-09 0 - 6 12/3/2015 SEDD15-SED-09-0006	SEDD15-SL-07 0 - 6 12/4/2015 SEDD15-SL-07-0006	SP15-SED-01 0 - 6 12/3/2015 SP15-SED-01-0006
Dioxins/Furans (continued)				
2,3,4,7,8-PeCDF	ppt	NS	NS	NS
2,3,7,8-TCDD	ppt	NS	NS	NS
2,3,7,8-TCDF	ppt	NS	NS	NS
OCDD	ppt	NS	NS	NS
OCDF	ppt	NS	NS	NS
TEQ	ppt	NS	NS	NS
Total HpCDD	ppt	NS	NS	NS
Total HpCDF	ppt	NS	NS	NS
Total HxCDD	ppt	NS	NS	NS
Total HxCDF	ppt	NS	NS	NS
Total PeCDD	ppt	NS	NS	NS
Total PeCDF	ppt	NS	NS	NS
Total TCDD	ppt	NS	NS	NS
Total TCDF	ppt	NS	NS	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	NS	NS	NS

Table A2-6
Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Southern Drainageway
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VS15-SED-01 0 - 6 11/10/2015 VS15-SED-01-0006	VS15-SL-04 0 - 6 11/10/2015 VS15-SL-04-0006
PCB Congeners			
Total PCBs (Congeners)	ppm	ND(0.0304) [0.0554 J]	NS
VOCs			
1,1,1-Trichloroethane	ppb	ND(13)	ND(10)
1,1,2,2-Tetrachloroethane	ppb	ND(13)	ND(10)
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb	ND(13)	ND(10)
1,1,2-Trichloroethane	ppb	ND(13)	ND(10)
1,1-Dichloroethane	ppb	ND(13)	ND(10)
1,1-Dichloroethene	ppb	ND(13)	ND(10)
1,2,4-Trichlorobenzene	ppb	ND(13)	ND(10)
1,2-Dibromo-3-chloropropane	ppb	ND(13)	ND(10)
1,2-Dibromoethane	ppb	ND(13)	ND(10)
1,2-Dichlorobenzene	ppb	ND(13)	ND(10)
1,2-Dichloroethane	ppb	ND(13)	ND(10)
1,2-Dichloropropane	ppb	ND(13)	ND(10)
1,3-Dichlorobenzene	ppb	ND(13)	ND(10)
1,4-Dichlorobenzene	ppb	ND(13)	ND(10)
2-Butanone	ppb	ND(13 J)	ND(10 J)
2-Hexanone	ppb	ND(13 J)	ND(10 J)
4-Methyl-2-pentanone	ppb	ND(13 J)	ND(10 J)
Acetone	ppb	310 J	400 EJ
Benzene	ppb	3 J	2 J
Bromodichloromethane	ppb	ND(13)	ND(10)
Bromoform	ppb	ND(13)	ND(10)
Bromomethane	ppb	ND(13)	ND(10)
Carbon disulfide	ppb	ND(13)	ND(10)
Carbon tetrachloride	ppb	ND(13)	ND(10)
Chlorobenzene	ppb	ND(13)	ND(10)
Chloroethane	ppb	ND(13)	ND(10)
Chloroform	ppb	ND(13 J)	ND(10 J)
Chloromethane	ppb	ND(13)	ND(10)
cis-1,2-Dichloroethene	ppb	ND(13)	ND(10)
cis-1,3-Dichloropropene	ppb	ND(13)	ND(10)
Cyclohexane	ppb	ND(13)	ND(10)
Dibromochloromethane	ppb	ND(13)	ND(10)
Dichlorodifluoromethane	ppb	ND(13)	ND(10)
Dichloromethane	ppb	15 J	ND(10 J)
Ethylbenzene	ppb	ND(13)	ND(10)
Isopropylbenzene	ppb	ND(13)	ND(10)
m,p-Xylene	ppb	ND(13)	ND(10)
Methyl tert-butyl ether	ppb	ND(13)	ND(10)
o-Xylene	ppb	ND(13)	ND(10)
Styrene	ppb	ND(13)	ND(10)
Tetrachloroethene	ppb	ND(13)	ND(10)
Toluene	ppb	3 J	3 J
trans-1,2-Dichloroethene	ppb	ND(13)	ND(10)
trans-1,3-Dichloropropene	ppb	ND(13)	ND(10)
Trichloroethene	ppb	ND(13)	ND(10)
Trichlorofluoromethane	ppb	ND(13)	ND(10)
Vinyl chloride	ppb	ND(13)	ND(10)
SVOCs			
1,1'-Biphenyl	ppb	ND(610)	ND(550)
1,4-Dioxane	ppb	ND(140)	ND(130)
2,4,5-Trichlorophenol	ppb	ND(1,500)	ND(1,400)
2,4,6-Trichlorophenol	ppb	ND(610)	ND(550)
2,4-Dichlorophenol	ppb	ND(610)	ND(550)
2,4-Dimethylphenol	ppb	ND(610)	ND(550)
2,4-Dinitrophenol	ppb	ND(1,500)	ND(1,400 J)
2,4-Dinitrotoluene	ppb	ND(610)	ND(550 J)

Table A2-6
Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Southern Drainageway
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VS15-SED-01 0 - 6 11/10/2015 VS15-SED-01-0006	VS15-SL-04 0 - 6 11/10/2015 VS15-SL-04-0006
SVOCs (continued)			
2,6-Dinitrotoluene	ppb	ND(610)	ND(550)
2-Chloronaphthalene	ppb	ND(610)	ND(550 J)
2-Chlorophenol	ppb	ND(610)	ND(550)
2-Methylnaphthalene	ppb	ND(610)	ND(550 J)
2-Methylphenol	ppb	ND(610)	ND(550)
2-Nitroaniline	ppb	ND(1,500)	ND(1,400)
2-Nitrophenol	ppb	ND(610)	ND(550)
3,3'-Dichlorobenzidine	ppb	ND(610)	ND(550)
3-Methylphenol/4-Methylphenol	ppb	ND(1,200)	ND(1,100)
3-Nitroaniline	ppb	ND(1,500)	ND(1,400)
4,6-Dinitro-2-methylphenol	ppb	ND(1,500)	ND(1,400)
4-Bromophenyl-phenylether	ppb	ND(610)	ND(550)
4-Chloro-3-methylphenol	ppb	ND(610)	ND(550 J)
4-Chloroaniline	ppb	ND(610)	ND(550)
4-Chlorophenyl-phenylether	ppb	ND(610)	ND(550)
4-Nitroaniline	ppb	ND(1,500)	ND(1,400)
4-Nitrophenol	ppb	ND(1,500 J)	ND(1,400)
Acenaphthene	ppb	ND(610)	ND(550)
Acenaphthylene	ppb	ND(610)	ND(550 J)
Anthracene	ppb	ND(610)	ND(550)
Benzo(a)anthracene	ppb	ND(610)	ND(550)
Benzo(a)pyrene	ppb	ND(610)	ND(550)
Benzo(b)fluoranthene	ppb	ND(610)	ND(550)
Benzo(g,h,i)perylene	ppb	ND(610)	ND(550)
Benzo(k)fluoranthene	ppb	ND(610)	ND(550)
bis(2-chloroethoxy)methane	ppb	ND(610)	ND(550)
bis(2-chloroethyl)ether	ppb	ND(610)	ND(550)
bis(2-Chloroisopropyl)ether	ppb	ND(610)	ND(550)
bis(2-Ethylhexyl)phthalate	ppb	ND(610)	ND(550)
Butylbenzylphthalate	ppb	ND(610)	ND(550)
Carbazole	ppb	ND(610)	ND(550)
Chrysene	ppb	ND(610)	ND(550)
Dibenz(a,h)anthracene	ppb	ND(610)	ND(550)
Dibenzofuran	ppb	ND(610)	ND(550)
Diethylphthalate	ppb	ND(610)	ND(550)
Dimethylphthalate	ppb	ND(610)	ND(550)
Di-n-butylphthalate	ppb	ND(610)	ND(550)
Di-n-octylphthalate	ppb	ND(610)	ND(550)
Fluoranthene	ppb	ND(610)	ND(550)
Fluorene	ppb	ND(610)	ND(550 J)
Hexachlorobenzene	ppb	ND(610)	ND(550)
Hexachlorobutadiene	ppb	ND(610)	ND(550)
Hexachlorocyclopentadiene	ppb	ND(610)	ND(550 J)
Hexachloroethane	ppb	ND(610)	ND(550)
Indeno(1,2,3-cd)pyrene	ppb	ND(610)	ND(550)
Isophorone	ppb	ND(610)	ND(550)
Naphthalene	ppb	ND(610)	ND(550)
Nitrobenzene	ppb	ND(610)	ND(550)
N-Nitroso-di-n-propylamine	ppb	ND(610)	ND(550)
N-Nitrosodiphenylamine	ppb	ND(610)	ND(550)
Pentachlorophenol	ppb	ND(1,500)	ND(1,400 J)
Phenanthrene	ppb	ND(610)	ND(550)
Phenol	ppb	ND(610)	ND(550)
Pyrene	ppb	ND(610)	ND(550)

Table A2-6
Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Southern Drainageway
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VS15-SED-01 0 - 6 11/10/2015 VS15-SED-01-0006	VS15-SL-04 0 - 6 11/10/2015 VS15-SL-04-0006
Inorganics			
Aluminum	ppm	20,600	20,300
Antimony	ppm	0.99 J	0.74 J
Arsenic	ppm	7.7	2.4
Barium	ppm	316	280
Beryllium	ppm	1	1.1
Cadmium	ppm	0.3	0.14 J
Calcium	ppm	1,710	1,790
Chromium	ppm	31.9	30.5
Cobalt	ppm	11.2	10
Copper	ppm	13.3	10
Iron	ppm	24,200	22,700
Lead	ppm	16	10
Magnesium	ppm	3,760	3,710
Manganese	ppm	508	793
Mercury	ppm	0.043 J	0.034 J
Nickel	ppm	17	16.8
Potassium	ppm	1,070	1,030
Selenium	ppm	4.2	3.7
Silver	ppm	2.4	2.4
Sodium	ppm	168 J	ND(380)
Thallium	ppm	0.93	1.8
Vanadium	ppm	20.2	17.8
Zinc	ppm	90.6	84.3
Pesticides			
Aldrin	ppb	ND(1.7)	ND(1.7)
alpha Chlordane	ppb	ND(1.7)	ND(1.7)
alpha-BHC	ppb	ND(1.7)	ND(1.7)
beta-BHC	ppb	ND(1.7)	ND(1.7)
delta-BHC	ppb	ND(1.7)	ND(1.7)
Dieldrin	ppb	ND(1.7)	ND(1.7)
Endosulfan I	ppb	ND(1.7)	ND(1.7)
Endosulfan II	ppb	ND(1.7)	ND(1.7)
Endosulfan sulfate	ppb	ND(1.7)	ND(1.7)
Endrin	ppb	ND(1.7)	ND(1.7)
Endrin aldehyde	ppb	ND(1.7)	ND(1.7)
Endrin ketone	ppb	0.72 J	ND(1.7)
gamma Chlordane	ppb	ND(1.7)	ND(1.7)
gamma-BHC	ppb	ND(1.7)	ND(1.7)
Heptachlor	ppb	ND(1.7)	ND(1.7)
Heptachlor epoxide	ppb	ND(1.7)	ND(1.7)
Methoxychlor	ppb	ND(3.2)	ND(3.3)
p,p'-DDD	ppb	ND(1.7)	ND(1.7)
p,p'-DDE	ppb	ND(1.7)	ND(1.7)
p,p'-DDT	ppb	ND(1.7)	ND(1.7)
Toxaphene	ppb	ND(66)	ND(67)
Dioxins/Furans			
1,2,3,4,6,7,8-HpCDD	ppt	NS	NS
1,2,3,4,6,7,8-HpCDF	ppt	NS	NS
1,2,3,4,7,8,9-HpCDF	ppt	NS	NS
1,2,3,4,7,8-HxCDD	ppt	NS	NS
1,2,3,4,7,8-HxCDF	ppt	NS	NS
1,2,3,6,7,8-HxCDD	ppt	NS	NS
1,2,3,6,7,8-HxCDF	ppt	NS	NS
1,2,3,7,8,9-HxCDD	ppt	NS	NS
1,2,3,7,8,9-HxCDF	ppt	NS	NS
1,2,3,7,8-PeCDD	ppt	NS	NS
1,2,3,7,8-PeCDF	ppt	NS	NS
2,3,4,6,7,8-HxCDF	ppt	NS	NS

Table A2-6

Phase 1 RI Sediment and Soil Sample Non-PCB Aroclor or -TOC Analytical Results - Southern Drainageway
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VS15-SED-01 0 - 6 11/10/2015 VS15-SED-01-0006	VS15-SL-04 0 - 6 11/10/2015 VS15-SL-04-0006
Dioxins/Furans (continued)			
2,3,4,7,8-PeCDF	ppt	NS	NS
2,3,7,8-TCDD	ppt	NS	NS
2,3,7,8-TCDF	ppt	NS	NS
OCDD	ppt	NS	NS
OCDF	ppt	NS	NS
TEQ	ppt	NS	NS
Total HpCDD	ppt	NS	NS
Total HpCDF	ppt	NS	NS
Total HxCDD	ppt	NS	NS
Total HxCDF	ppt	NS	NS
Total PeCDD	ppt	NS	NS
Total PeCDF	ppt	NS	NS
Total TCDD	ppt	NS	NS
Total TCDF	ppt	NS	NS
WHO Dioxin TEQ(Human/Mammal-NDs used at 1/2 DL)	ppt	NS	NS

Table A2-7
Phase 1 RI Sediment and Soil Sample Geotechnical Results – Southern Drainageway
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	SEDD15-SED-01 0 - 12 11/10/2015 SEDD15-SED-01-0012	SEDD15-SED-05 0 - 3 12/3/2015 SEDD15-SED-05-0003	SEDD15-SED-09 0 - 12 12/3/2015 SEDD15-SED-09-0012	VS15-SED-01 0 - 11 11/10/2015 VS15-SED-01-0011
Geotechnical Data - Sediment					
Bulk Density	lb/cf	85.1	91.2	72.9	83.5
Percent Moisture	%	62.5	51.5	73	48.1
Grain Size - Gravel	%	1.7	3.4	1.3	0.1
Grain Size - Coarse Sand	%	2.8	7	2.2	0.5
Grain Size - Medium Sand	%	16.7	45.1	39	24.4
Grain Size - Fine Sand	%	10.2	34.7	26.7	24.7
Grain Size - Silt/Clay	%	68.6	9.8	30.8	50.3

Location ID: Sample Depth (Inches): Date: Sample Name:	Units	VS15-SL-04 0 - 6 11/10/2015 VS15-SL-04-0006
Geotechnical Data - Soil		
Bulk Density	lb/cf	71.2
Percent Moisture	%	41.4
Grain Size - Gravel	%	0.2
Grain Size - Coarse Sand	%	0.9
Grain Size - Medium Sand	%	31.1
Grain Size - Fine Sand	%	29.5
Grain Size - Silt/Clay	%	38.1

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Table A2-8
Notes for Tables A2-2 through A2-7
Site Characterization Summary Report
Dewey Loeffel Landfill Superfund Site - Nassau, New York

Qualifier Type	Lab Qualifiers	Definition
Inorganic/Organic	J	The compound was positively identified; however, the associated numerical value is an estimated concentration only.
Inorganic/Organic	ND	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
Inorganic/Organic	ND(B)	Compound considered non-detect at the listed value due to associated blank contamination.
Inorganic/Organic	ND(J)	The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
Organic	EJ	The compound was quantitated above the calibration range. The associated numerical value is an estimated concentration only.
Organic	JN	The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
Organic	R	The sample results are rejected.
Acronym Type	Acronym	Definition
Sample IDs	NL	Nassau Lake
Sample IDs	VK	Valatie Kill
Sample IDs	SEDD	Southeast Drainage Ditch
Sample IDs	VS	Valley Stream
Sample IDs	SP	Smith Pond
Matrix	SL	Soil
Matrix	SED	Sediment
Sample Location Type	IL	In-Lake
Sample Location Type	T	Transect
Orientation	E	East
Orientation	W	West
Constituents	PCB	Polychlorinated Biphenyls
Constituents	VOCs	Volatile Organic Compounds
Constituents	SVOCs	Semi-Volatile Organic Compounds
Units	ppm	parts per million (equivalent to mg/kg)
Units	ppb	parts per billion
Units	ppt	parts per trillion
Units	lb/cf	pounds per cubic foot
Units	%	percent
Other	NS	Not sampled for the given parameter

Notes:

1. Total PCBs are the sum of individual Aroclors or Congeners, as appropriate.
2. Samples results presented in brackets ("[]") are for duplicate samples.
3. For VK15-T09 samples, sample IDs designated with a W are physically located on the east side of the Valatie Kill.

APPENDIX A3

USEPA Regional Screening Levels

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Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice); c = cancer; n = noncancer; * = where n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information												Contaminant		Screening Levels												Protection of Ground Water SSLs			
SFO (mg/kg-day) ⁻¹	k _e (y)	IUR (ug/m ³) ⁻¹	k _e (y)	RfD _o (mg/kg-day)	k _e (y)	RT/C ₁ (mg/m ³)	k _e (y)	muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)		
8.7E-03	I	2.2E-06	I	4.0E-03	I	9.0E-03	I	V	1	0.1	1.1E+05	Acetophate	30560-19-1	2.5E+01	n	2.6E+02	c**	9.4E-01	n	3.9E+00	n	8.0E+00	n		1.8E-03	n			
				2.0E-02	I				1	0.1		Acetaldehyde	75-07-0	8.2E+00	n	3.4E+01	n					1.9E+00	n		3.8E-04	n			
									1			Acetochlor	34256-82-1	1.3E+02	n	1.6E+03	n					3.5E+01	n		2.8E-02	n			
				9.0E-01	I	3.1E+01	A	V	1	0.1	1.1E+05	Acetone	67-64-1	6.1E+03	n	6.7E+04	n	3.2E+03	n	1.4E+04	n	1.4E+03	n		2.9E-01	n			
						2.0E-03	X		1	0.1		Acetone Cyanohydrin	75-86-5	2.8E+05	nm	1.2E+06	nm	2.1E-01	n	8.8E-01	n								
				6.0E-02	I	V			1		1.3E+05	Acetonitrile	75-05-8	8.1E+01	n	3.4E+02	n	6.3E+00	n	2.6E+01	n	1.3E+01	n		2.6E-03	n			
3.8E+00	C	1.3E-03	C	1.0E-01	I			V	1	0.1	2.5E+03	Acetophenone	98-96-2	7.8E+02	n	1.2E+04	ns					1.9E+02	n		5.8E-02	n			
				5.0E-04	I	2.0E-05	I	V	1	0.1	2.3E+04	Acetylaminofluorene, 2-Acrolein	53-96-3	1.4E-01	c	6.0E-01	c	2.2E-03	c	9.4E-03	c	1.6E-02	c		7.2E-05	c			
									1				107-02-8	1.4E-02	n	6.0E-02	n	2.1E-03	n	8.8E-03	n	4.2E-03	n		8.4E-07	n			
5.0E-01	I	1.0E-04	I	2.0E-03	I	6.0E-03	I	M	1	0.1	1.1E+05	Acrylamide	79-06-1	2.4E-01	c*	4.6E+00	c*	1.0E-02	c*	1.2E-01	c*	5.0E-02	c*		1.1E-05	c*			
				5.0E-01	I	1.0E-03	I	V	1		1.1E+05	Acrylic Acid	79-10-7	9.9E+00	n	4.2E+01	n	1.0E-01	n	4.4E-01	n	2.1E-01	n		4.2E-05	n			
5.4E-01	I	6.8E-05	I	4.0E-02	A	2.0E-03	I	V	1		1.1E+04	Acrylonitrile	107-13-1	2.5E-01	c**	1.1E+00	c**	4.1E-02	c**	1.8E-01	c**	5.2E-02	c**		1.1E-05	c**			
						6.0E-03	P		1	0.1		Adiponitrile	111-69-3	8.5E+05	nm	3.6E+06	nm	6.3E-01	n	2.6E+00	n			2.0E+00	8.7E-04	c*	1.6E-03		
5.6E-02	C			1.0E-02	I				1	0.1		Alachlor	15972-60-8	9.7E+00	c**	4.1E+01	c*					1.1E+00	c*	2.0E+00	4.9E-04	n	7.5E-04		
				1.0E-03	I				1	0.1		Aldicarb	116-06-3	6.3E+00	n	8.2E+01	n					2.0E+00	n						
				1.0E-03	I				1	0.1		Aldicarb Sulfone	1646-88-4	6.3E+00	n	8.2E+01	n					2.0E+00	n		4.0E+00				
1.7E+01	I	4.9E-03	I	3.0E-05	I			V	1		1.1E+05	Aldicarb sulfoxide	1646-87-3											2.0E+00					
									1	0.1		Aldrin	309-00-2	3.9E-02	c**	1.8E-01	c*	5.7E-04	c	2.5E-03	c	9.2E-04	c*		1.5E-04	c*			
2.1E-02	C	6.0E-06	C	5.0E-03	I	1.0E-04	X	V	1		1.1E+05	Allyl Alcohol	107-18-6	3.5E-01	n	1.5E+00	n	1.0E-02	n	4.4E-02	n	2.1E-02	n		4.2E-06	n			
				1.0E+00	P	5.0E-03	P		1		1.4E+03	Allyl Chloride	107-05-1	1.7E-01	n	6.9E-01	n	1.00E-01	n	4.40E-01	n	2.1E-01	n		6.7E-05	n			
									1			Aluminum	7429-90-5	7.7E+03	n	1.1E+05	nm	5.2E-01	n	2.2E+00	n	2.0E+03	n		3.0E+03	n			
				4.0E-04	I				1	0.1		Aluminum Phosphide	20859-73-8	3.1E+00	n	4.7E+01	n					8.0E-01	n		1.6E-02	n			
2.1E+01	C	6.0E-03	C	9.0E-03	I				1	0.1		Ametryn	834-12-8	5.7E+01	n	7.4E+02	n					1.5E+01	n		1.5E-05	c			
									1	0.1		Aminobiphenyl, 4-	92-67-1	2.6E-02	c	1.1E-01	c	4.7E-04	c	2.0E-03	c	3.0E-03	c		1.5E-05	c			
				8.0E-02	P				1	0.1		Aminophenol, m-	591-27-5	5.1E+02	n	6.6E+03	n					1.6E+02	n		6.1E-02	n			
				2.0E-02	P				1	0.1		Aminophenol, p-	123-30-8	1.3E+02	n	1.6E+03	n					4.0E+01	n		1.5E-02	n			
				2.5E-03	I				1	0.1		Amtraz	33089-61-1	1.6E+01	n	2.1E+02	n					8.2E-01	n		4.2E-01	n			
				2.0E-01	I	1.0E-01	I	V	1		1.4E+04	Ammonia	7664-41-7	1.6E+03	n	2.3E+04	n	1.0E+01	n	4.4E+01	n					n			
						3.0E-03	X	V	1			Ammonium Sulfamate	7773-06-0	8.2E+00	n	3.4E+01	n	3.1E-01	n	1.3E+00	n	6.3E-01	n		1.3E-04	n			
5.7E-03	I	1.6E-06	C	7.0E-03	P	1.0E-03	I		1	0.1		Amyl Alcohol, tert-	75-85-4	4.2E+01	n	4.0E+02	c**	1.0E-01	n	4.4E-01	n	1.3E+01	c**		4.6E-03	c**			
4.0E-02	P			2.0E-03	X				1	0.1		Aniline	62-53-3	4.4E+01	n	4.0E+02	c**	1.0E-01	n	4.4E-01	n	1.3E+01	c**		1.4E+00	c**			
				4.0E-04	I				0.15			Anthraquinone, 9,10-Antimony (metallic)	84-83-1	1.3E+01	n	5.7E+01	c**					7.8E-01	n	6.0E+00	3.5E-02	n	2.7E-01		
				5.0E-04	H				0.15			Antimony Pentoxide	1314-60-9	3.9E+00	n	5.8E+01	n					9.7E-01	n			n			
				4.0E-04	H				0.15			Antimony Trioxide	1332-81-6	3.1E+00	n	4.7E+01	n					7.8E-01	n			n			
				2.0E-04	I				0.15			Antimony Trioxide	1309-64-4	2.8E+04	n	1.2E+05	nm	2.1E-02	n	8.8E-02	n					n			
1.5E+00	I	4.3E-03	I	3.0E-04	I	1.5E-05	C		1	0.03		Arsenic, Inorganic	7440-38-2	6.8E-01	R	3.0E+00	c*R	6.5E-04	c**	2.9E-03	c**	5.2E-02	c*	1.0E+01	1.5E-03	c*	2.9E-01		
				3.5E-06	C	5.0E-05	I		1			Arsine	7784-42-1	2.7E-02	n	4.1E-01	n	5.2E-03	n	2.2E-02	n	7.0E-03	n			n			
				5.0E-02	I				1	0.1		Asulam	3337-71-1	3.2E+02	n	4.1E+03	n					1.0E+02	n		2.6E-02	n			
2.3E-01	C	3.5E-02	I	3.5E-02	I				1	0.1		Atrazine	1912-24-9	2.4E+00	c*	1.0E+01	c					3.0E-01	c	3.0E+00	2.0E-04	c	1.9E-03		
8.8E-01	C	2.5E-04	C	4.0E-04	I				1	0.1		Auramine	492-80-8	6.2E-01	c	2.6E+00	c	1.1E-02	c	4.9E-02	c	6.7E-02	c		6.1E-04	c			
									1	0.1		Avermectin B1	65195-55-3	2.5E+00	n	3.3E+01	n					8.0E-01	n		1.4E+00	n			
1.1E-01	I	3.1E-05	I	3.0E-03	A	1.0E-02	A		1	0.1		Azinphos-methyl	86-50-0	1.9E+01	n	2.5E+02	n	1.0E+00	n	4.4E+00	n	5.6E+00	n		1.7E-03	n			
				1.0E+00	P	7.0E-06	P		1	0.1		Azobenzene	103-33-3	5.6E+00	c	2.6E+01	c	9.1E-02	c	4.0E-01	c	1.2E-01	c		9.3E-04	c			
									1	0.1		Azodicarbonamide	123-77-3	8.6E+02	n	4.0E+03	n	7.3E-04	n	3.1E-03	n	2.0E+03	n		6.8E-01	n			
5.0E-01	C	1.5E-01	C	2.0E-01	I	5.0E-04	H		0.07			Barium	7440-39-3	1.5E+03	n	2.2E+04	n	5.2E-02	n	2.2E-01	n	3.8E+02	n	2.0E+03	1.6E+01	n	8.2E+01		
				2.0E-02	C	2.0E-04	C	M	0.025			Barium Chromate	10294-40-3	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c			c			
				3.0E-01	I			V	1			Benfluralin	1861-40-1	2.3E+03	n	3.5E+04	n					1.7E+02	n		5.6E+00	n			
				5.0E-02	I				1	0.1		Benomyl	17804-35-2	3.2E+02	n	4.1E+03	n					9.7E+01	n		8.5E-02	n			
				2.0E-01	I				1	0.1		Bensulfuron-methyl	83055-99-6	1.3E+03	n	1.6E+04	n					3.9E+02	n		1.0E-01	n			
				3.0E-02	I				1	0.1		Bentazon	25057-																

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice); c = cancer; n = noncancer; * = where n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information												Contaminant		Screening Levels												Protection of Ground Water SSLs		
SFO (mg/kg-day) ¹	k _e (y)	IUR (ug/m ³ -y)	k _e (y)	RfD _o (mg/kg-day)	k _e (y)	RfC _i (mg/m ³ -y)	k _e (y)	o ₁ (y)	muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
				8.0E-03	I	6.0E-02	I	V				6.8E+02	Bromobenzene	108-86-1	2.9E+01	n	1.8E+02	n	6.3E+00	n	2.6E+01	n	6.2E+00	n		4.2E-03	n	
						4.0E-02	X	V				4.0E+03	Bromochloromethane	74-97-5	1.5E+01	n	6.3E+01	n	4.2E+00	n	1.8E+01	n	8.3E+00	n		2.1E-03	n	
6.2E-02	I	3.7E-05	C	2.0E-02	I		V					9.3E+02	Bromodichloromethane	75-27-4	2.9E-01	c	1.3E+00	c	7.6E-02	c	3.3E-01	c	1.3E-01	c	8.0E+01(F)	3.6E-05	c	2.2E-02
7.9E-03	I	1.1E-06	I	2.0E-02	I		V					9.2E+02	Bromoform	75-25-2	1.9E+01	c**	8.6E+01	c*	2.6E+00	c	1.1E+01	c	3.3E+00	c*	8.0E+01(F)	8.7E-04	c*	2.1E-02
				1.4E-03	I	5.0E-03	I	V				3.6E+03	Bromomethane	74-83-9	6.8E-01	n	3.0E+00	n	5.2E-01	n	2.2E+00	n	7.5E-01	n		1.9E-04	n	
				5.0E-03	H		V					2104-96-3	Bromophos	2104-96-3	3.9E+01	n	5.8E+02	n					3.5E+00	n		1.5E-02	n	
				2.0E-02	I		V				0.1	1689-84-5	Bromoxynil	1689-84-5	1.3E+02	n	1.6E+03	n					3.3E+01	n		2.8E-02	n	
				2.0E-02	I		V					1689-99-2	Bromoxynil Octanoate	1689-99-2	1.6E+02	n	2.3E+03	n					1.4E+01	n		1.2E-01	n	
3.4E+00	C	3.0E-05	I			2.0E-03	I	V				6.7E+02	Butadiene, 1,3-	106-99-0	5.8E-02	c**	2.6E-01	c**	9.4E-02	c**	4.1E-01	c**	1.8E-02	c*		9.9E-06	c*	
				1.0E-01	I		V					7.6E+03	Butanol, N-	71-36-3	7.8E+02	n	1.2E+04	ns					2.0E+02	n		4.1E-02	n	
				2.0E+00	P	3.0E+01	P	V				2.1E+04	Butyl alcohol, sec-	78-92-2	1.3E+04	n	1.5E+05	nms	3.1E+03	n	1.3E+04	n	2.4E+03	n		5.0E-01	n	
2.0E-04	C	5.7E-08	C	5.0E-02	I		V					2008-41-5	Butylate	2008-41-5	3.9E+02	n	5.8E+03	n					4.6E+01	n		4.5E-02	n	
											0.1	25013-16-5	Butylated hydroxyanisole	25013-16-5	2.7E+03	c	1.1E+04	c	4.9E+01	c	2.2E+02	c	1.5E+02	c		2.9E-01	c	
3.6E-03	P			3.0E-01	P						0.1	1.1E+02	Butylated hydroxytoluene	128-37-0	1.5E+02	c*	6.4E+02	c*					3.4E+00	c*		1.0E-01	c*	
				5.0E-02	P		V					1.5E+02	Butylbenzene, n-	104-51-8	3.9E+02	ns	5.8E+03	ns					1.0E+02	n		3.2E-01	n	
				1.0E-01	X		V					1.5E+02	Butylbenzene, sec-	135-98-8	7.8E+02	ns	1.2E+04	ns					2.0E+02	n		5.9E-01	n	
				1.0E-01	X		V					1.8E+02	Butylbenzene, tert-	98-06-6	7.8E+02	ns	1.2E+04	ns					6.9E+01	n		1.6E-01	n	
				2.0E-02	A						0.1	75-60-5	Caacodylic Acid	75-60-5	1.3E+02	n	1.6E+03	n					4.0E+01	n		1.1E-02	n	
		1.8E-03	I	1.0E-03	I	1.0E-05	A			0.025	0.001	7440-43-9	Cadmium (Diet)	7440-43-9	7.1E+00	n	9.8E+01	n										
				1.8E-03	I	5.0E-04	I	1.0E-05	A	0.05	0.001	13765-19-0	Cadmium (Water)	13765-19-0	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c	5.0E+00	6.9E-02	n	3.8E-01
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C		M	0.025		105-69-2	Calcium Chromate	105-69-2	3.1E+03	n	4.0E+04	n	2.3E-01	n	9.6E-01	n	9.9E-02	n		2.5E-01	n	
				5.0E-01	I	2.2E-03	C				0.1	2425-06-1	Captafol	2425-06-1	3.6E+00	c**	1.5E+01	c*	6.5E-02	c	2.9E-01	c	4.0E-02	c**		7.1E-04	c**	
1.5E-01	C	4.3E-05	C	2.0E-02	I		V				0.1	133-06-2	Captan	133-06-2	2.4E+02	c**	1.0E+03	c*	4.3E+00	c	1.9E+01	c	3.1E+01	c**		2.2E-02	c**	
2.3E-03	C	6.6E-07	C	1.3E-01	I		V				0.1	63-25-2	Carbaryl	63-25-2	6.3E+02	n	8.2E+03	n					1.8E+02	n		1.7E-01	n	
				5.0E-03	I		V				0.1	1563-66-2	Carbofuran	1563-66-2	3.2E+01	n	4.1E+02	n					9.4E+00	n		3.7E-03	n	1.6E-02
				1.0E-01	I	7.0E-01	I	V				7.4E+02	Carbon Disulfide	75-15-0	7.7E+01	n	3.5E+02	n	7.3E+01	n	3.1E+02	n	8.1E+01	n		2.4E-02	n	
7.0E-02	I	6.0E-06	I	4.0E-03	I	1.0E-01	I	V				4.6E+02	Carbon Tetrachloride	56-23-5	6.5E-01	c*	2.9E+00	c*	4.7E-01	c*	2.0E+00	c*	4.6E-01	c*	5.0E+00	1.8E-04	c*	1.9E-03
						1.0E-01	P	V				5.9E+03	Carbonyl Sulfide	463-58-1	6.7E+00	n	2.8E+01	n	1.0E+01	n	4.4E+01	n	2.1E+01	n		5.1E-02	n	
				1.0E-02	I		V				0.1	55285-14-8	Carbosulfan	55285-14-8	6.3E+01	n	8.2E+02	n					5.1E+00	n		1.2E-01	n	
				1.0E-01	I		V				0.1	5234-68-4	Carboxin	5234-68-4	6.3E+02	n	8.2E+03	n					1.9E+02	n		1.0E-01	n	
						9.0E-04	I					1306-38-3	Ceric oxide	1306-38-3	1.3E+05	nm	5.4E+05	nm	9.4E-02	n	3.9E-01	n				4.0E-02	n	
				1.0E-01	I		V					302-17-0	Chloral Hydrate	302-17-0	7.8E+02	n	1.2E+04	n					2.0E+02	n		4.0E-02	n	
				1.5E-02	I		V				0.1	133-90-4	Chloramben	133-90-4	9.5E+01	n	1.2E+03	n					2.9E+01	n		7.0E-03	n	
4.0E-01	H										0.1	118-75-2	Chloranil	118-75-2	1.3E+00	c	5.7E+00	c					1.8E-01	c		1.5E-04	c	
3.5E-01	I	1.0E-04	I	5.0E-04	I	7.0E-04	I	V			0.04	12789-03-6	Chlordane	12789-03-6	1.7E+00	c**	7.7E+00	c**	2.8E-02	c**	1.2E-01	c**	2.0E-02	c**	2.0E+00	2.7E-03	c**	2.7E-01
1.0E-01	I	4.6E-03	C	3.0E-04	I		V				0.1	143-50-0	Chlordecone (Kepone)	143-50-0	5.4E-02	c*	2.3E-01	c*	6.1E-04	c*	2.7E-03	c*	3.5E-03	c*		1.2E-04	c*	
				7.0E-04	A		V				0.1	470-90-6	Chlorfenvinphos	470-90-6	4.4E+00	n	5.7E+01	n					1.1E+00	n		3.1E-03	n	
				2.0E-02	I		V				0.1	90982-32-4	Chlorimuron, Ethyl-	90982-32-4	1.3E+02	n	1.6E+03	n					3.9E+01	n		1.3E-02	n	
				1.0E-01	I	1.5E-04	A	V				2.8E+03	Chlorine	7782-50-5	1.8E-02	n	7.8E-02	n	1.5E-02	n	6.4E-02	n	3.0E-02	n		1.4E-05	n	
				3.0E-02	I	2.0E-04	I	V				1.2E+03	Chlorine Dioxide	10049-04-4	2.3E+02	n	3.4E+03	n	2.1E-02	n	8.8E-02	n	4.2E-02	n			n	
				3.0E-02	I		V					7758-19-2	Chlorite (Sodium Salt)	7758-19-2	2.3E+02	n	3.5E+03	n					6.0E+01	n	1.0E+03		n	
						5.0E+01	I	V				1.2E+03	Chloro-1,1-difluoroethane, 1-	75-68-3	5.4E+03	ns	2.3E+04	ns	5.2E+03	n	2.2E+04	n	1.0E+04	n		5.2E+00	n	
				3.0E-04	I	2.0E-02	H	2.0E-02	I	V		7.9E+02	Chloro-1,3-butadiene, 2-	126-99-8	1.0E-02	c	4.4E-02	c	9.4E-03	c	4.1E-02	c	1.9E-02	c		9.8E-06	c	
4.6E-01	H										0.1	1365-93-3	Chloro-2-methylaniline HCl 4-	1365-93-3	1.2E+00	c	5.0E+00	c					1.7E-01	c		1.5E-04	c	
1.0E-01	P	7.7E-05	C	3.0E-03	X						0.1	95-69-2	Chloro-2-methylaniline, 4-	95-69-2	5.4E+00	c**	2.3E+01	c*	3.6E-02	c	1.6E-01	c	7.0E-01	c**		4.0E-04	c**	
2.7E-01	X										0.1	107-20-0	Chloroacetaldehyde, 2-	107-20-0	2.6E+00	c	1.2E+01	c					2.9E-01	c		5.8E-05	c	1.2E-02
						3.0E-05	I				0.1	79-11-8	Chloroacetic Acid															

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Toxicity and Chemical-specific Information											Contaminant		Screening Levels											Protection of Ground Water SSLs				
SFO (mg/kg-day) ⁻¹	k _e (y)	IUR (ug/m ³) ⁻¹	k _e (y)	RD ₀ (mg/kg)	k _e (y)	RIC ₁ (mg/m ³)	k _v (y)	muta- gen	GIABS	ABS	C _{sat} (mg/kg)		CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)	
5.0E-01	J	8.4E-02	S	3.0E-03	I	1.0E-04	I	M	0.013		0.1		Chromium(VI)	18540-29-9	3.0E-01	c*	6.3E+00	c*	1.2E-05	c	1.5E-04	c	3.5E-02	c	1.0E+02	6.7E-04	c	1.8E+05
				1.3E-02	I								Chromium, Total	7440-47-3	8.2E+01	n	1.1E+03	n					2.3E+01	n		1.4E+00	n	
		9.0E-03	P	3.0E-04	P	6.0E-06	P		1		0.1		Clofentazine	74115-24-5	2.3E+00	n	3.5E+01	n	3.1E-04	c**	1.4E-03	c**	6.0E-01	n		2.7E-02	n	
		6.2E-04	I					V	M				Cobalt	7440-48-4														
				4.0E-02	H				1				Coke Oven Emissions	8007-45-2	3.1E+02	n	4.7E+03	n	1.6E-03	c	2.0E-02	c			1.3E+03	2.8E+00	n	4.6E+01
				5.0E-02	I	6.0E-01	C		1		0.1		Copper	7440-50-8	3.2E+02	n	4.1E+03	n	6.3E+01	n	2.6E+02	n	8.0E+01	n		7.4E-02	n	
				1.0E-01	A	6.0E-01	C		1		0.1		Cresol, m-	108-39-4									9.3E+01	n				
				1.0E-01	A				1		0.1		Cresol, o-	95-48-7	3.2E+02	n	4.1E+03	n	6.3E+01	n	2.6E+02	n	9.3E+01	n		7.5E-02	n	
				1.0E-01	A				1		0.1		Cresol, p-	106-44-5	6.3E+02	n	8.2E+03	n	6.3E+01	n	2.6E+02	n	1.9E+02	n		1.5E-01	n	
				1.0E-01	A				1		0.1		Cresol, p-chloro-m-	59-50-7	6.3E+02	n	8.2E+03	n					1.4E+02	n		1.7E-01	n	
1.9E+00	H			1.0E-01	A	6.0E-01	C		1		0.1		Cresols	1319-77-3	6.3E+02	n	8.2E+03	n	6.3E+01	n	2.6E+02	n	1.5E+02	n		1.3E-01	n	
				1.0E-03	P			V				1.7E+04	Crotonaldehyde, trans-	123-73-9	3.7E-01	c*	1.7E+00	c*					4.0E-02	c*		8.2E-06	c*	
				1.0E-01	I	4.0E-01	I	V	1			2.7E+02	Cumene	98-82-8	1.9E+02	n	9.9E+02	ns	4.2E+01	n	1.8E+02	n	4.5E+01	n		7.4E-02	n	
2.2E-01	C	6.3E-05	C						1		0.1		Cupferron	135-20-6	2.5E+00	c	1.0E+01	c	4.5E-02	c	1.9E-01	c	3.5E-01	c		6.1E-04	c	
8.4E-01	H			2.0E-03	H				1		0.1		Cyanazine	21725-46-2	6.5E-01	c*	2.7E+00	c*					8.8E-02	c*		4.1E-05	c*	
													Cyanides															
				1.0E-03	I				1				-Calcium Cyanide	592-01-8	7.8E+00	n	1.2E+02	n					2.0E+00	n			n	
				5.0E-03	I				1				-Copper Cyanide	544-92-3	3.9E+01	n	5.8E+02	n					1.0E+01	n			n	
				6.0E-04	I	8.0E-04	S	V	1			9.5E+05	-Cyanide (CN-)	57-12-5	2.3E+00	n	1.5E+01	n	8.3E-02	n	3.5E-01	n	1.5E-01	n	2.0E+02	1.5E-03	n	2.0E+00
				1.0E-03	I			V	1				-Cyanogen	460-19-5	7.8E+00	n	1.2E+02	n					2.0E+00	n			n	
				9.0E-02	I			V	1				-Cyanogen Bromide	506-68-3	7.0E+02	n	1.1E+04	n					1.8E+02	n			n	
				5.0E-02	I			V	1				-Cyanogen Chloride	506-77-4	3.9E+02	n	5.8E+03	n					1.0E+02	n			n	
				6.0E-04	I	8.0E-04	I	V	1			1.0E+07	-Hydrogen Cyanide	74-90-8	2.3E+00	n	1.5E+01	n	8.3E-02	n	3.5E-01	n	1.5E-01	n		1.5E-03	n	
				2.0E-03	I				1				-Potassium Cyanide	151-50-8	1.6E+01	n	2.3E+02	n					4.0E+00	n			n	
				5.0E-03	I				0.04				-Potassium Silver Cyanide	506-61-6	3.9E+01	n	5.8E+02	n					8.2E+00	n			n	
				1.0E-01	I				0.04				-Silver Cyanide	506-64-9	7.8E+02	n	1.2E+04	n					1.8E+02	n			n	
				1.0E-03	I				1				-Sodium Cyanide	143-33-9	7.8E+00	n	1.2E+02	n					2.0E+00	n	2.0E+02			n
				2.0E-04	P				1				-Thiocyanates	NA	1.6E+00	n	2.3E+01	n					4.0E-01	n			n	
				2.0E-04	X			V	1				-Thiocyanic Acid	463-56-9	1.6E+00	n	2.3E+01	n					4.0E-01	n			n	
				5.0E-02	I				1				-Zinc Cyanide	557-21-1	3.9E+02	n	5.8E+03	n					1.0E+02	n			n	
						6.0E+00	I	V	1			1.2E+02	Cyclohexane	110-82-7	6.5E+02	ns	2.7E+03	ns	6.3E+02	n	2.6E+03	n	1.3E+03	n		1.3E+00	n	
2.3E-02	H			5.0E+00	I	7.0E-01	P	V	1		0.1		Cyclohexane, 1,2,3,4,5-pentabromo-6-chloro-	87-84-3	2.4E+01	c	1.0E+02	c					2.4E+00	c		1.4E-02	c	
				5.0E-03	P	1.0E+00	X	V	1			5.1E+03	Cyclohexanone	108-94-1	2.8E+03	n	1.3E+04	ns	7.3E+01	n	3.1E+02	n	1.4E+02	n		3.4E-02	n	
				2.0E-01	I			V	1			2.8E+02	Cyclohexene	110-83-8	3.1E+01	n	3.1E+02	ns	1.0E+02	n	4.4E+02	n	7.0E+00	n		4.6E-03	n	
				2.5E-02	I				1		0.1		Cyclohexylamine	108-91-8	1.6E+03	n	2.3E+04	n					3.8E+02	n		1.0E-01	n	
				5.0E-03	I				1		0.1		Cyfluthrin	68359-37-5	1.6E+02	n	2.1E+03	n					1.2E+01	n		3.1E+00	n	
				1.0E-02	I				1		0.1		Cyhalothrin	68085-85-8	3.2E+01	n	4.1E+02	n					1.0E+01	n		6.8E+00	n	
				7.5E-03	I				1		0.1		Cypermethrin	52315-07-8	6.3E+01	n	8.2E+02	n					2.0E+01	n		3.2E+00	n	
2.4E-01	I	6.9E-05	C						1		0.1		Cyromazine	66215-27-8	4.7E+01	n	6.2E+02	n					1.5E+01	n		3.8E-03	n	
									1		0.1		DDD	72-54-8	2.3E+00	c	9.6E+00	c	4.1E-02	c	1.8E-01	c	3.2E-02	c		7.5E-03	c	
3.4E-01	I	9.7E-05	C					V	1				DDE, p,p'-	72-55-9	2.0E+00	c	9.3E+00	c	2.9E-02	c	1.3E-01	c	4.6E-02	c		1.1E-02	c	
3.4E-01	I	9.7E-05	I	5.0E-04	I				1	0.03			DDT	50-29-3	1.9E+00	c**	8.5E+00	c**	2.9E-02	c	1.3E-01	c	2.3E-01	c**		7.7E-02	c**	
				3.0E-02	I				1		0.1		Dalapon	75-99-0	1.9E+02	n	2.5E+03	n					6.0E+01	n	2.0E+02			4.1E-02
1.8E-02	C	5.1E-06	C	1.5E-01	I				1		0.1		Daminozide	1596-84-5	3.0E+01	c*	1.3E+02	c*	5.5E-01	c	2.4E+00	c	4.3E+00	c*		9.5E-04	c*	
7.0E-04	I			7.0E-03	I				1		0.1		Decabromodiphenyl ether, 2,2',3,3',4,4',5,5',6,6'- (BDE-209)	1163-19-5	4.4E+01	n	5.7E+02	n					1.4E+01	n		7.8E+00	n	
				4.0E-05	I				1		0.1		Demeton	6065-48-3	2.5E-01	n	3.3E+00	n					4.2E-02	n			n	
1.2E-03	I			6.0E-01	I				1		0.1		Di(2-ethylhexyl)adipate	103-23-1	4.5E+02	c**	1.9E+03	c*					6.5E+01	c*	4.0E+02	4.7E+00	c*	2.9E+01
6.1E-02	H								1		0.1		Diallate	2303-16-4	8.9E+00	c	3.8E+01	c					5.4E-01	c		8.0E-04	c	
				7.0E-04	A				1		0.1		Diazinon	333-41-5	4.4E+00	n	5.7E+01	n					1.0E+00	n		6.5E-03	n	
				1.0E-02	X			V	1				Dibenzothiophene	132-65-0	7.8E+01	n	1.2E+03	n					6.5E+00	n		1.2E-01	n	
8.0E-01	P	6.0E-03	P	2.0E-04	P	2.0E-04	I	V	M			9.8E+02	Dibromo-3-chloropropane, 1,2-	96-12-8	5.3E-													

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice); c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information										Contaminant		Screening Levels										Protection of Ground Water SSLs						
SFO (mg/kg-day) ⁻¹	k e y	IUR (ug/m ³ -y) ⁻¹	k e y	RfD _o (mg/kg- day)	k e y	RF _C (mg/m ³ - y)	k e y	muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	k e y	Industrial Soil (mg/kg)	k e y	Resident Air (ug/m ³)	k e y	Industrial Air (ug/m ³)	k e y	Tapwater (ug/L)	k e y	MCL (ug/L)	Risk-based SSL (mg/kg)	k e y	MCL-based SSL (mg/kg)	
3.6E-02	C	1.0E-05	C	9.0E-02	A	4.0E-03	I	V	1		1.4E+03	Dichloropropane, 1,2-	78-87-5	1.0E+00	c**	4.4E+00	c**	2.8E-01	c**	1.2E+00	c**	4.4E-01	c**	5.0E+00	1.5E-04	c**	1.7E-03	
1.0E-01	I	4.0E-06	I	2.0E-02	P				1		1.5E+03	Dichloropropane, 1,3-	142-28-9	1.6E+02	n	2.3E+03	ns					3.7E+01	n		1.3E-02	n		
				3.0E-03	I							1	0.1		616-23-9	1.9E+01	n	2.5E+02	n					5.9E+00	n	1.3E-03	n	
				3.0E-02	I	2.0E-02	I	V	1		1.6E+03	Dichloropropane, 1,3-	542-75-6	1.8E+00	c**	8.2E+00	c**	7.0E-01	c**	3.1E+00	c**	4.7E-01	c**		1.7E-04	c**		
2.9E-01	I	8.3E-05	C	5.0E-04	I	5.0E-04	I			0.1		Dichlorvos	62-73-7	1.9E+00	c**	7.9E+00	c**	3.4E-02	c**	1.5E-01	c**	2.6E-01	c**		8.1E-05	c**		
				1.0E-04	I					0.1		Dicrotophos	141-66-2	6.3E-01	n	8.2E+00	n					2.0E-01	n		4.7E-05	n		
				8.0E-02	P	3.0E-04	X	V	1		2.6E+02	Dicyclopentadiene	77-73-6	1.3E-01	n	5.4E-01	n	3.1E-02	n	1.3E-01	n	6.3E-02	n		2.2E-04	n		
				1.6E+01	I	4.6E-03	I	5.0E-05	I			0.1		60-57-1	3.4E-02	c**	1.4E-01	c*	6.1E-04	c	2.7E-03	c	1.8E-03	c*		7.1E-05	c*	
				3.0E-04	C					0.1		Diesel Engine Exhaust	NA					9.4E-03	c*	4.1E-02	c*							
				2.0E-03	P	2.0E-04	P			0.1		111-42-2	1.3E+01	n	1.6E+02	n	2.1E-02	n	8.8E-02	n	4.0E+00	n		8.1E-04	n			
				3.0E-02	P	1.0E-04	P			0.1		112-34-5	1.9E+02	n	2.4E+03	n	1.0E-02	n	4.4E-02	n	6.0E+01	n		1.3E-02	n			
				6.0E-02	P	3.0E-04	P			0.1		Diethylene Glycol Monoethyl Ether	111-90-0	3.8E+02	n	4.8E+03	n	3.1E-02	n	1.3E-01	n	1.2E+02	n		2.4E-02	n		
				1.0E-03	P		V			1.1E+05	Diethylformamide	617-84-5	7.8E+00	n	1.2E+02	n					2.0E+00	n		4.1E-04	n			
				3.5E+02	C	1.0E-01	C				0.1		56-53-1	1.6E-03	c	6.6E-03	c	2.8E-05	c	1.2E-04	c	5.1E-05	c		2.8E-05	c		
				8.0E-02	I					0.1		Difenzoquat	43222-48-6	5.1E+02	n	6.6E+03	n					1.6E+02	n		2.5E+01	n		
				2.0E-02	I					0.1		35367-38-5	1.3E+02	n	1.6E+03	n					2.9E+01	n		3.3E-02	n			
				4.4E-02	C	1.3E-05	C		4.0E+01	I	V	1	1.4E+03	Difluoroethane, 1,1-	75-37-6	4.8E+03	ns	2.0E+04	ns	4.2E+03	n	1.8E+04	n	8.3E+03	n		2.8E+00	n
											94-58-6	9.9E+00	c	4.5E+01	c	2.2E-01	c	9.4E-01	c	3.0E-01	c		1.9E-04	c				
										2.3E+03	Diisopropyl Ether	108-20-3	2.2E+02	n	9.4E+02	n	7.3E+01	n	3.1E+02	n	1.5E+02	n		3.7E-02	n			
				8.0E-02	I				V	1	5.3E+02	Diisopropyl Methylphosphonate	1445-75-6	6.3E+02	ns	9.3E+03	ns					1.6E+02	n		4.5E-02	n		
				2.0E-02	I					0.1		Dimethipin	55290-64-7	1.3E+02	n	1.6E+03	n					4.0E+01	n		8.8E-03	n		
				2.0E-04	I					0.1		60-51-5	1.3E+00	n	1.6E+01	n					4.0E-01	n		9.0E-05	n			
				1.6E+00	P						0.1		119-90-4	3.4E-01	c	1.4E+00	c					4.7E-02	c		5.8E-05	c		
4.6E+00	P	C 1.3E-03	C	6.0E-02	P					0.1		Dimethyl methylphosphonate	758-79-6	3.2E+02	c**	1.4E+03	c**					4.6E+01	c**		9.6E-03	c**		
									0.1		60-11-7	1.2E-01	c	5.0E-01	c	2.2E-03	c	9.4E-03	c	5.0E-03	c		2.1E-05	c				
				5.8E-01	H						0.1		21436-96-4	9.4E-01	c	4.0E+00	c					1.3E-01	c		1.2E-04	c		
2.0E-01	P			2.0E-03	X					0.1		Dimethylaniline, 2,4-	95-68-1	2.7E+00	c**	1.1E+01	c*					3.7E-01	c*		2.1E-04	c*		
				2.0E-03	I				V	1	8.3E+02	Dimethylaniline, N,N-	121-69-7	1.6E+01	n	2.3E+02	n					3.5E+00	n		1.3E-03	n		
				1.1E+01	P						0.1		119-93-7	4.9E-02	c	2.1E-01	c					6.5E-03	c		4.3E-05	c		
				1.0E-01	P	3.0E-02	I	V	1	1.1E+05	Dimethylformamide	68-12-2	2.6E+02	n	1.5E+03	n	3.1E+00	n	1.3E+01	n	6.1E+00	n		1.2E-03	n			
				1.0E-04	X	2.0E-06	X	V	1	1.7E+05	Dimethylhydrazine, 1,1-	57-14-7	5.7E-03	n	2.4E-02	n	2.1E-04	n	8.8E-04	n	4.2E-04	n		9.3E-08	n			
				5.5E+02	C	1.6E-01	C				0.1	1.9E+05	Dimethylhydrazine, 1,2-	540-73-8	8.8E-04	c	4.1E-03	c	1.8E-05	c	7.7E-05	c	2.8E-05	c		6.5E-09	c	
				2.0E-02	I					0.1		Dimethylphenol, 2,4-	105-67-9	1.3E+02	n	1.6E+03	n					3.6E+01	n		4.2E-02	n		
				6.0E-04	I					0.1		578-26-1	3.8E+00	n	4.9E+01	n					1.1E+00	n		1.3E-03	n			
				1.0E-03	I					0.1		95-65-8	6.3E+00	n	8.2E+01	n					1.8E+00	n		2.1E-03	n			
4.5E-02	C	1.3E-05	C							0.1	4.7E+02	Dimethylvinylchloride	513-37-1	1.1E+00	c	4.8E+00	c	2.2E-01	c	9.4E-01	c	3.3E-01	c		1.1E-04	c		
				8.0E-05	X				V	1		534-52-1	5.1E-01	n	6.6E+00	n					1.5E-01	n		2.6E-04	n			
				2.0E-03	I					0.1		131-89-5	1.3E+01	n	1.6E+02	n					2.3E+00	n		7.7E-02	n			
				1.0E-04	P					0.1		Dinitrobenzene, 1,2-	528-29-0	6.3E-01	n	8.2E+00	n					1.9E-01	n		1.8E-04	n		
				1.0E-04	I					0.1		99-65-0	6.3E-01	n	8.2E+00	n					2.0E-01	n		1.8E-04	n			
				1.0E-04	P					0.1		100-25-4	6.3E-01	n	8.2E+00	n					2.0E-01	n		1.8E-04	n			
6.8E-01	I			2.0E-03	I					0.1		Dinitrophenol, 2,4-	51-28-5	1.3E+01	n	1.6E+02	n					3.9E+00	n		4.4E-03	n		
										0.1		NA	8.0E-01	c	3.4E+00	c					1.1E-01	c		1.5E-04	c			
				3.1E-01	C	8.9E-05	C	2.0E-03	I			0.102		Dinitrotoluene, 2,4-	121-14-2	1.7E+00	c**	7.4E+00	c*	3.2E-02	c	1.4E-01	c	2.4E-01	c*		3.2E-04	c*
1.5E+00	P			3.0E-04	X					0.099		Dinitrotoluene, 2,6-	606-20-2	3.6E-01	c**	1.5E+00	c*					4.9E-02	c*		6.7E-05	c*		
				2.0E-03	S					0.006		35672-78-2	1.5E+01	n	2.3E+02	n					3.9E+00	n		3.0E-03	n			
				2.0E-03	S					0.009		19406-51-0	1.5E+01	n	2.3E+02	n					3.9E+00	n		3.0E-03	n			
4.5E-01	X			9.0E-04	X					0.1		Dinitrotoluene, Technical grade	25321-14-6	1.2E+00	c**	5.1E+00	c*					1.0E-01	c*		1.4E-04	c*		
				1.0E-03	I					0.1		88-85-7	6.3E+00	n	8.2E+01	n					1.5E+00	n		1.3E-02	n	6.2E-02		
				1.0E-01	I	5.0E-06	I	3.0E-02	I	3.0E-02	I	V	1	1.2E+05	Dioxane, 1,4-	123-91-1	5.3E+00	c*	2.4E+01	c*	5.6E-01	c**	2.5E+00	c**	4.6E-01	c*		9.4E-05
												Dioxins	NA	1.0E-04	c	4.7E-04	c	2.2E-06	c	9.4E-06	c	1.3E-05	c		1.7E-05	c		
				6.2E+03	I	1.3E+00	I				0.03		~TCDD, 2,3,7,8-	1746-01-6	4.8E-06	c**	2.2E-05	c**	7.4E-08	c*	3.2E-07	c*	1.2E-07	c*	3.0E-05	5.9E-08	c*	1.5E-05
				1.3E+05	C	3.8E+01	C	7.0E-10	I	4.0E-08	C	V	1	0.03	Diphenamid	95												

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice); c = cancer; n = noncancer; * = where n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information												Contaminant		Screening Levels										Protection of Ground Water SSLs		
SFO (mg/kg-day) ⁻¹	k _e IUR (ug/m ³) ⁻¹	k _e y	RfD _o (mg/kg-day)	k _e y	RF _C (mg/m ³) y	k _e y	muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
9.0E-02	P	2.0E-01	I	V	1	1.1E+05				1.1E+05	Ethoxyethanol, 2-	110-80-5	5.2E+02	n	4.7E+03	n	2.1E+01	n	8.8E+01	n	3.4E+01	n		6.8E-03	n	
9.0E-01	I	7.0E-02	P	V	1	1.1E+04				1.1E+04	Ethyl Acetate	141-78-6	6.2E+01	n	2.6E+02	n	7.3E+00	n	3.1E+01	n	1.4E+01	n		3.1E-03	n	
5.0E-03	P	8.0E-03	P	V	1	2.5E+03				2.5E+03	Ethyl Acrylate	140-88-5	4.7E+00	n	2.1E+01	n	8.3E-01	n	3.5E+00	n	1.4E+00	n		3.2E-04	n	
		1.0E+01	I	V	1	2.1E+03				2.1E+03	Ethyl Chloride (Chloroethane)	75-00-3	1.4E+03	n	5.7E+03	ns	1.0E+03	n	4.4E+03	n	2.1E+03	n		5.9E-01	n	
2.0E-01	I		V		1	1.0E+04				1.0E+04	Ethyl Ether	60-29-7	1.6E+03	n	2.3E+04	ns					3.9E+02	n		8.8E-02	n	
		3.0E-01	P	V	1	1.1E+03				1.1E+03	Ethyl Methacrylate	97-63-2	1.8E+02	n	7.6E+02	n	3.1E+01	n	1.3E+02	n	6.3E+01	n		1.5E-02	n	
1.0E-05	I				1	0.1				0.1	Ethyl-p-nitrophenyl Phosphonate	2104-64-5	6.3E-02	n	8.2E-01	n					8.9E-03	n		2.8E-04	n	
1.1E-02	C	2.5E-06	C		1	4.8E+02				4.8E+02	Ethylbenzene	100-41-4	5.8E+00	c*	2.5E+01	c*	1.1E+00	c*	4.9E+00	c*	1.5E+00	c*	7.0E+02	1.7E-03	c*	7.8E-01
		7.0E-02	P		1	0.1				0.1	Ethylene Cyanohydrin	109-78-4	4.4E+02	n	5.7E+03	n					1.4E+02	n		2.8E-02	n	
		9.0E-02	P		1	1.9E+05				1.9E+05	Ethylene Diamine	107-15-3	7.0E+02	n	1.1E+04	n					1.8E+02	n		4.1E-02	n	
2.0E+00	I	4.0E-01	C		1	0.1				0.1	Ethylene Glycol	107-21-1	1.3E+04	n	1.6E+05	nm	4.2E+01	n	1.8E+02	n	4.0E+03	n		8.1E-01	n	
		1.0E-01	I	1.6E+00	I	1	0.1			0.1	Ethylene Glycol Monobutyl Ether	111-76-2	6.3E+02	n	8.2E+03	n	1.7E+02	n	7.0E+02	n	2.0E+02	n		4.1E-02	n	
3.1E-01	C	8.8E-05	C		1	1.2E+05				1.2E+05	Ethylene Oxide	75-21-8	1.8E-01	c	7.9E-01	c	3.2E-02	c*	1.4E-01	c*	5.1E-02	c		1.1E-05	c	
4.5E-02	C	1.3E-05	C		1	0.1				0.1	Ethylene Thiourea	96-45-7	5.1E-01	n	6.6E+00	n	2.2E-01	c	9.4E-01	c	1.6E-01	n		3.6E-05	n	
6.5E+01	C	1.9E-02	C		1	1.5E+05				1.5E+05	Ethyleneimine	151-56-4	2.7E-03	c	1.2E-02	c	1.5E-04	c	6.5E-04	c	2.4E-04	c		5.2E-08	c	
		3.0E+00	I		1	0.1				0.1	Ethylphthalyl Ethyl Glycolate	84-72-0	1.9E+04	n	2.5E+05	nm					5.8E+03	n		1.3E+01	n	
		2.5E-04	I		1	0.1				0.1	Fenamiphos	22224-92-6	1.6E+00	n	2.1E+01	n					4.4E-01	n		4.3E-04	n	
		2.5E-02	I		1	0.1				0.1	Fenprothrin	39515-41-8	1.6E+02	n	2.1E+03	n					6.4E+00	n		2.9E-01	n	
		2.5E-02	I		1	0.1				0.1	Fenvalerate	51630-58-1	1.6E+02	n	2.1E+03	n					5.0E+01	n		3.2E+01	n	
		1.3E-02	I		1	0.1				0.1	Fluometuron	2164-17-2	8.2E+01	n	1.1E+03	n					2.4E+01	n		1.9E-02	n	
		4.0E-02	C	1.3E-02	C	1					Fluoride	16964-48-8	3.1E+02	n	4.7E+03	n	1.4E+00	n	5.7E+00	n	8.0E+01	n		1.2E+01	n	
		6.0E-02	I	1.3E-02	C	1					Fluorine (Soluble Fluoride)	7782-41-4	4.7E+02	n	7.0E+03	n	1.4E+00	n	5.7E+00	n	1.2E+02	n	4.0E+03	1.8E+01	n	6.0E+02
		8.0E-02	I		1	0.1				0.1	Fluridone	59756-60-4	5.1E+02	n	6.6E+03	n					1.4E+02	n		1.6E+01	n	
		2.0E-02	I		1	0.1				0.1	Flurprimidol	56425-91-3	1.3E+02	n	1.6E+03	n					3.4E+01	n		1.6E-01	n	
		7.0E-04	I		1	0.1				0.1	Flusilazole	85509-19-9	4.4E+00	n	5.7E+01	n					1.1E+00	n		1.8E-01	n	
		6.0E-02	I		1	0.1				0.1	Flutolanil	66332-96-5	3.8E+02	n	4.9E+03	n					9.5E+01	n		5.0E-01	n	
		1.0E-02	I		1	0.1				0.1	Fluvalinate	69409-94-5	6.3E+01	n	8.2E+02	n					2.0E+01	n		2.9E+01	n	
3.5E-03	I	1.0E-01	I		1	0.1				0.1	Folpet	133-07-3	1.6E+02	c**	6.6E+02	c*					2.0E+01	c**		4.7E-03	c**	
1.9E-01	I		2.0E-03	I		1	0.1			0.1	Fomesafen	72178-02-0	2.9E+00	c	1.2E+01	c					3.9E-01	c		1.3E-03	c	
		1.3E-05	I		1	0.1				0.1	Formaldehyde	50-00-0	1.3E+01	n	1.6E+02	n					2.4E+00	n		4.7E-03	n	
		9.0E-01	P	3.0E-04	X	V	1			1.1E+05	Formaldehyde	50-00-0	1.7E+01	c**	7.3E+01	c**	2.2E-01	c**	9.4E-01	c**	4.3E-01	c**		8.7E-05	c**	
		3.0E+00	I		1	0.1				0.1	Formic Acid	64-18-6	2.9E+00	n	1.2E+01	n	3.1E-02	n	1.3E-01	n	6.3E-02	n		1.3E-05	n	
					1						Fosetyl-AL	39148-24-8	1.9E+04	n	2.5E+05	nm					6.0E+03	n		7.9E+01	n	
		1.0E-03	X		V	1	0.03				-Dibenzofuran	132-64-9	7.3E+00	n	1.0E+02	n					7.9E-01	n		1.5E-02	n	
		1.0E-03	I		V	1	0.03			6.2E+03	-Furan	100-00-9	7.3E+00	n	1.0E+02	n					1.9E+00	n		7.3E-04	n	
		9.0E-01	I	2.0E+00	I	V	1	0.03		1.7E+05	-Tetrahydrofuran	108-99-9	1.8E+03	n	9.4E+03	n	2.1E+02	n	8.8E+02	n	3.4E+02	n		7.5E-02	n	
3.8E+00	H				1	0.1				0.1	Furazolidone	67-45-8	1.4E-01	c	6.0E-01	c					2.0E-02	c		3.9E-05	c	
1.5E+00	C	4.3E-04	C		1	0.1				0.1	Furfural	98-01-1	2.1E+01	n	2.6E+02	n	5.2E+00	n	2.2E+01	n	3.8E+00	n		8.1E-04	n	
					1	0.1					Furium	531-82-8	3.6E-01	c	1.5E+00	c	6.5E-03	c	2.9E-02	c	5.1E-02	c		6.8E-05	c	
3.0E-02	I	8.6E-06	C		1	0.1				0.1	Furmecyclo	60568-05-0	1.8E+01	c	7.7E+01	c	3.3E-01	c	1.4E+00	c	1.1E+00	c		1.2E-03	c	
		4.0E-04	I		1	0.1				0.1	Glufosinate, Ammonium	77182-82-2	2.5E+00	n	3.3E+01	n					8.0E-01	n		1.8E-04	n	
					1	0.1				0.1	Glutaraldehyde	111-30-8	1.1E+04	n	4.8E+04	n	8.3E-03	n	3.5E-02	n					n	
		4.0E-04	I	1.0E-03	H	V	1			1.1E+05	Glycidyl	765-34-4	2.3E+00	n	2.1E+01	n	1.0E-01	n	4.4E-01	n	1.7E-01	n		3.3E-05	n	
		1.0E-01	I		1	0.1				0.1	Glyphosate	1071-83-6	6.3E+02	n	8.2E+03	n					2.0E+02	n	7.0E+02	8.8E-01	n	3.1E+00
		1.0E-02	X		V	1					Guanidine	113-00-8	7.8E+01	n	1.2E+03	n					2.0E+01	n		4.5E-03	n	
		2.0E-02	P		1	0.1				0.1	Guanidine Chloride	50-01-1	1.3E+02	n	1.6E+03	n					4.0E+01	n			n	
4.5E+00	I	1.3E-03	I		1	0.1				0.1	Haloxypol, Methyl	69806-40-2	3.2E-01	n	4.1E+00	n					7.6E-02	n		8.4E-04	n	
		5.0E-04	I		1	0.1					Heptachlor	76-44-8	1.3E-01	c*	6.3E-01	c*	2.2E-03	c	9.4E-03	c	1.4E-03	c*	4.0E-01	1.2E-04	c*	3.3E-02
9.1E+00	I	2.6E-03	I		1						Heptachlor Epoxide	1024-57-3	7.0E-02	c**	3.3E-01	c**	1.1E-03	c	4.7E-03	c	1.4E-03	c**	2.0E-01	2.8E-05	c**	4.1E-03
		1.3E-05	I		1						Hexabromobenzene	87-82-1	1.6E+01	n	2.3E+02	n					4.0E+00	n		2.3E-02	n	
		2.0E-04	I		1	0.1				0.1	Hexabromodiphenyl ether, 2,2',4,4',5,5'-(BDE															

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice); c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information												Contaminant			Screening Levels										Protection of Ground Water SSLs		
SFO (mg/kg-day) ⁻¹	k _e (y)	IUR (ug/m ³) ⁻¹	k _e (y)	RfD _o (mg/kg-day)	k _e (y)	RfC _i (mg/m ³)	k _e (y)	muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
6.0E-02	P			4.0E-02	P					1	0.1	Hydroquinone	123-31-9	9.0E+00	c*	3.8E+01	c*					1.3E+00	c*		8.7E-04	c*	
				1.3E-02	I					1	0.1	Imazali	35554-44-0	8.2E+01	n	1.1E+03	n					1.9E+01	n		3.2E-01	n	
				2.5E-01	I					1	0.1	Imazaquin	81335-37-7	1.6E+03	n	2.1E+04	n					4.9E+02	n		2.4E+00	n	
				2.5E-01	I					1	0.1	Imazethapyr	81335-77-5	1.6E+03	n	2.1E+04	n					4.7E+02	n		4.1E-01	n	
				1.0E-02	A					1		Iodine	7553-56-2	7.8E+01	n	1.2E+03	n					2.0E+01	n		1.2E+00	n	
				4.0E-02	I					1	0.1	Iprodione	36734-19-7	2.5E+02	n	3.3E+03	n					7.4E+01	n		2.2E-02	n	
				7.0E-01	P					1		Iron	7439-89-6	5.5E+03	n	8.2E+04	n					1.4E+03	n		3.5E+01	n	
9.5E-04	I			3.0E-01	I			V			1.0E+04	Isobutyl Alcohol	78-83-1	2.3E+03	n	3.5E+04	ns					5.9E+02	n		1.2E-01	n	
				2.0E-01	I	2.0E+00	C			1	0.1	Isophorone	78-59-1	5.7E+02	c**	2.4E+03	c**	2.1E+02	n	8.8E+02	n	7.8E+01	c**		2.6E-02	c**	
				1.5E-02	I			V				Isopropalin	33820-53-0	1.2E+02	n	1.8E+03	n					4.0E+00	n		9.2E-02	n	
				2.0E+00	P	2.0E-01	P	V		1		Isopropanol	67-63-0	5.6E+02	n	2.4E+03	n	2.1E+01	n	8.8E+01	n	4.1E+01	n		8.4E-03	n	
				1.0E-01	I					1	0.1	Isopropyl Methyl Phosphonic Acid	1832-54-8	6.3E+02	n	8.2E+03	n					2.0E+02	n		4.3E-02	n	
				5.0E-02	I					1	0.1	Isoxaben	82558-50-7	3.2E+02	n	4.1E+03	n					7.3E+01	n		2.0E-01	n	
				3.0E-01	A	V				1		JP-7	NA	4.3E+07	nm	1.8E+08	nm	3.1E+01	n	1.3E+02	n	6.3E+01	n			n	
				2.0E-03	I					1	0.1	Lactofen	77501-63-4	1.3E+01	n	1.6E+02	n					2.5E+00	n		1.2E-01	n	
												Lead Compounds															
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C	M	0.025			~Lead Chromate	7758-97-6	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c			c	
8.5E-03	C	1.2E-05	C							1		~Lead Phosphate	7446-27-7	8.2E+01	c	3.8E+02	c	2.3E-01	c	1.0E+00	c	9.1E+00	c		1.8E-03	c	
8.5E-03	C	1.2E-05	C							1	0.1	~Lead acetate	301-04-2	6.4E+01	c	2.7E+02	c	2.3E-01	c	1.0E+00	c	9.2E+00	c			c	
8.5E-03	C	1.2E-05	C							1	0.1	~Lead and Compounds	7439-92-1	4.0E+02	L	8.0E+02	L	1.5E-01	L			1.5E+01	L	1.5E+01		L	1.4E+01
				1.0E-07	I			V			2.4E+00	~Lead subacetate	1335-32-6	6.4E+01	c	2.7E+02	c	2.3E-01	c	1.0E+00	c	9.2E+00	c		2.0E-03	c	
				2.0E-03	P					1		~Tetraethyl Lead	78-00-2	7.8E-04	n	1.2E-02	n					1.3E-04	n		4.7E-07	n	
				5.0E-06	P			V			3.8E+02	Lewisite	541-25-3	3.9E-02	n	5.8E-01	n					9.0E-03	n		3.8E-06	n	
				2.0E-03	I					1	0.1	Linuron	330-55-2	1.3E+01	n	1.6E+02	n					3.3E+00	n		2.9E-03	n	
				2.0E-03	P					1		Lithium	7439-93-2	1.6E+01	n	2.3E+02	n					4.0E+00	n		1.2E+00	n	
				5.0E-04	I					1	0.1	MCPA	94-74-6	3.2E+00	n	4.1E+01	n					7.5E-01	n		2.0E-04	n	
				1.0E-02	I					1	0.1	MCPB	94-81-5	6.3E+01	n	8.2E+02	n					1.5E+01	n		5.8E-03	n	
				1.0E-03	I					1	0.1	MCPP	93-65-2	6.3E+00	n	8.2E+01	n					1.6E+00	n		4.7E-04	n	
				2.0E-02	I					1	0.1	Malathion	121-75-5	1.3E+02	n	1.6E+03	n					3.9E+01	n		1.0E-02	n	
				1.0E-01	I	7.0E-04	C			1	0.1	Maleic Anhydride	108-31-6	6.3E+02	n	8.0E+03	n	7.3E-02	n	3.1E-01	n	1.9E+02	n		3.8E-02	n	
				5.0E-01	I					1	0.1	Maleic Hydrazide	123-33-1	3.2E+03	n	4.1E+04	n					1.0E+03	n		2.1E-01	n	
				1.0E-04	P					1	0.1	Malonitrile	109-77-3	6.3E-01	n	8.2E+00	n					2.0E-01	n		4.1E-05	n	
				3.0E-02	H					1	0.1	Mancozeb	8018-01-7	1.9E+02	n	2.5E+03	n					5.4E+01	n		7.6E-02	n	
				5.0E-03	I					1	0.1	Maneb	12427-38-2	3.2E+01	n	4.1E+02	n					9.8E+00	n		1.4E-02	n	
				1.4E-01	I	5.0E-05	I			1		Manganese (Diet)	7439-96-5	1.8E+02	n	2.6E+03	n	5.2E-03	n	2.2E-02	n	4.3E+01	n		2.8E+00	n	
				2.4E-02	S	5.0E-05	I		0.04			Manganese (Non-diet)	7439-96-5	5.7E-01	n	7.4E+00	n					1.8E-01	n		2.6E-04	n	
				9.0E-05	H					1	0.1	Mepfosfolan	950-10-7	1.9E+02	n	2.5E+03	n					6.0E+01	n		2.0E-02	n	
				3.0E-02	I					1	0.1	Mepiquat Chloride	24307-26-4	1.9E+02	n	2.5E+03	n					6.0E+01	n		2.0E-02	n	
				3.0E-04	I	3.0E-04	S		0.07			Mercury Compounds		2.3E+00	n	3.5E+01	n	3.1E-02	n	1.3E-01	n	5.7E-01	n	2.0E+00		n	
				3.0E-04	I	3.0E-04	I	V		1	3.1E+00	~Mercuric Chloride (and other Mercury salts)	7487-94-7	2.3E+00	n	3.5E+01	n	3.1E-02	n	1.3E-01	n	5.7E-01	n	2.0E+00		n	
				1.0E-04	I					1		~Mercury (elemental)	7439-97-6	1.1E+00	n	4.6E+00	ns	3.1E-02	n	1.3E-01	n	6.3E-02	n	2.0E+00	3.3E-03	n	1.0E-01
				8.0E-05	I					1	0.1	~Methyl Mercury	22967-92-6	7.8E-01	n	1.2E+01	n					2.0E-01	n			n	
				8.0E-05	I					1	0.1	~Phenylmercuric Acetate	62-38-4	5.1E-01	n	6.6E+00	n					1.6E-01	n		5.0E-05	n	
				3.0E-05	I			V		1		Merphos	150-50-5	2.3E-01	n	3.5E+00	n					6.0E-02	n		5.9E-03	n	
				3.0E-05	I					1	0.1	Merphos Oxide	78-48-8	1.9E-01	n	2.5E+00	n					8.5E-03	n		4.2E-05	n	
				6.0E-02	I					1	0.1	Metalaxyl	57837-19-1	3.8E+02	n	4.9E+03	n					1.2E+02	n		3.3E-02	n	
				1.0E-04	I	3.0E-02	P	V		1	4.6E+03	Methacrylonitrile	126-98-7	7.5E-01	n	1.0E+01	n	3.1E+00	n	1.3E+01	n	1.8E-01	n		4.3E-05	n	
				5.0E-05	I					1	0.1	Methamidophos	10265-92-6	3.2E-01	n	4.1E+00	n					1.0E-01	n		2.1E-05	n	
				2.0E+00	I	2.0E+01	I	V		1	1.1E+05	Methanol	67-56-1	1.2E+04	n	1.2E+05	nms	2.1E+03	n	8.8E+03	n	2.0E+03	n		4.1E-01	n	
				1.0E-03	I					1	0.1	Methidathion	950-37-8	6.3E+00	n	8.2E+01	n					1.9E+00	n		4.7E-04	n	
				2.5E-02	I					1	0.1	Methomyl	16752-77-5	1.6E+02	n	2.1E+03	n					5.0E+01	n		1.1E-02	n	
4.9E-02	C	1.4E-05	C							1	0.1	Methoxy-5-nitroaniline, 2-	99-59-2	1.1E+01	c	4.7E+01	c	2.0E-01	c	8.8E-01	c	1.5E+00	c		5.3E-04	c	
				5.0E-03	I																						

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice); c = cancer; n = noncancer; * = where n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information												Contaminant		Screening Levels										Protection of Ground Water SSLs			
SFO (mg/kg-day) ⁻¹	k _e y	IUR (ug/m ³ -y) ⁻¹	k _e y	RfD _o (mg/kg-day)	k _e y	RF _C (mg/m ³ -y)	k _e y	muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (u/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
2.0E-03	I	1.0E-08	I	6.0E-03	I	6.0E-01	I	V	M	1	3.3E+03	Methylene Chloride	75-09-2	3.5E+01	n	3.2E+02	n	6.3E+01	n	2.6E+02	n	1.1E+01	n	5.0E+00	2.7E-03	n	1.3E-03
1.0E-01	P	4.3E-04	C	2.0E-03	P				M	1	0.1	Methylene-bis(2-chloroaniline), 4,4'-	101-14-4	1.2E+00	c*	2.3E+01	c**	2.4E-03	c	2.9E-02	c	1.6E-01	c*		1.8E-03	c*	
4.6E-02	I	1.3E-05	C							1	0.1	Methylene-bis(N,N-dimethyl) Aniline, 4,4'-	101-61-1	1.2E+01	c	5.0E+01	c	2.2E-01	c	9.4E-01	c	4.8E-01	c		2.6E-03	c	
1.6E+00	C	4.6E-04	C			2.0E-02	C			1	0.1	Methylenebisbenzidine, 4,4'-	101-77-9	3.4E-01	c	1.4E+00	c	6.1E-03	c	2.7E-02	c	4.7E-02	c		2.1E-04	c	
				7.0E-02	H			V		1	0.1	Methylenediphenyl Diisocyanate	101-68-8	8.5E+04	n	3.6E+05	nm	6.3E-02	n	2.6E-01	n						
		1.5E-01	I							1	0.1	Methylstyrene, Alpha-Metolachlor	98-83-9 51218-45-2	5.5E+02 9.5E+02	ns n	8.2E+03 1.2E+04	ns n					7.8E+01 2.7E+02	n n		1.2E-01 3.2E-01	n n	
		2.5E-02	I							1	0.1	Metribuzin	21087-64-9	1.6E+02	n	2.1E+03	n					4.9E+01	n		1.5E-02	n	
		2.5E-01	I							1	0.1	Metsulfuron-methyl	74223-64-6	1.6E+03	n	2.1E+04	n					4.9E+02	n		1.9E-01	n	
		3.0E+00	P			V				1		Mineral oils	8012-95-1	2.3E+04	ns	3.5E+05	nms					6.0E+03	n		2.4E+02	n	
1.8E+01	C	5.1E-03	C	2.0E-04	I			V		1		Mirex	2385-85-5	3.6E-02	c*	1.7E-01	c	5.5E-04	c	2.4E-03	c	8.8E-04	c		6.3E-04	c	
		2.0E-03	I							1	0.1	Molinate	2212-67-1	1.3E+01	n	1.6E+02	n					3.0E+00	n		1.7E-03	n	
		5.0E-03	I							1		Molybdenum	7439-98-7	3.9E+01	n	5.8E+02	n					1.0E+01	n		2.0E-01	n	
		1.0E-01	I							1		Monochloramine	10599-90-3	7.8E+02	n	1.2E+04	n					2.0E+02	n	4.0E+03		n	
		2.0E-03	P							1	0.1	Monomethylaniline	100-61-8	1.3E+01	n	1.6E+02	n					3.8E+00	n		1.4E-03	n	
		2.5E-02	I							1	0.1	Myclobutanil	88671-89-0	1.6E+02	n	2.1E+03	n					4.5E+01	n		5.6E-01	n	
		3.0E-04	X							1	0.1	N,N-Diphenyl-1,4-benzenediamine	74-31-7	1.9E+00	n	2.5E+01	n					3.6E-01	n		3.7E-02	n	
		2.0E-03	I			V				1		Naled	300-76-5	1.6E+01	n	2.3E+02	n					4.0E+00	n		1.8E-03	n	
		3.0E-02	X	1.0E-01	P	V				1		Naphtha, High Flash Aromatic (HFAN)	64742-95-6	2.3E+02	n	3.5E+03	n	1.0E+01	n	4.4E+01	n	1.5E+01	n			n	
1.8E+00	C	0.0E+00	C	1.0E-01	I					1	0.1	Naphthylamine, 2-	91-59-8	3.0E-01	c	1.3E+00	c					3.9E-02	c		2.0E-04	c	
		2.6E-04	C	1.1E-02	C	1.4E-05	C			1	0.1	Napropamide	15299-99-7	6.3E+02	n	8.2E+03	n					1.6E+02	n		1.1E+00	n	
		2.6E-04	C	1.1E-02	C	1.4E-05	C			1	0.1	Nickel Acetate	373-02-4	6.7E+01	n	8.1E+02	n	1.5E-03	n	6.1E-03	n	2.2E+01	n		4.5E-03	n	
		2.6E-04	C	1.1E-02	C	1.4E-05	C	V		1		Nickel Carbonate	3333-67-3	6.7E+01	n	8.1E+02	n	1.5E-03	n	6.1E-03	n	2.2E+01	n			n	
		2.6E-04	C	1.1E-02	C	1.4E-05	C			0.04		Nickel Carbonyl	13463-39-3	8.2E+01	n	1.1E+03	n	1.5E-03	n	6.1E-03	n	2.9E-03	n			n	
		2.6E-04	C	1.1E-02	C	1.4E-05	C			0.04		Nickel Hydroxide	12054-48-7	8.2E+01	n	1.1E+03	n	1.5E-03	n	6.1E-03	n	2.9E+01	n			n	
		2.6E-04	C	1.1E-02	C	2.0E-05	C			0.04		Nickel Oxide	1313-99-1	8.4E+01	n	1.2E+03	n	2.1E-03	n	8.8E-03	n	2.0E+01	n			n	
		2.4E-04	I	1.1E-02	C	1.4E-05	C			0.04		Nickel Refinery Dust	NA	8.2E+01	n	1.1E+03	n	1.5E-03	n	6.1E-03	n	2.2E+01	n		3.2E+00	n	
		2.6E-04	C	2.0E-02	I	9.0E-05	A			0.04		Nickel Soluble Salts	7440-02-0	1.5E+02	n	2.2E+03	n	9.4E-03	n	3.9E-02	n	3.9E+01	n		2.6E+00	n	
1.7E+00	C	4.8E-04	I	1.1E-02	C	1.4E-05	C			0.04		Nickel Suboxide	12035-72-2	4.1E-01	c	1.9E+00	c	1.5E-03	n	6.1E-03	n	4.5E-02	c			c	
		2.6E-04	C	1.1E-02	C	1.4E-05	C			1	0.1	Nickelocene	1271-28-9	6.7E+01	n	8.1E+02	n	1.5E-03	n	6.1E-03	n	2.2E+01	n			n	
		1.6E+00	I							1		Nitrate	14797-55-8	1.3E+04	n	1.9E+05	nm					3.2E+03	n	1.0E+04		n	
		1.0E-01	I							1		Nitrate + Nitrite (as N)	NA											1.0E+04		n	
		1.0E-02	X	5.0E-05	X					1	0.1	Nitrite	14797-65-0	7.8E+02	n	1.2E+04	n					2.0E+02	n	1.0E+03		n	
2.0E-02	P			4.0E-03	P	6.0E-03	P			1	0.1	Nitroaniline, 2-	88-74-4	6.3E+01	n	8.0E+02	n	5.2E-03	n	2.2E-02	n	1.9E+01	n		8.0E-03	n	
		4.0E-05	I	2.0E-03	I	9.0E-03	I	V		1	0.1	Nitroaniline, 4-	100-01-6	2.5E+01	n	1.1E+02	c**	6.3E-01	n	2.6E+00	n	3.8E+00	c**		1.6E-03	c**	
				3.0E-03	P					1	0.1	Nitrobenzene	98-96-3	5.1E+00	c**	2.2E+01	c**	7.0E-02	c*	3.1E-01	c*	1.4E-01	c**		9.2E-05	c**	
				7.0E-02	H					1	0.1	Nitrocellulose	9004-70-0	1.9E+07	nm	2.5E+08	nm					6.0E+06	n		1.3E+03	n	
1.3E+00	C	3.7E-04	C							1	0.1	Nitrofurantoin	67-20-9	4.4E+02	n	5.7E+03	n					1.4E+02	n		6.1E-02	n	
1.7E-02	P			1.0E-04	P					1	0.1	Nitrofurazone	59-87-0	4.2E-01	c	1.8E+00	c	7.6E-03	c	3.3E-02	c	6.0E-02	c		5.4E-05	c	
				1.0E-04	P					1	0.1	Nitroglycerin	55-63-0	6.3E-01	n	8.2E+00	n					2.0E-01	n		8.5E-05	n	
		8.8E-06	P	1.0E-01	I					1	0.1	Nitroguanidine	556-88-7	6.3E+02	n	8.2E+03	n					2.0E+02	n		4.8E-02	n	
		2.7E-03	H			5.0E-03	P	V		1	1.8E+04	Nitromethane	75-52-5	5.4E+00	c**	2.4E+01	c**	3.2E-01	c**	1.4E+00	c**	6.4E-01	c**		1.4E-04	c**	
				2.0E-02	I	V				1	4.9E+03	Nitropropane, 2-	75-46-9	1.4E-02	c	6.0E-02	c	1.0E-03	c	4.5E-03	c	2.1E-03	c		5.4E-07	c	
2.7E+01	C	7.7E-03	C						M	1	0.1	Nitroso-N-ethylurea, N-	759-73-9	4.5E-03	c	8.5E-02	c	1.3E-04	c	1.6E-03	c	9.2E-04	c		2.2E-07	c	
1.2E+02	C	3.4E-02	C						M	1	0.1	Nitroso-N-methylurea, N-	664-93-5	1.0E-03	c	1.9E-02	c	3.0E-05	c	3.6E-04	c	2.1E-04	c		4.6E-08	c	
5.4E+00	I	1.6E-03	I					V		1		Nitroso-di-N-butylamine, N-	924-16-3	9.9E-02	c	4.6E-01	c	1.8E-03	c	7.7E-03	c	2.7E-03	c		5.5E-06	c	
7.0E+00	I	2.0E-03	C							1	0.1	Nitroso-di-N-propylamine, N-	621-64-7	7.8E-02	c	3.3E-01	c	1.4E-03	c	6.1E-03	c	1.1E-02	c		8.1E-06	c	
2.8E+00	I	8.0E-04	C							1	0.1	Nitrosodiethanolamine, N-	1116-54-7	1.9E-01	c	8.2E-01	c	3.5E-03	c	1.5E-02	c	2.8E-02	c		5.6E-06	c	
1.5E+02	I	4.3E-02	I						M	1	0.1	Nitrosodiethylamine, N-	55-18-5	8.1E-04	c	1.5E-02	c	2.4E-05	c	2.9E-04	c	1.7E-04	c		6.1E-08	c	
5.1E+01	I	1.4E-02	I	8.0E-06	P	4.0E-05	X	V	M	1		Nitrosodimethylamine, N-	62-75-9	2.0E-03	c*	3.4E-02	c*	7.2E-05									

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Toxicity and Chemical-specific Information										Contaminant		Screening Levels										Protection of Ground Water SSLs					
SFO (mg/kg-day) ⁻¹	k _e (y)	IUR (ug/m ³) ⁻¹	k _e (y)	RfD _o (mg/kg-day)	k _e (y)	RfC _i (mg/m ³)	k _e (y)	muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
9.0E-02	P						V		1		4.6E+02	Pentachloroethane	76-01-7	7.7E+00	c	3.6E+01	c					6.5E-01	c		3.1E-04	c	
2.6E-01	H			3.0E-03	I		V		1			Pentachloronitrobenzene	82-68-8	2.7E+00	c**	1.3E+01	c*					1.2E-01	c*		1.5E-03	c*	
4.0E-01	I	5.1E-06	C	5.0E-03	I				1	0.25		Pentachlorophenol	87-86-5	1.0E+00	c*	4.0E+00	c*	5.5E-01	c	2.4E+00	c	4.1E-02	c*	1.0E+00	5.7E-05	c*	1.4E-03
4.0E-03	X			2.0E-03	P				1	0.1		Pentaerythritol tetranitrate (PETN)	78-11-5	1.3E+01	n	1.6E+02	n					3.9E+00	n		5.8E-03	n	
							1.0E+00	P V			3.9E+02	Pentane, n- Perchlorates	109-66-0	8.1E+01	n	3.4E+02	n	1.0E+02	n	4.4E+02	n	2.1E+02	n		1.0E+00	n	
				7.0E-04	I				1			~Ammonium Perchlorate	7790-98-9	5.5E+00	n	8.2E+01	n					1.4E+00	n			n	
				7.0E-04	I				1			~Lithium Perchlorate	7791-03-9	5.5E+00	n	8.2E+01	n					1.4E+00	n			n	
				7.0E-04	I				1			~Perchlorate and Perchlorate Salts	14797-73-0	5.5E+00	n	8.2E+01	n					1.4E+00	n			n	
				7.0E-04	I				1			~Potassium Perchlorate	7778-74-7	5.5E+00	n	8.2E+01	n					1.4E+00	n			n	
				7.0E-04	I				1			~Sodium Perchlorate	7601-89-0	5.5E+00	n	8.2E+01	n					1.4E+00	n			n	
				2.0E-02	P		V		1			Perfluorobutane Sulfonate	375-73-5	1.6E+02	n	2.3E+03	n					3.8E+01	n		2.1E-02	n	
				5.0E-02	I				1	0.1		Permethrin	52645-53-1	3.2E+02	n	4.1E+03	n					1.0E+02	n		2.4E+01	n	
2.2E-03	C	6.3E-07	C						1	0.1		Phenacetin	62-44-2	2.5E+02	c	1.0E+03	c	4.5E+00	c	1.9E+01	c	3.4E+01	c		9.7E-03	c	
				2.5E-01	I				1	0.1		Phenmedipham	13684-63-4	1.6E+03	n	2.1E+04	n					4.0E+02	n		2.1E+00	n	
				3.0E-01	I	2.0E-01	C		1	0.1		Phenol	108-95-2	1.9E+03	n	2.5E+04	n	2.1E+01	n	8.8E+01	n	5.8E+02	n		3.3E-01	n	
				4.0E-03	I				1	0.1		Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1	2.5E+01	n	3.3E+02	n					7.8E+00	n		2.5E-03	n	
				5.0E-04	X				1	0.1		Phenothiazine	92-84-2	3.2E+00	n	4.1E+01	n					4.3E-01	n		1.4E-03	n	
				6.0E-03	I				1	0.1		Phenylenediamine, m-	108-45-2	3.8E+01	n	4.9E+02	n					1.2E+01	n		3.2E-03	n	
4.7E-02	H								1	0.1		Phenylenediamine, o-	95-54-5	1.2E+01	c	4.9E+01	c					1.6E+00	c		4.4E-04	c	
				1.9E-01	H				1	0.1		Phenylenediamine, p-	106-50-3	1.2E+03	n	1.6E+04	n					3.8E+02	n		1.0E-01	n	
1.9E-03	H								1	0.1		Phenylphenol, 2-	90-43-7	2.8E+02	c	1.2E+03	c					3.0E+01	c		4.1E-01	c	
				2.0E-04	H				1	0.1		Phorate	298-02-2	1.3E+00	n	1.6E+01	n					3.0E-01	n		3.4E-04	n	
						3.0E-04	I V		1		1.6E+03	Phosgene	75-44-5	3.1E-02	n	1.3E-01	n	3.1E-02	n	1.3E-01	n				8.2E-03	n	
				2.0E-02	I				1	0.1		Phosmet	732-11-6	1.3E+02	n	1.6E+03	n					3.7E+01	n			n	
				4.9E+01	P				1			Phosphates, Inorganic															
				4.9E+01	P				1			~Aluminum metaphosphate	13776-88-0	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Ammonium polyphosphate	68333-79-9	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Calcium pyrophosphate	7790-76-3	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Diammonium phosphate	7783-28-0	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Dicalcium phosphate	7757-93-9	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Dimagnesium phosphate	7782-75-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Dipotassium phosphate	7758-11-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Disodium phosphate	7758-79-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Monoaluminum phosphate	13530-50-2	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Monoammonium phosphate	7722-76-1	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Monocalcium phosphate	7758-23-8	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Monomagnesium phosphate	7757-86-0	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Monopotassium phosphate	7778-77-0	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Monosodium phosphate	7558-80-7	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Polyphosphoric acid	8017-16-1	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Potassium triphosphate	13845-36-8	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Sodium acid pyrophosphate	7758-16-9	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Sodium aluminum phosphate (acidic)	7785-88-8	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Sodium aluminum phosphate (anhydrous)	10279-59-1	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Sodium aluminum phosphate (tetrahydrate)	10305-76-7	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Sodium hexametaphosphate	10124-56-8	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Sodium polyphosphate	68915-31-1	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Sodium trimetaphosphate	7785-84-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Sodium triphosphate	7758-29-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Tetrapotassium phosphate	7320-34-5	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Tetrasodium pyrophosphate	7722-88-5	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P				1			~Trialuminum sodium tetra decahydrogenoctaorthophosphate (dihydrate)	15136-87-5	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9																							

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice); c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)																																			
Toxicity and Chemical-specific Information														Contaminant		Screening Levels												Protection of Ground Water SSLs							
SFO (mg/kg-day) ⁻¹	k _e IUR (ug/m ³ -day) ⁻¹	k _e Y	RfD _o (mg/kg-day)	k _e Y	RfC _i (mg/m ³ -day)	k _e Y	o _l Y	muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)								
Polychlorinated Biphenyls (PCBs)																																			
7.0E-02	S	2.0E-05	S	7.0E-05	I		V		1	0.14		~Aroclor 1016	12674-11-2	4.1E-01	n	5.1E+00	n	1.4E-01	c	6.1E-01	c	1.4E-01	n			1.3E-02	n								
2.0E+00	S	5.7E-04	S				V		1	0.14		~Aroclor 1221	11104-28-2	2.0E-01	c	8.3E-01	c	4.9E-03	c	2.1E-02	c	4.7E-03	c			8.0E-05	c								
2.0E+00	S	5.7E-04	S				V		1	0.14		~Aroclor 1232	11141-16-5	1.7E-01	c	7.2E-01	c	4.9E-03	c	2.1E-02	c	4.7E-03	c			8.0E-05	c								
2.0E+00	S	5.7E-04	S				V		1	0.14		~Aroclor 1242	53469-21-9	2.3E-01	c	9.5E-01	c	4.9E-03	c	2.1E-02	c	7.8E-03	c			1.2E-03	c								
2.0E+00	S	5.7E-04	S				V		1	0.14		~Aroclor 1248	12672-29-6	2.3E-01	c	9.5E-01	c	4.9E-03	c	2.1E-02	c	7.8E-03	c			1.2E-03	c								
2.0E+00	S	5.7E-04	S	2.0E-05	I		V		1	0.14		~Aroclor 1254	11097-69-1	1.2E-01	n	9.7E-01	c**	4.9E-03	c	2.1E-02	c	7.8E-03	c**			2.0E-03	c**								
2.0E+00	S	5.7E-04	S				V		1	0.14		~Aroclor 1260	11096-82-5	2.4E-01	c	9.9E-01	c	4.9E-03	c	2.1E-02	c	7.8E-03	c			5.5E-03	c								
3.9E+00	E	1.1E-03	E	6.0E-04	X		V		1	0.14		~Aroclor 5460	11126-42-4	3.5E+00	n	4.4E+01	n					1.2E+00	n			2.0E-01	n								
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V	1	0.14		~Heptachlorobiphenyl, 2,3,3',4,4',5,5'-(PCB 189)	39635-31-9	1.3E-01	c**	5.2E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*			2.8E-03	c*								
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V	1	0.14		~Hexachlorobiphenyl, 2,3',4,4',5,5'-(PCB 167)	52663-72-6	1.2E-01	c**	5.1E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*			1.7E-03	c*								
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V	1	0.14		~Hexachlorobiphenyl, 2,3,3',4,4',5,5'-(PCB 157)	69782-90-7	1.2E-01	c**	5.0E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*			1.7E-03	c*								
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V	1	0.14		~Hexachlorobiphenyl, 2,3,3',4,4',5,5'-(PCB 156)	38380-08-4	1.2E-01	c**	5.0E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*			1.7E-03	c*								
3.9E+00	E	1.1E+00	E	2.3E-08	E	1.3E-06	E	V	1	0.14		~Hexachlorobiphenyl, 3,3',4,4',5,5'-(PCB 169)	32774-16-6	1.2E-01	c**	5.1E-01	c**	2.5E-06	c*	1.1E-05	c*	4.0E-06	c*			1.7E-06	c*								
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V	1	0.14		~Pentachlorobiphenyl, 2',3,4,4',5-(PCB 123)	65510-44-3	1.2E-01	c**	4.9E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*			1.0E-03	c*								
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V	1	0.14		~Pentachlorobiphenyl, 2,3',4,4',5-(PCB 118)	31508-00-6	1.2E-01	c**	4.9E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*			1.0E-03	c*								
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V	1	0.14		~Pentachlorobiphenyl, 2,3,3',4,4',5-(PCB 105)	32598-14-4	1.2E-01	c**	4.9E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*			1.0E-03	c*								
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V	1	0.14		~Pentachlorobiphenyl, 2,3,4,4',5-(PCB 114)	74472-37-0	1.2E-01	c**	5.0E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*			1.0E-03	c*								
1.3E+04	E	3.8E+00	E	7.0E-09	E	4.0E-07	E	V	1	0.14		~Pentachlorobiphenyl, 3,3',4,4',5,5'-(PCB 126)	57465-28-8	3.6E-05	c**	1.5E-04	c**	7.4E-07	c*	3.2E-06	c*	1.2E-06	c*			3.0E-07	c*								
2.0E+00	I	5.7E-04	I				V		1	0.14		~Polychlorinated Biphenyls (high risk)	1336-36-3	2.3E-01	c	9.4E-01	c	4.9E-03	c	2.1E-02	c			5.0E-01											
4.0E-01	I	1.0E-04	I				V		1	0.14		~Polychlorinated Biphenyls (low risk)	1336-36-3	2.3E-01	c	9.4E-01	c	4.9E-03	c	2.1E-02	c	4.4E-02	c	5.0E-01											
7.0E-02	I	2.0E-05	I				V		1	0.14		~Polychlorinated Biphenyls (lowest risk)	1336-36-3	2.3E-01	c	9.4E-01	c	4.9E-03	c	2.1E-02	c	4.4E-02	c	5.0E-01											
1.3E+01	E	3.8E-03	E	7.0E-06	E	4.0E-04	E	V	1	0.14		~Tetrachlorobiphenyl, 3,3',4,4'-(PCB 77)	32598-13-3	3.8E-02	c**	1.6E-01	c**	7.4E-04	c*	3.2E-03	c*	6.0E-03	c**			9.4E-04	c**								
3.9E+01	E	1.1E-02	E	2.3E-06	E	1.3E-04	E	V	1	0.14		~Tetrachlorobiphenyl, 3,4,4',5'-(PCB 81)	70362-50-4	1.2E-02	c**	4.8E-02	c**	2.5E-04	c*	1.1E-03	c*	4.0E-04	c*			6.2E-05	c*								
				6.0E-04	I		V		1	0.1		Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	8.5E+04	n	3.6E+05	nm	6.3E-02	n	2.6E-01	n														
Polynuclear Aromatic Hydrocarbons (PAHs)																																			
			6.0E-02	I			V		1	0.13		~Acenaphthene	83-32-9	3.6E+02	n	4.5E+03	n					5.3E+01	n			5.5E-01	n								
			3.0E-01	I			V		1	0.13		~Anthracene	120-12-7	1.8E+03	n	2.3E+04	n					1.8E+02	n			5.8E+00	n								
7.3E-01	E	1.1E-04	C				V	M	1	0.13		~Benz[a]anthracene	56-55-3	1.6E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	1.2E-02	c			4.2E-02	c								
1.2E+00	C	1.1E-04	C				V	M	1	0.13		~Benzo[j]fluoranthene	205-82-3	4.2E-01	c	1.8E+00	c	2.6E-02	c	1.1E-01	c	6.5E-02	c			7.8E-02	c								
7.3E+00	I	1.1E-03	C				V	M	1	0.13		~Benzo[a]pyrene	50-32-8	1.6E-02	c	2.9E-01	c	9.2E-04	c	1.1E-02	c	3.4E-03	c	2.0E-01		4.0E-03	c	2.4E-01							
7.3E-01	E	1.1E-04	C				V	M	1	0.13		~Benzo[b]fluoranthene	205-99-2	1.6E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	3.4E-02	c			4.1E-02	c								
7.3E-02	E	1.1E-04	C				V	M	1	0.13		~Benzo[k]fluoranthene	207-08-9	1.6E+00	c	2.9E+01	c	9.2E-03	c	1.1E-01	c	3.4E-01	c			4.0E-01	c								
			8.0E-02	I			V	M	1	0.13		~Chloronaphthalene, Beta	91-58-7	4.8E+02	n	6.0E+03	n					7.5E+01	n			3.9E-01	n								
7.3E-03	E	1.1E-05	C				V	M	1	0.13		~Chrysene	218-01-9	1.6E+01	c	2.9E+02	c	9.2E-02	c	1.1E+00	c	3.4E+00	c			1.2E+00	c								
7.3E+00	E	1.2E-03	C				V	M	1	0.13		~Dibenz[a,h]anthracene	53-70-3	1.6E-02	c	2.9E-01	c	8.4E-04	c	1.0E-02	c	3.4E-03	c			1.3E-02	c								
1.2E+01	C	1.1E-03	C				V	M	1	0.13		~Dibenzo[a,e]pyrene	192-85-4	4.2E-02	c	1.8E-01	c	2.6E-03	c	1.1E-02	c	6.5E-03	c			8.4E-02	c								
2.5E+02	C	7.1E-02	C				V	M	1	0.13		~Dimethylbenz[a]anthracene, 7,12-	57-97-6	4.6E-04	c	8.4E-03	c	1.4E-05	c	1.7E-04	c	1.0E-04	c			9.9E-05	c								
			4.0E-02	I			V	M	1	0.13		~Fluoranthene	206-44-0	2.4E+02	n	3.0E+03	n					8.0E+01	n			8.9E+00	n								
			4.0E-02	I			V	M	1	0.13		~Fluorene	86-73-7	2.4E+02	n	3.0E+03	n					2.9E+01	n			5.4E-01	n								
7.3E-01	E	1.1E-04	C				V	M	1	0.13		~Indeno[1,2,3-cd]pyrene	193-39-5	1.6E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	3.4E-02	c			1.3E-01	c								
2.9E-02	P		7.0E-02	A			V	M	1	0.13	3.9E+02	~Methylnaphthalene, 1-	90-12-0	1.8E+01	c*	7.3E+01	c*					1.1E+00	c*			6.									

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Toxicity and Chemical-specific Information												Contaminant			Screening Levels										Protection of Ground Water SSLs		
SFO (mg/kg-day) ⁻¹	k e y	IUR (ug/m ³) ⁻¹	k e y	RfD _o (mg/kg- day)	k e y	RfC _i (mg/m ³) e y	k e y	muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
5.0E-03	I			5.0E-03	I				1			Selenious Acid	7783-00-8	3.9E+01	n	5.8E+02	n					1.0E+01	n		n		
5.0E-03	I			2.0E-02	C				1			Selenium	7782-49-2	3.9E+01	n	5.8E+02	n	2.1E+00	n	8.8E+00	n	1.0E+01	n	5.0E+01	5.2E-02	n	2.6E-01
5.0E-03	C			2.0E-02	C							Selenium Sulfide	7446-34-6	3.9E+01	n	5.8E+02	n	2.1E+00	n	8.8E+00	n	1.0E+01	n		n		
9.0E-02	I									0.1		Sethoxydim	74051-80-2	5.7E+02	n	7.4E+03	n					1.0E+02	n		9.3E-01	n	
				3.0E-03	C				1			Silica (crystalline, respirable)	7631-86-9	4.3E+05	nm	1.8E+06	nm	3.1E-01	n	1.3E+00	n				8.0E-02	n	
1.2E-01	H			5.0E-03	I				0.04			Silver	7440-22-4	3.9E+01	n	5.8E+02	n					9.4E+00	n		3.0E-04	c*	2.0E-03
				5.0E-03	I				1	0.1		Simazine	122-34-9	4.5E+00	c**	1.9E+01	c*					6.1E-01	c*	4.0E+00			
				1.3E-02	I					0.1		Sodium Acifluorfen	62476-59-9	8.2E+01	n	1.1E+03	n					2.6E+01	n		2.1E-01	n	
				4.0E-03	I				1			Sodium Azide	26628-22-8	3.1E+01	n	4.7E+02	n					8.0E+00	n		n		
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C	M	0.025			Sodium Dichromate	10588-01-9	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c		c		
2.7E-01	H			3.0E-02	I					0.1		Sodium Diethyldithiocarbamate	148-18-5	2.0E+00	c*	8.5E+00	c					2.9E-01	c		1.8E-04	c	
				5.0E-02	A	1.3E-02	C		1			Sodium Fluoride	7681-49-4	3.9E+02	n	5.8E+03	n	1.4E+00	n	5.7E+00	n	1.0E+02	n		n		
				2.0E-05	I					0.1		Sodium Fluoroacetate	62-74-8	1.3E-01	n	1.6E+00	n					4.0E-02	n		8.1E-06	n	
				1.0E-03	H				1			Sodium Metavanadate	13718-26-8	7.8E+00	n	1.2E+02	n					2.0E+00	n		n		
				8.0E-04	P				1			Sodium Tungstate	13472-45-2	6.3E+00	n	9.3E+01	n					1.6E+00	n		n		
				8.0E-04	P				1			Sodium Tungstate Dihydrate	10213-10-2	6.3E+00	n	9.3E+01	n					1.6E+00	n		n		
2.4E-02	H			3.0E-02	I					0.1		Stirofos (Tetrachlorovinphos)	961-11-5	2.3E+01	c**	9.6E+01	c*					2.8E+00	c*		8.2E-03	c*	
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C	M	0.025			Strontium Chromate	7789-06-2	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c		4.2E+01	n	
				6.0E-01	I				1			Strontium, Stable	7440-24-6	4.7E+03	n	7.0E+04	n					1.2E+03	n		n		
				3.0E-04	I					0.1		Strychnine	57-24-9	1.9E+00	n	2.5E+01	n					5.9E-01	n		6.5E-03	n	
				2.0E-01	I	1.0E+00	I	V			8.7E+02	Styrene	100-42-5	6.0E+02	n	3.5E+03	ns	1.0E+02	n	4.4E+02	n	1.2E+02	n	1.0E+02	1.3E-01	n	1.1E-01
				3.0E-03	P					0.1		Styrene-Acrylonitrile (SAN) Trimer	NA	1.9E+01	n	2.5E+02	n					4.8E+00	n		n		
				1.0E-03	P	2.0E-03	X		1	0.1		Sulfolane	126-33-0	6.3E+00	n	8.2E+01	n	2.1E-01	n	8.8E-01	n	2.0E+00	n		4.4E-04	n	
				8.0E-04	P				1	0.1		Sulfonylbis(4-chlorobenzene), 1,1'-	80-07-9	5.1E+00	n	6.6E+01	n					1.1E+00	n		6.5E-03	n	
						1.0E-03	C	V	1			Sulfur Trioxide	7446-11-9	1.4E+05	nm	6.0E+05	nm	1.0E-01	n	4.4E-01	n	2.1E-01	n		n		
2.5E-02	I	7.1E-06	I	5.0E-02	H					0.1		Sulfuric Acid	7664-93-9	1.4E+05	nm	6.0E+05	nm	1.0E-01	n	4.4E-01	n				1.5E-02	c*	
				3.0E-02	H					0.1		Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester	140-57-8	2.2E+01	c*	9.2E+01	c*	4.0E-01	c	1.7E+00	c	1.3E+00	c*		3.3E-01	n	
				7.0E-02	I				1	0.1		TCMTB	21564-17-0	1.9E+02	n	2.5E+03	n					4.8E+01	n		n		
				2.0E-02	H				1	0.1		Tebuthiuron	34014-18-1	4.4E+02	n	5.7E+03	n					1.4E+02	n		3.9E-02	n	
				1.3E-02	I				1	0.1		Temephos	3383-96-8	1.3E+02	n	1.6E+03	n					4.0E+01	n		7.6E+00	n	
												Terbacil	5902-51-2	8.2E+01	n	1.1E+03	n					2.5E+01	n		7.5E-03	n	
				2.5E-05	H			V	1		3.1E+01	Terbufos	13071-79-9	2.0E-01	n	2.9E+00	n					2.4E-02	n		5.2E-05	n	
				1.0E-03	I					0.1		Terbutryn	886-50-0	6.3E+00	n	8.2E+01	n					1.3E+00	n		1.9E-03	n	
				1.0E-04	I					0.1		Tetrabromodiphenyl ether (fies, 2,2',4,4'- (BDE-47)	5436-43-1	6.3E-01	n	8.2E+00	n					2.0E-01	n		5.3E-03	n	
				3.0E-04	I			V	1			Tetrachlorobenzene, 1,2,4,5-	95-94-3	2.3E+00	n	3.5E+01	n					1.7E-01	n		7.9E-04	n	
2.6E-02	I	7.4E-06	I	3.0E-02	I			V	1		6.8E+02	Tetrachloroethane, 1,1,1,2-	690-20-6	2.0E+00	c	8.8E+00	c	3.8E-01	c	1.7E+00	c	5.7E-01	c*		2.2E-04	c*	
2.0E-01	I	5.8E-05	C	2.0E-02	I			V	1		1.9E+03	Tetrachloroethane, 1,1,2,2-	79-34-5	6.0E-01	c	2.7E+00	c	4.8E-02	c	2.1E-01	c	7.6E-02	c		3.0E-05	c	
2.1E-03	I	2.6E-07	I	6.0E-03	I	4.0E-02	I	V	1		1.7E+02	Tetrachloroethylene	127-18-4	8.1E+00	n	3.9E+01	n	4.2E+00	n	1.8E+01	n	4.1E+00	n	5.0E+00	1.8E-03	n	2.3E-03
				3.0E-02	I					0.1		Tetrachlorophenol, 2,3,4,6-	58-90-2	1.9E+02	n	2.5E+03	n					2.4E+01	n		1.8E-02	n	
2.0E+01	H							V	1			Tetrachlorotoluene, p- alpha, alpha, alpha-	5216-25-1	3.5E-02	c	1.6E-01	c					1.3E-03	c		4.5E-06	c	
				5.0E-04	I					0.1		Tetraethyl Dithiopyrophosphate	3689-24-5	3.2E+00	n	4.1E+01	n					7.1E-01	n		5.2E-04	n	
				8.0E+01	I	V			1		2.1E+03	Tetrafluoroethane, 1,1,1,2-	811-97-2	1.0E+04	ns	4.3E+04	ns	8.3E+03	n	3.5E+04	n	1.7E+04	n		9.3E+00	n	
				2.0E-03	P					7E-04		Tetryl (Trinitrophenylmethyltramine)	479-45-8	1.6E+01	n	2.3E+02	n					3.9E+00	n		3.7E-02	n	
				2.0E-05	S				1			Thallic Oxide	1314-32-5	1.6E-01	n	2.3E+00	n					4.0E-02	n		n		
				1.0E-05	X				1			Thallium (I) Nitrate	10102-45-1	7.8E-02	n	1.2E+00	n					2.0E-02	n		n		
				1.0E-05	X				1			Thallium (Soluble Salts)	7440-28-0	7.8E-02	n	1.2E+00	n					2.0E-02	n	2.0E+00	1.4E-03	n	1.4E-01
				1.0E-05	X			V	1			Thallium Acetate	563-68-8	7.8E-02	n	1.2E+00	n					2.0E-02	n		4.1E-06	n	
				2.0E-05	X			V	1			Thallium Carbonate	6533-73-9	1.6E-01	n	2.3E+00	n					4.0E-02	n		8.3E-06	n	
				1.0E-05	X				1			Thallium Chloride	7791-12-0	7.8E-02	n	1.2E+00	n					2.0E-02	n		n		
				1.0E-05	S				1			Thallium Selenite	12039-52-0	7.8E-02	n	1.2E+00	n					2.0E-02	n		n		
				2.0E-05	X				1			Thallium Sulfate	7446-18-6	1.6E-01	n	2.3E+00	n					4.0E-02	n		n		
				1.3E-02	I					0.1																	

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice); c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information										Contaminant		Screening Levels										Protection of Ground Water SSLs						
SFO (mg/kg-day) ⁻¹	k _e (ug/m ³) ⁻¹	IUR (ug/m ³) ⁻¹	k _e (ug/m ³) ⁻¹	RfD _o (mg/kg-day)	k _e (ug/m ³) ⁻¹	RF _C (mg/m ³) ⁻¹	k _e (ug/m ³) ⁻¹	o _o muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)	
				3.0E-02	I						1	0.1	Triadimefon	43121-43-3	1.9E+02	n	2.5E+03	n					5.5E+01	n		4.4E-02	n	
				1.3E-02	I			V			1		Triallate	2303-17-5	1.0E+02	n	1.5E+03	n					1.2E+01	n		2.6E-02	n	
				1.0E-02	I						1	0.1	Triasulfuron	82097-50-5	6.3E+01	n	8.2E+02	n					2.0E+01	n		2.1E-02	n	
				8.0E-03	I						1	0.1	Tribenuron-methyl	101200-48-0	5.1E+01	n	6.6E+02	n					1.6E+01	n		6.1E-03	n	
9.0E-03	P			5.0E-03	I			V			1		Tribromobenzene, 1,2,4-	615-54-3	3.9E+01	n	5.8E+02	n					4.5E+00	n		6.4E-03	n	
				1.0E-02	P						1	0.1	Tributyl Phosphate	126-73-8	6.0E+01	c**	2.6E+02	c**					5.2E+00	c**		2.5E-02	c**	
				3.0E-04	P						1	0.1	Tributyltin Compounds	NA	1.9E+00	n	2.5E+01	n					6.0E-01	n			n	
				3.0E-04	I						1	0.1	Tributyltin Oxide	56-35-9	1.9E+00	n	2.5E+01	n					5.7E-01	n		2.9E+01	n	
7.0E-02	I			3.0E+01	I	3.0E+01	H	V			9.1E+02		Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	4.0E+03	ns	1.7E+04	ns	3.1E+03	n	1.3E+04	n	5.5E+03	n		1.4E+01	n	
				2.0E-02	I						1	0.1	Trichloroacetic Acid	76-03-9	7.8E+00	c*	3.3E+01	c*					1.1E+00	c*	6.0E+01	2.2E-04	c*	1.2E-02
2.9E-02	H										1	0.1	Trichloroaniline HCl, 2,4,6-	33663-50-2	1.9E+01	c	7.9E+01	c					2.7E+00	c		7.4E-03	c	
7.0E-03	X			3.0E-05	X						1	0.1	Trichloroaniline, 2,4,6-	634-93-5	1.9E-01	n	2.5E+00	n					4.0E-02	n		3.6E-04	n	
				8.0E-04	X			V			1		Trichlorobenzene, 1,2,3-	87-61-6	6.3E+00	n	9.3E+01	n					7.0E-01	n		2.1E-03	n	
2.9E-02	P			1.0E-02	I	2.0E-03	P	V			1	4.0E+02	Trichlorobenzene, 1,2,4-	120-82-1	5.8E+00	n	2.6E+01	n	2.1E-01	n	8.8E-01	n	4.0E-01	n	7.0E+01	1.2E-03	n	2.0E-01
				2.0E+00	I	5.0E+00	I	V			1	6.4E+02	Trichloroethane, 1,1,1-	71-55-6	8.1E+02	ns	3.6E+03	ns	5.2E+02	n	2.2E+03	n	8.0E+02	n	2.0E+02	2.8E-01	n	7.0E-02
5.7E-02	I	1.6E-05	I	4.0E-03	I	2.0E-04	X	V			1	2.2E+03	Trichloroethane, 1,1,2-	79-00-5	1.5E-01	n	6.3E-01	n	2.1E-02	n	8.8E-02	n	4.1E-02	n	5.0E+00	1.3E-05	n	1.6E-03
4.6E-02	I	4.1E-06	I	5.0E-04	I	2.0E-03	I	V	M		1	6.9E+02	Trichloroethylene	79-01-6	4.1E-01	n	1.9E+00	n	2.1E-01	n	8.8E-01	n	2.8E-01	n	5.0E+00	1.0E-04	n	1.8E-03
				3.0E-01	I			V			1	1.2E+03	Trichlorofluoromethane	75-69-4	2.3E+03	ns	3.5E+04	ns					5.2E+02	n		3.3E-01	n	
				1.0E-01	I						1	0.1	Trichlorophenol, 2,4,5-	95-95-4	6.3E+02	n	8.2E+03	n					1.2E+02	n		4.0E-01	n	
1.1E-02	I	3.1E-06	I	1.0E-03	P						1	0.1	Trichlorophenol, 2,4,6-	88-06-2	6.3E+00	n	8.2E+01	n	9.1E-01	c	4.0E+00	c	1.2E+00	n		1.2E-03	n	
				1.0E-02	I						1	0.1	Trichlorophenoxyacetic Acid, 2,4,5-	93-76-5	6.3E+01	n	8.2E+02	n					1.6E+01	n		6.8E-03	n	
				8.0E-03	I						1	0.1	Trichlorophenoxypropionic acid, -2,4,5	93-72-1	5.1E+01	n	6.6E+02	n					1.1E+01	n	5.0E+01	6.1E-03	n	2.8E-02
3.0E+01	I			5.0E-03	I			V			1	1.3E+03	Trichloropropane, 1,1,2-	598-77-6	3.9E+01	n	5.8E+02	n					8.8E+00	n		3.5E-03	n	
				4.0E-03	I	3.0E-04	I	V	M		1	1.4E+03	Trichloropropane, 1,2,3-	96-18-4	5.1E-03	c*	1.1E-01	c*	3.1E-02	n	1.3E-01	n	7.5E-04	c*		3.2E-07	c*	
				3.0E-03	X	3.0E-04	P	V			1	3.1E+02	Trichloropropene, 1,2,3-	96-19-5	7.3E-02	n	3.1E-01	n	3.1E-02	n	1.3E-01	n	6.2E-02	n		3.1E-05	n	
				2.0E-02	A						1	0.1	Tricresyl Phosphate (TCP)	1330-78-5	1.3E+02	n	1.6E+03	n					1.6E+01	n		1.5E+00	n	
				3.0E-03	I						1	0.1	Tridiphane	58138-08-2	1.9E+01	n	2.5E+02	n					1.8E+00	n		1.3E-02	n	
						7.0E-03	I	V			1	2.8E+04	Triethylamine	121-44-8	1.2E+01	n	4.8E+01	n	7.3E-01	n	3.1E+00	n	1.5E+00	n		4.4E-04	n	
				2.0E+00	P						1	0.1	Triethylene Glycol	112-27-6	1.3E+04	n	1.6E+05	nm					4.0E+03	n		8.8E-01	n	
						2.0E+01	P	V			1	4.8E+03	Trifluoroethane, 1,1,1-	420-46-2	1.5E+03	n	6.2E+03	ns	2.1E+03	n	8.8E+03	n	4.2E+03	n		1.3E+01	n	
7.7E-03	I			7.5E-03	I						1		Trifluralin	1582-09-8	5.9E+01	n	4.2E+02	c**					2.6E+00	c**		8.4E-02	c**	
2.0E-02	P			1.0E-02	P						1	0.1	Trimethyl Phosphate	512-56-1	2.7E+01	c**	1.1E+02	c**					3.9E+00	c**		8.6E-04	c**	
						5.0E-03	P	V			1	2.9E+02	Trimethylbenzene, 1,2,3-	526-73-8	4.9E+00	n	2.1E+01	n	5.2E-01	n	2.2E+00	n	1.0E+00	n		1.5E-03	n	
						7.0E-03	P	V			1	2.2E+02	Trimethylbenzene, 1,2,4-	95-63-6	5.8E+00	n	2.4E+01	n	7.3E-01	n	3.1E+00	n	1.5E+00	n		2.1E-03	n	
				1.0E-02	X			V			1	1.8E+02	Trimethylbenzene, 1,3,5-	108-67-8	7.8E+01	n	1.2E+03	ns					1.2E+01	n		1.7E-02	n	
				1.0E-02	X			V			1	3.0E+01	Trimethylpentene, 2,4,4-	25167-70-8	7.8E+01	ns	1.2E+03	ns					6.5E+00	n		2.2E-02	n	
				3.0E-02	I						1	0.019	Trinitrobenzene, 1,3,5-	99-35-4	2.2E+02	n	3.2E+03	n					5.9E+01	n		2.1E-01	n	
3.0E-02	I			5.0E-04	I						1	0.032	Trinitrotoluene, 2,4,6-	118-96-7	3.6E+00	n	5.1E+01	n					9.8E-01	n		5.7E-03	n	
				2.0E-02	P						1	0.1	Triphenylphosphine Oxide	791-28-6	1.3E+02	n	1.6E+03	n					3.6E+01	n		1.5E-01	n	
				2.0E-02	A						1	0.1	Tris(1,3-Dichloro-2-propyl) Phosphate	13674-87-8	1.3E+02	n	1.6E+03	n					3.6E+01	n		8.0E-01	n	
				1.0E-02	X						1	0.1	Tris(1-chloro-2-propyl)phosphate	13674-84-5	6.3E+01	n	8.2E+02	n					1.9E+01	n		6.5E-02	n	
2.3E+00	C	6.6E-04	C					V			1	4.7E+02	Tris(2,3-dibromopropyl)phosphate	126-72-7	2.8E-01	c	1.3E+00	c	4.3E-03	c	1.9E-02	c	6.8E-03	c		1.3E-04	c	
2.0E-02	P			7.0E-03	P						1	0.1	Tris(2-chloroethyl)phosphate	115-96-8	2.7E+01	c**	1.1E+02	c**					3.8E+00	c**		3.8E-03	c**	
3.2E-03	P			1.0E-01	P						1	0.1	Tris(2-ethylhexyl)phosphate	78-42-2	1.7E+02	c**	7.2E+02	c*					2.4E+01	c**		1.2E+02	c**	
				8.0E-04	P						1		Tungsten	7440-33-7	6.3E+00	n	9.3E+01	n					1.6E+00	n		2.4E-01	n	
				3.0E-03	I	4.0E-05	A				1		Uranium (Soluble Salts)	NA	2.3E+01	n	3.5E+02	n	4.2E-03	n	1.8E-02	n	6.0E+00	n	3.0E+01	2.7E+00	n	1.4E+01
1.0E+00	C	2.9E-04	C						M		1	0.1	Urethane	51-79-6	1.2E-01	c	2.3E+00	c	3.5E-03	c	4.2E-02	c	2.5E-02	c		5.6E-06	c	
		8.3E-03	P								0.026		Vanadium Pentoxide	1314-62-1	6.6E+01	n	8.4E+02	n	3.4E-04	c**	1.5E-03	c**	1.5E+01	n			n	
				5.0E-03	S	1.0E-04	A				0.026		Vanadium and Compounds	7440-62-2	3.9E+01	n	5.8E+02	n	1.0E-02	n	4.4E-02	n	8.6E+00	n		8.6E+00	n	
				1.0E-03	I			V																				

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Toxicity and Chemical-specific Information													Contaminant										Screening Levels										Protection of Ground Water SSLs			
SFO (mg/kg-day) ⁻¹	K _e (y)	IUR (ug/m ³) ⁻¹	K _e (y)	RfD _a (mg/kg-day)	K _e (y)	RfC _a (mg/m ³)	K _e (y)	Vol (y)	muta- gen	GIABS	ABS	C _{soil} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)	key							
8.7E-03	I	2.2E-06	I	4.0E-03	I	9.0E-03	I	V	1	1	0.1	1.1E+05	Acephate	30560-19-1	6.2E+01	c**	2.6E+02	c*	1.3E+00	c**	5.6E+00	c**	8.9E+00	c**	2.0E-03	c**	2.0E-03	c**	2.0E-03	c**						
				2.0E-02	I				1	1	0.1	1.1E+05	Acetaldehyde	75-07-0	1.1E+01	c**	4.9E+01	c**	1.3E+00	c**	5.6E+00	c**	2.6E+00	c**	5.2E-04	c**	5.2E-04	c**	5.2E-04	c**						
				2.0E-02	I				1	1	0.1	1.1E+05	Acetochlor	34256-82-1	1.3E+03	n	1.6E+04	n	1.3E+00	n	5.6E+00	n	3.5E+02	n	2.8E-01	n	2.8E-01	n	2.8E-01	n						
				9.0E-01	I	3.1E+01	A	V	1	1	0.1	1.1E+05	Acetone	67-64-1	6.1E+04	n	6.7E+05	nms	3.2E+04	n	1.4E+05	n	1.4E+04	n	2.9E+00	n	2.9E+00	n	2.9E+00	n						
				2.0E-03	X				1	1	0.1	1.1E+05	Acetone Cyanohydrin	75-86-5	2.8E+06	nm	1.2E+07	nm	2.1E+00	n	8.8E+00	n	1.4E+04	n	2.9E+00	n	2.9E+00	n	2.9E+00	n						
				6.0E-02	I	V			1	1	0.1	1.1E+05	Acetonitrile	75-05-8	8.1E+02	n	3.4E+03	n	6.3E+01	n	2.6E+02	n	1.3E+02	n	2.6E-02	n	2.6E-02	n	2.6E-02	n						
3.8E+00	C	1.3E-03	C	1.0E-01	I				1	1	0.1	2.3E+04	Acetophenone	98-86-2	7.8E+03	ns	1.2E+05	nms					1.9E+03	n	5.8E-01	n	5.8E-01	n	5.8E-01	n						
				5.0E-04	I	2.0E-05	I	V	1	1	0.1	2.3E+04	Acetylaminofluorene, 2-Acrolein	53-96-3	1.4E-01	c	6.0E-01	c	2.2E-03	c	9.4E-03	c	1.6E-02	c	7.2E-05	c	7.2E-05	c	7.2E-05	c						
				5.0E-01	I	6.0E-03	I	M	1	1	0.1	1.1E+05	Acrylamide	79-06-1	2.4E-01	c	4.6E+00	c	1.0E-02	c	1.2E-01	c	5.0E-02	c	1.1E-05	c	1.1E-05	c	1.1E-05	c						
				5.0E-01	I	1.0E-03	I	V	1	1	0.1	1.1E+05	Acrylic Acid	79-10-7	9.9E+01	n	4.2E+02	n	1.0E+00	n	4.4E+00	n	2.1E+00	n	4.2E-04	n	4.2E-04	n	4.2E-04	n						
5.4E-01	I	6.8E-05	I	4.0E-02	A	2.0E-03	I	V	1	1	0.1	1.1E+04	Acrylonitrile	107-13-1	2.5E-01	c*	1.1E+00	c*	4.1E-02	c*	1.8E-01	c*	5.2E-02	c*	1.1E-05	c*	1.1E-05	c*	1.1E-05	c*						
				1.0E-02	I	6.0E-03	P		1	1	0.1		Adiponitrile	111-69-3	8.5E+06	nm	3.6E+07	nm	6.3E+00	n	2.6E+01	n			2.0E+00	n	8.7E-04	c	1.6E-03	n						
5.6E-02	C			1.0E-03	I				1	1	0.1		Alachlor	15972-60-8	9.7E+00	c*	4.1E+01	c					1.1E+00	c	2.0E+00	n	4.9E-03	n	4.9E-03	n						
				1.0E-03	I				1	1	0.1		Aldicarb	116-06-3	6.3E+01	n	8.2E+02	n					2.0E+01	n	3.0E+00	n	4.4E-03	n	4.4E-03	n						
				1.0E-03	I				1	1	0.1		Aldicarb Sulfone	1646-88-4	6.3E+01	n	8.2E+02	n					2.0E+01	n	2.0E+00	n	4.4E-03	n	4.4E-03	n						
				1.0E-03	I				1	1	0.1		Aldicarb sulfoxide	1646-87-3											4.0E+00	n	1.5E-04	c	1.5E-04	c						
1.7E+01	I	4.9E-03	I	3.0E-05	I				1	1	0.1	1.1E+05	Aldrin	309-00-2	3.9E-02	c*	1.8E-01	c	5.7E-04	c	2.5E-03	c	9.2E-04	c	1.5E-04	c	1.5E-04	c	1.5E-04	c						
				5.0E-03	I	1.0E-04	X	V	1	1	0.1	1.1E+05	Allyl Alcohol	107-18-6	3.5E+00	n	1.5E+01	n	1.0E-01	n	4.4E-01	n	2.1E-01	n	4.2E-05	n	4.2E-05	n	4.2E-05	n						
2.1E-02	C	6.0E-06	C	1.0E+00	P	5.0E-03	I	V	1	1	0.1	1.4E+03	Allyl Chloride	107-05-1	7.2E-01	c**	3.2E+00	c**	4.70E-01	c**	2.00E+00	c**	7.3E-01	c**	2.3E-04	c**	2.3E-04	c**	2.3E-04	c**						
				4.0E-04	I				1	1	0.1		Aluminum	7429-90-5	7.7E+04	n	1.1E+06	nm	5.2E+00	n	2.2E+01	n	2.0E+04	n	3.0E+04	n	3.0E+04	n	3.0E+04	n						
				9.0E-03	I				1	1	0.1		Aluminum Phosphide	20859-73-8	3.1E+01	n	4.7E+02	n					8.0E+00	n		n		n		n						
2.1E+01	C	6.0E-03	C	8.0E-02	P				1	1	0.1		Ametryn	834-12-8	5.7E+02	n	7.4E+03	n					1.5E+02	n	1.6E-01	n	1.6E-01	n	1.6E-01	n						
				2.0E-02	P				1	1	0.1		Aminobiphenyl, 4-	92-67-1	2.6E-02	c	1.1E-01	c	4.7E-04	c	2.0E-03	c	3.0E-03	c	1.5E-05	c	1.5E-05	c	1.5E-05	c						
				2.5E-03	I				1	1	0.1		Aminophenol, m-	591-27-5	5.1E+03	n	6.6E+04	n					1.6E+03	n	6.1E-01	n	6.1E-01	n	6.1E-01	n						
									1	1	0.1		Aminophenol, p-	123-30-8	1.3E+03	n	1.6E+04	n					4.0E+02	n	1.5E-01	n	1.5E-01	n	1.5E-01	n						
									1	1	0.1		Amitraz	33089-61-1	1.6E+02	n	2.1E+03	n					8.2E+00	n	4.2E+00	n	4.2E+00	n	4.2E+00	n						
				2.0E-01	I	1.0E-01	I	V	1	1	0.1	1.4E+04	Ammonia	7664-41-7					1.0E+02	n	4.4E+02	n				n		n		n						
									1	1	0.1	1.4E+04	Ammonium Sulfamate	7773-06-0	1.6E+04	n	2.3E+05	nm					4.0E+03	n		n		n		n						
									1	1	0.1	1.4E+04	Amyl Alcohol, tert-	75-85-4	8.2E+01	n	3.4E+02	n	3.1E+00	n	1.3E+01	n	6.3E+00	n	1.3E-03	n	1.3E-03	n	1.3E-03	n						
5.7E-03	I	1.6E-06	C	7.0E-03	P	1.0E-03	I		1	1	0.1		Aniline	62-53-3	9.5E+01	c**	4.0E+02	c*	1.0E+00	n	4.4E+00	n	1.3E+01	c*	4.6E-03	c*	4.6E-03	c*	4.6E-03	c*						
4.0E-02	P			2.0E-03	X				1	1	0.1		Anthraquinone, 9,10-	84-65-1	1.4E+01	c**	5.7E+01	c*					1.4E+00	c*	1.4E-02	c*	1.4E-02	c*	1.4E-02	c*						
				4.0E-04	I				0.15				Antimony (metallic)	7440-36-0	3.1E+01	n	4.7E+02	n					7.8E+00	n	6.0E+00	n	3.5E-01	n	3.5E-01	n						
				5.0E-04	H				0.15				Antimony Pentoxide	1314-60-9	3.9E+01	n	5.8E+02	n					9.7E+00	n		n		n		n						
				4.0E-04	H				0.15				Antimony Tetroxide	1332-81-6	3.1E+01	n	4.7E+02	n					7.8E+00	n		n		n		n						
						2.0E-04	I		0.15				Antimony Trioxide	1309-64-4	2.8E+05	nm	1.2E+06	nm	2.1E-01	n	8.8E-01	n				n		n		n						
1.5E+00	I	4.3E-03	I	3.0E-04	I	1.5E-05	C		1	1	0.03		Arsenic, inorganic	7440-38-2	6.8E-01	cR	3.0E+00	cR	6.5E-04	c*	2.9E-03	c*	5.2E-02	c	1.0E+01	n	1.5E-03	c	1.5E-03	c						
				3.5E-06	C	5.0E-05	I		1	1	0.1		Arsine	7784-42-1	2.7E-01	n	4.1E+00	n	5.2E-02	n	2.2E-01	n	7.0E-02	n		n		n		n						
				5.0E-02	I				1	1	0.1		Asulam	3337-71-1	3.2E+03	n	4.1E+04	n					1.0E+03	n	2.6E-01	n	2.6E-01	n	2.6E-01	n						
2.3E-01	C			3.5E-02	I				1	1	0.1		Atrazine	1912-24-9	2.4E+00	c	1.0E+01	c					3.0E-01	c	3.0E+00	n	2.0E-04	c	2.0E-04	c						
8.8E-01	C	2.5E-04	C	4.0E-04	I				1	1	0.1		Auramine	492-80-8	6.2E-01	c	2.6E+00	c	1.1E-02	c	4.9E-02	c	6.7E-02	c	6.1E-04	c	6.1E-04	c	6.1E-04	c						
				5.0E-04	I				1	1	0.1		Avermectin B1	66195-55-3	2.5E+01	n	3.3E+02	n					8.0E+00	n	1.4E+01	n	1.4E+01	n	1.4E+01	n						
				3.0E-03	A	1.0E																														

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice); c = cancer; n = noncancer; * = where n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information													Contaminant		Screening Levels												Protection of Ground Water SSLs			
SFO (mg/kg-day) ⁻¹	K _e (ug/m ³) ⁻¹	IUR (ug/m ³) ⁻¹	K _e (mg/kg-day)	RfD _h (mg/kg-day)	K _e (mg/m ³)	RfC _h (mg/m ³)	K _e (ug/m ³)	muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)			
6.2E-02	I	3.7E-05	C	2.0E-02	I						9.3E+02	Bromodichloromethane	75-27-4	2.9E-01		1.3E+00	c	7.6E-02	c	3.3E-01	c	1.3E-01	c	8.0E+01(F)	3.6E-05	c	2.2E-02			
7.9E-03	I	1.1E-06	I	2.0E-02	I						9.2E+02	Bromoform	75-25-2	1.9E+01	c*	8.6E+01	c	2.6E+00	c	1.1E+01	c	3.3E+00	c	8.0E+01(F)	8.7E-04	c	2.1E-02			
				1.4E-03	I	5.0E-03	I				3.6E+03	Bromomethane	74-83-9	6.8E+00	n	3.0E+01	n	5.2E+00	n	2.2E+01	n	7.5E+00	n		1.9E-03	n				
				5.0E-03	H							Bromophos	2104-96-3	3.9E+02	n	5.8E+03	n					3.5E+01	n		1.5E-01	n				
				2.0E-02	I					0.1		Bromoxynil	1689-84-5	1.3E+03	n	1.6E+04	n					3.3E+02	n		2.8E-01	n				
3.4E+00	C	3.0E-05	I	2.0E-02	I							Bromoxynil Octanoate	1689-99-2	1.6E+03	n	2.3E+04	n					1.4E+02	n		1.2E+00	n				
				1.0E-01	I	2.0E-03	I				6.7E+02	Butadiene, 1,3-	106-99-0	5.8E-02	c*	2.6E-01	c*	9.4E-02	c*	4.1E-01	c*	1.8E-02	c		9.9E-06	c				
				5.0E-02	I						7.6E+03	Butanol, N-	71-36-3	7.8E+03	ns	1.2E+05	nms					2.0E+03	n		4.1E-01	n				
				2.0E+00	P	3.0E+01	P				2.1E+04	Butyl alcohol, sec-	78-92-2	1.3E+05	nms	1.5E+06	nms	3.1E+04	n	1.3E+05	n	2.4E+04	n		5.0E+00	n				
2.0E-04	C	5.7E-08	C	5.0E-02	I						0.1	Butylate	2008-41-5	3.9E+03	n	5.8E+04	n					4.6E+02	n		4.5E-01	n				
				5.0E-02	I							Butylated hydroxyanisole	25013-16-5	2.7E+03	c	1.1E+04	c	4.9E+01	c	2.2E+02	c	1.5E+02	c		2.9E-01	c				
3.6E-03	P			3.0E-01	P						0.1	Butylated hydroxytoluene	128-37-0	1.5E+02	c	6.4E+02	c					3.4E+00	c		1.0E-01	c				
				5.0E-02	P							Butylbenzene, n-	104-51-8	3.9E+03	ns	5.8E+04	ns					1.0E+03	n		3.2E+00	n				
				1.0E-01	X							Butylbenzene, sec-	135-98-8	7.8E+03	ns	1.2E+05	nms					2.0E+03	n		5.9E+00	n				
				1.0E-01	X							Butylbenzene, tert-	98-06-6	7.8E+03	ns	1.2E+05	nms					6.9E+02	n		1.6E+00	n				
				2.0E-02	A						0.1	Cacodylic Acid	75-60-5	1.3E+03	n	1.6E+04	n					4.0E+02	n		1.1E-01	n				
				1.8E-03	I	1.0E-03	I	1.0E-05	A		0.025	0.001	Cadmium (Diet)	7440-43-9	7.1E+01	n	9.8E+02	n												
				1.8E-03	I	5.0E-04	I	1.0E-05	A		0.05	0.001	Cadmium (Water)	7440-43-9	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c		6.9E-01	n	3.8E-01		
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C		M		0.025		Calcium Chromate	13765-19-0	3.1E+04	n	4.0E+05	nm	2.3E+00	n	9.6E+00	n	9.9E+03	n		2.5E+00	n			
				5.0E-01	I	2.2E-03	C				0.1		Caprolactam	105-60-2																
1.5E-01	C	4.3E-05	C	2.0E-03	I						0.1	Captalol	2425-06-1	3.6E+00	c*	1.5E+01	c	6.5E-02	c	2.9E-01	c	4.0E-01	c*		7.1E-04	c*				
2.3E-03	C	6.6E-07	C	1.3E-01	I						0.1	Captan	133-06-2	2.4E+02	c*	1.0E+03	c	4.3E+00	c	1.9E+01	c	3.1E+01	c*		2.2E-02	c*				
				1.0E-01	I						0.1	Carbaryl	63-25-2	6.3E+03	n	8.2E+04	n					1.8E+03	n		1.7E+00	n				
				5.0E-03	I						0.1	Carbofuran	1563-66-2	3.2E+02	n	4.1E+03	n					9.4E+01	n		4.0E+01	n	1.6E-02			
				1.0E-01	I	7.0E-01	I				7.4E+02	Carbon Disulfide	75-15-0	7.7E+02	ns	3.5E+03	ns	7.3E+02	n	3.1E+03	n	8.1E+02	n		2.4E-01	n				
7.0E-02	I	6.0E-06	I	4.0E-03	I	1.0E-01	I				4.6E+02	Carbon Tetrachloride	56-23-5	6.5E-01	c	2.9E+00	c	4.7E-01	c	2.0E+00	c	4.6E-01	c	5.0E+00	1.8E-04	c	1.9E-03			
				1.0E-01	P						5.9E+03	Carbonyl Sulfide	463-58-1	6.7E+01	n	2.8E+02	n	1.0E+02	n	4.4E+02	n	2.1E+02	n		5.1E-01	n				
				1.0E-01	I						0.1	Carbosulfan	55285-14-8	6.3E+02	n	8.2E+03	n					5.1E+01	n		1.2E+00	n				
				1.0E-01	I						0.1	Carboxin	5234-68-4	6.3E+03	n	8.2E+04	n					1.9E+03	n		1.0E+00	n				
				9.0E-04	I						1	Ceric oxide	1306-38-3	1.3E+06	nm	5.4E+06	nm	9.4E-01	n	3.9E+00	n				4.0E-01	n				
				1.0E-01	I						1	Chloral Hydrate	302-17-0	7.8E+03	n	1.2E+05	nm					2.0E+03	n		4.0E-01	n				
				1.5E-02	I						0.1	Chloramben	133-90-4	9.5E+02	n	1.2E+04	n					2.9E+02	n		7.0E-02	n				
4.0E-01	H			5.0E-04	I	7.0E-04	I				0.1	Chloranil	118-75-2	1.3E+00	c	5.7E+00	c					1.8E-01	c		1.5E-04	c				
3.5E-01	I	1.0E-04	I	3.0E-04	I						0.04	Chlorane	12789-03-6	1.7E+00	c*	7.7E+00	c*	2.8E-02	c*	1.2E-01	c*	2.0E-02	c*	2.0E+00	2.7E-03	c*	2.7E-01			
1.0E+01	I	4.6E-03	C	3.0E-04	I						0.1	Chlordecone (Kepone)	143-50-0	5.4E-02	c	2.3E-01	c	6.1E-04	c	2.7E-03	c	3.5E-03	c		1.2E-04	c				
				7.0E-04	A						0.1	Chlorfenvinphos	470-90-6	4.4E+01	n	5.7E+02	n					1.1E+01	n		3.1E-02	n				
				2.0E-02	I						0.1	Chlorimuron, Ethyl-	90982-32-4	1.3E+03	n	1.6E+04	n					3.9E+02	n		1.3E-01	n				
				1.0E-01	I	1.5E-04	A				2.8E+03	Chlorine	7782-50-5	1.8E-01	n	7.8E-01	n	1.5E-01	n	6.4E-01	n	3.0E-01	n		1.4E-04	n				
				3.0E-02	I	2.0E-04	I				1	Chlorine Dioxide	10049-04-4	2.3E+03	n	3.4E+04	n	2.1E-01	n	8.8E-01	n	4.2E-01	n			n				
				3.0E-02	I						1	Chlorite (Sodium Salt)	7758-19-2	2.3E+03	n	3.5E+04	n					6.0E+02	n			n				
				5.0E+01	I						1	Chloro-1,1-difluoroethane, 1-	75-68-3	5.4E+04	ns	2.3E+05	nms	5.2E+04	n	2.2E+05	n	1.0E+05	n		5.2E+01	n				
				2.0E-02	H	2.0E-02	I				7.9E+02	Chloro-1,3-butadiene, 2-	126-99-8	1.0E-02	c	4.4E-02	c	9.4E-03	c	4.1E-02	c	1.9E-02	c		9.8E-06	c				
4.6E-01	H			3.0E-03	X						0.1	Chloro-2-methylaniline HCl, 4-	3165-93-3	1.2E+00	c	5.0E+00	c					1.7E-01	c		1.5E-04	c				
1.0E-01	P	7.7E-05	C	3.0E-03	X						0.1	Chloro-2-methylaniline, 4-	95-69-2	5.4E+00	c*	2.3E+01	c	3.6E-02	c	1.6E-01	c	7.0E-01	c*		4.0E-04	c*				
2.7E-01	X										1.2E+04	Chloroacetaldehyde, 2-	107-20-0	2.6E+00	c	1.2E+01	c					2.9E-01	c		5.8E-05	c	1.2E-02			
				3.0E-05	I						0.1	Chloroacetic Acid	79-11-8											6.0E+01						
											0.1	Chloroacetophenone, 2-	532-27-4	4.3E+04	n	1.8E+05	nm	3.1E-02	n	1.3E-01	n				1.6E-04	c				
2.0E-01	P			4.0E-03	I	5.0E-02	P				7.6E+02	Chloroaniline, p-	106-47-8	2.7E+00	c*	1.1E+01	c					3.7E-01	c		5.3E-02	n	6.8E-02			
				2.0E-02	I						1	Chlorobenzene	108-90-7	2.8E+02	n	1.3E+03	ns	5.2E+01	n	2.2E+02	n	7.8E+01	n		1.0E-03	c				
1.1E-01	C	3.1E-05	C	2.0E-02	I						0.1	<																		

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice); c = cancer; n = noncancer; * = where n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information													Contaminant		Screening Levels													Protection of Ground Water SSLs			
SFO (mg/kg-day) ⁻¹	K _e (y)	IUR (ug/m ³) ⁻¹	K _e (y)	RfD _h (mg/kg-day)	K _e (y)	RfC _h (mg/m ³)	K _e (y)	muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)				
9.0E-03	P	3.0E-04	P	6.0E-06	P	6.0E-06	P	1				Cobalt	7440-48-4	2.3E+01	n	3.5E+02	n	3.1E-04	c*	1.4E-03	c*	6.0E+00	n		2.7E-01	n					
6.2E-04	I											Coke Oven Emissions	8007-45-2	3.1E+03	n	4.7E+04	n	1.6E-03	c	2.0E-02	c			1.3E+03	2.8E+01	n	4.6E+01				
		4.0E-02	H									Copper	7440-50-8	3.2E+03	n	4.1E+04	n	6.3E+02	n	2.6E+03	n	8.0E+02	n		7.4E-01	n					
		5.0E-02	I	6.0E-01	C						0.1	Cresol, m-	108-39-4	3.2E+03	n	4.1E+04	n	6.3E+02	n	2.6E+03	n	9.3E+02	n		7.5E-01	n					
		1.0E-01	A	6.0E-01	C						0.1	Cresol, o-	95-48-7	6.3E+03	n	8.2E+04	n	6.3E+02	n	2.6E+03	n	1.9E+03	n		1.5E+00	n					
		1.0E-01	A								0.1	Cresol, p-	106-44-5	6.3E+03	n	8.2E+04	n	6.3E+02	n	2.6E+03	n	1.4E+03	n		1.7E+00	n					
1.9E+00	H											Cresols	1319-77-3	6.3E+03	n	8.2E+04	n	6.3E+02	n	2.6E+03	n	1.5E+03	n		1.3E+00	n					
		1.0E-03	P								1.7E+04	Crotonaldehyde, trans-	123-73-9	3.7E-01	c	1.7E+00	c					4.0E-02	c		8.2E-06	c					
		1.0E-01	I	4.0E-01	I	V					1	2.7E+02	Cumene	98-82-8	1.9E+03	ns	9.9E+03	ns	4.2E+02	n	1.8E+03	n	4.5E+02	n		7.4E-01	n				
2.2E-01	C	6.3E-05	C								0.1	Cupferron	135-20-6	2.5E+00	c	1.0E+01	c	4.5E-02	c	1.9E-01	c	3.5E-01	c		6.1E-04	c					
8.4E-01	H			2.0E-03	H						0.1	Cyanazine	21725-46-2	6.5E-01	c	2.7E+00	c					8.8E-02	c		4.1E-05	c					
		1.0E-03	I								1	Cyanides																			
		5.0E-03	I								1	~Calcium Cyanide	592-01-8	7.8E+01	n	1.2E+03	n					2.0E+01	n		n						
		6.0E-04	I	8.0E-04	S	V					9.5E+05	~Copper Cyanide	544-92-3	3.9E+02	n	5.8E+03	n					1.0E+02	n		n						
												~Cyanide (CN-)	57-12-5	2.3E+01	n	1.5E+02	n	8.3E-01	n	3.5E+00	n	1.5E+00	n	2.0E+02	1.5E-02	n	2.0E+00				
		1.0E-03	I								1	~Cyanogen	460-19-5	7.8E+01	n	1.2E+03	n					2.0E+01	n		n						
		9.0E-02	I								1	~Cyanogen Bromide	506-68-3	7.0E+03	n	1.1E+05	nm					1.8E+03	n		n						
		5.0E-02	I								1	~Cyanogen Chloride	506-77-4	3.9E+03	n	5.8E+04	n					1.0E+03	n		n						
		6.0E-04	I	8.0E-04	I	V					1.0E+07	~Hydrogen Cyanide	74-90-8	2.3E+01	n	1.5E+02	n	8.3E-01	n	3.5E+00	n	1.5E+00	n		1.5E-02	n					
		2.0E-03	I									~Potassium Cyanide	151-50-8	1.6E+02	n	2.3E+03	n					4.0E+01	n		n						
		5.0E-03	I								0.04	~Potassium Silver Cyanide	506-61-6	3.9E+02	n	5.8E+03	n					8.2E+01	n		n						
		1.0E-01	I								0.04	~Silver Cyanide	506-64-9	7.8E+03	n	1.2E+05	nm					1.8E+03	n		n						
		1.0E-03	I								1	~Sodium Cyanide	143-33-9	7.8E+01	n	1.2E+03	n					2.0E+01	n	2.0E+02	n						
		2.0E-04	P								1	~Thiocyanates	NA	1.6E+01	n	2.3E+02	n					4.0E+00	n		n						
		2.0E-04	X								1	~Thiocyanic Acid	463-56-9	1.6E+01	n	2.3E+02	n					4.0E+00	n		n						
		5.0E-02	I								1	~Zinc Cyanide	557-21-1	3.9E+03	n	5.8E+04	n					1.0E+03	n		n						
				6.0E+00	I	V					1.2E+02	Cyclohexane	110-82-7	6.5E+03	ns	2.7E+04	ns	6.3E+03	n	2.6E+04	n	1.3E+04	n		1.3E+01	n					
2.3E-02	H			5.0E+00	I	7.0E-01	P	V			0.1	Cyclohexane, 1,2,3,4,5-pentabromo-6-chloro-	87-84-3	2.4E+01	c	1.0E+02	c					2.4E+00	c		1.4E-02	c					
		5.0E-03	P	1.0E+00	X	V					5.1E+03	Cyclohexanone	108-94-1	2.8E+04	ns	1.3E+05	nms	7.3E+02	n	3.1E+03	n	1.4E+03	n		3.4E-01	n					
		5.0E-03	I								2.8E+02	Cyclohexene	110-83-8	3.1E+02	ns	3.1E+03	ns	1.0E+03	n	4.4E+03	n	7.0E+01	n		4.6E-02	n					
		2.0E-01	I								2.9E+05	Cyclohexylamine	108-91-8	1.8E+04	n	2.3E+05	nm					3.8E+03	n		1.0E+00	n					
		2.5E-02	I								0.1	Cyfluthrin	68359-37-5	1.6E+03	n	2.1E+04	n					1.2E+02	n		3.1E+01	n					
		5.0E-03	I								0.1	Cyhalothrin	68085-85-8	3.2E+02	n	4.1E+03	n					1.0E+02	n		6.8E+01	n					
		1.0E-02	I								0.1	Cypermethrin	52315-07-8	6.3E+02	n	8.2E+03	n					2.0E+02	n		3.2E+01	n					
2.4E-01	I	6.9E-05	C								0.1	Cyromazine	66215-27-8	4.7E+02	n	6.2E+03	n					1.5E+02	n		3.8E-02	n					
		7.5E-03	I								0.1	DDD	72-54-8	2.3E+00	c	9.6E+00	c	4.1E-02	c	1.8E-01	c	3.2E-02	c		7.5E-03	c					
3.4E-01	I	9.7E-05	C								1	DDE, p,p'-	72-55-9	2.0E+00	c	9.3E+00	c	2.9E-02	c	1.3E-01	c	4.6E-02	c		1.1E-02	c					
3.4E-01	I	9.7E-05	I	5.0E-04	I						0.03	DDT	50-29-3	1.9E+00	c*	8.5E+00	c*	2.9E-02	c	1.3E-01	c	2.3E-01	c*		7.7E-02	c*					
		3.0E-02	I								0.1	Dalapon	75-99-0	1.9E+03	n	2.5E+04	n					6.0E+02	n	2.0E+02	1.2E-01	n	4.1E-02				
1.8E-02	C	5.1E-06	C	1.5E-01	I						0.1	Daminozide	1596-84-5	3.0E+01	c	1.3E+02	c	5.5E-01	c	2.4E+00	c	4.3E+00	c		9.5E-04	c					
7.0E-04	I			7.0E-03	I						0.1	Decabromodiphenyl ether, 2,2',3,3',4,4',5,5',6,6'- (BDE-209)	1163-19-5	4.4E+02	n	3.3E+03	c**					1.1E+02	c**		6.2E+01	c**					
		4.0E-05	I								0.1	Demeton	8065-48-3	2.5E+00	n	3.3E+01	n					4.2E-01	n		n						
1.2E-03	I			6.0E-01	I						0.1	Di(2-ethylhexyl)adipate	103-23-1	4.5E+02	c*	1.9E+03	c					6.5E+01	c	4.0E+02	4.7E+00	c	2.9E+01				
6.1E-02	H			7.0E-04	A						0.1	Diallate	2303-16-4	8.9E+00	c	3.8E+01	c					5.4E-01	c		8.0E-04	c					
											0.1	Diazinon	333-41-5	4.4E+01	n	5.7E+02	n					1.0E+01	n		6.5E-02	n					
8.0E-01	P	6.0E-03	P	1.0E-02	X						1	Dibenzothiophene	132-65-0	7.8E+02	n	1.2E+04	n					6.5E+01	n		1.2E+00	n					
		2.0E-04	P	2.0E-04	I	V	M				9.8E+02	Dibromo-3-chloropropane, 1,2-	96-12-8	5.3E-03	c	6.4E-02	c	1.7E-04	c	2.0E-03	c	3.3E-04	c	2.0E-01	1.4E-07	c	8.6E-05				
		4.0E-04	X								1.6E+02	Dibromobenzene, 1,3-	108-36-1	3.1E+01	n	4.7E+02	ns					5.3E+00	n		5.1E-03	n					
		1.0E-02	I								1	Dibromobenzene, 1,4-	106-37-6	7.8E+02	n	1.2E+04	n					1.3E+02	n		1.2E-01	n					
8.4E-02	I			2.0E-02	I						8.0E+02	Dibromochloromethane	124-48-1	8.3E+00	c	3.9E+01	c					8.7E-01	c	8.0E+01(F)	2.3E-04	c	2.1E-02				
2.0E+00	I	6.0E-04	I	9.0E-03	I	9.0E-03	I	V			1.3E+03	Dibromoethane, 1,2-	106-93-4	3.6E-02	c	1.6E-01	c	4.7E-03	c	2.0E-02	c	7.5E-03	c	5.0E-02	2.1E-06	c	1.4E-05				

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Toxicity and Chemical-specific Information												Contaminant		Screening Levels												Protection of Ground Water SSLs			
SFO (mg/kg-day) ⁻¹	K _e (y)	IUR (ug/m ³) ⁻¹	RfD _o (mg/kg-day)	K _e (y)	RfC _o (mg/m ³)	K _e (y)	Vol (l)	muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)		
2.9E-01	I	8.3E-05	C	5.0E-04	I	5.0E-04	I		1	0.1		Dichlorvos	62-73-7	1.9E+00	c*	7.9E+00	c*	3.4E-02	c*	1.5E-01	c*	2.6E-01	c*		8.1E-05	c*			
				1.0E-04	I				1	0.1		Dicorophos	141-66-2	6.3E+00	n	8.2E+01	n					2.0E+00	n		4.7E-04	n			
				8.0E-02	P	3.0E-04	X V		1		2.6E+02	Dicyclopentadiene	77-73-6	1.3E+00	n	5.4E+00	n	3.1E-01	n	1.3E+00	n	6.3E-01	n		2.2E-03	n			
1.6E+01	I	4.6E-03	I	5.0E-05	I				1	0.1		Dieldrin	60-57-1	3.4E-02	c*	1.4E-01	c	6.1E-04	c	2.7E-03	c	1.8E-03	c		7.1E-05	c			
		3.0E-04	C			5.0E-03	I		1	0.1		Diesel Engine Exhaust	NA					9.4E-03	c	4.1E-02	c								
				2.0E-03	P	2.0E-04	P		1	0.1		Diethanolamine	111-42-2	1.3E+02	n	1.6E+03	n	2.1E-01	n	8.8E-01	n	4.0E+01	n		8.1E-03	n			
				3.0E-02	P	1.0E-04	P		1	0.1		Diethylene Glycol Monobutyl Ether	112-34-5	1.9E+03	n	2.4E+04	n	1.0E-01	n	4.4E-01	n	6.0E+02	n		1.3E-01	n			
				6.0E-02	P	3.0E-04	P		1	0.1		Diethylene Glycol Monoethyl Ether	111-90-0	3.8E+03	n	4.8E+04	n	3.1E-01	n	1.3E+00	n	1.2E+03	n		2.4E-01	n			
				1.0E-03	P		V		1		1.1E+05	Diethylformamide	617-84-5	7.8E+01	n	1.2E+03	n					2.0E+01	n		4.1E-03	n			
3.5E+02	C	1.0E-01	C						1	0.1		Diethylstilbestrol	56-53-1	1.6E-03	c	6.6E-03	c	2.8E-05	c	1.2E-04	c	5.1E-05	c		2.8E-05	c			
				8.0E-02	I				1	0.1		Difenzoquat	43222-48-6	5.1E+03	n	6.6E+04	n					1.6E+03	n		2.5E+02	n			
				2.0E-02	I				1	0.1		Diflubenzuron	35367-38-5	1.3E+03	n	1.6E+04	n					2.9E+02	n		3.3E-01	n			
4.4E-02	C	1.3E-05	C		4.0E+01	I V			1		1.4E+03	Diffuroethane, 1,1-	75-37-6	4.8E+04	ns	2.0E+05	nms	4.2E+04	n	1.8E+05	n	8.3E+04	n		2.8E+01	n			
						V			1			Dihydrosafrole	94-58-6	9.9E+00	c	4.5E+01	c	2.2E-01	c	9.4E-01	c	3.9E-01	c		1.9E-04	c			
					7.0E-01	P V			1		2.3E+03	Diisopropyl Ether	108-20-3	2.2E+03	n	9.4E+03	ns	7.3E+02	n	3.1E+03	n	1.5E+03	n		3.7E-01	n			
				8.0E-02	I		V		1		5.3E+02	Diisopropyl Methylphosphonate	1445-75-6	6.3E+03	ns	9.3E+04	ns					1.6E+03	n		4.5E-01	n			
				2.0E-02	I				1	0.1		Dimethipin	55290-64-7	1.3E+03	n	1.6E+04	n					4.0E+02	n		8.8E-02	n			
				2.0E-04	I				1	0.1		Dimethoate	60-51-5	1.3E+01	n	1.6E+02	n					4.0E+00	n		9.0E-04	n			
1.6E+00	P								1	0.1		Dimethoxybenzidine, 3,3'-	119-90-4	3.4E-01	c	1.4E+00	c					4.7E-02	c		5.8E-05	c			
1.7E-03	P		6.0E-02	P					1	0.1		Dimethyl methylphosphonate	756-79-6	3.2E+02	c*	1.4E+03	c*					4.6E+01	c*		9.6E-03	c*			
4.6E+00	C	1.3E-03	C						1	0.1		Dimethylamino azobenzene [p-]	60-11-7	1.2E-01	c	5.0E-01	c	2.2E-03	c	9.4E-03	c	5.0E-03	c		2.1E-05	c			
5.8E-01	H								1	0.1		Dimethylaniline HCl, 2,4-	21436-96-4	9.4E-01	c	4.0E+00	c					1.3E-01	c		1.2E-04	c			
2.0E-01	P		2.0E-03	X					1	0.1		Dimethylaniline, 2,4-	95-68-1	2.7E+00	c*	1.1E+01	c					3.7E-01	c		2.1E-04	c			
			2.0E-03	I		V			1		8.3E+02	Dimethylaniline, N,N-	121-69-7	1.6E+02	n	2.3E+03	ns					3.5E+01	n		1.3E-02	n			
1.1E+01	P								1	0.1		Dimethylbenzidine, 3,3'-	119-93-7	4.9E-02	c	2.1E-01	c					6.5E-03	c		4.3E-05	c			
			1.0E-01	P	3.0E-02	I V			1		1.1E+05	Dimethylformamide	68-12-2	2.6E+03	n	1.5E+04	n	3.1E+01	n	1.3E+02	n	6.1E+01	n		1.2E-02	n			
			1.0E-04	X	2.0E-06	X V			1		1.7E+05	Dimethylhydrazine, 1,1-	57-14-7	5.7E-02	n	2.4E-01	n	2.1E-03	n	8.8E-03	n	4.2E-03	n		9.3E-07	n			
5.5E+02	C	1.6E-01	C			V			1		1.9E+05	Dimethylhydrazine, 1,2-	540-73-8	8.8E-04	c	4.1E-03	c	1.8E-05	c	7.7E-05	c	2.8E-05	c		6.5E-09	c			
			2.0E-02	I					1	0.1		Dimethylphenol, 2,4-	105-67-9	1.3E+03	n	1.6E+04	n					3.6E+02	n		4.2E-01	n			
			6.0E-04	I					1	0.1		Dimethylphenol, 2,6-	576-26-1	3.8E+01	n	4.9E+02	n					1.1E+01	n		1.3E-02	n			
			1.0E-03	I					1	0.1		Dimethylphenol, 3,4-	95-65-8	6.3E+01	n	8.2E+02	n					1.8E+01	n		2.1E-02	n			
4.5E-02	C	1.3E-05	C			V			1		4.7E+02	Dimethylvinylchloride	513-37-1	1.1E+00	c	4.8E+00	c	2.2E-01	c	9.4E-01	c	3.3E-01	c		1.1E-04	c			
			8.0E-05	X					1	0.1		Dinitro-o-cresol, 4,6-	534-52-1	5.1E+00	n	6.6E+01	n					1.5E+00	n		2.6E-03	n			
			2.0E-03	I					1	0.1		Dinitro-o-cyclohexyl Phenol, 4,6-	131-89-5	1.3E+02	n	1.6E+03	n					2.3E+01	n		7.7E-01	n			
			1.0E-04	P					1	0.1		Dinitrobenzene, 1,2-	528-29-0	6.3E+00	n	8.2E+01	n					1.9E+00	n		1.8E-03	n			
			1.0E-04	I					1	0.1		Dinitrobenzene, 1,3-	99-65-0	6.3E+00	n	8.2E+01	n					2.0E+00	n		1.8E-03	n			
			1.0E-04	P					1	0.1		Dinitrobenzene, 1,4-	100-25-4	6.3E+00	n	8.2E+01	n					2.0E+00	n		1.8E-03	n			
6.8E-01	I		2.0E-03	I					1	0.1		Dinitrophenol, 2,4-	51-28-5	1.3E+02	n	1.6E+03	n					3.9E+01	n		4.4E-02	n			
									1	0.1		Dinitrotoluene Mixture, 2,4/2,6-	NA	8.0E-01	c	3.4E+00	c					1.1E-01	c		1.5E-04	c			
3.1E-01	C	8.9E-05	C	2.0E-03	I				1	0.102		Dinitrotoluene, 2,4-	121-14-2	1.7E+00	c*	7.4E+00	c	3.2E-02	c	1.4E-01	c	2.4E-01	c		3.2E-04	c			
1.5E+00	P		3.0E-04	X					1	0.099		Dinitrotoluene, 2,6-	606-20-2	3.6E-01	c*	1.5E+00	c					4.9E-02	c		6.7E-05	c			
			2.0E-03	S					1	0.006		Dinitrotoluene, 2-Aminob-4,6-	35572-78-2	1.5E+02	n	2.3E+03	n					3.9E+01	n		3.0E-02	n			
			2.0E-03	S					1	0.009		Dinitrotoluene, 4-Aminob-2,6-	19406-51-0	1.5E+02	n	2.3E+03	n					3.9E+01	n		3.0E-02	n			
4.5E-01	X		9.0E-04	X					1	0.1		Dinitrotoluene, Technical grade	25321-14-6	1.2E+00	c*	5.1E+00	c					1.0E-01	c		1.4E-04	c			
			1.0E-03	I					1	0.1		Dinoseb	88-85-7	6.3E+01	n	8.2E+02	n					1.5E+01	n		1.3E-01	n	6.2E-02		
1.0E-01	I	5.0E-06	I	3.0E-02	I V				1		1.2E+05	Dioxane, 1,4-	123-91-1	5.3E+00	c	2.4E+01	c	5.6E-01	c*	2.5E+00	c*	4.6E-01	c		9.4E-05	c			
6.2E+03	I	1.3E+00	I						1	0.03		Dioxins	NA	1.0E-04	c	4.7E-04	c	2.2E-06	c	9.4E-06	c	1.3E-05	c		1.7E-05	c			
1.3E+05	C	3.8E+01	C	7.0E-10	I	4.0E-08	C V		1	0.03		-TCDD, 2,3,7,8-	1746-01-6	4.8E-06	c*	2.2E-05	c*	7.4E-08	c	3.2E-07	c	1.2E-07	c	3.0E-05	5.9E-08	c	1.5E-05		
			3.0E-02	I					1	0.1		Diphenamid	957-51-7	1.9E+03	n	2.5E+04	n					5.3E+02	n		5.2E+00	n			
			8.0E-04	X					1	0.1		Diphenyl Sulfone	127-63-9	5.1E+01	n	6.6E+02													

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Toxicity and Chemical-specific Information												Contaminant		Screening Levels												Protection of Ground Water SSLs			
SFO (mg/kg-day) ⁻¹	K _e (y)	IUR (ug/m ³) ⁻¹	K _e (y)	RfD ₀ (mg/kg-day)	K _e (y)	RF _C (mg/m ³)	K _e (y)	muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)		
				1.0E-05	I	3.0E-01	P	V		1	1.1E+03	Ethyl Methacrylate	97-63-2	1.8E+03	ns	7.6E+03	ns	3.1E+02	n	1.3E+03	n	6.3E+02	n		1.5E-01	n			
										0.1		Ethyl-p-nitrophenyl Phosphonate	2104-64-5	6.3E-01	n	8.2E+00	n					8.9E-02	n		2.8E-03	n			
1.1E-02	C	2.5E-06	C	1.0E-01	I	1.0E+00	I	V		1	4.8E+02	Ethylbenzene	100-41-4	5.8E+00	c	2.5E+01	c	1.1E+00	c	4.9E+00	c	1.5E+00	c	7.0E+02	1.7E-03	c	7.8E-01		
				7.0E-02	P					0.1		Ethylene Cyanohydrin	109-78-4	4.4E+03	n	5.7E+04	n					1.4E+03	n		2.8E-01	n			
				9.0E-02	P			V		1	1.9E+05	Ethylene Diamine	107-15-3	7.0E+03	n	1.1E+05	nm					1.8E+03	n		4.1E-01	n			
				2.0E+00	I	4.0E-01	C			0.1		Ethylene Glycol	107-21-1	1.3E+05	nm	1.6E+06	nm	4.2E+02	n	1.8E+03	n	4.0E+04	n		8.1E+00	n			
3.1E-01	C	8.8E-05	C	1.0E-01	I	1.6E+00	I			0.1		Ethylene Glycol Monobutyl Ether	111-76-2	6.3E+03	n	8.2E+04	n	1.7E+03	n	7.0E+03	n	2.0E+03	n		4.1E-01	n			
				3.0E-02	C	V			1		1.2E+05	Ethylene Oxide	75-21-8	1.8E-01	c	7.9E-01	c	3.2E-02	c	1.4E-01	c	5.1E-02	c		1.1E-05	c			
4.5E-02	C	1.3E-05	C	8.0E-05	I					0.1		Ethylene Thiourea	96-45-7	5.1E+00	n	5.1E+01	c**	2.2E-01	c	9.4E-01	c	1.6E+00	n		3.6E-04	n			
6.5E+01	C	1.9E-02	C				V				1.5E+05	Ethyleneimine	151-56-4	2.7E-03	c	1.2E-02	c	1.5E-04	c	6.5E-04	c	2.4E-04	c		5.2E-08	c			
				3.0E+00	I					0.1		Ethylphthalyl Ethyl Glycolate	84-72-0	1.9E+05	nm	2.5E+06	nm					5.8E+04	n		1.3E+02	n			
				2.5E-04	I					0.1		Fenamiphos	22224-92-6	1.6E+01	n	2.1E+02	n					4.4E+00	n		4.3E-03	n			
				2.5E-02	I					0.1		Fenpropathrin	39515-41-8	1.6E+03	n	2.1E+04	n					6.4E+01	n		2.9E+00	n			
				2.5E-02	I					0.1		Fenvalerate	51630-58-1	1.6E+03	n	2.1E+04	n					5.0E+02	n		3.2E+02	n			
				1.3E-02	I					0.1		Fluometuron	2164-17-2	8.2E+02	n	1.1E+04	n					2.4E+02	n		1.9E-01	n			
				4.0E-02	C	1.3E-02	C			1		Fluoride	16984-48-8	3.1E+03	n	4.7E+04	n	1.4E+01	n	5.7E+01	n	8.0E+02	n		1.2E+02	n			
				6.0E-02	I	1.3E-02	C			1		Fluorine (Soluble Fluoride)	7782-41-4	4.7E+03	n	7.0E+04	n	1.4E+01	n	5.7E+01	n	1.2E+03	n	4.0E+03	1.8E+02	n	6.0E+02		
				8.0E-02	I					0.1		Fluridone	59756-60-4	5.1E+03	n	6.6E+04	n					1.4E+03	n		1.6E+02	n			
				2.0E-02	I					0.1		Flurprimidol	56425-91-3	1.3E+03	n	1.6E+04	n					3.4E+02	n		1.6E+00	n			
				7.0E-04	I					0.1		Flusilazole	85509-19-9	4.4E+01	n	5.7E+02	n					1.1E+01	n		1.8E+00	n			
				6.0E-02	I					0.1		Flutolanil	66332-96-5	3.8E+03	n	4.9E+04	n					9.5E+02	n		5.0E+00	n			
				1.0E-02	I					0.1		Fluvalinate	69409-94-5	6.3E+02	n	8.2E+03	n					2.0E+02	n		2.9E+02	n			
3.5E-03	I			1.0E-01	I					0.1		Folpet	133-07-3	1.6E+02	c*	6.6E+02	c					2.0E+01	c*		4.7E-03	c*			
1.9E-01	I			2.0E-03	I					0.1		Fomesafen	72178-02-0	2.9E+00	c	1.2E+01	c					3.9E-01	c		1.3E-03	c			
				2.0E-01	I					0.1		Fonofos	944-22-9	1.3E+02	n	1.6E+03	n					2.4E+01	n		4.7E-02	n			
		1.3E-05	I	2.0E-01	I	9.8E-03	A	V		1	4.2E+04	Formaldehyde	50-00-0	1.7E+01	c*	7.3E+01	c*	2.2E-01	c*	9.4E-01	c*	4.3E-01	c*		8.7E-05	c*			
				9.0E-01	P	3.0E-04	X	V		1	1.1E+05	Formic Acid	64-18-6	2.9E+01	n	1.2E+02	n	3.1E-01	n	1.3E+00	n	6.3E-01	n		1.3E-04	n			
				3.0E+00	I					0.1		Fosetyl-AL	39148-24-8	1.9E+05	nm	2.5E+06	nm					6.0E+04	n		7.9E+02	n			
				1.0E-03	X			V		0.03		~Dibenzofuran	132-64-9	7.3E+01	n	1.0E+03	n					7.9E+00	n		1.5E-01	n			
				1.0E-03	I			V		0.03	6.2E+03	~Furan	110-00-9	7.3E+01	n	1.0E+03	n					1.9E+01	n		7.3E-03	n			
				9.0E-01	I	2.0E+00	I	V		0.03	1.7E+05	~Tetrahydrofuran	109-99-9	1.8E+04	n	9.4E+04	n	2.1E+03	n	8.8E+03	n	3.4E+03	n		7.5E-01	n			
3.8E+00	H			3.0E-03	I	5.0E-02	H	V		1	1.0E+04	Furazolidone	67-45-8	1.4E-01	c	6.0E-01	c					2.0E-02	c		3.9E-05	c			
1.5E+00	C	4.3E-04	C							0.1		Furfural	98-01-1	2.1E+02	n	2.6E+03	n	5.2E+01	n	2.2E+02	n	3.8E+01	n		8.1E-03	n			
3.0E-02	I	8.6E-06	C							0.1		Furium	531-82-0	3.6E-01	c	1.5E+00	c	6.5E-03	c	2.9E-02	c	5.1E-02	c		6.8E-05	c			
				4.0E-04	I					0.1		Furmecyclo	60568-05-0	1.8E+01	c	7.7E+01	c	3.3E-01	c	1.4E+00	c	1.1E+00	c		1.2E-03	c			
					8.0E-05	C				0.1		Glufosinate, Ammonium	77187-82-2	2.5E+01	n	3.3E+02	n					8.0E+00	n		1.8E-03	n			
										0.1		Glutaraldehyde	111-30-8	1.1E+05	nm	4.8E+05	nm	8.3E-02	n	3.5E-01	n								
				4.0E-04	I	1.0E-03	H	V		1	1.1E+05	Glycidyl	765-34-4	2.3E+01	n	2.1E+02	n	1.0E+00	n	4.4E+00	n	1.7E+00	n		3.3E-04	n			
				1.0E-01	I					0.1		Glyphosate	1071-83-6	6.3E+03	n	8.2E+04	n					2.0E+03	n	7.0E+02	8.8E+00	n	3.1E+00		
				1.0E-02	X		V			1		Guanidine	113-00-8	7.8E+02	n	1.2E+04	n					2.0E+02	n		4.5E-02	n			
				2.0E-02	P					0.1		Guanidine Chloride	50-01-1	1.3E+03	n	1.6E+04	n					4.0E+02	n						
				5.0E-05	I					0.1		Haloxyp, Methyl	69806-40-2	3.2E+00	n	4.1E+01	n					7.6E-01	n		8.4E-03	n			
4.5E+00	I	1.3E-03	I	5.0E-04	I		V			1		Heptachlor	76-44-8	1.3E-01	c	6.3E-01	c	2.2E-03	c	9.4E-03	c	1.4E-03	c	4.0E-01	1.2E-04	c	3.3E-02		
9.1E+00	I	2.6E-03	I	1.3E-05	I		V			1		Heptachlor Epoxide	1024-57-3	7.0E-02	c*	3.3E-01	c*	1.1E-03	c	4.7E-03	c	1.4E-03	c*	2.0E-01	2.8E-05	c*	4.1E-03		
				2.0E-03	I		V			1		Hexabromobenzene	87-82-1	1.6E+02	n	2.3E+03	n					4.0E+01	n		2.3E-01	n			
				2.0E-04	I					0.1		Hexabromodiphenyl ether, 2,2',4,4',5,5'- (BDE-153)	68631-49-2	1.3E+01	n	1.6E+02	n					4.0E+00	n						
1.6E+00	I	4.6E-04	I	8.0E-04	I		V			1	1.7E+01	Hexachlorobenzene	118-74-1	2.1E-01	c	9.6E-01	c	6.1E-03	c	2.7E-02	c	9.8E-03	c	1.0E+00	1.2E-04	c	1.3E-02		
7.8E-02	I	2.2E-05	I	1.0E-03	P		V			1		Hexachlorobutadiene	87-68-3	1.2E+00	c*	5.3E+00	c	1.3E-01	c	5.6E-01	c	1.4E-01	c*		2.7E-04	c*			
6.3E+00	I	1.8E-03	I	8.0E-03	A					0.1		Hexachlorocyclohexane, Alpha-	319-84-6	8.6E-02	c	3.6E-01	c	1.6E-03	c	6.8E-03	c	7.2E-03	c		4.2E-05	c			
1.8E+00	I	5.3E-04	I							0.1		Hexachlorocyclohexane, Beta-	319-85-7	3.0E-01	c	1.3E+00	c												

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Toxicity and Chemical-specific Information													Contaminant										Screening Levels										Protection of Ground Water SSLs			
SFO (mg/kg-day) ¹	K _e (y)	IUR (ug/m ³) ¹	RfD _h (mg/kg-day)	K _e (y)	RfC _h (mg/m ³)	K _e (y)	muta- gen	GIABS	ABS	C _{sat} (mg/kg)		Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)									
7.0E-01	P											Iron	7439-89-6	5.5E+04	n	8.2E+05	nm					1.4E+04	n		3.5E+02	n										
9.5E-04	I	3.0E-01	I		V					1.0E+04		Isobutyl Alcohol	78-83-1	2.3E+04	ns	3.5E+05	nms					5.9E+03	n		1.2E+00	n										
		2.0E-01	I	2.0E+00	C				0.1		Isophorone	78-59-1	5.7E+02	c*	2.4E+03	c*	2.1E+03	n	8.8E+03	n	7.8E+01	c*		2.6E-02	c*											
		1.5E-02	I		V						Isopropalin	33820-53-0	1.2E+03	n	1.8E+04	n					4.0E+01	n		9.2E-01	n											
		2.0E+00	P	2.0E-01	P	V					1.1E+05	Isopropanol	67-63-0	5.6E+03	n	2.4E+04	n	2.1E+02	n	8.8E+02	n	4.1E+02	n		8.4E-02	n										
		1.0E-01	I		I				0.1		Isopropyl Methyl Phosphonic Acid	1832-54-8	6.3E+03	n	8.2E+04	n					2.0E+03	n		4.3E-01	n											
5.0E-02	I								0.1		Isosabten	82558-50-7	3.2E+03	n	4.1E+04	n					7.3E+02	n		2.0E+00	n											
		3.0E-01	A	V							JP-7	NA	4.3E+08	nm	1.8E+09	nm	3.1E+02	n	1.3E+03	n	6.3E+02	n			n											
											Lactofen	77501-63-4	1.3E+02	n	1.6E+03	n					2.5E+01	n		1.2E+00	n											
Lead Compounds																																				
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C	M		0.025		~Lead Chromate	7758-97-6	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c			c										
8.5E-03	C	1.2E-05	C									~Lead Phosphate	7446-27-7	8.2E+01	c	3.8E+02	c	2.3E-01	c	1.0E+00	c	9.1E+00	c			c										
8.5E-03	C	1.2E-05	C							0.1		~Lead acetate	301-04-2	6.4E+01	c	2.7E+02	c	2.3E-01	c	1.0E+00	c	9.2E+00	c		1.8E-03	c										
8.5E-03	C	1.2E-05	C								~Lead and Compounds	7439-92-1	4.0E+02	L	8.0E+02	L	1.5E-01	L			1.5E+01	L	1.5E+01	L		1.5E+01	L	1.4E+01								
											~Lead subacetate	1335-32-6	6.4E+01	c	2.7E+02	c	2.3E-01	c	1.0E+00	c	9.2E+00	c		2.0E-03	c											
											~Tetraethyl Lead	78-00-2	7.8E-03	n	1.2E-01	n					1.3E-03	n		4.7E-06	n											
5.0E-06	P				V					3.8E+02	Lewisite	541-25-3	3.9E-01	n	5.8E+00	n					9.0E-02	n		3.8E-05	n											
2.0E-03	I									0.1		Linuron	330-55-2	1.3E+02	n	1.6E+03	n					3.3E+01	n		2.9E-02	n										
2.0E-03	P											Lithium	7439-93-2	1.6E+02	n	2.3E+03	n					4.0E+01	n		1.2E+01	n										
5.0E-04	I									0.1		MCPA	94-74-6	3.2E+01	n	4.1E+02	n					7.5E+00	n		2.0E-03	n										
1.0E-02	I									0.1		MCPB	94-81-5	6.3E+02	n	8.2E+03	n					1.5E+02	n		5.8E-02	n										
1.0E-03	I									0.1		MCPP	93-65-2	6.3E+01	n	8.2E+02	n					1.6E+01	n		4.7E-03	n										
2.0E-02	I									0.1		Malathion	121-75-5	1.3E+03	n	1.6E+04	n					3.9E+02	n		1.0E-01	n										
1.0E-01	I	7.0E-04	C							0.1		Maleic Anhydride	108-31-6	6.3E+03	n	8.0E+04	n	7.3E-01	n	3.1E+00	n	1.9E+03	n		3.8E-01	n										
5.0E-01	I									0.1		Maleic Hydrazide	123-33-1	3.2E+04	n	4.1E+05	nm					1.0E+04	n		2.1E+00	n										
1.0E-04	P									0.1		Malononitrile	109-77-3	6.3E+00	n	8.2E+01	n					2.0E+00	n		4.1E-04	n										
3.0E-02	H									0.1		Mancozeb	8018-01-7	1.9E+03	n	2.5E+04	n					5.4E+02	n		7.6E-01	n										
5.0E-03	I									0.1		Maneb	12427-38-2	3.2E+02	n	4.1E+03	n					9.8E+01	n		1.4E-01	n										
1.4E-01	I	5.0E-05	I									Manganese (Diet)	7439-96-5	1.8E+03	n	2.6E+04	n	5.2E-02	n	2.2E-01	n	4.3E+02	n		2.8E+01	n										
2.4E-02	S	5.0E-05	I					0.04				Manganese (Non-diet)	7439-96-5	5.7E+00	n	7.4E+01	n					1.8E+00	n		2.6E-03	n										
9.0E-05	S	H								0.1		Mephosfolan	950-10-7	1.9E+03	n	2.5E+04	n					6.0E+02	n		2.0E-01	n										
3.0E-02	I									0.1		Mepiquat Chloride	24307-26-4	1.9E+03	n	2.5E+04	n					6.0E+02	n		2.0E-01	n										
3.0E-04	I	3.0E-04	S						0.07			Mercury Compounds	7487-94-7	2.3E+01	n	3.5E+02	n	3.1E-01	n	1.3E+00	n	5.7E+00	n	2.0E+00		n										
		3.0E-04	I	V							3.1E+00	~Mercuric Chloride (and other Mercury salts)	7439-97-6	1.1E+01	ns	4.6E+01	ns	3.1E-01	n	1.3E+00	n	6.3E-01	n	2.0E+00	3.3E-02	n	1.0E-01									
1.0E-04	I											~Mercury (elemental)	22967-92-6	7.8E+00	n	1.2E+02	n					2.0E+00	n			n										
8.0E-05	I									0.1		~Methyl Mercury	62-38-4	5.1E+00	n	6.6E+01	n					1.6E+00	n		5.0E-04	n										
3.0E-05	I				V							Merphos	150-50-5	2.3E+00	n	3.5E+01	n					6.0E-01	n		5.9E-02	n										
3.0E-05	I									0.1		Merphos Oxide	78-48-8	1.9E+00	n	2.5E+01	n					8.5E-02	n		4.2E-04	n										
6.0E-02	I									0.1		Metalaxyl	57837-19-1	3.8E+03	n	4.9E+04	n					1.2E+03	n		3.3E-01	n										
1.0E-04	I	3.0E-02	P	V							4.6E+03	Methacrylonitrile	126-98-7	7.5E+00	n	1.0E+02	n	3.1E+01	n	1.3E+02	n	1.9E+00	n		4.3E-04	n										
5.0E-05	I									0.1		Methamidophos	10265-92-6	3.2E+00	n	4.1E+01	n					1.0E+00	n		2.1E-04	n										
2.0E+00	I	2.0E+01	I	V							1.1E+05	Methanol	67-56-1	1.2E+05	nms	1.2E+06	nms	2.1E+04	n	8.8E+04	n	2.0E+04	n		4.1E+00	n										
1.0E-03	I									0.1		Methidathion	950-37-8	6.3E+01	n	8.2E+02	n					1.9E+01	n		4.7E-03	n										
2.5E-02	I									0.1		Methomyl	16752-77-5	1.6E+03	n	2.1E+04	n					5.0E+02	n		1.1E-01	n										
4.9E-02	C	1.4E-05	C								Methoxy-5-nitroaniline, 2-	99-59-2	1.1E+01	c	4.7E+01	c	2.0E-01	c	8.8E-01	c	1.5E+00	c		5.3E-04	c											
											Methoxychlor	72-43-5	3.2E+02	n	4.1E+03	n					3.7E+01	n	4.0E+01	2.0E+00	n	2.2E+00										
											Methoxyethanol Acetate, 2-	110-49-6	1.1E+02	n	5.1E+02	n	1.0E+00	n	4.4E+00	n	2.1E+00	n		4.2E-04	n											
8.0E-03	P	1.0E-03	P	V							1.1E+05	Methoxyethanol, 2-	109-86-4	3.3E+02	n	3.5E+03	n	2.1E+01	n	8.8E+01	n	2.9E+01	n		5.9E-03	n										
1.0E+00	X				V							Methyl Acetate	79-20-9	7.8E+04	ns	1.2E+06	nms					2.0E+04	n		4.1E+00	n										
											6.8E+03	Methyl Acrylate	96-33-3	1.5E+02	n	6.1E+02	n	2.1E+01	n	8.8E+01	n	4.2E+01	n		8.9E-03	n										
											2.0E-02	P	V																							
											6.0E-01	I	5.0E+00	I	V						2.8E+04	Methyl Ethyl Ketone (2-Butanone)	78-93-3	2.7E+04	n	1.9E+05	nms	5.2E+03	n	2.2E+04	n	5.6E+03	n		1.2E+00	n
1.0E-03	X	1.0E-03	P	2.0E-05	X	</																														

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice); c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information													Contaminant		Screening Levels										Protection of Ground Water SSLs			
SFO (mg/kg-day) ⁻¹	K _e (y)	IUR (y)	RfD ₀ (y)	K _e (y)	RfC ₀ (y)	K _e (y)	o ₁	muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (ug/m ³)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)	
			2.5E-02	I						1	0.1	Metribuzin	21087-64-9	1.6E+03	n	2.1E+04	n					4.9E+02	n		1.5E-01	n		
			2.5E-01	I						1	0.1	Metsulfuron-methyl	74223-64-6	1.6E+04	n	2.1E+05	nm					4.9E+03	n		1.9E+00	n		
			3.0E+00	P				V		1		Mineral oils	8012-95-1	2.3E+05	nms	3.5E+06	nms					6.0E+04	n		2.4E+03	n		
1.8E+01	C	5.1E-03	C	2.0E-04	I			V		1		Mirex	2385-85-5	3.6E-02	c	1.7E-01	c	5.5E-04	c	2.4E-03	c	8.8E-04	c		6.3E-04	c		
			2.0E-03	I						1	0.1	Molinate	2212-67-1	1.3E+02	n	1.6E+03	n					3.0E+01	n		1.7E-02	n		
			5.0E-03	I						1		Molybdenum	7439-98-7	3.9E+02	n	5.8E+03	n					1.0E+02	n		2.0E+00	n		
			1.0E-01	I						1		Monochloramine	10599-90-3	7.8E+03	n	1.2E+05	nm					2.0E+03	n	4.0E+03		n		
			2.0E-03	P						1	0.1	Monomethylaniline	100-61-8	1.3E+02	n	1.6E+03	n					3.8E+01	n		1.4E-02	n		
			2.5E-02	I						1	0.1	Myclobutanil	88671-89-0	1.6E+03	n	2.1E+04	n					4.5E+02	n		5.6E+00	n		
			3.0E-04	X						1	0.1	N,N-Diphenyl-1,4-benzenediamine	74-31-7	1.9E+01	n	2.5E+02	n					3.6E+00	n		3.7E-01	n		
			2.0E-03	I				V		1		Naled	300-76-5	1.6E+02	n	2.3E+03	n					4.0E+01	n		1.8E-02	n		
			3.0E-02	X	1.0E-01	P	V			1		Naphtha, High Flash Aromatic (HFAN)	64742-95-6	2.3E+03	n	3.5E+04	n	1.0E+02	n	4.4E+02	n	1.5E+02	n			n		
1.8E+00	C	0.0E+00	C	1.0E-01	I					1	0.1	Naphthylamine, 2-	91-59-8	3.0E-01	c	1.3E+00	c					3.9E-02	c		2.0E-04	c		
			2.6E-04	C	1.1E-02	C	1.4E-05	C		1	0.1	Napropamide	15299-99-7	6.3E+03	n	8.2E+04	n					1.6E+03	n		1.1E+01	n		
			2.6E-04	C	1.1E-02	C	1.4E-05	C		1	0.1	Nickel Acetate	373-02-4	6.7E+02	n	8.1E+03	n	1.1E-02	c**	4.7E-02	c**	2.2E+02	n		4.5E-02	n		
			2.6E-04	C	1.1E-02	C	1.4E-05	C		1	0.1	Nickel Carbonate	3333-67-3	6.7E+02	n	8.1E+03	n	1.1E-02	c**	4.7E-02	c**	2.2E+02	n			n		
			2.6E-04	C	1.1E-02	C	1.4E-05	C	V	1		Nickel Carbonyl	13463-39-3	8.2E+02	n	1.1E+04	n	1.1E-02	c**	4.7E-02	c**	2.0E+02	c**			c**		
			2.6E-04	C	1.1E-02	C	1.4E-05	C		0.04		Nickel Hydroxide	12054-48-7	8.2E+02	n	1.1E+04	n	1.1E-02	c**	4.7E-02	c**	2.0E+02	n			n		
			2.6E-04	C	1.1E-02	C	2.0E-05	C		0.04		Nickel Oxide	1313-99-1	8.4E+02	n	1.2E+04	n	1.1E-02	c**	4.7E-02	c**	2.0E+02	n			n		
			2.4E-04	I	1.1E-02	C	1.4E-05	C		0.04		Nickel Refinery Dust	NA	8.2E+02	n	1.1E+04	n	1.2E-02	c**	5.1E-02	c**	2.2E+02	n		3.2E+01	n		
			2.6E-04	C	2.0E-02	I	9.0E-05	A		0.04		Nickel Soluble Salts	7440-02-0	1.5E+03	n	2.2E+04	n	1.1E-02	c**	4.7E-02	c**	3.9E+02	n		2.6E+01	n		
1.7E+00	C	4.8E-04	I	1.1E-02	C	1.4E-05	C			0.04		Nickel Suboxide	12035-72-2	4.1E-01	c	1.9E+00	c	5.8E-03	c**	2.6E-02	c**	4.5E-02	c			c		
			2.6E-04	C	1.1E-02	C	1.4E-05	C		1	0.1	Nickelocene	1271-28-9	6.7E+02	n	8.1E+03	n	1.1E-02	c**	4.7E-02	c**	2.2E+02	n			n		
			1.6E+00	I						1		Nitrate	14797-55-8	1.3E+05	nm	1.9E+06	nm					3.2E+04	n	1.0E+04		n		
			1.0E-01	I						1		Nitrate + Nitrite (as N)	NA	7.8E+03	n	1.2E+05	nm					2.0E+03	n	1.0E+04		n		
			1.0E-02	X	5.0E-05	X				1	0.1	Nitrite	14797-65-0	6.3E+02	n	8.0E+03	nm	5.2E-02	n	2.2E-01	n	1.9E+02	n		8.0E-02	n		
2.0E-02	P		4.0E-03	P	6.0E-03	P				1	0.1	Nitroaniline, 2-	88-74-4	2.7E+01	c**	1.1E+02	c*	6.3E+00	n	2.6E+01	n	3.8E+00	c*		1.6E-03	c*		
		4.0E-05	I	2.0E-03	I	9.0E-03	I	V		1		Nitrobenzene	98-95-3	5.1E+00	c*	2.2E+01	c*	7.0E-02	c	3.1E-01	c	1.4E-01	c*		9.2E-05	c*		
			3.0E+03	P						1	0.1	Nitrocellulose	9004-70-0	1.9E+08	nm	2.5E+09	nm					6.0E+07	n		1.3E+04	n		
			7.0E-02	H						1	0.1	Nitrofurantoin	67-20-9	4.4E+03	n	5.7E+04	n					1.4E+03	n		6.1E-01	n		
			3.7E-04	C						1	0.1	Nitrofurazone	59-87-0	4.2E-01	c	1.8E+00	c	7.6E-03	c	3.3E-02	c	6.0E-02	c		5.4E-05	c		
1.7E-02	P		1.0E-04	P						1	0.1	Nitroglycerin	55-63-0	6.3E+00	n	8.2E+01	n					2.0E+00	n		8.5E-04	n		
		8.8E-06	P		5.0E-03	P	V			1	0.1	Nitroguanidine	556-89-7	6.3E+03	n	8.2E+04	n					2.0E+03	n		4.8E-01	n		
		2.7E-03	H		2.0E-02	I	V			1		Nitropropane, 2-	75-52-5	5.4E+00	c*	2.4E+01	c*	3.2E-01	c*	1.4E+00	c*	6.4E-01	c*		1.4E-04	c*		
										1		Nitropropane, 2-	79-46-9	1.4E-02	c	6.0E-02	c	1.0E-03	c	4.5E-03	c	2.1E-03	c		5.4E-07	c		
2.7E+01	C	7.7E-03	C					M		1	0.1	Nitroso-N-ethylurea, N-	758-73-9	4.5E+03	c	8.5E-02	c	1.3E-04	c	1.6E-03	c	9.2E-04	c		2.2E-07	c		
1.2E+02	C	3.4E-02	C					M		1	0.1	Nitroso-N-methylurea, N-	684-93-5	1.0E+03	c	1.9E-02	c	3.0E-05	c	3.6E-04	c	2.1E-04	c		4.6E-08	c		
5.4E+00	I	1.6E-03	I					V		1		Nitroso-di-N-butylamine, N-	924-16-3	9.9E-02	c	4.6E-01	c	1.8E-03	c	7.7E-03	c	2.7E-03	c		5.5E-06	c		
7.0E+00	I	2.0E-03	C							1	0.1	Nitroso-di-N-propylamine, N-	921-64-7	7.8E-02	c	3.3E-01	c	1.4E-03	c	6.1E-03	c	1.1E-02	c		8.1E-06	c		
2.8E+00	I	8.0E-04	C							1	0.1	Nitrosodiethanolamine, N-	1116-54-7	1.9E-01	c	8.2E-01	c	3.5E-03	c	1.5E-02	c	2.8E-02	c		5.6E-06	c		
1.5E+02	I	4.3E-02	I						M	1	0.1	Nitrosodiethylamine, N-	55-18-5	8.1E-04	c	1.5E-02	c	2.4E-05	c	2.9E-04	c	1.7E-04	c		6.1E-08	c		
5.1E+01	I	1.4E-02	I	8.0E-06	P	4.0E-05	X	V	M	1		2.4E+05	Nitrosodimethylamine, N-	627-75-9	2.0E+03	c	3.4E-02	c	7.2E-05	c	8.8E-04	c	1.1E-04	c		2.7E-08	c	
4.9E-03	I	2.6E-06	C							1	0.1	Nitrosodiphenylamine, N-	86-30-6	1.1E+02	c	4.7E+02	c	1.1E+00	c	4.7E+00	c	1.2E+01	c		6.7E-02	c		
2.2E+01	I	6.3E-03	C					V		1		1.1E+05	Nitrosomethylamine, N-	10595-95-6	2.0E-02	c	9.1E-02	c	4.5E-04	c	1.9E-03	c	7.1E-04	c		2.0E-07	c	
6.7E+00	C	1.9E-03	C							1	0.1	Nitrosomorpholine [N-]	59-89-2	8.1E-02	c	3.4E-01	c	1.5E-03	c	6.5E-03	c	1.2E-02	c		2.8E-06	c		
9.4E+00	C	2.7E-03	C							1	0.1	Nitrosopiperidine [N-]	100-75-4	5.8E-02	c	2.4E-01	c	1.0E-03	c	4.5E-03	c	8.2E-03	c		4.4E-06	c		
2.1E+00	I	6.1E-04	I							1	0.1	Nitrosopyrrolidine, N-	930-55-2	2.6E-01	c	1.1E+00	c	4.6E-03	c	2.0E-02	c	7.3E-02	c		1.4E-05	c		
2.2E-01	P		1.0E-04	X						1	0.1	Nitrotoluene, m-	99-08-1	6.3E+00	n	8.2E+01	n					1.7E+00	n		1.6E-03	n		
1.6E-02	P		9.0E-04	P				V		1		1.5E+03	Nitrotoluene, o-	88-72-2	3.2E+00	c*	1.5E+01	c*					3.1E-					

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Toxicity and Chemical-specific Information													Contaminant		Screening Levels										Protection of Ground Water SSLs			
SFO (mg/kg-day) ⁻¹	K _e (y)	IUR (ug/m ³) ⁻¹	K _e (y)	RfD _h (mg/kg-day)	K _e (y)	RfC (mg/m ³)	K _e (y)	muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)	
				7.0E-04	I							~Perchlorate and Perchlorate Salts	14797-73-0	5.5E+01	n	8.2E+02	n					1.4E+01	n	1.5E+01(F)		n		
				3.0E-04	I							~Potassium Perchlorate	7778-74-7	5.5E+01	n	8.2E+02	n					1.4E+01	n			n		
				7.0E-04	I							~Sodium Perchlorate	7601-89-0	5.5E+01	n	8.2E+02	n					1.4E+01	n			n		
				2.0E-02	P			V				Perfluorobutane Sulfonate	375-73-5	1.6E+03	n	2.3E+04	n					3.8E+02	n		2.1E-01	n		
				5.0E-02	I					1	0.1	Permethrin	52645-53-1	3.2E+03	n	4.1E+04	n					1.0E+03	n		2.4E+02	n		
2.2E-03	C	6.3E-07	C									Phenacetin	62-44-2	2.5E+02	c	1.0E+03	c	4.5E+00	c	1.9E+01	c	3.4E+01	c		9.7E-03	c		
				2.5E-01	I					1	0.1	Phenmedipham	13684-63-4	1.6E+04	n	2.1E+05	nm					4.0E+03	n		2.1E+01	n		
				3.0E-01	I	2.0E-01	C			1	0.1	Phenol	108-95-2	1.9E+04	n	2.5E+05	nm	2.1E+02	n	8.8E+02	n	5.8E+03	n		3.3E+00	n		
				4.0E-03	I					1	0.1	Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1	2.5E+02	n	3.3E+03	n					7.8E+01	n		2.5E-02	n		
				5.0E-04	X					1	0.1	Phenothiazine	92-84-2	3.2E+01	n	4.1E+02	n					4.3E+00	n		1.4E-02	n		
				6.0E-03	I					1	0.1	Phenylenediamine, m-	108-45-2	3.8E+02	n	4.9E+03	n					1.2E+02	n		3.2E-02	n		
4.7E-02	H									1	0.1	Phenylenediamine, o-	95-54-5	1.2E+01	c	4.9E+01	c					1.6E+00	c		4.4E-04	c		
				1.9E-01	H					1	0.1	Phenylenediamine, p-	106-50-3	1.2E+04	n	1.6E+05	nm					3.8E+03	n		1.0E+00	n		
1.9E-03	H									1	0.1	Phenylphenol, 2-	90-43-7	2.8E+02	c	1.2E+03	c					3.0E+01	c		4.1E-01	c		
				2.0E-04	H					1	0.1	Phorate	298-02-2	1.3E+01	n	1.6E+02	n					3.0E+00	n		3.4E-03	n		
				3.0E-04	I	V				1	1.6E+03	Phosgene	75-44-5	3.1E-01	n	1.3E+00	n	3.1E-01	n	1.3E+00	n				8.2E-02	n		
				2.0E-02	I					1	0.1	Phosmet	732-11-6	1.3E+03	n	1.6E+04	n					3.7E+02	n			n		
				4.9E+01	P					1		Phosphates, Inorganic		3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Aluminum metaphosphate	13776-88-0	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Ammonium polyphosphate	68333-79-9	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Calcium pyrophosphate	7790-76-3	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Diammonium phosphate	7783-28-0	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Dicalcium phosphate	7757-93-9	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Dimagnesium phosphate	7782-75-4	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Dipotassium phosphate	7758-11-4	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Disodium phosphate	7558-79-4	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Monoaluminum phosphate	13530-50-2	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Monoammonium phosphate	7722-76-1	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Monocalcium phosphate	7758-23-8	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Monomagnesium phosphate	7757-86-0	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Monopotassium phosphate	7778-77-0	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Monosodium phosphate	7558-80-7	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Polyphosphoric acid	8017-16-1	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Potassium triphosphate	13845-36-8	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Sodium acid pyrophosphate	7758-16-9	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Sodium aluminum phosphate (acidic)	7785-88-8	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Sodium aluminum phosphate (anhydrous)	10279-59-1	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Sodium aluminum phosphate (tetrahydrate)	10305-70-7	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Sodium hexametaphosphate	10124-56-8	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Sodium polyphosphate	68915-31-1	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Sodium trimetaphosphate	7785-84-4	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Sodium triphosphate	7758-29-4	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Tetrapotassium phosphate	7320-34-5	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Tetrasodium pyrophosphate	7722-88-5	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Trialuminum sodium tetra decahydrogenodiphosphate (dihydrate)	45136-87-5	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Tricalcium phosphate	7759-87-4	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Trimagnesium phosphate	7757-87-1	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Tripotassium phosphate	7778-53-2	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				4.9E+01	P					1		~Trisodium phosphate	7601-54-9	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n		
				3.0E-04	I	3.0E-04	I	V				Phosphine	7803-51-2	2.3E+01	n	3.5E+02	n	3.1E-01	n	1.3E+00	n	5.7E-01	n			n		
				4.9E+01	P	1.0E-02	I					Phosphoric Acid	7664-38-2	3.0E+06	nm	2.9E+07	nm	1.0E+01	n	4.4E+01	n	9.7E+05	n			n		
				2.0E-05	I			V				Phosphorus, White	7723-14-0	1.6E+00	n	2.3E+01	n					4.0E-01	n		1.5E-03	n		
												Phthalates																
1.4E-02	I	2.4E-06	C	2.0E-02	I					1	0.1	~Bis(2-ethylhexyl)phthalate	117-81-7	3.9E+01	c*	1.6E+02	c	1.2E+00	c	5.1E+00	c	5.6E+00	c*	6.0E+00	1.3E+00	c*	1.4E+00	
1.9E-03	P			2.0E-01	I					1	0.1	~Butyl Benzyl Phthalate	85-68-7	2.9E+02	c*	1.2E+03	c					1.6E+01	c		2			

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice); c = cancer; n = noncancer; * = where n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)																													
Toxicity and Chemical-specific Information												Contaminant		Screening Levels												Protection of Ground Water SSLs			
SFO (mg/kg-day) ¹	K _e (y)	IUR (ug/m ³) ¹	K _e (y)	RfD _o (mg/kg-day)	K _e (y)	RfC (mg/m ³)	K _e (y)	o muta-	gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)	
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 189)	39635-31-9	1.3E-01	c*	5.2E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		2.8E-03	c		
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Hexachlorobiphenyl, 2,3',4,4',5,5'- (PCB 167)	52663-72-6	1.2E-01	c*	5.1E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		1.7E-03	c		
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)	69782-90-7	1.2E-01	c*	5.0E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		1.7E-03	c		
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 156)	38380-08-4	1.2E-01	c*	5.0E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		1.7E-03	c		
3.9E+03	E	1.1E+00	E	2.3E-08	E	1.3E-06	E	V		1	0.14		~Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)	32774-16-6	1.2E-04	c*	5.1E-04	c*	2.5E-06	c	1.1E-05	c	4.0E-06	c		1.7E-06	c		
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Pentachlorobiphenyl, 2',3,4,4',5- (PCB 123)	65510-44-3	1.2E-01	c*	4.9E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		1.0E-03	c		
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Pentachlorobiphenyl, 2,3',4,4',5- (PCB 118)	31508-00-6	1.2E-01	c*	4.9E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		1.0E-03	c		
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)	32598-14-4	1.2E-01	c*	4.9E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		1.0E-03	c		
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Pentachlorobiphenyl, 2,3,4,4',5- (PCB 114)	74472-37-0	1.2E-01	c*	5.0E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		1.0E-03	c		
1.3E+04	E	3.8E+00	E	7.0E-09	E	4.0E-07	E	V		1	0.14		~Pentachlorobiphenyl, 3,3',4,4',5- (PCB 126)	57465-28-8	3.6E-05	c*	1.5E-04	c*	7.4E-07	c	3.2E-06	c	1.2E-06	c		3.0E-07	c		
2.0E+00	I	5.7E-04	I					V		1	0.14		~Polychlorinated Biphenyls (high risk)	1336-36-3	2.3E-01	c	9.4E-01	c	4.9E-03	c	2.1E-02	c			5.0E-01	6.8E-03	c	7.8E-02	
4.0E-01	I	1.0E-04	I					V		1	0.14		~Polychlorinated Biphenyls (low risk)	1336-36-3	2.3E-01	c	9.4E-01	c	4.9E-03	c	2.1E-02	c							
7.0E-02	I	2.0E-05	I					V		1	0.14		~Polychlorinated Biphenyls (lowest risk)	1336-36-3	2.3E-01	c	9.4E-01	c	4.9E-03	c	2.1E-02	c							
1.3E+01	E	3.8E-03	E	7.0E-06	E	4.0E-04	E	V		1	0.14		~Tetrachlorobiphenyl, 3,3',4,4'- (PCB 77)	32598-13-3	3.8E-02	c*	1.6E-01	c*	7.4E-04	c	3.2E-03	c	6.0E-03	c*		9.4E-04	c*		
3.9E+01	E	1.1E-02	E	2.3E-06	E	1.3E-04	E	V		1	0.14		~Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)	70362-50-4	1.2E-02	c*	4.8E-02	c*	2.5E-04	c	1.1E-03	c	4.0E-04	c		6.2E-05	c		
													Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	8.5E+05	nm	3.6E+06	nm	6.3E-01	n	2.6E+00	n							
													Polynuclear Aromatic Hydrocarbons (PAHs)																
													-Acenaphthene	83-32-9	3.6E+03	n	4.5E+04	n					5.3E+02	n		5.5E+00	n		
													-Anthracene	120-12-7	1.8E+04	n	2.3E+05	nm					1.8E+03	n		5.8E+01	n		
7.3E-01	E	1.1E-04	C					V	M	1	0.13		~Benzo[a]anthracene	56-55-3	1.6E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	1.2E-02	c		4.2E-03	c		
1.2E+00	C	1.1E-04	C							1	0.13		~Benzo[j]fluoranthene	205-82-3	4.2E-01	c	1.8E+00	c	2.6E-02	c	1.1E-01	c	6.5E-02	c		7.8E-02	c		
7.3E+00	I	1.1E-03	C						M	1	0.13		~Benzo[a]pyrene	50-32-8	1.6E-02	c	2.9E-01	c	9.2E-04	c	1.1E-02	c	3.4E-03	c	2.0E-01	4.0E-03	c	2.4E-01	
7.3E-01	E	1.1E-04	C						M	1	0.13		~Benzo[b]fluoranthene	205-99-2	1.6E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	3.4E-02	c		4.1E-02	c		
7.3E-02	E	1.1E-04	C						M	1	0.13		~Benzo[k]fluoranthene	207-08-9	1.6E+00	c	2.9E+01	c	9.2E-03	c	1.1E-01	c	3.4E-01	c		4.0E-01	c		
													~Chloronaphthalene, Beta-	91-58-7	4.8E+03	n	6.0E+04	n					7.5E+02	n		3.9E+00	n		
7.3E-03	E	1.1E-05	C						M	1	0.13		~Chrysene	218-01-9	1.6E+01	c	2.9E+02	c	9.2E-02	c	1.1E+00	c	3.4E+00	c		1.2E+00	c		
7.3E+00	E	1.2E-03	C						M	1	0.13		~Dibenz[a,h]anthracene	53-70-3	1.6E-02	c	2.9E-01	c	8.4E-04	c	1.0E-02	c	3.4E-03	c		1.3E-02	c		
1.2E+01	C	1.1E-03	C							1	0.13		~Dibenzo[a,e]pyrene	192-65-4	4.2E-02	c	1.8E-01	c	2.6E-03	c	1.1E-02	c	6.5E-03	c		8.4E-02	c		
2.5E+02	C	7.1E-02	C						M	1	0.13		~Dimethylbenz[a]anthracene, 7,12-	57-97-6	4.6E-04	c	8.4E-03	c	1.4E-05	c	1.7E-04	c	1.0E-04	c		9.9E-05	c		
													~Fluoranthene	206-44-0	2.4E+03	n	3.0E+04	n					8.0E+02	n		8.9E+01	n		
													~Fluorene	86-73-7	2.4E+03	n	3.0E+04	n					2.9E+02	n		5.4E+00	n		
7.3E-01	E	1.1E-04	C						M	1	0.13	3.9E+02	~Indeno[1,2,3-cd]pyrene	193-39-5	1.6E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	3.4E-02	c		1.3E-01	c		
2.9E-02	P												~Methylnaphthalene, 1-	90-12-0	1.8E+01	c	7.3E+01	c					1.1E+00	c		6.0E-03	c		
													~Methylnaphthalene, 2-	91-57-6	2.4E+02	n	3.0E+03	n					3.6E+01	n		1.9E-01	n		
													~Naphthalene	91-20-3	3.8E+00	c*	1.7E+01	c*	8.3E-02	c*	3.6E-01	c*	1.7E-01	c*		5.4E-04	c*		
1.2E+00	C	1.1E-04	C										~Nitrophenyl, 4-	57835-92-4	4.2E-01	c	1.8E+00	c	2.6E-02	c	1.1E-01	c	1.9E-02	c		3.3E-03	c		
													~Pyrene	129-00-0	1.8E+03	n	2.3E+04	n					1.2E+02	n		1.3E+01	n		
													Potassium Perfluorobutane Sulfonate	29420-49-3	1.3E+03	n	1.6E+04	n					4.0E+02	n		2.2E-01	n		
1.5E-01	I												Prochloraz	67747-09-5	3.6E+00	c	1.5E+01	c					3.8E-01	c		1.9E-03	c		
													Profluralin	26399-36-0	4.7E+02	n	7.0E+03	n					2.6E+01	n		1.6E+00	n		
													Prometon	1610-18-0	9.5E+02	n	1.2E+04	n					2.5E+02	n		1.2E-01	n		
													Prometryn	7287-19-6	2.5E+02	n	3.3E+03	n					6.0E+01	n		9.0E-02	n		
													Propachlor	1918-16-7	8.2E+02	n	1.1E+04	n					2.5E+02	n		1.5E-01	n		
													Propanil	709-96-8	3.2E+02	n	4.1E+03	n					8.2E+01	n		4.5E-02	n		
													Propargite	2312-35-8	1.3E+03	n	1.6E+04	n					1.6E+02	n		1.2E+01	n		
													Propargyl Alcohol	107-15-7	1.6E+02	n	2.3E+03	n											

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Toxicity and Chemical-specific Information													Contaminant		Screening Levels										Protection of Ground Water SSLs				
SFO (mg/kg-day) ⁻¹	K _e (y)	IUR (ug/m ³) ⁻¹	K _e (y)	RfD _a (mg/kg-day)	K _e (y)	RfC _a (mg/m ³)	K _e (y)	muta- gen	GIABS	ABS	C _{sat} (mg/kg)		Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)	
2.7E-01	H			3.0E-02	I								Sodium Diethyldithiocarbamate	148-18-5	2.0E+00	c	8.5E+00	c					2.9E-01	c		1.8E-04	c		
				5.0E-02	A	1.3E-02	C						Sodium Fluoride	7681-49-4	3.9E+03	n	5.8E+04	n	1.4E+01	n	5.7E+01	n	1.0E+03	n					
				2.0E-05	I								Sodium Fluoroacetate	62-74-8	1.3E+00	n	1.6E+01	n					4.0E-01	n		8.1E-05	n		
				1.0E-03	H								Sodium Metavanadate	13718-26-8	7.8E+01	n	1.2E+03	n					2.0E+01	n					
				8.0E-04	P								Sodium Tungstate	13472-45-2	6.3E+01	n	9.3E+02	n					1.6E+01	n					
				8.0E-04	P								Sodium Tungstate Dihydrate	10213-10-2	6.3E+01	n	9.3E+02	n					1.6E+01	n					
2.4E-02	H			3.0E-02	I								Stirofos (Tetrachlorovinphos)	961-11-5	2.3E+01	c*	9.6E+01	c					2.8E+00	c		8.2E-03	c		
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C	M	0.025				Strontium Chromate	7789-06-2	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c					
				6.0E-01	I								Strontium, Stable	7440-24-6	4.7E+04	n	7.0E+05	nm					1.2E+04	n		4.2E+02	n		
				3.0E-04	I								Strychnine	57-24-9	1.9E+01	n	2.5E+02	n					5.9E+00	n		6.5E-02	n		
				2.0E-01	I	1.0E+00	I	V					Styrene	100-42-5	6.0E+03	ns	3.5E+04	ns	1.0E+03	n	4.4E+03	n	1.2E+03	n	1.0E+02	1.3E+00	n	1.1E-01	
				3.0E-03	P								Styrene-Acrylonitrile (SAN) Trimer	NA	1.9E+02	n	2.5E+03	n					4.8E+01	n					
				1.0E-03	P	2.0E-03	X						Sulfolane	126-33-0	6.3E+01	n	8.2E+02	n	2.1E+00	n	8.8E+00	n	2.0E+01	n		4.4E-03	n		
				8.0E-04	P								Sulfonylbis(4-chlorobenzene), 1,1'-	80-07-9	5.1E+01	n	6.6E+02	n					1.1E+01	n		6.5E-02	n		
						1.0E-03	C	V					Sulfur Trioxide	7446-11-9	1.4E+06	nm	6.0E+06	nm	1.0E+00	n	4.4E+00	n	2.1E+00	n					
						1.0E-03	C						Sulfuric Acid	7664-93-9	1.4E+06	nm	6.0E+06	nm	1.0E+00	n	4.4E+00	n				1.5E-02	c		
2.5E-02	I	7.1E-06	I	5.0E-02	H								Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester	140-57-8	2.2E+01	c	9.2E+01	c	4.0E-01	c	1.7E+00	c	1.3E+00	c		3.3E+00	n		
				3.0E-02	H								TCMTB	21564-17-0	1.9E+03	n	2.5E+04	n					4.8E+02	n					
				7.0E-02	I								Tebuthiuron	34014-18-1	4.4E+03	n	5.7E+04	n					1.4E+03	n		3.9E-01	n		
				2.0E-02	H								Temephos	3383-96-8	1.3E+03	n	1.6E+04	n					4.0E+02	n		7.6E+01	n		
				1.3E-02	I								Terbacil	5902-51-2	8.2E+02	n	1.1E+04	n					2.5E+02	n		7.5E-02	n		
				2.5E-05	H			V					Terbufos	13071-79-9	2.0E+00	n	2.9E+01	n					2.4E-01	n		5.2E-04	n		
				1.0E-03	I								Terbutryn	886-50-0	6.3E+01	n	8.2E+02	n					1.3E+01	n		1.9E-02	n		
				1.0E-04	I								Tetrabromodiphenyl ether, 2,2',4,4'- (BDE-47)	5436-43-1	6.3E+00	n	8.2E+01	n					2.0E+00	n		5.3E-02	n		
				3.0E-04	I			V					Tetrachlorobenzene, 1,2,4,5-	95-94-3	2.3E+01	n	3.5E+02	n					1.7E+00	n		7.9E-03	n		
2.6E-02	I	7.4E-06	I	3.0E-02	I			V					Tetrachloroethane, 1,1,1,2-	630-20-6	2.0E+00	c	8.8E+00	c	3.8E-01	c	1.7E+00	c	5.7E-01	c		2.2E-04	c		
2.0E-01	I	5.8E-05	C	2.0E-02	I			V					Tetrachloroethane, 1,1,2,2-	79-34-5	6.0E-01	c	2.7E+00	c	4.8E-02	c	2.1E-01	c	7.6E-02	c		3.0E-05	c		
2.1E-03	I	2.6E-07	I	6.0E-03	I	4.0E-02	I	V					Tetrachloroethylene	127-18-4	2.4E+01	c**	1.0E+02	c**	1.1E+01	c**	4.7E+01	c**	1.1E+01	c**	5.0E+00	5.1E-03	c**	2.3E-03	
				3.0E-02	I			V					Tetrachlorophenol, 2,3,4,6-	58-90-2	1.9E+03	n	2.5E+04	n					2.4E+02	n		1.8E-01	n		
2.0E+01	H												Tetrachlorotoluene, p- alpha, alpha, alpha-	5216-25-1	3.5E-02	c	1.6E-01	c					1.3E-03	c		4.5E-06	c		
				5.0E-04	I								Tetraethyl Dithiopyrophosphate	3689-24-5	3.2E+01	n	4.1E+02	n					7.1E+00	n		5.2E-03	n		
						8.0E+01	I	V					Tetrafluoroethane, 1,1,1,2-	811-97-2	1.0E+05	nms	4.3E+05	nms	8.3E+04	n	3.5E+05	n	1.7E+05	n		9.3E+01	n		
				2.0E-03	P								Tetryl (Trinitrophenylmethylnitramine)	479-45-8	1.6E+02	n	2.3E+03	n					3.9E+01	n		3.7E-01	n		
				2.0E-05	S								Thallic Oxide	1314-32-5	1.6E+00	n	2.3E+01	n					4.0E-01	n					
				1.0E-05	X								Thallium (I) Nitrate	10102-45-1	7.8E-01	n	1.2E+01	n					2.0E-01	n					
				1.0E-05	X								Thallium (Soluble Salts)	7440-28-0	7.8E-01	n	1.2E+01	n					2.0E-01	n	2.0E+00	1.4E-02	n	1.4E-01	
				1.0E-05	X			V					Thallium Acetate	693-68-8	7.8E-01	n	1.2E+01	n					2.0E-01	n		4.1E-05	n		
				2.0E-05	X			V					Thallium Carbonate	6533-73-9	1.6E+00	n	2.3E+01	n					4.0E-01	n		8.3E-05	n		
				1.0E-05	X								Thallium Chloride	7791-12-0	7.8E-01	n	1.2E+01	n					2.0E-01	n					
				1.0E-05	S								Thallium Selenite	12039-52-0	7.8E-01	n	1.2E+01	n					2.0E-01	n					
				2.0E-05	X								Thallium Sulfate	7446-18-6	1.6E+00	n	2.3E+01	n					4.0E-01	n					
				1.3E-02	I								Thifensulfuron-methyl	192771-27-3	8.2E+02	n	1.1E+04	n					2.6E+02	n		7.8E-02	n		
				1.0E-02	I								Thiobencarb	28249-77-6	6.3E+02	n	8.2E+03	n					1.6E+02	n		5.5E-01	n		
				7.0E-02	X								Thiodiglycol	111-48-8	5.4E+03	n	7.9E+04	n					1.4E+03	n		2.8E-01	n		
				3.0E-04	H								Thiofanox	39196-18-4	1.9E+01	n	2.5E+02	n					5.3E+00	n		1.8E-03	n		
				8.0E-02	I								Thiophanate, Methyl	23564-05-8	5.1E+03	n	6.6E+04	n					1.6E+03	n		1.4E+00	n		
				5.0E-03	I								Thiram	137-26-8	3.2E+02	n	4.1E+03	n					9.8E+01	n		1.4E-01	n		
				6.0E-01	H								Tin	7440-31-5	4.7E+04	n	7.0E+05	nm					1.2E+04	n		3.0E+03	n		
						1.0E-04	A	V					Titanium Tetrachloride	7550-45-0	1.4E+05	nm	6.0E+05	nm	1.0E-01	n	4.4E-01	n	2.1E-01	n					
				8.0E-02	I	5.0E+00	I	V					Toluene	108-88-3															

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Toxicity and Chemical-specific Information												Contaminant		Screening Levels												Protection of Ground Water SSLs			
SFO (mg/kg-day) ¹	K _e (y)	IUR (ug/m ³) ¹	K _e (y)	RfD _a (mg/kg-day)	K _e (y)	RfC _a (mg/m ³)	K _e (y)	o muta- gen	GIABS	ABS	C _{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m ³)	key	Industrial Air (ug/m ³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)		
7.0E-03	X			3.0E-05 8.0E-04	X			V	1	0.1		Trichloroaniline, 2,4,6- Trichlorobenzene, 1,2,3-	634-93-5 87-61-6	1.9E+00 6.3E+01	n	2.5E+01 9.3E+02	n					4.0E-01 7.0E+00	n		3.6E-03 2.1E-02	n			
2.9E-02	P			1.0E-02 2.0E+00	I	2.0E-03 5.0E+00	P	V	1		4.0E+02 6.4E+02	Trichlorobenzene, 1,2,4- Trichloroethane, 1,1,1-	120-82-1 71-55-6	2.4E+01 8.1E+03	c**	1.1E+02 3.6E+04	c**	2.1E+00 5.2E+03	n	8.8E+00 2.2E+04	n	1.2E+00 8.0E+03	c**	7.0E+01 2.0E+02	3.4E-03 2.8E+00	c**	2.0E-01 7.0E-02		
5.7E-02	I	1.6E-05	I	4.0E-03	I	2.0E-04	X	V	1		2.2E+03	Trichloroethane, 1,1,2-	79-00-5	1.1E+00	c**	5.0E+00	c**	1.8E-01	c**	7.7E-01	c**	2.8E-01	c**	5.0E+00	8.9E-05	c**	1.6E-03		
4.6E-02	I	4.1E-06	I	5.0E-04 3.0E-01 1.0E-01	I	2.0E-03	I	V	M	1	6.9E+02 1.2E+03	Trichloroethylene Trichlorofluoromethane Trichlorophenol, 2,4,5-	79-01-6 75-69-4 95-95-4	9.4E-01 2.3E+04 6.3E+03	c** ns ns	6.0E+00 3.5E+05 8.2E+04	c** nms n	4.8E-01	c**	3.0E+00	c**	4.9E-01 5.2E+03 1.2E+03	c** n n	5.0E+00	1.8E-04 3.3E+00 4.0E+00	c** n n	1.8E-03		
1.1E-02	I	3.1E-06	I	1.0E-03 1.0E-02 8.0E-03	P				1	0.1		Trichlorophenol, 2,4,6- Trichlorophenoxyacetic Acid, 2,4,5- Trichlorophenoxypropionic acid, -2,4,5	88-06-2 93-76-5 93-72-1	4.9E+01 6.3E+02 5.1E+02	c** n	2.1E+02 8.2E+03 6.6E+03	c** n	9.1E-01	c	4.0E+00	c	4.1E+00 1.6E+02 1.1E+02	c** n n	5.0E+01	4.0E-03 6.8E-02 6.1E-02	c** n n	2.8E-02		
3.0E+01	I			5.0E-03 4.0E-03 3.0E-03	I		V		1		1.3E+03 1.4E+03 3.1E+02	Trichloropropane, 1,1,2- Trichloropropane, 1,2,3- Trichloropropene, 1,2,3-	598-77-6 96-18-4 96-19-5	3.9E+02 5.1E-03 7.3E-01	n c	5.8E+03 1.1E-01	ns c			3.1E-01 n	1.3E+00 n	8.8E+01 7.5E-04 6.2E-01	n c n		3.5E-02 3.2E-07 3.1E-04	n c n			
				2.0E-02 3.0E-03	A I				1	0.1		Tricresyl Phosphate (TCP) Tridiphenyl Triethylamine	1330-78-5 58138-08-2 121-44-8	1.3E+03 1.9E+02 1.2E+02	n	1.6E+04 2.5E+03 4.8E+02	n			7.3E+00	n	3.1E+01 n	1.6E+02 1.8E+01 1.5E+01	n		1.5E+01 1.3E-01 4.4E-03	n		
				2.0E+00	P				1	0.1	4.8E+03	Triethylene Glycol Trifluoroethane, 1,1,1- Trifluralin	112-27-6 420-46-2 1582-09-8	1.3E+05 1.5E+04 9.0E+01	nm ns	1.6E+06 6.2E+04 4.2E+02	nm c*			2.1E+04	n	8.8E+04	n	4.0E+04 2.4E+04 2.6E+00	n n c*		8.8E+00 1.3E+02 8.4E-02	n n c*	
7.7E-03	I			7.5E-03	I				1			Trimethyl Phosphate Trimethylbenzene, 1,2,3- Trimethylbenzene, 1,2,4-	512-56-1 526-73-9 95-63-6	2.7E+01 4.9E+01 5.8E+01	c*	1.1E+02 2.1E+02 2.4E+02	c*			5.2E+00 n	2.2E+01 n	3.1E+01 n	3.9E+00 1.0E+01 1.5E+01	c* n n		8.6E-04 1.5E-02 2.1E-02	c* n n		
2.0E-02	P			1.0E-02	P				1	0.1	2.9E+02 2.2E+02	Trimethylbenzene, 1,3,5- Trimethylpentene, 2,4,4- Trinitrobenzene, 1,3,5-	108-67-8 25167-70-8 99-35-4	7.8E+02 7.8E+02 2.2E+03	ns ns	1.2E+04 1.2E+04 3.2E+04	ns ns					1.2E+02 6.5E+01 5.9E+02	n n n		1.7E-01 2.2E-01 2.1E+00	n n n			
3.0E-02	I			5.0E-04 2.0E-02 2.0E-02	I P A				1	0.032 0.1 0.1		Trinitrotoluene, 2,4,6- Triphenylphosphine Oxide Tris(1,3-Dichloro-2-propyl) Phosphate	116-90-7 791-28-6 13674-87-8	2.1E+01 1.3E+03 1.3E+03	c** n	9.6E+01 1.6E+04 1.6E+04	c** n					2.5E+00 3.6E+02 3.6E+02	c** n n		1.5E-02 1.5E+00 8.0E+00	c** n n			
2.3E+00	C	6.6E-04	C	1.0E-02	X				1	0.1	4.7E+02	Tris(1-chloro-2-propyl)phosphate Tris(2,3-dibromopropyl)phosphate Tris(2-chloroethyl)phosphate	13674-84-5 126-72-7 115-96-8	6.3E+02 2.8E-01 2.7E+01	n c	8.2E+03 1.3E+00 1.1E+02	n c*	4.3E-03	c	1.9E-02	c	1.9E+02 6.8E-03 3.8E+00	n c c*		6.5E-01 1.3E-04 3.8E-03	n c c*			
3.2E-03	P			1.0E-01 8.0E-04 3.0E-03	P P I				1	0.1		Tris(2-ethylhexyl)phosphate Tungsten Uranium (Soluble Salts)	78-42-2 7440-33-7 NA	1.7E+02 6.3E+01 2.3E+02	c* n	7.2E+02 9.3E+02 3.5E+03	c n			4.2E-02	n	1.8E-01 n	2.4E+01 1.6E+01 6.0E+01	c* n n	3.0E+01	1.2E+02 2.4E+00 2.7E+01	c* n n	1.4E+01	
1.0E+00	C	2.9E-04	C	8.3E-03	P				1	0.1		Urethane Vanadium Pentoxide Vanadium and Compounds	51-79-6 1314-62-1 7440-62-2	1.2E-01 4.6E+02 3.9E+02	c c**	2.3E+00 2.0E+03 5.8E+03	c c**	3.5E-03 3.4E-04	c	4.2E-02 1.5E-03	c	2.5E-02 1.5E+02	c		5.6E-06 n 8.6E+01	c n n			
				1.0E-03 2.5E-02 1.0E+00	I I H				1	0.1	2.8E+03	Vernolate Vinclozolin Vinyl Acetate	1929-77-7 50471-44-8 108-05-4	7.8E+01 1.6E+03 9.1E+02	n	1.2E+03 2.1E+04 3.8E+03	n			2.1E+02	n	8.8E+02	n	1.1E+01 4.4E+02 4.1E+02	n n n		8.9E-03 3.4E-01 8.7E-02	n n n	
		3.2E-05	H	3.0E-03	I	1.0E-01	I	V	1		2.5E+03	Vinyl Bromide	593-60-2	1.2E-01	c*	5.2E-01	c*	8.8E-02	c*	3.8E-01	c*	1.8E-01	c*		5.1E-05	c*			
7.2E-01	I	4.4E-06	I	3.0E-03 3.0E-04	I I				1	0.1	3.9E+03	Vinyl Chloride Warfarin	75-01-4 81-81-2	5.9E-02 1.9E+01	c	1.7E+00 2.5E+02	c	1.7E-01	c	2.8E+00	c	1.9E-02	c	1.9E-02	6.5E-06 5.9E-03	c n	6.9E-04		
				2.0E-01 2.0E-01 2.0E-01	S S S	1.0E-01	S	V	1		3.9E+02 3.9E+02 4.3E+02	Xylene, p- Xylene, m- Xylene, o-	106-42-3 108-38-3 95-47-6	5.6E+02 5.5E+02 6.5E+02	ns	2.4E+03 2.4E+03 2.8E+03	ns	1.0E+02 1.0E+02 1.0E+02	n	4.4E+02 4.4E+02 4.4E+02	n	1.9E+02 1.9E+02 1.9E+02	n n n		1.9E-01 1.9E-01 1.9E-01	n n n			
				2.0E-01 3.0E-04 3.0E-01	I I I	1.0E-01	I	V	1		2.6E+02	Xylenes Zinc Phosphide Zinc and Compounds	1330-20-7 1314-84-7 7440-66-6	5.8E+02 2.3E+01 2.3E+04	ns	2.5E+03 3.5E+02 3.5E+05	ns	1.0E+02	n	4.4E+02	n	1.9E+02 6.0E+00 6.0E+03	n n n	1.0E+04	1.9E-01 n 3.7E+02	n n n	9.9E+00		
				5.0E-02 8.0E-05	I X				1	0.1		Zineb Zirconium	12122-67-7 7440-67-7	3.2E+03 6.3E+00	n	4.1E+04 9.3E+01	n					9.9E+02 1.6E+00	n n		2.9E+00 4.8E+00	n n			

APPENDIX G

Phase 1 RI Data Usability Summary Reports

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Appendix G – Phase 1 RI Data Usability Summary Reports

The verification/validation and review of the laboratory data packages submitted with this report identified a few minor quality assurance/quality control (QA/QC) non-compliance issues that would result in the estimation of that data. QA/QC deviations that would require the rejection of specific data are documented below:

SDG 15110582

The PCB surrogate Tetrachloro-m-xylene associated with sample locations NL15-IL-SED-05-0006, Lab Sample ID: 15110582-09 (AS37147) and NL15-IL-SED-05-0612 Lab Sample ID: 15110582-10 (AS37148) exhibited a recovery below control limits (<10%). The associated non-detect Aroclor results (Aroclors 1016, 1221, 1232, 1242, 1248 and 1254) for sample locations NL15-IL-SED-05-0006, Lab Sample ID: 15110582-09 (AS37147) and NL15-IL-SED-05-0612 Lab Sample ID: 15110582-10 (AS37148) were rejected and are considered not usable.

SDG 15120131

The matrix spike/matrix spike duplicate performed on sample location SEDD15-SED-05-0003 Lab Sample ID: 15120131-04 (AS38274) exhibited a MS/MSD recovery below control limits (<10%) for 3,3'-Dichlorobenzidine. The non-detect 3,3'-Dichlorobenzidine result for sample location SEDD15-SED-05-0003 Lab Sample ID: 15120131-04 (AS38274) was rejected and is considered not usable.

SDG 15110545

The matrix spike/matrix spike duplicate performed on sample location NL15-IL-SED-07-0006 Lab Sample ID: 15110545-06 (AS36912) exhibited a MS recovery below control limits (<10%) for 1,4-Dioxane. The non-detect 1,4-Dioxane result for sample location NL15-IL-SED-07-0006 Lab Sample ID: 15110545-06 (AS36912) was rejected and is considered not usable.

SDG 15120409

The continuing calibration for the compound Dichlorodifluoromethane exhibited a %D greater than 90%. The Dichlorodifluoromethane result in associated sample location VK15-T06-E-SL-01-0006 Lab Sample ID: 15120409-10 (AS39602) was rejected and is considered not usable.

SDG 15120344

The continuing calibration for the compound Dichlorodifluoromethane exhibited a %D greater than 90%. The Dichlorodifluoromethane results in associated sample locations VK15-T03-E-SL-01-0006 Lab Sample ID: 15120344-02 (AS39311), VK15-T03-W-SL-01-0004 Lab Sample ID: 15120344-04 (AS39313) and DUP-27 Lab Sample ID: 15120344-09 (AS39318) were rejected and are considered not usable.

SDG 15120369

The continuing calibration for the compound Dichlorodifluoromethane exhibited a %D greater than 90%. The Dichlorodifluoromethane results in associated sample locations VK15-T07-E-SL-01-0006 Lab Sample ID: 15120369-05 (AS39416) and VK15-T07-W-SL-01-0006 Lab Sample ID: 15120369-08 (AS39419) were rejected and are considered not usable.

Additionally, the verification/validation and review of the laboratory data packages submitted with this report identified a few minor QA/QC non-compliance issues that would result in the *estimation* of that data, but would still be considered usable with the qualifications noted in the data validation reports. Therefore, the analytical data, with the exception of the rejected data documented above are considered reliable and acceptable for use.

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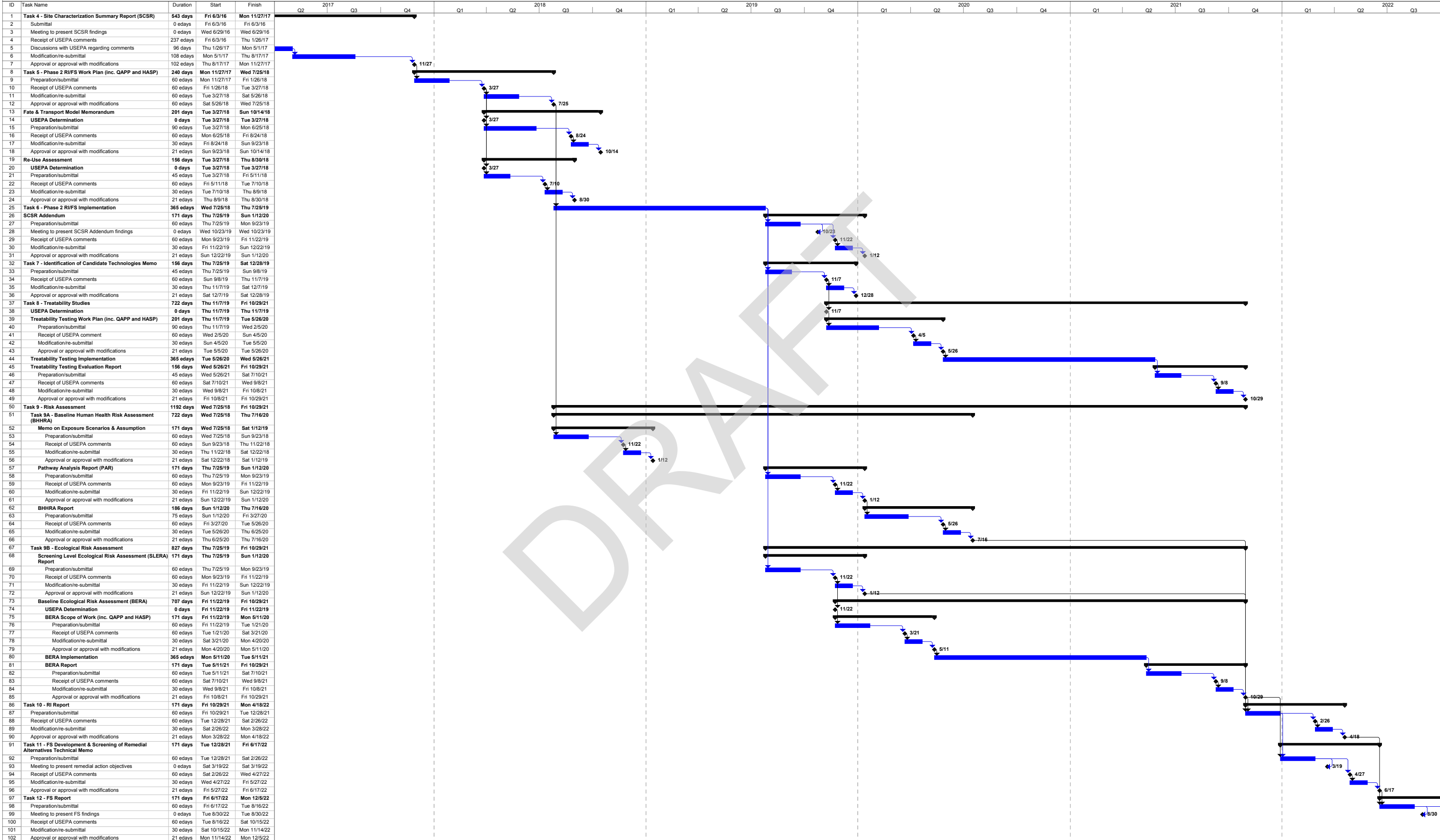
APPENDIX I

Remedial Investigation/Feasibility Study Schedule

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Surface Drainageways
Remedial Investigation/Feasibility Study (RI/FS) Schedule
Dewey Loeffel Landfill Superfund Site
Nassau, Rensselaer County, New York



Note: This schedule is not extended to include post-remedial data collection and evaluation following completion of a removal action for Tributary T11A and the Former Mead Road Pond Area.

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